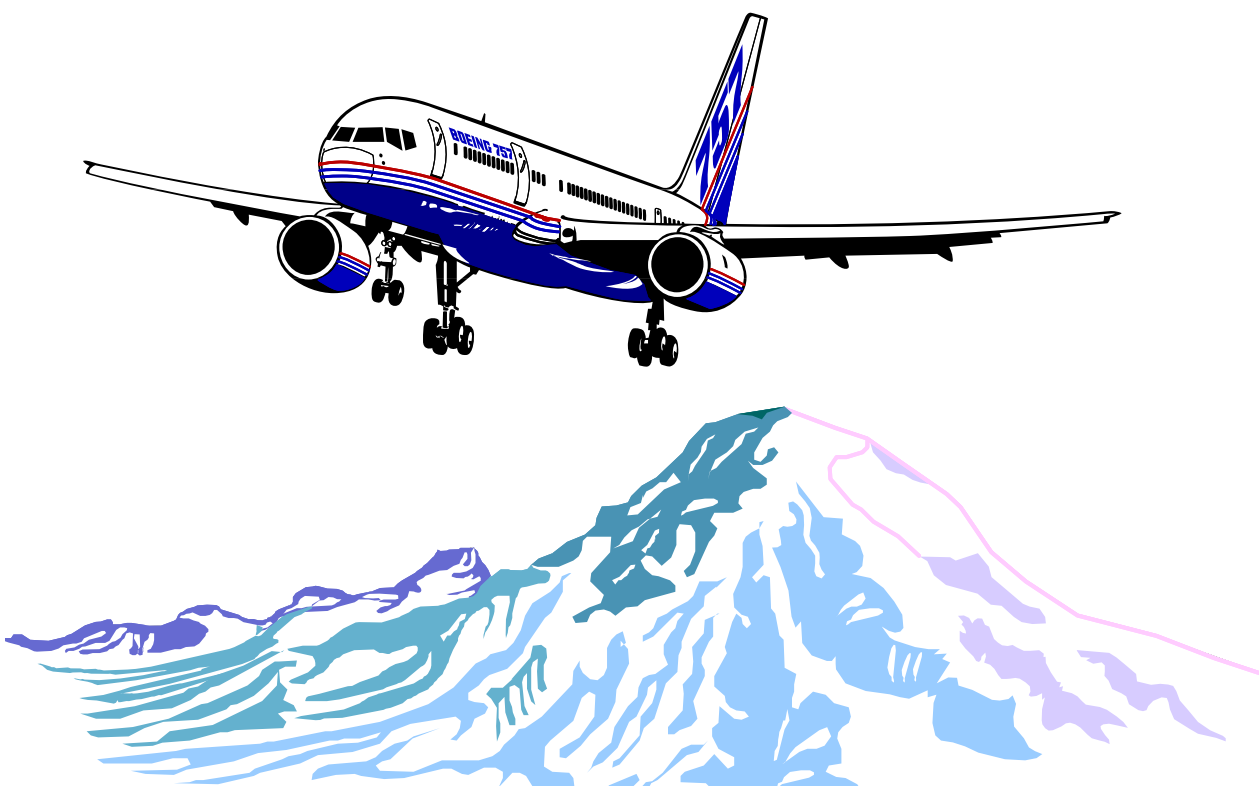




757-200

TRANS WORLD AIRLINES, INC.

**WEIGHT AND BALANCE
CONTROL AND LOADING MANUAL**



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**Boeing Commercial Airplanes
Weight Engineering Organization
P.O. Box 3707 Seattle, Washington 98124**

Boeing Document No. D043N520-TWA1

-BOEING PROPRIETARY-

INTRODUCTION

The data presented in this manual are in compliance with Federal Aviation Regulations Part 25, Paragraphs 25.29; 25.471 (b); 25.1519 and 25.1583 (c); and are provided for the purpose of establishing the Model 757-200 weight and balance requirements and allowables.

This manual presents all the weight and balance information necessary to ensure safe airplane operation. In addition, information is provided to allow the operator to efficiently plan loading procedures in such a manner that maximum payload capability is safely distributed for any type of operation.

The Weight and Balance Manual is organized following the guidelines of the Air Transport Association (ATA) Specification 2200 (iSpec 2200), "Information Standards for Aviation Maintenance". Accordingly, the weight and balance data are arranged in two chapters.

CHAPTER 1 - CONTROL

Control contains all weight and balance data specifically related to the customer aircraft. The data presented in this chapter are modular, with groups of related information provided in discreet subject packages, each of which is uniquely identified by a three element Chapter-Section-Subject number (CHP-SEC-SUB). Major data groupings for the Chapter-Sections are as follows:

CHAPTER - SECTION	MAJOR DATA GROUPING
1- 00 through 1- 09	General
1- 20 through 1- 29	Fuel
1- 30 through 1- 39	Fluids
1- 40 through 1- 49	Personnel
1- 60 through 1- 69	Cargo
1- 80 through 1- 89	Ground Operations
1- 90 through 1- 99	Examples

The two digit section (SEC) element allows for ten distinct topics within each major group of data (e.g. 20 through 29 for Fuel). The subject (SUB) element is primarily used to uniquely identify topically identical data for varying aircraft configurations. However, in some cases the subject (SUB) element is used to further subdivide topical information.

The Chapter 1 document includes only those topics that apply to the airplanes called out in the "Airplane Configuration" section of the document. The CHP-SEC-SUB number, page numbering, revision date and document number appear on the lower outside corner of each page.

Changes within a revised CHP-SEC-SUB are identified with a solid bar in the outside margin, adjacent to the change. The date for the CHP-SEC-SUB will be revised and the changes will be noted in the revision highlights.

To determine if you have received a complete document, check each section listed in the "Table of Contents" and confirm that the section is included in this document. The total number of pages for each section is specified at the bottom of every page contained within it (e.g. "Page 1 of 4", where "4" represents the total number of pages in the section).

APPLICABLE CONFIGURATIONS
All

Introduction

Page 1 of 2
Nov 13/2013
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INTRODUCTION (Continued)**MANAGING AIRCRAFT CONFIGURATIONS**

The “Airplane Configuration” section of this document lists all aircraft covered in this document, along with the allowable configurations associated with each aircraft. Restrictions and limitations for each association of a configuration with a specific aircraft serial number are defined in the same section under the heading “Configuration Qualifications”.

The data presented within each CHP-SEC-SUB module apply to the aircraft configuration(s) listed in the “Applicable Configurations” box at the bottom of each page. The word “All” signifies that the data is applicable to all configurations listed in the “Airplane Configuration” section of this document, whereas data that is applicable to specific aircraft configurations will list only the appropriate configuration letter(s) in the “Applicable Configurations” box.

DOCUMENT NUMBERING

For all 757-200 Chapter 1 Manuals, document numbering will use the following convention:

D043N5[Y][Z]-[ccc][X]

- where
- [Y]** = Minor Model Designator (e.g. “2” for a -200 Minor Model)
 - [Z]** = Derivative Designator (0=Passenger, 1=Combi, 2=Freighter, 3=Convertible, 4=Special Freighter, 5 = Miscellaneous)
 - [ccc]** = Airline 3-Letter Designator (As per Boeing Standard Designators - CCID)
 - [X]** = Document Serial Number (This will always be “1” unless an airline has multiple Weight & Balance Manuals for a given derivative model.)

CHAPTER 2 - AIRCRAFT REPORTS

The Aircraft Report (covered in a separate document) contains weight and balance data specifically related to each delivered aircraft of the customer's fleet. The data includes: make, model, serial number, registration identification, actual weighing data, and inventory list for the delivery configuration of each aircraft.

APPLICABLE CONFIGURATIONS	
All	

Highlights Revision No: 23

This revision increases the MTOW from 235000 LB to 250000 LB for Serial Number 28484 (NT352) per Master Change 0310MK5568.

GENERAL

- ❑ Added Sections 1-02-051 and 1-02-105 to manual.
- ❑ Added Configurations "R and S" per Master Change 0310MK5568.

TABLE OF CONTENTS

- ❑ Updated for this revision.

AIRPLANE CONFIGURATION

- ❑ Assigned Configurations "R and S" to Serial Number 28484 per Master Change 0310MK5568.
- ❑ Removed Configurations "D and L" from Serial Number 28484 per Master Change 0310MK5568.
- ❑ Updated Configuration Qualifications [15] and [16].

INTERIOR EFFECTIVITY

- ❑ Updated for this revision.

1-02-051

- ❑ Applicable Configuration(s) set to "R".

1-02-105

- ❑ Applicable Configuration(s) set to "S".

1-06-005

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, L, M, N, P, AA, AB, AC, AD, AE, AF"
to "A, B, C, D, E, F, G, L, M, N, P, R, S, AA, AB, AC, AD, AE, AF".

1-08-001

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N, P"
to "A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S".

1-20-010

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, AA, AB, AC, AD, AE, AF"
to "D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF".

1-24-003

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, AA, AB, AC, AD, AE, AF"
to "D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF".

1-24-024

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, AA, AB, AC, AD, AE, AF"
to "D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF".

1-86-041

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N, P"
to "A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S".

APPLICABLE CONFIGURATIONS	
All	

Revisions

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Jan 24/2014
D043N520-TWA1

Highlights Revision No: 22

This revision increases the MTOW to 255500 LB for Serial Numbers 30338 (NT358) per Master Change 0310MK5554.

All pages in this document have been marked as Boeing Proprietary.

GENERAL

- ☐ Added Section 1-02-068 to manual.
- ☐ Added Configuration "P" per Master Change 0310MK5554.

TITLE PAGE

- ☐ Updated 9E991 classification designation.
- ☐ Added copyright and Boeing proprietary notes. Updated document numbering derivative designator.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Assigned Configuration "P" to Serial Number 30338 per Master Change 0310MK5554.
- ☐ Removed Configuration "A" from Serial Number 30338 per Master Change 0310MK5554.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

1-02-068

- ☐ Applicable Configuration(s) set to "P".

1-06-005

- ☐ Revised c.g. for Flaps 15 & 20 on takeoff stabilizer trim settings at 140000 pounds.
- ☐ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, L, M, N, AA, AB, AC, AD, AE, AF"
to "A, B, C, D, E, F, G, L, M, N, P, AA, AB, AC, AD, AE, AF".

1-08-001

- ☐ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N"
to "A, B, C, D, E, F, G, H, J, K, L, M, N, P".

1-20-006

- ☐ Corrected footnote font size.
- ☐ Changed Applicable Configuration(s) from "A, B, C, G, H, J, K" to "A, B, C, G, H, J, K, P".

1-24-001

- ☐ Changed Applicable Configuration(s) from "A, B, C, G, H, J, K" to "A, B, C, G, H, J, K, P".

1-24-022

- ☐ Changed Applicable Configuration(s) from "A, B, C, G, H, J, K" to "A, B, C, G, H, J, K, P".

1-86-041

- ☐ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N"
to "A, B, C, D, E, F, G, H, J, K, L, M, N, P".

APPLICABLE CONFIGURATIONS	
All	

Revisions

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Dec 10/2013
D043N520-TWA1



Highlights Revision No: 21

This revision removes the alternate Maximum Takeoff Weights for Serial Number 28484 (NT352) per Master Change 0310MK5498 upon incorporation of Boeing Service Bulletin 757-11-0063.

TITLE PAGE

- ☐ Updated EAR99 classification designation.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Removed Configuration "E" from Serial Number 28484 per Master Change 0310MK5498.
- ☐ Removed Configuration "F" from Serial Number 28484 per Master Change 0310MK5498.
- ☐ Removed Configuration "M" from Serial Number 28484 per Master Change 0310MK5498.
- ☐ Removed Configuration "N" from Serial Number 28484 per Master Change 0310MK5498.
- ☐ Configuration Qualification [15] added to replace [4] for Serial Number 28484 per Master Change 0310MK5498.
- ☐ Configuration Qualification [16] added to replace [1] for Serial Number 28484 per Master Change 0310MK5498.

INTERIOR EFFECTIVITY

- ☐ Added variable number column to the table.

1-00-001

- ☐ Added metric conversion factors.

APPLICABLE CONFIGURATIONS	
All	

Revisions

Page 1 of 1
Jun 28/2010
D043N520-TWA1

Highlights Revision No: 20

This revision removes Serial Number 28160 (NC075) from the manual and transfers it to document D043N520-CIY1 per Master Change 0220MK5216.

GENERAL

- ❑ Removed Section 1-02-064 from manual.
- ❑ Removed Section 1-02-126 from manual.
- ❑ Removed Configurations "P", "R", "S", "T", "U", "V", "W", and "Y" (no longer applicable).

TITLE PAGE

- ❑ Removed the customer specific model designator.
- ❑ Added EAR99 classification designation.

TABLE OF CONTENTS

- ❑ Updated for this revision.

AIRPLANE CONFIGURATION

- ❑ Removed Serial Number 28160.
- ❑ Removed Configurations "P", "R", "S", "T", "U", "V", "W", and "Y" from Serial Number 28160 (removed Serial Number 28160 from manual).
- ❑ Configuration Qualifications [15], [16], [17], [18], [19], [20], [21], and [22] removed.

INTERIOR EFFECTIVITY

- ❑ Removed Serial Number 28160.
- ❑ Removed LOPS-5724-2708 from Serial Number 28160.

1-06-004

- ❑ Changed Applicable Configuration(s) from "H, J, K, R, S, U, Y" to "H, J, K".

1-06-005

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, L, M, N, P, T, V, W, AA, AB, AC, AD, AE, AF"
to "A, B, C, D, E, F, G, L, M, N, AA, AB, AC, AD, AE, AF".

1-08-001

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N, R, V, W, Y"
to "A, B, C, D, E, F, G, H, J, K, L, M, N".

1-08-002

- ❑ Changed Applicable Configuration(s)
from "P, S, T, U, AA, AB, AC, AD, AE, AF"
to "AA, AB, AC, AD, AE, AF".

1-20-010

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, P, R, S, T, U, V, W, Y, AA, AB, AC, AD, AE, AF"
to "D, E, F, L, M, N, AA, AB, AC, AD, AE, AF".

1-24-003

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, P, R, S, T, U, V, W, Y, AA, AB, AC, AD, AE, AF"
to "D, E, F, L, M, N, AA, AB, AC, AD, AE, AF".

APPLICABLE CONFIGURATIONS	
All	

Revisions

Page 1 of 2
Nov 25/2008
D043N520-TWA1



HIGHLIGHTS REVISION NO: 20 (Continued)

1-24-024

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, P, R, S, T, U, V, W, Y, AA, AB, AC, AD, AE, AF"
to "D, E, F, L, M, N, AA, AB, AC, AD, AE, AF".

1-86-041

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N, R, V, W, Y"
to "A, B, C, D, E, F, G, H, J, K, L, M, N".

1-86-042

- ❑ Changed Applicable Configuration(s)
from "P, S, T, U, AA, AB, AC, AD, AE, AF"
to "AA, AB, AC, AD, AE, AF".

APPLICABLE CONFIGURATIONS	
All	



Highlights Revision No: 19

This revision replaces BF Goodrich Steel Brakes and Wheels with Dunlop Carbon Brakes and Wheels for Serial Numbers 29378 (NT373) and 29385 (NT372) per Master Change 3245MK5058 upon incorporation of Boeing Service Bulletin 757-32-0178.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Assigned Configuration "AA" to Serial Number 29378 and 29385 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AB" to Serial Number 29378 and 29385 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AC" to Serial Number 29378 and 29385 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AD" to Serial Number 29378 and 29385 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AE" to Serial Number 29378 and 29385 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AF" to Serial Number 29378 and 29385 per Master Change 3245MK5058.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

APPLICABLE CONFIGURATIONS	
All	

Highlights Revision No: 18

This revision replaces BF Goodrich Steel Brakes and Wheels with Dunlop Carbon Brakes and Wheels for Serial Numbers 28479 (NC091), 28485 (NT353), 30340 (NT360), 28481 (NC093), and 28486 (NT354) per Master Change 3245MK5058 upon incorporation of Boeing Service Bulletin 757-32-0178.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Removed registry numbers.
- ☐ Assigned Configuration "AA" to Serial Numbers 28479, 28485, 30340, 28481, and 28486 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AB" to Serial Numbers 28481 and 28486 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AC" to Serial Numbers 28481 and 28486 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AD" to Serial Numbers 28481 and 28486 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AE" to Serial Numbers 28479, 28485, 30340, 28481, and 28486 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AF" to Serial Numbers 28479, 28485, 30340, 28481, and 28486 per Master Change 3245MK5058.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

1-06-004

- ☐ Revised c.g. tolerance note for takeoff stabilizer trim settings.

1-06-005

- ☐ Revised c.g. tolerance note for takeoff stabilizer trim settings.

1-40-001

- ☐ Revised the paragraph under passengers.

1-62-401

- ☐ Section number changed from "1-62-041" to "1-62-401".

1-62-602

- ☐ Section number changed from "1-62-062" to "1-62-602".

1-84-001

- ☐ Added a bullet in towing and tipping considerations and added a note.

APPLICABLE CONFIGURATIONS	
All	

Highlights Revision No: 17

This revision replaces BF Goodrich Steel Brakes and Wheels with Dunlop Carbon Brakes and Wheels for Serial Numbers 27620 (NC077), 27624 (NC083), 27625 (NC080), 28162 (NC076), 28163 (NC078), 28165 (NC079), 28618 (NC081), 28169 (NC082), 28173 (NC084) and 29954 (NT371) per Master Change 3245MK5058 upon incorporation of Boeing Service Bulletin 757-32-0178.

GENERAL

- ☐ Added Configuration "AA" per Master Change 3245MK5058.
- ☐ Added Configuration "AB" per Master Change 3245MK5058.
- ☐ Added Configuration "AC" per Master Change 3245MK5058.
- ☐ Added Configuration "AD" per Master Change 3245MK5058.
- ☐ Added Configuration "AE" per Master Change 3245MK5058.
- ☐ Added Configuration "AF" per Master Change 3245MK5058.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Assigned Configuration "AF" to Serial Number 29954 to correct data.
- ☐ Assigned Configuration "AA" to Serial Numbers 27620, 27624, 27625, 28162, 28163, 28165, 28168, 28169, 28173 and 29954 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AB" to Serial Numbers 27620, 27624, 27625, 28162, 28163, 28165, 28168, 28169, 28173 and 29954 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AC" to Serial Numbers 27620, 27624, 27625, 28162, 28163, 28165, 28168, 28169, 28173 and 29954 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AD" to Serial Numbers 27620, 27624, 27625, 28162, 28163, 28165, 28168, 28169, 28173 and 29954 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AE" to Serial Numbers 27620, 27624, 27625, 28162, 28163, 28165, 28168, 28169, 28173 and 29954 per Master Change 3245MK5058.
- ☐ Assigned Configuration "AF" to Serial Numbers 27620, 27624, 27625, 28162, 28163, 28165, 28168, 28169, 28173 and 29954 per Master Change 3245MK5058.
- ☐ Configuration Qualification [23] added.
- ☐ Configuration Qualification [24] added.
- ☐ Configuration Qualification [25] added.
- ☐ Configuration Qualification [26] added.
- ☐ Configuration Qualification [27] added.
- ☐ Configuration Qualification [28] added.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

1-02-011

- ☐ Changed Applicable Configuration(s) from "B, J, M" to "B, J, M, AE".

1-02-029

- ☐ Changed Applicable Configuration(s) from "A, H, L" to "A, H, L, AA".

1-02-067

- ☐ Changed Applicable Configuration(s) from "C, K, N" to "C, K, N, AF".

1-02-101

- ☐ Changed Applicable Configuration(s) from "D" to "D, AB".

APPLICABLE CONFIGURATIONS	
All	



HIGHLIGHTS REVISION NO: 17 (Continued)

1-02-102

- ❑ Changed Applicable Configuration(s) from "E" to "E, AC".

1-02-103

- ❑ Changed Applicable Configuration(s) from "F" to "F, AD".

1-06-005

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, L, M, N, P, T, V, W"
to "A, B, C, D, E, F, G, L, M, N, P, T, V, W, AA, AB, AC, AD, AE, AF".

1-08-002

- ❑ Changed Applicable Configuration(s)
from "P, S, T, U"
to "P, S, T, U, AA, AB, AC, AD, AE, AF".

1-20-010

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, P, R, S, T, U, V, W, Y"
to "D, E, F, L, M, N, P, R, S, T, U, V, W, Y, AA, AB, AC, AD, AE, AF".

1-24-003

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, P, R, S, T, U, V, W, Y"
to "D, E, F, L, M, N, P, R, S, T, U, V, W, Y, AA, AB, AC, AD, AE, AF".

1-24-024

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, P, R, S, T, U, V, W, Y"
to "D, E, F, L, M, N, P, R, S, T, U, V, W, Y, AA, AB, AC, AD, AE, AF".

1-86-042

- ❑ Changed Applicable Configuration(s)
from "P, S, T, U"
to "P, S, T, U, AA, AB, AC, AD, AE, AF".

1-90-001

- ❑ Revised ordering information.

Revisions

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May 22/2007
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APPLICABLE CONFIGURATIONS	
All	

Highlights Revision No: 16

This revision increases the Maximum Landing Weight from 198000 LB to 210000 LB and Maximum Zero Fuel Weight from 184000 LB to 186000 LB for Serial Number 28160 (NC075) per Master Change 0310MK5415.

GENERAL

- ☐ Added Section 1-02-064 to manual.
- ☐ Added Section 1-02-126 to manual.
- ☐ Removed Section 1-02-068 from manual.
- ☐ Removed Section 1-02-124 from manual.
- ☐ Added Section 1-02-064 to Configuration "P" per Master Change 0310MK5415.
- ☐ Added Section 1-02-064 to Configuration "S" per Master Change 0310MK5415.
- ☐ Added Section 1-02-064 to Configuration "V" per Master Change 0310MK5415.
- ☐ Added Section 1-02-064 to Configuration "Y" per Master Change 0310MK5415.
- ☐ Added Section 1-02-126 to Configuration "R" per Master Change 0310MK5415.
- ☐ Added Section 1-02-126 to Configuration "T" per Master Change 0310MK5415.
- ☐ Added Section 1-02-126 to Configuration "U" per Master Change 0310MK5415.
- ☐ Added Section 1-02-126 to Configuration "W" per Master Change 0310MK5415.
- ☐ Removed Section 1-02-068 from Configuration "P" (no longer applicable).
- ☐ Removed Section 1-02-068 from Configuration "S" (no longer applicable).
- ☐ Removed Section 1-02-068 from Configuration "V" (no longer applicable).
- ☐ Removed Section 1-02-068 from Configuration "Y" (no longer applicable).
- ☐ Removed Section 1-02-124 from Configuration "R" (no longer applicable).
- ☐ Removed Section 1-02-124 from Configuration "T" (no longer applicable).
- ☐ Removed Section 1-02-124 from Configuration "U" (no longer applicable).
- ☐ Removed Section 1-02-124 from Configuration "W" (no longer applicable).

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Updated for this revision.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

1-02-064

- ☐ Applicable Configuration(s) set to "P, S, V, Y".

1-02-126

- ☐ Applicable Configuration(s) set to "R, T, U, W".

APPLICABLE CONFIGURATIONS	
All	

Revisions

Page 1 of 1
Jan 12/2007
D043N520-TWA1

Highlights Revision No: 15

This revision increases the Maximum Takeoff Weight from 235000 LB to 255500 LB for serial number 28160 (NC075) per Master Change 0310MK5409.

GENERAL

- ☐ Added Section 1-02-068 to manual.
- ☐ Added Section 1-02-124 to manual.
- ☐ Added Configuration "W" per Master Change 0310MK5409.
- ☐ Added Configuration "Y" per Master Change 0310MK5409.
- ☐ Added Section 1-20-010 to Configuration "Y" .
- ☐ Added Section 1-24-003 to Configuration "Y" .
- ☐ Added Section 1-24-024 to Configuration "Y" .
- ☐ Added Section 1-02-068 to Configuration "P" per Master Change 0310MK5409.
- ☐ Added Section 1-02-068 to Configuration "S" per Master Change 0310MK5409.
- ☐ Added Section 1-02-068 to Configuration "V" per Master Change 0310MK5409.
- ☐ Added Section 1-02-068 to Configuration "Y" per Master Change 0310MK5409.
- ☐ Added Section 1-02-124 to Configuration "W" per Master Change 0310MK5409.
- ☐ Added Section 1-06-004 to Configuration "Y" per Master Change 0310MK5409.
- ☐ Removed Section 1-02-029 from Configuration "P" (no longer applicable).
- ☐ Removed Section 1-02-029 from Configuration "S" (no longer applicable).
- ☐ Removed Section 1-02-101 from Configuration "R" (no longer applicable).
- ☐ Removed Section 1-02-101 from Configuration "T" (no longer applicable).
- ☐ Removed Section 1-02-101 from Configuration "U" (no longer applicable).
- ☐ Removed Section 1-20-006 from Configuration "Y" (no longer applicable).
- ☐ Removed Section 1-24-001 from Configuration "Y" (no longer applicable).
- ☐ Removed Section 1-24-022 from Configuration "Y" (no longer applicable).
- ☐ Removed Section 1-02-029 from Configuration "V" (no longer applicable).

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Assigned Configuration "W" to Serial Number 28160 per Master Change 0310MK5409.
- ☐ Removed Configuration "D" from Serial Number 28160 per Master Change 0310MK5409.
- ☐ Removed Configuration "L" from Serial Number 28160 per Master Change 0310MK5409.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

1-02-029

- ☐ Changed Applicable Configuration(s) from "A, H, L, P, S, V" to "A, H, L".

1-02-068

- ☐ Applicable Configuration(s) set to "P, S, V, Y".

1-02-101

- ☐ Changed Applicable Configuration(s) from "D, R, T, U" to "D".

1-02-124

- ☐ Applicable Configuration(s) set to "R, T, U, W".

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HIGHLIGHTS REVISION NO: 15 (Continued)

1-06-004

- ❑ Changed Applicable Configuration(s) from "H, J, K, R, S, U, V" to "H, J, K, R, S, U, Y".

1-06-005

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, L, M, N, P, T"
to "A, B, C, D, E, F, G, L, M, N, P, T, V, W".

1-08-001

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N, R, V"
to "A, B, C, D, E, F, G, H, J, K, L, M, N, R, V, W, Y".

1-20-010

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, P, R, S, T, U, V"
to "D, E, F, L, M, N, P, R, S, T, U, V, W, Y".

1-24-003

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, P, R, S, T, U, V"
to "D, E, F, L, M, N, P, R, S, T, U, V, W, Y".

1-24-024

- ❑ Changed Applicable Configuration(s)
from "D, E, F, L, M, N, P, R, S, T, U, V"
to "D, E, F, L, M, N, P, R, S, T, U, V, W, Y".

1-86-041

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N, R, V"
to "A, B, C, D, E, F, G, H, J, K, L, M, N, R, V, W, Y".

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Highlights Revision No: 14

This revision adds PW2040 engine thrust capability to Serial Number 28160 (NC075) per Master Change 7200MK5173 upon incorporation of Boeing Service Bulletin 757-71-0090. This revision also removes the alternate Maximum Takeoff Weights and Maximum Landing Weights for Serial Number 28610 (NC075) per Master Change 0310MK5403 upon incorporation of Boeing Service Bulletin 757-11-0056.

GENERAL

- ☐ Revised Configuration "R" per Master Changes 0310MK5403 and 7200MK5173.
- ☐ Revised Configuration "S" per Master Changes 0310MK5403 and 7200MK5173.
- ☐ Revised Configuration "U" per Master Changes 0310MK5403 and 7200MK5173.
- ☐ Revised Configuration "V" per Master Changes 0310MK5403 and 7200MK5173.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Removed Configuration "E" from Serial Number 28160 per Master Change 0310MK5403.
- ☐ Removed Configuration "F" from Serial Number 28160 per Master Change 0310MK5403.
- ☐ Removed Configuration "M" from Serial Number 28160 per Master Change 0310MK5403.
- ☐ Removed Configuration "N" from Serial Number 28160 per Master Change 0310MK5403.
- ☐ Revised Configuration Qualification [16], [17], [19] and [20] and assigned to different Configurations per Master Changes 0310MK5403 and 7200MK5173.
- ☐ Configuration Qualification [21] added to replace [4] for Serial Number 28160 per Master Change 7200MK5173.
- ☐ Configuration Qualification [22] added to replace [1] for Serial Number 28160 per Master Change 7200MK5173.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

1-02-011

- ☐ Changed Applicable Configuration(s) from "B, J, M, R" to "B, J, M".

1-02-029

- ☐ Changed Applicable Configuration(s) from "A, H, L, P" to "A, H, L, P, S, V".

1-02-067

- ☐ Changed Applicable Configuration(s) from "C, K, N, S" to "C, K, N".

1-02-101

- ☐ Changed Applicable Configuration(s) from "D, T" to "D, R, T, U".

1-02-102

- ☐ Changed Applicable Configuration(s) from "E, U" to "E".

1-02-103

- ☐ Changed Applicable Configuration(s) from "F, V" to "F".

1-06-004

- ☐ Changed Applicable Configuration(s) from "H, J, K" to "H, J, K, R, S, U, V".

1-06-005

- ☐ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, L, M, N, P, R, S, T, U, V"
to "A, B, C, D, E, F, G, L, M, N, P, T".

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HIGHLIGHTS REVISION NO: 14 (Continued)

1-08-001

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N"
to "A, B, C, D, E, F, G, H, J, K, L, M, N, R, V".

1-08-002

- ❑ Changed Applicable Configuration(s) from "P, R, S, T, U, V" to "P, S, T, U".

1-86-041

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, H, J, K, L, M, N"
to "A, B, C, D, E, F, G, H, J, K, L, M, N, R, V".

1-86-042

- ❑ Changed Applicable Configuration(s) from "P, R, S, T, U, V" to "P, S, T, U".

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Highlights Revision No: 13

This revision replaces BF Goodrich Steel Brakes and Wheels with Dunlop Carbon Brakes and Wheels for Serial Number 28160 per Master Change 3245MK5063 upon incorporation of Boeing Service Bulletin 757-32-0172.

GENERAL

- ☐ Added Section 1-08-002 to manual.
- ☐ Added Section 1-86-042 to manual.
- ☐ Added Configuration "P".
- ☐ Added Configuration "R".
- ☐ Added Configuration "S".
- ☐ Added Configuration "T".
- ☐ Added Configuration "U".
- ☐ Added Configuration "V".

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Assigned Configuration "P" to Serial Number 28160 per Master Change 3245MK5063.
- ☐ Assigned Configuration "R" to Serial Number 28160 per Master Change 3245MK5063.
- ☐ Assigned Configuration "S" to Serial Number 28160 per Master Change 3245MK5063.
- ☐ Assigned Configuration "T" to Serial Number 28160 per Master Change 3245MK5063.
- ☐ Assigned Configuration "U" to Serial Number 28160 per Master Change 3245MK5063.
- ☐ Assigned Configuration "V" to Serial Number 28160 per Master Change 3245MK5063.
- ☐ Revised registry number for Serial Number 28480.
- ☐ Revised registry number for Serial Number 30319.
- ☐ Configuration Qualification [15] added.
- ☐ Configuration Qualification [16] added.
- ☐ Configuration Qualification [17] added.
- ☐ Configuration Qualification [18] added.
- ☐ Configuration Qualification [19] added.
- ☐ Configuration Qualification [20] added.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

1-02-011

- ☐ Changed Applicable Configuration(s) from "B, J, M" to "B, J, M, R".

1-02-029

- ☐ Changed Applicable Configuration(s) from "A, H, L" to "A, H, L, P".

1-02-067

- ☐ Changed Applicable Configuration(s) from "C, K, N" to "C, K, N, S".

1-02-101

- ☐ Changed Applicable Configuration(s) from "D" to "D, T".

1-02-102

- ☐ Changed Applicable Configuration(s) from "E" to "E, U".

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HIGHLIGHTS REVISION NO: 13 (Continued)**1-02-103**

- ☐ Changed Applicable Configuration(s) from "F" to "F, V".

1-06-005

- ☐ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G, L, M, N"
to "A, B, C, D, E, F, G, L, M, N, P, R, S, T, U, V".

1-08-001

- ☐ Changed Applicable Configuration(s)
from "All"
to "A, B, C, D, E, F, G, H, J, K, L, M, N".

1-08-002

- ☐ Applicable Configuration(s) set to "P, R, S, T, U, V".

1-20-010

- ☐ Changed Applicable Configuration(s)
from "D, E, F, L, M, N"
to "D, E, F, L, M, N, P, R, S, T, U, V".

1-24-003

- ☐ Changed Applicable Configuration(s)
from "D, E, F, L, M, N"
to "D, E, F, L, M, N, P, R, S, T, U, V".

1-24-024

- ☐ Changed Applicable Configuration(s)
from "D, E, F, L, M, N"
to "D, E, F, L, M, N, P, R, S, T, U, V".

1-86-041

- ☐ Changed Applicable Configuration(s)
from "All"
to "A, B, C, D, E, F, G, H, J, K, L, M, N".

1-86-042

- ☐ Applicable Configuration(s) set to "P, R, S, T, U, V".

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Highlights Revision No: 12

This revision incorporates the Master Change 2811MK5020 to increase the fuel capacity by approximately 213 U.S. Gallons upon incorporation of Service Bulletin 757-28-0103 for Serial Numbers 27620, 27624, 27625, 28160, 28162, 28163, 28165, 28168, 28169, 28173, 28479, 28481, 28484 through 28486, 29378, 29385, 29954 and 30340. Additional miscellaneous changes were made to the manual. See the details listed by section below.

GENERAL

- ☐ Added Section 1-20-010 to manual.
- ☐ Added Section 1-24-003 to manual.
- ☐ Added Section 1-24-024 to manual.
- ☐ Added Configuration "L" per Master Change 2811mk5020.
- ☐ Added Configuration "M" per Master Change 2811MK5020.
- ☐ Added Configuration "N" per Master Change 2811MK5020.
- ☐ Added Section 1-20-010 to Configuration "D" per Master Change 2811MK5020.
- ☐ Added Section 1-20-010 to Configuration "E" per Master Change 2811MK5020.
- ☐ Added Section 1-20-010 to Configuration "F" per Master Change 2811MK5020.
- ☐ Added Section 1-24-003 to Configuration "D" per Master Change 2811MK5020.
- ☐ Added Section 1-24-003 to Configuration "E" per Master Change 2811MK5020.
- ☐ Added Section 1-24-003 to Configuration "F" per Master Change 2811MK5020.
- ☐ Added Section 1-24-024 to Configuration "D" per Master Change 2811MK5020.
- ☐ Added Section 1-24-024 to Configuration "E" per Master Change 2811MK5020.
- ☐ Added Section 1-24-024 to Configuration "F" per Master Change 2811MK5020.
- ☐ Removed Section 1-20-006 from Configuration "D" (no longer applicable).
- ☐ Removed Section 1-20-006 from Configuration "E" (no longer applicable).
- ☐ Removed Section 1-20-006 from Configuration "F" (no longer applicable).
- ☐ Removed Section 1-24-001 from Configuration "D" (no longer applicable).
- ☐ Removed Section 1-24-001 from Configuration "E" (no longer applicable).
- ☐ Removed Section 1-24-001 from Configuration "F" (no longer applicable).
- ☐ Removed Section 1-24-022 from Configuration "D" (no longer applicable).
- ☐ Removed Section 1-24-022 from Configuration "E" (no longer applicable).
- ☐ Removed Section 1-24-022 from Configuration "F" (no longer applicable).

TITLE PAGE

- ☐ Updated Reference of Air Transport Association (ATA) Specification No. i2200.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Assigned Configuration "L" to Serial Number 27620 per Master Change 2811mk5020.
- ☐ Assigned Configuration "L" to Serial Number 27624 per Master Change 2811mk5020.
- ☐ Assigned Configuration "L" to Serial Number 27625 per Master Change 2811mk5020.
- ☐ Assigned Configuration "L" to Serial Number 28160 per Master Change 2811mk5020.
- ☐ Assigned Configuration "L" to Serial Number 28162 per Master Change 2811mk5020.
- ☐ Assigned Configuration "L" to Serial Number 28163 per Master Change 2811mk5020.
- ☐ Assigned Configuration "L" to Serial Number 28165 per Master Change 2811mk5020.
- ☐ Assigned Configuration "L" to Serial Number 28168 per Master Change 2811mk5020.
- ☐ Assigned Configuration "L" to Serial Number 28169 per Master Change 2811mk5020.
- ☐ Assigned Configuration "L" to Serial Number 28173 per Master Change 2811mk5020.

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HIGHLIGHTS REVISION NO: 12 (Continued)

- ❑ Assigned Configuration "L" to Serial Number 28479 per Master Change 2811mk5020.
- ❑ Assigned Configuration "L" to Serial Number 28481 per Master Change 2811mk5020.
- ❑ Assigned Configuration "L" to Serial Number 28484 per Master Change 2811mk5020.
- ❑ Assigned Configuration "L" to Serial Number 28485 per Master Change 2811mk5020.
- ❑ Assigned Configuration "L" to Serial Number 28486 per Master Change 2811mk5020.
- ❑ Assigned Configuration "L" to Serial Number 29378 per Master Change 2811mk5020.
- ❑ Assigned Configuration "L" to Serial Number 29385 per Master Change 2811mk5020.
- ❑ Assigned Configuration "L" to Serial Number 29954 per Master Change 2811mk5020.
- ❑ Assigned Configuration "L" to Serial Number 30340 per Master Change 2811mk5020.
- ❑ Assigned Configuration "M" to Serial Number 27620 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 27624 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 27625 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28160 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28162 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28163 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28165 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28168 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28169 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28173 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28479 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28481 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28484 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28485 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 28486 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 29378 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 29385 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 29954 per Master Change 2811MK5020.
- ❑ Assigned Configuration "M" to Serial Number 30340 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 27620 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 27624 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 27625 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28160 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28162 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28163 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28165 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28168 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28169 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28173 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28479 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28481 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28484 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28485 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 28486 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 29378 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 29385 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 29954 per Master Change 2811MK5020.
- ❑ Assigned Configuration "N" to Serial Number 30340 per Master Change 2811MK5020.
- ❑ Removed Configuration "A" from Serial Number 27620 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 27624 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 27625 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28160 per Master Change 2811mk5020.

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HIGHLIGHTS REVISION NO: 12 (Continued)

- ❑ Removed Configuration "A" from Serial Number 28162 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28163 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28165 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28168 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28169 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28173 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28479 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28481 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28484 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28485 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 28486 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 29378 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 29385 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 29954 per Master Change 2811mk5020.
- ❑ Removed Configuration "A" from Serial Number 30340 per Master Change 2811mk5020.
- ❑ Removed Configuration "B" from Serial Number 27620 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 27624 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 27625 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28160 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28162 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28163 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28165 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28168 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28169 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28173 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28479 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28481 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28484 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28485 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 28486 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 29378 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 29385 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 29954 per Master Change 2811MK5020.
- ❑ Removed Configuration "B" from Serial Number 30340 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 27620 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 27624 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 27625 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28160 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28162 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28163 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28165 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28168 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28169 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28173 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28479 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28481 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28484 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28485 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 28486 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 29378 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 29385 per Master Change 2811MK5020.

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HIGHLIGHTS REVISION NO: 12 (Continued)

- ❑ Removed Configuration "C" from Serial Number 29954 per Master Change 2811MK5020.
- ❑ Removed Configuration "C" from Serial Number 30340 per Master Change 2811MK5020.

INTERIOR EFFECTIVITY

- ❑ Updated for this revision.

1-02-011

- ❑ Changed Applicable Configuration(s) from "B, J" to "B, J, M".

1-02-029

- ❑ Changed Applicable Configuration(s) from "A, H" to "A, H, L".

1-02-067

- ❑ Changed Applicable Configuration(s) from "C, K" to "C, K, N".

1-06-005

- ❑ Changed Applicable Configuration(s)
from "A, B, C, D, E, F, G"
to "A, B, C, D, E, F, G, L, M, N".

1-20-006

- ❑ Changed Applicable Configuration(s) from "All" to "A, B, C, G, H, J, K".

1-20-010

- ❑ Applicable Configuration(s) set to "D, E, F, L, M, N".

1-24-001

- ❑ Changed Applicable Configuration(s) from "All" to "A, B, C, G, H, J, K".

1-24-003

- ❑ Applicable Configuration(s) set to "D, E, F, L, M, N".

1-24-022

- ❑ Changed Applicable Configuration(s) from "All" to "A, B, C, G, H, J, K".

1-24-024

- ❑ Applicable Configuration(s) set to "D, E, F, L, M, N".

1-80-081

- ❑ Added equations to Jack Point Scales.

1-82-001

- ❑ Revised sentence for airplane weighing on Page 1. Revised wording on table from "Nose up" to "Tail down" to reflect wording of actual airplane placard.

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Highlights Revision No: 11

This revision adds PW2040 engine thrust capability to Serial Numbers 28480 and 30319 per Master Change 7200MK5173 upon incorporation of Boeing Service Bulletin 757-71-0082, Revision 1. Also, block qualifiers [1], [2] and [3] for these serial numbers were revised to [9], [10] and [11], respectively. Block qualifiers [8], [12], [13] and [14] were added to swap thrust to PW2040.

TITLE PAGE

- Standardized document numbering definitions.

TABLE OF CONTENTS

- Updated for this revision.

AIRPLANE CONFIGURATION

- Revised paragraph to redefine applicability of data.
- Assigned Configuration "H" to Serial Number 28480 per Master Change 7200MK5173.
- Assigned Configuration "H" to Serial Number 28480 per Master Change 7200MK5173.
- Assigned Configuration "H" to Serial Number 30319 per Master Change 7200MK5173.
- Assigned Configuration "H" to Serial Number 30319 per Master Change 7200MK5173.
- Assigned Configuration "J" to Serial Number 28480 per Master Change 7200MK5173.
- Assigned Configuration "J" to Serial Number 30319 per Master Change 7200MK5173.
- Assigned Configuration "K" to Serial Number 28480 per Master Change 7200MK5173.
- Assigned Configuration "K" to Serial Number 30319 per Master Change 7200MK5173.
- Revised registry number for Serial Number 28483.
- Revised registry number for Serial Number 28483.

INTERIOR EFFECTIVITY

- Updated for this revision.

1-00-001

- Added additional definitions.

1-02-001

- Updated reference of Advisory Circular 120-27D to Advisory Circular 120-27E.

1-20-006

- Corrected trapped unusable fuel balance arm for engines.

1-24-001

- Revised fuel volume introduction paragraphs.

1-30-002

- Date of section changed. No data affected.

1-40-001

- Updated reference of Advisory Circular 120-27D to Advisory Circular 120-27E.

1-60-003

- Removed the "Linear Loading" subtitle and consolidated two columns to "Floor Loading" subtitle. Revised footnote [a].

1-82-001

- Update reference of FAA Advisory Circular 120-27C to FAA Advisory Circular 120-27E.

APPLICABLE CONFIGURATIONS	
All	

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Nov 04/2005
D043N520-TWA1

Highlights Revision No: 10

This revision adds PW2040 engine thrust capability to Serial Numbers 28482 and 28483 per Master Change 7200MK5173 upon incorporation of Boeing Service Bulletin 757-71-0082. Also, block qualifiers [1], [2] and [3] for these serial numbers were revised to [9], [10] and [11], respectively.

GENERAL

- ☐ Added Section 1-06-004 to manual.
- ☐ Added Configuration "H" per Master Change 7200MK5173.
- ☐ Added Configuration "J" per Master Change 7200MK5173.
- ☐ Added Configuration "K" per Master Change 7200MK5173.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Assigned Configuration "H" to Serial Number 28482 per Master Change 7200MK5173.
- ☐ Assigned Configuration "H" to Serial Number 28483 per Master Change 7200MK5173.
- ☐ Assigned Configuration "J" to Serial Number 28482 per Master Change 7200MK5173.
- ☐ Assigned Configuration "J" to Serial Number 28483 per Master Change 7200MK5173.
- ☐ Assigned Configuration "K" to Serial Number 28482 per Master Change 7200MK5173.
- ☐ Assigned Configuration "K" to Serial Number 28483 per Master Change 7200MK5173.
- ☐ Revised registry number for Serial Number 28482.
- ☐ Revised registry number for Serial Number 28487.
- ☐ Revised registry number for Serial Number 28488.
- ☐ Revised registry number for Serial Number 30339.
- ☐ Configuration Qualification [8] added.
- ☐ Configuration Qualification [9] added.
- ☐ Configuration Qualification [10] added.
- ☐ Configuration Qualification [11] added.
- ☐ Configuration Qualification [12] added.
- ☐ Configuration Qualification [13] added.
- ☐ Configuration Qualification [14] added.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

1-02-001

- ☐ Added "taxi" to operations which need airplane balance accounted for, removed reference to Federal Aviation Regulations Part 121, and added reference to Advisory Circular AC 120-27D.

1-02-011

- ☐ Added reference to Airplane Maintenance Manual Section 12-15-03 for tire pressure requirements.
- ☐ Changed Applicable Configuration(s) from "B" to "B, J".

1-02-029

- ☐ Added reference to Airplane Maintenance Manual Section 12-15-03 for tire pressure requirements.
- ☐ Changed Applicable Configuration(s) from "A" to "A, H".

1-02-067

- ☐ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.
- ☐ Changed Applicable Configuration(s) from "C" to "C, K".

APPLICABLE CONFIGURATIONS	
All	

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HIGHLIGHTS REVISION NO: 10 (Continued)

1-02-101

- Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

1-02-102

- Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

1-02-103

- Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

1-02-109

- Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

1-06-004

- Applicable Configuration(s) set to "H, J, K".

1-06-005

- Changed Applicable Configuration(s) from "All" to "A, B, C, D, E, F, G".

1-40-001

- Revised data per FAA Advisory Circular 120-27D.

1-90-001

- Removed reference to standardized loading schedule and updated ordering instructions.

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APPLICABLE CONFIGURATIONS	
All	

Highlights Revision No: 9

This revision removes the multiple operating weight capability and sets MTOW to 224000 LB for Serial Numbers 28487, 28488 and 30339 per Change Number LB-RWK-33220 (Boeing Service Bulletin 757-11-0029 Revision 4). In addition, the MTOW for these same serial numbers is increased to 245000 LB per Master Change 0310MK5339 and the MLW for these same serial numbers is increased to 210000 LB per Master Change 0310MK5335.

GENERAL

- ☐ Added Section 1-02-109 to manual.
- ☐ Added Configuration "G" per Master Changes 0310MK5339 and 0310MK5335.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Assigned Configuration "G" to Serial Numbers 28487, 28488 and 30339 per Change Number LB-RWK-33220, Master Change 0310MK5339 and Master Change 0310MK5335.
- ☐ Removed Configuration "A" from Serial Numbers 28487, 28488 and 30339 per Change Number LB-RWK-33220, Master Change 0310MK5339 and Master Change 0310MK5335.
- ☐ Removed Configuration "B" from Serial Numbers 28487, 28488 and 30339 per Change Number LB-RWK-33220.
- ☐ Removed Configuration "C" from Serial Numbers 28487, 28488 and 30339 per Change Number LB-RWK-33220.
- ☐ Configuration Qualification [7] added.

INTERIOR EFFECTIVITY

- ☐ Updated for this revision.

1-02-109

- ☐ Applicable Configuration(s) set to "G".

