

TECHNICAL MANUAL

ILLUSTRATED PARTS BREAKDOWN

AIRCRAFT ENGINES

MODELS O-470-13, O-470-13A, O-470-4

(CONTINENTAL MOTORS)
N00600-76-D-0596

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Total number of pages in this manual is 40 consisting of the following:

Page No.	# Change No.	Page No.	# Change No.	Page No.	# Change No.
Title	5	5 - 6	5	20 - 24	5
A	5	7 - 9 Deleted	5	25	1
i	5	10	5	26	3
ii Blank	5	11 - 12	0	27	0
1 - 2A	1	13	1	28	1
2B Blank.....	1	14 - 19	0	29	0
3 - 4	1			30 - 33	5

* Zero in this column indicates an original page.

TABLE OF CONTENTS

Section	Page Number
I	INTRODUCTION 1
	Right Side View Typical of Type O-470-13 and O-470-13A Aircraft Engines 2
	Three-Quarter Left Rear View of Type O-470-4 Aircraft Engines 2
II	GROUP ASSEMBLY PARTS LIST 4
	Ignition Harness Assembly 4
	Complete Magneto Assembly 6
	Intake Manifold and Oil Drain Assembly 10
	Complete Oil Pump Assembly 12
	Accessory Case, Gears and Covers Assembly 14
	Accessory Case Studding and Machining Assembly 17
	Cylinders and Pushrods Assembly 20
	Complete Piston Assembly 22
	Crankcase Assembly 23
	Complete Connecting Rod Assembly 26
	Complete Crankshaft Assembly 27
	Camshaft and Lifters Assembly 29
III	NUMERICAL INDEX 30

This manual was prepared under the technical cognizance of Naval Air Rework Facility, Pensacola, Florida. Comments and recommendations pertaining to this manual shall be submitted in accordance with The Naval Aviation Maintenance Program (NAMP) OPNAVINST 4790.2A.

SECTION I INTRODUCTION

1. SCOPE. This catalog lists and describes the parts and contractor furnished equipment of Models O-470-13, O-470-13A and O-470-4 Aircraft Engines manufactured by Continental Motors Corporation, Muskegon, Michigan.

2. ARRANGEMENT OF ILLUSTRATED PARTS BREAKDOWN.

a. The Table of Contents at the front of the catalog shows the method of grouping all parts and the sequence of groups along with their respective page numbers.

b. Section II, the Group Assembly Parts List, is a parts listing of the complete engine divided into 14 main groups as shown in the Table of Contents. Each assembly listed is followed immediately by its component parts properly indented, thereunder, to show their relationship to the assembly. Component parts of the complete engine which are not included in any assembly, but which are used in conjunction with, attach, or attach to a certain assembly, are listed either preceding the first detail or following the last detail of that assembly, and in line with the major assembly.

c. Section III, the Numerical Index, is a list of all part numbers shown in the Group Assembly Parts List and is compiled in accordance with the numerical part number filing system described below:

1. Part number numerical arrangement starts on the left-hand column and continues from left to right, one column at a time, until part number numerical arrangement is determined.

2. The order of precedence in part number numerical arrangement is as follows:

First position arrangement

- (1) Letters A through Z
- (2) Numerals 0 through 9

Second and succeeding position arrangement

- (1) Space (blank column)
- (2) Dash (-)
- (3) Letters A through Z
- (4) Numerals 0 through 9

Note: Alphabetical O's are considered as zeros.

3. USE OF ILLUSTRATED PARTS BREAKDOWN.

a. When the part number is known and it is desired to learn the appearance of the part, refer to the Numerical Index for the figure and index number for that part. Turn back to the proper figure in the Group Assembly Parts List and find the index number on the illustration which will locate the part and show its appearance. The corresponding index number in the parts list will give the correct nomenclature of the part.

b. When the part number is not known and it is desired to find the part, refer to the Table of Contents for the page number of the illustration showing the assembly that contains the part in question. Then

refer to the illustration and locate the part by observation. Its corresponding index number in the parts list will give the correct nomenclature of the part.

c. The quantities listed in the "UNITS PER ASSY" column of the Group Assembly Parts List are, in the case of assemblies, the total quantity used per engine at the location indicated, while the component parts indented under the assemblies are the quantity used per assembly. The quantities specified, therefore, are not necessarily the total used per engine. Refer to the Numerical Index for the total quantities used per engine.

d. Non-procurable parts are indicated as "NP" in the "UNITS PER ASSY" column. To obtain non-procurable parts, order the next higher assembly as indicated in the Group Assembly Parts List. Non-procurable assemblies appearing in column 1 of the "DESCRIPTION" column are established for the convenience of the list user and may not be ordered as such.

4. VENDORS' CODE SYMBOLS. Standard code symbols, placed in parenthesis after the description, are used to designate the manufacturer of purchased items of equipment. These symbols are as follows:

VENDORS' CODE SYMBOLS

Symbol	Vendors' Name and Address
ACS	AC Spark Plug Division General Motors Corp Flint, Mich.
AF	Heli-Coil Corp Danbury, Conn.
BG	B G Corp New York, N.Y.
BPD	Bendix Products Division Bendix Aviation Corp South Bend, Ind.
CK	Champion Spark Plug Co Toledo, Ohio
ELA	Electric Auto-Lite Co Toledo, Ohio
NM	National Motor Bearing Co Inc Redwood City, California
SNT	Scintilla Magneto Division Bendix Aviation Corp Sidney, N.Y.
UC	United-Carr Fastener Corp Cambridge, Mass.

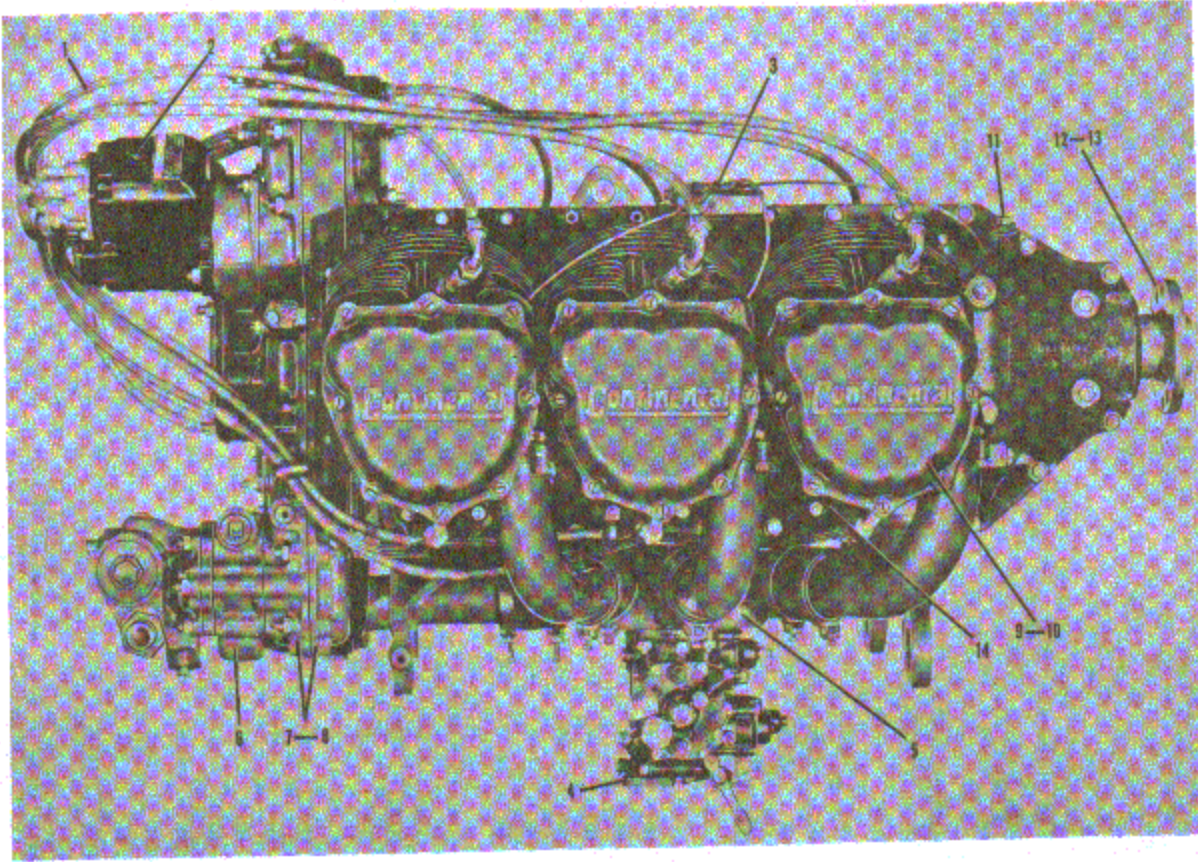


Figure 1. Right Side View Typical of Type O-470-13 and O-470-13A Aircraft Engines (1 of 2)

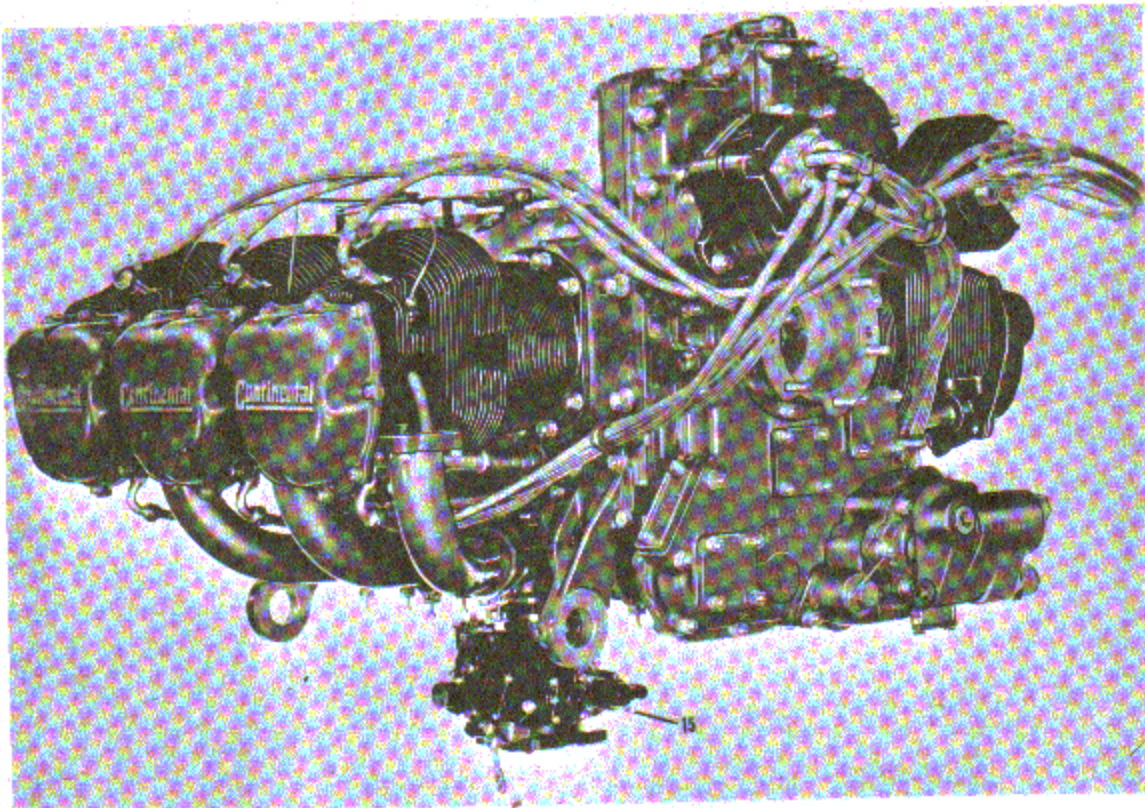


Figure 1. Three Quarter Left Rear View of Type O-470-4 Aircraft Engine (2 of 2)

Legend for Figure 1

INDEX NO.	GROUP DESIGNATION	FIGURE NO.
1	Ignition Harness Assembly	2
2	Complete Magneto Assembly	3
3	Priming System Assembly	4
4	Carburetor Assembly	5
5	Intake Manifold and Oil Drain Assembly	6
6	Complete Oil Pump Assembly	7
7	Accessory Case, Gears and Covers Assembly	8
8	Accessory Case Studding and Machining Assembly	9
9	Cylinder and Pushrod Assembly	10
10	Complete Piston Assembly	11
11	Crankcase Assembly	12
13	Complete Crankshaft Assembly	14
14	Camshaft and Lifters Assembly	15
15	Carburetor Assembly	5A

VENDORS' CODE SYMBOLS (Cont.)

Symbol Vendors' Name and Address

VM Victor Mfg and Gasket Co
Chicago, Ill.

WCX Wilcox-Rich Division
Eaton Mfg Co
Detroit, Mich.

WIT Wittek Mfg Co
Chicago, Ill.

WKI Waldes-Kohinoor Inc
Long Island City, N.Y.

5. USABLE ON CODE. Part variations between the engine models are indicated by a letter symbol, or combination of letter symbols in the "Usable on Code" column. The following tabulation explains the code letter symbols used in this catalog:

LETTER CODE	ENGINE MODEL	SERIAL NO.
a	O-470-13	
b	O-470-13A	
c	O-470-4	
d	O-470-13A	105661
e	O-470-4	116164

Where the "Usable on Code" column has been left blank, the part is usable on each engine.

6. SOURCE CODING. The following is a list of definitions as applied to the Numerical Index "SOURCE CODE" column.

(a) CODE "P" - PARTS UNDER INVENTORY STOCK CONTROL

(1) CODE "P" is applied to parts which are procured in view of relatively high usage. Code "P" parts may be requisitioned and installed by any maintenance level, unless followed by the letter - "O", which restricts requisition and replacement to Depot (O&R) level only. Restricted service manufacture is considered practicable but only after an attempt has been made to procure from Supply Sources. In lieu of Procurement of "P" Coded parts, the Department may designate a Depot (O&R) level activity to manufacture supply requirements for the Program.

(2) CODE "P1" is applied to parts which are very difficult or uneconomical to manufacture. Service manufacture is considered impracticable. Code "P1" parts may be requisitioned and installed by any maintenance level, unless followed by the letter - "O" which restricts requisition and replacement to Depot (O&R) level only.

(b) CODE "M" MANUFACTURE, PARTS NOT PROCURED

(1) CODE "M" is applied to parts which are within the facilities of any activity to manufacture. Procurement and stocking are not justified in view of the relatively low usage, or storage and installation factors, of these parts. Needs are to be met by local manufacture as required.

