AIRCRAFT MAINTENANCE MANUAL

HIGHLIGHTS

REVISION NO. 75 Jun 01/15

Pages which have been revised are outlined below, together with the Highlights of the Revision

______ CH/SE/SU C

PAGES

REASON FOR CHANGE **EFFECTIVITY**

CHAPTER 00

L.E.P. 1- 1 Revised to Reflect this revision indicating new, revised, and/or deleted pages

OO-INTRO Layout Improved or Effectivity Updated

10, 14-

15, 18,

24- 25,

27- 30

AIRCRAFT MAINTENANCE MANUAL

CHAPTER 00

INTRODUCTION

LIST OF EFFECTIVE PAGES

N, R or D indicates pages which are New, Revised or Deleted respectively Remove and insert the affected pages and complete the Record of Revisions and the Record of Temporary Revisions as necessary

| CH/SE/SU | С | PAGE | DATE | CH/SE/SU | С | | PAGE | DATE | CH/SE/SU | С | PAGE | DATE |
|----------------------|---|------|----------|----------|---|---|------|----------|----------|---|------|------|
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| LIST OF | | | | OO-INTRO | | | 801 | | | | | |
| CHAPTERS | | | | 00-INTRO | | | | Mar01/92 | | | | |
| | | | | 00-INTRO | | | | Dec01/89 | | | | |
| L.E.P. | R | 1- 1 | Jun01/15 | 00-INTRO | | | | Dec01/89 | | | | |
| T. of C. | | 1 | Jun01/10 | 00-INTRO | | | 805 | Dec01/89 | | | | |
| | | | | 00-INTRO | | | 806 | Mar01/92 | | | | |
| 00-INTRO | | 1 | Jun01/13 | 00-INTRO | | | 807 | Mar01/92 | | | | |
| 00-INTRO | | 2 | Jun01/13 | 00-INTRO | | | 808 | Mar01/92 | | | | |
| 00-INTRO | | 3 | Jun01/08 | 00-INTRO | | | 809 | Mar01/92 | | | | |
| 00-INTRO | | 4 | Jun01/08 | 00-INTRO | | | 810 | Mar01/92 | | | | |
| 00-INTRO | | 5 | Jun01/08 | 00-INTRO | | | 811 | Dec01/89 | | | | |
| 00-INTRO | | 6 | Jun01/08 | 00-INTRO | | | 812 | Dec01/89 | | | | |
| 00-INTRO | | 7 | Jun01/08 | 00-INTRO | | | 813 | Dec01/89 | | | | |
| 00-INTRO | | 8 | Jun01/08 | 00-INTRO | | | 814 | Dec01/89 | | | | |
| OO-INTRO | | 9 | Jun01/08 | | | | | | | | | |
| OO-INTRO | R | 10 | Jun01/15 | | | | | | | | | |
| OO-INTRO | | 11 | Jun01/08 | | | | | | | | | |
| OO-INTRO | | | Jun01/10 | | | | | | | | | |
| OO-INTRO | | | Jun01/10 | | | | | | | | | |
| OO-INTRO | R | | Jun01/15 | | | | | | | | | |
| OO-INTRO | R | | Jun01/15 | | | | | | | | | |
| OO-INTRO | | | Jun01/14 | | | | | | | | | |
| OO-INTRO | | | Jun01/14 | | | | | | | | | |
| OO-INTRO | R | | Jun01/15 | | | | | | | | | |
| 00-INTRO | | 19 | Jun01/14 | | | | | | | | | |
| OO-INTRO | | | Jun01/08 | | | | | | | | | |
| 00-INTRO | | 21 | Jun01/08 | | | | | | | | | |
| 00-INTRO | | | Jun01/08 | | | | | | | | | |
| 00-INTRO | _ | | Jun01/08 | | | | | | | | | |
| 00-INTRO | R | | Jun01/15 | | | | | | | | | |
| 00-INTRO | R | | Jun01/15 | | | | | | | | | |
| 00-INTRO | _ | | - | | | | | | | | | |
| 00-INTRO | R | | Jun01/15 | | | | | | | | | |
| OO-INTRO OO-INTRO | R | | Jun01/15 | | | | | | | | | |
| OO-TNIKO | R | 29 | Jun01/15 | | | | | | | | | |

AIRCRAFT MAINTENANCE MANUAL

CHAPTER 00

INTRODUCTION

TABLE OF CONTENTS

| SUBJECT | | C PAGE | EFFECTIV ITY |
|------------------------------------|----------|--------|---------------------|
| INTRODUCTION | 00-00-00 | | |
| General | | 1 | ALL |
| Flight Test Requirements | | 1 | ALL |
| General Recommendations Related to | | 1 | ALL |
| the Risk of Human Error during | | | |
| Maintenance | | | |
| Correspondence | | 2 | ALL |
| Manual Breakdown | | 3 | ALL |
| Chapter Breakdown Policy | | 5 | ALL |
| Topic Selection Policy | | 6 | ALL |
| Description and Operation | | 7 | ALL |
| Maintenance Topics | | 9 | ALL |
| Presentation of the Text | | 13 | ALL |
| Functional Item Numbers (FIN) | | 14 | ALL |
| Statement of Effectivity | | 15 | ALL |
| Preliminary Pages | | 17 | ALL |
| Revision Service | | 17 | ALL |
| Power Plant Chapters | | 19 | ALL |
| Specific Features for AMM in | | 24 | ALL |
| AirNav/Maintenance Environment | | | |
| AMM Front Matter | | 24 | ALL |
| Preliminary pages at Chapter level | | 24 | ALL |
| Revision Service | | 24 | ALL |
| Glossary of Abbreviations | | 26 | ALL |
| General - Conversion of units | | 801 | ALL |

AIRCRAFT MAINTENANCE MANUAL

INTRODUCTION

1. General

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The Aircraft Maintenance Manual (AMM) for the AIRBUS A310 AIRCRAFT conforms to ATA Specification No.100, Revision 21 and ASD-STE100 Simplified Technical English.

Improvements in subsequent ATA 100 revisions have been taken into consideration where appropriate so as to complement Revision 21, for optimum use of the Aircraft Maintenance Manual.

Document Scope

The AMM contains the instructions for the on-aircraft maintenance necessary to ensure the continued airworthiness of the aircraft.

NOTE TO USERS:

If you cannot find the information you need to ensure the continued airworthiness of the aircraft, or if you think that the information given is not complete, contact Airbus.

The AMM contains information required to service, repair, replace, adjust, inspect and check equipment and systems on the aircraft.

These tasks are normally performed on the ramp or in the maintenance hangar. Information required for the maintenance of equipment off the A/C (shop maintenance) is contained in the Vendor or Manufacturer Component Maintenance Manuals (CMMV or CMMM).

However, in a very small number of cases, AMM tasks related to MPD requirements refer to a CMM for on-aircraft maintenance. In these cases, for the CMM is part of the Instructions for Continued Airworthiness (ICA).

The Aircraft Maintenance Manual also contains information about inspections and maintenance of aircraft structure. However, repair of structure is contained in the A310 Structural Repair Manual or Nacelle Structural Repair Manual. Information required for trouble shooting is contained in the A310 Trouble Shooting Manual.

The Aircraft Maintenance Manual contains the necessary data to cover scheduled Maintenance Procedures prescribed by the Maintenance Review Board Report (MRBR) and the Maintenance Planning Document (MPD).

If any or all of the Manual is translated, the official version shall be the original English language version produced by AIRBUS.

AIRBUS Technical Publications use both metric and non-metric systems of measurement. The system used in the original reference documents is quoted first, followed by the conversion into the other system in brackets.

A. Flight Test Requirements

Maintenance actions requiring a subsequent flight test are listed in 05-59-00.

B. General Recommendations Related to the Risk of Human Error during Maintenance

AIRBUS makes these general recommendations because :

- if a maintenance team does the same task on different components of the same type during the same maintenance event and:
- if the team makes a maintenance error,

there is a risk that the same error and the same failure will occur on all these components at the same time.

| EFFECTIVITY: ALL | 00 -intro |
|------------------|---------------------|
| KSSU | Page 1 Jun 01/13 |

AIRCRAFT MAINTENANCE MANUAL

Thus, AIRBUS recommends:

- that operators do not do maintenance on different engines or redundant components installed on the same aircraft at the same time unless it is not possible to do differently.
- that, if it is necessary to do maintenance on more than one engine or on redundant components at the same time, different maintenance teams do the work on each engine or component.

If an engine run is necessary to perform a maintenance task, make sure that only the related (one) engine is in operation at the time unless the task gives other specific instructions.

C. Correspondence

Correspondence concerning this publication should be directed to : AIRBUS S.A.S.

Technical Data Support and Services
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31707 BLAGNAC CEDEX FRANCE

Or by the "Request for Information/Revision" form (N $^{\circ}$ SP 20001/10.87) available from AIRBUS SAS.

EFFECTIVITY: ALL
KSSU

DO -INTRO

Page 2 Jun 01/13

AIRCRAFT MAINTENANCE MANUAL

2. Manual Breakdown

The Aircraft Maintenance Manual is divided into chapters

| | HAPTER |
|--------------------------------|--------|
| Time Limits/Maintenance Checks | . 5 |
| Dimensions & Areas | . 6 |
| Lifting and Shoring | . 7 |
| Leveling & Weighing | . 8 |
| Towing & Taxiing | . 9 |
| Parking & Mooring | . 10 |
| Placards & Markings | . 11 |
| Servicing | . 12 |
| AIRFRAME SYSTEMS | |
| Standard Practices - Airframe | . 20 |
| Air Conditioning | . 21 |
| Auto Flight | . 22 |
| Communications | . 23 |
| Electrical Power | . 24 |
| Equipment/Furnishings | . 25 |
| Fire Protection | . 26 |
| Flight Controls | . 27 |
| Fuel | . 28 |
| Hydraulic Power | . 29 |
| Ice & Rain Protection | . 30 |
| Indicating/Recording Systems | . 31 |
| Landing Gear | |
| Lights | . 33 |
| Navigation | |
| Oxygen | . 35 |
| Pneumatic | . 36 |
| Water/Waste | . 38 |
| Airborne Auxiliary Power | . 49 |
| STRUCTURE | |
| Structures | . 51 |
| Doors | . 52 |
| Fuselage | . 53 |
| Nacelles/Pylons | . 54 |
| Stabilizers | . 55 |
| Windows | . 56 |
| Wings | . 57 |
| POWER PLANT | |
| Standard Practices - Engines | . 70 |
| Power Plant | |
| Engine | . 72 |
| Engine Fuel and Control | . 73 |
| Ignition | |
| Air | |
| Engine Controls | . 76 |
| Engine Indicating | |
| Exhaust | |
| 0il | |

EFFECTIVITY: ALL

KSSU

00 -INTRO

Page 3 Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

| Starting | | 80 |
|----------|--|----|
|----------|--|----|

EFFECTIVITY: ALL

) -INTRO

Page 4 Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

A. Chapter Breakdown Policy

Each Chapter/System is broken down into sections/subsystems (combinations of functional/physical groups).

Example:

- 29-00-00 Hydraulic Power General
- 29-10-00 Main
- 29-20-00 Auxiliary

Each Section/subsystem is broken down into sub-subsystems (Installations/Circuits).

Example:

- 29-10-00 Main
- 29-11-00 Green Main Hydraulic Power
- 29-12-00 Blue Main Hydraulic Power
- 29-13-00 Yellow Main Hydraulic Power

Each sub-subsystem is divided into subjects. Each subject represents a unit or component.

Example:

- 29-11-00 Green Main Hydraulic Power
- 29-11-11 Green Assembly Reservoir
- 29-11-12 Hydraulic Reservoir
- 29-11-13 Green Hydraulic Pump

NOTE: The subjects 01 to 08 are used in the Illustrated Parts Catalog (IPC) only in order to split the sub-subsystems of the aircraft into zones.

EFFECTIVITY: ALL
KSSU

00 -INTRO

Page 5 Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

B. Topic Selection Policy

(1)General

The information contained in the Aircraft Maintenance Manual has been divided into two main categories:

- Description and Operation,
- Maintenance Procedures

For ready use of the Aircraft Maintenance Manual, detailed information regarding Description and Operation and Maintenance Procedures are provided at sub-subsystem level (XX-XX-00).

(2)Page Block Assignment

| Topic | Page Block |
|---|------------------------------|
| Description and Operation (D/O) Trouble Shooting. | Refer to TSM |
| Maintenance Practices (M/P) | 201 - 299 |
| Servicings | 301 - 399 |
| Removal/Installation (R/I) | 401 - 499 |
| Adjustment/Test (A/T) | 501 - 599 |
| <pre>Inspection/Check (I/C)</pre> | 601 - 699 |
| Cleaning/Painting (C/P) | 701 - 799 |
| Approved Repairs (A/R) | 801 - 899 |
| <pre>Deactivation/Reactivation (D/R)</pre> | 901 - 999 |
| NOTE: When the quantity of page | es for any one sub-heading w |
| exceed 99 the next pages | will be numbered : |

will

- 99, A00, A1, A2, A3 etc...

- 599, A500, A501, A502, A503 etc...

EFFECTIVITY: ALL KSSU

Page Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

(3)Description and Operation (D/O) (Page 1 to 099)

The information contained in the topic "DESCRIPTION AND OPERATION" is covered at three levels:

(a)At chapter/system level (example XX-00-00)

Describes the relationship of functional/physical groups of the system, together with scope and outstanding features. Relationship between subsystems and other systems is also explained.

As a rule, illustrations at this level are simplified block diagrams or general views of the aircraft giving the location of the main components (i.e. flight controls and landing gears, etc.).

(b)At section/subsystem level (XX-10-00)

Details the functional/physical groups of the subsystem, the relationship between the groups and other systems, and the scope of each group.

In some cases, for example, 24-10-00, there is only one functional group at sub-subsystem level. The text and illustration of 24-10-00 therefore constitute the "General" part of 24-11-00.

At this level, the information is illustrated in the form of block diagram and simplified schematics.

- (c)At sub-subsystem level (XX-11-00) (Installation/circuit level). or at XX-XX-XO for subdivision of complex installations/circuits This level includes the following:
 - 1 General

Main functions of the functional/physical group and their relationship with other groups and systems.

2 Component Location

Details all the components within an installation/circuit:

- Component electrical or mechanical identification Functional Item Number (FIN),
- Component name (the designation in this column and on the illustrations indicates the functions performed by the component),
- Instrument panel which accommodates the controls/indicators,
- The zone in which the component is located,
- Means of access to the component (access door No.NNNAA).
- 3 Description

The part of the system concerned is briefly detailed.

4 Component Description

Broad descriptive and operational information on the main components of the functional/physical group.

When a complex component is involved, an illustration is provided to show the component location on the aircraft, a perspective view, a simplified cross-section, and the symbol used in schematics.