1-60-003

- ☐ Added reference indicating weights will be different if a STC cargo handling system is installed.

1-86-063

- ☐ Revised title of section and added APU data.

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All	

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Sep 22/2004
D043N520-TWA1

Highlights Revision No: 8

This revision adds an alternate Maximum Landing Weight of 188000 LB for Serial Numbers 27620, 27624, 27625, 28160, 28162, 28163, 28165, 28168, 28169, 28173, 28481, 28484, 28486, 29378, 29385 and 29954 per Master Change 0310MK5329 (requires incorporation of Boeing Service Bulletin 757-11-0049).

GENERAL

- ☐ Added Section 1-02-101 to manual.
- ☐ Added Section 1-02-102 to manual.
- ☐ Added Section 1-02-103 to manual.
- ☐ Added Configuration "D" per Master Change 0310MK5329.
- ☐ Added Configuration "E" per Master Change 0310MK5329.
- ☐ Added Configuration "F" per Master Change 0310MK5329.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Revised registry numbers for Serial Numbers 28163, 29378, 29385, 29954, 33019 and 30338-30340.
- ☐ Revised line number for Serial Number 28484.
- ☐ Revised line numbers and variable numbers for Serial Numbers 28485 and 28487.
- ☐ Revised line number, variable number and registry number for Serial Number 28488.
- ☐ Assigned Configurations "D, E and F" to Serial Numbers 27620, 27624, 27625, 28160, 28162, 28163, 28165, 28168, 28169, 28173, 28481, 28484, 28486, 29378, 29385 and 29954 per Master Change 0310MK5329.
- ☐ Revised Configuration Qualifications [1], [2], and [3].
- ☐ Configuration Qualification [4] added.
- ☐ Configuration Qualification [5] added.
- ☐ Configuration Qualification [6] added.

INTERIOR EFFECTIVITY

- ☐ LOPS-5724-2708 updated to Revision P.

1-02-001

- ☐ Added information to interpolate between inflection points for certified weight and center of gravity limits.
Removed operational empty weight variation.

1-02-101

- ☐ Applicable Configuration(s) set to "D".

1-02-102

- ☐ Applicable Configuration(s) set to "E".

1-02-103

- ☐ Applicable Configuration(s) set to "F".

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D043N520-TWA1



Highlights Revision No: 7

This revision revises the passenger locations table in the interior section in compliance with Revision M of LOPS-5724-2708 and adds the Registry Numbers for Serial Numbers 28486 and 28487.

TABLE OF CONTENTS

- Updated for this revision.

AIRPLANE CONFIGURATION

- Added Registry Numbers for Serial Numbers 28486 and 28487.

INTERIOR EFFECTIVITY

- LOPS-5724-2708 updated to Revision M.

1-44-040

- Revised the passenger locations table for LOPS-5724-2708.

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Apr 27/1999
D043N520-TWA1

Highlights Revision No: 6

This revision adds airplane serial numbers 28485 thru 28488, 29378, 29385, 29954, 30319 and 30338 thru 30340 to the manual and revises the block qualifiers on the "Airplane Configuration" page. This revision also makes miscellaneous updates and improvements to the manual. See below for details on the changes made to each section.

TITLE PAGE

- ❑ Corrected grammar and typographical errors.

TABLE OF CONTENTS

- ❑ Updated for this revision.

AIRPLANE CONFIGURATION

- ❑ Added Serial Number 29378.
- ❑ Added Serial Number 29385.
- ❑ Added Serial Number 29954.
- ❑ Added Serial Number 30319.
- ❑ Added Serial Numbers 28485 thru 28488.
- ❑ Added Serial Numbers 30338 thru 30340.
- ❑ Assigned Configuration "A" to Serial Number 29378 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A" to Serial Number 29385 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A" to Serial Number 29954 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A" to Serial Number 30319 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A" to Serial Numbers 28485 thru 28488 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A" to Serial Numbers 30338 thru 30340 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A[1]" to Serial Number 27620 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 27624 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 27625 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28160 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28162 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28163 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28165 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28168 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28169 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28173 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28479 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28480 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28481 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28482 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28483 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 28484 to correct data.
- ❑ Assigned Configuration "A[1]" to Serial Number 29378 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.

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HIGHLIGHTS REVISION NO: 6 (Continued)

- ❑ Assigned Configuration "A[1]" to Serial Number 29385 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A[1]" to Serial Number 29954 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A[1]" to Serial Number 30319 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A[1]" to Serial Numbers 28485 thru 28488 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "A[1]" to Serial Numbers 30338 thru 30340 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "B" to Serial Number 29378 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "B" to Serial Number 29385 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "B" to Serial Number 29954 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "B" to Serial Number 30319 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "B" to Serial Numbers 28485 thru 28488 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "B" to Serial Numbers 30338 thru 30340 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "C" to Serial Number 29378 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "C" to Serial Number 29385 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "C" to Serial Number 29954 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "C" to Serial Number 30319 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "C" to Serial Numbers 28485 thru 28488 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.
- ❑ Assigned Configuration "C" to Serial Numbers 30338 thru 30340 per Customer Specific Option Selection TWA52P03-TWA52P10 dated December 22, 1998.

INTERIOR EFFECTIVITY

- ❑ Added Serial Number 29378.
- ❑ Added Serial Number 29385.
- ❑ Added Serial Number 29954.
- ❑ Added Serial Number 30319.
- ❑ Added Serial Numbers 28485 thru 28488.
- ❑ Added Serial Numbers 30338 thru 30340.
- ❑ Added LOPS-5724-2708 to Serial Number 29378.
- ❑ Added LOPS-5724-2708 to Serial Number 29385.
- ❑ Added LOPS-5724-2708 to Serial Number 29954.
- ❑ Added LOPS-5724-2708 to Serial Number 30319.
- ❑ Added LOPS-5724-2708 to Serial Numbers 28485 thru 28488.
- ❑ Added LOPS-5724-2708 to Serial Numbers 30338 thru 30340.

1-02-001

- ❑ Added continuous cold weather operations information for the Aviation Register (AR) requirements.

1-02-067

- ❑ Corrected labeling on kilogram C.G. limits chart.

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HIGHLIGHTS REVISION NO: 6 (Continued)

1-20-006

- ❑ Corrected LB value for Main Tank 1 or 2 fuel weight.

1-22-001

- ❑ Revised text.

1-62-041

- ❑ Revised text.

1-62-062

- ❑ Revised text.

1-82-001

- ❑ Revised text.

1-84-001

- ❑ Revised the Towing and Tipping Limits grids.

1-86-041

- ❑ Revised main gear components' weight values.

1-86-051

- ❑ Revised nose gear components' weight values.

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All	

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Highlights Revision No: 5

This revision adds airplane serial number 28484 to the manual and adds the overwater restriction cutoff on the center of gravity grid for the MTW of 256,000 LB certified weight capability. This revision also incorporates the new Boeing signature into the header of every section. During the header incorporation, miscellaneous changes were made throughout the manual. Detailed descriptions of the changes to each section are listed below.

GENERAL

- ☐ Added Section 1-02-067 to manual.
- ☐ Removed Section 1-02-065 from manual.
- ☐ Added Section 1-02-067 to Configuration "C" to correct data.
- ☐ Removed Section 1-02-065 from Configuration "C" (no longer applicable).

TITLE PAGE

- ☐ Replaced header with new Boeing signature.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Added Serial Number 28484.
- ☐ Assigned Configuration "A" to Serial Number 28484 per Customer Configuration File TWA52-01, revision D, dated July 14, 1998.
- ☐ Assigned Configuration "B" to Serial Number 28484 per Customer Configuration File TWA52-01, revision D, dated July 14, 1998.
- ☐ Assigned Configuration "C" to Serial Number 28484 per Customer Configuration File TWA52-01, revision D, dated July 14, 1998.

INTERIOR EFFECTIVITY

- ☐ LOPS-5724-2708 updated to Revision L.
- ☐ Added Serial Number 28484.
- ☐ Added LOPS-5724-2708 to Serial Number 28484.

1-00-041

- ☐ Added water line reference datum (on page 2).

1-02-067

- ☐ Applicable Configuration(s) set to "C".

1-20-006

- ☐ Revised text and fuel tank labels.

1-22-001

- ☐ Reorganized and revised text.

1-24-001

- ☐ Made formatting changes. Revised fuel tank labels.

1-24-022

- ☐ Made formatting changes. Revised fuel tank labels.

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HIGHLIGHTS REVISION NO: 5 (Continued)

1-34-002

☐ Revised text.

1-40-001

☐ Revised text.

1-44-040

☐ Added KG value to footnote in galley weights table. Revised text.

1-60-003

☐ Revised text.

1-80-005

☐ Revised text.

1-84-001

☐ Revised text.

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BOEING 757-200
WEIGHT AND BALANCE
CONTROL AND LOADING MANUAL

Highlights Revision No: 4

This revision incorporates miscellaneous changes throughout the manual. Detailed descriptions of the changes to each section are listed below. This revision also adds serial number 28483 to the manual.

TITLE PAGE

- ☐ Made grammatical corrections.

TABLE OF CONTENTS

- ☐ Updated for this revision.

AIRPLANE CONFIGURATION

- ☐ Added Serial Number 28483.
- ☐ Assigned Configuration "A" to Serial Number 28483 per Customer Configuration File TWA52-01, revision C, dated July 24, 1997.
- ☐ Assigned Configuration "B" to Serial Number 28483 per Customer Configuration File TWA52-01, revision C, dated July 24, 1997.
- ☐ Assigned Configuration "C" to Serial Number 28483 per Customer Configuration File TWA52-01, revision C, dated July 24, 1997.

INTERIOR EFFECTIVITY

- ☐ Added LOPS-5724-2708 to Serial Number 28483.
- ☐ Added Serial Number 28483.

1-02-011

- ☐ Revised text.

1-02-029

- ☐ Revised text.

1-02-065

- ☐ Revised text.

1-08-001

- ☐ Made grammatical changes.

1-30-002

- ☐ Made grammatical changes and revised data.

1-40-001

- ☐ Made grammatical changes.

1-60-003

- ☐ Added description to Maximum Allowable Weight table.

1-62-004

- ☐ Revised B.A. in. for forward and aft cargo compartments.

1-62-041

- ☐ Made formatting changes.

1-62-062

- ☐ Revised Volumetric Centroids B.A. data.

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BOEING 757-200

WEIGHT AND BALANCE CONTROL AND LOADING MANUAL Trans World Airlines, Inc.

HIGHLIGHTS REVISION NO: 4 (Continued)

1-68-001

- ☐ Made grammatical changes.

1-82-001

- ☐ Made grammatical changes and amended procedure for preparation for airplane weighing.

1-90-001

- ☐ Made grammatical and formatting changes.

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All	

BOEING 757-200
WEIGHT AND BALANCE
CONTROL AND LOADING MANUAL

Highlights Revision No: 3

This revision incorporates Boeing Service Bulletin 757-11-0029 to add multiple operating weights to all serial numbers in the manual.

GENERAL

- ☐ Added Section 1-02-011 to manual
- ☐ Added Section 1-02-065 to manual
- ☐ Added Configuration "B" per Master Change 0310MK5191
- ☐ Added Configuration "C" per Master Change 0310MK5191

TABLE OF CONTENTS

- ☐ Updated for this revision

AIRPLANE CONFIGURATION

- ☐ Assigned Configuration "B" to Serial Number 27620 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 27624 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 27625 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28160 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28162 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28163 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28165 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28168 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28169 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28173 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28479 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28480 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28481 per Master Change 0310MK5191
- ☐ Assigned Configuration "B" to Serial Number 28482 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 27620 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 27624 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 27625 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28160 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28162 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28163 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28165 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28168 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28169 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28173 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28479 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28480 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28481 per Master Change 0310MK5191
- ☐ Assigned Configuration "C" to Serial Number 28482 per Master Change 0310MK5191

INTERIOR EFFECTIVITY

- ☐ Updated for this revision

1-02-011

- ☐ Applicable Configuration(s) set to 'B'

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BOEING 757-200

WEIGHT AND BALANCE CONTROL AND LOADING MANUAL Trans World Airlines, Inc.

HIGHLIGHTS REVISION NO: 3 (Continued)

1-02-029

- ☐ Changed Applicable Configuration(s) from 'All' to 'A'

1-02-065

- ☐ Applicable Configuration(s) set to 'C'

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BOEING 757-200
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Highlights Revision No: 2

This revision adds serial numbers 28168, 28169, 27624, and 28173 to the manual.

TABLE OF CONTENTS

- ☐ Updated for this revision

AIRPLANE CONFIGURATION

- ☐ Added Serial Number 27624
- ☐ Added Serial Number 28168
- ☐ Added Serial Number 28169
- ☐ Added Serial Number 28173
- ☐ Assigned Configuration "A" to Serial Number 27624 per Configuration Memo ILF5230, revision 33, dated Feb 11, 1997
- ☐ Assigned Configuration "A" to Serial Number 28168 per Configuration Memo ILF5230, revision 33, dated Feb 11, 1997
- ☐ Assigned Configuration "A" to Serial Number 28169 per Configuration Memo ILF5230, revision 33, dated Feb 11, 1997
- ☐ Assigned Configuration "A" to Serial Number 28173 per Configuration Memo ILF5230, revision 33, dated Feb 11, 1997

INTERIOR EFFECTIVITY

- ☐ Added LOPS-5724-2708 to Serial Number 27624
- ☐ Added LOPS-5724-2708 to Serial Number 28168
- ☐ Added LOPS-5724-2708 to Serial Number 28169
- ☐ Added LOPS-5724-2708 to Serial Number 28173
- ☐ Added Serial Number 27624
- ☐ Added Serial Number 28168
- ☐ Added Serial Number 28169
- ☐ Added Serial Number 28173

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BOEING 757-200
WEIGHT AND BALANCE
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Highlights Revision No: 1

This revision adds serial numbers 28480, 28481 and 28482, and revises LOPS 5724-2708 from Revision "J" to Revision "K".

TITLE PAGE

- ☐ Adjusted the layout of the Title Page slightly to allow two lines for Airline Name.

TABLE OF CONTENTS

- ☐ Updated for this revision

AIRPLANE CONFIGURATION

- ☐ Added Serial Number 28480
- ☐ Added Serial Number 28481
- ☐ Added Serial Number 28482
- ☐ Assigned A to Serial Number 28480 per Configuration Memo TWA5201
- ☐ Assigned A to Serial Number 28481 per Configuration Memo TWA5201
- ☐ Assigned A to Serial Number 28482 per Configuration Memo TWA5201

INTERIOR EFFECTIVITY

- ☐ Added LOPS-5724-2708 to Serial Number 28480
- ☐ Added LOPS-5724-2708 to Serial Number 28481
- ☐ Added LOPS-5724-2708 to Serial Number 28482

1-44-040

- ☐ Revised seat pitch per LOPS 5724-2708 Revision "K".

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D043N520-TWA1

BOEING 757-200
WEIGHT AND BALANCE
CONTROL AND LOADING MANUAL

Highlights Revision No: Original Release

The information in this document (D043N520-TWA1) replaces and supercedes the information in "Weight and Balance Control and Loading Manual", document D043N302-TWA1, Revision 2. The old document (D043N302-TWA1) will no longer be revised or kept up to date and should either be destroyed or archived for historical purposes.

This new document reflects an improved, standardized format for Weight and Balance Manuals produced by the Boeing Commercial Airplane Group. We are presently in the process of migrating all current production model Weight & Balance Manuals to this standard format.

There are significant changes in the presentation and arrangement of data within this document; much of the information provided has been reworked to improve its usefulness. However, due to the extensive nature of these changes, they will not be itemized in the revision highlights. The content of this document should be considered equivalent to the content of D043N302-TWA1, Revision 2; which is the last and final revision issued for that document.

Note that the method of associating Chapter-Section-Subject (CHP-SEC-SUB) data sections to the aircraft to which they apply is different than the method previously used on 757 Weight and Balance Manuals. The new method is described in the introduction to this document.

Also, all interior arrangement data is now collected into one CHP-SEC-SUB data section (1-44-040), and a new section, "Interior Effectivity", has been added to associate individual interior data sets in 1-44-040 to the aircraft serial numbers on which they are certified.

Furthermore, the data formerly included in the "Log of Effective Pages" and "Table of Contents" has been merged so that for each top-level entry in the new "Table of Contents", the following information is shown: the section title, the CHP-SEC-SUB number, the current revision date, and the Configuration letters associated with it (unless the section applies to every configuration in the manual, in which case the word "All" is shown). To determine if you have received a complete document, check each section listed in the "Table of Contents" and confirm that the section is included in this document. The total number of pages for each section is specified at the bottom of every page contained within it (e.g. "Page 1 of 4", where "4" represents the total number of pages in the section).

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HIGHLIGHTS REVISION NO: 22		12/10/2013	All
HIGHLIGHTS REVISION NO: 21		6/28/2010	All
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HIGHLIGHTS REVISION NO: 3		6/13/1997	All
HIGHLIGHTS REVISION NO: 2		4/9/1997	All
HIGHLIGHTS REVISION NO: 1		3/17/1997	All
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FACTORS AFFECTING PERFORMANCE AND OPERATIONAL LIMITATIONS	1-02-001	9/12/2005	All
Interpolation of Certified Center of Gravity Limits		1	
Operational Weight and Center of Gravity Requirements		1	
Commonwealth of Independent States (CIS) Requirements		2	
CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS	1-02-011	6/7/2005	B, J, M, AE
Certified Weight Limits - MTW 221000 LB (100243 KG)		1	
Limitations		1	
C.G. Limits - MTW 221000 LB, MLW 198000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 100243 KG, MLW 89811 KG, MZFW 83460 KG		3	
CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS	1-02-029	6/7/2005	A, H, L, AA
Certified Weight Limits - MTW 236000 LB (107047 KG)		1	
Limitations		1	
C.G. Limits - MTW 236000 LB, MLW 198000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 107047 KG, MLW 89811 KG, MZFW 83460 KG		3	
CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS	1-02-051	6/24/2005	R
Certified Weight Limits - MTW 251000 LB (113851 KG)		1	
Limitations		1	
C.G. Limits - MTW 251000 LB, MLW 198000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 113851 KG, MLW 89811 KG, MZFW 83460 KG		3	
CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS	1-02-067	6/7/2005	C, K, N, AF
Certified Weight Limits - MTW 256000 LB (116119 KG)		1	
Limitations		1	
C.G. Limits - MTW 256000 LB, MLW 198000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 116119 KG, MLW 89811 KG, MZFW 83460 KG		3	
CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS	1-02-068	6/24/2005	P
Certified Weight Limits - MTW 256000 LB (116119 KG)		1	
Limitations		1	
C.G. Limits - MTW 256000 LB, MLW 198000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 116119 KG, MLW 89811 KG, MZFW 83460 KG		3	
CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS	1-02-101	6/7/2005	D, AB
Certified Weight Limits - MTW 236000 LB (107047 KG)		1	
Limitations		1	
C.G. Limits - MTW 236000 LB, MLW 188000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 107047 KG, MLW 85275 KG, MZFW 83460 KG		3	

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Limitations		1	
C.G. Limits - MTW 221000 LB, MLW 188000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 100243 KG, MLW 85275 KG, MZFW 83460 KG		3	
CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS	1-02-103	6/7/2005	F, AD
Certified Weight Limits - MTW 256000 LB (116119 KG)		1	
Limitations		1	
C.G. Limits - MTW 256000 LB, MLW 188000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 116119 KG, MLW 85275 KG, MZFW 83460 KG		3	
CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS	1-02-105	9/12/2005	S
Certified Weight Limits - MTW 251000 LB (113851 KG)		1	
Limitations		1	
C.G. Limits - MTW 251000 LB, MLW 188000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 113851 KG, MLW 85275 KG, MZFW 83460 KG		3	
CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS	1-02-109	6/7/2005	G
Certified Weight Limits - MTW 246000 LB (111583 KG)		1	
Limitations		1	
C.G. Limits - MTW 246000 LB, MLW 210000 LB, MZFW 184000 LB		2	
C.G. Limits - MTW 111583 KG, MLW 95254 KG, MZFW 83460 KG		3	
TAKEOFF HORIZONTAL STABILIZER TRIM SETTING	1-06-004	8/15/2007	H, J, K
PW2040 Engines - English Units Flaps 1 & 5		1	
PW2040 Engines - Metric Units Flaps 1 & 5		2	
PW2040 Engines - English Units Flaps 15 & 20		3	
PW2040 Engines - Metric Units Flaps 15 & 20		4	
TAKEOFF HORIZONTAL STABILIZER TRIM SETTING	1-06-005	1/29/2013	A, B, C, D, E, F, G, L, M, N, P, R, S, AA, AB, AC, AD, AE, AF
PW2037 Engines - English units Flaps 1 & 5		1	
PW2037 Engines - Metric units Flaps 1 & 5		2	
PW2037 Engines - English units Flaps 15 & 20		3	
PW2037 Engines - Metric units Flaps 15 & 20		4	
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Flaps Retraction Moment		1	
LANDING GEAR AND FLAP MOVEMENT BALANCE EFFECT	1-08-002	4/21/1998	AA, AB, AC, AD, AE, AF
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Flaps Retraction Moment		1	

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Usable Fuel Quantities and Locations		2	
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FUEL TANK ARRANGEMENT AND CAPACITIES	1-20-010	8/23/2005	D, E, F, L,
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Maximum Allowable Fuel Weight		2	AA, AB, AC,
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Combined Main Tanks 1 and 2 in Liters		2	
FUEL TANK QUANTITIES AND BALANCE ARMS	1-24-003	8/23/2005	D, E, F, L,
Combined Main Tanks 1 and 2 in U.S. Gallons		1	M, N, R, S,
Combined Main Tanks 1 and 2 in Liters		2	AA, AB, AC,
			AD, AE, AF
FUEL TANK QUANTITIES AND BALANCE ARMS	1-24-022	4/21/1998	A, B, C, G,
Center Tank in U.S. Gallons		1	H, J, K, P
Center Tank in Liters		2	
FUEL TANK QUANTITIES AND BALANCE ARMS	1-24-024	4/13/1999	D, E, F, L,
Center Tank in U.S. Gallons		1	M, N, R, S,
Center Tank in Liters		2	AA, AB, AC,
			AD, AE, AF

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Engine System Oil (Pratt & Whitney Engines)		1	
Integrated Drive Generator Oil		1	
Hydraulic System Fluid		1	
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PASSENGER AND PERSONNEL WEIGHT ALLOWANCES FAA Advisory Circular 120-27E Allowances	1-40-001	8/30/2007 1	All
INTERIOR ARRANGEMENT - MAIN DECK Flight Deck Main Cabin -22F/0C/158Y Arrangement	1-44-040	4/27/1999 1 2	All
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CARGO COMPARTMENTS - LOAD LIMITS Maximum Allowable Weights	1-60-003	8/23/2005 1	All
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FORWARD CARGO COMPARTMENTS Forward Cargo Compartment Volumes Forward Cargo Compartment Cross Sections Cargo Door Dimensions and Allowable Package Sizes	1-62-401	8/17/2007 1 2 4	All
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COMPONENT WEIGHTS AND BALANCE ARMS	1-86-031	4/21/1998	All
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COMPONENT WEIGHTS AND BALANCE ARMS	1-86-041	1/14/1999	A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S
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COMPONENT WEIGHTS AND BALANCE ARMS	1-86-042	1/14/1999	AA, AB, AC,
Main Gear Components		1	
COMPONENT WEIGHTS AND BALANCE ARMS	1-86-051	1/4/1999	All
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COMPONENT WEIGHTS AND BALANCE ARMS	1-86-063	8/31/2004	All
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AIRPLANE CONFIGURATION

The engineering data and FAA certification provided by this document are applicable and valid only for the airplane as defined in the Type Design at delivery, and as modified by the incorporation of any Boeing Supplemental Type Certificate (STC) or Service Bulletin. With respect to any third party STC configuration, either pre-delivery or post-delivery, it shall be the responsibility of the buyer to obtain the data and appropriate regulatory agency approval.

CONFIGURATION ASSIGNMENT

The table shown below correlates each airplane serial number to the currently allowed configuration(s) for that airplane. Each configuration is designated by a different letter. Configuration qualifications are listed following the table and indicate the change authorization involved for airplanes with multiple allowable configurations. Because there may be multiple configuration letters applicable to any serial number, and also multiple configuration qualifications listed for any configuration letter, care should be exercised when determining the configuration letter which correctly reflects the applicable configuration of the airplane.

LINE NUMBER	SERIAL NUMBER	VARIABLE NUMBER	CONFIGURATION						
736	27620	NC077	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
736	27620	NC077	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
760	27624	NC083	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
760	27624	NC083	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
744	27625	NC080	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
744	27625	NC080	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
732	28162	NC076	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
732	28162	NC076	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
741	28163	NC078	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
741	28163	NC078	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
743	28165	NC079	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
743	28165	NC079	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
754	28168	NC081	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
754	28168	NC081	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
757	28169	NC082	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
757	28169	NC082	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
764	28173	NC084	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
764	28173	NC084	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
742	28479	NC091	L	L[1]	M[2]	N[3]	AA[23]	AE[27]	AF[28]
750	28480	NC092	A	A[9]	B[10]	C[11]	H[8]	H[12]	J[13]
750	28480	NC092	-	K[14]					
758	28481	NC093	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
758	28481	NC093	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
770	28482	NC094	A	A[9]	B[10]	C[11]	H[8]	H[12]	J[13]
770	28482	NC094	-	K[14]					
777	28483	NT351	A	A[9]	B[10]	C[11]	H[8]	H[12]	J[13]

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825	28484	NT352	R	R[16]	S[15]				
854	28485	NT353	L	L[1]	M[2]	N[3]	AA[23]	AE[27]	AF[28]
869	28486	NT354	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
869	28486	NT354	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
878	28487	NT355	G[7]						
884	28488	NT357	G[7]						
907	29378	NT373	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
907	29378	NT373	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
893	29385	NT372	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
893	29385	NT372	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
874	29954	NT371	L	D[4]	E[5]	F[6]	L[1]	M[2]	N[3]
874	29954	NT371	-	AA[23]	AB[24]	AC[25]	AD[26]	AE[27]	AF[28]
883	30319	NT356	A	A[9]	B[10]	C[11]	H[8]	H[12]	J[13]
883	30319	NT356	-	K[14]					
891	30338	NT358	P	B[2]	C[3]	P[1]			
896	30339	NT359	G[7]						
901	30340	NT360	L	L[1]	M[2]	N[3]	AA[23]	AE[27]	AF[28]

CONFIGURATION QUALIFICATIONS

- [1] Upon incorp of Boeing SB 757-11-0029 (Placards & Mark-Interior-Change Existing Placard Install for Multi Oper Wt Airplanes) Work Pack II, or both Boeing SBs 757-11-0029 Work Pack II, and 757-11-0049 Work Pack 1, 2 and 4.
- [2] Upon incorp of Boeing SB 757-11-0029 Work Pack I, or both Boeing SBs 757-11-0029 Work Pack I, and 757-11-0049 (Placards & Mark-Interior-MLW Placard Install) Work Pack 1, 2 and 4.
- [3] Upon incorporation of Boeing Service Bulletin 757-11-0029 Work Package III, or both Boeing Service Bulletins 757-11-0029 Work Package III, and 757-11-0049 Work Packages 1, 2 and 4.
- [4] Upon incorporation of Boeing Service Bulletins 757-11-0029 Work Package II, and 757-11-0049 Work Packages 1, 2 and 3.
- [5] Upon incorporation of Boeing Service Bulletins 757-11-0029 Work Package I, and 757-11-0049 Work Packages 1, 2 and 3.
- [6] Upon incorporation of Boeing Service Bulletins 757-11-0029 Work Package III, and 757-11-0049 Work Packages 1, 2 and 3.
- [7] Upon incorporation of Boeing Service Bulletin 757-11-0029 Revision 4, Group 3.

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- [8] Upon incorporation of Boeing Service Bulletin 757-71-0082 (Power Plant - General - Change PW2037 Engines to Operate at PW2040 Thrust Levels), when operating at PW2040 thrust rating.
- [9] Upon incorporation of Boeing Service Bulletin 757-11-0029 Work Package II, or both Boeing Service Bulletins 757-11-0029 Work Package II and 757-71-0082, when operating at PW2037 thrust rating.
- [10] Upon incorporation of Boeing Service Bulletin 757-11-0029 Work Package I, or both Boeing Service Bulletins 757-11-0029 Work Package I and 757-71-0082, when operating at PW2037 thrust rating.
- [11] Upon incorporation of Boeing Service Bulletin 757-11-0029 Work Package III, or both Boeing Service Bulletins 757-11-0029 Work Package III and 757-71-0082, when operating at PW2037 thrust rating.
- [12] Upon incorporation of Boeing Service Bulletin 757-11-0029 Work Package II, or both Boeing Service Bulletins 757-11-0029 Work Package II and 757-71-0082, when operating at PW2040 thrust rating.
- [13] Upon incorporation of Boeing Service Bulletin 757-11-0029 Work Package I, or both Boeing Service Bulletins 757-11-0029 Work Package I and 757-71-0082, when operating at PW2040 thrust rating.
- [14] Upon incorporation of Boeing Service Bulletin 757-11-0029 Work Package III, or both Boeing Service Bulletins 757-11-0029 Work Package III and 757-71-0082, when operating at PW2040 thrust rating.
- [15] Upon incorporation of Boeing Service Bulletins 757-11-0063 (PLACARDS AND MARKINGS - Interior Placards - Removal from Flex Weight Program and Restore Basic Operating Maximum Takeoff Weight of 235,000 Pounds/106,594 Kilograms) and 757-11-0049 Work Packages 1, 2 and 3.
- [16] Upon incorporation of Boeing Service Bulletins 757-11-0063 and 757-11-0049 Work Packages 1, 2 and 4.
- [23] Upon incorporation of Boeing SB 757-11-0029 (Placards & Mark-Interior-Change Existing Placard Install for Multi Oper Wt Airplanes) Work Pack II, or both Boeing SBs 757-11-0029 Work Pack II, and 757-11-0049 Work Pack 1, 2 and 4. Also, upon incorporation of SB 757-32-0178 (Landing Gear - Wheels and Brakes - Replace BF Goodrich Steel Brakes and Wheels with Dunlop Carbon Brakes and Wheels).
- [24] Upon incorporation of Boeing Service Bulletins 757-11-0029 Work Package II and 757-11-0049 Work Packages 1, 2 and 3. Also, upon incorporation of SB 757-32-0178 (Landing Gear - Wheels and Brakes - Replace BF Goodrich Steel Brakes with Dunlop Carbon Brakes and Wheels).
- [25] Upon incorporation of Boeing Service Bulletins 757-11-0029 Work Package I, and 757-11-0049 Work Packages 1, 2 and 3. Also, upon incorporation of SB 757-32-0178 (Landing Gear - Wheels and Brakes - Replace BF Goodrich Steel Brakes with Dunlop Carbon Brakes and Wheels).

APPLICABLE CONFIGURATIONS	
All	

Airplane Configuration

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AIRPLANE CONFIGURATION (Continued)

- [26] Upon incorporation of Boeing Service Bulletins 757-11-0029 Work Package III, and 757-11-0049 Work Packages 1, 2 and 3. Also, upon incorporation of SB 757-32-0178 (Landing Gear - Wheels and Brakes - Replace BF Goodrich Steel Brakes with Dunlop Carbon Brakes and Wheels).
- [27] Upon incorporation of Boeing SB 757-11-0029 Work Pack I, or both Boeing SBs 757-11-0029 Work Pack I, and 757-11-0049 (Placards & Mark-Interior-MLW Placard Install) Work Pack 1, 2 and 4. Also, upon incorporation of SB 757-32-0178 (Landing Gear - Wheels and Brakes - Replace BF Goodrich Steel Brakes and Wheels with Dunlop Carbon Brakes and Wheels).
- [28] Upon incorporation of Boeing Service Bulletin 757-11-0029 Work Package III, or both Boeing Service Bulletins 757-11-0029 Work Package III, and 757-11-0049 Work Packages 1, 2 and 4. Also, upon incorporation of SB 757-32-0178 (Landing Gear - Wheels and Brakes - Replace BF Goodrich Steel Brakes and Wheels with Dunlop Carbon Brakes and Wheels).

Airplane Configuration

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APPLICABLE CONFIGURATIONS

All



INTERIOR EFFECTIVITY

The tabular data shown below correlates each airplane serial number to the passenger arrangement(s) certified for that airplane. Each passenger arrangement is designated by drawing number and revision letter. To locate a particular passenger arrangement(s), refer to the interior section listed below. Drawing numbers are listed beside each interior drawing in the interior section.

MAIN CABIN

Weight and balance data for each drawing identified in the following table are provided in Section 1-44-040 of this manual.

SERIAL NUMBER	VARIABLE NUMBER	PASSENGER ARRANGEMENT EFFECTIVITY - MAIN CABIN					
		DRAWING #	REV	DRAWING #	REV	DRAWING #	REV
27620	NC077	LOPS-5724-2708	P				
27624	NC083	LOPS-5724-2708	P				
27625	NC080	LOPS-5724-2708	P				
28162	NC076	LOPS-5724-2708	P				
28163	NC078	LOPS-5724-2708	P				
28165	NC079	LOPS-5724-2708	P				
28168	NC081	LOPS-5724-2708	P				
28169	NC082	LOPS-5724-2708	P				
28173	NC084	LOPS-5724-2708	P				
28479	NC091	LOPS-5724-2708	P				
28480	NC092	LOPS-5724-2708	P				
28481	NC093	LOPS-5724-2708	P				
28482	NC094	LOPS-5724-2708	P				
28483	NT351	LOPS-5724-2708	P				
28484	NT352	LOPS-5724-2708	P				
28485	NT353	LOPS-5724-2708	P				
28486	NT354	LOPS-5724-2708	P				
28487	NT355	LOPS-5724-2708	P				
28488	NT357	LOPS-5724-2708	P				
29378	NT373	LOPS-5724-2708	P				
29385	NT372	LOPS-5724-2708	P				
29954	NT371	LOPS-5724-2708	P				
30319	NT356	LOPS-5724-2708	P				
30338	NT358	LOPS-5724-2708	P				
30339	NT359	LOPS-5724-2708	P				
30340	NT360	LOPS-5724-2708	P				

APPLICABLE CONFIGURATIONS
All

Interior Effectivity

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GENERAL INFORMATION

WEIGHT AND BALANCE DEFINITIONS

The following definitions are provided to assist operators in having a better understanding of the terms used throughout the Weight and Balance Manual.

General Terms or Acronyms

Balance Arm (B.A.)	A true measure of distance from forward to aft, in inches, from a fixed datum. The fixed datum is selected by the airplane manufacturer. Balance Arms are used in weight and balance calculations. To see the relationship between B.A. and B.S., refer to CHP-SEC-SUB 1-00-04x of this manual.
Body Station (B.S.)	A manufacturing location on the airplane. For first of an airplane model, B.S. are continuous from the front to the aft of the airplane. For later versions that are either stretched (i.e. fuselage inserts added) or shrunk (i.e. fuselage sections removed), B.S. becomes discontinuous, for manufacturing reasons. To see the relationship between B.A. and B.S., refer to CHP-SEC-SUB 1-00-04x of this manual.
Layout of Passenger Arrangement (LOPA)	A Boeing internal drawing that depicts the interior layout.
Layout of Passenger Systems (LOPS)	A Boeing internal drawing that depicts the interior layout.

Weight Terms

Basic Empty Weight (BEW)	Standard Basic Empty Weight plus or minus weight of standard item variations.
Delivery Empty Weight (DEW)	Manufacturer's Empty Weight, less any shortages, plus those standard items and operational items in aircraft at time of delivery.
Fleet Empty Weight (FEW)	Average Basic Empty Weight used for a fleet or group of aircraft of the same model and configuration. (The weight of any fleet member shall not vary more than the tolerance established by government regulations.)
Guaranteed Weight	Weight the manufacturer clearly defines and guarantees, subject to contractual tolerances and adjustments.
Manufacturer's Empty Weight (MEW)	Weight of structure, powerplant, furnishings, systems and other items of equipment that are an integral part of a particular aircraft configuration. (It is essentially a "dry" weight, including only those fluids contained in closed systems.)
Maximum Payload	Maximum Zero Fuel Weight minus Operational Empty Weight.
Operational Empty Weight (OEW)	Basic Empty Weight or Fleet Empty Weight plus operational items.

APPLICABLE CONFIGURATIONS
All

GENERAL INFORMATION (Continued)

Operational Items	Personnel, equipment and supplies necessary for a particular operation but not included in Basic Empty Weight. These items may vary for a particular aircraft and may include, but are not limited to, the following: ☐ Crew and Baggage ☐ Manuals and navigational equipment ☐ Removable service equipment for cabin, galley and bar ☐ Food and beverage, including liquor ☐ Usable fluids other than those in useful load ☐ Life rafts, life vests and emergency transmitters ☐ Aircraft unit load devices
Operational Landing Weight (OLW)	Maximum authorized weight for landing. (It is subject to airport, operational and related restrictions. It must not exceed maximum certified landing weight.)
Operational Takeoff Weight (OTOW)	Maximum authorized weight for takeoff. (It is subject to airport, operational and related restrictions. This is the weight at start of takeoff run and must not exceed maximum certified takeoff weight.)
Payload	Weight of the passengers, cargo and baggage. (These may be revenue and/or nonrevenue.)
Standard Basic Empty Weight (SBEW)	Manufacturer's Empty Weight plus standard items.
Standard Items	Equipment and fluids not considered an integral part of a particular aircraft and not a variation for the same type of aircraft. These items may include, but are not limited to, the following: ☐ Unusable fuel and other unusable fluids ☐ Engine oil ☐ Toilet fluid and chemical ☐ Fire extinguishers, pyrotechnics and emergency oxygen equipment ☐ Structure in galley, buffet and bar ☐ Supplementary electronic equipment
Useful Load	Difference between takeoff weight and Operational Empty Weight. (It includes payload, usable fuel and other usable fluids not included as operational items.)
Zero Fuel Weight	Operational Empty Weight plus payload. (This weight must not exceed Maximum Zero Fuel Weight.)

APPLICABLE CONFIGURATIONS	
All	

GENERAL INFORMATION (Continued)

Weight Limitation Terms

Maximum Landing Weight (MLW)	Maximum weight for landing as limited by aircraft strength and airworthiness requirements.
Maximum Takeoff Weight (MTOW)	Maximum weight at brake release as limited by aircraft strength and airworthiness requirements.
Maximum Taxi Weight (MTW)	Maximum weight for ground maneuver as limited by aircraft strength and airworthiness requirements. (It includes weight of taxi and runup fuel.)
Maximum Zero Fuel Weight (MZFW)	Maximum weight allowed before usable fuel must be loaded in the aircraft as limited by strength and airworthiness requirements.
Minimum Flight Weight (MFW)	Minimum weight for flight as limited by aircraft strength and airworthiness requirements.

Fuel Terms

Unusable Fuel	Fuel remaining after a fuel runout test has been completed in accordance with government regulations. (It includes drainable unusable fuel plus unusable portion of trapped fuel.)
Drainable Unusable Fuel	Unusable fuel minus unusable portion of trapped fuel.
Trapped Unusable Fuel	Unusable fuel remaining when aircraft is defueled by normal means using the procedures and attitudes specified for draining the tanks.
Usable Fuel	Fuel available for aircraft propulsion.
Drainable Usable Fuel	Usable fuel that can be drained from the aircraft by normal means using the procedures and attitudes specified for draining the tanks.
Trapped Usable Fuel	Usable fuel remaining in the fuel feed and engine lines after standard tank defueling.

Curtailments

Cargo Location Variation	Operational margin placed within the certified center of gravity limits to compensate for the effect of reasonable variations in cargo location when partially unrestricted cargo placement is permitted.
Fuel Density Variation	Operational margin placed within the certified center of gravity limits to compensate for the effect of fuel density variation.
Fuel Usage	Operational margin placed within the certified center of gravity limits to compensate for the effect of fuel management during the critical portions of flight.
Gear and Flap Movement	Operational margin placed within the certified center of gravity limits to compensate for the effect of extending or retracting landing gear and flaps.

APPLICABLE CONFIGURATIONS
All

GENERAL INFORMATION (Continued)

In-flight Movement	Operational margin placed within the certified center of gravity limits to compensate for the effect of reasonable passenger, crew, and cart movement during flight.
Loading Schedule	A hardcopy or computerized form used to record the aircraft's weight, load distribution and other appropriate information; to calculate and check the weight and balance conditions of the aircraft against operational limitations; and to establish the stabilizer trim setting for takeoff.
Operational Empty Weight Variation	Operational margin placed within the certified center of gravity limits to compensate for the known variations in the standard and operational items.
Passenger Seating Variation	Operational margin placed within the certified center of gravity limits to compensate for the effect of reasonable variations in passenger center of gravity when unrestricted seating is permitted.

Balance Terms

Fleet Center-of-Gravity	Average Basic Empty Weight center of gravity used for a fleet or group of aircraft of the same model and configuration. (The center of gravity of any fleet member shall not vary more than the maximum tolerance established by government regulations.)
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ABBREVIATIONS

The following terms, when necessary, will be abbreviated as shown below.

UNIT	ABBREVIATION	UNIT	ABBREVIATION
Pounds	LB	Inches	IN.
Kilograms	KG	Feet	FT
U. S. Gallons	U.S. GAL.	Square Feet	SQ FT
Liters	L	Cubic Feet	CU FT
Number	NO.	Inboard	INBD
Forward	FWD	Outboard	OUTBD
Balance Arm	B.A.	Mean Aerodynamic Chord	MAC
Body Buttock Line	B.B.L.	Leading Edge of the MAC	LEMAC
Water Line	W.L.	Center of Gravity	C.G.

APPLICABLE CONFIGURATIONS
All

GENERAL INFORMATION (Continued)

CONVERSION FACTORS

The data in this manual is provided in both English and Metric units. Unless otherwise stated, the conversions listed below are used throughout this manual.

MULTIPLY	BY	TO OBTAIN
Pounds	0.45359237	Kilograms
U. S. Gallons	3.78541180	Liters
Inches	2.54000000	Centimeters
Feet	0.30480000	Meters

When totals or summations are required the English values are summed separately from the metric values. Differences may occur when comparing the English totals with the metric totals due to round off.

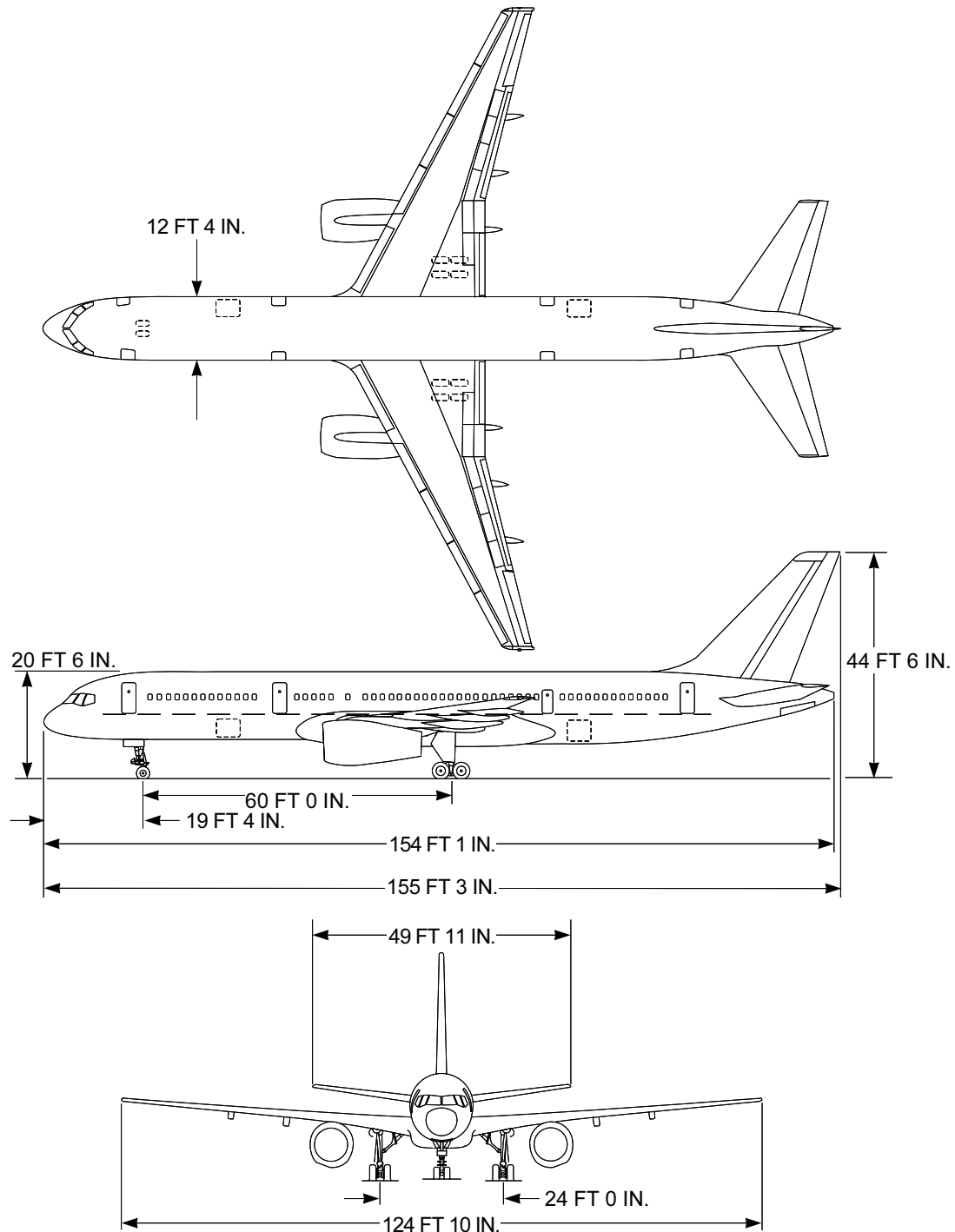
All metric values are converted from English values. When using the conversion factors in this manual, all resultants will be rounded except when the value is a weight limitation. For minimum or maximum weight limitations the resultant metric values will be rounded up or truncated, whichever is more conservative.

APPLICABLE CONFIGURATIONS
All

AIRPLANE DIMENSIONS

GENERAL ARRANGEMENT AND PRIMARY DIMENSIONS

The following figure shows the 757-200 general arrangement and primary dimensions for a configuration with 4 exit doors and 1 aft cargo door.