(2) CODE "M1" is applied to parts which can be manufactured only by utilizing the facilities of the Depot (O&R) activity. Procurement and stocking of these parts are not justified in view of their relatively low usage and installation factors. The

needs of all activities are to be met through salvage, or by Depot (O&R) level manufacture.

(c) CODE "A" ASSEMBLE - ASSEMBLY NOT PROCURED

(1) CODE "A" is applied to assemblies made up of two or more units each of which carry individual part numbers and description, and which may be assembled by any Maintenance level.

(2) CODE "A1" is applied to assemblies made up of two or more parts each of which carry individual part numbers and description, and which may be assembled only by activities having Depot (O&R) facilities.

(d) CODE "X" PARTS CONSIDERED IMPRACTICABLE FOR MANUFACTURE OR PROCUREMENT

(1) CODE "X" is applied to Main Structural Members or similar parts which, if required, would suggest extensive aircraft or equipment reconditioning. The need of a part, or parts, coded "X" (wing spar caps, center section structure) should normally result in a recommendation to retire the aircraft or equipment from service.

(2) CODE "X1" is applied to parts for which procurement of the next larger assembly is justified; e.g., an integral detail part, such as welded segments, inseparable from its assembly; a part machined in a matched set; or a part of an assembly which, if required, would suggest extensive reconditioning of each assembly.

(3) CODE "X2" is applied to parts which are neither procured nor stocked. Activities requiring such parts shall attempt to obtain from salvage; if not obtainable from salvage, such parts shall be requisitioned through normal supply channels with supporting justification.

(e) CODE * PARTS NOT PROCURED, MANUFACTURED OR STOCKED

(1) CODE * applies to installation drawings, diagrams, instructions or field service drawings, basic drawing numbers which cannot be procured or manufactured and obsolete parts.

7. ABBREVIATIONS. The following abbreviations are used in this catalog:

AR	Used as Required
Assy	Assembly
dia	diameter
Fig.	Figure
ID	Inside Diameter
in.	inch(es)
lg	long
No.	Number(s)
NP	Non-Procurement
OD	Outside Diameter
Opt.	Optional
OS	Oversize
Ref.	Reference (same part identified in referenced figure or same kind indicated by same index number elsewhere on same figure).

---*--- End of group of attaching parts

SECTION II
GROUP ASSEMBLY PARTS LIST

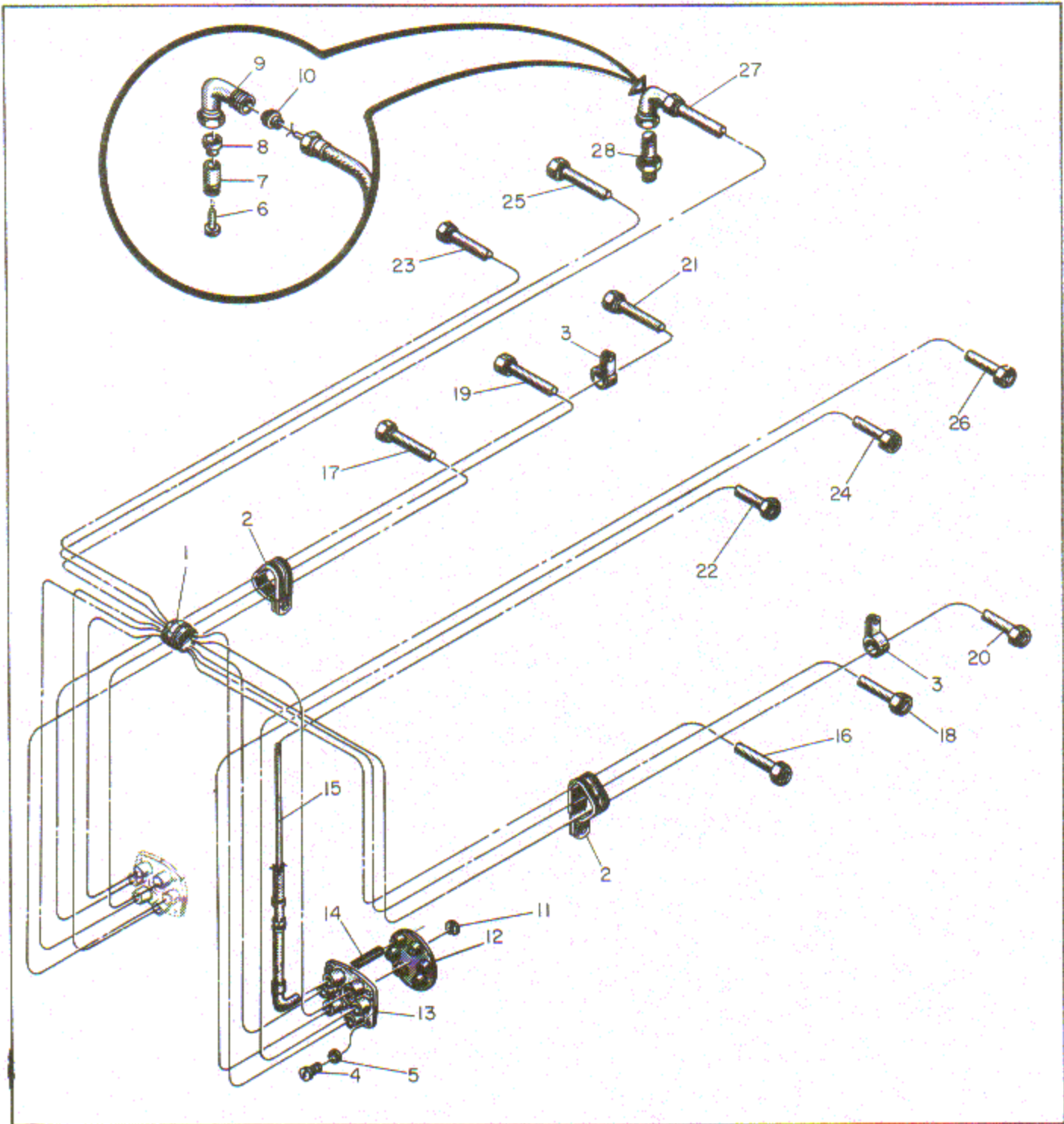


Figure 2. Ignition Harness Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6			7
2-	No Number	IGNITION SYSTEM ASSEMBLY						NP	
-1	533067	. BAND, Harness wire type B size 5 (UFC)						1	
-2	537316	. BRACKET, Ignition cable						2	
-3	AN742D9C	. CLAMP, Loop type support						2	
	536043	. HARNESS ASSEMBLY, Radio shielded ignition						1	
		ATTACHING PARTS							
-4	25320	. SCREW, -10-32 x .62						8	
-5	35338-43	. WASHER, Lock-Spring # 10						8	
	32620	. . HARNESS ASSEMBLY, Left magneto ignition (RW) (536043-1)						1	
	32614	. . HARNESS ASSEMBLY, Right magneto ignition (RW) (536043-2)						1	
-6	AN302-20-3	. . . PIN						6	
-7	AN4164-2	. . . SLEEVE						6	
-8	22871	. . . GROMMET, Terminal collar (RW). . .						6	
-9	AN3104-1	. . . ELBOW						6	
-10	WE-1009	. . . SPACER, Grommet (RW).						6	
-11	25388	. . . WASHER, Slotted brass cable contact						6	
-12	36219	. . . GROMMET, 6 cylinder distributor cable						1	
-13	25312	. . . PLATE, 6 cylinder distributor shielded cable outlet						1	
-14	WE-1122	. . . SLEEVE, Adapter rubber (RW).						6	
-15	WE-1250	. . . CABLE, 5mm ignition, Spec MIL-C-3162, type 1, grade "A" or "B", class 2 (RW)						AR	
-16	WE301-1-3000	. . . CONDUIT ASSY, Left magneto No. 1 cyl lower, long elbow, 30 in. long (RW)						1	
-17	WE301-1-2700	. . . CONDUIT ASSY, Left magneto No. 2 cyl lower, long elbow, 27 in. long (RW)						1	
-18	WE301-2-3600	. . . CONDUIT ASSY, Left magneto No. 3 cyl lower, short elbow, 36 in. long (RW)						1	
-19	WE301-2-3400	. . . CONDUIT ASSY, Left magneto No. 4 cyl lower, short elbow, 34 in. long (RW)						1	
-20	WE301-2-4300	. . . CONDUIT ASSY, Left magneto No. 5 cyl lower, short elbow, 43 in. long (RW)						1	
-21	WE301-2-4000	. . . CONDUIT ASSY, Left magneto No. 6 cyl lower, short elbow, 40 in. long (RW)						1	
-22	WE301-2-2200	. . . CONDUIT ASSY, Right magneto No. 1 cyl upper, short elbow, 22 in. long (RW)						1	
-23	WE301-2-3200	. . . CONDUIT ASSY, Right magneto No. 2 cyl upper, short elbow, 32 in. long (RW)						1	
-24	WE301-1-3000	. . . CONDUIT ASSY, Right magneto No. 3 cyl upper, long elbow, 30 in. long (RW)						1	
-25	WE301-1-3800	. . . CONDUIT ASSY, Right magneto No. 4 cyl upper, long elbow, 38 in. long (RW)						1	
-26	WE301-2-3600	. . . CONDUIT ASSY, Right magneto No. 5 cyl upper, short elbow, 36 in. long (RW)						1	
-27	WE301-2-4200	. . . CONDUIT ASSY, Right magneto No. 6 cyl upper, short elbow, 42 in. long (RW)						1	
-28	SH2M	. PLUG, 18 mm spark (ELA) (534411)						12	
	706SR	. PLUG, 18 mm spark (BG) (530204)						Opt.	
	SR-88	. PLUG, 18 mm spark (ACS) (625351)						Opt.	

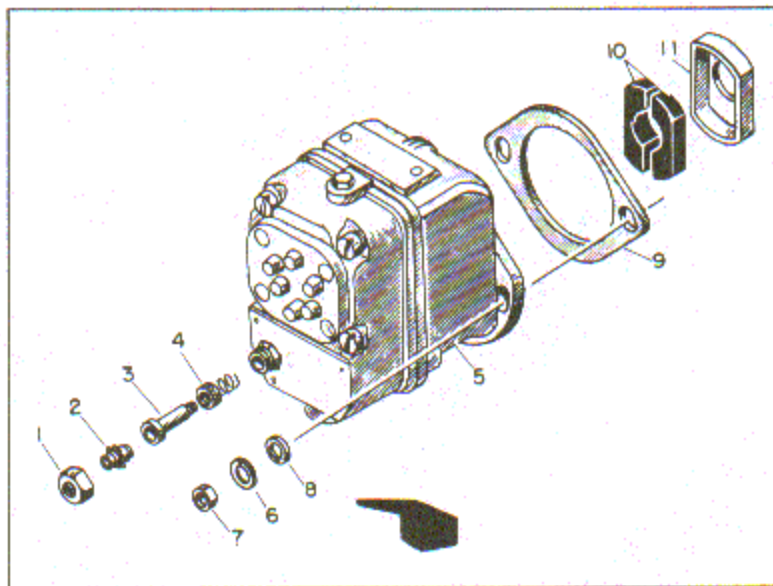


Figure 3. Complete Magneto Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION					UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5		
3-	No Number	MAGNETO ASSY, Complete					NP	
	10-52306	. KIT, Ground terminal (SNT) (533994).....					2	
-1	10-30299	. . NUT, 11/16-24 (SNT) (534036)					1	
-2	10-56507	. . GROMMET ASSY, (SNT) (534035).....					1	
-3	10-3383	. . PLUG ASSY, (SNT) (534034).....					1	
-4	10-25725	. . SPRING, (SNT) (534033)					1	
-5	10-52350-6	. MAGNETO ASSY, Type S6LN-23 (SNT)					2	
	10-52350-20	(For a list of detail parts, refer to						
	533173	NAVAIR 03-5DA-39)						
		ATTACHING PARTS						
-6	MS35338-45	. WASHER, Lock-Spring - .31					4	
-7	AN121503	. NUT, Plain - .31 - 24					4	
-8	401506	. WASHER, Plain 0.33 ID x 3/4 OD x 3/32 in. thick ..					4	
-9	535324	. GASKET, Magneto flange					2	
-10	638172	. BUSHING, Magneto drive coupling					4	
-11	531178	. RETAINER, Magneto drive bushing.....					2	

