

PARTS CATALOG
NUMBER 2
for
WRIGHT WHIRLWIND
ENGINES



J-6E SERIES
with
INTERNAL VALVE GEAR LUBRICATING SYSTEM

- WHIRLWIND 420**
- WHIRLWIND 365**
- WHIRLWIND 330**
- WHIRLWIND 320**
- WHIRLWIND 285**
- WHIRLWIND 250**
- WHIRLWIND 235**

WRIGHT AERONAUTICAL CORPORATION

Paterson, N. J., U. S. A.

WRIGHT GUARANTEE

WE WARRANT each new engine manufactured by us to be free from defects in material and workmanship under normal use and service and proper installation; our obligation under this warranty being limited to making good at our factory any part or parts thereof which shall within ninety (90) days after delivery of such engine to the original purchaser be returned to us with transportation charges prepaid and which our examination shall disclose to our satisfaction to have been defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on our part and we neither assume nor authorize any other person to assume for us any other liability in connection with the sale of our engines.

This warranty does not cover any labor charges for replacement of parts, adjustments, repairs, or any other work done on Wright engines.

This warranty shall not apply to any engine which shall have been repaired or altered outside of our factory in any way so as, in our judgment, to affect its stability, or which has been subject to misuse, negligence or accident, or which shall have been operated at a speed exceeding the factory rated speed.

This warranty shall not apply to any engine which shall have been operated with other than specified fuel and oil.

We reserve the right to revise, change or modify the whole or any part of the construction of Wright engines without incurring any obligations to make the changes on engines previously sold.

We make no warranty whatever in respect to ignition, starting devices, generators, carburetors, or other trade accessories, inasmuch as they are usually warranted separately by their respective manufacturers.

WRIGHT AERONAUTICAL CORPORATION

Paterson, N. J., U. S. A.

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GENERAL INFORMATION

Description of Catalog

This catalog lists and describes the parts for Model J-6 Whirlwind R-760E and R-975E engines equipped with the internal valve gear lubricating system. PARTS OR ASSEMBLIES NOT LISTED ARE NOT STOCKED OR SUPPLIED.

The arrangement of the catalog avoids cross reference by grouping all parts according to their functions and by listing together all types of each part. Parts listed without a qualifying description are used on both the R-760E and R-975E models.

Drawing Numbers are used exclusively in the catalog to identify parts. Drawing Numbers are used exclusively in the factory to identify parts and dealers are requested to identify parts in their stock rooms by DRAWING NUMBERS ONLY.

The "R" or reference numbers are used only to assist in locating a part in the text after it has been found in an illustration.

The table of contents at the front of the book shows the method of grouping the parts, the sequence of the groups and the illustration figure number on which they are shown. A comprehensive index is at the back of the book.

Owners of Whirlwind engines will be supplied with catalogs at no charge provided the owners write direct to the factory giving the serial numbers of their engines. To non-owners, the catalogs will be supplied at \$.60 each.

Registered catalogs will be supplied to all Wright Parts Distributors and Approved Service Stations. Revised sheets will be issued from time to time and will be sent to all holders of registered catalogs. Please notify us of any change in name or address so that we may change our list of registered holders accordingly.

Prices

This catalog does not contain parts prices. A separate numerically arranged Parts Price List for Wright Aircraft Engines is available and will be supplied to owners of Wright engines on request at no charge.

The dynamic damper used in Wright Engines is licensed under U.S. Patent No. 2103643 issued to F.M.M.B. Salomon.

Terms

Except to Wright Parts Distributors with established credit, all parts are shipped by C.O.D. Express, C.O.D. Parcel Post or by freight with Sight Draft attached to Bill of Lading.

Quantity to Order

Wright Parts Distributors can make considerable savings in transportation charges if stock room quantities are properly controlled to enable orders to be placed for freight shipment. Numerous small rush orders are expensive and indicative of lack of good business practice.

How to Order

Parts must whenever possible be ordered by or through a Wright Parts Distributor.

A part must be designated by a DRAWING NUMBER together with a name sufficiently descriptive to give the factory a check on the accuracy of the Drawing Number. IT IS NOT NECESSARY TO WRITE THE FULL CATALOG DESCRIPTION OF THE PART. Do not enter the price of the part on the order. Be sure to give definite shipping instructions. If shipping instructions are omitted, we shall ship by express or parcel post.

Oversize Studs

Replacement studs are furnished in three oversizes: .003", .007" and .012".

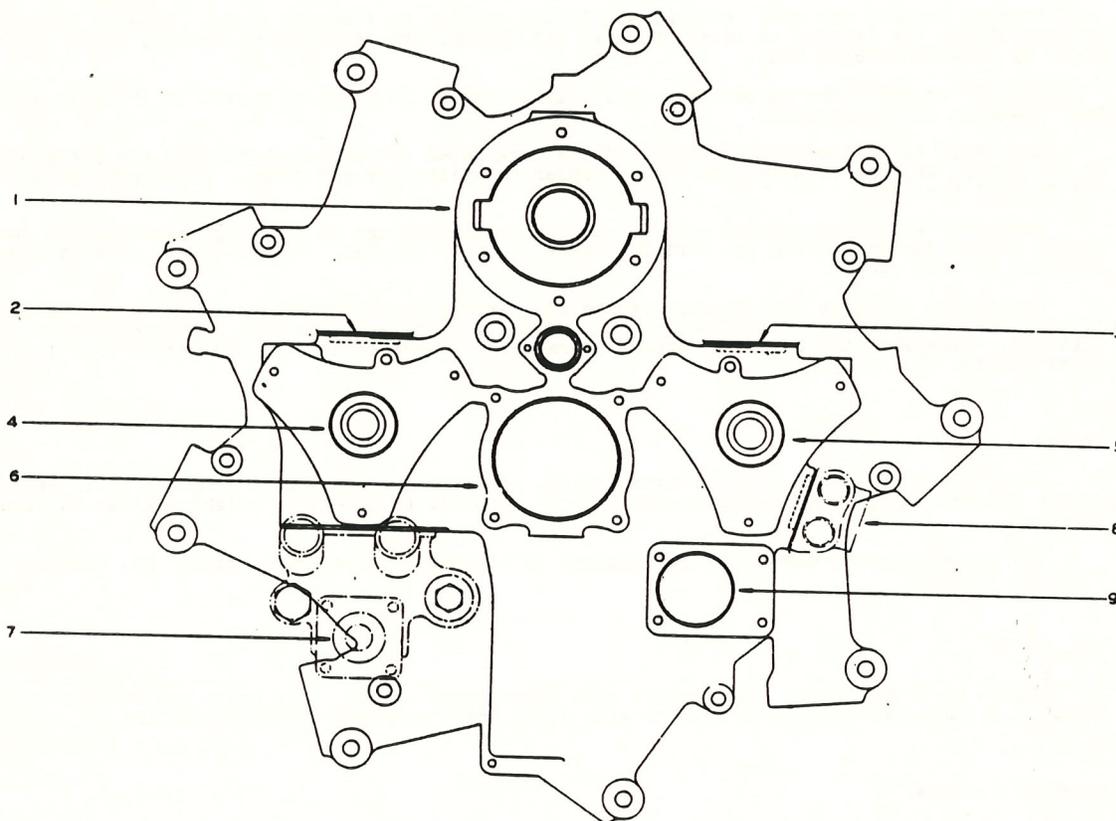
The part numbers of the three oversizes of any given stud are identical except for letter designation. These letter designations and the markings used for identification are as follows:

Letter Designation	Oversize	Identification Marking
XXXX-H-x	.003"	Pointed end
XXXX-S-x	.007"	Countersunk end
XXXX-J-x	.012"	Drilled end, 3/32" hole 3/32" deep

GENERAL INFORMATION - Cont'd

ACCESSORY DRIVES

In order to avoid any confusion in connection with accessory drives, the following table shows the location, types and rotations of the various drives on Whirlwind Series engines:



REAR VIEW OF ENGINE SHOWING LOCATION OF ACCESSORY DRIVES

Reference Number	Location of Drives	Alternate Drives	Rotation of Drives
1	Crankcase Rear Section	Starter Drive	Anti-clockwise
2	Crankcase Rear Section	Left Hand Gun Synchronizer Drive	Anti-clockwise
3	Crankcase Rear Section	Right Hand Gun Synchronizer Drive	Anti-clockwise
4	Crankcase Rear Section	Left Hand Magneto Drive	Anti-clockwise
5	Crankcase Rear Section	Right Hand Magneto Drive	Anti-clockwise
6	Crankcase Rear Section	Generator Drive	Anti-clockwise & Clockwise
7	Oil Pump	Accessory Drive (Vacuum Pump Type Pad)	Anti-clockwise
8	Crankcase Rear Section	Dual Tachometer Drive	Anti-clockwise (upper) Clockwise (lower)
9	Crankcase Rear Section	Fuel Pump Drive	Anti-clockwise
9	Crankcase Rear Section	Three-Way Accessory Drive including Vacuum Pump Drive Fuel Pump Drive *Propeller Governor Drive	Clockwise Anti-clockwise Anti-clockwise

* Late engines have provision for a propeller governor drive in the crankcase front section.

The terms "Clockwise and Anti-clockwise" refer to the viewpoint facing the drive.

The terms "Right Hand" and "Left Hand" refer to the viewpoint from the anti-propeller end of the engine.

GENERAL INFORMATION - Cont'd

"Right" and "Left"

The terms "Right" and "Left" in connection with parts listed in this catalog refer to the view-point from the rear of the engine.

Cylinder Numbers

Viewing the engine from the rear, cylinders are numbered in the clockwise rotation, the top cylinder being number one.

Engine Numbers

In listing engine numbers throughout this catalog, the word "inclusive" has not been used. It will be understood that all groups of engine numbers, such as 13281 - 13293, include both the first and last engine numbers.

Engine Classification

Engines are classified both by serial number and by model. The serial numbers and model designations of the engines included in this catalog are as follows:

COMMERCIAL ENGINES

Wright Serial Number	Wright Engine Model Designation	Wright Serial Number	Wright Engine Model Designation	Wright Serial Number	Wright Engine Model Designation
13277 - 13278	R-975E-3	14548	R-760E-2	15333	R-975E-1
13281 - 13293	R-975E-3	14549 - 14550	R-760E-1	15334 - 15382	R-975E-3
13295 - 13302	R-975E-3	14551 - 14552	R-760E-2	15383 - 15388	R-975E-1
14543 - 14544	R-760E-2	14641 - 14645	R-760E-1	15389 - 15402	R-975E-3
14545	R-760E-1	14646 - 14649	R-760E-2	15454 - 15494	R-975E-3
14546	R-760E-2	15303 - 15328	R-975E-3	15495 - 15496	R-975E-1
14547	R-760E-1	15331 - 15332	R-975E-3	15497 - 15501	R-975E-3

Engine model designations and serial numbers are stamped on the name plates which are attached to the lower part of the crankcase front section.

TELEGRAPH ORDERS

Use of Code

Code words are for telegraphic orders only. Begin telegram with shipping code as per table below. Use plain English to designate quantity wanted.

Example of Proper Code Order

Original message:

Ship to us by express two standard size cylinders with studs and two standard size, 6.1:1 compression pistons complete with rings, piston pins and retainers.

Coded message:

YOWBA TWO EFJAK TWO EGCAK.

Shipping Code

YOVUK Ship to us by Air Mail
 YOWAR Ship to us by Air Express
 YOWAZ Ship to us by Air Freight
 YOWBA Ship to us by Express or Parcel Post
 YOWDO Ship to us by Parcel Post Special Handling
 YOWEF Ship to us by Freight
 YOWFI Ship to.....by Air Express and charge to us
 YOWFU Ship to.....by Air Freight and charge to us
 YOWGA Ship to.....by Express or Parcel Post and charge to us
 YOWIN Ship to.....by Parcel Post Special Handling and charge to us
 YOWME Ship to.....by Freight and charge to us
 YOWOB Ship to.....by Air Express C.O.D.
 YOWRU Ship to.....by Express or Parcel Post C.O.D.
 YOWUL Ship to.....by Parcel Post Special Handling C.O.D.
 YOXAL Ship to.....by Freight C.O.D.
 YOXBO Advise date of shipment of our order number (or date).....
 YOXEN Acknowledge receipt of this order and give shipping date

Confirmation

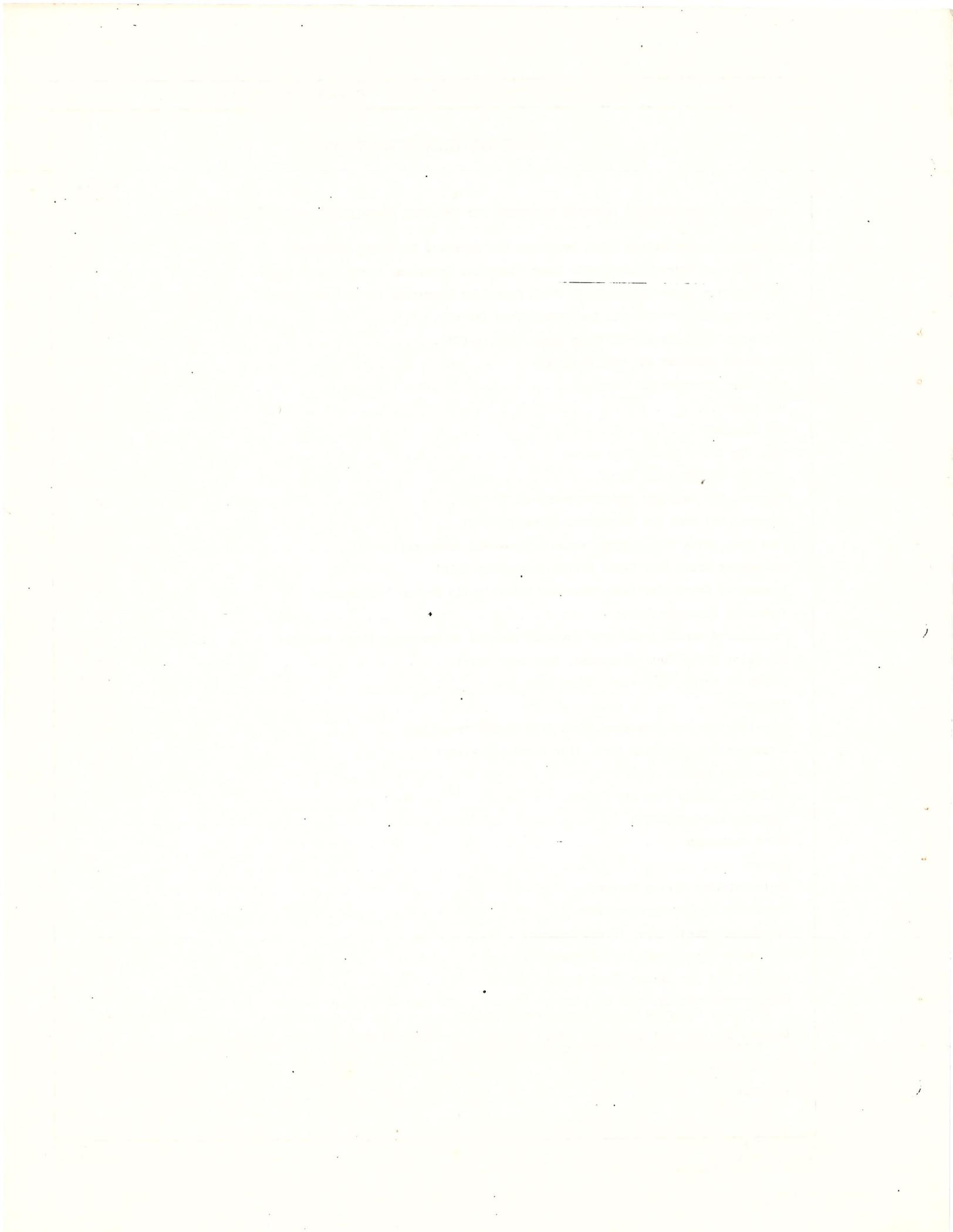
Always send a confirmation of telegram by mail. Confirmation should contain both coded telegram and translation.

Telegraphic Reply

If a telegraphic acknowledgment of an order is required, be sure to add the code word YOXEN to your order. The above shipping code words are also used by the factory in telegrams advising method of shipment.

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Two Position Hydro-Controllable Pitch Propeller Operating Parts (Late Type)	4
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Crankcase Main Section Oil Sump Drain Tube (R-975).	6
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ILLUSTRATIONS

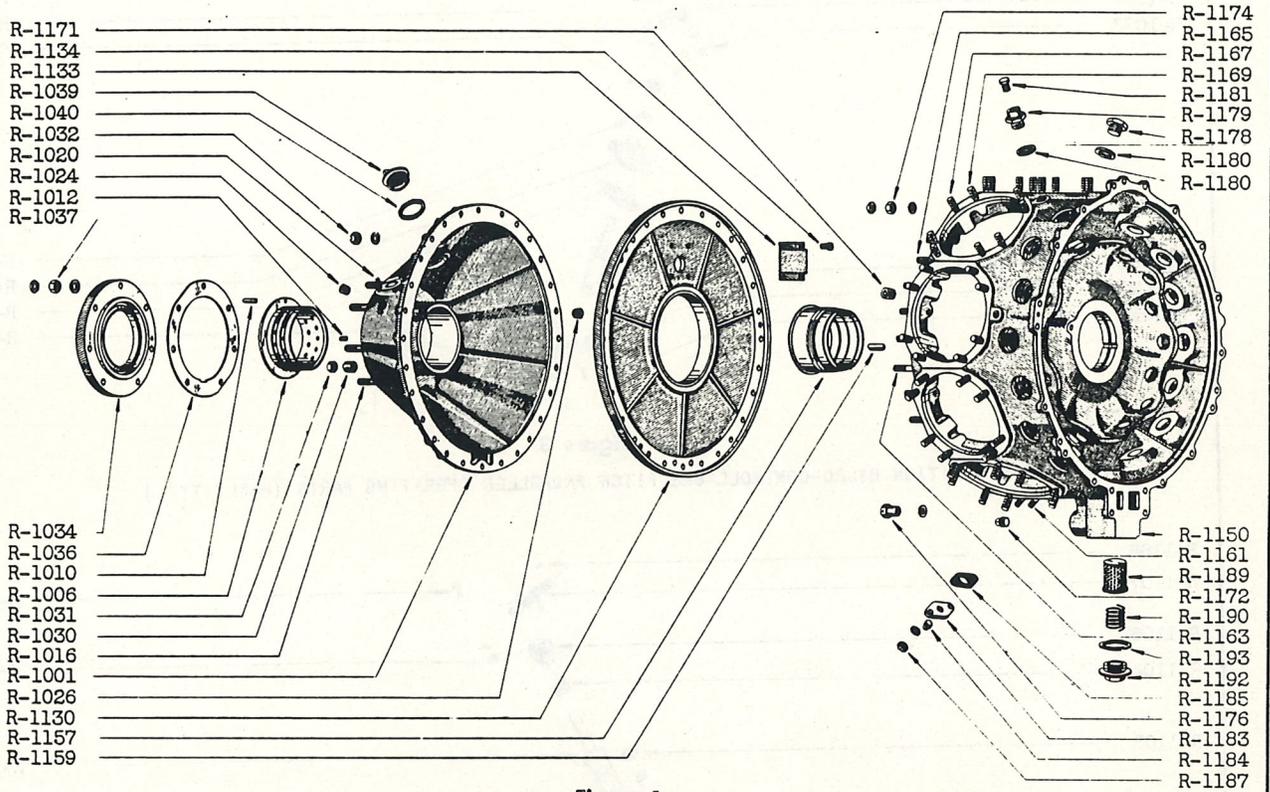


Figure 1

CRANKCASE FRONT SECTION (WITHOUT PROVISION FOR MOUNTING PROPELLER GOVERNOR)
MAIN BEARING SUPPORT AND MAIN SECTION

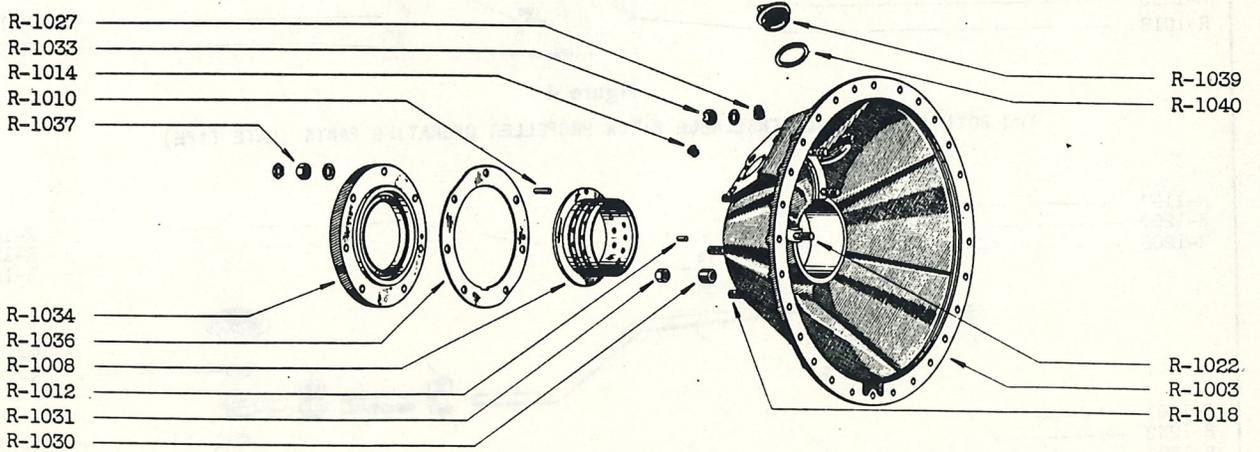


Figure 2

CRANKCASE FRONT SECTION (WITH PROVISION FOR MOUNTING PROPELLER GOVERNOR)

ILLUSTRATIONS - Cont'd

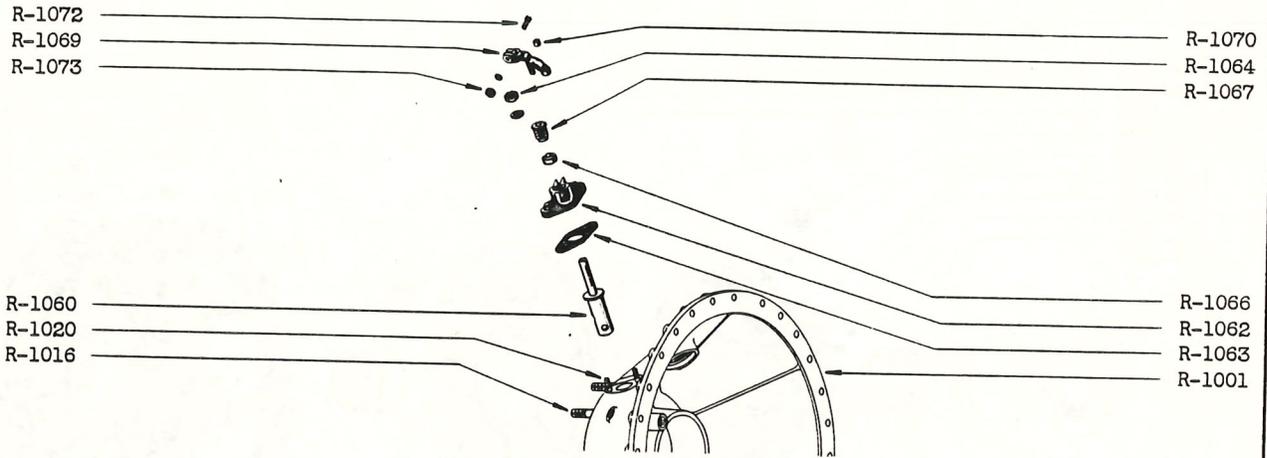


Figure 3

TWO POSITION HYDRO-CONTROLLABLE PITCH PROPELLER OPERATING PARTS (EARLY TYPE)

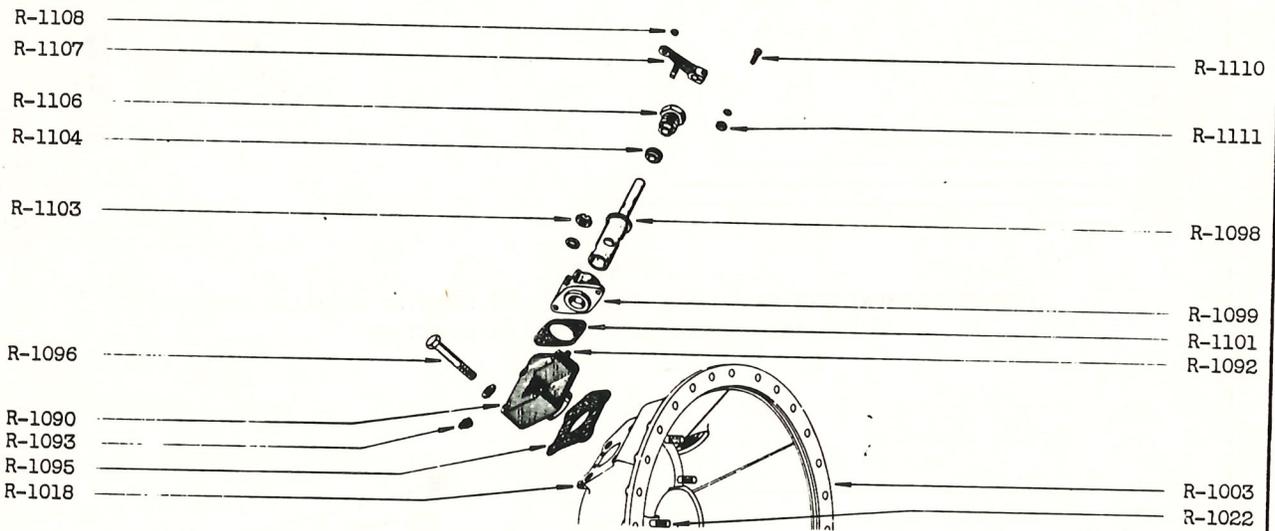


Figure 4

TWO POSITION HYDRO-CONTROLLABLE PITCH PROPELLER OPERATING PARTS (LATE TYPE)

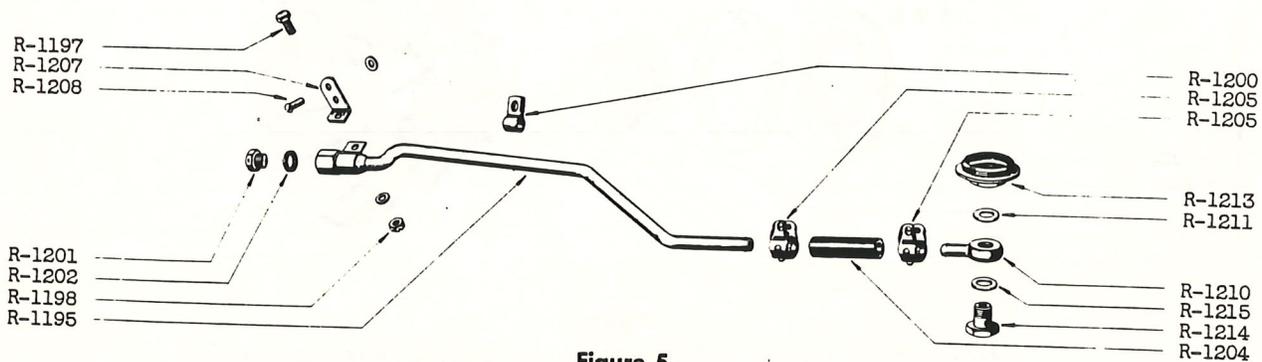


Figure 5

CRANKCASE MAIN SECTION OIL SUMP DRAIN TUBE (R-760)

ILLUSTRATIONS - Cont'd

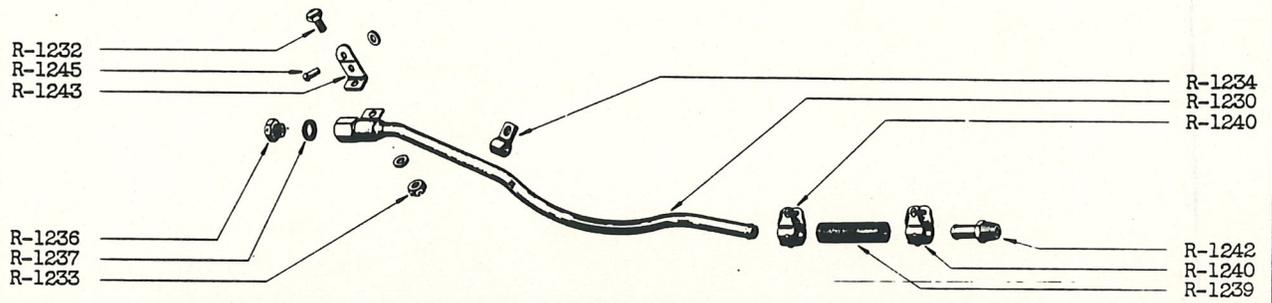


Figure 6
CRANKCASE MAIN SECTION OIL SUMP DRAIN TUBE (R-975)

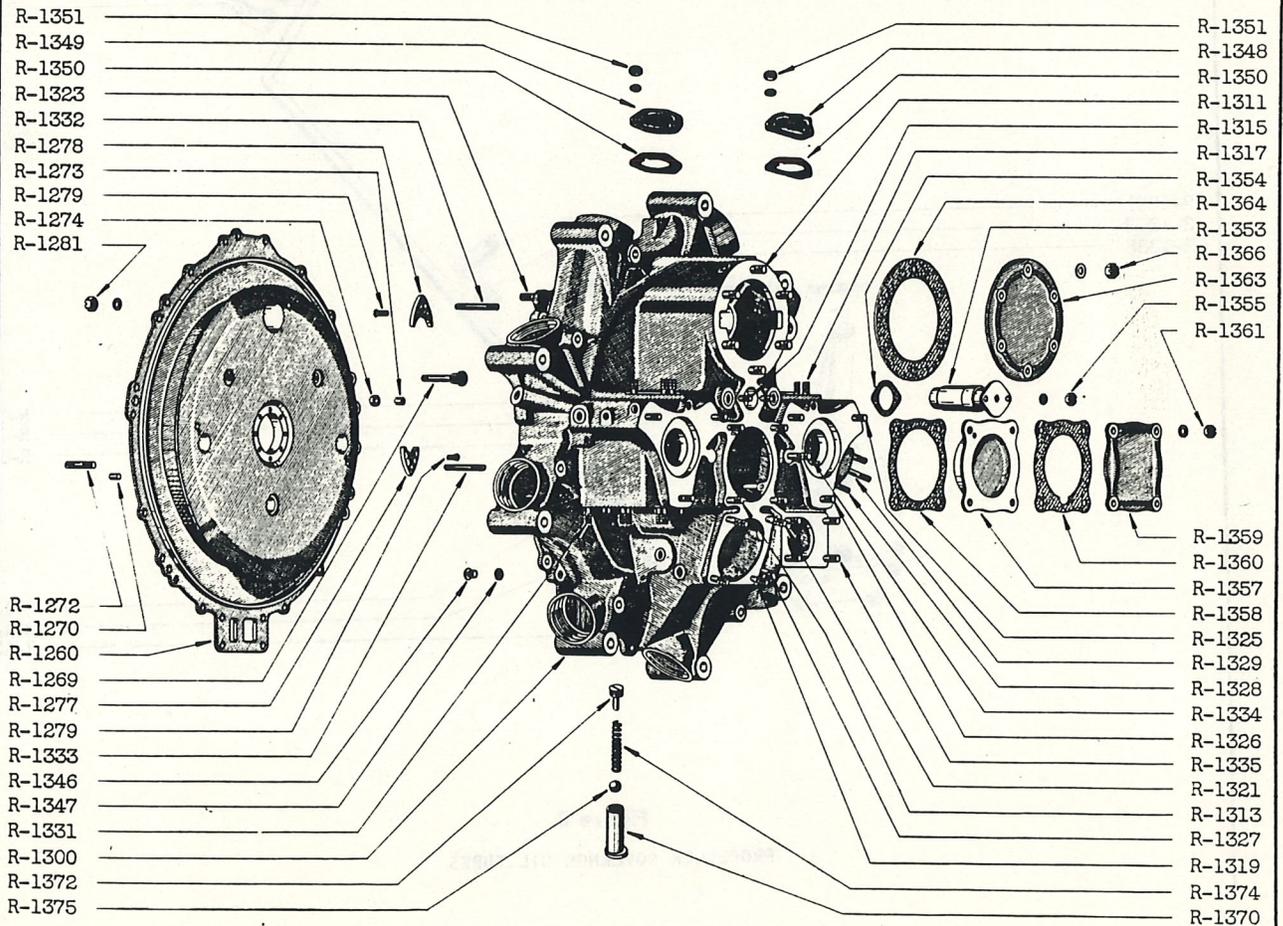


Figure 7
CRANKCASE DIFFUSER AND REAR SECTIONS

ILLUSTRATIONS - Cont'd

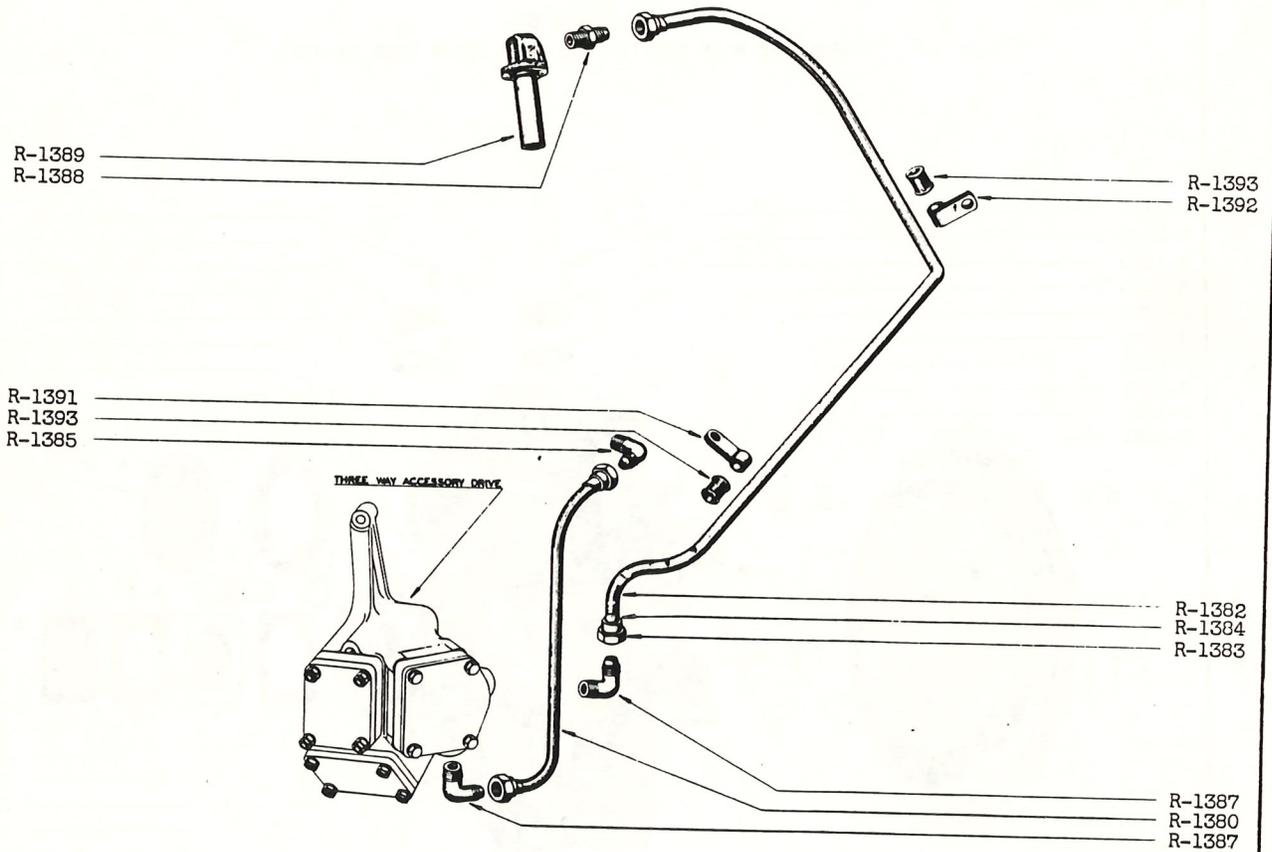


Figure 8
PROPELLER GOVERNOR OIL TUBES

R-3260

R-3251

R-3247

R-3243

R-3249

R-3245

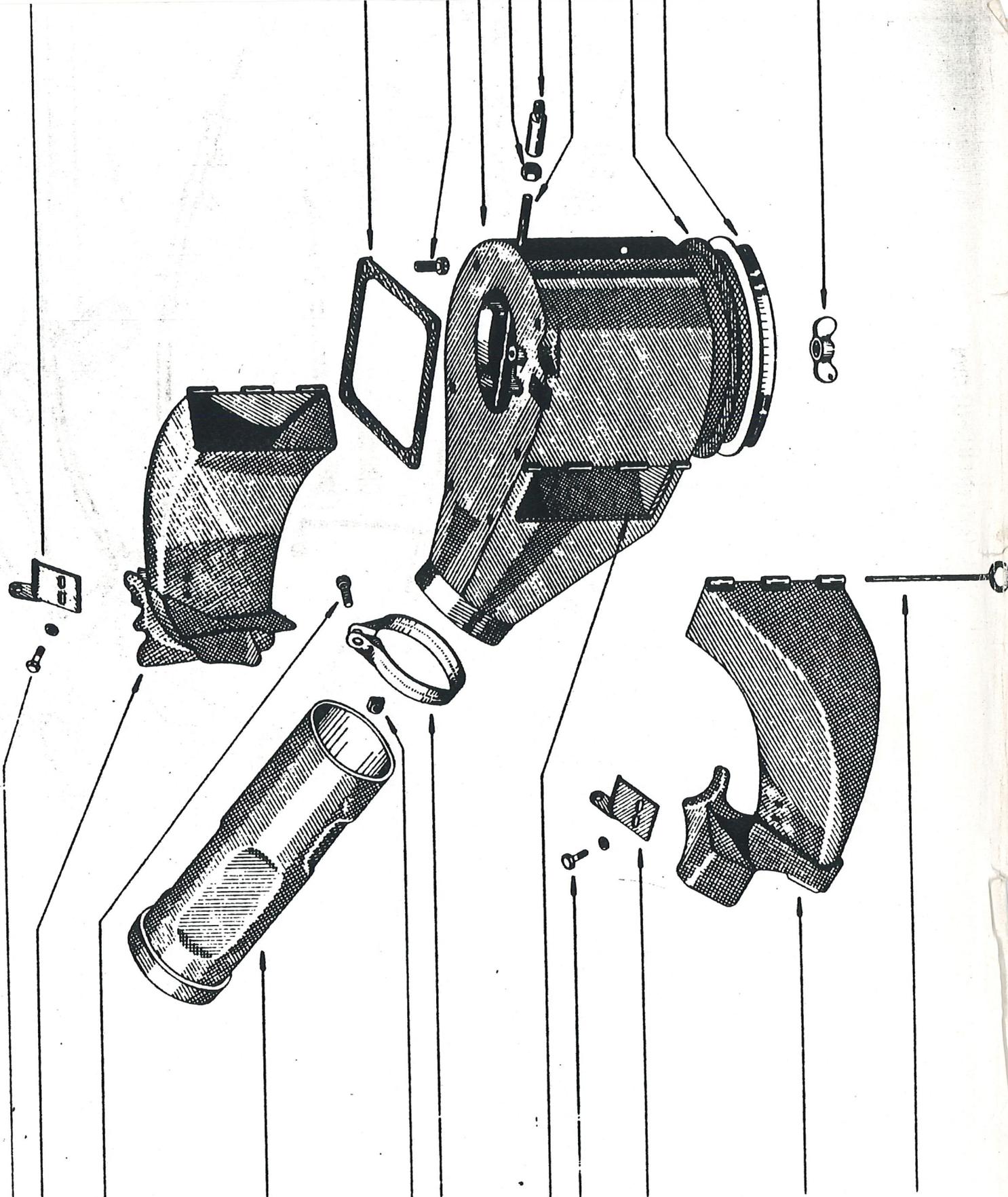
R-3229

R-3260

R-3258

R-3253

R-3255



ILLUSTRATIONS - Cont'd

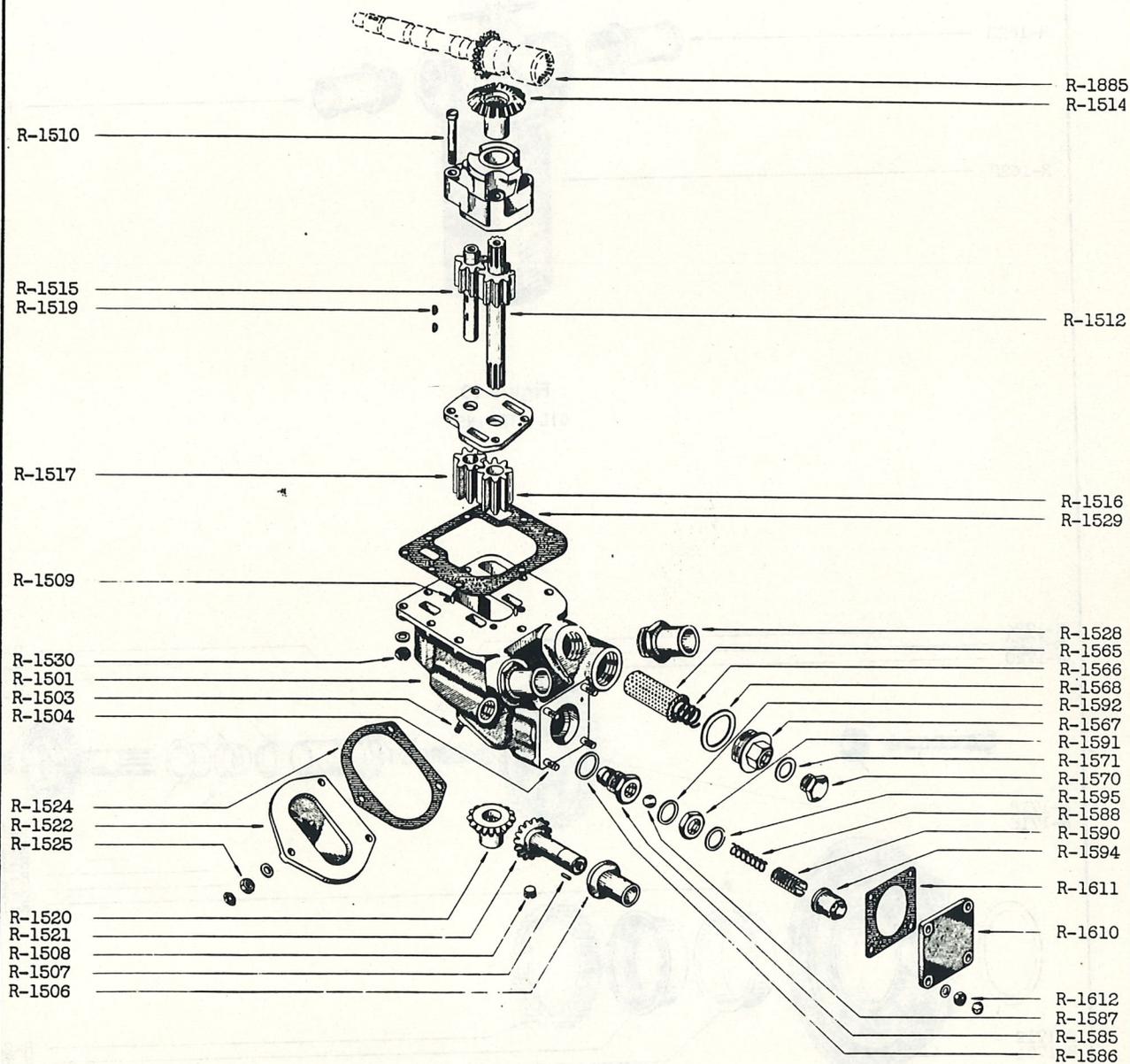


Figure 9

OIL PUMP

ILLUSTRATIONS - Cont'd

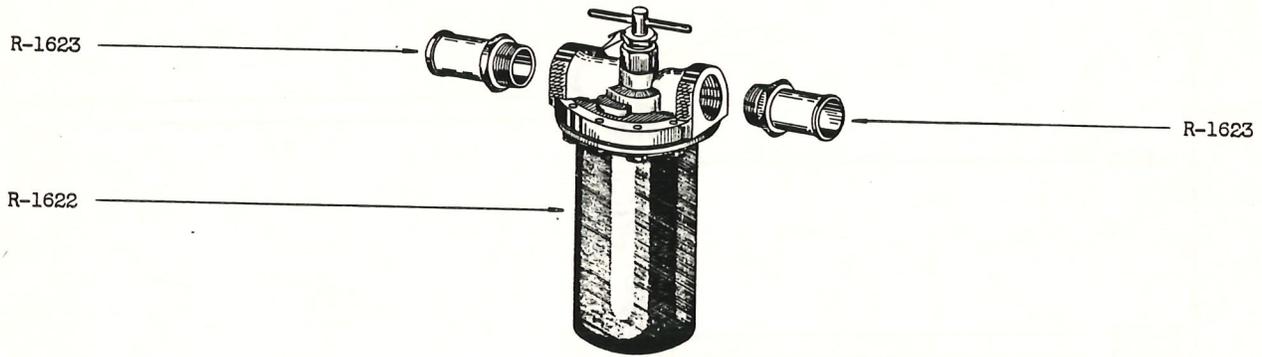


Figure 10
OIL STRAINER

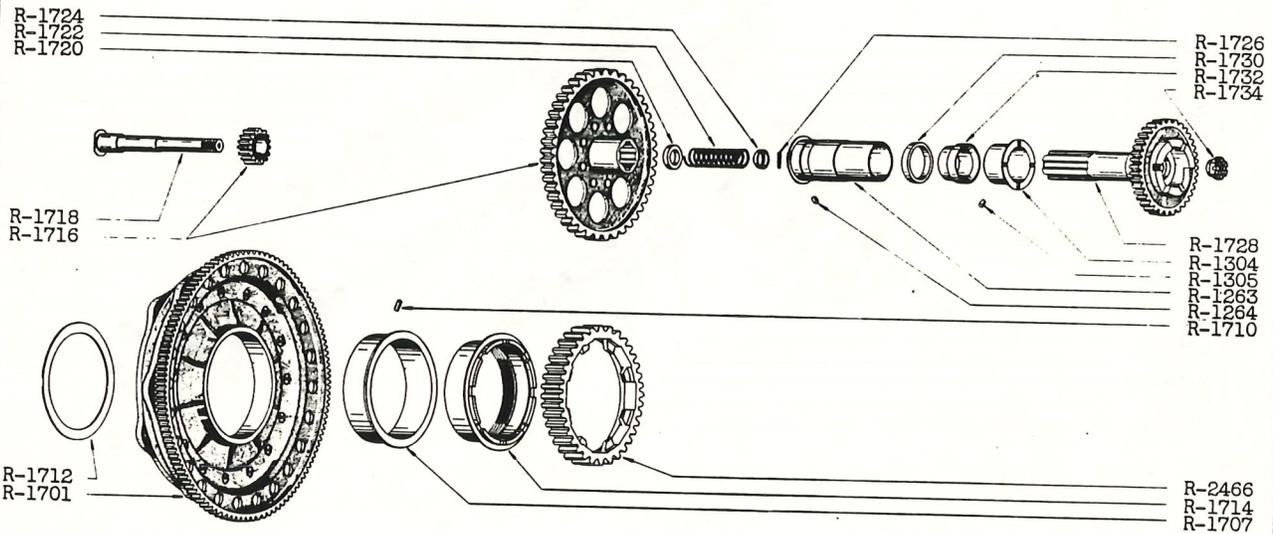


Figure 11
CAM, CAM DRIVE AND STARTER DRIVE

ILLUSTRATIONS - Cont'd

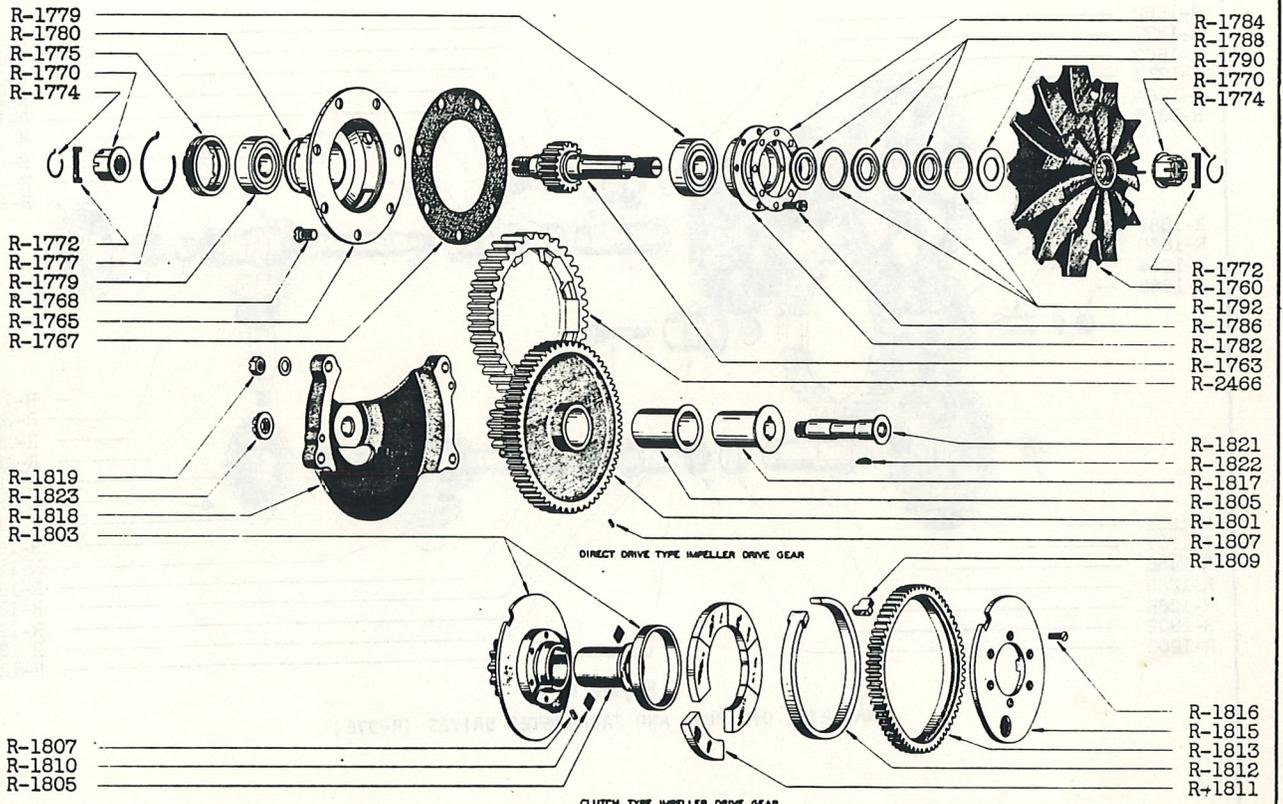


Figure 12

IMPELLER AND IMPELLER DRIVE

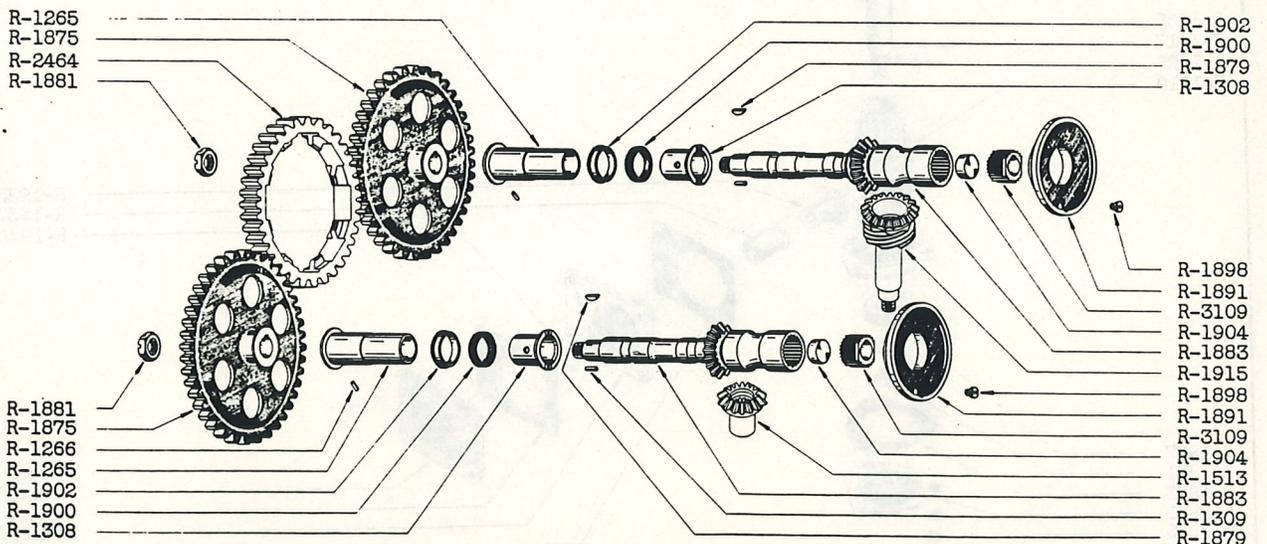


Figure 13

MAGNETO, OIL PUMP AND TACHOMETER DRIVES (R-760)

