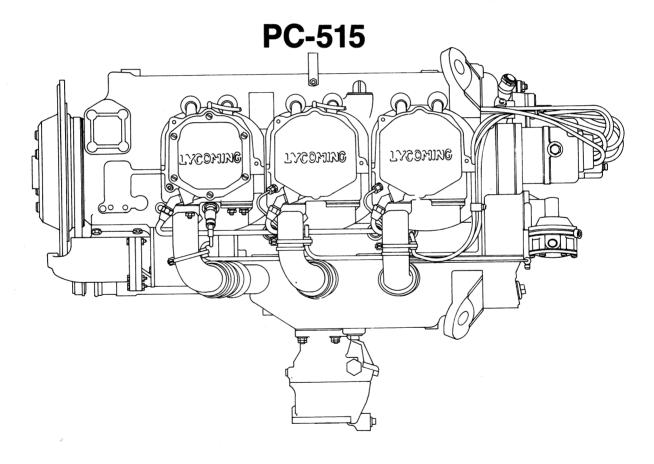
LYCOMING AIRCRAFT ENGINES

O-540 (W.C.F.) MODELS

PARTS CATALOG



LYCOVING

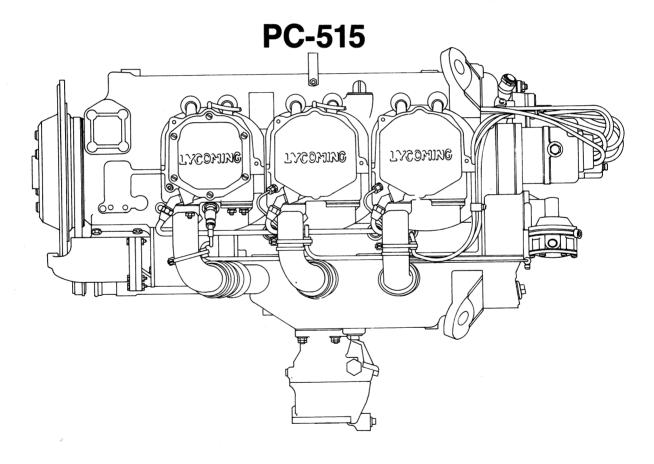
652 Oliver Street Williamsport, PA. 17701 U.S.A.

Tel. 570-323-6181 Fax. 570-327-7101

LYCOMING AIRCRAFT ENGINES

O-540 (W.C.F.) MODELS

PARTS CATALOG



LYCOVING

652 Oliver Street Williamsport, PA. 17701 U.S.A.

Tel. 570-323-6181 Fax. 570-327-7101

TECHNICAL PUBLICATION REVISION

REVISION No.

PC-515-1

PUBLICATION

0-540 Wide Cyl. Flange Parts Catalog

PUBLICATION No.

PC-515

PUBLICATION DATE

December, 1978

The page(s) furnished herewith are intended to replace the corresponding page(s) of the publication indicated above. If additional copies of the revision are required they may be obtained from

Lycoming Division. See Service Letter

No. L114H for further information on

Lycoming service publications.

This revision consists of:-

None

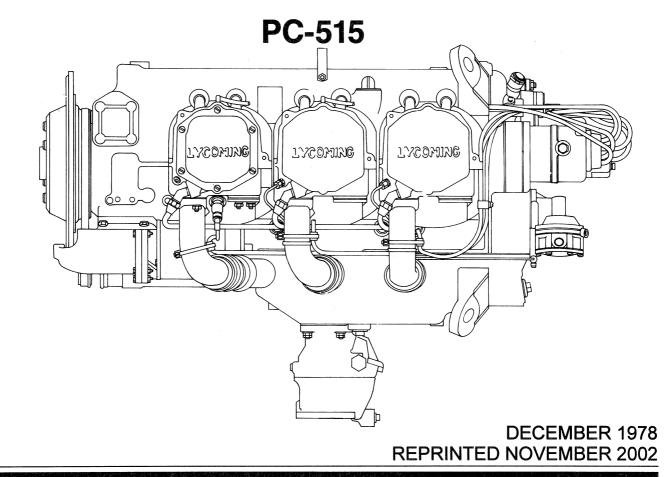
PC-515-1, March 1979 2-5, 2-6 8-2, 8-3

> Reprinted August 1991 Including this Revision

LYCOMING AIRCRAFT ENGINES

O-540 (W.C.F.) MODELS

PARTS CATALOG



LYCOMING

652 Oliver Street Williamsport, PA. 17701 U.S.A.

Tel. 570-323-6181 Fax. 570-327-7101

INTRODUCTION

This illustrated Parts Catalog provides parts coverage for all current models of 0-540 wide cylinder flange (WCF) series engines. These wide cylinder flange engines are identified by the suffix letter "A" on the engine serial number (e.g. L-18199-40A). The serial number as well as the model designation may be found on the engine nameplate on the oil sump.

Group Assembly Section: This section lists major assemblies and sub-assemblies in the general order of engine build-up.

Service Kit Section: Seal and gasket sets and cylinder, piston and ring kits are provided in this section.

Supersedure Section: This section lists a history of part numbers that have been superseded and gives a brief description of the change involved.

Numerical Index: Quick determination of part location in the catalog is possible thru this section when only the part number is known.

Oversize and Undersize Parts: Procurable oversize and undersize parts are listed preceding the main group assembly parts list.

Vendor Accessories: Parts coverage of Vendor Accessories used on Lycoming engines may be found in the appropriate Vendor's Parts Catalog. A list of the publications appear in the latest edition of Lycoming Service Letter No. L114.

SERVICE BULLETINS, INSTRUCTIONS AND LETTERS

Although the information in this catalog is up-to-date at the time of publication, users are urged to keep abreast of later information through

Lycoming Service Bulletins, Instructions and Letters which are available from all

Lycoming distributors or from the factory by subscription. Consult the latest edition of Service Letter No. L114 for subscription information.

NOTE

The illustrations, pictures and drawings shown in this publication are typical of the subject matter they portray; in no instance are they to be interpreted as examples of any specific engine, equipment or part thereof.

0-540 SERIES WIDE CYLINDER FLANGE

TABLE OF CONTENTS

SECTION	PAGE
Introduction	ii
1 - Crankcase, Crankshaft and Camshaft Group Crankcase Assembly Oil Level Gages and Engine Mounting Parts Crankcase Related Parts Crankshaft, Camshaft and Related Parts Starter Ring Gear Support Assembly Crankshaft Idler Gears and Tachometer Drive Propeller Governor Drive (Crankcase) Crankcase Attaching Parts	1-3 1-4 1-5 1-7 1-8
2 - Accessory Housing and Related Parts	2-2 2-3 2-4 2-5
3 - Cylinder, Piston and Valve Train Connecting Rod, Pistons and Ring Assemblies Cylinder Assembly Valve Assembly Cylinder Related Parts Cylinder Head Drain Tubes and Intercylinder Cooling Baffles	3-2 3-3 3-4
4 - Ignition System Magneto Drives and Magnetos	4-3
5 - Electrical System Voltage Regulator, Relays and Alternator Drive Belts Alternators Alternator Mounting and Attaching Parts Starting Motors and Attaching Parts	5-2 5-3
6 - Oil Sump and Induction System Oil Sump Assembly and Attaching Parts Oil Suction Screen Intake Pipe and Attaching Parts Carburetors and Related Parts Priming System	6-2 6-3 6-4
7 - Service Kit Section	
8 - Supersedure Section	
9 - Numerical Index	9-1

