

***Civil Aviation Authority***

**SUPPLEMENT TO  
FAA APPROVED  
MASTER MINIMUM EQUIPMENT LIST  
FOR**

**DORNIER 228**

**REVISION 1**

**22 March 2011**

This document may not be reproduced in whole  
or in part without prior permission of the CAA.



# **CIVIL AVIATION AUTHORITY**

## **MASTER MINIMUM EQUIPMENT LIST**

### **SUPPLEMENT**

Revision 1  
22 March 2011

### DORNIER 228

### **REVISION 1**

This Master Minimum Equipment List (MMEL) Supplement is issued by the Civil Aviation Authority at the above revision and is approved as the basis for the preparation and approval of individual operators' Minimum Equipment Lists (MELs) for aircraft of this Type.



.....  
H A Fowler

For and on behalf of the  
Civil Aviation Authority

Correspondence concerning this document should be addressed to the office listed below:-

Civil Aviation Authority  
Safety Regulation Group  
Aviation House  
Gatwick Airport South  
West Sussex  
RH6 0YR

Attention: MMEL Unit

**CIVIL AVIATION AUTHORITY**

MASTER MINIMUM EQUIPMENT LIST

**SUPPLEMENT**

DORNIER 228

Revision 1  
22 March 2011

INTENTIONALLY LEFT BLANK

# **CIVIL AVIATION AUTHORITY**

## **MASTER MINIMUM EQUIPMENT LIST**

### **SUPPLEMENT**

Revision 1  
22 March 2011

### **DORNIER 228**

### **REVISION RECORD**

REVISION No.	ISSUE DATE	INCORPORATED BY	DATE
Original Issue	27 August 2004		
Revision 1	22 March 2011		

**CIVIL AVIATION AUTHORITY**

MASTER MINIMUM EQUIPMENT LIST

**SUPPLEMENT**

DORNIER 228

Revision 1  
22 March 2011

INTENTIONALLY LEFT BLANK

# **CIVIL AVIATION AUTHORITY**

## **MASTER MINIMUM EQUIPMENT LIST**

### **SUPPLEMENT**

Revision 1  
22 March 2011

### **DORNIER 228**

### **TABLE OF CONTENTS**

	APPROVAL SHEET
	REVISION RECORD
	TABLE OF CONTENTS
	LIST OF EFFECTIVE PAGES
	INTRODUCTION
	PREAMBLE
	DEFINITIONS
21	AIR CONDITIONING
22	AUTO FLIGHT
23	COMMUNICATIONS
24	ELECTRICAL POWER
25	EQUIPMENT/FURNISHINGS
26	FIRE PROTECTION
27	FLIGHT CONTROLS
28	FUEL SYSTEMS
30	ICE AND RAIN PROTECTION
31	INDICATING/RECORDING SYSTEMS
32	LANDING GEAR
33	LIGHTS
34	NAVIGATION
35	OXYGEN
46	INFORMATION SYSTEMS
52	DOORS
73	ENGINE FUEL AND CONTROL
77	ENGINE INDICATING
79	OIL

**CIVIL AVIATION AUTHORITY**

MASTER MINIMUM EQUIPMENT LIST

**SUPPLEMENT**

DORNIER 228

Revision 1  
22 March 2011

INTENTIONALLY LEFT BLANK



# CIVIL AVIATION AUTHORITY

## MASTER MINIMUM EQUIPMENT LIST

### SUPPLEMENT

Revision 1  
22 March 2011

### DORNIER 228

### LIST OF EFFECTIVE PAGES

	<u>Page</u>	<u>Revision</u>	<u>Date</u>
i	Approval Sheet	Revision 1	22 March 2011
iii	Revision Record	Revision 1	22 March 2011
v	Table of Contents	Revision 1	22 March 2011
vii	List of Effective Pages	Revision 1	22 March 2011
ix	Introduction	Revision 1	22 March 2011
xi	Preamble	Revision 1	22 March 2011
xii	Preamble Cont.	Revision 1	22 March 2011
xiii	Definitions	Revision 1	22 March 2011
xiv	Definitions Cont,	Revision 1	22 March 2011
xv	Definitions Cont.	Revision 1	22 March 2011
xvi	Definitions Cont.	Revision 1	22 March 2011
xvii	Revision Highlights	Revision 1	22 March 2011
xviii	Revision Highlights	Revision 1	22 March 2011
	S21-1	Original Issue	27 August 2004
	S22-1	Revision 1	22 March 2011
	S23-1	Revision 1	22 March 2011
	S24-1	Original Issue	27 August 2004
	S25-1	Revision 1	22 March 2011
	S25-2	Revision 1	22 March 2011
	S25-3	Revision 1	22 March 2011
	S26-1	Original Issue	27 August 2004
	S27-1	Original Issue	27 August 2004
	S28-1	Original Issue	27 August 2004
	S30-1	Revision 1	22 March 2011
	S31-1	Original Issue	27 August 2004
	S32-1	Original Issue	27 August 2004
	S33-1	Revision 1	22 March 2011
	S33-2	Revision 1	22 March 2011
	S34-1	Revision 1	22 March 2011
	S34-2	Original Issue	27 August 2004
	S34-3	Revision 1	22 March 2011
	S34-4	Revision 1	22 March 2011
	S34-5	Revision 1	22 March 2011
	S35-1	Revision 1	22 March 2011
	S46-1	Revision 1	22 March 2011
	S52-1	Original Issue	27 August 2004
	S73-1	Original Issue	27 August 2004
	S77-1	Original Issue	27 August 2004
	S79-1	Original Issue	27 August 2004

**CIVIL AVIATION AUTHORITY**

MASTER MINIMUM EQUIPMENT LIST

**SUPPLEMENT**

DORNIER 228

Revision 1  
22 March 2011

INTENTIONALLY LEFT BLANK

# **CIVIL AVIATION AUTHORITY**

## **MASTER MINIMUM EQUIPMENT LIST**

### **SUPPLEMENT**

Revision 1  
22 March 2011

### **DORNIER 228**

### **INTRODUCTION**

#### **GUIDANCE IN THE USE OF THIS SUPPLEMENT**

1. This supplement identifies only the differences from the FAA MMEL for the Dornier 228, as well as giving CAA Policy on some items. The information presented in the FAA MMEL for the aircraft type is acceptable to the CAA except where superseded by an item in this supplement. Any alleviation given in this supplement supersedes that given in the FAA MMEL.
2. Item numbering in the supplement aligns with the FAA MMEL, where applicable.
3. The standard Preamble and Definitions appropriate to a CAA MMEL are included here. These should be applied, in conjunction with those in the FAA MMEL, to any MEL generated by the use of this supplement.
4. Unless superseded by information within this supplement, where the FAA MMEL refers to an item “As required by FAR (or 14 CFR)” it shall be interpreted as meaning “As required by Air Navigation Legislation / Operating Requirements”.
5. This supplement is based upon **Revision 7 (dated 29 May 2007)** of the FAA Approved Dornier 228 MMEL. Additional MMEL alleviations given in later issues of the FAA MMEL shall not be used until the CAA Supplement has been updated to confirm that issue as the base document.
6. This supplement identifies those items which are required to be modified from that defined in the FAA MMEL or are introduced as additional alleviations. Where no item exists in this supplement, but an entry is stated in the FAA MMEL, the FAA MMEL is the acceptable entry.