ILLUSTRATIONS - Cont'd

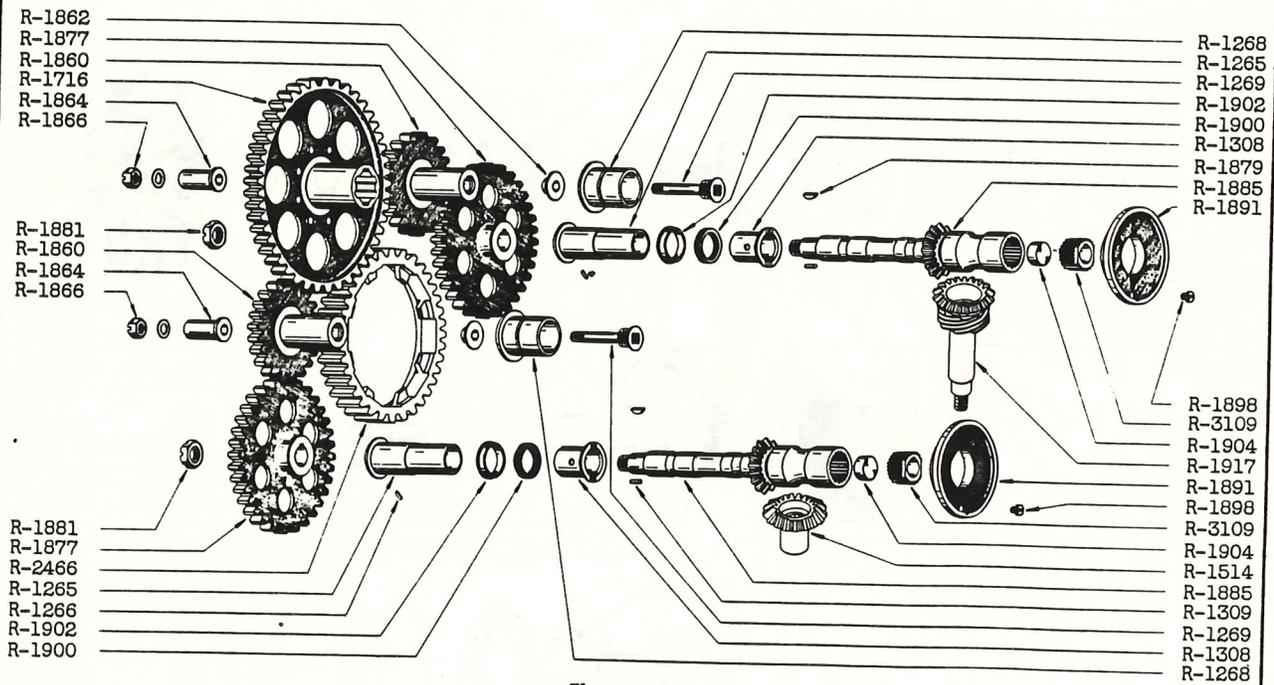


Figure 14
MAGNETO, OIL PUMP AND TACHOMETER DRIVES (R-975)

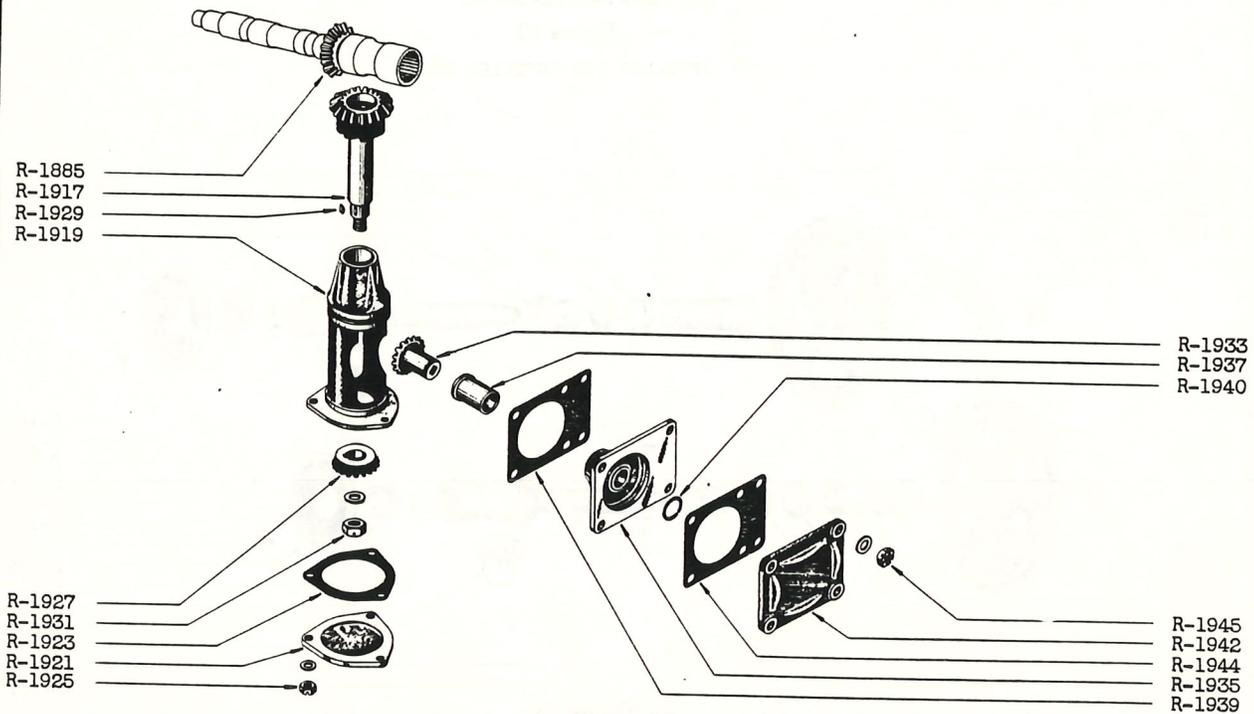


Figure 15
FUEL PUMP DRIVE (FOR ENGINES WITHOUT THREE-WAY ACCESSORY DRIVE)

ILLUSTRATIONS - Cont'd

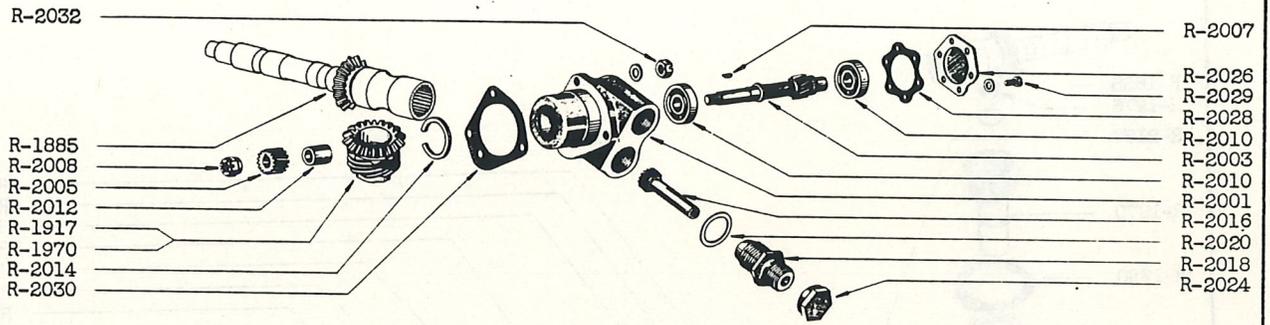


Figure 16

TACHOMETER DRIVE (FOR CABLE DRIVEN TACHOMETER ONLY)

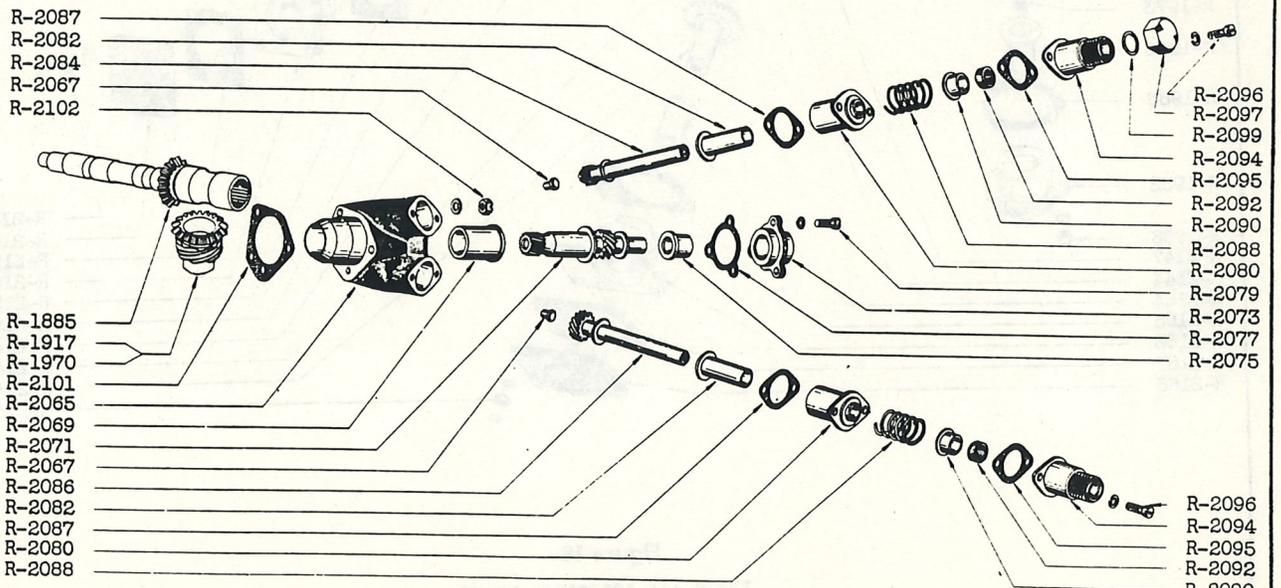


Figure 17

TACHOMETER DRIVE (FOR BOTH CABLE AND ELECTRICALLY DRIVEN TACHOMETERS)

ILLUSTRATIONS - Cont'd

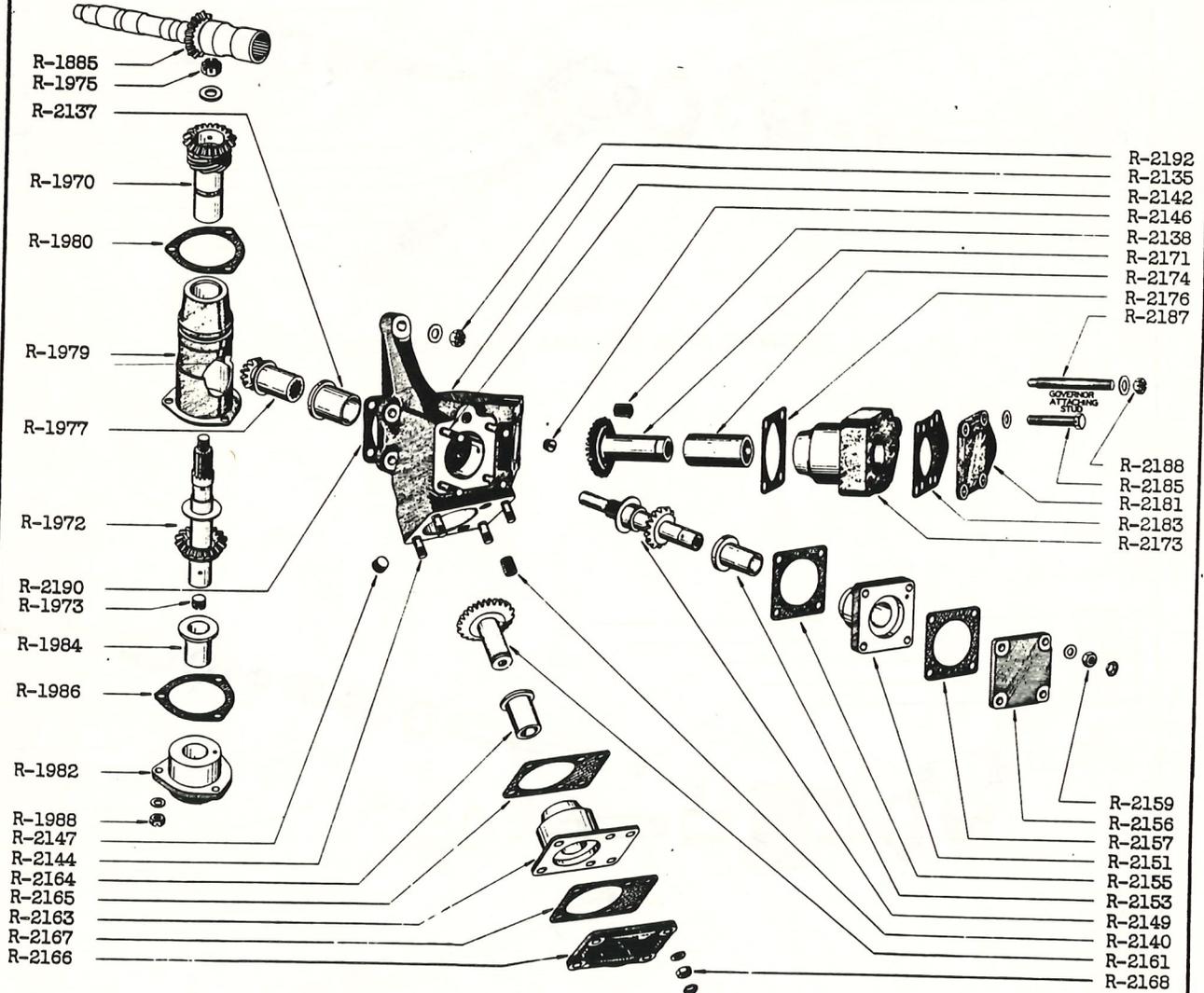


Figure 18
THREE-WAY ACCESSORY DRIVE

ILLUSTRATIONS - Cont'd

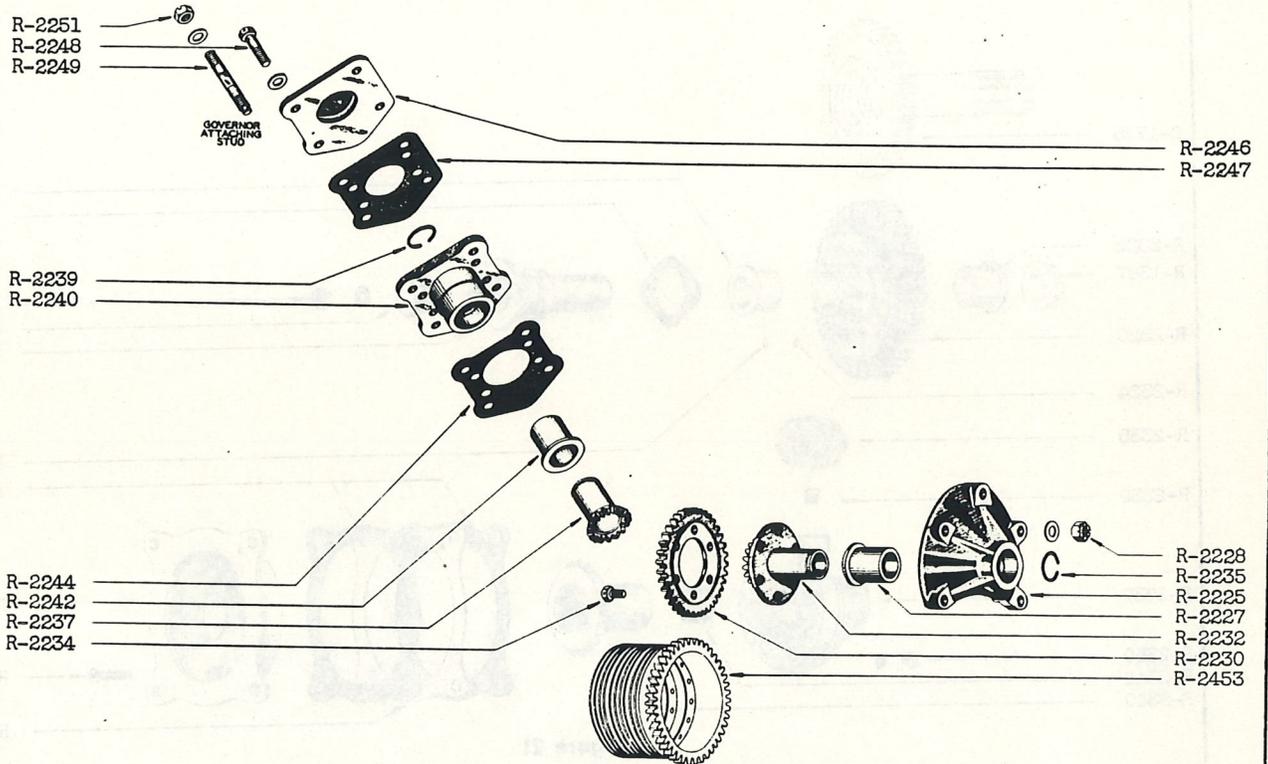


Figure 19

PROPELLER GOVERNOR DRIVE (FOR GOVERNOR MOUNTED ON CRANKCASE FRONT SECTION)

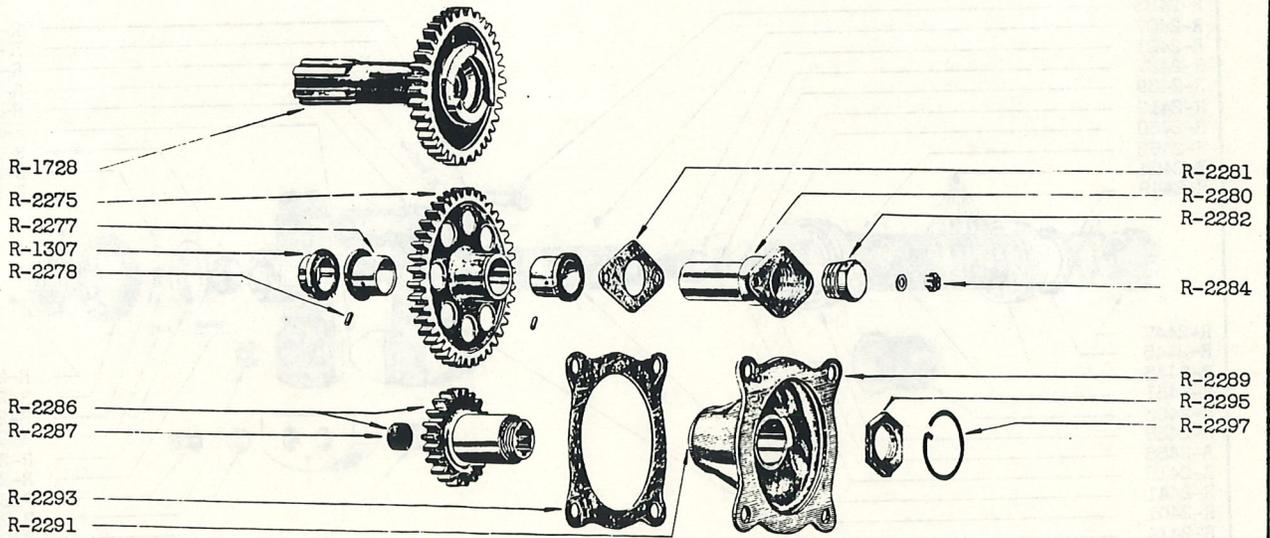


Figure 20

GENERATOR DRIVE (ANTI-CLOCKWISE, SPUR GEAR TYPE)

ILLUSTRATIONS - Cont'd

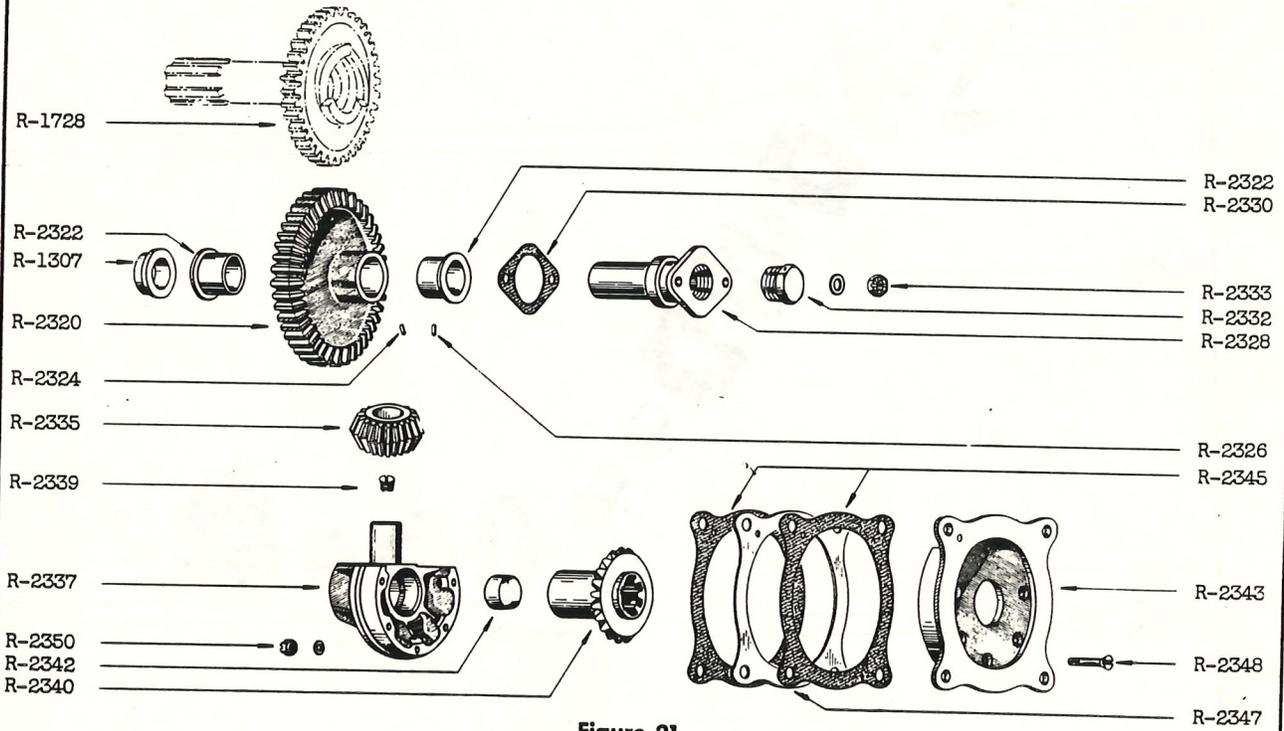


Figure 21

GENERATOR DRIVE (CLOCKWISE, BEVEL GEAR TYPE)

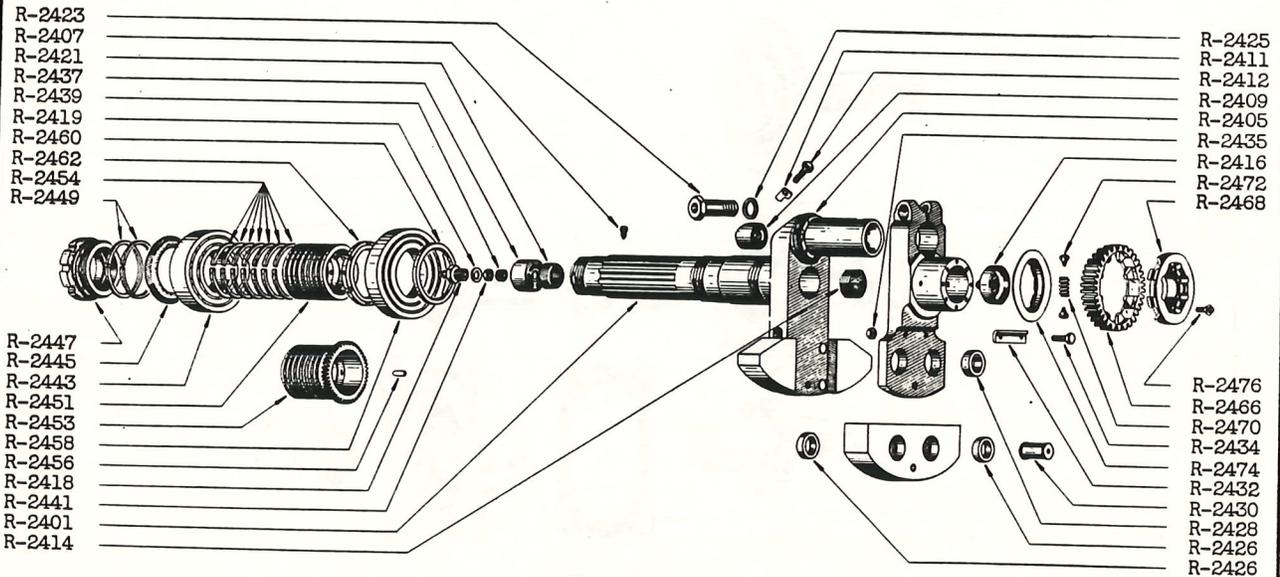


Figure 22

CRANKSHAFT

ILLUSTRATIONS - Cont'd

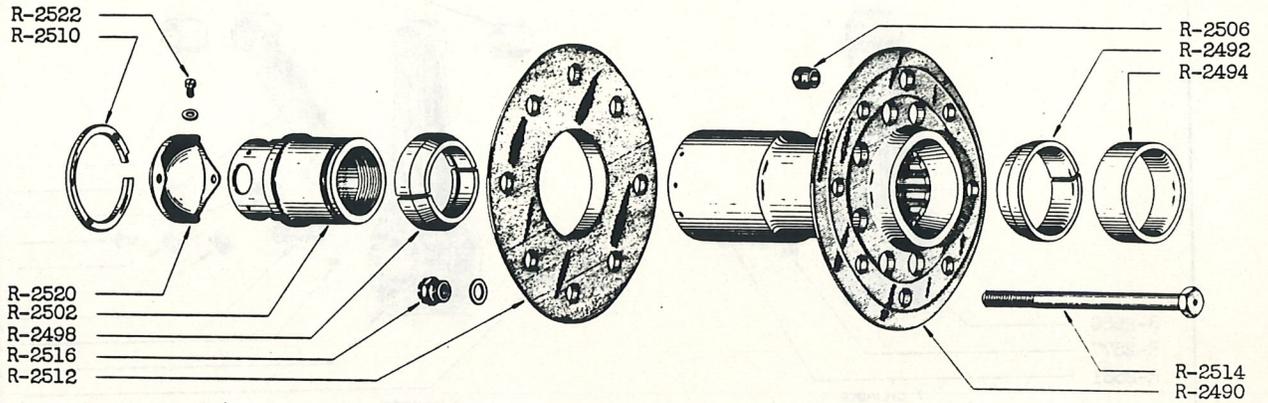


Figure 23
PROPELLER HUB AND ATTACHING PARTS (FOR WOODEN PROPELLER)

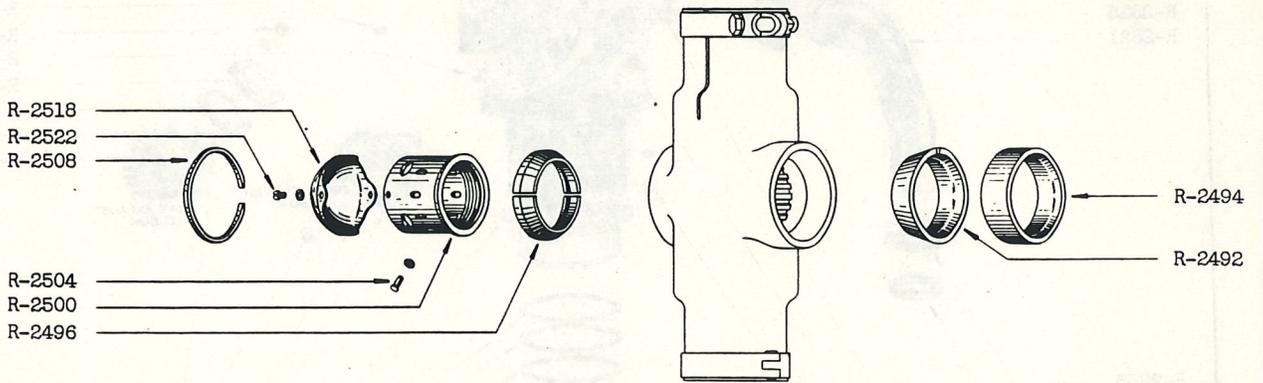


Figure 24
PROPELLER HUB ATTACHING PARTS (FOR METAL PROPELLER)