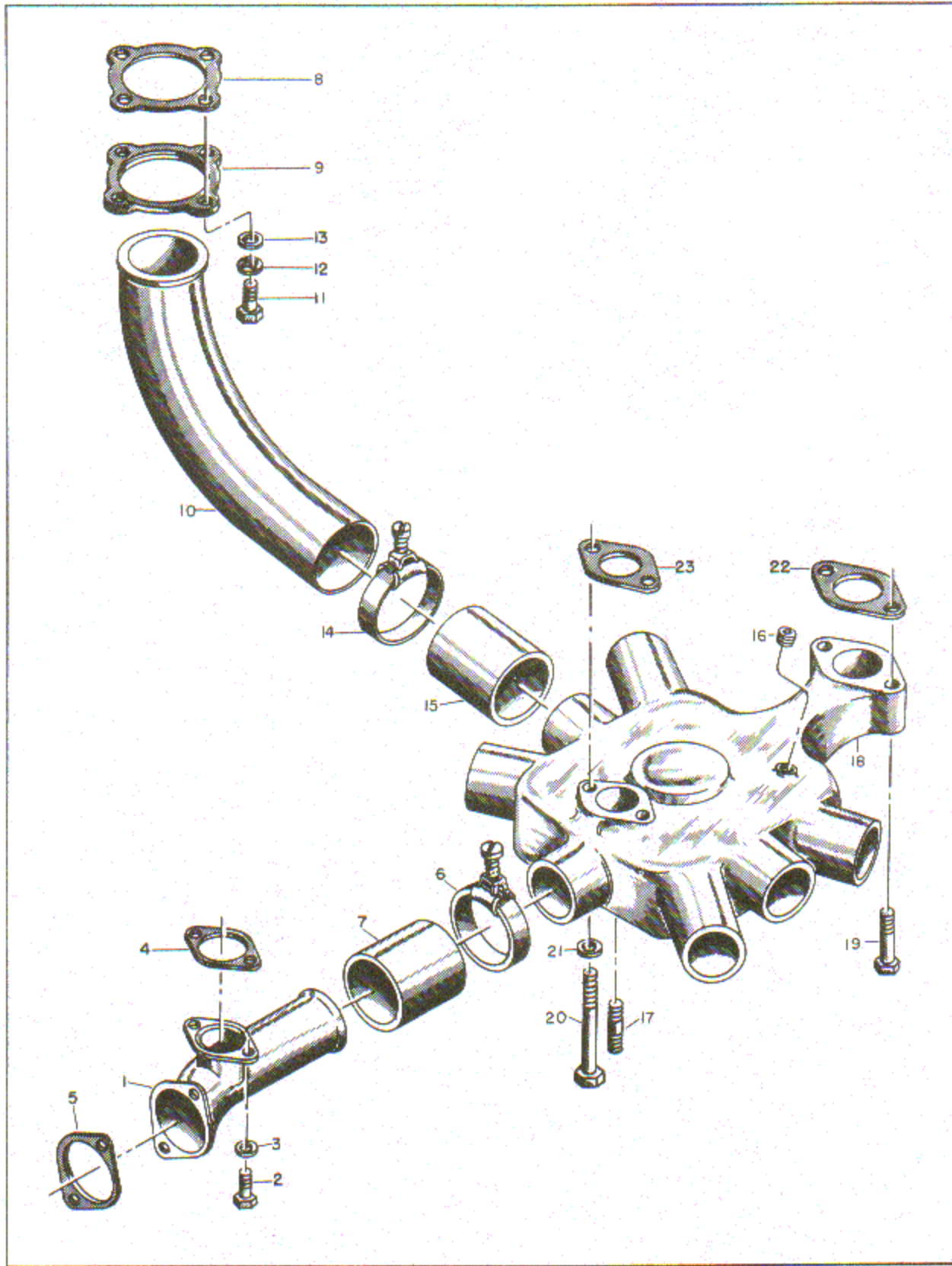


Figure 6. Intake Manifold and Oil Drain Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
6-	No Number	INTAKE MANIFOLD AND OIL DRAIN ASSEMBLY							NP	
-1	50370	. HOUSING, Oil drain							1	
		ATTACHING PARTS								
-2	22051	. BOLT, Hex drilled head, 1/4-20 x 3/4 in. long							4	
-3	AN960-416L	. WASHER							4	
		-----*								
-4	352063	. GASKET, Oil drain housing to crankcase							1	
-5	352064	. GASKET, Oil drain housing to accessory case							1	
-6	GM-2.44	. CLAMP, Hose 2-7/16 in. ID (WIT) (36151-E)							2	
-7	24827	. HOSE, 2 ID x 2-1/2 in. long							1	
-8	536413	. GASKET, Intake manifold							6	
-9	536403	. FLANGE, Intake manifold tube							6	
-10	536020	. TUBE, Intake manifold to cylinder							6	
		ATTACHING PARTS								
-11	537802	. SCREW, Hex head 1/4-20 x 1-5/32 in. long							24	
-12	AN936A416	. WASHER							24	
-13	AN960-416L	. WASHER							24	
		-----*								
-14	GM-2.44	. CLAMP, Hose 2-7/16 in. ID (WIT) (36151-E)							12	
-15	24827	. HOSE, 2 ID x 2-1/2 in. long							6	
	534204-A1	. STUDDING ASSEMBLY, Intake and oil drain manifold							1	ab
	534204-A4	. STUDDING ASSEMBLY, Intake and oil drain manifold							1	c
-16	AN932-2	. . PLUG							1	
-17	AN126300	. . BOLT STUD (for assembly No. 534204-A1)							4	ab
	401975	. . STUD, 5/16-18 x 5/16 - 24 x 1-9/16 in. long (for assembly No. 534204-A4)							4	c
	401975P003	. . STUD, 5/16-18 x 5/16 - 24 x 1-9/16 in. long 0.003 in.OS on PD							AR	c
	401975P007	. . STUD, 5/16-18 x 5/16 - 24 x 1-9/16 in. long 0.007 in.OS on PD							AR	c
	401975P012	. . STUD, 5/16-18 x 5/16 - 24 x 1-9/16 in. long 0.012 in.OS on PD								
-18	534204	. . MANIFOLD, Intake and oil drain							NP	
		ATTACHING PARTS								
-19	AN75A21	. . BOLT							2	
-20	538999	. . BOLT, Drilled hex head 5/16 - 18 x 3-5/8 in. long							2	
-21	AN960-516	. . WASHER							4	
		-----*								
-22	352059	. GASKET, Intake and oil drain manifold front							1	
-23	352060	. GASKET, Intake and oil drain manifold rear							1	

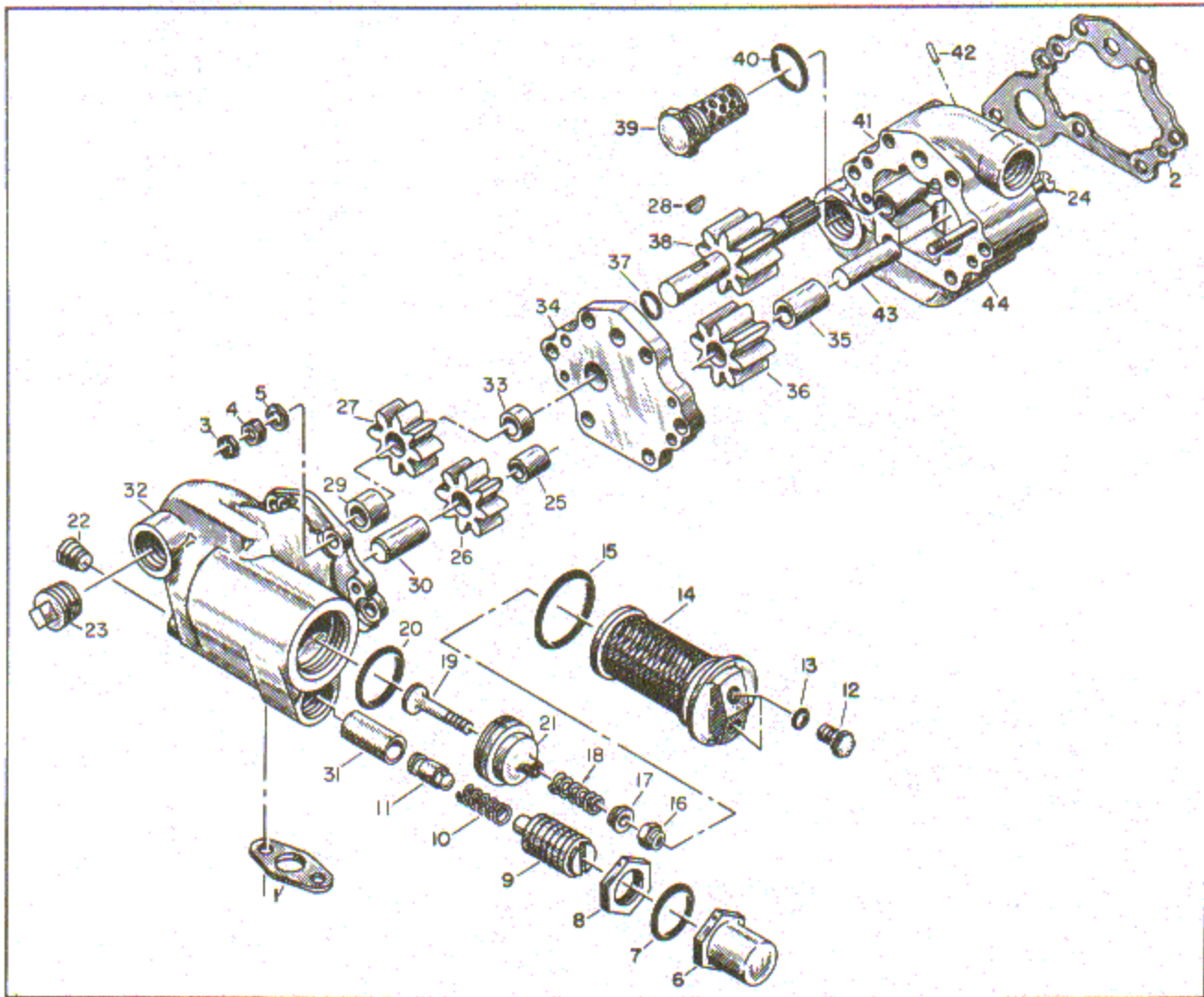


Figure 7. Complete Oil Pump Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
7-	No Number	PUMP AND GASKETS ASSY, Oil							NP	
-1	536799	. GASKET, Pressure oil pump							1	
-2	536634	. GASKET, Oil pump to accessory case							1	
	535881-A1	. PUMP ASSY, Complete oil							1	
		ATTACHING PARTS								
-3	356-524	. LOCK							6	
-4	AN121503	. NUT.....							6	
-5	AN960-516L	. WASHER.....							6	
-6	20970	. . CAP, Oil pressure relief valve							1	
-7	AN900-16	. . GASKET, Copper-asbestos annular							2	
-8	20968	. . NUT, High pressure adjusting screw lock							1	
-9	533166	. . SCREW AND BUSHING ASSY, Oil Pressure relief							1	
-10	533106	. . SPRING, Oil pressure relief valve inner							1	
-11	537027	. . PLUNGER, Oil pressure relief valve							1	
-12	905B10	. . PLUG, Hex hd, drilled for locking							2	
-13	AN900-10	. . GASKET, Copper-asbestos annular							2	
-14	536902	. . FILTER ASSEMBLY, Oil							1	
-15	AN900-29	. . GASKET, Copper-asbestos annular							1	
	A25132	. . VALVE ASSY, Oil check							1	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
7-16	AN364-1032C	.	.	.	NUT	.	.	.	1	
-17	25133	.	.	.	RETAINER, Oil check valve spring	.	.	.	1	
-18	25134	.	.	.	SPRING, Oil check valve	.	.	.	1	
-19	25132	.	.	.	VALVE, Oil check	.	.	.	1	
-20	AN123882	.	.	.	SEAL	.	.	.	1	
-21	530453	.	.	.	SEAT, Oil check valve	.	.	.	1	
-22	AN932-3	.	.	.	PLUG, Countersunk hex hd pipe	.	.	.	1	
-23	AN913-6S	.	.	.	PLUG, Square hd pipe	.	.	.	1	
-24	AN505-10-44	.	.	.	SCREW	.	.	.	2	
	533062	.	.	.	GEAR AND BUSHING ASSY, Driven	.	.	.	1	
-25	533060	.	.	.	BUSHING, Oil pump	.	.	.	1	
-26	533059	.	.	.	GEAR, Oil pump driven	.	.	.	NP	
-27	533090	.	.	.	GEAR, Oil pump drive	.	.	.	1	
-28	AN280H404	.	.	.	KEY, Woodruff	.	.	.	1	
	535872	.	.	.	BODY ASSY, Pressure oil pump	.	.	.	1	
-29	535866	.	.	.	BUSHING, Oil pump	.	.	.	1	
-30	533061	.	.	.	SHAFT, Oil pump	.	.	.	1	
-31	537508	.	.	.	SLEEVE, Oil pump housing	.	.	.	1	
-32	532970	.	.	.	BODY, Pressure oil pump	.	.	.	NP	
	535879	.	.	.	PLATE ASSY, Scavenge oil pump	.	.	.	1	
-33	535868	.	.	.	BUSHING, Scavenge oil pump plate	.	.	.	1	
-34	533092	.	.	.	PLATE, Scavenge oil pump	.	.	.	NP	
	533102	.	.	.	GEAR AND BEARING ASSY, Scavenge driven	.	.	.	1	
-35	533100	.	.	.	BEARING, Scavenge oil pump	.	.	.	1	
-36	533091	.	.	.	GEAR, Scavenge oil pump	.	.	.	NP	
-37	AN123867	.	.	.	SEAL	.	.	.	1	
-38	533086	.	.	.	SHAFTGEAR, Scavenge oil pump drive	.	.	.	1	
-39	533108	.	.	.	SCREEN ASSY, Scavenge oil	.	.	.	1	
-40	AN900-16	.	.	.	GASKET, Copper-asbestos annular	.	.	.	1	
	535881	.	.	.	BODY ASSY, Scavenge oil pump	.	.	.	1	
-41	535866	.	.	.	BUSHING, Oil pump	.	.	.	1	
-42	538796	.	.	.	PIN, Roll, 1/8 OD x 5/8 in. long	.	.	.	1	
-43	533101	.	.	.	SHAFT, Oil pump	.	.	.	1	
-44	533083	.	.	.	BODY, Scavenge oil pump	.	.	.	NP	