Note 1: Some items are complete replacement entries whilst others modify only parts/sections of entries – in this latter case only the amended part/section is stated in this supplement.

Note 2: The text presented in bold format within this document indicates:

- a) Additional or altered text introduced since the previous revision of this supplement,
- or
- b) Highlighted parts of the CAA MMEL Supplement entry which differ from the FAA MMEL entry.

**CIVIL AVIATION AUTHORITY**

MASTER MINIMUM EQUIPMENT LIST

**SUPPLEMENT**

DORNIER 228

Revision 1  
22 March 2011

INTENTIONALLY LEFT BLANK

# **CIVIL AVIATION AUTHORITY**

## **MASTER MINIMUM EQUIPMENT LIST**

### **SUPPLEMENT**

Revision 1  
22 March 2011

#### **DORNIER 228**

#### **PREAMBLE**

1. The CAA approved Master Minimum Equipment List (MMEL) provides owners/operators of United Kingdom registered aircraft, of the relevant type, with the basis for the preparation of their individual Minimum Equipment List (MELs). In the case of holders of Air Operator Certificates the MEL will be included in that Company's Operations Manual.
2. The approved MMEL represents a list of items of equipment which, under particular circumstances, can, to the satisfaction of the CAA, be unserviceable when the aircraft is dispatched, while still retaining the required level of safety.
3. The CAA recognises that in some respects the standard and scale of equipment provided in the aircraft may exceed the minimum required to satisfy airworthiness or Air Navigation Legislation requirements. Where necessary to achieve a satisfactory level of safety with an inoperative item, appropriate limitations are imposed or the function transferred to another component.
4. The MMEL does not include items such as wings, engines and landing gear that are always required, nor is reference made to equipment such as passenger convenience and entertainment items which when inoperative obviously do not affect airworthiness. It is important to note therefore that **ANY ITEM WHICH IS RELATED TO THE AIRWORTHINESS OF THE AIRCRAFT AND WHICH IS NOT INCLUDED IN THE MMEL IS ALWAYS REQUIRED TO BE OPERATIVE BEFORE A FLIGHT IS DISPATCHED. This also applies to items which are required** by Air Navigation Legislation. Additional Certification Requirements as appropriate, which are not listed, must be operative.
5. The MMEL may not waive a limitation or an emergency procedure which is given in the Flight Manual (FM) or override an Airworthiness Directive (AD) /Mandatory Inspection unless the FM/AD provides otherwise. Similarly, any Additional Certification Requirements, or other special provisions, as appropriate which have been determined as necessary by the CAA shall not be waived unless otherwise agreed or varied by the CAA.
6. An Owner/Operators MEL must receive CAA approval which thereby conveys the permission, required by the UK Air Navigation Order, to the Commander, for operation of the aircraft with specified items of equipment unserviceable.
7. The MEL may not be less restrictive than the MMEL, therefore the number of items required for dispatch shall not be less than the corresponding number in column 4 of the MMEL and any associated conditions shall be at least as severe as those specified in column 5.
8. The MMEL does not anticipate the effects of combinations of apparently unrelated unserviceabilities or allow for situations where systems are made inoperative for special purposes such as demonstration, test or crew training. Other provisions may apply to positioning or ferrying flights but these may not necessarily be included in the MMEL.

# **CIVIL AVIATION AUTHORITY**

## **MASTER MINIMUM EQUIPMENT LIST**

### **SUPPLEMENT**

Revision 1  
22 March 2011

#### **DORNIER 228**

#### **PREAMBLE (Cont.)**

9. The MEL should indicate that a decision to operate the aircraft with multiple unserviceabilities should only be made after due consideration of possible inter-related or additive effects and, if necessary, following consultation with appropriate engineering specialists.
10. It is not the purpose of the MMEL to allow defects of other than optional items to remain unrectified indefinitely. The operational flexibility provided under the MMEL policy is justified only within a framework of controlled and sound programmes of repairs, replacement and servicing. Defects should be rectified expeditiously thus retaining the intended overall level of safety and reducing the possibility of a subsequent failure necessitating the removal of the aircraft from service. Particular items in the MMEL may be subject to a limitation of flight hours, number of flights or consecutive calendar days, and these must be transferred into the MEL. A limit of three calendar days for completion of repairs or replacements has been applied to some items. Other time limits for rectification, such as those specified by the ANO, may also be applied as appropriate. Operators with established routes shall specify in the **MEL** at which stations, in addition to the main maintenance base, repair facilities exist.
11. This MMEL is based upon UK legislation and some of the alleviations it provides may not therefore necessarily comply with foreign legislation.
12. Where entries specify the use of (O) and/or (M) procedures, the information contained in the FAA approved Dornier 228 MMEL Guidance for (O) & (M) Procedures should be used as a basis.
13. The CAA MMELs and supplements are produced in conjunction with a base document, generally either the MMEL issued/approved by a Foreign Airworthiness Authority or the aircraft manufacturer at a specific quoted revision number and date. There may be occasions whereby the CAA MMEL or supplement has not been updated to consider later revisions of the base document. This could lead to instances where there are alleviations in the base MMEL which have either been revised or deleted and are now more restrictive than the corresponding CAA MMEL or supplement entry. Operators are invited to review all new base document MMEL revisions and where necessary advise the CAA MMEL section of any significantly more restrictive alleviations introduced by the revision. The CAA will then expedite review of these variations and, where required, issue amendments to the CAA MMEL or supplement.

New or amended alleviations given in later issues of the base document shall not be used until the CAA MMEL or supplement has been updated to confirm that issue of the base document is acceptable.

# CIVIL AVIATION AUTHORITY

## MASTER MINIMUM EQUIPMENT LIST

### SUPPLEMENT

Revision 1  
22 March 2011

#### DORNIER 228

#### DEFINITIONS

1. In this list, the items of equipment are classified in systems according to the ATA 100 specification. Individual items within a given ATA classification are numbered sequentially.