5 Operation

Detailed operational information on the installation/circuit. The associated schematic shows the FIN of each component and associated electrical connections. The aim is to facilitate fault isolation and reference to the Wiring Diagram Manual (WDM)

In Control and Indicating topics, a block diagram shows the component location on instrument panels, together with the relevant functions.

6 INTERFACE

EFFECTIVITY: ALL
KSSU

00 -TNTRO

Page 7 Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

If applicable, an interconnection block diagram or a simplified schematic is provided to show the relationship between the system involved and the others systems.

EFFECTIVITY: ALL

DO -INTRO

Page 8 Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

(4) Maintenance Topics

(a)General

 $\underline{1}$ All the topics included in chapters 05 to 20 are covered by page block 1-099.

In order to facilitate the finding of information, in chapters 06, 11 and 12, the subject number assigned (5th and 6th digit) corresponds to the ATA chapter concerned.

For instance:

- 06-41-53 Access Provisions Fuselage
- 11-21-53 Placards and Markings Fuselage
- 12-12-29 Replenishing Hydraulic
- 12-22-32 Lubrication Landing Gears
- Maintenance operations are classified as a function of the type of work involved, regardless of the maintenance operation frequency.
- 3 Tools and Ground Support Equipment
 - The Special Tools and Equipment required for the maintenance operations are defined:
 - either by their Part Numbers when they are listed in the Illustrated Tool and Equipment Manual.
 - or by their main features.

The use by the airline of equivalent material can be recommended only after making certain that the substitute has the technical characteristics required for correctly performing the maintenance procedure described.

4 Materials

All the materials, which are prescribed for use during maintenance procedures are recorded in chapter 20-31-00 and 70-00-00.

The materials are classified in two categories :

- 20-31-00- General use and APU
- 70-00-00- Use specific to the engines

Throughout the manual (including the Structural Repair Manual, Service Bulletins and Service Information Letters) the "Material No." will be indicated. The customer will have the opportunity to select his vendor (by comparison with the associated referenced specifications).

<u>NOTE</u>: The materials specified by Pratt & Whitney for the power plant are identified by a set of specific "Material N° ", starting with letter "P" (for example PO2-10).

Refer to chapter 70 for complete explanation.

5 Spare Parts :

The Aircraft Maintenance Manual does not quote Part Numbers of Spare Parts.

The instructions for the replacement of equipment are given in the Removal/Installation topics.

However it is necessary to make sure that the replacement equipment

EFFECTIVITY: ALL

Page 9 Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

has either the same P/N as the removed equipment or an approved interchangeable P/N.

6 Referenced Procedures

To facilitate the preparation of a job, any additional information, which is necessary to perform a certain maintenance procedure, is listed in the paragraph "Equipment and Materials" under the title "Referenced Procedures"

- 7 Special Processes and Standard Practices Special processes specific to AIRBUS are considered as Standard Practices when they are applicable to several systems.
 - Processes applicable to one system only are described in the relevant chapter
 - Processes applicable to several systems are described in chapter 20.

Procedures

(b) Maintenance Practices (M/P) (Pages 201 to 299)

If content of individual page blocks is brief, it can be combined into one page block 201.

(c) Servicing (S) (Pages 301 to 399)

 $\frac{1}{XX-00-00}$.

Procedures covering replenishment (hydraulic fluid, fuel, etc...) are listed in chapter 12-13-00.

- At subject/component level (XX-XX-17), procedures covering e.g. filters, magnetic plug and lamp replacement are listed to enable the user to quickly locate the desired information.
- (d)Removal/Installation (R/I) (Pages 401 to 499)

At subject/component level (XX-XX-17), this topic provides all data necessary for removing, installing or replacing a component:
When a component and directly related parts require in situ adjustment or check/test which do not involve complex, time-consuming operations, the work involved is covered in the Removal/Installation topic.
Reference to the topic Adjustment/Test is restricted to a minimum.
All non-standard torque values are specified.

All standard torque values are given in chapters 20/70.

The illustration details and locates the component together with the relevant means of access.

<u>NOTE</u>: For all A310 publications, isometric projection has been selected:

- Three-quarter forward viewed from below,
- Three-quarter rear viewed from above,
- Three-quarter rear viewed from below.

The aircraft skin is not represented. Whenever a component is located on the left side of the aircraft and access gained from aircraft right side, a dotted arrow on the location drawing indicates a hidden component.

Under the illustrated view of the hidden component, a FORWARD (FWD) arrow indicates the component change in direction.

<u>NOTE</u>: If not otherwise stated; the schematic/diagram presents the aircraft in the following configurations:

- aircraft on ground

EFFECTIVITY: ALL

Page 10 Jun 01/15

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AIRCRAFT MAINTENANCE MANUAL

- aircraft electrical system de-energized
- all controls in NORM, AUTO or OFF position.
- (e)Adjustment/Test (A/T) (Pages 501 to 599)

Test information is divided into three categories - operational test, functional test, system test.

Below are definitions of the three categories :

- 1 Operational test
 - This test is required to ascertain that an item (system, subsystem component) is fulfilling its intended purpose. It does not require quantitative tolerances and it can include readings using aircraft instruments. This test requires no special equipment or facilities other than that installed on the aircraft and is comparable to the tests performed by the flight crews. It is not intended that the operational test of the unit shall meet the specifications and tolerances ordinarily established for overhaul, or major maintenance periods. A test can be carried out where appropriate, with ground hydraulic, electrical and/or air conditioning connections made to the aircraft.
- 2 Functional test

This test is required to ascertain quantitatively that a system or unit is functioning in all aspects in accordance with minimum acceptable system or unit design specifications.

This test may require supplemental ground support equipment and be more specific and detailed than an operational test. It contains all necessary information to perform proficiency tests to maintain system or unit reliability at an acceptable level without reference to additional documents.

- 3 System test
 - This test contains all adjustment specifications and tolerances required to maintain system and/or unit performance at maximum efficiency and design specifications. It is self-contained and may duplicate other tests.
- (f)Inspection/Check (I/C) (Pages 601 to 699)
 - 1 General

Inspection/Check topics are divided into two parts :

- I/C without removal of components from the aircraft.
- I/C further to the removal of components from the aircraft.
- 2 I/C without removal
 - visual I/C (cracks, damage, oxidation, paint, etc...)
 - measurements (displacement, travel, overall clearances, leak measurements).
- 3 I/C with removal
 - original dimensions
 - maximum and minimum clearances

are given in table form.

(g)Cleaning/Painting (C/P) (Pages 701 to 799).

Cleaning procedures which require special precautions (parts contaminated by hydraulic fluid, battery acid, etc...) are included in the relevant chapter, including painting procedure (touch-up after maintenance).

(h)Approved Repairs (A/R) (Pages 801 to 899)

EFFECTIVITY: ALL
KSSU

00 -INTRO

Page 11 Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

This topic provides repair procedures with the exception of those covered by the CMMM/CMMV or by the SRM/NSRM.

Repairs included in the Aircraft Maintenance Manual are non-structural repairs that can be performed on the aircraft.

They are not submitted to the airworthiness authorities for approval, but are technically approved by:

- The aircraft manufacturer, for manufacturer components.
- The related vendor, for vendor components.

IMPORTANT : Record of Temporary Repairs.

If Temporary Repairs are made, it is the responsibility of the Operator to record the following:

- location of the damage
- nature of the damage
- nature of the repair
- service life limit of the Temporary Repair.
- (j)Deactivation/Reactivation (D/R) (Pages 901 to 999)

This topic covers the Master Minimum Equipment List (MMEL) and Configuration Deviation List (CDL) procedures.

1 Deactivation :

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- As required.
- 2 Reactivation :

The reactivation procedures describe the maintenance operations to be performed to restore the system to normal operation after removal or deactivation of the faulty component or system. In some cases, a reactivation procedure may be proceeded by a trouble shooting procedure cross-reference to the TSM is made in such a case.

<u>NOTE</u>: AMM deactivation task can refer to an FAA MMEL task, highlighted by (FAA only), if this task is not included in the Airbus MMEL.

Non-FAA operators can use the AMM task related to an FAA MMEL task if the AMM task satisfies their MEL requirement.

(k)Aircraft status for maintenance

The following items shall be considered as the basic aircraft configuration, before you start a maintenance task:

- Aircraft on the ground resting on landing gear (the ground safety locks and the wheel chocks are in position on the landing gear).
- Engines shut down, thrust reversers closed and locked.
- Aircraft in clean configuration.
- Parking brake applied.
- Aircraft electrical network de-energized.
- Hydraulic systems depressurized.
- Access to the cockpit and cabin is available.
- All circuits breakers are in closed position.
- All controls in NORM, AUTO or OFF position.

If for clarity, it is necessary to depict the equipment in any other configuration, a NOTE states this specific configuration.

Specific case (not covered in AMM)

Specific case (not covered in AMM)

A line maintenance procedure (A/C serviceable and fully replenished) can in some instances require using ground power and aircraft systems.

EFFECTIVITY: ALL

OO -INTRO

Page 12 Jun 01/10

AIRCRAFT MAINTENANCE MANUAL

C. Presentation of the Text

(1)General

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Presentation of information is consistent throughout the topics at the same level (chapter, section, subject).

Moreover, in order to simplify the use of the Maintenance topics the same chronology has been applied to all topics.

(2)Cross-references in the text

The number of cross-references has been limited to three main cases :

- Cross-reference to another chapter, in the case of energizing of aircraft electrical network, pressurization of the hydraulic system, lifting of the aircraft, etc.
- Cross-reference to the list of materials (20-31-00 and 70-00-00).
- Cross-reference within the same sub-section (XX-XX-00) as, for example, in the case of replacement of a component requiring testing of the whole installation/circuit.

(3)Definition of terms

The following terms are used in the Aircraft Maintenance Manual and are defined as follows:

- WARNING : CALLS ATTENTION TO USE OF MATERIAL, PROCESSES, METHODS, PROCEDURES OR LIMITS WHICH MUST BE FOLLOWED PRECISELY TO AVOID INJURY OR DEATH TO PERSONS.
- CAUTION : CALLS ATTENTION TO METHODS AND PROCEDURES WHICH MUST BE FOLLOWED TO AVOID DAMAGE TO EQUIPMENT.
- <u>NOTE</u>: Calls attention to methods which make the job easier or provide supplementary or explanatory information
- The term "tighten" is generally used in locations where no torque value is specified in the text but can be found in chapter 20/70 Standard Practices.
- The term "torque" is used in the text together with a given specific torque value.
- A Maintenance Procedure can contain WARNING/CAUTIONs. They are located directly before the text to which they relate.
- WARNING/CAUTIONs at the beginning of a Page Block are applicable to all the Page Block.
- WARNING/CAUTIONs at the beginning of a procedure are applicable to all the procedure.
- WARNING/CAUTIONs immediately before a work step are applicable to that specific work step.

EFFECTIVITY: ALL

00 -TNTRO

Page 13 Jun 01/10

AIRCRAFT MAINTENANCE MANUAL

D. Functional Item Numbers (FIN)

Equipment on the aircraft is generally allocated a unique identifier known as a Functional Item Number (FIN).

(1)Electrical FIN

An electrical FIN is assigned to components that have an electrical connection. The basic element of the FIN is a two letter code indicating to which system and circuit the equipment belongs. To this code are added prefixes and/or suffixes which provide the unique identification for individual equipment.

A typical electrical FIN is 301CA1, where:

- 301 : component number in circuit CA

- CA : system/circuit code (Autopilot in this example)

- 1 : Suffix - First of several similar systems (Autopilot System 1).

NOTE: Identical components which perform the same function in similar systems are differentiated by the suffix number (e.g.: 301CA1 for autopilot 1 and 301CA2 for autopilot 2).

Identical components which perform the same function in the same circuit are differentiated by the prefix number

(e.g.: 31CA, 32CA).

General rule is that an even prefix identifies a component on the right hand side and an odd prefix identifies a component on the left hand side.

Example: 3FS Left 2FS Right

(2)Mechanical FIN

Mechanical equipment is identified by 6 numerals, the first two are the ATA Chapter/System prefix and the last four the equipment number.

A typical mechanical FIN is 271198, where:

27 : ATA Chapter/System (Flight Controls in this example)

1198 : equipment number

<u>NOTE</u>: The third numeral may identify a specific system to which an equipment belongs.

e.g. 291XXX = Hydraulic System - Green
292XXX = Hydraulic System - Blue
293XXX = Hydraulic System - Yellow

(3)FIN on aircraft

The FIN'S are shown on labels affixed to the structure near the related equipment. On the circuit breaker panels the FIN's are not directly visible, but are inside the panels.

The Airbus FIN system is not fully applied for the powerplants.

(4)FIN in technical publications

- the FIN is widely used in the manuals to ease the comprehension of illustrations, diagrams, schemes, descriptions and designations
- FIN'S quoted in brackets in general belong to the equipment installed on the right hand side of the aircraft.
- where, in the manuals, the FIN is expressed as the equipment number only (four numerals) the ATA Chapter/System prefix must be added to obtain the complete FIN.

EFFECTIVITY: ALL

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Page 14 Jun 01/15

KSSU

AIRCRAFT MAINTENANCE MANUAL

E. Capital letters "I" and "O" are not used for paragraph numbering. This is because there can be confusion between these letters and the numbers "1" and "O".

Thus the level 2 paragraph numbering sequence is: A., B., C., D., E., F., G., H., J., K., L., M., N., P., Q.,....

F. Statement of Effectivity

(1) The statement of effectivity appearing in the Effectivity block by Customer Fleet Serial Numbers corresponds to the sum of the effectivities of the information included in the page.

Each paragraph is assumed effective for "ALL" aircraft, even if all the aircraft of the fleet are not yet defined/delivered.

Effectivity restrictions will be made from the "ALL" effectivity according to the aircraft modification status.

In the text, statements of effectivity are repeated every time they change.

Effectivity of interchangeable components such as Door, Horizontal and Vertical Stabilizers, etc is stated in Serial Numbers (1001-9999)

E.g.: ON ALL DOORS

or ON DOOR SERIAL Nos. 1001-1040,

ON DOOR SERIAL Nos. 1041 AND SUBSEQUENT

if restricted effectivities are involved.

(2)Configuration

When effectivity differences are extensive and the preceding method of reflecting effectivity becomes cumbersome, thus distracting from the continuity of subject matter, additional page blocks are established applicable to groups of aircraft.

These added page blocks are further identified by the addition of a configuration code (CONF 1, CONF 2, etc ...) placed underneath the chapter/section/subject number.

<u>NOTE</u>: The deletion of one configuration does not change the numbering of the remaining configuration(s).

(3) Effectivity Table

The aircraft identified by an Airbus Manufacturer Serial Number (MSN) in the effectivity table are covered in this current AMM issue.

VER: indicates the Aircraft VERsion within the customer fleet. Example: TK1 or THY01 corresponds to the first customer version.

STD: Stands for Standard, it corresponds to a production standard for a given range of aircraft technical definition (e.g.: ST5, ST6, ST7, etc.)

Version Rank: indicates the "Rank" within the Customer versions. Example: TK2 0001 or THY02 0001, corresponds to first aircraft within the second customer version.