OVERSIZE AND UNDERSIZE PARTS LIST 0-540 SERIES WIDE CYLINDER FLANGE

PART NO.	DESCRIPTION		C	VERSI	ZE				UN	IDERSIZ	Έ
		P05	P075	P10	P125	P15	P20	P30	M03	M06	M10
76943	GUIDE, Valve intake	Х		х			х	х			
66610	BUSHING, Rocker shaft	Х		Х							
66796	INSERT, Spark plug			Х							
69796	DOWEL, Crankshaft bearing	Χ									
LW-10647	DOWEL, Crankshaft bearing	Х		Х							
71903-A,-B	BUSHING, Counterweight	SEE S	ERVICE I	NSTRU	CTION N	0.1143	FOR SIZ	ZE.			
72057	SEAT, Intake valve			X			X	Х			
72058	SEAT, Exhaust valve			Х			X	X			
72060	BUSHING, Propeller flange	X		Х		Х	X				
72061	BUSHING, Propeller flange	Х		Х		Х	Х				
72062	BUSHING, Propeller flange	Х		Х		Х	X			1	
72155	BUSHING, Propeller flange	Х		Х		Х	X				
75656	BUSHING, Propeller flange	Х		Х		X	Х				
75657	BUSHING, Propeller flange	X		X			Х				
73810	BUSHING, Crankshaft										
	counterweight	Х	X	X	X	X		<u> </u>			
77160	GUIDE, Valve exhaust							X			
LW-13521	BEARING, Connecting rod								X	X	X
LW-13884	BEARING, Crankshaft, front							<u> </u>	X	X	X
LW-13885	BEARING, Crankshaft, front			<u> </u>				ļ	X	X	X
LW-11021	BEARING, Crankshaft							ļ	X	X	X
LW-11575	BEARING, Crankshaft								X	<u> </u>	X

Studs available in P03, P07 and P12.

NOTE

When ordering oversize and undersize parts, be sure to specify the required oversize and undersize dimension along with the proper part number. For example, to order bearing LW-13521 in .003 undersize, order part number LW-13521-M3. Oversize code letter is "P" while undersize code letter is "M". These letters are then followed by the number designating the size in thousandths of an inch.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

CRANKCASE ASSEMBLY

FIG. REF.	PART NUMBER	l -	N LL				(Qι	JA	ΝT	TIT	Υ	PE	ER	A	SS	EN	ИВ	L'	Y					
1	NOMBER	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7	la la										7	7	/	/	/	/	7	/	/	7	7	\sum
1	LW-13831	CRANKCASE ASSEMBLY		1	1	1	1	1	1	1														\perp	
	LW-13838	CRANKCASE ASSEMBLY									1												1	\perp	Ш
***************************************	LW-13844	CRANKCASE ASSEMBLY										1	1											\perp	Ш
	61261	STUD, 5/16-18 x 1-1/2 long		2																				\perp	
3	67528	STUD, 5/16-18 x 1-5/8 long		1																				\perp	
4	38-13	STUD, 3/8-16 x 1-5/8 long	2	4																				\perp	
5	38-16	STUD, 3/8-16 x 2.00 long		8																_					
6	38-22	STUD, 3/8-16 x 2-3/4 long		1																					\perp
7	38D-17	STUD, 3/8-16 x 2-1/8 long, drilled		1																			\perp	\perp	
8	50-15	STUD, 1/2-20 x 1-7/8 long	1	2																					
9	LW-13794	STUD, 5/16-18 x 1.00 long, drilled			1	1	1	1	1	1	1													\perp	
10	69796	DOWEL, Crankshaft bearing		2																					\perp
11	LW-10647	DOWEL, Crankshaft bearing			1	1	1	1	1	1	1	1													
12	STD-514	DOWEL, 5/16 dia. x 1/2 long		2																				\perp	
13	STD-557	DOWEL, 1/2 dia. x 11/16 long		2																					
14	STD-1339	PLUG, 1/16-27 pipe, Allen hd.		1																				\perp	
15	1102	PLUG, 1/8-27 pipe, Allen hd.		4																				\perp	
16	65007	RETAINER, Shroud tube seal	1	2	T																				
17	72158	BUSHING, Gov. drive idler shaft		1																					
18	67556	STUD, 5/16-18 x 2.00 long (Driven																						$oldsymbol{\perp}$	
		height of studs 1.27 - 1.31)	T		T	l	4			4		4													
19	683 16	STUD, 5/16-18 x 1-11/16 long (Driven	Ī	T		Γ																			
***************************************		height of studs .96 - 1.00)	T	T	4	4	4	4	4				4											I	
20	STD-1339	PLUG, 1/16-27 pipe, Allen hd. (assemb	le		T	Ī						Ī													
		in crankcase piston squirt holes)		T	T	Π					6													J	
21	73772	NOZZLE ASSY., Piston cooling	1	T	1	Ī						6	6											I	