2. "Item" (Column 1): The equipment, system, components or function as listed in Column 1.

NOTE: Items annotated in UPPER CASE letters indicates the precise flight deck legend used.

3. "Rectification Interval" (Column 2): Inoperative items or components, deferred in accordance with the MEL, must be rectified at or prior to the rectification intervals established by the following letter designators given in the "Rectification Interval" column (2) of the MMEL.

##### Category A

No standard interval is specified, however, items in this category shall be rectified in accordance with the conditions stated in the Remarks column (5) of the MMEL.

Where a time period is specified it shall start at 00:01 on the calendar day following the day of discovery.

##### Category B

Items in this category shall be rectified within three (3) consecutive calendar days, excluding the day of discovery. For example, if it were recorded at 10 am on January 26<sup>th</sup>, the three day interval would begin at midnight on the 26<sup>th</sup> and end at midnight on the 29<sup>th</sup>.

##### Category C

Items in this category shall be rectified within ten (10) consecutive calendar days, excluding the day of discovery. For example, if it were recorded at 10 am on January 26<sup>th</sup>, the 10 day interval would begin at midnight on the 26<sup>th</sup> and end at midnight on February 5<sup>th</sup>.

##### Category D

Items in this category shall be rectified within one hundred and twenty (120) consecutive calendar days, excluding the day of discovery.

NOTE: **Subject to the approval of the Authority, the operator may permit a one-time extension of the applicable rectification interval B, C or D for the same duration as that specified in the MEL.**

4. "Number Installed" (Column 3): The number of the specified items normally installed in the aircraft. This number identifies the aircraft configuration considered in developing the MMEL.

NOTE: The operator's MEL should list the number installed in a particular aircraft.

5. "Number Required for Dispatch" (Column 4): The minimum number of the specified items required for operation provided the conditions defined in Column 5 are met.

6. "Remarks or Exceptions" (Column 5): This column includes a statement prohibiting operation or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation and appropriate notes.

**A note in column 5 indicates additional information and references for crew and/or maintenance personnel consideration; they are not part of the provisos.**

# CIVIL AVIATION AUTHORITY

## MASTER MINIMUM EQUIPMENT LIST

### SUPPLEMENT

Revision 1  
22 March 2011

#### DORNIER 228

#### DEFINITIONS (Cont.)

**Where references are stated in column 5, these are to identify certain inter-relationships between the subject item and other MMEL items, AFM material etc. These references are intended to assist, but not relieve, an operator of the responsibility for determining such inter-relationships as stated in the Preamble.**

7. Dash (-): This symbol indicates a variable quantity when used in Columns 3 or 4.

NOTE: The operator's MEL should list the numbers appropriate to his particular aircraft in Columns 3 and 4.

8. "Placarding": Each inoperative item must be placarded to inform and remind the crew members and maintenance personnel of the equipment condition. To the extent practicable, placards should be located adjacent to the control or indicator for the item affected such that it is clear to the operating crew that it or its associated system is inoperative.

NOTE: The practice of specifying which items must be placarded, by means of an asterisk (\*), has been discontinued.

9. "Inoperative": A system or item of equipment is deemed inoperative if it malfunctions such that it does not accomplish its intended purpose and/or is not consistently functioning within its designed operating limit(s) or tolerance(s).

10. "(O)": The use of this symbol in Column 5 indicates that an appropriate operating procedure (or change to an existing procedure) must be established, published and utilised to maintain the required level of safety while operating under the terms of the (M)MEL.

Normally, these procedures are accomplished by the flight crew. However, other personnel may be qualified and authorised to perform certain functions.

11. "(M)": The use of this symbol in Column 5 indicates that an appropriate maintenance procedure must be established, published and utilised prior to the first flight undertaken following discovery of the defect and, if necessary, repeated at specified intervals during operation under the terms of the (M)MEL to maintain the required level of safety.

Normally, these procedures are accomplished by maintenance personnel. However, other personnel may be qualified and authorised to perform certain functions.

NOTE: Where an item is annotated (O)/(M), the "/" is defined as "and/or", which shows that there may be different options available in respect of the MEL procedures.

12. "As required by Air Navigation Legislation / Operating Requirements": The associated item must comply with legal provisions such as the Air Navigation Order or any other legislation (**EU-OPS**) in force during the flight.

Operators should refer to the JAR-OPS 1 MEL Policy document (Temporary Guidance Leaflet number 26) for suitable alleviations based upon the required equipment identified within **EU-OPS**, subparts K and L (published in the JAA Administrative and Guidance, section four, Operations, part three).



# CIVIL AVIATION AUTHORITY

## MASTER MINIMUM EQUIPMENT LIST

### SUPPLEMENT

Revision 1  
22 March 2011

### DORNIER 228

### DEFINITIONS (Cont.)

13. "VMC" and "IMC": The definitions of these terms are those used in Section 2 of the Air Navigation Order - Rules of the air.
14. "Icing Conditions": An atmospheric condition that may cause ice to form on the aircraft or in the engines.
15. "Visible Moisture": An atmospheric environment containing water in any form that can be seen in natural or artificial light, i.e. clouds, fog, rain, sleet, hail, snow.
16. "Flight Hour": The time from the moment an aircraft leaves the surface of the earth until it touches it at the next point of landing.

NOTE: The definition differs from that given in the Air Navigation Order.

17. "Flight": For the purpose of a MEL, a flight is the period of time between the moment when an aeroplane begins to move by its own means, for the purpose of preparing for take-off, until the moment the aeroplane comes to a complete stop on its parking area, after the subsequent landing (and no subsequent take-off).
18. "ETOPS": Refers to "extended range" operations which may be defined as "operation of a two-engined aeroplane over a route that contains a point farther than one hour flying time at the normal one-engined inoperative cruise speed (in still air) from an adequate airport".

In the MEL, for an operator who has received approval to extend maximum diversion time from 120 minutes to 138 minutes, unless otherwise stated, "120 minutes" may be interpreted as "138 minutes".

19. "Flight day": A 24 hour period (from midnight to midnight) during which at least one flight is scheduled for the affected aircraft.
20. "Authority": The competent regulatory authority according to the country of registry; for aircraft registered in the U.K. this is the Civil Aviation Authority.
21. "It is not reasonably practical to repair or replace before the commencement of flight / It is not reasonably practicable for repairs or replacements to be made": These statements are intended to cover situations where there is a lack of a replacement part(s), inadequate engineering resources or manpower to enable the defect to be rectified.

