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Master Minimum Equipment List

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BOEING

767
200/300/400ER

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BOEING B-767

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Highlights of Change

EFFECTIVE ABOVE DATE, the Boeing 767 Master Minimum Equipment List has been revised. The changes in this revision were made to align with FAA policy letters and to increase dispatch flexibility. All changes are reflected in the highlights of change listed below and are indicated by revision bars in the associated ATA section. For any change affecting an ATA section, all pages in that associated ATA section are re-dated accordingly, with the exception of nomenclature changes for ATA chapter headings.

ATA 21 AIR CONDITIONING

ITEM -58-15: New MMEL Item.

The Definitions are as published in FAA Policy Letter 25.

The Preamble is as published in FAA Policy Letter 34.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
20-1	A/C Ozone Converters	C	-	0	As required by 14 CFR.
22-1 ***	Flight Deck Supply Boost Fan	D	1	0	(M) May be inoperative deactivated.
24-1 ***	Gasper Fan	D	1	0	
25-1	Recirculation Fans				
	1) -200/-300	C	2	1	
		C	2	0	May be inoperative provided both packs operate normally.
	2) -400ER	C	2	1	
		C	2	0	(O) May be inoperative provided: a) Both packs operate normally, and b) Appropriate performance adjustments are applied.
25-2	Recirculation Fan INOP Lights	C	2	0	(M) May be inoperative provided associated EICAS message is verified to operate normally.
28-1 ***	Forward Cargo Air Conditioning System	D	1	0	
29-1 ***	Crew Rest Area Air Distribution System (STC ST00973WI-D)				
	1) Air Supply Shutoff Valves	C	2	0	(M) May be inoperative closed provided associated crew rest area is locked closed and placarded DO NOT USE. NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers.
	2) Boost Fans	C	2	0	(M) May be inoperative deactivated provided associated heater is deactivated.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
29-2 ***	Lower Lobe Crew Rest Air Distribution System (STCs ST01994SE and ST02137SE)	C	1	0	(M) May be inoperative provided: a) Lower lobe crew rest module is not used and personal items are removed, and b) Lower lobe crew rest door is closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest inspections by crewmembers.
	1) Air Flow Sensor	C	1	0	(O) May be inoperative provided no hazardous goods are carried in associated cargo compartment.
31-1	Auto Cabin Pressure Control Systems	C	2	1	One may be inoperative provided manual mode and one autopilot operate normally.
		C	2	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) Manual cabin pressure control system operates normally, c) For cargo compartments with Class C fire suppression, procedures are established and used to ensure lower compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, d) For forward lower lobe cargo compartments with Class E fire suppression, procedures are established and used to ensure forward lower lobe compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
31-1	Auto Cabin Pressure Control Systems (Cont'd)				e) For ATC A1NM -200 SF and -300BCF with Class E fire suppression, procedures are established and used to ensure all compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, and f) For -400ER, appropriate performance adjustments are applied. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.
		C	2	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) Extended overwater flight is prohibited, c) For cargo compartments with Class C fire suppression, procedures are established and used to ensure lower compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, d) For forward lower lobe cargo compartments with Class E fire suppression, procedures are established and used to ensure forward lower lobe compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING				
31-1 Auto Cabin Pressure Control Systems (Cont'd)				e) For ATC A1NM -200 SF and -300BCF with Class E fire suppression, procedures are established and used to ensure all compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, and f) For -400ER, appropriate performance adjustments are applied. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.
31-2 Manual Cabin Pressure Control System	C	1	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) Extended overwater flight is prohibited, c) For cargo compartments with Class C fire suppression, procedures are established and used to ensure lower compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, d) For forward lower lobe cargo compartments with Class E fire suppression, procedures are established and used to ensure forward lower lobe compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
31-2	Manual Cabin Pressure Control System (Cont'd)				e) For ATC A1NM -200 SF and -300BCF with Class E fire suppression, procedures are established and used to ensure all compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, and f) For -400ER, appropriate performance adjustments are applied. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.
31-3	Outflow Valve	C	1	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) Extended overwater flight is prohibited, c) For cargo compartments with Class C fire suppression, procedures are established and used to ensure lower compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, d) For forward lower lobe cargo compartments with Class E fire suppression, procedures are established and used to ensure forward lower lobe compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING				
31-3 Outflow Valve (Cont'd)				e) For ATC A1NM -200 SF and -300BCF with Class E fire suppression, procedures are established and used to ensure all compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, and f) For -400ER, appropriate performance adjustments are applied. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.
32-1 Positive Pressure Relief Valves	C	-	-	(M) One may be inoperative closed. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
32-1	Positive Pressure Relief Valves (Cont'd)	C	-	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) Manual cabin pressure control system operates normally, c) For cargo compartments with Class C fire suppression, procedures are established and used to ensure lower compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, d) For forward lower lobe cargo compartments with Class E fire suppression, procedures are established and used to ensure forward lower lobe compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, e) For ATC A1NM -200 SF and -300BCF with Class E fire suppression, procedures are established and used to ensure all compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, and f) For -400ER, appropriate performance adjustments are applied. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
32-1	Positive Pressure Relief Valves (Cont'd)	C	-	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) Extended overwater flight is prohibited, c) For cargo compartments with Class C fire suppression, procedures are established and used to ensure lower compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, d) For forward lower lobe cargo compartments with Class E fire suppression, procedures are established and used to ensure forward lower lobe compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, e) For ATC A1NM -200 SF and -300BCF with Class E fire suppression, procedures are established and used to ensure all compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, and f) For -400ER, appropriate performance adjustments are applied. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
33-1	CABIN RATE of Climb Indicator	C	1	0	May be inoperative provided both automatic pressure control systems operate normally.
		C	1	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) For cargo compartments with Class C fire suppression, procedures are established and used to ensure lower compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, c) For forward lower lobe cargo compartments with Class E fire suppression, procedures are established and used to ensure forward lower lobe compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, d) For ATC A1NM -200 SF and -300BCF with Class E fire suppression, procedures are established and used to ensure all compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, and e) For -400ER, appropriate performance adjustments are applied. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
33-2	CABIN DIFF Pressure Indicator	C	1	0	(O) May be inoperative provided: a) CABIN ALT indicator operates normally, and b) A chart is provided to convert cabin altitude to cabin differential pressure.
		C	1	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) For cargo compartments with Class C fire suppression, procedures are established and used to ensure lower compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, c) For forward lower lobe cargo compartments with Class E fire suppression, procedures are established and used to ensure forward lower lobe compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, d) For ATC A1NM -200 SF and -300BCF with Class E fire suppression, procedures are established and used to ensure all compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, and e) For -400ER, appropriate performance adjustments are applied. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
33-3	CABIN ALT Indicator	C	1	0	(O) May be inoperative provided: a) CABIN DIFF pressure indicator operates normally, and b) A chart is provided to convert cabin differential pressure to cabin altitude.
		C	1	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) For cargo compartments with Class C fire suppression, procedures are established and used to ensure lower compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, c) For forward lower lobe cargo compartments with Class E fire suppression, procedures are established and used to ensure forward lower lobe compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, d) For ATC A1NM -200 SF and -300BCF with Class E fire suppression, procedures are established and used to ensure all compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits, and e) For -400ER, appropriate performance adjustments are applied. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.
33-4	Outflow VALVE Position Indicator	C	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
33-5	AUTO INOP Light (Cabin Altitude Control)	C	1	0	(O) May be inoperative provided: a) Both automatic pressure control systems operate normally, and b) CABIN ALT or CABIN RATE of climb indicator operates normally.
33-6	Cabin Altitude Warning System	C	1	0	May be inoperative provided flight remains at or below 10,000 feet MSL.
40-1	Cargo Heating Systems				
	1) Fwd and Aft	C	2	0	(M) May be inoperative deactivated.
***	2) Bulk	C	1	0	(M) May be inoperative deactivated.
	a) Bulk Cargo Vent Fan	C	1	0	(O) May be inoperative provided Bulk Cargo Heat Selector remains in NORM position.
40-2	Cargo Heat Indicating Systems (OVHT and/or ON Light)				
	1) Fwd and Aft				
	a) -200/-300	C	-	0	(M) May be inoperative provided overheat protective system(s) is verified to operate normally.
		C	-	0	May be inoperative provided associated cargo heat system is selected OFF.
	b) -400ER	C	2	0	
***	2) Bulk				
	a) -200/-300	C	1	0	(M) May be inoperative provided overheat protective system(s) is verified to operate normally.
		C	1	0	May be inoperative provided bulk cargo heat system is selected OFF.
	b) -400ER	C	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
45-1	Flight Crew Auxiliary Heat Systems	C	4	0	May be inoperative OFF. NOTE: Any portion that operates normally may be used.
		C	4	0	(M) May be inoperative provided affected system is deactivated. NOTE: Any portion that operates normally may be used.
45-2	Forward Door Area Heater System (ATC A1NM -200 SF, -300BCF, -300F, -300BDSF)	C	1	0	(M) May be inoperative deactivated.
45-3	Door Heater Systems (Type A, I, III Doors)	C	-	0	(M) May be inoperative deactivated.
51-1	Air Conditioning Packs				
	1) -200/-300	C	2	1	(O) One may be inoperative provided: a) Airplane remains at or below FL 350, b) Remaining (opposite) pack operates normally, and c) Flight remains within 60 minutes of landing at a suitable airport.
	2) -400ER	C	2	1	(O) One may be inoperative provided: a) Airplane remains at or below FL 350, b) Remaining (opposite) pack operates normally, c) Flight remains within 60 minutes of landing at a suitable airport, and d) Appropriate performance adjustments are applied. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
51-1	Air Conditioning Packs (Cont'd)				
	3) -200/-300 Passenger Airplanes with Classic Interior	C	2	0	(M)(O) May be inoperative provided: a) Flight is conducted in an unpressurized configuration, b) Both recirculation fans operate normally, and c) Procedures are established and used to ensure lower cargo compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits. NOTE 1: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast. NOTE 2: Classic Interior is on most -200/-300 passenger airplanes. All 767 passenger airplanes built prior to March 2000 and some built since then have classic interior. NOTE 3: 767 New Look Interior (NLI) looks similar to 777 interior. NLI, also referred to as Signature Series Interior, was first installed in 767 in March 2000.
51-2	Pack Flow Control/Shutoff Valves	C	2	-	(M)(O) May be inoperative closed for an associated inoperative pack.
	1) Hi Flow Mode (-200/-300 Passenger)	C	2	1	Except for ER operations, one may be inoperative provided remaining (opposite) pack operates normally.
	2) Hi Flow Mode (All Cargo Configuration)	C	2	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
51-3	Pack Temperature Control Systems (-200/-300)	C	2	-	May be inoperative OFF for an associated inoperative pack.
	1) Auto Mode	C	2	0	May be inoperative provided associated Standby Mode operates normally.
	2) Standby Mode	C	2	0	May be inoperative provided associated Auto Mode operates normally.
51-4	Pack Temperature Control Valves (-200/-300)	C	2	1	(M)(O) One valve may be inoperative deactivated in mid position provided: a) Associated pack is operated in STBY, and b) Remaining (opposite) pack operates normally in AUTO.
		C	2	1	(M) One may be inoperative closed in STBY provided remaining (opposite) pack operates normally in AUTO.
		C	2	-	May be inoperative for an associated inoperative pack.
51-5	Pack Altitude Switch (-200/-300)	C	1	0	
51-6	Main Cargo Air Distribution Riser Shutoff Valves				
	1) ATC A1NM -200 SF, -300BCF and -300F	C	-	1	(M) May be inoperative closed provided: a) Corresponding zone trim air modulating valve is deactivated closed, and b) Operation is limited to one pack. NOTE: In event of operating pack failure, turn on remaining pack. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING				
51-6 Main Cargo Air Distribution Riser Shutoff Valves (Cont'd)				
2) -200PC, -200SF and -300BDSF	C	-	1	(M) May be inoperative closed provided: a) Corresponding zone trim air modulating valve is deactivated closed, b) Operation is limited to one pack, and c) Operations are limited to FL 350 and below. NOTE: In event of operating pack failure, turn on remaining pack.
51-7 Air Cycle Machine				
1) -200/-300	C	2	1	(M)(O) Except for ER operations, one may be inoperative provided: a) Associated pack is operated in STBY WARM, b) Flow control valve in associated pack is verified to operate normally, c) Remaining (opposite) pack operates normally, and d) Associated pack is turned OFF at TAT above 0 degrees C.
2) -400ER	C	2	1	(M)(O) One may be inoperative with associated pack selected on provided: a) Remaining (opposite) pack operates normally, b) Remaining (opposite) engine bleed system operates normally, c) Associated Turbine Bypass valve is secured open, and d) Appropriate performance adjustments are applied.
52-1 Pack RESET Switches	C	2	1	One may be inoperative provided both packs operate normally.
	C	2	-	May be inoperative for an associated inoperative pack(s).

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
52-2	Pack INOP Lights	C	2	1	
52-3	Air Conditioning Pack OFF Lights	C	2	1	(M) One may be inoperative OFF provided associated EICAS message and all other pack indications operate normally.
52-5	Secondary Heat Exchanger Outlet Temperature Sensor Systems (-400ER)	C	2	0	May be inoperative provided: a) Associated condenser low limit control system operates normally, and b) Associated ram air inlet door operates normally.
		C	2	1	One may be inoperative for an associated inoperative pack.
52-6	ASCTU Pack Outlet Temperature Sensors (-400ER)	C	2	0	(M) May be inoperative provided: a) CTC sensor for associated pack is verified to operate normally, b) Associated CTC operates normally, and c) Associated secondary heat exchanger outlet temperature sensor system operates normally.
		C	2	1	One may be inoperative for an associated inoperative pack.
52-7	Compressor Discharge Temperature Sensors (-400ER)	C	6	2	May be inoperative provided at least one sensor per pack operates normally.
		C	6	2	(M) May be inoperative for an associated inoperative pack provided at least two sensors are verified to operate normally on remaining (opposite) pack.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
52-8	Condenser Low Limit Control Systems (-400ER)	C	2	1	(M)(O) One may be inoperative provided: a) Associated condenser low limit valve is secured open, b) Remaining (opposite) pack operates normally, c) Remaining (opposite) engine bleed system operates normally, and d) Appropriate performance adjustments are applied.
		C	2	1	One may be inoperative for an associated inoperative pack.
53-1	Ram Air Inlet/Exhaust Door Systems	C	2	0	(M)(O) May be inoperative provided doors are secured open with pack(s) operating.
		C	2	-	(M)(O) May be inoperative in any position provided associated pack is considered inoperative.
58-1	Forward Equipment Cooling AUTO System				
	1) -200/-300	C	1	0	May be inoperative provided STBY control system is used.
	2) -400ER	C	1	0	May be inoperative provided: a) STBY control system is used, and b) Both packs operate normally.
58-2	Forward Equipment Cooling Temperature Control System (Two Supply Fan Installation)	C	1	0	(M) May be inoperative provided: a) STBY control system is used, and b) Heat exchanger bypass valve is deactivated CLOSED.

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING				
58-3 Forward Equipment Cooling Supply Fans				
1) Two Supply Fan Installation	C	2	1	One may be inoperative provided: a) Forward equipment cooling exhaust fan operates normally, and b) Automatic control system operates normally.
2) One Supply Fan Installation				
a) -200/-300	C	1	0	May be inoperative provided: a) Forward equipment cooling exhaust fan operates normally, b) STBY control system is used, and c) For ground operation above 29 degrees C OAT, main cabin is supplied with conditioned air.
b) -400ER	C	1	0	(O) May be inoperative provided: a) Forward equipment cooling exhaust fan operates normally, b) STBY control system is used, c) For ground operation above 29 degrees C OAT, main cabin is supplied with conditioned air, d) Both packs operate normally, and e) SMOKE/OVRD valve is verified to operate normally.
58-4 Forward Equipment Cooling Exhaust Fan				
1) Two Supply Fan Installation	C	1	0	May be inoperative provided both forward equipment cooling supply fans operate normally. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
58-4	Forward Equipment Cooling Exhaust Fan (Cont'd)				
	2) One Supply Fan Installation				
	a) -200/-300	C	1	0	May be inoperative provided: a) Forward equipment cooling supply fan operates normally, b) STBY control system is used, and c) For ground operation above 29 degrees C OAT, main cabin is supplied with conditioned air.
	b) -400ER	C	1	0	(O) May be inoperative provided: a) Forward equipment cooling supply fan operates normally, b) For ground operation above 29 degrees C OAT, main cabin is supplied with conditioned air, c) Both packs operate normally, and d) SMOKE/OVRD valve is verified to operate normally.
58-5	Aft Equipment/ Lav/Galley Exhaust (Vent) Fans	C	2	1	
58-6 ***	Forward Equipment Cooling Ground Supply Valve	D	1	0	(M) May be inoperative secured closed.
58-7	Forward Equipment Cooling Overboard Exhaust Valve				
	1) Two Supply Fan Installation	C	1	0	(M)(O) May be inoperative secured closed. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
58-7	Forward Equipment Cooling Overboard Exhaust Valve (Cont'd)				
	2) One Supply Fan Installation				
	a) -200/-300	C	1	0	(M)(O) May be inoperative secured closed provided: a) STBY control system is used, and b) For ground operation above 29 degrees C OAT, main cabin is supplied with conditioned air.
	b) -400ER	C	1	0	(M)(O) May be inoperative secured closed provided: a) STBY control system is used, b) For ground operation above 29 degrees C OAT, main cabin is supplied with conditioned air, and c) Both packs operate normally.
58-8	Forward Equipment Cooling Inboard Supply Valve				
	1) One Supply Fan Installation				
	a) -200/-300	C	1	0	(M) May be inoperative secured closed provided: a) STBY control system is used, and b) For ground operation above 29 degrees C OAT, main cabin is supplied with conditioned air.
	b) -400ER	C	1	0	(M) May be inoperative secured closed provided: a) STBY control system is used, b) For ground operation above 29 degrees C OAT, main cabin is supplied with conditioned air, and c) Both packs operate normally.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
58-9 ***	Avionics Cooling Refrigeration Unit (ACRU)	D	1	0	
58-10 ***	ACRU Supply Valve	D	1	0	(M) May be inoperative secured closed.
58-11 ***	ACRU Isolation Valve	D	1	0	(M) May be inoperative secured open.
58-12 ***	Instrument Cooling Monitor System	C	1	0	(M) May be inoperative provided availability of adequate air flow is verified before each departure.
		D	1	0	Except for ER operations, may be inoperative.
58-13 ***	In-Flight Entertainment (IFE) Cooling Systems	D	-	0	(M) May be inoperative provided associated IFE system is deactivated.
58-14	AVS/Forward IFE Cooling Inboard/Overboard Ground Exhaust Valves				
	1) Alternate Ventilation System (AVS) Overboard Valve (-400ER)	C	1	0	(M) May be inoperative secured closed provided both packs operate normally.
***	2) Forward IFE Cooling Inboard/Overboard Ground Exhaust Valves	C	-	1	(M) One may be inoperative secured open.
		C	-	0	(M) May be inoperative provided: a) One valve is secured closed, and b) Both packs operate normally.
58-15	Flight Deck Air Relief System Valve (-300F)	C	1	0	(M) May be inoperative secured closed.
58-16 ***	F1 Forward Galley Chiller Smoke Detector	C	1	0	(M) May be inoperative deactivated provided associated chiller is deactivated.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
58-17 ***	Flight Deck Panel Cooling Air Shutoff Valve	D	1	0	(M) May be inoperative deactivated open.
61-1	Cabin COMPT TEMP Control Systems				
	1) Passenger				
	a) -200/-300/ -400ER	C	-	0	(M) May be inoperative provided associated zone trim air modulating valve(s) or trim air regulating/shutoff valve(s) remains closed.
	b) -400ER Control Panel Functions	C	3	0	(M) May be inoperative for unannunciated faults that do not affect zone temperature control availability.
	2) All Cargo Configuration	C	2	0	(M) May be inoperative provided associated zone trim air modulating valve remains closed.
61-2	Flight Deck COMPT TEMP Control System				
	1) Passenger	C	1	0	(M) Both auto and manual mode may be inoperative provided associated zone trim air modulating valve or trim air regulating/shutoff valve remains closed.
	2) -400ER Control Panel Functions	C	1	0	(M) May be inoperative for unannunciated faults that do not affect zone temperature control availability.
	3) AUTO Mode	C	1	0	May be inoperative provided MAN mode operates normally.
	4) MAN Mode	C	1	0	May be inoperative provided AUTO mode operates normally.
61-3	Trim Air Regulating/Shutoff Valve System(s) (Passenger Airplanes)	C	-	0	(M) May be inoperative provided associated trim air regulating/shutoff valve is secured closed.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING				
61-4 Zone Trim Air Modulating Valves				
1) Passenger	C	-	0	(M) May be inoperative provided affected valve is closed.
	C	-	0	May be inoperative in any position provided trim air switch remains OFF.
2) All Cargo Configuration	C	3	1	Main cargo compartment valves may be inoperative closed.
61-5 Trim Air OFF Light(s)	C	-	0	
61-6 COMPT TEMP INOP Lights				
1) Passenger				
a) -200/-300	C	-	0	(M) May be inoperative provided associated trim air modulating valve remains closed.
	C	-	0	(M) May be inoperative provided associated trim air regulating/shutoff valve remains closed.
b) -400ER	C	4	0	(O) May be inoperative.
2) All Cargo Configuration	C	3	1	(M) FWD and/or AFT light(s) may be inoperative provided associated trim air modulation valve(s) remains closed.
61-7 Trim Air Check Valves (-200/-300)				
1) Passenger	C	2	0	(M) May be inoperative provided one failed check valve is secured closed.
2) All Cargo Configuration	C	2	1	(M)(O) May be inoperative provided: a) Failed check valve is secured closed, and b) Trim air is available from side opposite to valve which is secured closed.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
61-8	Cabin Temperature Controllers (CTC) (-400ER)	C	2	1	(M)(O) One may be inoperative provided: a) Associated pack flow control valve is secured closed, b) Remaining (opposite) pack operates normally, c) Remaining (opposite) engine bleed system operates normally, and d) Appropriate performance adjustments are applied.
		C	2	1	(O) One may be inoperative for associated inoperative pack provided associated trim air system remains off.
64-1	Trim Air Valve Position Indicator	C	1	0	
64-2 ***	Forward Overboard Valve (-300/-400ER)	C	1	0	(M) May be inoperative provided valve is deactivated closed.
65-1	COMPT TEMP Indications	C	3	0	
66-1 ***	Crew Rest Area Temperature Control System (STC ST00973WI-D)				
	1) Pre-Heater System	C	1	0	(M) May be inoperative deactivated.
	2) Heaters	C	2	0	(M) May be inoperative deactivated.
	3) Heat Select Switches	C	2	0	(M) May be inoperative deactivated provided associated heater and boost fan are deactivated.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
66-2 ***	Lower Lobe Crew Rest Bunk Heater System (STCs ST01994SE and ST02137SE)	C	1	0	(M) May be inoperative provided: a) Heater System is deactivated b) Lower lobe crew rest module is not used and personal items are removed, and c) Lower lobe crew rest door is closed and placarded INOPERATIVE - DO NOT ENTER.
		C	1	0	(M)(O) May be inoperative provided: a) Associated Crew Rest Air Distribution System operates normally, and b) Heater System is deactivated.
71-1 ***	CTT Systems Zonal Comfort System (STC ST00436SE)				
	1) Zonal Humidifier System	D	1	0	(M) May be inoperative provided humidifier system is deactivated.
	a) Humidifiers	D	7	0	(M) May be inoperative deactivated.
	2) Zonal Drying System	D	1	0	(M) May be inoperative provided: a) Zonal drying system is deactivated, and b) Humidifier system is deactivated.
	a) Zonal Dryers	D	3	0	(M) May be inoperative provided: a) Affected zonal dryer is deactivated, and b) Associated humidifier is deactivated.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
22 AUTO FLIGHT					
10-1	Autopilot Systems	C	3	2	(M) One may be inoperative provided: a) Associated FCC SERVO circuit breaker is pulled and collared, b) If FCC Single Source option is installed, Autopilot Flight Director System is verified not in a single source configuration prior to each departure, and c) Approach minimums do not require its use.
		C	3	1	(M) Two may be inoperative provided: a) At least two FCC power circuit breakers remain in, b) Associated FCC SERVO circuit breakers are pulled and collared, c) If FCC Single Source option is installed, Autopilot Flight Director System is verified not in a single source configuration prior to each departure, and d) Approach minimums do not require their use.
		B	3	0	(M) Except for ER operations, all may be inoperative provided: a) At least one FCC power circuit breaker remains in, b) All three FCC SERVO circuit breakers are pulled and collared, c) Enroute operations and approach minimums do not require their use, and d) Number of flight segments and segment duration is acceptable to flight crew.
11-1	Control Wheel Disengage Switches	C	2	1	One may be inoperative provided: a) Autopilots are not used below 1,500 feet AGL, and b) Approach minimums do not require use of autopilot.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
22 AUTO FLIGHT					
11-2	A/P DISC Light (-200/-300)	C	1	0	May be inoperative provided: a) Autopilots are not used below 1,500 feet AGL, and b) All other A/P disengagement alerts operate normally.
11-3	Mode Control Panel Selectors				
	1) VERT SPD Selector (DN & UP)	C	1	0	(O) May be inoperative provided FL CH mode operates normally.
	2) BANK LIMIT Selector	C	1	0	(O) May be inoperative.
	3) Selector Push Functions				
	a) IAS/MACH	C	1	0	(O) May be inoperative. NOTE: Rotational function must operate normally.
***	b) ALT	C	1	0	(O) May be inoperative. NOTE: Rotational function must operate normally.
	c) HDG SEL	B	1	0	(O) May be inoperative. NOTE: Rotational function must operate normally.
11-4	Mode Control Panel Switches				
	1) A/P Engage Switches/ Paddles (L CMD, C CMD, R CMD)	C	3	1	(O) May be inoperative. NOTE: All operative autopilots may be used during autoland operations. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
22 AUTO FLIGHT					
11-4	Mode Control Panel Switches (Cont'd)				
	1) A/P Engage Switches/ Paddles (L CMD, C CMD, R CMD) (Cont'd)	B	3	0	Except for ER operations, may be inoperative provided: a) Enroute operations and approach minimums do not require their use, and b) Number of flight segments and segment duration is acceptable to flight crew.
***	2) A/P CWS Engage Switches	C	3	0	
	3) A/T ARM Switch	C	1	0	May be inoperative OFF provided approach minimums do not require use of autothrottle system.
	4) A/T SPD Mode Engage Switch	C	1	0	(O) May be inoperative provided procedures and approach minimums do not require its use.
	5) F/D Switches	C	2	0	May be inoperative OFF provided approach minimums do not require use of flight director displays.
	6) IAS/MACH SEL Switch	C	1	0	May be inoperative provided IAS is displayed in associated window.
	7) APP Switch	C	1	0	May be inoperative provided approach minimums do not require use of autopilot or flight director.
	8) LOC Switch	C	1	0	(O) May be inoperative.
***	9) B/CRS Switch	C	1	0	(O) May be inoperative.
	10) V NAV, FL CH, V/S, ALT HOLD Switches	C	4	3	(O) One may be inoperative provided procedures or enroute operations do not require its use.
	11) L NAV, HDG HOLD Switches	C	2	1	(O) One may be inoperative provided: a) HDG SEL operates normally, and b) Procedures or enroute operations do not require its use.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
22 AUTO FLIGHT					
11-4	Mode Control Panel Switches (Cont'd)				
	12) EPR/N1/THR Switch	C	1	0	May be inoperative provided both thrust levers are operated manually for takeoff.
11-5	Mode Control Panel Windows				
	1) Airspeed (IAS/MACH)				
	a) -200/-300	C	1	0	(O) May be inoperative provided command airspeed bug on airspeed indicator (and ADI speed tape, if installed) operates normally on both sides.
	b) -400ER	C	1	0	(O) May be inoperative provided selected airspeed indications on both PFDs operate normally.
	c) -200/-300 (STC ST02165NY)	C	1	0	(O) May be inoperative provided selected airspeed indications on both PFDs operate normally.
	2) Heading (HDG)				
	a) -200/-300	C	1	0	(O) May be inoperative provided selected heading indications on both HSIs operate normally.
	b) -400ER	C	1	0	(O) May be inoperative provided selected heading indications on both PFDs operate normally.
	c) -200/-300 (STC ST02165NY)	C	1	0	(O) May be inoperative provided selected heading indications on both PFDs operate normally.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
22 AUTO FLIGHT				
11-5 Mode Control Panel Windows (Cont'd)				
3) Vertical Speed (VERT SPD)	C	1	0	(O) May be inoperative provided Vertical Speed mode is not selected.
a) -400ER	C	1	0	(O) May be inoperative provided selected vertical speed indications on both PFDs operate normally.
b) -200/-300 (STC ST02165NY)	C	1	0	(O) May be inoperative provided selected vertical speed indications on both PFDs operate normally.
4) Altitude (ALT) (-400ER)	C	1	0	(O) May be inoperative provided selected altitude indications on both PFDs operate normally.
11-6 Mode Control Panel Switch Lights				
1) Autopilot Engage Switch Lights (CMD)	C	3	2	
2) Mode Selector Switch Lights	C	-	-	Lights for any two switches may be inoperative. NOTE: A switch with one lamp operational is considered to be operating normally.
	B	-	0	
14-1 Autoland Status Annunciators (-200/-300)	C	2	0	May be inoperative provided approach minimums do not require their use.
14-2 Automatic Landing System (AUTOLAND)	C	1	0	May be inoperative provided approach minimums do not require its use.
1) Triple Channel Autoland (LAND 3)	C	1	0	May be inoperative provided approach minimums do not require its use.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
22 AUTO FLIGHT					
21-1	Yaw Dampers	C	2	1	(M) One may be inoperative provided remaining yaw damper is verified to operate normally. NOTE: Airplanes without SB 767-22-7 or production equivalent installed, see AFM Limitations.
21-2	Modal Suppression Systems				Deleted, MMEL Rev. 23a.
30-1	Thrust Management System (Including Autothrottle System)	C	1	0	(M) May be inoperative provided approach minimums do not require its use.
	1) Autothrottle Servo	C	1	0	(M) May be inoperative provided: a) Autothrottles are deactivated, and b) Approach minimums do not require use of autothrottle.
	2) Autothrottle Disconnect Switches	C	2	1	
		C	2	0	(M) May be inoperative provided: a) Autothrottles are deactivated, and b) Approach minimums do not require use of autothrottle.
	3) Thrust Mode Select Panel (-200/-300)				
	a) Derate Switches	C	2	0	
	b) TEMP SEL Selector	C	1	0	
	c) TO/GA Switch	C	1	0	
	d) CLB Switch	C	1	0	(O) May be inoperative provided Automatic Climb Thrust Select option is installed and operates normally. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
22 AUTO FLIGHT				
30-1 Thrust Management System (Including Autothrottle System) (Cont'd)				
3) Thrust Mode Select Panel (-200/-300) (Cont'd)				
e) CON Switch	C	1	0	(O) May be inoperative provided Max Continuous Thrust is set manually if required.
f) CRZ Switch	C	1	0	
30-2 Go-Around and Takeoff/Go-Around Switches				
1) Go-Around Switches (-200/-300)	C	2	1	(M) One may be inoperative provided: a) Approach minimums do not require its use, and b) Remaining Go-Around switch is verified to operate normally.
	C	2	0	May be inoperative provided: a) Both thrust levers are operated manually for go-around, and b) Autopilot and Flight Director are not used below 500 feet AGL or applicable approach minimum, whichever is higher. NOTE: Flight Director Go-Around and Windshear guidance are not available with both go-around switches inoperative.
2) Takeoff/Go-Around (TO/GA) Switches (-400ER)	C	2	1	(M) One may be inoperative provided: a) Approach minimums do not require its use, and b) Remaining TO/GA switch is verified to operate normally. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
22 AUTO FLIGHT					
30-2	Go-Around and Takeoff/Go-Around Switches (Cont'd)				
	2) Takeoff/Go-Around (TO/GA) Switches (-400ER) (Cont'd)	C	2	0	May be inoperative provided: a) Both thrust levers are operated manually for takeoff and go-around, and b) Autopilot and Flight Director are not used below 500 feet AGL or applicable approach minimum, whichever is higher. NOTE: Flight Director Go-Around and Windshear guidance are not available with both go-around switches inoperative.
34-1	Autothrottle Disconnect (A/T DISC) Light	C	1	0	May be inoperative provided: a) Associated EICAS annunciation operates normally, and b) Associated aural alert operates normally.
		C	1	0	May be inoperative provided: a) A/T ARM switch remains OFF, and b) Approach minimums do not require its use.
41-1	Maintenance Control Display Panel (MCDP)	D	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM (1.)		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
00-1	Boom Microphones				Moved to 23-51-5, MMEL Rev. 29.
10-1 ***	Radio Tuning Panels (Digital RTP)	C	3	2	One may be inoperative provided left Radio Tuning Panel operates normally.
11-1	Communications Systems (VHF, HF, UHF)	D	-	-	Any in excess of those required by 14 CFR, and not powered by a Standby Bus, may be inoperative.
	1) VHF Comm				
	a) Frequency In Use Light	C	-	0	
	b) Frequency Transfer Switch	C	-	0	May be inoperative provided associated VHF active frequency can be selected.
		D	-	-	Any in excess of those required by 14 CFR, and not powered by a Standby Bus, may be inoperative.
	c) Frequency Selector Knob	C	-	2	
	d) Frequency Indication	C	-	2	
	2) High Frequency (HF) Communication System	D	-	-	Any in excess of those required by 14 CFR may be inoperative.
		C	-	1	(O) May be inoperative while conducting operations that require two LRCS provided: a) SATCOM Voice or Data Link operates normally, b) Alternate procedures are established and used, c) SATCOM coverage is available over intended route of flight, and d) If Inmarsat codes are not available while using SATCOM voice, prior coordination with appropriate ATS facility is required.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
11-1	Communications Systems (VHF, HF, UHF) (Cont'd)				
	2) High Frequency (HF) Communication System (Cont'd)				NOTE: SATCOM is to be used only as a backup to normal HF communication unless otherwise authorized by appropriate ATS facilities.
11-2 ***	Flight Deck Communications Systems (Datalink)	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
12-1	VHF Communications Transmitters & Receivers				Moved to 23-11-1, MMEL Rev. 7.
12-2	Emergency Locator Transmitter (ELT)				Moved to 25-63-10, MMEL Rev. 32.
21-1 ***	Selective Call System (SELCAL)	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	1) Channels	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
		D	-	0	May be inoperative provided procedures do not require its use.
22-1 ***	ACARS System	C	1	0	(O) May be inoperative provided alternate procedures are established and used. NOTE: Any mode that operates normally may be used. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
22-1 ***	ACARS System (Cont'd)	D	1	0	May be inoperative provided procedures do not require its use. NOTE: Any mode that operates normally may be used.
***	1) ACARS Printer	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
22-2 ***	Multipurpose Interactive Display Unit	C	1	0	(O) May be inoperative provided alternate procedures are established and used for subsystems.
		D	1	0	May be inoperative provided procedures do not require its use.
25-1 ***	SAT Communication Systems (Includes (Wingspeed SCS STC ST02534CH)	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
		D	-	0	May be inoperative provided procedures do not require its use.
	1) SATCOM Voice	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
		D	-	0	May be inoperative provided procedures do not require its use.
***	2) HF/SAT XFER Switches (P5 Panel)	C	2	0	(M)(O) May be inoperative provided alternate procedures are established and used.
		D	2	0	(M) May be inoperative provided procedures do not require its use.
***	3) SATCOM Lights	C	-	0	(O) May be inoperative provided alternate procedures are established and used.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
25-1 ***	SAT Communication Systems (Includes (Wingspeed SCS STC ST02534CH) (Cont'd)				
***	3) SATCOM Lights (Cont'd)	D	2	0	May be inoperative provided procedures do not require its use.
	4) SCS Aircraft Communication Unit Wingspeed SCS (STC ST02534CH)	C	1	0	(O) May be inoperative provided all messaging data transfers are via SCS Voice (handset).
	5) Cockpit Display Device (CDD) Wingspeed SCS (STC ST02534CH)	C	2	1	(M) May be inoperative provided Master position operates normally.
		D	2	0	(O) May be inoperative provided SCS Voice (handset) operates normally.
	6) Remote Processor Unit (RPU) Wingspeed SCS (STC ST02534CH)	C	2	1	(M) May be inoperative provided Master position operates normally.
		D	2	0	(O) May be inoperative provided SCS Voice (handset) operates normally.
	7) SCS Printer Wingspeed SCS (STC ST02534CH)	C	1	0	NOTE: Any function of system that operates normally may be used.
25-2 ***	Automated Flight Information Reporting System (AFIRS) (STC ST02523NY)	C	1	0	(O) May be inoperative provided alternate procedures are established and used. NOTE: Any portion of system that operates normally may be used. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
25-2 ***	Automated Flight Information Reporting System (AFIRS) (STC ST02523NY) (Cont'd)	D	1	0	May be inoperative provided procedures do not require its use. NOTE: Any portion of system that operates normally may be used.
	1) Global Voice SATCOM	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	a) Cockpit Dialer Pad	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	b) Handset	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	2) Global Messaging	C	1	0	(O) May be inoperative provided alternate procedures are established and used. NOTE: Any portion of system that operates normally may be used.
		D	1	0	May be inoperative provided procedures do not require its use. NOTE: Any portion of system that operates normally may be used.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
31-1 Passenger Address System (PA)				
1) Passenger Configuration	B	1	0	(O) May be inoperative provided: a) Alternate, normal and emergency procedures, and/or operating restrictions are established and used, and b) Flight attendant alerting system (audio and visual) operates normally. NOTE: Any station function(s) that operate normally may be used.
	C	1	0	(O) May be inoperative provided: a) PA not required by 14 CFR, and b) Alternate, normal and emergency procedures, and/or operating restrictions are established and used. NOTE: Any station function(s) that operate normally may be used.
a) Lavatory Speakers	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
b) Cabin Speakers	C	-	-	May be inoperative provided inoperative speakers are not adjacent to each other.
	C	-	-	(M) No passenger seat, cabin attendant seat or crew rest area bunk may be occupied from which Passenger Address System is not audible and intelligible; seat must be blocked and placarded DO NOT OCCUPY.
*** c) Zone Selection Rotary Switch Positions, FWD Attendant Panel	D	4	3	May be inoperative provided: a) Procedures do not require their use, and b) ALL position operates normally.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
31-1	Passenger Address System (PA)				
	2) All Cargo Configuration (Courier/ Supernumerary Address System)	C	1	0	(O) May be inoperative provided alternate, normal and emergency procedures and/or operating restrictions are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	a) Lavatory Speakers	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
		D	-	0	May be inoperative provided procedures do not require its use.
31-2 ***	Pre-recorded Passenger Announcement System	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
31-3	Headsets/ Microphones (Or Equivalent)				Moved to 23-51-5, MMEL Rev. 29.
40-1	Crewmember Interphone Systems				
	1) Passenger Configuration				
	a) Flight Deck to Cabin, Cabin to Flight Deck Functions	B	-	-	(O) May be inoperative provided: a) Flight deck to cabin and cabin to flight deck interphone functions operate normally on at least fifty percent of cabin handsets, and b) Alternate communication procedures between affected flight attendant stations are established and used.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
40-1 Crewmember Interphone Systems (Cont'd)				
1) Passenger Configuration (Cont'd)				
a) Flight Deck to Cabin, Cabin to Flight Deck Functions (Cont'd)				NOTE: Any station function(s) that operate normally may be used.
b) Cabin to Cabin Function	B	-	-	(O) May be inoperative provided: a) Cabin to cabin interphone functions operate normally on at least fifty percent of cabin handsets, and b) Alternate communications procedures between affected flight attendant stations are established and used. NOTE: Any station function(s) that operate normally may be used.
c) Flight Deck to Ground Function				
1) Large Turbojet Powered Airplanes Operating Under 14 CFR Part 121	C	1	0	(O) Flight interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Alternate procedures are established and used, and b) Nose gear service interphone jack operates normally.
	C	1	0	(O) Service interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Alternate procedures are established and used, and b) Nose gear flight interphone jack operates normally. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
40-1 Crewmember Interphone Systems (Cont'd)				
1) Passenger Configuration (Cont'd)				
c) Flight Deck to Ground Function (Cont'd)				
1) Large Turbojet Powered Airplanes Operating Under 14 CFR Part 121	B	2	0	(O) May be inoperative provided alternate procedures are established and used.
2) All Other Aircraft/ Operations	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
	D	-	0	May be inoperative provided procedures do not require its use.
2) All Cargo Configuration				
a) Flight Deck to Cabin, Cabin to Flight Deck Functions	C	1	0	(O) May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used,
	D	1	0	May be inoperative provided procedures do not require its use.
b) Cabin to Cabin Function	D	1	0	