NOTE: The standard number and version rank may be useful when consulting/using the SRM and/or the aircraft drawing set.

EFFECTIVITY: ALL

00 -INTRO

Page 15 Jun 01/15

AIRCRAFT MAINTENANCE MANUAL

| VERSION | RESTRICTED EFFECTIVITY | MODEL | STANDARD | ENGINE |
|-----------------------|---------------------------------|------------|------------------|-----------------|
| SWR02 | 0226-0226 | 310-322 | ST7 | PW-JT9D-7R4 |
| SWR02 | 0229-0249 | 310-322 | ST7 | PW-JT9D-7R4 |
| AUA02 | 0401-0401 | 310-324 | ST7 | PW-4000 |
| AUA02 | 0404-0500 | 310-325 | ST7 | PW-4000 |
| KSSU - AIRLINE | - Fleet No/MSN Cross-Refere | | MODEL MSN | REGISTRATION |
| SWR | 0226 | SWR02 0001 | 310-322 0399 | UN-A3101 |
| SWR | 0229 | SWR02 0004 | 310-322 0410 | OE-LMP |
| AUA | 0401 | AUA02 0001 | 310-324 0489 | EC-HLA |
| AUA | 0404 | AUA02 0004 | 310-325 0624 | CS-TKN |

EFFECTIVITY: ALL

OO -INTRO

AIRCRAFT MAINTENANCE MANUAL

- G. Preliminary Pages
 - (1)Service Bulletin List

A Service Bulletin list is provided at the beginning of the Manual. It quotes the Service Bulletins chosen by the customers.

(2)List of Effective Pages

A list of effective pages is provided for each chapter and is located at the beginning of each chapter.

(3) Table of Contents

Each chapter in the Maintenance Manual begins with a Table of Contents. The Table of Contents shows each section contained in the chapter and the subject material within the section.

- H. Revision Service
 - (1)General

The revision service is ensured on a yearly, six months or quarterly basis if not otherwise specified. Before incorporating a revision, ensure that the previous revision has been incorporated and recorded in the "Record of Revision" page.

(2) Filing Instructions

The filing instructions are given by means of two documents :

- Highlights (HL)
- List of Effective Pages (LEP)

The Highlights will provide the reason for the issue of pages or topics. The LEP will provide the indication of the pages revised (R) to be replaced, new pages (N) to be added or pages deleted (D) to be removed.

(3)Service Bulletin incorporation: Data related to Service Bulletins are only incorporated upon notice from the customer that subject Service Bulletins have or will be embodied on the aircraft.

Example:

Effectivities in the text.

The following is an example of an AMM text with effectivity statements:

(a)Remove screws (4), washers (5) and detach velcro tape.

Loosen screws securing cord ends and remove covers together with retaining cord.

- 1 ** On A/C 001-003
- (b)Remove joint covers (2) located between compartment, from double-backed tape.
 - 2 ** On A/C 001-003, 031-034, Post SB 25-009 For A/C 001-003
- (b)Remove screws (1, 3) and joint covers (2) from between compartments. 3 ** 0n A/C "ALL".
- (c)At STA 1340/FR18 remove screws (26), washers (27) and end cap (28).
 - The A/C in statement ... were delivered in a certain configuration which is covered by this step ...
 - The A/C in statement 2 comprise all the A/C covered by this topic. The A/C delivered later had a modification embodied during manufacture, which is retrofittable on A/C 001-003 by SB 25-009.

EFFECTIVITY: ALL

Page 17 Jun 01/14

GA310

AIRCRAFT MAINTENANCE MANUAL

This is covered by the second step (b).

- The statement 2 means that the following text is for all the quoted A/C but for A/C 001-003 only AFTER the SB has been embodied.
- After ALL three A/C 001-003 have been retrofitted by the SB, (and notified to Airbus) the statements 1, 2 and 3 are removed.

The pre-SB text is also removed leaving the text under 2 as follows:

(a) Remove screw (4), washers (5) and detach velcro tape.

Loosen screws securing cord ends and remove covers together with retaining cord.

- (b)Remove screws (1, 3) and joint covers (2) from between compartments.
- (c)At STA 1340/FR18 remove screws (26), washers (27) and end cap (28).

(4) CUSTOMER ORIGINATED CHANGES (COC)

(a)COC Identification

COCs incorporated into the AMM at Customer request to reflect data or * procedures originated by and peculiar to that specific customer, will * be permanently identified by the COC reference number and by asterisks in the right hand margin on the individual pages (see example in the margin of this paragraph). The COC data incorporated into the Technical Data is shown in "POST" Configuration only.

(b)Responsibility

Where the Customer requests Airbus to incorporate the Customer's originated data or that of any other party into the technical data issued by Airbus ("Technical Data") relating to the operation, maintenance, overhaul, repair or modification of the aircraft, Airbus shall do so on the condition that the use of the COC data shall be entirely at the Customer's risk, Airbus being under no liability whatsoever in respect of either the contents of any COC data, or the effect which the incorporation of such COC data may have on the Technical Data issued by Airbus.

(c)Disclaimer Clause

AIRBUS HEREBY EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, ORAL OR WRITTEN, ARISING BY LAW, COURSE OF DEALING, OR OTHERWISE, AND WITHOUT LIMITATION ALL WARRANTIES AS TO QUALITY, OPERATION, MERCHANTABILITY, FITNESS FOR ANY INTENDED PURPOSE, AND ALL OTHER CHARACTERISTICS WHATSOEVER, OF CUSTOMER ORIGINATED CHANGES INCORPORATED INTO THE TECHNICAL DATA ISSUED BY AIRBUS. THE FOREGOING DISCLAIMER SHALL ALSO APPLY TO ANY PORTION OF AIRBUS TECHNICAL DATA WHICH MAY BE AFFECTED BY SUCH CUSTOMER ORIGINATED CHANGES.

(5) Revision Indication

(a)Text revision

- 1 Added text
 - A Revision justification code R is written in the margin, facing each added line.
- 2 Modified text

A Revision justification code R is written in the margin, facing each modified line.

- 3 Deleted text
 - A Revision justification code R is written in the margin, facing a blank line.
- (b)Illustration Revision

EFFECTIVITY: ALL

Page 18 Jun 01/15

AIRCRAFT MAINTENANCE MANUAL

- 1 Added figure
 - A Revision justification code R is written in the margin, facing the cross-reference(s) to the figure(s) and at the level of the title.
- 2 Modified figure.
 - A Revision justification code R is written in the margin, facing the title.
- 3 Deleted figure
 - A Revision justification code R is written in the margin, facing the blank space left by the deletion of the cross-reference(s) to the figure.
- (6)Temporary Revisions

All Temporary Revisions received before or at the same time as the Normal Revision are not automatically deleted even if their issue date precedes that of the Normal Revision. Only the Temporary Revisions deleted by the Highlights of a Normal Revision shall be removed.

IMPORTANT

- Do not remove a temporary revision unless instructed to do so by:
 (1) the Highlights of a Normal Revision
 - (2) a new Temporary Revision superseding the previous one.
- Update the Record of the TRs page accordingly.
- The microfilmed Maintenance Manual is accompanied by a list giving the Temporary Revisions which have been incorporated and the Temporary Revisions which remain still effective.
- J. Power Plant Chapters

Engine manufacturer data has been combined with AIRBUS information and are included in the Airbus AMM.

- Normal revision to power plant data/information is incorporated in the Airbus AMM
- Temporary revisions to power plant data are covered by Airbus Temporary Revisions. The original Temporary Revision number is quoted on the TR transmittal sheet.

EFFECTIVITY: ALL

00 -INTRO

Page 19 Jun 01/14

AIRCRAFT MAINTENANCE MANUAL

(1)PRATT and WHITNEY Engine - INTRODUCTION (a)General

- This publication is compiled and issued by the Product Support Department of Pratt & Whitney, Commercial Products Division, United Technologies Corporation, East Hartford, CT U.S.A. This manual, as it may be supplemented by P&W service bulletins, constitutes the authoritative statement of Pratt & Whitney's approved and recommended maintenance procedures for the JT9D and the PW 4000 engines. The information and instructions contained herein are based upon actual experience acquired under varied and exacting conditions. The utmost in dependable engine performance will be gained by conforming to those instructions.
- $\underline{2}$ It is recommended that operators avoid performing maintenance on multiple engines installed on the same aircraft at the same time if at all possible.
 - If it is not possible to avoid maintenance on more than one engine at the same time, it is recommended that different maintenance teams service each engine.
 - NOTE: The above recommendation is an extract of the Special Airworthiness Information Bulletin (SAIB) No. NE-00-12, issued by the Federal Aviation Administration (FAA). It is recommended to consult this FAA bulletin for details and background information.
- <u>3</u> Unusual problems concerning engine maintenance should be presented to the Product Support Department either through its field representatives or by direct contact. All possible assistance will be provided toward the solution of these problems.
- 4 Requests for pertinent information not covered by this publication, and suggestions for modification or amplification of these instructions so as to increase their usefulness, will be welcomed by the Pratt & Whitney Product Support Department.
- <u>5</u> This publication will be revised as necessary to incorporate the latest approved data.

(b)Supplementary publications

- <u>1</u> It is recommended that personnel concerned with engine maintenance also familiarize themselves with the following publications:
 - Engine Manual JT9D7R4 Engine Manual and PW4000 Engine Manual contains the instructions required for maintenance of the basic engine off the aircraft.
 - Illustrated Parts Catalog The integrated A310 Power Plant Illustrated Parts Catalog lists and illustrates the Line Replaceable Unit assemblies and details which support the Maintenance requirements of the A310 Power Plant. This catalog must be augmented with the Pratt & Whitney JT9D-7R4 Engine Illustrated Parts Catalog and PW4000 Engine Illustrated Parts Catalog and appropriate Component Maintenance Manual Illustrated Parts Lists for engine shop support.
 - Service Bulletins Service Bulletins will be issued as required to

EFFECTIVITY: ALL
KSSU

00 -TNTR

Page 20 Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

- provide information or instructions for modifying earlier production engines or parts to the latest configuration.
- Standard Practices Manual Standard Practices Manual contains approved and recommended standard practices information, instructions, and procedures used repeatedly on various engines manufactured by Pratt & Whitney.

(c)Parts and service

- Product Support Department Pratt & Whitney maintains a Product Support Department to assist its customers in the operation and maintenance of Pratt & Whitney engines. Product Support Department representatives maintain contact with operators and engine service activities and are available for the investigation of any specific difficulty or problem. Any request for assistance should be addressed directly to the Product Support Department, Pratt & Whitney, Commercial Products Division, United Technologies Corporation, East Hartford, CT 06108, U.S.A.
- 2 Ordering parts
 - Whenever possible, refer to the appropriate Illustrated Parts Catalog, when ordering parts. If a parts list is not available, give engine model, manufacturer's engine serial number, and a full description of the part and where it is used. All spare parts orders should be addressed directly to the Spare Parts Department, Pratt & Whitney, Commercial Products Division, United Technologies Corporation, East Hartford, CT 06108, U.S.A.
 - Because some parts require special or expensive equipment for assembling and cannot be fabricated except in a specially equipped shop, they are not furnished individually and must be purchased as assemblies. If an order is received for a unit of an assembly coming under this classification, the complete assembly will be shipped.

3 Returning parts

 All material being returned for investigation is to be shipped to the following address:

| USA Based Operators | Non-USA Based Operators |
|--|--|
| PRATT & WHITNEY Product Support Material Control 400 Main Street Receiving Well #2 East Hartford, CT 06108 | UNITED TECHNOLOGIES INTERNATIONAL c/o PRATT & WHITNEY Product Support Material Control 400 Main Street Receiving Well #2 East Hartford, CT 06108 USA |

- Material returned is to be accompanied by a number five (5) Request for Support Allowance (RSA) copy.
- Parts must be packaged adequately to prevent damage in transit.

 Parts removed from various engines or having different part times should be individually tagged and covered by separate RSA's.
- Material eligible for Service Policy Benefits and returned to the Pratt & Whitney Overhaul And Repair Center is to be shipped to one

EFFECTIVITY: ALL
KSSU

Page 21 Jun 01/08

AIRCRAFT MAINTENANCE MANUAL

of the following addresses. For return of individual parts:

| USA Based Operators | Non-USA Based Operators |
|--------------------------------|-----------------------------------|
| PRATT & WHITNEY | UNITED TECHNOLOGIES INTERNATIONAL |
| Overhaul And Repair Center | c/o PRATT & WHITNEY |
| Newell Street | Overhaul And Repair Center |
| Southington, Connecticut 06489 | Newell Street |
| | Southington, Connecticut 06489 |
| | USA |

For return of engines and modules :

| USA Based Operators | Non-USA Based Operators |
|---|---|
| PRATT & WHITNEY Overhaul And Repair Center | UNITED TECHNOLOGIES INTERNATIONAL c/o PRATT & WHITNEY |
| 500 Knotter Drive | Overhaul And Repair Center |
| Cheshire, Connecticut 06410 | 500 Knotter Drive Cheshire, Connecticut 06410 |
| | USA |

- Material returned is to be accompanied by a number five (5) copy of an RSA.
- Material so returned should be covered by the operator's charge purchase order to facilitate proper billing.

(d)Vendor services

It is to be understood that PRATT & WHITNEY does not endorse the work performed by the company or companies named herein or any other company and does not accept responsibility to any degree for the selection of such company or companies for the performance of any work or procurement of supplies.

(e) EQUIVALENT TOOLS, FIXTURES AND TEST EQUIPMENT

- Airlines may, except as otherwise noted, substitute an equivalent tool, fixture, or item of test equipment for those listed throughout the manual provided the substitude item is functionally interchangeable, compatible with related procedures and safe from an equipment and user's standpoint.
- Specific for Operators under FAA regulations
 In accordance with federal regulations (14CFR43.13), anyone performing work on an engine covered by this manual under the jurisdiction and authority of the Federal Aviation Administration (FAA) must use tools, equipment, and test apparatus which will assure that such work will be completed in accordance with industry standards. If Pratt & Whitney recommends special equipment or test apparatus, each person performing the work must use that equipment or apparatus or its equivalent that is acceptable to the Administrator of the FAA.
 Special provisions of the FAA regulations regarding tools, equipment, and test apparatus apply to holders of certain air carriers operating certificates and certificates issued under certain specified parts of

EFFECTIVITY: ALL

00 -TNTRO

Page 22 Jun 01/08

@A310

AIRCRAFT MAINTENANCE MANUAL

those regulations.

(f)CORPORATE TRADEMARKS

The following words, acronyms are trademarks of United Technologies Corporation.

Pratt & Whitney

P&W

(g)Weights and Measures

Weights and measures are provided for both U.S. customary and SI - metric measurement systems. The SI - metric measurement value will appear in parenthesis immediately following the U.S. customary system equivalent. SI - metric equivalents for equal U.S. customary system values may differ slightly, depending on application as well as procedures utilized in the automated conversion program.