NOTE: The intention of either of these statements in an MMEL is that the aircraft may be dispatched if there are inadequate available spares or if there are no qualified and authorised personnel on base to perform the task. The definition is not dependent on whether there is enough time available to complete the task before the next flight. If the aircraft is at a maintenance base or any other airport, but the spare(s) or manpower are not available, then the aircraft may be dispatched. As soon as the aircraft lands at an airport where the spares are available and there are qualified and authorised personnel on base, the defect must be rectified.

# CIVIL AVIATION AUTHORITY

## MASTER MINIMUM EQUIPMENT LIST

### SUPPLEMENT

Revision 1  
22 March 2011

### DORNIER 228

### DEFINITIONS (Cont.)

22. "The aircraft may depart on the flight or series of flights for the purpose of returning directly to a base where repairs or replacements can be made / the aircraft may continue the flight or series of flights but shall not depart an airport where repairs or replacements can be made": These statements are intended to allow the aircraft to be flown, using the most direct route, to the nearest maintenance base where arrangements for repairs or replacements can be made.

NOTE: Once the aircraft lands at the maintenance base, the aircraft shall not be dispatched until the defect has been rectified.

23. "Combustible (Material)": is defined as material which is capable of catching fire and burning.

When an MMEL item specifies the condition that only non-combustible materials are to be carried, it is the operator's responsibility to determine that all material (including containers, packing material and pallets etc) in the associated compartments is of a non-combustible nature.

If it cannot be determined whether any proposed cargo is non-combustible, it must not be loaded in compartments where combustible materials are prohibited.

24. "System": System means the group of directly related components which together performs a specified function, for example 'RPM indication system' would include the RPM indicator, tachometer generator, circuit breaker and associated circuitry.

25. "Extended Over-water Flight": Refers to an operation over water at a horizontal distance of more than 50 nautical miles from the nearest shoreline.

26. "Dispatch": The point at which an aircraft first moves under its own power for the purpose of commencing a flight.

NOTE: The definition above is in accordance with that given in Article **256(1)(a)** of the ANO. The MMEL/MEL applies to all defects identified that occur upto the point of dispatch. They come into effect again when the aircraft next comes to rest at the end of its flight.

27. Base documents used for the preparation of this MMEL Supplement are:

- (a) FAA Dornier 228 MMEL at **Revision 7, dated 27 May 2007**.
- (b) CAA Policy as at **22 March 2011**.
- (c) CAA MMEL **Supplement** for the Dornier 228 at **Revision 0, dated 27 August 2004**.

# CIVIL AVIATION AUTHORITY

## MASTER MINIMUM EQUIPMENT LIST

### SUPPLEMENT

Revision 1  
22 March 2011

### DORNIER 228

#### HIGHLIGHTS OF REVISION 1

General The CAA MMEL Supplement has been updated principally to align with Revision 7 of the FAA MMEL, dated 29 May 2007.

Introduction Item 4 – Added reference to '14 CFR'.  
Item 5 – Amended to indicate that the base document is now Revision 7 of the FAA MMEL, dated 29 May 2007.

Preamble Item 4 – Editorial correction to last sentence.  
Item 10 – Correction in last sentence to specify MEL, not MMEL.

Definitions Item 3 – 'NOTE' moved to end of item and revised in accordance with CAA policy.  
Item 6 – Additional information.  
Item 12 – Amended to reflect introduction of EU-OPS.  
Item 26 – Air Navigation Order reference updated.

#### ATA 22 AUTO FLIGHT

22-3 Autopilot Disconnect The FAA MMEL at Revision 7 is acceptable.

#### ATA 23 COMMUNICATIONS

23-13 Emergency Locator Transmitter Item relocated from 25-6, in line with FAA MMEL and revised in line with JAA (EASA) policy.

23-14 Hand-Held Microphones Item re-numbered (was 23-12).

#### ATA 25 EQUIPMENT/FURNISHINGS

25-3 Passenger Seats Revised in line with FAA MMEL. Added new sub-items 2) and 3).

25-6 Emergency Locator Transmitter Item moved to 23-13, in line with FAA MMEL.

25-9 Passenger Convenience Items Added Note 2 re Non-Essential Equipment and Furnishings (NEF).

25-10 Emergency Medical Equipment New supplement entry.

25-15 Flight Crew Smoke Protection Equipment Item deleted – refer to item 35-2.

# CIVIL AVIATION AUTHORITY

## MASTER MINIMUM EQUIPMENT LIST

### SUPPLEMENT

Revision 1  
22 March 2011

#### DORNIER 228

#### HIGHLIGHTS OF REVISION 1 (Cont.)

##### ATA 26 FIRE PROTECTION

26-5	Lavatory Smoke Detection System	1 <sup>st</sup> relief, removed proviso to electrically isolate lavatory compartment. Proviso c) revised to limit use to crew members.
------	---------------------------------	----------------------------------------------------------------------------------------------------------------------------------------

##### ATA 30 ICE AND RAIN PROTECTION

30-4	Pitot Heater	Proviso a) revised, new proviso b), last proviso now becomes c).
30-8	Pitot Heat Failure Indication System	New supplement entry.

##### ATA 33 LIGHTS

33-6	Navigation/Position Lights	New supplement entry in accordance with JAA (EASA) policy.
33-10	Passenger Cabin Lighting	Revised to delete "Some lights".

##### ATA 34 NAVIGATION

34-4	ATC Transponder	New supplement entry.
34-19	ACAS II	Added sub-items 5) Audio Functions, and 6) Airspace Selection Function, in line with FAA MMEL.
34-26	Standby Attitude Indicator	New supplement entry.
34-27	Altimeters	Item re-numbered (was 34-26).
34-28	Airspeed Indicators	Item re-numbered (was 34-27).
34-29	Attitude Indicators	Item re-numbered (was 34-28).