ILLUSTRATIONS - Cont'd

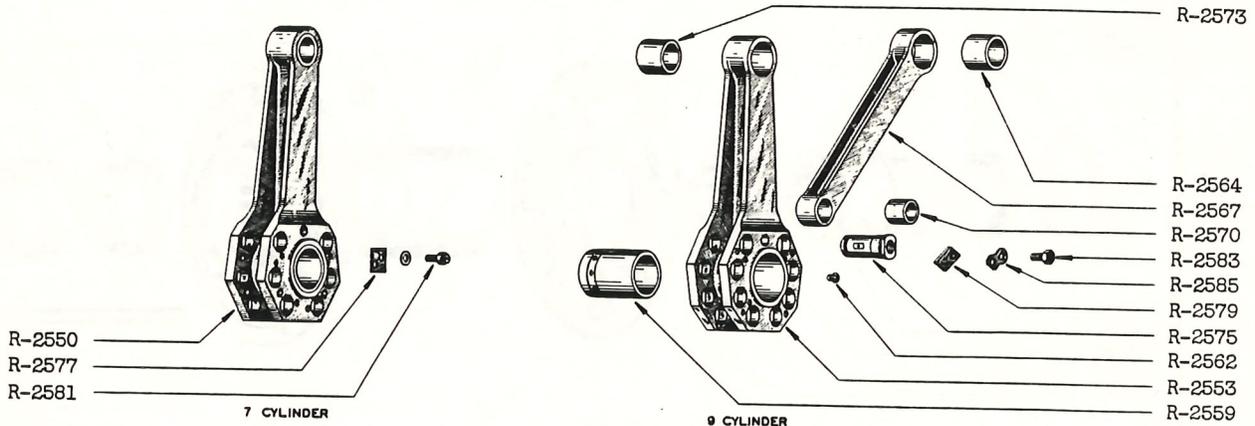


Figure 25
CONNECTING RODS

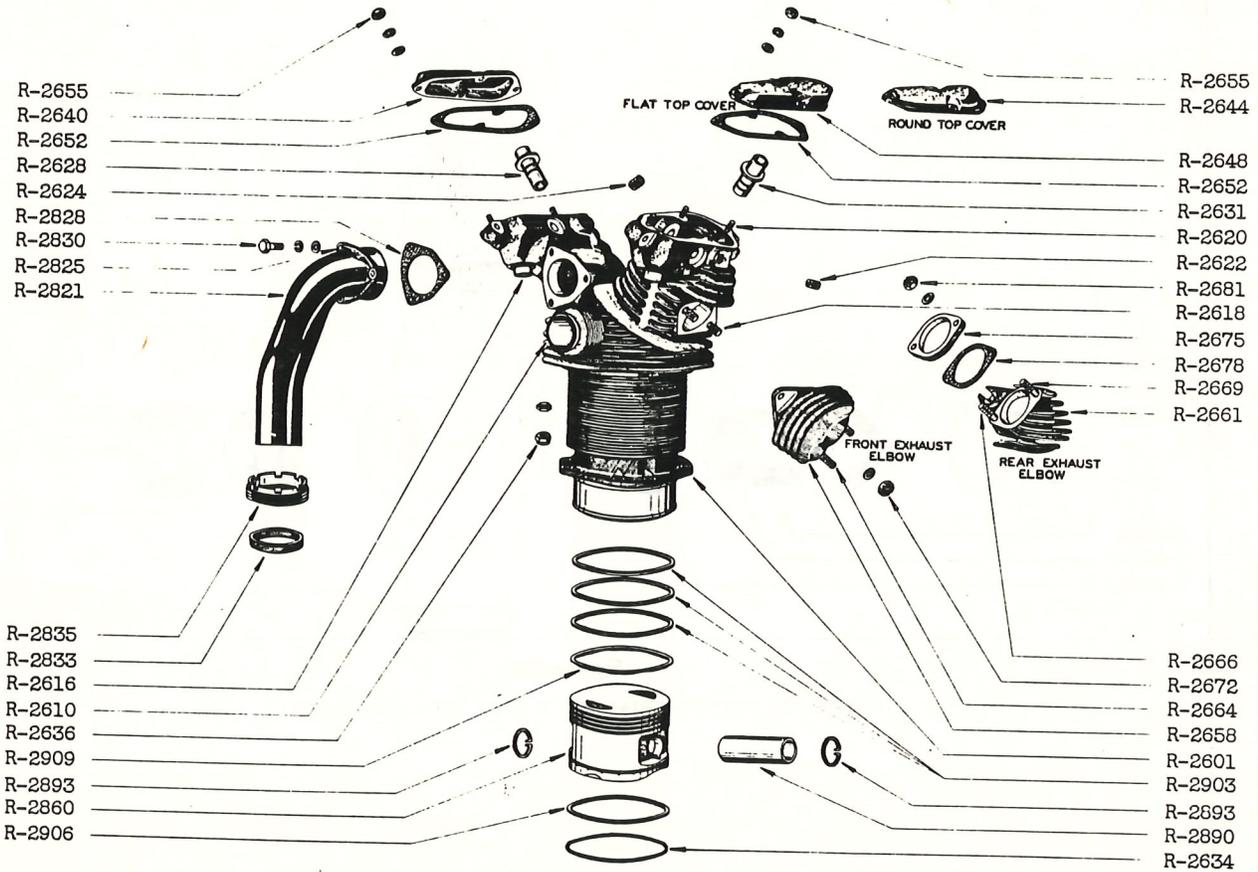


Figure 26
CYLINDER, INTAKE PIPE AND PISTON

ILLUSTRATIONS - Cont'd

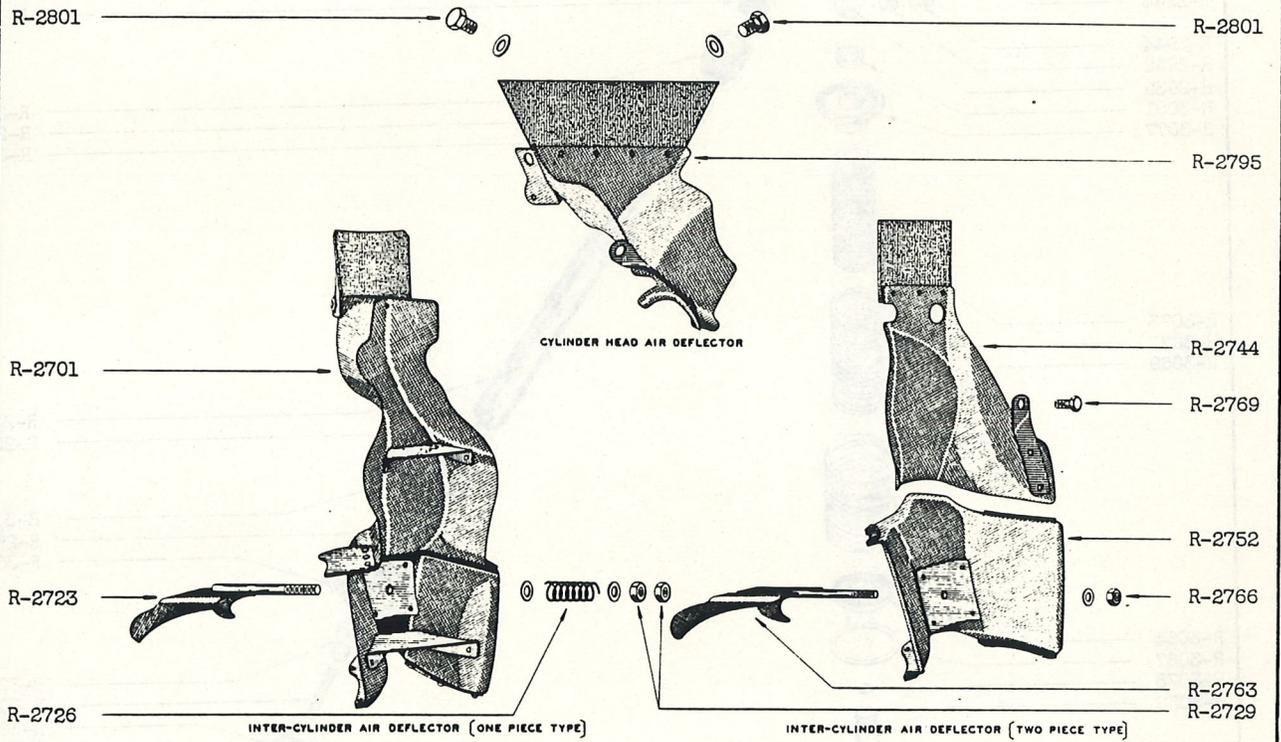


Figure 27
CYLINDER AIR DEFLECTORS

ILLUSTRATIONS - Cont'd

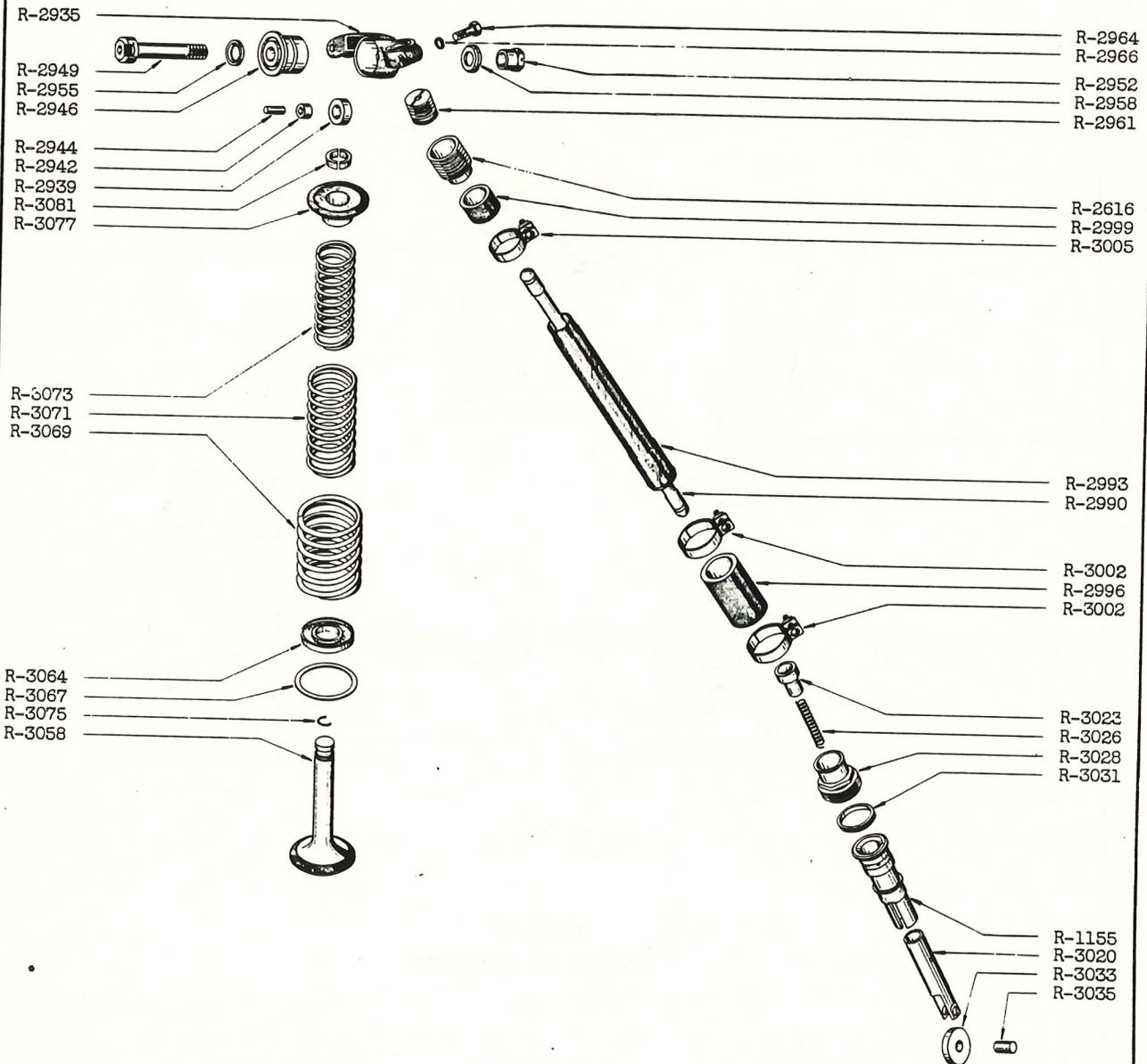


Figure 28
VALVE MECHANISM

ILLUSTRATIONS - Cont'd

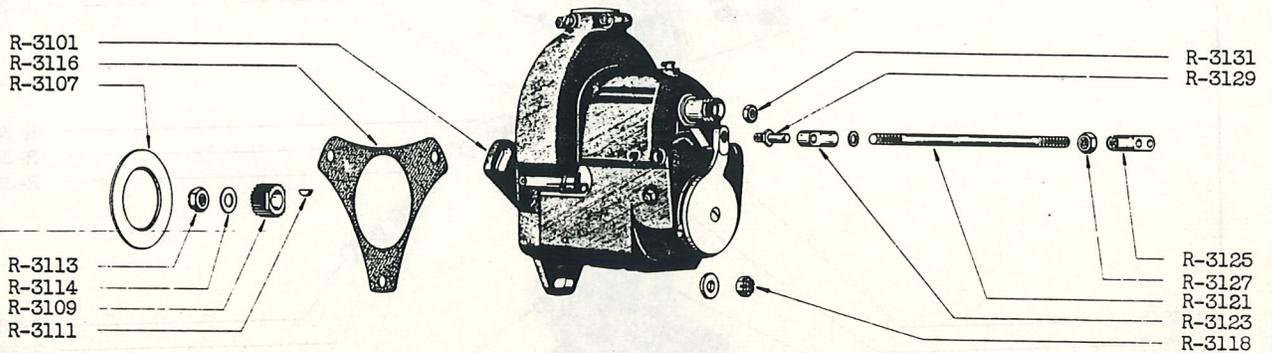


Figure 29
MAGNETO

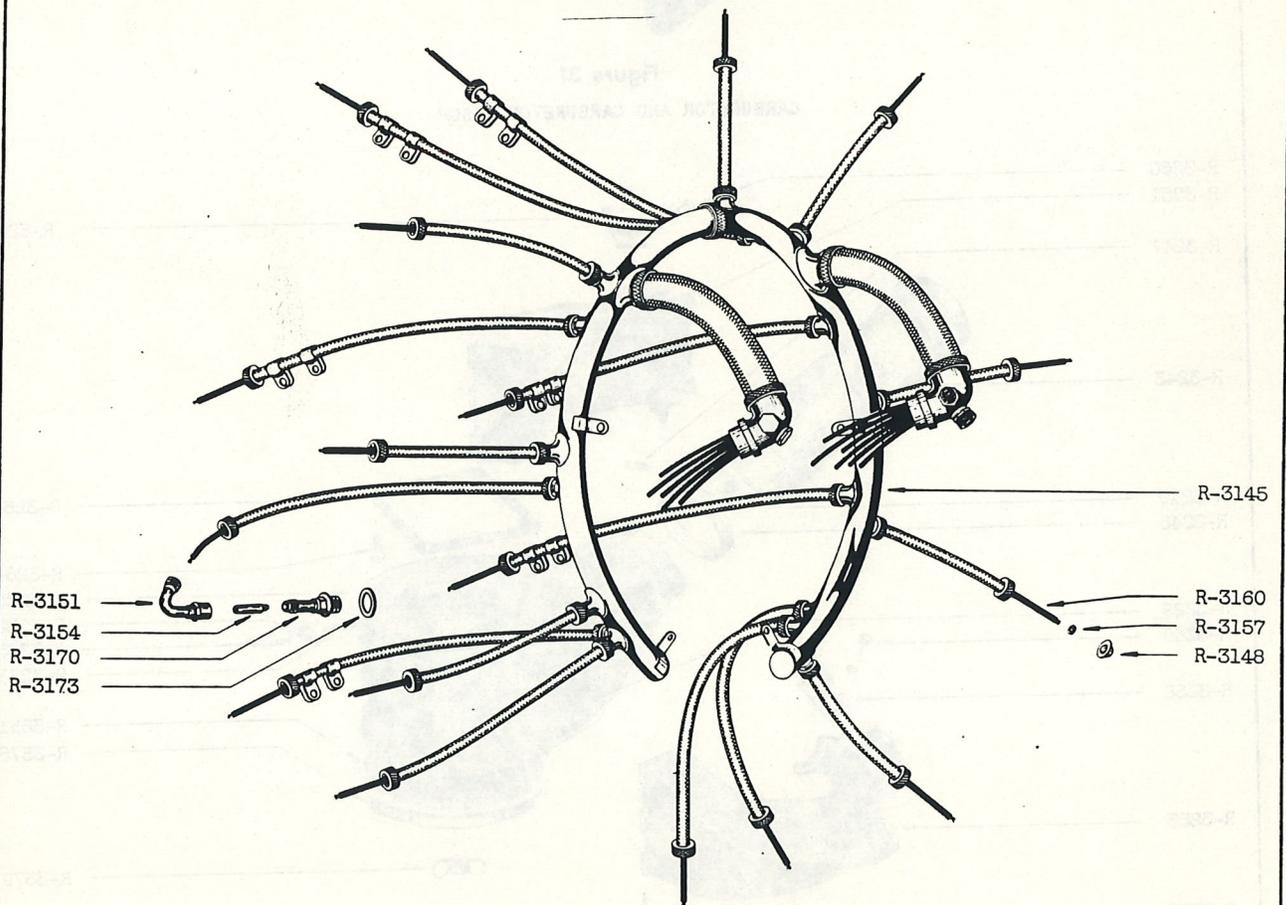


Figure 30
RADIO-SHIELDED WIRING HARNESS

ILLUSTRATIONS - Cont'd

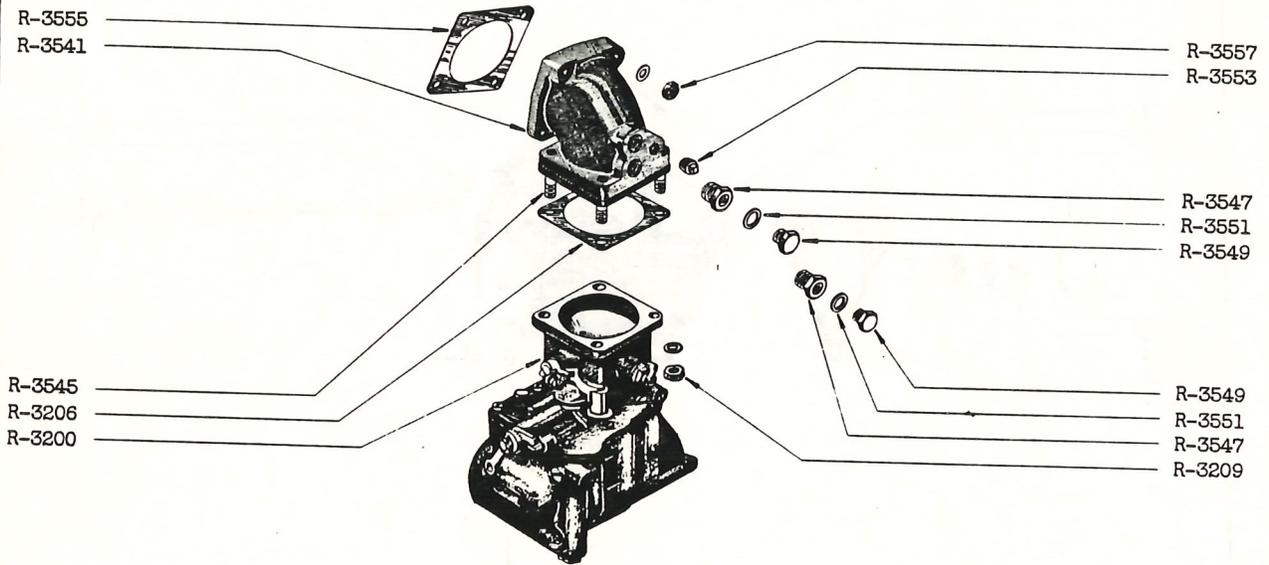


Figure 31

CARBURETOR AND CARBURETOR ELBOW

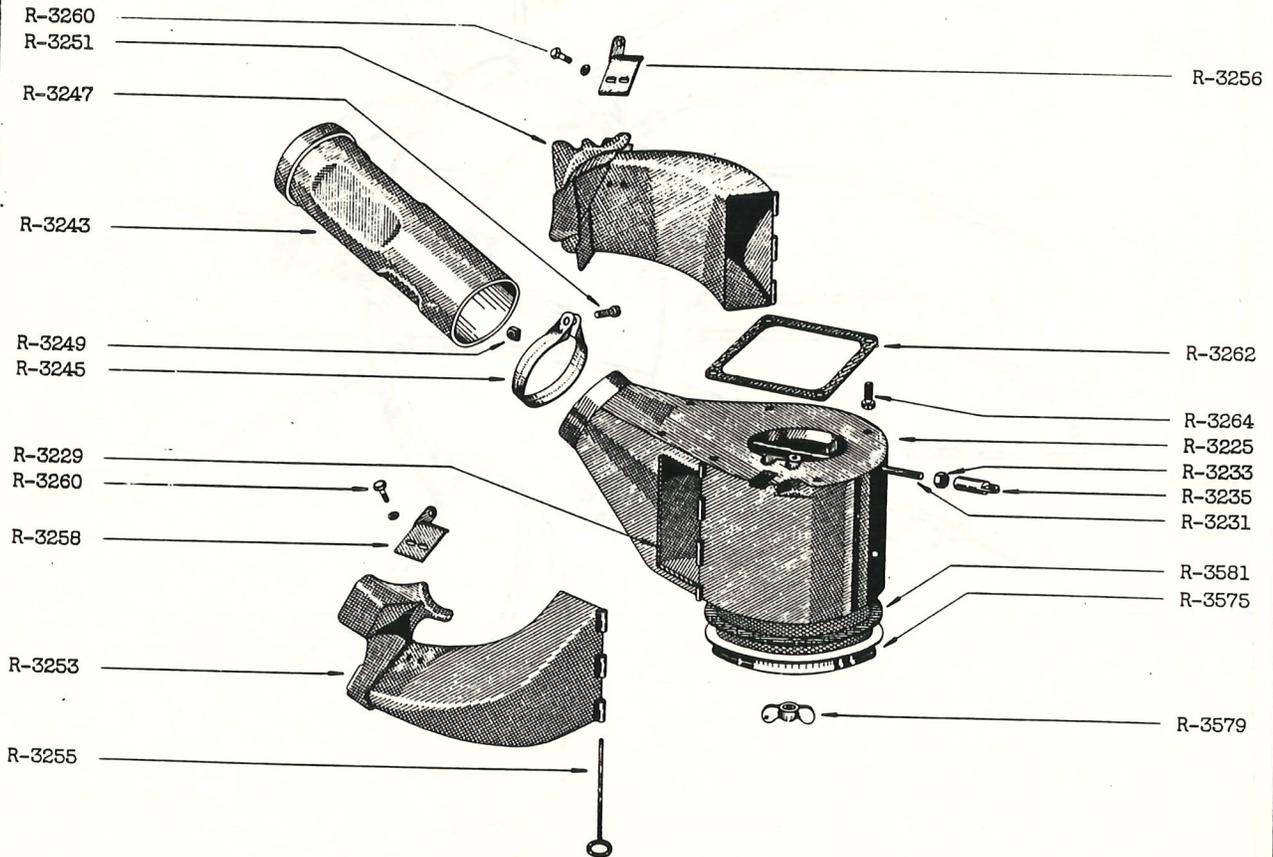


Figure 32

AIR HEATER (BANJO TYPE) (FRONT EXHAUST)

ILLUSTRATIONS - Cont'd

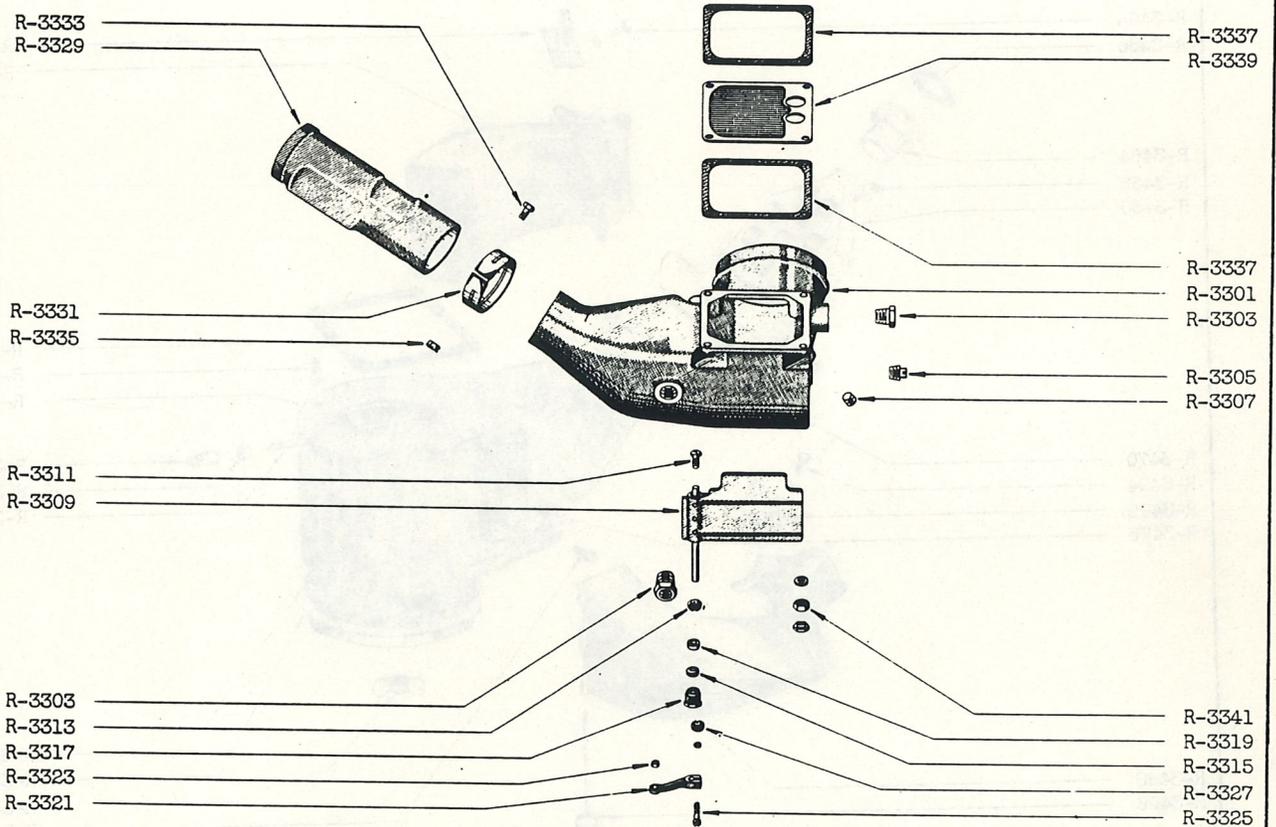


Figure 33

AIR HEATER (CAST TYPE) (FRONT EXHAUST)

ILLUSTRATIONS - Cont'd

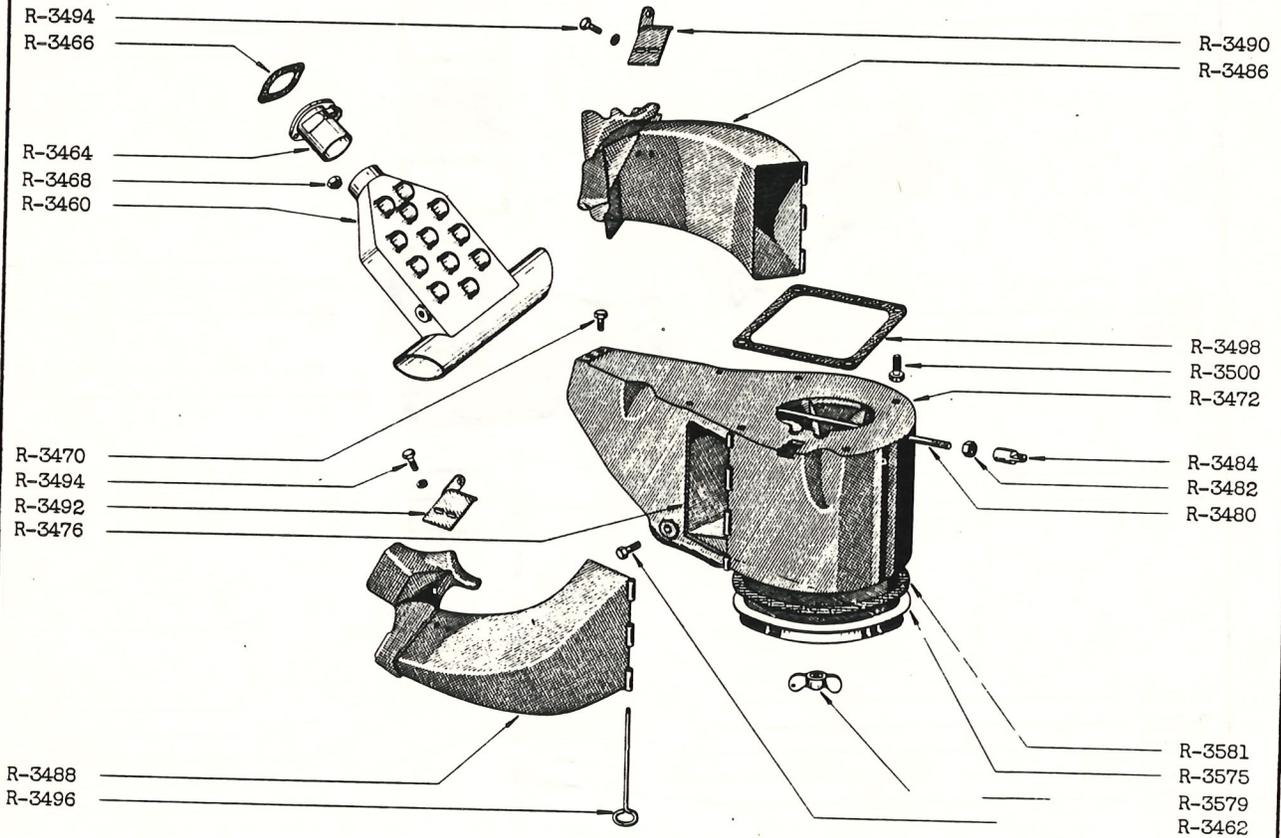


Figure 34

HOT SPOT AND AIR HEATER (REAR EXHAUST) R-975

ILLUSTRATIONS - Cont'd

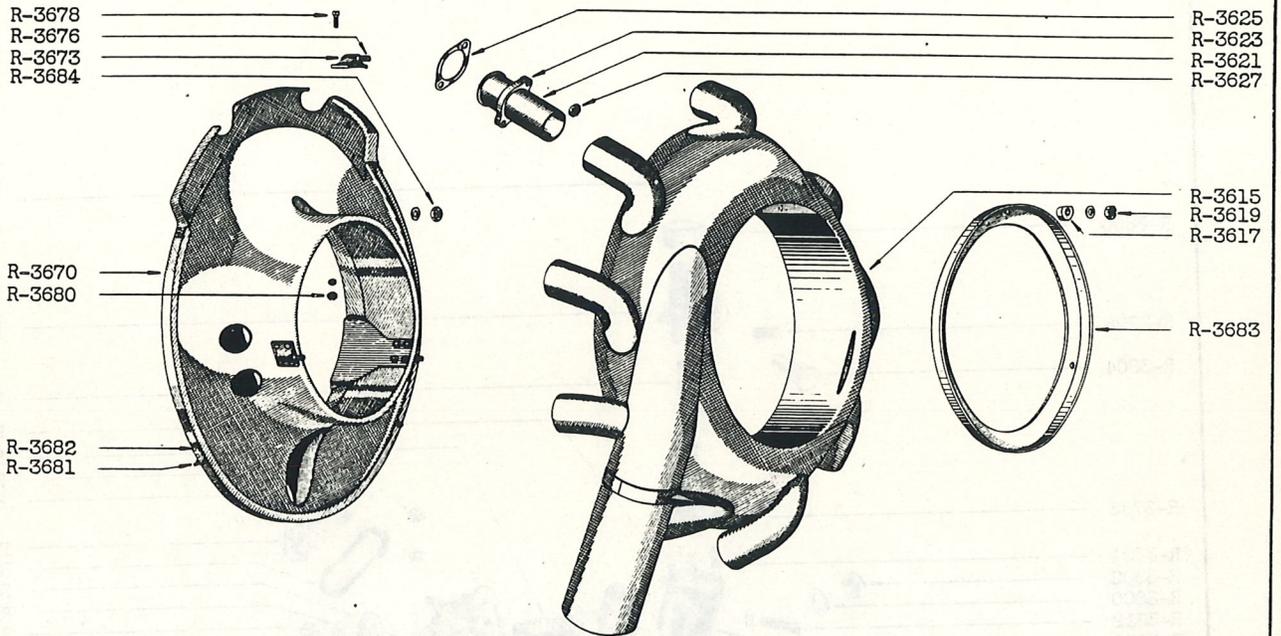


Figure 35

EXHAUST MANIFOLD AND NOSE COWL (FRONT EXHAUST) (FOR ENGINES WITHOUT PROVISION FOR MOUNTING PROPELLER GOVERNOR ON CRANKCASE FRONT SECTION)

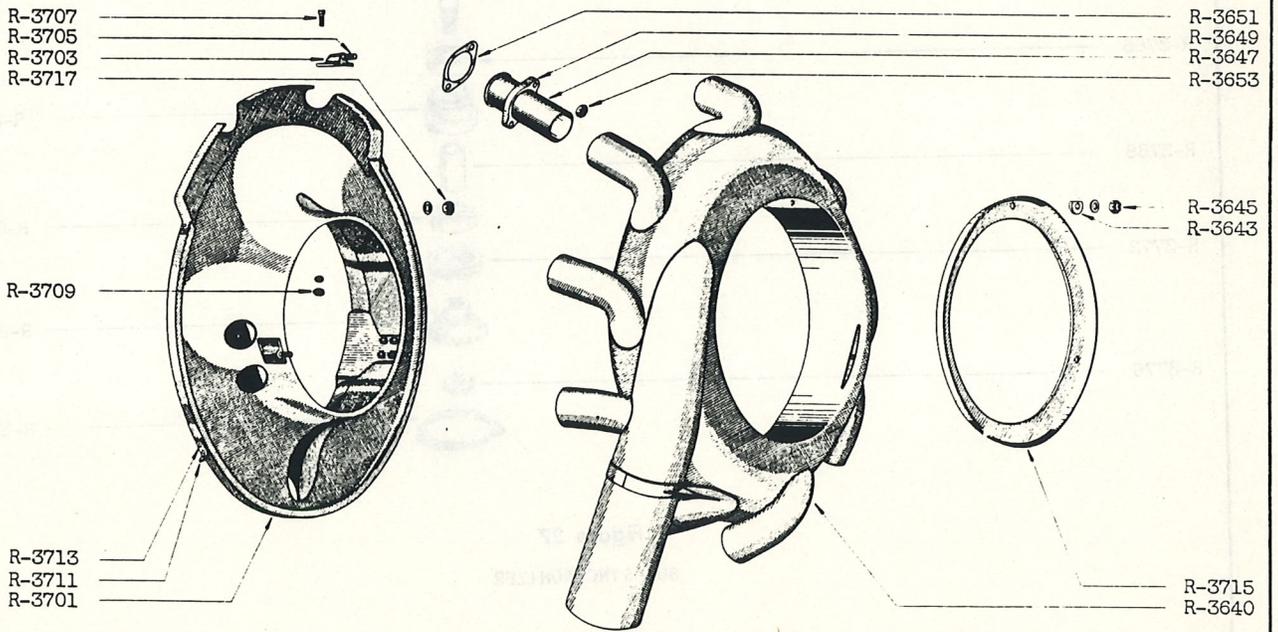


Figure 36

EXHAUST MANIFOLD AND NOSE COWL (FRONT EXHAUST) (FOR ENGINES WITH PROVISION FOR MOUNTING PROPELLER GOVERNOR ON CRANKCASE FRONT SECTION)

ILLUSTRATIONS - Cont'd

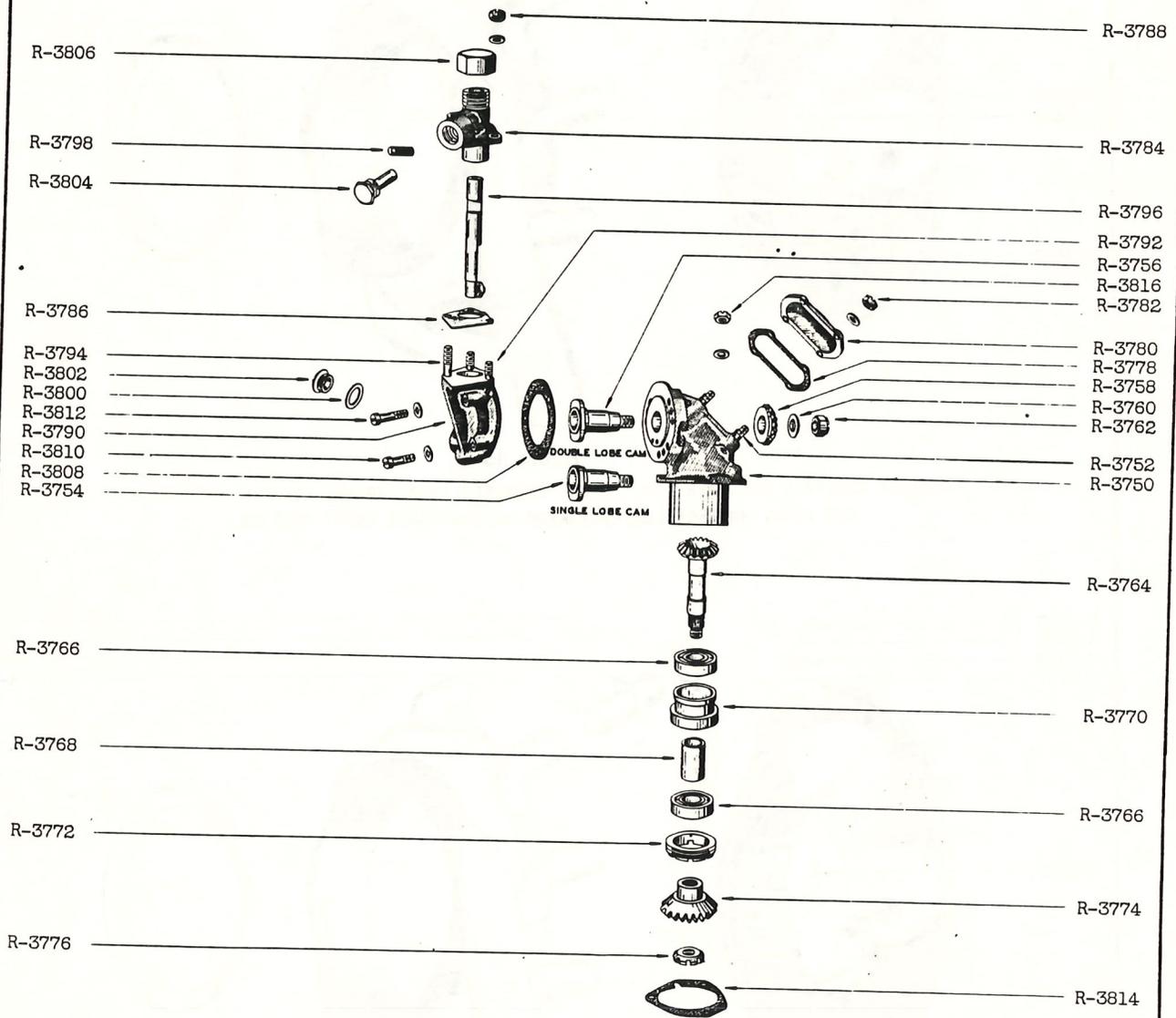


Figure 37
GUN SYNCHRONIZER

ILLUSTRATIONS - Cont'd

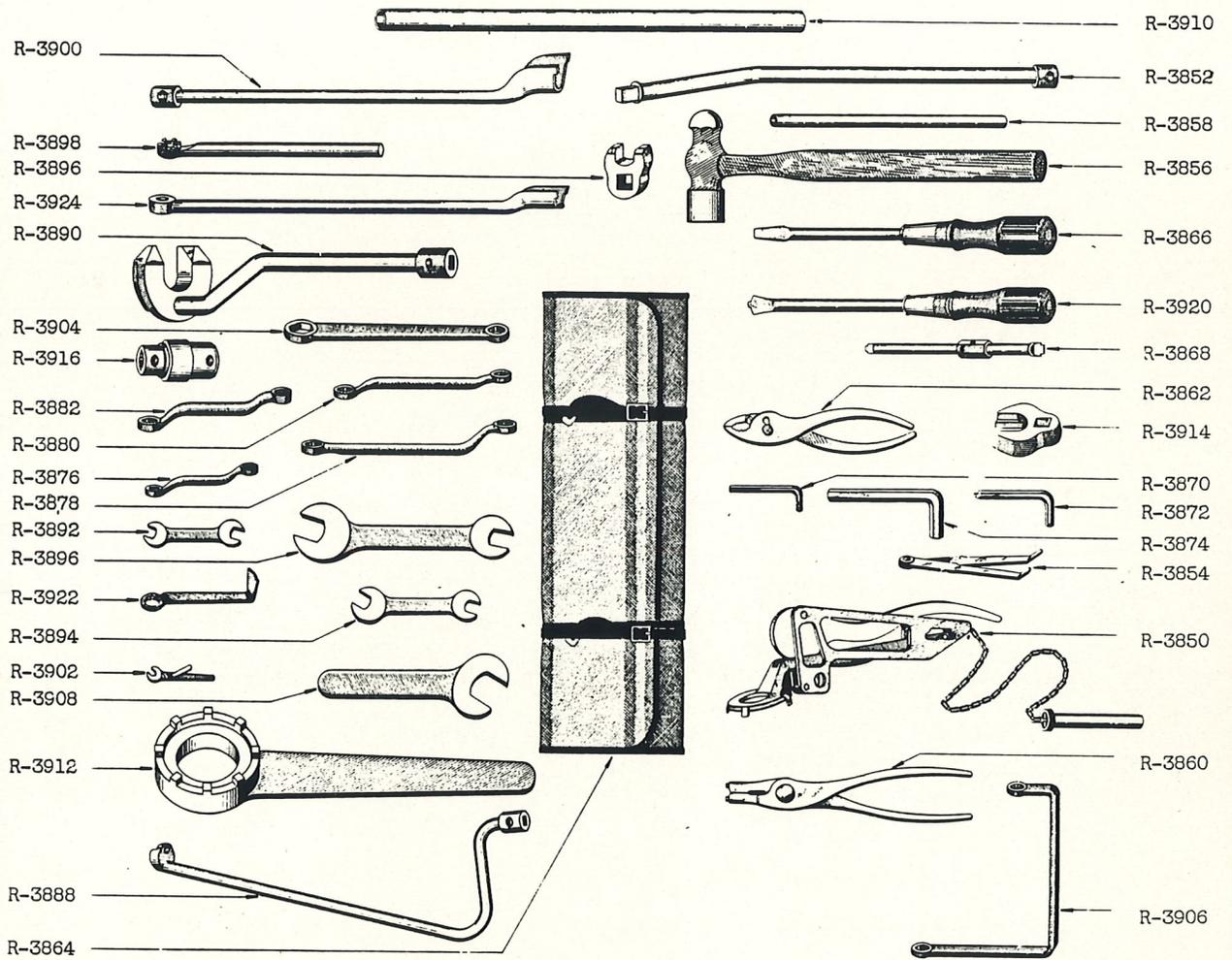
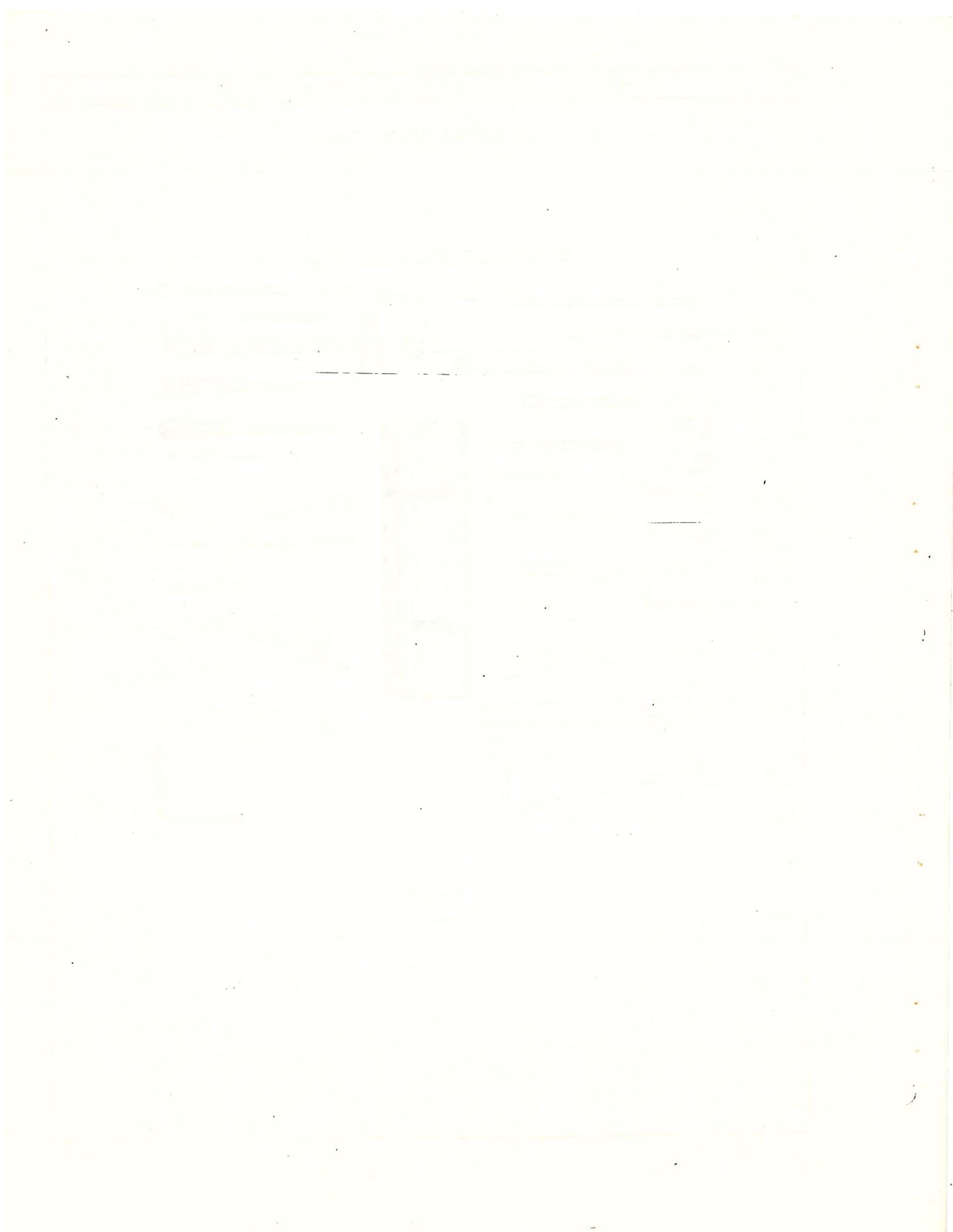


Figure 38
TOOL KIT



Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE				
FRONT SECTION				
EABAB	R-1001	47951	Crankcase - Front section (Without provision for mounting propeller governor).	1
Used for the following engines:				
13278 14547 - 14552 15341 - 15389				
13281 - 13293 14641 - 14649 15395 - 15397				
13295 - 13302 15303 - 15328 15457 - 15493				
14543 - 14545 15331 - 15339 15497 - 15500				
Includes:				
Front section sleeve				
Front section sleeve locating pin				
Front section cover locating pin				
All studs and pipe plugs				
EABCE	R-1003	48284	Crankcase - Front section (With provision for mounting propeller governor).	1
Used for the following engines:				
13277 15390 - 15394 15494 - 15496				
14546 15398 - 15402 15501				
15340 15454 - 15456				
Includes:				
Governor attaching screw bushings				
Front section sleeve				
Front section sleeve locating pin				
Front section cover locating pin				
All studs and pipe plugs				
EABDY	R-1006	62104	Sleeve - Crankcase front section.	1
Used with crankcase front section 47951.				
EABEG	R-1008	64333	Sleeve - Crankcase front section.	1
Used with crankcase front section 48284.				
EABFA	R-1010	13-D-31	Pin - Crankcase front section sleeve locating (1/8" x 3/8") . . .	1
EABGI	R-1012	20-D-12	Pin - Crankcase front section cover locating (3/16" x 1/2") . . .	1
EABHO	R-1014	19-S-13	Bushing - Propeller governor attaching screw.	4
Used with crankcase front section 48284.				
EABIL	R-1016	2032-H-47	Stud - Crankcase front section to front section cover, .003" oversize (3/8" x 16 - 24 x 2 1/8")	7
Used with crankcase front section 47951.				
EABJU		2032-S-47	Stud - Crankcase front section to front section cover, .007" oversize (3/8" x 16 - 24 x 2 1/8")	7
Used with crankcase front section 47951.				
EABKU		2032-J-47	Stud - Crankcase front section to front section cover, .012" oversize (3/8" x 16 - 24 x 2 1/8")	7
Used with crankcase front section 47951.				
EABLI	R-1018	2031-H-18	Stud - Crankcase front section to front section cover, .003" oversize (3/8" x 16 - 24 x 2 1/16")	7
Used with crankcase front section 48284.				
EABMO		2031-S-18	Stud - Crankcase front section to front section cover, .007" oversize (3/8" x 16 - 24 x 2 1/16")	7
Used with crankcase front section 48284.				
EABNA		2031-J-18	Stud - Crankcase front section to front section cover, .012" oversize (3/8" x 16 - 24 x 2 1/16")	7
Used with crankcase front section 48284.				
EABOB	R-1020	2028-H-6	Stud - Crankcase front section to hydro-controllable valve cover, .003" oversize (1/4" x 20 - 28 x 1 1/8")	2
Used with crankcase front section 47951.				
EABPE		2028-S-6	Stud - Crankcase front section to hydro-controllable valve cover, .007" oversize (1/4" x 20 - 28 x 1 1/8")	2
Used with crankcase front section 47951.				
EABRY		2028-J-6	Stud - Crankcase front section to hydro-controllable valve cover, .012" oversize (1/4" x 20 - 28 x 1 1/8")	2
Used with crankcase front section 47951.				
EABSM	R-1022	2030-H-12	Stud - Crankcase front section to propeller governor drive bracket, .003" oversize (5/16" x 18 - 24 x 1 9/16")	5
Used with crankcase front section 48284.				
EABTF		2030-S-12	Stud - Crankcase front section to propeller governor drive bracket, .007" oversize (5/16" x 18 - 24 x 1 9/16")	5
Used with crankcase front section 48284.				

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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CRANKCASE - Cont'd

FRONT SECTION - Cont'd

EABUC		2030-J-12	Stud - Crankcase front section to propeller governor drive bracket, .012" oversize (5/16" x 18 - 24 x 1 9/16") Used with crankcase front section 48284.	5
EABVS	R-1024	2023-D-1	Plug - Oil pressure line to hydro-control indicator, pipe (1/8", hex. socket) Used with crankcase front section 47951.	1
EABWN	R-1026	122-D-7	Plug - Oil pressure line to hydro-controllable propeller operating valve, pipe (1/8", headless) Used with crankcase front section 47951.	1
EABXD	R-1027	2105-D-1	Plug - Pressure gage hole, pipe (1/8") Used with crankcase front section 48284.	2
EABYK	R-1030	28492	Spacer - Crankcase front section to main section stud Used on long studs for rear exhaust engines.	5
EABZR	R-1031	2-D-4	Nut - Crankcase front section to main section, plain (5/16" x 24) Used on long studs for rear exhaust engines.	5
EACAH	R-1032	1-D-40	Nut - Crankcase front section to main section, slotted (5/16" x 24) Quantities used: Rear exhaust engines - 23, front exhaust engines.	28
EACBT		27-D-118	Washer - Crankcase front section to main section (21/64" x 19/32" x 5/64") Quantities used: Rear exhaust engines - 23, front exhaust engines.	28
EACCA	R-1034	47170	Cover - Crankcase front section, with sleeve. Sleeve is not supplied separately.	1
EACDL	R-1036	62535	Shim - Crankcase front section cover.	1
EACEP	R-1037	2-D-7	Nut - Crankcase front section cover to front section (3/8" x 24).	7
EACFZ		34-D-14	Washer - Crankcase front section cover to front section (25/64" x 11/16" x 5/64").	7
EACGM		2000-D-3	Lock - Crankcase front section cover to front section, palnut (3/8" x 24).	7
EACHE	R-1039	2072-D-2	Plug - Crankcase front section breather hole (1 3/8" x 12).	1
EACTV	R-1040	23-D-40	Gasket - Crankcase front section breather hole plug	1

HYDRO-CONTROLLABLE PITCH PROPELLER OPERATING PARTS (TWO POSITION) (EARLY TYPE)

Parts listed in this group are used for engines equipped with crankcase front section not having provision for mounting a propeller governor and were installed on the following engines:

13278	14543 - 14545	15341 - 15389
13281 - 13282	14547 - 14552	15395 - 15397
13287 - 13290	14641 - 14646	15457 - 15493
13293	15303 - 15325	15497 - 15500
13295 - 13302	15331 - 15335	

EAFAW		28727	Valve - Hydro-controllable pitch propeller operating. (Early type) Used for the following engines: 13278 13300 14641 - 14645 13281 - 13282 14543 - 14545 15331 - 15332 13293 14547 - 14551 Viewing valve from stem end and with the 11/32" diameter oil passage hole farthest from stem end facing downward, the lever clamp screw slot is located on the right side of the stem below the horizontal centerline.	1
EAFCI	R-1060	64505	Valve - Hydro-controllable pitch propeller operating. (Late type) Used for the following engines: 13287 - 13290 14646 15395 - 15397 13295 - 13299 15303 - 15325 15457 - 15493 13301 - 13302 15333 - 15335 15497 - 15500 14552 15341 - 15389 Viewing valve from stem end and with the 11/32" diameter oil passage hole farthest from stem end facing downward, the lever clamp screw slot is located on the left side of the stem above the horizontal centerline.	1
EAFEJ		28728	Cover - Hydro-controllable pitch propeller operating valve. (Early type) Used for same engines as those listed under valve 28727 above. With cover assembled on engine, the lever lock lugs on the cover are located on the left side when viewing cover from the propeller end of the engine.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
HYDRO-CONTROLLABLE PITCH PROPELLER OPERATING PARTS (TWO POSITION) (EARLY TYPE) - Cont'd				
EAFGO	R-1062	64517	Cover - Hydro-controllable pitch propeller operating valve. (Late type). Used for same engines as those listed under valve 64505 on page 102. With cover assembled on engine, the lever lock lugs on the cover are located on the right side when viewing cover from the propeller end of the engine. Can also be identified by the part number 64517 located on top of cover.	1
EAFIX	R-1063	28803	Gasket - Hydro-controllable pitch propeller operating valve cover.	1
EAFKU	R-1064	1-D-1	Nut - Hydro-controllable pitch propeller operating valve cover (1/4" x 28).	2
EAFMT		27-D-1	Washer - Hydro-controllable pitch propeller operating valve cover (17/64" x 1/2" x 1/32").	2
EAFOC	R-1066	28801	Packing - Hydro-controllable pitch propeller operating valve gland nut.	1
EAFRD	R-1067	28729	Nut - Hydro-controllable pitch propeller operating valve gland.	1
EAFTH		46713	Lever - Hydro-controllable pitch propeller operating valve, with bushing. (Straight type). Used for same engines as those listed under valve 28727 on page 102.	1
EAFVN	R-1069	48327	Lever - Hydro-controllable pitch propeller operating valve, with bushing. (Curved type). Used for same engines as those listed under valve 64505 on page 102.	1
EAFXY	R-1070	2021-D-1	Bushing - Hydro-controllable pitch propeller operating valve lever.	1
EAFZS	R-1072	2068-D-2	Screw - Hydro-controllable pitch propeller operating valve lever (#10 x 32 x 31/32").	1
EAGAF		27-D-30	Washer - Hydro-controllable pitch propeller operating valve lever (13/64" x 5/16" x 1/32").	2
EAGBZ	R-1073	1-D-84	Nut - Hydro-controllable pitch propeller operating valve lever (#10 x 32).	1
HYDRO-CONTROLLABLE PITCH PROPELLER OPERATING PARTS (TWO POSITION) (LATE TYPE)				
Parts listed in this group are used for engines equipped with crankcase front section having provision for mounting a propeller governor and were installed on the following engines: 15340 15393 - 15394 15501 15390 15494 - 15496				
EAHCA	R-1090	410611	Adapter - Hydro-controllable pitch propeller operating valve, assembly. Includes studs and oil hole plugs.	1
EAHEG	R-1092	2028-H-7	Stud - Hydro-controllable pitch propeller operating valve to valve cover, .003" oversize (1/4" x 20 - 28 x 1 3/16").	2
EAHGL		2028-S-7	Stud - Hydro-controllable pitch propeller operating valve to valve cover, .007" oversize (1/4" x 20 - 28 x 1 3/16").	2
EAHJK		2028-J-7	Stud - Hydro-controllable pitch propeller operating valve to valve cover, .012" oversize (1/4" x 20 - 28 x 1 3/16").	2
EAHLE	R-1093	2105-D-1	Plug - Hydro-controllable pitch propeller operating valve adapter oil hole, pipe (1/8").	2
EAHNI	R-1095	64339	Gasket - Hydro-controllable pitch propeller operating valve adapter.	1
EAHPO	R-1096	90-D-11	Bolt - Hydro-controllable pitch propeller operating valve adapter (5/16" x 24 x 1 13/16").	4
EAHRU		34-D-33	Washer - Hydro-controllable pitch propeller operating valve adapter (21/64" x 5/8" x 1/16").	4
EAHTT	R-1098	67039	Valve - Hydro-controllable pitch propeller operating.	1
EAHVA	R-1099	28728	Cover - Hydro-controllable pitch propeller operating valve.	1
EAHXY	R-1101	28803	Gasket - Hydro-controllable pitch propeller operating valve cover.	1
EAHZT	R-1103	2101-D-3	Nut - Hydro-controllable pitch propeller operating valve cover (1/4" x 28).	2
EAJBE		34-D-51	Washer - Hydro-controllable pitch propeller operating valve cover (17/64" x 1/2" x 3/64").	2
EAJDO	R-1104	28801	Packing - Hydro-controllable pitch propeller operating valve gland nut.	1
EAJFI	R-1106	28729	Nut - Hydro-controllable pitch propeller operating valve gland.	1
EAJHA	R-1107	46714	Lever - Hydro-controllable pitch propeller operating valve, with bushing. (Straight type).	1
EAJJU	R-1108	2021-D-1	Bushing - Hydro-controllable pitch propeller operating valve lever.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
HYDRO-CONTROLLABLE PITCH PROPELLER OPERATING PARTS (TWO POSITION) (LATE TYPE) - Cont'd				
EAJLT	R-1110	2068-D-2	Screw - Hydro-controllable pitch propeller operating valve lever (#10 x 32 x 31/32")	1
EAJNL		27-D-30	Washer - Hydro-controllable pitch propeller operating valve lever (13/64" x 5/16" x 1/32")	2
EAJPY	R-1111	1-D-84	Nut - Hydro-controllable pitch propeller operating valve lever (#10 x 32)	1
MAIN BEARING SUPPORT				
EASAF	R-1130	43369	Support - Crankcase main bearing. Includes support ring and oil deflector.	1
EASCY	R-1133	27796	Plate - Crankcase main bearing support oil deflector.	1
EASEN	R-1134	86-D-11	Screw - Crankcase main bearing support oil deflector plate (#10 x 32 x 5/16").	4
MAIN SECTION				
Crankcase main sections are supplied with the crankshaft rear bearing unfinished reamed unless otherwise specified.				
EATBA		89802	Crankcase - Main section, with standard size bearing. R-760. . . Includes: Valve tappet guides Rear crankshaft bearing All studs	1
EATDE	R-1150	89789	Crankcase - Main section, with standard size bearing. R-975. . . Includes: Valve tappet guides Rear crankshaft bearing All studs	1
EATFI		23222	Guide - Valve tappet (undrilled), standard size Quantities used: R-760 - 6, R-975	8
EATHO		50479	Guide - Valve tappet (undrilled) .003" oversize O.D., standard size on flat Quantities used: R-760 - 6, R-975 Oversize for guide 23222.	8
EATJU		50480	Guide - Valve tappet (undrilled) .010" oversize O.D., .008" oversize on flat Quantities used: R-760 - 6, R-975 Oversize for guide 23222.	8
EATLY	R-1155	66044	Guide - Valve tappet (drilled), standard size Quantities used: R-760 - 8, R-975	10
EATNV		51125	Guide - Valve tappet (drilled) .010" oversize O.D., .008" oversize on flat Quantities used: R-760 - 8, R-975 Oversize for guide 66044.	10
EATPT	R-1157	25088	Bearing - Crankshaft rear, standard size.	1
EATSN		50510	Bearing - Crankshaft rear, .010" undersize I.D., standard O.D.	1
EATUR		50657	Bearing - Crankshaft rear, standard size I.D., .004" oversize O.D.	1
EATWM		50622	Bearing - Crankshaft rear, .010" undersize I.D., .004" oversize O.D.	1
EATYL		50658	Bearing - Crankshaft rear, standard size I.D., .010" oversize O.D.	1
EAVAD		50488	Bearing - Crankshaft rear, .010" undersize I.D., .010" oversize O.D.	1
EAVCA	R-1159	7-D-20	Key - Crankshaft rear bearing (3/16" x 5/16" x 47/64").	1
EAVET	R-1161	2030-H-7	Stud - Crankcase main section oil drain substituting cover, .003" oversize (5/16" x 18 - 24 x 1 1/4")	2
EAVGE		2030-S-7	Stud - Crankcase main section oil drain substituting cover, .007" oversize (5/16" x 18 - 24 x 1 1/4")	2
EAVID		2030-J-7	Stud - Crankcase main section oil drain substituting cover, .012" oversize (5/16" x 18 - 24 x 1 1/4")	2
EAVKO	R-1163	2030-H-24	Stud - Crankcase main section to front section, long, .003" oversize (5/16" x 18 - 24 x 2 5/16")	5
EAVMI		2030-S-24	Stud - Crankcase main section to front section, long, .007" oversize (5/16" x 18 - 24 x 2 5/16")	5
EAVOF		2030-J-24	Stud - Crankcase main section to front section, long, .012" oversize (5/16" x 18 - 24 x 2 5/16")	5
EAVSY	R-1165	2030-H-16	Stud - Crankcase main section to front section, short, .003" oversize (5/16" x 18 x 24 x 1 13/16")	23
EAVUL		2030-S-16	Stud - Crankcase main section to front section, short, .007" oversize (5/16" x 18 - 24 x 1 13/16").	23

