TO: ALL HOLDERS OF NOSE WHEEL STEERING GEAR BOX ASSEMBLY COMPONENT MAINTENANCE MANUAL 32-51-01

REVISION NO. 7 DATED NOV 01/01

HIGHLIGHTS

Pages which have been added or revised are outlined below together with the highlights of the revision. Remove and insert the affected pages as listed and enter Revision No. and date on the Record of Revision Sheet.

CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE
101	Added clarifications and updated callouts.
REPAIR-GEN	
601-602	
REPAIR 1-1	
601	
REPAIR 2-1	
601	
REPAIR 5-1	
601	
701	

NOSE WHEEL STEERING GEARBOX ASSEMBLY

PART NUMBER 257T4120-1,-2

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

REVISION RECORD

- Retain this record in front of manual. On receipt of revision, insert revised pages in the manual, and enter revision number, date inserted and initial.

REVISION NUMBER	REVISION DATE	DATE FILED	BY	REVISION NUMBER	REVISION DATE	DATE FILED	BY

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR B10071	JAN 10/85

PAGE	DATE	CODE
32-51-01		
TITLE PAGE		
1	JAN 10/85	01.1
2	BLANK	
REVISION RECORD		
1	JUL 10/83	01
2	BLANK	
TR & SB RECORD		
1	JAN 10/85	01.1
2	BLANK	
LIST OF EFFECTIVE PAGES		
*1	NOV 01/01	01
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CONTENTS		
1	JUL 10/83	01
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INTRODUCTION		
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1	JUN 01/95	01.1
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TESTING & TROUBLE SHOOTING		
*101	NOV 01/01	01.1
102	JUN 01/95	01.1
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301	MAR 01/98	01.1
302	BLANK	
CLEANING		
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REPAIR-GENERAL		
*601	NOV 01/01	01.1
*602	NOV 01/01	01.1
REPAIR 1-1		
*601	NOV 01/01	01.1
602	BLANK	
REPAIR 2-1		
*601	NOV 01/01	01.1
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REPAIR 3-1		
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601	JUL 01/90	01.1
602	BLANK	
REPAIR 5-1		
*601	NOV 01/01	01.1
602	BLANK	
ASSEMBLY		
*701	NOV 01/01	01.1
702	JUN 01/95	01.1
FITS AND CLEARANCES		
801	JUN 01/95	01.1
802	JUN 01/95	01.1
803	JUN 01/95	01.1
804	BLANK	
SPECIAL TOOLS		
901	JUN 01/95	01.1
902	BLANK	

* = REVISED, ADDED OR DELETED

PAGE	DATE	CODE
ILLUSTRATED PARTS LIST		
1001	JUL 10/83	01
1002	JAN 10/85	01.1
1003	JUL 10/83	01
1004	JUN 01/95	01.1
1005	JUN 01/95	01.1
1006	JUN 01/95	01.1
1007	JUL 01/90	01.101
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1009	JUL 01/90	01.101
1010	BLANK	

PAGE	DATE	CODE

* = REVISED, ADDED OR DELETED

TABLE OF CONTENTS

INTRODUCTION

The instructions in this manual provide the information necessary to perform maintenance functions ranging from simple checks and replacement to complete shop-type repair.

This manual is divided into separate sections:

1. Title Page
2. Record of Revisions
3. Temporary Revision & Service Bulletin Record
4. List of Effective Pages
5. Table of Contents
6. Introduction
7. Procedures & IPL Sections

Refer to the Table of Contents for the page location of applicable sections. An asterisked flagnote *[ ] in place of the page number indicates that no special instructions are provided since the function can be performed using standard industry practices.

The beginning of the REPAIR section includes a list of the separate repairs, a list of applicable standard Boeing practices, and an explanation of the True Position Dimensioning symbols used.

An explanation of the use of the Illustrated Parts List is provided in the Introduction to that section.

All weights and measurements used in the manual are in English units, unless otherwise stated. When metric equivalents are given they will be in parentheses following the English units.

Design changes, optional parts, configuration differences and Service Bulletin modifications create alternate part numbers. These are identified in the Illustrated Parts List (IPL) by adding an alphabetical character to the basic item number. The resulting item number is called an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless otherwise indicated.

Verification:

Disassembly
Assembly

NOSE WHEEL STEERING GEAR BOX ASSEMBLY

DESCRIPTION AND OPERATION

1. The nose wheel steering gearbox assembly has an aluminum alloy housing, steel input and output shafts, steel pinion and spur gears, and a gear assembly. The gearbox sends torque through the manual nose wheel steering system.

2. Leading Particulars (approximate)

   Length -- 7 inches
   Height -- 8 inches
   Width -- 6 inches
   Weight -- 2 pounds

TESTING/TROUBLE SHOOTING

1. Equipment and Material

   NOTE: Equivalent substitutes can be used.

   A. Test Fixture -- A32061-1

   B. Grease -- BMS 3=33 pr MIL-G-23827 (SOPM 20-60-03)

2. Test

   A. Backlash Test

      NOTE: Backlash is measured at the radius given.

      (1) Mount gearbox in test fixture A32061-1.

      (2) Lock output shaft (25). Apply a torque of 5-10 lb-in. to input shaft (55). Make sure that the backlash on input shaft is 0.002-0.018 inch at a radius of 0.73-0.77 inch.

      (3) Lock input shaft (55). Apply a torque of 5-10 lb-in. to output shaft (25). Make sure that the backlash on the output shaft is 0.001-0.009 inch at a radius of 1.48-1.52 inches.

   B. Turn input shaft (55) (dry, without lubrication) 2-5 minutes at 50-150 RPM in one direction and then the other. Make sure that gears and bearings move freely and do not catch in any position.