##### ATA 35 OXYGEN

35-2	Protective Breathing	New supplement entry.
------	----------------------	-----------------------

##### ATA 46 INFORMATION SYSTEMS

46-2	Electronic Flight Bag	New supplement entry.
------	-----------------------	-----------------------

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Original Issue	PAGE
		DATE	27 August 2004	S21-1
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>21</b>	<b>AIR CONDITIONING</b>			
10.	Avionics Pedestal Fan	-	1	<b>1</b> <b>Must be operative.</b>
11.	Radio Rack Fan	-	1	<b>1</b> <b>Must be operative.</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Revision 1	PAGE
(1) System & Sequence Numbers Item		DATE	22 March 2011	S22-1
		(2) Rectification Interval		
		(3) Number installed		
		(4) Number required for dispatch		
		(5) Remarks or Exceptions		
<b>22</b>	<b>AUTO FLIGHT</b>			
2.	Yaw Damper	C	1	0
3.	Autopilot Disconnect	-	-	-
		(M) <b>May be inoperative provided servos do not cause binding of the control cables.</b>		
		<b>The FAA MMEL at Revision 7 is acceptable.</b>		

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK



**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Revision 1	PAGE	
		DATE	22 March 2011	S23-1	
(1) System & Sequence Numbers Item	(2) Rectification Interval				
	(3) Number installed			(4) Number required for dispatch	
				(5) Remarks or Exceptions	
<b>23</b>	<b>COMMUNICATIONS</b>				
2.	Audio Amplifier	-	2	<b>2</b>	<b>Both must be operative.</b>
3.	Passenger Address System	<b>D</b>	1	0	
4.	Audio Selector and Intercom Unit	<b>C</b>	2	-	<b>An operative intercom and audio selector is required for each crew member on active flight deck duty.</b>
8.	Cockpit Voice Recorder (CVR) <b>System</b>	-	-	-	<b>As required by Operating Requirements.</b>
9.	<b>Headsets (including Boom Microphones)</b>	<b>D</b>	-	-	<b>One headset (including boom microphone) must be operative for each crew member on flight deck duty. Any in excess of those required may be inoperative.</b>
11.	High Frequency (HF) Communications System (If installed)	<b>D</b>	-	-	<b>Any in excess of those required may be inoperative.</b>
13.	Emergency Locator Transmitter (ELT)				
	(1) Survival ELT(S)	<b>D</b>	-	-	<b>(M) Any in excess of the minimum required may be inoperative or missing provided the equipment is placarded inoperative, removed from the installed location and placed out of sight so that it cannot be mistaken for a functional unit.</b>
	(2) Fixed ELT	<b>A</b>	-	0	<b>May be inoperative provided repairs or replacements are made within 6 further flights or 25 flying hours, whichever occurs first.</b>
		<b>D</b>	-	-	Any in excess of those required by <b>Operating Requirements</b> may be inoperative.
	<b><u>ADDITIONAL ITEM</u></b>				
14.	<b>Hand Held Microphones</b>	<b>D</b>	-	-	<b>Any or all may be inoperative.</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY**  
**MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Original Issue	PAGE
		DATE	27 August 2004	S24-1
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>24 ELECTRICAL POWER</b>				
5. Generator Caution Lights	-	2	<b>2</b>	<b>Both must be operative.</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Revision 1 22 March 2011	PAGE S25-1
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>25 EQUIPMENT/FURNISHINGS</b>				
1. <b>Flight Crew Seats</b>				
1) <b>Vertical and Recline Adjustment</b>	<b>B</b>	-	0	(M) May be inoperative provided <b>the associated seat is secured or locked in a position acceptable to the flight crewmember.</b>
2) <b>Horizontal Adjustment</b>	-	-	-	<b>Must be operative for each flight crewmember.</b>
2. <b>Cockpit Crewmember Shoulder Harnesses</b>	<b>B</b>	2	1	Right seat shoulder harness may be inoperative for single pilot operations. Right side pilot seat must be unoccupied.
1) <b>Inertia Reels</b>	<b>A</b>	-	-	<b>May be inoperative provided:</b>  <b>a) The affected harness is adjusted and locked by an approved means to suit the requirements of the individual Flight Crew Member, and</b>  <b>b) Repairs or replacements are made within three calendar days.</b>
3. <b>Passenger Seats</b>	<b>D</b>	-	-	May be inoperative provided:  a) Seat does not block an emergency exit,  b) Seat does not restrict any passenger from access to the main aircraft aisle, and  c) The affected seat(s) are blocked and placarded "DO NOT OCCUPY".  <u>Note:</u> A seat with an inoperative seat belt or shoulder harness is considered to be inoperative.
1) <b>Recline Mechanism</b>	<b>D</b>	-	-	May be inoperative and seat occupied provided seat is secured in the full upright position.
				(Cont...)

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Revision 1 22 March 2011	PAGE S25-2
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>25 EQUIPMENT/FURNISHINGS</b>				
3. Passenger Seats (Cont.)				
2) Underseat Baggage Restraining Bars	<b>D</b>	-	-	(O) May be inoperative <b>or missing</b> provided: a) Baggage is not stowed under associated seat, 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) Armrests	<b>D</b>	-	-	<b>(M)</b> May be inoperative or missing provided: (a) Armrest does not block an emergency exit, (b) Armrest does not restrict any passenger from access to the main aircraft aisle, and (c) For an armrest with a recline mechanism, seat is secured in the upright position.
6. Aircraft Emergency Locator <b>Transmitter (ELT) (If installed)</b>				<b>Item moved to 23-13</b>
9. Passenger Convenience Items	-	-	-	Passenger convenience items, as expressed in this MMEL, are those related to passenger convenience, comfort or entertainment such as, but not limited to, galley equipment, movie equipment, ashtrays, stereo equipment and overhead reading lamps, etc. Items addressed elsewhere in this document shall not be included. (M) and (O) procedures may be required and included in the air carrier's appropriate document.  <b>Note 1: Lavatory door ashtrays (internal and external) are not considered convenience items.</b>  <b>Note 2: NEF deferral program not applicable.</b>

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Revision 1 22 March 2011	PAGE S25-3
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>25 EQUIPMENT/FURNISHINGS</b>				
10. Emergency Medical Equipment				
1) Automatic External Defibrillator (AED) and/or Associated Equipment	D	-	-	Any in excess of those required <b>by Operating Requirements</b> may be incomplete, missing, or inoperative.
2) Emergency Medical Kit and/or Associated Equipment	A	-	-	<b>Required Emergency Medical Kit(s) may be incomplete for flight to a destination where repairs or replacements can be made but not to exceed 2 calendar days.</b>
	D	-	-	Any in excess of those required <b>by Operating Requirements</b> may be incomplete, missing, or inoperative.
3) First Aid Kit and/or Associated Equipment	A	-	-	<b>If more than one is required, one of the required First Aid Kits may be incomplete for a maximum of 2 calendar days</b>
	D	-	-	Any in excess of those required <b>by Operating Requirements</b> may be incomplete, missing, or inoperative.
14. Cargo Restraint Systems (If installed)	D	-	-	(M) May be inoperative or missing provided acceptable cargo loading limits from an approved source, i.e., an approved Cargo Loading Manual, Cargo Handling Manual or Weight and Balance Manual are <b>presented in a format acceptable to the Authority and</b> observed.
	D	-	-	(M) May be inoperative or missing provided associated cargo compartment remains empty.
<b><u>ADDITIONAL ITEM</u></b>				
15. Flight Crew Smoke Protection Equipment (Basic and Portable)	-	-	-	<b>Item deleted. Refer to Item 35-2</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK



**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Original Issue 27 August 2004	PAGE S26-1
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>26 FIRE PROTECTION</b>				
4. Lavatory Fire Extinguisher (If installed)	C	-	0	<b>Any or all may be inoperative.</b>
5. Lavatory Smoke Detection System (If installed)	C	-	-	<b>(M)</b> May be inoperative provided: a) Lavatory waste receptacle is empty, b) Lavatory door is locked and placarded "INOPERATIVE-DO NOT ENTER", and c) Lavatory is used only by crew members.
	B	-	-	<b>(O)/(M)</b> May be inoperative provided: <b>a) Lavatory compartment fire extinguishers are fitted and checked to be operative on a daily basis, and</b> <b>b) Lavatory compartment is checked at 20 (twenty) minute intervals for evidence of fire and smoke.</b>  <u>Note 1:</u> These provisos are not intended to prohibit lavatory use or inspections by crew members.  <u>Note 2:</u> A lavatory Smoke Detection System is not required for all-cargo operations.

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Original Issue	PAGE
		DATE	27 August 2004	S27-1
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>27 FLIGHT CONTROLS</b>				
1. Flap Position Indicator	-	1	1	<b>Must be operative.</b>
2. Trim Tab Position Indicator (Rudder)	B	1	0	May be inoperative provided: a) Tab is visually checked for full range of operation, b) Tab operation is not impaired, and c) Tab is positioned to neutral prior to each departure and neutral position is verified by visual inspection.
3. Trim Tab Position Indicator (Aileron)	B	1	0	May be inoperative provided: a) Trim is visually checked for full range of operation, b) Trim operation is not impaired, and c) Trim is positioned to neutral prior to each departure and neutral position is verified by visual inspection.

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Original Issue 27 August 2004	PAGE S28-1
(1) System & Sequence Numbers Item	(2) Rectification Interval			
<b>28 FUEL SYSTEM</b>  4. Pressure Refuelling System	C	1	(3) Number installed	
			(4) Number required for dispatch	
			(5) Remarks or Exceptions	
			<b>May be inoperative. If full tanks are required, the aircraft must be refuelled in accordance with Pilots Operating Handbook normal procedure.</b>	

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Revision 1 22 March 2011	PAGE S30-1
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>30 ICE AND RAIN PROTECTION</b>				
4. Pitot Heater	B	2	1	<p><b>(O)/(M) One may be inoperative for day VMC, or single-pilot operations under IFR or at night provided:</b></p> <p>a) <b>The remaining pitot heater is verified to be operative prior to each flight,</b></p> <p>b) <b>For single-pilot operations under IFR or at night, the operative pitot heater is on the pilot's side, and</b></p> <p>c) <b>The aircraft is not operated in known or forecast icing conditions.</b></p>
8. Pitot Heater Failure Indication System				
1) Day VFR Operations	D	-	0	<b>May be inoperative</b>
1) IFR or Night Operations	B	-	1	<p><b>(O)/(M) Any in excess of one may be inoperative, provided:</b></p> <p>a) <b>The associated heater is verified to operate normally prior to each flight,</b></p> <p>b) <b>Flight is conducted under VMC, and</b></p> <p>c) <b>The aircraft is not operated in known or forecast icing conditions.</b></p>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK



**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Original Issue	PAGE
(1) System & Sequence Numbers Item		DATE	27 August 2004	S31-1
		(2) Rectification Interval		
		(3) Number installed		
		(4) Number required for dispatch		
		(5) Remarks or Exceptions		
<b>31</b>	<b>INDICATING/RECORDING SYSTEMS</b>			
1.	Clocks	C	2	<b>0</b> <b>(O) Both may be inoperative provided an accurate time piece is available on the flight deck indicating the time in hours, minutes and seconds.</b>
4.	Flight Data Recorder (FDR)	-	-	<b>As required by Operating Requirements.</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Original Issue 27 August 2004	PAGE S32-1
(1) System & Sequence Numbers Item		(2) Rectification Interval		
		(3) Number installed		
		(4) Number required for dispatch		
		(5) Remarks or Exceptions		
<b>32</b>	<b>LANDING GEAR</b>			
1.	Nosewheel Steering	C	1 0	(O)(M) <b>May be inoperative provided:</b>  <b>a) Nosewheel is in bypass mode, and</b>  <b>b) Pilots Operating Handbook procedures for operation in the bypass mode are observed.</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Revision 1 22 March 2011	PAGE S33-1
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>33 LIGHTS</b>				
1. Flight Compartment and Instrument Lighting System	C	-	0	<b>One or more may be inoperative for daylight operations.</b>
	C	-	-	Individual lights may be inoperative provided remaining lights are:  a) Sufficient to clearly illuminate all required instruments, controls, and other devices for which it is provided,  b) <b>Sufficient flight deck emergency lighting is operative, and</b>  c) Lighting configuration and intensity are acceptable to the flight crew.
	C	-	-	<b>Co-pilot's station instrument lights may be inoperative for single pilot operation, provided no co-pilot's station instrument is required to be used by the pilot.</b>
3. Landing Lights	B	2	1	One may be inoperative for night operations.
	C	2	0	Both may be inoperative for day operations.
5. Anti-collision Light System	C	1	0	May be inoperative <b>for daylight or night operations provided the light(s) is(are) repaired at the earliest practicable opportunity.</b>  <b>Note:</b> If the red anti-collision light (if installed) is inoperative, alternative procedures must be developed and used when the aircraft is on the ground with the engines running.
6. Navigation/Position Lights	C	-	0	<b>One or more may be inoperative for daylight operations.</b>
	C	-	-	<b>Any in excess of those required may be inoperative for night operations.</b>

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Revision 1	PAGE	
(1) System & Sequence Numbers Item		DATE	22 March 2011	S33-2	
		(2) Rectification Interval			
		(3) Number installed			
		(4) Number required for dispatch			
		(5) Remarks or Exceptions			
<b>33</b>	<b>LIGHTS</b>				
7.	Wing Illumination Lights	<b>D</b>	-	<b>0</b>	<b>May be inoperative for daylight operations.</b>
		<b>B</b>	-	<b>0</b>	<b>(O) May be inoperative for night operations provided an alternative means of illumination is available and used to determine whether ice is accreting on the wing.</b>
9.	Logo Lights	<b>D</b>	2	0	
10.	Passenger Cabin Lighting	<b>C</b>	-	-	May be inoperative provided:  a) Lighting is acceptable for the cabin crew to perform their required duties, <b>and</b>  b) <b>Cabin emergency lighting is operative.</b>
		<b>D</b>	-	-	<b>May be inoperative provided passengers are not carried.</b>
	<b><u>Additional Entry</u></b>				
14.	Floor Proximity Escape Path Marking System (If installed)	-	1	1	<b>Specific lights/strips may be inoperative for a particular lighting configuration as agreed by the Authority.</b>