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
MAIN SECTION - Cont'd				
EAVWM		2030-J-16	Stud - Crankcase main section to front section, short, .012" oversize (5/16" x 18 - 24 x 1 13/16")	23
EAVYD	R-1167	126-H-140	Stud - Cylinder hold-down, long, .003" oversize (3/8" x 24 - 7/16" x 14 x 2 3/4") Quantities used: R-760 - 14, R-975.	18
EAWBY		126-S-140	Stud - Cylinder hold-down, long, .007" oversize (3/8" x 24 - 7/16" x 14 x 2 3/4") Quantities used: R-760 - 14, R-975.	18
EAWDP		126-J-140	Stud - Cylinder hold-down, long, .012" oversize (3/8" x 24 - 7/16" x 14 x 2 3/4") Quantities used: R-760 - 14, R-975.	18
EAWFJ	R-1169	126-H-139	Stud - Cylinder hold-down, short, .003" oversize (3/8" x 24 - 7/16" x 14 x 2") Quantities used: R-760 - 42, R-975.	54
EAWHX		126-S-139	Stud - Cylinder hold-down, short, .007" oversize (3/8" x 24 - 7/16" x 14 x 2") Quantities used: R-760 - 42, R-975.	54
EAWJF		126-J-139	Stud - Cylinder hold-down, short, .012" oversize (3/8" x 24 - 7/16" x 14 x 2") Quantities used: R-760 - 42, R-975.	54
EAWLB	R-1171	2023-D-1	Plug - Crankcase main section oil line, pipe (1/8")	1
EAWNC	R-1172	2105-D-2	Plug - Crankcase main section oil sump drain tube nipple substituting, pipe (1/4"). R-975 Used on late rear exhaust engines.	1
EAWPH	R-1174	2-D-4	Nut - Crankcase main section to rear section, plain hex. (5/16" x 24). For nut used at oil sump narrow core hole section, see 124-D-79 listed below.	18
EAWRG	R-1176	124-D-79	Nut - Crankcase main section to rear section, drilled (5/16" x 24). Used at oil sump narrow core hole section.	2
EAWTP		27-D-118	Washer - Crankcase main section to rear section (21/64" x 19/32" x 5/64")	20
EAWVR		2000-D-2	Lock - Crankcase main section to rear section, palnut (5/16" x 24). Used with plain nut 2-D-4.	18
EAWYV	R-1178	93-D-21	Plug - Lifting eye hole substituting (3/4" x 10). Crankcase main sections having a 5/16" diameter hole in the left lifting eye hole use only one of this plug and one of 66740 listed below.	2
EAYAJ	R-1179	66740	Plug - Crankcase main section vent. Used for the following engines: 13288 - 13289 14552 15454 - 15501 13299 14641 - 14649 14545 - 14550 15331 - 15402 This plug is installed in left lifting eye hole and has provision for an oil separator return tube connection. It is used only with crankcase main sections having a 5/16" diameter hole in the left lifting eye hole.	1
EAYCS	R-1180	23-D-39	Gasket - Lifting eye hole substituting plug and crankcase main section vent plug. Used with plugs 93-D-21 and 66740.	2
EAYEW	R-1181	36-D-7	Plug - Crankcase main section vent plug substituting (1/4" x 18). Used with plug 66740.	1
EAYGB	R-1183	66310	Cover - Crankcase main section oil drain. This cover has a tapped hole for a drain connection and is the only type supplied. For replacement of earlier cover, part 21777, not having a tapped hole, it will be necessary to order additionally, plug 99-D-11.	1
EAYIX	R-1184	99-D-11	Plug - Crankcase main section oil drain cover, pipe (1/8"). Used with cover 66310.	1
EAYKP	R-1185	129-D-32	Gasket - Crankcase main section oil drain cover	1
EAYMS	R-1187	1-D-40	Nut - Crankcase main section oil drain cover (5/16" x 24)	2
EAYOW		27-D-118	Washer - Crankcase main section oil drain cover (21/64" x 19/32" x 5/64")	2
CRANKCASE MAIN SECTION OIL STRAINER				
EAZBA	R-1189	411506	Screen - Crankcase main section oil strainer.	1
EAZDR	R-1190	21482	Spring - Crankcase main section oil strainer.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
CRANKCASE MAIN SECTION OIL STRAINER - Cont'd				
EAZFE	R-1192	21486	Cover - Crankcase main section oil strainer	1
EAZHN	R-1193	23-D-20	Gasket - Crankcase main section oil strainer cover.	1
CRANKCASE MAIN SECTION OIL SUMP DRAIN TUBE (FOR FRONT EXHAUST ENGINES EQUIPPED WITH NOSE COWL HAVING INTEGRAL AIR SCOOP) R-760				
EBAAC		89797	Tube - Crankcase main section oil sump drain, assembly, complete. Includes all parts required to install oil sump drain tube on front exhaust engines having the outlet end of tail pipe located between cylinders Nos. 5 and 6.	1
EBACH		89715	Tube - Crankcase main section oil sump drain, assembly, complete. Includes all parts required to install oil sump drain tube on front exhaust engines having the outlet end of tail pipe at any location other than between cylinders Nos. 5 and 6.	1
EBAEJ		411477	Tube - Crankcase main section oil sump drain, assembly. Used for front exhaust engines having the outlet end of tail pipe located between cylinders Nos. 5 and 6. Includes clamp and coupling neither of which is supplied separately.	1
EBACK	R-1195	410635	Tube - Crankcase main section oil sump drain, assembly. Used for front exhaust engines having the outlet end of tail pipe at any location other than between cylinders Nos. 5 and 6. Includes clamp and coupling neither of which is supplied separately.	1
EBAIV	R-1197	6-D-17	Bolt - Crankcase main section oil sump drain tube clamp to nose cowl bracket (1/4" x 28 x 9/16")	1
EBAKZ		34-D-99	Washer - Crankcase main section oil sump drain tube clamp to nose cowl bracket screw (17/64" x 3/8" x 1/32")	1
EBAMB	R-1198	1-D-1	Nut - Crankcase main section oil sump drain tube clamp to nose cowl bracket screw (1/4" x 28)	1
EBANC	R-1200	67011	Clip - Crankcase main section oil sump drain tube	1
EBAPZ	R-1201	93-D-5	Plug - Crankcase main section oil sump drain tube drain (7/16" x 20)	1
EBARG	R-1202	23-D-26	Gasket - Crankcase main section oil sump drain tube drain plug. .	1
EBATH	R-1204	2058-D-38	Hose - Crankcase main section oil sump drain tube	1
EBAVK	R-1205	250-D-1	Clamp - Crankcase main section oil sump drain tube hose	2
EBAXM	R-1207	67007	Bracket - Crankcase main section oil sump drain tube. Attached to nose cowl. Also listed with "Nose Cowl" on page 1202.	1
EBAZP		27-D-80	Washer - Crankcase main section oil sump drain tube bracket to nose cowl (13/64" x 7/16" x 1/32") Also listed with "Nose Cowl" on page 1202.	2
EBBAJ	R-1208	119-D-5	Rivet - Crankcase main section oil sump drain tube bracket to nose cowl (3/16" x 9/16"). Also listed with "Nose Cowl" on page 1203.	2
EBBCU	R-1210	67068	Connection - Oil scavenge strainer drain.	1
EBBER	R-1211	23-D-18	Gasket - Oil scavenge strainer drain connection Installed between connection and cover.	1
EBBGO	R-1213	67067	Cover - Oil scavenge strainer	1
EBBIS	R-1214	67069	Screw - Oil scavenge strainer drain connection to cover	1
EBBKX	R-1215	23-D-18	Gasket - Oil scavenge strainer drain connection screw Installed under head of screw.	1
CRANKCASE MAIN SECTION OIL SUMP DRAIN TUBE (FOR FRONT EXHAUST ENGINES EQUIPPED WITH NOSE COWL HAVING INTEGRAL AIR SCOOP) R-975				
EBCAV		89795	Tube - Crankcase main section oil sump drain, assembly, complete. Includes all parts required to install oil sump drain tube on front exhaust engines having the outlet end of tail pipe located in line with cylinder No. 5.	1
EBCEW		89714	Tube - Crankcase main section oil sump drain, assembly, complete. Includes all parts required to install oil sump drain tube on front exhaust engines having the outlet end of tail pipe at any location other than in line with cylinder No. 5.	1
EBCFI		411161	Tube - Crankcase main section oil sump drain, assembly. Used for front exhaust engines having the outlet end of tail pipe located in line with cylinder No. 5. Includes clamp and coupling neither of which is supplied separately.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
CRANKCASE MAIN SECTION OIL SUMP DRAIN TUBE (FOR FRONT EXHAUST ENGINES EQUIPPED WITH NOSE COWL HAVING INTEGRAL AIR SCOOP) R-975 - Cont'd				
EBCHO	R-1230	410591	Tube - Crankcase main section oil sump drain, assembly Used for front exhaust engines having the outlet end of tail pipe at any location other than in line with cylinder No. 5. Includes clamp and coupling neither of which is supplied separately.	1
EBCJU	R-1232	6-D-17	Bolt - Crankcase main section oil sump drain tube clamp to nose cowl bracket (1/4" x 28 x 9/16")	1
EBCLY		34-D-99	Washer - Crankcase main section oil sump drain tube clamp to nose cowl bracket screw (17/64" x 3/8" x 1/32")	1
EBCNZ	R-1233	1-D-1	Nut - Crankcase main section oil sump drain tube clamp to nose cowl bracket screw (1/4" x 28)	1
EBCPD	R-1234	67011	Clip - Crankcase main section oil sump drain tube	1
EBCRG	R-1236	93-D-5	Plug - Crankcase main section oil sump drain tube drain (7/16" x 20)	1
EBCTF	R-1237	23-D-26	Gasket - Crankcase main section oil sump drain tube drain plug.	1
EBCVB	R-1239	2058-D-38	Hose - Crankcase main section oil sump drain tube	1
EBCXU	R-1240	250-D-1	Clamp - Crankcase main section oil sump drain tube hose	2
EBCZA	R-1242	176-D-10	Nipple - Crankcase main section oil sump drain tube to crankcase main section	1
EBDAC	R-1243	67007	Bracket - Crankcase main section oil sump drain tube. Attached to nose cowl. Also listed with "Nose Cowl" on page 1202.	1
EBDCE		27-D-80	Washer - Crankcase main section oil sump drain tube bracket to nose cowl (13/64" x 7/16" x 1/32") Also listed with "Nose Cowl" on page 1202.	2
EBDEH	R-1245	119-D-5	Rivet - Crankcase main section oil sump drain tube bracket to nose cowl (3/16" x 9/16") Also listed with "Nose Cowl" on page 1203.	2
DIFFUSER SECTION				
EBEBJ		89431	Diffuser Section. R-760. Includes: Starter drive gear bushing Accessory drive shaft long bushings All studs	1
EBEDK	R-1260	89281	Diffuser Section. R-975. Originally, the large spacer stud boss on this section was 1 25/32" in height. This height has been decreased 1/32" and the diffuser sections as now supplied have this boss 1 3/4" in height. When diffuser section with 1 25/32" boss is used with crankcase rear section having the stud for this boss projecting 2 15/64", washer 27-D-3 (1/16" thick) is used under the stud nut. If this diffuser section is used with crankcase rear section having a stud projection of 2 11/64", washer 27-D-1 (1/32" thick) is used under the nut. When diffuser section with 1 3/4" boss is used with crankcase rear section having the stud for this boss projecting 2 11/64", washer 27-D-1 (1/32" thick) is used under the nut in addition to the 1/16" thick washer originally used. If this diffuser section is used with crankcase rear section having a stud projection of 2 11/64", washer 27-D-1 (1/32" thick) only is used. Includes: Idler accessory drive gear bushings Accessory drive shaft long bushings Starter drive gear bushing Accessory drive idler gear retainer All studs	1
EBEFM	R-1263	21961	Bushing - Starter drive gear, standard size	1
EBEGN		51130	Bushing - Starter drive gear, .005" undersize I.D.	1
EBEIP	R-1264	13-D-42	Pin - Starter drive gear bushing (1/8" x 5/16")	1
EBEKR	R-1265	21953	Bushing - Accessory drive shaft, long, standard size.	2
EBEMS		50595	Bushing - Accessory drive shaft, long, .005" undersize I.D.	2
EBEOV	R-1266	13-D-6	Pin - Accessory drive shaft long bushing (1/8" x 1/4")	2
EBEFX	R-1268	27586	Bushing - Idler accessory drive gear. R-975.	2
EBERZ	R-1269	27584	Retainer - Idler accessory drive gear. R-975	2
EBETB	R-1270	29-D-12	Pin - Impeller drive gear shaft support locating (1/4" x 1/2")	2
EBEVC	R-1272	2030-H-11	Stud - Impeller drive gear shaft support, .003" oversize (5/16" x 18 - 24 x 1 1/2")	4
EBEXD		2030-S-11	Stud - Impeller drive gear shaft support, .007" oversize (5/16" x 18 - 24 x 1 1/2")	4

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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CRANKCASE - Cont'd

DIFFUSER SECTION - Cont'd

EBEZF		2030-J-11	Stud - Impeller drive gear shaft support, .012" oversize (5/16" x 18 - 24 x 1 1/2")	4
EBFAG	R-1273	27453	Tube - Diffuser section oil	1
EBFCN	R-1274	27454	Seal - Diffuser section oil (cork)	1
EBFEH		24734	Plug - Diffuser section oil line (lead) Quantities used: R-760 - 2, R-975	4
			Used at accessory drive shaft section.	
EBFGI		2034-D-1	Screw - Diffuser section oil line (headless) (5/16" x 18) Quantities used: R-760 - 2, R-975	4
			Used at accessory drive shaft section.	
EBFIJ		20-D-25	Plug - Diffuser section oil line (13/64" x 3/16")	1
			Used at starter shaft section.	
EBFKM	R-1277	28193	Spacer - Diffuser section, small.	2
EBFMO	R-1278	22063	Spacer - Diffuser section, large.	1
EBFOP	R-1279	54-D-3	Screw - Diffuser section spacer (#6 x 32 x 7/16")	3
EBFPR	R-1281	1-D-1	Nut - Diffuser section to rear section (1/4" x 28)	3
EBFSV		27-D-3	Washer - Diffuser section to rear section, thick (17/64" x 1/2" x 1/16") Quantities used: R-760 - 3, R-975 early engines - 3, R-975 late engines	2
			Read note under diffuser section 89281.	
EBFUS		27-D-1	Washer - Diffuser section to rear section, thin (17/64" x 1/2" x 1/32") R-975	1
			Used on late R-975 engines. Read note under diffuser section 89281.	

REAR SECTION

EBHAK		47414	Crankcase - Rear section. R-760.	1
			Includes: Starter shaft bushing Generator idler gear shaft bushing Accessory drive shaft short bushings Diffuser section large spacer All studs	
EBHCU	R-1300	410562	Crankcase - Rear section. R-975.	1
			Used for the following engines: 13277 - 13278 15303 - 15328 15454 - 15501 13281 - 13293 15331 - 15340 13295 - 13302 15379 - 15402	
			Originally, this rear section had the long stud for the large diffuser section spacer projecting 2 15/64". This stud projection has been decreased 1/16" and rear sections as now supplied have this stud projecting 2 11/64".	
			When rear section with 2 15/64" stud projection is used with diffuser section having the boss for this stud 1 25/32" in height, washer 27-D-3 (1/16" thick) only is used under the stud nut. If this rear section is used with diffuser section having a boss height of 1 3/4", washer 27-D-1 (1/32" thick) is used under the nut in addition to the 1/16" thick washer originally used.	
			When rear section with 2 11/64" stud projection is used with diffuser section having the boss for this stud 1 25/32" in height, washer 27-D-1 (1/32" thick) only is used under the nut. If this rear section is used with diffuser section having a boss height of 1 3/4", washer 27-D-1 (1/32" thick) only is used under the nut.	
			Includes: Starter shaft bushing Generator idler gear shaft bushing Accessory drive shaft short bushings Diffuser section large spacer All studs	
EBHEW		411021	Crankcase - Rear section. R-975.	1
			Used for the following engines: 15341 - 15378	
			Includes: Starter shaft bushing Generator idler gear shaft bushing Accessory drive shaft short bushings Diffuser section large spacer All studs	
EBHGZ	R-1304	21959	Bushing - Starter shaft	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
REAR SECTION - Cont'd				
EBHHL	R-1305	13-D-42	Pin - Starter shaft bushing (1/8" x 5/16")	1
EBHJB	R-1307	23481	Bushing - Generator idler gear shaft	1
EBHLD	R-1308	21954	Bushing - Accessory drive shaft, short, standard size	2
EBHNF		21954-Y15	Bushing - Accessory drive shaft, short, .005" undersize I.D.	2
EBHPG	R-1309	13-D-39	Pin - Accessory drive shaft short bushing (1/8" x 3/8")	2
EBHRK	R-1311	2032-H-6	Stud - Crankcase rear section starter drive cover, .003" oversize (3/8" x 16 - 24 x 1 7/16")	6
EBHTN		2032-S-6	Stud - Crankcase rear section starter drive cover, .007" oversize (3/8" x 16 - 24 x 1 7/16")	6
EBHVM		2032-J-6	Stud - Crankcase rear section starter drive cover, .012" oversize (3/8" x 16 - 24 x 1 7/16")	6
EBHXY	R-1313	2030-H-12	Stud - Crankcase rear section generator drive cover, .003" oversize (5/16" x 18 - 24 x 1 9/16")	4
			Used with all crankcase rear sections except 411021.	
EBHZH		2030-S-12	Stud - Crankcase rear section generator drive cover, .007" oversize (5/16" x 18 - 24 x 1 9/16")	4
			Used with all crankcase rear sections except 411021.	
EBIBK		2030-J-12	Stud - Crankcase rear section generator drive cover, .012" oversize (5/16" x 18 - 24 x 1 9/16")	4
			Used with all crankcase rear sections except 411021.	
EBIDZ		2030-H-60	Stud - Crankcase rear section generator drive cover, .003" oversize (5/16" x 18 - 24 x 1 23/32")	4
			Used with crankcase rear section 411021.	
EBIFP		2030-S-60	Stud - Crankcase rear section generator drive cover, .007" oversize (5/16" x 18 - 24 x 1 23/32")	4
			Used with crankcase rear section 411021.	
EBIHC		2030-J-60	Stud - Crankcase rear section generator drive cover, .012" oversize (5/16" x 18 - 24 x 1 23/32")	4
			Used with crankcase rear section 411021.	
EBIJR		118-H-9	Stud - Crankcase rear section generator idler gear shaft, .003" oversize (1/4" x 20 - 28 x 1 1/8")	2
			Used with crankcase rear section 47414.	
EBILT		118-S-9	Stud - Crankcase rear section generator idler gear shaft, .007" oversize (1/4" x 20 - 28 x 1 1/8")	2
			Used with crankcase rear section 47414.	
EBINS		118-J-9	Stud - Crankcase rear section generator idler gear shaft, .012" oversize (1/4" x 20 - 28 x 1 1/8")	2
			Used with crankcase rear section 47414.	
EBIPV	R-1315	2028-H-5	Stud - Crankcase rear section generator idler gear shaft, .003" oversize (1/4" x 20 - 28 x 1 1/16")	2
			Used with all crankcase rear sections except 47414.	
EBIRX		2028-S-5	Stud - Crankcase rear section generator idler gear shaft, .007" oversize (1/4" x 20 - 28 x 1 1/16")	2
			Used with all crankcase rear sections except 47414.	
EBITA		2028-J-5	Stud - Crankcase rear section generator idler gear shaft, .012" oversize (1/4" x 20 - 28 x 1 1/16")	2
			Used with all crankcase rear sections except 47414.	
EBIVJ		118-H-4	Stud - Crankcase rear section gun synchronizer cover, .003" oversize (1/4" x 20 - 28 x 1 3/16")	6
			Used with crankcase rear section 47414.	
EBIXX		118-S-4	Stud - Crankcase rear section gun synchronizer cover, .007" oversize (1/4" x 20 - 28 x 1 3/16")	6
			Used with crankcase rear section 47414.	
EBIZB		118-J-4	Stud - Crankcase rear section gun synchronizer cover, .012" oversize (1/4" x 20 - 28 x 1 3/16")	6
			Used with crankcase rear section 47414.	
EBJAC	R-1317	2028-H-6	Stud - Crankcase rear section gun synchronizer cover, .003" oversize (1/4" x 20 - 28 x 1 1/8")	6
			Used with all crankcase rear sections except 47414.	
EBJCO		2028-S-6	Stud - Crankcase rear section gun synchronizer cover, .007" oversize (1/4" x 20 - 28 x 1 1/8")	6
			Used with all crankcase rear sections except 47414.	

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
REAR SECTION - Cont'd				
EBJED		2028-J-6	Stud - Crankcase rear section gun synchronizer cover, .012" oversize (1/4" x 20 - 28 x 1 1/8") Used with all crankcase rear sections except 47414.	6
EBJFG		2030-H-11	Stud - Crankcase rear section carburetor elbow, short, .003" oversize (5/16" x 18 - 24 x 1 1/2") Used with crankcase rear section 47414.	2
EBJHF		2030-S-11	Stud - Crankcase rear section carburetor elbow, short, .007" oversize (5/16" x 18 - 24 x 1 1/2") Used with crankcase rear section 47414.	2
EBJJE		2030-J-11	Stud - Crankcase rear section carburetor elbow, short, .012" oversize (5/16" x 18 - 24 x 1 1/2") Used with crankcase rear section 47414.	2
EBJLS	R-1319	2030-H-10	Stud - Crankcase rear section carburetor elbow, short, .003" oversize (5/16" x 18 - 24 x 1 7/16") Used with all crankcase rear sections except 47414.	2
EBJNT		2030-S-10	Stud - Crankcase rear section carburetor elbow, short, .007" oversize (5/16" x 18 - 24 x 1 7/16") Used with all crankcase rear sections except 47414.	2
EBJPI		2030-J-10	Stud - Crankcase rear section carburetor elbow, short, .012" oversize (5/16" x 18 - 24 x 1 7/16") Used with all crankcase rear sections except 47414.	2
EBJRL		2030-H-19	Stud - Crankcase rear section carburetor elbow, long, .003" oversize (5/16" x 18 - 24 x 2") Used with crankcase rear section 47414.	2
EBJTB		2030-S-19	Stud - Crankcase rear section carburetor elbow, long, .007" oversize (5/16" x 18 - 24 x 2") Used with crankcase rear section 47414.	2
EBJVN		2030-J-19	Stud - Crankcase rear section carburetor elbow, long, .012" oversize (5/16" x 18 - 24 x 2") Used with crankcase rear section 47414.	2
EBJXY	R-1321	2030-H-17	Stud - Crankcase rear section carburetor elbow, long, .003" oversize (5/16" x 18 - 24 x 1 7/8") Used with all crankcase rear sections except 47414.	2
EBJZM		2030-S-17	Stud - Crankcase rear section carburetor elbow, long, .007" oversize (5/16" x 18 - 24 x 1 7/8") Used with all crankcase rear sections except 47414.	2
EBKBH		2030-J-17	Stud - Crankcase rear section carburetor elbow, long, .012" oversize (5/16" x 18 - 24 x 1 7/8") Used with all crankcase rear sections except 47414.	2
EBKDR		2029-H-22	Stud - Crankcase rear section to main section, .003" oversize (5/16" x 18 - 24 x 1 3/4") Used with crankcase rear section 47414.	20
EBKFP		2029-S-22	Stud - Crankcase rear section to main section, .007" oversize (5/16" x 18 - 24 x 1 3/4") Used with crankcase rear section 47414.	20
EBKHK		2029-J-22	Stud - Crankcase rear section to main section, .012" oversize (5/16" x 18 - 24 x 1 3/4") Used with crankcase rear section 47414.	20
EBKJV	R-1323	2030-H-14	Stud - Crankcase rear section to main section, .003" oversize (5/16" x 18 - 24 x 1 11/16") Used with all crankcase rear sections except 47414.	20
EBKLJ		2030-S-14	Stud - Crankcase rear section to main section, .007" oversize (5/16" x 18 - 24 x 1 11/16") Used with all crankcase rear sections except 47414.	20
EBKNX		2030-J-14	Stud - Crankcase rear section to main section, .012" oversize (5/16" x 18 - 24 x 1 11/16") Used with all crankcase rear sections except 47414.	20
EBKPW	R-1325	2030-H-10	Stud - Crankcase rear section magneto, upper, .003" oversize (5/16" x 18 - 24 x 1 7/16")	4

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Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
REAR SECTION - Cont'd				
EBKRA		2030-S-10	Stud - Crankcase rear section magneto, upper, .007" oversize (5/16" x 18 - 24 x 1 7/16")	4
EBKTL		2030-J-10	Stud - Crankcase rear section magneto, upper, .012" oversize (5/16" x 18 - 24 x 1 7/16")	4
EBKVT	R-1326	2030-H-9	Stud - Crankcase rear section magneto, lower, .003" oversize (5/16" x 18 - 24 x 1 3/8")	2
EBKXE		2030-S-9	Stud - Crankcase rear section magneto, lower, .007" oversize (5/16" x 18 - 24 x 1 3/8")	2
EBKZI		2030-J-9	Stud - Crankcase rear section magneto, lower, .012" oversize (5/16" x 18 - 24 x 1 3/8")	2
EBLAB	R-1327	2028-H-8	Stud - Crankcase rear section tachometer and fuel pump driven shaft adapter cover, .003" oversize (1/4" x 20 - 28 x 1 1/4")	3
EBLCO		2028-S-8	Stud - Crankcase rear section tachometer and fuel pump driven shaft adapter cover, .007" oversize (1/4" x 20 - 28 x 1 1/4")	3
EBLED		2028-J-8	Stud - Crankcase rear section tachometer and fuel pump driven shaft adapter cover, .012" oversize (1/4" x 20 - 28 x 1 1/4")	3
EBLGU	R-1328	2028-H-6	Stud - Crankcase rear section tachometer drive housing, short, .003" oversize (1/4" x 20 - 28 x 1 1/8") Used with all crankcase rear sections except 411021.	2
EBLIC		2028-S-6	Stud - Crankcase rear section tachometer drive housing, short, .007" oversize (1/4" x 20 - 28 x 1 1/8") Used with all crankcase rear sections except 411021.	2
EBLKY		2028-J-6	Stud - Crankcase rear section tachometer drive housing, short, .012" oversize (1/4" x 20 - 28 x 1 1/8") Used with all crankcase rear sections except 411021.	2
EBLMS	R-1329	2028-H-19	Stud - Crankcase rear section tachometer drive housing, long, .003" oversize (1/4" x 20 - 28 x 1 15/16") Used with all crankcase rear sections except 411021.	1
EBLOF		2028-S-19	Stud - Crankcase rear section tachometer drive housing, long, .007" oversize (1/4" x 20 - 28 x 1 15/16") Used with all crankcase rear sections except 411021.	1
EBLSM		2028-J-19	Stud - Crankcase rear section tachometer drive housing, long, .012" oversize (1/4" x 20 - 28 x 1 15/16") Used with all crankcase rear sections except 411021.	1
EBLUG		2028-H-33	Stud - Crankcase rear section tachometer drive housing, .003" oversize (1/4" x 20 - 28 x 2 13/16") Used with crankcase rear section 411021.	3
EBLWN		2028-S-33	Stud - Crankcase rear section tachometer drive housing, .007" oversize (1/4" x 20 - 28 x 2 13/16") Used with crankcase rear section 411021.	3
EBLYK		2028-J-33	Stud - Crankcase rear section tachometer drive housing, .012" oversize (1/4" x 20 - 28 x 2 13/16") Used with crankcase rear section 411021.	3
EBMBA	R-1331	2028-H-8	Stud - Crankcase rear section oil pump, .003" oversize (1/4" x 20 - 28 x 1 1/4")	8
EBMDV		2028-S-8	Stud - Crankcase rear section oil pump, .007" oversize (1/4" x 20 - 28 x 1 1/4")	8
EBMFE		2028-J-8	Stud - Crankcase rear section oil pump, .012" oversize (1/4" x 20 - 28 x 1 1/4")	8
EBMHI		2028-H-25	Stud - Crankcase rear section diffuser plate, .003" oversize (1/4" x 20 - 28 x 2 5/16") R-760	3
EBMJP		2028-S-25	Stud - Crankcase rear section diffuser plate, .007" oversize (1/4" x 20 - 28 x 2 5/16") R-760	3
EBMLR		2028-J-25	Stud - Crankcase rear section diffuser plate, .012" oversize (1/4" x 20 - 28 x 2 5/16") R-760	3
EBMNZ	R-1332	2028-H-33	Stud - Crankcase rear section diffuser plate, long, .003" oversize (1/4" x 20 - 28 x 2 13/16") R-975	1
EBMPO		2028-S-33	Stud - Crankcase rear section diffuser plate, long, .007" oversize (1/4" x 20 - 28 x 2 13/16") R-975	1
EBMRX		2028-J-33	Stud - Crankcase rear section diffuser plate, long, .012" oversize (1/4" x 20 - 28 x 2 13/16") R-975	1
EBMTU	R-1333	2028-H-25	Stud - Crankcase rear section diffuser plate, short, .003" oversize (1/4" x 20 - 28 x 2 5/16") R-975	2
EBMVY		2028-S-25	Stud - Crankcase rear section diffuser plate, short, .007" oversize (1/4" x 20 - 28 x 2 5/16") R-975	2

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
REAR SECTION - Cont'd				
EBMXA		2028-J-25	Stud - Crankcase rear section diffuser plate, short, .012" oversize (1/4" x 20 - 28 x 2 5/16") R-975.	2
EBMZN		2029-H-18	Stud - Crankcase rear section three-way accessory drive housing, long, .003" oversize (5/16" x 18 - 24 x 2") Used with crankcase rear section 47414.	1
EBNAX		2029-S-18	Stud - Crankcase rear section three-way accessory drive housing, long, .007" oversize (5/16" x 18 - 24 x 2") Used with crankcase rear section 47414.	1
EBNCE		2029-J-18	Stud - Crankcase rear section three-way accessory drive housing, long, .012" oversize (5/16" x 18 - 24 x 2") Used with crankcase rear section 47414.	1
EBNEZ	R-1334	2030-H-17	Stud - Crankcase rear section three-way accessory drive housing, long, .003" oversize (5/16" x 18 - 24 x 1 7/8") Used with crankcase rear sections 410562 and 411021.	1
EBNGU		2030-S-17	Stud - Crankcase rear section three-way accessory drive housing, long, .007" oversize (5/16" x 18 - 24 x 1 7/8") Used with crankcase rear sections 410562 and 411021.	1
EBNIB		2030-J-17	Stud - Crankcase rear section three-way accessory drive housing, long, .012" oversize (5/16" x 18 - 24 x 1 7/8") Used with crankcase rear sections 410562 and 411021.	1
EBNKI	R-1335	2030-H-11	Stud - Crankcase rear section fuel pump mounting flange or three-way accessory drive housing, short, .003" oversize (5/16" x 18 - 24 x 1 1/2")	4
EBNMO		2030-S-11	Stud - Crankcase rear section fuel pump mounting flange or three-way accessory drive housing, short, .007" oversize (5/16" x 18 - 24 x 1 1/2")	4
EBNOC		2030-J-11	Stud - Crankcase rear section fuel pump mounting flange or three-way accessory drive housing, short, .012" oversize (5/16" x 18 - 24 x 1 1/2")	4
EBNRD		2097-D-1	Spacer - Three-way accessory drive housing long stud substituting Used on long stud when engine is not equipped with three-way accessory drive.	1
EBNSY		27-D-118	Washer - Three-way accessory drive housing long stud substituting spacer (21/64" x 19/32" x 5/64") Also used for attaching three-way accessory drive housing to long stud in crankcase rear section.	1
EBNUF		1-D-40	Nut - Three-way accessory drive housing long stud substituting spacer (5/16" x 24) Also used for attaching three-way accessory drive housing to long stud in crankcase rear section.	1
EBNMG		20-D-9	Pin - Crankcase rear section generator drive gear support locating (3/16" x 3/8")	1
EBNYH		2023-D-1	Plug - Crankcase rear section, hex. socket pipe (1/8") Used at magneto drive housing section.	3
EBOBJ		2023-D-4	Plug - Crankcase rear section, hex. socket pipe (3/8") Three used at top of starter drive housing section; two used at generator idler shaft section.	5
EBOBK		2023-D-2	Plug - Crankcase rear section, hex. socket pipe (1/2") One used at magneto drive housing section; two used at carburetor elbow section.	3
EBOFL		122-D-1	Plug - Crankcase rear section oil line, headless pipe (1/8") Used at magneto pad section.	2
EBOHM		93-D-18	Plug - Crankcase rear section, hex. head (5/8" x 18) Used at carburetor elbow section.	1
EBOJP		23-D-21	Gasket - Crankcase rear section plug. Used with plug 93-D-18.	1
EBOLR	R-1346	2070-D-1	Screw - Crankcase rear section flange puller (5/16" x 18 x 5/16")	3
EBONS	R-1347	23-D-17	Gasket - Crankcase rear section flange puller screw	3
EBOPT	R-1348	23754	Cover - Gun synchronizer drive, R.H.	1
EBORV	R-1349	23755	Cover - Gun synchronizer drive, L.H.	1
EBOTX	R-1350	23717	Gasket - Gun synchronizer drive cover	2
EBOVZ	R-1351	1-D-1	Nut - Gun synchronizer drive cover, slotted (1/4" x 28) Used for engines not equipped with crankcase rear section 47414.	6

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
REAR SECTION - Cont'd				
EBOXB		2-D-1	Nut - Gun synchronizer drive cover, plain (1/4" x 28) Used for engines equipped with crankcase rear section 47414.	6
EBOZD		27-D-1	Washer - Gun synchronizer drive cover (17/64" x 1/2" x 1/32") . . . Used for engines not equipped with crankcase rear section 47414.	6
EBPAJ		34-D-51	Washer - Gun synchronizer drive cover (17/64" x 1/2" x 3/64") . . . Used for engines equipped with crankcase rear section 47414.	6
EBPCA		2000-D-1	Lock - Gun synchronizer drive cover, palnut (1/4" x 28) Used for engines equipped with crankcase rear section 47414.	6
EBPEW	R-1353	23150	Shaft - Crankcase rear section generator idler gear, dummy. Used when engine is not equipped with generator drive.	1
EBPGE	R-1354	21511	Gasket - Crankcase rear section generator idler gear dummy shaft.	1
EBPIZ	R-1355	1-D-1	Nut - Crankcase rear section generator idler gear dummy shaft, slotted (1/4" x 28). Used for engines not equipped with crankcase rear section 47414.	2
EBPKI		2-D-1	Nut - Crankcase rear section generator idler gear dummy shaft, plain (1/4" x 28). Used for engines equipped with crankcase rear section 47414.	2
EBPMO		27-D-3	Washer - Crankcase rear section generator idler gear dummy shaft (17/64" x 1/2" x 1/16"). Used with slotted nut.	2
EBPOW		34-D-51	Washer - Crankcase rear section generator idler gear dummy shaft (17/64" x 1/2" x 3/64"). Used with plain nut.	2
EBPRC		2000-D-1	Lock - Crankcase rear section generator idler gear dummy shaft (1/4" x 28). Used with plain nut.	2
EBPSH	R-1357	23158	Spacer - Generator drive cover. Used when engine is not equipped with generator drive.	1
EBPUF	R-1358	23079	Gasket - Generator drive cover spacer	1
EBPWG	R-1359	23329	Cover - Generator drive	1
EBPYK	R-1360	20104	Gasket - Generator drive cover.	1
EBRBS	R-1361	1-D-40	Nut - Generator drive cover (5/16" x 24).	4
EBRDM		27-D-118	Washer - Generator drive cover, thick (21/64" x 19/32" x 5/64") . . .	4
EBRFH		27-D-5	Washer - Generator drive cover, thin (21/64" x 9/16" x 1/32") . . . These washers are used in addition to washers 27-D-118 when gen- erator with 1/4" thick mounting flange is used.	8
EBRHN	R-1363	23328	Cover - Starter drive	1
EBRJP	R-1364	411059	Gasket - Starter drive cover, assembly (For 24 hole mounting flange starter). Includes two vellum gaskets, part 14981, shellacked on each side of metal gasket. Metal gasket is not supplied separately. It is recommended that this assembly be installed on engines not so equipped.	1
EBRLT		14981	Gasket - Starter drive cover (vellum) Quantities used: For engines without metal gasket - 1, for engines with metal gasket. Read note under gasket 411059 above. Included in 411059.	2
EBRNV	R-1366	1-D-9	Nut - Starter drive cover (3/8" x 24)	6
EBRPX		34-D-14	Washer - Starter drive cover (25/64" x 11/16" x 5/64").	6
OIL CHECK VALVE				
EBSAJ	R-1370	66069	Body - Oil check valve.	1
EBSCR	R-1372	66067	Plug - Oil check valve.	1
EBSEW	R-1374	65739	Spring - Oil check valve.	1
EBSGZ	R-1375	5-D-38	Valve - Oil check ball.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKCASE - Cont'd				
PROPELLER GOVERNOR OIL TUBES				
Used only when propeller governor is mounted on three-way accessory drive.				
Parts listed in this group were factory installed on the following engines:				
13283 - 13286 15326 - 15328 15454 - 15456				
13291 - 13292 15336				
14647 - 14649 15391 - 15392				
EBTAW	R-1380	49495	Tube - Propeller governor adapter to crankcase rear section oil, assembly. R-760, R-975.	1
Includes cones and connecting nuts.				
EBTCM	R-1382	49496	Tube - Propeller governor adapter to crankcase front section oil, assembly. R-760	1
Includes cones and connecting nuts.				
EBTEZ		49497	Tube - Propeller governor adapter to crankcase front section oil, assembly. R-975	1
Includes cones and connecting nuts.				
EBTGB	R-1383	2098-D-1	Nut - Propeller governor adapter oil tube connecting.	4
EBTIC	R-1384	2098-D-2	Cone - Propeller governor adapter oil tube.	4
EBTKD	R-1385	2098-D-6	Elbow - Crankcase rear section to propeller governor adapter oil tube	1
EBTMF	R-1387	2098-D-5	Elbow - Propeller governor adapter to oil tube.	2
EBTOG	R-1388	2098-D-3	Nipple - Propeller governor adapter to oil tube	1
EBTRN	R-1389	65189	Adapter - Propeller governor oil feed	1
EBTSH	R-1391	65299	Clip - Propeller governor oil tube, long. R-760.	1
EBTUJ		66917	Clip - Propeller governor oil tube, long. R-975.	1
EBTWK	R-1392	66918	Clip - Propeller governor oil tube, short.	1
EBTYL	R-1393	65301	Grommet - Propeller governor oil tube clip.	2

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
OIL PUMP SYSTEM				
OIL PUMP				
EBVBO		47723	Pump - Oil, complete. R-760. Used for the following engines: 14543 - 14544 14548 14646 - 14649 14546 14551 - 14552 Accessory driven at engine speed. Includes oil pump bevel gear and accessory drive gear and shaft.	1
EBVDU		48168	Pump - Oil, complete. R-760. Used for the following engines: 14545 14549 - 14550 14547 14641 - 14646 Includes oil pump bevel gear. Does not include accessory drive gear or shaft.	1
EBVFY		47716	Pump - Oil, complete. R-975. Used for the following engines: 13277 - 13278 15303 - 15328 15389 - 15392 13281 - 13287 15331 - 15332 15395 - 15402 13290 - 13293 15334 - 15340 15454 - 15494 13295 - 13302 15379 - 15382 15497 - 15501 Accessory driven at engine speed. Includes oil pump bevel gear and accessory drive gear and shaft.	1
EBVHA		412041	Pump - Oil, complete. R-975. Used for the following engines: 13288 - 13289 15341 - 15378 15393 - 15394 15333 15383 - 15388 15495 - 15496 Includes oil pump bevel gear. Does not include accessory drive gear or shaft.	1
EBVJE	R-1501	47715	Body - Oil pump, assembly Includes main body, pressure pump body, oil pump gear spacer, bushing and studs. Due to the special machining required, the main body, pressure pump body and gear spacer are not supplied separately.	1
EBVLP	R-1503	118-H-4	Stud - Oil pump body cover, .003" oversize (1/4" x 20 - 28 x 1 3/16")	3
EBVNR		118-S-4	Stud - Oil pump body cover, .007" oversize (1/4" x 20 - 28 x 1 3/16")	3
EBVPS		118-J-4	Stud - Oil pump body cover, .012" oversize (1/4" x 20 - 28 x 1 3/16")	3
EBVRT	R-1504	2028-H-41	Stud - Oil pump to accessory, .003" oversize (1/4" x 20 - 28 x 1 5/16")	4
EBVTZ		2028-S-41	Stud - Oil pump to accessory, .007" oversize (1/4" x 20 - 28 x 1 5/16")	4
EBVVI		2028-J-41	Stud - Oil pump to accessory, .012" oversize (1/4" x 20 - 28 x 1 5/16")	4
EBVXO	R-1506	62355	Bushing - Oil pump body accessory drive shaft	1
EBVZX	R-1507	13-D-48	Pin - Oil pump body accessory drive shaft bushing (1/8" x 3/8")	1
EBWAW	R-1508	122-D-1	Plug - Oil pump drain, pipe (1/8")	1
EBWCV	R-1509	13-D-32	Pin - Oil pressure pump body (1/8" x 43/64")	2
EBWEB	R-1510	150-D-3	Screw - Oil pressure pump body to oil pump body (1/4" x 20 x 1 3/4")	4
EBWGN	R-1512	63663	Shaft - Oil pump drive.	1
EBWIC	R-1513	63544	Gear - Oil pump bevel. R-760	1
EBWKD	R-1514	62437	Gear - Oil pump bevel. R-975	1
EBWMF	R-1515	62352	Shaft - Oil pump idler.	1
EBWOG	R-1516	62351	Gear - Oil pump drive shaft	1
EBWRH	R-1517	21479	Gear - Oil pump idler shaft	1
EBWSK	R-1519	10-D-1	Key - Oil pump idler shaft gear (Woodruff #00)	2
EBWUJ	R-1520	63661	Gear - Accessory drive (16 teeth) (1:1 ratio)	1
EBWYL		63662	Gear - Accessory drive (20 teeth) (1.66:1 ratio)	1
EBYEM	R-1521	47710	Shaft - Accessory drive, with sleeve (16 teeth) (1:1 ratio)	1
EBYDP		46744	Shaft - Accessory drive, with sleeve (12 teeth) (1.66:1 ratio)	1
EBYFR	R-1522	63660	Cover - Oil pump body	1
EBYHS	R-1524	63659	Gasket - Oil pump body cover.	1
EBYJT	R-1525	2-D-1	Nut - Oil pump body cover, plain (1/4" x 28)	3
EBYLV		34-D-51	Washer - Oil pump body cover (17/64" x 1/2" x 3/64")	3
EBYNW		2000-D-1	Lock - Oil pump body cover, palnut (1/4" x 28)	3
EBYPX	R-1528	176-D-6	Connection - Oil pump hose.	2
EBYRZ	R-1529	66110	Gasket - Oil pump to crankcase rear section	1
EBYTB	R-1530	1-D-1	Nut - Oil pump to crankcase rear section (1/4" x 28)	8
EBYVA		27-D-3	Washer - Oil pump to crankcase rear section (17/64" x 1/2" x 1/16") Used for engines not equipped with crankcase rear section 47414.	8
EBYZC		34-D-51	Washer - Oil pump to crankcase rear section (17/64" x 1/2" x 3/64") Used for engines equipped with crankcase rear section 47414.	8

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
OIL PUMP SYSTEM - Cont'd				
OIL PUMP FILTER AND OIL THERMOMETER ADAPTER				
ECACI	R-1565	42985	Screen - Oil pump filter.	1
ECAED	R-1566	26083	Spring - Oil pump filter.	1
ECAGF	R-1567	25701	Adapter - Oil thermometer.	1
ECAIG	R-1568	23-D-25	Gasket - Oil thermometer adapter.	1
ECAKH	R-1570	93-D-18	Plug - Oil thermometer adapter (5/8" x 18).	1
ECAMJ	R-1571	23-D-21	Gasket - Oil thermometer adapter plug.	1
OIL PRESSURE RELIEF VALVE				
ECAPE	R-1585	64117	Body - Oil pressure relief valve.	1
ECARK	R-1586	23-D-39	Gasket - Oil pressure relief valve body.	1
ECATL	R-1587	5-D-34	Valve - Oil pressure relief.	1
ECAVM	R-1588	62466	Spring - Oil pressure relief valve.	1
ECAAXN	R-1590	62462	Screw - Oil pressure relief valve adjusting.	1
ECAZP	R-1591	2-D-54	Nut - Oil pressure relief valve adjusting screw lock (9/16" x 18).	1
ECBAR	R-1592	23-D-21	Gasket - Oil pressure relief valve adjusting screw lock nut.	1
ECBCO	R-1594	62464	Cap - Oil pressure relief valve.	1
ECBEW	R-1595	23-D-21	Gasket - Oil pressure relief valve cap.	1
ACCESSORY DRIVE COVER				
ECBNS	R-1610	28922	Cover - Accessory drive.	1
ECBPT	R-1611	28885	Gasket - Accessory drive cover to oil pump.	1
ECBRV	R-1612	2-D-1	Nut - Accessory drive cover to oil pump (1/4" x 28).	4
ECBTX		27-D-1	Washer - Accessory drive cover to oil pump (17/64" x 1/2" x 1/32").	4
ECBVZ		2000-D-1	Lock - Accessory drive cover to oil pump (1/4" x 28).	4
OIL STRAINER				
ECCBU	R-1622	27820	Strainer - Oil (Cuno).	1
ECCDB	R-1623	176-D-6	Connection - Oil strainer hose.	2
OIL STRAINER CONNECTIONS AND ATTACHING PARTS (SPECIAL)				
The parts listed in this group were installed only on the following engines: 13288 - 13289 15341 - 15378				
ECCMY		64070	Elbow - Oil strainer inlet.	1
ECCOC		64068	Nut - Oil strainer inlet elbow.	1
ECCRD		64069	Nipple - Oil strainer inlet elbow.	1
ECCSY		47966	Strap - Oil strainer, upper.	1
ECCUF		47967	Strap - Oil strainer, lower.	1
ECCWG		6-D-4	Bolt - Oil strainer upper to lower strap (1/4" x 28 x 1 23/32").	1
ECCYU		1-D-1	Nut - Oil strainer upper to lower strap (1/4" x 28).	1
ECDAH		34-D-51	Washer - Oil strainer upper to lower strap (17/64" x 1/2" x 3/64").	1
ECDCK		64067	Support - Oil strainer.	1
ECDEJ		28885	Gasket - Oil strainer support to oil pump.	1
This same part is used for attaching accessory drive cover and is already included in engine.				
ECDGL		2-D-1	Nut - Oil strainer support to oil pump (1/4" x 28).	4
This same part is used for attaching accessory drive cover and is already included in engine.				
ECDIM		27-D-1	Washer - Oil strainer support to oil pump (17/64" x 1/2" x 1/32").	4
This same part is used for attaching accessory drive cover and is already included in engine.				
ECDKN		2000-D-1	Lock - Oil strainer support to oil pump (1/4" x 28).	4
This same part is used for attaching accessory drive cover and is already included in engine.				
ECDMP		6-D-2	Bolt - Oil strainer strap to oil strainer support (1/4" x 28 x 27/32").	3
ECDOT		1-D-1	Nut - Oil strainer strap to oil strainer support (1/4" x 28).	3
ECDRS		34-D-51	Washer - Oil strainer strap to oil strainer support (17/64" x 1/2" x 3/64").	6