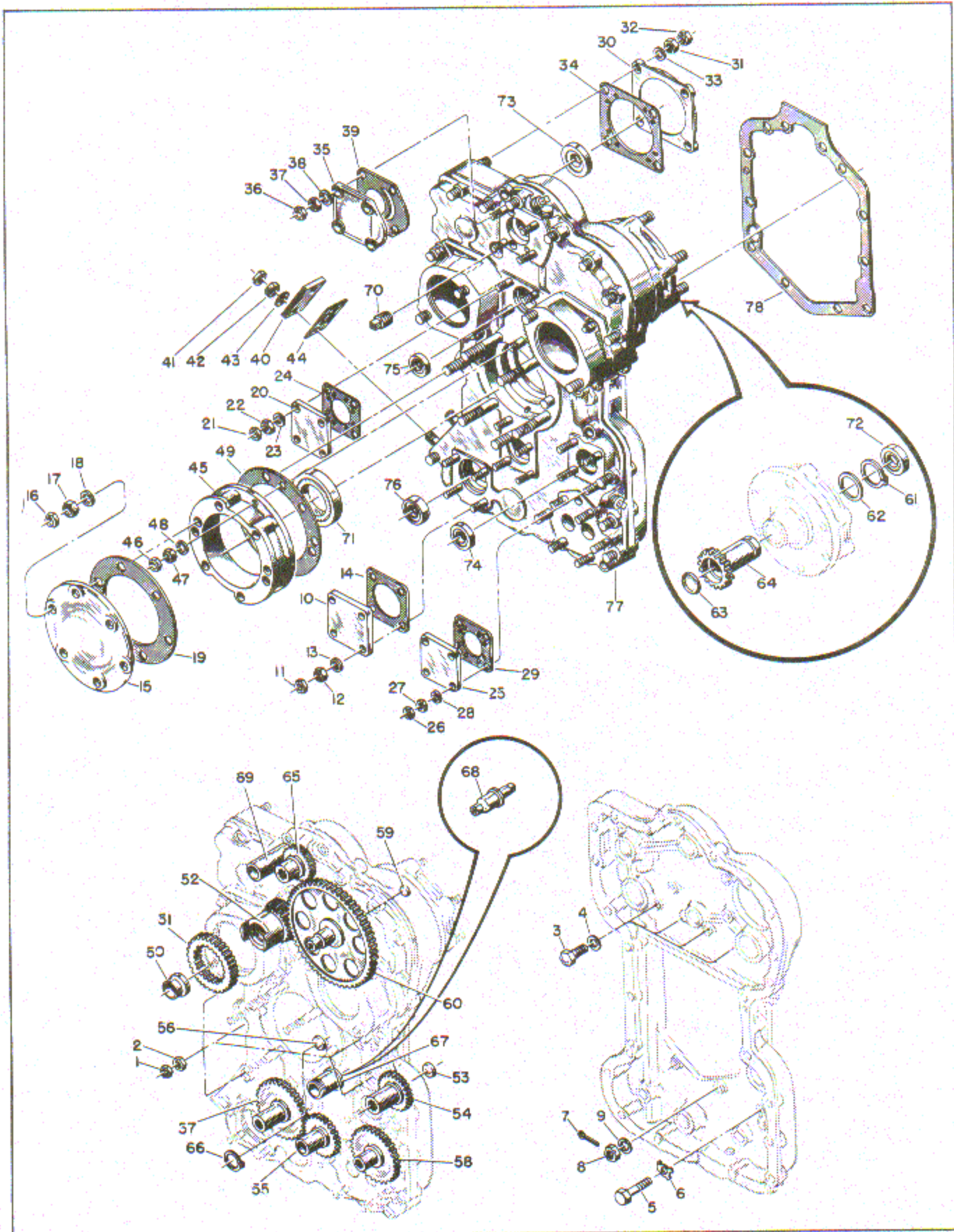


Figure 8. Accessory Case, Gears and Covers Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
8-	No Number	ACCESSORY CASE, GEARS AND COVERS ASSY	NP	
		ATTACHING PARTS		
-1	356-524	LOCK	5	
-2	AN121503	NUT	5	
-3	AN75A7	BOLT	4	
-4	AN960-516L	WASHER	9	
-5	AN75A17	SCREW	1	
-6	501868	WASHER, Tab	1	
-7	AN381-2-7	PIN	2	
-8	AN320-4	NUT	2	
-9	AN960-416	WASHER	2	
		---*---		
-10	AN100039	. COVER, Type XIII engine accessory drive	1	
		ATTACHING PARTS		
-11	356-524	. LOCK	4	
-12	AN121503	. NUT	4	
-13	AN960-516L	. WASHER	4	
		---*---		
-14	AN4059-1	. GASKET, Type XIII engine accessory drive	1	
-15	2304	. COVER, Starter drive	2	
		ATTACHING PARTS		
-16	356-624	. LOCK	12	
-17	AN121504	. NUT	12	
-18	AN960-616	. WASHER	12	
		---*---		
-19	AN4047-1	. GASKET, Type XII engine accessory drive	2	
-20	25005	. COVER, Vacuum pump	2	
		ATTACHING PARTS		
-21	356-428	. LOCK	8	
-22	AN121502	. NUT	8	
-23	AN960-416L	. WASHER	8	
		---*---		
-24	AN4045-1	. GASKET, Type X engine accessory drive	1	
-25	25005	. COVER, Vacuum pump adapter	1	
		ATTACHING PARTS		
-26	356-428	. LOCK	4	
-27	AN121502	. NUT	4	
-28	AN960-416L	. WASHER	4	
		---*---		
-29	AN4045-1	. GASKET, Type X engine accessory drive	2	
-30	532532	. COVER, Hydraulic pump pad upper	1	
		ATTACHING PARTS		
-31	356-524	. LOCK	4	
-32	AN121503	. NUT	4	
-33	AN960-516L	. WASHER	4	
		---*---		
-34	AN4044-1	. GASKET, Type XI engine accessory drive	1	
-35	36181	. COVER, Governor pad	1	
		ATTACHING PARTS		
-36	356-524	. LOCK	4	
-37	AN121503	. NUT	4	
-38	AN960-516L	. WASHER	4	
		---*---		
-39	MS100009	. GASKET	1	
-40	533129	. COVER, Oil filler access	1	
		ATTACHING PARTS		
-41	356-428	. LOCK	2	
-42	AN121502	. NUT	2	
-43	AN960-416L	. WASHER	2	
		---*---		
-44	532509	. GASKET, Oil filler spout	1	
-45	532139	. ADAPTER, Starter	1	

Section II
Group Assembly Parts List

T.O. 2R-0470-14

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
		ATTACHING PARTS								
8-46	356-428	.	.	.	.	.	.	.	2	
-47	AN121502	.	.	.	.	.	.	.	2	
-48	AN960-416L	.	.	.	.	.	.	.	2	
		-----*								
-49	532520	.	.	.	.	.	.	.	1	
	532479	.	.	.	.	.	.	.	1	
	535033	.	.	.	.	.	.	.	1	
-50	531177	.	.	.	.	.	.	.	1	
-51	532478	.	.	.	.	.	.	.	NP	
	535031	.	.	.	.	.	.	.	NP	
-52	532477	.	.	.	.	.	.	.	NP	
	532543	.	.	.	.	.	.	.	1	
-53	532527	.	.	.	.	.	.	.	1	
-54	532181	.	.	.	.	.	.	.	NP	
-55	532178	.	.	.	.	.	.	.	1	
	532542	.	.	.	.	.	.	.	1	
-56	539634	.	.	.	.	.	.	.	1	
-57	532180	.	.	.	.	.	.	.	NP	
-58	532174	.	.	.	.	.	.	.	1	
	532541	.	.	.	.	.	.	.	1	
-59	532199	.	.	.	.	.	.	.	1	
-60	532177	.	.	.	.	.	.	.	NP	
-61	5100-112	.	.	.	.	.	.	.	1	
-62	532487	.	.	.	.	.	.	.	1	
	536483	.	.	.	.	.	.	.	1	
-63	532202	.	.	.	.	.	.	.	1	
-64	535028	.	.	.	.	.	.	.	NP	
-65	532179	.	.	.	.	.	.	.	1	
-66	5100-81	.	.	.	.	.	.	.	1	a
-67	532654	.	.	.	.	.	.	.	1	a
-68	538696	.	.	.	.	.	.	.	1	bc
-69	533406	.	.	.	.	.	.	.	1	
-70	AN913-3S	.	.	.	.	.	.	.	2	
-71	49141	.	.	.	.	.	.	.	1	
-72	50045-S	.	.	.	.	.	.	.	1	
-73	50217-S	.	.	.	.	.	.	.	1	
-74	50184	.	.	.	.	.	.	.	1	
-75	50021-S	.	.	.	.	.	.	.	1	a
	50021-S	.	.	.	.	.	.	.	2	bc
-76	50030-S	.	.	.	.	.	.	.	1	
-77	535909	.	.	.	.	.	.	.	1	
		(For a list of detail parts see figure 9)								
-78	534079	.	.	.	.	.	.	.	1	
9-	535909	.	.	.	.	.	.	.	REF	
		STUDDING AND MACHINING ASSY, Accessory case (See figure 8 for next higher assembly)								
		ATTACHING PARTS								
-1	356-524	.	.	.	.	.	.	.	19	
-2	AN121503	.	.	.	.	.	.	.	19	
-3	AN960-516L	.	.	.	.	.	.	.	19	
		-----*								
	536390	.	.	.	.	.	.	.	NP	
		STUDDING AND MACHINING ASSY, Accessory case front half								
	532539	.	.	.	.	.	.	.	1	
		ATTACHING PARTS								
-4	356-428	.	.	.	.	.	.	.	2	
-5	AN121502	.	.	.	.	.	.	.	2	
-6	AN960-416L	.	.	.	.	.	.	.	2	
		-----*								

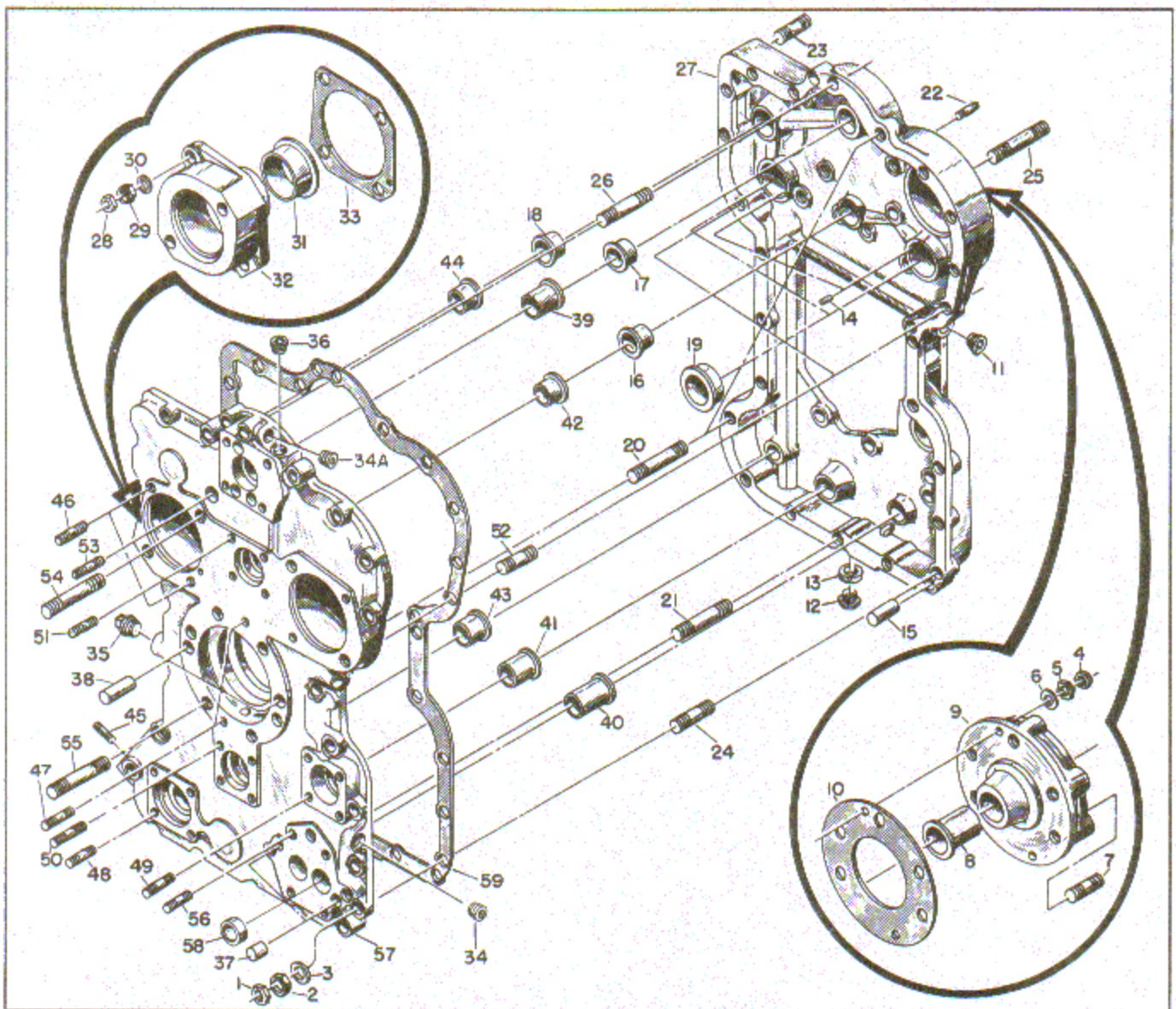


Figure 9. Accessory Case Studing and Machining Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
9-7	532515	.	.	.	STUD, 3/8-16 x 3/8-24 x 1-3/4 in. lg.				1	
	532515P003	.	.	.	STUD, 3/8-16 x 3/8-24 x 1-3/4 in. lg, 0.003 in. OS on PD				AR	
	532515P006	.	.	.	STUD, 3/8-16 x 3/8-24 x 1-3/4 in. lg, 0.006 in. OS on PD				AR	
	532515P009	.	.	.	STUD, 3/8-16 x 3/8-24 x 1-3/4 in. lg, 0.009 in. OS on PD				AR	
-8	532484	.	.	.	BUSHING, Bronze, 1-1/8 in. ID				1	
-9	532140	.	.	.	ADAPTER, Generator				NP	
-10	532519	.	.	.	GASKET, Generator adapter				1	
-11	AN932-2	.	.	.	PLUG, Countersunk hex hd pipe				3	
-12	536624	.	.	.	PLUG, Hex hd, 9/16-18 NF3				1	
-13	AN900-9	.	.	.	GASKET, Copper-asbestos annular				1	
-14	533031	.	.	.	PIN, 3/32 dia x 3/16 in. lg				2	
-15	532525	.	.	.	DOWEL, 3/8 dia x 3/4 in. lg				2	
-16	532318	.	.	.	BUSHING, Tachometer drive				1	
-17	532331	.	.	.	BUSHING, Propeller governor drive				2	
-18	532481	.	.	.	BUSHING, Hydraulic pump drive				1	
-19	532485	.	.	.	BUSHING, Magneto				2	
-20	AN126414	.	.	.	BOLT STUD				2	