EFFECTIVITY: ALL
KSSU

DO -INTRO

Page 23 Jun 01/08

@A310

AIRCRAFT MAINTENANCE MANUAL

3. Specific Features for AMM in AirNav/Maintenance Environment

The AMM can be accessed in the following digital format product

- AirNav/Maintenance (DVD)
- SGML

The AMM data on PDF is basically the same as that contained in digital format, however, there are few specific features associated with the AirNav/Maintenance environment.

These specific features are:

- A. AMM Front Matter
 - (1)Highlights

Highlights are provided at the front of the AMM document (and not at chapter level). A reference column is listing the page block which has been modified at the revision. A hyperlink function is implemented to switch directly from highlights to revised data within the AMM and vice versa.

(2) Manual Structure

The list of ATA chapters is directly accessible via the AirNav/Maintenance Table of Contents (TOC).

Clicking on the expansion mark "+" will display the sub-chapters, clicking again will access to the section/sub-section up to a Page Block number.

(3)List of Temporary Revisions

This list is directly accessible via the AirNav/Maintenance main menus. Refer to the AirNav/Maintenance help menu for information on updating the List of Temporary Revisions.

(4) Record of Temporary Revisions (ROTR)

The ROTR is not available on DVD. Specific functions for TR management are available in AirNav/Maintenance.

The ROTR is superseded by the TR List paragraph, located in Manual Front Matter.

(5)SB/COC lists

These lists are directly accessible via the AirNav/Maintenance AMM menu. Hyperlink is implemented between SB/COC list and associated data with the AMM.

- B. Preliminary pages at Chapter level
 - (1)List of Effective Pages (LEP)

The LEP is not applicable because the manual contents is not page oriented.

(2) Table of Contents (TOC)

The TOC in AirNav is specifically structured to ease data retrieval. You can also retrieve the data using access by :

- Chapter/Section/Subject/Page Block
- "WORD SEARCH" function using the icon from the banner.
- C. Revision Service
 - (1) Filing Instructions

There are no filing instructions with AirNav/Maintenance. In its place, a transmittal letter is sent with the DVD.

EFFECTIVITY: ALL

00 -TNTRO

Page 24 Jun 01/15

© A310

AIRCRAFT MAINTENANCE MANUAL

(2)Revision code

In the current revision of AirNav, the revision changes are identified by a yellow background on the screen to highlight the changes between two revisions.

(3)Temporary revision (TR)

For AirNav/Maintenance, Temporary Revisions are supplied in digital via Airbus I WORLD and in CD format. These TR have to be loaded as soon as received. Refer to Airnav/Maintenance User Guide for updating and management.

(4)Customer Originated Change data:

COC data is shown in green color to differentiate it from the original Manufacturer's data. The COC list is directly accessible from the menu.

EFFECTIVITY: ALL KSSU

Page 25 Jun 01/15

AIRCRAFT MAINTENANCE MANUAL

4. Glossary of Abbreviations

The abbreviations are defined in the Airbus Approved Abbreviations Handbook (AAAH).

| ABBREVIATION | SIGNIFICATION |
|--------------|---|
| | |
| A | AMBER |
| A/C | Aircraft |
| A/D | Analog to Digital Converter (Convertisseur analogique/ |
| . / 0 | numerique A/N) |
| A/0 | Air Oil |
| A/THR | Autothrust |
| ACARS | Alternating Current |
| ACARS | Aircraft Communications Addressing and Reporting System |
| ACIA | Asynchronous Communications Interface Adaptor |
| ACK | Acknowledge |
| ACQ | Acquire |
| ACT | Additional Center Tank |
| ACTR | Actuator |
| ADC | Air Data Computer |
| ADD | Addition |
| ADF | Automatic Direction Finding |
| ADI | Attitude Director Indicator |
| ADL | Airborne Data Loader |
| ADS | Air Data System |
| ADV | Advisory |
| AF | Audio Frequency |
| AFS | Automatic Flight System |
| AGB | Auxiliary Gear Box |
| AGC | Automatic Gain Control |
| AI | Anti Ice (nacelle) |
| AIDS | Aircraft Integrated Data System |
| ALF | AFT Looking Forwards |
| ALPHA | Angle-of-attack |
| ALT | Altitude |
| ALT RPTG | Altitude Reporting |
| ALTN | Alternate, Alternative |
| ALU | Arithmetic and Logic Unit |
| AM | Amplitude Modulation |
| AMU | Audio Management Unit |
| ANN | Annunciator |
| ANNLT | Annunciator Light |
| ANT | Antenna |
| AP | Autopilot |
| APU | Auxiliary Power Unit |
| ARC | Air Refueling Computer |
| ARINC | Aeronautical Radio Incorporated |
| ARPT | Airport |
| ASA | All speed aileron |
| ASAP | AS SOON AS POSSIBLE |
| ATA | Air Transport Association of America |
| ATC | Air Traffic Control |

EFFECTIVITY: ALL

OO -INTRO

Page 26 Jun 01/09

KSSU

AIRCRAFT MAINTENANCE MANUAL

| ABBREVIATION | SIGNIFICATION |
|--------------|--|
| ATCRB | Air Traffic Control Radar Beacon |
| ATE | Automatic Test Equipment |
| ATS | Autothrottle System |
| ATT | Attitude |
| AUTO | Automatic |
| AUX | Auxiliary |
| BCD | Binary Coded Decimal |
| BCV | Bore Cooling Valve |
| BFE | Buyer Furnished Equipment |
| BITE | Built-in Test Equipment |
| BNR | Binary |
| ВОТ | Begin of Tape |
| BRT | Bright, Brightness |
| C | Celsius |
| C | Cyan |
| C/B | Circuit Breaker |
| CAPT | Captain |
| CAT | Category |
| CCCV | Core Compartment Cooling Valve |
| CCDL | Cross Channel Data Link |
| CDP | Compressor Discharge Pressure |
| CDU | Control and Display Unit |
| CG | Center of Gravity |
| CGCS | Center of Gravity Control System |
| CH | Chapter |
| CHAN | Channel |
| CLO | Clockwise |
| CM | Crew Member |
| CMD | Command |
| COM | Communication |
| CONFIG | Configuration |
| CPU | Central Processing Unit |
| CRC | Continuous Repetitive Chime |
| CRF | Compressor Rear Frame |
| CRS | Course |
| CRT | Cathode Ray Tube |
| CSTR | Constraint |
| CTL | Control |
| CTL PNL | Control Panel |
| CTR | Center |
| CTS | Clear to Send |
| CVR | Cockpit Voice Recorder |
| CW | Continuous Wave |
| CWS | Control Wheel Steering |
| D/A | Digital to Analog Converter (convertisseur |
| | numerique/analogique N/A) |
| DADC | Digital Air Data Computer |
| DAR | Digital AIDS Recorder |
| DC | Direct Current |

EFFECTIVITY: ALL

Page 27 Jun 01/15

AIRCRAFT MAINTENANCE MANUAL

| | SIGNIFICATION |
|----------|---|
| DCU | Data Converter Unit |
| DDM | Difference in Depth of Modulation |
| DDRMI | Digital Distance and Radio Magnetic Indicator |
| Delta T | Difference in Time |
| DEVN | Deviation |
| DF | Data Follows |
| DFA | Delayed Flaps Approach |
| DFDAMU | Digital Flight Data Acquisition and Management Unit |
| DFDAU | Digital Flight Data Acquisition Unit |
| DFDR | Digital Flight Data Recorder |
| DFIDU | Dual Function Interactive Display Unit |
| DGAC | Direction Generale de l'Aviation Civile |
| DH | Decision Height |
| DIM | Dimming |
| DISH | Discharge |
| DITS | Digital Information Transfer System |
| DIU | Digital Interface Unit |
| DME | Distance Measuring Equipment |
| DMU | Data Management Unit |
| DO | Data Output |
| DOC.DATA | Documentary Data |
| DPV | Directional Pilot Valve |
| DSPL | Display |
| DTG | Distance To Go |
| DU | Display Unit |
| EAROM | Electrically Alterable Read Only Memory |
| EC | EMERGENCY CANCEL |
| ECAM | Electronic Centralized Aircraft Monitoring |
| ECM | Engine Condition Monitoring |
| ECP | ECAM Control Panel |
| ECS | Environmental Control System |
| ECU | Electronic Control Unit |
| EEC | Electronic Engine Control |
| EEC | Engine Electronic Controller |
| EEPROM | Electrically Erasable Programmable Read Only Memory |
| EFCS | Electrical Flight Control System |
| EFCU | Electrical Flight Control Unit |
| EFIS | Electronic Flight Instrument System |
| EGT | Exhaust Gas Temperature |
| EHSV | Electro-Hydraulic Servo Valves |
| ELEC | Electric, Electrical, Electricity |
| ENG | Engine |
| ENG1 | Engine 1 |
| ENG2 | Engine 2 |
| EOT | End of Tape |
| EPR | End of Tape Engine Pressure Ratio |
| EPROM | Erasable Programmable Read Only Memory |
| ESCV | Eleven Stage Cooling Valve |
| F | Fahrenheit |
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EFFECTIVITY: ALL

UU -intr

Page 28 Jun 01/15

AIRCRAFT MAINTENANCE MANUAL

| ABBREVIATION | SIGNIFICATION |
|--------------|---|
| F/0 | First Officer |
| F/W | Failure/Warning |
| FAA | Federal Aviation Administration |
| FAC | Flight Augmentation Computer |
| FACS | Flight Augmentation Computer System |
| FADEC | Full Authority Digital Engine Control |
| FAR | Federal Aviation Regulations |
| FB | Feedback |
| FCC | Flight Control Computer |
| FCU | Fuel Control Unit |
| FD | Flight Director |
| FDEP | Flight Data Entry Panel |
| FDIU | Flight Data Interface Unit |
| FF/FU | Fuel Flow/Fuel used |
| FFT | Forward Full Throttle |
| FGS | Flight Guidance System |
| FGS | Fuel Gauging System |
| FIG | FIGURE |
| FIN | Functional Item Number |
| FL | Flight Level |
| FLA | Forward Looking Aft |
| FLC | Feel and Limitation Computer |
| FLT CTL | FLIGHT CONTROLS |
| FM | Frequency Modulation |
| FMC | Flight Management Computer |
| FMS | Flight Management System |
| FMV | Fuel Metering Valve |
| FNSG | Flight Navigation Symbol Generator |
| F0 | Fully Open |
| FPA | Flight Path Angle |
| FPV | Flight Path Vector |
| FQI | Fuel Quantity Indicating/Indication/Indicator |
| FQIC | Fuel Quantity Indication Computer |
| FR | Frame |
| ft | Feet, Foot |
| FTT | FUEL TANK TEMPERATURE |
| FWC | Flight Warning Computer |
| FWD | Forward |
| FWS | Flight Warning System |
| G | GREEN |
| G/S | Glide Slope |
| GA | Go-Around |
| Gamma-a | Slope |
| Gamma-t | Potential slope |
| GMT | Greenwich Mean Time |
| GND | Ground |
| GPWC | Ground Proximity Warning Computer |
| GPWS | Ground Proximity Warning System |
| GS | Ground Speed |

EFFECTIVITY: ALL

JO -INTRO

Page 29 Jun 01/15

AIRCRAFT MAINTENANCE MANUAL

| ABBREVIATION | SIGNIFICATION |
|--------------|--|
| Н | Height |
| HDG | Heading |
| HDG/S | Heading Selected |
| HI | High |
| HMC | Hydromechanical Control |
| HMU | Hydro Mechanical Unit |
| НР | High Pressure |
| HPC | High Pressure Compressor |
| HPS0V | High Pressure (fuel) Shut-Off Valve |
| HPT | High Pressure Turbine |
| HPTACC | High Pressure Turbine Active Clearance Control |
| HPV | High Pressure Valve |
| HSI | Horizontal Situation Indicator |
| HYD | HYDRAULICS |
| Hz | Hertz |
| I/O | Input/Output |
| I/P | Input |
| ICAO | International Civil Aviation Organisation |
| ID | Inside Diameter |
| IDG | Integrated Drive Generator |
| IDU | Interactive Display Unit |
| IF | Intermediate Frequency |
| IGB | Inlet Gear Box |
| IGV | Inlet Guide Vane |
| ILS | Instrument Landing System (LOC and G/S) |
| IND | Indicator |
| INHIB | Inhibit, Inhibited, Inhibition |
| INR | Inner |
| INST | Instrument |
| IP | Intermediate Pressure |
| IRQ | Interrupt Request |
| IRS | Inertial Reference System |
| ISOL | Isolation |
| IT | Interruption |
| KT | Knot(s) |
| KTS | Knots |
| L | Left |
| L/G | LANDING GEAR |
| L/G LA | Linear Accelerometer |
| LCD | Liquid Crystal Display |
| LED | Light Emitting Diode |
| LH | Left Hand |
| LIS | Localizer Inertial Smoothing |
| | _ |
| LO LVI | Low |
| LO LVL | Low Research |
| LO PR | Low Pressure |
| LOC | Localizer |
| LP LBSOV | Low Pressure |
| LPS0V | Low Pressure (fuel) Shut-Off Valve |

EFFECTIVITY: ALL
KSSU

OO -INTRO

Page 30 Jun 01/15

AIRCRAFT MAINTENANCE MANUAL

| ABBREVIATION | |
|--------------|--|
| LPT | Low Pressure Turbine |
| LPTACC | Low Pressure Turbine Active Clearance Control |
| LRU | Line Replaceable Unit |
| LSI | Large Scale Integrated/Integration/Integrator |
| LT | Light |
| LT | LIGHT |
| LVDT | Linear Variable Differential Transducer |
| LVDT | Linear Variable Differential Transformer |
| M | MAGENTA |
| MAC | Mean Aerodynamic Chord |
| MAN | Manual |
| MAN/THR | Manual Throttle |
| MAX | Maximum |
| MCDU | Multipurpose Control & Display Unit |
| MCU | Modular Concept Unit |
| MDA | Minimum Descent Altitude |
| MFA | Memorized Fault Annunciator |
| MFP | Main Fuel Pump |
| MIN | Minimum |
| MIP | Maintenance Information Printer |
| MKR | Marker (radio) Beacon |
| MLG | Main Landing Gear |
| MLI | Magnetic Level Indicator |
| MLS | Microwave Landing System |
| MMO | Maximum Operating Mach |
| MODE S | Mode Select |
| MPA | Modular Performance Analysis |
| MRBR | Maintenance Review Board Report |
| MSG | Message |
| MTI | Multi Tank Indicator |
| MTOW | Maximum Take Off Weight |
| MTP | Maintenance and Test Panel (AFS) |
| MUX | Multiplexer |
| N 1 | Engine Core Rotational Speed Used as an Engine Managemen |
| | Parameter (GE engines) |
| N 1 | Low Pressure Rotor Speed |
| N 1 | Engine Fan Speed |
| N 1 | Fan Shaft Speed |
| N 1 | LP Shaft Speed (Fan Speed) |
| N2 | High Pressure Rotor Speed |
| N2 | Core Shaft Speed |
| N2 | HP Shaft Speed (Core Speed) |
| NAV | Navigation |
| NAV ADC | NAVIGATION - AIR DATA COMPUTER |
| NCD | No Computed Data |
| ND | Navigation Display |
| NDB | Non Directional Beacon |
| NM | Nautical Mile |
| NMI | Non-Maskable Interrupt |