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

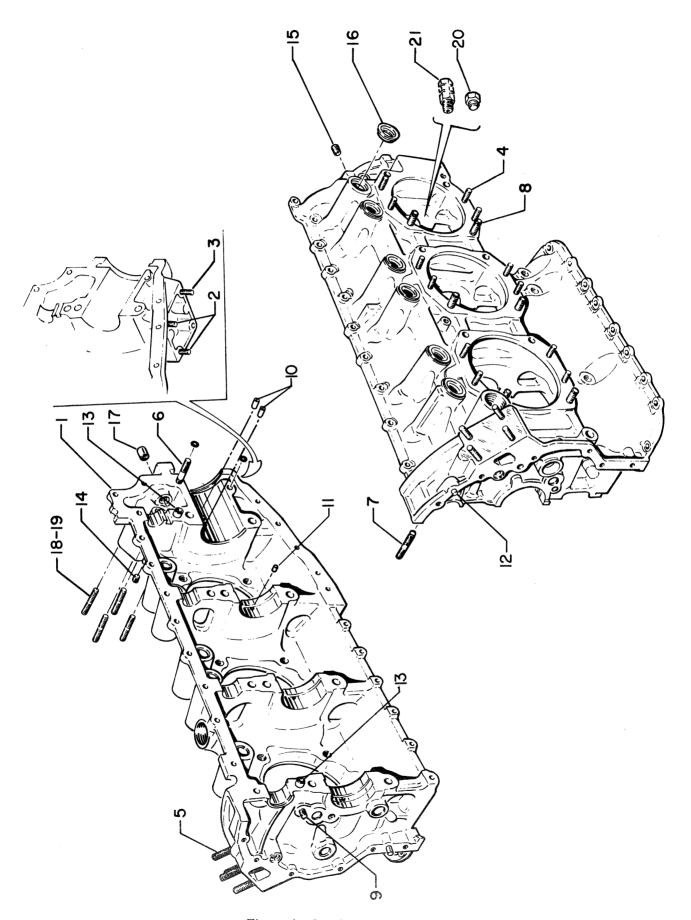


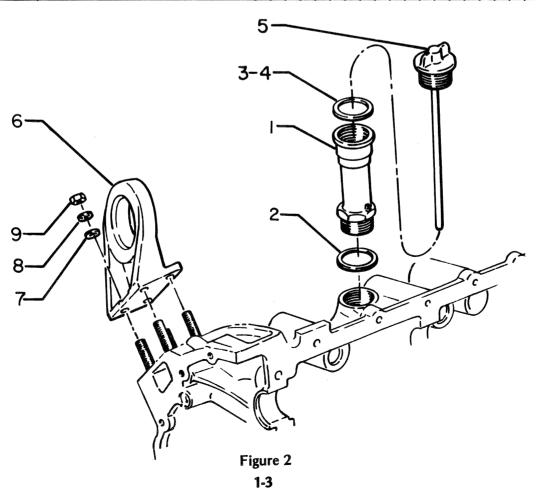
Figure 1 - Crankcase Assembly

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

OIL LEVEL GAGES AND ENGINE MOUNTING PARTS

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALI				(Qι	JA	N-	TI"	ΓY	P	EF	R A	SS	SE	ME	3L	Y					
2	NOMBER			1			N. S.	S. S.					T.	/	/	1	/	/	1	1	1	/	7	/	
1	75761	EXTENSION, Oil filler, long				T	T						1							\Box	I	I	I	I	Π
	75737	EXTENSION, Oil filler, short			T	1					1	1	1											\perp	Ш
	77527	EXTENSION, Oil filler, short			1		1	1	1															L	$oldsymbol{\perp}$
	77770	EXTENSION, Oil filler, 6.31 long			I					1													$oldsymbol{\perp}$	\perp	Ш
2	70457	GASKET, Oil filler extension		1																				L	
3	72220	GASKET, Oil level gage											1												
	72059	GASKET, Oil level gage				1					1	1	1												Ш
4	72312	RING, Oil seal, 1.00 ID x 1/8																						\perp	Ш
		section			1		1	1	1	1													\perp	\perp	
5	73120	GAGE ASSEMBLY, Oil level (75761																				\perp	\bot	\perp	Ш
		extension)											1						Ш					\perp	
	LW-14756	GAGE ASSEMBLY, Oil level (75737			_																			\perp	Ш
		extension)				1					1	1	1									\perp		\perp	Ш
	LW-14747	GAGE ASSEMBLY, Oil level (77527												<u> </u>										\perp	Ш
		extension)			1		1	1	_1					_								\perp	┙		Ш
	LW-14734	GAGE ASSEMBLY, Oil level (77770								<u> </u>	<u> </u>													1	\perp
		extension)								1							<u> </u>								ot
6	70456	BRACKET, Engine mtg. (dynafocal)				4	4	4	4	4	4							<u> </u>						\perp	$\perp \! \! \perp \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$
	72306	BRACKET, Engine mtg. (dynafocal)			4		4			<u> </u>		4	4	_		<u> </u>									ot
7	STD-33	WASHER, Plain, 3/8 in.		16																					
8	STD-678	WASHER, Internal lock, 3/8 in.		16																					
9	STD-596	NUT, Plain, 3/8-24 in.	~~~	16		\Box																			



WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

CRANKCASE RELATED PARTS

FIG. REF.	PART NUMBER	DESCRIPTION	ON				No.	30	A	TIN	11	Y	PE	R	AS	SE	M	BL	Y	7	7	7	7	\sum
1	1028-B	BALL, 11/16 dia.		1								\perp		I	I	I						I	I	
2	68668	SPRING, Oil pressure relief valve		1		_										L							\perp	$oldsymbol{\perp}$
3	STD-1045	GASKET, 1-1/4 OD x 1-1/2 OD x	3/32			_	\perp														_	\perp	\perp	\perp
		annular		1				_							L	_							L	Ш
4	STD-425	WASHER, No. 10 plain (Max. 9)		un														<u> </u>						$\perp \perp$
<u>5</u>	76529	PLUG, Oil relief valve		1		_		_															\perp	$oldsymbol{\perp}$
6	LW-11021	BEARING, Crankshaft			6	6	6	6	6	6								L						
	LW-11575	BEARING, Crankshaft									6	6	6		L	L							\perp	Ш
7	LW-13884	BEARING, Crankshaft, front			2	2	2	2	2	2								L					\perp	
	LW-13885	BEARING, Crankshaft, front									2	2	2											$oldsymbol{\perp}$
8	LW-13792	SEAL, Crankshaft oil			1	1	1	1	1	1								L					$oldsymbol{\perp}$	
	LW-15628	SEAL, Crankshaft oil				I					1	1	1				L						\perp	
9	72091	RING, Oil seal, 23/64 ID x 7/64					T																	
		dia. section		2																				
10	72877	BODY, Hydraulic tappet		12			I										\perp							