   C. After the test, lubricate the gear teeth with grease.

TROUBLE	POSSIBLE CAUSE	CORRECTION
Gears and bearings do not turn freely.	Gears or bearings worn or damaged.	Disassemble and replace defective parts per par. 3.
Backlash below limit.	Shims too thick.	Disassemble unit and decrease thickness of shims (75,112) per par. 3.
Backlash above limit.	Shims too thin.	Disassemble unit and increase thickness of shims (75,112) per par. 3.

TROUBLE SHOOTING CHART
Figure 101

3. Corrective Procedures

A. Completely disassemble unit per DISASSEMBLY.

B. Replace worn or damaged bearings. Replace or change thickness of shims as necessary.

C. Assemble parts per ASSEMBLY.

D. Do the test again per par. 2.

DISASSEMBLY

NOTE: Refer to TESTING/TROUBLE SHOOTING to establish condition or probable cause of any malfunction and to determine extent of disassembly and repair.

1. Disassembly (IPL Fig. 1)

A. Remove cover (5) and fasteners (10, 15, 20) from housing (130).

B. Remove nut (30), washer (35) and slide out gear (40) from shaft (25). Remove bearing (45), spacer (50) and shaft (25) from housing (130).

C. Remove nut (60), washer (65) and slide out gear (70) from shaft (55). Remove shim (75), bearing (80), spacer (85) and shaft (55) from housing assy (130). Note thickness of shim (75) to help during assembly.

D. Remove nut (95) and bolt (90). Remove gear (115), shim (112), bushings (100, 105) and bearing (110) from housing (130). Note thickness of shim (112) to help during assembly.

CLEANING

1. Clean all parts but bearings by standard industry practices and the data in SOPM 20-30-03.

2. Clean teflon-sealed bearings by the vendor's instructions.

CHECK

1. Examine all parts for obvious defects by standard industry practices.

2. Magnetic particle examine per 20-20-01 shafts (25, 55), gears (40, 70) and spacers (50, 85).

3. Penetrant examine per 20-20-02 housing (145).

REPAIR - GENERAL

1. Content

A. Repair, refinish and replacement procedures are included in separate repair sections as follows:

P/N	NAME	REPAIR
257T4121	HOUSING	1-1
257T4124	GEAR	2-1
257T4126	SHAFT, INPUT	3-1
257T4141	SHAFT, OUTPUT	4-1
- - -	MISCELLANEOUS PARTS	5-1
- - -	REFINISH	

2. Standard Practices

A. Refer to the following standard practices, as applicable, for details of procedures in individual repairs.

20-10-01 Repair and Refinish of High-Strength Steel
20-30-02 Stripping of Protective Finishes
20-41-01 Decoding Table for Boeing Finish Codes
20-41-02 Application of Chemical and Solvent Resistant Finishes
20-42-02 Cadmium-Titanium Alloy Plating
20-42-05 Bright Cadmium Plating
20-43-01 Chromic Acid Anodizing
20-50-03 Bearing Removal, Installation and Retention
32-00-05 Repair of High-Strength Landing Gear Parts

3. Materials

NOTE: Equivalent substitutes can be used.

A. Primer -- BMS 10-11, Type 1 (SOPM 20-60-02)

B. Grease -- BMS 3-33 or BMS 3-24 (SOPM 20-60-03)

4. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in applicable repair procedures are shown in SOPM 20-00-00

HOUSING ASSY - REPAIR 1-1

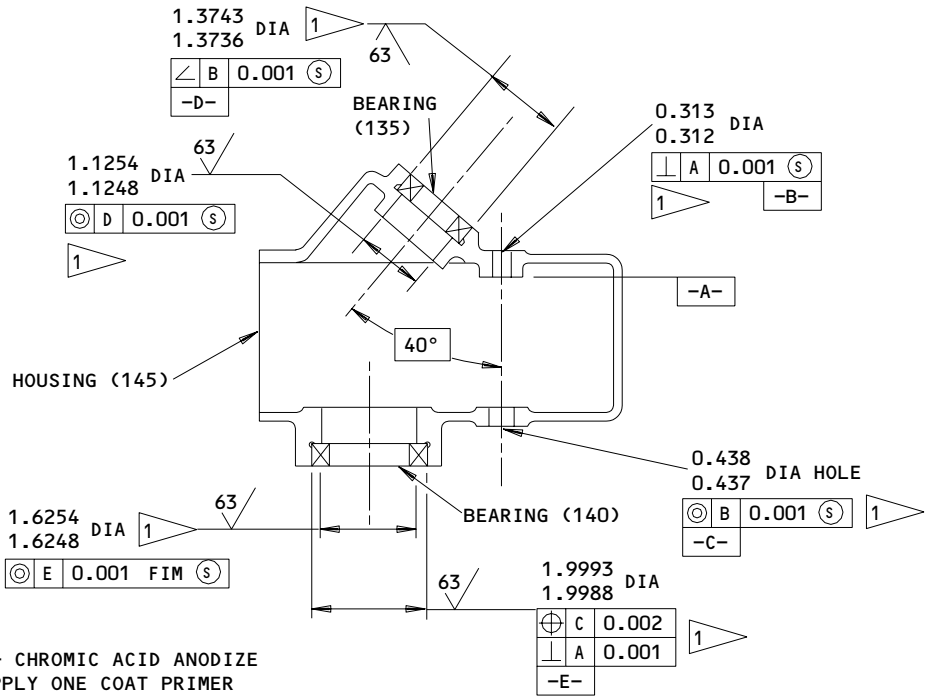
257T4121-1, -4

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard practices. For repair of surfaces which is only replacement of the original finish, refer to Refinish instructions, Fig. 601.