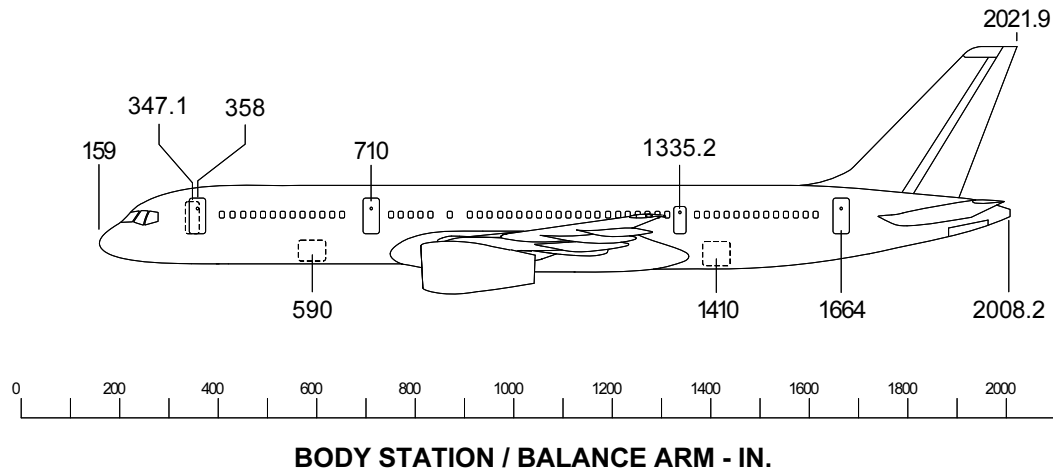


APPLICABLE CONFIGURATIONS	
All	

BALANCE REFERENCE SYSTEM

BALANCE ARMS / BODY STATIONS

Longitudinal location of all airplane component centers of gravity identified throughout this manual will be referred to as Balance Arms. The Balance Arm is a true measure in inches from the reference datum 159 IN. forward of the airplane nose. Balance Arms are equivalent to Body Stations (B.S.).



MEAN AERODYNAMIC CHORD

The Mean Aerodynamic Chord, as used in this manual, is a wing reference distance with a length of 199.7 IN. The Leading Edge of the Mean Aerodynamic Chord is at Balance Arm 991.9 IN. Conversion of the airplane center of gravity from Balance Arm, in inches, to a percentage of Mean Aerodynamic Chord is derived using the following formula:

$$\%MAC = \frac{[(B.A. - 991.9) \times 100.0]}{199.7}$$

The reverse conversion of the airplane center of gravity from a percentage of Mean Aerodynamic Chord to Balance Arm, in inches, is derived using the following formula:

$$B.A. = \frac{(199.7 \times \%MAC)}{100.0} + 991.9$$

BODY BUTTOCK LINE

The Body Buttock Line is a vertical line or a vertical plane parallel to the centerline of the airplane used to locate points or planes to the left or right of the airplane centerline.

APPLICABLE CONFIGURATIONS	
All	



BALANCE REFERENCE SYSTEM (Continued)

WATER LINE

The Water Line is a horizontal reference line or a horizontal plane parallel to the main deck floor used to locate points or planes vertically. The Water Line is measured from the reference datum 208.1 IN. below the top of the main deck floor.

APPLICABLE CONFIGURATIONS	
All	

FACTORS AFFECTING PERFORMANCE AND OPERATIONAL LIMITATIONS

INTERPOLATION OF CERTIFIED CENTER OF GRAVITY LIMITS

CHP-SEC 1-02-xxx presents the certified weight and center of gravity limits by identifying inflection points (end points) for each limit in terms of weight and %MAC. Intermediate points between the inflection points must be determined by interpolating the weight and moment, not the weight and %MAC. The moment is calculated for any given weight and %MAC by using the following formula:

$$\text{Moment} = \text{Weight} \times \left[\frac{(199.7 \times \%MAC)}{100.0} + 991.9 \right]$$

Weight versus moment grids can be presented in various ways. The Loading Schedule Substantiation documents referenced in CHP-SEC 1-90-00x typically show weight and center of gravity limits converted to a weight versus index. The index values on these grids are an alternate way of displaying moment and are calculated using an index equation. Interpolating intermediate points using weight and index is equivalent to weight and moment.

OPERATIONAL WEIGHT AND CENTER OF GRAVITY REQUIREMENTS

To comply with the performance and operational limitations of the Federal Aviation Regulations, the allowable takeoff weight and the landing weight may be restricted to less than the Maximum Takeoff Weight and the Maximum Landing Weight respectively. The Operational Takeoff Weight may be limited by the most restrictive of the following requirements:

- ☐ Operational Takeoff Weight for altitude and temperature
- ☐ Takeoff field length requirements
- ☐ Tire speed and brake energy limits
- ☐ Tire pressure
- ☐ Obstacle clearance, enroute and landing requirements
- ☐ Noise requirements

The Operational Landing Weight may be limited by the most restrictive of the following requirements:

- ☐ Landing field length requirements
- ☐ Maximum approach and landing climb weight for altitude and temperature
- ☐ Noise requirements

These may not be all of the limitations; see the Airplane Flight Manual for further information.

To ensure that the airplane center of gravity remains within the center of gravity limits, airplane balance must be accounted for with all load conditions during all taxi, takeoff, flight and landing operations. Appropriate constraints must be established and applied to the center of gravity limits as required to account for such changes in the airplane balance condition as due to:

- ☐ Cargo location variation
- ☐ Fuel density variation
- ☐ Fuel usage
- ☐ Gear and flap movement
- ☐ In-flight movement
- ☐ Passenger seating variation

The data in the remainder of this manual will allow the operator to develop these constraints. For guidance in accounting for these items, refer to Advisory Circular 120-27E.

APPLICABLE CONFIGURATIONS	
All	

FACTORS AFFECTING PERFORMANCE AND OPERATIONAL LIMITATIONS**COMMONWEALTH OF INDEPENDENT STATES (CIS) REQUIREMENTS**

Airplanes operating under the regulatory agency of the Commonwealth of Independent States (CIS) are required to be in compliance with NLGS-3 (comparable to FAR Part 25). Aviation Register (AR) Specialists identified changes to some Boeing procedural documents that would be necessary to be in compliance with NLGS-3 and operate in the CIS.

Continuous Cold Weather Operations

Boeing document number D6-81416-5, "The Aviation Register Requirements for Operation in the Commonwealth of Independent States", defines a procedure for airplanes operating continuously in cold weather (i.e. ground temperatures below the freezing point). When these conditions exist, the Operational Empty Weight must be increased by 1000 LB (453 KG), with no impact on the airplane center of gravity, after each 50 flight hours. This is to account for interior ice build-up. The Maintenance Manual Section of document D6-81416-5 defines the prescribed maximum flight hours before removal of interior ice is required. After the ice removal task has been completed, the weight added as a result of ice build-up should be subtracted.

APPLICABLE CONFIGURATIONS	
All	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 221000 LB (100243 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	221000	100243
Maximum Takeoff Weight	(MTOW)	220000	99790
Maximum Landing Weight	(MLW)	198000	89811
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

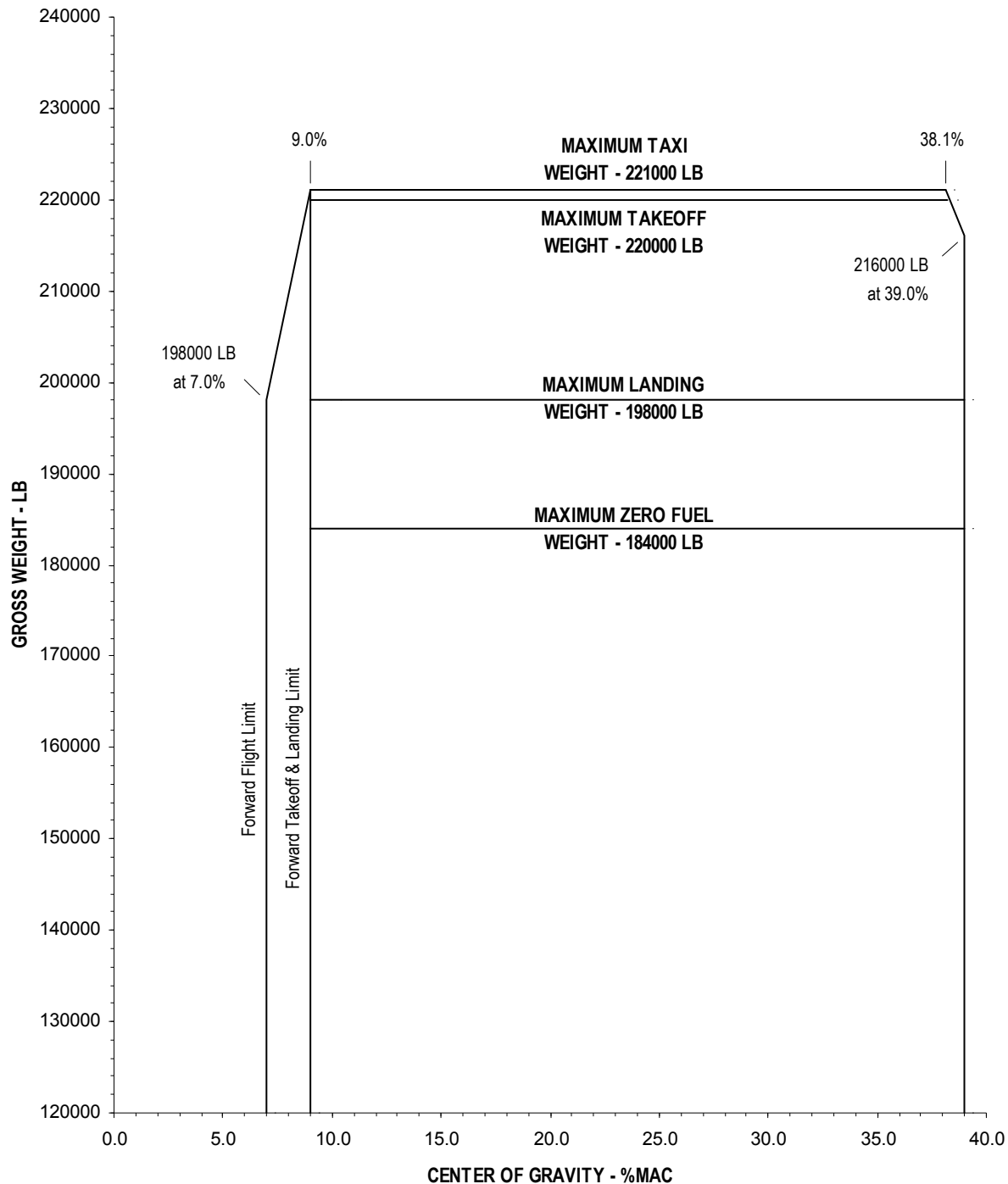
- ❑ Minimum Tire Size Required
 - ❑ Nose Gear - H31X13-12/20 Ply Rating
 - ❑ Main Gear - H40X14.5-19/22 Ply Rating
- ❑ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

APPLICABLE CONFIGURATIONS
B, J, M, AE

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 221000 LB, MLW 198000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

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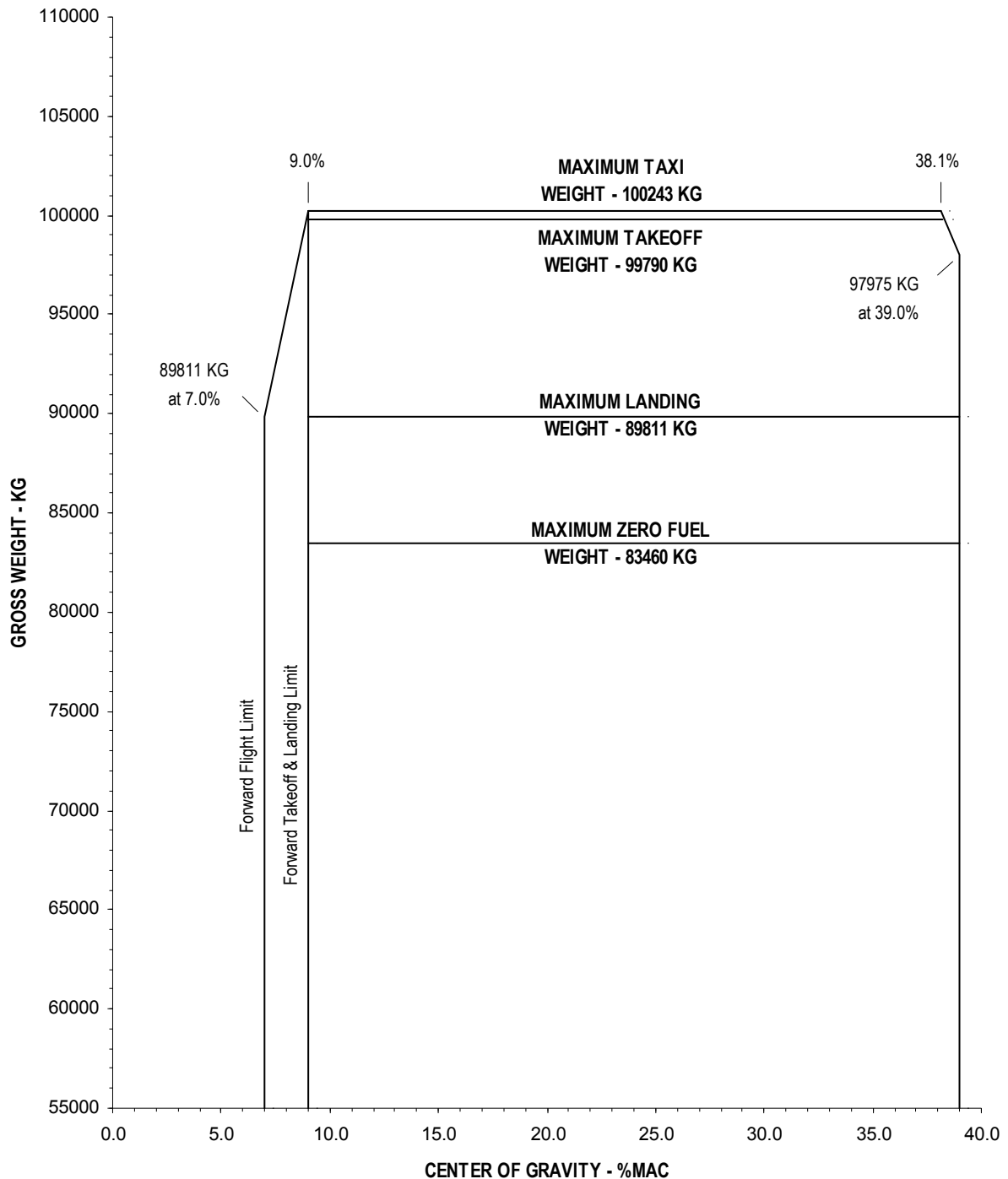
APPLICABLE CONFIGURATIONS

B, J, M, AE

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 100243 KG, MLW 89811 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
B, J, M, AE	

1-02-011
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CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 236000 LB (107047 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	236000	107047
Maximum Takeoff Weight	(MTOW)	235000	106594
Maximum Landing Weight	(MLW)	198000	89811
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

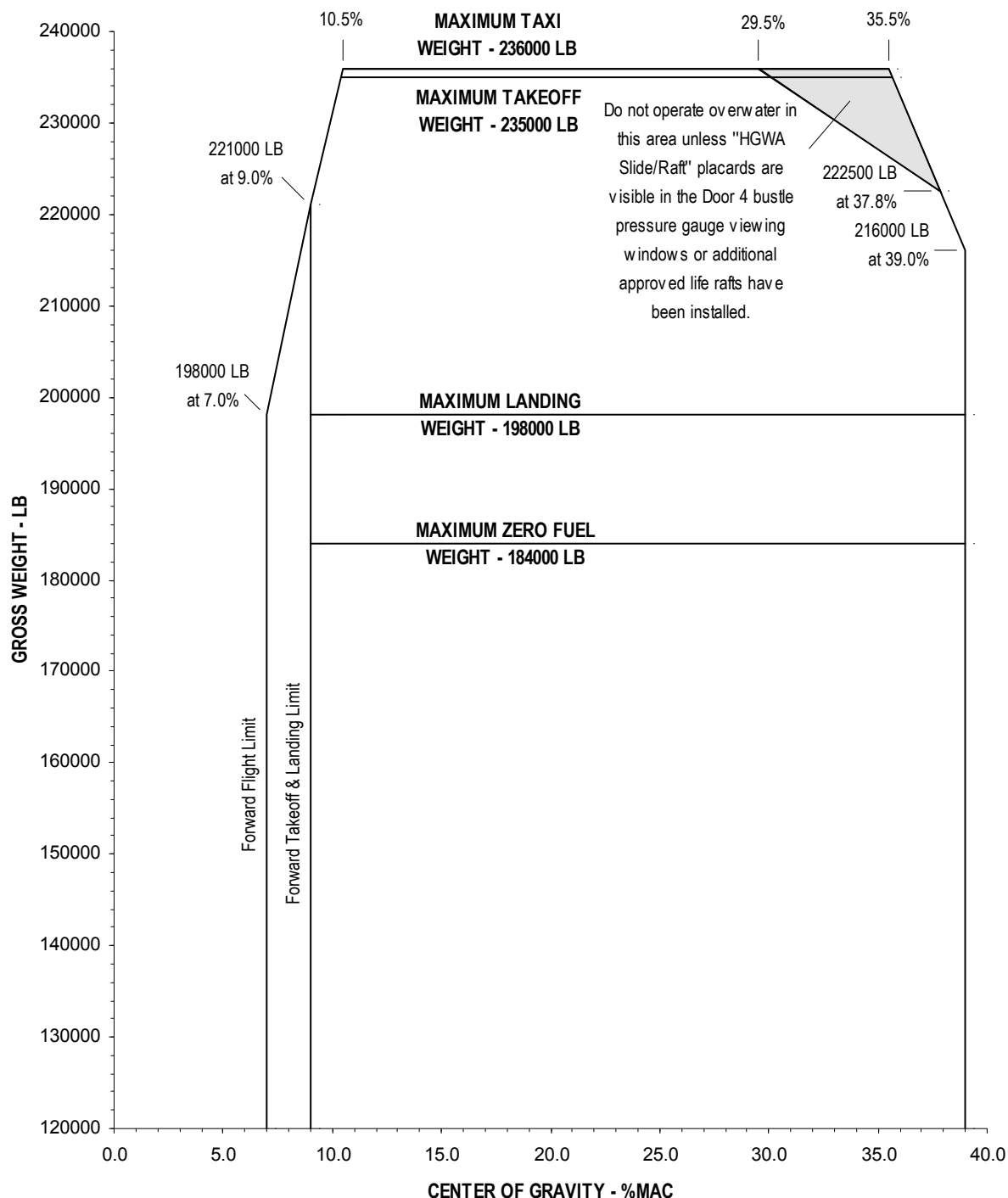
- ☐ Minimum Tire Size Required
 - ☐ Nose Gear - H31X13-12/20 Ply Rating
 - ☐ Main Gear - H40X14.5-19/24 Ply Rating
- ☐ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

APPLICABLE CONFIGURATIONS
A, H, L, AA

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 236000 LB, MLW 198000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



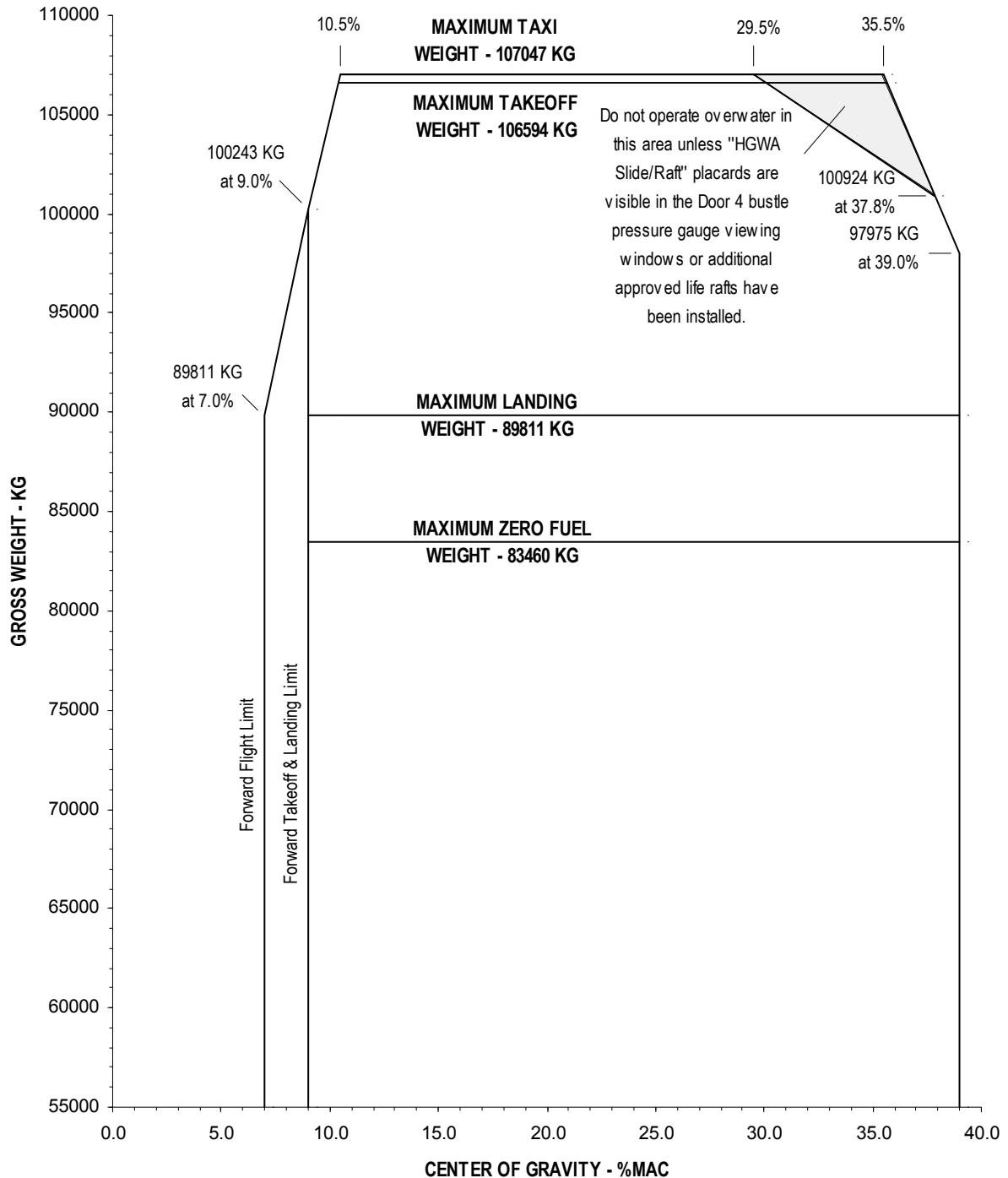
WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS
A, H, L, AA

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 107047 KG, MLW 89811 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
A, H, L, AA	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 251000 LB (113851 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	251000	113851
Maximum Takeoff Weight	(MTOW)	250000	113398
Maximum Landing Weight	(MLW)	198000	89811
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

- ❑ Minimum Tire Size Required
 - ❑ Nose Gear - H31X13-12/20 Ply Rating
 - ❑ Main Gear - H40X14.5-19/24 Ply Rating
- ❑ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

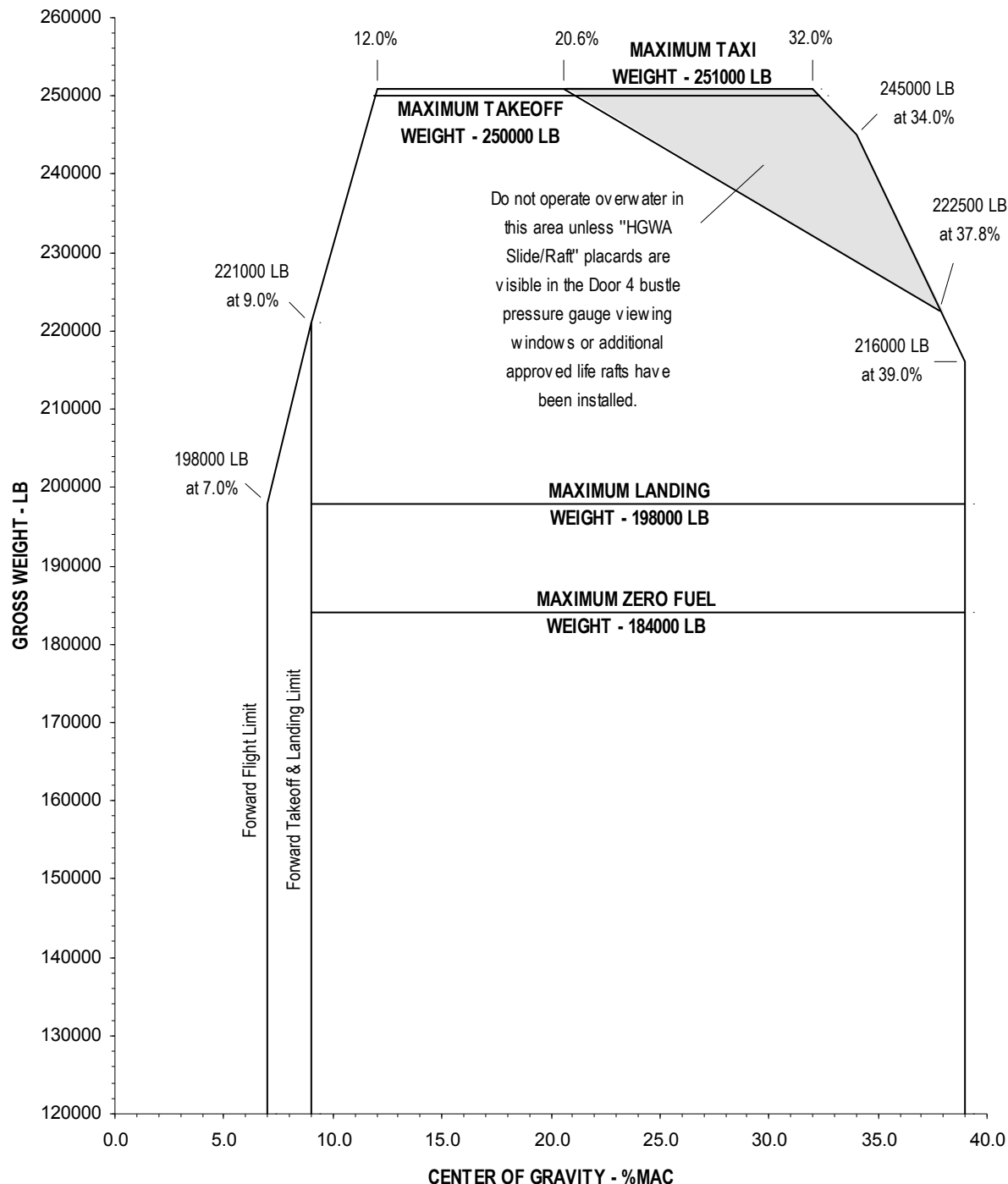
APPLICABLE CONFIGURATIONS
R



CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 251000 LB, MLW 198000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

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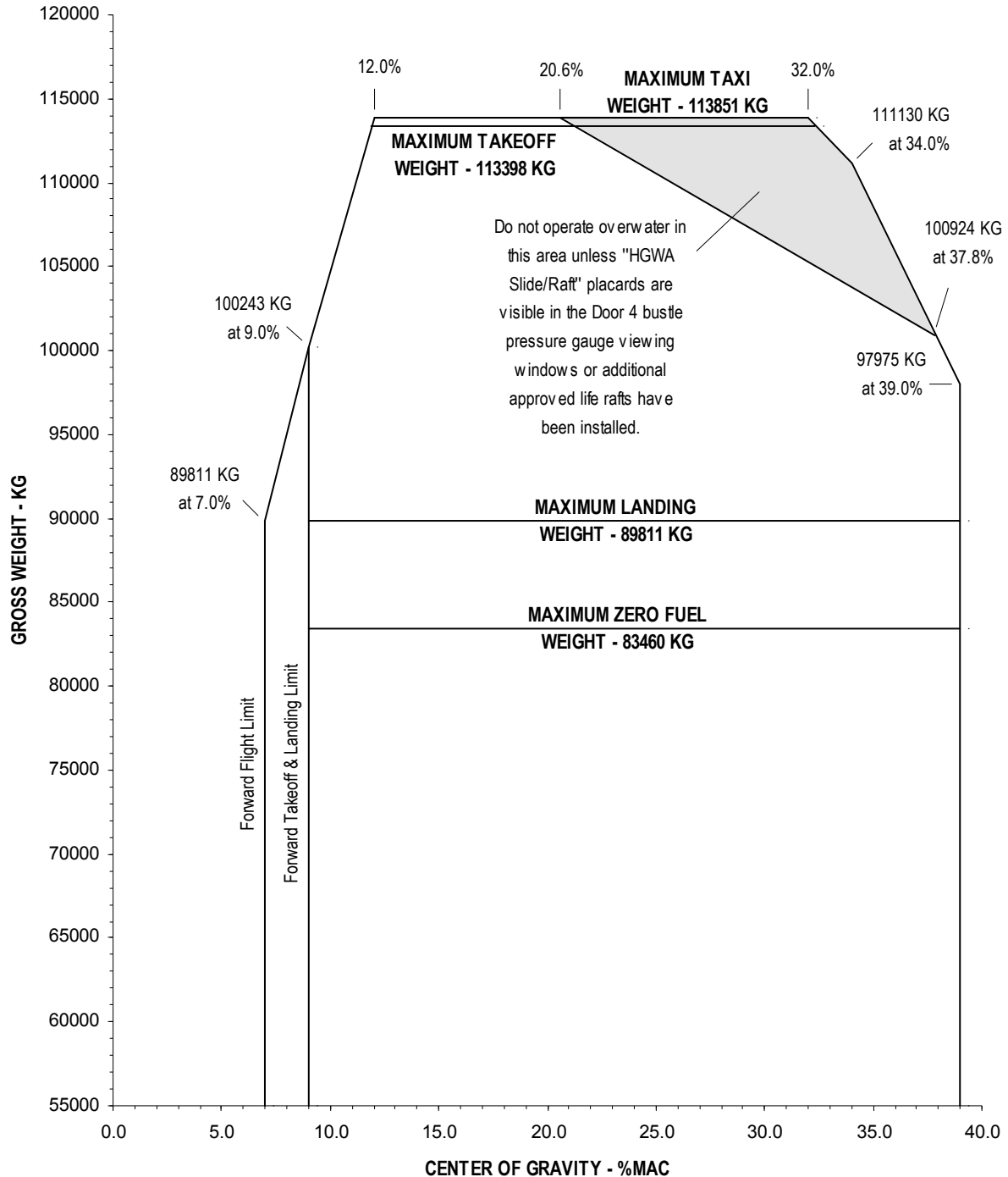
APPLICABLE CONFIGURATIONS

R

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 113851 KG, MLW 89811 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
R	



CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 256000 LB (116119 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	256000	116119
Maximum Takeoff Weight	(MTOW)	255000	115666
Maximum Landing Weight	(MLW)	198000	89811
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

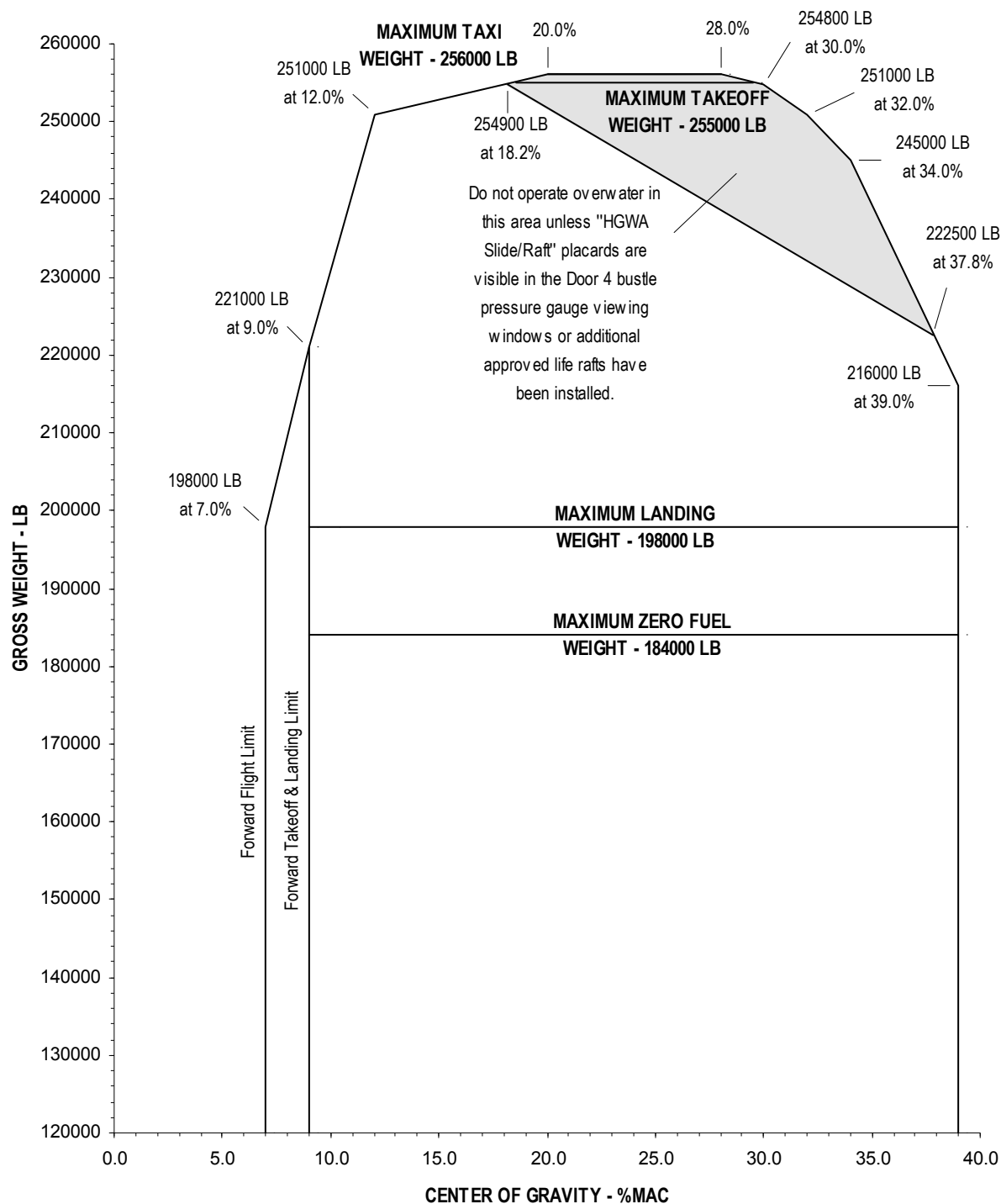
- ❑ Minimum Tire Size Required
 - ❑ Nose Gear - H31X13-12/20 Ply Rating
 - ❑ Main Gear - H40X14.5-19/24 Ply Rating
- ❑ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

APPLICABLE CONFIGURATIONS
C, K, N, AF

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 256000 LB, MLW 198000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



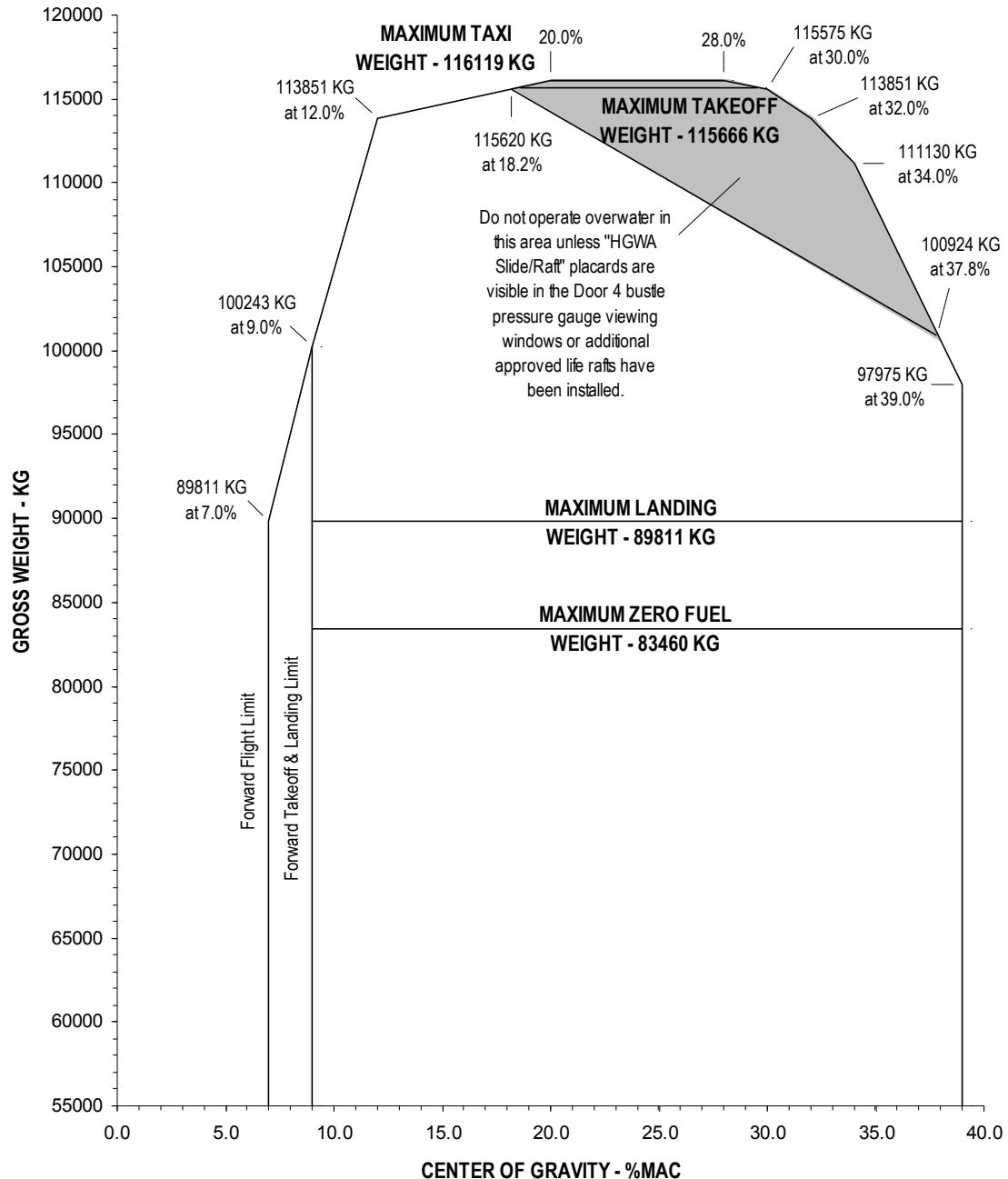
WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS
C, K, N, AF

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 116119 KG, MLW 89811 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
C, K, N, AF	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 256000 LB (116119 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	256000	116119
Maximum Takeoff Weight	(MTOW)	255500	115892
Maximum Landing Weight	(MLW)	198000	89811
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

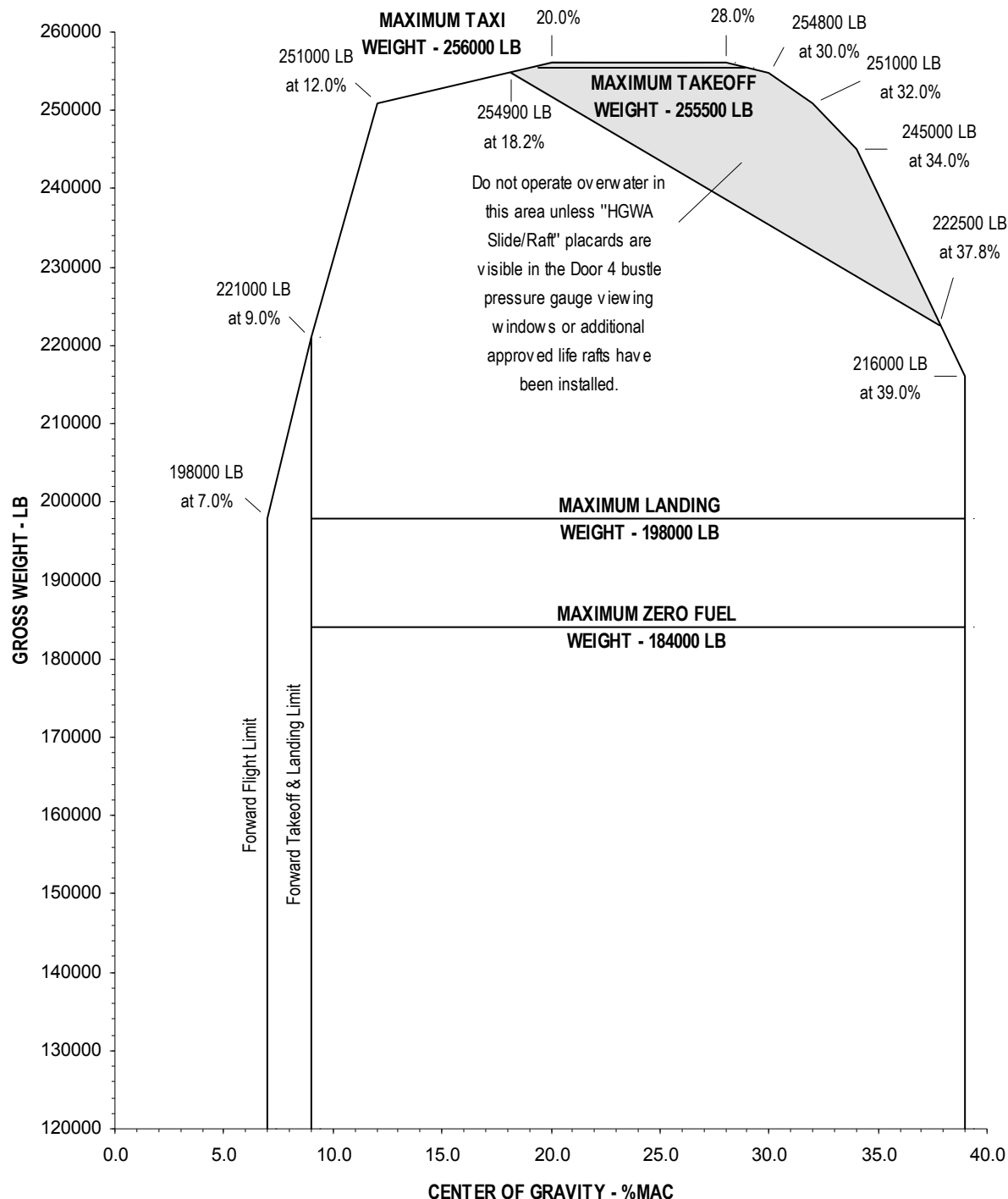
- ❑ Minimum Tire Size Required
 - ❑ Nose Gear - H31X13-12/20 Ply Rating
 - ❑ Main Gear - H40X14.5-19/24 Ply Rating
- ❑ The maximum structural weight at takeoff is 255500 LB (115892 KG) at elevations below 1500 FT and varies linearly from 255500 LB (115892 KG) at 1500 FT to 255000 LB (115666 KG) at 5000 FT.
- ❑ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

APPLICABLE CONFIGURATIONS
P

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 256000 LB, MLW 198000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



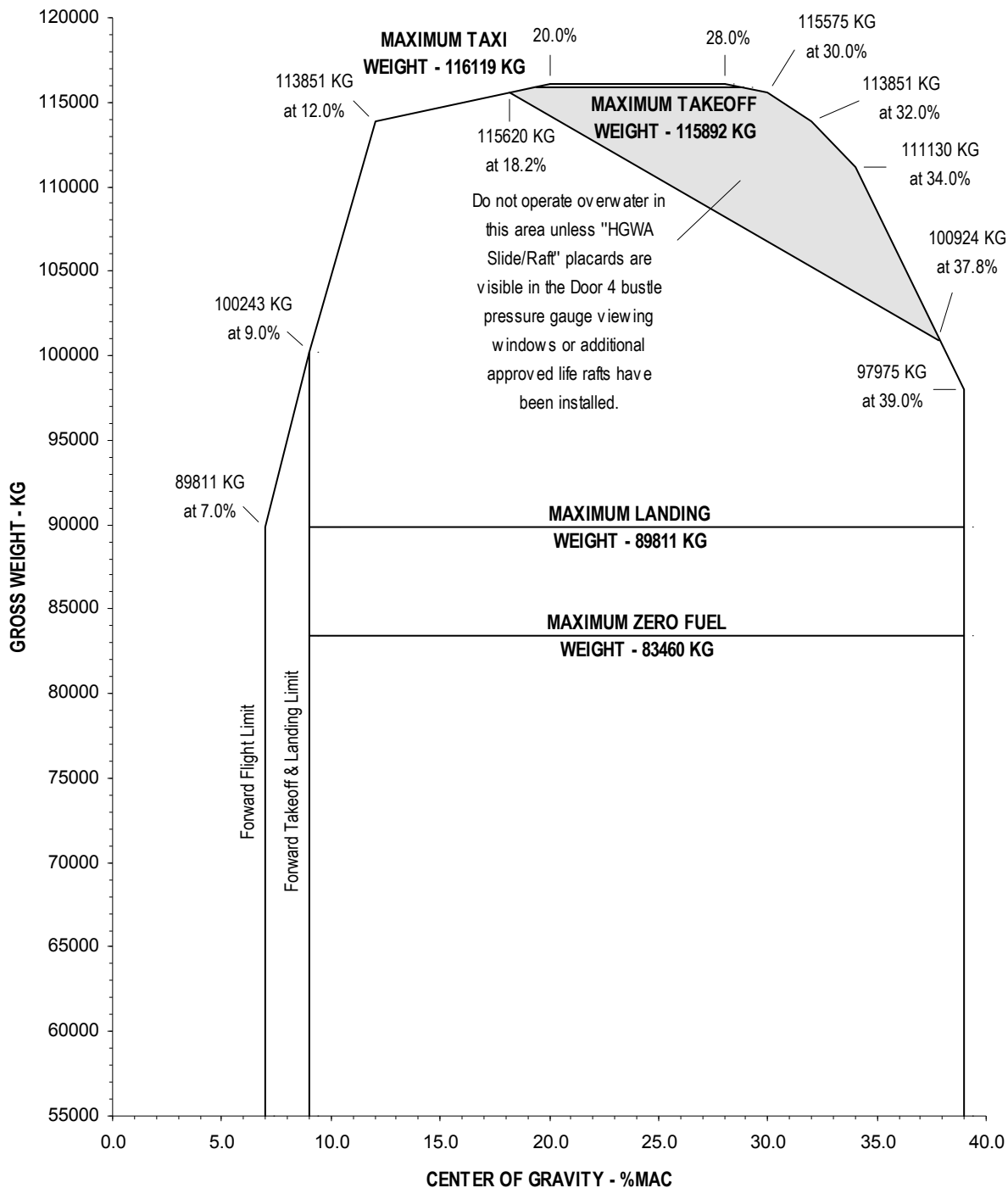
WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
P	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 116119 KG, MLW 89811 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
P	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 236000 LB (107047 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	236000	107047
Maximum Takeoff Weight	(MTOW)	235000	106594
Maximum Landing Weight	(MLW)	188000	85275
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