EFFECTIVITY: ALL

JO -INTRO

Page 31 Jun 01/09

AIRCRAFT MAINTENANCE MANUAL

| ABBREVIATION | SIGNIFICATION |
|--------------|--|
| NO | Normal Operation |
| NORM | Normal |
| NRZ | No Return to Zero |
| NVM | Non Volatile Memory |
| 0/P | Output |
| OD | Outside Diameter |
| ODAR | Optical Digital AIDS Recorder |
| OFST | Offset |
| 0GV | Outlet Guide Vane |
| ONS | OMEGA Navigation System |
| 0PV | Overpressure Valve |
| OQAR | Optical Quick Access Recorder |
| OSG | N2 Overspeed Governor |
| OUTBD | O utboard |
| OUTR | O uter |
| р | Roll rate |
| P ALT | Profile Altitude |
| P CLB | Profile Climb |
| P DESC | Profile Descent |
| P EPR | Profile EPR |
| P MACH | Profile Match |
| P N1 | Profile N1 |
| P SPD | Profile Speed |
| P/B | PUSHBUTTON |
| P/BSW | Pushbutton Switch |
| P25 | Compressor Inlet Total Pressure |
| Р3 | Compressor Discharge Pressure |
| P49 | HP Turbine Discharge Pressure |
| PCM | Pulse Code Modulation |
| PCU | Power/Pressure control unit |
| PDL | Portable Data Loader |
| PDL | Programmable Data Loader |
| PE | HP Stage Air Pressure |
| PFD | Primary Flight Display |
| Phi | Bank angle |
| PIA | Peripheric Interface Adaptor |
| PLA | Power Lever Angle |
| PMA | Permanent Magnet Alternator |
| PMC | Power Management Control/Controller |
| PMUX | Propulsion Data Multiplexer |
| PN | Part Number |
| PO | Ambient Pressure |
| PPM | Parts Per Million |
| PR | Regulated Pressure (downstream of bleed valve) |
| PROM | Programmable ROM |
| PRSOV | Pressure Regulating and Shut Off Valve |
| PRTR | Printer |
| PRV | Pressure Regulating Valve |
| PS14 | Fan Discharge Static Pressure |

EFFECTIVITY: ALL

 $\mathbf{00}$ -intro

Page 32 Jun 01/09

AIRCRAFT MAINTENANCE MANUAL

| ABBREVIATION | SIGNIFICATION |
|--------------|--|
| °S3 | HP Compressor Discharge Static Pressure |
| PSI | Pound Per Square Inch |
| si ax ay az | Heading Longitudinal acceleration Lateral acceleration |
| | Vertical acceleration |
| SN | Position |
| SU | Power Supply Unit |
| T | Switching Pressure of HP Valve |
| T2 | Total Pressure |
| T25 | HP Compressor Inlet Total Pressure |
| TU | Power transfer unit |
| U | Panel Unit |
| WR | Power |
| l | Pitch rate |
| AR | Quick Access Recorder |
| FE | Field Elevation Atmospheric Pressure |
| FU | Runway Heading |
| NH | Sea Level Atmospheric Pressure |
| TY | Quantity |
| | Yaw rate |
| | RIGHT, RED |
| A | Radio Altimeter, Radio Altitude |
| AD ALT | Radio Altimeter |
| AM | Random Access Memory |
| AT | Ram Air Turbine |
| С | REPETITIVE CHIME |
| CL | Recall |
| EF | Reference |
| F | Radio Frequency |
| FT | Reverse Full Throttle |
| Н | Right Hand |
| LA | Reverse Lever Angle |
| NG | Range |
| OM | Read Only Memory |
| PM | Revolution per Minute |
| PU | Receiver Processor Unit (ONS) |
| TCA | Radio Technical Commission for Aeronautics |
| TD | Resistance Temperature Detector |
| TS | Ready to Send |
| VDT | Rotary Variable Differential Transducer |
| VDT | Rotational Variable Differential Transformer |
| WY | Runway |
| | Second |
| AE | Society of Automotive Engineers |
| C | Single chime |
| CU | Supplemental Control Unit |
| CU | Signal Conditioning Unit |
| DAC | |
| DI | System Data Analog Converter Source Destination Identifier |
| | Source Destination Identifier Source Data Identifier |
| SDI | Source Pata Identifier |

EFFECTIVITY: ALL

 $\mathbf{00}$ -intro

Page 33 Jun 01/09

AIRCRAFT MAINTENANCE MANUAL

| ABBREVIATION | |
|--------------|--|
| SDU | Solenoid Driver Unit |
| SEL | Select, Selected, Selector, Selection |
| SELCAL | Selective Calling System |
| SFC | Specific Fuel Consumption |
| SFCC | Slat/Flap Control Computer |
| SFE | Seller Furnished Equipment |
| SFI | Slat/Flap Indicator |
| SG | Specific Gravity |
| SGU | Symbol Generator Unit |
| SI | Slip Indicator |
| SLS | Side Lobe Suppression |
| SM | Status Matrix |
| SM0 | Stabilized Master Oscillator |
| SOL | Solenoid |
| SOV | Shut-Off Valve |
| SPD | Speed |
| SPI | Special Position Identification Pulse |
| SPR | Sync Phase Reversal |
| SRS | Speed Reference System |
| SSDA | Synchronous Serial Data Adapter |
| SSFDR | Solid State Flight Data Recorder |
| SSM | Sign Status Matrix |
| SSR | Secondary Surveillance Radar |
| STA | Station |
| STAB | Stabilizer |
| STS | Status |
| SV | Servovalve |
| SW | Switch |
| SYS | System |
| T/R | Thrust Reverser |
| T12 | Fan Tip Inlet Total Temperature |
| T25 | HP Compressor Inlet Total Temperature |
| T3 | HP Compressor Discharge Total Temperature |
| T495 | LPT Inlet Temperature (EGT) |
| T5 | LPT Discharge Temperature |
| TAS | True Airspeed |
| TAT | Total Air Temperature |
| TBD | TO BE DETERMINED |
| TC | Thermocouple |
| TCAS | Traffic Alert and Collision Avoidance System |
| T2CAS | Traffic and Terrain Collision Avoidance System |
| TCC | Thrust Control Computer |
| TCJ | Temperature Cold Junction |
| TDC | Time Delay Closing |
| | |
| TDO | Time Delay Opening |
| TE | HP Stage Air Temperature |
| TECU | Temperature ECU |
| TGB | Transfer Gear Box |
| THR | Thrust |

EFFECTIVITY: ALL

O -INTRO

Page 34 Jun 01/09

AIRCRAFT MAINTENANCE MANUAL

| ABBREVIATION | |
|--------------|--|
| THR.L | THR Latch |
| THS | Trimmable Horizontal Stabilizer |
| TK | Tank |
| TLA | Throttle Lever Angle |
| TM | Torque Motor |
| TO | Takeoff |
| TO/GA | Take Off/Go Around |
| TR | Transformer Rectifier |
| TR | Regulated Temperature (downstream of precooler) |
| TRA | Throttle Resolver Angle |
| TRANSF | Transfer |
| TRL | Thrust Reverser Left |
| TRP | Thrust Rate Panel - Thrust Rating Panel |
| TRR | Thrust Reverser Right |
| TS0 | Technical Standard Order |
| TT | Switching Temperature of HP Valve |
| TTG | Time To Go |
| TTL | Transistor Transistor Logic |
| TTS | Trim Tank System |
| UART | Universal Asynchronous Receiver Transmitter |
| ULB | Underwater Locator Beacon |
| V 1 | Decision Speed |
| V2 | Takeoff Safety Speed |
| v3 | Flap Retraction Speed |
| VAC | Voltage Alternating Current |
| VBV | Variable Bleed Valve |
| Vc | Calibrated Airspeed |
| VCO | Voltage Controlled Oscillator |
| VDC | Voltage Direct Current |
| VFE | Maximum Flap Extended Speed |
| VFTO | Final Takeoff Speed |
| VHF | Very High Frequency |
| VIB | Vibration |
| VM | Maneuver Speed |
| VMO | Maximum Operating Speed |
| VMS | Minimum Selectable Speed |
| VOR | VHF Omnidirectional Range |
| VOR-D | VOR-DME |
| VOT | Voter |
| VS | Minimum Steady Flight Speed at which Aircraft is |
| V 3 | Controllable |
| vss | Stick Shaker Speed |
| VSV | Variable Stator Vane |
| VSWR | Valiable Stator Vane Voltage Standing Wave Ratio |
| W | WHITE |
| w Wai | Wing Anti Ice |
| WBS | |
| WB5 WGD | Weight and Balance System |
| | Windshield Guidance Display |
| WLDP | Warning light display panel |

EFFECTIVITY: ALL

JO -INTRO

Page 35 Jun 01/09

AIRCRAFT MAINTENANCE MANUAL

| ABBREVIATION | SIGNIFICATION |
|--------------|-----------------------------|
| WPT | Waypoint |
| WR | Weather Radar |
| WTB | Wing tip brake |
| XCVR | Transceiver |
| X-FEED | Crossfeed |
| XFR | Transfer |
| XTK | Cross Track Deviation |
| ZFCG | Zero Fuel Center of Gravity |
| ZFW | Zero Fuel Weight |

EFFECTIVITY: ALL

00 -INTRO

Page 36 Jun 01/09

AIRCRAFT MAINTENANCE MANUAL

CONVERSION OF UNITS

1. General

Conversion tables, included in the Maintenance Manual, are classified as follows:

- A. Length (Ref. Fig. 801, 802, 803) (Ref. Fig. 804)
- B. Area or Surface (Ref. Fig. 805)
- C. Volume Capacity (Ref. Fig. 806)
- D. Mass Volumetric Mass (Ref. Fig. 807)
- E. Speed Acceleration (Ref. Fig. 808)
- F. Pressure/Stress (Ref. Fig. 809)
- G. Moment/Torque Force (Ref. Fig. 810, 811, 812)
- H. SWG Gages (Ref. Fig. 813)

EFFECTIVITY: ALL

00 -TNTP/

KSSU

Page 801 Dec 01/89

AIRCRAFT MAINTENANCE MANUAL

| THESE UNIT CORRESPON TO | | NAUTICAL MILE (UK) | STATUTE MILE mile | YARD yd | FOOT ft | INCH In | MIL mil |
|---------------------------------|------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| NAUTICAL MILE (UK) | | 1 | 1.151 515 | 2.026 667 X 10 ³ | 6.080 X 10 | | |
| STATUTE | Mile | 8.684 210 X 10 ⁻¹ | 1 | 1.760 X 10 ³ | 5.280 X 10 ³ | | |
| YARD | yd | 4.934 209 X 10 ⁻⁴ | 5.681 818 X 10 ⁻⁴ | 1 | 3 | 3.600 X 10 ¹ | 3.600 X 10 ⁴ |
| FOOT | ft | 1.644 737 X 10 ⁻⁴ | 1.893 939 X 10 ⁻⁴ | 3.333 333 X 10 ⁻¹ | 1 | 1.200 X 10 ¹ | 1.200 X 10 ⁴ |
| INCH | in | | | 2.777 778 X 10 ⁻² | 8.333 333 X 10 ⁻² | 1 | 103 |
| MIL | mil | | | 2.777 778 X 10 ⁻⁵ | 8.333 333 X 10 ⁻⁵ | 10-3 | 1 |
| KILOMETRE | km | 5.396 118 X 10 ⁻¹ | 6.213 712 X 10 ⁻¹ | 1.093 613 X 10 ³ | 3.280 840 X 10 ³ | | |
| METRE | m | 5.396 118 X 10 ⁻⁴ | 6.213 712 X 10 ⁻⁴ | 1.093 613 | 3.280 840 | 3.937 008 X 10 ¹ | 3.937 008 X 10 ⁴ |
| DECIMETRE | dm | | | 1.093 613 X 10 ⁻¹ | 3.280 840 X 10 ⁻¹ | 3.937 008 | 3.937 008 X 10 ³ |
| CENTIMETRE | cm | | | 1.093 613 X 10-2 | 3.280 840 X 10-2 | 3.937 008 X 10 ⁻¹ | 3.937 008 X 10 ² |
| MILLIMETRE | mm | | | | | 3.937 008 X 10 ⁻² | 3.937 008 X 10 ¹ |
| MICROMETRE | μm | | | | | 3.937 008 X 10 ⁻⁵ | 3.937 008 X 10 ⁻² |
| THESE UNIT CORRESPON TO — | D | KILOMETRE km | METRE m | DECIMETRE dm | CENTIMETRE cm | MILLIMETRE mm | MICROMETRE µm |
| NAUTICAL MILE (UK) | | 1.853 184 | 1.853 184 X 10 ³ | | | | |
| STATUTE MILE | Mile | 1.609 344 | 1.609 344 X 10 ³ | | | | |
| YARD | yd | 9.144 X 10-4 | 9.144 X 10 ⁻¹ | 9.144 | 9.144 X 10 ¹ | | |
| FOOT | ft | 3.048 X 10 ⁻⁴ | 3.048 X 10 ⁻¹ | 3.048 | | | |
| INCH | in | | 2.540 X 10 ⁻² | 2.540 X 10 ⁻¹ | 2.540 | 2.540 X 10 ¹ | 2.540 X 10 ⁴ |
| MIL | mil | | 2.540 X 10 ⁻⁵ | 2.540 X 10 ⁻⁴ | 2.540 X 10 ⁻³ | 2.540 X 10 ⁻² | 2.540 X 10 ¹ |