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
40-1 Crewmember Interphone Systems (Cont'd)				
2) All Cargo Configuration (Cont'd)				
c) Flight Deck to Ground Function (Cont'd)				
1) Large Turbojet Powered Airplanes Operating Under 14 CFR Part 121	C	1	0	(O) Flight interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Alternate procedures are established and used, and b) Nose gear service interphone jack operates normally.
	C	1	0	(O) Service interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Alternate procedures are established and used, and b) Nose gear flight interphone jack operates normally.
	B	2	0	(O) May be inoperative provided alternate procedures are established and used.
2) All Other Aircraft/ Operations	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
	D	-	0	May be inoperative provided procedures do not require its use.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
40-2 ***	Crew Rest Interphone System and PA Announcement (STCs ST00973WI-D and ST01994SE)	D	2	0	(M) May be inoperative provided: a) Associated crew rest is not used by personnel, and b) Associated crew rest door is locked closed and placarded DO NOT USE - COMM INOP. NOTE: These provisos are not intended to prohibit crew rest inspections by crewmembers.
	1) Pilot Crew Rest (ST00973WI-D)	C	2	1	(O) Either PA or Interphone may be inoperative provided remaining system is verified to operate normally.
	2) Attendant Crew Rest (ST00973WI-D)	C	2	1	(O) Either PA or Interphone may be inoperative provided remaining system is verified to operate normally.
40-3 ***	Lower Lobe Crew Rest Interphone System (STCs ST01994SE and ST02137SE)	C	1	0	(M) May be inoperative provided: a) Lower lobe crew rest module is not used and personal items are removed, and b) Lower lobe crew rest door is closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest inspections by crewmembers.
41-1	Alerting System (Audio/Visual)				
	1) Passenger Configuration				
	a) Flight Deck Call Visual Alerting System	B	1	0	May be inoperative provided flight deck audio alerting system operates normally. NOTE: Flight deck audio alerting system must always be operative. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
41-1 Alerting System (Audio/Visual) (Cont'd) 1) Passenger Configuration (Cont'd)				
b) Flight Attendant Visual Alerting System	B	1	0	(O) May be inoperative provided: a) PA system operates normally, b) If affected visual alerting system is used for lavatory smoke detector alerting, an alternate lavatory smoke detector alert (audio or visual) is installed and operates normally, and c) Alternate procedures for contacting flight attendants are established and used. NOTE 1: Passenger to attendant call system (excluding wheelchair accessible lavatory call system) is considered a Nonessential Equipment and Furnishings (NEF) item. NOTE 2: Any visual alerting system function(s) that operates normally may be used.
c) Flight Attendant Audio Alerting System	B	-	0	(O) May be inoperative provided: a) PA system operates normally, b) If affected audio alerting system is used for lavatory smoke detector alerting, an alternate lavatory smoke detector alert (audio or visual) is installed and operates normally, and c) Alternate procedures for contacting flight attendants are established and used. NOTE 1: Passenger to attendant call system (excluding wheelchair accessible lavatory call system) is considered a Nonessential Equipment and Furnishings (NEF) item. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
41-1 Alerting System (Audio/Visual) (Cont'd)				
1) Passenger Configuration (Cont'd)				
c) Flight Attendant Audio Alerting System				NOTE 2: Any audio alerting system function(s) that operates normally may be used.
2) All Cargo Configuration				
a) Flight Deck Call Visual Alerting System	B	1	0	May be inoperative provided flight deck audio alerting system operates normally.
b) Flight Deck Call System	D	1	0	May be inoperative provided courier/supernumerary compartment remains unoccupied.
c) Courier/ Super-numerary Visual Alerting System	B	1	0	(O) May be inoperative provided: a) Courier/supernumerary address system operates normally, and b) Alternate procedures are established and used.
	D	1	0	May be inoperative provided courier/supernumerary compartment remains unoccupied. NOTE: Any visual alerting system function(s) that operates normally may be used. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
41-1 Alerting System (Audio/Visual) (Cont'd)				
2) All Cargo Configuration (Cont'd)				
d) Courier/ Super-numerary Audio Alerting System	B	1	0	(O) May be inoperative provided: a) Courier/supernumerary address system operates normally, and b) Alternate procedures are established and used.
	D	1	0	May be inoperative provided courier/ supernumerary compartment remains unoccupied. NOTE: Any audio alerting system function(s) that operates normally may be used.
e) Main Cargo Deck Crew Aural Warning System	B	1	0	May be inoperative provided access to main cargo compartment is prohibited in flight.
41-2 Crew Rest Module Call System (STC ST02372AT)				
1) Flight Deck to Crew Rest Module/Crew Rest Module to Flight Deck Call Functions	C	2	0	(M) May be inoperative provided: a) Crew rest module is not used, and b) Crew rest door is closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers.
2) Flight Deck Visual Alert	B	1	0	May be inoperative provided flight deck audio alerting system operates normally.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
42-1	Handset Systems				
	1) Passenger Configuration				
***	a) Flight Deck	C	1	0	(O) May be inoperative provided: a) Flight deck to cabin communication operates normally, and b) Alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	b) Cabin	B	-	-	(O) May be inoperative provided: a) Fifty percent of cabin handsets operate normally, b) One handset must operate normally at each pair of exit doors, and c) Alternate communication procedures between affected flight attendant stations are established and used. NOTE 1: An operative handset at an inoperative flight attendant seat shall not be counted to satisfy fifty percent requirement. NOTE 2: Any handset function that operates normally may be used.
	2) All Cargo Configuration				
***	a) Flight Deck	C	1	0	May be inoperative provided flight deck to courier/ supernumerary communication operates normally.
		D	1	0	May be inoperative provided procedures do not require its use. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
42-1 Handset Systems (Cont'd)				
2) All Cargo Configuration (Cont'd)				
*** b) Courier/ Supernumerary	D	-	1	
	D	-	0	May be inoperative provided courier/supernumerary compartment remains unoccupied.
43-1 Ground Crew Call System	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
1) Ground Crew Call Horn	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
51-1 Flight Deck Interphone System				Moved to 23-40-1, MMEL Rev. 30.
51-2 Audio Select Panels				Deleted, MMEL Rev. 18.
51-3 Flight Deck Speakers	C	2	0	May be inoperative provided: a) Procedures do not require their use, and b) TSO headset earphones/headphones (or equivalent) are installed and operate normally.
51-4 Push-To-Talk (PTT) Switches				
1) Control Wheel PTT Switches	C	2	1	(M) One may be inoperative provided: a) Associated audio selector panel or glareshield PTT switch operates normally, and b) Affected switch is deactivated.

(Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
51-4	Push-To-Talk (PTT) Switches (Cont'd)				
	2) Flightcrew Audio Selector Panel PTT Switches	C	2	1	(M) One may be inoperative provided: a) Associated control wheel or glareshield PTT switch operates normally, and b) Affected switch is verified failed open.
***	3) Glareshield PTT Switches	C	2	1	(M) One may be inoperative provided: a) Associated audio selector panel or control wheel PTT switch operates normally, and b) Affected switch is deactivated.
51-5	Flight Crew Communication Equipment	D	-	-	Any Boom and/or Hand Microphones in excess of those required by 14 CFR for flight deck crewmembers may be inoperative or missing.
	1) Boom Microphones	A	-	0	May be inoperative or missing provided: a) Associated hand microphone is installed and operates normally, b) Flight Data Recorder (FDR) operates normally, and c) Repairs are made within 3 flight days.
	2) Hand Microphones	C	-	0	May be inoperative or missing provided associated boom microphone operates normally.
		D	-	0	May be inoperative or missing provided procedures do not require its use.
***	a) Dual Tone Multi-Frequency (DTMF) (Telephone Dialing Feature)	C	1	0	(O) May be inoperative provided: a) Voice mode operates normally, and b) Alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	3) TSO Headset Earphones/ Headphones	C	-	1	Either captain's or first officer's earphone/ headphone may be inoperative or missing provided associated flight deck speaker operates normally.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
70-1 ***	Surveillance Systems (Flight Deck Door, Cabin, Cargo)				
	1) Flight Deck Door	C	1	0	(M)(O) May be inoperative and components may be missing provided alternate procedures are established and used. NOTE: Any part of system that operates normally may be used.
		D	1	0	May be inoperative provided procedures do not require its use.
	2) Cabin/Cargo	C	1	0	(M)(O) May be inoperative and components may be missing provided alternate procedures are established and used. NOTE: Any part of system that operates normally may be used.
		D	1	0	May be inoperative provided procedures do not require its use.
71-1	Cockpit Voice Recorder (CVR) System	A	1	0	May be inoperative provided: a) Flight Data Recorder (FDR) operates normally, and b) Repairs are made within 3 flight days.
***	1) Independent Power Source	C	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL POWER				
00-1 Engine Generator Systems (IDG, GCB)				
1) CF6 and RB211	B	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) APU generator operates normally and is used to supply busses of inoperative channel throughout flight, b) All generator control units, including APU, operate normally, c) For ER operations, at least one Hydraulic Motor Generator (HMG) is verified to operate normally, and d) If APU has been operating for an extended period of time in heavy falling or blowing snow, inspect inlet plenum before departure to verify that accumulations of snow or ice are not present.
2) PW4000	B	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) APU generator operates normally and is used to supply busses of inoperative channel throughout flight, b) All generator control units, including APU, operate normally, c) For ER operations, at least one Hydraulic Motor Generator (HMG) is verified to operate normally, d) If APU has been operating for an extended period of time in heavy falling or blowing snow, inspect inlet plenum before departure to verify that accumulations of snow or ice are not present, e) FUEL TEMP indicating system operates normally, f) For engine air oil cooler operating normally, fuel tank temperature remains at or above -37 degrees C, (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL POWER				
00-1 Engine Generator Systems (IDG, GCB) (Cont'd)				
2) PW4000 (Cont'd)				g) For engine air oil cooler open, fuel tank temperature remains at or above -30 degrees C, and h) For either f) or g) configuration, fuel tank temperature must remain above specified minimum throughout entire flight.
3) JT9D	B	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) APU generator operates normally and is used to supply busses of inoperative channel throughout flight, b) All generator control units, including APU, operate normally, c) For ER operations, at least one Hydraulic Motor Generator (HMG) is verified to operate normally, d) If APU has been operating for an extended period of time in heavy falling or blowing snow, inspect inlet plenum before departure to verify that accumulations of snow or ice are not present, and e) If IDG is disconnected, manual fuel heat cycle must be completed before takeoff when fuel temperature is below 0 degrees C.
00-2 APU Generator	C	1	0	Except for ER operations, may be inoperative provided both engine generators operate normally.
	B	1	0	(M) Except for ER operations beyond 120 minutes, may be inoperative provided: a) Both engine generators operate normally, and b) At least one Hydraulic Motor Generator (HMG) is verified to operate normally.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL POWER					
11-1	Generator DRIVE Lights				
	1) -200/-300	B	2	1	(M) One may be inoperative off provided associated EICAS message is verified to operate normally.
		B	2	1	(M) One may be inoperative off provided associated IDG is disconnected.
	1) -400ER	C	2	0	
25-1 ***	Hydraulic Motor Generators (HMG)				
	1) Air Data Computer (ADC) Equipped Airplanes	C	-	0	(O) Except for ER operations, may be inoperative provided: a) Center IRS operates normally, and b) First officer's IRS instrument source select switch operates normally.
		C	-	0	Except for ER operations, may be inoperative for day VMC flight.
		C	-	0	(M)(O) For ER operations up to 120 minutes, may be inoperative provided: a) Both engine generators and APU generator operate normally, b) Center IRS operates normally, and c) First officer's IRS instrument source select switch operates normally.
		A	-	0	(M)(O) For ER operations beyond 120 minutes, may be inoperative provided: a) Both engine generators and APU generator operate normally, b) APU is started before reaching ETOPS segment, then operated continuously until within 60 minutes of a suitable airport, c) Center IRS operates normally, (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL POWER					
25-1 ***	Hydraulic Motor Generators (HMG) (Cont'd)				
	1) Air Data Computer (ADC) Equipped Airplanes (Cont'd)				d) First officer's IRS instrument source select switch operates normally, and e) Operations are limited to not more than 3 flight days before repair is made.
		A	3	1	(M) Except for ER operations beyond 120 minutes, may be inoperative provided: a) At least one Hydraulic Motor Generator (HMG) is verified to operate normally, and b) Operations are limited to not more than 3 flight days before repair is made.
		C	3	1	(M) May be inoperative provided: a) Both engine generators and APU generator operate normally, and b) At least one Hydraulic Motor Generator (HMG) is verified to operate normally.
	2) Air Data Inertial Reference System (ADIRS) Equipped Airplanes	C	1	0	Except for ER operations, may be inoperative.
		C	1	0	(M) For ER operations up to 120 minutes, may be inoperative provided both engine generators and APU generator operate normally.
		A	1	0	(M)(O) For ER operations beyond 120 minutes, may be inoperative provided: a) Both engine generators and APU generator operate normally, b) APU is started before reaching ETOPS segment, then operated continuously until within 60 minutes of a suitable airport, and c) Operations are limited to not more than 3 flight days before repair is made.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL POWER					
25-2 ***	Hydraulic Motor Generator Valves				
	1) Air Data Computer (ADC) Equipped Airplanes	C	-	0	(M)(O) Except for ER operations, may be inoperative closed provided: a) Center IRS operates normally, and b) First officer's IRS instrument source select switch operates normally.
		C	-	0	(M) Except for ER operations, may be inoperative closed for day VMC flight.
		C	-	0	(M)(O) For ER operations up to 120 minutes, may be inoperative closed provided: a) Both engine generators and APU generator operate normally, b) Center IRS operates normally, and c) First officer's IRS instrument source select switch operates normally.
		A	-	0	(M)(O) For ER operations beyond 120 minutes, may be inoperative closed provided: a) Both engine generators and APU generator operate normally, b) APU is started before reaching ETOPS segment, then operated continuously until within 60 minutes of a suitable airport, c) Center IRS operates normally, d) First officer's IRS instrument source select switch operates normally, and e) Operations are limited to not more than 3 flight days before repair is made.
		A	3	1	(M) Except for ER operations beyond 120 minutes, may be inoperative closed provided: a) At least one Hydraulic Motor Generator (HMG) is verified to operate normally, and b) Operations are limited to not more than 3 flight days before repair is made. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL POWER					
25-2 ***	Hydraulic Motor Generator Valves (Cont'd)				
	1) Air Data Computer (ADC) Equipped Airplanes (Cont'd)	C	3	1	(M) May be inoperative closed provided: a) Both engine generators and APU generator operate normally, and b) At least one Hydraulic Motor Generator (HMG) is verified to operate normally.
	2) Air Data Inertial Reference System (ADIRS) Equipped Airplanes	C	1	0	(M) Except for ER operations, may be inoperative closed. .
		C	1	0	(M) For ER operations up to 120 minutes, may be inoperative closed provided both engine generators and APU generator operate normally.
		A	1	0	(M)(O) For ER operations beyond 120 minutes, may be inoperative closed provided: a) Both engine generators and APU generator operate normally, b) APU is started before reaching ETOPS segment, then operated continuously until within 60 minutes of a suitable airport, and c) Operations are limited to not more than 3 flight days before repair is made.
25-3 ***	Flight Instrument Bus Power Switch	C	1	0	Except for ER operations, may be inoperative provided HMG is not required.
27-1	BUS OFF Lights	C	2	1	(O) One may be inoperative provided BUS TIE ISLN lights and associated GEN CONT OFF light operate normally.
27-2	GEN CONT OFF Lights	C	2	1	(M)(O) One may be inoperative provided associated EICAS message L(R) GEN OFF is verified to operate normally.
		B	2	1	One may be inoperative for an associated inoperative generator.
	1) -400ER	C	2	0	(O) May be inoperative.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL POWER					
27-3	APU GEN OFF Light	C	1	0	(M) May be inoperative provided EICAS message APU GEN OFF is verified to operate normally.
		C	1	0	May be inoperative provided APU generator is not required for flight.
27-4	BUS TIE ISLN Lights	C	2	0	May be inoperative provided associated BUS OFF light operates normally.
27-5	UTILITY BUS OFF Lights	C	2	0	
27-6 ***	Generator FIELD OFF Lights	D	3	0	
30-1	Standby Power Bus OFF Light				
	1) -200/-300	C	1	0	(M)(O) May be inoperative provided: a) Both EICAS systems operate normally, and b) All other Standby Bus indications are verified to operate normally.
	2) -400ER	C	1	0	(O) May be inoperative.
31-1	APU Battery				
	1) Without Main/ APU Battery Tie System Installed	C	1	0	(M)(O) May be inoperative provided: a) APU battery is deactivated or removed, and b) APU is considered inoperative.
	2) With Main/APU Battery Tie System Installed	C	1	0	(M)(O) May be inoperative provided: a) APU battery is deactivated or removed, b) APU is considered inoperative, and c) Operations do not require paralleling of Main and APU batteries.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL POWER					
31-2	APU Battery Charger				
	1) Without Main/ APU Battery Tie System Installed	C	1	0	(M) May be inoperative provided: a) APU battery charger is deactivated or removed, and b) APU is not required.
	2) With Main/APU Battery Tie System Installed	C	1	0	(M) May be inoperative provided: a) APU battery charger is deactivated or removed, b) APU is not required, and c) Operations do not require paralleling of Main and APU batteries.
31-3 ***	Standby Power Main/APU Battery Tie System	C	1	0	May be inoperative provided: a) Operations do not require paralleling of Main and APU batteries, b) Both engine generators operate normally, and c) APU generator operates normally.
32-1 ***	APU Start Transformer Rectifier Unit	C	1	0	May be inoperative provided APU is considered inoperative.
		D	1	0	(M) May be inoperative provided APU TRU is deactivated.
32-2 ***	First Officer's Display Transformer Rectifier Unit (-400ER)	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
41-1	External Power System(s)	C	-	0	
	1) EXT PWR AVAIL Light (Flight Deck)	C	-	0	(O) May be inoperative provided alternate procedures are established and used.

(Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL POWER					
41-1	External Power System(s) (Cont'd)				
	2) EXT PWR ON Light (Flight Deck)	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
	3) EXTERNAL POWER CONNECTED Light (External Power Panel)	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
	4) EXTERNAL POWER NOT IN USE Light (External Power Panel)	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
51-1	Utility Bus Systems (All Cargo Configuration)	C	2	0	(M)(O) May be inoperative provided bus is deactivated.
51-2	Voltage Harmonic Filters	D	-	0	(M) May be inoperative provided associated individual video system (IVS) zone is deactivated.
		D	-	0	May be inoperative provided associated video system remains off.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25	EQUIPMENT AND FURNISHINGS				
00-1	Crewmember Shoulder Harness (Flight Deck)	D	-	-	Any in excess of those required for flight deck crewmembers (including official observer in observer's seat) may be inoperative.
11-1	Flight Crew Seat				
***	1) Power Adjustment System	D	2	0	May be inoperative provided fwd/aft and vertical manual adjustment modes operate normally.
	2) Manual Adjustment System				
	a) Recline	A	2	0	(M) May be inoperative provided: a) Seat is secured in upright position and is acceptable to affected crewmember, b) Fwd/aft and vertical manual adjustment modes operate normally, and c) Repairs are made within 2 flight days
	b) Armrest	B	4	0	May be inoperative provided: a) Affected armrest is in up position or removed, and b) Seat is acceptable to affected crewmember.
	c) Lumbar, Thigh Supports and Headrest	C	2	0	May be inoperative provided seat is acceptable to affected crewmember.
11-2	Observer Seat(s)				
	1) Primary Observer Seat (Including Associated Equipment)	A	-	-	May be inoperative provided: a) A passenger seat in passenger cabin is made available to an FAA inspector for performance of official duties, and b) Repairs are made within 2 flight days. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25	EQUIPMENT AND FURNISHINGS				
11-2	Observer Seat(s) (Cont'd)				
	1) Primary Observer Seat (Including Associated Equipment) (Cont'd)	A	-	-	May be inoperative provided: a) Secondary observer's seat is available to an FAA inspector for performance of official duties, and b) Repairs are made within 2 flight days.
		A	-	-	May be inoperative provided: a) Required minimum safety equipment (safety belt and oxygen) is available, b) Seat is acceptable to an FAA inspector for performance of official duties, and c) Repairs are made within 2 flight days. NOTE 1: These provisos are intended to provide for occupancy of above seats by an FAA inspector when minimum safety equipment (oxygen and safety belt) is functional and inspector determines conditions to be acceptable. NOTE 2: Pilot-in-command will determine if minimum safety equipment is functional for other persons authorized to occupy observer seat(s).
***	2) Additional Observer Seat (Including Associated Equipment)	D	-	0	NOTE: Pilot-in-command will determine if minimum safety equipment is functional for other persons authorized to occupy additional observer seat(s).

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25 EQUIPMENT AND FURNISHINGS				
20-1 ***	Non-Essential Equipment & Furnishings (NEF)	-	0	May be inoperative, damaged, or missing provided that item(s) is deferred in accordance with operator's NEF deferral program. NEF program, procedures, and processes are outlined in operator's (insert name) Manual. (M) and (O) procedures, if required, must be available to flight crew and included in operator's appropriate document. NOTE: Exterior lavatory door ash trays are not considered NEF items.
25-1	Flight Attendant Seat Assembly (Single or Dual Position)			
	1) Required Flight Attendant Seats B	-	-	(M)(O) One seat position or assembly (dual position) may be inoperative provided: a) Affected seat position or seat assembly is not occupied, b) Flight attendant(s) displaced by inoperative seat(s) occupies either an adjacent flight attendant seat or passenger seat which is most accessible to inoperative seat(s), so as to most effectively perform assigned duties, c) Alternate procedures are established and used as published in crewmember manuals, d) Folding type seat stows automatically or is secured in retracted position, and e) Passenger seat assigned to flight attendant is placarded FOR FLIGHT ATTENDANT ONLY. NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative. NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25 EQUIPMENT AND FURNISHINGS				
25-1 Flight Attendant Seat Assembly (Single or Dual Position) (Cont'd)				
1) Required Flight Attendant Seats (Cont'd)				NOTE 3: Individual operators, when operating with inoperative seats, will consider locations and combinations of seats to ensure that proximity to exits and distribution requirements of applicable 14 CFR are met. NOTE 4: If one side of a dual seat assembly is inoperative and a flight attendant is displaced to adjacent seat, adjacent seat must operate normally.
2) Excess Flight Attendant Seat	C	-	-	(M) May be inoperative provided: a) Affected seat position or seat assembly is not occupied, and b) Folding type seat stows automatically or is secured in retracted position. NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative. NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative.
3) All Cargo Configuration	D	-	-	May be inoperative provided affected seat or seat assembly is not occupied.

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25 EQUIPMENT AND FURNISHINGS				
25-2 Passenger Seats	D	-	-	(M) May be inoperative provided: a) Seat does not block an Emergency Exit, b) Seat does not restrict any passenger from access to main aircraft aisle, and c) Affected seat(s) is blocked and placarded DO NOT OCCUPY. NOTE 1: A seat with an inoperative seat belt is considered inoperative. NOTE 2: Inoperative seat(s) does not affect required number of Flight Attendants. NOTE 3: Affected seat(s) may include seat(s) behind and/or adjacent outboard seats.
1) Recline Mechanism	D	-	-	(M) May be inoperative and seat occupied provided seat is secured in full upright position.
	D	-	-	May be inoperative and seat occupied provided seat is immovable in full upright position.
2) Underseat Baggage Restraining Bars	C	-	-	(M)(O) May be inoperative provided: a) Baggage is not stowed under seat with inoperative restraining bar, b) Associated seat is placarded DO NOT STOW BAGGAGE UNDER THIS SEAT, and c) Procedures are established to alert Cabin Crew of inoperative restraining bar.
3) Armrest				
a) Armrest with Recline Mechanism	D	-	-	(M) May be inoperative or missing and seat occupied provided: a) Armrest does not block an Emergency Exit, b) Armrest does not restrict any passenger from access to main aircraft aisle, and c) If armrest is missing, seat is secured in upright position.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25	EQUIPMENT AND FURNISHINGS				
25-2	Passenger Seats (Cont'd)				
	3) Armrest (Cont'd)				
	b) Armrest without Recline Mechanism	D	-	-	May be inoperative or missing and seat occupied provided: a) Armrest does not block an Emergency Exit, and b) Armrest does not restrict any passenger from access to main aircraft aisle.
25-3 ***	Supernumerary Seats (All Cargo Configuration)	D	-	0	(M) May be inoperative provided: a) Seat is not occupied, and b) Seat is stowed or secured.
	1) Armrests	D	-	0	(M) May be inoperative provided armrest is stowed in retracted position or removed.
	2) Recline Mechanism	D	-	0	(M) May be inoperative and seat occupied provided seat is secured in upright position.
25-4	Underseat Baggage Restraining Bars				Moved to 25-25-2, MMEL Rev. 24.
25-5	Crew Rest Bunk Restraints	C	-	0	(M) May be inoperative provided associated bunk is blocked and placarded INOPERATIVE – DO NOT USE.
25-6	Crew Rest Module (STC ST02372AT)	C	1	0	(M) May be inoperative provided: a) Crew rest module is not used and personal items are removed, and b) Crew rest door is closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25 EQUIPMENT AND FURNISHINGS					
25-7 ***	Lower Lobe Crew Rest Module (STCs ST01994SE and ST02137SE)	C	1	0	(M) May be inoperative provided: a) Lower lobe crew rest module is not used and personal items are removed, and b) Lower lobe crew rest door is closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers.
	1) Crew Rest Seats	C	-	0	(M) May be inoperative provided seat is placarded INOPERATIVE - DO NOT USE.
28-1	Storage Bins/Cabin, Galley and Lavatory Storage Compartments/ Closets	C	-	-	(M) May be inoperative provided: a) Procedures are established to secure affected bin, compartment or closet in closed position, b) Affected bin, compartment or closet is prominently placarded DO NOT USE, c) Any emergency equipment located in affected compartment is considered inoperative, and d) Affected bin, compartment or closet is not used for storage of any items except for those permanently affixed. NOTE: For overhead bins, if no partitions are installed, entire overhead bin is considered inoperative. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25	EQUIPMENT AND FURNISHINGS				
28-1	Storage Bins/Cabin, Galley and Lavatory Storage Compartments/ Closets (Cont'd)	C	-	-	(M)(O) May be inoperative provided: a) For non-retractable doors, affected door is removed, b) For retractable doors, affected door is removed or secured in retracted (fully open) position, c) Associated bin or compartment is not used for storage of any items except for those permanently affixed, d) Associated bin or compartment is prominently placarded DO NOT USE, e) Procedures are established and used to alert crewmembers and passengers of inoperative bins, compartments or closets, and f) Passengers are briefed that associated bin or compartment is not used. NOTE 1: For overhead bins, if no partitions are installed, entire overhead bin is considered inoperative. NOTE 2: Any emergency equipment located in affected bin, compartment or closet (permanently affixed) is available for use.
	1) Multi Latch/ Quarter Turn Lug Installations	C	-	-	One latch/lug per compartment may be inoperative provided: a) Remaining latch(es)/lug(s) on affected compartments operate normally, and b) If affected compartment is used for a galley cart, cart remains empty.
***	2) Storage Compartment Key Locks	D	-	0	(M) May be inoperative in unlocked position provided doors can be secured by other means.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25 EQUIPMENT AND FURNISHINGS					
38-1	Exterior Lavatory Door Ashtrays				
	1) Airplanes with More Than One Exterior Lavatory Door Ashtray Installed	A	-	-	One may be missing provided it is replaced within ten calendar days.
	2) Airplanes with Only One Exterior Lavatory Door Ashtray Installed	A	1	0	May be missing provided it is replaced within three calendar days.
38-2	Galley/Cabin Waste Receptacles Access Doors/Covers	C	-	-	(M)(O) May be inoperative provided: a) Container is empty and access is secured to prevent waste introduction into compartment, and b) Procedures are established to ensure that sufficient galley/cabin waste receptacles are available to accommodate all waste that may be generated on flight.
41-1	Lavatory Waste Container Flapper/Access Doors	C	-	-	(M) May be inoperative provided: a) Associated lavatory waste container is empty and access is secured to prevent waste introduction into waste container, b) Lavatory is only used by crewmembers, and c) Associated lavatory entrance door is locked closed and placarded INOPERATIVE – DO NOT USE. NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25 EQUIPMENT AND FURNISHINGS				
41-3 Wheelchair Accessible Lavatory Items	B	-	0	(O) May be inoperative or missing provided alternate procedures are established and used.
	D	-	-	Any in excess of those required by 14 CFR may be inoperative.
50-1 Lower Cargo Compartment Lining Panels, Floor Panels, and Walkways				
1) Lining Panels	C	-	-	(O) May be damaged or missing provided procedures are established and used to ensure associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits, and which materials can be used as ballast.
2) Floor Panels and Walkways				
a) Full Floor Configuration	C	-	-	(O) May be damaged or missing provided procedures are established and used to ensure associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits, and which materials can be used as ballast.
b) Partial Floor Configuration	C	-	-	May be damaged or missing.
53-1 *** Cargo Loading Systems	D	-	0	NOTE: Any portion of system(s) that operates normally may be used.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25	EQUIPMENT AND FURNISHINGS				
54-1	Cargo Restraint Systems/Devices (Including Main Deck 9 "g" Barrier Net)	A	-	-	(M) May be inoperative, or missing provided: a) Acceptable cargo loading limits from an approved source, i.e. an approved Cargo Loading Manual, Cargo Handling Manual, or Weight and Balance Document are observed, and b) Repairs are made prior to completion of next heavy maintenance visit.
		C	-	-	May be inoperative or missing provided associated cargo compartment remains empty.
55-1	Main Deck 9 "g" Barrier Net System				Moved to 25-54-1, MMEL Rev. 31.
61-1	Flight Crew/ Supernumerary Escape Devices (All Cargo Configuration)				
	1) Inertial Escape Reels	C	-	-	(M) May be inoperative provided: a) Occupants are limited to number of operative escape reels, and b) Inoperative escape reel(s) is removed from installed location.
	2) Escape Harnesses	C	-	-	(M) May be inoperative provided: a) Occupants are limited to number of operative escape harness(es), and b) Inoperative escape harness(es) is removed from installed location.
61-2 ***	Lower Lobe Crew Rest Escape Harness (STCs ST01994SE and ST02137SE)	C	1	0	(M) May be inoperative provided: a) Lower lobe crew rest module is not used and personal items are removed, and b) Lower lobe crew rest door is closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25	EQUIPMENT AND FURNISHINGS				
62-1	Flotation Equipment (Crew and Passengers)	D	-	-	Any in excess of those required by 14 CFR may be inoperative or missing provided required distribution is maintained.
63-1	Megaphones				
	1) Passenger Configuration	D	-	-	Any in excess of those required by 14 CFR may be inoperative or missing provided: a) Inoperative megaphone is removed from passenger cabin, b) Associated placard is removed or obscured, and c) Required distribution is maintained.
	2) All Cargo Configuration	D	-	0	
63-2 ***.	Emergency Evacuation Signal System	C	1	0	(O) May be inoperative provided alternate procedures for initiating an emergency evacuation are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
63-3	"Fasten Seat Belt While Seated" Signs or Placards	C	-	-	One or more signs or placards may be illegible or missing provided a legible sign or placard is visible from each occupied passenger seat.
63-4	Flight Attendant Flashlight/Holder Assemblies	C	-	-	May be inoperative or missing provided crewmember assigned to associated seat has a flashlight of equivalent characteristics readily available.
63-5 ***	Onboard Weight and Balance System (All Cargo Configuration)	D	-	0	(O) May be inoperative provided alternate procedures are established and used.
63-6 ***	Emergency Vision Assurance System (EVAS) (STC ST00731LA)	D	-	0	May be inoperative or removed provided procedures do not require its use.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25 EQUIPMENT AND FURNISHINGS				
63-10 Emergency Locator Transmitter (ELT)				
1) Survival Type ELTs	D	-	-	Any in excess of those required by 14 CFR may be inoperative or missing.
2) Fixed ELTs	A	-	0	(M) May be inoperative provided: a) System is deactivated, and b) Repairs are made within 90 days.
	A	-	0	May be missing provided repairs are made within 90 days.
	D	-	-	(M) Any in excess of those required by 14 CFR may be inoperative provided system is deactivated.
	D	-	-	Any in excess of those required by 14 CFR may be missing.
64-1 Emergency Medical Equipment				
1) First Aid Kit (FAK) and/or Associated Equipment	A	-	-	(O) If more than one is required by 14 CFR, only one of required first aid kits may be incomplete, missing or inoperative provided: a) FAK is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within 1 flight.
	D	-	-	Any in excess of those required by 14 CFR may be incomplete, missing or inoperative.
2) Emergency Medical Kit (EMK) and/or Associated Equipment	A	-	0	(O) May be incomplete, missing or inoperative provided: a) EMK is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within 1 flight.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
25	EQUIPMENT AND FURNISHINGS				
64-1	Emergency Medical Equipment (Cont'd)				
	2) Emergency Medical Kit (EMK) and/or Associated Equipment (Cont'd)	D	-	-	Any in excess of those required by 14 CFR may be incomplete, missing or inoperative.
	3) Automated External Defibrillators (AED) and/or Associated Equipment	A	-	0	(O) May be incomplete, missing or inoperative provided: a) AED is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within 1 flight.
		D	-	-	Any in excess of those required by 14 CFR may be incomplete, missing or inoperative.
66-3	Overwing Escape Squib Test System	A	1	0	(M) May be inoperative provided: a) Overwing escape system is verified to operate normally, and b) Operations are limited to not more than 50 flight hours before repairs are made.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION					
10-1	Crew Rest Smoke Detection Systems (STC ST00973WI-D)	C	2	0	(M) May be inoperative provided: a) Associated crew rest area is not used and personal items are removed, and b) Associated crew rest door is locked closed and placarded INOPERATIVE - DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers.
10-2	Crew Rest Module Smoke Detection Systems (STC ST02372AT)	C	1	0	(M) May be inoperative provided: a) Crew rest module is not used and personal items are removed, and b) Crew rest door is closed and placarded INOPERATIVE - DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers.
10-3 ***	Lower Lobe Crew Rest Smoke Detection Systems (STCs ST01994SE and ST02137SE)	C	-	0	(M) May be inoperative provided: a) Heater system is deactivated. b) Crew rest module is not used and personal items are removed, and c) Crew rest door is closed and placarded INOPERATIVE - DO NOT ENTER NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers.
11-1	Engine Fire Detection Systems				
	1) Detection Loops	C	4	2	Except for ER operations beyond 120 minutes, one loop per engine may be inoperative.
11-2	Engine Overheat Detection Systems				
	1) Detection Loops	C	4	2	Except for ER operations beyond 120 minutes, one loop per engine may be inoperative.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION					
12-1	Engine Strut Overheat Detection Systems (RB211)				
	1) Detection Loops	C	4	2	Except for ER operations beyond 120 minutes, one loop per engine may be inoperative.
14-1	CARGO DET AIR Indicating System	C	1	0	(M) Indication may be inoperative provided smoke sampling system integrity is verified before each departure.
15-1	APU Fire Detection System	C	1	0	May be inoperative provided APU is considered inoperative.
		C	1	0	(M)(O) May be inoperative provided: a) Other procedures do not require use of APU, b) APU is used for ground operations only, c) APU is continuously monitored by ground personnel when operating, d) APU external control system operates normally, and e) APU is not used during taxi.
	1) Detection Loops	C	2	1	Except for ER operations beyond 120 minutes, one loop may be inoperative.
16-1	Lower Cargo Compartment Smoke Detection Systems (Fwd and Aft)	C	2	0	(O) May be inoperative provided procedures are established and used to ensure associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION					
16-1	Lower Cargo Compartment Smoke Detection Systems (Fwd and Aft) (Cont'd)				
	1) Detectors				
	a) -200/-300	C	4	2	(O) One in each compartment may be inoperative provided remaining detector is verified to operate normally before each departure.
	b) -400ER	C	8	4	One in each compartment zone may be inoperative.
	2) Detector Loops (ATC A1NM -200 SF, -300BCF)	C	4	2	(O) One in each compartment may be inoperative provided remaining detector loop is verified to operate normally before each departure.
	3) Detector Fans				
	a) -200/-300	C	4	2	One in each compartment may be inoperative.
	b) -400ER	C	8	4	One in each compartment zone may be inoperative.
16-2	Main Deck Cargo Compartment Smoke Detection System (All Cargo Configuration)	C	1	0	(O) May be inoperative provided procedures are established and used to ensure associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.
	1) Loops	C	2	1	(M) One detector loop may be inoperative provided remaining detector loop is verified to operate normally before each departure. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION					
16-2	Main Deck Cargo Compartment Smoke Detection System (All Cargo Configuration) (Cont'd)				
	2) Detectors (-300BDSF)	C	16	8	(O) One detector in each zone may be inoperative provided remaining detector in that zone is verified to operate normally before each departure.
17-1	Wheel Well Fire Detection System	C	1	0	May be inoperative provided BTMS operates normally. NOTE: Avoid possibility of retracting an overheated wheel by monitoring brake temperature indications.
		C	1	0	(M) May be inoperative provided an accepted procedure is used to ensure brakes are cool before engine start. NOTE 1: Avoid possibility of retracting an overheated wheel by leaving landing gear extended for 10 minutes after takeoff. NOTE 2: In case of engine failure after V1, landing gear should be retracted until takeoff obstacles are cleared.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION				
18-1 DUCT LEAK Detection Systems				
1) L and R Loops				
a) Dual Loop Configuration	C	4	2	One loop in each system may be inoperative.
b) CF6-80A/A2 and JT9D	A	-	1	(O) May be inoperative provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed ISLN valve remains closed except for engine start, c) Airplane is not operated in known or forecast icing conditions, d) Airplane remains at or below FL 270, e) APU is used as air source for ADP for takeoff and landing, f) One body loop operates normally, and g) Operation is limited to 1 flight day before repairs are made.
	A	-	1	(O) May be inoperative provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed ISLN valve remains closed except for engine start, c) Airplane is not operated in known or forecast icing conditions, d) Airplane remains at or below FL 270, e) ADP inoperative penalties are applied, f) Center Hydraulic Motor Generator (HMG) is considered inoperative, g) One body loop operates normally, and h) Operation is limited to 1 flight day before repairs are made.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION				
18-1 DUCT LEAK Detection Systems (Cont'd) 1) L and R Loops (Cont'd) c) CF6-80C2 and PW4000	A	-	1	(M)(O) May be inoperative provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed ISLN valve remains closed except for engine start, c) Airplane is not operated in known or forecast icing conditions, d) Airplane remains at or below FL 270, e) APU is used as air source for ADP for takeoff and landing, f) One body loop operates normally, g) Associated fan air modulation valve is secured in intermediate position, h) Appropriate performance adjustments are applied, and i) Operation is limited to 1 flight day before repairs are made.
	A	-	1	(M)(O) May be inoperative provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed ISLN valve remains closed except for engine start, c) Airplane is not operated in known or forecast icing conditions, d) Airplane remains at or below FL 270, e) ADP inoperative penalties are applied, f) Center Hydraulic Motor Generator (HMG) is considered inoperative, g) One body loop operates normally, h) Associated fan air modulation valve is secured in intermediate position, i) Appropriate performance adjustments are applied, and j) Operation is limited to 1 flight day before repairs are made.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION				
18-1 DUCT LEAK Detection Systems (Cont'd) 1) L and R Loops (Cont'd) c) CF6-80C2 and PW4000 (Cont'd)	A	-	1	(O) May be inoperative provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed ISLN valve remains closed except for engine start, c) Airplane is not operated in known or forecast icing conditions, d) Airplane remains at or below FL 270, e) APU is used as air source for ADP for takeoff and landing, f) One body loop operates normally, g) Appropriate performance adjustments are applied for an open fan air modulation valve, and h) Operation is limited to 1 flight day before repairs are made.
	A	-	1	(O) May be inoperative provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed ISLN valve remains closed except for engine start, c) Airplane is not operated in known or forecast icing conditions, d) Airplane remains at or below FL 270, e) ADP inoperative penalties are applied, f) Center Hydraulic Motor Generator (HMG) is considered inoperative, g) One body loop operates normally, h) Appropriate performance adjustments are applied for an open fan air modulation valve, and i) Operation is limited to 1 flight day before repairs are made. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION				
18-1 DUCT LEAK Detection Systems (Cont'd)				
1) L and R Loops (Cont'd)				
d) RB211	A	-	1	(O) May be inoperative provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed ISLN valve remains closed except for engine start, c) Airplane is not operated in known or forecast icing conditions, d) Airplane remains at or below FL 270, e) APU is used as air source for ADP for takeoff and landing, f) One body loop operates normally, and g) Operation is limited to 1 flight day before repairs are made.
	A	-	1	(O) May be inoperative provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed ISLN valve remains closed except for engine start, c) Airplane is not operated in known or forecast icing conditions, d) Airplane remains at or below FL 270, e) ADP inoperative penalties are applied, f) Center Hydraulic Motor Generator (HMG) is considered inoperative, g) One body loop operates normally, and h) Operation is limited to 1 flight day before repairs are made.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION					
18-1	DUCT LEAK Detection Systems (Cont'd)				
	2) Body Loop	C	2	1	
		C	-	0	(O) May be inoperative provided: a) APU is not used as a pneumatic source except as required for engine start, b) APU bleed air switch remains off except as required for engine start, c) Center bleed ISLN valve remains closed except as required for engine start, d) ADP inoperative performance penalties are applied, e) Both center electric pumps operate normally, f) Airplane remains at or below FL 270, g) Center Hydraulic Motor Generator (HMG) is considered inoperative, and h) One L and one R loop operate normally.
	3) Test Function	C	1	0	(M) May be inoperative provided detection system is verified to operate normally once each flight day.
	4) DUCT LEAK Lights (-400ER)	C	3	0	(O) May be inoperative.
20-1	Engine Fire Extinguisher Bottle Pressure Indicating System	C	2	0	(M) May be inoperative provided an acceptable test procedure is used once each flight day to verify that associated bottle is properly charged.
	1) Lower Cargo Compartment				Moved to 26-23-1, MMEL Rev. 32.
	2) APU				Moved to 26-22-1, MMEL Rev. 32.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION					
20-2	Fire Extinguisher SQUIB TEST System	C	1	0	(M) May be inoperative or individual test functions may be inoperative provided each squib circuit associated with an inoperative test function is verified to operate normally once each flight day.
	1) APU Squib Test Functions	C	-	0	May be inoperative provided APU is considered inoperative.
	2) Cargo Squib Test Functions	C	-	0	May be inoperative provided extinguisher system is inoperative.
		C	-	0	(O) May be inoperative provided procedures are established and used to ensure associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.
22-1	APU Fire Extinguisher System	C	1	0	Except for ER operations, may be inoperative provided APU is considered inoperative.
		B	1	0	Except for ER operations beyond 120 minutes, may be inoperative provided APU is considered inoperative.
***	1) Fire Extinguisher Bottle (Two Bottle System)	C	2	1	
	2) Fire Extinguisher Bottle Pressure Indicating System	C	2	1	
		C	-	0	(M) May be inoperative provided an acceptable test procedure is used once each flight day to verify that associated bottle(s) is properly charged.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION					
23-1	Lower Cargo Compartment Fire Extinguisher System (Metered or Non-Metered)	C	1	0	(O) May be inoperative provided procedures are established and used to ensure lower cargo compartments remain empty, or are verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.
	1) Fire Extinguisher Bottles (Two and Three Bottle Systems) (-200/ -300)	C	-	-	(O) Extinguisher bottle No. 2 or 2A may be inoperative with cargo carried in compartments provided: a) Airplane is operated pressurized, and b) A chart is provided to determine time airplane must remain in proximity to a suitable airport.
	2) Fire Extinguisher Bottles (Four Bottle System) (-400ER)	C	4	2	(M)(O) Extinguisher bottle No. 2, 2A or 2B may be inoperative deactivated with cargo carried in compartments provided: a) Airplane is operated pressurized, and b) A chart is provided to determine time airplane must remain in proximity to a suitable airport.
	3) Fire Extinguisher Bottle Pressure Indicating System	C	-	0	(M) May be inoperative provided an acceptable test procedure is used once each flight day to verify that associated bottle(s) is properly charged.
		C	-	0	May be inoperative provided associated fire bottle(s) is considered inoperative.
	4) Bottle Pressure Switches (-400ER)	C	4	0	(M) May be inoperative provided: a) Associated bottle is verified full, and b) Associated bottle squib is verified to operate normally before each departure.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION					
23-2	Lower Cargo Compartment Fire Extinguisher Flow Valves (Forward or Aft) (-400ER)	C	2	0	(M)(O) May be inoperative deactivated provided procedures are established and used to ensure associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and/or Fly Away Kits. NOTE: Operator MELs must define which items are approved for inclusion in Fly Away Kits and which materials can be used as ballast.
26-1	Portable Fire Extinguishers	D	-	-	Any in excess of those required by 14 CFR may be inoperative or missing provided: a) Inoperative fire extinguisher is tagged inoperative, removed from installed location, and placed out of sight so it can not be mistaken for a functional unit, and b) Required distribution is maintained.
26-2	Lavatory Fire Extinguisher Systems				
	1) Passenger Configuration	C	-	0	For each lavatory, lavatory fire extinguisher system may be inoperative provided associated Lavatory Smoke Detection System operates normally.
		C	-	0	(M)(O) For each lavatory, lavatory fire extinguisher system may be inoperative provided: a) Lavatory waste receptacle is empty, b) Associated lavatory door is locked closed and placarded INOPERATIVE – DO NOT ENTER, and c) Lavatory is used only by crewmembers. NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.
	2) All Cargo Configuration	D	-	0	