1. Bearing Replacement (Fig. 601)

   A. Remove the old bearings (135, 140, IPL Fig. 1) from housing assy (130).

   B. Install replacement bearings with BMS 3-33 or BMS 3-24 grease and roller swage them (SOPM 20-50-03).



REFINISH

HOUSING (145) -- CHROMIC ACID ANODIZE (F-17.05) AND APPLY ONE COAT PRIMER BMS 10-11 TYPE 1 (F-20.02) ALL OVER, EXCEPT OMIT PRIMER ON AREAS NOTED BY 1

MATERIAL: AL ALLOY
ALL DIMENSIONS ARE IN INCHES

Housing Assy Repair
Figure 601

29619

GEAR ASSY, IDLER - REPAIR 2-1

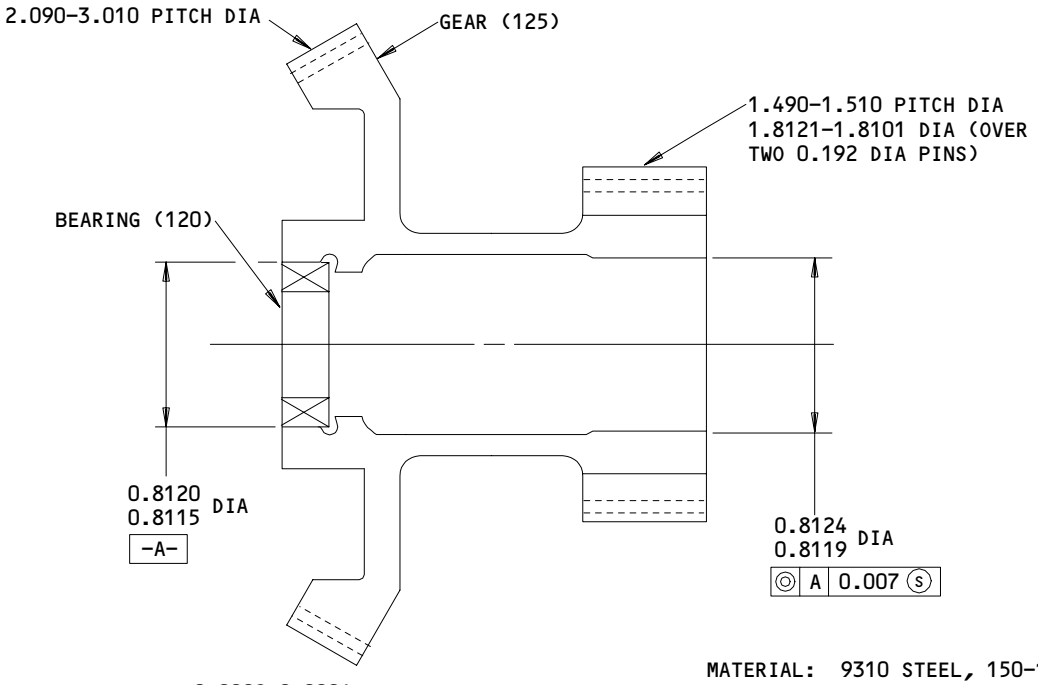
257T4124-1

NOTE: Refer to REPAIR - GENERAL for a list of applicable standard practices. For repair of surfaces which is only replacement of the original finish, refer to Refinish instructions, Fig. 601.

1. Bearing Replacement (Fig. 601)

   A. Remove the old bearing (120) from gear assy (115).

   B. Install a replacement bearing with BMS 3-33 or BMS 3-24 grease and roller swage it (SOPM 20-50-03).



REFINISH

GEAR (125) -- CADMIUM PLATE 0.0002-0.0004 INCH THICK (F-15.23) ALL OVER.

MATERIAL: 9310 STEEL, 150-190 KSI

ALL DIMENSIONS ARE IN INCHES

Idler Gear Assembly Repair
Figure 601

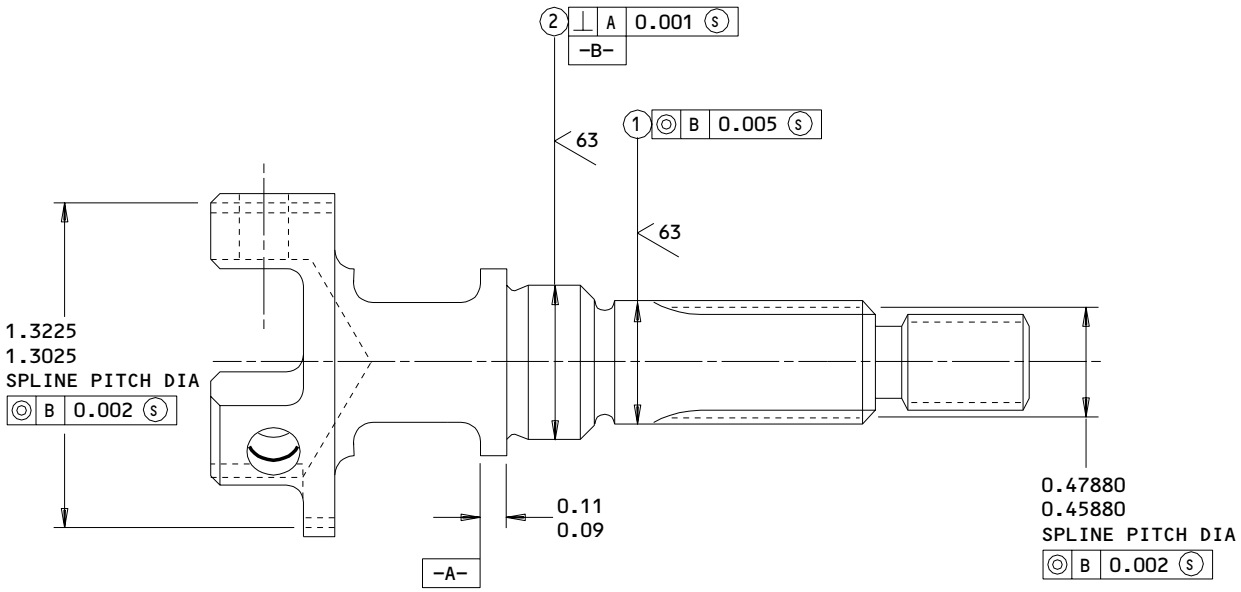
29620

SHAFT, INPUT - REPAIR 3-1

257T4126-1, -2

1. Plating Repair

NOTE: Repair consists of restoration of original finish. Refer to Refinish instructions, Fig. 601 and to REPAIR-GEN for list of applicable standard practices.