R

Length (Multiples and Submultiples)
Figure 801

EFFECTIVITY: ALL

00 -1

Page 802 Mar 01/92

AIRCRAFT MAINTENANCE MANUAL

| mm | in | · mm | in | mm | in | mm | in |
|-------------------|--------------------------|------|-------------|----|-------------|----------|----------------------------|
| 0. 0001 | . 000 0039 | 1 | . 039 3701 | 40 | 1. 574 8031 | 79 | 2 220 2000 |
| J 0005 | . 000 0079 | 2 | . 078 7402 | 41 | 1,614 1732 | | 3. 110 2062 |
| 0.0003 | . 000 0118 | 3 | .118 1102 | 42 | 1.653 5433 | 80 | 3.149 6063 |
| 17 0004 | . 000 0158 | 4 | . 157 4803 | 43 | 1. 692 9134 | 81 82 | 3. 188 9764 3. 228 3465 |
| 0 0005 | . 000 0197 | 5 | . 196 8504 | 44 | 1. 732 2835 | 83 | 3 267 7165 |
| o 000e | . 000 0236 | 6 | . 236 2205 | 45 | 1.771 6535 | 84 | 3 307 0866 |
| 0.0007 | . 000 0276 | 7 | . 275 5906 | 46 | 1.811 0236 | 85 | 3.346 4567 |
| 0.0008 | . 000 0315 | 8 | . 314 9606 | 47 | 1. 850 3937 | 86 | |
| 0. 0009 | . 000 0354 | 9 | . 354 3307 | 48 | 1. 889 7638 | 87 | 3 385 8268 3 425 1968 |
| | | 10 | . 393 7008 | 49 | 1. 929 1339 | 88 | 3. 464 5669 |
| 0.001 | . 000 0394 | 11 | . 433 0709 | 50 | 1. 968 5039 | 89 | 3. 503 9370 |
| 0. 002 | . 000 0787 | 12 | . 472 4409 | 51 | 2.007 8740 | 90 | 3. 543 3071 |
| 0. 003 | . 000 1181 | 13 | .511 8110 | 52 | 2. 047 2441 | 91 | 3. 582 6772 |
| 0.004 | . 000 1575 | 14 | . 551 1811 | 53 | 2. 086 6142 | 92 | 3. 622 0472 |
| 0.005 | . 000 1969 | 15 | . 590 5512 | 54 | 2. 125 9842 | 93 | 3.661 4173 |
| 0.006 | . 000 2362 | 16 | . 629 9213 | 55 | 2. 165 3543 | 94 | 3. 700 7874 |
| 0. 007 | . 000 2756 | 17 | . 669 2913 | 56 | 2.204 7244 | 95 | 3. 740 1575 |
| 0.008 | . 000 3150 | 18 | .708 6614 | 57 | 2. 244 0945 | 96 | 3. 779 5276 |
| 0.009 | . 000 3543 | 19 | . 748 0315 | 58 | 2. 283 4646 | 97 | 3. 818 8976 |
| | | 20 | . 787 4016 | 59 | 2. 322 8346 | 98 | 3. 858 2677 |
| 0. 01 0. 02 | . 000 3937 | 21 | . 826 7717 | 60 | 2. 362 2047 | 99 | 3. 897 6378 |
| 0. 02 | . 000 7874 | 22 | . 866 1417 | 61 | 2.401 5748 | 100 | 3. 937 0079 |
| 0. 03 | . 001 1811 | 23 | . 905 5118 | 62 | 2, 440 9449 | | 3. 937 0079 |
| 0. 04 0. 05 | . 001 5748 . 001 9685 | 24 | .944 8819 | 63 | 2. 480 3150 | | |
| 0.06 | • | 25 | . 984 2520 | 64 | 2. 519 6850 | | |
| 0. 07 | . 002 3622 | 26 | 1. CLJ 6220 | 65 | 2. 559 0551 | | |
| 0. 08 | . 002 7559 | 27 | 1. 062 9921 | 66 | 2. 598 4252 | | |
| 0.08 | . 003 1496 | 28 | 1. 102 3622 | 67 | 2.637 7953 | l | İ |
| U. U 3 | . 003 5433 | 29 | 1. 141 7323 | 68 | 2.677 1654 | | |
| 0. 1 | 002.025 | 30 | 1.181 1024 | 69 | 2 716 5354 | | |
| 0. 1 | . 003 9370 | 31 | 1. 220 4724 | 70 | 2. 755 9055 | | |
| | . 007 8740 | 32 | 1.259 8425 | 71 | 2. 795 2756 | | |
| 0.3 | .011 8110 | 33 | 1. 299 2126 | 72 | 2. 834 6457 | | |
| 0.4 | . 015 7480 | 34 | 1. 338 5827 | 73 | 2. 874 0157 | |] |
| 0. 5 | . 019 6850 | 35 | 1. 377 9528 | 74 | 2.913 3858 | | |
| 5.6 | . 023 6220 | 36 | 1. 417 3228 | 75 | 2.952 7559 | | |
| 0. 7 | . 027 5591 | 37 | 1. 456 6929 | 76 | 2.992 1260 | 1 | |
| 0. 8 | . 031 4961 | 38 | 1. 496 0630 | 77 | 3. 031 4961 | | |
| 0. 9 | . 035 4331 | 39 | 1. 535 4331 | 78 | 3. 070 8661 | | |

BM5 00 00 00 8 ALMO - 14 - 09 DM5

Millimeters into Inches Figure 802

EFFECTIVITY: ALL
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Page 803 Dec 01/89

AIRCRAFT MAINTENANCE MANUAL

| | Inch | Millimetres | | Inch | Millimetres |
|-------|-----------|-------------|------------|--------------------------|-------------|
| 1/64 | . 015 625 | 0.396 875 | 33/64 | . 515 625 | 13. 096 875 |
| 1/32 | . 031 250 | 0.793 750 | 17/32 | . 531 250 | 13. 493 750 |
| 3/64 | . 046 875 | 1. 190 625 | 35/64 | . 546 875 | 13. 890 625 |
| 1/16 | . 062 500 | 1. 587 500 | 9/16 | . 562 500 | 14.287 500 |
| 5/64 | . 078 125 | 1.984 375 | 37/64 | . 578 125 | 14. 684 375 |
| 3/32 | . 093 750 | 2. 381 250 | 19/32 | . 593 750 | 15. 081 250 |
| 7/64 | . 109 375 | 2. 778 125 | 39/64 | . 609 375 | 15. 478 125 |
| 1/8 | . 125 000 | 3. 175 000 | 5/8 | . 625 000 | 15. 875 000 |
| 9/64 | . 140 625 | 3. 571 875 | 41,64 | . 640 625 | 16, 271 875 |
| 5/32 | . 156 250 | 3. 968 750 | 21/32 | . 656 250 | 16, 668 750 |
| 11/64 | . 171 875 | 4.365 625 | 43/64 | . 671 875 | 17. 065 625 |
| 3/16 | . 187 500 | 4.762 500 | 11/16 | . 687 500 | 17. 462 500 |
| 13/64 | . 203 125 | 5.159.375 | 45/64 | .703 125 | 17. 859 375 |
| 7/32 | . 218 750 | 5.556 250 | 23/32 | .718 750 | 18.256.250 |
| 15/64 | . 234 375 | 5. 953 125 | 47/64 | .734 375 | 18 653 125 |
| 1/4 | . 250 000 | 6.350 000 | 3/4 | . 750 000 | 19. 050 000 |
| 17/64 | . 265 625 | 6.746 875 | 49/64 | . 765 625 | 19. 446 875 |
| 9/32 | . 281 250 | 7.143 750 | 25/32 | .781250 | |
| 19/64 | . 296 875 | 7. 540 625 | 51/64 | . 796 875 | 19.843 750 |
| 5/16 | . 312 500 | 7.937 500 | 13/16 | . 812 500 | 20. 240 625 |
| 21/64 | . 328 125 | 8.334 375 | 53/64 | . 828 125 | 20. 637 500 |
| 11/32 | . 343 750 | 8.731 250 | 27/32 | . 843 750 | 21. 034 375 |
| 23/64 | . 359 375 | 9. 128 125 | 55/64 | . 859 375 | 21. 431 250 |
| 3/8 | . 375 000 | 9. 525 000 | 7/8 | . 875 000 | 21. 828 125 |
| 25/64 | . 390 625 | 9.921 875 | 57/64 | . 890 625 | 22. 225 000 |
| 13/32 | . 406 250 | 10. 318 750 | 29/32 | . 906 250 | 22.621 875 |
| 27/64 | . 421 875 | 10.715 625 | 59/64 | . 921 875 | 23,018 750 |
| 7/16 | . 437 500 | 11.112 500 | 15/16 | . 937 500 | 23. 415 625 |
| 29/64 | . 453 125 | 11.509 375 | 61/64 | | 23. 812 500 |
| 15/32 | . 468 750 | 11.906 250 | 31/32 | . 953 125 | 24.209 375 |
| 31/64 | . 484 375 | 12. 303 125 | 1 | . 968 750 | 24.606.250 |
| 1/2 | . 500 000 | 12.700 000 | 63/64 1 | . 984 375 1 . 000 000 | 25, 003 125 |

BM5 00 00 00 8 ANMO - 14 - 09 DM5

> Value of Binary Fractions of an Inch Figure 803

EFFECTIVITY: ALL

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-INTRO

Page 804 Dec 01/89

AIRCRAFT MAINTENANCE MANUAL

VALUE OF DECIMAL FRACTION OF AN INCH

| in | mm | in | mm | in | mm | in | mm |
|--|---|---|--|--|--|--|---|
| . 0001 . 0002 . 0003 . 0004 . 0005 . 0006 . 0007 . 0008 | 0.002 5 0.005 1 0.007 6 0.010 2 0.012 7 0.015 2 0.017 8 0.020 3 0.022 9 | . 001 . 002 . 003 . 004 . 005 . 006 . 007 . 008 . 009 | 0.0254 0.0508 0.0762 0.1016 0.1270 0.1524 0.1778 0.2032 | . 01 . 02 . 03 . 04 . 05 . 06 . 07 . 08 | 0. 254 0. 598 0. 762 1. 016 1. 270 1. 524 1. 778 2. 032 2. 286 | .1 .2 .3 .4 .5 .6 .7 | 2. 54 5. 08 7. 62 10. 16 12. 70 15. 24 17. 78 20. 32 22. 86 |

__ VALUE OF INCHES

| in | mm | in | mm | in | mm | in | mm |
|----|---------|----|----------|----|----------|-----|----------|
| _ | | | | | | | |
| 1 | 25.4 | 26 | 660.4 | 51 | 1 295. 4 | 76 | 1 930.4 |
| 2 | 50, 8 | 27 | 685.8 | 52 | 1 320.8 | 77 | 1 955.8 |
| 3 | 76.2 | 28 | 711, 2 | 53 | 1 346. 2 | 78 | 1 981. 2 |
| 4 | 101.6 | 29 | 736.6 | 54 | 1 371. 6 | 79 | 2 006, 6 |
| 5 | 127. 0 | 30 | 762. 0 | 55 | 1 397. 0 | 80 | 2 032. 0 |
| 6 | ı 52. 4 | 31 | 787. 4 | 56 | 1 422. 4 | 81 | 2 057. 4 |
| 7 | 177.8 | 32 | 812.8 | 57 | 1 447. 8 | 82 | 2 082, 8 |
| 8 | 203.2 | 33 | 838.2 | 58 | 1 473. 2 | 83 | 2 108 2 |
| 9 | 228.6 | 34 | 863.6 | 59 | 1 498.6 | 84 | 2 133. 6 |
| 10 | 254.0 | 35 | 889. 0 | 60 | 1 524. 0 | 85 | 2 159. 0 |
| 11 | 279. 4 | 36 | 914.4 | 61 | 1 549. 4 | 86 | 2 184 4 |
| 12 | 304.8 | 37 | 939. 8 | 62 | 1 574. 8 | 87 | 2 209. 8 |
| 13 | 330.2 | 38 | 965. 2 | 63 | 1 600. 2 | 88 | 2 235. 2 |
| 12 | 355.6 | 39 | 990.6 | 64 | 1 625.6 | 89 | 2 260 6 |
| 15 | 381.0 | 40 | 1 016, 0 | 65 | 1 651. 0 | 90 | 2 286. 0 |
| 16 | 406.4 | 43 | 1 041.4 | 66 | 1 676. 4 | 93 | 2 311.4 |
| 17 | 431.8 | 42 | 1 066.8 | 67 | 1 701. 8 | 92 | 2 336 8 |
| 18 | 457.2 | د4 | 1 092.2 | 68 | 1 727.2 | 93 | 2 362. 2 |
| 19 | 482.6 | 44 | 1 117.6 | 69 | 1 752.6 | 94 | 2 387. 6 |
| 20 | 508.0 | 45 | 1 143.6 | 70 | 1 778.0 | 95 | 2 413. 0 |
| 21 | 533.4 | 46 | 1 168.4 | 71 | 1 803. 4 | 96 | 2 438.4 |
| 22 | 558.8 | 47 | 1 193. 8 | 72 | 1 828. 8 | 97 | 2 463. 8 |
| 23 | 584. 2 | 48 | 1 219. 2 | 73 | 1 854. 2 | 98 | 2 489. 2 |
| 24 | 609.6 | 49 | 1 244.6 | 74 | 1 879.6 | 99 | 2 514.6 |
| 25 | 635. 0 | 50 | 1 270. 0 | 75 | 1 905. 0 | 100 | 2 540.0 |

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Value of Decimal Fraction of an Inch and Inches Figure 804

EFFECTIVITY: ALL
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Page 805 Dec 01/89

AIRCRAFT MAINTENANCE MANUAL

| THESE UNITS CORRESPOND TO | | SQUARE MILE mile ² | | SQUARE YARD yd ² | | SQUARE FOOT | | | SQUARE INCH | |
|---------------------------------|-------------------|---------------------------------------|------------------------------|--------------------------------|------------------------------|--|------------------------|-----------------|--|--|
| SQUARE MILE | mile ² | 1 | | 3.0 97 600 X 10 ⁶ | | 2.787 840 X 10 ⁷ | | | | |
| SQUARE YARD | yd ² | 3.228 306 X 10 | 3.228 306 X 10 ⁻⁷ | | 1 | | 9 | | 96 X 10 ³ | |
| SQUARE FOOT | ft 2 | 3.587 007 X 10 | 8-(| 1.111 111 > | (10 -1 | 1 | | 1.4 | 140 X 10 ² | |
| SQUARE INCH | in 2 | | | 7.716 049 | x 10-4 | 6.944 | 444 X 10 ⁻³ | 1 | | |
| KILOMETRE CARRE | km ² | 3.861 022 X 10 | -1 | 1.195 990 | X 10 ⁶ | 1.076 | 391 X 10 | | | |
| METRE CARRE | m² | 3.861 022 X 10 | -7 1.195 990 | | | 1.076 391 X 10 ¹ | | 1.5 | 1.550 003 X 10 ³ | |
| DECIMETRE CARRE | dm ² | | | 1.195 990 X 10 ⁻² | | 1.076 391 X 10 ⁻¹ | | 1.5 | 1.550 003 X 10 ¹ | |
| CENTIMETRE CARRE | cm ² | | | 1.195 990 X 10 ⁻⁴ | | 1.076 | 391 X 10 ⁻³ | 1.5 | 50 003 X 10 ⁻¹ | |
| MILLIMETRE CARRE | mm ² | | | | | | | 1.5 | 50 003 X 10 ⁻³ | |
| THESE UNITS CORRESPOND TO | - | KILOMETRE CARRE km ² | | CARRE CAR | | METRE CENTIMETE RRE CARRE m ² cm ² | | RE | MILLIMETRE CARRE mm ² | |
| SQUARE MILE | mile ² | 2.589 988 | 2.58 | 9 988X10 ⁶ | | | | | | |
| SQUARE YARD | yd ² | | 8.36 X10 | 61 274 -1 | 8.361 2 | 74X10 ¹ | 8.361 274X1 | 103 | | |
| SQUARE FOOT | ft ² | 9.290 304 X10 ⁻⁸ | 9.29 X10 | 00 304 -2 | 9.290 3 | 04 | 9.290 304X | 10 ² | | |
| SQUARE INCH | in ² | | 6.45 X10 | 51 600 -4 | 6.451 6 X10 ⁻² | 00 | 6.451 600 | | 6.451 600X10 ² | |