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION				
26-3 Lavatory Smoke Detection Systems				
1) Passenger Configuration	C	-	-	(M)(O) For each lavatory, lavatory smoke detection system may be inoperative provided: a) Lavatory waste receptacle is empty, b) Associated lavatory door is locked closed and placarded INOPERATIVE – DO NOT ENTER, and c) Lavatory is used only by crewmembers. NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.
2) All Cargo Configuration	D	-	-	

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
27 FLIGHT CONTROLS					
03-1	FLT CONTROL SHUTOFF Valves	C	6	0	(M) May be inoperative open.
03-2	FLT CONTROL SHUTOFF OFF Lights	C	6	0	(M) May be inoperative provided associated valve is verified open before each departure.
08-1	Control Surface Position Indicating System	C	1	0	(M) May be inoperative provided a visual flight control check is accomplished before each departure.
08-2	Flap Position Indicator System				
	1) Position Needles (-200/-300)	C	2	1	
	2) Position Sensors (-400ER)	C	2	1	
09-1	Yaw Damper Stabilizer Trim Module (YSM)	B	2	1	(M)(O) One may be inoperative. NOTE: Associated autopilot will not engage until Approach Mode engages.
11-1	Aileron Trim System	C	1	0	(M) May be inoperative provided: a) One autopilot operates normally, and b) Aileron trim system is verified centered.
11-2	Outboard Aileron Lockout System	C	1	0	(M)(O) May be inoperative unlocked provided maximum airspeed is limited to 270 KIAS or 0.73 Mach, whichever is less.
	1) Indication System	C	1	0	(M)(O) May be inoperative provided aileron lockout system is verified to operate normally before each departure.
21-1	Rudder Ratio Light	C	1	0	(M) May be inoperative off provided: a) RUDDER RATIO message on EICAS is verified to operate normally, and b) Both control channels operate normally.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
27 FLIGHT CONTROLS					
21-3	Rudder Trim Indication System	C	1	0	(M) May be inoperative provided: a) Rudder trim actuator operates normally, b) Rudder control surface position indicating system operates normally, and c) Rudder trim is verified to be centered before each departure.
31-1	Elevator Feel Pressure Takeoff Limit Function (-400ER)	C	1	0	(O) May be inoperative provided: a) Appropriate takeoff center of gravity restrictions are observed, and b) Improved Climb takeoffs are not conducted.
32-1	Stall Warning Test Systems	C	2	0	(M) May be inoperative provided operation of associated system is verified once each flight day.
32-2	Stall Warning Systems (-400ER)	A	2	1	(M) One may be inoperative provided: a) Remaining system is verified to operate normally before each departure, and b) Operations are limited to not more than 3 flight days before repair is made.
41-1	Control Wheel Trim Switch Systems	B	2	1	(M) One may be inoperative on non-flying pilot's side provided stabilizer trim system is verified to operate normally.
41-2	Horizontal Stabilizer Primary Trim Channels	C	2	1	(M)(O) One may be inoperative provided: a) Horizontal stabilizer trim operates normally using stabilizer trim levers (Alternate Stabilizer Trim Switches), b) Approach minimums do not require use of three autopilots, and c) No arm or control valves are failed in energized position.
48-1	STAB TRIM Indicators	C	2	1	One may be inoperative provided faulty indicator is not visible.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
27 FLIGHT CONTROLS					
51-1	Automatic Flap Load Relief Retraction System (Trailing Edge)				
	1) -200/-300 (Actuator Rod End Down)	C	1	0	(M) May be inoperative in normal (actuator extended) position provided flaps 30 are not used. NOTE: Flaps 25 may be used to AFM limit maximum landing weight.
	2) -300 (Actuator Rod End Up)	C	1	0	(M)(O) May be inoperative in normal (actuator retracted) position provided flaps 25 and flaps 30 adjusted maximum landing weights are observed.
	3) -400ER (Actuator Rod End Up)	C	1	0	(M)(O) May be inoperative in normal (actuator retracted) position provided flaps 20, flaps 25 and flaps 30 adjusted maximum landing weights are observed.
61-1	Speed Brake Load Alleviation System (-300/-300F with Blended Winglets STC ST01920SE)	C	1	0	(M)(O) May be inoperative provided: a) Speedbrake handle forces are verified normal from full down to full up position, and b) Airspeed does not exceed 290 KIAS, or .84 Mach, whichever is lower, when inflight gross weight is in excess of 340,000 pounds (154,545kg).
62-1	Auto Speed Brake System				
	1) Without Speed Brake Load Alleviation System Installed	C	1	0	(M)(O) May be inoperative provided: a) System is deactivated, and b) AFM decrements are applied if landing performance requires use of auto speed brakes. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
27 FLIGHT CONTROLS					
62-1	Auto Speed Brake System (Cont'd)				
	2) With Speed Brake Load Alleviation System (-300/-300F with Blended Winglets STC ST01920SE Installed)	C	1	0	(M)(O) May be inoperative provided: a) System is deactivated, b) Speedbrake handle forces are verified normal from full down to full up position, c) AFM decrements are applied if landing performance requires use of auto speed brakes, and d) Airspeed does not exceed 290 KIAS, or .84 Mach, whichever is lower, when inflight gross weight is in excess of 340,000 pounds (154,545kg).
62-2	Speedbrake Caution Indication System	C	1	0	(O) May be inoperative provided speedbrake lever is not positioned beyond ARMED position inflight below 800 feet radio altitude or when landing flaps are extended.
63-1	AUTO SPDBRK, SPOILERS, and STAB TRIM Lights	C	3	0	(M) May be inoperative provided associated EICAS message is verified to operate once each flight day.
81-1 ***	Leading Edge Slat Skew/Loss Detection System	C	1	0	(M) May be inoperative deactivated provided leading edge slat system is verified to operate normally.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL					
11-1	Sump Drain Valves	C	-	-	(M) One may be inoperative closed.
21-1	Pressure Fueling System	C	1	0	(M) May be inoperative provided alternate procedures are established and used.
	1) Fuel Shutoff Valves	C	6	0	(M) May be inoperative closed.
		C	6	0	(M) May be inoperative open if fuel jettison system is deactivated or not installed.
21-2 ***	Fueling Receptacle Cap	C	2	0	May be inoperative or missing provided no leakage can be detected after refueling is complete.
22-1	Main Tank Fuel Pumps	C	4	3	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) Inoperative pump is deactivated, b) Both main tank quantity indications operate normally, and c) Following minimum fuel quantities are retained in affected tank for flight condition shown: With fuel tank dams installed – (SB 767-28-11 or production equivalent): TAKEOFF - 10,000 lb. (4,540 kg) LANDING - 5,000 lb. (2,270 kg) Without fuel tank dams: TAKEOFF - 25,000 lb. (11,340 kg) LANDING - 7,000 lb. (3,175 kg)
	1) Automatic Function of Left FWD Pump	C	1	0	(O) May be inoperative provided alternate procedures are established and used.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL					
22-2	Center Tank Fuel Pumps	C	2	1	(M)(O) One may be inoperative with center tank fueled provided: a) Fuel quantity in main tanks is adequate to reach a suitable airport if remaining pump fails at any time, b) Zero fuel weight calculations are adjusted by weight of center tank fuel, c) Effect on airplane balance, in event fuel cannot be used, is accounted for, d) For -200/-300, low PRESS light operates normally on remaining pump, e) Center tank quantity indication operates normally, f) One crossfeed valve is open prior to takeoff and remains open until center tank pump is selected OFF, and g) Affected pump is deactivated.
		C	2	0	(M) May be inoperative provided: a) Center tank remains empty, b) Center tank is verified to be empty before each refueling, and c) Affected pumps are deactivated.
	1) Service Bulletin 767-28-0062 or Production Equivalent Installed	C	2	0	(M) May be inoperative provided: a) Center tank remains empty, b) Center tank scavenge system is installed and operates normally, and c) Center tank fuel pumps are deactivated.
	2) Subject to Airworthiness Directive 2001-15-08 and without Automatic Shut Off System Installed	C	2	0	(M) May be inoperative provided: a) Boeing Alternative Method of Compliance to Airworthiness Directive 2001-15-08 (Operations Manual Bulletin Center Tank Fuel Pumps) is in effect, b) Center tank is verified to contain less than 5,000 pounds (2,300 kg) of fuel, c) Center tank fuel is not used, and d) Affected pumps are deactivated.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL					
22-3 ***	Dual Fuel Crossfeed Valves	C	2	1	(M) Except for ER operations, one may be inoperative provided: a) Affected valve is secured closed, b) Remaining valve operates normally.
		C	2	1	(M)(O) One may be inoperative provided: a) Affected valve is secured closed, b) Remaining valve operates normally, and c) Remaining valve is exercised during last hour of flight.
22-4	Center Tank Float Operated Shutoff Valves	C	2	0	May be inoperative provided center tank remains empty.
22-5	Automatic Shut Off System (Service Bulletins 767-28A0083, 767-28A0084, or Production Equivalent Installed)	C	2	0	May be inoperative provided associated center tank fuel pump is considered inoperative.
		C	2	0	May be inoperative provided center tank remains empty.
	1) Not Subject to Airworthiness Directive 2001-15-08	C	2	0	May be inoperative.

(Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL				
22-5 Automatic Shut Off System (Service Bulletins 767-28A0083, 767-28A0084, or Production Equivalent Installed) (Cont'd)				
2) Subject to Airworthiness Directive 2001-15-08	C	2	0	(O) May be inoperative with center tank fueled provided: a) Center tank fuel pump low PRESS lights operate normally, b) Center tank quantity indication operates normally, c) Center tank pumps are OFF for takeoff if center tank fuel is less than 5,000 pounds (2,300 kg) with airplane readied for initial taxi, d) Center tank fuel pumps are repositioned ON above 10,000 feet or after pitch attitude has been reduced to begin acceleration to climb speed, if more than 1,000 pounds (500 kg) remain in center tank, e) Both center tank fuel pumps are positioned OFF at first indication of fuel pump low pressure, f) Both center tank pumps are selected OFF when center tank fuel quantity reaches 1,000 pounds (500 kg) of fuel during climb, cruise or descent, g) In cruise and only when required to extinguish the FUEL CONFIG light and EICAS FUEL CONFIG message, both center tank pumps are selected OFF when center tank fuel quantity reaches 800 pounds (400 kg) of fuel, and h) For airplanes not equipped with a scavenge system, 1,000 pounds (500 kg) of center tank fuel is considered unusable.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL					
22-6	Universal Fault Interrupter (UFI) (STC ST02285LA)	C	2	0	May be inoperative provided associated Center Tank Boost Pump is considered inoperative.
25-1	APU (DC) Fuel Pump	C	1	0	(M) May be inoperative deactivated provided both left fuel tank boost pumps operate normally when APU is required for dispatch.
25-2	APU Fuel Shutoff Valve	C	1	0	(M) May be inoperative provided: a) APU is considered inoperative, and b) Valve is secured closed.
25-3 ***	APU Fuel Isolation Valve	C	1	0	(M) May be inoperative provided valve is secured closed.
26-1	Defuel Valves	C	-	0	(M) May be inoperative closed.
31-3 ***	Fuel Jettison System	C	1	0	(M)(O) May be inoperative provided a) Jettison nozzle valves are secured closed, and b) Jettison transfer valves are secured closed.
	1) Center Tank Jettison Pumps	C	2	0	(M)(O)May be inoperative provided both center tank fuel pumps operate normally if center tank is used.
40-1	Crossfeed VALVE Light(s)				
	1) Single VALVE Installation	C	1	0	(M) Except for ER operations, may be inoperative provided: a) Crossfeed valve is verified to operate normally, and b) Both main fuel quantity indications operate normally.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL				
40-1 Crossfeed VALVE Light(s) (Cont'd)				
2) Dual VALVE Installation				
a) -200/-300	C	2	1	(M) May be inoperative provided: a) One crossfeed valve is verified to operate normally, and b) Both main fuel quantity indications operate normally.
	C	2	0	(M) Except for ER operations, may be inoperative provided: a) Both crossfeed valves are verified to operate normally, and b) Both main fuel quantity indications operate normally.
b) -400ER	C	2	1	May be inoperative provided: a) One crossfeed valve operates normally, and b) Both main fuel quantity indications operate normally.
	C	2	0	Except for ER operations, may be inoperative provided: a) Both crossfeed valves operate normally, and b) Both main fuel quantity indications operate normally.
40-2 SPAR VALVE Lights (-200/-300)	C	2	0	(M) May be inoperative provided spar valve is verified to operate normally once each flight day.

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL				
41-1 Fuel Tank Quantity Indication Systems (Flight Deck)				
1) Main Tank Indicators	C	2	1	(M)(O) Except for ER operations, one may be inoperative provided: a) Fuel quantity in associated tank is verified by an alternate procedure, b) For non-PIP and non-Pegasus FMCs, both EICAS computers operate normally, c) Fuel flow indications operate normally, d) FMC FUEL is initialized with known total fuel quantity, e) Procedures to identify and contain an inflight engine fuel leak are used, f) All main tank boost pumps operate normally, g) For -200/-300, fuel pump low PRESS lights for associated tank operate normally, h) For Pegasus FMCs with Operational Program Software part number 3418-HNP-02C-08 or earlier, Thrust Management System operates normally, and i) For airplanes with Service Bulletin 767-28-0062, or production equivalent, center tank remains empty. NOTE: FUEL CONFIG advisory message for lateral imbalance may be inhibited.
2) Center Tank Indicator	C	1	0	(M) May be inoperative provided: a) Center tank remains empty, b) Center tank scavenge system is installed and operates normally, and c) Center tank fuel pumps are deactivated. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL				
41-1 Fuel Tank Quantity Indication Systems (Flight Deck) (Cont'd)				
2) Center Tank Indicator (Cont'd)				
a) With Automatic Shut Off System (Service Bulletin 767-28A0083, 767-28A0084, or Production Equivalent Installed)	C	1	0	(M)(O) Except for ER operations, may be inoperative provided: a) Fuel quantity in associated tank is verified by an alternate procedure, b) Fuel flow indications operate normally, c) FMC FUEL is initialized with known total fuel quantity, d) Both main tank indicators operate normally, e) Procedures to identify and contain an inflight engine fuel leak are used, f) Both center tank boost pumps operate normally, and g) Center tank fuel pump low PRESS lights operate normally.
b) Subject to AD 2001-15-08 and without Automatic Shut Off System Installed	C	1	0	(M) May be inoperative provided: a) Boeing Alternative Method of Compliance to Airworthiness Directives 2001-15-08 (Operations Manual Bulletin Center Tank Fuel Pumps) is in effect, b) Center tank is verified to contain less than 5,000 pounds (2,300 kg) of fuel, and c) Center tank fuel is not used.
3) Fuel Quantity Densitometers				
a) Honeywell	C	3	0	(M) May be inoperative provided affected densitometer(s) is deactivated.
b) B.F. Goodrich (Simmonds)	C	3	0	

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL					
41-2	Fuel Quantity Processor Channels				
	1) Honeywell FQIS	B	2	1	(M)(O) Except for ER operations, one channel may be inoperative provided: a) Total fuel quantity is determined by measuring sticks or other acceptable means after each refueling, and agrees with fuel quantity indications, b) Inoperative channel is deactivated by an acceptable procedure, c) All flight deck fuel indications operate normally, d) For non-PIP and non-Pegasus FMCs, both EICAS computers operate normally, e) Fuel flow indications operate normally, f) FMC TOTALIZER FUEL quantity agrees with fuel quantity indications, and g) For Pegasus FMCs with Operational Program Software part number 3418-HNP-02C-08 or earlier, Thrust Management System operates normally.
	2) B.F. Goodrich (Simmonds) FQIS	B	2	1	(O) Except for ER operations, one channel may be inoperative provided: a) All flight deck fuel indications operate normally, b) For non-PIP and non-Pegasus FMCs, both EICAS computers operate normally, c) Fuel flow indications operate normally, d) FMC TOTALIZER FUEL quantity agrees with fuel quantity indications, and e) For Pegasus FMCs with Operational Program Software part number 3418-HNP-02C-08 or earlier, Thrust Management System operates normally.
41-6	Fuel Quantity Indications (Fueling Panel)	C	3	0	(M) May be inoperative provided alternate fueling procedures are established and used.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
28 FUEL					
41-7	Total Fuel Quantity Indication	C	1	0	(O) May be inoperative provided: a) FMC is initialized with known total fuel quantity, b) For non-PIP and non-Pegasus FMCs, both EICAS computers operate normally, c) Fuel flow indications operate normally, d) Both FMCs operate normally, and e) For Pegasus FMCs with Operational Program Software part number 3418-HNP-02C-08 or earlier, Thrust Management System operates normally.
		C	1	0	(O) May be inoperative provided: a) Main tank fuel quantity indicators operate normally, and b) Center tank fuel quantity indicator is considered inoperative.
42-1	Fuel Pump Low PRESS Lights	C	6	3	May be inoperative for an associated inoperative pump.
	1) -200/-300	C	6	3	(M) May be inoperative provided associated EICAS message is verified to operate normally once each flight day.
	2) -400ER	C	6	0	
43-1	FUEL TEMP Indicating System	C	1	0	(O) May be inoperative provided Total Air Temperature (TAT) is used as an indication of fuel temperature. NOTE: Static Air Temperature may be used provided appropriate ram rise factor is applied.
44-1	Measuring Sticks	C	16	0	May be inoperative provided fuel quantity is determined by other approved means.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
29 HYDRAULICS					
11-1	Engine Driven Hydraulic Pumps				
	1) Depressurization Function	C	2	0	
11-2	Center System (Electric) Hydraulic Pumps	C	2	1	Only pump No. 2 may be inoperative provided Air Driven Pump operates normally.
11-3	Air Driven Pump (ADP)	C	1	0	(M)(O) May be inoperative provided: a) Center Hydraulic Motor Generator (HMG) is not required, b) Both center system electric pumps operate normally, and c) Appropriate performance adjustments are applied.
11-4	ADP Controller				
	1) AUTO Function	C	1	0	(O) May be inoperative provided: a) Control is ON for takeoff and landing, b) Center Hydraulic Motor Generator (HMG) is not required, or control is ON continuously when HMG is required, c) OFF position operates normally, and d) Appropriate performance adjustments are applied.
	2) ON Function	C	1	0	May be inoperative provided: a) AUTO and OFF functions of ADP operate normally, and b) Center HMG is not required.
11-5	Electric Demand Pump (ACMP)				
	1) AUTO Function	C	2	1	One may be inoperative provided: a) Pump operates normally, and b) Associated pump is selected ON and remains on.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
29 HYDRAULICS					
18-1	Remote Quantity Indicator	C	1	0	
24-1	Power Transfer Unit (PTU)				Deleted, MMEL Rev. 9.
31-1	Hydraulic Low SYS PRESS Lights				
	1) Non-PTU Equipped Airplanes	C	3	0	(M) May be inoperative provided: a) Associated pump low PRESS lights operate normally, and b) Associated HYD SYS PRESS EICAS indication is verified to operate normally.
	2) PTU Equipped Airplanes				
	a) Left Low SYS PRESS Light	C	1	0	(M) May be inoperative provided: a) Associated pump low PRESS lights operate normally, b) Associated HYD SYS PRESS EICAS indication is verified to operate normally, and c) Left low pressure signal wire of PTU system is capped and stowed.
	b) Right Low SYS PRESS Light	C	1	0	(M) May be inoperative provided: a) Associated pump low PRESS lights operate normally, and b) Associated HYD SYS PRESS EICAS indication is verified to operate normally.
31-2	Pump Low PRESS Indication Systems				
	1) Left, Center, Right, and Air Driven Pump PRESS Lights	C	7	4	(O) One in each hydraulic system may be inoperative provided: a) Associated low SYS PRESS light operates normally, and b) Associated pump is verified to operate normally before each departure.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
29 HYDRAULICS					
31-2	Pump Low PRESS Indication Systems (Cont'd)				
	2) Engine Driven Pump Indication Systems	C	2	1	(O) One may be inoperative provided: a) Associated demand pump AUTO function is considered inoperative, b) Associated low SYS PRESS light operates normally, and c) Associated pump is verified to operate normally before each departure.
	3) Center System No. 2 Electric Pump Indication System	C	1	0	May be inoperative provided: a) Air Driven Pump operates normally, and b) Associated pump is selected OFF.
	4) Air Driven Pump (ADP) Indication System	C	1	0	(O) May be inoperative provided: a) Both center system Electric Pumps operate normally, b) ADP is selected OFF, c) Center Hydraulic Motor Generator (HMG) is not required, and d) Appropriate performance adjustments are applied.
31-3 ***	HYD PRESS Indications (EICAS)	D	3	0	
32-1	Pump OVHT Indication Systems				
	1) Left, Center, Right, and Air Driven Pump OVHT Lights	C	7	4	(O) One in each hydraulic system may be inoperative provided: a) Associated low SYS PRESS light or pump low PRESS light operates normally, and b) Associated pump is verified to operate normally before each departure.
	2) Center System No. 2 Electric Pump Indication System	C	1	0	May be inoperative provided: a) Air Driven Pump operates normally, and b) Associated pump is selected OFF.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
29 HYDRAULICS					
32-1	Pump OVHT Indication Systems (Cont'd)				
	3) Air Driven Pump (ADP) Indication System	C	1	0	(O) May be inoperative provided: a) Both center system Electric Pumps operate normally, b) ADP is selected OFF, c) Center Hydraulic Motor Generator (HMG) is not required, and d) Appropriate performance adjustments are applied.
33-1	Hydraulic System Low QTY or RSVR Lights	C	3	0	(M) May be inoperative provided associated HYD QTY indication(s) operates normally.
		C	3	0	(M) May be inoperative provided: a) Associated reservoir level(s) is verified normal before each departure, b) Associated SYS PRESS lights operate normally, and c) On PTU equipped airplanes, with left hydraulic system low QTY or RSVR lights inoperative, left low quantity signal wire of PTU system is capped and stowed.
33-2	HYD QTY Indications	C	3	0	(M) May be inoperative provided: a) Associated reservoir level(s) is verified normal before each departure, b) Associated SYS PRESS lights operate normally, and c) On PTU equipped airplanes, with left hydraulic system low QTY or RSVR light inoperative, left low quantity signal wire of PTU system is capped and stowed.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION					
11-1	Wing Anti-Ice Valves	C	2	0	(M) Except for ER operations beyond 120 minutes, may be inoperative closed provided airplane is not operated in known or forecast icing conditions.
11-2	Wing Anti-Ice VALVE Lights	C	2	0	(O) May be inoperative provided associated valve operates normally.
		C	2	0	May be inoperative provided associated valve is inoperative.
		C	2	0	May be inoperative provided associated EICAS Advisory message L/R WING ANTI-ICE operates normally.
11-3	Wing Anti-Ice Ground Test	C	1	0	
21-1	Engine Anti-Ice Valves				
	1) Cowl Valves	C	2	1	(M) Except for ER operations beyond 120 minutes, one may be inoperative closed provided airplane is not operated in known or forecast icing conditions.
	2) Cowl Valves (JT9D-7R4)	C	2	1	(M)(O) One may be inoperative locked open provided: a) Fan air modulation valve is locked in intermediate position, b) High pressure shutoff valve is secured closed, c) Remaining (opposite) engine bleed system operates normally, d) Ambient temperature is below 38 degrees C, e) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained in icing conditions, f) Center Hydraulic Motor Generator (HMG) is considered inoperative, and g) Appropriate EPR limit and performance adjustments are applied.

(Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION					
21-1	Engine Anti-Ice Valves (Cont'd)				
	3) Stator Vane Valves (JT9D-7R4)	C	2	1	(M)(O) One may be inoperative open provided appropriate EPR limit and performance adjustments are applied.
		C	2	0	(M) May be inoperative closed.
	4) Cowl Valves				
	a) PW4000	C	2	1	(M)(O) One may be inoperative open provided: a) High pressure shutoff valve is secured closed, b) Bleed air switch for associated engine remains OFF except when TAT is 10 degrees C or below, c) For operations with associated bleed air switch OFF, 1) APU is used as air source for ADP for takeoff or ADP inoperative penalties are applied, 2) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, 3) Airplane is not operated in known or forecast icing conditions, and 4) Airplane remains at or below FL 350, d) For operations with associated bleed air switch ON, a minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, e) Remaining (opposite) engine bleed system operates normally, f) Associated PRV operates normally, g) Center Hydraulic Motor Generator (HMG) is considered inoperative, and h) Appropriate performance adjustments are applied. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION				
21-1 Engine Anti-Ice Valves (Cont'd)				
4) Cowl Valves (Cont'd)				
a) PW4000 (Cont'd)				NOTE: Bleed air switch for associated engine may be selected ON when TAT is 10 degrees C or below.
b) CF6-80C2	C	2	1	(M)(O) One may be inoperative open provided: a) High pressure shutoff valve is secured closed, b) Bleed air switch for associated engine remains OFF except when TAT is 10 degrees C or below, c) For operations with associated bleed air switch OFF, 1) APU is used as air source for ADP for takeoff or ADP inoperative penalties are applied, 2) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, 3) Airplane is not operated in known or forecast icing conditions, and 4) Airplane remains at or below FL 350, d) For operations with associated bleed air switch ON, a minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, e) Remaining (opposite) engine bleed system operates normally, f) Associated PRV operates normally, g) Center Hydraulic Motor Generator (HMG) is considered inoperative, h) Associated thrust reverser is secured in forward thrust position, and i) Appropriate performance adjustments are applied. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION				
21-1 Engine Anti-Ice Valves (Cont'd) 4) Cowl Valves (Cont'd) b) CF6-80C2 (Cont'd)				NOTE: Bleed air switch for associated engine may be selected ON when TAT is 10 degrees C or below.
c) RB211	C	2	1	(M)(O) One may be inoperative open provided: a) High pressure shutoff valve is secured closed, b) Bleed air switch for associated engine remains OFF except for engine start or when TAT is 10 degrees C or below, c) For operations with associated bleed air switch OFF, 1) APU is used as air source for ADP for takeoff or ADP inoperative penalties are applied, 2) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, 3) Airplane is not operated in known or forecast icing conditions, and 4) Airplane remains at or below FL 350, d) For operations with associated bleed air switch ON, a minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, e) Remaining (opposite) engine bleed system operates normally, f) Associated FWSOV operates normally, g) Center Hydraulic Motor Generator (HMG) is considered inoperative, and h) Appropriate performance adjustments are applied. NOTE: Bleed air switch for associated engine may be selected ON when TAT is 10 degrees C or below.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION					
21-2	Engine Anti-Ice VALVE Lights				
	1) -200/-300	C	2	1	(M) One may be inoperative provided associated valve is verified to operate normally before operating in known or forecast icing conditions.
		C	2	1	One may be inoperative provided associated valve is inoperative.
	a) JT9D	C	2	1	One may be inoperative provided associated EICAS Advisory message L/R ENG ANTI-ICE operates normally.
	b) CF6-80A/A2	C	2	1	One may be inoperative provided associated EICAS Advisory message L/R ENG ANTI-ICE operates normally.
	c) RB211	C	2	1	One may be inoperative provided associated EICAS Advisory message L/R ENG ANTI-ICE operates normally.
	d) CF6-80C2	C	2	1	(O) One may be inoperative provided associated EICAS Advisory message L/R ENG ANTI-ICE operates normally.
	e) PW4000	C	2	1	(O) One may be inoperative provided associated EICAS Advisory message L/R ENG ANTI-ICE operates normally.
	2) -400ER	C	2	0	(O) May be inoperative.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
30	ICE AND RAIN PROTECTION				
21-3	Engine Cowl Overheat Indications (RB211)	C	2	1	(M)(O) One may be inoperative provided: a) Associated HPSOV is secured in closed position, b) Associated nacelle anti-ice valve operates normally, c) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, d) Remaining (opposite) engine bleed system operates normally, and e) Associated ENG COWL OVHT card is deactivated (removed) from fire detection card file.
31-1	Pitot-Static Probe Heater Systems	B	4	3	Except for ER operations beyond 120 minutes, one probe heater may be inoperative provided airplane is not operated in visible moisture, or in known or forecast icing conditions.
31-2	Probe Heat Lights (Except CAPT and F/O PITOT)	B	-	0	(M) May be inoperative provided: a) Associated EICAS Advisory message is verified to operate normally, and b) Probe heater systems operate normally.
	1) Pitot Probe Heat Lights	B	2	1	May be inoperative provided associated probe heater is considered inoperative.
	2) Angle of Attack (AOA) and Temperature (TAT) Probe Heat Lights	C	-	1	May be inoperative provided associated probe heater is considered inoperative.
31-3	ENG EEC PROBE Light (JT9D)	B	1	0	(M) May be inoperative provided both probe heater functions are verified to operate normally before operating in known or forecast icing conditions.
31-4	MACH PROBES Light (JT9D)	B	1	0	(O) May be inoperative provided a minimum of 50% N1 above 10,000 feet MSL, or 45% N1 at or below 10,000 feet MSL is maintained while in icing conditions.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION					
31-5	CAPT PITOT and F/O PITOT Heat Indicating Systems (Heater OFF Monitor)	B	2	0	Except for ER operations beyond 120 minutes, may be inoperative provided: a) Pitot heater systems operate normally, b) Remaining probe heater indicating systems for operative probe heaters operate normally, and c) Airplane is not operated in known or forecast icing conditions.
32-1	Angle of Attack Sensor Heater Systems	C	2	1	(M) May be inoperative provided: a) Associated AOA vane is verified intact, b) Remaining probe heater indicating systems for operative probe heaters operate normally, and c) Airplane is not operated in known or forecast icing conditions.
33-1	Temperature (TAT) Probe Heater Systems	C	-	0	(O) Except for ER operations beyond 120 minutes, may be inoperative provided: a) Remaining probe heater indicating systems for operative probe heaters operate normally, and b) Airplane is not operated in known or forecast icing conditions.
	1) -400ER	C	2	1	(M)(O) May be inoperative provided: a) Associated Air Data System is considered inoperative, and b) Remaining probe heater indicating systems for operative probe heaters operate normally.
34-1	Engine PT2/TT2 Probe Heater Systems				
	1) JT9D	C	2	1	One may be inoperative provided associated engine EPR indication is considered inoperative.

(Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION					
34-1	Engine PT2/TT2 Probe Heater Systems (Cont'd)				
	2) PW4000	C	2	1	(O) One may be inoperative provided: a) Both EECs are switched to ALTN mode, b) N1, N2, and Fuel Flow systems on associated engine operate normally, and c) Appropriate procedures, AFM limitations and performance decrements are applied.
34-2	Engine Mach Probe Heaters (JT9D)	C	4	2	One per engine may be inoperative.
		C	4	0	(O) May be inoperative provided at least 50% N1 above 10,000 feet MSL, or 45% N1 at or below 10,000 feet MSL is maintained while in icing conditions.
41-1	Flight Deck Window Heat Systems				
	1) No. 1 (fwd) Windows	C	2	1	(M) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) Airplane is not operated in known or forecast icing conditions, b) Both No. 2 (side) window heaters operate normally, c) Associated windshield pneumatic anti-fog system operates normally, and d) Associated window heat is deactivated.
	2) No. 2 (side) Windows	C	2	1	(M) One may be inoperative provided: a) Both No. 1 (fwd) window heaters operate normally, and b) Associated window heat is deactivated.
	3) No. 3 (side) Windows	C	2	0	(M) May be inoperative provided associated window heat is deactivated.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION					
41-2	Window Heat INOP Lights	C	4	0	(M) May be inoperative provided associated window heat system is verified to operate normally before each departure.
		C	4	1	May be inoperative provided associated window heat system is inoperative.
41-3	Window/Probe Heat Ground Test System	C	1	0	
42-1	Windshield Wipers	C	2	0	May be inoperative provided airplane is not operated in precipitation within five statute miles of airport of takeoff or intended landing.
	1) High Speed	C	-	0	May be inoperative provided associated low speed operates normally.
	2) Low Speed	C	-	0	May be inoperative provided associated high speed operates normally.
***	3) Intermittent	C	2	0	
43-1 ***	Rain Repellent System	D	1	0	
71-1	Drain Mast Heaters	C	-	0	(M) May be inoperative provided water supply to associated galley, lavatory sink and drinking fountain is secured OFF.
72-1	Waste System Heaters				
	1) Drain Cap Gasket Heater	C	1	0	
	2) Rinse Hose Heater Boot	C	1	0	
80-1	Ice Detection System				
***	1) Advisory	D	1	0	
***	2) Primary	C	1	0	(O) May be inoperative provided alternate procedures are established and used.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
31	INDICATING/RECORDING SYSTEMS				
25-1	Clocks	C	2	1	
31-1	Flight Data Recorder (FDR) System (Includes Digital Flight Data Acquisition Unit (DFDAU))	C	-	1	Any in excess of those required by 14 CFR may be inoperative.
		A	-	0	May be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, b) Airplane is not dispatched from a designated airport as listed in operator's MEL unless; 1) FDR failure occurs after pushback but prior to takeoff, or 2) FDR repair was attempted but was not successful, c) In those cases where repair is attempted but not successful, aircraft may be dispatched on a flight or series of flights until next designated airport where repair must be accomplished prior to dispatch, and d) Repairs are made within 3 flight days.
	1) DFDR Recording Parameters required by 14 CFR	A	-	-	Up to three (3) recording parameters may be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, and b) Repairs are made within 20 calendar days.
	2) DFDR Recording Parameters not required by 14 CFR	A	-	-	May be inoperative provided repairs are made prior to completion of next heavy maintenance visit.
***	3) Quick Access Recorder (QAR)	D	1	0	
35-1 ***	Performance and Maintenance Recorder (PMR)	D	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
31	INDICATING/RECORDING SYSTEMS				
35-2 ***	Airplane Integrated Data System (AIDS)	D	1	0	
35-3 ***	Aircraft Condition Monitoring System (ACMS)	D	1	0	
41-1	Engine Indication and Crew Alerting Systems (EICAS) (-200/-300)				
	1) Display Unit (DU)	A	2	1	(M)(O) Except for ER operations, one may be inoperative provided: a) Standby Engine Instruments operate normally and are turned ON, b) Cargo FIRE/OVHT test is performed before each departure, c) Electronic Engine Control or autothrottle system operates normally, d) At least one autopilot operates normally, e) All EICAS computers operate normally, and f) Repairs or replacements are made within one flight day. NOTE: In event of an additional DU failure enroute, flight crew should consider landing as soon as practical. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
31 INDICATING/RECORDING SYSTEMS				
41-1 Engine Indication and Crew Alerting Systems (EICAS) (-200/-300) (Cont'd)				
2) Computer	A	2	1	(M)(O) Except for ER operations, one may be inoperative provided: a) Standby Engine Instruments operate normally and are turned ON, b) Electronic Engine Control or autothrottle system operates normally, c) At least one autopilot operates normally, d) SB 767-79-2 or equivalent (dual oil temperature sensors), is installed, e) Both Display Units operate normally, and f) Repairs or replacements are made within one flight day. NOTE: In event of an additional computer failure enroute, flight crew should consider landing as soon as practical.
51-1 Master Caution/ Warning Systems				
1) Master Warning Lights (Pilot's Glare Shield)				
a) -200/-300	C	2	1	One may be inoperative provided master warning aural system and all discrete warning lights operate normally.
b) -400ER	C	2	1	One may be inoperative provided master warning aural system operates normally.

(Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
31	INDICATING/RECORDING SYSTEMS				
51-1	Master Caution/ Warning Systems (Cont'd)				
	2) Master Caution Lights (Pilot's Glare Shield)				
	a) -200/-300	C	2	1	One may be inoperative provided master caution aural system and all discrete caution lights operate normally.
	b) -400ER	C	2	1	One may be inoperative provided master caution aural system operates normally.
51-2 ***	Takeoff Configuration Check (T/O CHK) Switch	C	1	0	
		D	1	0	May be inoperative provided procedures do not require its use.
61-1	Cockpit Door Surveillance System (CDSS)				Deleted, MMEL Rev. 31.
61-4	EICAS Status Messages	C	-	0	(M)(O) May be inoperative provided associated equipment is verified to operate normally before each departure.
		C	-	0	(M)(O) May be inoperative provided dispatch deviations for associated equipment are observed.
61-5	EICAS Signal Consolidation Card (SCC)	C	1	0	(M) May be inoperative provided: a) Fuel quantity indication is verified to operate normally before each flight, and b) Dispatch deviations for associated equipment are observed.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
31	INDICATING/RECORDING SYSTEMS				
63-1	Display Units (DU)				
	1) -400ER	C	6	5	One may be inoperative in lower center DU position.
	2) Flat Panel Display (STC ST02165NY)	C	4	3	Except for ER operations, one may be inoperative in Navigation Display (ND) position.
		B	4	3	For ER operations, one may be inoperative in Navigation Display (ND) position.
63-2	Control Panels				
	1) EFIS Control Panels (-400ER)	C	2	1	(O) One may be inoperative provided associated CDU EFIS control functions are verified to operate normally.
	2) Flat Panel Display Control Panel (DCP) (STC ST02165NY)	C	2	1	(O) One may be inoperative provided all functions of operative DCP are verified to operate normally.
63-3	Display Select Panel Indicator Lights (-400ER)	C	3	0	(O) May be inoperative provided: a) Display Select Panel switches are verified to operate normally, and b) Display Units operate normally.
63-4	Display Processing Computers (DPC) (-400ER)	C	3	2	Left or right may be inoperative.
63-6	Display Control Unit Selector (DCU CTRL) (-400ER)	C	1	0	(M) May be inoperative provided: a) Selector is in AUTO position and not moved in flight, and b) Automatic source selection function is verified to operate normally.
63-7	Remote Light Sensor (RLS) System (-400ER)	C	1	0	May be inoperative provided all manual display brightness functions operate normally.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
31	INDICATING/RECORDING SYSTEMS				
63-10	Data Concentrator Units				
	1) Panel Data Concentrator Unit (PDCU) (-400ER)	C	2	1	
	2) Flat Panel Display Data Concentrator Unit (DCU) (STC ST02165NY)	C	3	2	(M) Except for ER operations, L, C, or R DCU may be inoperative provided DCU isolation is verified once each flight day.
		B	3	2	(M) For ER operations, L or R DCU may be inoperative provided DCU isolation is verified once each flight day.
63-11	Display Resource Faults (-400ER)	C	-	0	May be dispatched with faults indicated by DISPLAY RESOURCES status message provided all Display Processing Computers operate normally.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
32 LANDING GEAR					
30-1	Landing Gear Retracting System	C	1	0	(M)(O) May be inoperative provided: a) Inoperative components are properly secured by an accepted procedure, and b) Airplane is dispatched in accordance with appropriate AFM Landing Gear Extended Appendix.
31-1	Landing Gear Lever Lock Solenoid	C	1	0	(M)(O) May be inoperative in latched position provided override mechanism is verified to operate normally.
31-2	Landing Gear Selector Valve Electrical Control Circuits (-400ER)	C	2	1	(M) One UP/DOWN electrical control circuit may be inoperative provided remaining UP/DOWN circuit is verified to operate normally once each flight day.
32-1	Main Gear Door Uplock Springs	B	4	3	(M)(O) One spring on one door uplock mechanism may be missing provided speed does not exceed 270 KIAS/0.82 Mach.
35-1	Landing Gear Alternate Extend System (-400ER)	C	1	0	(M)(O) May be inoperative provided: a) Landing gear are secured in down position, b) Alternate extend system is deactivated, and c) Airplane is dispatched in accordance with appropriate AFM Landing Gear Extended Appendix.
	1) Alternate Extend Hydraulic Pressure Switch	B	1	0	(M)(O) May be inoperative open provided: a) Landing gear doors are verified to open using alternate extend system, and b) Alternate procedures are established and used.
35-2	Ground Door Release Control System (-400ER)	C	1	0	(M) May be inoperative provided: a) Both door open control switches are verified to be open, b) Landing gear doors are verified to open using alternate extend system, and c) Landing gear doors are closed before each departure.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
32 LANDING GEAR				
35-2 Ground Door Release Control System (-400ER) (Cont'd)				
1) Door Open Control Switches	C	2	0	(M)(O) May be inoperative closed provided: a) Landing gear are secured in down position, b) Alternate extend system is deactivated, and c) Airplane is dispatched in accordance with appropriate AFM Landing Gear Extended Appendix.
41-1 Wheel Brakes	C	8	7	(M)(O) One brake may be deactivated with a deactivation tool provided: a) Performance complies with AFM for one brake deactivated, and b) Antiskid operates normally on remaining wheels.
	C	8	7	(M)(O) One brake may be deactivated by capping off brake line provided: a) Takeoff performance is based on Landing Gear Extended, b) Takeoff and landing performance complies with AFM for one brake inoperative, c) After takeoff, gear remains extended for two minutes prior to retraction, and d) Antiskid operates normally on remaining wheels.
41-2 BRAKE SOURCE Indication System	C	1	0	(M)(O) May be inoperative provided associated EICAS Advisory message is verified to operate normally.
	B	1	0	(M) May be inoperative provided: a) C and R hydraulic low SYS PRESS lights operate normally, and b) Normal and alternate brake systems and brake accumulator are verified to operate normally.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
32 LANDING GEAR					
41-3	Gear Retraction Braking System	C	1	0	(O) May be inoperative provided: a) After takeoff, gear remains down for two minutes before retraction, and b) Takeoff performance is based on Landing Gear Extended.
42-1	Antiskid System	C	1	0	(O) May be inoperative provided: a) AFM decrements are applied for antiskid inoperative operations, and b) Approach minimums do not require its use.
	1) Channels	C	8	7	(M)(O) One channel and associated brake may be inoperative (brake deactivated or line capped) provided: a) Brake is deactivated by an acceptable procedure, and b) AFM decrements are applied for selected procedure.
42-2	Alternate Antiskid Valves	C	4	0	(M)(O) May be inoperative provided: a) Manual braking capability on alternate brake system is verified on associated wheels, and b) Normal antiskid system operates normally.
		C	4	0	(M)(O) May be inoperative provided: a) Manual braking capability on alternate brake system is verified on associated wheels, and b) AFM decrements are applied for antiskid inoperative operations.
42-3	ANTISKID Light	C	1	0	(M) May be inoperative provided antiskid system is verified to operate normally.
		C	1	0	(O) May be inoperative provided AFM decrements are applied for antiskid inoperative operations.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
32 LANDING GEAR				
42-4 Autobrake System				
1) -200/-300	C	1	0	May be inoperative provided: a) AUTO BRAKES light is not illuminated with autobrake switch OFF, and b) Approach minimums do not require its use.
	C	1	0	(M) May be inoperative with AUTO BRAKES light illuminated and autobrake switch OFF provided: a) Autobrake solenoid valve is verified closed, and b) Approach minimums do not require its use.
	C	1	0	(M) May be inoperative with AUTO BRAKES light illuminated and autobrake switch OFF provided: a) Module is deactivated, and b) Approach minimums do not require its use.
2) -400ER	C	1	0	May be inoperative provided: a) AUTOBRAKES EICAS message is not annunciated with autobrake switch OFF, and b) Approach minimums do not require its use.
	C	1	0	(M) May be inoperative with AUTOBRAKES EICAS message annunciated and autobrake switch OFF provided: a) Autobrake solenoid valve is verified closed, and b) Approach minimums do not require its use.
	C	1	0	(M) May be inoperative with AUTOBRAKES EICAS message annunciated and autobrake switch OFF provided: a) Module is deactivated, and b) Approach minimums do not require its use.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
32 LANDING GEAR					
42-5 ***	Taxi Speed Indication	D	1	0	
44-2	Parking Brake Valve	C	1	0	(M)(O) May be inoperative closed provided AFM performance decrements are applied for antiskid inoperative operations.
44-3	Parking Brake Lights				
	1) PARK BRAKE Light (-200/-300)	C	1	0	(M) May be inoperative provided: a) Parking brake valve operates normally, and b) Antiskid light is verified to operate normally once each flight day.
		C	1	0	(O) May be inoperative provided AFM performance decrements are applied for antiskid inoperative operations.
		C	1	0	(O) May be inoperative provided EICAS Advisory message PARKING BRAKE is verified to operate normally.
***	2) Nose Gear Parking Brake Status Indicator Lights (PARKING BRAKE SET, BRAKE ON, BRAKE OFF)	C	-	0	(M)(O) May be inoperative provided alternate procedures are established and used.
		D	-	0	May be inoperative provided procedures do not require its use.
44-4	Brake Accumulator Pressure Gauge (Wheel Well)	C	1	0	May be inoperative provided associated flight deck indication operates normally.
44-5	BRAKE PRESS Gauge (Flight Deck)	C	1	0	(M) May be inoperative provided: a) Brake accumulator charge is verified normal once each flight day, and b) Right low SYS PRESS light operates normally.
45-1 ***	Integral Tire Pressure Indicators	D	-	0	

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
32 LANDING GEAR					
45-2	Nose Wheel Spin Brakes (Snubbers)	C	2	0	(M) May be damaged or missing.
45-3 ***	Tire Pressure Indicating System (TPIS)	D	1	0	
46-1 ***	Brake Temperature Monitoring System (BTMS)	D	1	0	NOTE: Brake cooling fans will be inoperative when all eight brake temperature readings are inoperative.
46-2 ***	Brake Cooling Fans				
	1) -200/-300	D	8	0	(O) May be inoperative provided AFM Maximum Quick Turnaround Weight Penalty is observed.
	2) -400ER	D	8	0	(M) May be inoperative provided associated fan shrouds are removed.
51-1	Rudder Pedal Nose Wheel Steering	B	1	0	(M)(O) May be inoperative provided: a) Approach minimums do not require its use, and b) All takeoffs and landings are made by a pilot with access to an operating tiller.
61-1	Landing Gear DOORS Light System (-200/-300)	C	1	0	(M) May be inoperative provided EICAS Advisory message GEAR DOORS is verified to operate normally.
61-2	Landing Gear Door Latch Proximity Sensor				
	1) System One	C	4	3	(M)(O) One may be inoperative provided: a) Appropriate performance adjustments are applied, and b) Remaining System One and all System Two sensors are verified to operate normally before each departure.

(Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
32 LANDING GEAR					
61-2	Landing Gear Door Latch Proximity Sensor (Cont'd)				
	2) System Two (Passenger, -200PC, -200SF and -300BDSF)	C	4	3	(M)(O) One may be inoperative provided: a) Manual function of Passenger Notice System operates normally and procedures for its use are established and used, and b) All System One and remaining System Two sensors are verified to operate normally before each departure. NOTE: An inoperative System Two sensor will render Flight Deck Automatic Function of Passenger Notice System inoperative.
	3) System Two (ATC A1NM -200 SF, -300BCF, -300F)	C	4	3	(M) One may be inoperative provided all System One and remaining System Two sensors are verified to operate normally before each departure.
71-1	Tail Skid (-300/ -400ER)	C	1	0	(M)(O) May be inoperative provided: a) Tail skid is secured in extended position, b) Water supplies associated with aft drain mast are secured OFF, and c) Appropriate performance adjustments are applied.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
32 LANDING GEAR					
71-2	Tail Skid Indication System (-300/ -400ER)	C	1	0	May be inoperative provided tail skid retraction mechanism is inoperative.
		C	1	0	(M) May be inoperative provided tail skid extend/retract function is verified to operate normally once each flight day.
		C	1	0	(M)(O) May be inoperative provided: a) Tail skid is secured in extended position, b) Water supplies associated with aft drain mast are secured OFF, and c) Appropriate performance adjustments are applied.
	1) TAIL SKID Light (-300)	C	1	0	May be inoperative provided alternate indication operates normally.
	2) Proximity Switch System	C	1	0	(M) May be inoperative provided tail skid extend/retract function is verified to operate normally once each flight day.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS					
11-1	Flight Compartment and Instrument Lighting System	C	-	-	Individual lights may be inoperative provided remaining lighting system lights are: a) Not on emergency bus, b) Sufficient to clearly illuminate all required instruments, controls, and other devices for which it is provided, c) Positioned so direct rays are shielded from flight crewmembers' eyes, and d) Lighting configuration and intensity is acceptable to flight crew. NOTE 1: Individual button/switch lights and/or annunciations/indications are excluded from this relief. NOTE 2: Unaided operation without night vision gear (NVG) may be permitted with inoperative NVG supplemental lights or cracked or missing filters.
	1) Crew Entry Light (ATC A1NM -200SF, -300BCF, -300F)	C	1	0	
14-1	Supernumerary Reading Lights	D	-	0	
16-1	Master Dim and Test System				
	1) Test Function	C	1	0	(M) May be inoperative provided intended function of associated light(s) is verified.
	2) Dim Function	C	1	0	May be inoperative provided: a) BRT functions operate normally, and b) Light intensity is acceptable to flight crew for type and duration of operations.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS					
20-1	Crew Rest Area Illumination System (STCs ST00973WI-D and ST02372AT)	C	-	-	May be inoperative provided remaining operative lighting is considered adequate by pilot in command.
	1) Flashlight/ Holder Assemblies	C	-	0	May be inoperative or missing provided crewmember in associated bunk has a flashlight of equivalent characteristics readily available.
20-2 ***	Lower Lobe Crew Rest Illumination System				
	1) STC ST01994SE				
	a) Main Light	C	1	0	May be inoperative provided seat reading light operates normally.
	b) Vestibule Light	C	1	0	May be inoperative provided main light operates normally.
	c) Bunk Lights	C	5	-	May be inoperative provided associated bunk reading light operates normally.
	d) Flashlight Holder/ Assembly	C	1	0	May be inoperative or missing provided crewmember in associated bunk has a flashlight of equivalent characteristics readily available.
	2) STC ST02137SE				
	a) Main Lights	C	3	2	One may be inoperative.
	b) Ladder Lights	C	4	2	Up to two lights may be inoperative provided they are not adjacent to each other.
	c) Bunk Lights	C	2	0	May be inoperative provided associated bunk reading light operates normally.
	d) Flashlight Holder/ Assembly	C	1	0	May be inoperative or missing provided crewmember in associated bunk has a flashlight of equivalent characteristics readily available.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS					
21-1	Cabin Interior Illumination System				
	1) Passenger Configurations with Incandescent Emergency Escape Path Marking System	C	-	-	Individual lights may be inoperative provided: a) Remaining lighting is sufficient for cabin attendants to perform their duties, and b) For night ER operations, at least 75% of Night Lights must operate.
	2) Passenger Configurations with Photo-luminescent Emergency Escape Path Marking System	C	-	-	Individual lights may be inoperative provided: a) Remaining lighting is sufficient for cabin attendants to perform their duties, b) Minimum acceptable light levels specified in one of the following documents are maintained: 1) FAA engineering approval letter, 2) FAA approved report of Type Design holder, 3) Limitations and Conditions section of applicable Supplemental Type Certificate (STC), or 4) An FAA approved report incorporated in Master Drawing List for applicable STC, c) For night ER operations, at least 75% of Night Lights must operate.
22-10	Door Threshold Light (ATC A1NM -200 SF, -300BCF, -300F)	C	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS					
24-1	Passenger Lighted Information Signs System (NO SMOKING/FASTEN SEAT BELT/ RETURN TO SEAT)	C	-	-	(M) May be inoperative provided: a) Associated passenger seat or lavatory is not occupied from which a passenger lighted information sign is not readily legible, and b) Associated seat or lavatory must be blocked and placarded DO NOT OCCUPY. NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.
		C	-	-	(O) May be inoperative and associated passenger seat or lavatory may be occupied provided: a) PA System operates normally, and b) PA system is used to notify passengers and cabin crew when associated sign(s) are placed on or off.
	1) All Cargo, Supernumerary/ Courier Area Lighted Information Signs	C	-	-	(O) May be inoperative provided alternate procedures are established and used to notify couriers/ supernumeraries when associated sign(s) are placed on or off.
	2) Aural Tone System	C	1	0	
	3) Flight Deck Automatic Function	C	-	0	(O) May be inoperative provided: a) Manual control function operates normally, and b) Alternate procedures are established and used.
24-2 ***	Lower Lobe Crew Rest No Smoking/Fasten Seat Belt Signs (STCs ST01994SE and ST02137SE)	C	-	0	May be inoperative provided affected seat or bunk is placarded INOPERATIVE - DO NOT USE.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS					
25-1 ***	Sterile Flight Compartment Light System	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
31-1	Wheel Well Lights	C	6	0	
31-2 ***	Exterior Cargo Loading Area Lights	D	-	0	
31-3	Service Lights	C	8	0	
31-4	Electrical Equipment Center Lights	C	9	0	
37-1	Cargo Compartment Lights				
	1) Cockpit Entry Light (-200PC)	C	1	0	
	2) Cabin Entry Light (-200PC, -200SF)	C	-	0	
	3) Main Deck Cargo Lights	C	-	0	May be inoperative provided access to main cargo deck is prohibited in flight. NOTE: Main Cargo Deck is defined as area aft of rigid barrier or 9g net, as installed.
		C	-	-	(O) May be inoperative provided: a) No two adjacent lights are inoperative, and b) Remaining illumination is adequate to perform required crew duties.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS					
37-1	Cargo Compartment Lights (Cont'd)				
	3) Main Deck Cargo Lights (Cont'd)	C	-	0	May be inoperative for hazardous materials designated CARGO AIRCRAFT ONLY provided Main Deck Cargo Compartment lights one position aft of hazardous material pallet/container position and forward to flight deck operate normally.
	4) Sill Lights	C	-	0	
	5) Lower Cargo Compartments	C	-	0	(O) May be inoperative provided procedures do not require their use.
	6) Light Lens	C	-	0	(M) May be broken/missing provided associated light is deactivated.
37-2	Main Cargo Deck Crew Alerting System	C	1	0	May be inoperative provided access to main cargo compartment is prohibited in flight.
		C	1	0	(O) May be inoperative provided alternate procedures are established and used.
41-1	Wing Illumination Lights	C	-	0	(O) May be inoperative provided ground de-icing procedures do not require their use.
42-1	Landing Lights	C	4	2	One nose gear and/or one wing mounted light may be inoperative.
		C	4	0	May be inoperative for day operations.
42-2 ***	Taxi Lights	C	-	0	
42-3	Runway Turnoff Lights	C	2	0	