Section II
Group Assembly Parts List

T.O. 2R-0470-14

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
9-21	AN126432	.	.	BOLT	STUD, Straight, 5/16-18 x 5/16-24	.....			1	
-22	22319	.	.	STUD, 1/4-20 x 1/4-28 x 1-1/4 in. lg	.....				2	
	22319P003	.	.	STUD, 1/4-20 x 1/4-28 x 1-1/4 in. lg, 0.003 in.					AR	
	22319P006	.	.	STUD, 1/4-20 x 1/4-28 x 1-1/4 in. lg, 0.006 in.					AR	
	22319P009	.	.	STUD, 1/4-20 x 1/4-28 x 1-1/4 in. lg, 0.009 in.					AR	
-23	22325	.	.	STUD, 5/16-18 x 5/16-24 x 1-1/2 in. lg	.....				4	
	22325P003	.	.	STUD, 5/16-18 x 5/16-24 x 1-1/2 in. lg, 0.003 in.					AR	
	22325P006	.	.	STUD, 5/16-18 x 5/16-24 x 1-1/2 in. lg, 0.006 in.					AR	
	22325P009	.	.	STUD, 5/16-18 x 5/16-24 x 1-1/2 in. lg, 0.009 in.					AR	
-24	532507	.	.	STUD, 5/16-18 x 5/16-24 x 1-7/8 in. lg	.....				13	
	532507P003	.	.	STUD, 5/16-18 x 5/16-24 x 1-7/8 in. lg, 0.003 in.					AR	
	532507P006	.	.	STUD, 5/16-18 x 5/16-24 x 1-7/8 in. lg, 0.006 in.					AR	
	532507P009	.	.	STUD, 5/16-18 x 5/16-24 x 1-7/8 in. lg, 0.009 in.					AR	
-25	532514	.	.	STUD, 3/8-16 x 3/8-24 x 2-15/16 in. lg	.....				5	
	532514P003	.	.	STUD, 3/8-16 x 3/8-24 x 2-15/16 in. lg, 0.003 in.					AR	
	532514P006	.	.	STUD, 3/8-16 x 3/8-24 x 2-15/16 in. lg, 0.006 in.					AR	
	532514P009	.	.	STUD, 3/8-16 x 3/8-24 x 2-15/16 in. lg, 0.009 in.					AR	
-26	532612	.	.	STUD, 5/16-18 x 5/16-24 x 2-1/2 in. lg	.....				1	
	532612P003	.	.	STUD, 5/16-18 x 5/16-24 x 2-1/2 in. lg, 0.003 in.					AR	
	532612P006	.	.	STUD, 5/16-18 x 5/16-24 x 2-1/2 in. lg, 0.006 in.					AR	
	532612P009	.	.	STUD, 5/16-18 x 5/16-24 x 2-1/2 in. lg, 0.009 in.						
-27	533097	.	.	CASE, Accessory front	.....				NP	
	536389	.	.	STUDDING AND MACHINING ASSY, Accessory case rear half					NP	
	532537	.	.	ADAPTER ASSY, Magneto RH	.....				1	
	532538	.	.	ADAPTER ASSY, Magneto LH	.....				1	
ATTACHING PARTS										
-28	356-428	.	.	LOCK	.....				4	
-29	AN121502	.	.	NUT	.....				4	
-30	AN960-416L	.	.	WASHER	.....				4	
*										
-31	532684	.	.	BUSHING, Magneto adapter	.....				1	
	532299	.	.	ADAPTER, Magneto RH	.....				NP	
-32	532300	.	.	ADAPTER, Magneto LH	.....				NP	
-33	532518	.	.	GASKET, Magneto adapter	.....				2	
-34	AN932C4	.	.	PLUG	.....				2	
-34A	†401753	.	.	PLUG, Pipe 1/4 in.	.....				1	
-35	*AN913-3S	.	.	PLUG	.....				1	
-36	AN932-2	.	.	PLUG, Countersunk hex hd pipe	.....				2	
-37	532683	.	.	PIN, 1/4 dia x 3/4 in. lg	.....				2	
-38	532524	.	.	DOWEL, 3/8 dia x 1-1/2 in. lg	.....				2	
-39	532257	.	.	BUSHING, Propeller governor drive	.....				1	
-40	532316	.	.	BUSHING, Oil pump drive	.....				1	
-41	532317	.	.	BUSHING, Fuel pump idler	.....				1	
-42	532318	.	.	BUSHING, Tachometer drive	.....				2	
-43	532480	.	.	BUSHING, Fuel pump drive	.....				1	
-44	532481	.	.	BUSHING, Hydraulic pump drive	.....				2	
-45	AN125964	.	.	BOLT STUD, Straight	.....				2	
-46	22319	.	.	STUD, 1/4-20 x 1/4-28 x 1-1/4 in. lg	.....				4	

† Use plug size required by tapped hole in accessory case. * Install plug No. AN913-4S if casting has 1/2 in. NPT hole.

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
9-47	22319	.	.						2	
	22319P003	.	.						AR	
	22319P006	.	.						AR	
	22319P009	.	.						AR	
-48	22325	.	.						4	
	22325P003	.	.						AR	
	22325P006	.	.						AR	
	22325P009	.	.						AR	
-49	AN126000	.	.						4	
-50	532501	.	.						4	
-51	532501	.	.						4	
	532501P003	.	.						AR	
	532501P006	.	.						AR	
	532501P009	.	.						AR	
-52	532507	.	.						2	
-53	532507	.	.						4	
	532507P003	.	.						AR	
	532507P006	.	.						AR	
	532507P009	.	.						AR	
-54	532513	.	.						4	
	532513P003	.	.						AR	
	532513P006	.	.						AR	
	532513P009	.	.						AR	
-55	532516	.	.						6	
	532516P003	.	.						AR	
	532516P006	.	.						AR	
	532516P009	.	.						AR	
-56	AN126456	.	.						6	
-57	533113	.	.						NP	
-58	532437	.	.						1	
-59	533407	.	.						1	

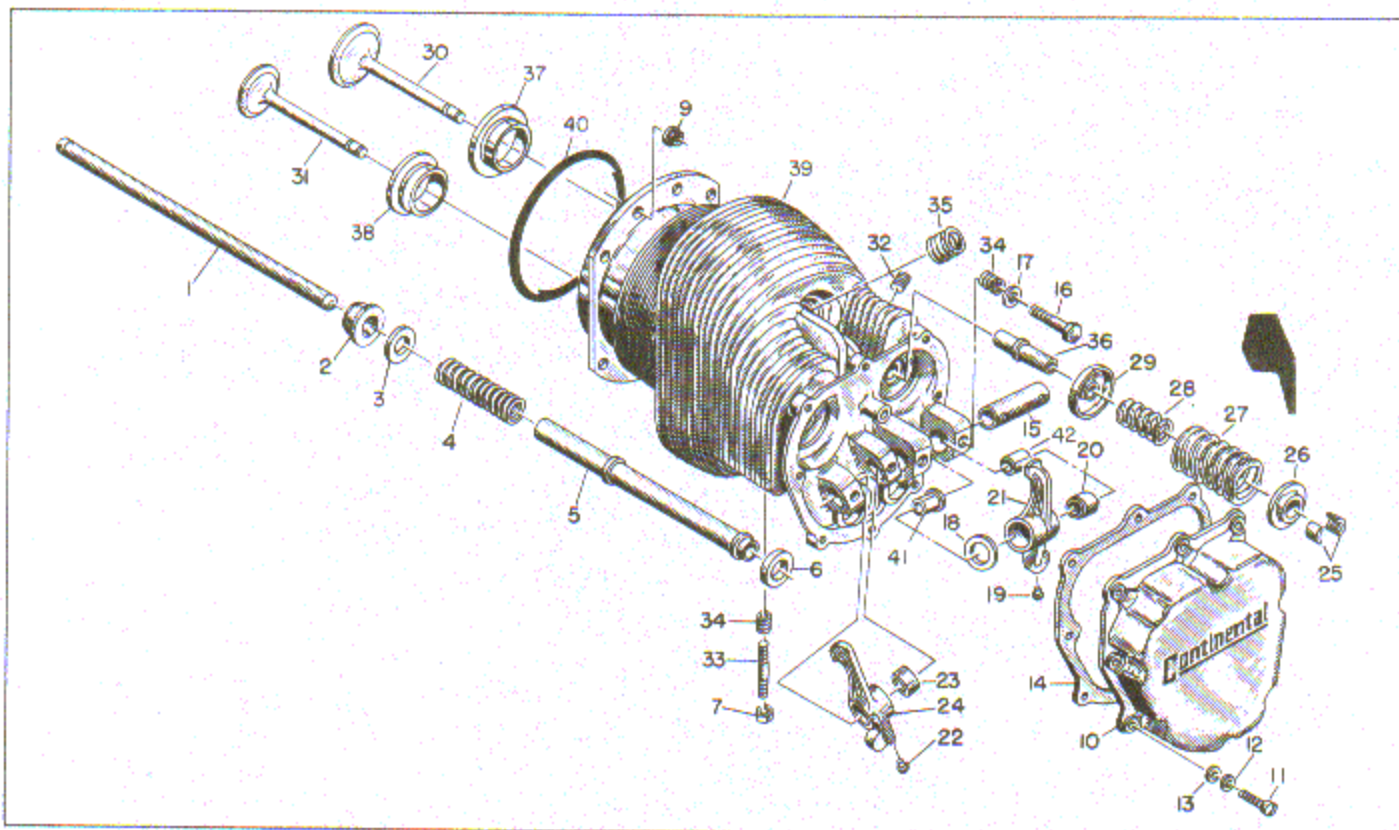


Figure 10. Cylinders and Pushrods Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
10-	No Number	CYLINDERS AND PUSHRODS ASSY							NP	
-1	*537491	. ROD ASSY, Push							12	
-2	536410	. PACKING, Pushrod housing							12	
-3	534609	. WASHER, Pushrod housing							24	
-4	626147	. SPRING, Pushrod housing							12	
-5	534603	. HOUSING, Pushrod removable							12	
-6	534610	. PACKING							12	
-7	536038	. NUT, Special, 1/4-28 (self-locking)							12	
	625432-A2	. CYLINDER ASSY, Complete							6	
		ATTACHING PARTS								
-8	Deleted									
-9	531001	. NUT, Hex flanged, .4375-20NF-3							48	
-10	625615	. . COVER, Valve rocker							1	
		ATTACHING PARTS								
-11	AN500-416-12	. . SCREW, .25-20 x .7							8	
-12	20522	. . WASHER, .25 x .03125							8	
-13	MS35338-44	. . WASHER, Lock spring .25							8	
-14	534857	. . GASKET, Valve rocker cover							1	
-15	539740	. . SHAFT, Valve rocker							2	
	539740P005	. . SHAFT, Valve rocker, 0.005 in. OS on PD.							AR	
		ATTACHING PARTS								
-16	537019	. . SCREW, Hex drilled hd, .31-24 x .53							4	
-17	520014	. . WASHER, Plain .33 x .69 x .04							4	
-18	639573	. . WASHER, Thrust							4	
	534638	. . ROCKER ASSY, Intake valve							1	
-19	21007	. . SCREW							2	

* Identified by one inch of one end being dyed green.

FIGURE & INDEX NO.	PART NO.	DESCRIPTION							QTY PER ASSY	USABLE ON CODE	
		1	2	3	4	5	6	7			
10-20	639629	.	.	.	.	.	.	.	BUSHING, Valve rocker .75IDX .39LG	2	
-21	534397	.	.	.	.	.	.	.	ROCKER, Intake valve	NP	
	534639	.	.	.	.	.	.	.	ROCKER ASSEMBLY, Exhaust valve	1	
	640944										
-22	21007	.	.	.	.	.	.	.	SCREW	1	
-23	639629	.	.	.	.	.	.	.	BUSHING, Valve rocker .75IDX .39LG	2	
-24	534398	.	.	.	.	.	.	.	ROCKER, Exhaust valve	NP	
	625432-A2	.	.	.	.	.	.	.	CYLINDER AND VALVE ASSEMBLY	1	
-25	24802	.	.	.	.	.	.	.	KEY, Valve spring outer retainer	4	
-26	532067	.	.	.	.	.	.	.	ROTOCAP ASM	2	
-27	520105	.	.	.	.	.	.	.	SPRING, Valve outer	2	
-28	520106	.	.	.	.	.	.	.	SPRING, Valve inner	2	
	637836										
-29	625393	.	.	.	.	.	.	.	RETAINER, Valve spring inner	2	
-30	40652	.	.	.	.	.	.	.	VALVE, Intake	1	
	532129										
-31	626540	.	.	.	.	.	.	.	VALVE, Exhaust	1	
	625432	.	.	.	.	.	.	.	MACHINING ASSEMBLY, Cylinder	1	
-32	AN932-2	.	.	.	.	.	.	.	PLUG, Countersunk hex head pipe - .13 THD	1	
-33	401806	.	.	.	.	.	.	.	STUD .25 - 20 - 28 x 1.25	4	
-34	MS122121	.	.	.	.	.	.	.	INSERT .25-20	4	
-35	520112	.	.	.	.	.	.	.	INSERT, Heli-Coil spark plug, 18 mm	2	
-36	631496	.	.	.	.	.	.	.	GUIDE, Valve	2	
	631496P005	.	.	.	.	.	.	.	GUIDE, Valve, 0.005 in. OS on OD	AR	
	631496P010	.	.	.	.	.	.	.	GUIDE, Valve, 0.010 in. OS on OD	AR	
	631496P015	.	.	.	.	.	.	.	GUIDE, Valve, 0.015 in. OS on OD	AR	
	631496P020	.	.	.	.	.	.	.	GUIDE, Valve, 0.020 in. OS on OD	AR	
-37	35966	.	.	.	.	.	.	.	INSERT, Intake valve seat	1	
	35966P005	.	.	.	.	.	.	.	INSERT, Intake valve seat 0.005 in. OS on OD	AR	
	35966P010	.	.	.	.	.	.	.	INSERT, Intake valve seat 0.010 in. OS on OD	AR	
	35966P015	.	.	.	.	.	.	.	INSERT, Intake valve seat 0.015 in. OS on OD	AR	
	35966P020	.	.	.	.	.	.	.	INSERT, Intake valve seat 0.020 in. OS on OD	AR	
	35966P030	.	.	.	.	.	.	.	INSERT, Intake valve seat 0.030 in. OS on OD	AR	
-38	35967	.	.	.	.	.	.	.	INSERT, Exhaust valve seat	1	
	35967P005	.	.	.	.	.	.	.	INSERT, Exhaust valve seat 0.005 in. OS on OD	AR	
	35967P010	.	.	.	.	.	.	.	INSERT, Exhaust valve seat 0.010 in. OS on OD	AR	
	35967P015	.	.	.	.	.	.	.	INSERT, Exhaust valve seat 0.015 in. OS on OD	AR	
	35967P020	.	.	.	.	.	.	.	INSERT, Exhaust valve seat 0.020 in. OS on OD	AR	
	35967P030	.	.	.	.	.	.	.	INSERT, Exhaust valve seat 0.030 in. OS on OD	AR	
-39	No Number	.	.	.	.	.	.	.	CYLINDER AND HEAD ASSEMBLY	NP	
-40	532200	.	.	.	.	.	.	.	RING, Packing, 4.98 in. ID.	6	
-41	625065-1	.	.	.	.	.	.	.	BUSHING, Rocker shaft boss repair	AP	
-42	625065-2	.	.	.	.	.	.	.	BUSHING, Rocker shaft boss repair	AR	