DIMENSION		257T4126 -1	257T4126 -2 1
1	MAX DIA	0.4997	0.4992
	MIN DIA	0.4992	0.4987
2	MAX DIA	0.6247	0.6242
	MIN DIA	0.6242	0.6237

REFINISH

CADMIUM PLATE 0.0002 TO 0.0004 INCH
(F-15.02)

MATERIAL: 4340 STEEL, 180-200 KSI

ALL DIMENSIONS ARE IN INCHES

1 DIMENSION AFTER CADMIUM PLATE

Shaft Refinish Details
Figure 601

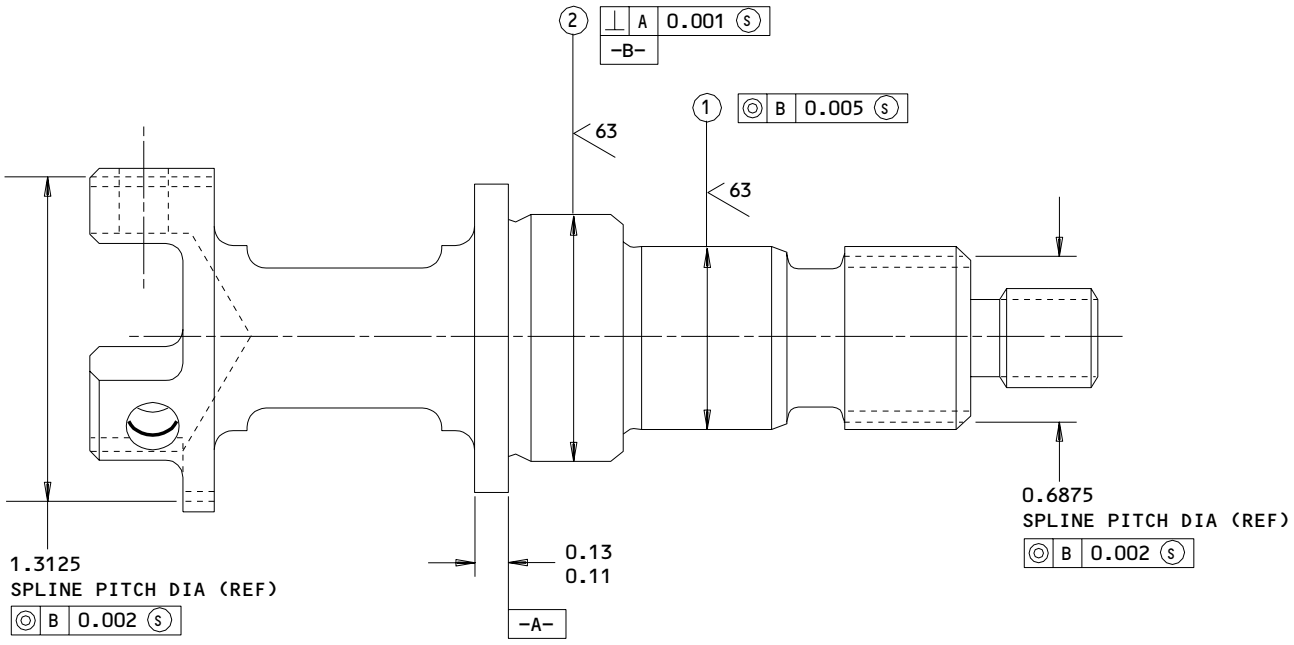
29622

SHAFT, OUTPUT - REPAIR 4-1

257T4141-2, -3

1. Plating Repair

NOTE: Repair consists of restoration of original finish. Refer to Refinish instructions, Fig. 601 and to REPAIR-GEN for list of applicable standard practices.



DIMENSION		257T4141	
		-2	-3 1
1	MAX DIA	0.7497	0.7492
	MIN DIA	0.7492	0.7497
2	MAX DIA	0.9997	0.9992
	MIN DIA	0.9992	0.9987

REFINISH

CADMIUM PLATE 0.0002 TO 0.0004 INCH
(F-15.02)

1 DIMENSION AFTER CADMIUM PLATE

MATERIAL: 4340 STEEL, 180-200 KSI

ALL DIMENSIONS ARE IN INCHES

Shaft Refinish Details
Figure 601

29623

MISCELLANEOUS PARTS REFINISH - REPAIR 5-1

1. Repair of these parts is only replacement of the original finish. Refer to REPAIR - GENERAL for a list of applicable standard practices.

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1		
Cover (5)	Al alloy	Chemical treat and apply BMS 10-11, type 1 primer (F-18.06).
Gears (40,70)	9310 steel 150-190 ksi	Cadmium plate (F-15.23) 0.0002-0.0004 inch thick.
Spacers (50,85)	4340 steel 150-170 ksi	Cadmium plate (F-15.06).

Refinish Details
Figure 601

ASSEMBLY

1. Materials

   NOTE: Equivalent substitutes can be used.

   A. Grease -- BMS 3-33 or BMS 3-24 (SOPM 20-60-03)

2. Lubrication

   A. Apply grease on shafts, splines and threads, bolt shank and threads, bearings, bushings, spacers and shims before assembly. Gear teeth will be lubricated after the test.