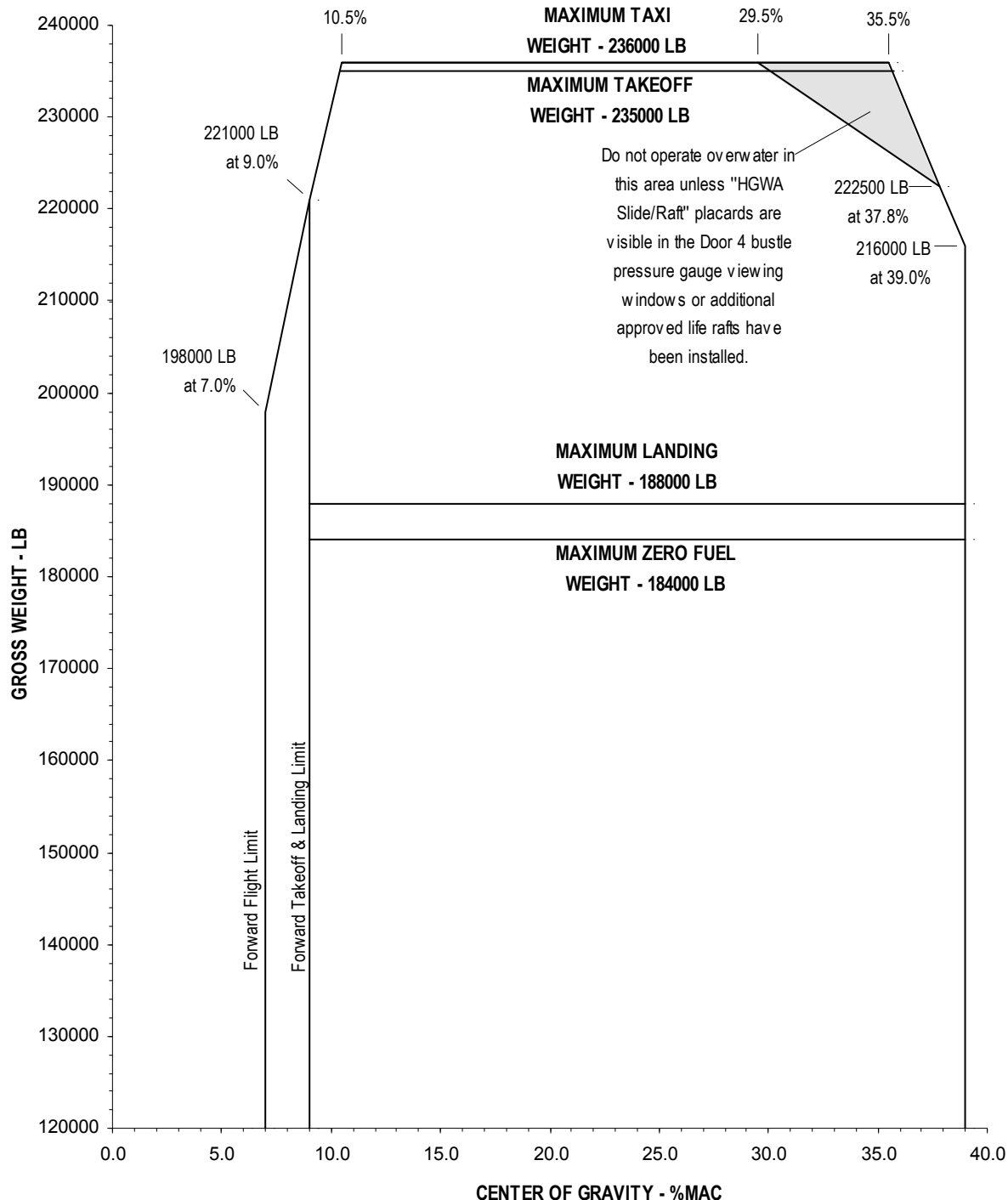
- ☐ Minimum Tire Size Required
 - ☐ Nose Gear - H31X13-12/20 Ply Rating
 - ☐ Main Gear - H40X14.5-19/24 Ply Rating
- ☐ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

APPLICABLE CONFIGURATIONS
D, AB

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 236000 LB, MLW 188000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



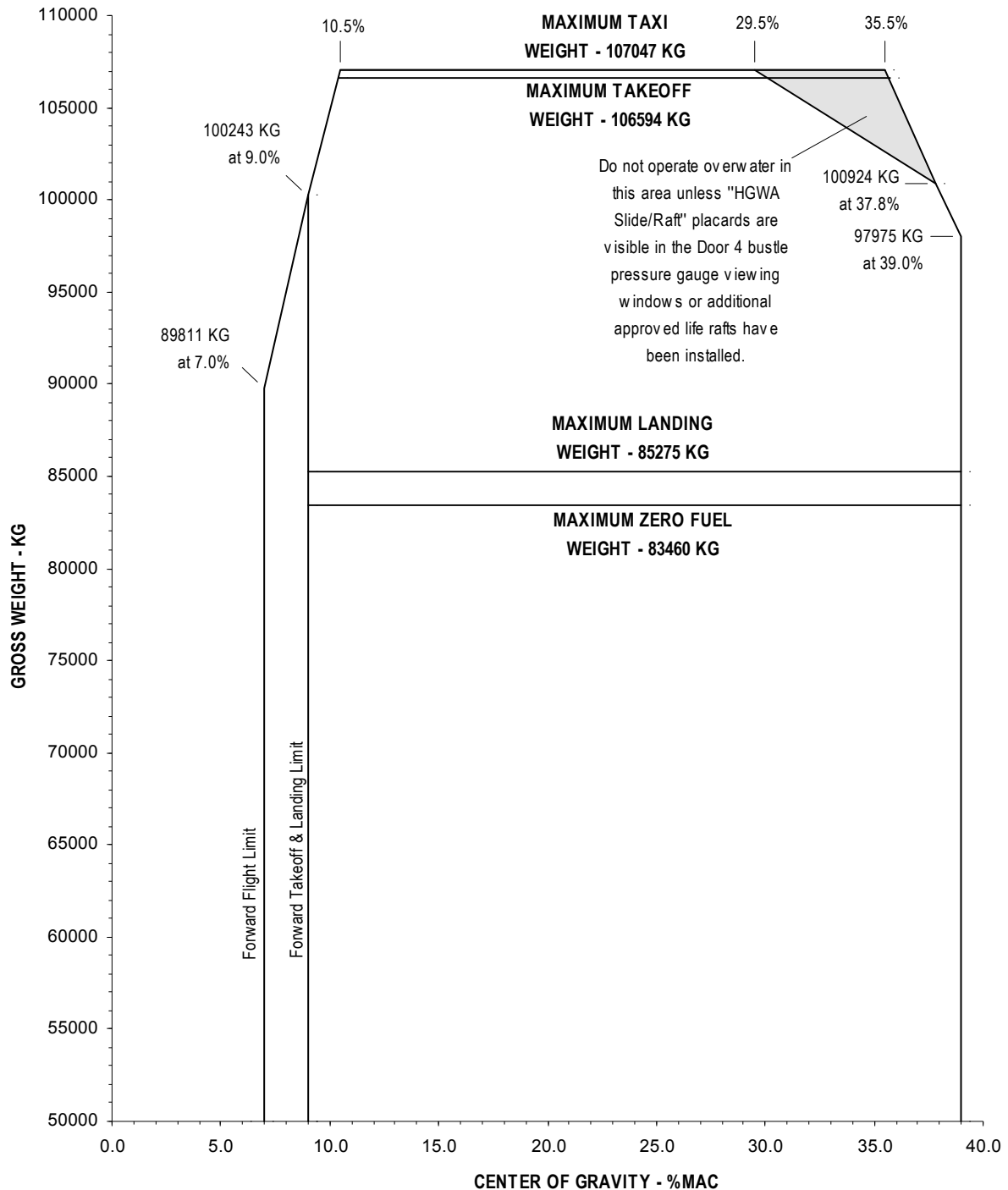
WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
D, AB	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 107047 KG, MLW 85275 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
D, AB	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 221000 LB (100243 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	221000	100243
Maximum Takeoff Weight	(MTOW)	220000	99790
Maximum Landing Weight	(MLW)	188000	85275
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

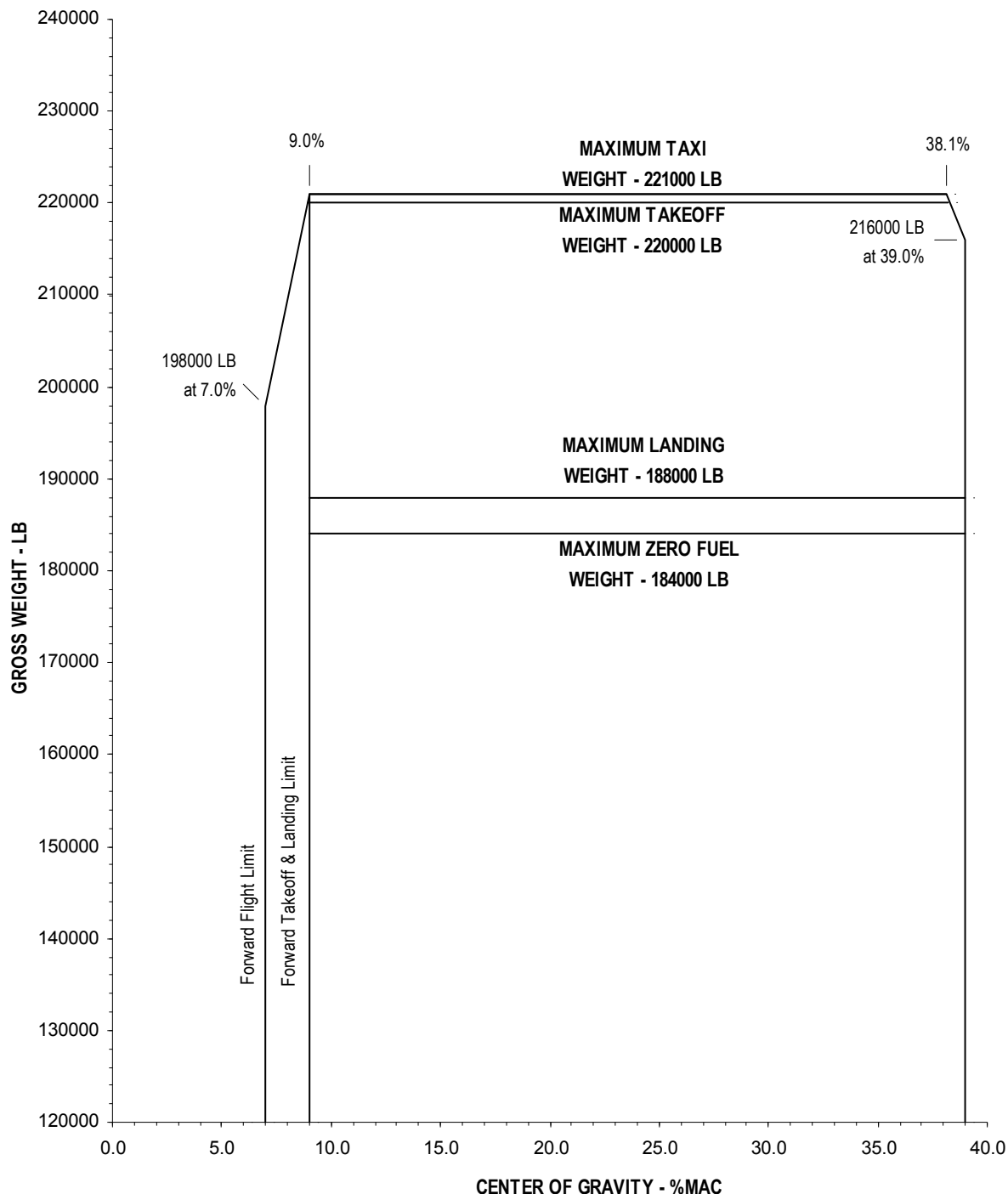
- ❑ Minimum Tire Size Required
 - ❑ Nose Gear - H31X13-12/20 Ply Rating
 - ❑ Main Gear - H40X14.5-19/22 Ply Rating
- ❑ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

APPLICABLE CONFIGURATIONS
E, AC

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 221000 LB, MLW 188000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



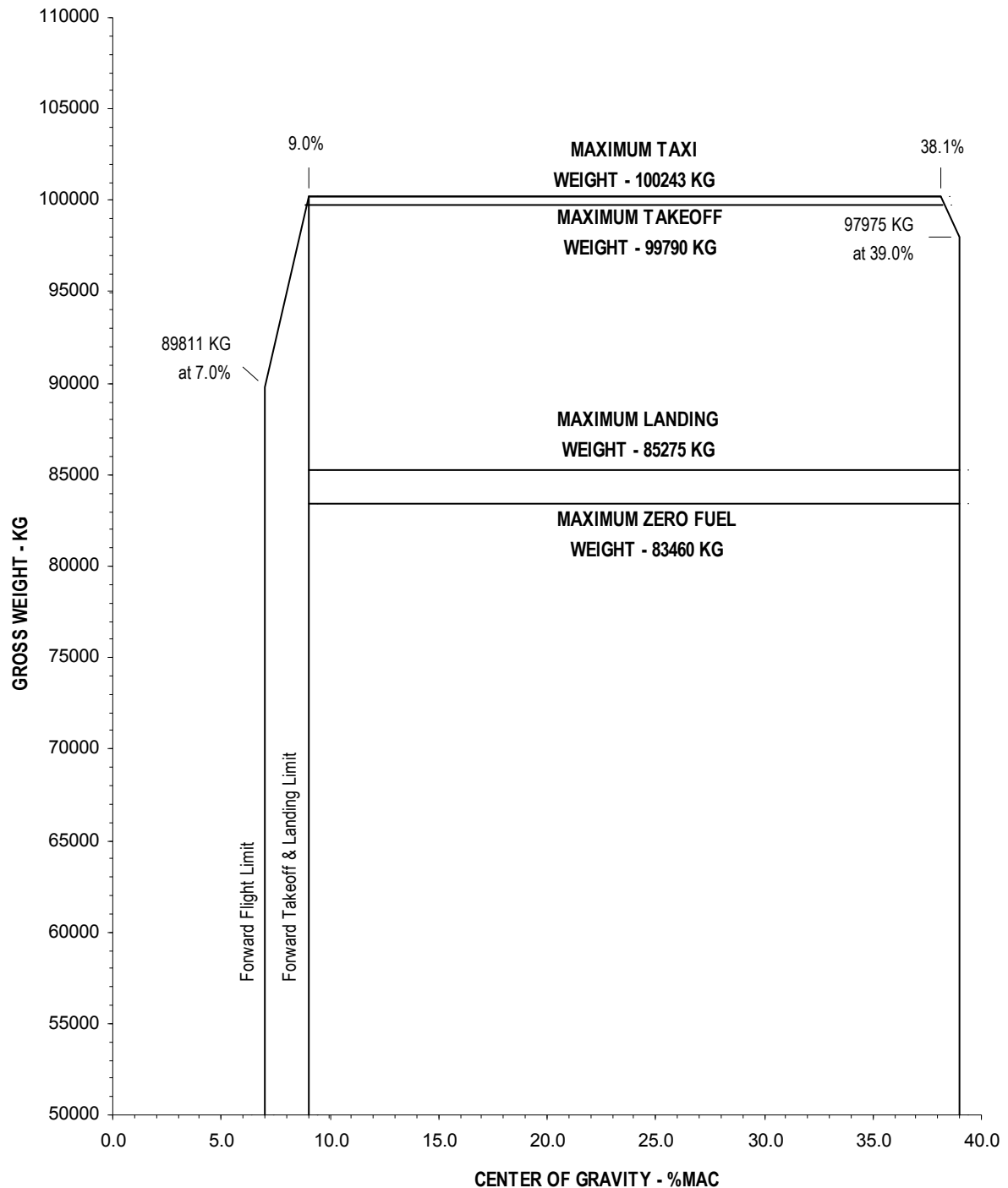
WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
E, AC	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 100243 KG, MLW 85275 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
E, AC	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 256000 LB (116119 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	256000	116119
Maximum Takeoff Weight	(MTOW)	255000	115666
Maximum Landing Weight	(MLW)	188000	85275
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

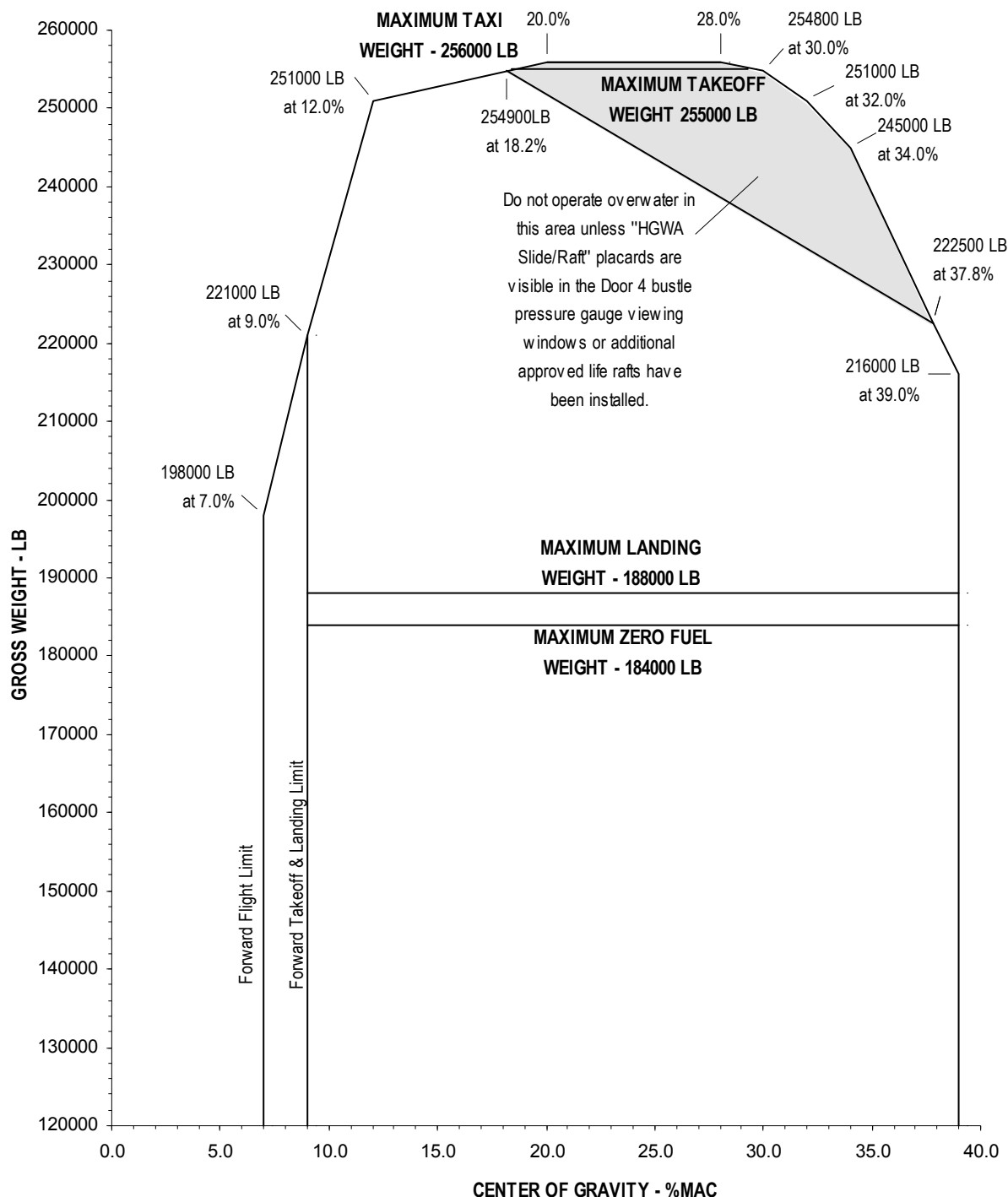
- ❑ Minimum Tire Size Required
 - ❑ Nose Gear - H31X13-12/20 Ply Rating
 - ❑ Main Gear - H40X14.5-19/24 Ply Rating
- ❑ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

APPLICABLE CONFIGURATIONS
F, AD

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 256000 LB, MLW 188000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



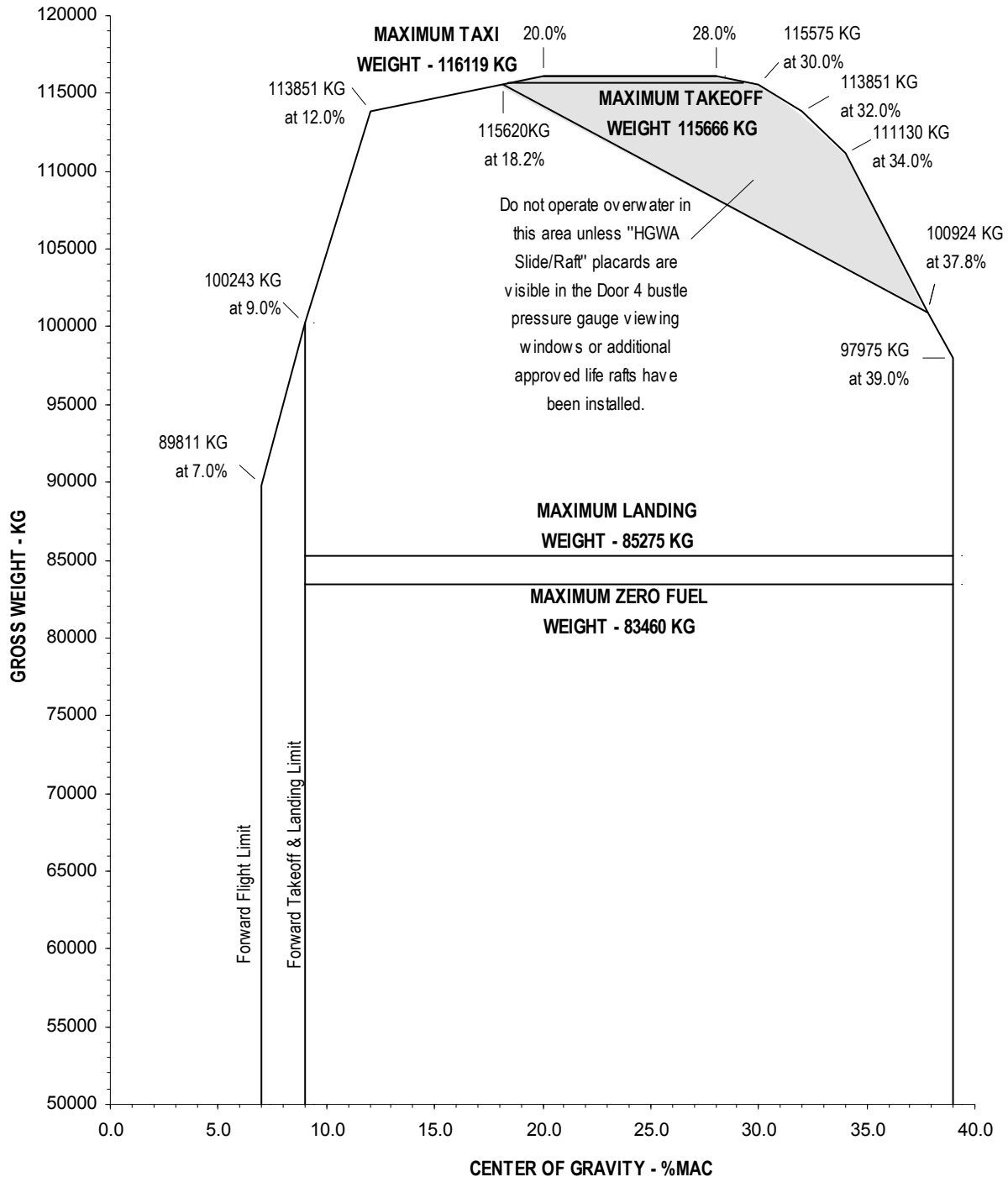
WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
F, AD	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 116119 KG, MLW 85275 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
F, AD	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 251000 LB (113851 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	251000	113851
Maximum Takeoff Weight	(MTOW)	250000	113398
Maximum Landing Weight	(MLW)	188000	85275
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

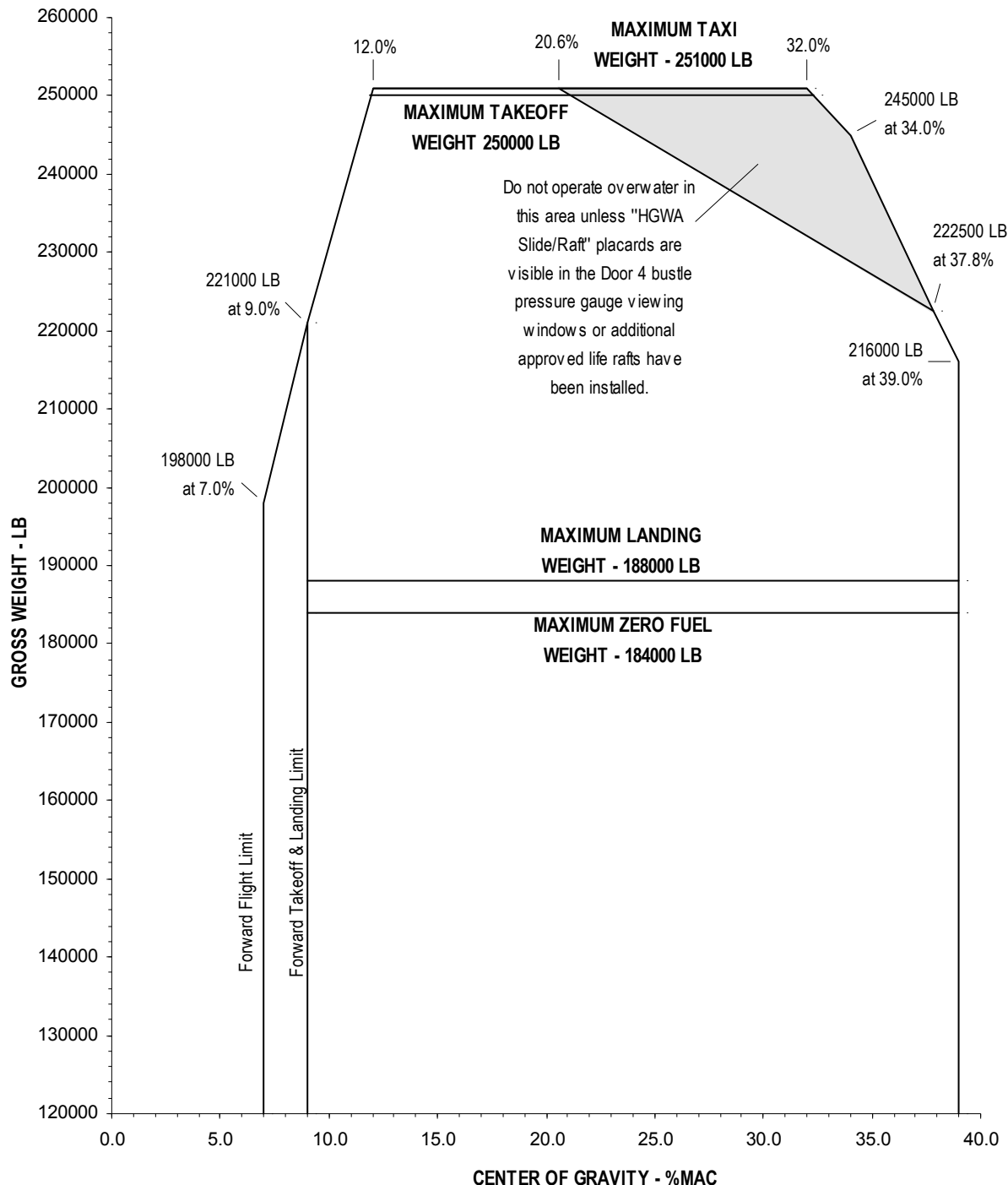
- ❑ Minimum Tire Size Required
 - ❑ Nose Gear - H31X13-12/20 Ply Rating
 - ❑ Main Gear - H40X14.5-19/24 Ply Rating
- ❑ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

APPLICABLE CONFIGURATIONS
S

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 251000 LB, MLW 188000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



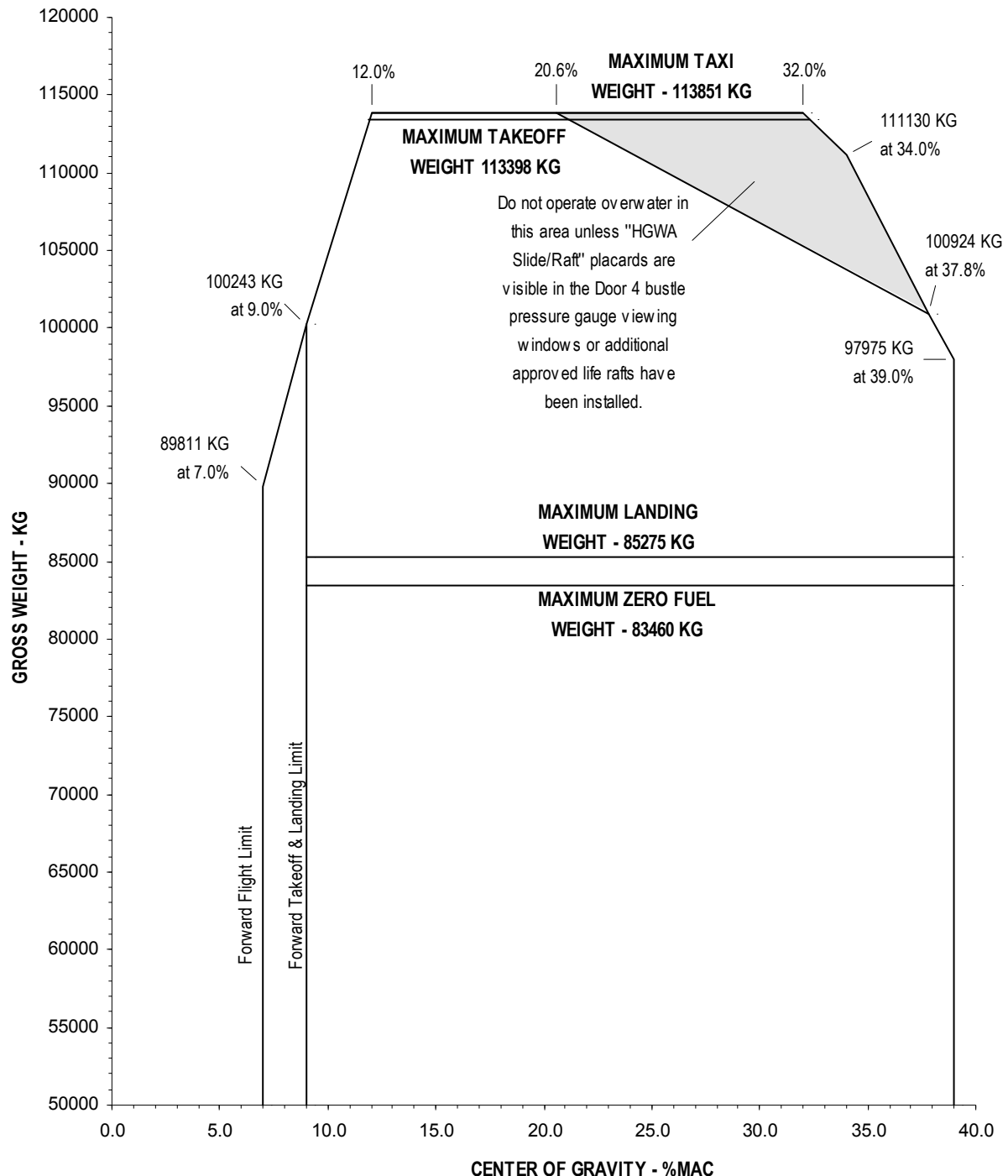
WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
S	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 113851 KG, MLW 85275 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
S	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS

CERTIFIED WEIGHT LIMITS - MTW 246000 LB (111583 KG)

The Maximum Certified Gross Weights and Center of Gravity Limits are shown graphically on pages 2 & 3. These Center of Gravity Limits are for taxi, takeoff, flight and landing unless otherwise specified, and are the absolute limits which must not be exceeded by the airplane center of gravity in any taxi, takeoff, flight, or landing configuration.

CERTIFIED GROSS WEIGHTS			
		LB	KG
Maximum Taxi Weight	(MTW)	246000	111583
Maximum Takeoff Weight	(MTOW)	245000	111130
Maximum Landing Weight	(MLW)	210000	95254
Maximum Zero Fuel Weight	(MZFW)	184000	83460
Minimum Flight Weight	(MFW)	115600	52435

LIMITATIONS

The following limitations must be met in order to use the certified gross weight and center of gravity limits:

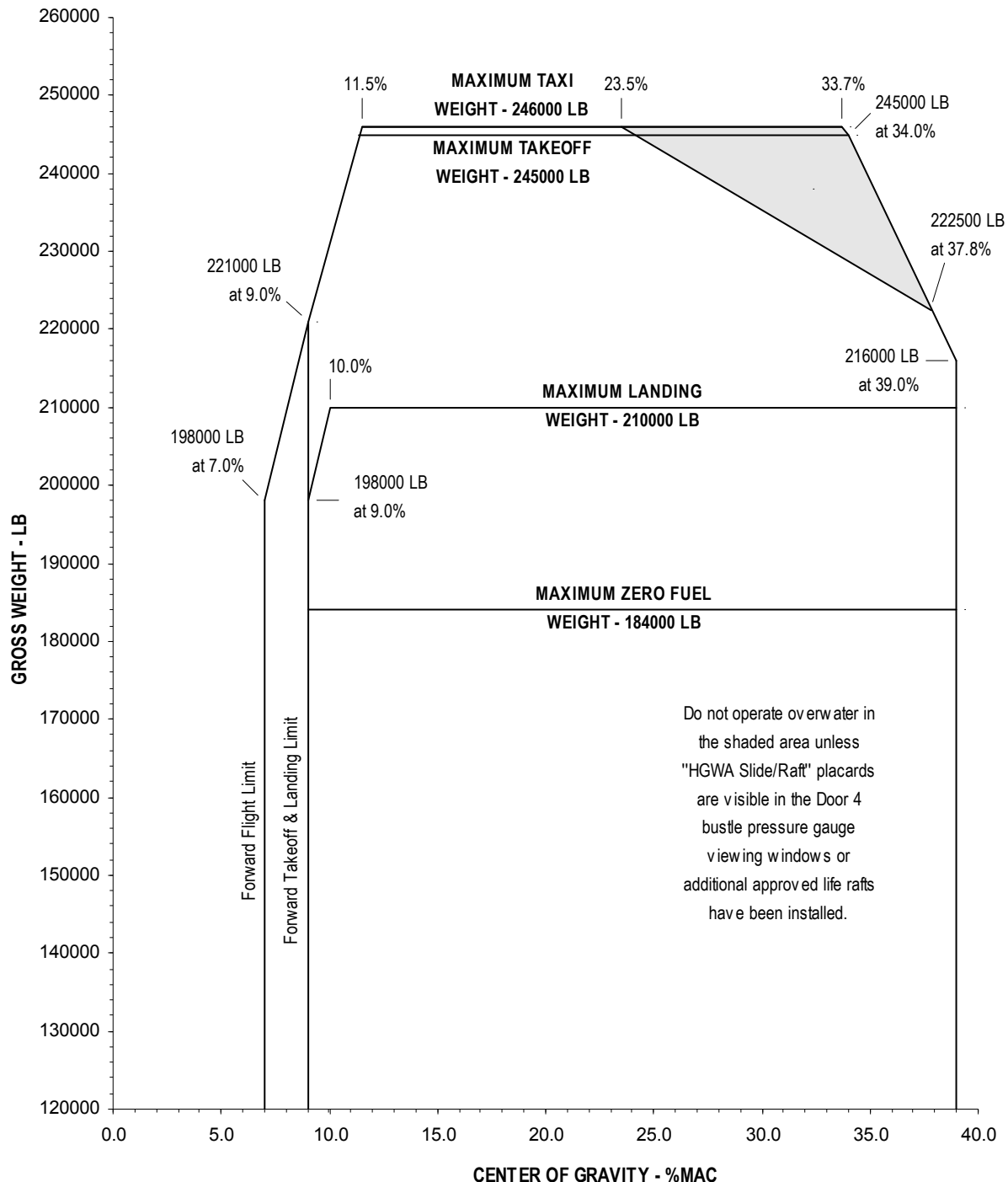
- ❑ Minimum Tire Size Required
 - ❑ Nose Gear - H31X13-12/20 Ply Rating
 - ❑ Main Gear - H40X14.5-19/24 Ply Rating
- ❑ Refer to the Airplane Maintenance Manual Section 12-15-03 for minimum tire pressure requirements.

APPLICABLE CONFIGURATIONS
G

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 246000 LB, MLW 210000 LB, MZFW 184000 LB

The following diagram represents the certified Center of Gravity Limits in English units:



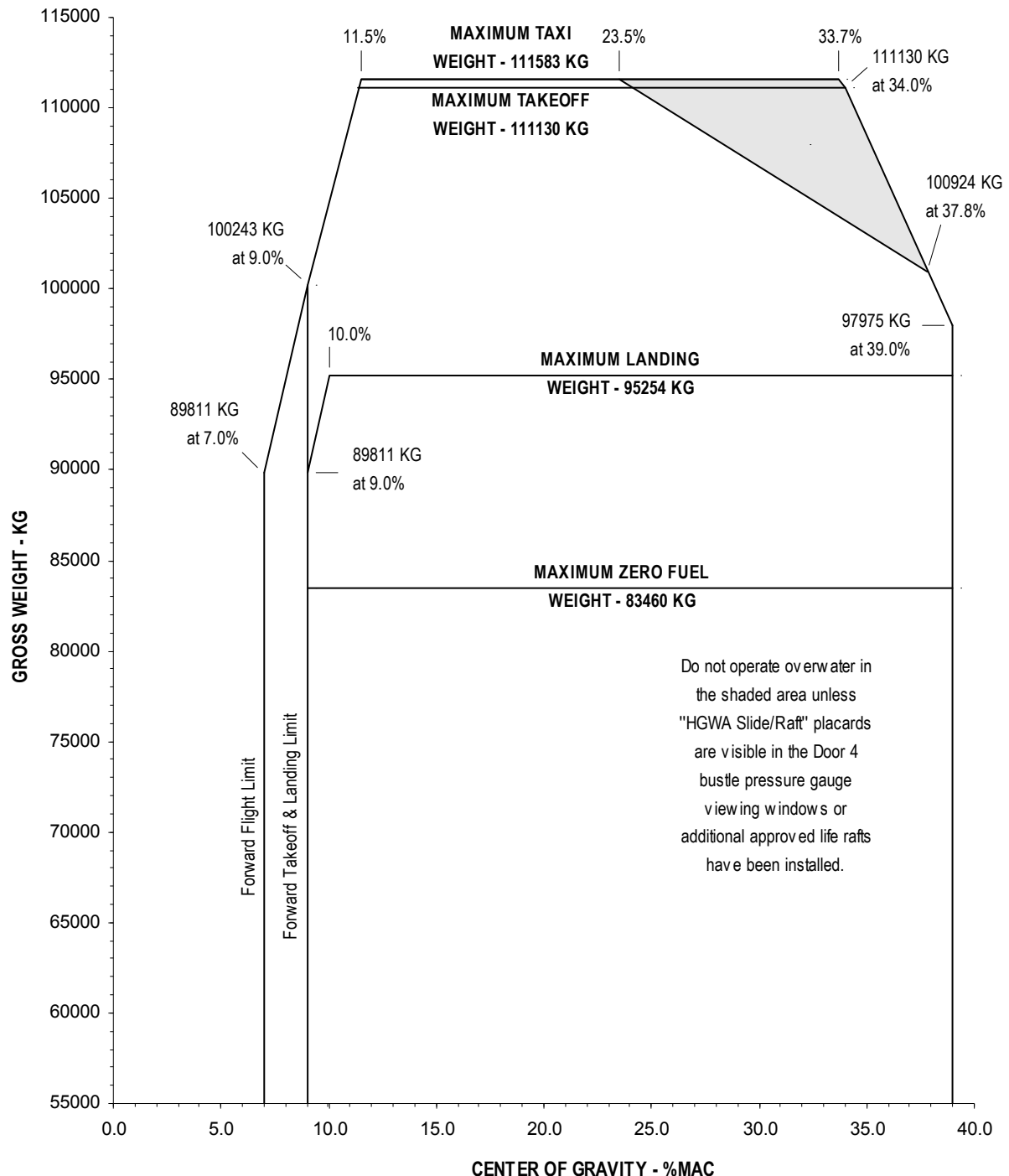
WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
G	

CERTIFIED WEIGHT AND CENTER OF GRAVITY LIMITS (Continued)

C.G. LIMITS - MTW 111583 KG, MLW 95254 KG, MZFW 83460 KG

The following diagram represents the certified Center of Gravity Limits in Metric units:



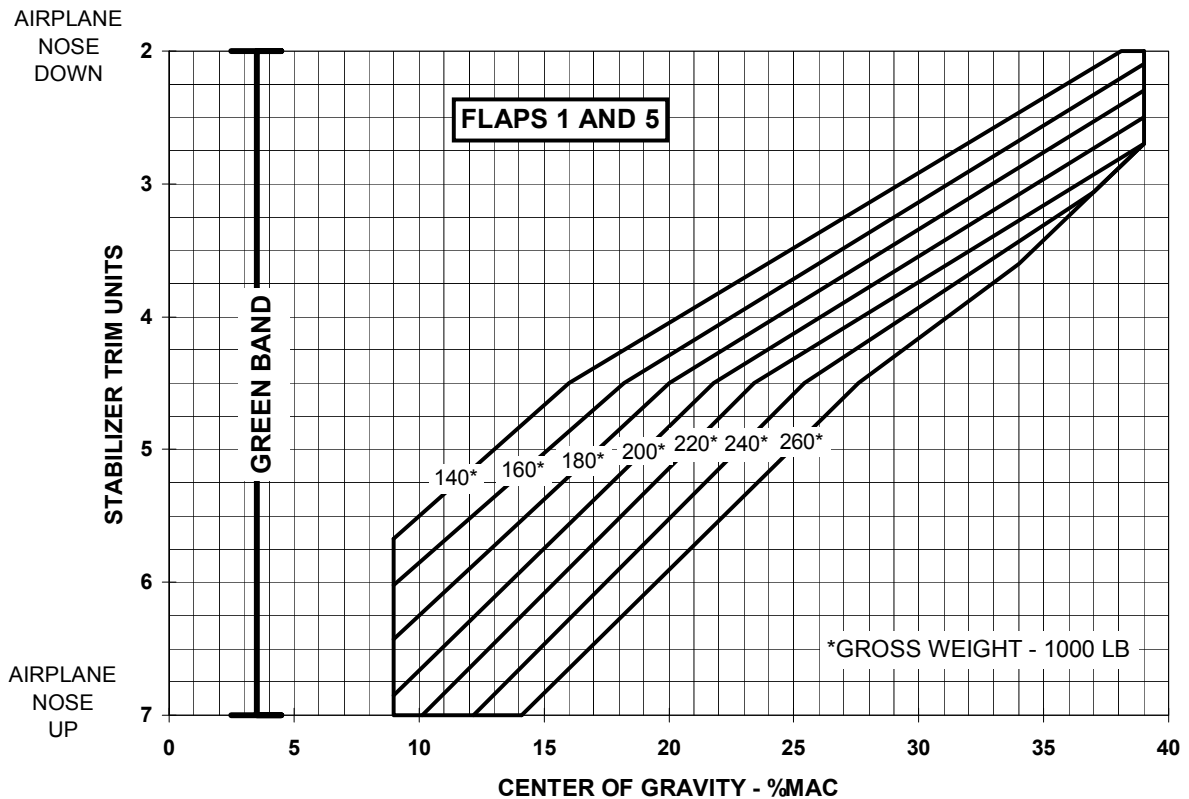
WARNING REFER TO PAGE 1 OF THIS SUBJECT FOR LIMITATIONS TO THE C.G. LIMITS.

APPLICABLE CONFIGURATIONS	
G	

TAKEOFF HORIZONTAL STABILIZER TRIM SETTING

PW2040 ENGINES - ENGLISH UNITS FLAPS 1 & 5

The following diagram provides Takeoff Trim Settings versus Airplane Center of Gravity for Flaps 1 and 5 in Pounds.



The following table provides inflection point data for the Takeoff Trim Settings versus Airplane Center of Gravity diagram.

TAKEOFF TRIM SETTING INFLECTION POINTS (Gross Weight - 1000 LB)													
140		160		180		200		220		240		260	
C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM
9.0	5.67	9.0	6.02	9.0	6.43	9.0	6.85	10.1	7.00	12.2	7.0	14.1	7.00
16.0	4.50	18.2	4.50	20.0	4.50	21.8	4.50	23.4	4.50	25.4	4.50	27.6	4.50
38.1	2.00	39.0	2.10	39.0	2.30	39.0	2.50	39.0	2.70	37.0	3.06	34.0	3.60
39.0	2.00									39.0	2.70	39.0	2.70

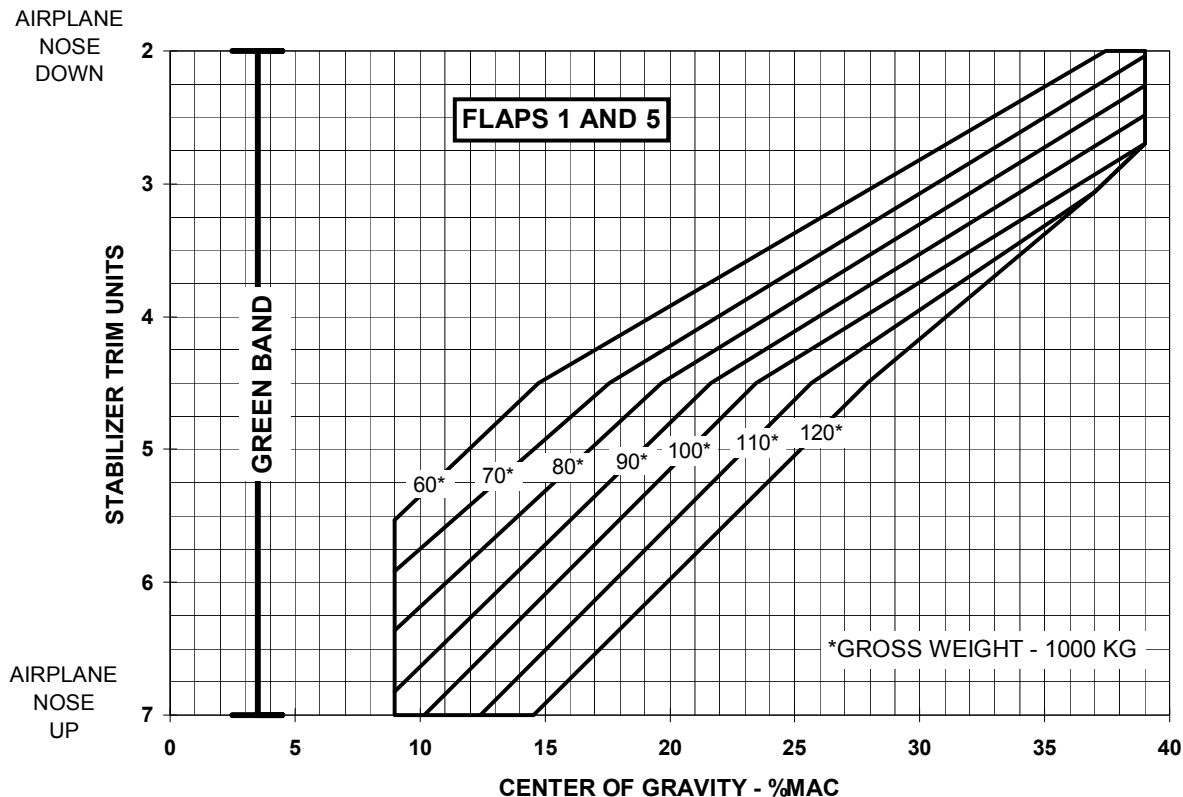
A tolerance of plus or minus 0.60 trim units is acceptable when determining takeoff trim as a function of airplane takeoff weight and center of gravity. This is approximately equivalent to plus or minus 5% MAC. This allowable tolerance between "actual" and "calculated" takeoff center of gravity must be adhered to in the development of simplified loading devices or manifests.