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS					
43-1	Position Lights (Bulbs)				
	1) -200/-300	C	8	4	One stationary light on forward and aft tip of each wing may be inoperative.
		C	8	0	May be inoperative for day operations.
	2) -300/-300F With Blended Winglets STC ST01920SE (LED Lights)				
	a) Forward Position Lights Module	C	4	2	One stationary forward position light LED module on leading edge of each winglet may be inoperative.
		C	4	0	May be inoperative for day operations.
	b) Aft Position Lights Module	C	2	0	May be inoperative for day operations.
	3) -400ER	B	-	0	May be inoperative for day operations provided wing tip and tail cone white strobe lights operate normally.
		C	-	3	The following may be inoperative provided all strobe lights operate normally: a) One stationary light on forward tip of each wing, and b) One stationary white bulb on tail cone.
43-2	Door Threshold Light (ATC A1NM -200 SF, -300BCF, -300F)				Moved to 33-22-10, MMEL Rev. 34.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS					
44-1	Anti-Collision Lights (Red Strobes/White Strobes)				
	1) -200/-300	C	4	0	May be inoperative for day operations.
		C	4	2	Upper and lower red fuselage strobe lights may be inoperative provided wing tip white strobe lights operate normally.
		C	4	2	Wing tip white strobe lights may be inoperative provided upper and lower red fuselage strobe lights operate normally.
	2) -400ER	B	5	0	May be inoperative for day operations provided all position lights operate normally.
		C	5	3	Upper and lower red fuselage strobe lights may be inoperative provided wing tip and tail cone white strobe lights, and all position lights (bulbs) operate normally.
		C	5	2	Wing tip and tail cone white strobe lights may be inoperative provided upper and lower red fuselage lights, and all position lights (bulbs) operate normally.
45-1 ***	Logo Lights	D	-	0	
51-1	Interior Emergency Lighting System (Battery Powered)	C	-	-	Light assemblies installed in ceiling above each main aisle may be inoperative provided no two adjacent (same aisle) light assemblies are inoperative.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS					
51-1	Interior Emergency Lighting System (Battery Powered) (Cont'd)	A	-	-	Lights/signs exclusively associated with one door, slide or emergency exit may be inoperative provided: a) Associated door, slide or emergency exit is considered inoperative, and b) Repairs are made within one flight day.
***	1) Lower Lobe Crew Rest Emergency Lights (STCs ST01994SE and ST02137SE)	C	-	0	(M) May be inoperative provided: a) Lower lobe crew rest module is not used and personal items are removed, and b) Lower lobe crew rest door is closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest inspections by crewmembers.
51-2	Exterior Emergency Lighting System (Battery Powered)	B	1	0	May be inoperative for day operations.
51-3	Emergency Escape Path Marking System	A	-	-	Lights/signs exclusively associated with one door, slide or emergency exit may be inoperative provided: a) Associated door, slide or emergency exit is considered inoperative, and b) Repairs are made within one flight day.
	1) Incandescent Lighting System	C	-	-	Individual lights may be inoperative provided minimum acceptable lighting levels specified in one of the following documents are maintained: a) FAA engineering approval letter, b) FAA approved report of Type Design holder, c) Limitations and Conditions section of applicable Supplemental Type Certificate (STC), or d) An FAA approved report incorporated in Master Drawing List for applicable STC. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
33 LIGHTS				
51-3 Emergency Escape Path Marking System (Cont'd)				
2) Photo-luminescent Lighting System	C	-	-	Components may be inoperative provided minimum acceptable lighting levels specified in one of the following documents are maintained: a) FAA engineering approval letter, b) FAA approved report of Type Design holder, c) Limitations and Conditions section of applicable Supplemental Type Certificate (STC), or d) An FAA approved report incorporated in Master Drawing List for applicable STC.
51-4 PowerSmart Wireless Emergency Primary Power System (WEPPS) Diagnostic Panel (STC ST03629AT)	A	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used to ensure 10 minutes of ON time does not occur, b) Affected emergency lights are verified to operate normally prior to first flight of each day, and c) Repairs are made within 10 flight days.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
00-1	Instrument Source Select Switches				
	1) -200/-300	C	-	-	(O) Except for ER operations, may be inoperative provided: a) Associated instruments operate from isolated sources, b) Inoperative switches are not moved in flight.
		C	-	-	(O) May be inoperative provided: a) Associated instruments operate from isolated sources, b) Inoperative switches are not moved in flight, and c) At least one FMC, EFI, and IRS switch must operate normally.
	2) -400ER	C	-	-	Except for ER operations, may be inoperative provided: a) Associated instruments operate from isolated sources, b) Inoperative switches are not moved in flight.
		C	-	-	(O) May be inoperative provided: a) Associated instruments operate from isolated sources, b) Inoperative switches are not moved in flight, and c) At least one FMC and IRS switch must operate normally.
	3) Flat Panel Display STC ST02165NY	C	-	-	(O) May be inoperative provided: a) Associated instruments operate from isolated sources, b) Inoperative switches are not moved in flight, and c) For ER operations, at least one FMC, EFI, IRS and DCP switch must operate normally.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
13-1 ***	MACH/Airspeed Indicators				
	1) Mach Indicators	C	2	1	
		C	2	0	May be inoperative provided EFIS Mach indications are installed and operating normally at respective pilot's station.
		C	2	0	May be inoperative provided: a) Airplane remains at or below FL 300, and b) A placard with this limitation is affixed to instrument panel.
	2) Command Airspeed Cursors	C	2	0	
	3) Airspeed Indicators	C	2	0	May be inoperative provided EFIS airspeed indications are installed and operating normally at respective pilot's station.
	4) External Airspeed Markers (Bugs)	C	-	0	(O) May be inoperative or missing provided alternate procedures are established and used.
13-2	Mach/Airspeed Warning Systems (Visual and Aural)	B	2	1	
13-6	Standby Altimeter Vibrator	C	1	0	May be inoperative provided VMC exists at departure and arrival airports.
13-7	Total Air Temperature (TAT) Indication	C	1	0	(O) May be inoperative provided one other temperature indication (RAT or SAT) is available.
13-8 ***	Static Air Temperature (SAT) Indicator (Center Panel)	D	1	0	
13-9 ***	True Airspeed (TAS) Indicator (Center Panel)	D	1	0	
13-10 ***	Speed Command (Fast-Slow) Indicators	C	2	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
16-1	Altitude Alerting System	A	1	0	(O) May be inoperative provided: a) Autopilot with altitude hold operates normally, b) Enroute operations do not require its use, c) Repairs are made within three flight cycles, and d) Airplane does not depart from an airport where repair or replacement can be made.
		C	1	0	May be inoperative provided it is not required by 14 CFR.
21-1	Inertial Reference Systems (IRS)				
	1) IRU (-200/-300)				
	a) Without Hydraulic Motor (HMG) Installed	C	3	2	(M)(O) Left may be inoperative provided: a) Approach minimums do not require its use, and b) Center is selected and isolation is verified once each flight day.
		C	3	2	(M)(O) Right may be inoperative for day VMC flight provided center is selected and isolation is verified once each flight day.
		C	3	2	Center may be inoperative provided approach minimums do not require its use.
	b) With HMG Installed	C	3	2	(M)(O) Except for ER operations, left or right may be inoperative provided: a) Approach minimums do not require its use, b) Center is selected and isolation is verified once each flight day, c) First officer's IRS instrument source select switch operates normally.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
21-1	Inertial Reference Systems (IRS) (Cont'd)				
	1) IRU (-200/-300)				
	b) With HMG Installed (Cont'd)	C	3	2	(M)(O) Right may be inoperative provided: a) Approach minimums do not require its use, b) Center is selected and isolation is verified once each flight day, c) First officer's IRS instrument source select switch operates normally, and d) Left and center operate normally.
		C	3	2	Center may be inoperative for day VMC flight.
	2) ADIRU Inertial Reference Function (-400ER)	C	3	2	(M)(O) Left or right may be inoperative provided: a) Approach minimums do not require its use, and b) Center is selected and isolation is verified once each flight day.
		C	3	2	Center may be inoperative provided approach minimums do not require its use.
***	3) IRS Mode Selector Panel - Display and Keyboard Functions	C	-	0	May be inoperative provided both FMCS CDUs operate normally.
		C	-	0	Except for ER operations, may be inoperative provided one FMCS CDU operates normally.
22-1	ADI				Deleted, MMEL Rev. 7.
22-2	HSI				Deleted, MMEL Rev. 7.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
22-3	Radio Distance Magnetic Indicators (RDMI) (-200/-300)	C	2	1	Right may be inoperative.
		C	2	1	Left may be inoperative provided flight is restricted to day VMC.
		C	2	0	May be inoperative provided standby power system powers Captain's instrument bus.
***	1) Independent ADF Radio Magnetic Indicators (RMI) (-200/-300)	C	2	0	May be inoperative provided associated EHSI ADF bearing pointer operates normally.
		C	2	0	May be inoperative provided associated radio compass ADF system is considered inoperative.
22-4	Flight Director Systems	C	3	0	May be inoperative provided approach minimums do not require their use.
	1) Displays	C	2	0	May be inoperative provided approach minimums do not require their use. NOTE: Windshear guidance may be unavailable.
22-5	Electronic Flight Instrument (EFIS) Symbol Generators (-200/ -300)	C	3	2	(M) Except for ER operations, one may be inoperative provided symbol generator isolation is verified once each flight day.
		C	3	2	(M) Left or right may be inoperative provided symbol generator isolation is verified once each flight day.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
22-6	EFIS Controls				
***	1) Switches (NAV AID/ARPT/ RTE DATA/WPT/ WXR/TERR) (-200/-300)	C	-	-	One switch for each function may be inoperative provided procedures do not require its use.
	2) Switches (WXR/STA/WPT/ ARPT/DATA/POS/ TERR) (-400ER)	C	14	0	
	3) Switches (NAV AID/ARPT/RTE DATA/WPT/WXR/ TER) (Flat Panel Display STC ST02165NY)	C	10	5	One switch for each function may be inoperative provided procedures do not require its use.
	4) Decision Height Indication (DH REF) (Airplanes without PFD)	C	2	0	May be inoperative provided approach procedures do not require its use. NOTE: Flight crew use EADI DH indication.
	a) Without Radio Altitude Indicators (Tape) Installed	C	2	0	May be inoperative. NOTE: Flight crew use EADI DH indication.
***	b) With Radio Altitude Indicators (Tape) Installed	C	2	0	May be inoperative provided Radio Altitude Indicators (Tape) are installed and operate normally. NOTE: Flight crew use EADI DH indication. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
22-6	EFIS Controls (Cont'd)				
	5) HSI Selector				
	a) MAP Position	B	2	1	(O) May be inoperative provided: a) Both FMCs operate normally, and b) Alternate procedures are established and used.
	b) PLAN Position	B	2	1	(O) May be inoperative provided: a) Both FMCs operate normally, and b) Alternate procedures are established and used.
	6) HSI Range Selector	C	2	1	May be inoperative provided both FMCs operate normally.
22-7 ***	EFIS Speed Tape (-200/-300)				
	1) Mach Indications	C	2	1	
		C	2	0	May be inoperative provided MACH indicators are installed and operating normally at respective pilot's station.
		C	2	0	May be inoperative provided: a) Airplane remains at or below FL 300, and b) A placard with this limitation is affixed to instrument panel.
	2) Airspeed Indications	C	2	0	May be inoperative provided airspeed indicators are installed and operating normally at respective pilot's station.
22-8	Pitch Limit Indicators	C	2	0	
22-30	Heading Reference (HDG REF) Switch				
	1) TRUE function	C	1	0	(O) May be inoperative provided enroute procedures do not require its use.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
23-1	Magnetic Compass (Standby)	B	1	0	(O) May be inoperative provided any combination of three gyro or INS (IRS) stabilized compass systems operate normally.
		B	1	0	(O) May be inoperative provided: a) Any combination of two gyro or INS (IRS) stabilized compass systems operate normally, and b) Airplane is operated with dual independent navigation capability and under positive radar control by ATC on enroute portion of flight.
		C	1	0	(O) May be inoperative for flights that are entirely within areas of magnetic unreliability provided at least two stabilized directional gyro systems are installed, operative, and used in conjunction with approved free gyro navigation techniques.
24-1	Standby Attitude/ILS Indicator				
	1) Attitude Display	B	1	0	May be inoperative provided: a) Operations are conducted in day VMC only, and b) Operations are not conducted into known or forecast over-the-top conditions.
	2) Approach Mode	C	1	0	
24-2 ***	Integrated Standby Flight Display (ISFD) System				
	1) Attitude Display	B	1	0	May be inoperative provided: a) Operations are conducted in day VMC only, and b) Operations are not conducted into known or forecast over-the-top conditions.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
24-2 ***	Integrated Standby Flight Display (ISFD) System (Cont'd)				
	2) Approach Mode	C	1	0	
	3) Heading Display	C	1	0	
	4) Metric Altimeter Display	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	5) Dedicated Battery/ Charger System	C	1	0	Except for ER operations beyond 120 minutes, may be inoperative.
24-3 ***	Electronic/ Integrated Standby Instrument System (ESIS/ ISIS) (STC ST02165NY)				
	1) Attitude Display	B	1	0	May be inoperative provided: a) Operations are conducted in day VMC only, and b) Operations are not conducted into known or forecast over-the-top conditions.
***	2) Approach Mode	C	1	0	
	3) Heading Display	C	1	0	
25-1 ***	Instrument Comparator Unit	D	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION				
26-1	Air Data Systems (-400ER)			
	1) Left and Right Air Data System	C	2	1	(M)(O) One may be inoperative provided: a) Center Air Data is selected and operates normally, b) Center ADIRU Inertial Reference Function is not selected OFF, and c) Air data isolation is verified.
	2) Center Air Data System	D	1	0	
30-1	Taxi Speed Indication				Moved to 32-42-5, MMEL Rev. 9.
31-1	ILS Systems	C	3	-	Any in excess of those required by 14 CFR, and not powered by a Standby Bus, may be inoperative.
32-1	Marker Beacon System	C	1	0	May be inoperative provided approach minimums do not require its use.
33-1	Radio Altimeter (RA) Systems (EADI)				
	1) Single Source Datalink to GPWS				
	a) Left RA	A	1	0	(O) May be inoperative provided: a) Approach minimums or operating procedures do not require its use, and b) Repairs are made within 2 flight days.
	b) Center/Right RA	C	2	0	(O) May be inoperative provided approach minimums or operating procedures do not require its use.
	2) Multi-source Datalink to GPWS	C	3	1	(O) May be inoperative provided: a) GPWS is supplied with altitude data, and b) Approach minimums or operating procedures do not require its use.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
33-1	Radio Altimeter (RA) Systems (EADI)				
	2) Multi-source Datalink to GPWS (Cont'd)				
		A	3	0	(O) May be inoperative provided: a) Approach minimums or operating procedures do not require its use, and b) Repairs are made within 2 flight days.
33-2 ***	Radio Altitude Indicators (Altitude Tape)	D	2	0	(O) May be inoperative provided approach minimums or operating procedures do not require their use.
35-1 ***	Para Visual Displays	D	2	0	May be inoperative provided procedures do not require their use.
40-1 ***	Metric Altimeter (Includes IS&S 9D-80110-24 Metric/ English Altimeter)	D	-	0	May be inoperative provided operations do not require its use.
43-1	Weather Radar Systems				
	1) With Windshear Alert Mode (Predictive) Installed	B	-	0	(O) May be inoperative provided: a) Weather radar is not required by 14 CFR, and b) Alternate procedures are established and used. NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.
		C	-	0	(O) May be inoperative provided: a) Weather radar is not required by 14 CFR, b) Alternate procedures are established and used, and c) Windshear Warning and Guidance System (Reactive) operates normally. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
43-1	Weather Radar Systems (Cont'd)				
	1) With Windshear Alert Mode (Predictive) Installed (Cont'd)	D	2	1	
	2) Without Windshear Alert Mode (Predictive) Installed	C	-	0	May be inoperative provided weather radar is not required by 14 CFR.
		D	2	1	
***	3) Indicators	D	-	-	Any in excess of those required by 14 CFR may be inoperative.
***	4) Autotilt/Multiscan Function	C	1	0	May be inoperative provided manual tilt function operates normally.
***	5) WXR ON Light	D	2	0	(O) May be inoperative provided alternate procedures are established and used.
***	6) GAIN UCAL Light	D	-	-	
***	7) Windshear Alert Mode (Predictive)	B	-	0	(O) May be inoperative provided alternate procedures are established and used. NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.
		C	-	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Windshear Warning and Guidance System (Reactive) operates normally.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
46-1	Ground Proximity Warning System (GPWS)	A	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within 2 flight days.
	1) Modes 1 thru 4	A	4	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within 2 flight days.
	2) Test Mode	A	1	0	May be inoperative provided: a) GPWS is considered inoperative, and b) Repairs are made within 2 flight days.
	3) Glideslope Deviation (Mode 5)	B	1	0	
	4) Advisory Callouts (Mode 6)	B	-	0	(O) May be inoperative provided alternate procedures are established and used.
		C	-	0	(O) May be inoperative provided: a) Advisory callout not required by 14 CFR, and b) Alternate procedures are established and used.
***	5) Windshear Alert Mode (Reactive) (Mode 7)	B	1	0	(O) May be inoperative provided alternate procedures are established and used. NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.
		C	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Windshear Detection and Avoidance System (Predictive) operates normally.
***	6) Terrain Awareness Function	B	1	0	(O) May be inoperative provided alternate procedures are established and used. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
46-1	Ground Proximity Warning System (GPWS) (Cont'd)				
	7) Terrain Displays	C	-	1	
		B	-	0	
***	8) Runway Awareness & Advisory System (RAAS)	C	1	0	
46-2	Windshear Warning and Flight Guidance System				Moved to 34-46-1, MMEL Rev. 25.
51-1	VOR Navigation Systems	C	2	-	Any in excess of those required by 14 CFR, and not powered by a Standby Bus, may be inoperative.
53-1	ATC Transponders and Automatic Altitude Reporting Systems	B	-	0	May be inoperative provided: a) Operations do not require its use, and b) Prior to flight, approval is obtained from ATC facilities having jurisdiction over planned route of flight.
		D	-	1	Any in excess of those required by 14 CFR may be inoperative.
	1) Elementary and Enhanced Downlink Aircraft Reportable Parameters not Required by 14 CFR	A	-	0	May be inoperative provided: a) Operations do not require its use, and b) Repairs are made prior to completion of next heavy maintenance visit.
***	2) ADS-B Extended Squitter Transmissions	A	-	0	May be inoperative provided: a) Operations do not require its use, and b) Repairs are made prior to completion of next heavy maintenance visit.
55-1	Distance Measuring Equipment Systems	C	2	-	Any in excess of those required by 14 CFR may be inoperative.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
57-1	Radio Compass (ADF) Systems	D	-	-	Any in excess of those required by 14 CFR may be inoperative.
58-1 ***	Automatic Dependent Surveillance-Broadcast (ADS-B) System	D	-	0	May be inoperative provided it is not required by 14 CFR. NOTE: If ADS-B is installed in lieu of or as a replacement for 14 CFR required equipment, repair category in operator's MEL will be the same as that of 14 CFR required equipment.
	1) Link and Display Processor Unit (LDPU)	D	-	0	
	2) Cockpit Display and Traffic Information (CDTI)	D	-	0	NOTE: Cockpit Display Traffic Information (CDTI) display of data from other aircraft systems may be used.
	3) CDTI Control Panel	D	-	0	May be inoperative provided: a) Flight ID can be set, and b) Screen display is acceptable to flight crew.
	4) Data Link Transmitter(s)	D	-	0	NOTE: In some aircraft the Data Link Transmission is an integral part of the transponder and relief is provided in that section.
	5) Data Link Receiver(s)	D	-	0	
	6) ADS-B Applications	D	-	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
58-2 ***	ACSS Surveillance Processor (STC ST02126LA)	B	1	0	(M) May be inoperative provided: a) Automatic Dependent Surveillance-Broadcast (ADS-B) is considered inoperative, and b) TCAS is considered inoperative.
***	1) Automatic Dependent Surveillance-Broadcast (ADS-B) Functionality	D	1	0	May be inoperative provided: a) It is not required by 14 CFR, b) Procedures do not require its use, and c) Merging & Spacing and CAVS operations are prohibited. NOTE: If ADS-B is installed in lieu of or as a replacement for 14 CFR required equipment, repair category in operator's MEL will be the same as that of 14 CFR required equipment.
	a) Cockpit Display of Traffic Information (CDTI) Functionality	D	1	0	May be inoperative provided: a) Procedures do not require its use, and b) Merging & Spacing and CAVS operations are prohibited. NOTE: ADS-B data transmissions may continue.
	b) ADS-B Guidance Display (AGD)	D	1	0	May be inoperative provided: a) Procedures do not require its use, and b) Merging & Spacing and CAVS operations are prohibited.
60-3 ***	Global Positioning Systems (GPS)	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
		D	-	0	May be inoperative provided procedures do not require its use.
	1) ACSS Surveillance Processor (STC ST02126LA)	D	2	0	May be inoperative provided: a) Procedures do not require its use, and b) Merging & Spacing and CAVS operations are prohibited.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
61-1	Flight Management Computer Systems (FMCS)				
	1) FMC (Including CDU/HMCDU/ MCDU) (-200/-300)	C	2	1	(M)(O) Except for ER operations, one may be inoperative provided enroute operations do not require its use.
		C	2	0	(M)(O) Except for ER operations, may be inoperative provided: a) Both Fuel Quantity Indicating System (FQIS) processor channels are verified to operate normally, b) All flight deck fuel quantity indications operate normally, and c) Enroute operations do not require its use.
		C	2	1	(M)(O) For long-range navigation operation, one FMC may be inoperative provided other approved means of navigation is available. NOTE: An associated HMCDU or MCDU, if operative, may be used to meet navigation requirements.
	2) FMC (-400ER)	C	2	1	(M)(O) One may be inoperative provided enroute operations do not require its use.
	3) Center MCDU (-400ER)	C	1	0	
	4) Navigation Databases	C	-	-	(O) May be out of currency provided: a) Current aeronautical charts are used to verify navigation fixes prior to dispatch, b) Procedures are established and used to verify status and suitability of navigation facilities used to define route of flight, and c) Approach navigation radios are manually tuned and identified. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
61-1	Flight Management Computer Systems (FMCS) (Cont'd)				
	5) FMC Annunciator Light (-200/-300)	C	1	0	(M) May be inoperative provided CDU MSG light and EICAS Advisory message FMC MESSAGE are verified to operate normally.
61-2	Traffic Alert Collision Avoidance System (TCAS II)	B	-	0	(M) May be inoperative provided: a) System is deactivated and secured, and b) Enroute or approach procedures do not require its use.
		C	-	0	(M)(O) May be inoperative provided: a) Not required by 14 CFR, b) System is deactivated and secured, and c) Enroute or approach procedures do not require its use.
***	1) Combined Traffic Alert (TA) and Resolution Advisory (RA) Dual Display System(s)	C	2	1	May be inoperative on non-flying pilot side provided: a) TA and RA visual display operates normally on flying pilot side, and b) TA and RA audio function operates normally on flying pilot side.
	2) Resolution Advisory (RA) Display System(s)	C	2	1	May be inoperative on non-flying pilot side.
		C	-	0	(O) May be inoperative provided: a) Traffic Alert (TA) visual display and audio functions operate normally, b) TA only mode is selected by crew, and c) Enroute or approach procedures do not require its use.
	3) Traffic Alert (TA) Display System(s)	C	-	0	(O) May be inoperative provided: a) RA visual display and audio functions operate normally, and b) Enroute or approach procedures do not require its use.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
34 NAVIGATION					
61-2	Traffic Alert Collision Avoidance System (TCAS II) (Cont'd)				
	4) Audio Functions	B	1	0	May be inoperative provided enroute or approach procedures do not require use of TCAS.
***	5) Airspace Selection Function	C	-	0	
61-3 ***	ACSS Surveillance Processor TCAS II Functionality (STC ST02126LA)	B	-	0	(O) May be inoperative provided: a) Function is secured according to an approved procedure, and b) Enroute or approach procedures do not require its use.
		C	-	0	(O) May be inoperative provided: a) Not required by 14 CFR, b) Function is secured according to an approved procedure, and c) Enroute or approach procedures do not require its use.
	1) Resolution Advisory (RA) Display System(s)	C	2	1	May be inoperative on non-flying pilot side.
		C	2	0	(O) May be inoperative provided: a) Traffic Alert (TA) visual display and audio functions operate normally, b) TA only mode is selected by crew, and c) Enroute or approach procedures do not require its use.
	2) Traffic Alert (TA) Display System	C	1	0	(O) May be inoperative provided: a) RA visual display and audio functions operate normally, and b) Enroute or approach procedures do not require its use.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
35 OXYGEN					
11-2	Crew Oxygen System				
	1) Pressure Indication (EICAS)	B	1	0	(M) May be inoperative provided oxygen supply is verified to be above minimum required before each departure.
	2) Bottle Gage (One Bottle System)	C	1	0	May be inoperative provided pressure indication (EICAS) operates normally.
	3) Bottle Gage (Two Bottle System)	C	2	0	(M) May be inoperative provided pressure indication (EICAS) operates normally.
	4) Supernumerary Oxygen Masks	C	-	0	May be inoperative provided associated seat is not occupied.
		C	-	0	May be inoperative provided flight is not conducted above 10,000 feet MSL.
	5) Pressure Regulator (Two Bottle Systems)	C	2	1	(M) One may be inoperative provided: a) Line to inoperative pressure regulator is disconnected and plugged, b) Bottle gage on remaining bottle operates normally, and c) Oxygen supply is verified to be above minimum required before each departure.
	6) Oxygen Thermal Relief Indicator	C	1	0	(O) May be damaged or missing.
	7) Crew Bottle Pressure Regulator (-200SF and -300BDSF)	C	1	0	(M) May be inoperative provided: a) One way interconnect line from supernumerary system is installed and operates normally, b) Pressure regulator on supernumerary bottle operates normally. c) Line to inoperative pressure regulator is disconnected and plugged, d) Bottle gage on supernumerary bottle operates normally, e) Oxygen supply is verified to be above minimum required before each departure, and f) All supernumerary area seats are not occupied.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
35 OXYGEN					
11-3	Supernumerary Oxygen System (-200SF and -300BDSF)	C	1	0	May be inoperative provided supernumerary seats are not occupied.
	1) Pressure Indication				
	a) EICAS	B	1	0	(M) May be inoperative provided oxygen supply is verified to be above minimum required before each departure.
	b) Bottle Gage	C	1	0	May be inoperative provided EICAS pressure indication operates normally.
	2) Oxygen Masks	C	-	0	May be inoperative provided associated seat is not occupied.
		C	-	0	May be inoperative provided flight is not conducted above 10,000 feet MSL.
	3) Pressure Regulator	C	1	0	May be inoperative provided supernumerary seats are not occupied.
20-1	PBE Smoke Hoods	C	-	-	Any in excess of those required by 14 CFR may be inoperative or missing.
21-1	Passenger Oxygen System	B	1	0	(O) May be inoperative provided: a) Flight is not conducted where minimum enroute altitude is above 14,000 feet MSL, b) Both air conditioning packs operate normally, c) All other components of pressurization system operate normally, d) Airplane remains at or below FL 250, e) Portable oxygen units are provided for 10% of passengers, and f) Passengers are appropriately briefed.
		B	1	0	May be inoperative provided flight is conducted at or below 10,000 feet MSL.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
35 OXYGEN					
21-1	Passenger Oxygen System (Cont'd)				
	1) Passenger Service Units (PSUs)	B	-	-	(M) May be inoperative with no flight altitude restriction provided affected seats are blocked and placarded to prevent occupancy.
	2) Automatic Presentation System	B	1	0	(M) May be inoperative provided: a) Manual deployment system is verified to operate normally, and b) Airplane remains at or below FL 300.
	3) Crew Rest Oxygen Modules (STC ST00973WI-D)	B	5	0	(M) May be inoperative with no flight altitude restriction provided affected bunks are blocked and placarded INOPERATIVE - DO NOT USE.
		B	5	0	(M) May be inoperative provided: a) Portable oxygen bottle and mask are available for associated bunk occupant, b) Crew rest oxygen warning horn system is verified to operate normally, and c) Airplane remains at or below FL 300.
	4) Crew Rest Oxygen Warning Horn Systems (STC ST00973WI-D)	B	2	0	(M) May be inoperative with no flight altitude restriction provided: a) Associated crew rest is not used and personal items are removed, and b) Associated crew rest door is locked and placarded INOPERATIVE - DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest inspections by crewmembers.
	5) Lower Lobe Crew Rest Passenger Service Units (STCs ST01994SE and ST02137SE)	B	-	0	(M) May be inoperative with no flight altitude restriction provided affected seats/bunks are blocked and placarded INOPERATIVE - DO NOT USE. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
35 OXYGEN					
21-1	Passenger Oxygen System (Cont'd)				
	6) Lower Lobe Crew Rest Altitude Alert Horn (STCs ST01994SE and ST02137SE)	B	1	0	(M) May be inoperative with no flight altitude restriction provided: a) Lower lobe crew rest module is not used and personal items are removed, and b) Lower lobe crew rest door is locked and placarded INOPERATIVE - DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest inspections by crewmembers.
31-1	Portable Oxygen Dispensing Units (Bottle and Mask)	D	-	-	(M) Any in excess of those required by 14 CFR may be unserviceable or missing provided: a) Required distribution of serviceable bottles is maintained throughout aircraft, and b) Bottles not properly serviced are replaced, serviced, or removed at next available maintenance facility.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
00-1 Air Supply Control and Test Unit (ASCTU) (-400ER)				
1) Primary (Digital) Control Channels	C	2	1	(M)(O) One may be inoperative deactivated provided: a) Associated ASCTU backup (analog) channel is verified to operate normally, b) Both associated Cabin Temperature Controller channels are verified to operate normally once each flight day, c) Both packs operate normally, d) Remaining (opposite) engine bleed system operates normally, e) Associated HPSOV is verified closed, f) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, g) Hydraulic Motor Generator (HMG) is not required, h) Associated thrust reverser is secured in forward thrust position, i) Associated fan air modulation valve is secured in intermediate position, and j) Appropriate performance adjustments are applied.
	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative deactivated provided: a) Associated ASCTU backup (analog) channel is verified to operate normally, b) Both associated Cabin Temperature Controller channels are verified to operate normally once each flight day, c) Both packs operate normally, d) Remaining (opposite) engine bleed system operates normally, e) Associated HPSOV is verified closed, f) Airplane is not operated in known or forecast icing conditions, g) Hydraulic Motor Generator (HMG) is not required, (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
00-1 Air Supply Control and Test Unit (ASCTU) (-400ER) (Cont'd)				
1) Primary (Digital) Control Channels (Cont'd)				h) Associated thrust reverser is secured in forward thrust position, and i) Appropriate performance adjustments are applied.
2) Backup (Analog) Channels	C	2	1	(M)(O) One may be inoperative deactivated provided: a) Associated ASCTU primary (digital) channel is verified to operate normally, b) Associated CTC operates normally, c) Both packs operate normally, and d) Remaining (opposite) engine bleed system operates normally.
11-1 ENG BLEED Pressure Regulating and Shutoff Valves (PRSOV)				
1) JT9D & CF6-80A/A2	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) PRSOV is secured closed, b) Associated ENG bleed air switch remains OFF, c) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, d) Airplane is not operated in known or forecast icing conditions, e) APU is used as air source for ADP for takeoff, f) Remaining (opposite) engine bleed system operates normally, g) Airplane remains at or below FL 350, and h) Center Hydraulic Motor Generator (HMG) is not required. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-1 ENG BLEED Pressure Regulating and Shutoff Valves (PRSOV) (Cont'd)				
1) JT9D & CF6-80A/A2 (Cont'd)	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) PRSOV is secured closed, b) Associated ENG bleed air switch remains OFF, c) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, d) Airplane is not operated in known or forecast icing conditions, e) ADP inoperative penalties are applied, f) Remaining (opposite) engine bleed system operates normally, g) Airplane remains at or below FL 350, and h) Center Hydraulic Motor Generator (HMG) is not required.
2) CF6-80C2 & PW4000	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) PRSOV is secured closed, b) Associated ENG bleed air switch remains OFF, c) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, d) Airplane is not operated in known or forecast icing conditions, e) APU is used as air source for ADP for takeoff, f) Remaining (opposite) engine bleed system operates normally, g) Airplane remains at or below FL 350, h) Center Hydraulic Motor Generator (HMG) is not required, and (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-1 ENG BLEED Pressure Regulating and Shutoff Valves (PRSOV) (Cont'd)				
2) CF6-80C2 & PW4000 (Cont'd)				i) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open.
	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) PRSOV is secured closed, b) Associated ENG bleed air switch remains OFF, c) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, d) Airplane is not operated in known or forecast icing conditions, e) ADP inoperative penalties are applied, f) Remaining (opposite) engine bleed system operates normally, g) Airplane remains at or below FL 350, h) Center Hydraulic Motor Generator (HMG) is not required, and i) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-1 ENG BLEED Pressure Regulating and Shutoff Valves (PRSOV) (Cont'd)				
3) RB211	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) PRSOV is secured closed, except for engine start, b) Associated ENG bleed air switch remains OFF, c) Start valve on remaining (opposite) engine operates normally, d) Airplane is not operated in known or forecast icing conditions, e) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, f) APU is used as air source for ADP for takeoff, g) Remaining (opposite) engine bleed system operates normally, h) Flight remains at or below FL 350, and i) Center Hydraulic Motor Generator (HMG) is not required.
	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) PRSOV is secured closed, except for engine start, b) Associated ENG bleed air switch remains OFF, c) Start valve on remaining (opposite) engine operates normally, d) Airplane is not operated in known or forecast icing conditions, e) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, f) ADP inoperative penalties are applied, g) Remaining (opposite) engine bleed system operates normally, h) Flight remains at or below FL 350, and i) Center Hydraulic Motor Generator (HMG) is not required.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-2 High Pressure Shutoff Valve (HPSOV) Systems				
1) All Except CF6-80C2	C	2	1	(M)(O) One may be inoperative provided: a) Valve is secured closed, b) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, c) Remaining (opposite) engine bleed system operates normally, and d) Center Hydraulic Motor Generator (HMG) is not required.
2) CF6-80C2	C	2	1	(M)(O) One may be inoperative provided: a) Valve is secured closed, b) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, c) Remaining (opposite) engine bleed system operates normally, d) Center Hydraulic Motor Generator (HMG) is not required, e) Associated thrust reverser is secured in forward thrust position, and f) Appropriate performance adjustments are applied.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS					
11-3	Intermediate Pressure Check Valves (IPCV)				
	1) All Except CF6-80C2	C	2	1	(M)(O) One may be inoperative open provided: a) Associated HPSOV is secured closed, b) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, c) Remaining (opposite) engine bleed system operates normally, and d) Center Hydraulic Motor Generator (HMG) is not required.
	2) CF6-80C2	C	2	1	(M)(O) One may be inoperative open provided: a) Associated HPSOV is secured closed, b) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, c) Remaining (opposite) engine bleed system operates normally, d) Center Hydraulic Motor Generator (HMG) is not required, e) Associated thrust reverser is secured in forward thrust position, and f) Appropriate performance adjustments are applied.
11-4	APU BLEED Valve	C	1	0	(M) May be inoperative provided: a) Valve is closed, and b) Bleed switch remains OFF. NOTE: APU may be used for electrical power.
11-5	APU BLEED Check Valve	C	1	0	May be inoperative provided APU bleed valve remains closed, except for engine start.
11-6	L and R Bleed ISLN Valves	C	2	1	(M) Except for ER operations beyond 120 minutes, one may be inoperative provided: a) Valve is closed except for engine start, b) Airplane is not operated in known or forecast icing conditions, and c) Both engine bleed valves operate normally.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS					
11-7	Center Bleed Isolation Valve	C	1	0	(M) (O) May be inoperative provided: a) Valve remains closed except for engine start, b) APU is used as air source for ADP for takeoff and landing, c) Both center electrical hydraulic pumps operate normally, d) Airplane remains at or below FL 270, and e) Center Hydraulic Motor Generator (HMG) is not required.
		C	1	0	(M) (O) May be inoperative provided: a) Valve remains closed except for engine start, b) ADP inoperative penalties are applied, c) Both center electrical hydraulic pumps operate normally, d) Airplane remains at or below FL 270, and e) Center Hydraulic Motor Generator (HMG) is not required.