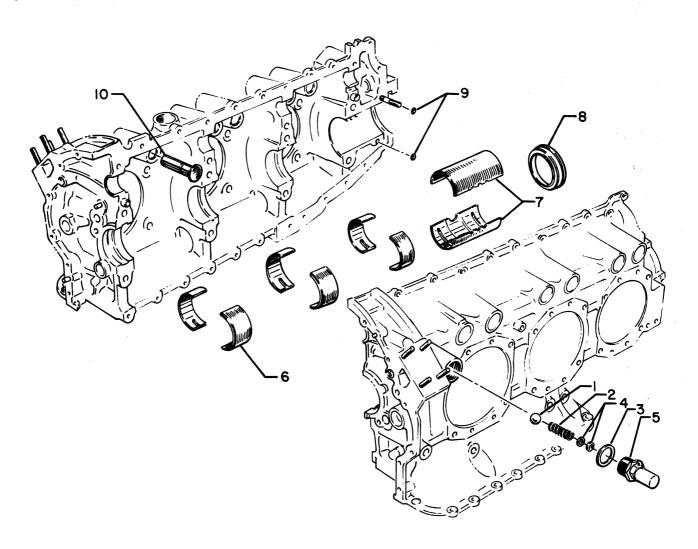


Figure 3

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

CRANKSHAFT, CAMSHAFT AND RELATED PARTS

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALI					(QL	JA	N	LI.	ΓY	P	EF	R A	.59	SE	ME	3L	Y			_	_		
4				1							/\$ 3 / 5	Ų,	B)	$^{\prime}$	()	//	/	/	/	//	$^{\prime}$	//	$^{\prime}/$	//	/	/	
				_	_\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ijÜ	NO.	1/0	W.	M	3/	υħ	ZĊ	<u> </u>	$oldsymbol{L}$	$oldsymbol{\perp}$	$oldsymbol{\perp}$	$oldsymbol{\perp}$	$oldsymbol{\perp}$	$oldsymbol{\perp}$	\angle	\not	7	ota	7	${\cal L}$	$\boldsymbol{\mathcal{L}}$
***************************************	75073	CRANKSHAFT AND COUNTERWEIG	TH	_	_		_	_						_								_			_	_	_
***************************************		ASSY.			_	1	1	_														_			_	_	
	75040	CRANKSHAFT AND COUNTERWEIG	THE		_	_	_	_						ļ								_			_	_	_
		ASSY.		_	_	_	_	_1	1	1	1													_	_		_
	77193	CRANKSHAFT AND COUNTERWEIG	HT		_	4	_	_																	_	_	4
		ASSY.			_		_	_				1			_							_			_	_	4
	LW-12280	CRANKSHAFT AND COUNTERWEIG	HT	_		_	_	_						<u> </u>	<u> </u>										_		_
		ASSY.			_	_	_	_					1	1											_	_	_
1	75039	CRANKSHAFT ASSY.			_	_1	1	_1	1	1	1		L	ļ	<u> </u>										_	_	_
	77192	CRANKSHAFT ASSY.			_	_	_					1		_	<u> </u>										4	_	_
	LW-12279	CRANKSHAFT ASSY.				_	_	_			_		1	1	<u> </u>					Ŀ				_	_	_	_
2	STD-1211	PLUG, 2.00 dia. expansion		_1	_	_	4				_				<u> </u>			ļ							_	\vdash	4
3	73810	BUSHING, Crankshaft dynamic				4	_							ļ	<u> </u>	_		ļ	_					_	_		_
		counterweight		4		_	_	_					ļ	ļ	<u> </u>	_		<u> </u>	_	L						\vdash	4
4	71640	PLUG, 1-3/8 dia.		_	_	_1	_1	4	1	1	1		_	<u> </u>	_	<u> </u>		ļ	_	_			Ш				_
	60945	PLUG, 1-1/4 dia.			_		_	_			<u> </u>	1	1	1	<u> </u>	ļ		<u> </u>		ļ					_		
5	72062	BUSHING, Prop. flange, long			_	4	4	4	4	4	4		<u> </u>	L.	_			<u> </u>		<u> </u>					_	\dashv	_
	75656	BUSHING, Prop. flange, long			\vdash	_	_	_			_	4	4	4	┞		ļ	<u> </u>			_					\vdash	_
6	72061	BUSHING, Prop. flange, short			\dashv	4	-4	_1	1	1	1		<u> </u>	<u> </u>	ļ	_	ļ	ļ	ļ	ļ		_				-	
	72155	BUSHING, Prop. flange, short				_		_			_	1	1	1	<u> </u>	 	ļ	ļ		ļ					_	\vdash	_
7	72060	BUSHING, Prop. flange, indexing			-	-4	4	-4	1	1	1	_		<u> </u>	ļ	ļ	_	<u> </u>	<u> </u>	ļ	<u> </u>				_	-	_
	75657	BUSHING, Prop. flange, indexing		-	\vdash		\dashv			_	<u> </u>	1	1	Ľ	 	<u> </u>	<u> </u>	 	ļ	 	<u> </u>		_		_	-	\dashv
8	STD-1065	DOWEL, Stepped, 19/64 x 1/4	X		\vdash	_	_	_	_		_	<u> </u>	ļ	<u> </u>	<u> </u>	ļ	ļ	ļ	<u> </u>	-	ļ	Ш			_	\vdash	\dashv
	070 0070	35/64 long			-	_1	4	4	1	1	1	1		<u> </u>	┞	<u> </u>	ļ	<u> </u>	<u> </u>	ļ	ļ	_			_	\dashv	
	STD-2078	DOWEL, 3/8 OD x 1/2 long					_	_			<u> </u>	Ļ	1			ļ	ļ	<u> </u>	<u> </u>	 	_				_	\sqcup	_
9	71904	COUNTERWEIGHT ASSY.			\vdash	_4	2	_	_	_	Ļ		2	2	1	ļ		<u> </u>	<u> </u>	 	ļ	-	_			\vdash	
4.0	72801	COUNTERWEIGHT ASSY.		_	\vdash			_2	2	2	2	ļ	 	ļ	_	ļ	<u> </u>	ļ	ļ	<u> </u>	_				_		
10	71903	BUSHING, Dynamic counterweight	[8	\vdash						ļ		<u> </u>	ļ	├	<u> </u>	 	<u> </u>	<u> </u>	<u> </u>	_		_			Н	
11	70416	ROLLER, Dynamic counterweight,		L		_	_				ļ	2	١.,	١,]	<u> </u>	ļ	<u> </u>	<u> </u>	<u> </u>	<u> </u>				_		
	72707	6th order			\vdash	2	2		_		 		2	2	}_	 	<u> </u>	<u> </u>	 	<u> </u>	<u> </u>		_			$\vdash\vdash$	\dashv
	72797	ROLLER, Dynamic counterweight, 6.3 order			-	_		-	2	2	2	<u> </u>	┡	-	ऻ-	├-	<u> </u>	<u> </u>	 	├	-		_	_		$\vdash \vdash$	
12	72022	ROLLER, Dynamic counterweight,			\vdash	_					_	L	┞	<u> </u>	╂	<u> </u>	<u> </u>	ļ	 	├	-		_	\vdash		Н	\dashv
12	72022	5.1 order		-	\vdash		2		<u> </u>	ļ	-	2	2	١.,		<u> </u>	ļ	├	├	┞—		-				Н	
	70005			Н	Н	2	-4	-	<u> </u>	ļ	 	-	_	1 2	1-	<u> </u>	ļ	┞	 	┞	ļ	_		\vdash		Н	-
	72965	ROLLER, Dynamic counterweight,		\vdash	\vdash				-	١,	١,		├	╂	 	├	<u> </u>	 	 	┞-	<u> </u>			\vdash	_	\vdash	-
12	LW-14820	5.1 order RING, Internal retaining		8	\vdash		-	2		2	2	-	├	├-	┞-	 	┡	├	├	╂—	├-				_	Н	
13	·•							-		├	├-	┞-	├	┞	╀	 	├ ─	├	├	├	├-	-	-		-	Н	\dashv
14	71907 76148	WASHER, Dynamic counterweight CAMSHAFT ASSEMBLY		8	$\vdash\vdash$				 	-	-	 	 	╀	╀	 	-	┞	-	 		H		\vdash	\dashv	Н	
15 16	67514	GEAR, Crankshaft		H	\vdash	-1	1	1	1	1	1	-	 	Ͱ	┞	 	\vdash	├-	 	-		_	-	-	\dashv	Н	\dashv
10	LW-10284	GEAR, Crankshaft		Н	\vdash				 - -	<u> </u>	⊢ˈ	├-	+	1	1	 	 	Ͱ	┢	╂		Н	-		-	Н	-
17	67516	LOCKPLATE, Crankshaft gear	*************************************	\vdash	\vdash	1	1	1	-	1	1	-	 	-	╂	 	-	┢	╀	╂	├-	\vdash	\vdash	\vdash	\dashv	$\vdash\vdash$	-
17	LW-10332	LOCKPLATE, Crankshaft gear		-	\vdash	-		-	- -	├-	⊢'	 	L	1	1-	╂─	\vdash	┢	├	┢	 	-	 	\vdash	\dashv	-	-1
18	STD-1937	SCREW, 5/16-24 x 1-3/4 long		\vdash	\vdash	1	-1	1	1	1	-	+	 	+	╁	╁	┢	├	\vdash	╁	\vdash		\vdash	\vdash	-	-	\dashv
10	AN8-14A	BOLT, 1/2-20 x 1-37/64 long		\vdash	\vdash	-		- 8	┝╌	⊢'	 '	 	1	1	╁╌	┢	┢	┢	 	╁	 	-	┢	\vdash	-		\dashv
	TVIAO. 144	[DULI, 1/2-20 X 1-3//04 10119	·····		L				L	L	L	L	L!	1	1	L	I	1	1	1	L	L	L	L		Ш	