3. Assembly (Fig. 701)

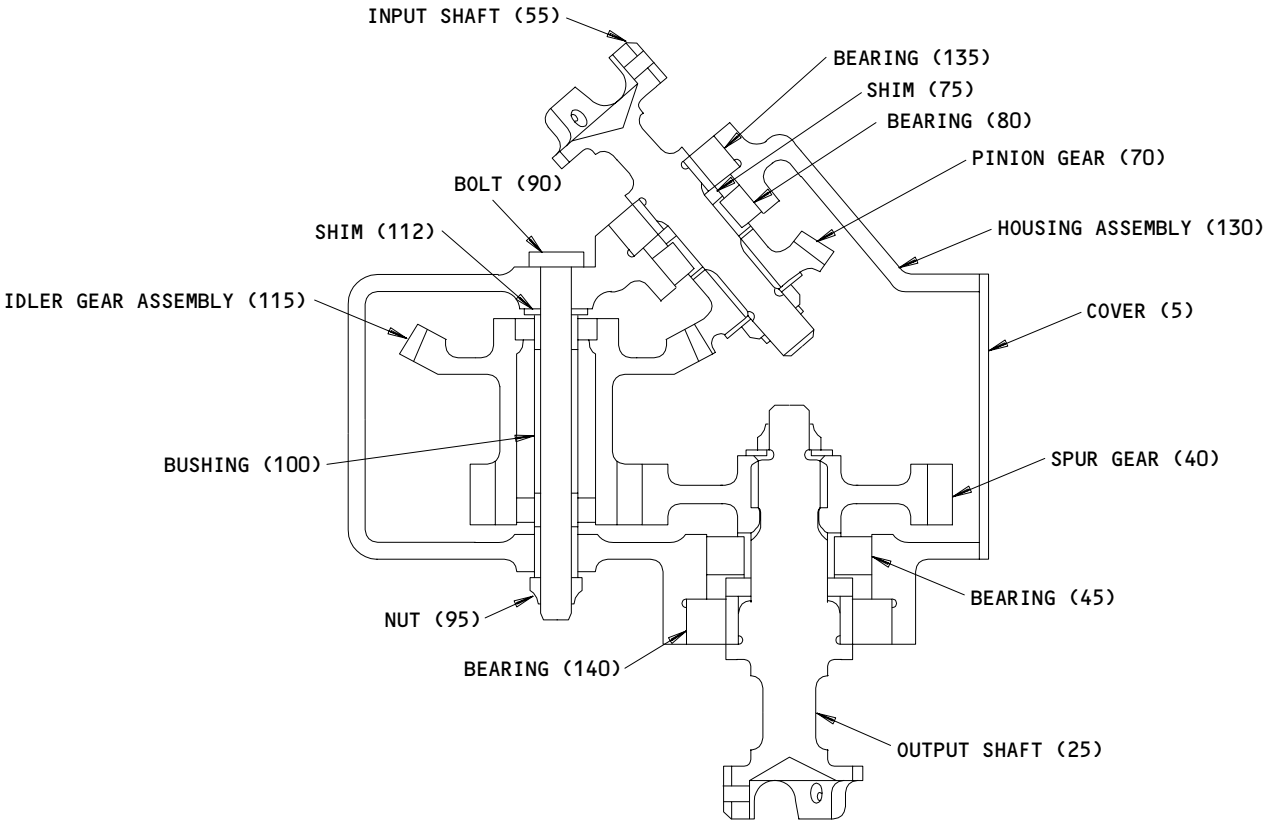
   A. Install gear (115) with shim (112), bushings (100, 105), bearing (110), bolt (90), and nut (95) in housing (130) as shown. Tighten nut to 90-125 lb-in.

   B. With gear (115) locked, install input shaft (55), spacer (85), bearing (80), shim (75), gear (70), washer (65) and nut (60) as shown. Tighten nut to 150-200 lb-in.

   C. Measure backlash at shaft (55) pitch diameter with 5-10 lb-in. torque and adjust shim (75) to get a backlash of 0.001-0.009 inch.

   D. Install output shaft (25), spacer (50), bearing (45), gear (40), washer (35) and nut (30) as shown. Tighten nut to 150-200 lb-in.

