

5.1. MMEL kapak sayfası, kontrol sayfası ve genel bölümü

5.1.1. Kapak Sayfası

[Supplemental/Type Certificate Holder Name]

[Aeroplane Type]

MASTER MINIMUM EQUIPMENT LIST

ORIGINAL: [Effective date]

(and if applicable)

REVISION [Number]: [Effective date]

[Supplemental/Type Certificate Holder document reference]



5.1.2. Kontrol Sayfası

MASTER MINIMUM EQUIPMENT LIST

Type:

[Aeroplane type/model]

(and if applicable)

[Aeroplane commercial name]

ORIGINAL ISSUE: [Effective date]

(and if applicable)

REVISION [Number]: [Effective date]

This Master Minimum Equipment List (MMEL) is issued by [Supplemental/Type Certificate Holder name] at the above revision and is approved by the European Aviation Safety Agency (EASA) as the basis for the preparation and approval of individual operator's Minimum Equipment List (MEL) for aircraft of this model, as certified by and operated under the jurisdiction of EASA Member States' national authorities.

Issue: [Revision number]

Date: [Date of approval by the Agency]

Signed by: [Agency's signature and stamp]

5.1.3. İçindekiler Tablosu

GENERAL

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5.1.4. Geçerli Sayfaların Listesi

LIST OF EFFECTIVE PAGES

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Cover page			
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ITEM LIST			
[ATA chapter]			

5.1.5. Revizyonların Listesi

LIST OF REVISIONS

ORIGINAL ISSUE: [Effective date]

(If applicable)

REVISION [Number]: [Effective date]

Purpose of revision [Number]:

[Short description of the main purpose of the revision]

GENERAL

[Changes done in the GENERAL section]

ITEM LIST

[Changes done in the ITEM LIST section]

5.2. Ön söz

PREAMBLE

Introduction

The following is applicable for operators under European air operations regulations (Part-CAT, Part-NCO, Part-SPO). Paragraph 1.c.2 of Annex I to Article 5 (Essential requirements for airworthiness) of Regulation (EC) No 216/2008 (hereinafter referred to as the 'Basic Regulation') requires that all equipment installed on an aeroplane required for type certification or by operating rules shall be operative. However, paragraph 2.a.3 of Annex IV to Article 8 (Essential requirements for air operations) of the Basic Regulation also allows the use of a Minimum Equipment List (MEL) where compliance with certain equipment requirements is not necessary in the interest of safety under all operating conditions. Experience has shown that with the various levels of redundancy designed into aeroplanes, operation of every system or installed items may not be necessary when the remaining operative equipment can provide an acceptable level of safety.

Purpose and limitations

This Master Minimum Equipment List (MMEL) is developed by the Type Certificate Holder or the Supplemental Type Certificate Holder and approved by the Agency. This MMEL includes those items related to airworthiness and air operations regulations, and other items the Agency finds may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations; it does not contain obviously required items such as wings, flaps, and rudders. In order to maintain an acceptable level of safety, the MMEL establishes limitations on the duration of and conditions for operation with inoperative items. Unless specifically permitted by this MMEL, an inoperative item may not be removed from the aeroplane.

Utilisation

The MMEL is the basis for the development of the individual operator's MEL which takes into consideration the operator's particular aeroplane equipment configuration and operational conditions.

An operator's MEL may differ in format from the MMEL, but shall not be less restrictive than the MMEL. The individual operator's MEL, when approved or declared as applicable, allows operation of the aeroplane with inoperative items for a certain period of time until rectification can be accomplished.

The MEL cannot deviate from Airworthiness Directives or any other additional mandatory requirements. It is important to remember that all items related to airworthiness and operational regulations of the aeroplane not listed on the MMEL shall be operative.

Suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures and other restrictions as prescribed in this MMEL shall be specified in the MEL to ensure that an acceptable level of safety is maintained. It is important that rectifications be accomplished at the earliest opportunity.

When an item is discovered to be inoperative, it is reported by making an entry in the continuing airworthiness record system or the operator's technical log as applicable. Following sufficient fault identification, the item is then either rectified or may be deferred following the MEL or other approved means of compliance acceptable to the competent authority and the



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Agency prior to further operation. MEL conditions and limitations do not relieve the operator from determining that the aeroplane is in a condition for safe operation with items inoperative.