WRIGHT AERONAUTICAL CORPORATION

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CAM, CAM DRIVE AND STARTER DRIVE				
ECGAR		40559	Cam - Complete. (Two piece bearing type). R-760 Used for the following engines: 14543 - 14552 Includes bearings.	1
ECGCA		49336	Cam - Complete. (One piece bearing type). R-760 Used for the following engines: 14641 - 14649 Includes bearing.	1
ECGEB		40496	Cam - Complete. (Two piece bearing type). R-975 Used for the following engines: 13277 - 13278 13290 - 13293 13300 - 13302 13281 - 13287 13295 - 13298 15303 - 15328 Includes bearings.	1
ECGIC	R-1701	48894	Cam - Complete. (One piece bearing type). R-975 Used for the following engines: 13288 - 13289 15331 - 15402 13299 15454 - 15501 Includes bearing.	1
ECGKD		103-D-7	Rivet - Cam hub to cam (5/32" x 1/2") Used with cams 40559 and 49336.	16
ECGMF		95-D-2	Screw - Cam hub to cam (1/4" x 28 x 41/64") Used with cam 49336 and 48894.	15
ECGOG		27-D-3	Washer - Cam hub to cam (17/64" x 1/2" x 1/16") Used with cams 49336 and 48894.	15
ECGRH		1-D-1	Nut - Cam hub to cam (1/4" x 28). Used with cams 49336 and 48894.	15
ECGSJ		89151	Bearing - Cam hub, assembly. (Two piece type). Used with cams 40559 and 40496. Includes front and rear bearings.	1
ECGUK	R-1707	65111	Bearing - Cam hub. (One piece type). Used with cams 49336 and 48894.	1
ECGWL		13-D-42	Pin - Cam hub bearing (1/8" x 9/32") (Standard size). Used with two piece type bearings.	6
ECGYM		13-S-42	Pin - Cam hub bearing (1/8" x 9/32") (.010" oversize O.D.). Used with two piece type bearings.	6
ECHBN		13-H-42	Pin - Cam hub bearing (1/8" x 9/32") (.015" oversize O.D.). Used with two piece type bearings.	6
ECHDO	R-1710	20-D-3	Pin - Cam hub bearing (3/16" x 7/16") Used with one piece type bearing.	3
ECHFP	R-1712	21459	Spacer - Cam hub bearing.	1
ECHJR	R-1714	21457	Support - Cam hub bearing.	1
ECHLS		49089	Gear - Starter drive and cam pinion. R-760 Due to the importance of having an accurate fit for the serrated timing device, details of this assembly cannot be supplied separately.	1
ECHNT	R-1716	41112	Gear - Starter drive and cam pinion. R-975 Due to the importance of having an accurate fit for the serrated timing device, details of this assembly cannot be supplied separately.	1
ECHPU	R-1718	23117	Bolt - Starter shaft.	1
ECHRV	R-1720	34-D-34	Washer - Starter shaft bolt spring seat (19/32" x 15/16" x 13/64").	1
ECHTW	R-1722	21570	Spring - Starter shaft bolt	1
ECHVX	R-1724	21530	Retainer - Starter shaft bolt spring.	1
ECHXZ	R-1726	17-D-22	Pin - Starter shaft bolt spring (3/32" x 21/32").	1
ECHZV	R-1728	23414	Shaft - Starter	1
ECIBA	R-1730	23480	Seal - Starter shaft oil.	1
ECIDW	R-1732	23483	Retainer - Starter shaft oil seal	1
ECIFE	R-1734	124-D-55	Nut - Starter shaft bolt (1/4" x 20).	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
IMPELLER AND IMPELLER DRIVE				
IMPELLER AND IMPELLER SHAFT				
ECKAX	R-1760	26666	Impeller - Supercharger	1
ECKCE		24920	Shaft - Impeller, with integral gear (7.05:1 ratio, R-760) (7.8:1 ratio, R-975). (Early type) The early type shaft has the rear bearing shoulder 5/32" in width.	1
ECKEZ		67042	Shaft - Impeller, with integral gear (7.05:1 ratio, R-760) (7.8:1 ratio, R-975). (Late type) The late type shaft has the rear bearing shoulder 1/8" in width.	1
ECKGU		25080	Shaft - Impeller, with integral gear (9.17:1 ratio, R-760) (10.15:1 ratio, R-975). (Early type) Used for all engines except those specified under 67043 below. The early type shaft has the rear bearing shoulder 5/32" in width.	1
ECKIB	R-1763	67043	Shaft - Impeller, with integral gear (9.17:1 ratio, R-760) (10.15:1 ratio, R-975). (Late type) Used for the following engines: 13299 15390 - 15392 15454 - 15456 15349 - 15378 15396 - 15402 The late type shaft has the rear bearing shoulder 1/8" in width.	1
ECKMO	R-1765	29006	Support - Impeller shaft front ball bearing	1
ECKOC	R-1767	24763	Gasket - Impeller shaft front ball bearing support.	1
ECKRD	R-1768	56-D-4	Screw - Impeller shaft front ball bearing support (5/16" x 18 x 21/32")	7
ECKSY	R-1770	25350	Nut - Impeller, front and rear.	2
ECKUF	R-1772	25351	Lock - Impeller front and rear nut.	2
ECKWG	R-1774	24028	Ring - Impeller front and rear nut, lock.	2
ECKYH	R-1775	23522	Nut - Impeller shaft front ball bearing retainer.	1
ECLBJ	R-1777	23520	Ring - Impeller shaft front ball bearing retainer nut, lock	1
ECLDK	R-1779	2001-D-13 23521	Bearing - Impeller shaft front and rear, ball Shim - Impeller shaft front ball bearing, laminated Laminated shims are no longer supplied for use at this location. For replacement, use solid steel shim of required thickness. See part numbers 2100-D-1 to 2100-D-10 listed below for solid shims and the various thicknesses in which they are supplied.	2 1
ECLHM	R-1780	2100-D-1	Shim - Impeller shaft front ball bearing, solid (.015" thick)	1
ECLJP		2100-D-2	Shim - Impeller shaft front ball bearing, solid (.020" thick)	1
ECLLR		2100-D-3	Shim - Impeller shaft front ball bearing, solid (.025" thick)	1
ECLNS		2100-D-4	Shim - Impeller shaft front ball bearing, solid (.030" thick)	1
ECLPT		2100-D-5	Shim - Impeller shaft front ball bearing, solid (.035" thick)	1
ECLRV		2100-D-6	Shim - Impeller shaft front ball bearing, solid (.040" thick)	1
ECLTX		2100-D-7	Shim - Impeller shaft front ball bearing, solid (.045" thick)	1
ECLVZ		2100-D-8	Shim - Impeller shaft front ball bearing, solid (.050" thick)	1
ECLXB		2100-D-9	Shim - Impeller shaft front ball bearing, solid (.055" thick)	1
ECLZD		2100-D-10	Shim - Impeller shaft front ball bearing, solid (.060" thick)	1
ECMAJ	R-1782	65024	Cage - Impeller shaft rear ball bearing	1
ECMCA		67022	Shim - Impeller shaft rear ball bearing cage. Used for engines equipped with three impeller oil seal rings and impeller shaft having the rear bearing shoulder 5/32" in width.	1
ECMEW	R-1784	67397	Gasket - Impeller shaft rear ball bearing cage shim Quantities used: For engines equipped with three impeller oil seal rings and impeller shaft having the rear bearing shoulder 5/32" in width - 2, for engines equipped with three impeller oil seal rings and impeller shaft having the rear bearing shoulder 1/8" in width.	1
ECMGE	R-1786	137-D-2	Screw - Impeller shaft rear ball bearing cage (#10 x 32 x 19/32")	8
ECOBS		65045	Guide - Impeller oil seal ring. Used for the following engines: 13277 - 13278 14543 - 14552 15379 - 15389 13281 - 13293 14641 - 14649 15393 - 15395 13295 - 13298 15303 - 15328 15457 - 15501 13300 - 13302 15331 - 15348 This guide is .120" thick and is used only for engines equipped with three impeller oil seal rings and impeller shaft having the rear bearing shoulder 5/32" in width.	3
ECODM	R-1788	67041	Guide - Impeller oil seal ring. Used for the following engines: 13299 15390 - 15392 15454 - 15456 15349 - 15378 15396 - 15402 This guide is .150" thick and is used only for engines equipped with three impeller oil seal rings and impeller shaft having the rear bearing shoulder 1/8" in width.	3

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
IMPELLER AND IMPELLER DRIVE - Cont'd				
IMPELLER AND IMPELLER SHAFT - Cont'd				
ECOFH	R-1790	65046	Spacer - Impeller oil seal ring guide Used for same engines as those specified under guides 65045 and 67041 above. This spacer is .064" thick and is used for engines equipped with three impeller oil seal rings.	1
ECOHN	R-1792	65044	Ring - Impeller oil seal. Used for same engines as those specified under guides 65045 and 67041. This ring is .050" thick and is used for engines equipped with three impeller oil seal rings.	3
IMPELLER DRIVE				
Clutch type impeller drive gear assemblies and clutch pinions are no longer supplied for replacements on engines equipped with the spring drive type crankshaft gear. When it becomes necessary to replace either of these parts the direct drive type gear should be used. The correct part to use for replacements is specified under the clutches and pinions listed below. Component parts of clutch assemblies are listed and supplied for minor repairs only.				
		43404	Gear - Impeller drive, assembly. (Clutch type) (7.05:1 ratio). R-760 Factory installed on the following engines: 14545 14549 - 14550 This assembly is no longer supplied. For replacement, use direct drive type gear, part 48745. Read note under heading "IMPELLER DRIVE."	1
ECRCR		48745	Gear - Impeller drive, assembly. (Direct drive type) (7.05:1 ratio). R-760 Factory installed on the following engines and supplied for replacement of clutch assembly 43404. 14547 14641 - 14645 Includes bushing.	1
		44947	Gear - Impeller drive, assembly. (Clutch type) (9.17:1 ratio). R-760 Factory installed on the following engines: 14543 - 14544 14548 14546 14551 - 14552 This assembly is no longer supplied. For replacement, use direct drive type gear, part 48746. Read note under heading "IMPELLER DRIVE."	1
ECRGZ		48746	Gear - Impeller drive, assembly. (Direct drive type) (9.17:1 ratio). R-760 Factory installed on the following engines and supplied for replacement of clutch assembly 44947: 14646 - 14649 Includes bushing.	1
		43864	Gear - Impeller drive, assembly. (Clutch type) (7.8:1 ratio). R-975. This assembly is no longer supplied. For replacement, use direct drive type gear, part 48634. Read note under heading "IMPELLER DRIVE."	1
ECRKD		48634	Gear - Impeller drive, assembly. (Direct drive type) (7.8:1 ratio). R-975. Factory installed on the following engines and supplied for replacement of clutch assembly 43864: 15333 15383 - 15388 15495 - 15496 Includes bushing.	1
		44316	Gear - Impeller drive, assembly. (Clutch type) (10.15:1 ratio). R-975. Factory installed on the following engines: 13277 - 13278 13290 - 13293 13300 - 13302 13281 - 13287 13295 - 13298 15303 - 15328 This assembly is no longer supplied. For replacement, use direct drive type gear, part 48633. Read note under heading "IMPELLER DRIVE."	1
ECROG	R-1801	48633	Gear - Impeller drive, assembly. (Direct drive type) (10.15:1 ratio). R-975. Factory installed on the following engines and supplied for replacement of clutch assembly 44316: 13288 - 13289 15334 - 15382 15497 - 15501 13299 15389 - 15402 15331 - 15332 15454 - 15494 Includes bushing.	1

WRIGHT AERONAUTICAL CORPORATION

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Code Word	Reference Number	Drawing Number	Description of Part	Number Used
IMPELLER AND IMPELLER DRIVE - Cont'd				
IMPELLER DRIVE - Cont'd				
		43403	Pinion - Impeller drive gear, with bushing. R-760. Not supplied. For replacement, use direct drive type impeller drive gear assembly 48745 or 48746 depending upon the ratio required. Read note under heading "IMPELLER DRIVE."	1
	R-1803	43351	Pinion - Impeller drive gear, with bushing. R-975. Not supplied. For replacement, use direct drive type impeller drive gear assembly 48633 or 48634 depending upon the ratio required. Read note under heading "IMPELLER DRIVE."	1
ECRUJ	R-1805	24086	Bushing - Impeller drive gear, bronze Used with direct drive type and clutch type impeller drive gears.	1
ECRWL	R-1807	17-D-23	Pin - Impeller drive gear bushing (3/32" x 1/4"). Used with direct drive type and clutch type impeller drive gears.	1
ECRYM	R-1809	26109	Dog - Impeller clutch drive pinion, standard length	1
ECRZG		26109-Y1	Dog - Impeller clutch drive pinion, .062" oversize on length.	1
ECRZT		26109-Y2	Dog - Impeller clutch drive pinion, .094" oversize on length.	1
ECSAB		26109-Y3	Dog - Impeller clutch drive pinion, .125" oversize on length.	1
ECSAV		26109-Y4	Dog - Impeller clutch drive pinion, .188" oversize on length.	1
ECSBE	R-1810	26428	Seal - Impeller clutch drive pinion oil	2
ECSBP	R-1811	27595	Weight - Impeller clutch.	6
ECSFR	R-1812	26787	Band - Impeller clutch.	1
ECSHS		24006	Gear - Impeller clutch ring (62 teeth) (7.05:1 ratio, R-760) (7.8:1 ratio, R-975)	1
ECSJT	R-1813	24088	Gear - Impeller clutch ring (66 teeth) (9.17:1 ratio, R-760) (10.15:1 ratio, R-975)	1
ECSLV	R-1815	26786	Retainer - Impeller clutch weight	1
ECSNW	R-1816	55-D-4	Screw - Impeller clutch weight retainer (#10 x 32 x 23/32")	6
ECSPX	R-1817	25982	Bearing - Impeller drive gear hub, steel.	1
ECSRZ	R-1818	25983	Support - Impeller drive gear shaft	1
ECSTB	R-1819	1-D-40	Nut - Impeller drive gear shaft support (5/16" x 24).	4
ECSUF		27-D-118	Washer - Impeller drive gear shaft support (21/64" x 19/32" 5/64")	4
ECSVU	R-1821	42875	Shaft - Impeller drive gear, assembly Includes plug.	1
ECSWG	R-1822	10-D-5	Key - Impeller drive gear shaft (Woodruff #3)	1
ECSYO	R-1823	124-D-57	Nut - Impeller drive gear shaft (1/2" x 20)	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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ACCESSORY DRIVES

IDLER ACCESSORY DRIVE (R-975)

ECUBY	R-1860	27583	Gear - Idler accessory drive.	2
ECUDZ	R-1862	27585	Washer - Idler accessory drive gear	2
ECUFP	R-1864	27821	Spacer - Idler accessory drive gear	2
ECUHL	R-1866	1-D-4	Nut - Idler accessory drive gear retainer (5/16" x 24)	2
ECUJB		27-D-5	Washer - Idler accessory drive gear retainer (21/64" x 9/16" x .036")	2

ACCESSORY DRIVE (MAGNETO DRIVE)

ECWAK	R-1875	23865	Gear - Accessory driven. R-760	2
ECWCU	R-1877	23942	Gear - Accessory driven. R-975	2
ECWEW	R-1879	10-D-9	Key - Accessory driven gear (Woodruff #5)	2
ECWZC	R-1881	1-D-48	Nut - Accessory driven gear (1/2" x 20)	2
ECWIC	R-1883	44513	Shaft - Accessory drive, assembly. R-760 Includes shaft, extension and screw.	2
ECWKY	R-1885	44377	Shaft - Accessory drive, assembly. R-975 Includes shaft, extension and screw.	2
ECWMS		61128	Shaft - Accessory drive. R-760 Detail of assembly 44513.	2
ECWOF		61070	Shaft - Accessory drive. R-975 Detail of assembly 44377.	2
ECWRA		28204	Extension - Accessory drive shaft Detail of assemblies 44513 and 44377.	2
ECWSM		28207	Screw - Accessory drive shaft extension Detail of assemblies 44513 and 44377.	2
ECWUG	R-1891	46231	Seal - Accessory drive shaft leather oil, assembly (3" outside diameter). Includes: Oil seal Oil seal spring Packing rings Rivets	2
ECWYK		23456	Seal - Accessory drive shaft leather oil.	2
ECYBE		61653	Spring - Accessory drive shaft leather oil seal	2
ECYDV		16-D-11	Rivet - Accessory drive shaft leather oil seal (1/16" x 3/8")	12
ECYFE	R-1898	147-D-1	Screw - Accessory drive shaft leather oil seal lock (#10 x 32 x 7/32")	2
ECYHI	R-1900	28191	Seal - Accessory drive shaft rubber oil	2
ECYJP	R-1902	28192	Retainer - Accessory drive shaft rubber oil seal.	2
ECYLR	R-1904	66830	Plug - Accessory drive shaft rubber oil seal (inner). Installed on all late engines. Can be installed on early engines not so equipped.	2

TACHOMETER AND FUEL PUMP DRIVE (FOR ENGINES NOT EQUIPPED WITH THREE-WAY ACCESSORY DRIVE)

Parts listed in this group are used for the following engines:

13277 - 13278	13295 - 13302	15338 - 15340
13281 - 13282	14543 - 14552	15379 - 15390
13287	14641 - 14646	15393 - 15402
13290	15303 - 15325	15454 - 15501
13293	15331 - 15335	

EDABO	R-1915	64867	Shaft - Tachometer and fuel pump drive, with integral gear. R-760.	1
EDADK	R-1917	64868	Shaft - Tachometer and fuel pump drive, with integral gear. R-975.	1
EDAFI	R-1919	22513	Adapter - Tachometer and fuel pump drive shaft.	1
EDAGU	R-1921	21775	Cover - Tachometer and fuel pump drive shaft adapter.	1
EDAIZ	R-1923	21776	Gasket - Tachometer and fuel pump drive shaft adapter cover	1
EDAKI	R-1925	1-D-1	Nut - Tachometer and fuel pump drive shaft adapter cover (1/4" x 28)	3
EDAMO		27-D-1	Washer - Tachometer and fuel pump drive shaft adapter cover (17/64" x 1/2" x 1/32")	3
EDAOW	R-1927	21741	Gear - Fuel pump drive.	1
EDARC	R-1929	10-D-5	Key - Fuel pump drive gear (Woodruff #3)	1
EDASH	R-1931	1-D-9	Nut - Fuel pump drive gear (3/8" x 24)	1
EDAUF		27-D-124	Washer - Fuel pump drive gear (13/32" x 3/4" x 3/32")	1
EDAWG	R-1933	48755	Gear - Fuel pump, assembly. Includes plug.	1
EDAYK	R-1935	47456	Adapter - Fuel pump, assembly Includes bushing.	1
EDBAJ	R-1937	63342	Bushing - Fuel pump gear.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
ACCESSORY DRIVES - Cont'd				
TACHOMETER AND FUEL PUMP DRIVE (FOR ENGINES NOT EQUIPPED WITH THREE-WAY ACCESSORY DRIVE) - Cont'd				
EDBCR	R-1939	C-4092	Gasket - Fuel pump adapter to crankcase rear section.	1
EDBEW	R-1940	22770	Circllet - Fuel pump gear.	1
EDBGZ	R-1942	23330	Cover - Fuel pump drive	1
EDBIC	R-1944	C-4092	Gasket - Fuel pump drive cover.	1
EDBKD	R-1945	1-D-40	Nut - Fuel pump drive cover (5/16" x 24).	4
EDKMF		27-D-118	Washer - Fuel pump drive cover (21/64" x 19/32" x 5/64").	4
TACHOMETER AND THREE-WAY ACCESSORY DRIVE (FOR ENGINES EQUIPPED WITH THREE-WAY ACCESSORY DRIVE)				
Parts listed in this group are used for the following engines:				
13283 - 13286 14647 - 14649 15341 - 15378				
13288 - 13289 15326 - 15328 15391 - 15392				
13291 - 13292 15336 - 15337				
EDMAH		64834	Gear - Tachometer and three-way accessory drive. R-760	1
EDMCK	R-1970	63954	Gear - Tachometer and three-way accessory drive. R-975	1
EDMDB	R-1972	47874	Shaft - Tachometer and three-way accessory drive gear, assembly	1
Includes plug.				
EDMEJ	R-1973	102-D-25	Plug - Tachometer and three-way accessory drive gear shaft	1
EDMGL	R-1975	1-D-7	oil hole	1
EDMIM		34-D-83	Nut - Tachometer and three-way accessory drive gear (3/8" x 24)	1
			Washer - Tachometer and three-way accessory drive gear	1
			(25/64" x 25/32" x 3/32").	1
EDMKN	R-1977	63951	Gear - Three-way accessory drive.	1
EDMMP	R-1979	63946	Adapter - Tachometer and three-way accessory drive gear shaft	1
EDMOT	R-1980	21776	Gasket - Tachometer and three way accessory drive gear shaft	1
			adapter.	1
EDMRS	R-1982	47868	Cover - Tachometer and three-way accessory drive gear shaft	1
			adapter, assembly.	1
Includes bushing.				
EDMSY	R-1984	63950	Bushing - Tachometer and three-way accessory drive gear shaft	1
EDMUF	R-1986	21776	Gasket - Tachometer and three-way accessory drive gear shaft	1
			adapter cover.	1
EDMWG	R-1988	1-D-1	Nut - Tachometer and three-way accessory drive shaft adapter	3
			cover (1/4" x 28).	3
EDMYL		27-D-1	Washer - Tachometer and three way accessory drive gear shaft	3
			adapter cover (17/64" x 1/2" x 1/32").	3
TACHOMETER DRIVE HOUSING AND GEARS (STANDARD TYPE FOR CABLE DRIVEN TACHOMETER ONLY)				
Parts listed in this group are used for the following engines:				
13277 - 13278 14543 - 14552 15338 - 15340				
13281 - 13287 14641 - 14649 15379 - 15390				
13290 - 13293 15303 - 15328 15393 - 15398				
13295 - 13302 15331 - 15335 15457 - 15501				
EDOEM		49398	Tachometer Drive - Assembly	1
Includes:				
Housing				
Shafts and gear				
Ball bearings and retainer				
Housing cover				
EDODH	R-2001	22697	Housing - Tachometer drive.	1
EDOFN	R-2003	22514	Shaft - Tachometer drive.	1
EDOHR	R-2005	22518	Gear - Tachometer drive shaft	1
EDOJZ	R-2007	10-D-1	Key - Tachometer drive shaft gear (Woodruff #00).	1
EDOLC	R-2008	1-D-36	Nut - Tachometer drive shaft gear (5/16" x 24).	1
EDOND	R-2010	21-D-5	Bearing - Tachometer drive shaft, ball.	2
EDOFF	R-2012	22516	Spacer - Tachometer drive shaft ball bearing.	1
EDORG	R-2014	22520	Retainer - Tachometer drive shaft ball bearing.	1
EDOTA	R-2016	21732	Shaft - Tachometer driven.	2
EDOVK	R-2018	28262	Bushing - Tachometer driven shaft	2
EDOXL	R-2020	37-D-63	Washer - Tachometer driven shaft bushing.	2
EDOZM	R-2024	2066-D-1	Cap - Tachometer drive.	1
EDPAJ	R-2026	65790	Cover - Tachometer drive housing.	1
This cover is attached with six (6) screws, 7/16" in length, and is the only type supplied. For replacement of earlier cover, part 22689, which is attached with six (6) screws, 19/32" in length, and six (6) washers, it will be necessary to use cover 65790 and six (6) screws, part 137-D-10. The washers used with the earlier cover are not required with the new cover.				
EDPCA	R-2028	22690	Gasket - Tachometer drive housing cover	1
EDPEP		137-D-2	Screw - Tachometer drive housing cover (#10 x 32 x 19/32").	6
Used with cover 22689. Read note under cover 65790 above.				

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
ACCESSORY DRIVES - Cont'd				
TACHOMETER DRIVE HOUSING AND GEARS (STANDARD TYPE FOR CABLE DRIVEN TACHOMETER ONLY) - Cont'd				
EDPGR	R-2029	137-D-10	Screw - Tachometer drive housing cover (#10 x 32 x 7/16") Used with cover 65790.	6
EDPIT		27-D-30	Washer - Tachometer drive housing cover (13/64" x 5/16" x 1/32"). Used with cover 22689. Read note under cover 65790 above.	6
EDPKV	R-2030	64119	Gasket - Tachometer drive housing to crankcase rear section . . .	1
EDPMZ	R-2032	1-D-1	Nut - Tachometer drive housing to crankcase rear section (1/4" x 28)	3
EDPOB		27-D-3	Washer - Tachometer drive housing to crankcase rear section (17/64" x 1/2" x 1/16")	3
TACHOMETER DRIVE HOUSING AND GEARS (SPECIAL TYPE FOR BOTH CABLE AND ELECTRICALLY DRIVEN TACHOMETERS)				
Parts listed in this group are used for the following engines: 13288 - 13289 15341 - 15378 15399 - 15402 15336 - 15337 15391 - 15392 15454 - 15456				
EDSBE		410927	Tachometer Drive - Assembly Includes: Housing Drive shafts Oil seals Cap	1
EDSDU	R-2065	47855	Housing - Tachometer drive, assembly. Includes bearing and bushing.	1
EDSFG	R-2067	63937	Bearing - Tachometer driven shaft	2
EDSHO	R-2069	63923	Bushing - Tachometer drive shaft, large	1
EDSJY	R-2071	63606	Shaft - Tachometer drive.	1
EDSLZ	R-2073	47852	Cover - Tachometer drive housing, assembly. Includes bushing.	1
EDSNL	R-2075	63603	Bushing - Tachometer drive shaft, small	1
EDSPK	R-2077	63991	Gasket - Tachometer drive housing cover	1
EDSRC	R-2079	132-D-3	Screw - Tachometer drive housing cover (#12 x 24 x 5/8")	3
EDSTN		27-D-33	Washer - Tachometer drive housing cover (7/32" x 3/8" x 1/32")	3
EDSUB	R-2080	47854	Sleeve - Tachometer driven shaft, assembly. Includes bushing.	2
EDSWD	R-2082	63924	Bushing - Tachometer driven shaft	2
EDSYC	R-2084	47851	Shaft - Tachometer driven, upper, assembly. Includes inner sleeve which is not supplied separately.	1
EDTAF	R-2086	47895	Shaft - Tachometer driven, lower, assembly. Includes inner sleeve which is not supplied separately.	1
EDTCH	R-2087	129-D-58	Gasket - Tachometer driven shaft sleeve	2
EDTEK	R-2088	28152	Spring - Tachometer drive oil seal packing gland.	2
EDTGM	R-2090	28153	Gland - Tachometer drive oil seal packing Used with oil seal housing 61189 for all engines except 15336 and 15337.	2
EDTIN		66851	Washer - Tachometer drive oil seal packing. Used with oil seal housing 66849 for engines 15336 and 15337.	2
EDTKS	R-2092	28154	Packing - Tachometer drive oil seal Used with oil seal housing 61189 for all engines except 15336 and 15337.	10 1/2"
EDTML		66850	Packing - Tachometer drive oil seal Used with oil seal housing 66849 for engines 15336 and 15337.	2
EDTOP	R-2094	61189	Housing - Tachometer drive oil seal Used for all engines except 15336 and 15337.	2
EDTRT		66849	Housing - Tachometer drive oil seal Used for engines 15336 and 15337.	2
EDTSR	R-2095	129-D-46	Gasket - Tachometer drive oil seal housing.	2
EDTUX	R-2096	143-D-5	Screw - Tachometer drive oil seal housing (1/4" x 20 x 3/4")	4
EDTWA	R-2097	C-6516	Cap - Tachometer drive.	1
EDTYG	R-2099	37-D-28	Gasket - Tachometer drive cap	1
EDUBE	R-2101	64119	Gasket - Tachometer drive housing to crankcase rear section	1
EDUDI	R-2102	1-D-1	Nut - Tachometer drive housing to crankcase rear section (1/4" x 28 x 1/4")	3
EDUFJ		27-D-3	Washer - Tachometer drive housing to crankcase rear section (17/64" x 1/2" x 1/16")	3

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
ACCESSORY DRIVES - Cont'd				
THREE-WAY ACCESSORY DRIVE				
<p>Before ordering the parts required to install the three-way accessory drive on an R-760 engine, it is necessary to note whether the engine has the upper mounting stud for installing the drive. This stud is located in the crankcase rear section between the right hand magneto and the generator mounting pad, below the horizontal centerline of the magneto and above the horizontal centerline of the generator mounting pad. Drives are available with or without the mounting lug depending upon whether or not the engine is equipped with the upper mounting stud. All R-975 engines have either the upper mounting stud or a hole for the stud.</p>				
EDVFA		89596	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes fuel pump drive, propeller governor drive. Does not include mounting lug or governor oil tubes and attaching parts.	1
EDVIL		89653	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes fuel pump drive, propeller governor drive and propeller governor oil tubes and attaching parts. Does not include mounting lug.	1
EDVOM		89592	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes propeller governor drive. Does not include mounting lug, fuel pump drive or propeller governor drive oil tubes and attaching parts.	1
EDVUT		89654	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes propeller governor drive and propeller governor drive oil tubes and attaching parts. Does not include mounting lug or fuel pump drive.	1
EDYCY		89598	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes fuel pump drive. Does not include mounting lug, propeller governor drive or propeller governor drive oil tubes and attaching parts.	1
EDYEW		89594	Three-Way Accessory Drive - Parts required to install. R-760. . . Does not include mounting lug, fuel pump drive, propeller governor drive or propeller governor drive oil tubes and attaching parts.	1
EDYDZ		89551	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes mounting lug, fuel pump drive, propeller governor drive. Does not include propeller governor drive oil tubes or attaching parts.	1
EDYIB		89655	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes mounting lug, fuel pump drive, propeller governor drive and propeller governor drive oil tubes and attaching parts.	1
EDYKC		89547	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes mounting lug and propeller governor drive. Does not include fuel pump drive or propeller governor drive oil tubes and attaching parts.	1
EDYMD		89656	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes mounting lug, propeller governor drive and propeller governor drive oil tubes and attaching parts. Does not include fuel pump drive.	1
EDYOF		89553	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes mounting lug and fuel pump drive. Does not include propeller governor drive or propeller governor drive oil tubes and attaching parts.	1
EDYRG		89549	Three-Way Accessory Drive - Parts required to install. R-760. . . Includes mounting lug. Does not include fuel pump drive, propeller governor drive or propeller governor drive oil tubes and attaching parts.	1
EDYSH		89552	Three-Way Accessory Drive - Parts required to install. R-975. . . Includes mounting lug, fuel pump drive and propeller governor drive. Does not include propeller governor drive oil tubes and attaching parts.	1
EDYUK		89657	Three-Way Accessory Drive - Parts required to install. R-975. . . Includes mounting lug, fuel pump drive, propeller governor drive and propeller governor drive oil tubes and attaching parts.	1
EDYWL		89548	Three-Way Accessory Drive - Parts required to install. R-975. . . Includes mounting lug and propeller governor drive. Does not include fuel pump drive or propeller governor drive oil tubes and attaching parts.	1
EDZBA		89658	Three-Way Accessory Drive - Parts required to install. R-975. . . Includes mounting lug, propeller governor drive and propeller governor drive oil tubes and attaching parts. Does not include fuel pump drive.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
ACCESSORY DRIVES - Cont'd				
THREE-WAY ACCESSORY DRIVE - Cont'd				
EDZDE		89554	Three-Way Accessory Drive - Parts required to install. R-975. Includes mounting lug and fuel pump drive. Does not include propeller governor drive or propeller governor drive oil tubes and attaching parts.	1
EDZFI		89550	Three-Way Accessory Drive - Parts required to install. R-975. Includes mounting lug. Does not include fuel pump drive, propeller governor drive or propeller governor drive oil tubes and attaching parts.	1
EDZHM	R-2135	47880	Housing - Three way accessory drive, assembly Includes: Bushings Studs Plugs	1
EDZJO	R-2137	63958	Bushing - Three-way accessory drive gear.	1
EDZLR	R-2138	4-S-8	Bushing - Propeller governor attaching screw.	4
EDZNS	R-2140	4-S-8	Bushing - Fuel pump attaching screw	2
EDZPT	R-2142	2028-H-40	Stud - Vacuum pump, .003" oversize (1/4" x 20 - 28 x 1 11/16")	4
EDZRP		2028-S-40	Stud - Vacuum pump, .007" oversize (1/4" x 20 - 28 x 1 11/16")	4
EDZTU		2028-J-40	Stud - Vacuum pump, .012" oversize (1/4" x 20 - 28 x 1 11/16")	4
EDZVY	R-2144	2030-H-12	Stud - Fuel pump, .003" oversize (5/16" x 18 - 24 x 1 9/16")	4
EEABV		2030-S-12	Stud - Fuel pump, .007" oversize (5/16" x 18 - 24 x 1 9/16")	4
EEADZ		2030-J-12	Stud - Fuel pump, .012" oversize (5/16" x 18 - 24 x 1 9/16")	4
EEAFX	R-2146	122-D-1	Plug - Three-way accessory drive housing oil pressure hole, pipe (1/8")	1
EEAHW	R-2147	2023-D-5	Plug - Three-way accessory drive housing oil drain, pipe (1/4")	1
EEAJB	R-2149	47883	Shaft - Vacuum pump, fuel pump and propeller governor drive, assembly Includes: Slave Collar	1
EEALC	R-2151	47873	Adapter - Vacuum pump, assembly Includes bushing.	1
EEAND	R-2153	63947	Bushing - Vacuum pump, fuel pump and propeller governor drive shaft	1
EEAPF	R-2155	28885	Gasket - Vacuum pump adapter to three-way accessory drive housing.	1
EEARG	R-2156	28922	Cover - Vacuum pump substituting.	1
EEATH	R-2157	28885	Gasket - Vacuum pump substituting cover	1
EEAVJ	R-2159	2-D-1	Nut - Vacuum pump substituting cover (1/4" x 28).	4
EEAXK		34-D-51	Washer - Vacuum pump substituting cover (1/2" x 17/64" x 3/64")	4
EEAZL		2000-D-1	Lock - Vacuum pump substituting cover, palnut (1/4" x 28)	4
EEBAM	R-2161	47871	Gear - Fuel pump drive, assembly. Includes: Retainer Spring Plunger Pin	1
EEBCA	R-2163	47872	Adapter - Fuel pump, assembly Includes bushing.	1
EEBEN	R-2164	63943	Bushing - Fuel pump drive gear.	1
EEBGO	R-2165	C-4092	Gasket - Fuel pump adapter to three-way accessory drive housing	1
EEBIP	R-2166	23330	Cover - Fuel pump substituting.	1
EEBKE	R-2167	C-4092	Gasket - Fuel pump substituting cover	1
EEBMR	R-2168	2-D-4	Nut - Fuel pump substituting cover (5/16" x 24)	4
EEBOW		34-D-33	Washer - Fuel pump substituting cover (21/64" x 5/8" x 1/16")	4
EEBRT		2000-D-2	Lock - Fuel pump substituting cover, palnut (5/16" x 24).	4
EEBSZ	R-2171	48165	Gear - Propeller governor drive, assembly Used for the following engines: 13283 - 13286 14647 - 14649 15336 - 15339 13291 - 13292 15326 - 15328 15391 - 15392	1
EEBUX	R-2173	48166	Adapter - Propeller governor, assembly. Used only when propeller governor drive gear is included in three-way accessory drive. Includes bushing.	1
EEBWS	R-2174	64321	Bushing - Propeller governor drive gear Used only when propeller governor drive gear is included in three-way accessory drive.	1
EEBYU	R-2176	63940	Gasket - Propeller governor adapter or substituting adapter	1
EECBV		63941	Adapter - Propeller governor substituting Used only when propeller governor drive gear is not included in three-way accessory drive.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
ACCESSORY DRIVES - Cont'd				
THREE-WAY ACCESSORY DRIVE - Cont'd				
EECDY		90-D-18	Bolt - Propeller governor substituting adapter (5/16" x 24 x 13/16")	4
			Used only when propeller governor drive gear is not included in three-way accessory drive.	
EECFA		34-D-33	Washer - Propeller governor substituting adapter (5/8" x 21/64" x 1/16")	4
			Used only when propeller governor drive gear is not included in three-way accessory drive.	
EECHB	R-2181	63866	Cover - Propeller governor substituting	1
			Used only when propeller governor drive gear is included in three-way accessory drive.	
EECJE	R-2183	63867	Gasket - Propeller governor substituting cover.	1
			Used only when propeller governor drive gear is included in three-way accessory drive.	
EECLD	R-2185	90-D-9	Bolt - Propeller governor substituting cover (5/16" x 24 x 1 15/16")	4
			Used only when propeller governor drive gear is included in three-way accessory drive.	
EECNF		34-D-33	Washer - Propeller governor substituting cover (21/64" x 5/8" x 1/16")	4
			Used only when propeller governor drive gear is included in three-way accessory drive.	
EECPG	R-2187	2043-D-31	Stud - Propeller governor to adapter (5/16" x 24 x 3 21/32") . . .	4
EECRH	R-2188	1-D-4	Nut - Propeller governor to adapter (5/16" x 24)	4
EECTI		34-D-33	Washer - Propeller governor to adapter (21/64" x 5/8" x 1/16") . .	4
EECVC	R-2190	C-4092	Gasket - Three-way accessory drive housing to crankcase rear section	1
EECXO	R-2192	1-D-40	Nut - Three-way accessory drive housing to crankcase rear section (5/16" x 24)	5
EECZL		27-D-118	Washer - Three-way accessory drive housing to crankcase rear section (21/64" x 19/32" x 5/64")	5
PROPELLER GOVERNOR DRIVE (FOR ENGINES HAVING PROPELLER GOVERNOR MOUNTED ON CRANKCASE FRONT SECTION)				
Parts listed in this group are used for the following engines:				
13277 15398 - 15402				
15391 - 15392 15454 - 15456				
EEFAJ	R-2225	48173	Bracket - Propeller governor drive, assembly.	1
			Includes bushing.	
EEFCI	R-2227	63958	Bushing - Propeller governor drive intermediate bevel gear. . . .	1
EEFEK	R-2228	1-D-4	Nut - Propeller governor drive bracket to crankcase front section (5/16" x 24)	5
EEFGM		34-D-33	Washer - Propeller governor drive bracket to crankcase front section (21/64" x 5/8")	5
EEFIN	R-2230	64334	Gear - Propeller governor drive intermediate spur	1
EEFKP	R-2232	64335	Gear - Propeller governor drive intermediate bevel.	1
EEFMR	R-2234	65-D-15	Bolt - Propeller governor drive intermediate spur gear to bevel gear (1/4" x 28 x 3/8")	6
EEFOS	R-2235	2019-D-4	Circllet - Propeller governor drive intermediate bevel gear. . . .	1
EEFRT	R-2237	64336	Gear - Propeller governor drive bevel	1
EEFSV	R-2239	2019-D-4	Circllet - Propeller governor drive bevel gear	1
EEFUW	R-2240	48174	Adapter - Propeller governor drive, assembly.	1
			Includes bushing.	
EEFWU	R-2242	63958	Bushing - Propeller governor drive bevel gear	1
EEFYX	R-2244	64339	Gasket - Propeller governor drive adapter.	1
EEGBZ	R-2246	63866	Cover - Propeller governor substituting	1
EEGDY	R-2247	63867	Gasket - Propeller governor substituting cover.	1
EEGFA	R-2248	90-D-16	Bolt - Propeller governor substituting cover (5/16" x 24 x 1 1/8")	4
EEGHB	R-2249	2043-D-41	Stud - Propeller governor to propeller governor adapter (5/16" x 24 x 2 11/16")	4
EEGJC		34-D-33	Washer - Propeller governor or substituting cover to propeller governor adapter (21/64" x 5/8" x 1/16")	4
EEGLD	R-2251	2101-D-4	Nut - Propeller governor to propeller governor adapter (5/16" x 24)	4
STARTER DRIVE				
Listed under "CAM, CAM DRIVE AND STARTER DRIVE."				
GENERATOR DRIVE (SPUR GEAR TYPE) (ANTI-CLOCKWISE ROTATION)				
EEJBE		48595	Generator Drive - Assembly.	1
			Includes all parts required to install a generator drive on engines not so equipped.	

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
ACCESSORY DRIVES - Cont'd				
GENERATOR DRIVE (SPUR GEAR TYPE) (ANTI-CLOCKWISE ROTATION)-- Cont'd				
EEJDF	R-2275	40096	Gear - Generator idler, assembly. Includes bushings.	1
EEFJG	R-2277	21512	Bushing - Generator idler gear shaft.	2
EEJHI	R-2278	17-D-21	Pin - Generator idler gear shaft bushing (3/32" x 1/4")	2
EEJLK	R-2280	21508	Shaft - Generator idler gear.	1
EEJNL	R-2281	21511	Gasket - Generator idler gear shaft	1
EEJPM	R-2282	36-D-20	Plug - Generator idler gear shaft (1/2" x 14)	1
EEJRN	R-2284	1-D-1	Nut - Generator idler gear shaft to crankcase rear section (1/4" x 28)	2
EEJSO		27-D-3	Washer - Generator idler gear shaft to crankcase rear section (17/64" x 1/2" x 1/16")	2
EEJUH	R-2286	48593	Gear - Generator drive, assembly. Includes: Lock nut Plug	1
EEJWP	R-2287	2052-D-6	Plug - Generator drive gear	1
EEJYR	R-2289	48592	Support - Generator drive gear, assembly. This support includes a bushing for the generator drive gear and is the only type supplied. It is interchangeable with and supercedes an earlier type, part 21471, which did not include a bushing.	1
EKAJ	R-2291	64822	Bushing - Generator drive gear. Used with support 48592.	1
EEKCS	R-2293	23079	Gasket - Generator drive gear support	1
EEKET	R-2295	20520	Nut - Generator drive gear lock	1
EEKGU	R-2297	2017-D-4	Ring - Generator drive gear lock.	1
GENERATOR DRIVE (BEVEL GEAR TYPE) (CLOCKWISE)				
EEMIV		410089	Generator Drive - Assembly. Includes all parts required to install a generator drive on engines not so equipped.	1
EEMKY	R-2320	43444	Gear - Generator idler, assembly. Includes bushings.	1
EEMOW	R-2322	21512	Bushing - Generator idler gear shaft.	2
EEMRX	R-2324	17-D-21	Pin - Generator idler gear shaft front bushing (3/32" x 1/4")	1
EEMSZ	R-2326	17-D-29	Pin - Generator idler gear shaft rear bushing (3/32" x 5/32")	1
EEMUB	R-2328	21508	Shaft - Generator idler gear.	1
EEMWA	R-2330	21511	Gasket - Generator idler gear shaft	1
EEMYC	R-2332	36-D-20	Plug - Generator idler gear shaft (1/2" x 14)	1
EENBD	R-2333	1-D-1	Nut - Generator idler gear shaft to crankcase rear section (1/4" x 28)	2
EENDE		27-D-3	Washer - Generator idler gear shaft to crankcase rear section (17/64" x 1/2" x 1/16")	2
		26930	Pinion - Generator idler gear. (Early type). The early type pinion is 55/64" in length and is used with a generator drive gear bracket having the pinion arm 1" in height. It is no longer supplied. For replacement, use the following parts: 66313 Pinion - Generator idler gear. (Late type). 1 410087 Bracket - Generator drive gear, assembly. (Late type) 1 The washer used on the pinion arm of the early type bracket is not used with the late type pinion and bracket.	1
EENHI	R-2335	66313	Pinion - Generator idler gear. (Late type) The late type pinion is 51/64" in length and is used with a generator drive gear bracket having the pinion arm 7/8" in height. It is the only type supplied. See note under pinion 26930 for parts required to replace the early type pinion.	1
EENJF		34-D-38	Washer - Generator drive gear bracket pinion arm (3/4" x 1 1/16" x .084") Used with early type bracket and pinion.	1
		44100	Bracket - Generator drive gear, assembly. (Early type) The early type bracket has a pinion arm 1" in height and is used with a pinion 55/64" in length. It is no longer supplied. For replacement, use the following parts: 410087 Bracket - Generator drive gear, assembly. (Late type) 1 66313 Pinion - Generator idler gear. (Late type). 1 The washer used on the pinion arm of the early type bracket is not used with the late type bracket and pinion.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
ACCESSORY DRIVES - Cont'd				
GENERATOR DRIVE (BEVEL GEAR TYPE) (CLOCKWISE) - Cont'd				
EENPJ	R-2337	410087	Bracket - Generator drive gear, assembly. (Late type). The late type bracket has a pinion arm 7/8" in height and is used with a pinion 51/64" in length. It is the only type supplied. See note under bracket 44100 on page 507 for parts required to replace early type bracket. Includes plug.	1
EENRK	R-2339	122-D-1	Plug - Generator drive gear bracket, pipe (1/8").	1
EENSL	R-2340	43443	Gear - Generator drive, assembly. Includes plug.	1
EENUM	R-2342	2052-D-6	Plug - Generator drive gear	1
EENWN	R-2343	26932	Support - Generator drive gear.	1
EENYO	R-2345	23079	Gasket - Generator drive gear support	2
EEPAP	R-2347	27017	Shim - Generator drive gear support	1
EEPCS	R-2348	95-D-3	Screw - Generator drive gear support to generator drive gear bracket (#10 x 32 x 1 1/4").	5
EEPER		27-D-30	Washer - Generator drive gear support to generator drive gear bracket (13/64" x 5/16" x 1/32").	5
EEPGT	R-2350	1-D-84	Nut - Generator drive gear support to generator drive gear bracket (#10 x 32)	5

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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CRANKSHAFT AND PROPELLER HUB

CRANKSHAFT

All crankshafts have the master balance weight figures stamped on the edge of the counterweights. Be sure that the crankshaft ordered has the same master balance weight figures specified as the one to be replaced.

All replacement crankshafts are provided with a keyway for the governor drive gear.

Worn crankpins and rear bearing journals can be reground to .010" undersize.