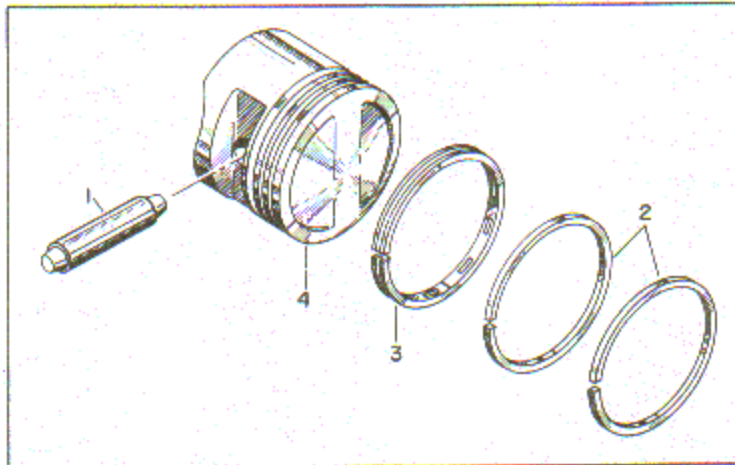


Figure 11. Complete Piston Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
11-	535133-A1	PISTON ASSY, Complete.....							6	
-1	539467	. PIN AND PLUG ASSEMBLY, Piston							1	
	535133-A2	. PISTON AND RING ASSY							1	
-2	639568	. . RING, Compression piston 5 OD x 0.0935 in. wide							2	
	639568P005	. . RING, Compression piston 5 OD x 0.0935 in. wide, 0.005 in. OS on OD							AR	
	639568P015	. . RING, Compression piston 5 OD x 0.0935 in. wide, 0.015 in. OS on OD							AR	
-3	536939	. . RING, Oil control piston 5 OD x 0.155 in. wide..							1	
	536939P005	. . RING, Oil control piston 5 OD x 0.155 in. wide, 0.005 in. OS on OD							AR	
	536939P015	. . RING, Oil control piston 5 OD x 0.155 in. wide, 0.015 in. OS on OD							AR	
-4	535133-STD	. . PISTON, 7:1 compression ratio forged, 5 in. dia							1	
	535133P015	. . PISTON, 7:1 compression ratio forged, 5 in. dia, 0.015 in. OS on OD							AR	

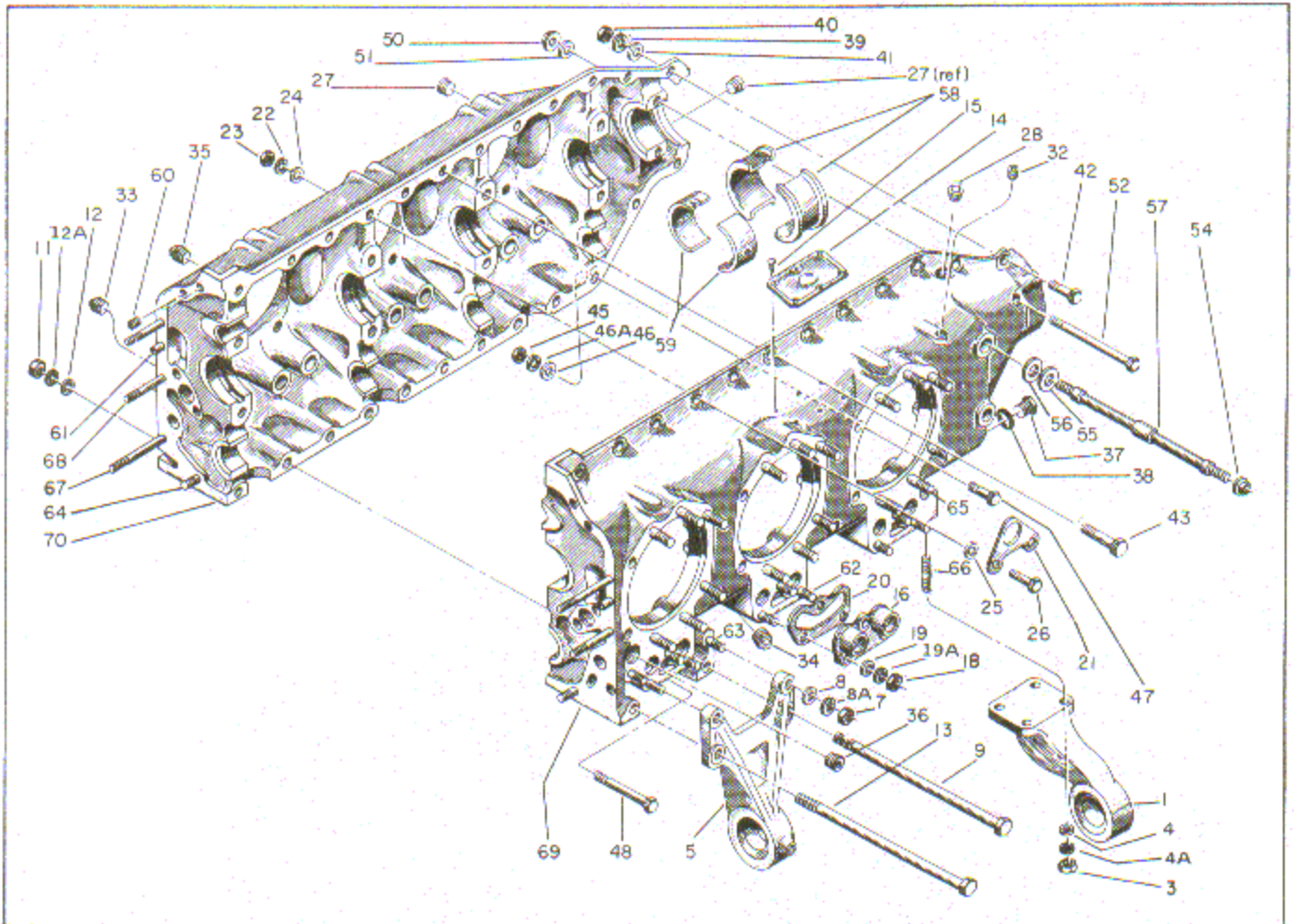


Figure 12. Crankcase Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
12-	No Number	CRANKCASE GROUP							NP	
- 1	531242	. BRACKET, Engine mount front RH							1	
	531241	. BRACKET, Engine mount front LH							1	
		ATTACHING PARTS								
- 2	Deleted									
- 3	AN121504	. NUT .38 - 24							8	
- 4	AN960-616L	. WASHER, Plain .38 x .032 THK							8	
- 4A	MS35338-46	. WASHER, Lock spring .375							8	
		---*								
- 5	536701	. BRACKET, Engine mount rear RH							1	
	536699	. BRACKET, Engine mount rear LH							1	
		ATTACHING PARTS								
- 6	Deleted									
- 7	AN121503	. NUT .31-24							4	
- 8	AN960-516L	. WASHER, Plain .31 x .032 THK							4	
- 8A	MS35338-45	. WASHER, Lock spring .3125							4	
- 9	36007	. BOLT, Hex hd .31-24 X 10.56							1	
- 10	Deleted									
- 11	AN121504	. NUT, Plain Hex .38-24							1	
	2441									
- 12	539058	. WASHER, Plain .39ID x .08							2	
- 12A	MS35338-46	. WASHER, Lock spring .375							1	

Section II
Group Assembly Parts List

NAVAIR 02A-40EB-4

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
12-13	536524	---	*	---					1	
-14	634966								1	a
-15	21007								6	
-16	533093-A2								1	
	531186								6	
-17	Deleted									
-18	AN315-4R								18	
-19	20522								18	
-19A	MS35338-44								18	
-20	352058								6	
-21	530470								1	
-22	MS35338-44								2	
-23	AN315-4R								2	
-24	20522								4	
-25	25164								2	
-26	AN4-13A								2	
-27	2025								2	
-28	AN913-4S								1	
-29	Deleted									
-30	Deleted									
-31	Deleted									
-32	2024								2	
-33	520124								1	
-34	520124								1	
-35	AN913-1S								2	
-36	AN932D3								1	
-37	532432								1	
-38	AN900-10								1	
	533093-A2								NP	
-39	MS35338-44								12	
-40	AN315-4R								12	
-41	20522								24	
-42	AN4-11A								8	
-43 *	640010								4	
-44	Deleted									
-45	AN315-5R								8	
-46	AN960-516L								16	
-46A	MS35338-45								7	
-47	AN5-14A								7	
-48	AN5-32A								1	
-49	Deleted									
-50	531003								2	
-51	24239								4	
-52	AN6-47A								2	
-53	Deleted									
-54	531001								4	
-55	25171								4	
-56	20202								4	
-57	531205								8	

* Note: Bolt #43 goes in top parting line holes 5, 6, 7, 10 from front to rear.

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
12-58	40644	.	.	.	.	.	.	.	2	
	40644M010	.	.	.	.	.	.	.	AR	
-59	530386	.	.	.	.	.	.	.	8	
	530386M010	.	.	.	.	.	.	.	AR	
	536523	.	.	.	.	.	.	.	1	
-60	MS122162	.	.	.	.	.	.	.	5	
-61	21080	.	.	.	.	.	.	.	2	
-62	AN125964	.	.	.	.	.	.	.	18	
-63	AN128300	.	.	.	.	.	.	.	4	
-64	21167	.	.	.	.	.	.	.	2	
	21167P003	.	.	.	.	.	.	.	AR	
	21167P006	.	.	.	.	.	.	.	AR	
	21167P009	.	.	.	.	.	.	.	AR	
-65	531145	.	.	.	.	.	.	.	36	
	531145P003	.	.	.	.	.	.	.	AR	
	531145P006	.	.	.	.	.	.	.	AR	
	531145P009	.	.	.	.	.	.	.	AR	
-66	532515	.	.	.	.	.	.	.	8	
	532515P003	.	.	.	.	.	.	.	AR	
	532515P006	.	.	.	.	.	.	.	AR	
	532515P009	.	.	.	.	.	.	.	AR	
-67	532517	.	.	.	.	.	.	.	2	
	532517P003	.	.	.	.	.	.	.	AR	
	532517P006	.	.	.	.	.	.	.	AR	
	532517P009	.	.	.	.	.	.	.	AR	
-68	532522	.	.	.	.	.	.	.	3	
	532522P003	.	.	.	.	.	.	.	AR	
	532522P006	.	.	.	.	.	.	.	AR	
	532522P009	.	.	.	.	.	.	.	AR	
-69	533093	.	.	.	.	.	.	.	NP	
-70	535691	.	.	.	.	.	.	.	NP	

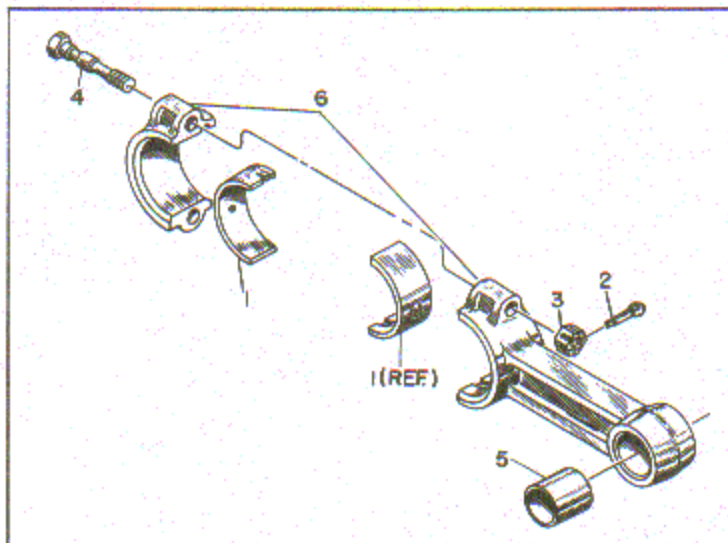


Figure 13. Complete Connecting Rod Assembly

FIG. & INDEX NO.	PART NO.	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
13-	A36121-A2	ROD ASSY, Complete connecting	6	
-1	530383	. BEARING, Connecting rod upper and lower	2	
	530383M010	. BEARING, Connecting rod upper and lower 0.010 in. undersize on ID	AR	
	A36121	. ROD ASSY, Connecting	1	
-2	AN381-2-2	. . PIN	2	
-3	24804	. . NUT, Special hex, 3/8-24 x 0.33 in. high	2	
-4	35972	. . BOLT, Connecting rod, 3/8-24 x 2-1/2 in. lg	2	
-5	530658	. . BUSHING, Connecting rod split	1	
-6	40744	. . ROD AND CAP, Connecting	NP	

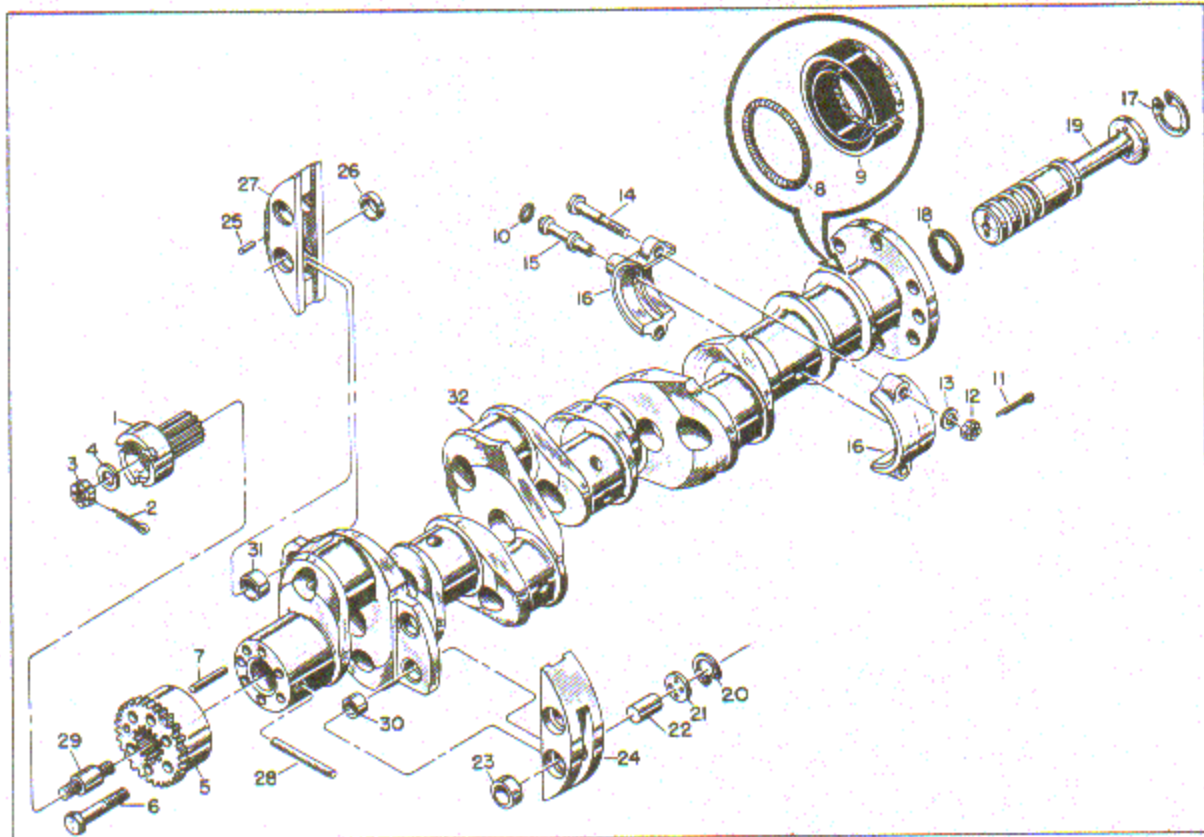


Figure 14. Complete Crankshaft Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
14-	No Number	CRANKSHAFT ASSY, Complete.....							NP	
-1	532138	. JAW, Starter (See figure 7 for next higher assembly)							1	
		ATTACHING PARTS								
-2	AN380-3-4	. PIN							1	
-3	AN320-9	. NUT							1	
-4	AN960-916L	. WASHER							1	
		-----*								
-5	536375	. GEAR, Pinion (for crankshaft assemblies No. 536588 and 537065)							1	
	532171	. GEAR, Pinion (for crankshaft assembly No. 535568-A1)							1	
		ATTACHING PARTS								
-6	536378	. SCREW, Drilled hex hd, 5/16-24 x 1-3/4 in. lg (for gear No. 536375)							6	
	536259	. SCREW, Drilled hex hd, 1/4-28 x 1.67 in. lg (for gear No. 532171)							6	
		-----*								
-7	536563	. DOWEL, 0.282 dia x 11/16 in. lg (for crankshaft assemblies No. 536588 and 537065)							1	
	532523	. DOWEL, 0.282 dia x 1-5/8 in. lg (for crankshaft assembly No. 535568-A1)							1	
	536570	. SEAL ASSY, Crankshaft oil for 2-3/8 in. dia shaft..							1	
-8	533261	. . SPRING, Oil seal							1	
-9	536579	. . SEAL ASSY, Rubber and felt							1	
-10	AN123862	. PACKING							1	
-11	AN380-2-3	. PIN							2	
	535649	. COLLAR ASSY, Oil transfer							1	
-12	2456	. . NUT, Castle hex, 1/4-28							2	
-13	AN960-416L	. . WASHER							2	
-14	535685	. . SCREW, Hex hd cap, 1/4-28 x 1-1/2 in. lg							2	
-15	535651	. . TUBE, Oil transfer							NP	
-16	536051	. . COLLAR, Governor oil transfer							NP	