Prior to operation, any inoperative item should be made known to the crew in accordance with the continuing airworthiness requirements. For commercial air transport, acceptance by the crew is required.

Operators shall establish a controlled and sound rectification programme including the parts, personnel, facilities, procedures and schedules to ensure timely rectification.

Operators should include guidance in the MEL to deal with any failures which occur between the commencement of the flight and the start of the take-off.

When developing the MEL, compliance with the stated intent of the preamble, definitions and the conditions and limitations specified in this MMEL is required.

Multiple Inoperative Items

Operators are responsible for exercising the necessary operational control to ensure that an acceptable level of safety is maintained. The exposure to additional failures during continued operation with inoperative items shall also be considered. Wherever possible, account has been taken in this MMEL of multiple inoperative items. However, it is unlikely that all possible combinations of this nature have been accounted for. Therefore, when operating with multiple inoperative items, the inter-relationships between those items and the effect on aeroplane operation and crew workload shall be considered.

Rectification Intervals

For commercial operations under Part-CAT or Part-SPO, the operators may be allowed by their competent authority a one-time extension of the applicable rectification intervals B, C or D for the same duration as that specified in their MEL.

This extension policy is only applicable when the applicant has taken it into account during the development of this document.

For operations under Part-NCO, the rectification intervals indicated in the item list are only recommended and should be taken as guidelines as the maximum period of time during which an item would remain inoperative. It is important that repairs be accomplished at the earliest opportunity.

5.3. Tanımlar ve açıklayıcı notlar

- (a) The systems in the MMEL are described and identified in accordance with the numbering system used in the aeroplane manufacturer's documentation.
- (b) The MMEL item list provides the list of pieces of equipment/system/function which may be inoperative prior to dispatch. Items are gathered by relevant chapter and provided under a table format. The structure of the MMEL item list table is as follows:

- (1) **System and sequence numbers item** — column No 1 — details equipment, system, component or function listed.

The applicability for each item may vary based on the type of operation, and is given, when needed, as follows:

(CAT): for Commercial Air Transport, regulated by Part-CAT;

(SPO): for Specialised Operations, regulated by Part-SPO;

(NCO): for Non-Commercial Operations, regulated by Part-NCO; and

(ALL): for all above types of operations.

- (2) **Rectification interval** — column No 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:

Category A

No standard interval is specified, however, items in this category shall be rectified in accordance with the conditions stated in the MMEL.

Where a time period is specified in days, the interval excludes the day of discovery.

Where a time period is specified in other than days, it shall start at the point when the defect is deferred in accordance with the operator's approved MEL.

Category B

Items in this category shall be rectified within three (3) calendar days, excluding the day of discovery.

Category C

Items in this category shall be rectified within ten (10) calendar days, excluding the day of discovery.

Category D

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

- (3) **Number installed** — column No 3 — is the number (quantity) of items normally installed in the aeroplane. This number represents the aeroplane configuration considered in developing this MMEL. Should the number be a variable or not applicable, a number is not required; a '-' is then inserted.

Where the MMEL shows a variable number installed, the MEL should reflect the actual number installed, if applicable.

- (4) **Number required for dispatch** — column No 4 — is the minimum number (quantity) of items required for operation provided the conditions specified are met. Should the number be a variable or not applicable, a number is not required; a '-' is then inserted.

Where the MMEL shows a variable number required for dispatch, the MEL should reflect the actual number required for dispatch, as applicable, or an alternate means of configuration control approved by the competent authority.

- (5) **Remarks or exceptions** — column No 5 — include statements either prohibiting or permitting operation with a specific number of items inoperative, provisos (conditions and limitations), notes, (M) and/or (O) symbols, as appropriate for such operation.

'**(M)**' indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative. Normally, these procedures are accomplished by maintenance personnel, however, other personnel may be qualified and authorised to perform certain functions. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the operator's MEL or other documentation, endorsed by the operator and made available to the person(s) authorised to perform the task(s).

'**(O)**' indicates a requirement for a specific operations procedure which must be accomplished in planning for and/or operating with the listed item inoperative. Normally, these procedures are accomplished by the flight crew, however, other personnel may be qualified and authorised to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's MEL or other documentation, endorsed by the operator and made available to the person(s) authorised to perform the task(s).

'**Notes**' provide additional information for flight crew or maintenance consideration. Notes are used to identify applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the dispatch conditions.