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Area or Surface Figure 805

EFFECTIVITY: ALL

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Page 806 Mar 01/92

AIRCRAFT MAINTENANCE MANUAL

- VOLUME

| THESE UNITS CORRESPOND TO | > | CUBIC YARD yd ³ | | | FOOT | CUBIC INCH | |
|---------------------------------|-----------------|-------------------------------|-------|-------------------------------------|---------------------------|------------|---------------------------------------|
| CUBIC YARD | yd ³ | 1 | | 2.700 X | 101 | 4 | .665 600 X 104 |
| CUBIC FOOT | ft3 | 3.703 704 X 10 ⁻² | | 1 | | 1 | .728 X 10 ³ |
| CUBIC INCH | in 3 | 2.143 347 X 10 ⁻⁵ | | 5.787 03 | 7 X 10-4 | 1 | |
| METRE CUBE | m ³ | 1.307 951 | | 3.531 46 | 7 X 10 ¹ | 6 | .102 374 X 10 ⁴ |
| DECIMETRE CUBE | dm³ | 1.307 951 X 10 | -3 | 3.531 467 X 10 ⁻² | | 6 | .102 374 X 10 ¹ |
| CENTIMETRE CUBE | cm ³ | 1.307 951 X 10 | -6 | 3.531 46 | 7 X 10 ⁻⁵ | | .102 374 X 10 ⁻² |
| MILLIMETRE CUBE | mm 3 | | | | | 6 | .102 374 X 10 ⁻⁵ |
| THESE UNITS CORRESPOND TO | | METRE CUBE m3 | | ECIMETRE CUBE dm ³ | CENTIMETRE CUBE cm3 | | MILLIMETRE CUBE mm ³ |
| CUBIC YARD | yd ³ | 7.645 549 X 10 ⁻¹ | 7.64 | 5 549 X 10 ² | 7.645 549 | (105 | mmo |
| CUBIC FOOT | ft3 | 2.831 685 X 10 ⁻² | | 1 685 X 10 ¹ | 2.831 685 > | | |
| CUBIC INCH | in 3 | 1.638 706 X 10 ⁻⁵ | 1.638 | 3 706 X 10−2 | 1.638 706 X | 101 | 1.638 706 X 104 |

- CAPACITY

| THESE UNITS CORRESPOND TO | | GALLON (US) gal | LIQUID QUART (US) | GALLON (UK) gal | QUART (UK) | CUBIC INCH | LITRE |
|---------------------------|------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------|--|
| GALLON (US) | gal | 1 | 4 | 8.326 80 X 10 ⁻¹ | 3.330 72 | 2.310 X 10 ² | 3.785 41 |
| LIQUID QUART (US) | | 2.500 X 10 ⁻¹ | 1 | 2.081 70 X 10 ⁻¹ | 8.326 80 X 10 ⁻¹ | 5.775 X 10 ¹ | 9.463 52 X 10 ⁻¹ |
| GALLON (UK) | gal | 1.200 94 | 4.803 76 | 1 | 4 | 2.774 20 X 10 ² | 4.546 09 |
| QUART (UK) | | 3.002 35 X 10 ⁻¹ | 1.200 94 | 2.500 X 10 ⁻¹ | 1 | 6.935 5 X 10 ¹ | 1.136 52 |
| CUBIC INCH | in 3 | 4.329 004 X 10 ⁻³ | 1.731 602 X 10 ⁻² | 3.604 643 X 10 ⁻³ | 1.441 857 X 10 ⁻² | 1 | 1.638 <i>7</i> 1 X 10 ⁻² |
| LITRE | 1 | 2.641 72 X 10 ⁻¹ | 1.056 688 | 2.199 69 X 10 ⁻¹ | 8.798 76 X 10 ⁻¹ | 6.102 37 X 10 ¹ | 1 |

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Volume - Capacity Figure 806

EFFECTIVITY: ALL

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Page 807 Mar 01/92

AIRCRAFT MAINTENANCE MANUAL

| THESE UNITS CORRESPOND TO | - | SHORT TON (US) sh tn | TON (UK) ton | | POUND Ib | | OUNCE oz | GRAIN gr |
|---------------------------|----------|----------------------------|--------------------------------|----------------------------------|--------------------------------|---------------------------|----------------------|---------------------------|
| SHORT TON (US) | sh tn | 1 | 8.928 571 X10 ⁻¹ | | 2X10 ³ | | | |
| TON (UK) | ton | 1.120 | 1 | | 2.240X10 ³ | ! | | |
| POUND | lb | 5X10-4 | 4.464 286 X10-4 | | | 1.60 | 0X10 ¹ | 7X10 ³ |
| OUNCE | oz | | | | | 1 | | 4.375X10 ² |
| GRAIN | gr | | : | 1.428 571 X10 ⁻⁴ | | 2.28 X10 | 5 _. 714 | 1 |
| TONNE | t | 1.102 311 | 9.842 065 X10 ⁻¹ | 2.024 623X10 ³ | | | | |
| KILOGRAMME | kg | 1.102 311 X10-3 | 9.842 065 X10-4 | | 2.204 623 | 3.527 396X10 ¹ | | 1.543 236X10 ⁴ |
| GRAMME | 9 | | | | 2.204 623 X10 ⁻³ | 3.52 X10 | 7 _. 396 | 1.543 236X10 ¹ |
| THESE UNITS CORRESPOND | - | TONNE t | | KILOGRAMME kg | | | G | GRAMME 9 |
| SHORT TON (US) | sh tn | 9.071 847X1 | 0-1 | 9 | .071 847X10 ² | | | |
| TON (UK) | ton | 1.016 047 | | 1 | .016 047X10 ³ | | • | |
| POUND | IЬ | 4.535 923 7 | X10-4 | 4.535 923 7X10- | | -1 | 4.535 | 923 7X10 ² |
| OUNCE | oz | | | 2.834 952X10 ⁻² | | | 2.834 | 952X10 ¹ |
| GRAIN | gr | | | 6.479 891X10 ⁻⁵ 6.479 | | 6.479 | 891X10 ⁻² | |

- VOLUMETRIC MASS

| THESE UNITS CORRESPOND TO | • | POUND PER CUBIC FOOT Ib/ft 3 | POUND PER CUBIC INCH Ib/in 3 | GRAIN PER CUBIC INCH gr/in ³ | KILOGRAMME PAR METRE CUBE kg/m ³ | GRAMME PAR CENTIMETRE CUBE g/cm ³ |
|---------------------------------|--------------------|------------------------------------|------------------------------------|---|--|---|
| POUND PER CUBIC FOOT | lb/ft ³ | 1 | 5.787 037 X 10 ⁻⁴ | | 1.601 846 X 10 ¹ | 1.601 846 X 10 ⁻² |
| POUND PER CUBIC INCH | Ib/în ³ | 1.728 X 10 ³ | 1 | 7 X 10 ³ | 2.767 990 X 10 ⁴ | 2.767 990 X 10 ¹ |
| GRAIN PER CUBIC INCH | gr/in ³ | | 1.428 571 X 10 ⁻⁴ | 1 | 3.954 272 | 3.954 272 X 10 ⁻³ |
| KILOGRAMME Par Metre Cube | kg/m 3 | 6.242 796 X 10 ⁻² | 3.612 729 X 10 ⁻⁵ | 2.528 910 X 10 ⁻¹ | 1 | 10-3 |
| GRAMME PAR CENTIMETRE CUBE | g/cm3 | 6.242 796 X 10 ¹ | 3.612 729 X 10 ⁻² | 2.528 910 X 10 ² | 103 | 1 |

Mass - Volumetric Mass Figure 807

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EFFECTIVITY: ALL

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Page 808 Mar 01/92

AIRCRAFT MAINTENANCE MANUAL

- SPEED

| THESE UNITS CORRESPOND TO | | MILE PER HOUR mile/h | FOOT PER SECOND ft/s | KILOMETRE PAR HEURE km/h | METRE PAR SECONDE m/s | CENTIMETRE PAR SECONDE cm/s |
|---------------------------------|--------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------|
| MILE PER HOUR | mile/h | 1 | 1.466 666 | 1.609 344 | 4.470 400 X10 ⁻¹ | 4.470 400X10 ¹ |
| FOOT PER SEC. | ft/s | 6.818 18X10 ⁻¹ | 1 | 1.097 280 | 3.048X10 ⁻¹ | 3.048X10 ¹ |
| KILOMETRE PAR HEURE | km/h | 6.213 712 X10 ⁻¹ | 9.113 444 X10 ⁻¹ | 1 | 2.777 778 X10 ⁻¹ | 2.777 778X10 ¹ |
| METRE PAR SEC. | m/s | 2.236 936 | 3.280 840 | 3.600 | 1 | 10 ² |
| CENTIMETRE PAR SEC. | cm/s | 2.236 936 X10 ⁻² | 3.280 840 X10 ⁻² | | 10-2 | 1 |

- ACCELERATION

| THESE UNIT | | MILE PER HOUR PER SECOND mile/h/s | FOOT PER SECOND PER SECOND ft/s ² | METRE PAR SECONDE PAR SECONDE m/s ² | CENTIMETRE PAR SECONDE PAR SECONDE cm/s ² |
|------------------------------------|-------------------|---|--|--|--|
| MILE PER HOUR PER SEC. | mile/h/s | 1 | 1.466 666 | 4.470 400 X 10 ⁻¹ | 4.470 400 X 10 ¹ |
| FOOT PER SEC. PER SEC. | ft/s ² | 6.818 18 X 10 ⁻¹ | 1 | 3.048 X 10 ⁻¹ | 3.048 X 10 ¹ |
| METRE PAR SEC. PAR SEC. | m/s ² | 2.236 936 | 3.280 840 | 1 | 102 |
| CENTIMETRE PAR SEC. PAR SEC. | cm/s ² | 2.236 936 X 10 ⁻² | 3.280 840 X 10 ⁻² | 10-2 | 1 |

Speed - Acceleration Figure 808

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EFFECTIVITY: ALL

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Page 809 Mar 01/92

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AIRCRAFT MAINTENANCE MANUAL

| THESE UNITS CORRESPOND TO | | TON-FORCE (U PER SQUARE FO tonf/ft ² | | TON-FORCI PER SQUAR tonf/ir | EINCH | PER SQ | D-FORCE UARE FOOT f/ft ² | PE | UND-FORCE * R SQUARE INCH of/in ² (psi) | |
|--|--|---|--------------|-----------------------------------|-----------------------------------|-----------------------------|---|-----------------------------|--|--|
| TON-FORCE (UK) tonf/ft ² PER SQUARE FOOT | | 1 | | 6.944 444 X 10 ⁻³ | | 2.240 X 10 ³ | | 1.55 | 1.555 556 X 10 ¹ | |
| TON-FORCE (UK) PER SQUARE INCH | tonf/in ² | ² 1.440 X 10 ² | | 1 | | 3.225 600 X 10 ⁵ | | 2.24 | 40 X 10 ³ | |
| POUND-FORCE PER SQUARE FOOT | lbf/ft ² | 4.464 286 X 10 | -4 | 3.100 198 3 | K 10 ⁻⁶ | 1 | | 6.9 | 44 444 X 10 ⁻³ | |
| POUND-FORCE+ PER SQUARE INCH (psi) | lbf/in ² | 6.428 571 X 10 | -2 | 4.464 286 | x 10 ⁻⁴ | 1.440 X 10 ² | | 1 | | |
| (HECTOBAR) 1) | (HECTOBAR) 1) (hbar) 9.323 855 X 10 ¹ | | 1 | 6.474 899 | X 10 ⁻¹ | 2.088 | 534 X 10 ⁵ | 1.4 | 50 377 X 10 ³ | |
| MEGAPASCAL* | APASCAL* MPa 9.323 855 | | | 6.474 899 | x 10-2 | 2.088 534 X 10 ⁴ | | 1.450 377 X 10 ² | | |
| BAR | bar | 9.323 855 X 10 ⁻¹ | | 6.474 899 X 10 ⁻³ | | 2.088 534 X 10 ³ | | 1.450 377 X 10 ¹ | | |
| KILOPASCAL | kPa | 9.323 855 X 10-3 | | 6.474 899 X 10 ⁻⁵ | | 2.088 534 X 10 ¹ | | 1.4 | 1.450 377 X 10 ⁻¹ | |
| PASCAL | Pa | 9.323 855 X 10 ⁻⁶ | | 6.474 899 | X 10-8 | 2.088 5 | 534 X 10 ⁻² | 1.4 | 50 377 X 10-4 | |
| BARYE | barye | , | | | | 2.088 | 534 X 10 ⁻³ | 1.4 | 50 377 X 10 ⁻⁵ | |
| | | | | | ſ | | | | | |
| THESE UNITS CORRESPOND TO — | | (HECTOBAR) 1) (hbar) | ME | EGAPASCAL+ B. | | AR KILOPAS or kPo | | AL PASCAL Po | | |
| TON-FORCE (UK) PER SQUARE FOOT | tonf/ft ² | 1.072 518 X10 ⁻² | 1.0° X10 | 72 518 -1 | 1.072 5 | 1.072 518X | | 102 | 1.072 518X10 ⁵ | |
| | | 1.544 426 | 1.5 | 44 426X10 ¹ | 1.544 4 | 26X10 ² | 1.544 426X | 104 | 1.544 426X10 ⁷ | |
| POUND-FORCE PER SQUARE FOOT | | | 88 026 -5 | 4.788 0 X10 ⁻⁴ | 26 4.788 026 X10 ⁻² | | | 4.788 026X10 ¹ | | |
| POUND-FORCE* PER SQUARE INCH (psi) | lbf/in ² | 6.894 757 X10 ⁻⁴ | 6.89 X10 | 94 757 -3 | 6.894 7 X10 ⁻² | 57 | 6.894 757 | | 6.894 757X10 ³ | |

> Pressure/Stress Figure 809

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EFFECTIVITY: ALL KSSU

Page 810 Mar 01/92

AIRCRAFT MAINTENANCE MANUAL

_ MOMENT/TORQUE

| THESE UNITS CORRESPOND | - | POUND-FORCE FOOT lbf.ft | POUND-FORCE INCH Ibf.in. | POUNDAL INCH | METRE DECANEWTON m. daN | METRE NEWTON |
|--|---|--|--|---|---|--|
| POUND-FORCE FOOT POUND-FORCE INCH POUNDAL INCH METRE DECANEWTON METRE NEWTON | lbf. ft lbf.in pdl.in m. daN m. N | 1 8.333 333X10 ⁻² 2.590 079X10 ⁻³ 7.375 621 7.375 621X10 ⁻¹ | 1.200X10 ¹ 1 3.108 095X10 ⁻² 8.850 746X10 ¹ 8.850 746 | 3.860 886×10 ² 3.217 405×10 ¹ 1 2.847 643×10 ¹ 2.847 643×10 ² | 1.355 818X10 ⁻¹ 1.129 848X10 ⁻² 3.511 676X10 ⁻⁴ 1 10 ⁻¹ | 1.355 818 1.129 848X10 ⁻¹ 3.511 676X10 ⁻³ 10 ¹ |