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

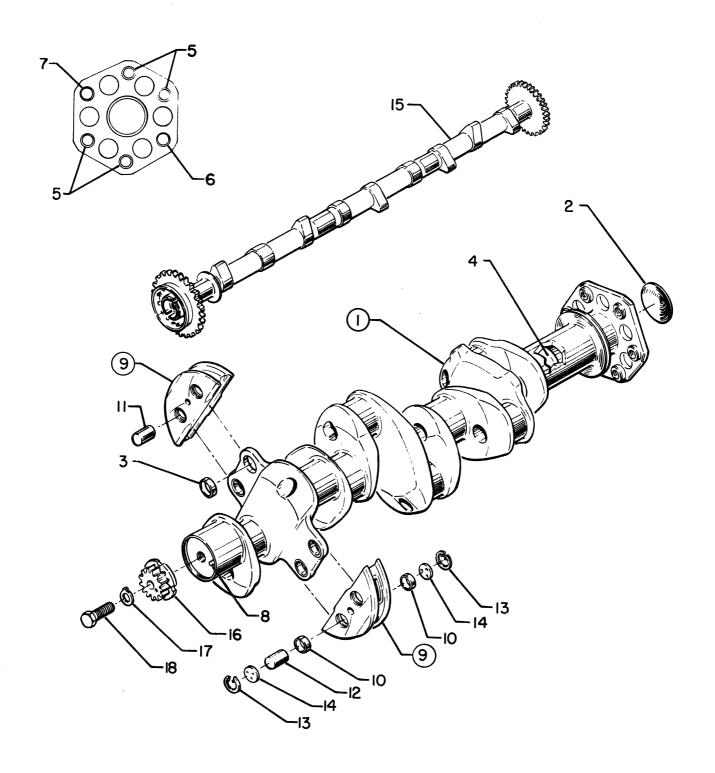


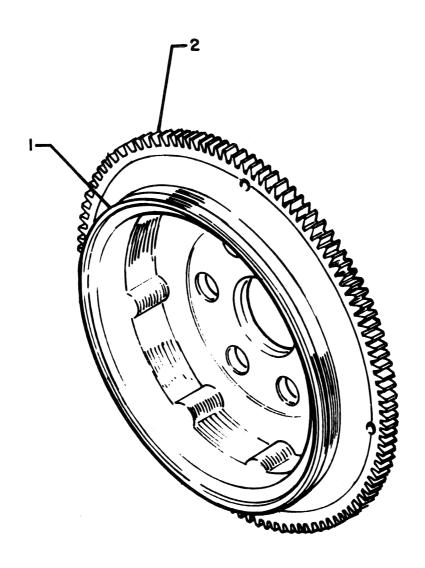
Figure 4 - Crankshaft, Camshaft and Related Parts

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

STARTER RING GEAR SUPPORT ASSEMBLY

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL					QI	JA	N٦	ΓI٦	ΓY	P	ER	R A	SS	SEI	ME	3L	Y		National Control	mmoreo	bide braces		
5	NOMBER			Ja.										/	/	1	1	1	/	1	1	7	1	7	1	
1	75030	SUPPORT ASSY., Starter ring gear,		T	Τ	Π													- Control			\Box	门	一	Ì	٦
		12/14 pitch, 3.25:1 drive		T	T	T		1	П	1														П	П	٦
	77579	SUPPORT ASSY., Starter ring gear,				I												Ī						П		
		12/14 pitch, 3.25:1 drive		T	Т	1	1				1	1	1									П	П		П	
	72565	SUPPORT ASSY., Starter ring gear,		T	1	Ī																		T		
		12/14 pitch, 1.91:1 drivé		T		T	1		1		T												П			
2	72566	GEAR, Starter ring, 12/14 pitch		1	1	T			П														П			7

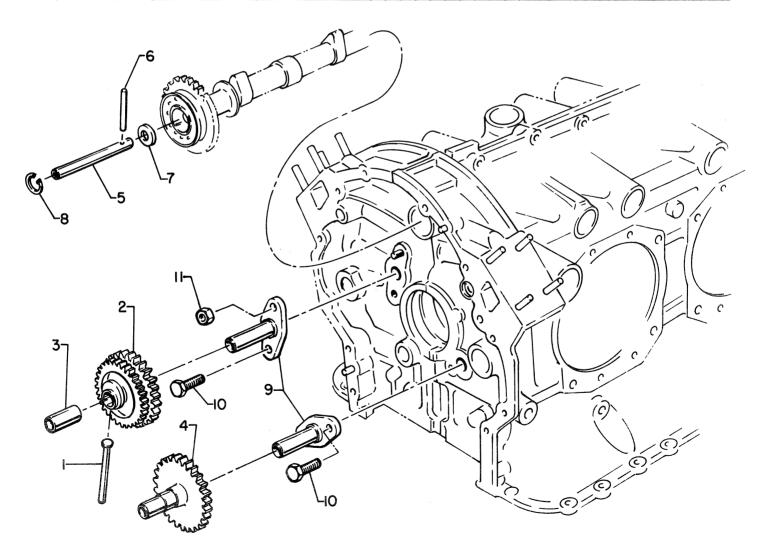


WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

CRANKSHAFT IDLER GEARS AND TACHOMETER DRIVE

FIG. REF.	PART NUMBER	DESCRIPTION	ON AL					1	QI	JA	N.	TI.	ΓY	P	EF	ξ Α	\S:	SE	MI	BL	Y	***	Servent-S.	er sando		
6	NOMBER			7										1	1	1	7	7	1	1	1	1	1	1	7	
1	61544	PLUNGER, Fuel pump, long		1						Г								Π	Г					T		
2	71668	GEAR ASSY., Crankshaft idler, plain				1	2	1	1	1	1	1											MAZDANA	T	Т	
	71652	GEAR ASSY., Crankshaft idler				1	1	1	1	1	1	1										200	Ī	T		
3	67530	BUSHING, Crankshaft idler gear				2	2	2	2	2	2	2												T		
4	LW-10290	GEAR ASSY., Crankshaft idler	***************************************		П								1	1				1					The same of	1	T	
	LW-10297	GEAR ASSY., Crankshaft idler											1	1				1							T	ĺ
5	76155	SHAFT ASSY., Tachometer		1	П																		100		T	
6	78368	PIN, 3/16 dia. x 2-21/64 long		1	П										ĺ								Ī	T	T	
7	76118	SPACER, Tach. shaft centering	***************************************	1														l	<u> </u>							
8	MS16625-1081	RING, Internal retaining		1				-		Г							T	Ī					7	1	T	
9	LW-13795	SHAFT, Crankshaft idler gear				2	2	2	2	2	2	2					ļ	1				1				1
10	STD-2167	SCREW, 5/16-18 x 43/64 long, hex																T	1				1			T
		hd. dr.				3	3	3	3	3	3	3				Γ		Π					1		T	
11	STD-2168	NUT, 5/16-18 NC-3 slotted shear				1	1	1	1	1	1	1							Γ							



WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

PROPELLER GOVERNOR DRIVE (CRANKCASE)

FIG.	PART	DESCRIPTION	ON ALL					Q	U	Αl	T	17	Y	PI	ER	A	SS	EΙ	ME	BL'	Y						
REF.	NUMBER	Description	\	4	ilõi	Ó	14	W	14	1	V		Ti	7	7	7	7	7	abla	7	7	7	7	7	7	$\overline{\ }$	1
7			$\overline{\ \ }$	_				S	0/	C_{i}		lo.	B	L'	7	7	7	7	7	7	7	7	7	7	7/	7	
1	LW-10442	GEAR, Prop. governor drive				L		1	1	1	1	1	1									\perp		_	1		1
2	LW-14021	SHAFT, Prop. governor idler gear						1	1	1	1	1	1	_ [_		_				_		_			1
	LW-10541	GEAR ASSY., Prop. governor, idler						1	1	1	1	1	1				_	_			_	_	_	_	\perp		1
4	77872	BUSHING, Prop. governor idler				L		\perp								_	_							_	_	_	1
,		gear						2	2	2	2	2	_2			_							_	_		1	1
	STD-19	DOWEL, 3/32 dia. x 7/32 long				L		1	1	1	1	1	1									_	_	_	_		1
6	STD-798	DOWEL, 3/32 dia. x 9/32 long				L		1	1	1	1	1	_1			_	_				_		_	_	_	_	1
7	73249	WASHER, Thrust				1	u	<u>n u</u>	ınlı	ın	un	un	un									_	_		_	4	1
	73250	WASHER, Thrust				L	u	n u	ıηι	ın	un	un	un									_	_	_	_	_	_
	73251	WASHER, Thrust				\perp	u	nu	ınlı	ın	un	un	un			_	_					_	_	_	4	1	4
	73252	WASHER, Thrust				1	u	nlu	ınlı	-	un	un	un			_						_	_	_	_ _	4	4
8	AN 565B1032H5	SET SCREW, No. 10-32 x 5/16 long		_				1	1	1	1	_1	_1		_								_	_	_	4	4
9	70455	GASKET, 25/32 ID x 1-1/8 OD x					_		\perp	_	_												_		_	_	4
		1/16 thick		1			\perp	\perp			_															_	4
10	LW-13896	PLUG, 3/4-16 hex hd.		1		1		L	\perp	_						_								_	_	4	4
11	72053	GASKET, Governor		_1		L	\perp		_	_	_								ļ					_	4	4	4
12	72378	COVER, Governor drive		1						_														_	4		4
13	STD-35	WASHER, 5/16 plain				4	4 u	nu	ınlı	un	un	un	un	4					<u> </u>						4	4	4
14	STD-475	WASHER, Internal lock, 5/16 in.		4		\perp																				\perp	1
15	STD-1410	NUT, 5/16-18 plain		4																						\perp	
16	78589	PLUG, Prop. gov. idler shaft				1	1							1				<u> </u>									1
17	74058	PLUG, Prop. gov. drive gear				1	1							1				<u> </u>	<u> </u>	<u> </u>			Ш		L	\bot	J