Placarding: each inoperative item must be placarded, as applicable, to inform and remind crew members and maintenance personnel of the items' condition. To the extent practical, placards should be located adjacent to the control or indicator for the item affected, however, unless otherwise specified, placard wording and location will be determined by the operator. These placards do not relieve the operator from the obligation of writing an inoperative item entry into the appropriate document, such as a logbook.

- (c) A vertical bar (change bar) in the margin indicates a modification in the adjacent text for the current revision of that section only. The change bar is dropped at the next revision of that page.
- (d) Applicability: when a variant of page is required for certain aeroplanes, the special applicability is indicated at the lower part of the relevant page as well as in the list of effective pages.
- (e) Definitions for the purpose of this MMEL:

'**Aeroplane Flight Manual (AFM)**' is the document required for type certification and approved by the Agency.

'**Alternate procedures are established and used**' or similar statement, shall be taken to mean that alternate procedures (if applicable) to the affected process must be drawn up by the operator as part of the MEL approval process, so that they have been established before the MEL document has been approved. Such alternate procedures are normally included in the associated operations (O) procedure.

'**Any in excess of those required by regulations**' means that the item required by applicable legislation (e.g. Regulation Air Operations, Single European Sky legislation or applicable airspace requirements) must be operative, and only excess equipment may be inoperative. When the item is not required, it may be inoperative for the time specified by

its rectification interval category. Whenever this condition is used in the MMEL, the applicable regulations for the intended flight routes and the resulting dispatching restrictions need to be clarified at operator's MEL level.

'As required by (operational) regulations' means that the listed item is subject to certain provisions (restrictive or permissive) expressed in the applicable legislation (Regulation Air Operations, Single European Sky legislation or applicable airspace requirements). When the item is not required, it may be inoperative for the time specified by its rectification interval category.

'Calendar day': a 24-hour period from midnight to midnight based on either UTC or local time, as selected by the operator. All calendar days are considered to run consecutively.

'Commencement of flight' is the point when an aeroplane begins to move under its own power for the purpose of preparing for take-off.

'Considered inoperative', as used in the dispatch conditions, means that the item must be treated for dispatch, taxi and flight purposes as though it were inoperative. The item shall not be used or operated until the original deferred item is repaired. Additional actions include: documenting the item on the dispatch release (if applicable), placarding, and complying with all remarks, exceptions, and related MMEL provisions, including any (M) and (O) procedures, and observing the rectification interval.

'Daylight' corresponds to the period between the beginning of morning civil twilight and the end of evening civil twilight relevant to the local aeronautical airspace; or such other period, as may be prescribed by the appropriate authority.

'Day of discovery' means the calendar day that a malfunction was recorded in the aeroplane maintenance record/logbook.

'Flight' (for the purposes of this MMEL): 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 complete stop on its parking area, after the first landing.

'Icing conditions' means an atmospheric environment that may cause ice to form on the aeroplane or in the engine(s) as defined in the AFM.

'If installed' means that the item is either optional or is not required to be installed on all aeroplanes covered by the MMEL.

'Inoperative' means that the item does not accomplish its intended purpose or does not consistently function within its approved operating limits or tolerances.

'Intended flight route' corresponds to any point on the route, including diversions to reach alternate aerodromes required to be selected by the operational rules.

'Is not used' in the dispatch conditions, remarks or exceptions for an MMEL item may specify that another item relieved in the MMEL 'is not used'. In such cases, crew members should not activate, actuate, or otherwise utilise that item under normal operations. It is not necessary for the operators to accomplish the (M) procedures associated with the item. However, operations-related provisions, (O) procedures and rectification interval must be complied with. An additional placard must be affixed, to the extent practical, adjacent to the control or indicator for the item that is not used to inform crew members that an item is not to be used under normal operations.

'Item' means component, instrument, equipment, system, or function.

'Master Minimum Equipment List (MMEL)' means a document approved by the Agency that establishes the aeroplane items allowed to be inoperative under conditions specified therein for a specific type of aeroplane.

'Minimum Equipment List (MEL)' means a document approved by or declared to the competent authority, as applicable, that authorises an operator to dispatch an aeroplane with aeroplane items inoperative under the conditions specified therein.



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'Visible moisture' means an atmospheric environment containing water in any form that can be seen in natural or artificial light; for example, clouds, fog, mist, rain, sleet, hail, or snow.