EESBU		410187	Crankshaft. (S.A.E. No. 20 propeller hub spline). (Dynamic damper rear counterweight type). R-760.	1
			Master balance weight figures 30.82 (Stamped on edge of rear counterweight). Read note under "Crankshaft" at top of page.	
			Includes:	
			Counterweights	
			Rear end and counterweight bushings	
			Rear counterweight pins	
			Rear counterweight stop	
			Crankpin plugs	
			Crankshaft breather plug	
			Crankcheek cap screw	
			Crankshaft spline screw	
			Crankshaft rear end plug	
			Crankshaft oil tubes	
			Master rod bearing thrust spacer	
EESDY	R-2401	410188	Crankshaft. (S.A.E. No. 30 propeller hub spline). (Dynamic damper rear counterweight type). R-975.	1
			Master balance weight figures 37.62 (Stamped on edge of rear counterweight). Read note under "Crankshaft" at top of page.	
			Includes:	
			Counterweights	
			Rear end and counterweight bushings	
			Rear counterweight pins	
			Rear counterweight stop	
			Crankpin plugs	
			Crankshaft breather plug	
			Crankcheek cap screw	
			Crankshaft spline screw	
			Crankshaft rear end plug	
			Crankshaft oil tubes	
			Master rod bearing thrust spacer	
EESFA	R-2405	65680	Spacer - Master connecting rod bearing thrust, standard size. . .	1
EESHB		65680-Y1	Spacer - Master connecting rod bearing thrust, .001" undersize	1
			I.D.	
EESJC		65680-Y2	Spacer - Master connecting rod bearing thrust, .002" undersize	1
			I.D.	
EESLD		65680-Y3	Spacer - Master connecting rod bearing thrust, .003" undersize	1
			I.D.	
EESNE		65680-Y4	Spacer - Master connecting rod bearing thrust, .004" undersize	1
			I.D.	
EESPF		65680-Y5	Spacer - Master connecting rod bearing thrust, .005" undersize	1
			I.D.	
EESRG		65680-Y6	Spacer - Master connecting rod bearing thrust, .010" undersize	1
			I.D.	
EESTH		2075-D-8	Screw - Crankshaft spline (5/16" x 24 x 3/8")	1
			Used with S.A.E. No. 20 propeller hub spline crankshafts.	
EESVI	R-2407	2075-D-1	Screw - Crankshaft spline (5/16" x 24 x 7/16")	1
			Used with S.A.E. No. 30 propeller hub spline crankshafts.	
EESXO	R-2409	2084-D-4	Plug - Crankpin, front (1 7/16" O.D.)	1
EESZK	R-2411	2067-D-4	Lock - Crankpin front plug bolt, tab.	1
EETAJ	R-2412	45-D-1	Bolt - Crankpin front plug (5/16" x 24 x 1 1/32")	1
EETCL	R-2414	2042-D-4	Plug - Crankshaft rear end, front (2 1/8" x 16)	1
EETEM	R-2416	24031	Plug - Crankshaft rear end, rear.	1
EETGN	R-2418	28709	Plug - Crankshaft to hydro-controllable propeller oil tube outlet	1
EETIP	R-2419	23-D-41	Gasket - Crankshaft to hydro-controllable propeller oil tube outlet plug.	1
EETKS		63023	Plug - Crankshaft to hydro-controllable propeller oil tube supporting	1
			Used with S.A.E. No. 20 propeller hub spline crankshafts.	
EETMR	R-2421	62123	Plug - Crankshaft to hydro-controllable propeller oil tube supporting	1
			Used with S.A.E. No. 30 propeller hub spline crankshafts.	
EETOT	R-2423	21412	Screw - Crankcheek cap.	1
EETRU	R-2425	34-D-35	Washer - Crankcheek cap screw (1 1/64" x 1 3/8" x 5/32")	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKSHAFT AND PROPELLER HUB - Cont'd				
CRANKSHAFT - Cont'd				
EETSV		62978	Bushing - Crankshaft rear counterweight. R-760 Used with dynamic damper crankshafts.	4
EETUX	R-2426	63030	Bushing - Crankshaft rear counterweight. R-975 Used with dynamic damper crankshafts.	4
EETWZ		62977	Bushing - Crankshaft rear end. R-760 Used with dynamic damper crankshafts.	2
EETYB	R-2428	63029	Bushing - Crankshaft rear end. R-975 Used with dynamic damper crankshafts.	2
EEVBA		62983	Pin - Crankshaft rear counterweight. R-760 Used with dynamic damper crankshafts	2
EEVDY	R-2430	63028	Pin - Crankshaft rear counterweight. R-975 Used with dynamic damper crankshafts.	2
EEVFD	R-2432	62984	Stop - Crankshaft rear counterweight. Used with dynamic damper crankshafts.	1
EEVHC	R-2434	63-D-27	Bolt - Crankshaft rear counterweight stop (5/16" x 24 x 1 9/32"). Used with dynamic damper crankshafts.	2
EEVJE	R-2435	1-D-4	Nut - Crankshaft rear counterweight stop bolt (5/16" x 24). Used with dynamic damper crankshafts.	2
EEVLG	R-2437	48640	Plug - Crankshaft breather, assembly. Used with S.A.E. No. 20 propeller hub spline crankshafts. Includes screen and plug.	1
EEVNF		49190	Plug - Crankshaft breather, assembly. Used with S.A.E. No. 30 propeller hub spline crankshafts. Includes screen and plug.	1
EEVPH	R-2439	28847	Packing - Crankshaft to hydro-controllable propeller oil tube . .	1
EEVRI	R-2441	62905	Gland - Crankshaft to hydro-controllable propeller oil tube packing.	1
EEVST	R-2443	21-D-68	Bearing - Crankshaft thrust, ball	1
EEVUK		63052	Slinger - Crankshaft thrust ball bearing oil. Used with S.A.E. No. 20 propeller hub spline crankshafts.	1
EEVWL	R-2445	62116	Slinger - Crankshaft thrust ball bearing oil. Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EEVYM		63051	Nut - Crankshaft thrust ball bearing. Used with S.A.E. No. 20 propeller hub spline crankshafts.	1
EEWAN	R-2447	62981	Nut - Crankshaft thrust ball bearing. Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EEWCO	R-2449	62231	Ring - Crankshaft thrust ball bearing nut, oil seal, standard size	2
EEWEP		62231-Y10	Ring - Crankshaft thrust ball bearing nut, oil seal, .005" oversize O.D	2
EEWGR		62231-Y20	Ring - Crankshaft thrust ball bearing nut, oil seal, .010" oversize O.D	2
EEWIS		62103	Adapter - Crankshaft. (Three oil seal ring type) Used for the following engines: 13278 13295 - 13298 14547 - 14548 13281 - 13287 13300 - 13302 14551 - 14552 13291 - 13292 14543 - 14545 15303 - 15305 For use in engines not equipped with propeller governor drive in the crankcase front section.	1
EEWKT	R-2451	65271	Adapter - Crankshaft. (Seven oil seal ring type) Used for the following engines: 13288 - 13290 14549 - 14550 15340 - 15388 13293 14646 - 14649 15395 15299 15306 - 15328 15457 - 15495 14546 15333 - 15335 15497 - 15500 For use in engines not equipped with propeller governor drive in the crankcase front section.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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CRANKSHAFT AND PROPELLER HUB - Cont'd

CRANKSHAFT - Cont'd

EEWMU	R-2453	64332	Gear - Crankshaft propeller governor drive. Used for the following engines: 13277 *15389 - 15390 15398 - 15402 *14641 - 14645 15391 - 15392 15454 - 15456 *15331 - 15332 *15393 - 15394 *15494 - 15496 *15336 - 15339 *15396 - 15397 *15501 For use in engines equipped with propeller governor drive in crankcase front section. *These engines did not include propeller governor drive in the crankcase front section.	1
EEWOV		62144	Ring - Crankshaft adapter oil seal. Used with adapter 62103.	3
EEWRX	R-2454	5015-D-6	Ring - Crankshaft adapter and propeller governor drive gear oil seal Quantities used: With adapter 65271 - 7, with propeller governor drive gear 64332.	8
EEWSY	R-2456	7-D-17	Key - Crankshaft propeller governor drive gear. Used with gear 64332.	1
EEWUZ	R-2458	155-D-35	Bearing - Crankshaft main, front.	1
EEWYD	R-2460	22695	Spacer - Crankshaft front main ball bearing	1
EEXBA	R-2462	22624	Nut - Crankshaft front main ball bearing lock	1
EEXDC	R-2464	28503	Gear - Crankshaft. R-760	1
EEXFB	R-2466	28007	Gear - Crankshaft. R-975	1
EEXHE		44675	Hub - Crankshaft gear, assembly. R-760 Includes hub and plate.	1
EEXJF	R-2468	44274	Hub - Crankshaft gear, assembly. R-975 Includes hub and plate.	1
EEXLG		68309	Spring - Crankshaft gear. R-760.	8
EEXNH	R-2470	68308	Spring - Crankshaft gear. R-975.	8
EEXPI		28197	Pin - Crankshaft gear spring. R-760.	16
EEXFJ	R-2472	28011	Pin - Crankshaft gear spring. R-975.	16
EEXTK		29187	Retainer - Crankshaft gear spring. R-760	1
EEXVL	R-2474	28012	Retainer - Crankshaft gear spring. R-975	1
EEXYAM	R-2476	28014	Screw - Crankshaft gear hub	8

PROPELLER HUB AND ATTACHING PARTS

Propeller hubs for metal propellers are supplied by the Wright Aeronautical Corporation only upon special order. Spare parts for such hubs are not stocked.

EEZBN		40711	Hub - Propeller, for wooden propeller, complete Used with S.A.E. No. 30 propeller hub spline crankshafts. Does not include rear centering ring or rear centering ring spacer.	1
EEZDO	R-2490	40592	Hub - Propeller, with dowel, for wooden propeller Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EEZFR		5028-D-1	Ring - Propeller hub centering, rear. Used with S.A.E. No. 20 propeller hub spline crankshafts.	1
EEZHP	R-2492	5028-D-2	Ring - Propeller hub centering, rear. Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EEZJT		63308	Spacer - Propeller hub rear centering ring. Used with S.A.E. No. 20 propeller hub spline crankshafts.	1
EEZLS	R-2494	62272	Spacer - Propeller hub rear centering ring. Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EEZNV		4018-D-1	Ring - Propeller hub centering, front, for metal propeller. Used with S.A.E. No. 20 propeller hub spline crankshafts.	1
EEZPU	R-2496	4018-D-2	Ring - Propeller hub centering, front, for metal propeller. Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EEZRW	R-2498	22805	Ring - Propeller hub centering, front, for wooden propeller Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EEZTZ		63057	Nut - Propeller hub, for metal propeller. Used with S.A.E. No. 20 propeller hub spline crankshafts.	1
EEZVY	R-2500	62270	Nut - Propeller hub, for metal propeller. Used with S.A.E. No. 30 propeller hub spline crankshafts.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CRANKSHAFT AND PROPELLER HUB - Cont'd				
PROPELLER HUB AND ATTACHING PARTS - Cont'd				
EFABA	R-2502	22368	Nut - Propeller hub, for wooden propeller Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EFADB	R-2504	183-D-12	Pin - Propeller hub nut locking, for metal propeller (1/4" x 43/64")	1
EF AFC		27-D-1	Washer - Propeller hub nut locking pin, for metal propeller (17/64" x 1/2" x 1/32")	1
EF AHD	R-2506	17012	Dowel - Propeller hub, for wooden propeller	1
EF AJF		63055	Ring - Propeller hub snap, for metal propeller Used with S.A.E. No. 20 propeller hub spline crankshafts.	1
EF ALE	R-2508	23347	Ring - Propeller hub snap, for metal propeller Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EF ANG	R-2510	22367	Ring - Propeller hub snap, for wooden propeller Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EF APH	R-2512	22406	Flange - Propeller hub, for wooden propeller Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EF ARI	R-2514	17281	Bolt - Propeller hub flange, for wooden propeller	8
EF ATJ	R-2516	19226	Nut - Propeller hub flange, for wooden propeller	8
EF AVK		34-D-40	Washer - Propeller hub flange, for wooden propeller (41/64" x 15/16")	8
EF AXM		63056	Cap - Propeller hub nut, for metal propeller Used with S.A.E. No. 20 propeller hub spline crankshafts.	1
EF AZL	R-2518	62279	Cap - Propeller hub nut, for metal propeller Used with S.A.E. No. 30 propeller hub spline crankshafts.	1
EF BAN	R-2520	47558	Cap - Propeller hub nut, assembly, for wooden propeller Used with S.A.E. No. 30 propeller hub spline crankshafts. Includes cap and ring.	1
EF BCO	R-2522	137-D-3	Screw - Propeller hub nut cap (#10 x 32 x 9/32")	4
EF BEP		27-D-131	Washer - Propeller hub nut cap (7/32" x 7/16" x 1/2")	4

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CONNECTING RODS				
		45540	Rod - Master, complete. R-760. Factory installed on the following engines: 14543 - 14552 14641 - 14648 This rod has the piston pin bushing pinned in. It is no longer supplied. For replacement, use rod 410851 which has the piston pin bushing spun in. Includes: Piston pin bushing Crankshaft bearing	1
EFFCS	R-2550	410851	Rod - Master, complete. R-760. Factory installed on the following engine and supplied for replacement of rod 45540: 14649 This rod has the piston bushing spun in. Includes: Piston pin bushing Crankshaft bearing	1
		45452	Rod - Master, complete. R-975. Factory installed on the following engines: 13277 - 13278 15303 - 15328 15454 - 15456 13281 - 13293 15331 - 15394 13295 - 13302 15396 - 15402 This rod has the piston pin bushing pinned in. It is no longer supplied. For replacement, use rod 410852 which has the piston pin bushing spun in. Includes: Piston pin bushing Crankshaft bearing	1
EFFGU	R-2553	410852	Rod - Master, complete. R-975. Factory installed on the following engines and supplied for replacement of rod 45452: 15395 15457 - 15501 This rod has the piston pin bushing spun in. Includes: Piston pin bushing Crankshaft bearing	1
EFFIV	R-2559	29547	Bearing - Master rod crankshaft, standard size.	1
EFFKY		29547-Y1	Bearing - Master rod crankshaft, standard I.D., .002" oversize O.D.	1
EFFMZ		29547-Y2	Bearing - Master rod crankshaft, standard I.D., .005" oversize O.D.	1
EFFOB		29547-Y3	Bearing - Master rod crankshaft, standard I.D., .010" oversize O.D.	1
EFFRA		29547-Y15	Bearing - Master rod crankshaft, .015" undersize I.D., standard O.D. The .015" undersize bearing is suitable for finishing to any undersize up to and including .015". However, for engines listed in this catalog, the maximum allowable undersize is .010". See note under "Crankshaft" at top of page 601, relative to crankshaft regrinding.	1
EFFSD		29547-Y16	Bearing - Master rod crankshaft, .015" undersize I.D., .002" oversize O.D. Read note under 29547-Y15.	1
EFFUF		29547-Y17	Bearing - Master rod crankshaft, .015" undersize I.D., .005" oversize O.D. Read note under 29547-Y15.	1
EFFWG		29547-Y18	Bearing - Master rod crankshaft, .015" undersize I.D., .010" oversize O.D. Read note under 29547-Y15.	1
EFFYH	R-2562	2077-D-6	Dowel - Master rod crankshaft bearing (3/16" x 11/64").	1
EFGBI		21568	Bushing - Master rod piston pin. (Pinned-in type). Used with master rods 45540 and 45452.	1
EFGDE	R-2564	2119-D-13	Bushing - Master rod piston pin. (Spun-in type). Used with master rods 410851 and 410852.	1
EFGFL		22608	Dowel - Master rod piston pin bushing Used with master rods 45540 and 45452.	1

MODEL J-6 WHIRLWIND ENGINE PARTS CATALOG NUMBER 2

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CONNECTING RODS - Cont'd				
		44261	Rod - Articulated, with bushings Quantities used: R-760 - 6, R-975	8
			Factory installed on the following engines: 13277 - 13278 14543 - 14552 15331 - 15394 13281 - 13293 14641 - 14648 15396 - 15402 13295 - 13302 15303 - 15328 15454 - 15466	
			This rod has the bushings pinned in. It is no longer supplied. For replacement, use rod 410850 which has the bushings spun in.	
EFGJN	R-2567	410850	Rod - Articulated, with bushings Quantities used: R-760 - 6, R-975	8
			Factory installed on the following engines and supplied for replacement of rod 44261: 14649 15395 15457 - 15501	
			This rod has the bushings spun in.	
EFGLO		20531	Bushing - Articulated rod knuckle pin. (Pinned-in type) Quantities used: R-760 - 6, R-975	8
			Used with articulated rod 44261.	
EFGNR	R-2570	2119-D-22	Bushing - Articulated rod knuckle pin. (Spun-in type) Quantities used: R-760 - 6, R-975	8
			Used with articulated rod 410850.	
EFGPS		29630	Bushing - Articulated rod piston pin. (Pinned-in type) Quantities used: R-760 - 6, R-975	8
			Used with articulated rod 44261.	
EFGRT	R-2573	2119-D-21	Bushing - Articulated rod piston pin. (Spun-in type) Quantities used: R-760 - 6, R-975	8
			Used with articulated rod 410850.	
EFGSY		22608	Dowel - Articulated rod knuckle pin and piston pin bushing Quantities used: R-760 - 12, R-975	16
			Used with articulated rod 44261.	
EFGUV	R-2575	41603	Pin - Articulated rod knuckle, with plug Quantities used: R-760 - 6, R-975	8
EFGWZ		50690	Pin - Articulated rod knuckle, with plug, .002" oversize Quantities used: R-760 - 6, R-975	8
EFGYA	R-2577	21411	Lock - Articulated rod knuckle pin. R-760.	3
			It is necessary to file these locks to fit when assembling.	
EFHAB	R-2579	21779	Lock - Articulated rod knuckle pin. R-975.	4
			It is necessary to file these locks to fit when assembling.	
EFHCD		27-D-137	Washer - Articulated rod knuckle pin lock screw (17/64" x 3/8" x 1/64"). R-760	6
EFHEF	R-2581	2060-D-11	Screw - Articulated rod knuckle pin lock (1/4" x 28 x 1/2"). R-760.	6
EFHGH	R-2583	46-D-12	Screw - Articulated rod knuckle pin lock (1/4" x 28 x 1/2"). R-975.	6
EFHIJ	R-2585	24490	Lock - Articulated rod knuckle pin lock screw. R-975	4

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CYLINDERS, INTAKE PIPES AND PISTONS				
CYLINDERS				
Cylinders can be reground to .015" oversize only.				
Cylinders with valves and valve rockers as supplied no longer include rocker box covers or gaskets.				
Cylinders for use with Heywood Air Starters will be furnished upon request.				
EJFJAK	R-2601	49681	Cylinder - With studs (With cowl mounting lugs) Quantities used: R-760 - 7, R-975	9
Includes: Valve guides Spark plug coolers All studs				
Furnished complete with valves and valve rockers as follows:				
			Code Drawing Word Number	
			Name	
		EDJCL	89826 Cylinder - With valves and valve rockers (For R-760E, E-1, R-975E, E-1 engines)	
		EDJEM	89825 Cylinder - With valves and valve rockers (For R-760E-2, R-975E-3 engines)	
	64109		Seat - Exhaust valve, standard size Quantities used: R-760 - 7, R-975	9
The standard size seat is catalogued for reference only. For all replacements, use oversize seats.				
EFKDR	64109-Y2		Seat - Exhaust valve, .010" oversize Quantities used: R-760 - 7, R-975	9
EFKFT	64109-Y3		Seat - Exhaust valve, .020" oversize Quantities used: R-760 - 7, R-975	9
EFKHU	64109-Y4		Seat - Exhaust valve, .030" oversize Quantities used: R-760 - 7, R-975	9
EFKJY	64109-Y5		Seat - Exhaust valve, .040" oversize Quantities used: R-760 - 7, R-975	9
	20636		Seat - Intake valve, standard size Quantities used: R-760 - 7, R-975	9
The standard size seat is catalogued for reference only. For all replacements, use oversize seats.				
EFKNA	20636-Y2		Seat - Intake valve, .010" oversize Quantities used: R-760 - 7, R-975	9
EFKPC	20636-Y3		Seat - Intake valve, .020" oversize Quantities used: R-760 - 7, R-975	9
EFKRD	20636-Y4		Seat - Intake valve, .030" oversize Quantities used: R-760 - 7, R-975	9
EFKTE	20636-Y5		Seat - Intake valve, .040" oversize Quantities used: R-760 - 7, R-975	9
	R-2610	44268	Cooler - Spark plug, standard size Quantities used: R-760 - 14, R-975	18
The standard size cooler is catalogued for reference only. For all replacements, use oversize coolers.				
EFLAG		50546	Cooler - Spark plug, .015" oversize Quantities used: R-760 - 14, R-975	18
EFLCI		50649	Cooler - Spark plug, .030" oversize Quantities used: R-760 - 14, R-975	18
EFILEJ		13-D-40	Pin - Spark plug insert (1/8" x 1/2") Quantities used: R-760 - 28, R-975	36
EFLGL	R-2616	65933	Connection - Cylinder head push rod housing hose Quantities used: R-760 - 14, R-975	18
EFLIM	R-2618	2032-H-6	Stud - Cylinder to exhaust elbow, .003" oversize (3/8" x 16 - 24 x 1 7/16") Quantities used: R-760 - 14, R-975	18
EFLKN		2032-S-6	Stud - Cylinder to exhaust elbow, .007" oversize (3/8" x 16 - 24 x 1 7/16") Quantities used: R-760 - 14, R-975	18
EFLMU		2032-J-6	Stud - Cylinder to exhaust elbow, .012" oversize (3/8" x 16 - 24 x 1 7/16") Quantities used: R-760 - 14, R-975	18
EFLQV	R-2620	118-H-2	Stud - Cylinder to rocker box cover, .003" oversize (1/4" x 20 - 28 x 1 1/16") Quantities used: R-760 - 56, R-975	72
EFLRY		118-S-2	Stud - Cylinder to rocker box cover, .007" oversize (1/4" x 20 - 28 x 1 1/16") Quantities used: R-760 - 56, R-975	72
ELFSZ		118-J-2	Stud - Cylinder to rocker box cover, .012" oversize (1/4" x 20 - 28 x 1 1/16") Quantities used: R-760 - 56, R-975	72

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CYLINDERS, INTAKE PIPES AND PISTONS - Cont'd				
CYLINDERS - Cont'd				
EFLJB	R-2622	19-S-10	Bushing - Cylinder barrel air deflector screw Quantities used: R-760 - 14, R-975	18
EFLWA	R-2624	19-S-14	Bushing - Cylinder head air deflector screw Quantities used: R-760 - 14, R-975	18
EFLYC	R-2628	21397	Guide - Intake valve, standard size Quantities used: R-760 - 7, R-975	9
EFMBE		21397-Y2	Guide - Intake valve, .005" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMDI		21397-Y3	Guide - Intake valve, .010" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMFL		21397-Y4	Guide - Intake valve, .020" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMHM		21397-Y5	Guide - Intake valve, .030" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMJO		21397-Y6	Guide - Intake valve, .040" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMLR	R-2631	20637	Guide - Exhaust valve, standard size Quantities used: R-760 - 7, R-975	9
EFMNS		20637-Y2	Guide - Exhaust valve, .005" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMPT		20637-Y3	Guide - Exhaust valve, .010" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMRU		20637-Y4	Guide - Exhaust valve, .020" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMSV		20637-Y5	Guide - Exhaust valve, .030" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMUX		20637-Y6	Guide - Exhaust valve, .040" oversize O.D. Quantities used: R-760 - 7, R-975	9
EFMWA	R-2634	24135	Ring - Cylinder oil seal Quantities used: R-760 - 7, R-975	9
EFMYB	R-2636	124-D-54	Nut - Cylinder hold-down (3/8" x 24) (9/16" hex.) Quantities used: R-760 - 56, R-975	72
EFNAD		2000-D-3	Lock - Cylinder hold-down, palnut (3/8" x 24) Quantities used: R-760 - 56, R-975	72
EFNCE	R-2640	64827	Cover - Rocker box, intake (Flat top) Quantities used: R-760 - 7, R-975 Used for the following engines: 13277 - 13278 14548 15331 - 15395 13281 - 13293 14552 15398 - 15402 13295 - 13298 14641 - 14646 15454 - 15501 13300 - 13302 15303 - 15328	9
EFNEF	R-2644	64825	Cover - Rocker box, intake and exhaust (Round top) Quantities used: R-760 - 14, R-975 Used for the following engines: 13299 14549 - 14551 15396 - 15397 14543 - 14547 14647 - 14649	18
EFNGH	R-2648	64828	Cover - Rocker box, exhaust (Flat top) Quantities used: R-760 - 7, R-975 Same type as cover 64827 and used for same engines.	9
EFNIJ	R-2652	64826	Gasket - Rocker box cover Quantities used: R-760 - 14, R-975	18
EFNKL	R-2655	124-D-95	Nut - Rocker box cover (1/4" x 28) Quantities used: R-760 - 56, R-975	72
EFNMN		27-D-1	Washer - Rocker box cover (17/64" x 1/2" x 1/32") Quantities used: R-760 - 56, R-975	72
EFNOP		28-D-14	Lockwasher - Rocker box cover (17/64" I.D.) Quantities used: R-760 - 56, R-975	72
EFNRS	R-2658	43466	Elbow - Front exhaust, assembly Quantities used: R-760 - 7, R-975 Includes studs.	9
EFNST	R-2661	48106	Elbow - Rear exhaust, assembly Quantities used: R-760 - 7, R-975 This elbow includes two studs, one of which is approximately 1/8" longer than the other. Some engines were equipped with elbow 43053, having the studs of equal length. Elbow 43053 is no longer supplied. For replacement, use elbow 48106 and one (1) washer 34-D-33 which is to be installed on the long stud under the nut. If engine is not equipped with inter-cylinder air deflectors, it will be necessary to install two (2) of washer 34-D-33 on the long stud. Includes studs.	9
EFNUV	R-2664	2030-H-10	Stud - Front exhaust elbow to exhaust pipe, .003" oversize (5/16" x 18 - 24 x 1 11/16") Quantities used: R-760 - 14, R-975	18

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CYLINDERS, INTAKE PIPES AND PISTONS - Cont'd				
CYLINDERS - Cont'd				
EFNWA		2030-S-10	Stud - Front exhaust elbow to exhaust pipe, .007" oversize (5/16" x 18 - 24 x 1 11/16")	
EFNYC		2030-J-10	Stud - Front exhaust elbow to exhaust pipe, .012" oversize (5/16" x 18 - 24 x 1 11/16")	18
EFODD	R-2666	2030-H-8	Stud - Rear exhaust elbow to exhaust pipe, short, .003" oversize (5/16" x 18 - 24 x 1 5/16")	18
			Quantities used: R-760 - 14, R-975	9
			The quantities specified are for engines equipped with 1/4" thick exhaust pipe flanges and exhaust elbows having a long and a short stud. On engines equipped with 1/4" thick exhaust pipe flanges and exhaust elbows having the studs of equal length, two of these studs are used per elbow or 14 and 16 per engine respectively for the R-760 and R-975 models.	
EFODE		2030-S-8	Stud - Rear exhaust elbow to exhaust pipe, short, .007" oversize (5/16" x 18 - 24 x 1 5/16")	9
			Quantities used: R-760 - 7, R-975	
			Read note under stud 2030-H-8 above.	
EFOFG		2030-J-8	Stud - Rear exhaust elbow to exhaust pipe, short, .012" oversize (5/16" x 18 - 24 x 1 5/16")	9
			Quantities used: R-760 - 7, R-975	
			Read note under stud 2030-H-8 above.	
EFOHI	R-2669	2030-H-10	Stud - Rear exhaust elbow to exhaust pipe, long, .003" oversize (5/16" x 18 - 24 x 1 11/16")	9
			Quantities used: R-760 - 7, R-975	
			The quantities specified are for engines equipped with 1/4" thick exhaust pipe flanges and exhaust elbows having a long and short stud. On engines equipped with 5/16" thick exhaust pipe flanges and exhaust elbows having the studs of equal length, two of these are used per elbow or 14 and 16 respectively for the R-760 and R-975 models.	
EFOJK		2030-S-10	Stud - Rear exhaust elbow to exhaust pipe, long, .007" oversize (5/16" x 18 - 24 x 1 11/16")	9
			Quantities used: R-760 - 7, R-975	
			Read note under stud 2030-H-10 above.	
EFOLM		2030-J-10	Stud - Rear exhaust elbow to exhaust pipe, long, .012" oversize (5/16" x 18 - 24 x 1 11/16")	9
			Quantities used: R-760 - 7, R-975	
			Read note under stud 2030-H-10 above.	
EFONO	R-2672	1-D-42	Nut - Exhaust elbow to cylinder head (3/8" x 24)	
EFOPS		27-D-123	Washer - Exhaust elbow to cylinder head (25/64" x 5/8" x 3/64")	18
EFORT	R-2675	26353	Flange - Exhaust pipe	18
			Quantities used: R-760 - 14, R-975	9
			Used only for rear exhaust engines.	
EFOSU	R-2678	24789	Gasket - Exhaust pipe flange	9
			Quantities used: R-760 - 7, R-975	
			Used only for rear exhaust engines.	
EFOVW	R-2681	14712	Nut - Exhaust pipe flange (5/16" x 24)	18
			Quantities used: R-760 - 14, R-975	
			Used only for rear exhaust engines.	
EFOYZ		34-D-33	Washer - Exhaust pipe flange (21/64" x 5/8" x 1/16")	9
			Quantities used: R-760 - 7, R-975	
			Used only for rear exhaust engines for long stud on elbow.	
CYLINDER AIR DEFLECTORS (ONE PIECE TYPE) R-760				
EFSAB	R-2701	47110	Deflector - Cylinder air, assembly.	5
			Used for front exhaust engines.	
			One additional unit is required for engines equipped with straight manifold outlet pipe.	
			See 48138 and 48348 for deflectors used at air heater pipe and manifold tail pipe locations.	
EFSCA		48138	Deflector - Cylinder air, assembly.	1
			Used for front exhaust engines.	
			Cut out to clear air heater pipe.	

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CYLINDERS, INTAKE PIPES AND PISTONS - Cont'd				
CYLINDER AIR DEFLECTORS (ONE PIECE TYPE) R-760 - Cont'd				
EFSEC		48348	Deflector - Cylinder air, assembly. Used for front exhaust engines.	1
			Cut out to clear elbow shaped manifold outlet pipe. Use deflector 47110 when engine is equipped with straight manifold outlet pipe.	
EFSGD		47205	Deflector - Cylinder air, assembly. Used for rear exhaust engines.	7
EFSIF		62881	Plate - Cylinder air deflector end.	14
EFSKE		66-D-26	Rivet - Cylinder air deflector end plate (1/8" x 1/4").	42
EFSMH		62882	Support - Cylinder air deflector.	14
EFSOG		66-D-7	Rivet - Cylinder air deflector support (1/8" x 3/8").	42
EFSRK		62883	Pad - Cylinder air deflector Quantities used: Front exhaust engines - 6, rear exhaust engines.	7
			Detail of deflectors 47110, 48138 and 47205.	
EFSSI		66-D-35	Rivet - Cylinder air deflector pad (1/8" x 11/32") Quantities used: Front exhaust engines - 36, rear exhaust engines.	42
			Detail of deflectors 47110, 48138 and 47205.	
EFSUJ		27-D-163	Washer - Cylinder air deflector pad (1/8" x 19/32" x 1/16") Quantities used: Front exhaust engines - 36, rear exhaust engines.	42
			Detail of deflectors 47110, 48138 and 47205.	
EFSWL		64282	Support - Cylinder air deflector to carburetor air heater clamp.	1
			Detail of deflector 48138.	
EFSYM		66-D-2	Rivet - Cylinder air deflector to carburetor air heater clamp (1/8" x 5/16").	3
			Detail of deflector 48138.	
EFTBN	R-2723	47120	Clamp - Cylinder air deflector, assembly Quantities used: Front exhaust engines - 6, rear exhaust engines.	7
EFTDO	R-2726	29650	Spring - Cylinder air deflector clamp Quantities used: Front exhaust engines - 6, rear exhaust engines.	7
EFTFR	R-2729	2-D-4	Nut - Cylinder air deflector clamp (5/16" x 24) Quantities used: Front exhaust engines - 12, rear exhaust engines.	14
EFTHS		27-D-4	Washer - Cylinder air deflector clamp (21/64" x 19/32" x 3/64") Quantities used: Front exhaust engines - 12, rear exhaust engines.	14
EFTJT		2002-D-4	Clamp - Cylinder air deflector to carburetor air heater pipe. Used for front exhaust engines.	1
EFTLU		3-D-12	Bolt - Cylinder air deflector to carburetor air heater pipe clamp (1/4" x 28 x 1 5/8"). Used for front exhaust engines.	1
EFTNV		2-D-1	Nut - Cylinder air deflector to carburetor air heater pipe clamp bolt (1/4" x 28). Used for front exhaust engines.	1
EFTPW		2000-D-1	Lock - Cylinder air deflector to carburetor air heater pipe clamp bolt, palnut (1/4" x 28). Used for front exhaust engines.	1
CYLINDER AIR DEFLECTORS (TWO PIECE TYPE) R-975				
EFTRX		47999	Deflector - Cylinder air, assembly, upper. Used for rear exhaust engines.	9
EFTTY	R-2744	47998	Deflector - Cylinder air, assembly, upper. Used for front exhaust engines.	8
			See 48831 for deflector used at air heater pipe connection.	
EFTVA		48831	Deflector - Cylinder air, assembly, upper. Used for front exhaust engines.	1
			Cut out to clear air heater pipe.	
EFTZB	R-2752	47997	Deflector - Cylinder air, assembly, lower Quantities used: Rear exhaust engines - 9, front exhaust engines.	8

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Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CYLINDERS, INTAKE PIPES AND PISTONS - Cont'd				
CYLINDER AIR DEFLECTORS (TWO PIECE TYPE) R-975 - Cont'd				
EFUAC		64383	Plate - Cylinder air deflector end Quantities used: Rear exhaust engines - 36, front exhaust engines. Detail of deflector 47997.	32
EFUCD		66-D-26	Rivet - Cylinder air deflector end plate (1/8" x 1/4") Quantities used: Rear exhaust engines - 72, front exhaust engines.	64
EFUEF		64391	Pad - Cylinder air deflector. Detail of deflector 47999.	9
EFUGH		64387	Pad - Cylinder air deflector. Detail of deflectors 47998 and 48831.	9
EFUIJ		64389	Support - Cylinder air deflector, bottom. Detail of deflector 47999.	9
EFUME		64386	Support - Cylinder air deflector, bottom. Detail of deflectors 47998 and 48831.	9
EFUOG		66-D-2	Rivet - Cylinder air deflector bottom support (1/8" x 5/16"). Detail of deflectors 47999, 47998 and 48831.	18
EFURI		64390	Support - Cylinder air deflector, top Detail of deflector 47999.	9
EFUSK		64385	Support - Cylinder air deflector, top Detail of deflectors 47998 and 48831.	9
EFUUL		66-D-1	Rivet - Cylinder air deflector top support and pad (1/8" x 7/16") Detail of deflectors 47999, 47998 and 48831.	27
EFUWM		27-D-179	Washer - Cylinder air deflector top support and pad (9/64" x 3/8" x 1/64") Detail of deflectors 47999, 47998 and 48831.	27
EFUYN	R-2763	47991	Clamp - Cylinder air deflector, assembly Quantities used: Rear exhaust engines - 9, front exhaust engines.	8
EFVBO	R-2766	2-D-1	Nut - Cylinder air deflector clamp (1/4" x 28) Quantities used: Rear exhaust engines - 18, front exhaust engines.	16
EFVDR		34-D-51	Washer - Cylinder air deflector clamp (17/64" x 1/2" x 3/64") Quantities used: Rear exhaust engines - 9, front exhaust engines.	8
EFVFS	R-2769	65-D-12	Screw - Cylinder air deflector upper to cylinder head (1/4" x 28 x 15/32") Used with deflectors 47999 and 47998.	9
EFVHT		34-D-51	Washer - Cylinder air deflector upper to cylinder head screw (17/64" x 1/2" x 3/64") Used with deflectors 47999 and 47998.	9
CYLINDER HEAD AIR DEFLECTORS				
EFYAV	R-2795	47992	Deflector - Cylinder head air, assembly Quantities used: R-760 - 7, R-975 When engine is equipped with side carburetor air heater scoops, two deflectors are omitted.	9
EFYCY		64381	Pad - Cylinder head air deflector Quantities used: R-760 - 7, R-975	9
EFYEW		64380	Support - Cylinder air deflector, bottom.	9
EFYGU		66-D-2	Rivet - Cylinder air deflector, bottom support (1/8" x 5/16")	18
EFYIX		64379	Support - Cylinder air deflector, top	9
EFYKA		66-D-17	Rivet - Cylinder air deflector top support and pad (1/8" x 7/16")	36
EFYMZ	R-2801	35-D-13	Screw - Cylinder head air deflector to cylinder head (3/8" x 24 x 17/32") Quantities used: R-760 - 14, R-975. When engine is equipped with side carburetor air heater scoops, four screws are omitted.	18
EFYOC		34-D-14	Washer - Cylinder head air deflector to cylinder head (25/64" x 11/16" x 5/64") Quantities used: R-760 - 14, R-975. When engine is equipped with side carburetor air heater scoops, four washers are omitted.	18

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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CYLINDERS, INTAKE PIPES AND PISTONS - Cont'd

INTAKE PIPES

EGABE	R-2821	42762	Pipe - Intake, with flange	
EGADF	R-2825	21425	Flange - Intake pipe Quantities used: R-760 - 7, R-975	9
EGAFB	R-2828	21396	Gasket - Intake pipe flange Quantities used: R-760 - 7, R-975	9
EGAHD	R-2830	45-D-18	Screw - Intake pipe flange (5/16" x 24 x 13/16") Quantities used: R-760 - 21, R-975	9
EGAJH		27-D-118	Washer - Intake pipe flange (21/64" x 19/32" x 5/64") Quantities used: R-760 - 21, R-975	27
EGALG		28-D-13	Lockwasher - Intake pipe flange (11/32" I.D.) Quantities used: R-760 - 21, R-975	27
EGANI	R-2833	21585	Packing - Intake pipe Quantities used: R-760 - 7, R-975	27
EGAPJ	R-2835	21584	Nut - Intake pipe packing Quantities used: R-760 - 7, R-975	9

PISTONS

The compression ratio of engines is stamped on the engine data plate located on the crankcase front section.

The same pistons are used for 6.1:1 and 6.3:1 compression ratio engines. The compression ratio varies from 6.1:1 to 6.3:1 depending upon the type of exhaust valve used.

Pistons are not sold without fitted rings.

6.1:1 AND 6.3:1 COMPRESSION RATIO (FIVE RING GROOVE TYPE)
(WITHOUT OIL RING)

Five ring groove pistons without the oil ring are supplied only for R-760 6.1:1 and 6.3:1 compression ratio engines. For replacement on R-975 engines originally equipped with this type of piston, use the type with the oil ring.

EGCAK		410908	Piston - Complete with rings, piston pin and retainers, standard size. R-760 Used in all cylinders except two bottom cylinders.	5
EGCCL		410908-Y1	Piston - Complete with rings, piston pin and retainers, .015" oversize. R-760 Oversize for piston 410908.	5
EGCEM		410909	Piston - Complete with rings, piston pin and retainers, standard size. R-760 Used in two bottom cylinders.	2
EGCIN		410909-Y1	Piston - Complete with rings, piston pin and retainers, .015" oversize. R-760 Oversize for piston 410909.	2
EGCKO		89774	Piston - With rings, standard size. R-760 Used in all cylinders except two bottom cylinders.	5
EGCMP		89774-Y1	Piston - With rings, .015" oversize. R-760 Oversize for piston 89774.	5
EGCOS		89775	Piston - With rings, standard size. R-760 Used in two bottom cylinders.	2
EGCRT		89775-Y1	Piston - With rings, .015" oversize. R-760 Oversize for piston 89775.	2

6.1:1 AND 6.3:1 COMPRESSION RATIO (FIVE RING GROOVE TYPE)
(WITH OIL RING)

Five ring groove pistons with an oil ring are supplied only for R-975 6.1:1 and 6.3:1 compression ratio engines. For replacement on R-760 engines originally equipped with this piston, use the type without the oil ring.

EGEBR	R-2860	49553	Piston - Complete with rings, piston pin and retainers, standard size. R-975 Used in all cylinders except two bottom cylinders.	7
EGEDU		49553-Y1	Piston - Complete with rings, piston pin and retainers, .015" oversize. R-975 Oversize for piston 49553. Used in all cylinders except two bottom cylinders.	7
EGEFV		49552	Piston - Complete with rings, piston pin and retainers, standard size. R-975 Used in two bottom cylinders.	2

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CYLINDERS, INTAKE PIPES AND PISTONS - Cont'd				
PISTONS - Cont'd				
6.1:1 AND 6.3:1 COMPRESSION RATIO (FIVE RING GROOVE TYPE) (WITH OIL RING) - Cont'd				
EGEHX		49552-Y1	Piston - Complete with rings, piston pin and retainers, .015" oversize. R-975 Oversize for piston 49552. Used in two bottom cylinders.	2
EGEJY		89669	Piston - With rings, standard size. R-975. Used in all cylinders except two bottom cylinders.	7
EGELZ		89669-Y1	Piston - With rings, .015" oversize. R-975 Oversize for piston 89669. Used in all cylinders except two bottom cylinders.	7
EGENA		89668	Piston - With rings, standard size, R-975 Used in two bottom cylinders.	2
EGEPB		89668-Y1	Piston - With rings, .015" oversize. R-975 Oversize for piston 89668. Used in two bottom cylinders.	2
PISTON PIN				
EGHAD	R-2890	26823	Pin - Piston Quantities used: R-760 - 7, R-975	9
EGHCE	R-2893	28751	Retainer - Piston pin Quantities used: R-760 - 14, R-975.	18
PISTON RINGS - PLAIN				
EGIBF	R-2903	66239	Ring - Piston, plain, standard size Quantities used: R-760 - 21, R-975.	27
EGIDG		66239-Y1	Ring - Piston, plain, standard diameter, .002" oversize width Quantities used: R-760 - 21, R-975.	27
EGIFI		66239-Y2	Ring - Piston, plain, standard diameter, .004" oversize width Quantities used: R-760 - 21, R-975.	27
EGIHK		66239-Y3	Ring - Piston, plain, standard diameter, .006" oversize width Quantities used: R-760 - 21, R-975.	27
EGILH		66239-Y6	Ring - Piston, plain, standard diameter, .002" undersize width Quantities used: R-760 - 21, R-975.	27
EGINJ		66239-Y7	Ring - Piston, plain, standard diameter, .004" undersize width Quantities used: R-760 - 21, R-975.	27
EGIPM		66239-Y8	Ring - Piston, plain, standard diameter, .006" undersize width Quantities used: R-760 - 21, R-975.	27
EGIRN		66239-Y15	Ring - Piston, plain, .015" oversize diameter, standard width Quantities used: R-760 - 21, R-975.	27
EGISO		66239-Y16	Ring - Piston, plain, .015" oversize diameter, .002" oversize width Quantities used: R-760 - 21, R-975.	27
EGIUP		66239-Y17	Ring - Piston, plain, .015" oversize diameter, .004" oversize width Quantities used: R-760 - 21, R-975.	27
EGIWR		66239-Y18	Ring - Piston, plain, .015" oversize diameter, .006" oversize width Quantities used: R-760 - 21, R-975.	27
EGJCU		66239-Y21	Ring - Piston, plain, .015" oversize diameter, .002" undersize width Quantities used: R-760 - 21, R-975.	27
EGJEV		66239-Y22	Ring - Piston, plain, .015" oversize diameter, .004" undersize width Quantities used: R-760 - 21, R-975.	27
EGJGY		66239-Y23	Ring - Piston, plain, .015" oversize diameter, .006" undersize width Quantities used: R-760 - 21, R-975.	27
PISTON RINGS - WIPER				
Two wiper rings are used with each piston not having an oil ring. One wiper ring is used with each piston having an oil ring. The quantities specified for the rings listed below are for pistons not having an oil ring.				
EGMAB	R-2906	67159	Ring - Piston, wiper, standard size Quantities used: R-760 - 14, R-975.	18
EGMCE		67159-Y1	Ring - Piston, wiper, standard diameter, .002" oversize width Quantities used: R-760 - 14, R-975.	18
EGMED		67159-Y2	Ring - Piston, wiper, standard diameter, .004" oversize width Quantities used: R-760 - 14, R-975.	18

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CYLINDERS, INTAKE PIPES AND PISTONS - Cont'd				
PISTON RINGS - WIPER - Cont'd				
EGMGA		67159-Y3	Ring - Piston, wiper, standard diameter, .006" oversize width	
EGMMI		67159-Y6	Ring - Piston, wiper, standard diameter, .002" undersize width Quantities used: R-760 - 14, R-975.	18
EGMOG		67159-Y7	Ring - Piston, wiper, standard diameter, .004" undersize width Quantities used: R-760 - 14, R-975.	18
EGMRH		67159-Y8	Ring - Piston, wiper, standard diameter, .006" undersize width Quantities used: R-760 - 14, R-975.	18
EGMSK		67159-Y15	Ring - Piston, wiper, .015" oversize diameter, standard width Quantities used: R-760 - 14, R-975.	18
EGTJJ		67159-Y16	Ring - Piston, wiper, .015" oversize diameter, .002" oversize width Quantities used: R-760 - 14, R-975.	18
EGMWL		67159-Y17	Ring - Piston, wiper, .015" oversize diameter, .004" oversize width Quantities used: R-760 - 14, R-975.	18
EGMYM		67159-Y18	Ring - Piston, wiper, .015" oversize diameter, .006" oversize width Quantities used: R-760 - 14, R-975.	18
EGNBN		67159-Y19	Ring - Piston, wiper, .015" oversize diameter, .008" oversize width Quantities used: R-760 - 14, R-975.	18
EGNHT		67159-Y22	Ring - Piston, wiper, .015" oversize diameter, .004" undersize width Quantities used: R-760 - 14, R-975.	18
EGNJU		67159-Y23	Ring - Piston, wiper, .015" oversize diameter, .006" undersize width Quantities used: R-760 - 14, R-975.	18
PISTON RINGS - OIL				
The piston oil ring is installed in the groove above the piston pin and may be identified by the scallops in the bottom surface.				
Piston oil rings are not supplied for use on R-760 engines. For replacement of oil rings originally installed on R-760 engines, use wiper ring 67159.				
EGRAP	R-2909	67160	Ring - Piston, oil, standard size	9
EGRCY		67160-Y1	Ring - Piston, oil, standard diameter, .002" oversize width	9
EGRER		67160-Y2	Ring - Piston, oil, standard diameter, .004" oversize width	9
EGRGV		67160-Y3	Ring - Piston, oil, standard diameter, .006" oversize width	9
EGRIZ		67160-Y6	Ring - Piston, oil, standard diameter, .002" undersize width.	9
EGRKA		67160-Y7	Ring - Piston, oil, standard diameter, .004" undersize width.	9
EGRMB		67160-Y8	Ring - Piston, oil, standard diameter, .006" undersize width.	9
EGRNC		67160-Y15	Ring - Piston, oil, .015" oversize diameter, standard width	9
EGRD		67160-Y16	Ring - Piston, oil, .015" oversize diameter, .002" oversize width	9
EGRRE		67160-Y17	Ring - Piston, oil, .015" oversize diameter, .004" oversize width	9
EGRSH		67160-Y18	Ring - Piston, oil, .015" oversize diameter, .006" oversize width	9
EGRUF		67160-Y21	Ring - Piston, oil, .015" oversize diameter, .002" undersize width.	9
EGRWI		67160-Y22	Ring - Piston, oil, .015" oversize diameter, .004" undersize width.	9
EGRYK		67160-Y23	Ring - Piston, oil, .015" oversize diameter, .006" undersize width.	9

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Code Word	Reference Number	Drawing Number	Description of Part	Number Used
VALVE MECHANISM				
ROCKER ARM				
EGUBO		47107	Arm - Rocker, intake, complete with roller bearing Quantities used: R-760 - 7, R-975	9
			Includes: Rocker arm Valve clearance adjusting screw Roller, roller hub and pin Clamping screw and washer	
EGUDU		47108	Arm - Rocker, exhaust, complete with roller bearing Quantities used: R-760 - 7, R-975	9
			Includes: Rocker arm Valve clearance adjusting screw Roller, roller hub and pin Clamping screw and washer	
EGUFY		89356	Arm - Rocker, intake Quantities used: R-760 - 7, R-975	9
			Includes: Roller, roller hub and pin Clamping screw and washer	
EGUHA	R-2935	89445	Arm - Rocker, exhaust Quantities used: R-760 - 7, R-975	9
			Includes: Roller, roller hub and pin Clamping screw and washer	
EGUJB	R-2939	23065	Roller - Rocker arm Quantities used: R-760 - 14, R-975.	18
EGULD	R-2942	23066	Hub - Rocker arm roller Quantities used: R-760 - 14, R-975.	18
EGUNE	R-2944	29-D-11	Pin - Rocker arm roller hub (1/4" x 23/32") Quantities used: R-760 - 14, R-975.	18
EGUPF	R-2946	27056	Bearing - Rocker arm, roller Quantities used: R-760 - 14, R-975.	18
EGURG	R-2949	66047	Bolt - Rocker arm hub Quantities used: R-760 - 14, R-975.	18
EGUTH	R-2952	64768	Nut - Rocker arm hub bolt Quantities used: R-760 - 14, R-975.	18
EGUVI	R-2955	34-D-71	Washer - Rocker arm hub bolt (21/64" x 27/32" x 1/8") Quantities used: R-760 - 14, R-975.	18
			Installed under head of bolt.	
EGUXT	R-2958	64126	Washer - Rocker arm hub bolt Quantities used: R-760 - 14, R-975.	18
			Installed under bolt nut.	
EGUZK	R-2961	62773	Screw - Valve clearance adjusting Quantities used: R-760 - 14, R-975.	18
EGVAL	R-2964	46-D-13	Screw - Valve clearance adjusting screw clamp (1/4" x 28 x 27/32") Quantities used: R-760 - 14, R-975.	18
EGVCO	R-2966	189-D-3	Lockwasher - Valve clearance adjusting screw clamp (17/64" I.D.) Quantities used: R-760 - 14, R-975.	18
PUSH ROD AND HOUSING				
EGYEP	R-2990	49514	Rod - Push, complete with ball ends Quantities used: R-760 - 14, R-975.	18
			Since experience has shown that new ball ends cannot be safely installed in old push rod tubes, detail parts are not supplied separately.	
EGYGR	R-2993	65932	Housing - Push rod (9 7/16" long) Quantities used: R-760 - 14, R-975.	18
EGYIS	R-2996	2058-D-9	Hose - Push rod housing, lower Quantities used: R-760 - 14, R-975.	18
EGYKT	R-2999	2058-D-25	Hose - Push rod housing, upper Quantities used: R-760 - 14, R-975.	18
EGYMU	R-3002	4019-D-2	Clamp - Push rod housing hose, lower Quantities used: R-760 - 28, R-975.	36
EGYOV	R-3005	2022-D-3	Clamp - Push rod housing hose, upper Quantities used: R-760 - 14, R-975.	18
VALVE TAPPET				
EGYRY	R-3020	66950	Tappet - Valve Quantities used: R-760 - 14, R-975.	18
EGYSZ	R-3023	62728	Socket - Valve tappet ball Quantities used: R-760 - 14, R-975.	18

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Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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MAGNETOS, SPARK PLUGS AND IGNITION WIRING

Magneto parts are stocked by us in small quantities only. It is requested that orders for these parts be placed direct with Scintilla Magneto Company, Sidney, N.Y., or with their authorized service stations.