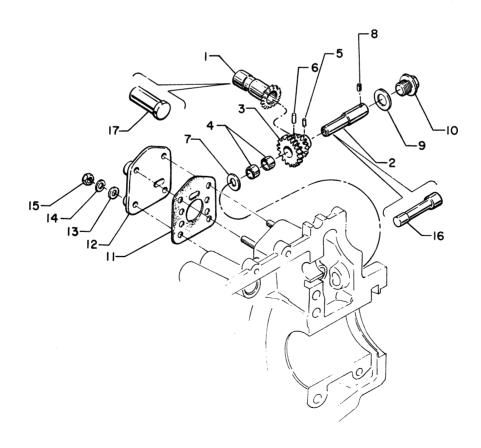


Figure 7 1-9

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

CRANKCASE ATTACHING PARTS

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALI					,	Qι	JA	N7	ΓIT	ΓY	PI	ER	A	SS	E	ME	3L	Y						
8	NOMBER			1										1	/	/	/	/	7	/	/	7	7	/	7	7	
1	STD-1414	BOLT, 1/4-20 x 1-1/2 long, hex hd.				11	11	11	10	10	10	10	10	10											\perp		1
2	STD-8	WASHER, 1/4 plain				27	27	27	26	26	26	26	26	26											\perp	\perp	
	60803	STRAP, Lifting				1	1	1	2			2	_2	2										_	L	\bot	_
	STD-2084	BOLT, 1/4-20 x 1-3/4 long, hex hd.				1	1	1	2	2	2	2	2	2											\perp	_	1
4 5 6	STD-1419	BOLT, 1/4-20 x 1-1/8 long, hex hd.		4]	_	_	_	_	_
	STD-160	WASHER, 1/4 lock, internal		16																				_	_	_	_
7	STD-1411	NUT, 1/4-20 plain		12					<u> </u>	<u> </u>														_	_		_
8	STD-1416	BOLT, 1/4-20 x 1-1/2 long, hex hd.																							\perp		_
		dr. end		6																					\perp		_
9	STD-8	WASHER, 1/4 plain (18 Max.)		un																					_		_
10	STD-1409	NUT, 1/4-20 slotted shear		6																			[_		_
11	STD-33	WASHER, 3/8 plain		1																						\perp	_
12 13	STD-872	NUT, 3/8-24 slotted		1					<u> </u>	L	<u> </u>	<u> </u>															
13	AN6-34A	BOLT, 3/8-24 x 3-37/64 long, hex				L			L	<u> </u>	<u> </u>															\perp	_
		hd.		1																				_	_	_	_
14	STD-33	WASHER, 3/8 plain		3	_	<u> </u>			<u> </u>			<u> </u>								<u> </u>				_	_	1	_
15	STD-678	WASHER, 3/8 internal lock		2																<u> </u>				_	4		4
16	STD-596	NUT, 3/8-24 plain		2														<u> </u>							4	_	_
17	76220	STUD, 1/2-20 x 10-45/64 long		8					J _	L	<u> </u>	<u> </u>	<u> </u>				<u> </u>	<u> </u>	<u> </u>	<u> </u>						L	╛