_ FORCE

| THESE UNITS CORRESPOND TO | TON—FORCE (UK) | • | POUND- | -FORCE of | | POUNDAL pdf | | |
|--|--------------------------------------|---|-------------|--|---|----------------|---|--|
| TON-FORCE (UK) POUND-FORCE POUNDAL KILONEWTON DECANEWTON NEWTON DYNE | tonf Ibf pdI kN daN N | 1 4.464 286X10 ⁻⁴ 1.003 611X10 ⁻¹ 1.003 611X10 ⁻³ 1.003 611X10 ⁻⁴ | | 2.240×10 ³ 1 3.108 095×10 ⁻² 2.248 089×10 ² 2.248 089 2.248 089×10 ⁻¹ 2.248 089×10 ⁻⁶ | | l | 7.206 987X10 ⁴ 3.217 405X10 ¹ 1 7.233 014X10 ³ 7.233 014X10 ¹ 7.233 014 | |
| THESE UNITS CORRESPOND TO TO TON-FORCE (UK) POUND-FORCE * POUNDAL | tonf lbf pdl | KILONEWTON kN 9.964 016 4.448 222X10 ⁻³ 1.382 650X10 ⁻⁴ | 9.96 4.4 | 64 016 X10 ² 48 222 X10 ⁻¹ 82 550 X10 ⁻² | 9.964 016X1 4.448 222 1.382 550X1 | 03 | DYNE dyn 4.448 222X10 ⁵ 1.382 550X10 ⁴ | |

Moment/Torque - Force Figure 810

| EFFECTIVITY: ALL | İ |
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Page 811 Dec 01/89

AIRCRAFT MAINTENANCE MANUAL

| In Newton (N) | Number to Be Converted | In Pound-Force (lbf) | In Newton (N) | Number to Be Converted | In Pound-Force (Ibf) | In Newton (N) | Number to Be Converted | In Pound-Force (Ibf) |
|---------------------|------------------------------|----------------------------|---------------------|------------------------------|----------------------------|--------------------------------|------------------------------|----------------------------|
| 4.448 222 | 1 | 0.224 809 | 124.550 | 28 | 6.295 | 244.652 | 55 | 12.364 |
| 8.896 | 2 | 0.450 | 128.998 | 29 | 6.519 | 244.052 | 56 | 12.589 |
| 13.345 | 3 | 0.674 | 133.447 | 30 | 6.744 | 253.549 | 57 | 12.814 |
| 17.793 | 4 | 0.899 | 137.895 | 31 | 6.969 | 253.94 9 257.997 | 58 | 13.039 |
| 22.241 | 5 | 1.124 | 142.343 | 32 | 7.194 | 267.997 262.445 | 59 | 13.039 |
| 26.689 | 6 | 1.349 | 146.791 | 33 | 7.419 | 266.893 | 60 | 13.489 |
| 31.138 | 7 | 1.574 | 151.240 | 34 | 7.644 | 271.342 | 61 | 13.469 |
| 35.586 | 8 | 1.799 | 155.688 | 35 | 7.868 | 271.342 | 62 | 13.713 |
| 40.034 | 9 | 2.023 | 160.136 | 36 | 8.093 | 280.238 | 63 | 14.163 |
| 44.482 | 10 | 2.248 | 164.584 | 37 | 8.318 | 284.686 | 64 | 14.163 |
| 48.930 | 11 | 2.473 | 169.032 | 38 | 8.543 | 289.134 | 65 | 14.568 |
| 53.379 | 12 | 2.698 | 173.481 | 39 | 8.768 | 293.583 | 66 | 14.837 |
| 57.827 | 13 | 2.923 | 177.929 | 40 | 8.992 | 298.031 | 67 | 15.062 |
| 62.275 | 14 | 3.147 | 182.377 | 41 | 9.217 | 302.479 | 68 | 15.287 |
| 66.723 | 15 | 3.372 | 186.825 | 42 | 9.442 | 306.927 | 69 | 15.512 |
| 71.172 | 16 | 3.597 | 191.274 | 43 | 9.667 | 311.376 | 70 | 15.737 |
| 75.620 | 17 | 3.822 | 195.722 | 44 | 9.892 | 315.824 | 71 | 15.962 |
| 80.068 | 18 | 4.047 | 200.170 | 45 | 10.116 | 320.272 | 72 | 16.186 |
| 84.516 | 19 | 4.271 | 204.618 | 46 | 10.341 | 324.720 | 73 | 16.411 |
| 88.964 | 20 | 4.496 | 209.066 | 47 | 10.566 | 329, 168 | 74 | 16.636 |
| 93.413 | 21 | 4.721 | 213.515 | 48 | 10.790 | 333.617 | 75 | 16.861 |
| 97.861 | 22 | 4.946 | 217.963 | 49 | 11.015 | 338.065 | 76 | 17.085 |
| 102.309 | 23 | 5.171 | 222.411 | 50 | 11.240 | 342.513 | 77 | 17.810 |
| 106.757 | 24 | 5.395 | 226.859 | 51 | 11.465 | 346.961 | 78 | 17.535 |
| 111.206 | 25 | 5.620 | 231.308 | 52 | 11.690 | 351.410 | 79 | 17.535 |
| 115.654 | 26 | 5.845 | 235.756 | 53 | 11.914 | 355.858 | 80 | 17.760 |
| 120.102 | 27 | 6.070 | 240.204 | 54 | 12.140 | 360.306 | 81 | 18.210 |

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Conversion Table (1 to 81) Figure 811

EFFECTIVITY: ALL

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Page 812 Dec 01/89

AIRCRAFT MAINTENANCE MANUAL

| In | Number | In | În | Number | In | | | , 7 |
|----------|-----------|-------------|---------|-----------|-------------|---------|-----------|-------------|
| Newton | to Be | Pound-Force | | | *** | łn | Number | In In |
| t i | 10 20 | | Newton | to Be | Pound-Force | Newton | to Be | Pound-Force |
| (N) | Converted | (lbf) | (N) | Converted | (1bf) | (N) | Converted | (lbf) |
| 364.754 | 82 | 18.434 | 556.028 | 125 | 28.101 | 747.301 | 168 | 37.768 |
| 369.202 | 83 | 18.659 | 560.476 | 126 | 28.326 | 751.750 | 169 | 37.993 |
| 373.6E1 | 84 | 18.884 | 564.924 | 127 | 28.551 | 756.198 | 170 | 38.218 |
| 378.099 | 85 | 19.109 | 569.372 | 128 | 28.775 | 760.646 | 171 | 38.442 |
| 382.547 | 86 | 19.334 | 573.821 | 129 | 29.000 | 765.094 | 172 | 38.667 |
| 386.995 | 87 | 19.558 | 578.269 | 130 | 29.225 | 769.542 | 173 | 38.892 |
| 391,444 | 88 | 19.783 | 583.717 | 131 | 29,450 | 773.991 | 174 | 39.117 |
| 395.892 | 89 | 20.008 | 587.165 | 132 | 29.675 | 778.439 | 175 | 39.342 |
| 400.340 | 90 | 20.233 | 591.614 | 133 | 29.900 | 782.887 | 176 | 39.566 |
| 404.788 | 91 | 20.458 | 596.062 | 134 | 30.134 | 787.335 | 177 | 39.791 |
| 409.236 | 92 | 20.652 | 600.510 | 135 | 30.349 | 791.784 | 178 | 40.016 |
| 413.685 | 93 | 20.907 | 604.958 | 136 | 30.574 | 796.232 | 179 | 40.241 |
| 418.133 | 94 | - 21.132 | 609.406 | 137 | 30.799 | 800.680 | 180 | 40.466 |
| 422.581 | 95 | 21.357 | 613.855 | 138 | 31.024 | 805.128 | 181 | 40.690 |
| 427.029 | 96 | 21.582 | 618.303 | 139 | 31.248 | 809.576 | 182 | 40.915 |
| 431.478 | 97 | 21.806 | 622.751 | 140 | 31.473 | 814.025 | 183 | 41,140 |
| 435.926 | 98 | 22.031 | 627.199 | 141 . | 31.698 | 818.473 | 184 | 41.365 |
| 440.374 | 99 | 22:256 | 631.648 | 142 | 31.923 | 822.921 | 185 | 41.590 |
| 444.822 | 100 | 22.481 | 636.096 | 143 | 32,148 | 827.369 | 186 | 41.814 |
| 449.270 | 101 | 22.706 | 640.544 | 144 | 32.372 | 831.818 | 187 | 42.039 |
| 453.719 | 102 | 22.930 | 644.992 | 145 | 32.597 | 836.266 | 188 | 42.264 |
| 458.167 | 103 | 23.155 | 649.440 | 146 | 32.822 | 840.714 | 189 | 42.489 |
| 462.615 | 104 | 23.380 | 653.889 | 147 | 33.047 | 845.162 | 190 | 42.714 |
| 467.063 | 105 | 23.605 | 658.337 | 148 | 33.272 | 849.610 | 191 | 42.938 |
| 471.512 | 106 | 23.830 | 662.185 | 149 | 33.496 | 854.059 | 192 | 43.163 |
| 475.960 | 107 | 24.054 | 667.233 | 150 | 33.721 | 858.507 | 193 | 43.388 |
| 480.408 | 108 | 24.279 | 671.682 | 151 | 33.946 | 862.955 | 194 | 43.613 |
| 484.856 | 109 | 24.504 | 676.130 | 152 | 34.171 | 867.403 | 195 | 43.838 |
| 489.304 | 110 | 24.729 | 680.578 | 153 | 34.396 | 871.852 | 196 | 44.062 |
| 493.753 | 111 | 24.954 | 685.026 | 154 | 34.620 | 876.300 | 197 | 44.287 |
| 498.201 | 112 | 25.178 | 689.474 | 155 | 34.845 | 880.748 | 198 | 44.512 |
| 502.649 | 113 | 25.403 | 693.923 | 156 | 35.070 | 885.196 | 199 | 44.737 |
| 507.097 | 114 | 25.628 | 698.371 | 157 | 35.295 | 889.644 | 200 | 44.962 |
| 511.546 | 115 | 25.853 | 702.819 | 158 | 35.520 | 894.093 | 201 | 45.186 |
| 515.894 | 116 | 26.078 | 707.267 | 159 | 35.745 | 898.541 | 202 | 45.411 |
| 520.442 | 117 | 26.303 | 711.716 | 160 | 35.969 | 902.989 | 203 | 45.636 |
| 524.890 | 118 | 26.527 | 716.164 | 161 | 36.194 | 907.437 | 204 | 45.861 |
| 529.338 | 119 | 26.752 | 720.612 | 162 | 36.419 | 911.886 | 205 | 46.086 |
| 533.787 | 120 | 26.977 | 725.060 | 163 | 36.644 | 916.334 | 206 | 46.311 |
| 538.235 | 121 | 27.202 | 729.508 | 164 | 36.869 | 920.782 | 207 | 46.535 |
| 542.683 | 122 | 27.427 | 733.957 | 165 | 36.093 | 925.230 | 208 | 46.760 |
| 547.131 | 123 | 27.651 | 738.405 | 166 | 37.318 | 929.678 | 209 | 46.985 |
| 551.580 | 124 | 27.876 | 742.853 | 167 | 37.543 | 934.127 | 210 | 47.210 |
| L., ., . | | | | | | | | |

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Conversion Table (82 to 210) Figure 812

EFFECTIVITY: ALL

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Page 813 Dec 01/89

AIRCRAFT MAINTENANCE MANUAL

| GAUGE SWG N° | Dimensions | | GAUGE SWG N° | Dimensions | | GAUGE SWG N° | Dimensions | | Dimensions | | GAUGE SWG N° | Dimensions | |
|--------------------|------------|---------------------|--------------------|------------|-------------|--------------------|------------|------------|------------|--------|--------------------|------------|--|
| | inch | millim è tre | | inch | millim ètre | | inch | millimètre | | inch | millimètre | | |
| 7/0 | . 500 | 12. 700 | 9 | . 144 | 3. 658 | 24 | . 022 | . 559 | 39 | . 0052 | . 1321 | | |
| 6/0 | . 464 | 11.786 | 10 | . 128 | 3. 251 | 25 | . 020 | . 508 | 40 | . 0048 | . 1219 | | |
| 5/0 | . 432 | 10.973 | 11 | . 116 | 2. 946 | 26 | .018 | . 457 | 41 | .0044 | .1118 | | |
| 4/0 | .400 | 10. 160 | 12 | . 104 | 2, 642 | 27 | . 0164 | . 4166 | 42 | . 0040 | . 1016 | | |
| 3/0 | . 372 | 9. 449 | 13 | . 092 | 2. 337 | 28 | .0148 | . 3759 | 43 | . 0036 | . 0914 | | |
| 2/0 | . 348 | 8. 839 | 14 | . 080 | 2. 032 | 29 | . 0136 | . 3454 | 44 | . 0032 | . 0813 | | |
| 0 | .324 | 8. 230 | 15 | . 072 | 1. 829 | 30 | . 0124 | . 3150 | 45 | . 0028 | . 0711 | | |
| 1 | .300 | 7. 620 | 16 | . 064 | 1.626 | 31 | .0116 | . 2946 | 46 | . 0024 | .0610 | | |
| 2 | . 276 | 7. 010 | 17 | . 056 | 1. 422 | 32 | .0108 | . 2743 | 47 | . 0020 | . 0508 | | |
| 3 | . 252 | 6. 401 | 18 | . 048 | L 219 | 33 | . 0100 | . 2540 | 48 | . 0016 | . 0406 | | |
| 4 | . 232 | 5. 893 | 19 | . 040 | 1.016 | 34 | . 0092 | . 2337 | 49 | . 0012 | .0305 | | |
| 5 | .212 | 5.385 | 20 | . 036 | .914 | 35 | . 0084 | . 2134 | 50 | . 0010 | . 0254 | | |
| 6 | . 192 | 4. 877 | 22 | . 032 | . 813 | 36 | . 0076 | . 1930 | | | | | |
| 7 | . 176 | 4. 470 | 22 | . 628 | .711 | 37 | . 0068 | . 1727 | | | | | |
| 8 | . 160 | 4. 064 | 23 | . 024 | 610 | 38 | . 0060 | . 1524 | | | | | |
| L | | <u> </u> | | | | | | | | | | | |

SWG Gages Figure 813

EFFECTIVITY: ALL

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Page 814 Dec 01/89