For detail parts of magnetos, see Parts Lists issued by Scintilla.

When ordering parts for a magneto, be sure to note the type as given on the front end plate of the magneto and enter it on your order.

MAGNETO				
EHFAV		29555	Magneto - Scintilla MN7-DF (Adjustable spark). R-760 Used with Breeze radio-shielded wiring harness for the following engines: 14543 - 14552 14641 - 14649 Magneto pilot diameter, 1 7/8" Includes magneto shield.	2
EHFCE	R-3101	24575	Magneto - Scintilla VAG-9-DF (Adjustable spark). R-975 Used with Breeze radio-shielded wiring harness for the following engines: 13277 - 13278 15331 - 15339 15494 - 15496 13281 - 13293 15379 - 15392 15501 13295 - 13302 15396 - 15402 15303 - 15328 15454 - 15456 For use with clamp type magneto shield elbow. Magneto pilot diameter, 1 7/8". Includes magneto shield. Does not include magneto shield elbow.	2
EHFGA		64249	Magneto - Scintilla VAG-9-DF (Fixed spark). R-975. Used with Breeze radio-shielded wiring harness for the following engines: 15341 - 15378 For use with clamp type magneto shield elbow. Magneto pilot diameter, 1 7/8". Includes magneto shield. Does not include magneto shield elbow.	2
EHFKE		67902	Magneto - Scintilla VAG-9-DFR (Fixed spark). R-975 Used with Breeze radio-shielded wiring harness for the following engines: 15340 15457 - 15493 15393 - 15395 15497 - 15500 For use with bolted type magneto shield elbow. Magneto pilot diameter, 1 7/8". Includes magneto shield and magneto shield elbow.	2
EHFME	R-3107	63994	Spacer - Magneto pilot. Used when magneto with a 1 7/8" diameter pilot is installed on crankcase rear section machined for a magneto with a 3" diameter pilot.	2
EHFQF	R-3109	62949	Gear - Magneto.	2
EHFRC	R-3111	10-D-5	Key - Magneto gear (Woodruff #3).	2
EHFSD	R-3113	16795	Nut - Magneto gear (3/8" x 16).	2
EHFWE	R-3114	34-D-46	Washer - Magneto gear (25/64" x 25/32" x 3/32")	2
EHFYK	R-3116	25677	Gasket - Magneto to crankcase rear section.	2
EHGBL	R-3118	1-D-40	Nut - Magneto to crankcase rear section (5/16" x 24).	6
EHGDM		34-D-4	Washer - Magneto to crankcase rear section (21/64" x 3/4" x 3/32")	6
EHGFN		22957	Rod - Magneto advance control. R-760	1
EHGHO	R-3121	21607	Rod - Magneto advance control. R-975	1
EHGJR	R-3123	21609	Rod End - Magneto advance control, short.	1
EHGLS	R-3125	21608	Rod End - Magneto advance control, long.	1
EHGNT	R-3127	2-D-4	Nut - Magneto advance control rod (5/16" x 24).	2
EHGPU	R-3129	22923	Pin - Magneto advance lever	2
EHGRV	R-3131	2-D-35	Nut - Magneto advance lever pin (1/4" x 20)	2
EHGTY		27-D-121	Washer - Magneto advance lever pin (17/64" x 7/16" x 1/16")	2

IGNITION WIRING

Engines not listed under the Breeze wiring harnesses were equipped with a special wiring harness specified by the customer, the drawing numbers of which are not listed in this catalog.

Wiring harnesses as serviced do not include magneto shields nor ignition wire terminals.

EHJAZ		47391	Wiring Harness - Radio-shielded (Breeze). R-760. Used for the following engines: 14543 - 14552 14641 - 14649	1
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Code Word	Reference Number	Drawing Number	Description of Part	Number Used
MAGNETOS, SPARK PLUGS AND IGNITION WIRING - Cont'd				
IGNITION WIRING - Cont'd				
EHJCA	R-3145	48085	Wiring Harness - Radio shielded (Breeze). R-975. Used for the following engines: 13277 - 13278 15303 - 15328 15396 - 15397 13281 - 13293 15331 - 15339 15494 - 15496 13295 - 13302 15341 - 15390 15501 Used with and includes clamp type magneto shield elbows.	1
EHJDB		410924	Wiring Harness - Radio-shielded (Breeze). R-975. Used for the following engines: 15391 - 15392 15398 - 15402 15454 - 15456 Used with and includes clamp type magneto shield elbows.	1
EHJFD		410769	Wiring Harness - Radio-shielded (Breeze). R-975. Used for the following engines: 15340 15457 - 15493 15393 - 15395 15497 - 15500 Used with, but does not include bolted type magneto shield elbows. Elbows are included with magnetos.	1
EHJHE	R-3148	24391	Washer - Ignition wire coupling, rubber	
EHJJI	R-3151	61124	Terminal - Ignition wire spark plug, assembly (B.G. type) Quantities used: R-760 - 14, R-975. Includes contact.	18
EHJLG	R-3154	61722	Contact - Ignition wire spark plug terminal Quantities used: R-760 - 14, R-975.	18
EHJNH	R-3157	27-D-114	Washer - Ignition wire spark plug terminal (5/64" x 1/4" x 1/32") Quantities used: R-760 - 14, R-975.	18
EHJPO	R-3160	66587	Wire - Ignition, high tension Feet required: R-760 - 63, R-975. Used for Commercial engines.	75
SPARK PLUGS				
Spark plugs are handled as an accommodation only. Whenever possible they should be bought direct from the maker or the maker's representative.				
EHMBU	R-3170	29263	Plug - Spark, B.G. #4B-2S. (Shielded type) Quantities used: R-760 - 14, R-975. Used for R-760E, E1, ET, R-975E, E1 engines.	18
EHMDY		29624	Plug - Spark, B.G. #3B-2S. (Shielded type) Quantities used: R-760 - 14, R-975. Used for R-760E-2, R-975E-3 engines.	18
EHMFA	R-3173	27-D-104	Gasket - Spark plug Quantities used: R-760 - 14, R-975.	18

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Code Word	Reference Number	Drawing Number	Description of Part	Number Used.
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CARBURETOR, HOT SPOT, AIR HEATER AND AIR CLEANER

CARBURETOR

Carburetor parts are stocked by us in small quantities only. It is requested that orders for these parts be placed direct with Bendix Stromberg Carburetor Company, South Bend, Indiana, or with their authorized service stations.

All carburetors as supplied, except those which are used in connection with the cast type air heater, are for use with bolts instead of studs for attaching the air heater. Carburetors used with cast type air heaters are supplied with studs for attaching the heater. For replacement of carburetors (except those used with the cast type heaters) having studs for attaching the heater, order additionally, four (4) bolts, part 2070-D-26.

For detail parts of carburetors, see Parts Lists issued by Bendix Stromberg.

Carburetors as sold do not include the body half of the feed pipe connection.

EHPAB		65529	Carburetor - Bendix Stromberg NAR-7A (Pressure Feed). R-760. . . Used for R-760E and R-760E-T engines. Read note under "Carburetor" at top of page.	1
EHPCH		65583	Carburetor - Bendix Stromberg NAR-7A (Gravity Feed). R-760 . . . Used for R-760E engines. Read note under "Carburetor" at top of page.	1
EHPEC		62110	Carburetor - Bendix Stromberg NAR-7A (Gravity Feed). R-760 . . . Used for R-760E-T engines. Read note under "Carburetor" at top of page.	1
EHPGI		62958	Carburetor - Bendix Stromberg NAR-7A (Pressure Feed). R-760. . . Used for R-760E-1 engines. Read note under "Carburetor" at top of page.	1
EHPID		62959	Carburetor - Bendix Stromberg NAR-7A (Gravity Feed). R-760 . . . Used for R-760E-1 engines. Read note under "Carburetor" at top of page.	1
EHPKE		64407	Carburetor - Bendix Stromberg NAR-7A (Pressure Feed). R-760. . . Used for R-760E-2 engines. Read note under "Carburetor" at top of page.	1
EHPMG		64012	Carburetor - Bendix Stromberg NAR-7A (Gravity Feed). R-760 . . . Used for R-760E-2 engines. Read note under "Carburetor" at top of page.	1
EHPOF	R-3200	65088	Carburetor - Bendix Stromberg NAR-9A (Pressure Feed). R-975. . . Used for R-975E and R-975E-1 engines. Read note under "Carburetor" at top of page.	1
EHPRK		65584	Carburetor - Bendix Stromberg NAR-9A (Gravity Feed). R-975 . . . Used for R-975E and R-975E-1 engines. Read note under "Carburetor" at top of page.	1
EHPSL		49378	Carburetor - Bendix Stromberg NAR-9A (Pressure Feed). R-975. . . Used for R-975E-3 engines equipped with cast type air heater. Read note under "Carburetor" at top of page. Includes carburetor air heater attaching studs.	1
EHPUM		48310	Carburetor - Bendix Stromberg NAR-9A (Gravity Feed). R-975 . . . Used for R-975E-3 engines equipped with cast type air heater. Read note under "Carburetor" at top of page. Includes carburetor air heater attaching studs.	1
EHPVN		63444	Carburetor - Bendix Stromberg NAR-9A (Pressure Feed). R-975. . . Used for R-975E-3 engines equipped with other than cast type air heater. For use with bolts for attaching air heater. Read note under "Carburetor" at top of page.	1
EHPXO		64498	Carburetor - Bendix Stromberg NAR-9A (Gravity Feed). R-975 . . . Used for R-975E-3 engines equipped with other than cast type air heater. For use with bolts for attaching air heater. Read note under "Carburetor" at top of page.	1
EHPZR		2030-H-1	Stud - Carburetor to air heater, .003" oversize (5/16" x 18 - 24 x 15/16"). Used with carburetors not provided with steel bushings for the studs.	4
EHRBS		2030-S-1	Stud - Carburetor to air heater, .007" oversize (5/16" x 18 - 24 x 15/16"). Used with carburetors not provided with steel bushings for the studs.	4

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CARBURETOR, HOT SPOT, AIR HEATER AND AIR CLEANER - Cont'd				
CARBURETOR - Cont'd				
EHRDT		2030-J-1	Stud - Carburetor to air heater, .012" oversize (5/16" x 18 - 24 x 15/16")	4
			Used with carburetors not provided with steel bushings for the studs.	
EHRFU		2104-D-5	Stud - Carburetor to air heater, standard size (5/16" x 18 - 24 x 15/16"). R-760	4
			Used with carburetors provided with steel bushings for the studs.	
EHRHV		2104-D-2	Stud - Carburetor to air heater, standard size (5/16" x 18 - 24 x 15/32"). R-975	4
			Used with carburetors provided with steel bushings for the studs.	
EHRJY		21538	Gasket - Carburetor to carburetor elbow. R-760	1
EHRJZ	R-3206	21835	Gasket - Carburetor to carburetor elbow. R-975	1
EHRNA		1-D-40	Nut - Carburetor to carburetor elbow (5/16" x 24). R-760	4
EHRPC	R-3209	1-D-9	Nut - Carburetor to carburetor elbow (3/8" x 24). R-975	4
EHRRB		27-D-118	Washer - Carburetor to carburetor elbow (21/64" x 19/32" x 5/64"). R-760	4
EHRTD		34-D-14	Washer - Carburetor to carburetor elbow (25/64" x 11/16" x 5/64"). R-975	4
AIR HEATER (PREHEATER) (BANJO TYPE) (FRONT EXHAUST) R-760, R-975				
Parts listed in this group are used for the following engines:				
		13290	15333	15454 - 15456
		13293	15340 - 15378	15495 - 15496
		13299	15383 - 15388	15501
		14552	15391 - 15394	
		14646 - 14649	15396 - 15402	
EHUAF		89564	Body - Carburetor air heater, assembly. R-760.	1
			Includes: Doors Control rod and rod end All riveted and welded parts	
EHUCG	R-3225	89565	Body - Carburetor air heater, assembly. R-975.	1
			Includes: Doors Control rod and rod end All riveted and welded parts	
EHUEH		44632	Door - Carburetor air heater assembly, right.	1
			Includes control rod link.	
EHUGK	R-3229	44633	Door - Carburetor air heater, assembly, left.	1
			Includes control rod link.	
EHUIJ	R-3231	28461	Rod - Carburetor air heater control	1
EHUKE	R-3233	33-D-19	Nut - Carburetor air heater control rod (#10 x 32).	1
EHUMI	R-3235	23183	Rod End - Carburetor air heater control	1
EHUOL		28458	Link - Carburetor air heater control rod.	2
EHURM		27-D-80	Washer - Carburetor air heater control rod (13/64" x 7/16" x 1/32")	1
EHUSN		23235	Clip - Carburetor air heater control rod link	2
EHUWO		28455	Pin - Carburetor air heater door hinge (3/16" x 6 1/4")	2
EHUYP		23314	Pipe - Carburetor air heater. R-760.	1
EHVBR	R-3243	25221	Pipe - Carburetor air heater. R-975.	1
EHVDS	R-3245	40958	Clamp - Carburetor air heater pipe.	1
EHVFT	R-3247	6-D-35	Screw - Carburetor air heater pipe clamp (1/4" x 20 x 37/64")	1
EHVHU	R-3249	2101-D-3	Nut - Carburetor air heater pipe clamp screw (1/4" x 20).	1
EHVJY		48602	Scoop - Carburetor air heater, right. R-760.	1
EHVLZ		48603	Scoop - Carburetor air heater, left. R-760.	1
EHVNA	R-3251	48710	Scoop - Carburetor air heater, right. R-975.	1
EHVPC	R-3253	48711	Scoop - Carburetor air heater, left. R-975.	1
EHVRD	R-3255	25460	Pin - Carburetor air scoop hinge.	2
EHVTE	R-3256	64266	Bracket - Carburetor air scoop, right.	1
EHVZG	R-3258	64267	Bracket - Carburetor air scoop, left.	1
EHWAJ	R-3260	22-D-2	Bolt - Carburetor air scoop bracket (1/4" x 20 x 1/2").	1
EHWCI		27-D-121	Washer - Carburetor air scoop bracket bolt (17/64" x 7/16" x 1/16")	4
EHWEK		25309	Gasket - Carburetor air heater to carburetor. R-760.	4
EHWGL	R-3262	22543	Gasket - Carburetor air heater to carburetor. R-975.	1
EHWIM		1-D-40	Nut - Carburetor air heater to carburetor (5/16" x 24).	4
			Used with carburetors provided with studs for attaching air heater.	
EHWKN		34-D-14	Washer - Carburetor air heater to carburetor (25/64" x 11/16" x 5/64")	4
			Used with carburetors provided with studs for attaching air heater.	

WRIGHT AERONAUTICAL CORPORATION

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Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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CARBURETOR, HOT SPOT, AIR HEATER AND AIR CLEANER - Cont'd

AIR HEATER (PREHEATER) (BANJO TYPE) (FRONT EXHAUST) R-760, R-975 - Cont'd

EHWMO	R-3264	2070-D-26	Bolt - Carburetor air heater to carburetor (5/16" x 18 x 41/64").	4
Used with carburetors not provided with studs for attaching air heater.				

AIR HEATER (CAST TYPE) (FRONT EXHAUST) R-975

Parts listed in this group are used for the following engines:
 13237 - 13239 15334 - 15335 15395
 13295 - 13298 15338 - 15339 15457 - 15493
 13301 - 13302 15379 - 15382 15497 - 15500
 15303 - 15325 15389

EIBBU	R-3301	48199	Heater - Carburetor air, assembly	1
Includes heater body, bushings and pipe plugs.				

EIBDV	R-3303	64280	Bushing - Carburetor air heater thermometer bulb connection	2
EIBFX	R-3305	2105-D-3	Plug - Carburetor air heater fire extinguisher hole, pipe (3/8").	1
EIBHY	R-3307	2023-D-5	Plug - Carburetor air heater, pipe (1/4" hex. socket)	1
EIBJZ	R-3309	48198	Valve and Shaft - Carburetor air heater, assembly	1
Includes valve and shaft neither of which is supplied separately.				

EIBLA	R-3311	56-D-13	Screw - Carburetor air heater valve to shaft (#10 x 32 x 57/64").	3
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EIBNB		27-D-30	Washer - Carburetor air heater valve to shaft (13/64" x 5/16" x 1/32")	3
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EIBPF	R-3313	1-D-84	Nut - Carburetor air heater valve to shaft (#10 x 32)	3
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EIBRC	R-3315	64400	Packing - Carburetor air heater valve shaft gland nut	1
EIBTD	R-3317	28729	Nut - Carburetor air heater valve shaft packing gland	1
EIBVE	R-3319	64483	Gland - Carburetor air heater valve shaft packing	1
EIBXG	R-3321	48428	Lever - Carburetor air heater valve control, assembly	1

Includes bushing.

EIBZH	R-3323	2021-D-1	Bushing - Carburetor air heater valve control lever	1
EICAJ	R-3325	2068-D-2	Screw - Carburetor air heater valve control lever (#10 x 32).	1

EICCI		27-D-30	Washer - Carburetor air heater valve control lever screw (13/64" x 5/16" x 1/32")	2
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EICEK	R-3327	1 D-83	Nut - Carburetor air heater valve control lever screw (#10 x 32).	1
EICGL	R-3329	25221	Pipe - Carburetor air heater.	1

EICIM	R-3331	40958	Clamp - Carburetor air heater pipe.	1
EICKN	R-3333	6-D-35	Screw - Carburetor air heater pipe clamp (1/4" x 28 x 37/64")	1

EICMR	R-3335	2101-D-3	Nut - Carburetor air heater pipe clamp screw (1/4" x 28).	1
EICOP	R-3337	26404	Gasket - Carburetor air heater.	2
EICRS	R-3339	40460	Screen - Carburetor air heater intake	1

EICSO		34-D-33	Washer - Carburetor air heater to carburetor (21/64" x 5/8" x 1/16")	4
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EICUT	R-3341	2-D-4	Nut - Carburetor air heater to carburetor (5/16" x 24).	4
EICWU		2000-D-2	Lock - Carburetor air heater to carburetor, palnut (5/16" x 24)	4

HOT SPOT AND AIR HEATER (REAR EXHAUST) R-760

Parts listed in this group are used for the following engines:
 14641 - 14645

EIFBY		27105	Hot Spot.	1
EIFDZ		45-D-27	Screw - Hot spot to air heater (5/16" x 24 x 3/4").	2

EIFFA		28-D-13	Lockwasher - Hot spot to air heater (11/32" I.D.)	2
EIFHB		43193	Pipe - Hot spot connection, with flange	1
EIFJD		24789	Gasket - Hot spot connection pipe flange to exhaust elbow	1

EIFLE		14712	Nut - Hot spot connection pipe flange to exhaust elbow (5/16" x 24).	2
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EIFNH		22-D-2	Screw - Hot spot connection pipe to air heater (1/4" x 20 x 1/2")	2
EIFPI		44933	Adapter - Carburetor air heater hot spot, and screen assembly	1

EIFRF		2054-D-3	Screw - Carburetor air heater hot spot adapter to air heater (#10 x 32 x 11/32").	14
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EIFTH		27-D-27	Washer - Carburetor air heater hot spot adapter to air heater (13/64" x 1/2" x 3/64").	14
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EIFVG		42941	Body - Carburetor air heater, assembly.	1
Includes all welded parts.				

EIFXK		26831	Brace - Carburetor air heater hot spot.	1
EIFZL		42988	Door - Carburetor air heater.	1

EIGAJ		25260	Shaft - Carburetor air heater door.	1
EIGCO		113-D-6	Pin - Carburetor air heater door to shaft, taper (#00 x 7/8")	2

EIGEK		25153	Lever - Carburetor air heater door control.	1
EIGGL		113-D-6	Pin - Carburetor air heater door control lever, taper (#00 x 7/8").	1

EIGIM		26189	Rod - Carburetor air heater tie	1
EIGKN		28-D-9	Lockwasher - Carburetor air heater tie rod (9/32" I.D.)	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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CARBURETOR, HOT SPOT, AIR HEATER AND AIR CLEANER - Cont'd

HOT SPOT AND AIR HEATER (REAR EXHAUST) R-760 - Cont'd

EIGMS		2-D-1	Nut - Carburetor air heater tie rod (1/4" x 28)	1
EIGOP		99-D-7	Plug - Carburetor air heater, pipe (1/4")	1
EIGRT		25309	Gasket - Carburetor air heater to carburetor.	1
EIGSU		1-D-40	Nut - Carburetor air heater to carburetor (5/16" x 24).	4

Used with carburetors provided with studs for attaching air heater.

EIGUR		34-D-14	Washer - Carburetor air heater to carburetor (25/64" x 11/16" x 5/64")	4
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Used with carburetors provided with studs for attaching air heater.

EIGWY		2070-D-26	Bolt - Carburetor air heater to carburetor (5/16" x 18 x 41/64").	4
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Used with carburetors not provided with studs for attaching air heater.

HOT SPOT AND AIR HEATER (REAR EXHAUST) R-975

Parts listed in this group are used for the following engines:
15300 15331 - 15332

EIJBA	R-3460	26193	Hot Spot.	1
EIJDE	R-3462	90-D-13	Screw - Hot spot to air heater (5/16" x 24 x 5/8").	2
EIJFI	R-3464	43614	Pipe - Hot spot connection, with flange	1
EIJHB	R-3466	24789	Gasket - Hot spot connection pipe flange to exhaust elbow	1
EIJJO	R-3468	14712	Nut - Hot spot connection pipe flange to exhaust elbow (5/16" x 24).	2
EIJLU	R-3470	22-D-2	Screw - Hot spot connection pipe to air heater (1/4" x 20 x 1/2")	2
EIJNY	R-3472	89147	Body - Carburetor air heater, assembly.	1

Includes:
Doors
Control rod and rod end
All welded parts

EIJPC		42647	Door - Carburetor air heater, right	1
EIJRD	R-3476	42648	Door - Carburetor air heater, left.	1
EIJTF		66-D-20	Pin - Carburetor air heater door hinge (1/8" x 6 1/4").	2
EIJVH	R-3480	25458	Rod - Carburetor air heater control	1
EIJXL	R-3482	33-D-19	Nut - Carburetor air heater control rod end, lock (#10 x 32).	1
EIJZM	R-3484	23183	Rod End - Carburetor air heater control	1
EIKAN		27-D-80	Washer - Carburetor air heater control rod to door link (13/64" x 7/16" x 1/32")	1
EIKCP	R-3486	48843	Scoop - Carburetor air heater, right.	1
EIKER	R-3488	48844	Scoop - Carburetor air heater, left.	1
EIKGT	R-3490	64266	Bracket - Carburetor air heater scoop, right.	1
EIKIS	R-3492	64267	Bracket - Carburetor air heater scoop, left.	1
EIKKV	R-3494	22-D-2	Screw - Carburetor air heater scoop bracket (1/4" x 20 x 1/2").	4
EIKMZ		27-D-121	Washer - Carburetor air heater scoop bracket (17/64" x 7/16" x 1/16")	4
EIKOB	R-3496	25460	Pin - Carburetor air heater scoop hinge	2
EIKRA	R-3498	22543	Gasket - Carburetor air heater to carburetor.	1
EIKSD		1-D-40	Nut - Carburetor air heater to carburetor (5/16" x 24).	4

Used with carburetors provided with studs for attaching air heater.

EIKUC		34-D-14	Washer - Carburetor air heater to carburetor (25/64" x 11/16" x 5/64")	4
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Used with carburetors provided with studs for attaching air heater.

EIKWE	R-3500	2070-D-26	Bolt - Carburetor air heater to carburetor (5/16" x 18 - 24 x 41/64").	4
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Used with carburetors not provided with studs for attaching the air heater.

CARBURETOR AIR HEATER ATTACHING PARTS (SPECIAL)

The parts listed in this group are used only for attaching air heaters which are not supplied by the Wright Aeronautical Corporation.

EINBF		22-D-18	Bolt - Carburetor air heater to carburetor (5/16" x 18 x 15/16").	4
EINDG		2097-D-7	Spacer - Carburetor air heater to carburetor.	4
EINFH		34-D-33	Washer - Carburetor air heater to carburetor (21/64" x 5/8" x 1/16")	4

CARBURETOR ELBOW

Carburetor elbows as supplied are designed to accommodate the thermometer bulb connection, vacuum connection and ice warning indicator.

EIRAJ		410437	Elbow - Carburetor, assembly. R-760.	1
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Includes carburetor studs, bushings for thermometer bulb and ice warning indicator connections and substituting plugs.

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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CARBURETOR, HOT SPOT, AIR HEATER AND AIR CLEANER - Cont'd

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
CARBURETOR ELBOW - Cont'd				
EIRCI	R-3541	410438	Elbow - Carburetor, assembly. R-975.	1
			Includes carburetor studs, bushings for thermometer bulb and ice warning indicator connections and substituting plugs.	
EIREK		2030-H-10	Stud - Carburetor elbow to carburetor, .003" oversize (5/16" x 18 - 24 x 1 7/16"). R-760	4
EIRGL		2030-S-10	Stud - Carburetor elbow to carburetor, .007" oversize (5/16" x 18 - 24 x 1 7/16"). R-760	4
EIRIM		2030-J-10	Stud - Carburetor elbow to carburetor, .012" oversize (5/16" x 18 - 24 x 1 7/16"). R-760	4
EIRKN	R-3545	2032-H-10	Stud - Carburetor elbow to carburetor, .003" oversize (3/8" x 16 - 24 x 1 11/16"). R-975.	4
EIRMO		2032-S-10	Stud - Carburetor elbow to carburetor, .007" oversize (3/8" x 16 - 24 x 1 11/16"). R-975.	4
EIROP		2032-J-10	Stud - Carburetor elbow to carburetor, .012" oversize (3/8" x 16 - 24 x 1 11/16"). R-975.	4
EIRRT	R-3547	64280	Bushing - Thermometer bulb and ice warning indicator connection	2
EIRSV	R-3549	93-D-18	Plug - Thermometer bulb and ice warning indicator substituting (5/8" x 18).	2
EIRUX	R-3551	23-D-21	Gasket - Thermometer bulb and ice warning indicator substituting plug	2
EIRWY	R-3553	2023-D-5	Plug - Vacuum connection, pipe (1/4")	1
EIRYU		22240	Gasket - Carburetor elbow to crankcase rear section. R-760	1
EISBA	R-3555	22474	Gasket - Carburetor elbow to crankcase rear section. R-975	1
EISDB	R-3557	1-D-40	Nut - Carburetor elbow to crankcase rear section (5/16" x 24) (slotted hex). R-975.	4
EISFC		2101-D-4	Nut - Carburetor elbow to crankcase rear section (5/16" x 24) (slotted hex). R-760.	4
EISHD		27-D-118	Washer - Carburetor elbow to crankcase rear section (21/64" x 19/32" x 5/64"). R-975.	4
EISJE		34-D-33	Washer - Carburetor elbow to crankcase rear section (21/64" x 5/8" x 1/16"). R-760.	4
AIR CLEANER				
EIVAF	R-3575	89186	Cleaner - Air. (Air Maze).	1
			Includes air cleaner to carburetor air heater gasket and drain plug.	
EIVCG		2023-D-1	Plug - Air cleaner drain, pipe (1/8")	1
EIVEH	R-3579	2008-D-4	Nut - Air cleaner support stud, wing.	1
EIVGI	R-3581	28465	Gasket - Air cleaner to carburetor air heater body.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
EXHAUST MANIFOLD AND NOSE COWL				
EXHAUST MANIFOLD (FRONT EXHAUST) (FOR ENGINES EQUIPPED WITH CRANKCASE FRONT SECTION NOT HAVING PROVISION FOR MOUNTING PROPELLER GOVERNOR)				
EIYBO		45135	Manifold - Exhaust. R-760. Used for the following engines: 14647 - 14649 This manifold has an elbow shaped outlet pipe with an exhaust pipe connecting lug welded to it.	1
EIYDU		48669	Manifold - Exhaust. R-760. Used for the following engines: 14552 14646 This manifold has a straight outlet pipe without an exhaust pipe connecting lug.	1
EIYFY	R-3615	48014	Manifold - Exhaust. R-975. Used for the following engines: 13287 - 13290 15303 - 15325 15395 - 15397 13293 15333 - 15335 15457 - 15493 13295 - 13299 15338 - 15339 15497 - 15500 13301 - 13302 15341 - 15389 This manifold has a straight outlet pipe without an exhaust pipe connecting lug.	1
EIYHZ	R-3617	65209	Spacer - Exhaust manifold to nose cowl.	3
EIYJA	R-3619	1-D-4	Nut - Exhaust manifold to nose cowl (5/16" x 24).	3
EIYLB		34-D-33	Washer - Exhaust manifold to nose cowl (21/64" x 5/8" x 1/16").	3
EIYNC	R-3621	26953	Pipe - Exhaust Quantities used: R-760 - 7, R-975	9
EIYPD	R-3623	26954	Flange - Exhaust pipe Quantities used: R-760 - 7, R-975	9
EIYRE	R-3625	24789	Gasket - Exhaust pipe flange Quantities used: R-760 - 7, R-975	9
EIYTF	R-3627	1-D-40	Nut - Exhaust pipe flange to exhaust elbow (5/16" x 24) Quantities used: R-760 - 14, R-975.	18
EXHAUST MANIFOLD (FRONT EXHAUST) (FOR ENGINES EQUIPPED WITH CRANKCASE FRONT SECTION HAVING PROVISION FOR MOUNTING PROPELLER GOVERNOR)				
Parts listed in this group are used for the following engines: 15340 15398 - 15402 15495 - 15496 15391 - 15394 15454 - 15456 15501				
EJBAG		410392	Manifold - Exhaust. R-760.	1
EJBCI	R-3640	410378	Manifold - Exhaust. R-975.	1
EJBEL	R-3643	66769	Spacer - Exhaust manifold to nose cowl.	3
EJBGK	R-3645	2101-D-4	Nut - Exhaust manifold to nose cowl (5/16" x 24).	3
EJBIJ		34-D-33	Washer - Exhaust manifold to nose cowl (21/64" x 5/8" x 1/16").	3
EJBKN	R-3647	26953	Pipe - Exhaust Quantities used: R-760 - 7, R-975	9
EJBMO	R-3649	26954	Flange - Exhaust pipe Quantities used: R-760 - 7, R-975	9
EJBOP	R-3651	24789	Gasket - Exhaust pipe flange Quantities used: R-760 - 7, R-975	9
EJBRS	R-3653	1-D-40	Nut - Exhaust pipe flange to exhaust elbow (5/16" x 24) Quantities used: R-760 - 14, R-975.	18
NOSE COWL (FRONT EXHAUST) (FOR ENGINES EQUIPPED WITH CRANKCASE FRONT SECTION NOT HAVING PROVISION FOR MOUNTING PROPELLER GOVERNOR)				
EJEBU		48373	Cowl - Nose, assembly. R-760 This is a new design of nose cowl which incorporates an air scoop riveted to the top of the nose cowl. It is the only type supplied. For replacement of an earlier type which did not incorporate an air scoop, it will be necessary to use the following additional part: 64499 Ring - Nose cowl heater. This nose cowl is anodized and enameled. Includes exhaust manifold supports, studs and all riveted parts.	1
EJEDY	R-3670	48219	Cowl - Nose, assembly. R-975 This is a new design of nose cowl which incorporates an air scoop riveted to the top of the nose cowl. It is the only type supplied. For replacement of an earlier type which did not incorporate an air scoop, it will be necessary to use the following additional part: 64499 Ring - Nose cowl heater. This nose cowl is anodized and enameled. Includes exhaust manifold supports, studs and all riveted parts.	1

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
EXHAUST MANIFOLD AND NOSE COWL - Cont'd				
NOSE COWL (FRONT EXHAUST) (FOR ENGINES EQUIPPED WITH CRANKCASE FRONT SECTION NOT HAVING PROVISION FOR MOUNTING PROPELLER GOVERNOR) - Cont'd				
EJEFZ	R-3673	410748	Support - Exhaust manifold, with stud This support has a stud which extends 1 11/64" from the face of the support and is the only type supplied. For replacement of earlier support which has a stud extending only 33/64" from the face, use additionally spacer 65209 and install it on the stud.	3
EJEHA		2030-H-7	Stud - Exhaust manifold support, .003" oversize (5/16" x 18 - 24 x 1 1/4"). (Early type) Used with early type support. Read note under support 410748.	3
EJEJB		2030-S-7	Stud - Exhaust manifold support, .007" oversize (5/16" x 18 - 24 x 1 1/4"). (Early type) Used with early type support. Read note under support 410748.	3
EJELC		2030-J-7	Stud - Exhaust manifold support, .012" oversize (5/16" x 18 - 24 x 1 1/4"). (Early type) Used with early type support. Read note under support 410748.	3
EJEND	R-3676	2030-H-18	Stud - Exhaust manifold support, .003" oversize (5/16" x 18 - 24 x 1 15/16"). (Late type) Used with support 410748.	3
EJEPE		2030-S-18	Stud - Exhaust manifold support, .007" oversize (5/16" x 18 - 24 x 1 15/16"). (Late type) Used with support 410748.	3
EJERF		2030-J-18	Stud - Exhaust manifold support, .012" oversize (5/16" x 18 - 24 x 1 15/16"). (Late type) Used with support 410748.	3
EJETG	R-3678	182-D-7	Screw - Exhaust manifold support to nose cowl (#10 x 32 x 3/4")	12
EJEVH	R-3680	1-D-84	Nut - Exhaust manifold support to nose cowl (#10 x 32)	12
EJEVL	R-3681	67007	Bracket - Crankcase main section oil sump drain tube. Also listed with "Crankcase Main Section Oil Sump Drain Tubes" on pages 106 and 107.	1
EJEVO		27-D-80	Washer - Crankcase main section oil sump drain tube bracket (13/64" x 7/16" x 1/32") Also listed with "Crankcase Main Section Oil Sump Drain Tubes" on pages 106 and 107.	2
EJEWL	R-3682	119-D-5	Rivet - Crankcase main section oil sump drain tube bracket (3/16" x 7/16") Also listed with "Crankcase Main Section Oil Sump Drain Tubes" on pages 106 and 107.	2
EJEXI		27-D-24	Washer - Exhaust manifold support to nose cowl (7/32" x 3/8" x 1/16")	12
EJEZJ	R-3683	64499	Ring - Nose cowl heater Used for engines equipped with nose cowls which have an air scoop riveted to the top.	1
EJFAK	R-3684	1-D-4	Nut - Nose cowl to crankcase main section (5/16" x 24)	5
EJFCO		27-D-118	Washer - Nose cowl to crankcase main section (21/64" x 19/32" x 5/64")	5
NOSE COWL (FRONT EXHAUST) (FOR ENGINES EQUIPPED WITH CRANKCASE FRONT SECTION HAVING PROVISION FOR MOUNTING PROPELLER GOVERNOR)				
EJHEP		410391	Cowl - Nose, assembly. R-760 Includes exhaust manifold supports, studs and all riveted parts.	1
EJHGU	R-3701	410380	Cowl - Nose, assembly. R-975 Includes exhaust manifold supports, studs and all riveted parts.	1
EJHIV	R-3703	410763	Support - Exhaust manifold, with stud	3
EJHKY	R-3705	2030-H-11	Stud - Exhaust manifold support, .003" oversize (5/16" x 18 - 24 x 1 1/2")	3
EJHMZ		2030-S-11	Stud - Exhaust manifold support, .007" oversize (5/16" x 18 - 24 x 1 1/2")	3
EJHOB		2030-J-11	Stud - Exhaust manifold support, .012" oversize (5/16" x 18 - 24 x 1 1/2")	3
EJHRA	R-3707	182-D-7	Screw - Exhaust manifold support to nose cowl (#10 x 32 x 3/4")	12
EJHSD		27-D-24	Washer - Exhaust manifold support to nose cowl (7/32" x 3/8" x 1/16")	12
EJHUF	R-3709	1-D-84	Nut - Exhaust manifold support to nose cowl (#10 x 32)	12
EJHWI	R-3711	67007	Bracket - Crankcase main section oil sump drain tube. Also listed with "Crankcase Main Section Oil Sump Drain Tubes" on pages 106 and 107.	1

WRIGHT AERONAUTICAL CORPORATION

1203

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
EXHAUST MANIFOLD AND NOSE COWL - Cont'd				
NOSE COWL (FRONT EXHAUST) (FOR ENGINES EQUIPPED WITH CRANKCASE FRONT SECTION HAVING PROVISION FOR MOUNTING PROPELLER GOVERNOR) - Cont'd				
EJHYK		27-D-80	Washer - Crankcase main section oil sump drain tube bracket (13/64" x 7/16" x 1/32") Also listed with "Crankcase Main Section Oil Sump Drain Tubes" on pages 106 and 107.	2
EJHZL	R-3713	119-D-5	Rivet - Crankcase main section oil sump drain tube bracket (3/16" x 9/16") Also listed with "Crankcase Main Section Oil Sump Drain Tubes" on pages 106 and 107.	2
EJIBE	R-3715	66770	Ring - Nose cowl heater	1
EJIDG		27-D-118	Washer - Nose cowl to crankcase main section (21/64" x 19/32" x 5/64")	5
EJIFH	R-3717	1-D-4	Nut - Nose cowl to crankcase main section (5/16" x 24)	5

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
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GUN SYNCHRONIZERS

Parts listed in this group are for use on direct drive engines only.

EJKAM		45153	Synchronizer - Gun, assembly, complete, R.H. (Single lobe cam). R-760.	1
EJKCO		45154	Synchronizer - Gun, assembly, complete, L.H. (Single lobe cam). R-760.	1
EJKEP		45393	Synchronizer - Gun, assembly, complete, R.H. (Double lobe cam). R-760.	1
EJKGR		45394	Synchronizer - Gun, assembly, complete, L.H. (Double lobe cam). R-760.	1
EJKIS		45284	Synchronizer - Gun, assembly, complete, R.H. (Single lobe cam). R-975.	1
EJKKU		45285	Synchronizer - Gun, assembly, complete, L.H. (Single lobe cam). R-975.	1
EJKMY		45395	Synchronizer - Gun, assembly, complete, R.H. (Double lobe cam). R-975.	1
EJKOZ		45396	Synchronizer - Gun, assembly, complete, L.H. (Double lobe cam). R-975.	1
EJKRA		43083	Housing - Gun synchronizer, with studs, R.H.	1
EJKSE	R-3750	43084	Housing - Gun synchronizer, with studs, L.H.	1
EJKUB	R-3752	2028-H-5	Stud - Gun synchronizer housing cover, .003" oversize (1/4" x 20 - 28 x 1 1/16")	4
EJKWG		2028-S-5	Stud - Gun synchronizer housing cover, .007" oversize (1/4" x 20 - 28 x 1 1/16")	4
EJKYI		2028-J-5	Stud - Gun synchronizer housing cover, .012" oversize (1/4" x 20 - 28 x 1 1/16")	4
EJL BH	R-3754	27703	Cam - Gun synchronizer (Single lobe).	2
EJLDO	R-3756	26307	Cam - Gun synchronizer (Double lobe).	2
EJLFU	R-3758	25148	Gear - Gun synchronizer drive shaft.	2
EJLHY	R-3760	34-D-6	Washer - Gun synchronizer drive shaft gear (13/32" x 25/32" x 3/32").	2
EJLJA	R-3762	14437	Nut - Gun synchronizer drive shaft gear (3/8" x 24).	2
EJLLB	R-3764	28206	Shaft - Gun synchronizer drive.	2
EJLNF	R-3766	21-D-1	Bearing - Gun synchronizer drive shaft, ball.	4
EJLPI	R-3768	23715	Spacer - Gun synchronizer drive shaft ball bearing.	2
EJLRK	R-3770	26304	Cage - Gun synchronizer drive shaft ball bearing.	2
EJLSM	R-3772	23721	Nut - Gun synchronizer drive shaft ball bearing retainer.	2
EJLUL		28298	Gear - Gun synchronizer drive. R-760.	2
EJLWN	R-3774	28205	Gear - Gun synchronizer drive. R-975.	2
EJLYO		28299	Nut - Gun synchronizer drive gear. R-760.	2
EJMAP	R-3776	28208	Nut - Gun synchronizer drive gear. R-975.	2
EJMCS	R-3778	26303	Gasket - Gun synchronizer housing cover.	2
EJMET	R-3780	26295	Cover - Gun synchronizer housing.	2
EJMGU		27-D-3	Washer - Gun synchronizer housing cover (17/64" x 1/2" x 1/16").	8
EJMIV	R-3782	1-D-1	Nut - Gun synchronizer housing cover (1/4" x 28).	8
EJMKY		62664	Housing - Gun synchronizer plunger, upper, R.H.	1
EJTMZ	R-3784	62665	Housing - Gun synchronizer plunger, upper, L.H.	1
EJMOB	R-3786	25175	Shim - Gun synchronizer plunger upper housing to lower housing.	2
EJMRA		27-D-3	Washer - Gun synchronizer plunger upper housing to lower housing (17/64" x 1/2" x 1/16").	6
EJMSE	R-3788	1-D-1	Nut - Gun synchronizer plunger upper housing to lower housing (1/4" x 28).	6
EJMUC		46885	Housing - Gun synchronizer plunger, lower, with studs, R.H.	1
EJMWG	R-3790	46886	Housing - Gun synchronizer plunger, lower, with studs, L.H.	1
EJMYD	R-3792	2028-H-6	Stud - Gun synchronizer plunger lower housing, short, .003" oversize (1/4" x 20 - 28 x 1 1/8").	4
EJNBF		2028-S-6	Stud - Gun synchronizer plunger lower housing, short, .007" oversize (1/4" x 20 - 28 x 1 1/8").	4
EJNDI		2028-J-6	Stud - Gun synchronizer plunger lower housing, short, .012" oversize (1/4" x 20 - 28 x 1 1/8").	4
EJNFK	R-3794	2028-H-15	Stud - Gun synchronizer plunger lower housing, long, .003" oversize (1/4" x 20 - 28 x 1 11/16").	2
EJNHL		2028-S-15	Stud - Gun synchronizer plunger lower housing, long, .007" oversize (1/4" x 20 - 28 x 1 11/16").	2
EJNJO		2028-J-15	Stud - Gun synchronizer plunger lower housing, long, .012" oversize (1/4" x 20 - 28 x 1 11/16").	2
EJNLS		46854	Plunger - Gun synchronizer, assembly, R.H. Includes plunger, cam roller and washer.	1
EJNNT	R-3796	46855	Plunger - Gun synchronizer, assembly, L.H. Includes plunger, cam roller and washer.	1
EJNPU	R-3798	25174	Pin - Gun synchronizer plunger guide.	2
EJNRV	R-3800	23-D-21	Gasket - Gun synchronizer lower plunger housing plug.	2
EJNTY	R-3802	2025-D-2	Plug - Gun synchronizer lower plunger housing (5/8" x 18).	2
EJNVA	R-3804	23756	Plug - Gun synchronizer cable replacement.	2
EJNZE	R-3806	20513	Cover - Gun synchronizer operating cable replacement.	2
EJOBB	R-3808	23718	Gasket - Gun synchronizer lower plunger housing to gun synchronizer housing.	2

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
GUN SYNCHRONIZERS - Cont'd				
EJODF		27-D-3	Washer - Gun synchronizer lower plunger housing to gun synchronizer housing (17/64" x 1/2" x 1/16")	6
EJOFG	R-3810	25228	Screw - Gun synchronizer lower plunger housing to gun synchronizer housing, short (1/4" x 20 - 28 x 1 5/16") . . .	4
EJOHI	R-3812	25229	Screw - Gun synchronizer lower plunger housing to gun synchronizer housing, long (1/4" x 20 - 28 x 1 9/16")	2
EJOJK	R-3814	23717	Gasket - Gun synchronizer to crankcase rear section	2
EJOLM		27-D-5	Washer - Gun synchronizer to crankcase rear section (17/64" x 1/2" x 1/32")	6
EJONO	R-3816	1-D-1	Nut - Gun synchronizer to crankcase rear section (1/4" x 28) . . .	6

WRIGHT AERONAUTICAL CORPORATION

2001

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
TOOL KIT				
Complete tool kits are not carried in stock but will be assembled upon special order when engine serial number is given. Prices will be quoted upon request. Any of the tool kit tools can be obtained from the following listing:				
EJSAP	R-3850	81409	Compressor - Valve spring	1
EJSCU	R-3852	81253	Extension - Push rod housing adapter and cylinder stud nut, crowfoot wrench.	1
Used with crowfoot wrenches 81278 and 81507.				
EJSEV	R-3854	80180	Gauge - Feeler.	1
EJSGY	R-3856	80139	Hammer - Ball pein 1#	1
EJSIZ	R-3858	81403	Handle - Universal (3/8" diameter).	1
EJSKA	R-3860	83965	Pliers - Piston pin retaining lock ring	1
Used for removing and installing lock rings.				
EJSME	R-3862	80145	Pliers - 6" combination	1
EJSOF	R-3864	80540	Roll - Tool	1
EJSRI	R-3866	80137	Screw Driver - 12"	1
EJSSL	R-3868	81680	Screw Driver - Carburetor jet	1
EJSUM	R-3870	80164	Wrench - Allen, 1/8" pipe plug.	1
EJSWN	R-3872	80165	Wrench - Allen, 3/8" pipe plug.	1
EJSYP	R-3874	80166	Wrench - Allen, 1/2" pipe plug.	1
EJTBO	R-3876	80150	Wrench - Box, 3/8" - 7/16"	1
EJTDS	R-3878	80151	Wrench - Box, 1/2" - 1/2"	1
EJTFU	R-3880	80152	Wrench - Box, 1/2" - 9/16"	1
EJTHY	R-3882	80153	Wrench - Box, 5/8" - 11/16"	1
EJTJZ	R-3886	81278	Wrench - Cylinder stud nut, crowfoot, less extension, 9/16" hexagon. (Early type)	2
Used with extension 81253.				
When replacement of this wrench becomes necessary, it is recommended that the late improved type 82883 be used.				
EJTLA	R-3888	82883	Wrench - Cylinder stud nut, bridge crowfoot, 9/16" hexagon. (Late type).	1
EJTND	R-3890	83223	Wrench - Cuno oil strainer inlet elbow nut, 5/8" hexagon.	1
EJTPE	R-3892	80158	Wrench - End, 7/16" - 3/8"	1
EJTRF	R-3894	80159	Wrench - End, 1/2" - 9/16"	1
EJTTG	R-3896	80162	Wrench - End, 11/16" - 1"	1
EJTVH	R-3898	82973	Wrench - Exhaust elbow to cylinder attaching stud nut	1
EJTZI	R-3900	80171	Wrench - Intake pipe packing nut.	1
EJUAB	R-3902	80133	Wrench - Magneto adjusting, with gauge.	2
EJUCJ	R-3904	83472	Wrench - Oil pressure relief valve body	1
Used for assembling and disassembling oil pressure relief valve body, check nut and cap,				
EJUEC	R-3906	82972	Wrench - Oil pump to crankcase rear section attaching stud nut, 7/16" hexagon.	1
EJUGL	R-3908	80163	Wrench - Oil pump filter plug, 1 5/16"	1
EJUIM	R-3910	81402	Wrench - Propeller hub nut.	1
EJUKN		82932	Wrench - Propeller shaft thrust bearing nut. R-760	1
Used for engines equipped with S.A.E. No. 20 propeller hub spline crankshaft.				
EJUMK	R-3912	82934	Wrench - Propeller shaft thrust bearing nut	1
Used for engines equipped with S.A.E. No. 30 propeller hub spline crankshaft.				
EJUOP	R-3914	81507	Wrench - Push rod housing adapter crowfoot.	1
Used with extension 81253.				
EJURR	R-3916	82102	Wrench - Spark plug, 11/16" and 7/8" hexagon (For un-finned B.G. plugs).	1
EJUSO	R-3920	81132	Wrench - Valve clearance adjusting screw.	1
EJUUS	R-3922	81900	Wrench - Valve clearance and lock screw	1
EJUWT	R-3924	81262	Wrench - Valve tappet retainer nut.	1
EJUYU		83291	Sling - Engine hoist. R-760.	1
This part is shipped with engine but is not part of engine tool kit.				
EJVBY		83285	Sling - Engine hoist. R-975.	1
This part is shipped with engine but is not part of engine tool kit.				