   E. Do a test of the unit per TESTING/TROUBLE SHOOTING.

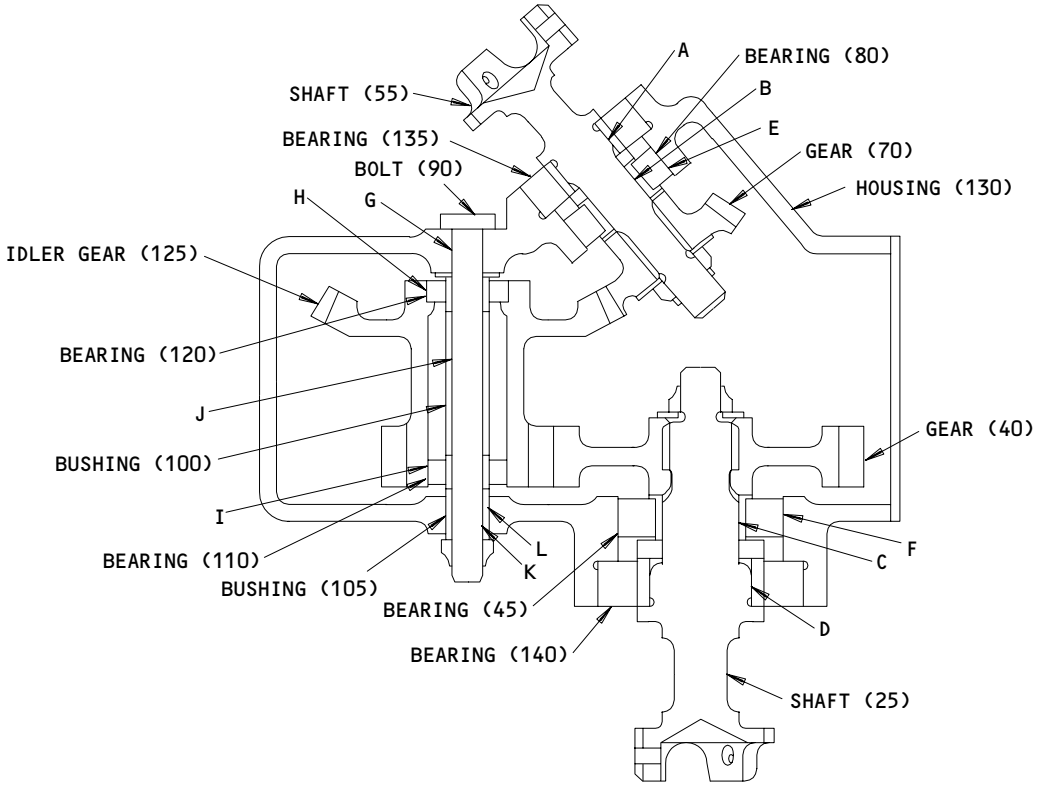


ITEM NUMBERS REFER TO IPL FIG. 1

Assembly Details
Figure 701

29624

FITS AND CLEARANCES



REF LETTER	REF IPL FIG. 1, MATING ITEM NO.		DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
			DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
			MIN	MAX	MIN	MAX	MIN	MAX	
A	ID	135	0.6247	0.6250	0.0000	0.0008	0.6226	0.6271	0.0024
	OD	55	0.6242	0.6247					
B	ID	80	0.4997	0.5000	0.0000	0.0008	0.4978	0.5019	0.0022
	OD	55	0.4992	0.4997					
C	ID	45	0.7497	0.7500	0.0000	0.0008	0.7475	0.7522	0.0025
	OD	25	0.7492	0.7497					
D	ID	140	0.9997	1.0000	0.0000	0.0008	0.9972	1.0025	0.0028
	OD	25	0.9992	0.9997					

* ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 1)

29627

REF LETTER	REF IPL FIG. 1, MATING ITEM NO.	DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
		DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
		MIN	MAX	MIN	MAX	MIN	MAX	
E	ID 130	1.1248	1.1254	−0.002	0.008			
	OD 80	1.1246	1.1250					
F	ID 130	1.6248	1.6254	−0.002	0.008			
	OD 45	1.6246	1.6250					
G	ID 130	0.3120	0.3130	0	0.0020			
	OD 90	0.3110	0.3120					
H	ID 125	0.8119	0.8124	−0.0006	0.0003			
	OD 120	0.8121	0.8125					
I	ID 110	0.3122	0.3125	0.0002	0.0015			
	OD 90	0.3110	0.3120					
J	ID 100	0.3125	0.3130	0.0005	0.0020			
	OD 90	0.3110	0.3120					
K	ID 105	0.3125	0.3130	0.0005	0.0020			
	OD 90	0.3110	0.3120					
L	ID 130	0.437	0.438	0	0.0015			
	OD 105	0.4365	0.4370					

* ALL DIMENSIONS ARE IN INCHES

NEGATIVE VALUES ARE AN INTERFERENCE FIT

Fits and Clearances
Figure 801 (Sheet 2)

158604

REF IPL		NAME	TORQUE*	
FIG. NO.	ITEM NO.		POUND-INCHES	POUND-FEET
1	30	NUT	150-200	
1	60	NUT	150-200	
1	95	NUT	90-125	

* REFER TO SOPM 20-50-01 FOR TORQUE VALUES OF STANDARD FASTENERS.

Torque Table
Figure 802

SPECIAL TOOLS, FIXTURES AND EQUIPMENT

NOTE: Equivalent substitutes can be used.

1. A32061-1 -- NLG Steering Gearbox Backlash Check Equipment

ILLUSTRATED PARTS LIST

1. This section lists and illustrates replaceable or repairable component parts. The Illustrated Parts Catalog contains a complete explanation of the Boeing part numbering system.

2. Indentures show parts relationships as follows:

   Assembly
     Detail Parts for Assembly
     Subassembly
     Attaching Parts for Subassembly
       Detail Parts for Subassembly

   Detail Installation Parts (Included only if installation parts may be returned to shop as part of assembly)

3. One use code letter (A, B, C, etc.) is assigned in the EFF CODE column for each variation of top assembly. All listed parts are used on all top assemblies except when limitations are shown by use code letter opposite individual part entries.

4. Letter suffixes (alpha-variants) are added to item numbers for optional parts, Service Bulletin modification parts, configuration differences (except left- and right-hand parts), product improvement parts, and parts added between two sequential item numbers. The alpha-variant is not shown on illustrations when appearance and location of all variants of the part is the same.

5. Service Bulletin modifications are shown by the notations PRE SB XXXX and POST SB XXXX.

   A. When a new top assembly part number is assigned by SErvice Bulletin, the notations appear at the top assembly level only. The configuration differences at detail part level are then shown by use code letter.

   B. When the top assembly part number is not changed by the Service Bulletin, the notations appear at the detail part level.

6. Parts Interchangeability

Optional (OPT)	The parts are optional to and interchangeable with other parts having the same item number.
Supersedes, Superseded By (SUBSDS, SUPSD BY)	The part supersedes and is not interchangeable with the original part.
Replaces, Replaced By (REPLS, REPLD BY)	The part replaces and is interchangeable with, or is an alternate to, the original part.