Section II
Group Assembly Parts List

T.O. 2R-0470-14

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
14-17	5000-165	.	.	.	.	.	.	.	1	
-18	AN123876	.	.	.	.	.	.	.	2	
-19	535650	.	.	.	.	.	.	.	1	
	*535568-A1	.	.	.	.	.	.	.	1	
	*536588	.	.	.	.	.	.	.	1	
	*537065	.	.	.	.	.	.	.	1	
-20	5000-87	.	.	.	.	.	.	.	8	
-21	352115	.	.	.	.	.	.	.	8	
-22	350999	.	.	.	.	.	.	.	4	
	352117	.	.	.	.	.	.	.	NP	
-23	350997	.	.	.	.	.	.	.	4	
	350997P003	.	.	.	.	.	.	.	AR	
-24	351000	.	.	.	.	.	.	.	NP	
	537049	.	.	.	.	.	.	.	NP	
-25	X-1794-B	.	.	.	.	.	.	.	1	
-26	537044	.	.	.	.	.	.	.	4	
-27	351000	.	.	.	.	.	.	.	NP	
-28	23513	.	.	.	.	.	.	.	1	
-29	532303	.	.	.	.	.	.	.	1	
	535568	.	.	.	.	.	.	.	NP	
	536447	.	.	.	.	.	.	.	NP	
	537057	.	.	.	.	.	.	.	NP	
-30	350998	.	.	.	.	.	.	.	4	
	350998	.	.	.	.	.	.	.	2	
	350998P003	.	.	.	.	.	.	.	AR	
	350998P005	.	.	.	.	.	.	.	AR	
-31	537038	.	.	.	.	.	.	.	2	
	537038P003	.	.	.	.	.	.	.	AR	
	537038P005	.	.	.	.	.	.	.	AR	
-32	No Number	.	.	.	.	.	.	.	NP	

* Indicates crankshaft and damper assemblies interchangeable as assemblies although composed of differing detail parts.

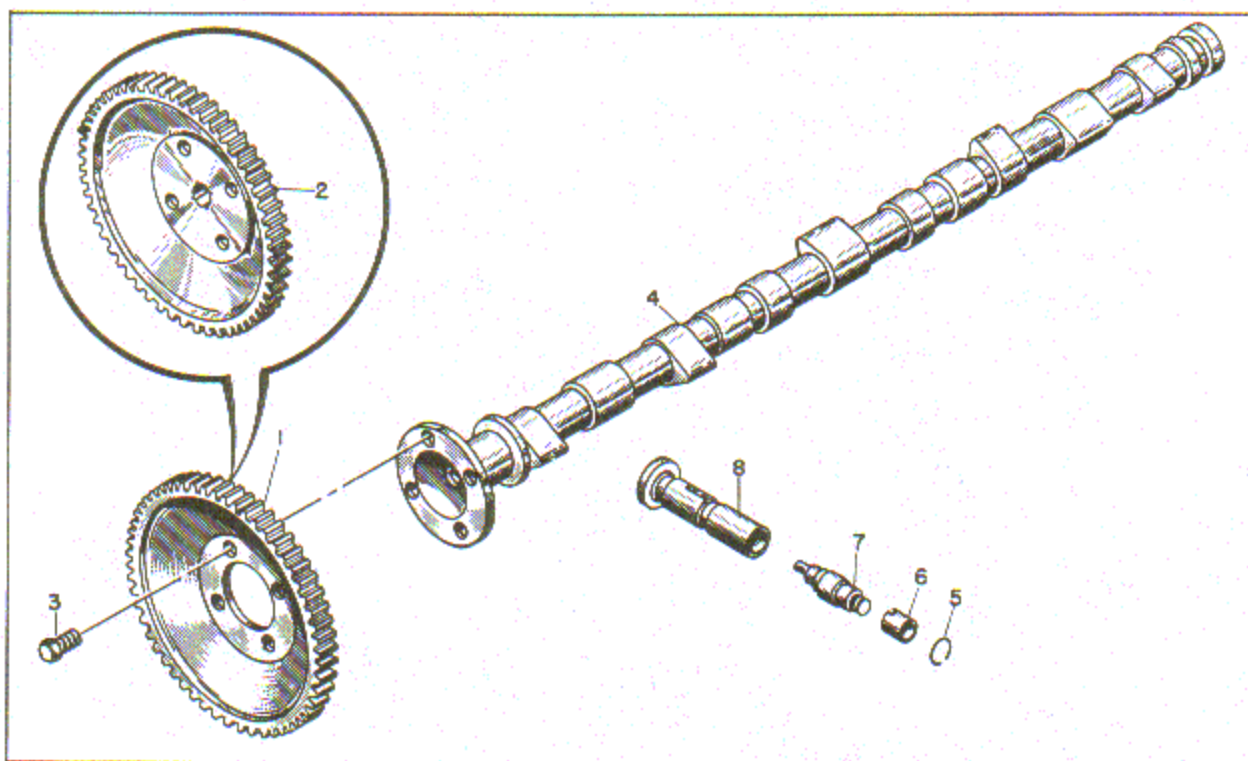


Figure 15. Camshaft and Lifters Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
15-	No Number	CAMSHAFT AND LIFTERS ASSY							NP	
-1	*536879	. GEAR, Camshaft drive (for camshaft No. 536878) . .							1	a
	532176	. GEAR, Camshaft drive (for camshaft No. 531201) . .							1	a
-2	538695	. GEAR, Camshaft drive (for camshaft No. 536878) . .							1	bc
		ATTACHING PARTS								
-3	537019	. SCREW, Drilled hex hd, 5/16-24 x 17/32 in. lg (for camshaft No. 536878, gear No. 536879 and gear No. 538695)							4	bc
	AN102908	. BOLT, (for camshaft No. 531201, gear No. 532176) .							4	a
		-----*								
-4	*536878	. CAMSHAFT							1	
	531201	. CAMSHAFT							1	a
	H-23179	. LIFTER ASSY, Hydraulic (WCX) (533400)							12	
-5	H-7397	. . RING, Snap (WCX) (530940)							1	
-6	H-7392	. . SOCKET, Push rod (WCX) (25042)							1	
-7	H-3814	. . UNIT, Hydraulic valve tappet (WCX) (533399) . . .							1	
-8	H-5576	. . BODY, Hydraulic lifter (WCX) (531128)							1	

* Use No. 531201 and 532176 on Model O-470-13 only until depot stock is depleted.

SECTION III NUMERICAL INDEX

CLASS CODE OR STOCK NO.	PART NO.	SOURCE CODE	FIG. AND INDEX NO.	QTY PER ARTICLE	MICRO-FILM INDEX
5306-180-4212	AN100039		8-10	1	
5310-282-4778	AN102908		15-	4	
5310-268-6042	AN121502		8-22	22	
5310-282-4775	AN121503		3-7	58	
5330-242-6638	AN121504		8-17	21	
5330-291-3282	AN123862		14-10	1	
5330-290-9383	AN123867		7-37	1	
5330-291-3286	AN123876		14-18	2	
5307-637-6755	AN123882		7-20	1	
5307-262-6583	AN125964		9-45	40	
5307-207-3208	AN126000		9-49	4	
5307-286-1446	AN126300		6-17	8	
	AN126414		9-20	2	
	AN126432		9-21	1	
	AN126456		9-56	6	
5315-230-6248	AN280H404		7-28	1	
4716	AN302-20-3		2-6	12	
	AN3104-1		2-9	12	
	AN315-4R		12-18	32	
	AN315-5R		12-45	8	
5310-176-8108	AN320-4		8-8	2	
5310-176-8113	AN320-9		14-3	1	
5310-281-9844	AN364-1032C		7-16	1	
5315-236-8350	AN380-2-3		14-11	2	
5315-252-5982	AN380-3-4		14-2	1	
	AN381-2-2		13-2	12	
5315-282-1225	AN381-2-7		8-7	2	
5306-151-1423	AN4-11A		12-42	11	
5306-151-1421	AN4-13A		12-26	2	
4804	AN4044-1		8-34	1	
5330-776-7519	AN4045-1		8-24	3	
6105-512-6649	AN4047-1		8-19	2	
	AN4059-1		8-14	1	
4716	AN4164-2		2-7	12	
5306-151-1284	AN5-14A		12-47	7	
5306-151-0911	AN5-32A		12-48	1	
5305-151-1561	AN500-416-12		10-11	48	
5305-206-3260	AN505-10-44		7-24	2	
	AN6-47A		12-52	2	
	AN6227-27	Superseded by AN123882			
5340-597-6166	AN742D9C		2-3	2	
5306-150-9246	AN75A17		8-5	1	
5306-150-9246	AN75A21		6-19	2	
5306-151-0800	AN75A7		8-3	4	
6700-264850	AN900-10		7-13	3	
5330-514-3289	AN900-16		7-7	3	
5330-171-8229	AN900-29		7-15	1	
5330-189-8958	AN900-9		9-13	1	
4730-221-2136	AN913-1S		12-35	1	
4730-221-2138	AN913-3S		8-70	5	
4730-289-5493	AN913-4S		12-28	1	
4730-221-2140	AN913-6S		7-23	1	
4730-278-2978	AN932-2		9-11	14	
4730-278-2965	AN932-3		7-22	1	
4730-188-3506	AN932C4		9-34	4	
4730-188-3510	AN932D3		12-36	1	
5310-167-0719	AN936A416		6-12	24	
5310-275-2222	AN960-416		8-9	2	
5310-167-0835	AN960-416L		6-3	52	
5310-167-0820	AN960-516		6-21	4	
5310-167-0838	AN960-516L		12-8	68	
5310-167-0821	AN960-616		8-18	20	
5310-167-0837	AN960-616L		12-4	8	
5310-167-0840	AN960-916L		14-4	1	
0231	A25132		7	1	
5340-598-0682	A25984	Superseded by 537316			

CLASS CODE OR STOCK NO.	PART NO.	SOURCE CODE	FIG. AND INDEX NO.	QTY PER ARTICLE	MICRO-FILM INDEX
2910-210-5219	A36121		13-	6	
6ACM	A36121-A2		13-	6	
	GM-2.44		6-6	14	
			6-14		
6AUZ	H-23179		15	12	
0231	H-3814		15-7	12	
0231	H-5576		15-8	1	
6AUZ	H-7392		15-6	12	
5340-025-8319	H-7397		15-5	12	
	MS100009		8-39	1	
	MS122121		10-34	8	
	MS122162		12-60	5	
	MS35338-43		2-5	8	
	MS35338-44		10-13	28	
	MS35338-45		3-6	15	
	MS35338-46		12-4A	9	
	RW-1214-L	Superseded by WE-1214-1			
	RW-1214-R	Superseded by WE-1214-2			
	RW1008	Superseded by WE-1008			
	RW1009	Superseded by WE-1009			
	RW1016	Superseded by AN302-20-3			
	RW1122	Superseded by WE-1122			
	RW1214-L-2700	Superseded by WE301-1-2700			
	RW1214-L-3000	Superseded by WE301-1-3000			
	RW1214-L-3400	Superseded by WE301-2-3400			
	RW1214-L-3600	Superseded by WE301-2-3600			
	RW1214-L-4000	Superseded by WE301-2-4000			
	RW1214-L-4300	Superseded by WE301-2-4300			
	RW1214-R-2200	Superseded by WE301-2-2200			
	RW1214-R-3000	Superseded by WE301-1-3000			
	RW1214-R-3200	Superseded by WE301-2-3200			
	RW1214-R-3600	Superseded by WE301-2-3600			
	RW1214-R-3800	Superseded by WE301-1-3800			
	RW1214-R-4200	Superseded by WE301-2-4200			
	SH2M		2-28	12	
4722	WE-1009		2-10	12	
4722	WE-1122		2-14	12	
	WE-1250		2-15	AR	
4722	WE301-1-2700		2-17	1	
4722	WE301-1-3000		2-16	2	
			2-24		
4722	WE301-1-3800		2-25	1	
4722	WE301-2-2200		2-22	1	
4722	WE301-2-3200		2-23	1	
4722	WE301-2-3400		2-19	1	
4722	WE301-2-3600		2-18	2	
4722	WE301-2-4000		2-21	1	
4722	WE301-2-4200		2-27	1	
4722	WE301-2-4300		2-20	1	
5315-297-1330	X-1794-B		14-25	1	
	10-25725		3-4	2	
5310-311-1080	10-30299		3-1	2	
4704	10-3383		3-3	2	
5310-733-8645	10-51677	Superseded by 25388			
	10-52306		3-	2	
4704	10-52350-6		3-5	2	
	10-52350-20		3-5	2	
	10-56507		3-2	2	
	1185-4CNx3/8	Superseded by MS122121			
	1185-5CNx5/8	Superseded by MS122162			
5310-478-8337	20202		12-56	4	
	2024		12-32	2	
	2025		12-27	2	
	20522		10-12	54	
			12-19		
5310-637-0268	20968		7-8	1	