WRIGHT AERONAUTICAL CORPORATION

2101

Code Word	Reference Number	Drawing Number	Description of Part	Number Used
MISCELLANEOUS				
INSTRUCTION BOOK				
EJYAZ		65844	Book -, Engine Instruction	1
PRIMING TUBE FITTINGS				
EJYIB		163-D-45	Elbow - Priming tube to crankcase rear section.	1
EJYOD		163-D-3	Nut - Priming tube to crankcase rear section elbow.	1
EJYUF		163-D-4	Cone - Priming tube to crankcase rear section elbow	1
GASKET SETS				
EKABI		41058	Gaskets - Complete set. R-760. This set contains all the gaskets required to completely rebuild any R-760 engine, except rocker box cover gaskets. It does not include cork, felt, leather or rubber washers and packings.	1
EKADO		41059	Gaskets - Complete set. R-975. This set contains all the gaskets required to completely rebuild any R-975 engine, except rocker box cover gaskets. It does not include cork, felt, leather or rubber washers and packings.	1

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Adapter - Propeller governor	505	Circlet - Exhaust valve	902
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Adapter - Propeller governor oil feed	114	Circlet - Propeller governor drive bevel gear	506
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Adapter - Tachometer and fuel pump drive shaft	501	Clip - Crankcase main section oil sump drain tube	106, 107
Adapter - Tachometer and three-way accessory drive gear shaft	502	Clip - Propeller governor oil tube	114
Adapter - Vacuum pump	505	Clamp - Crankcase main section oil sump drain tube hose	106, 107
Arm - Rocker	901	Clamp - Cylinder air deflector	804, 805
B		Clamp - Cylinder air deflector to carburetor air heater pipe	804
Band - Impeller clutch	403	Clamp - Push rod housing	901
Bearing - Cam hub	301	Cleaner - Air	1105
Bearing - Crankshaft main, front	603	Connection - Cylinder head push rod housing hose	801
Bearing - Crankshaft rear	104	Connection - Oil pump hose	201
Bearing - Crankshaft thrust, ball	602	Connection - Oil scavenge strainer drain	106
Bearing - Impeller drive gear hub	403	Connection - Oil strainer hose	202
Bearing - Impeller shaft front and rear, ball	401	Contact - Ignition wire spark plug terminal	1002
Bearing - Master rod crankshaft	701	Cooler - Spark plug	801
Bearing - Rocker arm, roller	901	Cover - Accessory drive	202
Bearing - Tachometer drive shaft, ball	502	Cover - Crankcase front section	102
Bearing - Tachometer driven shaft	503	Cover - Crankcase main section oil drain	105
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Body - Oil pressure relief valve	202	Cover - Fuel pump drive	502
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Bolt - Crankpin front plug	601	Cover - Generator drive	113
Bolt - Rocker arm hub	901	Cover - Gun synchronizer drive	112
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Bracket - Crankcase main section oil sump drain tube	106, 107, 1202	Cover - Oil scavenge strainer	106
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Bushing - Starter drive gear	107	Elbow - Propeller governor adapter to oil tube	114
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Bushing - Tachometer drive shaft	503	Fittings - Priming tube	2101
Bushing - Tachometer driven shaft	502, 503	Flange - Exhaust pipe	803, 1201
Bushing - Thermometer bulb and ice warning indicator connection	1105	Flange - Intake pipe	806
Bushing - Three-way accessory drive gear	505	Flange - Propeller hub	604
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Gear - Propeller governor drive intermediate bevel	506	Pin - Crankshaft rear counterweight.	602
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Lock - Crankpin front plug bolt, tab	601	Retainer - Starter shaft bolt spring	301
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M		Ring - Crankshaft adapter oil seal	603
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Screw - Valve clearance adjusting.	901	Strap - Oil strainer	202
Seal - Accessory drive shaft leather oil	501	Stud - Propeller governor to adapter	506
Seal - Accessory drive shaft rubber oil.	501	Stud - Propeller governor to propeller governor adapter.	506
Seal - Diffuser section oil.	108	Support - Cam hub bearing.	301
Seal - Impeller clutch drive pinion oil.	403	Support - Crankcase main bearing	104
Seal - Starter shaft oil	301	Support - Exhaust manifold	1202
Seal - Valve tappet retainer nut, oil.	902	Support - Generator drive gear	507, 508
Seat - Intake and exhaust valve.	801	Support - Impeller drive gear shaft.	403
Shaft - Accessory drive.	201, 501	Support - Impeller shaft front ball bearing.	401
Shaft - Crankcase rear section generator idler gear, dummy	113	Support - Oil strainer	202
Shaft - Generator idler gear	507	Synchronizer - Gun	1601
Shaft - Impeller	401	T	
Shaft - Impeller drive gear.	403	Tachometer Drive	502
Shaft - Oil pump drive	201	Tappet - Valve	901
Shaft - Oil pump idler	201	Terminal - Ignition wire spark plug.	1002
Shaft - Starter.	301	Three-Way Accessory Drive - Parts required to install.	504
Shaft - Tachometer and fuel pump drive	501	Tools - Engine tool kit.	2001
Shaft - Tachometer and three-way accessory drive gear.	502	Tube - Crankcase main section oil sump drain	106
Shaft - Tachometer drive	502, 503	Tube - Diffuser section oil.	108
Shaft - Tachometer driven.	502, 503	Tube - Propeller governor adapter to crankcase rear section oil.	114
Shaft - Vacuum pump, fuel pump and propeller governor drive.	505	V	
Shim - Crankcase front section cover	102	Valve - Hydro-controllable pitch propeller operating	102, 103
Shim - Generator drive gear support.	508	Valve - Intake and exhaust	902
Shim - Impeller shaft front ball bearing	401	Valve - Oil check ball	113
Shim - Impeller shaft rear ball bearing cage	401	Valve - Oil pressure relief.	202
Sleeve - Crankcase front section	101	W	
Sleeve - Tachometer driven shaft	503	Washer - Idler accessory drive gear.	501
Sling - Engine hoist	2001	Washer - Ignition wire coupling rubber	1002
Slinger - Crankshaft thrust ball bearing oil	602	Washer - Rocker arm hub bolt	901
Socket - Valve tappet ball	901	Washer - Tachometer drive oil seal packing	503
Spacer - Cam hub bearing	301	Washer - Valve spring.	902
Spacer - Crankcase front section to main section stud.	102	Weight - Impeller clutch	403
Spacer - Crankshaft front main ball bearing.	603	Wire - Ignition.	1002
Spacer - Diffuser section.	108	Wiring Harness - Radio-shielded.	1001
Spacer - Exhaust manifold to nose cowl	1201		
Spacer - Generator drive cover	113		
Spacer - Idler accessory drive gear.	501		
Spacer - Impeller oil seal ring guide.	402		

NUMERICAL PARTS LIST

Drawing Number	Description of Part	Code Word	Drawing Number	Description of Part	Code Word
1D1	Nut.	†EAFKU	27D5	Washer	†EBRFH
1D4	Nut.	†ECUHL	27D24	Washer	†EJEXI
1D7	Nut.	EDMGL	27D27	Washer	†EIFTH
1D9	Nut.	†EBRNV	27D30	Washer	†EAGAF
1D36	Nut.	EDOLC	27D33	Washer	EDSTN
1D40	Nut.	†EACAH	27D80	Washer	†EBAZF
1D42	Nut.	EFONO	27D104	Gasket	EHMFA
1D48	Nut.	ECWGZ	27D114	Washer	EHJNH
1D83	Nut.	EICEK	27D118	Washer	†EACBT
1D84	Nut.	†EAGBZ	27D121	Washer	†EHGTY
2D1	Nut.	†EBOXB	27D123	Washer	EFOPS
2D4	Nut.	†EABZR	27D124	Washer	EDAUF
2D7	Nut.	EACEP	27D131	Washer	EPBEP
2D35	Nut.	EHGRV	27D137	Washer	EPHCD
2D54	Nut.	ECAZP	27D163	Washer	†EFSUJ
3D12	Bolt	EFTLU	27D179	Washer	EFUWM
488	Bushing.	†EDZLR	28D9	Lockwasher	EIGKN
5D34	Valve	ECATL	28D13	Lockwasher	†EGALG
5D38	Valve	EBSGZ	28D14	Lockwasher	EFNOP
6D2	Bolt	ECDMP	29D11	Pin.	EGUNE
6D4	Bolt	ECCWG	29D12	Pin.	EBETB
6D17	Bolt	†EBAIV	33D19	Nut.	†EHUKE
6D35	Screw.	†EHVFT	34D4	Washer	EHGDM
7D17	Key.	EESWS	34D6	Washer	EJLHY
7D20	Key.	EAVCA	34D14	Washer	†EACFZ
10D1	Key.	†EBWSK	34D33	Washer	†EAHRU
10D5	Key.	†ECSWG	34D34	Washer	ECHRV
	Use 10D6.		34D35	Washer	EETRU
10D9	Key.	ECWEW	34D38	Washer	EENJF
	Use 10D7.		34D40	Washer	EFAVK
13D6	Pin.	EBEOV	34D46	Washer	EHFWI
13D31	Pin.	EABFA	34D51	Washer	†EAJBE
13D32	Pin.	EBWCV	34D71	Washer	EGUVI
13D39	Pin.	EBHPG	34D83	Washer	EDMIM
13D40	Pin.	EFLEJ	34D99	Washer	†EBAKZ
13D42	Pin.	†EBEIP	35D13	Screw.	EFYMZ
13H42	Pin.	ECHBN	36D7	Plug	EAYEW
13S42	Pin.	ECGYM	36D20	Plug	†EEJPM
13D48	Pin.	EBVZX	37D28	Gasket	EDTYG
16D11	Rivet.	ECYDV	37D63	Washer	EDOXL
17D21	Pin.	†EEJHI	45D1	Bolt	EETAJ
17D22	Pin.	ECHXZ	45D18	Screw.	EDAHD
17D23	Pin.	ECRWL	45D27	Screw.	EIFDZ
17D29	Pin.	EEMSZ	46D12	Screw.	EFHGH
19S10	Bushing.	EFLUB	46D13	Screw.	EGVAL
19S13	Bushing.	EABHO	54D3	Screw.	EBFOP
19S14	Bushing.	EFLWA	55D4	Screw.	ECSNW
20D3	Pin.	ECHDO	56D4	Screw.	ECKRD
20D9	Pin.	EBNWG	56D13	Screw.	EIBLA
20D12	Pin.	EABGI	63D27	Bolt	EEVHC
20D25	Plug	EBFIJ	65D12	Screw.	EFVFS
21D1	Bearing.	EJLNF	65D15	Bolt	EEFMR
21D5	Bearing.	EDOND	66D1	Rivet.	EFUUL
21D68	Bearing.	EEVST	66D2	Rivet.	†EFSYM
22D2	Bolt	†EHWAJ	66D7	Rivet.	EFVFS
22D18	Bolt	EINBF	66D17	Rivet.	EFYKA
23D17	Gasket	EBONS	66D20	Pin.	EIJTF
23D18	Gasket	†EBBER	66D26	Rivet.	†EFSKE
23D20	Gasket	EAZHN	66D35	Rivet.	EFSSI
	Use 23D14.		86D11	Screw.	EASEN
23D21	Gasket	†EBOJP	90D9	Bolt	EECLD
	Use 23D16.		90D11	Bolt	EAHPO
23D25	Gasket	ECAIG	90D13	Screw.	EIJDE
23D26	Gasket	†EBARG	90D16	Bolt	EEGFA
23D39	Gasket	†EAYCS	90D18	Bolt	EEDCY
	Use 23D24.		93D5	Plug	†EBAPZ
23D40	Gasket	EACIV	93D18	Plug	†EBOHM
	Use 23D23.		93D21	Plug	EAWYV
23D41	Gasket	EETIP	95D2	Screw.	ECCMF
	Use 23D17.		95D3	Screw.	EEPCS
27D1	Washer	†EAFMT	99D7	Plug	EIGOP
27D3	Washer	†EBSV		Use 2105D2.	
27D4	Washer	EFTHS	99D11	Plug	EAYIX
				Use 2105D1.	
			102D25	Plug	EDMEJ

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NUMERICAL PARTS LIST - Cont'd

Drawing Number	Description of Part	Code Word	Drawing Number	Description of Part	Code Word
2032S10	Stud.	EIRMO	20636Y4	Seat.	EFKRD
2032H47	Stud.	EABIL	20636Y5	Seat.	EFKTE
2032J47	Stud.	EABKU	20637	Guide	EFMLR
2032S47	Stud.	EABJU	20637Y2	Guide	EFMNS
2034D1	Screw	EBFGI	20637Y3	Guide	EFMPT
2042D4	Plug.	EETCL	20637Y4	Guide	EFMRU
2043D31	Stud.	EECPG	20637Y5	Guide	EFMSV
2043D41	Stud.	EEGHB	20637Y6	Guide	EFMUX
2052D6	Plug.	†EEJWP	No longer supplied.		
2054D3	Screw	EIFRF	21396	Gasket.	EGAFB
2058D9	Hose.	EGYIS	21397	Guide	EFLYC
Use 2058D73.			21397Y2	Guide	EFMBE
2058D25	Hose.	EGYKT	21397Y3	Guide	EFMDI
2058D38	Hose.	†EBATH	21397Y4	Guide	EFMFL
2060D11	Screw	EFHEF	21397Y5	Guide	EFMHM
2066D1	Cap.	EDOZM	21397Y6	Guide	EFMJ0
2067D4	Lock.	EESZK	No longer supplied.		
2068D2	Screw	†EAFZS	21411	Lock.	EFGYA
2070D1	Screw	EBOLR	21412	Screw	EETOT
2070D26	Bolt.	†EHWMO	21419	Lock.	EHCJT
2072D2	Plug.	EACHE	21425	Flange.	EGADF
2075D1	Screw	EESVI	Use 67072.		
2075D8	Screw	EESTH	21457	Support	ECHJR
2077D6	Dowel	EFFYH	21459	Spacer.	ECHFP
2084D4	Plug.	EESXO	21479	Gear.	EBWRH
2097D1	Spacer.	EBNRD	21482	Spring.	EAZDR
2097D7	Spacer.	EINDG	21486	Cover.	EAZFE
2098D1	Nut	EBTGB	Use 5037D9.		
2098D2	Cone.	EBTIC	21508	Shaft	†EEJLK
2098D3	Nipple.	EETOG	21511	Gasket.	†EBPGE
2098D5	Elbow	EBTMF	21512	Bushing	†EEJFG
2098D6	Elbow	EBTKD	21530	Retainer.	ECHVX
2100D1	Shim.	ECLHM	21538	Gasket.	EHRJY
2100D2	Shim.	ECLJP	21568	Bushing	EFGBI
2100D3	Shim.	ECLLR	21570	Spring.	ECHTW
2100D4	Shim.	ECLNS	21584	Nut.	EGAPJ
2100D5	Shim.	ECLPT	21585	Packing.	EGANI
2100D6	Shim.	ECLRV	21607	Rod	EHGHO
2100D7	Shim.	ECLTX	21608	Rod End	EHGLS
2100D8	Shim.	ECLVZ	21609	Rod End	EHGJR
2100D9	Shim.	ECLXB	21732	Shaft	EDOTA
2100D10	Shim.	ECLZD	21741	Gear.	EDAOW
2101D3	Nut	†EAHZT	21775	Cover	EDAGU
2101D4	Nut	†EEGLD	21776	Gasket.	†EADAIZ
2104D2	Stud.	EHRHV	21779	Lock.	EFHAB
2104D5	Stud.	EHRFU	Use 22771Y25.		
2105D1	Plug.	†EABXD	21835	Gasket.	EHLRZ
2105D2	Plug.	EAWNC	21953	Bushing	EBEKR
2105D3	Plug.	EIBFX	21954	Bushing	EBHLD
2119D13	Bushing	EFGDE	21954Y15	Bushing	EBHNF
2119D21	Bushing	EFGRT	21959	Bushing	EBHGZ
2119D22	Bushing	EFGNR	21961	Bushing	EBEFM
4018D1	Ring.	EEZNV	22063	Spacer.	EBFMO
4018D2	Ring.	EEZPU	22240	Gasket.	EIRYU
4019D2	Clamp	EGYMU	22367	Ring.	EFANG
5015D6	Ring.	EEWRX	22368	Nut	EFABA
5028D1	Ring.	EEZFR	22406	Flange.	EFAPH
5028D2	Ring.	EEZHP	22474	Gasket.	EISBA
C4092	Gasket.	†EEBGO	22513	Adapter	EDAFI
Use 114145 at fuel pump substituting cover location.			22514	Shaft	EDOFN
C6516	Cap	EDTWA	22516	Spacer.	EDOPF
14437	Nut	EJLJA	22518	Gear.	EDOHR
14712	Nut	†EFQWV	22520	Retainer.	EDORG
14981	Gasket.	EBRLT	22522	Roller.	EGZAF
16795	Nut	EHFSS	22543	Gasket.	†EHWGL
17012	Dowel	EFAHD	22608	Dowel	†EFGFL
17281	Bolt.	EFARI	22624	Nut	EEXBA
19226	Nut	EFATJ	22690	Gasket.	EDPCA
20104	Gasket.	EBPYK	22695	Spacer.	EEWYD
20350	Lock.	EHCHP	22697	Housing	EDODH
20453	Pin	EGZEV	22770	Circllet	EDBEW
20513	Cover	EJNZE	22805	Ring.	EEZRW
20520	Nut	EKET	22923	Pin	EHGPN
20531	Bushing	EFGLO	22957	Rod	EGUJB
20609	Washer	EHBRI	23065	Roller.	EGULD
20611	Circllet	EHCDS	23066	Hub	
20638Y2	Seat.	EFKNA			
20638Y3	Seat.	EFKPC			

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NUMERICAL PARTS LIST - Cont'd

Drawing Number	Description of Part	Code Word	Drawing Number	Description of Part	Code Word
23079	Gasket	†EBPUF	26189	Rod.	EIGIM
23117	Bolt	ECHPU	26193	Hot Spot	EIJBA
23150	Shaft.	EBPEW	26295	Cover.	EJMET
23158	Spacer	EBPSH	26303	Gasket	EJMCS
23183	Rod End.	†EHUMI	26304	Cage	EJLRK
23222	Guide.	EATFI	26307	Cam.	EJLDO
	Use 29297.		26353	Flange	EFORT
23235	Clip	EHUSN	26404	Gasket	EICOP
23314	Pipe	EHUYF	26428	Seal	ECSBE
23328	Cover.	EBRHN	26666	Impeller	ECKAX
23329	Cover.	EBPWG	26786	Retainer	ECSLV
23330	Cover.	†EDBGZ	26787	Band	ECSFR
23347	Ring	EFALE	26823	Pin.	EGHAD
23395	Valve.	EHBHM	26831	Brace.	EIFXK
23414	Shaft.	ECHZV	26932	Support.	EENWN
23424	Valve.	EHBIC	26953	Pipe	†EIYNC
	Use 66898.		26954	Flange	†EIYPD
23456	Seal	ECWYK	27017	Shim	EEPAP
23480	Seal	ECIBA	27056	Bearing.	EGUPF
23481	Bushing.	EBHJB		Use 68174.	
23483	Retainer	ECIDW	27105	Hot Spot	EIFBY
23520	Ring	ECLBJ	27453	Tube	EBFAG
23522	Nut.	ECKYH	27454	Seal	EBFCN
23715	Spacer	EJLPI	27583	Gear	ECUBY
23717	Gasket	†EBOTX	27584	Retainer	EBERZ
23718	Gasket	EJOB	27585	Washer	ECUDZ
23721	Nut.	EJLSM	27586	Bushing.	EBEPX
23754	Cover.	EBOPT	27595	Weight	ECSDP
23755	Cover.	EBORV	27703	Cam.	EJLBH
23756	Plug	EJNVA	27796	Plate.	EASCY
23865	Gear	ECWAK	27820	Strainer	ECCBU
23942	Gear	ECWCU		Use 110965.	
24006	Gear	ECSHS	27821	Spacer	ECUFP
24028	Ring	ECKWG	28006	Support.	ECKMO
24031	Plug	EETEM	28007	Gear	EEAFB
24086	Bushing.	ECRUJ	28011	Pin.	EEXRJ
24088	Gear	ECSJT	28012	Retainer	EEYVL
24135	Ring	EFMWA	28014	Screw.	EEYAM
24391	Washer	EHJHE	28152	Spring	EDTEK
24444	Washer	EHBSK	28153	Gland.	EDTGM
24490	Lock	EFHIJ	28154	Packing.	EDTKS
24575	Magneto.	EHFCY	28191	Seal	ECYHI
	Use 67902.		28192	Retainer	ECYJP
24734	Plug	EBFEH	28193	Spacer	EBFKM
24763	Gasket	ECKOC	28197	Pin.	EEEXPI
24789	Gasket	†EFOSU	28204	Extension.	ECWRA
24920	Shaft.	ECKCE	28205	Gear	EJLWN
25080	Shaft.	ECKGU	28206	Shaft.	EJLLB
25088	Bearing.	EATPT	28207	Screw.	ECWSM
25148	Gear	EJLFU	28208	Nut.	EJMAP
25153	Lever.	EIGEK	28262	Bushing.	EDOVK
25174	Pin.	EJNPU	28298	Gear	EJLUL
25175	Shim	EJMOB	28299	Nut.	EJLYO
25221	Pipe	†EHVBR	28455	Pin.	EHUWO
25228	Screw.	EJOFG	28458	Link	EHUOL
25229	Screw.	EJOHI	28461	Rod.	EHUIJ
25260	Shaft.	EIGAJ	28465	Gasket	EIVGI
25309	Gasket	†EHWEK	28492	Spacer	EABYK
25350	Nut.	ECKSY	28503	Gear	EEXDC
25351	Lock	ECKUF	28709	Plug	EETGN
25458	Rod.	EIJVH	28727	Valve.	EAFAW
25460	Pin.	†EHVRD	28728	Cover.	†EAFEJ
	Use 68202.			Use 66965.	
25619	Washer	EHBUL	28729	Nut.	†EAFRD
25677	Gasket	EHFYK	28751	Retainer	EGHCE
25701	Adapter.	ECAGF	28801	Packing.	†EAFOC
25982	Bearing.	ECSPX	28803	Gasket	†EAFIX
25983	Support.	ECSRZ	28847	Packing.	†EAVPH
26083	Spring	ECAED	28885	Gasket	†ECBPT
26109	Dog.	ECRYM		Use 69072 except at vacuum pump adapter location on three-way acc. drive.	
26109Y1	Dog.	ECRZG			
26109Y2	Dog.	ECRZT			
26109Y3	Dog.	ECSAB			
26109Y4	Dog.	ECSAV	28922	Cover.	†ECBNS

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NUMERICAL PARTS LIST - Cont'd

Drawing Number	Description of Part	Code Word	Drawing Number	Description of Part	Code Word
29187	Retainer	EEXTK	47108	Arm.	EGUDU
29263	Plug - Spark	EHMBU		Use 412544.	
29547	Bearing.	EFFIV			
29547Y1	Bearing.	EFFKY	47110	Deflector.	EFSAB
29547Y2	Bearing.	EFFMZ	47120	Clamp.	EFTBN
29547Y3	Bearing.	EFFOB	47170	Cover.	EACCA
29547Y15	Bearing.	EFFRA		Use 1 each of 416337 and 114162.	
29547Y16	Bearing.	EFFSD	47205	Deflector.	EFSGD
29547Y17	Bearing.	EFFUF	47391	Wiring Harness	EHJAZ
29547Y18	Bearing.	EFFWG		Use 69146N11.	
29555	Magneto.	EHFAV			
	Use 67506.		47414	Crankcase-Rear Section	EBHAK
29624	Plug - Spark	EHMDY		Use 1 of 415832, 2 of 166D5.	
29630	Bushing.	EFGPS	47456	Adapter.	EDAYK
29650	Spring	EFTDO	47758	Cap.	EFBAN
40096	Gear	EEJDF	47710	Shaft.	EBYBM
40460	Screen	EICRS	47715	Body	EBVJE
40496	Cam.	ECGEB	47716	Pump	EBVYF
	Use 48894.		47723	Pump	EBVBO
40559	Cam.	ECGAR	47851	Shaft.	EDSYC
	Use 49336.		47852	Cover.	EDSLZ
40592	Hub.	EEZDO	47854	Sleeve	EDSUB
40711	Hub.	EEZBN	47855	Housing.	EDSDU
40958	Clamp.	EHVDS	47868	Cover.	EDMRS
	Use 413452.		47871	Gear	EBAM
41058	Gasket Set	EKABI	47872	Adapter.	EBBCA
41059	Gasket Set	EKADO	47873	Adapter.	EEALC
41112	Gear	ECHNT	47874	Shaft.	EDMDB
41603	Pin.	EFGUV	47880	Housing.	EDZHM
42647	Door	EIJPC	47883	Shaft.	EEAJB
42648	Door	EIJRD	47895	Shaft.	EDTAF
42762	Pipe	EGABE	47951	Crankcase - Front Section.	EABAB
42875	Shaft.	ECSVU	47966	Strap.	ECCSY
42941	Body	EIFVG	47967	Strap.	ECCUF
42985	Screen	EGACI	47991	Clamp.	EFUYN
42988	Door	EIFZL	47992	Deflector.	EFYAV
43083	Housing.	EJKRA	47997	Deflector.	EFTZB
43084	Housing.	EJKSE	47998	Deflector.	EFTTY
43193	Pipe	EJFHB	47999	Deflector.	EFTRX
43369	Support - Main bearing	EASAF	48014	Manifold	EIYFY
	Use 411835.		48085	Wiring Harness	EHJCA
43443	Gear	EENSL		Use 1 each of 68641N11, 88107, 88108.	
43444	Gear	EEMKY	48106	Elbow.	EFNST
43466	Elbow.	EFNRS	48138	Deflector.	EFSCA
43614	Pipe	EIJFI	48165	Gear	EEBSZ
44274	Hub.	EEXJF	48166	Adapter.	EBBUX
44377	Shaft.	ECWKY	48168	Pump	EBVDU
44513	Shaft.	ECWIC	48173	Bracket.	EEFAJ
44632	Door	EHUEH	48174	Adapter.	EEFUW
44633	Door	EHUGK	48198	Valve and shaft.	EIBJZ
44675	Hub.	EEXHE	48199	Heater	EIBBU
44933	Adapter.	EIIFI	48219	Cowl	EJEDY
45135	Manifold	EIYBO		Use 411539.	
45153	Synchronizer	EJKAM	48284	Crankcase - Front Section.	EABCE
45154	Synchronizer	EJKCO	48310	Carburetor	EHPUM
45284	Synchronizer	EJKIS	48327	Lever.	EAFVN
45285	Synchronizer	EJKKU	48348	Deflector.	EFSEC
45393	Synchronizer	EJKKP	48373	Cowl	EJEBU
45394	Synchronizer	EJKJR		Use 411543.	
45395	Synchronizer	EJKMY	48428	Lever.	EIBXG
45396	Synchronizer	EJKOZ	48592	Support.	EEJYR
46231	Seal	ECWUG	48593	Gear	EEJUH
46713	Lever.	EAFTH	48595	Generator Drive.	EEJBE
46714	Lever.	EAJHA	48602	Scoop.	EHVJY
	Use 412804 for front exhaust engines.		48603	Scoop.	EHVLZ
46744	Shaft.	EBYDP	48633	Gear	ECROG
46854	Plunger.	EJNLS	48634	Gear	ECRKD
46855	Plunger.	EJNNT	48640	Plug	EEVLG
46885	Housing.	EJMUC		Use 410988.	
46886	Housing.	EJMWG	48669	Manifold	EIYDU
47107	Arm.	EGUBO	48710	Scoop.	EHVNA
	Use 412543.		48711	Scoop.	EHVFC

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NUMERICAL PARTS LIST - Cont'd

Drawing Number	Description of Part	Code Word	Drawing Number	Description of Part	Code Word
48745	Gear	ECRCR	61653	Spring	ECYBE
48746	Gear	ECRGZ	61663	Washer	EHCFR
48755	Gear	EDAWG	61722	Contact	EHJLG
48831	Deflector	EFTVA	62103	Adapter	EEWIS
48843	Scoop	EIKCP			
48844	Scoop	EIKER			
48894	Cam	ECGIC		Use 1 of 65271 and 7 of 5015D6.	
49089	Gear	ECHLS			
49190	Plug	EEVNF	62104	Sleeve	EABDY
	Use 410989.		62110	Carburetor	EHPEC
49336	Cam	ECGCA	62116	Slinger	EEVWL
49378	Carburetor	EHPSL	62123	Plug	EETMR
49398	Tachometer Drive	EDOEM	62144	Ring	EEWOV
	Use 411949.		62231	Ring	EEWCO
49495	Tube	EBTAW	62231Y10	Ring	EEWEP
49496	Tube	EBTCM	62231Y20	Ring	EEWGR
49497	Tube	EBTEZ	62270	Nut	EEZVY
49514	Rod	EGYEP	62272	Spacer	EEZLS
49552	Piston	EGEFV	62279	Cap.	EFAZL
	Use 410909.		62351	Gear	EBWOG
49552Y1	Piston	EGEHX	62352	Shaft	EBWVF
	Use 410909Y1.		62355	Bushing	EBVXO
49553	Piston	EGEBR	62437	Gear	EBWKD
	Use 410908.		62462	Screw	ECAXN
49553Y1	Piston	EGEDU	62464	Cap.	ECBCO
	Use 410908Y1.		62466	Spring	ECAVM
49681	Cylinder	EFJAK	62535	Shim	EACDL
	Use 49681N3.		62664	Housing	EJMKY
50479	Guide	EATHO	62665	Housing	EJMMZ
	Use 29297Y1.		62728	Socket	EGYSZ
50480	Guide	EATJU	62773	Screw	EGUZK
	Use 29297Y3.		62881	Plate	EFSIF
50488	Bearing	EAVAD	62882	Support	EFSMH
	Use 25088Y12.		62883	Pad	EFSRK
50510	Bearing	EATSN	62905	Gland	EEVRI
	Use 25088Y10.		62949	Gear	EHFOP
50546	Cooler	EFLAG	62958	Carburetor	EHPGI
	Use 44268Y3.		62959	Carburetor	EHPID
50595	Bushing	EBEMS	62977	Bushing	EETWZ
	Use 21953Y5.		62978	Bushing	EETSU
50622	Bearing	EATWM	62981	Nut	EEWAN
	Use 25088Y11.		62983	Pin	EEVBA
50649	Cooler	EFLCI	62984	Stop	EEVFD
	Use 44268Y4.		63023	Plug	EETKS
50657	Bearing	EATUR	63028	Pin	EEVDY
	Use 25088Y1.		63029	Bushing	EETVB
50658	Bearing	EATYL	63030	Bushing	EETUX
	Use 25088Y2.		63051	Nut	EEVYM
50690	Pin	EFGWZ	63052	Slinger	EEVUK
	Use 41603Y1.		63055	Ring	EFAJF
51125	Guide	EATNV	63056	Cap.	EFAXM
	Use 66044Y13.		63057	Nut	EEZTZ
51130	Bushing	EBEGN	63308	Spacer	EEZJT
61070	Shaft	ECWOF	63342	Bushing	EDBAJ
61124	Terminal	EHJJI	63444	Carburetor	EHPVN
	Use 1 each of 61722, 113103N1 and 37D99.		63544	Gear	EBWIC
61128	Shaft	ECWMS	63603	Bushing	EDSNL
61189	Housing	EDTOP	63606	Shaft	EDSJY
			63659	Gasket	EBVHS
			63660	Cover	EBYFR
				Use 64797.	
			63661	Gear	EBWUJ
			63662	Gear	EBWYL
			63663	Shaft	EBWGN
			63866	Cover	†EECHB
				Use 112984.	
			63867	Gasket	†EECJE
			63923	Bushing	EDSHO
			63924	Bushing	EDSWD
			63937	Bearing	EDSFG
			63940	Gasket	EEBYU
			63941	Adapter	EECBV
			63943	Bushing	EEBEN
			63946	Adapter	EDMMP
			63947	Bushing	EEAND
			63950	Bushing	EDMSY
			63951	Gear	EDMKN

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NUMERICAL PARTS LIST - Cont'd

Drawing Number	Description of Part	Code Word	Drawing Number	Description of Part	Code Word
63954	Gear	EDMCK	65301	Grommet.	EBTYL
63958	Bushing.	†EDZJO	65529	Carburetor	EHPAB
63991	Gasket	EDSPK	65583	Carburetor	EHPCH
63994	Spacer	EHFME	65584	Carburetor	EHPRK
64012	Carburetor	EHPMG	65680	Spacer	EESFA
64067	Support.	ECDCCK	65680Y1	Spacer	EESHB
64068	Nut.	ECCOC	65680Y2	Spacer	EESJC
64069	Nipple	ECCRD	65680Y3	Spacer	EESLD
64070	Elbow.	ECCMY	65680Y4	Spacer	EESNE
64109Y2	Seat	ECKDR	65680Y5	Spacer	EESPF
64109Y3	Seat	EFKFT	65680Y6	Spacer	EESRG
64109Y4	Seat	EFKHU	65739	Spring	EBSEW
64109Y5	Seat	EFKJY	65790	Cover.	EDPAJ
64117	Body	ECAPE	65844	Book - Instruction	EJYAZ
Use 110348.			Use 111429.		
64119	Gasket	†EDPKV	65932	Housing.	EGYGR
64126	Washer	EGUXT	65933	Connection	EFLGL
64249	Magneto.	EHFGA	66040	Nut.	EGYWA
64266	Bracket.	†EHVTE	66041	Spring	EGYUB
64267	Bracket.	†EHVZG	66042	Seal	EGYYD
64280	Bushing.	†EIBDV	66044	Guide.	EATLY
64282	Support.	EFSDL	66047	Bolt	EGURG
64321	Bushing.	EEBWS	66067	Plug	EBSCR
64332	Gear	EEWJU	66069	Body	EBSAJ
64333	Sleeve	EABEG	66110	Gasket	EBYRZ
64334	Gear	EEFIN	66239	Ring	EGIBF
64335	Gear	EEFKP	66239Y1	Ring	EDIDG
64336	Gear	EEFRT	66239Y2	Ring	EGIFI
Use 414316.			66239Y3	Ring	EGIHK
64339	Gasket	†EAHNI	66239Y6	Ring	EGILH
64379	Support.	EFYIX	66239Y7	Ring	EGINJ
64380	Support.	EFYEW	66239Y8	Ring	EGIPM
64381	Pad.	EFYCY	66239Y15	Ring	EGIRN
64383	Plate.	EFUAC	66239Y16	Ring	EGISO
64385	Support.	EFUSK	66239Y17	Ring	EGIUP
64386	Support.	EFUME	66239Y18	Ring	EGIWR
64387	Pad.	EFUGH	66239Y21	Ring	EGJCU
64389	Support.	EFUIJ	66239Y22	Ring	EGJEV
64390	Support.	EFURI	66239Y23	Ring	EGJGY
64391	Pad.	EFUEF	66310	Cover.	EAYGB
64400	Packing.	EIBRC	66313	Pinion	EENHI
64407	Carburetor.	EHPKE	66587	Wire	EHJPO
64483	Gland.	EIBVE	Use 111787.		
64498	Carburetor	EHPXO	66740	Plug	EAYAJ
64499	Ring	EJEZJ	Use 1 each of 112346 and 124D130.		
Use 411569.			66769	Spacer	EJBEL
64505	Valve.	EAFCI	66770	Ring	EJIBE
64517	Cover.	EAFGO	Use 411572.		
64538	Spring	EHCBO	66830	Plug	ECYLR
64539	Spring	EHBYN	66849	Housing.	EDTRT
64540	Spring	EHBWM	66850	Packing.	EDTML
64768	Nut.	EGUTH	Use 68706.		
64822	Bushing.	EKAJ	66851	Washer	EDTIN
64825	Cover.	EFNEF	66900	Valve.	EHBOJ
64826	Gasket	EFNIJ	66917	Clip	EBTUJ
Use 110001.			66918	Clip	EBTWK
64827	Cover.	EFNCE	66950	Tappet	EGYRY
Use 67379.			67007	Bracket.	†EBAXM
64828	Cover.	EFNGH	67011	Clip	†EBANC
Use 67380.			67022	Shim	ECMCA
64834	Gear	EDMAH	67039	Valve.	EAHTT
64867	Shaft.	EDABO	67041	Guide.	ECODM
64868	Shaft.	EDADK	67042	Shaft.	ECKEZ
65024	Cage	ECMAJ	67043	Shaft.	ECKIB
65044	Ring	ECOHN	67067	Cover.	EBBGO
65045	Guide.	ECOBS	67068	Connection	EBBCU
65046	Spacer	ECOFH	67069	Screw.	EBBIS
65088	Carburetor	EHPOF	67159	Ring	EGMAB
65111	Bearing.	ECGUK	67159Y1	Ring	EGMCE
65189	Adapter.	EBTRN	67159Y2	Ring	EGMED
65209	Spacer	EIYHZ	67159Y3	Ring	EGMGA
65271	Adapter.	EEWKT	67159Y6	Ring	EGMNI
65299	Clip	EBSH	67159Y7	Ring	EGMOG

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NUMERICAL PARTS LIST - Cont'd

Drawing Number	Description of Part	Code Word	Drawing Number	Description of Part	Code Word
67159Y8	Ring	EGMRH	89547	Three-Way Accessory Drive. . .	EDYKC
67159Y15	Ring	EGMSK		Use 414544.	
67159Y16	Ring	EGMUJ	89548	Three-Way Accessory Drive. . .	EDYWL
67159Y17	Ring	EGMWL		Use 414543.	
67159Y18	Ring	EGMYM	89549	Three-Way Accessory Drive. . .	EDYRG
67159Y21	Ring	EGNFS		Use 414536.	
67159Y22	Ring	EGNHT	89550	Three-Way Accessory Drive. . .	EDZFI
67159Y23	Ring	EGNJU		Use 414534.	
67160	Ring	EGRAP	89551	Three-Way Accessory Drive. . .	EDYDZ
67160Y1	Ring	EGRCY		Use 414546.	
67160Y2	Ring	EGRER	89552	Three-Way Accessory Drive. . .	EDYSH
67160Y3	Ring	EGRGV		Use 414547.	
67160Y6	Ring	EGRKA	89553	Three-Way Accessory Drive. . .	EDYOF
67160Y7	Ring	EGRMB		Use 414548.	
67160Y8	Ring	EGRNC	89554	Three-Way Accessory Drive. . .	EDZDE
67160Y15	Ring	EGRND		Use 414549.	
67160Y16	Ring	EGRRE	89564	Body	EHUAF
67160Y17	Ring	EGRSH	89565	Body	EHUCG
67160Y18	Ring	EGRUF	89592	Three-Way Accessory Drive. . .	EDVOM
67160Y21	Ring	EGRWI	89594	Three-Way Accessory Drive. . .	EDYEW
67160Y22	Ring	EGRYK	89596	Three-Way Accessory Drive. . .	EDVFA
67160Y23	Ring	ECMEW	89598	Three-Way Accessory Drive. . .	EDYCY
67397	Gasket	EHFKD	89653	Three-Way Accessory Drive. . .	EDVIL
67902	Magneto.	EEXNH		Use 1 each of 89596 and 49556.	
68308	Spring	EEXLG	89654	Three-Way Accessory Drive. . .	EDVUT
68309	Spring	EJAB		Use 1 each of 89592 and 49556.	
80133	Wrench	EJSRI	89655	Three-Way Accessory Drive. . .	EDYIB
80137	Screw Driver	EJSGY		Use 1 each of 414546 and 49556.	
80139	Hammer	EJSME	89656	Three-Way Accessory Drive. . .	EDYMD
80145	Pliers	EJTBO		Use 1 each of 414544 and 49556.	
80150	Wrench	EJTDS	89657	Three-Way Accessory Drive. . .	EDYUK
80151	Wrench	EJTTFU		Use 1 each of 414547 and 49557.	
80152	Wrench	EJTHY	89658	Three-Way Accessory Drive. . .	EDZBA
80153	Wrench	EJTPE		Use 1 each of 414543 and 49557.	
80158	Wrench	EJTRF	89668	Piston	EGENA
80159	Wrench	EJT TG	89668Y1	Piston	EGEPB
80162	Wrench		89669	Piston	EGEJY
	Use 80537.		89669Y1	Piston	EGELZ
80163	Wrench	EJUGL	89714	Tube	EBCEW
80164	Wrench	EJSUM	89715	Tube	EBACH
80165	Wrench	EJSWN	89774	Piston	EGCKO
80166	Wrench	EJSYP		Use 890023.	
80171	Wrench	EJTZI	89774Y1	Piston	EGCMP
80180	Gauge.	EJSEV		Use 890023Y1.	
80540	Roll - Tool.	EJSOF	89775	Piston	EGCOS
81132	Wrench	EJUSO		Use 890024.	
81253	Extension.	EJSCU	89775Y1	Piston	EGCRT
81262	Wrench	EJUWT		Use 890024Y1.	
81278	Wrench	EJTJZ	89789	Crankcase - Main Section . . .	EATDE
	Use 82883.			Use 1 of 89936 and 72 of 124D116.	
81402	Wrench	EJUIM	89795	Tube	EBCAV
81403	Handle	EJSIZ	89797	Tube	EBAAC
81409	Compressor	EJSAP			
81507	Wrench	EJUOP			
81680	Screw Driver	EJSSL			
81900	Wrench	EJUUS			
82102	Wrench	EJURR			
	Use 84449.				
82883	Wrench	EJTLA			
82932	Wrench	EJUKN			
82934	Wrench	EJUMK			
82972	Wrench	EJUJC			
82973	Wrench	EJTVH			
83223	Wrench	EJTND			
83285	Sling.	EJVBY			
83291	Sling.	EJUYU			
83472	Wrench	EJUCJ			
83965	Pliers	EJSKA			
89147	Body	EIJNY			
89151	Bearing.	EICGSJ			
89186	Cleaner.	EIVAF			
89281	Diffuser Section	EBEDK			
89356	Arm.	EGUFY			
89431	Diffuser Section	EBEFJ			
89445	Arm.	EGUHA			

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NUMERICAL PARTS LIST - Cont'd

Drawing Number	Description of Part	Code Word	Drawing Number	Description of Part	Code Word
89802	Crankcase - Main Section . . . Use 1 each of 89940, 129D32, 2105D1 and 66310; 2 each of 1D40 and 27D118; 56 of 124D116.	EATBA	410635	Tube	EBAGK
			410748	Support.	EJEFZ
			410763	Support.	EJHIV
			410769	Wiring Harness	EHJFD
				Use 68641N11.	
89825	Cylinder.	EDJCL	410850	Rod.	EFGJN
	Use 89825N3.		410851	Rod.	EFFCS
				Use 410851Y1.	
89826	Cylinder.	EDJEM	410852	Rod.	EFFGU
	Use 89826N3.			Use 410852Y1.	
410087	Bracket	EENPJ	410908	Piston	EGCAK
410089	Generator Drive	EEMIV		Use 416336.	
410187	Crankshaft.	EESBU	410908Y1	Piston	EGCCL
	Use 414585.			Use 416336Y1.	
410188	Crankshaft.	EESDY	410909	Piston	EGCEM
	Use 414502.			Use 416427.	
410378	Manifold.	EJBCI	410909Y1	Piston	EGCIN
410380	Cowl.	EJHGU		Use 416427Y1.	
	Use 413421.		410924	Wiring Harness	EHJDB
410391	Cowl.	EJHEP		Use 68641N6.	
	Use 413419.		410927	Tachometer Drive	EDSBE
410392	Manifold.	EJBAG	411021	Crankcase - Rear Section	EBHEW
410437	Elbow	EIRAJ	411059	Gasket	EBRJP
410438	Elbow	EIRCI	411161	Tube	EBCFI
410562	Crankcase - Rear Section.	EBHCU	411477	Tube	EBAEJ
	Use 413594.		411506	Screen	EAZBA
410591	Tube.	EECHO	412041	Pump	EBVHA
410611	Adapter	EAHCA			

WRIGHT AIRCRAFT COMPANY

NUMERICAL PARTS LIST - CONT.

Part No.	Description	Quantity	Remarks
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1001
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