VENDORS

06710 VALLEY-TODECO INCORPORATED
12975 BRADLEY AVENUE
SYLMAR,CALIFORNIA 91342

06725 AIR INDUSTRIES CORPORATION
12570 KNOTT STREET
GARDEN GROVE, CALIFORNIA 92641

06950 VSI CORP SCREWCORP DIV
13001 EAST TEMPLE AVENUE
CITY OF INDUSTRY, CALIFORNIA 91746

08524 DEUTSCH FASTENER CORPORATION
PO BOX 92925 7001 WEST IMPERIAL HIGHWAY
LOS ANGELES, CALIFORNIA 90045

10630 ANILLO INDUSTRIES, INCORPORATED
2090 NORTH GLASSELL
ORANGE, CALIFORNIA 92667

11815 TOWNSEND DIVISION OF TEXTRON, INC
CHERRY FASTENER UNIT
BOX 2157 1224 EAST WARNER AVE
SANTA ANA, CALIFORNIA 92707

15653 KAYNAR MFG COMPANY INC KAYLOCK DIV
PO BOX 3001 800 SOUTH STATE COLLEGE BLVD
FULLERTON, CALIFORNIA 92634

17943 FEDERAL MANUFACTURING CORPORATION
6910 FARMDALE AVENUE
NORTH HOLLYWOOD, CALIFORNIA 91605

21335 TEXTRON INC FAFNIR BEARING DIVISION
37 BOOTH STREET
NEW BRITAIN, CONNECTICUT 06050

23294 AVALON MACHINE PRODUCTS INC
15337 ALLEN STREET
PARAMOUNT, CALIFORNIA 90723

VENDORS

27624 P.B. FASTENER DIV OF PAUL R BRILES INC
1700 WEST 132ND STREET
GARDENA, CALIFORNIA 90249

38443 TRW INC BEARING DIV
402 CHANDLER STREET
JAMESTOWN, NEW YORK 14701

43991 FAG BEARING INCORPORATED
HAMILTON AVENUE
STAMFORD, CONNECTICUT 06904

52828 REPUBLIC FASTENER MFG CORP
1300 RANCHO CONEJO BLVD
NEWBURY PARK, CALIFORNIA 91320

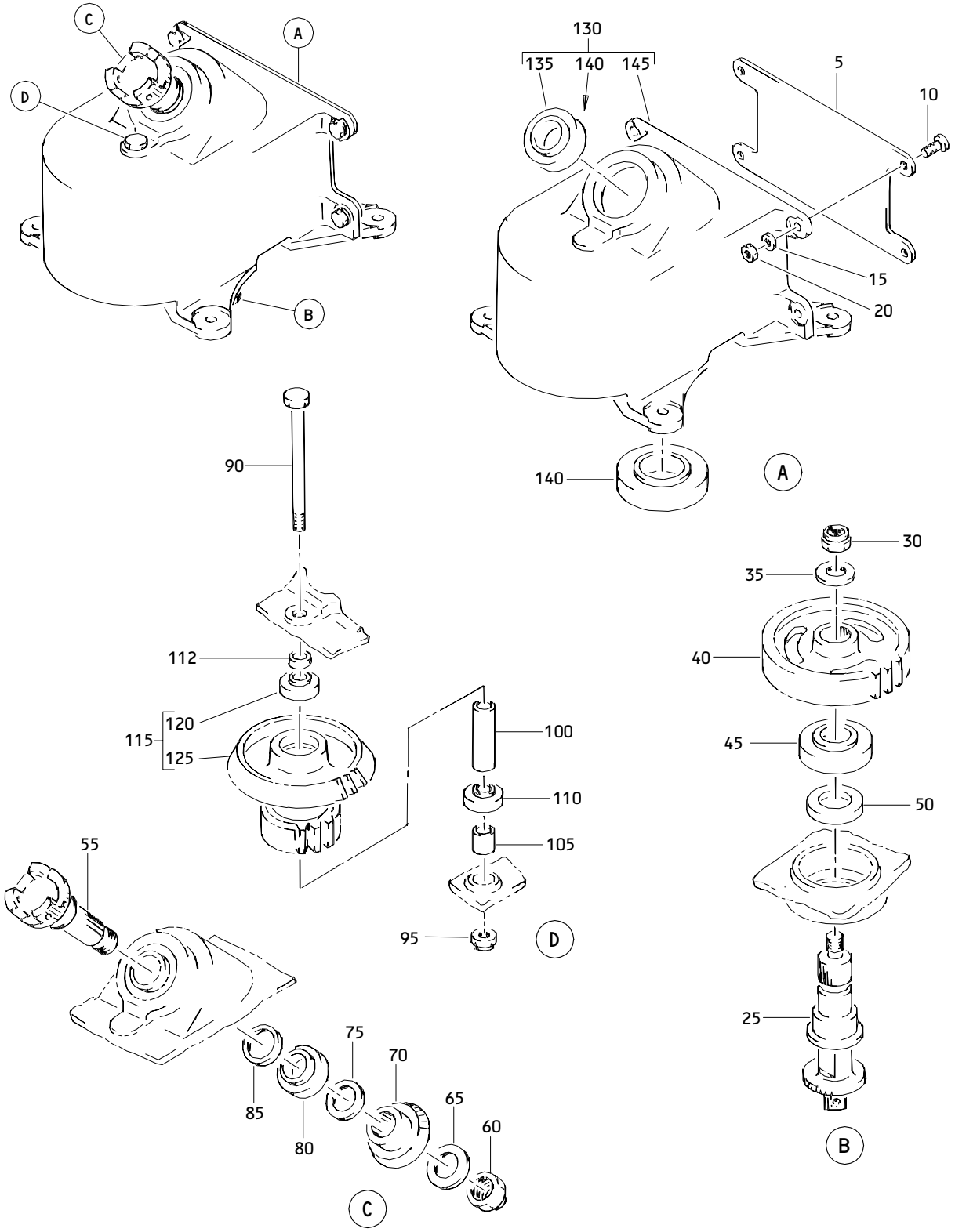
72962 ESNA DIV OF AMERACE CORP
2330 VAUXHALL ROAD
UNION, NEW JERSEY 07083

80539 SPS TECHNOLOGIES INC AEROSPACE PRODUCTS DIV
2701 SOUTH HARBOR BOULEVARD
SANTA ANA, CALIFORNIA 92702

92215 VOI-SHAN DIV OF VSI CORP
8463 HIGUERA STREET
CULVER CITY, CALIFORNIA 90230

94892 MASTER MACHINE PRODUCTS CORPORATION
2069 RANDOLPH STREET
HUNTINGTON PARK, CALIFORNIA 90255

97928 LITTON FASTENING SYSTEMS DIV OF LITTON SYSTEMS INC
3969 PARAMONT BOULEVARD
LAKEWOOD, CALIFORNIA 90712



Nose Wheel Steering Gear Box Assembly
Figure 1

T59253

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1	257T4120-1		GEARBOX ASSY-NOSE WHEEL STEERING	A	RF
-1A	257T4120-2		GEARBOX ASSY-NOSE WHEEL STEERING	B	RF
5	257T4122-1		.COVER ATTACHING PARTS		1
10	NAS623-3-4		.SCREW		4
15	AN960PD10		.WASHER		4
20	BRH10A3		.NUT- (V52828) (SPEC BACN10JC3) (OPT H10-3BAC (V15653)) (OPT NS202101-02 (V80539)) (OPT RMLH9075-3W (V72962)) (OPT T6S1032J (V11815)) (OPT VN303A02 (V92215)) (OPT 96-02 (V80539)) -------*-------		4
25	257T4141-1		DELETED		
25A	257T4141-2		.SHAFT-OUTPUT (OPT TO ITEM 25B)		1
25B	257T4141-3		.SHAFT-OUTPUT ATTACHING PARTS		1