APPLICABLE CONFIGURATIONS
H, J, K

TAKEOFF HORIZONTAL STABILIZER TRIM SETTING (Continued)

PW2040 ENGINES - METRIC UNITS FLAPS 1 & 5

The following diagram provides Takeoff Trim Settings versus Airplane Center of Gravity for Flaps 1 and 5 in Kilograms.



The following table provides inflection point data for the Takeoff Trim Settings versus Airplane Center of Gravity diagram.

TAKEOFF TRIM SETTING INFLECTION POINTS (Gross Weight - 1000 KG)													
60		70		80		90		100		110		120	
C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM
9.0	5.53	9.0	5.92	9.0	6.36	9.0	6.82	10.2	7.00	12.4	7.00	14.6	7.00
14.7	4.50	17.6	4.50	19.7	4.50	21.6	4.50	23.5	4.50	25.7	4.50	27.9	4.50
37.4	2.00	39.0	2.04	39.0	2.26	39.0	2.48	39.0	2.70	37.0	3.06	37.0	3.06
39.0	2.00									39.0	2.70	39.0	2.70

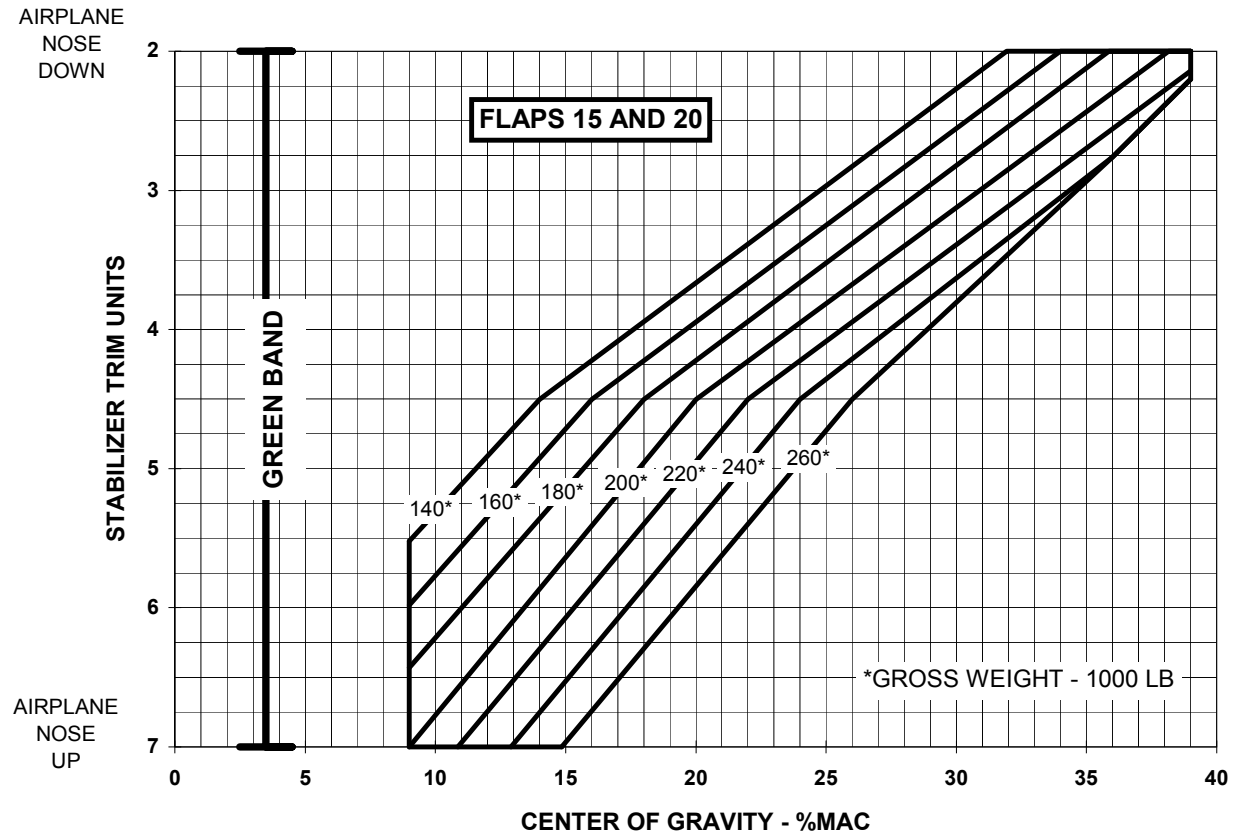
A tolerance of plus or minus 0.60 trim units is acceptable when determining takeoff trim as a function of airplane takeoff weight and center of gravity. This is approximately equivalent to plus or minus 5% MAC. This allowable tolerance between "actual" and "calculated" takeoff center of gravity must be adhered to in the development of simplified loading devices or manifests.

APPLICABLE CONFIGURATIONS
H, J, K

TAKEOFF HORIZONTAL STABILIZER TRIM SETTING (Continued)

PW2040 ENGINES - ENGLISH UNITS FLAPS 15 & 20

The following diagram provides Takeoff Trim Settings versus Airplane Center of Gravity for Flaps 15 and 20 in Pounds.



The following table provides inflection point data for the Takeoff Trim Settings versus Airplane Center of Gravity diagram.

TAKEOFF TRIM SETTING INFLECTION POINTS (Gross Weight - 1000 LB)													
140		160		180		200		220		240		260	
C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM
9.0	5.52	9.0	5.98	9.0	6.43	9.0	7.00	10.9	7.00	12.9	7.00	14.9	7.00
14.0	4.50	16.0	4.50	18.0	4.50	20.0	4.50	22.0	4.50	24.0	4.50	26.0	4.50
31.9	2.00	34.0	2.00	35.9	2.00	38.1	2.00	39.0	2.14	36.0	2.76	36.0	2.76
39.0	2.00	39.0	2.00	39.0	2.00	39.0	2.00			39.0	2.20	39.0	2.20

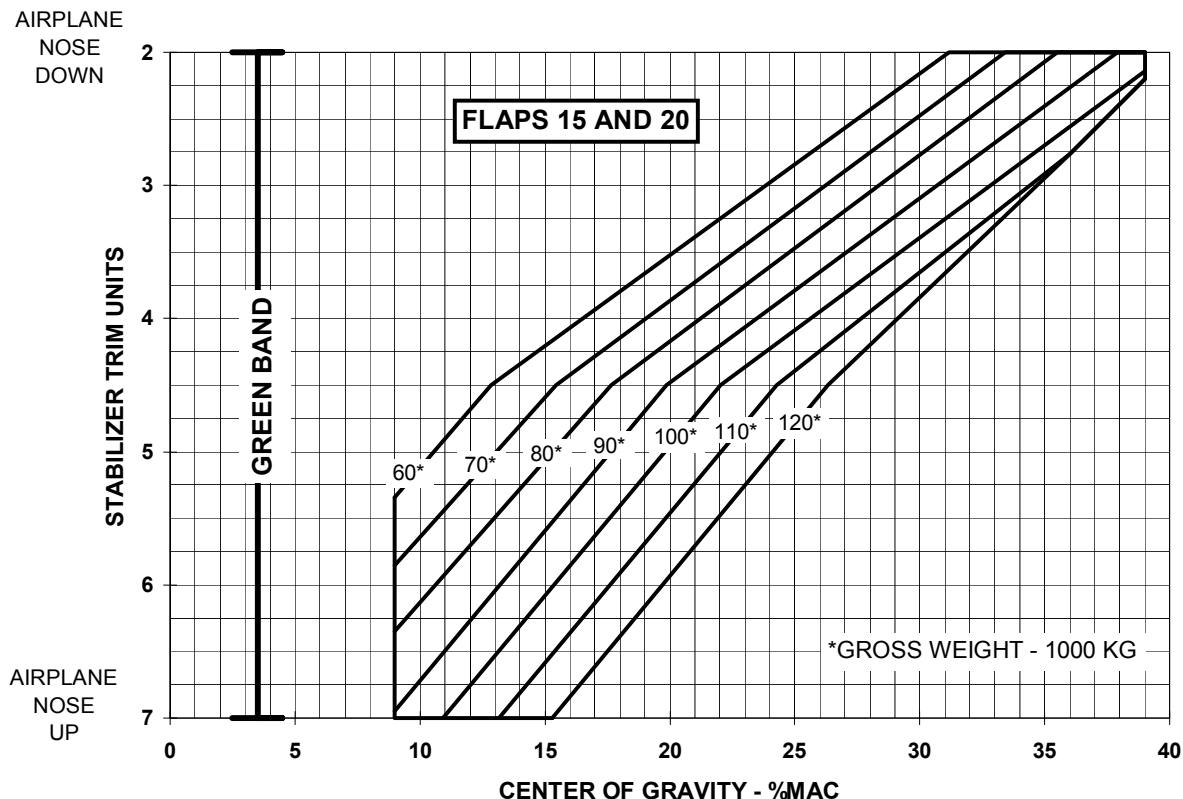
A tolerance of plus or minus 0.60 trim units is acceptable when determining takeoff trim as a function of airplane takeoff weight and center of gravity. This is approximately equivalent to plus or minus 5% MAC. This allowable tolerance between "actual" and "calculated" takeoff center of gravity must be adhered to in the development of simplified loading devices or manifests.

APPLICABLE CONFIGURATIONS
H, J, K

TAKEOFF HORIZONTAL STABILIZER TRIM SETTING (Continued)

PW2040 ENGINES - METRIC UNITS FLAPS 15 & 20

The following diagram provides Takeoff Trim Settings versus Airplane Center of Gravity for Flaps 15 and 20 in Kilograms.



The following table provides inflection point data for the Takeoff Trim Settings versus Airplane Center of Gravity diagram.

TAKEOFF TRIM SETTING INFLECTION POINTS (Gross Weight - 1000 KG)													
60		70		80		90		100		110		120	
C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM
9.0	5.34	9.0	5.85	9.0	6.35	9.0	6.95	10.9	7.00	13.2	7.00	15.3	7.00
12.8	4.50	15.4	4.50	17.6	4.50	19.9	4.50	22.0	4.50	24.3	4.50	26.3	4.50
31.2	2.00	33.4	2.00	35.5	2.00	37.9	2.00	39.0	2.14	36.0	2.76	36.0	2.76
39.0	2.00	39.0	2.00	39.0	2.00	39.0	2.00			39.0	2.20	39.0	2.20

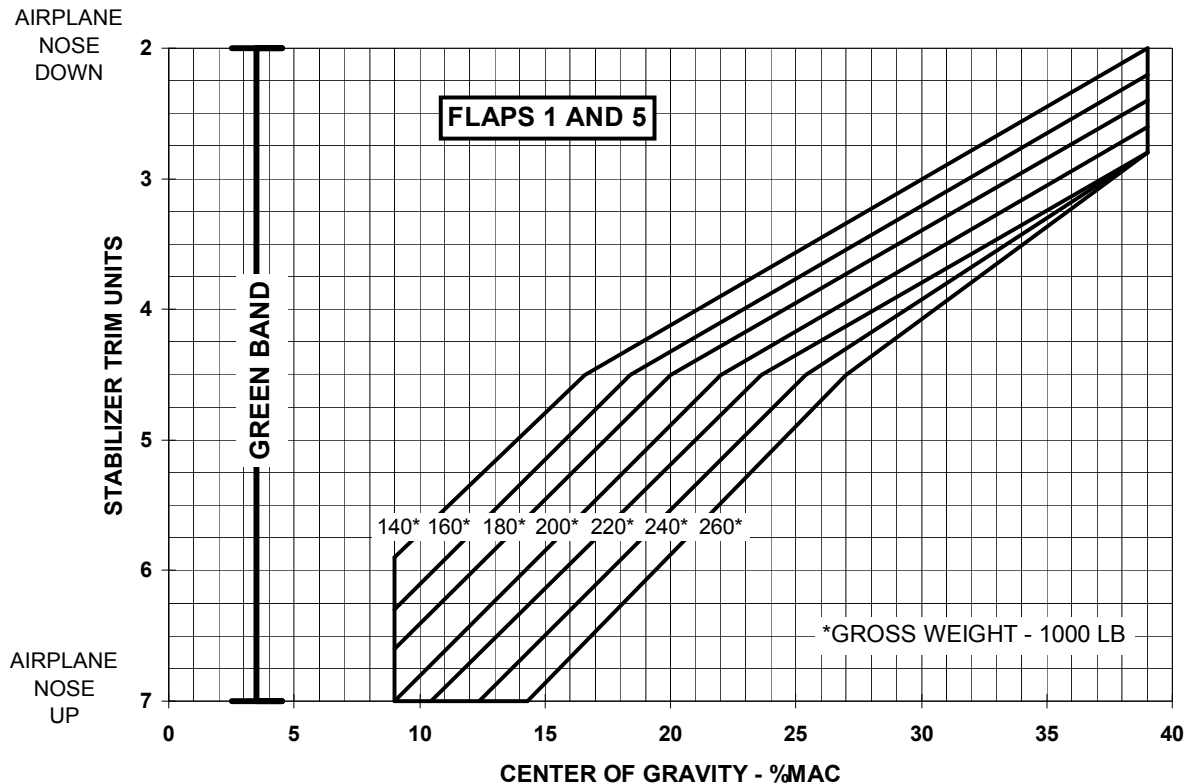
A tolerance of plus or minus 0.60 trim units is acceptable when determining takeoff trim as a function of airplane takeoff weight and center of gravity. This is approximately equivalent to plus or minus 5% MAC. This allowable tolerance between "actual" and "calculated" takeoff center of gravity must be adhered to in the development of simplified loading devices or manifests.

APPLICABLE CONFIGURATIONS
H, J, K

TAKEOFF HORIZONTAL STABILIZER TRIM SETTING

PW2037 ENGINES - ENGLISH UNITS FLAPS 1 & 5

The following diagram provides Takeoff Trim Settings versus Airplane Center of Gravity for Flaps 1 and 5 in Pounds.



The following table provides inflection point data for the Takeoff Trim Settings versus Airplane Center of Gravity diagram.

TAKEOFF TRIM SETTING INFLECTION POINTS (Gross Weight - 1000 LB)													
140		160		180		200		220		240		260	
C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM
9.0	5.90	9.0	6.30	9.0	6.60	9.0	7.00	10.5	7.00	12.4	7.00	14.3	7.00
16.6	4.50	18.4	4.50	20.0	4.50	22.0	4.50	23.6	4.50	25.4	4.50	27.0	4.50
39.0	2.00	39.0	2.20	39.0	2.40	39.0	2.60	39.0	2.80	39.0	2.80	39.0	2.80

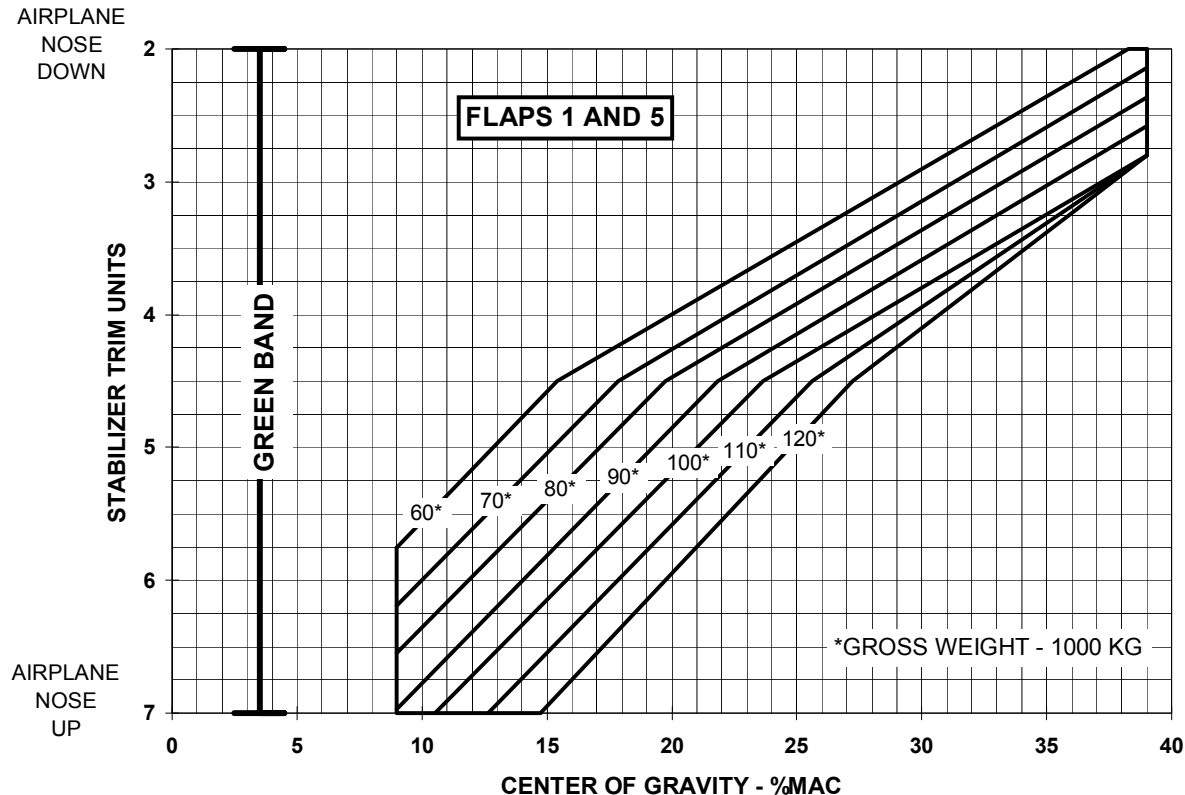
A tolerance of plus or minus 0.60 trim units is acceptable when determining takeoff trim as a function of airplane takeoff weight and center of gravity. This is approximately equivalent to plus or minus 5% MAC. This allowable tolerance between "actual" and "calculated" takeoff center of gravity must be adhered to in the development of simplified loading devices or manifests.

APPLICABLE CONFIGURATIONS
A, B, C, D, E, F, G, L, M, N, P, R, S, AA, AB, AC, AD, AE, AF

TAKEOFF HORIZONTAL STABILIZER TRIM SETTING (Continued)

PW2037 ENGINES - METRIC UNITS FLAPS 1 & 5

The following diagram provides Takeoff Trim Settings versus Airplane Center of Gravity for Flaps 1 and 5 in Kilograms.



The following table provides inflection point data for the Takeoff Trim Settings versus Airplane Center of Gravity diagram.

TAKEOFF TRIM SETTING INFLECTION POINTS (Gross Weight - 1000 KG)													
60		70		80		90		100		110		120	
C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM
9.0	5.75	9.0	6.19	9.0	6.55	9.0	6.97	10.5	7.00	12.6	7.00	14.7	7.00
15.4	4.50	17.9	4.50	19.7	4.50	21.8	4.50	23.7	4.50	25.6	4.50	27.3	4.50
38.3	2.00	39.0	2.14	39.0	2.36	39.0	2.58	39.0	2.80	39.0	2.80	39.0	2.80
39.0	2.00												

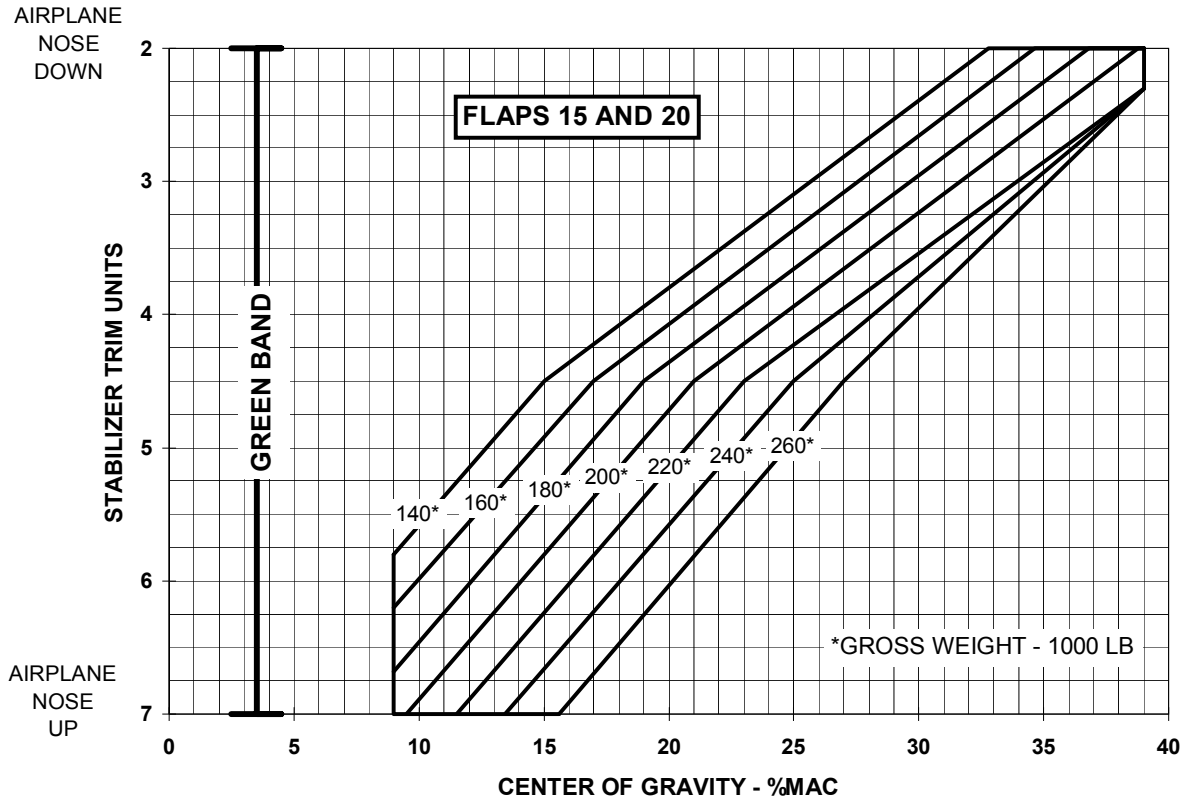
A tolerance of plus or minus 0.60 trim units is acceptable when determining takeoff trim as a function of airplane takeoff weight and center of gravity. This is approximately equivalent to plus or minus 5% MAC. This allowable tolerance between "actual" and "calculated" takeoff center of gravity must be adhered to in the development of simplified loading devices or manifests.

APPLICABLE CONFIGURATIONS
A, B, C, D, E, F, G, L, M, N, P, R, S, AA, AB, AC, AD, AE, AF

TAKEOFF HORIZONTAL STABILIZER TRIM SETTING (Continued)

PW2037 ENGINES - ENGLISH UNITS FLAPS 15 & 20

The following diagram provides Takeoff Trim Settings versus Airplane Center of Gravity for Flaps 15 and 20 in Pounds.



The following table provides inflection point data for the Takeoff Trim Settings versus Airplane Center of Gravity diagram.

TAKEOFF TRIM SETTING INFLECTION POINTS (Gross Weight - 1000 LB)													
140		160		180		200		220		240		260	
C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM
9.0	5.80	9.0	6.20	9.0	6.68	9.5	7.00	11.5	7.00	13.5	7.00	15.6	7.00
15.0	4.50	17.0	4.50	19.0	4.50	21.0	4.50	23.0	4.50	25.0	4.50	27.0	4.50
32.8	2.00	34.6	2.00	36.8	2.00	38.8	2.00	39.0	2.30	39.0	2.30	39.0	2.30
39.0	2.00	39.0	2.00	39.0	2.00	39.0	2.00						

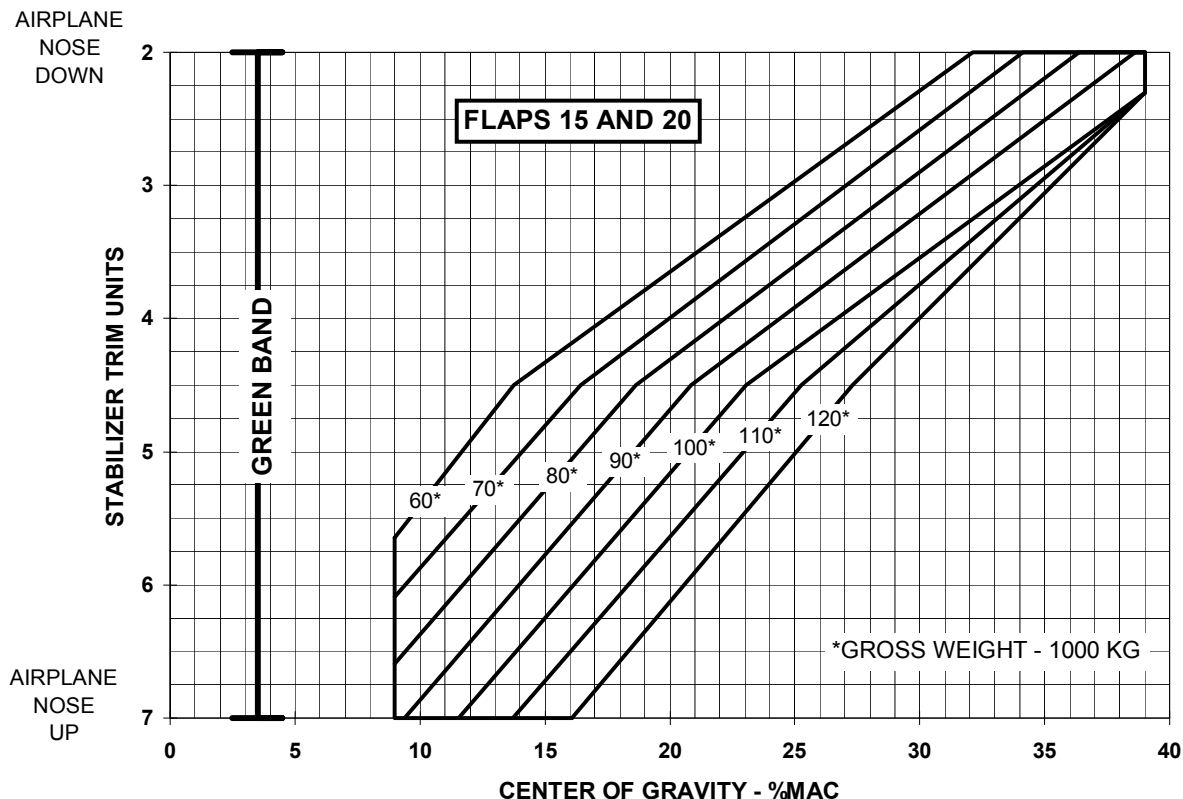
A tolerance of plus or minus 0.60 trim units is acceptable when determining takeoff trim as a function of airplane takeoff weight and center of gravity. This is approximately equivalent to plus or minus 5% MAC. This allowable tolerance between "actual" and "calculated" takeoff center of gravity must be adhered to in the development of simplified loading devices or manifests.

APPLICABLE CONFIGURATIONS
A, B, C, D, E, F, G, L, M, N, P, R, S, AA, AB, AC, AD, AE, AF

TAKEOFF HORIZONTAL STABILIZER TRIM SETTING (Continued)

PW2037 ENGINES - METRIC UNITS FLAPS 15 & 20

The following diagram provides Takeoff Trim Settings versus Airplane Center of Gravity for Flaps 15 and 20 in Kilograms.



The following table provides inflection point data for the Takeoff Trim Settings versus Airplane Center of Gravity diagram.

TAKEOFF TRIM SETTING INFLECTION POINTS (Gross Weight - 1000 KG)													
60		70		80		90		100		110		120	
C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM	C.G.	STAB. TRIM
9.0	5.65	9.0	6.09	9.0	6.59	9.4	7.00	11.6	7.00	13.7	7.00	16.1	7.00
13.8	4.50	16.4	4.50	18.7	4.50	20.9	4.50	23.1	4.50	25.3	4.50	27.3	4.50
32.1	2.00	34.1	2.00	36.4	2.00	38.6	2.00	39.0	2.30	39.0	2.30	39.0	2.30
39.0	2.00	39.0	2.00	39.0	2.00	39.0	2.00						

A tolerance of plus or minus 0.60 trim units is acceptable when determining takeoff trim as a function of airplane takeoff weight and center of gravity. This is approximately equivalent to plus or minus 5% MAC. This allowable tolerance between "actual" and "calculated" takeoff center of gravity must be adhered to in the development of simplified loading devices or manifests.

LANDING GEAR AND FLAP MOVEMENT BALANCE EFFECT

LANDING GEAR RETRACTION MOMENT

The following table provides airplane moment changes caused by retraction of the landing gear (steel brakes) from the taxi position (extended, gear down) to the flight position (retracted, gear up).

GEAR	MOMENT	
	LB-IN.	KG-IN.
Nose (Down to Up)	- 60400	- 27400
Main (Down to Up)	+ 52600	+ 23900
Total Moment Change	- 7800	- 3500

FLAPS RETRACTION MOMENT

The following table provides airplane moment changes caused by retraction of the leading edge (L.E.) and the trailing edge (T.E.) flaps.

FLAP POSITION		MOMENT LB-IN.			MOMENT KG-IN.		
FROM	TO	L.E. FLAPS	T.E. FLAPS	TOTAL	L.E. FLAPS	T.E. FLAPS	TOTAL
30	25	0	- 9200	- 9200	0	- 4100	- 4100
30	20	+ 800	- 13300	- 12500	+ 400	- 6000	- 5600
30	15	+ 800	- 18300	- 17500	+ 400	- 8300	- 7900
30	5	+ 800	- 32300	- 31500	+ 400	- 14600	- 14200
30	1	+ 800	- 53900	- 53100	+ 400	- 24400	- 24000
30	0	+ 8100	- 53900	- 45800	+ 3700	- 24400	- 20700

NOTE A forward movement of airplane center of gravity is a negative moment. An aft movement of airplane center of gravity is a positive moment.

APPLICABLE CONFIGURATIONS
A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S

LANDING GEAR AND FLAP MOVEMENT BALANCE EFFECT

LANDING GEAR RETRACTION MOMENT

The following table provides airplane moment changes caused by retraction of the landing gear (carbon brakes) from the taxi position (extended, gear down) to the flight position (retracted, gear up).

GEAR	MOMENT	
	LB-IN.	KG-IN.
Nose (Down to Up)	- 60400	- 27400
Main (Down to Up)	+ 45300	+ 20500
Total Moment Change	- 15100	- 6900

FLAPS RETRACTION MOMENT

The following table provides airplane moment changes caused by retraction of the leading edge (L.E.) and the trailing edge (T.E.) flaps.

FLAP POSITION		MOMENT LB-IN.			MOMENT KG-IN.		
FROM	TO	L.E. FLAPS	T.E. FLAPS	TOTAL	L.E. FLAPS	T.E. FLAPS	TOTAL
30	25	0	- 9200	- 9200	0	- 4100	- 4100
30	20	+ 800	- 13300	- 12500	+ 400	- 6000	- 5600
30	15	+ 800	- 18300	- 17500	+ 400	- 8300	- 7900
30	5	+ 800	- 32300	- 31500	+ 400	- 14600	- 14200
30	1	+ 800	- 53900	- 53100	+ 400	- 24400	- 24000
30	0	+ 8100	- 53900	- 45800	+ 3700	- 24400	- 20700

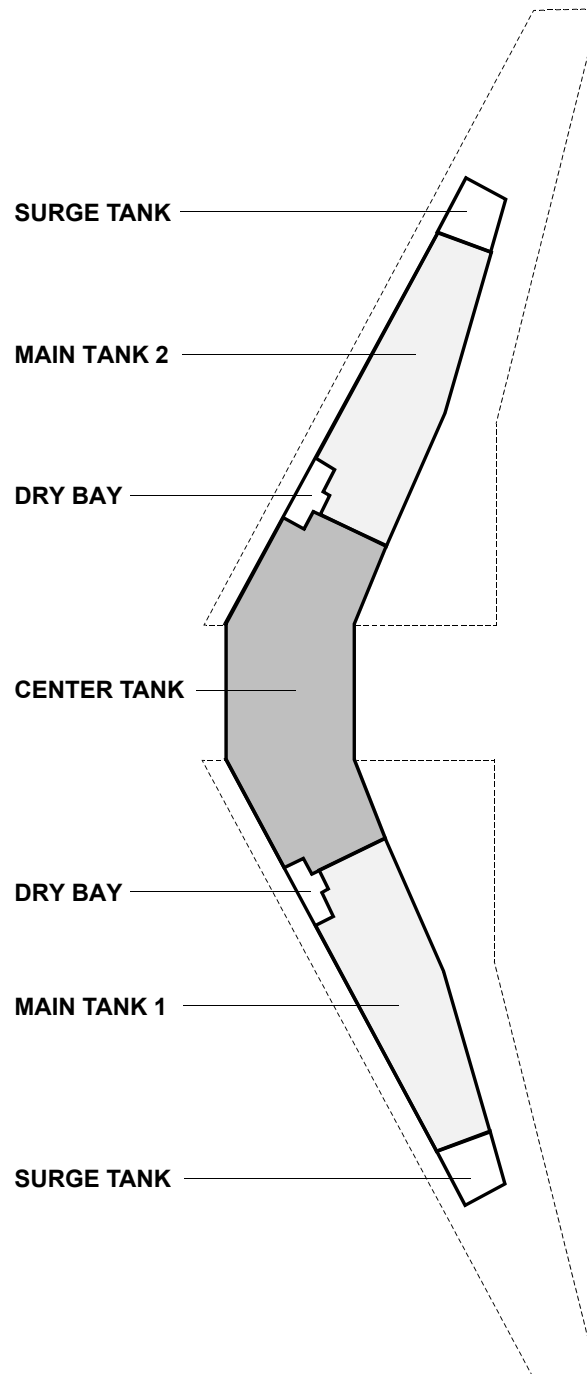
NOTE A forward movement of airplane center of gravity is a negative moment. An aft movement of airplane center of gravity is a positive moment.

APPLICABLE CONFIGURATIONS
AA, AB, AC, AD, AE, AF

FUEL TANK ARRANGEMENT AND CAPACITIES

FUEL TANK LOCATIONS

The following diagram shows the fuel tank arrangement:



APPLICABLE CONFIGURATIONS
A, B, C, G, H, J, K, P

FUEL TANK ARRANGEMENT AND CAPACITIES (Continued)

MAXIMUM ALLOWABLE FUEL WEIGHT

The maximum allowable usable tank quantities shown in the following table are based on a fuel density of 7.1 LB/U.S. GAL. (0.8507 KG/L).

LOCATION	MAXIMUM VOLUME		MAXIMUM WEIGHT	
	U.S. GAL.	L	LB	KG
Main Tank 1 or 2	2176.0	8237.1	15449	7007
Center Tank	6924.0	26210.2	49160	22298

USABLE FUEL QUANTITIES AND LOCATIONS

The following tables provide volume and center of gravity data for usable fuel. For definitions of “usable”, “drainable usable” and “trapped usable”, refer to General Information (CHP-SEC-SUB 1-00-001).

Under Wing Fueling

FUEL CATEGORY	FUEL LOCATION	VOLUME		B.A. IN.
		U.S. GAL.	L	
Drainable Usable	Main Tank 1	2176.0	8237.1	1087.7
	Main Tank 2	2176.0	8237.1	1087.7
	Center Tank	6924.0	26210.2	981.0
	Feed Lines ^[a]	0.0 ^[b]	0.0 ^[b]	
	Fueling Manifold	17.3 ^[b]	65.5 ^[b]	1017.0
	Engines	0.0 ^[b]	0.0 ^[b]	
	Total Drainable	11293.3	42749.9	1022.2
Trapped Usable	Engines	3.5 ^[b]	13.2 ^[b]	906.5
	Feed Lines ^[a]	5.5 ^[b]	20.8 ^[b]	1078.0
	Total Trapped	9.0^[b]	34.0^[b]	1011.3
TOTAL USABLE		11302.3	42783.9	1022.2

[a] All fuel in lines between boost pump check valves and engine pump inlets, bypass valves, defuel valves, and APU fuel control. Pump inlet line volume included in tank volume.

[b] These volumes are not gauged.

Over Wing Fueling

FUEL CATEGORY	FUEL LOCATION	VOLUME		B.A. IN.
		U.S. GAL.	L	
Drainable Usable	Main Tank 1	1968.0	7449.7	1081.0
	Main Tank 2	1968.0	7449.7	1081.0
TOTAL USABLE		3936.0	14899.4	1081.0

APPLICABLE CONFIGURATIONS
A, B, C, G, H, J, K, P

FUEL TANK ARRANGEMENT AND CAPACITIES (Continued)

UNUSABLE FUEL QUANTITIES AND LOCATIONS

The following table provides volume and center of gravity data for unusable fuel. For definitions of "unusable", "drainable unusable" and "trapped unusable", refer to General Information (CHP-SEC-SUB 1-00-001).

FUEL CATEGORY	FUEL LOCATION	VOLUME		B.A. IN.
		U.S. GAL.	L	
Drainable Unusable^[a]	Main Tank 1	2.9	11.0	1009.0
	Main Tank 2	2.9	11.0	1009.0
	Center Tank	5.2	19.7	984.0
	Total Drainable	11.0	41.7	997.2
Trapped Unusable^[a]	Main Tank 1	1.4	5.3	1007.0
	Main Tank 2	1.4	5.3	1007.0
	Center Tank	8.0	30.3	978.0
	Feed Lines ^[b]	12.0	45.4	1105.0
	Fueling Manifold	0.7	2.6	1017.0
	Engines	4.5	17.0	908.7
	Total Trapped	28.0	105.9	1025.2
TOTAL UNUSABLE		39.0	147.6	1017.3

[a] Based on an airplane nominal ground attitude of 0.3 degrees nose down and 0 degrees roll.

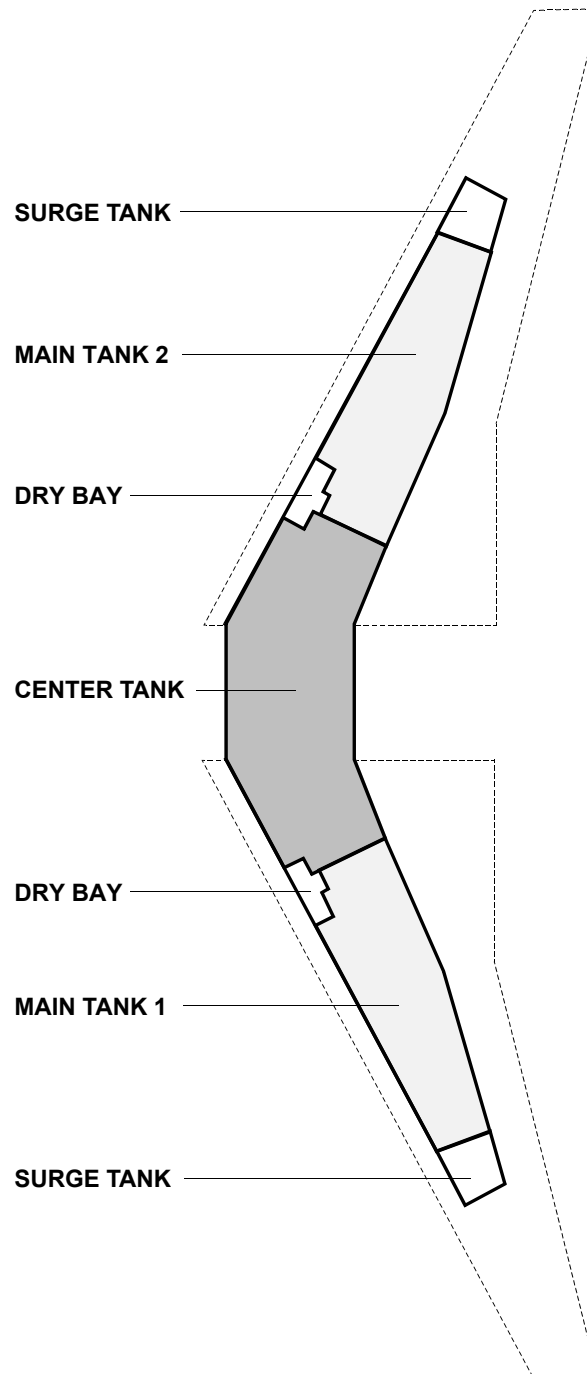
[b] All fuel in lines between boost pump check valves and engine pump inlets, bypass valves, defuel valves, and APU fuel control. Pump inlet line volume included in tank volume.

APPLICABLE CONFIGURATIONS
A, B, C, G, H, J, K, P

FUEL TANK ARRANGEMENT AND CAPACITIES

FUEL TANK LOCATIONS

The following diagram shows the fuel tank arrangement:



APPLICABLE CONFIGURATIONS

D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF

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FUEL TANK ARRANGEMENT AND CAPACITIES (Continued)

MAXIMUM ALLOWABLE FUEL WEIGHT

The maximum allowable usable tank quantities shown in the following table are based on a fuel density of 7.1 LB/U.S. GAL. (0.8507 KG/L).

LOCATION	MAXIMUM VOLUME		MAXIMUM WEIGHT	
	U.S. GAL.	L	LB	KG
Main Tank 1 or 2	2236.0	8464.2	15875	7200
Center Tank	7017.0	26562.2	49820	22597

USABLE FUEL QUANTITIES AND LOCATIONS

The following tables provide volume and center of gravity data for usable fuel. For definitions of “usable”, “drainable usable” and “trapped usable”, refer to General Information (CHP-SEC-SUB 1-00-001).

Under Wing Fueling

FUEL CATEGORY	FUEL LOCATION	VOLUME		B.A. IN.
		U.S. GAL.	L	
Drainable Usable	Main Tank 1	2236.0	8464.2	1090.0
	Main Tank 2	2236.0	8464.2	1090.0
	Center Tank	7017.0	26562.2	981.0
	Feed Lines ^[a]	0.0 ^[b]	0.0 ^[b]	
	Fueling Manifold	17.3 ^[b]	65.5 ^[b]	1017.0
	Engines	0.0 ^[b]	0.0 ^[b]	
	Total Drainable	11506.3	43556.1	1023.4
Trapped Usable	Engines	3.5 ^[b]	13.2 ^[b]	906.5
	Feed Lines ^[a]	5.5 ^[b]	20.8 ^[b]	1078.0
	Total Trapped	9.0 ^[b]	34.0 ^[b]	1011.3
TOTAL USABLE		11515.3	43590.1	1023.4

[a] All fuel in lines between boost pump check valves and engine pump inlets, bypass valves, defuel valves, and APU fuel control. Pump inlet line volume included in tank volume.

[b] These volumes are not gauged.

Over Wing Fueling

FUEL CATEGORY	FUEL LOCATION	VOLUME		B.A. IN.
		U.S. GAL.	L	
Drainable Usable	Main Tank 1	1968.0	7449.7	1081.0
	Main Tank 2	1968.0	7449.7	1081.0
TOTAL USABLE		3936.0	14899.4	1081.0

APPLICABLE CONFIGURATIONS
D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF

FUEL TANK ARRANGEMENT AND CAPACITIES (Continued)

UNUSABLE FUEL QUANTITIES AND LOCATIONS

The following table provides volume and center of gravity data for unusable fuel. For definitions of "unusable", "drainable unusable" and "trapped unusable", refer to General Information (CHP-SEC-SUB 1-00-001).

FUEL CATEGORY	FUEL LOCATION	VOLUME		B.A. IN.
		U.S. GAL.	L	
Drainable Unusable^[a]	Main Tank 1	2.9	11.0	1009.0
	Main Tank 2	2.9	11.0	1009.0
	Center Tank	5.2	19.7	984.0
	Total Drainable	11.0	41.7	997.2
Trapped Unusable^[a]	Main Tank 1	1.4	5.3	1007.0
	Main Tank 2	1.4	5.3	1007.0
	Center Tank	8.0	30.3	978.0
	Feed Lines ^[b]	12.0	45.4	1105.0
	Fueling Manifold	0.7	2.6	1017.0
	Engines	4.5	17.0	908.7
	Total Trapped	28.0	105.9	1025.2
TOTAL UNUSABLE		39.0	147.6	1017.3

[a] Based on an airplane nominal ground attitude of 0.3 degrees nose down and 0 degrees roll.

[b] All fuel in lines between boost pump check valves and engine pump inlets, bypass valves, defuel valves, and APU fuel control. Pump inlet line volume included in tank volume.

APPLICABLE CONFIGURATIONS
D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF

FUEL MANAGEMENT

FUEL LOADING PROCEDURES

Fuel loading limitations and procedures are detailed below.

Loading Limitations

Fuel density must be between the minimum allowable fuel density of 6.5 LB/GAL. (0.7789 KG/L) and the maximum allowable fuel density of 7.1 LB/GAL. (0.8507 KG/L).

Loading Procedures

Use the following procedures for loading fuel:

1. Load main tanks 1 and 2 equally to the desired fuel quantity or until full.
2. Load additional fuel in the center tank.

Main tanks 1 and 2 must be scheduled to be full if the center tank contains more than 2000 LB (907 KG) of fuel. Up to 2000 LB (907 KG) of center tank fuel may be loaded as payload. If any center tank fuel is considered in the zero fuel weight, the weight of the fuel in the center tank plus the aircraft Operational Empty Weight plus the payload cannot exceed the Maximum Zero Fuel Weight. Any center tank fuel considered as a zero fuel weight item must also be included in the balance check for aircraft zero fuel weight.

NOTE Recommended fuel loading reflects the final dispatch fuel distribution, not a loading sequence. Fuel tanks may be loaded individually, simultaneously or in any sequence.

LATERAL FUEL IMBALANCE

The following random lateral imbalance criteria between main tanks 1 and 2 must be observed:

- The lateral fuel imbalance between main tanks 1 and 2 must be scheduled to be zero.
- Random fuel imbalance must not exceed 1950 LB (884 KG) for taxi, takeoff, flight and landing.

APPLICABLE CONFIGURATIONS
All

FUEL MANAGEMENT (Continued)**FUEL USAGE PROCEDURES**

Fuel usage limitations and procedures are detailed below.

Usage Limitations

A maximum of 2000 LB (907 KG) of fuel may be retained in the center tank, provided that the aircraft center of gravity remains within the center of gravity limitations.

Usage Procedures

Use the following procedures for fuel usage:

- ❑ Main Tank Fuel Only: Start engines, taxi and takeoff using respective main tank to engine with all operable main tank boost pumps on and the crossfeed valve closed.^[1] Continue through remainder of flight.
- ❑ Center Tank Fuel: Start engines, taxi and takeoff using center tank to both engines, with all operable boost pumps on and the crossfeed valve closed.^[1] Continue flight until center tank fuel is depleted (or until the center tank fuel is at the amount of fuel to be retained), then use respective main tank to engine equally through remainder of flight.

NOTE Refer to the Airplane Flight Manual, Section III for fuel usage procedure.

[1] The crossfeed valve is open for minimum fuel operation, and may be opened to correct or prevent fuel imbalance.