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Revision 1 22 March 2011	PAGE S34-1
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>34 NAVIGATION</b>				
1. Gyroscopic Rate of Turn and Slip / Skid Indicator				
<b>1) Single pilot operations</b>	<b>B</b>	<b>2</b>	<b>0</b>	<b>One or both may be inoperative for day VMC only, provided the slip indicator is operative.</b>
	<b>C</b>	<b>2</b>	<b>0</b>	<b>One or both may be inoperative provided the slip indicator is operative and a standby attitude indicator is installed and operative.</b>
<b>2) Two pilot operations</b>	<b>C</b>	<b>2</b>	<b>1</b>	<b>Either indicator may be inoperative provided a standby attitude indicator is installed and operative.</b>
	<b>B</b>	<b>2</b>	<b>1</b>	<b>Captain's indicator may be inoperative for day VMC only provided both attitude indicators are operative.</b>
	<b>B</b>	<b>2</b>	<b>1</b>	<b>Co-pilot's indicator may be inoperative provided both attitude indicators are operative.</b>
	<b>B</b>	<b>2</b>	<b>0</b>	<b>One or both may be inoperative provided one slip indicator and three independent attitude indicators are operative.</b>
2. Vertical Speed Indicator				
<b>1) Single pilot operations</b>	<b>C</b>	<b>2</b>	<b>1</b>	<b>Co-pilot's VSI may be inoperative provided the operative VSI is on the commander's side.</b>
<b>2) Two pilot operations</b>	<b>C</b>	<b>2</b>	<b>1</b>	<b>Either may be inoperative for operations in day VMC.</b>
4. ATC Transponders and Automatic Altitude Reporting Systems	-	-	-	<b>As required by Operating Requirements.</b>
5. Marker Beacon				
	<b>B</b>	<b>2</b>	<b>0</b>	<b>One or both may be inoperative for IFR operations, provided approach procedures do not require marker fixes.</b>
	<b>D</b>	<b>2</b>	<b>0</b>	<b>One or both may be inoperative for VFR operations.</b>

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Original Issue	PAGE	
		DATE	27 August 2004	S34-2	
(1) System & Sequence Numbers Item	(2) Rectification Interval				
	(3) Number installed				
	(4) Number required for dispatch				
	(5) Remarks or Exceptions				
<b>34</b>	<b>NAVIGATION</b>				
7.	Flight Director (If installed)	C	2	0	<p><b>Both may be inoperative provided:</b></p> <p><b>a) Approach minimums do not require its use, and</b></p> <p><b>b) Conditions for an inoperative autopilot are applied, refer to item 22-1.</b></p>
12.	Radio Altimeter	C	1	0	<p>May be inoperative.</p> <p><b>Note 1:</b> If the loss of the radio altimeter prohibits the normal operation of the GPWS / TAWS, the dispatch deviation and rectification interval for an inoperative GPWS / TAWS must be observed.</p> <p><b>Note 2:</b> If the loss of the radio altimeter prohibits normal operation of the ACAS, the dispatch deviation and rectification interval for an inoperative ACAS must be observed.</p>
13.	Altitude Alerting System	B	-	0	<p><b>(O) May be inoperative provided an autopilot with an altitude hold is operative.</b></p>
14.	ADF	D	-	-	<p>Any in excess of those required may be inoperative.</p>
		B	-	0	<p><b>May be inoperative provided:</b></p> <p><b>a) Alternative approved navigational equipment is operative, and</b></p> <p><b>b) The ADF is not required for the planned routes to be flown.</b></p> <p><b>Note:</b> The ADF may be operated with inoperative timing functions (i.e. Elapsed Time, Flight Time, Stop Watch, etc.) that do not affect ADF navigation.</p>
15.	RMI	-	-	-	<p><b>Refer to item 34-17.</b></p>



**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Revision 1	PAGE
		DATE	22 March 2011	S34-3
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>34 NAVIGATION (Cont.)</b>				
16. Non-stabilised Magnetic Compass	B	1	0	May be inoperative provided <b>at least two independent stabilised compass systems are installed and operative.</b>
17. <b>Stabilised</b> Directional Indicator System	-	-	-	<b>As required by Operating Requirements.</b>
19. <b>Airborne Collision Avoidance System (ACAS II)</b>				
<b>1) ACAS II System</b>	<b>A</b>	-	0	(O)(M) May be inoperative provided the system is deactivated and secured, and:  <b>a) It is not reasonably practicable for repairs or replacements to be made before the commencement of flight, and</b>  <b>b) Repairs or replacements are carried out within 10 calendar days.</b>
<b>2) Combined Traffic Alert (TA) and Resolution Advisory (RA) Dual Displays</b>	C	-	1	(O) May be inoperative on the non-flying pilot side provided TA and RA <b>elements</b> and audio functions <b>are</b> operative on the flying pilot side.
<b>3) Resolution Advisory (RA) Display System(s)</b>	C	-	1	(O) One may be inoperative on the non-flying pilot side.
	C	-	0	(O) May be inoperative provided:  a) All Traffic Alert (TA) display <b>elements</b> and <b>voice command</b> audio functions are operative, and  b) TA only mode is selected by the crew.
<b>4) Traffic Alert (TA) Display System(s)</b>	C	-	0	(O) May be inoperative provided <b>all installed</b> RA display and audio functions are operative.
5) Audio Functions	-	1	-	<b>Must not be inoperative in isolation to the ACAS II system as a whole. This function must be operative in order to consider the ACAS II system operative.</b>
6) Airspace Selection Function (If installed)	C	-	0	May be inoperative.