30	BRH10A6		.NUT- (V52828) (SPEC BACN10JC6) (OPT H10-6BAC (V15653)) (OPT RMLH9075-6 (V72962)) (OPT 96-064 (V80539))		1
35	BACW10P254C		DELETED		
35A	BACW10P123S		.WASHER -------*-------		1
40	257T4125-1		.GEAR-SPUR		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
45	MKP12A		.BEARING- (V38443) (SPEC BACB10AP12) (OPT LLMKP12A (V38443)) (OPT MKP12AFS428 (V21335)) (OPT MKP12ATT (V43991)) (OPT MKP12A2TS (V43991)) (OPT MKP12E6531 (V21335)) (OPT MKP12AG20 (V38443))		1
50	257T4145-2		.SPACER		1
55	257T4126-1		.SHAFT-INPUT (OPT TO ITEM 55A)		1
55A	257T4126-2		.SHAFT-INPUT ATTACHING PARTS		1
60	BRH10A6		.NUT- (SPEC BACN10JC6) (REFER TO ITEM 30 FOR OPT PARTS)		1
65	BACW10P254C		.WASHER- (V10630) (SPEC BACW10P254C) -------*-------		1
70	257T4123-1		.GEAR-PINION		1
75	257T4135-1		.SHIM		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
80	MKP8A		.BEARING- (V38443) (SPEC BACB10AP8) (OPT LLMKP8A (V38443) (OPT MKP8AFS428 (V21335) (OPT MKP8ATT (V43991) (OPT MKP8A2TS (V43991) (OPT MKP8E6531 (V21335) (OPT MKP8AG20 (V38443))		1
85	257T4145-1		.SPACER		1
90	BACB30NF5-48		.BOLT- (V06710, V06725, V06950, V08524, V17943, V27624, V58678, V80539, V92215, V97928)		1
95	BRH10A5		.NUT- (V52828) (SPEC BACN10JC5) (OPT H10-5BAC (V15653)) (OPT RMLH9075-5W (V72962)) (OPT T6S524J (V11815)) (OPT 96-054 (V80539))		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
100	BACB28AK05-150		.BUSHING- (V23294, V70625, V94892)		1
105	BACB28AK05-050		.BUSHING- (V23294, V70625, V94892)		1
110	MKP5A		.BEARING- (V38443) (SPEC BACB10AP5) (OPT BACB28AK05-050 (V38443)) (OPT MKP5AFS428 (V21335)) (OPT MKP5ATT (V43991)) (OPT MKP5A2TS (V43991)) (OPT MKP5E6531 (V21335)) (OPT MKP15AG20 (V38443))		1
112	257T4135-2		.SHIM		1
115	257T4124-1		.GEAR ASSY-IDLER		1
120	MKP5A		..BEARING- (SPEC BACB10AP5) (REFER TO ITEM 110 FOR OPT PARTS)		1
125	257T4124-2		..GEAR-IDLER		1
130	257T4121-1		.HOUSING ASSY	A	1
130A	257T4121-4		.HOUSING ASSY	B	1
135	MKP10A		..BEARING- (V38443) (SPEC BACB10AP10) (OPT LLMKP10A (V38443)) (OPT MKP10AFS428 (V21335)) (OPT MKP10ATT (V43991)) (OPT MKP10A2TS (V43991)) (OPT MKP10E6531 (V21335)) (OPT MKP10AG20 (V38443))		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
140	MKP16A		..BEARING- (V38443) (SPEC BACB10AP16) (OPT LLMKP16A (V38443)) (OPT MKP16AFS428 (V21335)) (OPT MKP16ATT (V43991)) (OPT MKP16A2TS (V43991)) (OPT MKP16E6531 (V21335)) (OPT MKP16AG20 (V38443))		1
145	257T4121-2		..HOUSING (USED ON 257T4121-1)		1
145A	257T4121-5		..HOUSING (USED ON 257T4121-4)		1