APPLICABLE CONFIGURATIONS	
All	

FUEL TANK QUANTITIES AND BALANCE ARMS

COMBINED MAIN TANKS 1 AND 2 IN U.S. GALLONS

The following table provides usable, gauged fuel data in U.S. gallons. For each of the volumes listed, the volume is split equally between Main Tank 1 and Main Tank 2 (for example, the 1000 gallon entry represents 500 gallons in Main Tank 1 and 500 gallons in Main Tank 2, each at B.A. 1055.2).

U.S. GALLONS

MAIN TANKS 1 & 2		MAIN TANKS 1 & 2	
VOLUME U.S. GAL.	B.A. IN.	VOLUME U.S. GAL.	B.A. IN.
100	1049.8	2600	1064.4
200	1050.1	2700	1065.2
300	1050.6	2800	1066.1
400	1051.3	2900	1067.1
500	1051.9	3000	1068.1
600	1052.7	3100	1069.1
700	1053.4	3200	1070.2
800	1054.0	3300	1071.5
900	1054.6	3400	1072.7
1000	1055.2	3500	1074.0
1100	1055.7	3600	1075.4
1200	1056.3	3700	1076.9
1300	1056.8	3800	1078.4
1400	1057.4	3900	1079.9
1500	1057.9	4000	1081.5
1600	1058.4	4100	1083.2
1700	1058.9	4200	1084.9
1800	1059.5	4300	1086.8
1900	1060.0	4352	1087.7
2000	1060.5		
2100	1061.0		
2200	1061.6		
2300	1062.2		
2400	1063.0		
2500	1063.7		

APPLICABLE CONFIGURATIONS

A, B, C, G, H, J, K, P

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FUEL TANK QUANTITIES AND BALANCE ARMS (Continued)

COMBINED MAIN TANKS 1 AND 2 IN LITERS

The following table provides usable, gauged fuel data in liters. For each of the volumes listed, the volume is split equally between Main Tank 1 and Main Tank 2 (for example, the 2000 liter entry represents 1000 liters in Main Tank 1 and 1000 liters in Main Tank 2, each at B.A. 1052.4).

LITERS

MAIN TANKS 1 & 2		MAIN TANKS 1 & 2	
VOLUME L	B.A. IN.	VOLUME L	B.A. IN.
400	1049.6	10400	1065.4
800	1050.0	10800	1066.5
1200	1050.8	11200	1067.7
1600	1051.6	11600	1068.9
2000	1052.4	12000	1069.7
2400	1052.8	12400	1071.3
2800	1053.5	12800	1072.4
3200	1054.3	13200	1074.0
3600	1055.1	13600	1075.2
4000	1055.5	14000	1076.8
4400	1056.3	14400	1078.3
4800	1056.7	14800	1079.9
5200	1057.1	15200	1081.9
5600	1057.9	15600	1083.5
6000	1058.3	16000	1085.4
6400	1059.1	16400	1087.4
6800	1059.4	16474	1087.7
7200	1059.8		
7600	1060.6		
8000	1061.0		
8400	1061.8		
8800	1062.6		
9200	1063.4		
9600	1063.8		
10000	1064.6		

FUEL TANK QUANTITIES AND BALANCE ARMS

COMBINED MAIN TANKS 1 AND 2 IN U.S. GALLONS

The following table provides usable, gauged fuel data in U.S. gallons. For each of the volumes listed, the volume is split equally between Main Tank 1 and Main Tank 2 (for example, the 1000 gallon entry represents 500 gallons in Main Tank 1 and 500 gallons in Main Tank 2, each at B.A. 1055.2).

U.S. GALLONS

MAIN TANKS 1 & 2		MAIN TANKS 1 & 2	
VOLUME U.S. GAL.	B.A. IN.	VOLUME U.S. GAL.	B.A. IN.
100	1049.8	2600	1064.4
200	1050.1	2700	1065.2
300	1050.6	2800	1066.1
400	1051.3	2900	1067.1
500	1051.9	3000	1068.1
600	1052.7	3100	1069.1
700	1053.4	3200	1070.2
800	1054.0	3300	1071.5
900	1054.6	3400	1072.7
1000	1055.2	3500	1074.0
1100	1055.7	3600	1075.4
1200	1056.3	3700	1076.9
1300	1056.8	3800	1078.4
1400	1057.4	3900	1079.9
1500	1057.9	4000	1081.5
1600	1058.4	4100	1083.2
1700	1058.9	4200	1084.9
1800	1059.5	4300	1086.8
1900	1060.0	4400	1088.6
2000	1060.5	4472	1090.0
2100	1061.0		
2200	1061.6		
2300	1062.2		
2400	1063.0		
2500	1063.7		

APPLICABLE CONFIGURATIONS

D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF

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FUEL TANK QUANTITIES AND BALANCE ARMS (Continued)

COMBINED MAIN TANKS 1 AND 2 IN LITERS

The following table provides usable, gauged fuel data in liters. For each of the volumes listed, the volume is split equally between Main Tank 1 and Main Tank 2 (for example, the 2000 liter entry represents 1000 liters in Main Tank 1 and 1000 liters in Main Tank 2, each at B.A. 1052.4).

LITERS

MAIN TANKS 1 & 2		MAIN TANKS 1 & 2	
VOLUME L	B.A. IN.	VOLUME L	B.A. IN.
400	1049.6	10400	1065.4
800	1050.0	10800	1066.5
1200	1050.8	11200	1067.7
1600	1051.6	11600	1068.9
2000	1052.4	12000	1069.7
2400	1052.8	12400	1071.3
2800	1053.5	12800	1072.4
3200	1054.3	13200	1074.0
3600	1055.1	13600	1075.2
4000	1055.5	14000	1076.8
4400	1056.3	14400	1078.3
4800	1056.7	14800	1079.9
5200	1057.1	15200	1081.9
5600	1057.9	15600	1083.5
6000	1058.3	16000	1085.4
6400	1059.1	16400	1087.4
6800	1059.4	16800	1089.4
7200	1059.8	16928	1090.0
7600	1060.6		
8000	1061.0		
8400	1061.8		
8800	1062.6		
9200	1063.4		
9600	1063.8		
10000	1064.6		

APPLICABLE CONFIGURATIONS
D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF



FUEL TANK QUANTITIES AND BALANCE ARMS

CENTER TANK IN U.S. GALLONS

The following table provides usable, gauged fuel data in U.S. gallons.

U.S. GALLONS

CENTER TANK		CENTER TANK	
VOLUME U.S. GAL.	B.A. IN.	VOLUME U.S. GAL.	B.A. IN.
100	997.8	3600	980.8
200	994.1	3700	980.9
300	990.9	3800	981.0
400	988.5	3900	981.0
500	986.5	4000	981.1
600	984.6	4100	981.1
700	983.4	4200	981.2
800	982.5	4300	981.3
900	981.6	4400	981.3
1000	980.8	4500	981.4
1100	980.5	4600	981.4
1200	980.1	4700	981.5
1300	979.8	4800	981.5
1400	979.6	4900	981.6
1500	979.5	5000	981.6
1600	979.4	5100	981.6
1700	979.3	5200	981.7
1800	979.2	5300	981.7
1900	979.3	5400	981.7
2000	979.3	5500	981.8
2100	979.3	5600	981.8
2200	979.4	5700	981.8
2300	979.4	5800	981.7
2400	979.5	5900	981.7
2500	979.7	6000	981.7
2600	979.8	6100	981.7
2700	979.9	6200	981.6
2800	980.0	6300	981.5
2900	980.1	6400	981.5
3000	980.2	6500	981.4
3100	980.3	6600	981.3
3200	980.4	6700	981.2
3300	980.5	6800	981.1
3400	980.6	6900	981.0
3500	980.7	6924	981.0

APPLICABLE CONFIGURATIONS

A, B, C, G, H, J, K, P

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FUEL TANK QUANTITIES AND BALANCE ARMS (Continued)

CENTER TANK IN LITERS

The following table provides usable, gauged fuel data in liters.

LITERS

CENTER TANK		CENTER TANK	
VOLUME L	B.A. IN.	VOLUME L	B.A. IN.
400	997.6	14400	981.1
800	993.7	14800	981.1
1200	990.2	15200	981.1
1600	988.2	15600	981.1
2000	985.8	16000	981.1
2400	983.9	16400	981.1
2800	983.1	16800	981.5
3200	981.9	17200	981.5
3600	981.1	17600	981.5
4000	980.7	18000	981.5
4400	980.3	18400	981.5
4800	979.9	18800	981.5
5200	979.5	19200	981.5
5600	979.5	19600	981.5
6000	979.5	20000	981.9
6400	979.1	20400	981.9
6800	979.1	20800	981.9
7200	979.1	21200	981.9
7600	979.1	21600	981.9
8000	979.5	22000	981.9
8400	979.5	22400	981.9
8800	979.5	22800	981.9
9200	979.5	23200	981.5
9600	979.5	23600	981.5
10000	979.9	24000	981.5
10400	979.9	24400	981.5
10800	979.9	24800	981.5
11200	980.3	25200	981.1
11600	980.3	25600	981.1
12000	980.3	26000	981.1
12400	980.7	26210	981.0
12800	980.7		
13200	980.7		
13600	980.7		
14000	980.7		

APPLICABLE CONFIGURATIONS
A, B, C, G, H, J, K, P



FUEL TANK QUANTITIES AND BALANCE ARMS

CENTER TANK IN U.S. GALLONS

The following table provides usable, gauged fuel data in U.S. gallons.

U.S. GALLONS

CENTER TANK		CENTER TANK	
VOLUME U.S. GAL.	B.A. IN.	VOLUME U.S. GAL.	B.A. IN.
100	997.8	3700	980.9
200	994.1	3800	981.0
300	990.9	3900	981.0
400	988.5	4000	981.1
500	986.5	4100	981.1
600	984.6	4200	981.2
700	983.4	4300	981.3
800	982.5	4400	981.3
900	981.6	4500	981.4
1000	980.8	4600	981.4
1100	980.5	4700	981.5
1200	980.1	4800	981.5
1300	979.8	4900	981.6
1400	979.6	5000	981.6
1500	979.5	5100	981.6
1600	979.4	5200	981.7
1700	979.3	5300	981.7
1800	979.2	5400	981.7
1900	979.3	5500	981.8
2000	979.3	5600	981.8
2100	979.3	5700	981.8
2200	979.4	5800	981.7
2300	979.4	5900	981.7
2400	979.5	6000	981.7
2500	979.7	6100	981.7
2600	979.8	6200	981.6
2700	979.9	6300	981.5
2800	980.0	6400	981.5
2900	980.1	6500	981.4
3000	980.2	6600	981.3
3100	980.3	6700	981.2
3200	980.4	6800	981.1
3300	980.5	6900	981.0
3400	980.6	7000	981.0
3500	980.7	7017	981.0
3600	980.8		

APPLICABLE CONFIGURATIONS

D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF

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FUEL TANK QUANTITIES AND BALANCE ARMS (Continued)

CENTER TANK IN LITERS

The following table provides usable, gauged fuel data in liters.

LITERS

CENTER TANK		CENTER TANK	
VOLUME L	B.A. IN.	VOLUME L	B.A. IN.
400	997.6	14400	981.1
800	993.7	14800	981.1
1200	990.2	15200	981.1
1600	988.2	15600	981.1
2000	985.8	16000	981.1
2400	983.9	16400	981.1
2800	983.1	16800	981.5
3200	981.9	17200	981.5
3600	981.1	17600	981.5
4000	980.7	18000	981.5
4400	980.3	18400	981.5
4800	979.9	18800	981.5
5200	979.5	19200	981.5
5600	979.5	19600	981.5
6000	979.5	20000	981.9
6400	979.1	20400	981.9
6800	979.1	20800	981.9
7200	979.1	21200	981.9
7600	979.1	21600	981.9
8000	979.5	22000	981.9
8400	979.5	22400	981.9
8800	979.5	22800	981.9
9200	979.5	23200	981.5
9600	979.5	23600	981.5
10000	979.9	24000	981.5
10400	979.9	24400	981.5
10800	979.9	24800	981.5
11200	980.3	25200	981.1
11600	980.3	25600	981.1
12000	980.3	26000	981.1
12400	980.7	26400	981.0
12800	980.7	26562	981.0
13200	980.7		
13600	980.7		
14000	980.7		

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APPLICABLE CONFIGURATIONS

D, E, F, L, M, N, R, S, AA, AB, AC, AD, AE, AF

SYSTEM FLUIDS

ENGINE SYSTEM OIL (PRATT & WHITNEY ENGINES)

The following table lists total engine system oil (including trapped oil):

FLUID CATEGORY	ENGINE	VOLUME		WEIGHT		B.A. IN.
		U.S. GAL.	L	LB	KG	
Drainable Oil	No. 1	5.0	18.9	41.2	18.7	882.1
	No. 2	5.0	18.9	41.2	18.7	883.3
	Total	10.0	37.8	82.4	37.4	882.7
Trapped Oil	No. 1	4.5	17.0	37.1	16.8	917.3
	No. 2	4.5	17.0	37.1	16.8	917.3
	Total	9.0	34.0	74.2	33.6	917.3

NOTE Oil density used is 8.24 LB/U.S. GAL. (0.987 KG/L).

INTEGRATED DRIVE GENERATOR OIL

The following table lists the integrated drive generator oil:

TANK LOCATION	VOLUME		WEIGHT		B.A. IN.
	U.S. GAL.	L	LB	KG	
No. 1	2.0	7.6	16.5	7.5	884.8
No. 2	2.0	7.6	16.5	7.5	884.8
Total	4.0	15.1	33.0	15.0	884.8

NOTE Oil density used is 8.24 LB/U.S. GAL. (0.987 KG/L).

HYDRAULIC SYSTEM FLUID

The following table provides the hydraulic system fluid totals:

LOCATION	VOLUME		WEIGHT		B.A. IN.
	U.S. GAL.	L	LB	KG	
System Left	39.0	147.6	324.5	147.6	1031.3
System Right	27.0	102.2	224.6	102.2	1114.7
System Center	12.0	45.4	99.8	45.4	1307.2
Total	78.0	295.2	648.9	295.2	1102.7

NOTE Hydraulic fluid density used is 8.32 LB/U.S. GAL. (1.00 KG/L). (Density Range: 8.32 to 8.89 LB/U.S. GAL.; 1.00 to 1.06 KG/L)

APPLICABLE CONFIGURATIONS
All

SYSTEM FLUIDS (Continued)

LANDING GEAR SYSTEM FLUID

The following table lists the landing gear system hydraulic fluid totals:

FLUID LOCATION	VOLUME		WEIGHT		B.A. IN.
	U.S. GAL.	L	LB	KG	
Nose Gear Oleo	2.9	10.9	20.2	9.1	388.0
Main Gear Oleo	21.6	81.8	150.8	68.4	1111.8

NOTE Hydraulic fluid density used is 6.98 LB/U.S. GAL. (0.836 KG/L). (Reference MIL-H-5606 or MIL-H-6083)

The following table lists the weight of nitrogen in the landing gear struts and tires. The balance arms are for the landing gear in the extended (taxi) position:

ITEM	WEIGHT		B.A. IN.
	LB	KG	
Nose Gear Strut	0.2	0.1	388.0
Main Gear Struts	2.0	0.9	1111.8
Total	2.2	1.0	1046.0
Nose Gear Tires	4.0	1.8	391.0
Main Gear Tires	26.0	11.8	1111.3
Total	30.0	13.6	1015.3

OPERATING SYSTEM FLUID

The following table provides operating systems fluid totals:

SYSTEM	VOLUME		WEIGHT		B.A. IN.
	U.S. GAL.	L	LB	KG	
Pneumatic Starter Oil	0.2	0.8	1.7	0.8	881.7
Aux. Power Unit	1.6	6.1	13.2	6.0	1927.5

NOTE Oil density used is 8.24 LB/U.S. GAL. (0.987 KG/L).

APPLICABLE CONFIGURATIONS
All



POTABLE WATER SYSTEM

TANK QUANTITIES AND LOCATIONS

The drinking and washing water system has one storage tank per airplane. Total potable water and supply line capacities are listed in the table below.

SYSTEM	VOLUME		WEIGHT		B.A. IN.
	U.S. GAL.	L	LB	KG	
Tank	60.0	227.1	499.8	227.1	1667.0
Lines	3.7	14.0	30.8	14.0	1050.0
Total	63.7	241.1	530.6	241.1	1631.2

NOTE Density used is 8.33 LB/U.S. GAL. (1.00 KG/L).

APPLICABLE CONFIGURATIONS
All

WASTE DISPOSAL SYSTEM

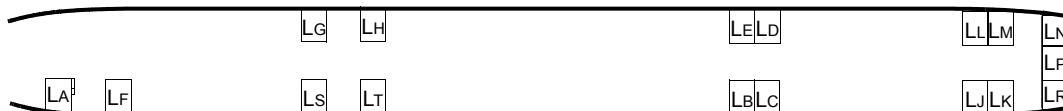
LAVATORY QUANTITIES AND LOCATIONS - 2 GALLON PRECHARGE

The quantity and location of lavatory fluid will vary with different passenger arrangements. For details on the number and location of lavatories in the airplane, refer to the applicable interior shown in CHP-SEC 1-44-xxx, Personnel.

FLUID CATEGORY	VOLUME/LAVATORY		WEIGHT/LAVATORY	
	U.S. GAL.	L	LB	KG
Chemical Toilet Fluid	2.0	7.6	16.7	7.6

NOTE Density used is 8.33 LB/U.S. GAL. (1.00 KG/L).

All possible lavatory locations are shown in the following diagram and table so that the B.A. of applicable combinations can be easily determined.



LAVATORY FLUID			
LAVATORY LOCATION	B.A. IN.	LAVATORY LOCATION	B.A. IN.
A	314	K	1620
B	1262	L	1585
C	1297	M	1620
D	1297	N	1700
E	1262	P	1714
F	398	R	1700
G	665	S	665
H	753	T	753
J	1585		

APPLICABLE CONFIGURATIONS
All

PASSENGER AND PERSONNEL WEIGHT ALLOWANCES

FAA ADVISORY CIRCULAR 120-27E ALLOWANCES

The following crew, passenger and baggage weights reflect the Federal Aviation Administration (FAA) Advisory Circular 120-27E, dated June 10, 2005.

Flight Crew

For flight crew members:

- | | |
|--|------------------|
| ☐ Flight crew member | 190 LB (86.2 KG) |
| ☐ Pilot flight bag | 20 LB (9.1 KG) |
| ☐ Crewmember roller bag | 30 LB (13.6 KG) |

Cabin Crew

For cabin attendants:

- | | |
|--|------------------|
| ☐ Cabin attendant | 170 LB (77.1 KG) |
| ☐ Flight attendant kit | 10 LB (4.5 KG) |
| ☐ Crewmember roller bag | 30 LB (13.6 KG) |

Passengers

The Advisory Circular 120-27E specifies an average passenger weight of 195 LB (88.5 KG) which consists of a 179 LB (81.2 KG) passenger weight plus 16 LB (7.3 KG) carry-on baggage and personal items. The combination of average passenger weight, seat weight and passenger carry-on baggage stowed under the seat must not exceed the main cabin linear loading limits (see CHP-SEC 1-60-00x).

Baggage

The following average weights apply to passenger checked baggage:

- ☐ Use an average weight of not less than 30 LB (13.6 KG) for each piece of checked baggage.

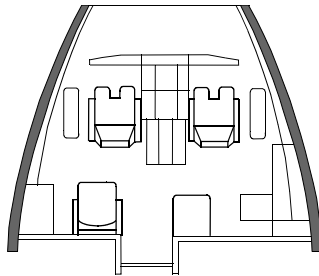
NOTE Use of average passenger and baggage weights is not advisable in computing the weight and balance of charter flights or other special services involving the carriage of special groups (e.g. athletic squads, military groups, etc.). Refer to Advisory Circular 120-27E.

APPLICABLE CONFIGURATIONS	
All	

INTERIOR ARRANGEMENT - MAIN DECK

FLIGHT DECK

The flight crew balance arms are defined as 7 IN. in front of the Seat Reference Point (SRP). The SRP is defined as the intersection of the seat bottom and the seat back. The crew locations represent the crew seated at takeoff positions.



FLIGHT CREW (TWO OBSERVERS)	
LOCATION	B.A. IN.
Captain	248
First Officer	248
First Observer	285
Second Observer	286

APPLICABLE CONFIGURATIONS

Refer to the Interior Effectivity section of this manual to correlate certified Passenger Arrangements with specific aircraft serial numbers.

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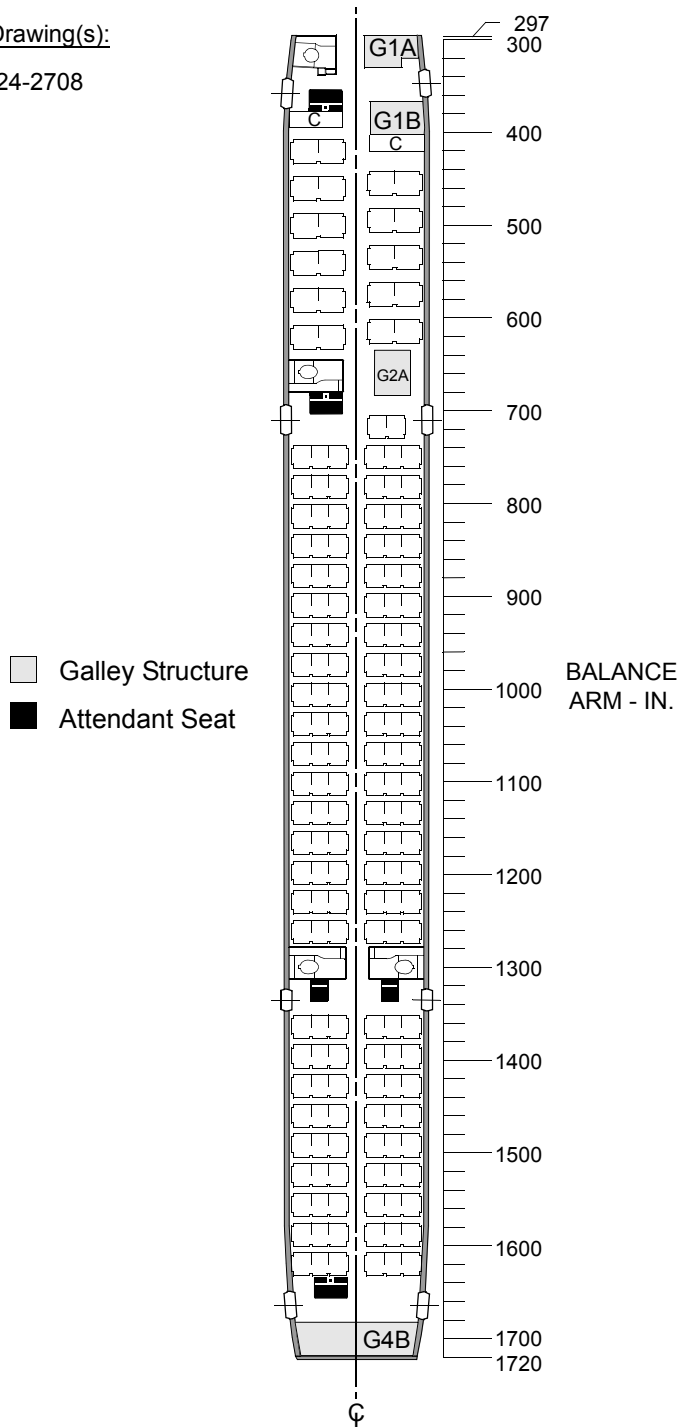
INTERIOR ARRANGEMENT - MAIN DECK (Continued)

MAIN CABIN -22F/0C/158Y ARRANGEMENT

The main cabin 22F/0C/158Y arrangement shown below is the basis for the subsequent passenger and cabin crew center of gravity data, and the maximum allowable galley loads data.

Reference Drawing(s):

LOPS-5724-2708



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APPLICABLE CONFIGURATIONS

Refer to the Interior Effectivity section of this manual to correlate certified Passenger Arrangements with specific aircraft serial numbers.

INTERIOR ARRANGEMENT - MAIN DECK (Continued)

Passenger Locations

The center of gravity of each passenger location for the main cabin arrangement on page 2 is listed in the following table. The class designations are as follows: First Class (F), Business Class (C) and Tourist Class (Y). Unless otherwise noted, the passenger balance arms are defined as 8 IN. behind the forward seat pin, relative to the seat. The balance arms represent the passengers seated in an upright position.

CLASS	ROW	PASSENGERS			
		LEFT		RIGHT	
		NO.	B.A. IN.	NO.	B.A. IN.
F	1	2	422		
	2	2	462	2	456
	3	2	502	2	496
	4	2	542	2	536
	5	2	582	2	576
	6	2	622	2	616
Y	7			2	719
	8	3	751	3	751
	9	3	783	3	783
	10	3	815	3	815
	11	3	847	3	847
	12	3	879	3	879
	13	3	911	3	911
	14	3	943	3	943
	15	3	975	3	975
	16	3	1007	3	1007
	17	3	1039	3	1039
	18	3	1071	3	1071
	19	3	1103	3	1103
	20	3	1135	3	1135
	21	3	1167	3	1167
	22	3	1199	3	1199
	23	3	1231	3	1231
	24	3	1263	3	1263
	25	3	1365	3	1365
	26	3	1397	3	1397
	27	3	1429	3	1429
	28	3	1461	3	1461
	29	3	1493	3	1493
	30	3	1525	3	1525
	31	3	1557	3	1557
	32	3	1588	3	1588
	33	3	1619	3	1619

APPLICABLE CONFIGURATIONS

Refer to the Interior Effectivity section of this manual to correlate certified Passenger Arrangements with specific aircraft serial numbers.

1-44-040

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INTERIOR ARRANGEMENT - MAIN DECK (Continued)

Cabin Crew Locations

The cabin crew balance arms are defined as 7 IN. in front of the Seat Reference Point (SRP). The SRP is defined as the intersection of the seat bottom and the seat back. The cabin crew locations represent the crew seated at takeoff positions for the main cabin arrangement shown on page 2.

CABIN CREW			
GENERAL LOCATION	NUMBER OF ATTENDANTS		B.A. IN.
	LEFT	RIGHT	
Door 1	2		369
Door 2	2		693
Door 3	1	1	1325
Door 4	2		1648

Galleys

The galley loads listed in the following table are the maximum allowable galley loads that can be sustained by the basic monocoque structure for the galley footprints shown in the main cabin arrangement on page 2.

MAXIMUM ALLOWABLE GALLEY WEIGHT ^[a]		
LOCATION	WEIGHT	
	LB	KG
Galley No. 1A	2300	1043
Galley No. 1B	1500	680
Galley No. 1A + 1B + LH and RH closets	4200	1936
Galley No. 2A	1500	680
Galley No. 4B	4000	1814

[a] These galley weights are based on an average passenger weight of 185 LB (83.9 KG)/Passenger.

NOTE Galleys installed on the aircraft may be further limited by the carrier and contents weight as shown on the galley capacity placards.

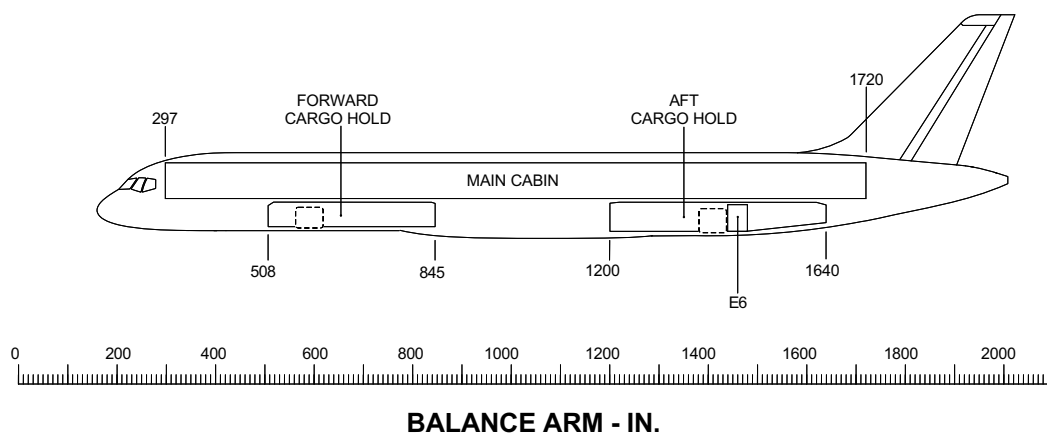
APPLICABLE CONFIGURATIONS
Refer to the Interior Effectivity section of this manual to correlate certified Passenger Arrangements with specific aircraft serial numbers.

CARGO COMPARTMENTS - LOAD LIMITS

MAXIMUM ALLOWABLE WEIGHTS

This section provides main deck and lower deck cargo compartment loading. These values are the maximum allowable weights that can be sustained by the basic monocoque structure.

The following illustration shows the configuration of the cargo compartments. The forward cargo compartment uses bulk loading. The aft cargo compartment uses bulk loading and contains an E6 Rack.



Three basic structural limitations that must be observed when loading payload are compartment, linear loading, and floor loading limitations. Maximum allowable compartment weights, and maximum allowable linear and floor loading are provided in the following table:

MAXIMUM ALLOWABLE WEIGHT						
COMPARTMENT	TOTAL WEIGHT		FLOOR LOADING			
	LB	KG	LB/IN.	KG/IN.	LB/SQ FT	KG/SQ FT
Main Cabin			22.2 ^[a]	10.1 ^[a]	100.0	45.3
Forward Cargo Hold	10300 ^[b]	4672 ^[b]				
B.A. 508 to B.A. 624	5445	2469	47.0	21.3	150.0	68.0
B.A. 624 to B.A. 845	10300 ^[b]	4672 ^[b]	47.0 ^[b]	21.3 ^[b]	150.0	68.0
Aft Cargo Hold	16300 ^[b]	7393 ^[b]				
B.A. 1200 to B.A. 1377	8319 ^[b]	3773 ^[b]	47.0 ^[b]	21.3 ^[b]	150.0	68.0
B.A. 1377 to B.A. 1640	12361	5606	47.0	21.3	150.0	68.0

[a] Per left or right side of main deck aisle. The main cabin floor loading includes the weight of passengers, passenger seats, and passenger carry-on baggage stowed under the seats.

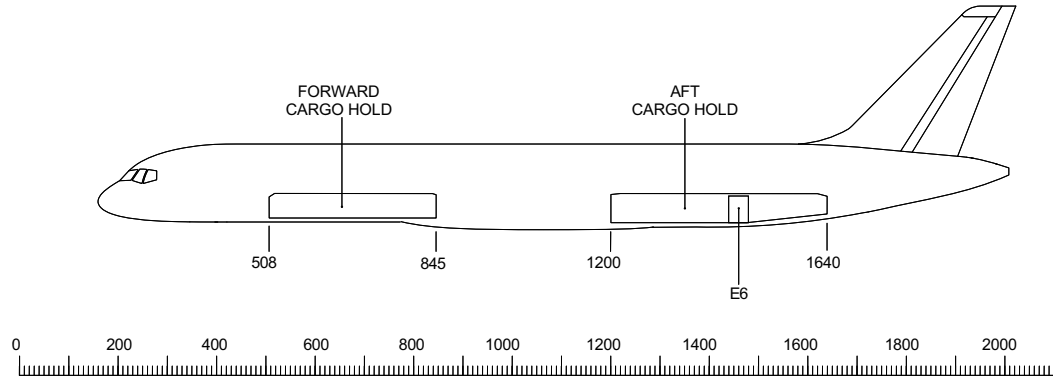
[b] Weights will change if a STC cargo loading system is installed. See STC holder for data.

APPLICABLE CONFIGURATIONS
All

CARGO COMPARTMENTS

GENERAL LOCATION AND ARRANGEMENT

The following airplane profile illustrates cargo compartment locations.



BALANCE ARM - IN.

The following table provides cargo compartment locations, usable volumes and the corresponding volumetric centroid arms.

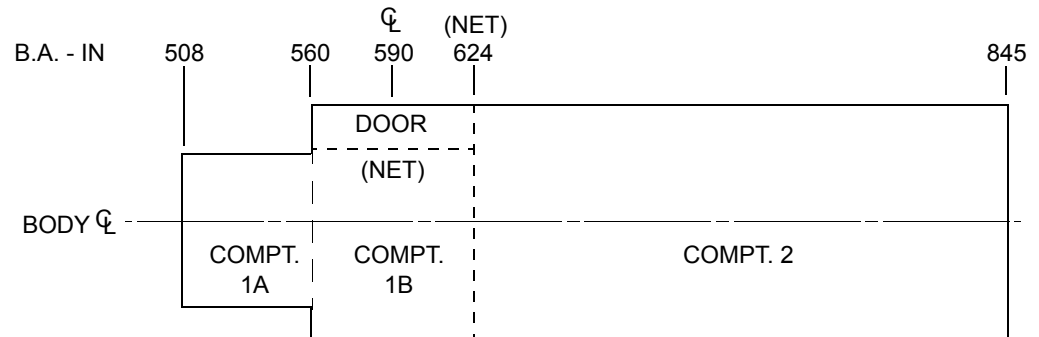
CARGO COMPARTMENT	LOCATION - B.A.		USABLE VOLUME CU FT	B. A. IN.
	FROM	TO		
Forward	508	845	699	691.0
Aft	1200	1640	1095	1406.0
Total			1794	1127.4

APPLICABLE CONFIGURATIONS
All

FORWARD CARGO COMPARTMENTS

FORWARD CARGO COMPARTMENT VOLUMES

The following figure shows forward cargo hold compartment boundaries.



Volumes and centroids for the above figure are provided in the following table.

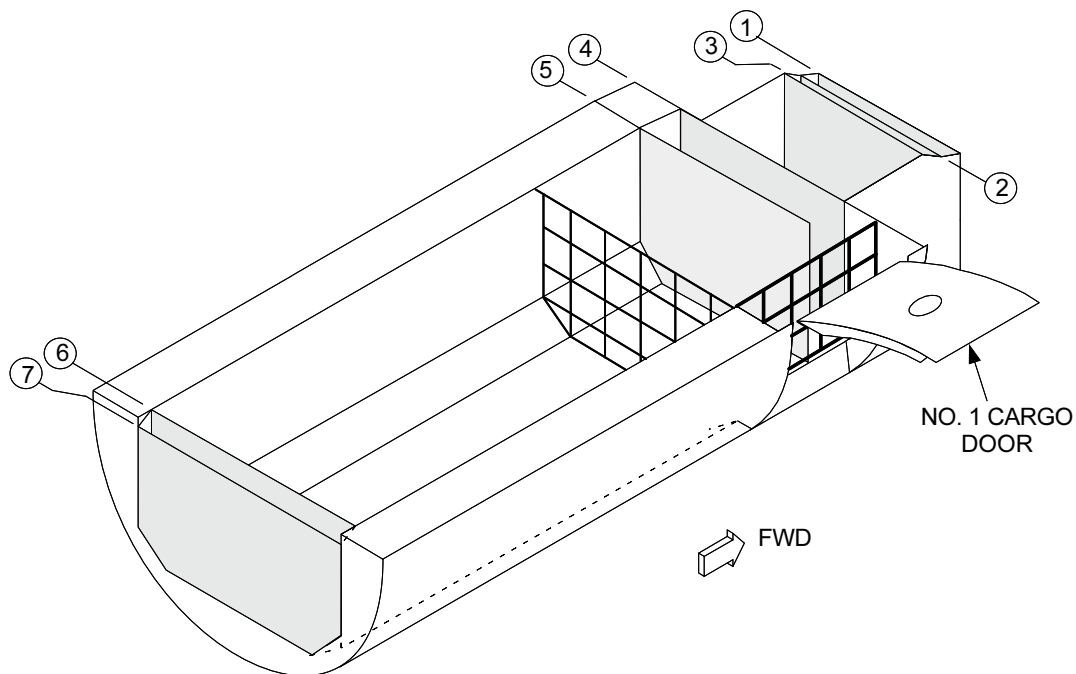
VOLUMES	COMPARTMENTS		
	1A	1B	2
Forward Compartment Volumes CU FT	73	111	515
Total Forward Hold CU FT	699		
Volumetric Centroids B.A. - IN.	534.5	591.9	734.6
	691.0		

APPLICABLE CONFIGURATIONS
All

FORWARD CARGO COMPARTMENTS (Continued)

FORWARD CARGO COMPARTMENT CROSS SECTIONS

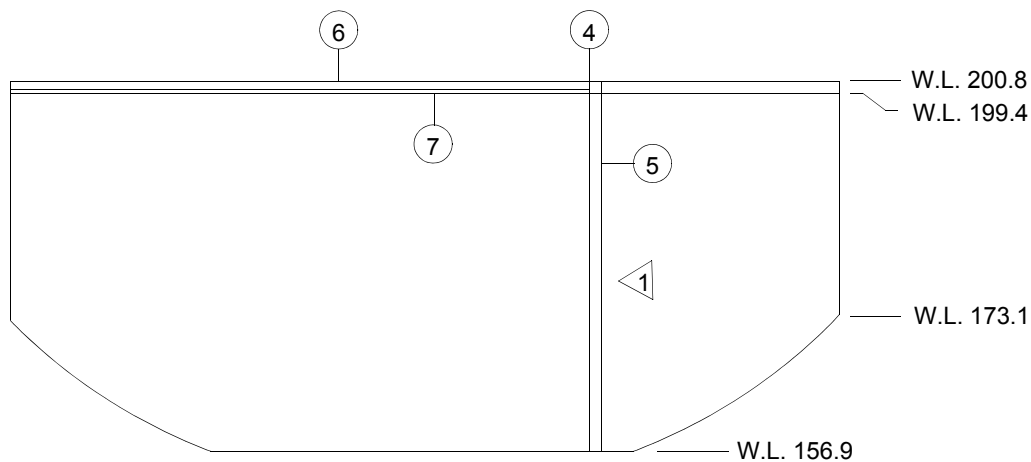
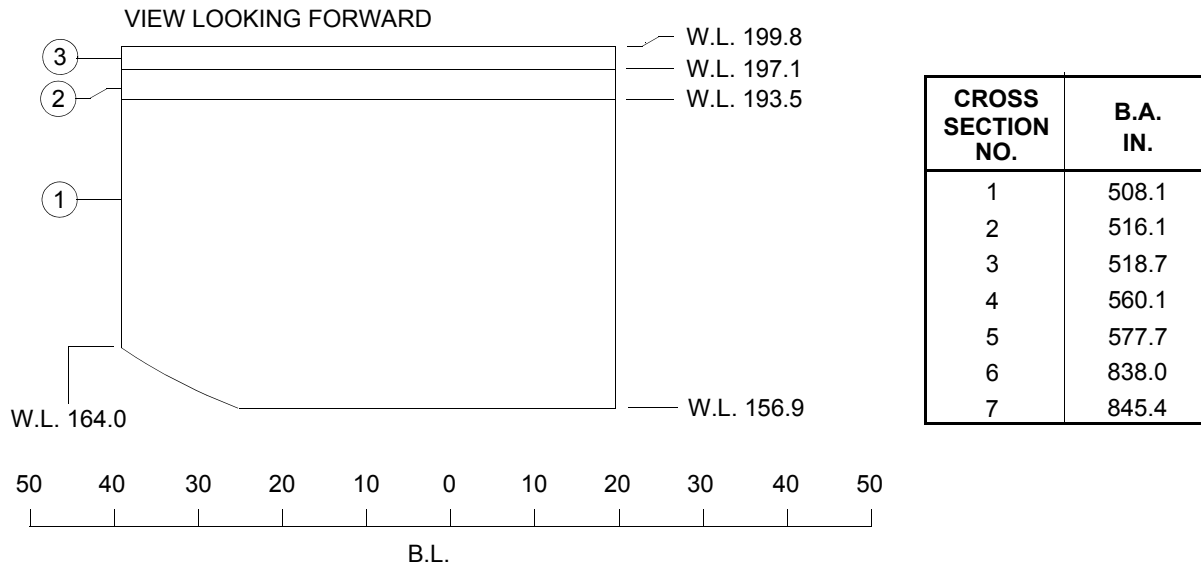
The figure below illustrates the general layout of the forward cargo compartments. The numbered labels and shaded panels correspond to the cross-sections provided on the next page.



APPLICABLE CONFIGURATIONS	
All	

FORWARD CARGO COMPARTMENTS (Continued)

The following cross-sections for compartments 1A, 1B, and 2 can be used to determine ceiling clearances at various forward cargo compartment balance arms. The relative location of the cross-sectional cut can be determined by correlating the cross-section number to the general layout on the previous page.



1 NET SHOWN IS FROM B.A. 560.1 TO B.A. 623.0

APPLICABLE CONFIGURATIONS	
All	

FORWARD CARGO COMPARTMENTS (Continued)

CARGO DOOR DIMENSIONS AND ALLOWABLE PACKAGE SIZES

This section provides dimensions of the maximum package sizes which will pass through the forward cargo door opening. Individual tables are presented for two types of packages; "Heavy Packages Lift Assisted" and "Light Packages Hand Maneuvered".

"Heavy Packages Lift Assisted" refers to packages which require the use of a fork lift or other loading device to maneuver them through the door. The maximum length is restricted by the inward curve of the lower cargo sidewall liner opposite the door. The table assumes the packages cannot be elevated to clear this interference.

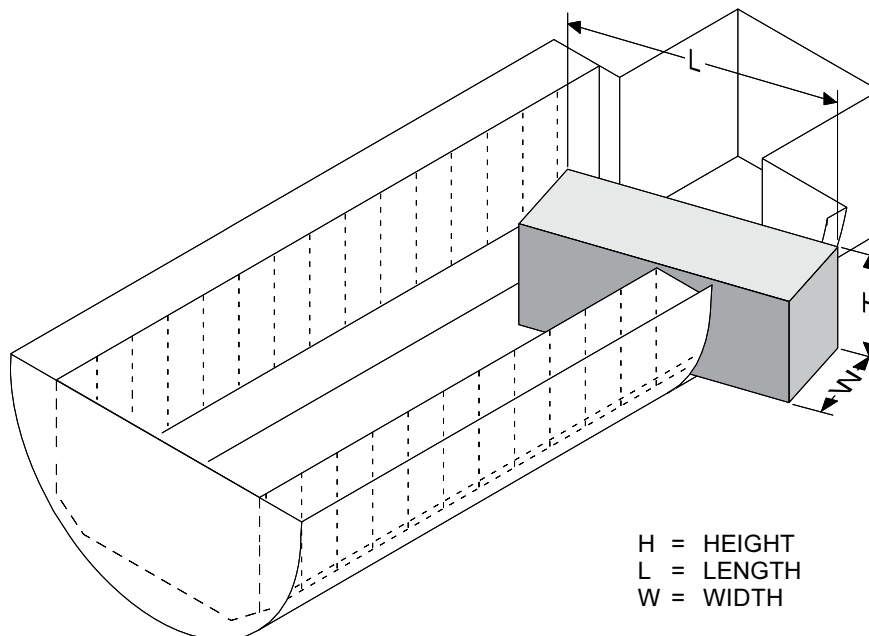
"Light Packages Hand Maneuvered" refers to packages which may be elevated to clear the inward curve of the cargo sidewall liner opposite the door.

Package sizes are approximate. Tilting, twisting, bending and/or rotating packages through door openings will allow additional lengths in many cases, but should be determined for each situation. A trial loading is recommended for packages with dimensions close to maximum dimensions indicated in the tables.

The height dimensions do not include allowances for items increasing package height such as fork lift tyne thicknesses, pallet depths, skid tub heights, etc. Any such devices must be accounted for in the total height.

Package Size Illustration

The following illustration shows package dimensioning used in the allowable package size tables.

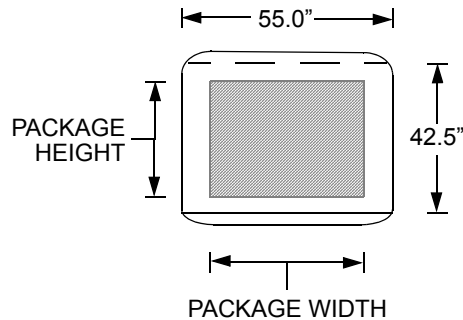


APPLICABLE CONFIGURATIONS	
All	

FORWARD CARGO COMPARTMENTS (Continued)

Door Dimensions

The following figure provides the forward cargo door dimensions.



Allowable Package Sizes

The following tables are applicable for packages loaded aft of the forward cargo door (B.A. 590 IN.).

HEAVY PACKAGES LIFT ASSISTED											
HEIGHT IN.	WIDTH IN.										
	5	10	15	20	25	30	35	40	45	50	55
	LENGTH IN.										
42	139	129	119	109	99	89	79	69	61	55	50
40	139	129	119	109	99	89	79	69	61	55	50
35	139	129	119	109	99	89	79	69	61	55	50
30	140	129	119	109	99	89	79	69	61	55	50
25	141	129	119	109	99	89	79	69	61	55	50
20	144	130	119	109	99	89	79	69	61	55	50
15	148	132	119	109	99	89	79	69	61	55	50
10	157	136	120	109	99	89	79	69	61	55	50
5	177	146	125	110	99	89	79	69	61	55	50

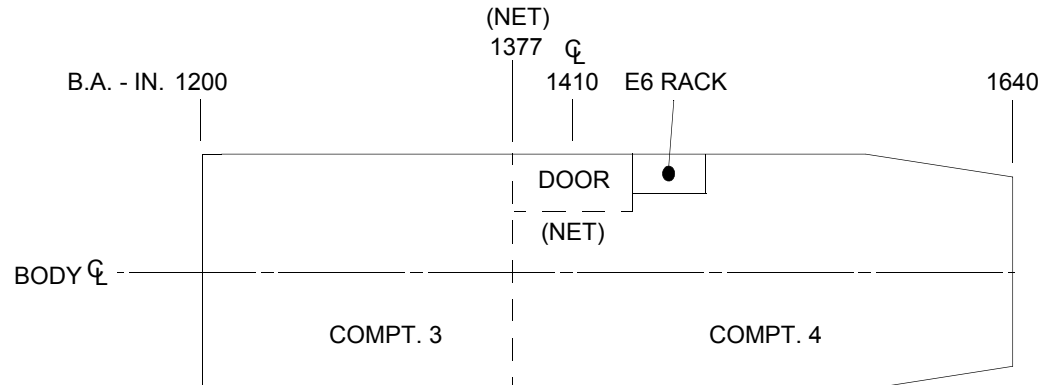
LIGHT PACKAGES HAND MANEUVERED											
HEIGHT IN.	WIDTH IN.										
	5	10	15	20	25	30	35	40	45	50	55
	LENGTH IN.										
40	151	139	129	119	109	99	89	79	70	63	57
35	192	172	156	144	134	123	113	103	92	83	76
30	239	207	184	166	152	140	130	119	109	98	89
25	290	243	210	186	168	153	141	131	120	108	98
20	290	243	210	186	168	153	141	131	120	108	98
15	290	243	210	186	168	153	141	131	120	108	98
10	290	243	210	186	168	153	141	131	120	108	98
5	290	243	210	186	168	153	141	131	120	108	98

APPLICABLE CONFIGURATIONS
All

AFT CARGO COMPARTMENT

AFT CARGO COMPARTMENT VOLUMES

The following figure shows aft cargo hold compartment boundaries.



Volumes and centroids for compartments 3 and 4 in the above figure are provided in the following table.