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-8 Engine Pressure Regulating Valve (PRV) Systems				
1) CF6-80C2	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative secured closed provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, c) Airplane is not operated in known or forecast icing conditions, d) APU is used as air source for ADP for takeoff, e) Remaining (opposite) engine bleed system operates normally, f) Airplane remains at or below FL 350, g) Center Hydraulic Motor Generator (HMG) is not required, h) Associated thrust reverser is secured in forward thrust position, and i) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open. (Continued)

1. SYSTEM & SEQUENCE NUMBERS	ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-8	Engine Pressure Regulating Valve (PRV) Systems (Cont'd) 1) CF6-80C2 (Cont'd)			(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative secured closed provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, c) Airplane is not operated in known or forecast icing conditions, d) ADP inoperative penalties are applied, e) Remaining (opposite) engine bleed system operates normally, f) Airplane remains at or below FL 350, g) Center Hydraulic Motor Generator (HMG) is not required, h) Associated thrust reverser is secured in forward thrust position, and i) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open. (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-8 Engine Pressure Regulating Valve (PRV) Systems (Cont'd) 1) CF6-80C2 (Cont'd) a) -200/-300	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative open provided: a) Associated HPSOV is secured closed, b) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, c) Associated pressure regulating valve will open fully pneumatically, d) APU is used as air source for ADP for takeoff, e) Associated ENG bleed air switch remains OFF, except when alternate procedures require its use, f) Airplane remains at or below FL 350, g) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, h) Center Hydraulic Motor Generator (HMG) is not required, i) Associated thrust reverser is secured in forward thrust position, j) Remaining (opposite) engine bleed system operates normally, and k) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS					
11-8 Engine Pressure Regulating Valve (PRV) Systems (Cont'd) 1) CF6-80C2 (Cont'd) a) -200/-300 (Cont'd)		C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative open provided: a) Associated HPSOV is secured closed, b) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, c) Associated pressure regulating valve will open fully pneumatically, d) ADP inoperative penalties are applied, e) Associated ENG bleed air switch remains OFF, except when alternate procedures require its use, f) Airplane remains at or below FL 350, g) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, h) Center Hydraulic Motor Generator (HMG) is not required, i) Associated thrust reverser is secured in forward thrust position, j) Remaining (opposite) engine bleed system operates normally, and k) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-8 Engine Pressure Regulating Valve (PRV) Systems (Cont'd) 1) CF6-80C2 (Cont'd) b) -400ER	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative open provided: a) Associated HPSOV is secured closed, b) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, c) Associated pressure regulating valve is verified open, d) APU is used as air source for ADP for takeoff, e) Associated ENG bleed air switch remains OFF, except when alternate procedures require its use, f) Airplane remains at or below FL 350, g) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, h) Center Hydraulic Motor Generator (HMG) is not required, i) Associated thrust reverser is secured in forward thrust position, j) Remaining (opposite) engine bleed system operates normally, and k) Appropriate performance adjustments are applied.
	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative open provided: a) Associated HPSOV is secured closed, b) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, c) Associated pressure regulating valve is verified open, d) ADP inoperative penalties are applied, (Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-8 Engine Pressure Regulating Valve (PRV) Systems (Cont'd) 1) CF6-80C2 (Cont'd) b) -400ER (Cont'd)				e) Associated ENG bleed air switch remains OFF, except when alternate procedures require its use, f) Airplane remains at or below FL 350, g) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, h) Center Hydraulic Motor Generator (HMG) is not required, i) Associated thrust reverser is secured in forward thrust position, j) Remaining (opposite) engine bleed system operates normally, and k) Appropriate performance adjustments are applied.
2) PW4000	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative secured closed provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, c) Airplane is not operated in known or forecast icing conditions, d) APU is used as air source for ADP for takeoff, e) Remaining (opposite) engine bleed system operates normally, f) Airplane remains at or below FL 350, g) Center Hydraulic Motor Generator (HMG) is not required, and (Continued)

1. SYSTEM & SEQUENCE NUMBERS	ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
11-8	Engine Pressure Regulating Valve (PRV) Systems (Cont'd) 2) PW4000 (Cont'd)			h) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open. (M)(O) Except for ER operations beyond 120 minutes, one may be inoperative secured closed provided: a) Associated ENG bleed air switch remains OFF, b) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, c) Airplane is not operated in known or forecast icing conditions, d) ADP inoperative penalties are applied, e) Remaining (opposite) engine bleed system operates normally, f) Airplane remains at or below FL 350, g) Center Hydraulic Motor Generator (HMG) is not required, and h) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS					
11-8	Engine Pressure Regulating Valve (PRV) Systems (Cont'd)				
	2) PW4000 (Cont'd)	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative open provided: a) Associated HPSOV is secured closed, b) Associated pressure regulating valve will open fully pneumatically, c) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, d) Remaining (opposite) engine bleed system operates normally, and e) Center Hydraulic Motor Generator (HMG) is not required.
11-9	Engine Firewall Shutoff Valves (FWSOV) (RB211)	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative secured closed provided: a) Associated ENG bleed air switch remains OFF, b) Associated engine bleed isolation valve is opened after takeoff, and closed before approach and landing, c) Airplane is not operated in known or forecast icing conditions, d) APU is used as air source for ADP for takeoff, e) Remaining (opposite) engine bleed system operates normally, f) Airplane remains at or below FL 350, and g) Center Hydraulic Motor Generator (HMG) is not required. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS					
11-9	Engine Firewall Shutoff Valves (FWSOV) (RB211) (Cont'd)	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative secured closed provided: a) Associated ENG bleed air switch remains OFF, b) Associated engine bleed isolation valve is opened after takeoff, and closed before approach and landing, c) Airplane is not operated in known or forecast icing conditions, d) ADP inoperative penalties are applied, e) Remaining (opposite) engine bleed system operates normally, f) Airplane remains at or below FL 350, and g) Center Hydraulic Motor Generator (HMG) is not required.
		C	2	1	(M)(O) Except for ER operations beyond 120 minutes, one may be inoperative open provided: a) FWSOV opens fully pneumatically, b) Associated HPSOV is secured closed, c) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, d) Remaining (opposite) engine bleed system operates normally, and e) Center Hydraulic Motor Generator (HMG) is not required.
11-10	High Stage (HP) Check Valves (RB211)	C	2	0	May be inoperative open.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
12-1 Precoolers				
1) JT9D & CF6-80A/A2	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, airplane may be dispatched with damage to one precooler and associated ducting between HPSOV, IPCV and PRSOV provided: a) Associated HPSOV is secured closed, b) Associated PRSOV is secured closed, c) Associated low pressure bleed duct is blocked by an approved tool, d) Airplane is not operated in known or forecast icing conditions, e) Center Hydraulic Motor Generator (HMG) is not required, f) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, g) Remaining (opposite) engine bleed system operates normally, h) Airplane remains at or below FL 350, i) APU is used as air source for ADP for takeoff, and j) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open.
	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, airplane may be dispatched with damage to one precooler and associated ducting between HPSOV, IPCV and PRSOV provided: a) Associated HPSOV is secured closed, b) Associated PRSOV is secured closed, c) Associated low pressure bleed duct is blocked by an approved tool, d) Airplane is not operated in known or forecast icing conditions, e) Center Hydraulic Motor Generator (HMG) is not required, (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
12-1 Precoolers (Cont'd)				
1) JT9D & CF6-80A/A2 (Cont'd)				f) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, g) Remaining (opposite) engine bleed system operates normally, h) Airplane remains at or below FL 350, i) ADP inoperative penalties are applied, and j) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open.
2) CF6-80C2	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, airplane may be dispatched with damage to one precooler and associated ducting between PRV and PRSOV provided: a) Associated PRV is secured closed, b) Associated PRSOV is secured closed, c) Airplane is not operated in known or forecast icing conditions, d) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, e) Remaining (opposite) engine bleed system operates normally, f) Airplane remains at or below FL 350, g) APU is used as air source for ADP for takeoff, h) Center Hydraulic Motor Generator (HMG) is not required, i) Associated thrust reverser is secured in forward thrust position, and (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
12-1 Precoolers (Cont'd)				
2) CF6-80C2 (Cont'd)				j) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open.
	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, airplane may be dispatched with damage to one precooler and associated ducting between PRV and PRSOV provided: a) Associated PRV is secured closed, b) Associated PRSOV is secured closed, c) Airplane is not operated in known or forecast icing conditions, d) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, e) Remaining (opposite) engine bleed system operates normally, f) Airplane remains at or below FL 350, g) ADP inoperative penalties are applied, h) Center Hydraulic Motor Generator (HMG) is not required, i) Associated thrust reverser is secured in forward thrust position, and j) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
12-1 Precoolers (Cont'd)				
3) PW4000	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, airplane may be dispatched with damage to one precooler and associated ducting between PRV and PRSOV provided: a) Associated PRV is secured closed, b) Associated PRSOV is secured closed, c) Airplane is not operated in known or forecast icing conditions, d) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, e) Remaining (opposite) engine bleed system operates normally, f) Airplane remains at or below FL 350, g) APU is used as air source for ADP for takeoff, h) Center Hydraulic Motor Generator (HMG) is not required, and i) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open.
	C	2	1	(M)(O) Except for ER operations beyond 120 minutes, airplane may be dispatched with damage to one precooler and associated ducting between PRV and PRSOV provided: a) Associated PRV is secured closed, b) Associated PRSOV is secured closed, c) Airplane is not operated in known or forecast icing conditions, d) Associated bleed isolation valve is opened after takeoff and closed before approach and landing, e) Remaining (opposite) engine bleed system operates normally, (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS				
12-1 Precoolers (Cont'd)				
3) PW4000 (Cont'd)	C	2	1	f) Airplane remains at or below FL 350, g) ADP inoperative penalties are applied, h) Center Hydraulic Motor Generator (HMG) is not required, and i) Appropriate performance adjustments are applied for either of the following conditions: 1) Associated fan air modulation valve secured in intermediate position, or 2) Associated fan air modulation valve open.
12-2 Fan Air (Precooler) Control Systems				
1) JT9D, CF6 & PW4000	C	2	0	(M)(O) Except for ER operations beyond 120 minutes, may be inoperative provided: a) Associated fan air modulation valve is secured in an intermediate position, and b) Appropriate performance adjustments are applied.
a) -200/-300	C	2	0	(M)(O) Except for ER operations beyond 120 minutes, may be inoperative provided: a) Associated fan air modulation valve is secured full open, b) Appropriate performance adjustments are applied, and c) Airplane is not operated in known or forecast icing conditions.
2) RB211	C	2	0	(M)(O) Except for ER operations beyond 120 minutes, may be inoperative provided: a) Associated fan air modulation valve is secured full open, and b) Airplane is not operated in known or forecast icing conditions.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS					
21-1	Bleed Air DUCT PRESS Indicating System				
	1) DUCT PRESS Indicators (P5 Panel)	C	2	1	
	2) Manifold Pressure Sensing Systems (-400ER)	C	2	1	(M) One may be inoperative provided associated pack flow control valve inlet pressure sensor is verified to operate normally.
21-2	Engine Bleed Air OFF Lights	C	2	0	
21-3	Intermediate Pressure Sensing Systems (-400ER)	C	2	1	(M)(O) One may be inoperative provided: a) Associated PRV operates normally, b) Associated HPSOV is verified closed, c) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, d) Remaining (opposite) engine bleed system operates normally, e) Hydraulic Motor Generator (HMG) is not required, f) Associated thrust reverser is secured in forward thrust position, and g) Appropriate performance adjustments are applied.
22-1	BLEED Lights (-200/-300)				
	1) All Except CF6-80C2	C	2	1	(M)(O) One may be inoperative provided: a) Associated HPSOV is secured closed, b) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, c) Remaining (opposite) engine bleed system operates normally, d) Center Hydraulic Motor Generator (HMG) is not required.

(Continued)

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS					
22-1	BLEED Lights (-200/-300) (Cont'd)				
	2) CF6-80C2	C	2	1	(M)(O) One may be inoperative provided: a) Associated HPSOV is secured closed, b) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, c) Remaining (opposite) engine bleed system operates normally, d) Center Hydraulic Motor Generator (HMG) is not required, e) Associated thrust reverser is secured in forward thrust position, and f) Appropriate performance adjustments are applied.
22-2	HI STAGE Lights (JT9D & CF6-80A/A2)	C	2	1	(M)(O) One may be inoperative provided: a) Associated HPSOV is secured closed, b) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, c) Remaining (opposite) engine bleed system operates normally, and d) Center Hydraulic Motor Generator (HMG) is not required.
22-3	OVHT Lights (CF6-80C2, PW4000 & RB211)				
	1) -200/-300				
	a) PW4000 & RB211	C	2	1	(M)(O) One may be inoperative provided: a) Associated HPSOV is secured closed, b) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, c) Remaining (opposite) engine bleed system operates normally, and d) Center Hydraulic Motor Generator (HMG) is not required.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
36 PNEUMATICS					
22-3	OVHT Lights (CF6-80C2, PW4000 & RB211) (Cont'd)				
	1) -200/-300 (Cont'd)				
	b) CF6-80C2	C	2	1	(M)(O) One may be inoperative provided: a) Associated HPSOV is secured closed, b) A minimum of 70% (55% below 10,000 feet MSL) N1 is maintained on associated engine in icing conditions, c) Remaining (opposite) engine bleed system operates normally, d) Center Hydraulic Motor Generator (HMG) is not required, e) Associated thrust reverser is secured in forward thrust position, and f) Appropriate performance adjustments are applied.
	2) -400ER	C	2	0	(O) May be inoperative.
22-4	L and R Bleed ISLN VALVE Lights				
	1) -200/-300	C	2	1	(O) One may be inoperative provided associated duct pressure indicator operates normally.
	2) -400ER	C	2	0	
22-5	C Bleed ISLN VALVE Light	C	1	0	
22-6	APU Bleed VALVE Light	C	1	0	
22-7	Manifold Temperature Sensing Systems (-400ER)	C	2	0	(M) May be inoperative provided associated pack inlet temperature sensor is verified to operate normally.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
38 WATER/WASTE					
10-1	Potable Water Systems	C	-	-	(M) Individual components may be inoperative provided: a) Associated components are deactivated or isolated, and b) Associated system components are verified not to have leaks. NOTE: Any portion of system that operates normally may be used.
		C	-	-	(M) May be inoperative provided: a) System is drained, and b) Procedures are established to ensure that system is not serviced.
30-1	Lavatory Waste Systems (Including Wheelchair Accessible Lavatories)	C	-	-	(M) Individual components may be inoperative provided: a) Associated components are deactivated or isolated, and b) Associated system components are verified not to have leaks. NOTE: Any portion of system that operates normally may be used.
		C	-	-	(M) Associated lavatory system(s) may be inoperative provided: a) Associated components are deactivated or isolated to prevent leaks, b) Pilot-in-command will determine if flight duration is acceptable with a FWD lavatory unusable, and c) Associated lavatory door(s) is secured closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit inspections by crewmembers.
32-1 ***	Tank Precharge Control Systems	D	2	0	(M) May be inoperative provided applicable precharge control valve is secured in open position.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
46 INFORMATION SYSTEMS				
20-1 *** Electronic Flight Bag (EFB) System				
1) Class 3 EFB (Boeing and STC ST01963CH))	C	2	1	NOTE: Any function, program or document that operates normally may be used.
	C	2	0	(O) May be inoperative provided alternate procedures are established and used. NOTE: Any function, program or document that operates normally may be used.
	D	2	0	May be inoperative provided procedures do not require its use.
*** 2) Airport Moving Map Database				
a) STC ST02126LA	D	2	0	(O) May be out of date provided alternate procedures are established and used.
*** 3) Navigation Database				
a) STC ST02126LA	D	1	0	May be out of date provided Merging & Spacing operations are prohibited.
	C	1	0	(O) May be out of date provided merge waypoint is not inserted for Merging & Spacing function.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
47 INERT GAS SYSTEM					
11-1 ***	Nitrogen Gas Generation (NGS)	A	1	0	(M) May be inoperative off provided: a) NGS shutoff valve is deactivated closed, and b) Repairs are made within 10 flight days.
	1) Nitrogen Generation Performance	C	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
49	AIRBORNE AUXILIARY POWER				
11-1	Auxiliary Power Unit (APU)	C	1	0	(O) Except for ER operations, may be inoperative provided: a) Both engine generators operate normally, and b) Procedures do not require its use.
		B	1	0	(M) (O) Except for ER operations beyond 120 minutes, may be inoperative provided: a) Both engine generators operate normally, and b) Hydraulic Motor Generator (HMG) is verified to operate normally.
	1) Pneumatic Function	C	1	0	(M) May be inoperative provided procedures do not require its use.
15-1	APU Air Intake Door Actuation System				
	1) Door Closed	C	1	0	(M) May be inoperative secured closed provided APU is considered inoperative.
	2) Door Fully Open (-200/-300)	C	1	0	(M)(O) May be inoperative fully open provided AFM performance decrements are applied.
	3) Door Partially Open				
	a) -200/-300	C	1	0	(O) May be inoperative partially open provided: a) AFM performance decrements are applied, and b) APU is considered inoperative.
	b) -400ER	C	1	0	(O) May be inoperative partially open provided: a) APU is considered inoperative, and b) Appropriate performance adjustments are applied.
	4) Door in Flight Position (-400ER)	C	1	0	(M)(O) May be inoperative provided door is secured in flight position.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
49	AIRBORNE AUXILIARY POWER				
61-1	APU External Control System	C	1	0	May be inoperative and APU used, provided a qualified operator remains in vicinity of flight deck APU control.
		C	1	0	(M) May be inoperative and APU used, provided an APU automatic fire extinguishing system is installed and verified to operate normally.
61-2	APU Controller Faults (-400ER)	C	-	0	May be dispatched with faults annunciated by APU CONTROL status message.
70-1	APU FAULT Light	C	1	0	
70-2	APU RUN Light	C	1	0	(O) May be inoperative provided another acceptable means to verify APU condition is available and used.
71-1	APU EGT Indication	C	1	0	
72-1 ***	APU Hourmeter System	C	1	0	(M) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
72-2 ***	APU Cyclemeter System	C	1	0	(M) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
73-1 ***	APU RPM Indication	D	1	0	
94-1	APU OIL QTY Indication	C	1	0	May be inoperative provided APU is considered inoperative.
		D	1	0	(M) May be inoperative provided oil quantity is verified by alternate means.
94-2	APU OIL TEMP Indication System (-400ER)	C	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
11-1	Main Entry/Service Door Armed Indicators	C	-	0	(M) May be inoperative provided a procedure is used to verify that mode select mechanism is in “slide armed” mode before departure and in “slide disarm” mode before a non-emergency opening.
11-2 ***	Main Entry/ Service Door Arming Lever Hinged Covers	D	-	0	May be damaged or missing.
11-3	Entry Door Power Opening Assist	C	-	0	
11-4	Main Entry Doors/Slides/ Emergency Exits				
	1) Passenger Configuration	A	-	-	(M)(O) One may be inoperative or slide missing provided: a) All other main entry doors/exits are fully operational, b) Affected door is not used for passenger loading, c) A conspicuous barrier strap or rope and a placard stating that door is inoperative shall be placed across inoperative door, d) Emergency exit sign and floor proximity lights associated with inoperative exit must be covered to obscure signs and lights, e) Passengers must be briefed not to use affected door, (Continued)