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Revision 1	PAGE
		DATE	22 March 2011	S34-4
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>34 NAVIGATION (Cont.)</b>				
20. Ground Proximity Warning System (GPWS) (Including TAWS)	-	-	-	<b>As required by Operating Requirements.</b>
22. Windshear Warning and Flight Guidance System (Reactive) (If installed)	<b>D</b>	-	0	<b>(O) May be inoperative provided alternate procedures are established and used.</b>
23. Windshear Detection and Avoidance System (Predictive) (If installed)	<b>D</b>	-	0	<b>May be inoperative.</b>
24. Navigation Databases (If installed)				
1) Flight Management System	<b>A</b>	-	-	(O) May be out of currency provided: a) Current aeronautical <b>information</b> is used to verify Navigation Fixes prior to dispatch, b) Procedures are established to verify status and suitability of Navigation Facilities used to define route of flight, and <b>c) The navigation database is updated to the current standard within 10 calendar days.</b>
2) Navigation Management System	<b>A</b>	-	-	(O) May be out of currency provided: a) Current aeronautical <b>information</b> is used to verify Navigation Fixes prior to dispatch, b) Procedures are established to verify status and suitability of Navigation Facilities used to define route of flight, and <b>c) The navigation database is updated to the current standard within 10 calendar days.</b>
25. Automatic Dependent Surveillance – Broadcast (ADS-B)	<b>D</b>	-	-	<b>Any in excess of those required may be inoperative.</b>

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Revision 1 22 March 2011	PAGE S34-5
(1) System & Sequence Numbers Item	(2) Rectification Interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or Exceptions			
<b>34 NAVIGATION (Cont.)</b>				
26. Standby Attitude Indicator				
<b>1) Single Pilot Operations</b>	<b>B</b>	-	<b>0</b>	<b>May be inoperative for day VMC only provided the commander's attitude indicator is operative.</b>
<b>2) Two Pilot Operations</b>	<b>B</b>	-	<b>0</b>	<b>May be inoperative for day VMC only provided both attitude indicators are operative.</b>
<u><b>Additional Entries</b></u>				
27. Altimeters	-	-	-	<b>As required by Operating Requirements.</b>
28. Airspeed Indicators	-	-	-	<b>As required by Operating Requirements.</b>
29. Attitude Indicators	-	-	-	<b>As required by Operating Requirements.</b>
<b>CARGO ONLY – SINGLE PILOT ONLY</b>				
1. Airspeed Indicator	-	-	-	<b>As required by Operating Requirements.</b>
2. Gyroscopic Bank and Pitch Indicator System	-	-	-	<b>As required by Operating Requirements.</b>
3. Gyroscopic Direction Indicator System	-	-	-	<b>As required by Operating Requirements.</b>
4. Gyroscopic Directional Indicator Slaving System	-	-	-	<b>As required by Operating Requirements.</b>
5. Altimeter, Barometric Pressure, Adjustable	-	-	-	<b>As required by Operating Requirements.</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Revision 1 22 March 2011	PAGE S35-1
(1) System & Sequence Numbers Item		(2) Rectification Interval		
35 <b>OXYGEN</b>  2.      Protective Breathing Equipment (PBE)		(3) Number installed		
		(4) Number required for dispatch		
		(5) Remarks or Exceptions		
		D	-	-
		<p><b>(M) (O) Any in excess of those required may be inoperative or missing provided:</b></p> <p><b>(a) Required distribution of operative PBE units is maintained throughout the aircraft,</b></p> <p><b>(b) The inoperative PBE and its installed location is placarded inoperative,</b></p> <p><b>(c) The inoperative PBE is removed from the aircraft, or remains in an approved stowage, and</b></p> <p><b>(d) Procedures are established and used to alert crew members of inoperative or missing equipment.</b></p> <p><b>Note:</b> PBE which cannot be stowed in an approved stowage is subject to the requirements of the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p>		

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Revision 1 22 March 2011	PAGE S46-1
(1) System & Sequence Numbers Item		(2) Rectification Interval		
		(3) Number installed		
		(4) Number required for dispatch		
		(5) Remarks or Exceptions		
<b>46</b>	<b>INFORMATION SYSTEMS</b>			
2.	Electronic Flight Bag (EFB) System (If installed)	-	-	-
				<b>As required by Operating Requirements.</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK



**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Original Issue	PAGE
		DATE	27 August 2004	S52-1
(1) System & Sequence Numbers Item		(2) Rectification Interval		
		(3) Number installed		
		(4) Number required for dispatch		
		(5) Remarks or Exceptions		
<b>52</b>	<b>DOORS</b>			
2.	Pilots' Door Handles (inside/outside)	-	2	<b>2</b> <b>Both must be fully operative.</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Original Issue 27 August 2004	PAGE S73-1
(1) System & Sequence Numbers Item		(2) Rectification Interval		
		(3) Number installed		
		(4) Number required for dispatch		
		(5) Remarks or Exceptions		
<b>73</b>	<b>ENGINE FUEL AND CONTROL</b>			
	<b><u>Additional Entry</u></b>			
<b>2.</b>	<b>Fuel Flow Indicator</b>	<b>C</b>	<b>2</b>	<b>1</b>
				<b>One may be inoperative provided:</b>  <b>a) All other engine indications are operating normally, and</b>  <b>a) Both fuel quantity indicators operate normally.</b>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO DATE	Original Issue 27 August 2004	PAGE S77-1
(1) System & Sequence Numbers Item		(2) Rectification Interval		
		(3) Number installed		
		(4) Number required for dispatch		
<b>77 ENGINE INDICATING</b>  1. Torque/ITT Limiter <b>(-5/5A engines only)</b>		C	2	0
		(5) Remarks or Exceptions		
		(O) One or both may be inoperative provided: <b>a) Pilots Operating Handbook Torque / ITT limitations are not exceeded,</b> <b>b) ITT and Torque indicators are operating normally, and</b> <b>c) Inoperative ITT / Torque Limiter is switched off.</b>		

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK

**CIVIL AVIATION AUTHORITY  
MASTER MINIMUM EQUIPMENT LIST**

AIRCRAFT: DORNIER 228 CAA Supplement to FAA MMEL		REVISION NO	Original Issue	PAGE
(1) System & Sequence Numbers Item		DATE	27 August 2004	S79-1
		(2) Rectification Interval		
		(3) Number installed		
		(4) Number required for dispatch		
		(5) Remarks or Exceptions		
<b>79</b>	<b>OIL</b>			
	<b><u>Additional Entry</u></b>			
<b>1.</b>	<b>Oil Pressure and Temperature Indicator</b>	<b>C</b>	<b>2</b>	<b>1</b>
				<p><b>One may be inoperative provided:</b></p> <p><b>a) Associated oil pressure warning is operative,</b></p> <p><b>b) Minimum temperature limit for engine start is observed, and</b></p> <p><b>c) Associated engine oil tank is filled to recommended capacity in accordance with Manufacturer's Maintenance Procedures.</b></p>

**Civil Aviation Authority**

MASTER MINIMUM EQUIPMENT LIST

INTENTIONALLY LEFT BLANK