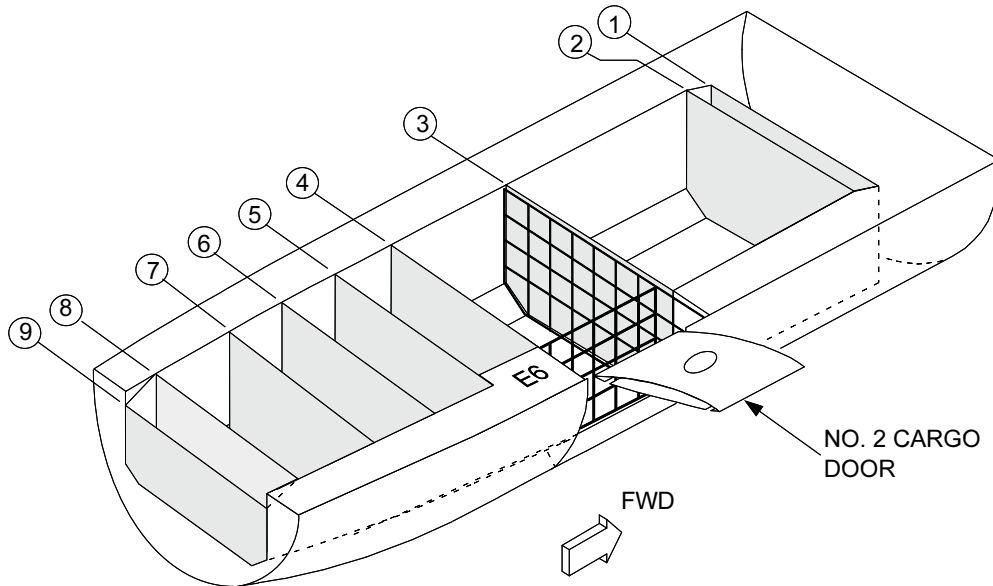
VOLUMES	COMPARTMENTS	
	3	4
Aft Compartment Volumes CU. FT.	503	592
Total Aft Hold CU. FT.	1095	
Volumetric Centroids B.A. - IN.	1288.6	1507.3
	1406.0	

APPLICABLE CONFIGURATIONS	
All	

AFT CARGO COMPARTMENT (Continued)

AFT CARGO COMPARTMENT CROSS-SECTIONS

The figure below illustrates the general layout of the aft cargo compartments. The numbered labels and shaded panels correspond to the cross-sections provided on the next two pages.



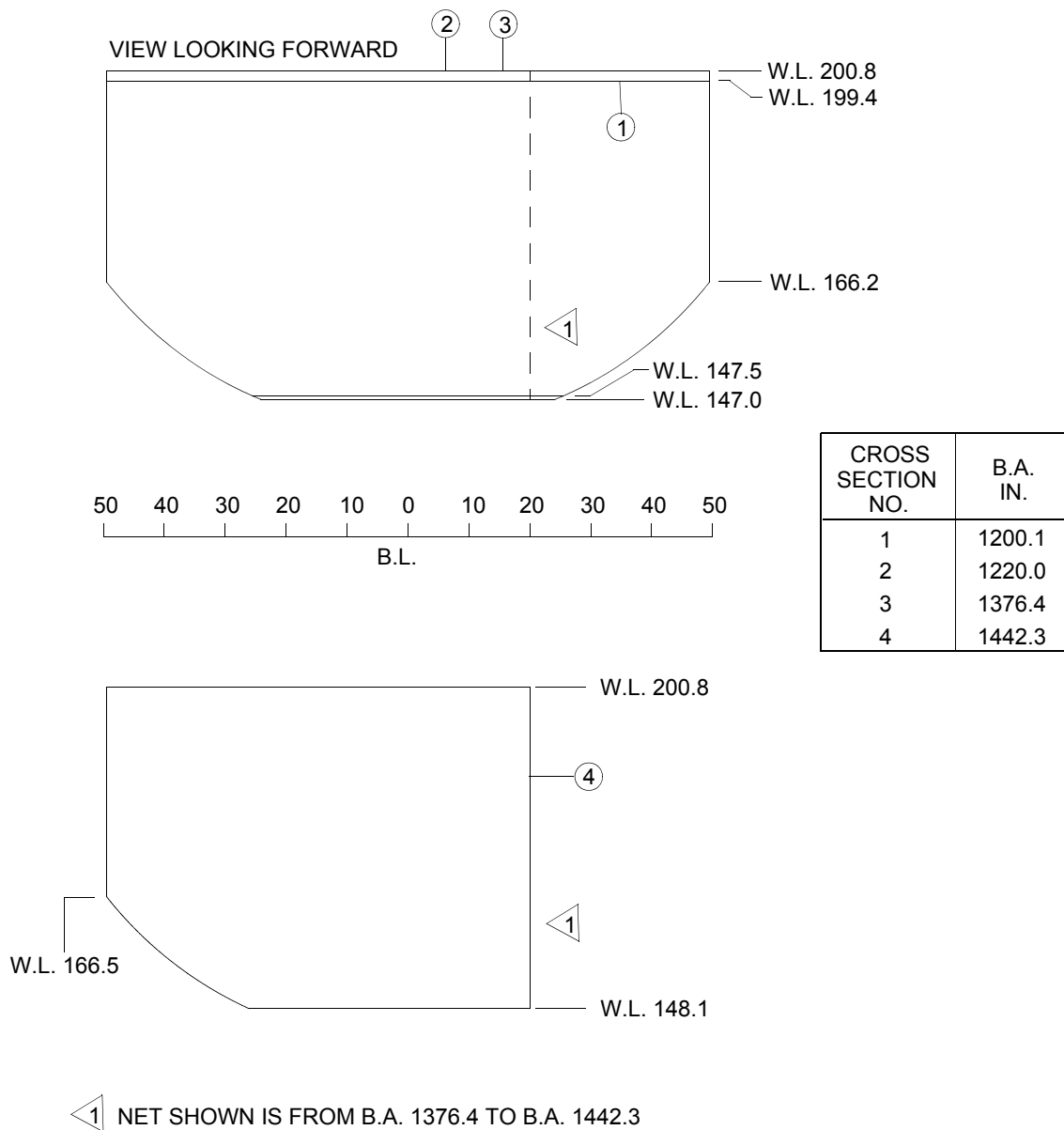
APPLICABLE CONFIGURATIONS	
All	

AFT CARGO COMPARTMENT (Continued)

The following cross-sections for compartments 3 and 4 can be used to determine ceiling clearances at various aft cargo compartment balance arms. The relative location of the cross-sectional cut can be determined by correlating the cross-section number to the general layout on the previous page.

Compartment 3 Cross-Sections

These cross-sections are for compartment 3 which is located in the forward end of the aft cargo hold.

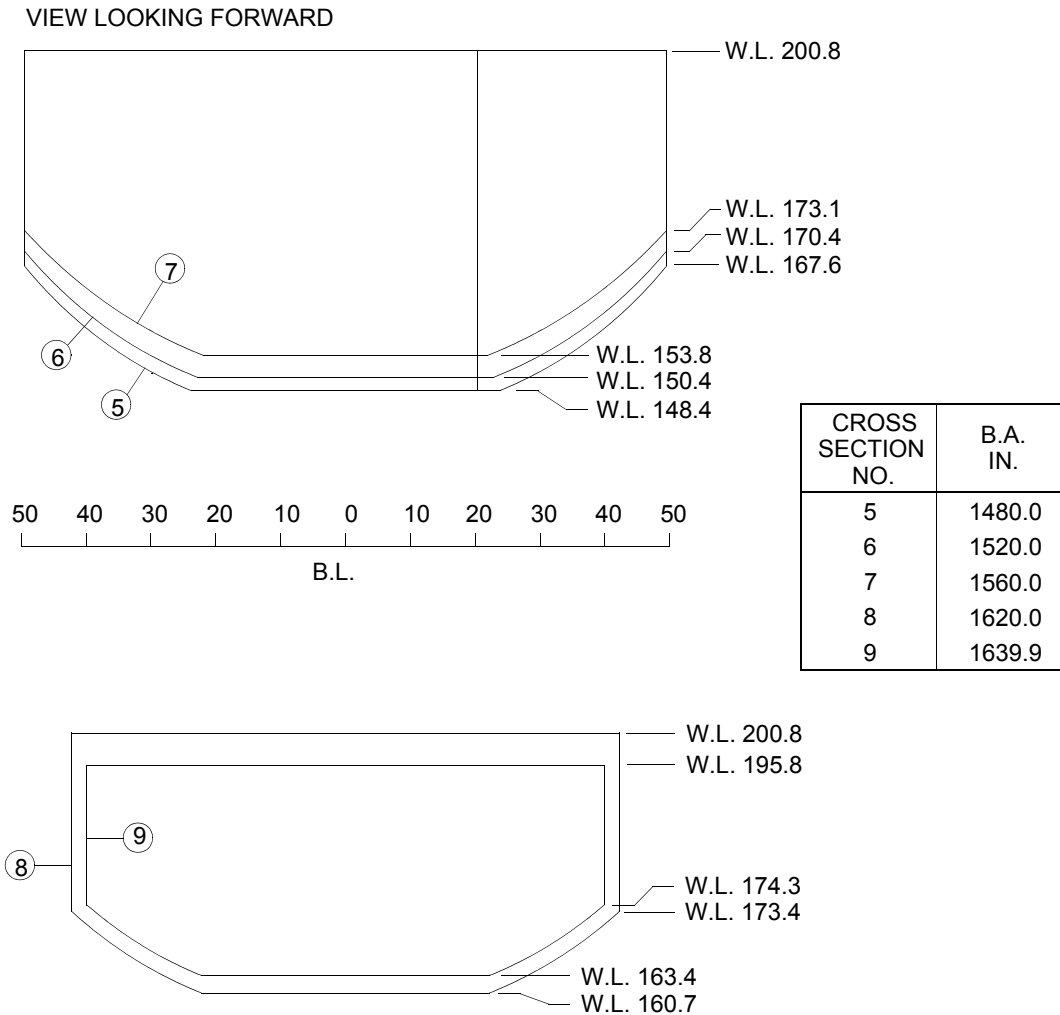


APPLICABLE CONFIGURATIONS	
All	

AFT CARGO COMPARTMENT (Continued)

Compartment 4 Cross-Sections

These cross sections are for compartment 4 which is located in the aft end of the aft cargo hold.



AFT CARGO COMPARTMENT (Continued)

CARGO DOOR DIMENSIONS AND ALLOWABLE PACKAGE SIZES

This section provides the dimensions of maximum package sizes which will pass through the aft cargo door opening. Individual tables are presented for two types of packages; "Heavy Packages Lift Assisted" and "Light Packages Hand Maneuvered".

"Heavy Packages Lift Assisted" refers to packages which require the use of a fork lift or other loading device to maneuver them through the door. The maximum length is restricted by the inward curve of the lower cargo sidewall liner opposite the door. The table assumes the packages cannot be elevated to clear this interference.

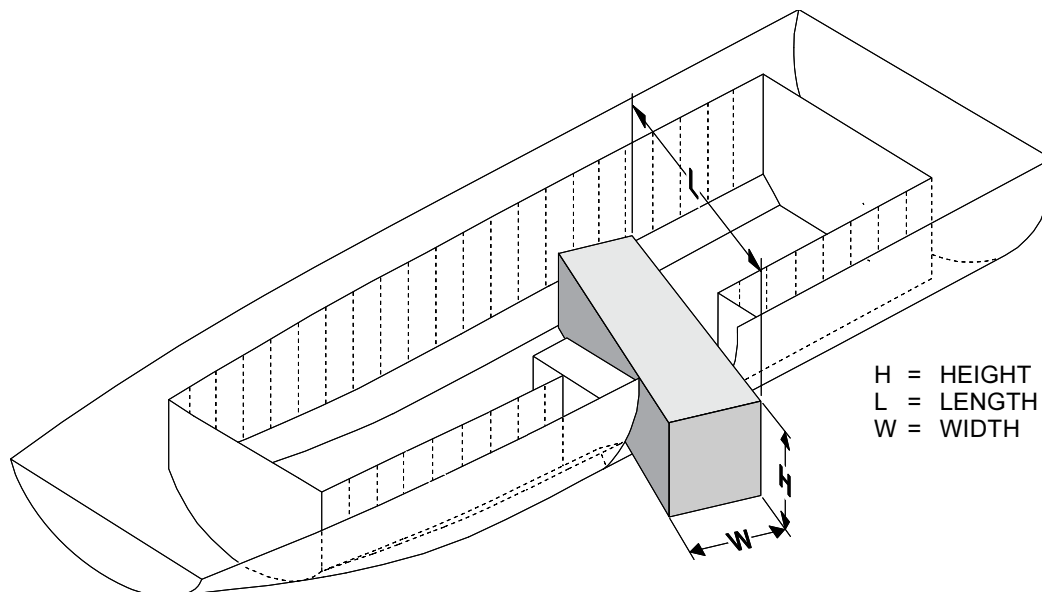
"Light Packages Hand Maneuvered" refers to packages which may be elevated to clear the inward curve of the cargo sidewall liner opposite the door.

Package sizes are approximate. Tilting, twisting, bending and/or rotating packages through door openings will allow additional lengths in many cases, but should be determined for each situation. A trial loading is recommended for packages with dimensions close to maximum dimensions indicated in the tables.

The height dimensions do not include allowances for items increasing package height such as fork lift tyne thicknesses, pallet depths, skid tub heights, etc. Any such devices must be accounted for in the total height.

Package Size Illustration

The following illustration shows package dimensioning used in the allowable package size tables.

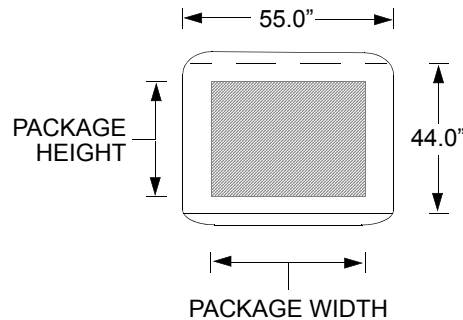


APPLICABLE CONFIGURATIONS	
All	

AFT CARGO COMPARTMENT (Continued)

Door Dimensions

The following figure provides the aft cargo door dimensions.



Allowable Package Sizes

The following tables are applicable for packages loaded forward of the aft cargo door (B.A. 1410 IN.).

HEAVY PACKAGES LIFT ASSISTED											
HEIGHT IN.	WIDTH IN.										
	5	10	15	20	25	30	35	40	45	50	55
	LENGTH IN.										
42	143	132	122	112	102	92	82	72	64	57	51
40	143	132	122	112	102	92	82	72	64	58	51
35	144	132	122	112	102	92	82	72	64	58	51
30	145	132	122	112	102	92	82	72	64	58	51
25	147	132	122	112	102	92	82	72	64	58	51
20	151	135	122	112	102	92	82	72	64	58	51
15	157	138	123	112	102	92	82	72	64	58	51
10	169	144	126	112	102	92	82	72	64	58	51
5	193	157	132	115	102	92	82	72	64	58	51

LIGHT PACKAGES HAND MANEUVERED											
HEIGHT IN.	WIDTH IN.										
	5	10	15	20	25	30	35	40	45	50	55
	LENGTH IN.										
42	160	146	134	124	114	104	94	84	75	67	60
40	175	158	144	134	124	113	103	93	83	75	67
35	216	190	170	154	142	131	121	111	100	90	82
30	245	224	196	175	158	145	134	124	113	102	93
25	246	245	220	193	172	156	144	133	121	110	100
20	246	245	220	193	172	156	144	133	121	110	100
15	246	245	220	193	172	156	144	133	121	110	100
10	246	245	220	193	172	156	144	133	121	110	100
5	246	245	220	193	172	156	144	133	121	110	100

APPLICABLE CONFIGURATIONS
All

CARGO TIEDOWNS

TIEDOWN LIMITATIONS

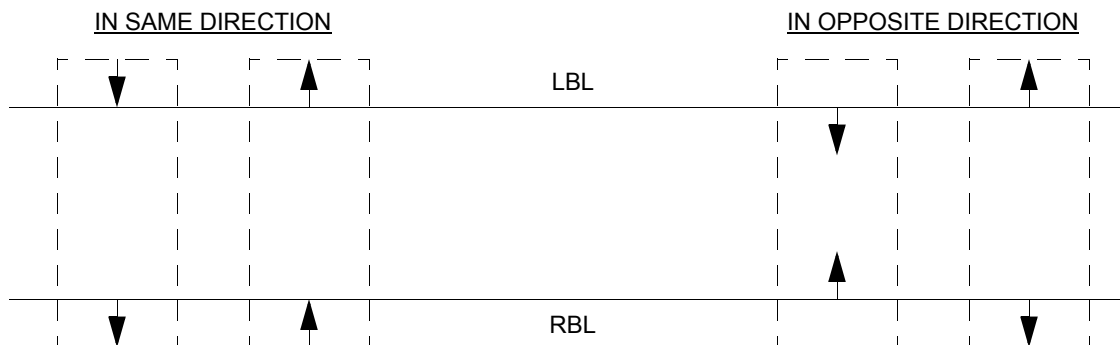
Tiedown limitations for the forward and aft holds are shown in the following table for various load directions in the tiedown points.

TIEDOWN RINGS IN FLOOR TIEDOWN POINTS								
INTERVAL BETWEEN ADJACENT FITTINGS IN.	LOAD DIRECTION ON TIEDOWN POINTS ^[a]							
	UP		FWD OR AFT		CROSS LOAD ^[b]			
					IN SAME DIRECTION		IN OPPOSITE DIRECTIONS	
	MAXIMUM LOAD PER FITTING							
	LB	KG	LB	KG	LB	KG	LB	KG
20	3000	1360.8	3000	1360.8	900	408.2	900	408.2
20	3500	1587.6	0	0	0	0	0	0

[a] Tiedown points extend the length of each hold at 20 inch intervals

[b] Cross Loads are defined in the figure below.

The following figure illustrates cross load definitions:



CAUTION CARGO MUST NOT BECOME A HAZARD TO THE AIRPLANE STRUCTURE OR SYSTEMS AS A RESULT OF SHIFTING UNDER OPERATIONAL LOADS. SHARP EDGES OR DENSE CARGO MUST EITHER BE LOCATED SO THAT CRUSHABLE TYPE CARGO ACTS AS A BUFFER TO PREVENT HAZARD, OR BE RESTRAINED TO PREVENT SHIFTING.

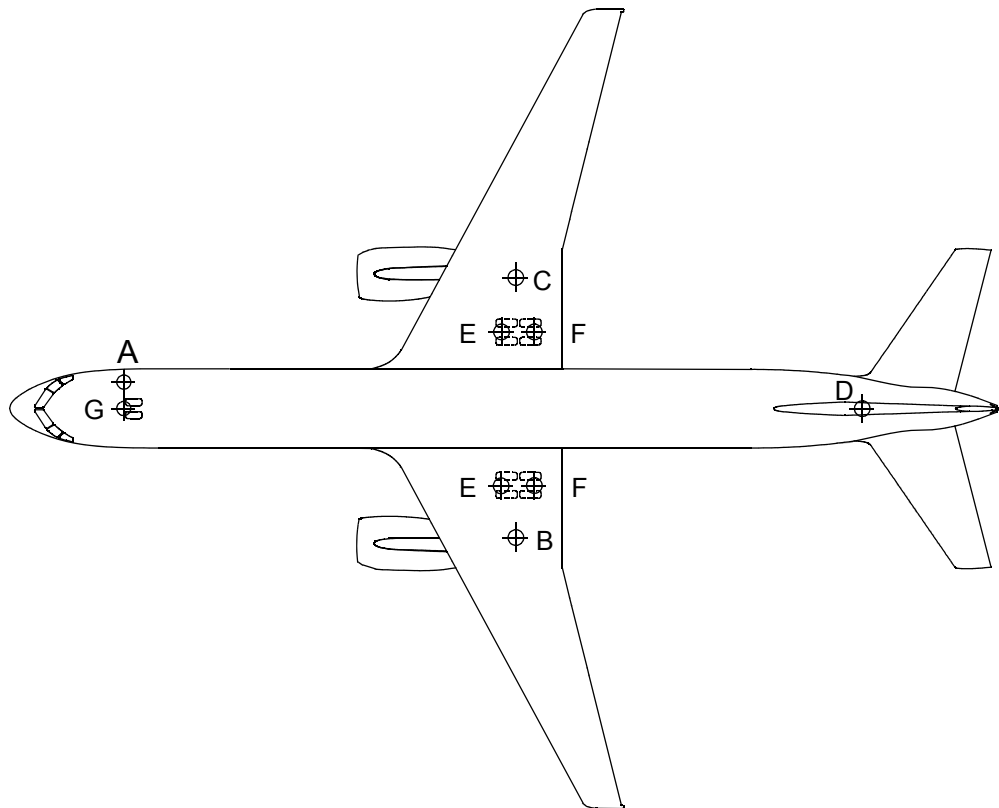
INTERNAL RESTRAINT MUST BE USED WHEN LOADING COMPARTMENTS CONTAINING ROLLERS, BALLS, OR OTHER DEVICES DESIGNED TO ASSIST IN MOVING OBJECTS WITHIN THE COMPARTMENT.

APPLICABLE CONFIGURATIONS
All

AIRPLANE JACKING

JACK POINT LOCATIONS

The following figure provides jack point locations.



APPLICABLE CONFIGURATIONS	
All	

AIRPLANE JACKING (Continued)

MAXIMUM ALLOWABLE JACKING LOADS

The following allowable jacking loads and envelopes are based on the structural limits of the airplane.

JACK POINT		MAXIMUM JACKING LOAD		LOCATION		
				B.A. IN.	B.B.L. ^[a] IN.	W.L. IN.
Forward Fuselage	A	26900	12201	395.0	+56.5	169.8
	B	93000	42184	1109.2	-241.3	192.6
Rear Wing Spar	C	93000	42184	1109.2	+241.3	192.6
	D	4000 ^[b]	1814 ^[b]	1777.7	0.0	180.8
Aft Fuselage (Stabilizing Point)	E	58450	26512	1088.8	-144.0	Varies
		58450	26512	1088.8	+144.0	Varies
	F	58450	26512	1133.8	-144.0	Varies
		58450	26512	1133.8	+144.0	Varies
Nose Gear Axle	G	33200	15059	385.0	0.0	Varies

[a] Negative values represent jack points on the left hand side of the airplane and positive values represent jack points on the right hand side of the airplane.

[b] This value is limited by the forward fuselage allowable jack load. Local structural allowable is 12000 LB (5443 KG) for stabilization point D.

[c] Jack point balance arms are for gears in the static taxi position. Main gear jack points will vary with different oleo extensions.

WARNING JACK POINT D IS A STABILIZATION POINT AND IS NOT TO BE USED WHILE RAISING OR LOWERING THE AIRPLANE. POINT D SHOULD BE ENGAGED ONLY AFTER PRIMARY JACKS ARE SECURED IN THE FINAL POSITION.

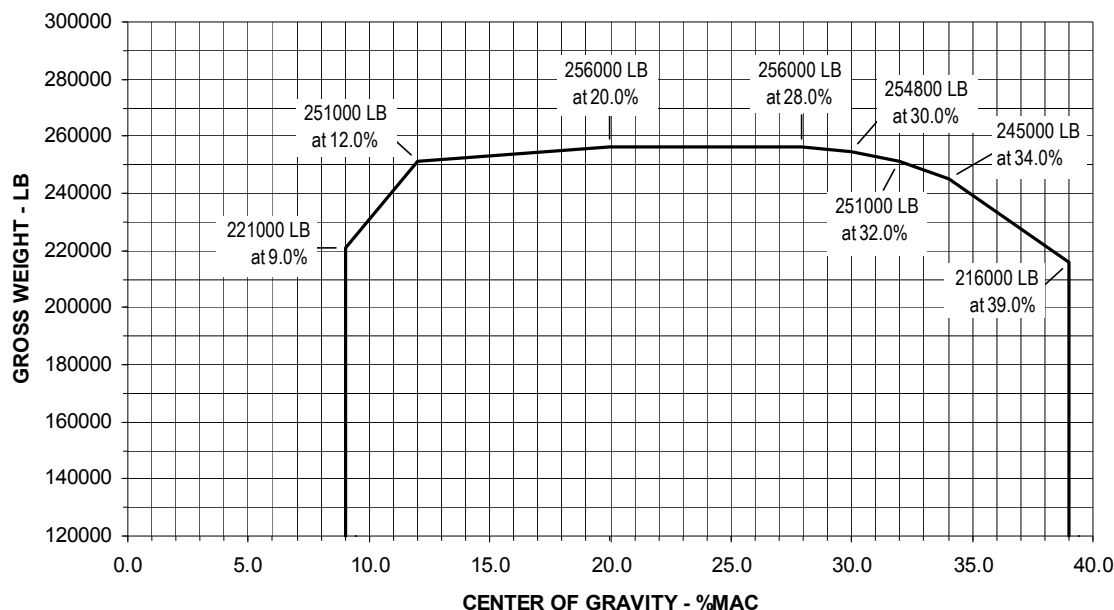
APPLICABLE CONFIGURATIONS
All

AIRPLANE JACKING (Continued)

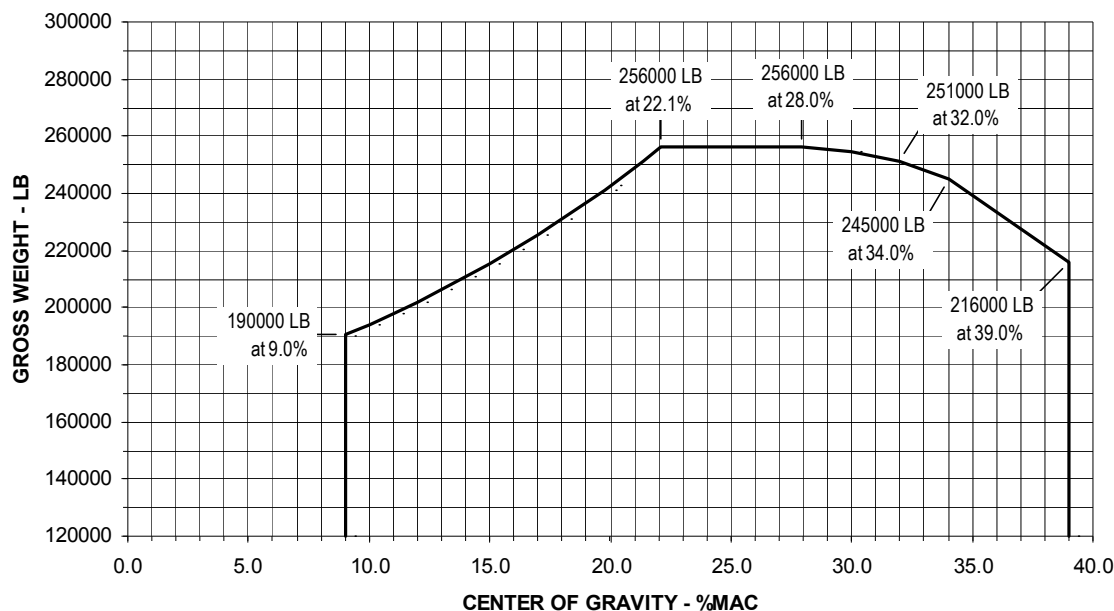
LIMITATIONS ENVELOPES

During the airplane raising and lowering operation the airplane must be within the weight and balance limits as shown. Refer to CHP-SEC 1-00-04x for conversion formulas between %MAC and Balance Arms.

Main Gear (E, F) and Nose Gear (G) Jack Points (Gross Weight in LB)



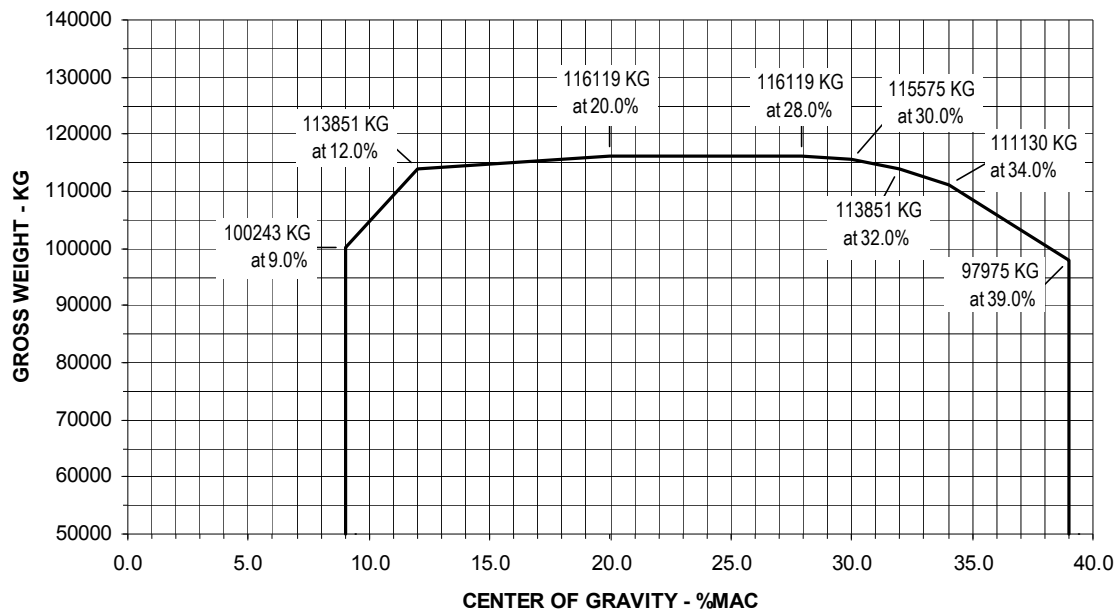
Main Gear (E, F) and Forward Body (A) Jack Points (Gross Weight in LB)



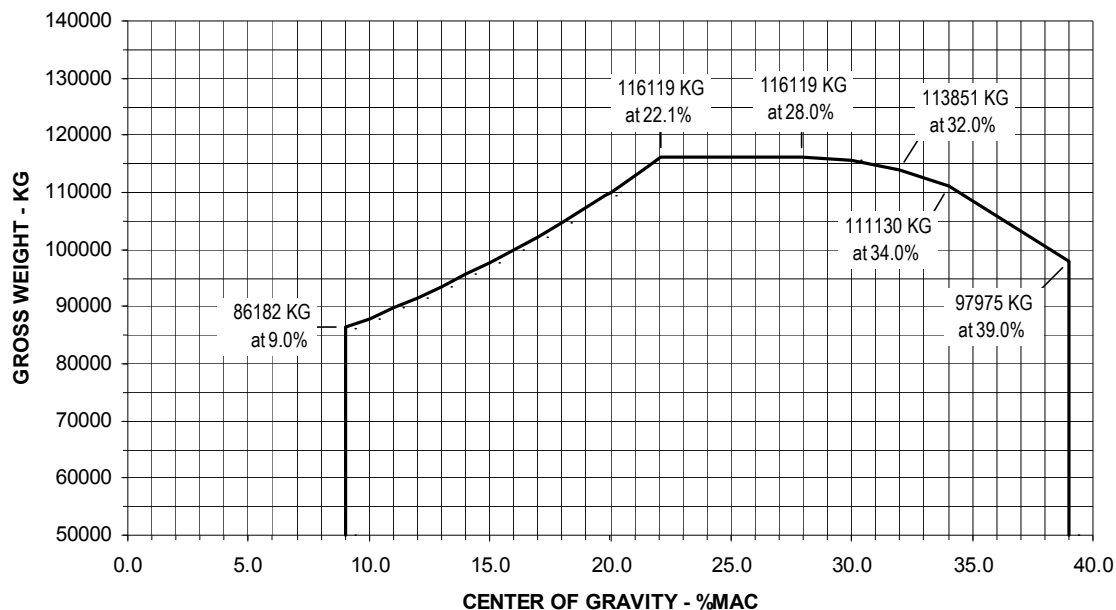
APPLICABLE CONFIGURATIONS	
All	

AIRPLANE JACKING (Continued)

Main Gear (E, F) and Nose Gear (G) Jack Points (Gross Weight in KG)



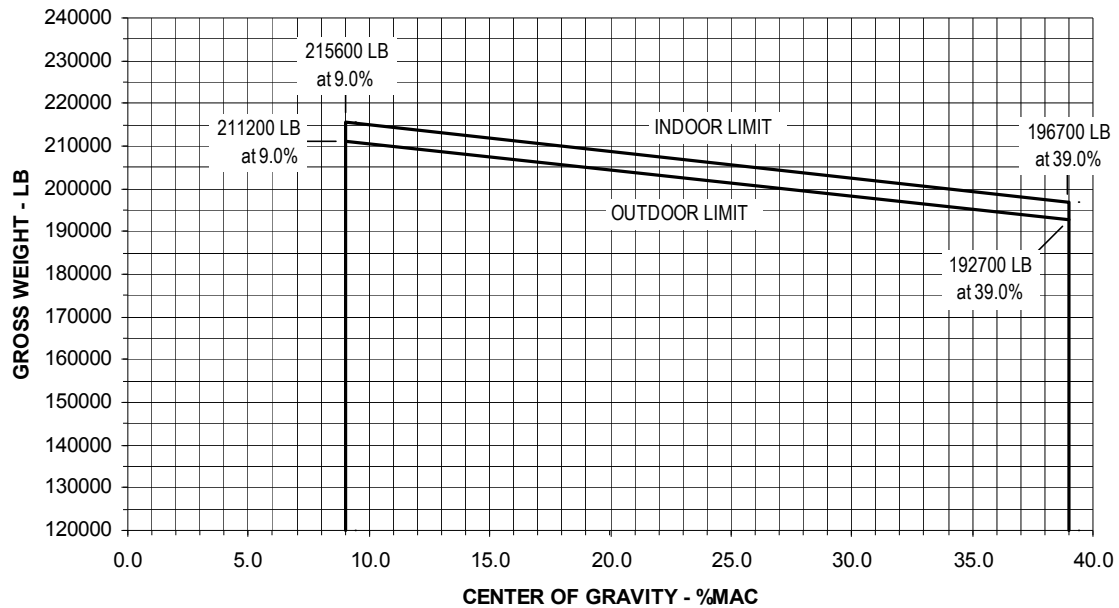
Main Gear (E, F) and Forward Body (A) Jack Points (Gross Weight in KG)



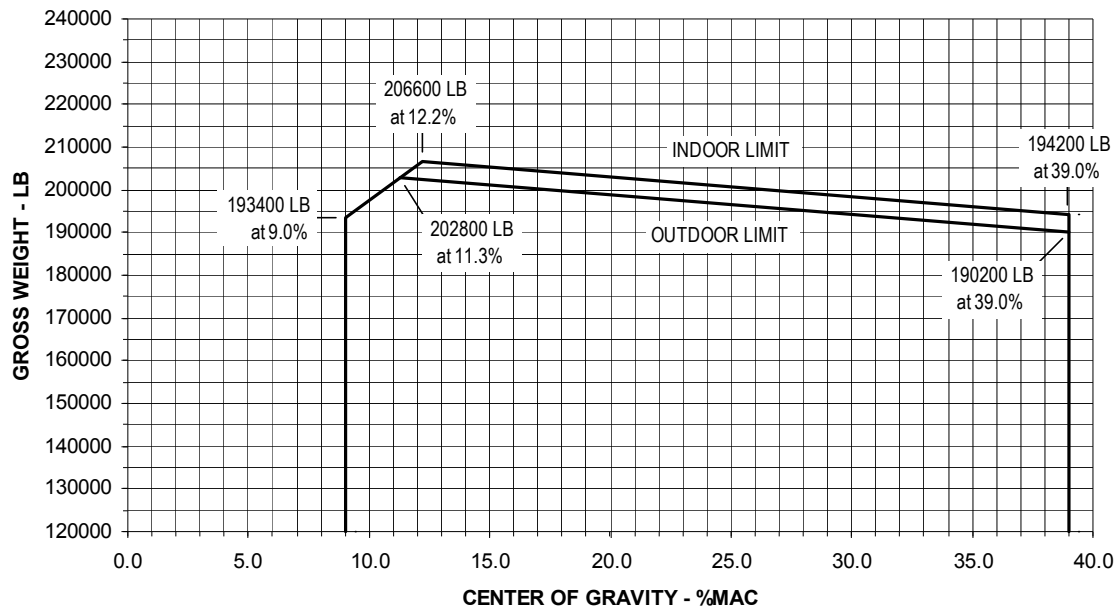
APPLICABLE CONFIGURATIONS	
All	

AIRPLANE JACKING (Continued)

Rear Wing Spar (B, C) and Nose Gear (G) Jack Points (Gross Weight in LB)



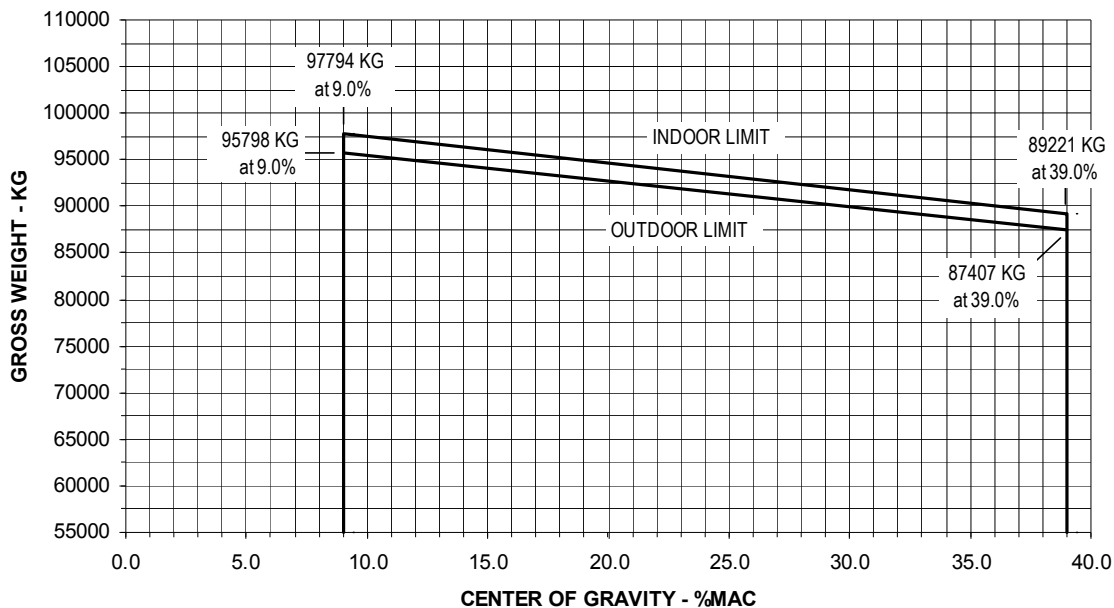
Rear Wing Spar (B, C) and Forward Body (A) Jack Points (Gross Weight in LB)



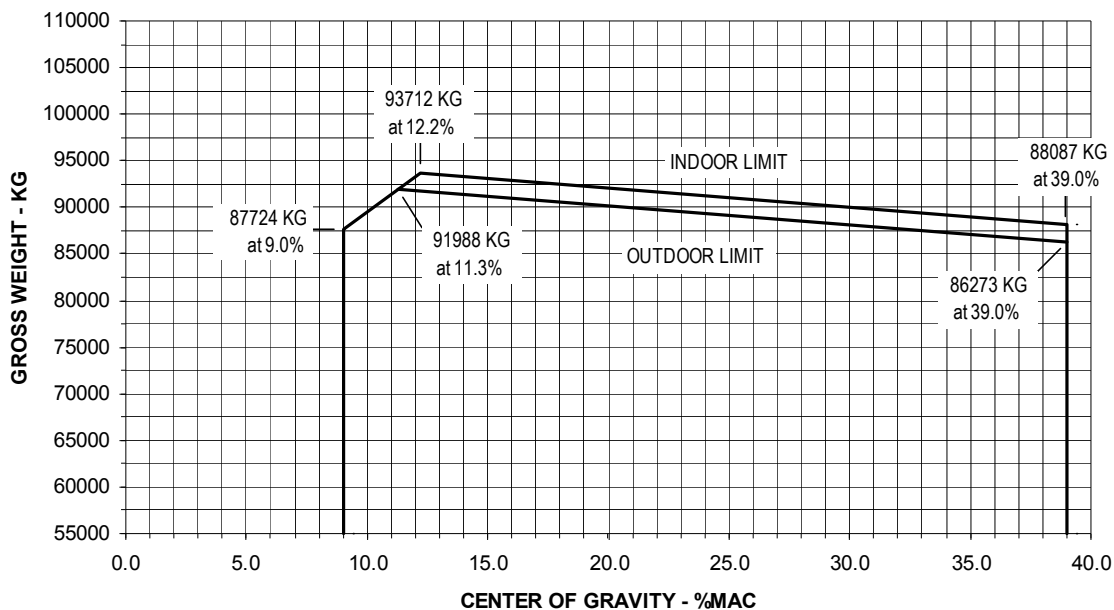
APPLICABLE CONFIGURATIONS	
All	

AIRPLANE JACKING (Continued)

Rear Wing Spar (B, C) and Nose Gear (G) Jack Points (Gross Weight in KG)



Rear Wing Spar (B, C) and Forward Body (A) Jack Points (Gross Weight in KG)

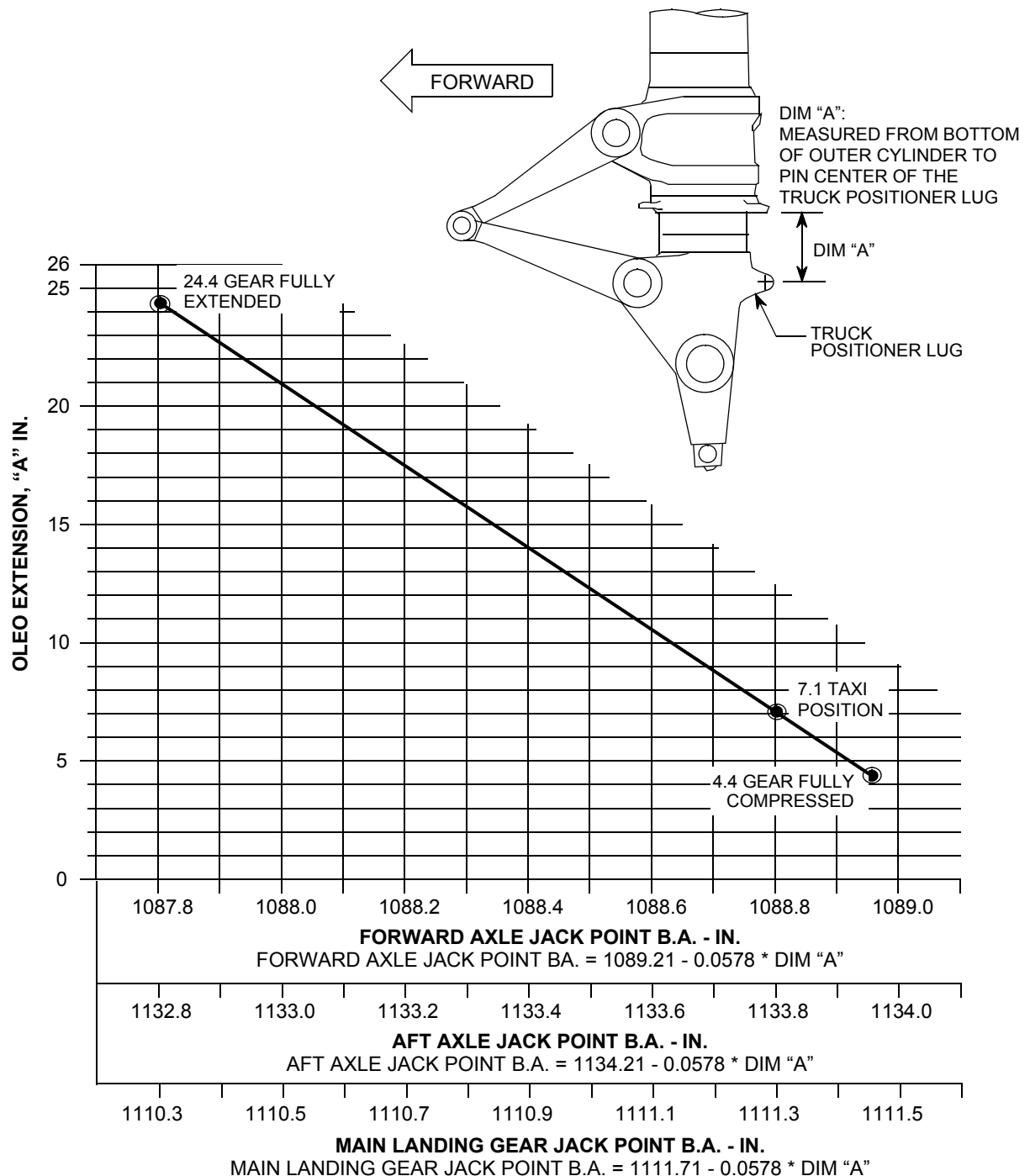


APPLICABLE CONFIGURATIONS	
All	

MAIN LANDING GEAR JACK POINTS FOR VARIOUS OLEO EXTENSIONS

JACK POINT BALANCE ARMS VERSUS OLEO EXTENSION

The following main landing gear figure shows how to determine the amount of oleo extension (Dimension "A"). The corresponding chart diagrams the relationship between the main landing gear, forward & aft axle jack point balance arms and the main landing gear oleo extension (Dimension "A").



APPLICABLE CONFIGURATIONS	
All	

AIRPLANE WEIGHING PROCEDURE

GENERAL INFORMATION

This section describes the recommended procedures for preparation and weighing of the model 757-200 airplane. Weighing facilities, weighing equipment and leveling provisions required for weighing the airplane are also discussed. Useful information concerning the procedures for establishing aircraft initial weight, fleet weights, re-establishing fleet weights, periodic weighing requirements, etc. may be found in FAA Advisory Circular AC 120-27E, dated June 10, 2005.

Airplane weighing may be accomplished by:

- ❑ The use of platform scales.
- ❑ The use of electronic load cells by jacking the airplane at the landing gear axle jack points.
- ❑ The use of electronic load cells by jacking the airplane at the primary jacking points.

CAUTION FOR SAFETY REASONS, WEIGHING THE AIRPLANE BY JACKING AT THE PRIMARY JACKING POINTS IS NOT RECOMMENDED, AND SHOULD ONLY BE USED WHEN OTHER PROCEDURES ARE NOT AVAILABLE.

WEIGHING FACILITIES AND EQUIPMENT

The airplane should be weighed in still air, preferably inside a closed facility that will:

- ❑ Exclude all wind and drafts.
- ❑ Permit shutdown of air conditioning during the weighing operation.
- ❑ Maintain a relatively constant temperature.
- ❑ Provide a level weighing surface and sufficient overhead clearance.

The required equipment for weighing an airplane consists of:

- ❑ Certified electronic or mechanical weighing equipment.
- ❑ Hydraulic jacks and adapters, if necessary.
- ❑ Landing gear oleo locks, if necessary.
- ❑ Plumb bob.

PREPARATION FOR AIRPLANE WEIGHING

The airplane configuration is of extreme importance in the derivation of a defined airplane operating weight from an actual scale weight. The interior and exterior of the airplane must be as complete as possible. All fluid levels (fuel, oil, water, hydraulic) must be known quantities. The weighing area and equipment usage must be controlled to avoid errors and minimize variation in scale readings.