NAVAIR 02A-40EB-4

CLASS CODE OR STOCK NO.	PART NO.	SOURCE CODE	FIG. AND INDEX NO.	QTY PER ARTICLE	MICRO-FILM INDEX
0231	20970		7-6	1	
	21077		10-19	24	
			10-22		
			12-14		
0231	21080		12-61	2	
	21167		12-64	2	
0231	21167P003		12	AR	
0231	21167P006		12	AR	
5307-390-7012	21167P009		12	AR	
5306-693-5940	22051		6-2	4	
	22145	Superseded by AN126300			
	22319		9-22	8	
5307-216-3017	22319P003		9	AR	
5307-216-3018	22319P006		9	AR	
5307-216-3019	22319P009		9	AR	
	22325		9-23	8	
5307-216-3020	22325P003		9	AR	
5307-216-3021	22325P006		9	AR	
5307-216-3022	22325P009		9	AR	
	22871		2-8	12	
	2304		8-15	2	
5315-217-7694	23513		14-28	1	
	24239		12-51	4	
	2441		12-11	1	
	2456		14-12	2	
0231	24799		10-29	12	
0231	24802		10-25	24	
5310-478-8506	24804		13-3	12	
4720-231-2502	24827		6-7	7	
			6-15		
0231	25005		8-20	3	
			8-25		
0231	25042	See H-7392			
	25132		7-19	1	
5310-032-1591	25133		7-17	1	
0231	25134		7-18	1	
5310-478-8546	25164		12-25	2	
0231	25171		12-55	4	
6HCY	25312		2-13	2	
	25320		2-4	8	
	25388		2-11	12	
	32614		2	1	
	32620		2	1	
0231	350997		14-23	4	
	350997P003		14	AR	
0231	350998		14-30	2	
	350998P003		14-30	AR	
	350998P005		14-30	AR	
5315-286-8386	350999		14-22	4	
	351000		14-24	NP	
			14-27		
0231	352058		12-20	6	
0231	352059		6-22	1	
0231	352060		6-23	1	
0231	352063		6-4	1	
0231	352064		6-5	1	
0231	352115		14-21	8	
5340-598-1424	352116	See 5000-87			
	352117		14	NP	
5310-449-3577	356-428		8-21	34	
5310-489-5657	356-524		3-6	42	
5310-262-6127	356-624		8-16	12	
0231	35966		10-37	1	
0231	35966P005		10	AR	
0231	35966P010		10	AR	
0231	35966P015		10	AR	
0231	35966P020		10	AR	
0231	35966P030		10	AR	
	35967		10-38	1	
0231	35967P005		10	AR	
0231	35967P010		10	AR	
0231	35967P015		10	AR	
0231	35967P020		10	AR	
0231	35967P030		10	AR	
5306-478-8616	35972		13-4	12	
5306-478-8623	36007		12-9	1	
0231	36151-E	See GM-2.44			

CLASS CODE OR STOCK NO.	PART NO.	SOURCE CODE	FIG. AND INDEX NO.	QTY PER ARTICLE	MICRO-FILM INDEX
0231	36181		8-35	1	
	36219		2-12	2	
5310-478-8657	401506		3-8	4	
	401753		9-34A	1	
	401806		10-33	4	
	401975		6	4	
	401975P003		6	AR	
	401975P007		6	AR	
	401975P012		6	AR	
0231	40644		12-58	2	
0231	40644M010		12	AR	
6ACM	40651	Superseded by 539449			
0231	40652		10-30	6	
	40744		13-6	NP	
5330-298-0655	49141		8-71	1	
5320-205-7419	5000-165		14-17	1	
5340-598-1424	5000-87		14-20	8	
	50021-S		8-75	3	
	50030-S		8-76	1	
	50045-S		8-72	1	
	50184		8-74	1	
5310-209-2629	501868		8-6	1	
	50217-S		8-73	1	
0231	50370		6-1	1	
5340-200-7301	5100-112		8-61	1	
5340-598-1248	5100-81		8-66	1	
	520014		10-17	24	
0231	520105		10-27	12	
0231	520106		10-28	12	
0231	520112		10-35	12	
0231	520124		12-33	2	
			12-34		
	522067		2-1	1	
	530204	See 706SR			
0231	530383		13-1	12	
0231	530383M010		13	AR	
0231	530386		12-59	8	
0231	530386M010		13-59	AR	
0231	530453		7-21	1	
1730-478-8738	530470		12-21	1	
0231	530658		13-5	6	
	530940	See H-7397			
5310-208-5878	531001		10-9	52	
5310-285-9304	531003		12-50	2	
	531128	See H-5576			
	531145		12-65	36	
5307-217-1323	531145P003		12	AR	
5307-217-1326	531145P006		12	AR	
5307-217-1329	531145P009		12	AR	
0231	531177		8-50	2	
0231	531178		3-11	2	
0231	531186		12-16	6	
6ACM	531201		15	1	
	531201-A1		15	NP	
5307-206-8911	531205		12-57	8	
0231	531241		12	1	
0231	531242		12-1	1	
	532067		10-26	12	
	532129	See 40652			
0231	532138		14-1	1	
0231	532139		8-45	1	
	532140		9-9	NP	
0231	532171		14	1	
0231	532174		8-58	1	
0231	532176		15	1	
0231	532177		8-60	NP	
0231	532178		8-55	1	
0231	532179		8-65	1	
	532180		8-57	NP	
	532181		8-54	NP	
5340-664-6125	532199		8-59	1	
0231	532200		10-38	6	
5340-664-6124	532202		8-63	1	
0231	532257		9-39	1	
	532299		9	NP	
	532300		9-32	NP	
5307-513-3456	532303		14-29	1	

CLASS CODE OR STOCK NO.	PART NO.	SOURCE CODE	FIG. AND INDEX NO.	QTY PER ART-ICLE	MICRO-FILM INDEX
0231	532316		9-40	1	
0231	532317		9-41	1	
0231	532318		9-16	3	
			9-42		
0231	532331		9-17	2	
4730-200-0339	532432		12-37	1	
0231	532437		9-58	1	
	532467	See 49141			
	532477		8-52	NP	
	532478		8-51	NP	
0231	532479		8-	1	
0231	532480		9-43	1	
0231	532481		9-18	3	
			9-44		
0231	532484		9-8	1	
0231	532485		9-19	2	
5340-598-2103	532486	See 5100-112			
	532487		8-62	1	
	532489	See 50045-S			
	532501		9-50	8	
5307-219-7653	532501P003		9-50	AR	
5307-219-7654	532501P006		9-50	AR	
5307-219-7655	532501P009		9-50	AR	
	532506	See 50217-S			
5307-038-2016	532507		9-24	19	
5307-219-7659	532507P003		9-	AR	
5307-219-7660	532507P006		9-	AR	
5307-219-7661	532507P009		9-	AR	
	532508	See 50184			
0231	532509		8-44	1	
	532510	See 50021-S			
	532513		9-54	4	
5307-219-7665	532513P003		9-54	AR	
5307-219-7666	532513P006		9-54	AR	
5307-219-7667	532513P009		9-54	AR	
	532514		9-25	5	
5307-219-7668	532514P003		9-	AR	
5307-219-7669	532514P006		9-	AR	
5307-219-7670	532514P009		9-	AR	
5307-297-8287	532515		9-7	9	
5307-219-7671	532515P003		9-	AR	
5307-219-7672	532515P006		9-	AR	
5307-219-7676	532515P009		9-	AR	
	532516		9-55	6	
5307-219-7674	532516P003		9-	AR	
5307-219-7675	532516P006		9-	AR	
5307-219-7676	532516P009		9-	AR	
	532517		12-67	2	
5307-219-7677	532517P003		12-	AR	
5307-219-7678	532517P006		12-	AR	
5307-219-7679	532517P009		12-	AR	
0231	532518		9-33	2	
0231	532519		9-10	1	
0231	532520		8-49	1	
	532522		12-68	3	
5307-219-7680	532522P003		12-	AR	
5307-219-7681	532522P006		12-	AR	
5307-219-7682	532522P009		12-	AR	
5315-216-3033	532523		14-	1	
5315-285-2749	532524		9-38	2	
5315-290-5295	532525		9-15	2	
5340-598-5506	532527		8-53	1	
0231	532532		8-30	1	
	532534	See 50030-S			
0231	532537		9-	1	
0231	532538		9-	1	
0231	532539		9-	1	
0231	532541		8-	1	
0231	532542		8-	1	
0231	532543		8-	1	
	532612		9-26	1	
5307-219-7683	532612P003		9-	AR	
5307-219-7684	532612P006		9-	AR	
5307-219-7685	532612P009		9-	AR	
0231	532654		8-67	1	
	532660	See 5100-81			

CLASS CODE OR STOCK NO.	PART NO.	SOURCE CODE	FIG. AND INDEX NO.	QTY PER ART-ICLE	MICRO-FILM INDEX
5315-286-8395	532683		9-37	2	
0231	532684		9-31	2	
	532970		7-32	NP	
5315-513-3459	533031		9-14	2	
	533059		7-26	NP	
0231	533060		7-25	1	
5315-298-1799	533061		7-30	1	
0231	533062		7-	1	
	533067		2-1	1	
	533083		7-44	NP	
0231	533086		7-38	1	
0231	533090		7-27	1	
	533091		7-36	NP	
	533092		7-34	NP	
	533093		12-69	NP	
	533093-A2		12-15	1	
	533097		9-27	NP	
0231	533100		7-35	1	
5315-298-1800	533101		7-43	1	
0231	533102		7-	1	
0231	533106		7-10	1	
0231	533108		7-39	1	
	533113		9-57	NP	
0231	533129		8-40	1	
0231	533166		7-9	1	
	533173	See 10-52350-6			
6ACM	533261		14-8	1	
	533399	See H-3814			
	533400	See H-23179			
0231	533406		8-69	1	
0231	533407		9-59	1	
	533994	See 10-52306			
	534033	See 10-25725			
	534034	See 10-3383			
	534035	See 10-56507			
	534036	See 10-30299			
0231	534079		8-78	1	
	534204		6-18	NP	
	534204-A1		6-	1	
	534204-A4		6-	1	
	534397		10-21	NP	
	534398		10-24	NP	
	534411	See SH2M			
0231	534603		10-5	12	
5310-026-8500	534609		10-3	36	
5330-038-1054	534610		10-6	12	
0231	534638		10-	6	
0231	534639		10-	6	
0231	534855	Superseded by 625615			
0231	534857		10-14	6	
	535028		8-64	NP	
	535031		8-	NP	
0231	535033		8-	1	
	535133-A1		11-	6	
	535133-A2		11-	6	
	535133-STD		11-4	1	
0231	535133P015		11-	AR	
0231	535145	Superseded by 539467			
0231	535260		10-	12	
0231	535324		3-9	2	
	535568		14-	NP	
0231	535568-A1		14-	1	
0231	535649		14-	1	
	535650		14-19	1	
	535651		14-15	NP	
	535685		14-14	2	
	535686	See 5000-165			
0231	535691		12-70	NP	
	535866		7-29	2	
			7-41		
0231	535868		7-33	1	
0231	535872		7-	1	
0231	535879		7-	1	
	535881		7-	1	
0231	535881-A1		7-	1	
	535909		8-77	1	

CLASS CODE OR STOCK NO.	PART NO.	SOURCE CODE	FIG. AND INDEX NO.	QTY PER ARTICLE	MICRO-FILM INDEX
0231	536020		9- 6-10	6	
	536038		10-7	12	
	536043		2-	1	
	536043-1	See WE-1214-1			
	536043-2	See WE-1214-2			
	536051		14-16	NP	
0231	536259		14-	6	
0231	536375		14-5	1	
0231	536378		14-6	6	
	536389		9-	NP	
	536390		9-	NP	
	536403		6-9	6	
0231	536410		10-2	12	
0231	536413		6-8	6	
	536447		14-	NP	
0231	536483		8-	1	
0231	536523		12-	1	
0231	536524		12-13	1	
5315-141-6868	536563		14-7	1	
0231	536570		14-	1	
	536579		14-9	1	
	536588		14-	1	
4730-203-4340	536624		9-12	1	
0231	536634		7-2	1	
0231	536699		12-	1	
0231	536701		12-5	1	
0231	536799		7-1	1	
0231	536878		15-4	1	
0231	536879		15-1	1	
0231	536902		7-14	1	
6ACM	536939		11-3	1	
0231	536939P005		11-	AR	
0231	536939P015		11-	AR	
0231	537019		15-3	4	
			10-16	24	
0231	537027		7-11	1	
5970-327-6830	537038		14-31	2	
	537038P003		14-	AR	
	537038P005		14-	AR	
0231	537044		14-26	4	
	537049		14-	NP	
	537057		14-	NP	
0231	537065		14-	1	

CLASS CODE OR STOCK NO.	PART NO.	SOURCE CODE	FIG. AND INDEX NO.	QTY PER ARTICLE	MICRO-FILM INDEX
	537145				Superseded by 25134
	537316				| 2-2 | 2
0231	537362				Superseded by 533106
0231	537491		10-1	12	
	537508		7-31	1	
	537667		7-11	1	
5306-208-0198	537802		6-11	24	
0231	538695		15-2	1	
0231	538696		8-68	1	
	538796		7-42	1	
5306-638-8366	538999		6-20	2	
	539058		12-12	2	
	539360		12-	1	
	539403		12-14	1	
0231	539467		11-1	6	
0231	539634		8-56	1	
	539740		10-15	12	
0231	625065-1		10-39	AR	
0231	625065-2		10-40	AR	
	625351	See SR-88			
	625393		10-29	12	
	625413	Superseded by			533093
	625413-A1	Superseded by			533093-A1
	625414	Superseded by			536523
	625432-A2		10-	6	
0231	625615		10-10	6	
	626147		10-4	12	
	626540		10-31	6	
	631496		10-36	12	
	631496P005		10-36	AR	
	631496P010		10-36	AR	
	631496P015		10-36	AR	
	631496P020		10-36	AR	
	634966		12-14	1	
	637836	See 520106			
	638172		3-10	4	
	639568		11-2	12	
	639568P005		11-2	AR	
	639568P015		11-2	AR	
	639573		10-18	24	
	639629		10-20	24	
			10-23		
	640010		12-43	4	
	640944		10-	6	
4730-489-0026	905810		7-12	2	