1. SYSTEM & SEQUENCE NUMBERS / ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS			
11-4 Main Entry Doors/Slides/ Emergency Exits (Cont'd) 1) Passenger Configuration (Cont'd)			f) All passenger seats halfway to next exit in each direction from inoperative door, across entire width of airplane, shall be blocked off with conspicuous tapes or ropes that contrast with interior prior to loading passengers. Only seats in these areas shall be blocked: main passenger aisles, cross aisles, and exit areas must not be blocked. (For an inoperative forward door/slide, blocked seating area shall extend from forward cabin end, rearward to a line halfway between inoperative forward door and next set of doors aft of inoperative one. For an inoperative rear door/slide, blocked seating area shall extend forward from aft cabin end to a line halfway between inoperative door and next set of doors forward of inoperative one), g) Conspicuous signs and placards shall be placed in appropriate locations indicating these seats are not to be occupied by passengers, h) Seated capacity must not exceed rated capacity of remaining pairs of exits, i) For extended range/overwater operations, occupancy shall not exceed normal rated capacity of slide/rafts, or remaining slide/rafts or rated overload capacity of slide/rafts remaining after loss of one additional slide/raft of greatest capacity, whichever is least, j) Blocked seating layouts and evacuation procedures must be developed and approved by FAA certificate holding office for inclusion in operator's manual, and k) Repairs are made within one flight day. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS				
11-4 Main Entry Doors/Slides/ Emergency Exits (Cont'd)				
1) Passenger Configuration (Cont'd)				NOTE 1: Weight and balance manifest must be revised as necessary to ensure proper loading limits are observed. NOTE 2: Cabin attendants may be stationed in vicinity of each door within blocked area.
2) All Cargo Configuration				
a) All Doors Except L1/R1	C	-	0	All doors/slides may be inoperative or slides missing.
b) Doors L1/R1	C	2	1	One door/slide may be inoperative or slide missing.
3) Combination Passenger/ Cargo Configurations	C	-	-	All doors/slides in cargo area may be inoperative or slide missing.
30-1 Lower Cargo Doors				
1) Cargo Door Lift/Latch Mechanisms (Std. Door-Passenger/ -200PC/-200SF/ ATC A1NM -200 SF/ -300BCF/ -300BDSF)	C	-	-	Either manual or electrical mode on each door may be inoperative.
	C	-	0	(M) Manual and electric modes may be inoperative provided associated door is verified closed and locked before each departure. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
30-1	Lower Cargo Doors (Cont'd)				
	2) Cargo Door Hinge Power Units and Manual Hinge Drive Systems (Std. Door- Passenger/ - 200PC/-200SF/ ATC A1NM -200 SF/-300BCF/ -300BDSF)	C	-	-	Either manual or electrical mode on each door may be inoperative.
		C	-	0	(M) Manual and electric modes may be inoperative provided associated door is verified closed and locked before each departure.
	3) Cargo Door Hook/Latch System Electrical Function (Large Door- Passenger/ -200PC/-200SF/ -300BCF/ -300BDSF) (Lower Doors -300F)	C	-	0	(M) May be inoperative provided: a) Manual function operates normally, b) There is no damage to hook/latch mechanism, c) There is no damage to latch lock mechanism, d) Door is closed and locked using an accepted maintenance manual procedure, and e) All latch cams are visually confirmed to be in closed position before each departure.
	4) Cargo Door Lift System (Large Door- Passenger, -200PC/ -200SF/ -300BCF/ -300BDSF) (Lower Doors -300F)	C	-	-	Either manual or electric mode on each door may be inoperative.
		C	-	0	(M) Manual and electric modes may be inoperative provided associated door is verified closed and locked before each departure.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
30-2	Cargo Door Hinge Power Units and Manual Hinge Drive Systems				Moved to 52-30-1-2, MMEL Rev. 19.
30-3	Cargo Door Control Panel Indicating Systems				
	1) DOOR OPEN Light (Std. Door – Passenger/ -200PC/-200SF/ -300BDSF/ATC A1NM -200 SF/ -300BCF)	C	-	0	May be inoperative provided DOOR CLOSE light operates normally.
	2) DOOR CLOSE Light (Std. Door – Passenger/ -200PC/-200SF/ -300BDSF/ATC A1NM -200 SF/ -300BCF)	C	-	0	(M) May be inoperative provided: a) Door Indication System for associated door is verified to operate normally, and b) Door is visually verified closed, latched, and locked before each departure.
	3) DOOR OPEN and DOOR CLOSE Lights (Large Door – Passenger/ -200PC/-200SF/ -300BDSF/ -300BCF) (Lower Doors -300F)	C	-	0	(M) May be inoperative provided door is visually verified closed, latched, and locked before each departure.
	4) Main Deck Cargo Door Lights	C	5	0	(M) May be inoperative provided door is visually verified closed, latched, and locked before each departure.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
32-1	Main Deck Cargo Door				
	1) Cargo Door Hook/Latch System (Electric)	C	1	0	(M) May be inoperative provided: a) Manual function operates normally, b) There is no damage to hook/latch mechanism, c) There is no damage to lock mechanism, d) Door is closed and locked using an accepted maintenance manual procedure, and e) All latch cams are visually confirmed in closed position before each departure.
	2) Cargo Door Lift System (Manual and Electric)	C	1	0	(M) May be inoperative provided door is verified closed, latched and locked before each departure.
	3) Cargo Door Lock System (Electric)	C	1	0	(M) May be inoperative provided: a) Manual function operates normally, b) There is no damage to hook/latch mechanism, c) There is no damage to lock mechanism, d) Door is closed and locked using an accepted maintenance manual procedure, and e) All latch cams are visually confirmed in closed position before each departure.
34-1	Cargo Door Stop Fitting Bearing Plates (Std. Doors Only)	C	-	-	One on forward and aft side of each cargo door frame may be missing.
35-1	Bulk Cargo Door Balance Mechanism	C	1	0	(M) May be inoperative provided a safety hold open device is used when door is in open position.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
50-1	Crew Rest Doors (STC ST00973WI-D)	C	3	0	May be inoperative provided: a) Associated Crew Rest Area is not used and personal items are removed, and b) Associated Crew Rest Area door is locked closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers.
	1) Flight Crew Rest Door	C	1	0	(M) May be inoperative provided: a) Door is removed, and b) Crew rest area is not used for required crewmember rest.
	2) Attendant Crew Rest Doors	C	2	0	(M) May be inoperative provided: a) Both attendant crew rest area doors are removed, and b) Crew rest area is not used for required crewmember rest.
50-2 ***	Lower Lobe Crew Rest Doors (STCs ST01994SE and ST02137SE)				
	1) Main Entry	C	2	0	Either or both the Main Entry Door and Main Entry Hatch may be inoperative provided: a) Associated Crew Rest Area is not used and personal items are removed, and b) Crew Rest Area Main Entry Door is secured closed and placarded INOPERATIVE – DO NOT ENTER. NOTE: These provisos are not intended to prohibit crew rest area inspections by crewmembers. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
50-2 ***	Lower Lobe Crew Rest Doors (STCs ST01994SE and ST02137SE) (Cont'd)				
	2) Emergency Escape Hatch	C	1	0	(M) May be inoperative provided: a) Associated Crew Rest Area is not used and personal items are removed, b) Associated Crew Rest Area main entry door is locked closed and placarded INOPERATIVE – DO NOT ENTER, and c) Emergency Escape hatch is verified secured closed.
51-1 ***	Flight Deck Door Lock System (Not 14 CFR 25.795 Compliant)	C	1	0	(M) May be inoperative provided: a) Door can be locked and unlocked manually, and b) Door lock solenoid is deactivated in extended position.
		C	1	0	May be inoperative provided supplemental flight deck door security device is installed and operates normally.
51-2	Rigid Barrier Access Door Latch System(s) (ATC A1NM -200SF/ -300BCF/ -300F/ -300BDSF)				
	1) Primary	C	1	0	(M) May be inoperative provided: a) Door can be locked and unlocked manually with Secondary latch system, and b) Access to main cargo deck is prohibited in flight.
	2) Secondary	C	1	0	May be inoperative provided Primary latch system operates normally.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
51-3 ***	Boeing Enhanced Flight Deck Security Door Automatic Locking System (14 CFR 25.795 Compliant)	A	1	0	(M)(O) May be inoperative provided: a) Automatic locking system is deactivated, b) Door dead bolt operates normally and is used to lock door, c) Alternate procedures are established and used for locking and unlocking door using dead bolt, and d) Repairs are made within 2 flight days.
	1) Flight Deck Access Panel System (Keypad, Door Chime)	B	1	0	(M)(O) May be inoperative provided: a) Keypad is deactivated, and b) Alternate procedures are established and used.
	a) LEDs	C	3	0	(O) May be inoperative provided alternate procedures are established and used.
***	b) Door Bell Mode	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
	c) Switch Guard	C	1	0	May be inoperative or missing provided alternate procedures are established and used.
	2) Flight Deck Door LOCK FAIL Light	B	1	0	(M) May be inoperative provided automatic lock controls are verified to operate normally.
	3) Flight Deck Door AUTO UNLK Light	B	1	0	(M) May be inoperative provided: a) Automatic lock controls are verified to operate normally, and b) Door chime operates normally.
	4) Fight Deck Door Lock Control Selector	B	1	0	(M)(O) May be inoperative provided: a) Keypad is deactivated, b) Automatic lock is verified to operate normally, and c) Alternate procedures are established and used.
	5) Pressure Rate-of-Change Sensing Module	A	1	0	(M) May be inoperative provided: a) Pressure sensing module is deactivated, and b) Repairs are made within 2 flight days.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
51-4 ***	Boeing Enhanced Flight Deck Security Door Dead Bolt (14 CFR 25.795 Compliant)	C	1	0	May be inoperative provided automatic lock controls operate normally.
51-5 ***	JAMCO Flight Deck Security Door Automatic Locking System (14 CFR 25.795 Compliant)	C	1	0	(M)(O) May be inoperative provided: a) Automatic locking system is deactivated, b) Mechanical Catch (Latch) Pin Lock operates normally and is used to lock door, and c) Alternate procedures are established and used for locking and unlocking flight deck door using Mechanical Catch (Latch) Pin Lock.
	1) Door Automatic Locking Solenoids	C	2	1	(M) One may be inoperative provided remaining locking solenoid is verified to operate normally.
	2) Door Warning System				
***	a) Speakers	C	2	1	(M)(O) One may be inoperative provided remaining speaker is verified to operate normally once each flight day.
***	b) LED (Green Indicator Lights)	C	2	0	
***	c) Aural Warning System	C	1	0	(M)(O) May be inoperative provided: a) Door AUTO UNLK light is verified to operate normally, and b) Alternate procedures are established and used.
	3) Door Control Panel				
***	a) Door LOCK FAIL Light	C	1	0	(M) May be inoperative OFF provided automatic lock controls are verified to operate normally.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
51-5 ***	JAMCO Flight Deck Security Door Automatic Locking System (14 CFR 25.795 Compliant) (Cont'd)				
	3) Door Control Panel (Cont'd)				
***	b) Door AUTO UNLK Light	C	1	0	(M)(O) May be inoperative OFF provided: a) Automatic lock controls are verified to operate normally, b) Aural warning system operates normally, and c) Alternate procedures are established and used.
***	c) Door HARD LOCK Light	C	1	0	(M)(O) May be inoperative provided: a) Automatic lock controls are verified to operate normally, and b) Alternate procedures are established and used.
***	d) Door UNLKD Switch/ UNLK Switch Position	C	1	0	(M)(O) May be inoperative provided: a) Door can be opened manually from flight deck, b) Remaining automatic lock controls are verified to operate normally, and c) Alternate procedures are established and used.
***	e) Door UNLKD Light	C	1	0	(M)(O) May be inoperative provided: a) Automatic lock controls are verified to operate normally, and b) Aural warning system operates normally.
***	f) Door EMRG ENTRY ACTIVE Light	C	1	0	(M) May be inoperative provided door aural warning system is verified to operate normally.
***	g) Door OPEN Light	C	1	0	(M)(O) May be inoperative provided automatic lock controls are verified to operate normally.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
51-5 ***	JAMCO Flight Deck Security Door Automatic Locking System (14 CFR 25.795 Compliant) (Cont'd)				
***	4) FLIGHT DECK DOOR Warning/ Caution Light	C	1	0	
	5) Cabin Pushbutton Entry Pad/ Keypad	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
***	a) Keypad Indicator Lights	C	3	0	(M)(O) May be inoperative provided: a) Keypad is verified to operate normally, and b) Alternate procedures are established and used.
51-6 ***	JAMCO Flight Deck Security Door Mechanical Catch (Latch) Pin Lock (14 CFR 25.795 Compliant)	C	1	0	(M) May be inoperative provided automatic lock system is verified to operate normally.
51-7	Smoke Barrier Access Door Latch System(s) (-200SF)				
	1) Primary	C	1	0	May be inoperative provided door can be locked and unlocked with secondary latch system.
	2) Secondary	C	1	0	May be inoperative provided primary latch system operates normally.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
52 DOORS					
71-1	Door Indication Systems				
	1) All Doors Except Main Deck Cargo Door	C	-	0	(M) May be inoperative provided associated door(s) is verified closed, latched, and locked before each departure.
	2) Main Deck Cargo Door (All Except ATC A1NM -200SF and -300BCF)	C	1	0	(M) May be inoperative provided associated door(s) is verified closed, latched, and locked before each departure.
73-1 ***	Entry/Service Door Slide Armed Indicating Light System	D	1	0	

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
56 WINDOWS					
11-1	Flight Compartment Windows				DELETED REVISION 33.
31-1 ***	Entry/Service Door Viewport Heated Pane(s)	B	-	0	(M) May be inoperative provided heated panes are deactivated.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
73 ENGINE FUEL & CONTROL					
14-1	Fuel Filter Heater Systems (JT9D)	C	2	0	(M)(O) May be inoperative provided: a) Heater valve is verified closed or a blanking plate is installed, b) Fuel temperature indication operates normally, and c) Airplane is not operated with fuel temperature at or below -20 degrees C with IDG(s) on associated engine(s) operating normally.
		C	2	0	(M)(O) May be inoperative provided: a) Heater valve is verified closed or a blanking plate is installed, b) Fuel temperature indication operates normally, and c) Airplane is not operated with fuel temperature at or below +5 degrees C with IDG(s) on associated engine(s) inoperative.
	1) Automatic Function	C	2	0	(O) May be inoperative.
14-2	Fuel Heater VALVE Lights (JT9D)	C	2	0	(O) May be inoperative.
14-3	Fuel FILTER Bypass Lights (JT9D)	C	2	1	(M)(O) May be inoperative provided: a) Associated fuel filter heater system operates normally, and switch remains in AUTO, b) Associated fuel filter pressure switch operates normally, and c) Associated fuel filter is checked for presence of contaminants before each departure.

SYSTEM & SEQUENCE NUMBERS	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
73 ENGINE FUEL & CONTROL				
21-1 Electronic Engine Control (EEC) Systems				
1) JT9D & CF6 Supervisory	A	2	0	(O) May be inoperative provided: a) Both EECs are OFF, and b) Repairs are made within 3 flight days.
	C	2	0	(O) Except for ER operations, may be inoperative provided both EECs are OFF.
2) EEC NORM Mode (PW4000 & RB211)	C	2	1	(O) One may be inoperative provided: a) Both engines are operated in alternate (ALTN) mode, and b) Appropriate procedures, AFM limitations and performance decrements are applied.
3) EEC NORM Mode (CF6 FADEC)	C	2	0	(O) One may be inoperative provided both engines are operated in alternate (ALTN) mode.
4) EEC C1 Faults (PW4000)	A	-	-	May be dispatched with C1 faults provided repairs are made in accordance with times established by PW engine Type Certificate Data Sheet number E24NE, note 19.
5) EEC C1 Faults (CF6 FADEC)	A	2	0	May be dispatched with C1 faults provided repairs are made in accordance with times established by CF6-80C2 Engine Manual GEK 92451, Task 05-51-73-200-801.
6) EEC C1 Faults (RB211)	A	2	0	May be dispatched with C1 faults provided repairs are made in accordance with times established by RR engine Type Certificate Data Sheet number E30NE, note 17.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
73 ENGINE FUEL & CONTROL				
21-2 Electronic Engine Control (EEC) INOP/NORM/ ALTN Lights				
1) EEC INOP (JT9D & CF6 Supervisory)	C	2	0	(O) Except for ER operations, may be inoperative provided both EECs are OFF.
	A	2	0	(O) May be inoperative provided: a) Both EECs are OFF, and b) Repairs are made within 3 flight days.
2) EEC NORM/ALTN Lights (PW4000 & RB211)	C	2	0	(O) May be inoperative provided: a) Both EECs are operated in alternate (ALTN) mode, and b) Appropriate procedures, AFM limitations and performance decrements are applied.
3) EEC NORM/ALTN Lights (CF6 FADEC)				
a) -200/-300	C	2	0	(O) May be inoperative provided both EECs are operated in alternate (ALTN) mode.
b) -400ER	C	2	0	
21-3 Fuel Control ENG VALVE Indication System				
1) Fuel Control ENG VALVE Lights (-200/-300)	C	2	0	(M) May be inoperative provided associated engine fuel valve is verified to operate normally.
2) Fuel Control ENG FUEL VAL Indication System (CF6 FADEC & PW4000)	C	2	1	(M)(O) One may be inoperative provided: a) Associated engine fuel valve is verified to operate normally, and b) Associated EICAS message is deactivated.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
73 ENGINE FUEL & CONTROL					
21-4	Flight Idle/Ground Idle Systems				Moved to 73-21-8, MMEL Rev. 19.
21-5	EEC Rating Data Entry Plug (PW4000)				Deleted, MMEL Rev. 17.
21-6	Turbine Overspeed Systems (RB211)	C	2	0	
21-7	Hydromechanical N2 Speed Governors (CF6 FADEC)	C	2	1	
21-8	Approach Idle/Minimum Idle Systems				
	1) Minimum Ground Idle (RB211, JT9D, & CF6 Supervisory)	C	2	0	(O) May be inoperative provided: a) Flight idle operates normally, and b) Appropriate performance adjustments are applied.
	2) Minimum Ground Idle (PW4000 & CF6 FADEC)	C	2	0	(M)(O) May be inoperative provided: a) Flap actuated approach idle is verified to operate normally, and b) Appropriate performance adjustments are applied.
***	3) Continuous Ignition Actuated Approach Idle (PW4000 & CF6 FADEC)	C	2	0	(M)(O) May be inoperative provided flap actuated approach idle is verified to operate normally.
21-9 ***	Engine Supplemental Control Units (PW4000)	C	2	0	(M) May be inoperative provided affected unit(s) is deactivated.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
73 ENGINE FUEL & CONTROL					
31-1	Fuel Flow Indications				
	1) JT9D	C	2	1	(M) One may be inoperative provided: a) Associated N1, N2, and EPR indications operate normally, b) Main tank fuel quantity indicators operate normally, c) On airplanes with Simmonds FQIS PN S345N001-032, right and left main tank densitometers are disconnected for ER operations, and d) Autothrottle is not used.
	2) CF6	C	2	1	(M) One may be inoperative provided: a) Associated N1 and N2 indications operate normally, b) Main tank fuel quantity indicators operate normally, and c) On airplanes with Simmonds FQIS PN S345N001-032, right and left main tank densitometers are disconnected for ER operations.
	3) PW4000	C	2	1	(M) One may be inoperative provided: a) Associated N1, N2, and EPR indications operate normally, b) Main tank fuel quantity indicators operate normally, and c) On airplanes with Simmonds FQIS PN S345N001-032, right and left main tank densitometers are disconnected for ER operations.
	4) RB211	C	2	1	(M) One may be inoperative provided: a) Associated N1, N2, N3 and EPR indications operate normally, b) Main tank fuel quantity indicators operate normally, and c) On airplanes with Simmonds FQIS PN S345N001-032, right and left main tank densitometers are disconnected for ER operations.
32-1	Fuel Temperature Indicating System				Moved to 28-43-1, MMEL Rev. 8.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
74 ENGINE IGNITION					
00-1	Ignition Systems	A	4	3	(O) One may be inoperative provided: a) Ignition selector remains in BOTH position, b) Engine anti-ice system operates normally on associated engine, and c) Repair is made within one flight day.
		C	4	2	(O) Except for ER operations, one per engine may be inoperative provided: a) Ignition selector remains in BOTH position, and b) Engine anti-ice systems operate normally on associated engine(s).
00-2	Auto Ignition (RB211)	C	2	0	(O) May be inoperative provided start selector switch(es) AUTO position is placarded INOP, and that position is not used.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
75 BLEED AIR				
21-1 IDG Air/Oil Cooler Valves				
1) JT9D & CF6-80A/A2	C	2	0	(M) May be inoperative open.
2) CF6-80C2	C	2	0	(M)(O) May be inoperative provided: a) Valve(s) is deactivated open, and b) Appropriate performance adjustments are applied.
3) PW4000	C	2	0	(M)(O) May be inoperative provided: a) If engine AOC operates normally and IDG is connected, fuel tank temperature remains above -42 degrees C throughout flight, b) Valve(s) is deactivated open, and c) Appropriate performance adjustments are applied.
	C	2	0	(M)(O) May be inoperative provided: a) If engine AOC operates normally and IDG is disconnected, fuel tank temperature remains above -36 degrees C throughout flight, b) Valve(s) is deactivated open, and c) Appropriate performance adjustments are applied.
	C	2	0	(M)(O) May be inoperative provided: a) If engine AOC is inoperative open and IDG is connected, fuel tank temperature remains above -34 degrees C throughout flight, b) Valve(s) is deactivated open, and c) Appropriate performance adjustments are applied.

(Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
75 BLEED AIR					
21-1	IDG Air/Oil Cooler Valves (Cont'd)				
	3) PW4000 (Cont'd)	C	2	0	(M)(O) May be inoperative provided: a) If engine AOC is inoperative open and IDG is disconnected, fuel tank temperature remains above -30 degrees C throughout flight, b) Valve(s) is deactivated open, and c) Appropriate performance adjustments are applied.
	4) RB211	C	2	0	(M) May be inoperative deactivated open.
21-2	Engine Air /Oil Cooler Valves (PW4000)	C	2	0	(M)(O) May be inoperative provided: a) If IDG is connected, fuel tank temperature remains above -34 degrees C throughout flight, b) Valve(s) is deactivated open, and c) Appropriate performance adjustments are applied.
		C	2	0	(M)(O) May be inoperative provided: a) If IDG is disconnected, fuel tank temperature remains above -30 degrees C throughout flight, b) Valve(s) is deactivated open, and c) Appropriate performance adjustments are applied.
23-1	Nacelle Zone Ventilation Valves (PW) and Core Compartment Cooling Valves (GE)				
	1) JT9D & CF6-80C2	C	2	0	(M) May be inoperative provided affected valve remains open.
	2) PW4000	C	2	0	(M)(O) May be inoperative provided: a) Affected valve remains open, and b) Appropriate performance adjustments are applied.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
75 BLEED AIR					
23-2	Bore Cooling System (CF6FADEC)				Deleted, MMEL Rev. 8.
24-1	Turbine Case Cooling Systems (JT9D, CF6-80A/A2, PW4000 & CF6 FADEC)	C	2	0	(M)(O) May be inoperative provided: a) Associated turbine case cooling valve remains closed, and b) Appropriate performance adjustments are applied.
24-2 ***	Turbine Cooling Air Systems				
	1) Turbine Vane and Blade Cooling (TVBC) Systems (PW4000)	C	2	0	(M) May be inoperative provided associated turbine cooling valves are deactivated open.
	2) Eleventh Stage Cooling Valve (ESCV) Systems (CF6 FADEC)	C	2	0	(M) May be inoperative provided associated turbine cooling valves are deactivated open.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
77 ENGINE INDICATING					
00-1	Target Parameter Indications	C	-	0	(O) May be inoperative provided an alternate means of achieving desired values is available and used.
11-1	Engine Pressure Ratio (EPR) Systems				
	1) JT9D	C	2	1	(O) EICAS and/or STANDBY indications for one engine may be inoperative provided: a) Appropriate procedures, AFM limitations, and performance decrements are applied, b) N1 and N2 EICAS indications for associated engine operate normally, c) N1 STANDBY indications for associated engine operate normally, d) Fuel flow systems for associated engine operate normally, and e) Approach minimums do not require its use.
	2) PW4000	C	2	1	(O) EICAS and/or STANDBY indications for one engine may be inoperative provided: a) Both EECs are switched to ALTN mode, b) Appropriate procedures, AFM limitations, and performance decrements are applied, c) N2 EICAS indications for both engines operate normally, d) Fuel flow indications for associated engine operate normally, and e) Approach minimums do not require its use. (Continued)

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
77 ENGINE INDICATING					
11-1	Engine Pressure Ratio (EPR) Systems				
	3) RB211	C	2	1	(O) EICAS and/or STANDBY indications for one engine may be inoperative provided: a) Both EECs are switched to ALTN mode, b) Appropriate procedures, AFM limitations, and performance decrements are applied, c) N2 EICAS indications for both engines operate normally, d) N3 EICAS indications for both engines operate normally, e) Fuel flow indications for associated engine operate normally, and f) Approach minimums do not require its use.
12-1	N1 Tachometer Systems (JT9D)	B	2	1	(O) EICAS and/or STANDBY indications for one engine may be inoperative provided: a) EPR (EICAS and STANDBY) indications for both engines operate normally, b) N2 EICAS indications for associated engine operate normally, and c) Fuel flow indications for associated engine operate normally.
12-2	N2 Tachometer Systems (EICAS) (-200/-300)	B	2	1	(O) One N2 indication may be inoperative provided only indication function is inoperative.
12-3	N2 Tachometer Systems (Standby Engine Indicator (RB211))				Deleted, MMEL Rev. 25.
12-4	N3 Tachometer Systems (EICAS) (RB211)	B	2	1	(O) One N3 indication may be inoperative provided only indication function is inoperative.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
77 ENGINE INDICATING					
21-1	EGT Indications (Standby Engine Indicator) (-200/-300)				
	1) JT9D	C	2	1	One may be inoperative provided: a) EGT EICAS indication operates normally, b) N1 EICAS and Standby indications for both engines operate normally, c) N2 EICAS indications for both engines operate normally, and d) EPR EICAS indications for both engines operate normally.
	2) CF6	C	2	1	One may be inoperative provided: a) EGT EICAS indication operates normally, and b) N2 EICAS indications for both engines operate normally.
	3) PW4000	C	2	1	One may be inoperative provided: a) EGT EICAS indication operates normally, b) N2 EICAS indications for both engines operate normally, and c) EPR EICAS indications for both engines operate normally.
	4) RB211	C	2	1	One may be inoperative provided: a) EGT EICAS indication operates normally, b) N2 EICAS indications for both engines operate normally, c) N3 EICAS indications for both engines operate normally, and d) EPR EICAS indications for both engines operate normally.
22-1	Engine Turbine Overheat Detection Systems (RB211)				
	1) Loops	C	4	2	One Loop per engine may be inoperative.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
77 ENGINE INDICATING					
31-1	Vibration Indicating Systems	C	2	1	
	1) Compressor Rear Frame (CRF) Accelerometers (CF6 FADEC)	C	2	0	(M) May be inoperative deactivated.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
78 ENGINE EXHAUST					
31-1	Thrust Reversers	C	2	1	(M)(O) One may be inoperative provided: a) Inoperative reverser is secured in forward thrust position, and b) Appropriate performance adjustments are applied. NOTE: During landing roll-out, differential braking may be required to maintain directional control.
34-1	REV ISLN Valve Light (-200/-300)	C	1	0	(M)(O) May be inoperative provided reverser isolation valve and reverser unlock indications operate normally.
34-2	Engine Reverse Lever Interlocks (RB211, PW4000 and CF6 FADEC)	C	2	1	(O) One may be inoperative extended or retracted provided appropriate performance adjustments are applied. NOTE: Associated reverser thrust is limited to reverse idle when inoperative retracted.
34-3	Thrust Reverser Air System (RB211 & CF6-80C2)				
	1) Thrust Reverser PRSOV (CF6-80C2)	C	2	1	(M)(O) One may be inoperative provided: a) Associated thrust reverser is secured in forward thrust position, and b) Appropriate performance adjustments are applied.
	2) Thrust Reverser Air Motor Shutoff Valves (RB211)	C	2	1	(M)(O) One may be inoperative provided: a) Associated thrust reverser is secured in forward thrust position, and b) Appropriate performance adjustments are applied.

SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
78 ENGINE EXHAUST					
36-1	REV Unlock Indications	C	2	1	(M)(O) One may be inoperative provided: a) No thrust reverser damage exists which would adversely affect airplane operation, b) Thrust reverser for associated engine is deactivated and locked in stowed (forward thrust) position, and c) Appropriate performance adjustments are applied.
36-2	Full REV Position Indications	C	2	0	May be inoperative provided associated reverser unlock indication operates normally.
36-3	Reverser Position Sensing Systems (RB211, PW4000 & CF6 FADEC)	C	2	1	(M)(O) One may be inoperative provided: a) Associated thrust reverser is secured in forward thrust position, and b) Appropriate performance adjustments are applied.

SYSTEM & SEQUENCE NUMBERS	ITEM 1.		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
79 ENGINE OIL					
31-1	OIL QTY Indications				
	1) -200/-300	B	2	1	(M) One may be inoperative provided: a) Oil tank is filled to recommended capacity before each departure, b) There is no evidence of above normal oil consumption or leakage, c) Associated ENG OIL PRESS and OIL TEMP indications operate normally, and d) Associated low ENG OIL PRESS light operates normally.
	2) -400ER	B	2	1	(M) One may be inoperative provided: a) Oil tank is filled to recommended capacity before each departure, b) There is no evidence of above normal oil consumption or leakage, and c) Associated ENG OIL PRESS and OIL TEMP indications operate normally.
32-1	L/R Oil Press Sensor Select Module (OPSSM) (RB211)	C	1	0	(O) May be inoperative.
33-1	Low ENG OIL PRESS Indication System (-200/-300)				
	1) All except JT9D without SB767-78-8 Installed, and CF6-80A/A2 without SB767-78-8 Installed	C	2	1	May be inoperative provided associated OIL PRESS, TEMP and QTY indications operate normally.
	2) JT9D without SB767-78-8 Installed, CF6-80A/A2 without SB767-78-8 Installed	C	2	1	(M) May be inoperative provided: a) Associated OIL PRESS, TEMP and QTY indications operate normally, and b) Thrust reverser is verified to operate normally.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
79	ENGINE OIL				
34-1	Engine Bearing No. 3 Scavenge Oil Temperature Indications (PW4000)				
	1) L/R SCAV TEMP1	A	2	1	(M) May be dispatched with one message displayed provided repairs are made within 3 flight days.
	2) L/R SCAV TEMP2	A	2	1	(M) May be dispatched with one message displayed provided repairs are made within 10 flight days.
34-2	ENG OIL TEMP Sensing Elements (JT9D, CF6-80A/A2, CF6-80C2 (PMC))	C	-	2	(O) One sensing element on each engine may be inoperative provided both engine oil temperature indications are available from one EICAS computer.
35-1	Engine Oil Filter Bypass Warning Systems (PW & GE)	B	2	0	(M) May be inoperative provided: a) It is verified that malfunction is in alerting system, and b) Main oil screen is checked for contaminants before each departure.
35-2	Engine High Pressure Oil Filter Warning Indication (Approaching Blockage) (RB211)	C	2	1	(M) One may be inoperative provided: a) It is verified that malfunction is in alerting system, b) Pressure filter is replaced, and c) Magnetic Chip Detector is checked for contaminants before each departure.
35-3	Engine Fine Scavenge Oil Filter Warning Indications (Impending Bypass) (RB211)	C	2	1	(M) One may be inoperative provided: a) It is verified that malfunction is in alerting system, b) Fine scavenge oil filter is replaced, and c) Magnetic Chip Detector is checked for contaminants before each departure.

SYSTEM & SEQUENCE NUMBERS	1. ITEM		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
80 STARTING					
00-1	Engine Start VALVE Lights				
	1) -200/-300	C	2	1	(O) One may be inoperative provided associated valve is verified closed after engine start.
	2) -400ER	C	2	0	
00-2	Engine Start Valves				
	1) -200/-300	C	2	1	(M)(O) One may be inoperative provided: a) Associated start VALVE light operates normally, and b) Manual override start procedures are used.
	2) -400ER	C	2	1	(M)(O) One may be inoperative provided manual override start procedures are used.
11-2	Starter Switch Holding/Cutout Systems	C	2	0	(O) May be inoperative provided alternate procedures are established and used.