Fuel

Fuel from all tanks is drained to the trapped (usable and unusable) fuel condition. Trapped fuel is defined as the quantity of fuel which cannot be removed through the production sump tank drains.

To obtain trapped fuel condition:

1. Pump off all usable fuel to sump level.

APPLICABLE CONFIGURATIONS	
All	

AIRPLANE WEIGHING PROCEDURE (Continued)

2. Adjust and maintain airplane attitude at 0.3 degrees nose down (± 0.1 degree) longitudinal and 0.0 degrees (± 0.1 degree) lateral.
3. Drain the remaining fuel through sump drain valves.

System Fluids

System fluids must be drained or at a known quantity as follows:

- ☐ Drain all waste tanks.
- ☐ Drain potable water system.
- ☐ The following systems must be at a known quantity (serviced for flight is preferred):
 - ☐ Engine Oil
 - ☐ Hydraulic Fluids
 - ☐ Oxygen
 - ☐ Landing Gear Oleo Oil
 - ☐ Fire Extinguisher Charge
 - ☐ Miscellaneous Subsystem Fluids

Airplane Configuration

The condition of the airplane at the time of weighing must be one that is well defined and can be easily repeated. Each of the following steps must be completed prior to weighing:

- ☐ Inventory the airplane using an approved inventory list.
- ☐ Remove all shop equipment, tools, and trash.
- ☐ Stow all loose equipment items in their proper locations.
- ☐ Dry the airplane thoroughly.
- ☐ Close all doors and access panels.
- ☐ Extend or retract the flaps fully (refer to Chp-Sec 1-08-xxx of this document for gear and flap retraction moments).
- ☐ Set the horizontal stabilizer, control surfaces, and spoilers to their neutral positions.
- ☐ Inflate landing gear tires to specified operating pressures.

WEIGHING OPERATION

The airplane should be weighed in a level longitudinal attitude when possible. If the airplane cannot be leveled for weighing, the longitudinal attitude must be within ± 2 degrees from level during the actual weighing operation, and the measured center of gravity must be arithmetically corrected to an equivalent "level" center of gravity. This requires application of the correction factors from the table in the "Non-Level Weighing" section on page 5.

The recommended method of determining the longitudinal attitude of the aircraft is to attach a plumb bob to the plumb bob fitting located in the right main gear wheel well and to read the longitudinal attitude from the corresponding scale.

APPLICABLE CONFIGURATIONS	
All	

AIRPLANE WEIGHING PROCEDURE (Continued)

When the airplane is being weighed on platform scales or the main landing gear jacking points, it is necessary to measure the main landing gear oleo extension since the balance arm of the weight reaction point varies with the extension of the oleo strut. (Refer to Chp-Sec 1-80-xxx of this document for further information.)

WEIGHING PROCEDURE USING PLATFORM SCALES

The following procedure outlines the method for weighing the airplane on portable or floor level platform scales. The scales may be mechanical beam or electronic. Follow weighing equipment manufacturer's operating instructions.

1. Zero the platform scales prior to putting the airplane on the scales. All undesirable tare should be off the scales.
2. Position the airplane on the scales. The approach should be straight and the airplane should be brought slowly and smoothly to a stop, without applying airplane brakes.
3. Inflate or deflate landing gear oleos as required to obtain the desired longitudinal attitude. Check the attitude with the plumb bob.
4. Record landing gear oleo extensions.
5. Record weight reading obtained from each airplane weight reaction point.
6. Remove the airplane from the scales.
7. Check the scales for zero load condition.
8. Repeat weighing procedure as needed to verify airplane weight.

WEIGHING PROCEDURE USING ELECTRONIC LOAD CELLS

The airplane can be weighed using individual electronic load cells with adapters to interface with ground support equipment jacks and airplane jack points. It is most important that the weighing kit be adequately warmed up and that the airplane, ground support equipment, and weighing cells attain the same even temperature prior to weighing the airplane. Load cells require care in placement to prevent side loads. When using jacks, it is imperative to remove all weighing cell misalignment due to uneven floors or airplane structural deflection.

The maximum jacking loads shown in Chp-Sec 1-80-xxx of this document must not be exceeded during jacking operations.

The following procedures outline the method for weighing the airplane with electronic load cells at either of the following:

- ☐ Landing gear axle jack points.
- ☐ Primary jacking points.

Landing Gear Axle Jack Points

Follow these procedures when weighing the airplane with electronic load cells at the landing gear axle jack points:

1. Follow weighing equipment manufacturer's operating instructions.

APPLICABLE CONFIGURATIONS
All

AIRPLANE WEIGHING PROCEDURE (Continued)

2. Inflate or deflate landing gear oleos as required to obtain the desired longitudinal attitude. Check the attitude with plumb bob.
3. Record landing gear oleo extensions.
4. Zero electronic weighing equipment prior to raising the airplane.
5. Center the jacks, with load cells installed, under the jack points. Proper alignment must be made between load cells and jack points.
6. Jack all positions at an even rate, maintaining a level attitude, until tires clear the floor.
7. Check airplane level attitude with the plumb bob. If necessary, jack individual points to obtain the desired attitude.
8. Record weight reading obtained from each airplane weight reaction point.
9. Lower airplane gently to the floor, maintaining a level attitude, until load cells are completely clear of the jack points.
10. Check the load cells for zero load condition.
11. Repeat weighing procedure as needed to verify airplane weight.

Primary Jacking Points

Follow these procedures when weighing the airplane with electronic load cells at the primary jacking points:

1. See Chp-Sec 1-80-xxx of this document for balance arms and load limits for primary jacking points.
2. Follow weighing equipment manufacturer's operating instructions.
3. Bleed all air from the nose and main landing gear oleos and install oleo uplocks to prevent the oleos from extending.

WARNING ALL AIR MUST BE REMOVED FROM THE LANDING GEAR OLEOS IF UPLOCKS ARE INSTALLED. IMPROPER OLEO DEFLATION MAY CAUSE OLEO UPLOCK FAILURE.

4. Level the airplane prior to jacking so the airplane may be raised and lowered evenly on jack points, and minimize side loads. If the airplane attitude is nose down prior to jacking, an optional method of leveling the airplane is to inflate the nose gear oleo. The nose gear oleo would then be allowed to fully extend during the jacking operation.
5. Secure the main landing gear trucks, if required, by rope to prevent rotation during the jacking operation.
6. Zero electronic weighing equipment prior to raising the airplane.
7. Center the jacks, with load cells installed under the jack points. Proper alignment must be made between load cells and jack points.
8. Jack all positions at an even rate, maintaining a level attitude, until tires clear the floor.
9. Check airplane level attitude with the plumb bob. If necessary, jack individual points to obtain the desired attitude.
10. Record weight reading obtained from each airplane weight reaction point.

APPLICABLE CONFIGURATIONS	
All	

AIRPLANE WEIGHING PROCEDURE (Continued)

11. Lower airplane gently to the floor, maintaining a level attitude, until load cells are completely free of the airplane.
12. Check the load cells for zero load condition.
13. Repeat weighing procedure as needed to verify airplane weight.

NON-LEVEL WEIGHING

When the airplane is weighed in a non-level condition, the calculated C.G. must be corrected to the level condition. The attitude of the airplane must be known at the time of weighing. Determine the C.G. of the airplane in this non-level condition, and then use the following table to correct the C.G. to the level condition.

ANGLE DEGREES		C.G. CORRECTION IN.
Nose down	-2	4.3
	-1 7/8	4.0
	-1 3/4	3.7
	-1 5/8	3.5
	-1 1/2	3.2
	-1 3/8	2.9
	-1 1/4	2.7
	-1 1/8	2.4
	-1	2.1
	-7/8	1.9
	-3/4	1.6
	-5/8	1.3
	-1/2	1.1
	-3/8	0.8
	-1/4	0.5
	-1/8	0.3
Level	0	0.0

ANGLE DEGREES		C.G. CORRECTION IN.
Level	0	0.0
	1/8	-0.3
	1/4	-0.5
	3/8	-0.8
	1/2	-1.1
	5/8	-1.3
	3/4	-1.6
	7/8	-1.9
	1	-2.1
	1 1/8	-2.4
	1 1/4	-2.7
	1 3/8	-2.9
	1 1/2	-3.2
	1 5/8	-3.5
	1 3/4	-3.7
	1 7/8	-4.0
Tail down	2	-4.3

Non-Level Weighing Example

As an example, if an airplane was weighed in a 1/2 degree tail down angle, the airplane C.G. would be determined by adding -1.1 inches to the calculated center of gravity.

APPLICABLE CONFIGURATIONS
All

TOWING AND TIPPING LIMITATIONS

TOWING AND TIPPING CONSIDERATIONS

Tipping is generally not a concern for 757-200 airplanes if good judgement is exercised in maintaining airplane stability during ground operations. Effects of towing and ground operations on the airplane center of gravity must be taken into account. The absolute tipping limit for the 757-200 airplane is at 59.8% MAC, considerably aft of the ground stability limit. Some of the major factors affecting the airplane tipping and stability limits will include, but are not limited to the following items:

- ☐ Airplane Empty Weight
- ☐ Airplane Attitude
- ☐ Fuel Loading
- ☐ Passenger Loading
- ☐ Cargo Loading
- ☐ Ramp Slope
- ☐ Runway Surface Condition
- ☐ Snow Loads
- ☐ Wind Loads

The ground stability limit takes into account the effects of the following:

- ☐ 3% Ramp slope
- ☐ Towing forces
- ☐ 35 knot headwind

By ensuring that the airplane center of gravity during towing is more forward than the ground stability limit, a tipping situation will be avoided.

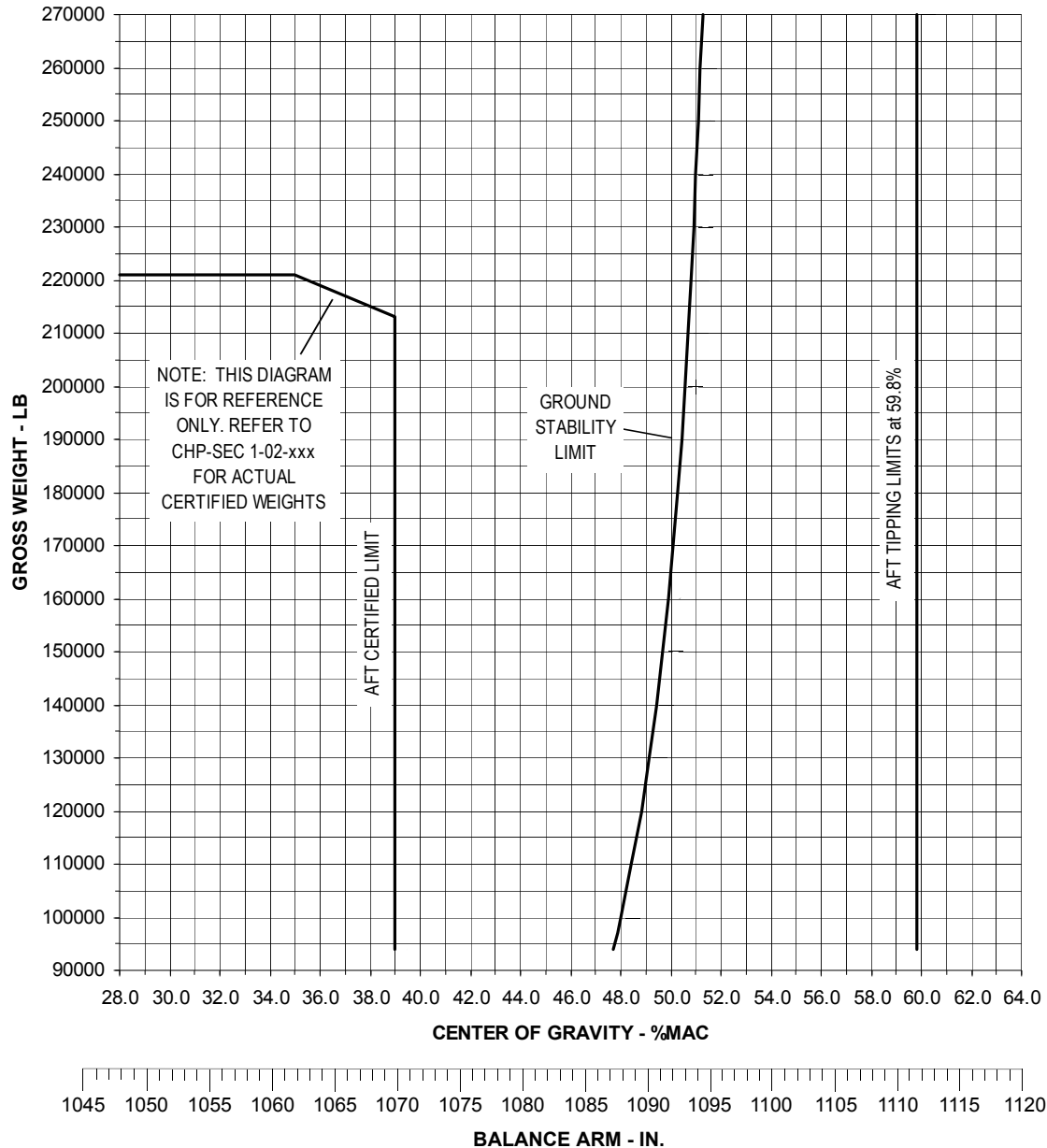
NOTE See the Maintenance Manual for towing procedures and ground stability limits during maintenance.

APPLICABLE CONFIGURATIONS	
All	

TOWING AND TIPPING LIMITATIONS (Continued)

TOWING AND TIPPING LIMITS (ENGLISH)

The following diagram shows the towing and tipping limits in english units:

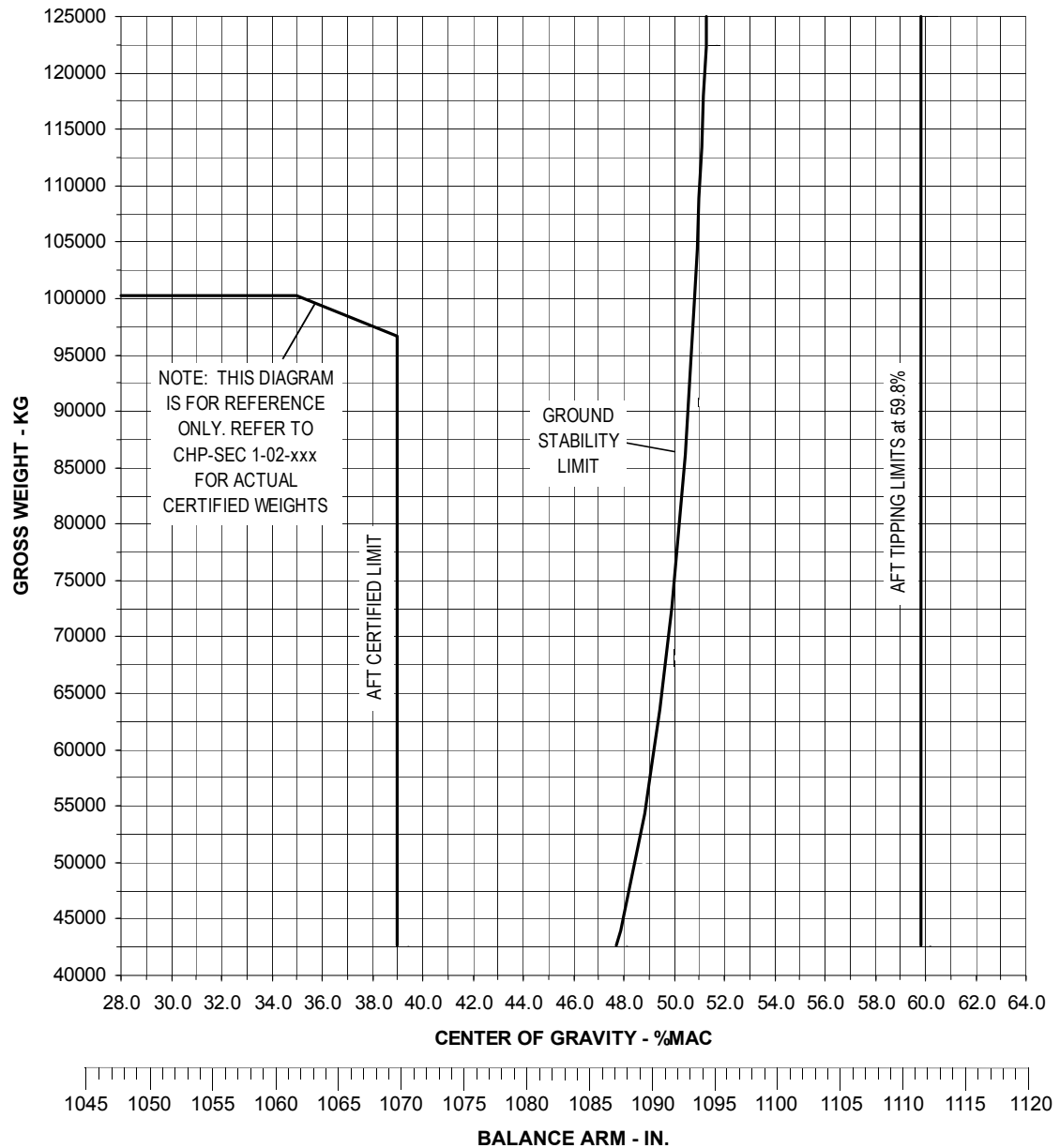


APPLICABLE CONFIGURATIONS	
All	

TOWING AND TIPPING LIMITATIONS (Continued)

TOWING AND TIPPING LIMITS (METRIC)

The following diagram shows the towing and tipping limits in metric units:

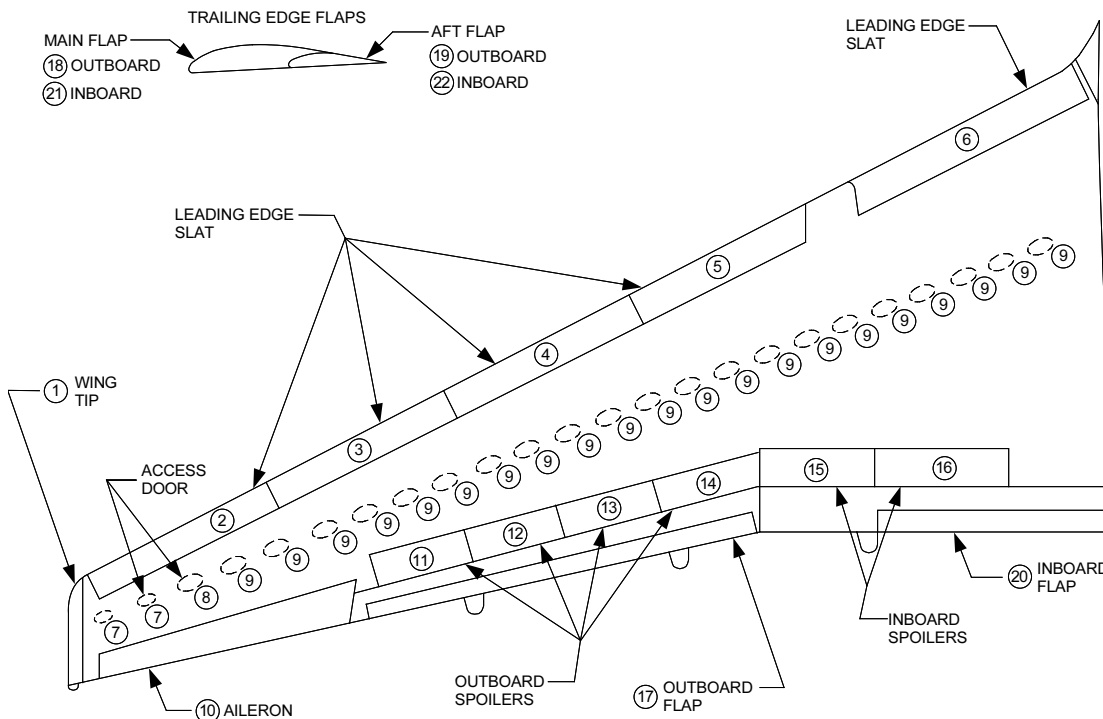


APPLICABLE CONFIGURATIONS	
All	

COMPONENT WEIGHTS AND BALANCE ARMS

WING COMPONENTS

Some of the removable wing components are illustrated in the following figure:



The following table provides nominal weights and balance arms for wing components from the above illustration. Values from this table should only be used to determine approximate weight and balance for specialized types of maintenance.

ITEM NO.	WING COMPONENTS	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
1	Wing Tip Assembly	44	20	1255
2	Leading Edge Slat No. 1	81	37	1207
3	Leading Edge Slat No. 2	89	40	1146
4	Leading Edge Slat No. 3	97	44	1083
5	Leading Edge Slat No. 4	102	46	1019
6	Leading Edge Slat No. 5	140	64	941
7	Access Door (2)	2	1	Varies
8	Surge Vent Access Door	12	5	1205
9	Fuel Tank Access Door (21)	4	2	Varies
10	Aileron Assembly	136	62	1260
11	Outboard Spoiler No. 1	28	13	1211
12	Outboard Spoiler No. 2	28	13	1196

APPLICABLE CONFIGURATIONS	
All	



COMPONENT WEIGHTS AND BALANCE ARMS (Continued)

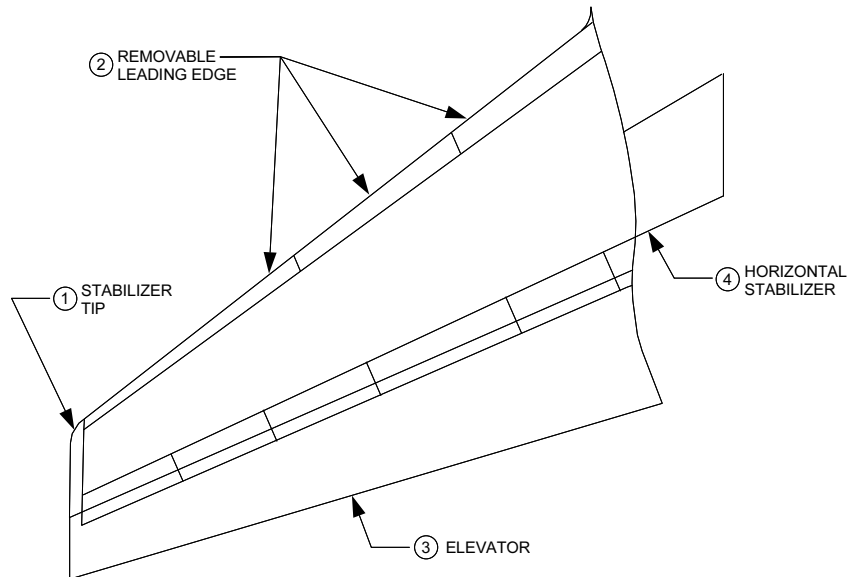
ITEM NO.	WING COMPONENTS (Continued)	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
13	Outboard Spoiler No. 3	28	13	1178
14	Outboard Spoiler No. 4	26	12	1160
15	Inboard Spoiler No. 5	32	15	1148
16	Inboard Spoiler No. 6	38	17	1148
17	Outboard Trailing Edge Flap Assembly			
18	Main Flap	487	221	1194
19	Aft Flap	91	41	1208
20	Inboard Trailing Edge Flap Assembly			
21	Main Flap	518	235	1158
22	Aft Flap	93	42	1175

APPLICABLE CONFIGURATIONS
All

COMPONENT WEIGHTS AND BALANCE ARMS

HORIZONTAL STABILIZER COMPONENTS

Some of the removable horizontal stabilizer components are illustrated in the following figure:



The following table provides nominal weights and balance arms for horizontal stabilizer components from the above illustration. Values from this table should only be used to determine approximate weight and balance for specialized types of maintenance.

ITEM NO.	HORIZONTAL STABILIZER COMPONENTS	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
1	Stabilizer Tip	3	1	1947
2	Removable Leading Edge	63	29	1822
3	Elevator Installation	176	80	1931
4	Horizontal Stabilizer ^[a]	1123	509	1857

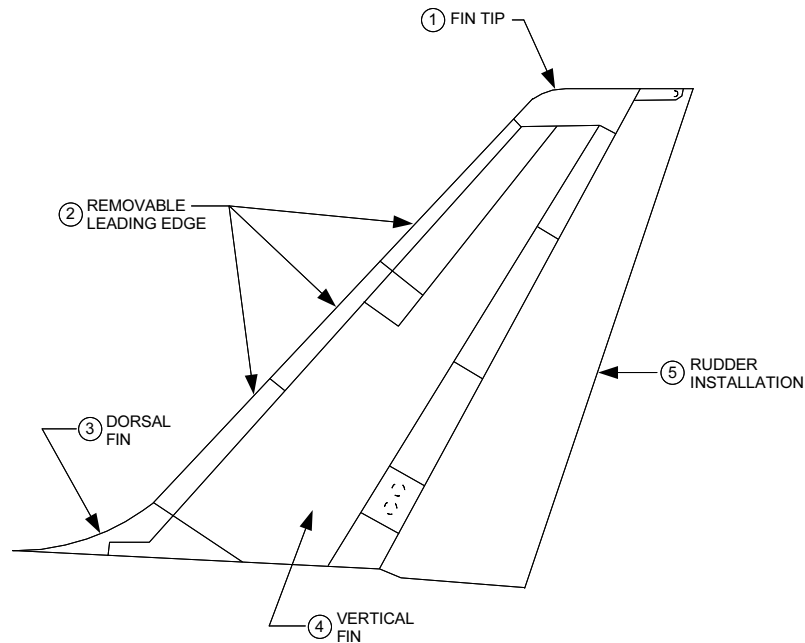
[a] This includes the total fin installation less the other components listed in this table.

APPLICABLE CONFIGURATIONS	
All	

COMPONENT WEIGHTS AND BALANCE ARMS

VERTICAL FIN COMPONENTS

Some of the removable vertical fin components are illustrated in the following figure:



The following table provides nominal weights and balance arms for vertical fin components from the above illustration. Values from this table should only be used to determine approximate weight and balance for specialized types of maintenance.

ITEM NO.	VERTICAL FIN COMPONENTS	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
1	Fin Tip	23	10	1951
2	Removable Leading Edge	90	41	1787
3	Dorsal Fin	16	7	1651
4	Vertical Fin ^[a]	1221	554	1820
5	Rudder Installation	317	144	1908

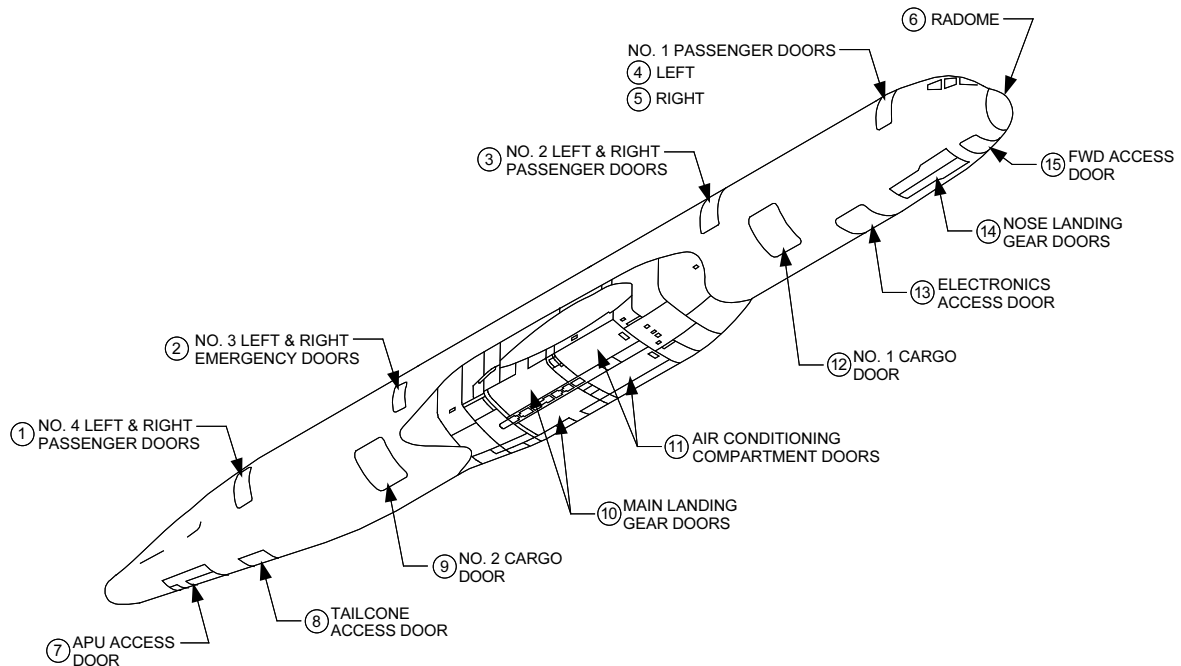
[a] This includes the total fin installation less the other components listed in this table.

APPLICABLE CONFIGURATIONS
All

COMPONENT WEIGHTS AND BALANCE ARMS

BODY COMPONENTS

Some of the removable body components are illustrated in the following figure:



The following table provides nominal weights and balance arms for body components from the above illustration. Values from this table should only be used to determine approximate weight and balance for specialized types of maintenance.

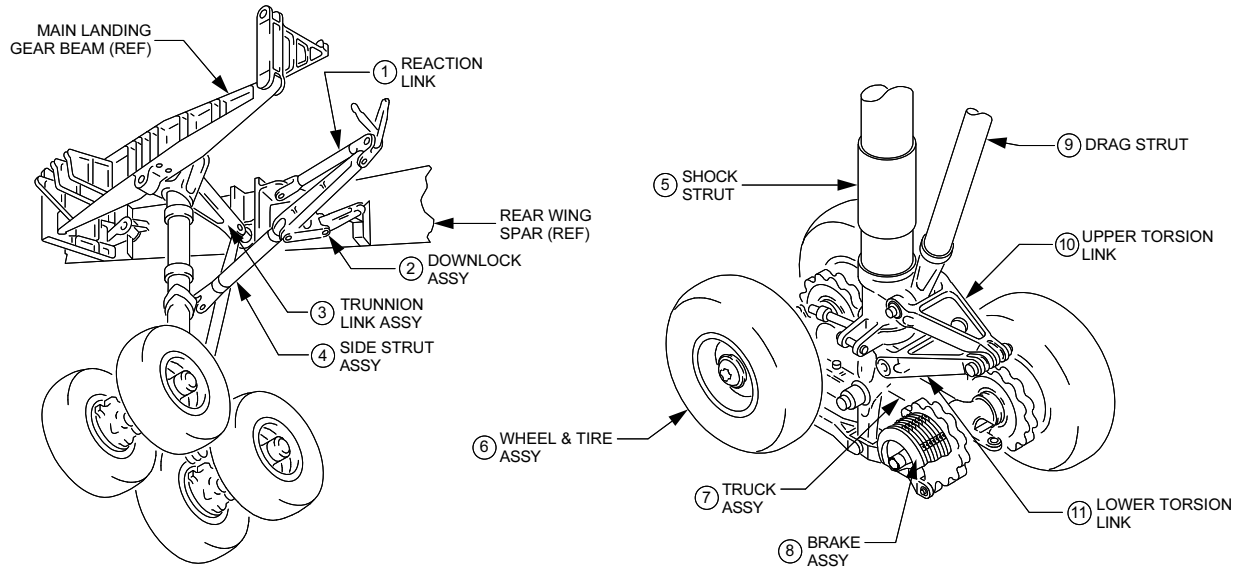
ITEM NO.	BODY COMPONENTS	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
1	No. 4 Passenger Door (Left & Right)	309	140	1664
2	No. 3 Emergency Door (Left & Right)	180	82	1335
3	No. 2 Passenger Door (Left & Right)	309	140	710
4	No. 1 Passenger Door (Left)	322	146	357
5	No. 1 Passenger Door (Right)	295	134	348
6	Radome	73	33	188
7	APU Access Door	72	33	1917
8	Tail Cone Access Door	9	4	1756
9	No. 2 Cargo Door	222	101	1409
10	Main Landing Gear Door (2)	268	122	1111
11	Air Conditioning Compartment Door (2)	110	50	966
12	No. 1 Cargo Door	214	97	589
13	Electronic Equipment Access Door	19	9	468
14	Nose Landing Gear Door	43	20	322
15	Forward Access Door	17	8	243

APPLICABLE CONFIGURATIONS
All

COMPONENT WEIGHTS AND BALANCE ARMS

MAIN GEAR COMPONENTS

Some of the removable main gear components are illustrated in the following figure:



The following table provides nominal weights and balance arms for main gear components from the above illustration. Values from this table should only be used to determine approximate weight and balance for specialized types of maintenance.

ITEM NO.	MAIN GEAR COMPONENTS	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
1	Reaction Link Assembly	89	40	1083
2	Downlock Assembly	40	18	1083
3	Trunnion Link Assembly	113	51	1100
4	Side Strut Assembly	139	63	1101
5	Shock Strut Assembly (Including Fluids)	1033	468	1115
	Inner Cylinder	268	121	1115
	Outer Cylinder	604	273	1115
6	Wheel & Tire Assembly (4) ^[a]	249	112	1111
7	Truck Assembly	302	136	1112
8	Brake Assembly - Steel Brakes (4) ^[a]	241	109	1111
9	Drag Strut	118	53	1094
10	Upper Torsion Link	48	22	1100
11	Lower Torsion Link	48	22	1100

[a] Quantity per gear assembly

APPLICABLE CONFIGURATIONS

A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S

1-86-041

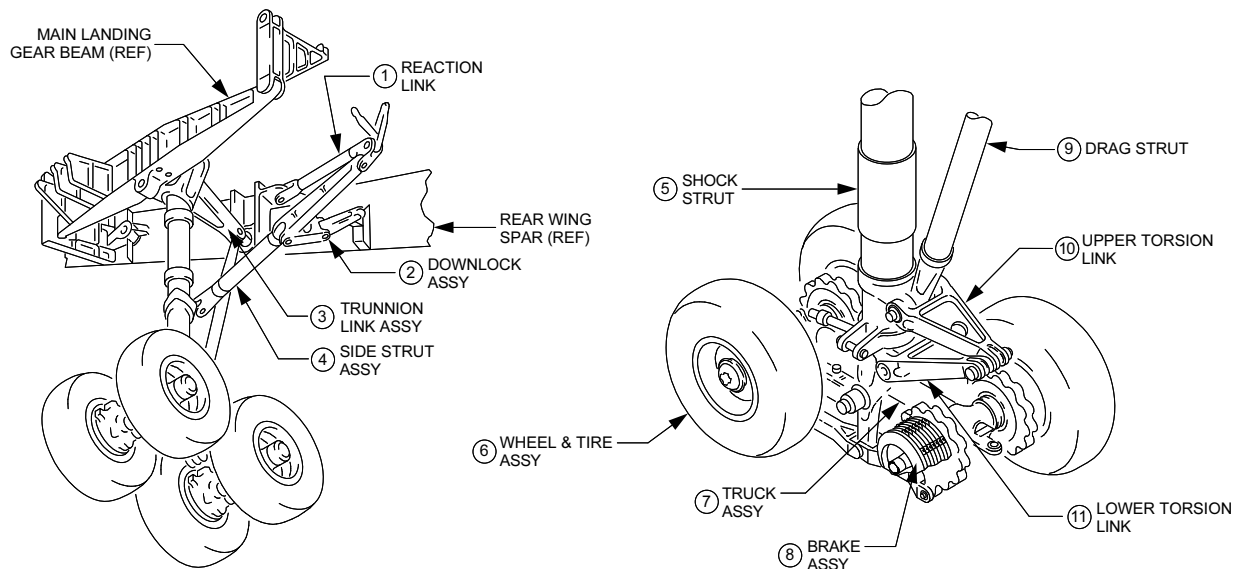
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COMPONENT WEIGHTS AND BALANCE ARMS

MAIN GEAR COMPONENTS

Some of the removable main gear components are illustrated in the following figure:



The following table provides nominal weights and balance arms for main gear components from the above illustration. Values from this table should only be used to determine approximate weight and balance for specialized types of maintenance.

ITEM NO.	MAIN GEAR COMPONENTS	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
1	Reaction Link Assembly	89	40	1083
2	Downlock Assembly	40	18	1083
3	Trunnion Link Assembly	113	51	1100
4	Side Strut Assembly	139	63	1115
5	Shock Strut Assembly (Including Fluids)	1033	468	1115
	Inner Cylinder	268	121	1115
	Outer Cylinder	604	273	1115
6	Wheel & Tire Assembly (4) ^[a]	266	121	1111
7	Truck Assembly	302	134	1112
8	Brake Assembly - Carbon Brakes (4) ^[a]	144	65	1111
9	Drag Strut	118	49	1094
10	Upper Torsion Link	48	22	1100
11	Lower Torsion Link	48	22	1100

[a] Quantity per gear assembly

APPLICABLE CONFIGURATIONS
AA, AB, AC, AD, AE, AF

1-86-042

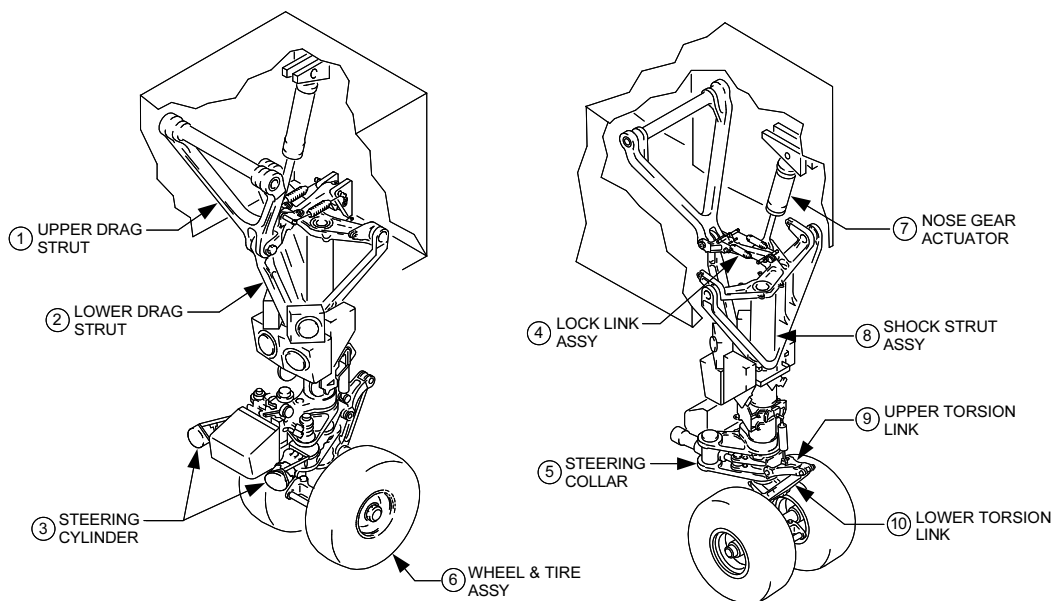
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COMPONENT WEIGHTS AND BALANCE ARMS

NOSE GEAR COMPONENTS

Some of the removable nose gear components are illustrated in the following figure:



The following table provides nominal weights and balance arms for nose gear components from the above illustration. Values from this table should only be used to determine approximate weight and balance for specialized types of maintenance.

ITEM NO.	NOSE GEAR COMPONENTS	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
1	Upper Drag Strut	83	38	357
2	Lower Drag Strut	40	18	375
3	Steering Cylinder (2) ^[a]	26	12	377
4	Lock Link Assembly	17	8	380
5	Steering Collar	110	50	388
6	Wheel & Tire Assembly (2) ^[a]	108	49	391
7	Nose Gear Actuator	69	31	386
8	Shock Strut Assembly (Including Fluids)	474	215	388
9	Upper Torsion Link	10	5	397
10	Lower Torsion Link	14	6	394

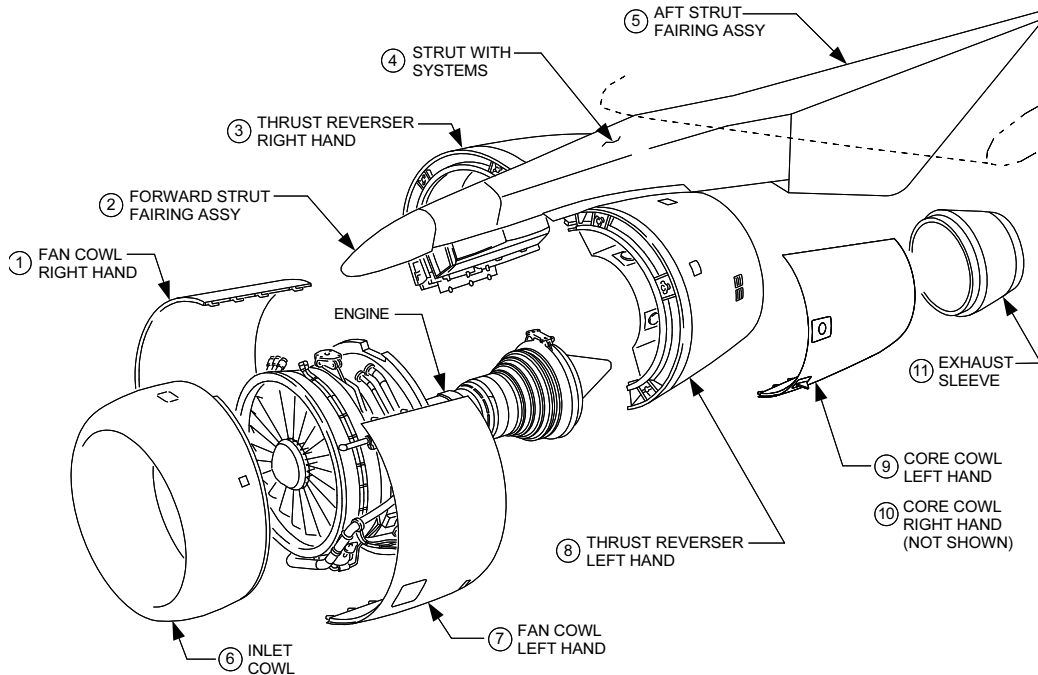
[a] Quantity per gear assembly

APPLICABLE CONFIGURATIONS
All

COMPONENT WEIGHTS AND BALANCE ARMS

NACELLE AND POWER PLANT COMPONENTS

Some of the removable nacelle and power plant components are illustrated in the following figure:



The following table provides nominal weights and balance arms for nacelle and power plant components from the above illustration. Values from this table should only be used to determine approximate weight and balance for specialized types of maintenance.

ITEM NO.	NACELLE AND POWER PLANT COMPONENTS	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
1	Fan Cowl - Right Hand	92	42	875
2	Forward Strut Fairing Assembly	45	20	909
3	Thrust Reverser - Right Hand	759	344	918
4	Strut with Systems	1014	460	949
5	Aft Strut Fairing Assembly	137	62	1048
6	Inlet Cowl	418	190	833
7	Fan Cowl - Left Hand	92	42	875
8	Thrust Reverser - Left Hand	770	349	919
9	Core Cowl - Left Hand	78	35	977
10	Core Cowl - Right Hand	76	34	977
11	Exhaust Sleeve	145	66	1018

APPLICABLE CONFIGURATIONS
All



COMPONENT WEIGHTS AND BALANCE ARMS (Continued)

ITEM NO.	NACELLE AND POWER PLANT COMPONENTS (Continued)	WEIGHT		B.A. IN.
		LB/EA	KG/EA	
	POWER PLANT PACKAGE (Includes: Inlet, Engine & Systems, Plug)			
	PW2037	8433	3825	912
	PW2040	8433	3825	912
	AUXILIARY POWER UNIT (NOT SHOWN) (Includes: Exhaust Duct and Generator)	625	283	1931

APPLICABLE CONFIGURATIONS
All

LOADING SCHEDULE DEVELOPMENT

INTRODUCTION

Federal Aviation Regulations Part 121 states that the airplane shall be operated in accordance with a loading schedule which ensures that the airplane gross weight and center of gravity limitations are not exceeded.

A loading schedule is generally comprised of two parts: the substantiation of the loading schedule development, and a manifest / load sheet which is the form used to manifest the aircraft and check the balance condition of an aircraft prior to its flight. The manifest is generally a tabular form used to document the aircraft load. The load sheet includes operational center of gravity limits along with a method to calculate the balance effect of loaded items. Operational center of gravity limits are derived by applying curtailments to the certified center of gravity limits to ensure that all loading situations will fall within the certified center of gravity limits.

Example Loading Schedule

The example loading schedule document describes the method of developing a loading schedule using a generic airplane configuration. This document's function is to provide an example of loading schedule development and substantiation. It contains the following:

- An example loading problem to assist in understanding airplane loading procedures
- Equations used to develop a loading schedule
- Passenger cabin zones and cargo compartment definitions
- Cargo load limits
- Incremental load item index development methodology
- Horizontal stabilizer trim settings
- Development and application of curtailments to the structural center of gravity limits
- Sample manifest / load sheet construction using the data developed in the document

This document will be delivered with the first publication of the airline WBM Chapter 1. It may also be ordered from Data and Services Management as described in "Ordering Instructions" section on page 2.

Customized Loading Schedule

A customized loading schedule is completely tailored to the specific customer requirements. In certain cases, multiple aircraft configurations may be substantiated within one document, along with one or more manifest / loadsheets. Other features which can be customized include, but are not limited to, the following:

- Customer specified passenger and baggage weight allowances
- Customer specified manifest / load sheet format and content
- Revisions may be purchased (requires a Technical Assistance Contract)

The amount of customizing generally requires a significant amount of coordination between a knowledgeable airline representative and the loading schedule developer. A customized loading schedule may be purchased using a Technical Assistance Contract as described below.

APPLICABLE CONFIGURATIONS
All



LOADING SCHEDULE DEVELOPMENT (Continued)

ORDERING INSTRUCTIONS

An example loading schedule or a copy of an existing customized loading schedule, may be ordered from Data and Services Management as follows:

DOCUMENT TYPE	DOCUMENT TITLE	CATALOG NUMBER
Example (Two Types)	Loading Schedule Substantiation Document: TYPE ^[a]	D043N620-TBCyy
Customized	Loading Schedule Substantiation Document: NAME ^[b]	D043N620-xxxyC ^[c]

[a] "TYPE" is either *Example Alignment Type System*, and "yy" = 01; or *Example Universal Index Type System*, and "yy" = 02

[b] Replace "NAME" with the Airline Name

[c] Replace the "xxx" with the airline three-letter code, and replace the "y" with the document serial no.

Direct your order to:

ORDERS BY TELEX/FAX

Fax: 206-544-9077

Attn: Data and Services Management
P.O. Box 3707
Seattle, Washington 98124-2207

ORDERS BY TELEPHONE

Call the Boeing Operator
at 206-655-2121 and
ask for Data and Services
Management

Development of a customized loading schedule can be arranged using a Technical Assistance Contract. For further information, please contact:

Boeing Commercial Airplane Group
Attn: Contracts Director, Fleet Support
P.O. Box 3707
Seattle, Washington 98124-2207
Boeing Operator Phone: 206-655-2121
(ask for Contracts Director)
Telex: 32-9430
TWX: 910-423-1563

APPLICABLE CONFIGURATIONS

All