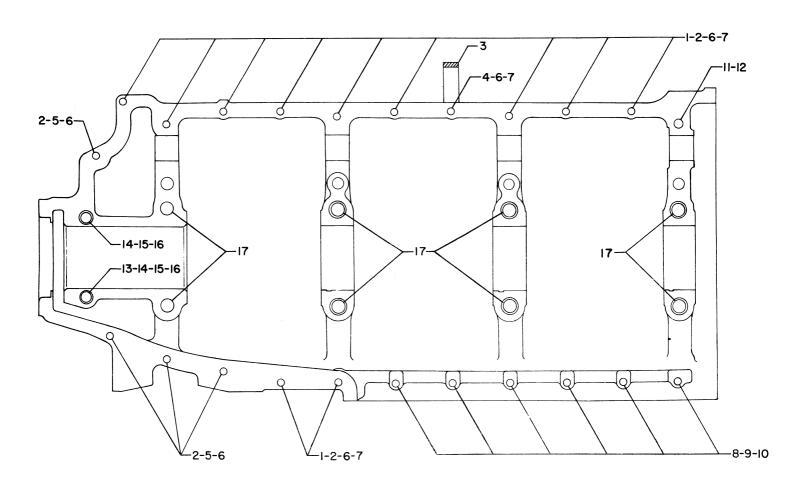


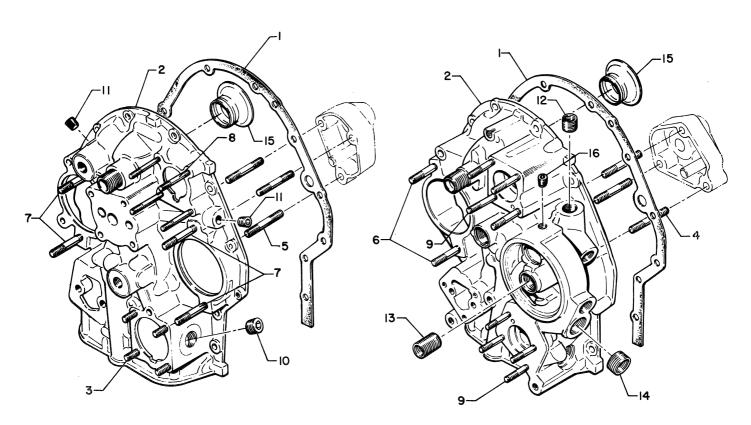
Figure 8

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

ACCESSORY HOUSING AND RELATED PARTS

ACCESSORY HOUSING ASSEMBLY

FIG.	PART	DESCRIPTION	ON					(Qι	ΙA	N	ΓIT	ΓY	P	ER	A	SS	EN	МВ	L	1					
REF.	NUMBER	DESCRIPTION		1				N. S.	No.					1	/	1	/	7	7	/	/	7	7	7	7	
1	73818	GASKET, Accessory housing		1			I									\Box								\perp	1	$oldsymbol{\sqcup}$
2	76 152	HOUSING ASSEMBLY, Accessory				1	1	1	1	1	1	1					1		_		\perp	\perp	_	_	┸	\perp
***************************************	LW-10916	HOUSING ASSEMBLY, Accessory											1	1			_		_		_	\perp	_	\bot	丄	$\perp \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$
3	61261	STUD, 5/16-18 x 1-1/2 long				4	4	4	4	4	4	4					_	_			_	_	_	\perp	\bot	\dashv
4	31CD-20	STUD, 5/16-18 x 2-1/2 long,					_	_								_	_	_		_	_		_	4	_	+
		drilled						_					3	3		_	_	_	_	_	_	4	_ _	4	4	+
5	61265	STUD, 5/16-18 x 2-3/16 long,				_	_	_						_	\sqcup	_	_			-	_	4	_	_		\dashv
		drilled				3	3	3	3	3	3	3					_	_		_	4	4	4	_	_	+
6	67528	STUD, 5/16-18 x 1-5/8 long				_	_	_			L	<u> </u>	3	3	\sqcup	_	_	_			-	_	4	-	_	+
7	70470	STUD, 5/16-18 x 2-35/64 long						4	4	4	4	4	_2	_2		_	_				-	-	+	-	+	1-1
8	25C-21	STUD, 1/4-20 x 2-5/8 long				4	4	4	4	4	4	4	<u> </u>	_		_	_			-		_	-	+	4	+
9	25C-12	STUD, 1/4-20 x 1-1/2 long				_					<u> </u>	_	8	8	Ш		_		_	_	-	+	-	-	+	+
10	STD-784	PLUG, 3/8 pipe, Allen hd.				_1	_1	1	_1	1	1	1	ļ	<u> </u>	Ш				\vdash			-	+	4	\perp	+
11	1102	PLUG, 1/4-27 NPT, Allen				2	2	2	2	2	2	2	!	<u> </u>	Ш	_	_		Ш			-+	_	-	+	+
12	LW-12589	INSERT, Heli-coil, 5/8-18 x		<u> </u>		Ш			_	_	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Ш				Ш		_	-	+	+	+	+
		3/8 long		<u> </u>	Ш					<u> </u>	<u> </u>	<u> </u>	1	_1			_	Ш		_	\dashv	-		+	-	+
13	MS 124703	INSERT, Heli-coil, 3/4-16 x		_						<u> </u>	_	<u> </u>	ļ	<u> </u>							_		-	4	+	+
		1-1/8 long		<u> </u>						<u> </u>	<u> </u>	_	_1	1					_		_	-	-	+	+	+
14	LW-10341	INSERT, Heli-coil, 1.00-14 x		<u> </u>						<u> </u>	<u> </u>	ļ	<u> </u>	_	_			_	_	_	_			-	-	+
		3/8 long		<u> </u>						<u> </u>	L	<u> </u>	1	1	_			_	_			4	_	_	_	+
15	76156	SHIELD, Oil accessory, breather	·	1			Ш		<u> </u>	L	_	1	_	1	1		L		_	Ш		-	4	+	+	44
16	1102	PLUG, 1/4-27 NPT, Allen hd.	***************************************	L	<u> </u>	<u> </u>	Ш		<u> </u>	<u> </u>	<u></u>	1_	\prod		<u> </u>	L		L	<u> </u>		Ш					



WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

ACCESSORY HOUSING AND RELATED PARTS

OIL PUMP AND ACCESSORY HOUSING ATTACHING PARTS

1	2 STD-1339 PLUG, 1/18-27 MPT, Allen hd. 3 UN-10344 B0DY ASSY, Oil pump 4 UN-10318 GEAR ASSY, Oil pump drive 5 174641 SHART, Oil pump drive 6 UN-13775 MPELLER, Oil pump driven 7 517388 MPELLER, Oil pump driven 8 800746 MPELLER, Oil pump driving 9 51287 MPELLER, Oil pump driving 10 STD-35 WASHER, Plain, 5/16-18 11 STD-1420 NUT, Sterted, 5/16-18 12 UN-143260 SEAL, Behometer drive, oil 13 STD-8 WASHER, Plain, 1/4 in. 14 STD-160 WASHER, Internal tooks, 1/4 in. 15 STD-1204 B0LT, Hex hd., 1/4-20 x 1-1/8 long 17 STD-1215 B0LT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 10 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 10 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 10 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 10 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 10 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 10 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 11 STD-1875 B0LT, Hex hd., 1/4-20 x 1-1/8 long 12 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	FIG. REF.	PART NUMBER	ON QUANTITY PER ASSEMBLY ALL													
2 STD-1339 PLUG. 1/16-27 MPT. Allen hd.	2 STD-1339 PLUG, 1716-27 NPT, Allen, hd. 3 LW-10344 SDDV ASSY, 0il pump 4 LW-10316 GEAR ASSY, 0il pump drive 5 74641 SHAFT, 0il pump drive 6 LW-13775 MPELLER ASSY, 0il pump drive 7 13298 MPELLER, 0il pump drive 8 BD746 MPELLER, 0il pump driving 9 B1297 MPELLER, 0il pump driving 10 STD-35 MASSELER, 0il pump driving 10 STD-35 MASSELER, 0il pump driving 11 STD-1420 WASSER, Plain, 5/16 3 12 LW-1420 NUT, Streed, 5/16-18 3 12 LW-14260 SEAL, Tachomerar drive oil 11 STD-189 WASSER, Plain, 16/16 15 STD-1294 SOLT, 18x Md, 1/6-20 x 15/16 long 16 STD-1419 SOLT, 18x Md, 1/6-20 x 15/16 long 17 STD-1419 SOLT, 18x Md, 1/6-20 x 1-1/3 long 19 STD-1875 SOLT, 18x Md, 1/6-20 x 1-1/3 long 19 STD-1875 SOLT, 18x Md, 1/6-20 x 1-1/3 long 19 STD-1875 SOLT, 18x Md, 1/6-20 x 1-1/3 long 13-14-15	1	170520														
3 LW-10344 B0DY ASSY, Oil pump drive 5 74641 SHAFT, Oil pump drive 6 LW-13775 IMPELLER ASSY, Oil pump drive 7 81298 IMPELLER, Oil pump driven 9 51297 IMPELLER, Oil pump driven 9 51297 IMPELLER, Oil pump driven 10 870-35 WASHER, Plain, 5/16-18 11 81D-1420 NUT, Slotted, 5/16-18 12 LW-14/860 SEAL Tachometer drive oil 13 870-180 WASHER, Plain, 1/4 in, 12 1010/10/10/10/10/10/12/12 15 870-1209 B0LT, Hex hd, 1/4-20 x 1-1/6 long 16 870-1419 B0LT, Hex hd, 1/4-20 x 1-1/6 long 17 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 19 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 19 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 19 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 19 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 19 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 10 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 10 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 10 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 10 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 10 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long 10 870-1875 B0LT, Hex hd, 1/4-20 x 1-1/6 long	3 IW-10344 BODY ASSY. Oil pump drive 4 IW-10318 GEAR ASSY. Oil pump drive 5 74841 SHAFT, Oil pump drive 6 IW-13775 IMPELLER ASSY. Oil pump driven 7 81298 IMPELLER Oil pump driven 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																
LW-10318 GEAR ASSY, Oil pump drive	4 W-10318 GEAR ASSY, Oil pump drive 5 74641 SIAFT, Oil pump drive 6 UW-13775 IMPELLER ASSY, Oil pump drive 7 81798 IMPELLER, Oil pump drive 8 80746 IMPELLER, Oil pump driving 9 61297 IMPELLER, Oil pump driving 10 8TD-35 WASHER, Plain, 918 3 11 8TD-1420 NUT, Stotted, 5/16-18 3 11 8TD-1420 SEAL, Technoreter drive oil 13 8TD-8 WASHER, Plain, 1/4 in, 1/2 UW-14/16 SEAL, Technoreter drive oil 15 8TD-1204 BOLT, Hex Md, 1/4-20 x 1-1/8 long 16 8TD-1215 BOLT, Hex Md, 1/4-20 x 1-1/8 long 17 8TD-1215 BOLT, Hex Md, 1/4-20 x 1-1/8 long 18 8TD-1375 BOLT, Hex Md, 1/4-20 x 1-1/8 long 19 8TD-1875 BOLT, Hex Md, 1/4-20 x 1-1/8 long 19 8TD-1875 BOLT, Hex Md, 1/4-20 x 1-1/8 long 19 8TD-1875 BOLT, Hex Md, 1/4-20 x 1-1/8 long 13 1-14-15	3															
5 74641 6 LW-13775 IMPELLER ASY, Oil pump driven 7 51288 IMPELLER, Oil pump driven 8 60746 IMPELLER, Oil pump driven 9 51287 IMPELLER, Oil pump driven 10 570-35 WASHER, Plain, 5/16 11 STD-1420 NUT, Slotted, 5/16/18 3 12 LW-14/280 SEAL, Tachometer drive oil 13 STD-88 WASHER, Plain, 1/4 in. 14 STD-180 WASHER, Internal lock, 1/4/20 x 15/18 long 16 STD-1419 SOLT, Hex hd., 1/4/20 x 11/18 long 17 STD-1215 SOLT, Hex hd., 1/4/20 x 11/18 long 18 STD-1875 BOLT, Hex hd., 1/4/20 x 1-1/18 long 19 STD-1875 BOLT, Hex hd., 1/4/20 x 1-1/18 long 19 STD-1875 BOLT, Hex hd., 1/4/20 x 1-1/18 long 10 STD-1875 BOLT, Hex hd., 1/4/20 x 1-1/18 long 13-14-15	5 AléAst SIAET, Oil pump driven 1 1 1 1 1 1 1 1 1	4															
7 S1298 IMPELLER, 01 pump driving 3 S1297 IMPELLER, 01 pump driving 10 ST0-35 WASHER, Plain, 5/16 3 S10-35 WASHER, Plain, 5/16 3 S10-35 WASHER, Plain, 1/4 in, 11 ST0-1420 NUT, Stoted, 5/16-18 3 ST0-8 WASHER, Internal lock, 1/4 in, 12 LW-14/260 SEAL, Tashometer drive oil 13 ST0-18 WASHER, Internal lock, 1/4 in, 15 ST0-1204 B0LT, Hex Md, 1/4-20 x 15/18 long 16 ST0-1419 B0LT, Hex Md, 1/4-20 x 1-1/8 long 17 ST0-1215 B0LT, Hex Md, 1/4-20 x 1-1/8 long 18 STD-1837 B0LT, Hex Md, 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex Md, 1/4-20 x 1-1/8 long 19 STD-1875 B0LT, Hex Md, 1/4-20 x 1-1/3/16 13-14-15	7 61298 MPELLER, Oil pump driving 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5	74641	SHAFT, Oil pump drive 1 1 1 1 1 1 1													
8 80746 IMPELLER, Oil pump driving 9 61297 IMPELLER, Oil pump driving 10 870-35 WASHER, Plain, 5/16 11 870-1420 NUT, Slotted, 5/16-18 3 11 870-1420 NUT, Slotted, 5/16-18 3 12 LW-14260 SEAL, Tachometer drive oil 13 STD-8 WASHER, Plain, 1/4 in, 14 870-186 WASHER, Plain, 1/4 in, 15 570-1294 BDLT, Hex hd., 1/4-20 x 15/18 long 16 STD-1819 SOUT, Hex hd., 1/4-20 x 1-1/8 long 17 STD-1215 SOUT, Hex hd., 1/4-20 x 1-1/8 long 18 STD-1875 BOLT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 BOLT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 BOLT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 BOLT, Hex hd., 1/4-20 x 1-1/8 long 13-14-15	8 80746																
9 \$1297 IMPELLER, Oil pump driving 3 1 1 1 1 1 1 1 1 1	9 51297 MPELLER, Oil pump driving 10 5TD 35 MASHER, Plain, 5/16 3 11 STD-1420 NUT, Stotted, 5/16-18 3 12 LW-14268 SEAL, Tachometer drive oil 1 13 STD-8 MASHER, Plain, 1/4 in. 1 14 STD-160 WASHER, Plain, 1/4 in. 1 15 STD-1204 BOLT, Hex hd., 1/4-20 x 15/16 long 9 16 STD-1419 90LT, Hex hd., 1/4-20 x 15/16 long 9 17 STD-1215 BOLT, Hex hd., 1/4-20 x 1-1/8 long 19 11 11 11 11 11 11 11 11 11 11 11 11																
10 STD-35 WASHER, Plain, 5/16 3 1 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10,10 10	STD-35																
11 STD-1426 SEAL, Tachometer drive oil 1 1 10 10 10 10 10 10 10 12 12 12 13 STD-8 WASHER, Plain, 1/4 in. 1 10 10 10 10 10 10 10 10 12 12 15 STD-1204 BOLT, Hex hd., 1/4-20 x 1-1/8 long 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11 STD-1420 SEAL, Tachometer drive oil 13 STD-8 WASHER, Plain, 1/4 in. 14 STD-160 WASHER, Internal lock, 1/4 in. 15 STD-120/4 SDLT, Hex hd., 1/4-20 x 1-1/8 long 16 STD-1419 SDLT, Hex hd., 1/4-20 x 1-1/8 long 17 STD-1215 SDLT, Hex hd., 1/4-20 x 1-1/8 long 18 STD-1831 SDLT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 SDLT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 SDLT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 SDLT, Hex hd., 1/4-20 x 1-1/8 long 13-14-15 13-14-16 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2																
12	12																
STD-8	3 STD-8																
14 STD-160 WASHER, Internal lock, 1/4 in. 15 STD-1204 BOLT, Hex hd., 1/4-20 x 15/16 long 16 STD-1419 BOLT, Hex hd., 1/4-20 x 1-1/8 long 17 STD-1215 BOLT, Hex hd., 1/4-20 x 1-1/8 long 18 STD-1931 BOLT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 BOLT, Hex hd., 1/4-20 x 1-1/8 long 19 STD-1875 BOLT, Hex hd., 1/4-20 x 1-1/8 long 13-14-15 13-14-15 13-14-15	STD-180	***************************************															
STD-1204 BOLT, Hex hd., 1/4-20 x 1-1/8 long STD-1419 BOLT, Hex hd., 1/4-20 x 1-1/8 long STD-1215 BOLT, Hex hd., 1/4-20 x 1-1/4 long STD-1931 BOLT, Hex hd., 1/4-20 x 1-1/8 long 2 2 2 2 2 2 2 2 2 STD-1875 BOLT, Hex hd., 1/4-20 x 1-13/16 STD-1875 STD-1875 BOLT, Hex hd., 1/4-20 x 1-13/16 STD-1875	STD-1204 BOLT, Hex hd., 1/4-20 x 1-1/8 long 9			WASHER, Internal lock, 1/4 in. 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1													
17 STD-1215 BOLT, Hex hd., 1/4-20 x 1-1/4 long 18 STD-1875 BOLT, Hex hd., 1/4-20 x 1-7/8 long 19 STD-1875 BOLT, Hex hd., 1/4-20 x 1-13/16 10 long 13-14-15	17 STD-1215 BOLT, Hex hd., 1/4-20 x 1-1/4 long 19 STD-1875 BOLT, Hex hd., 1/4-20 x 1-13/16 10 STD-1875 BOLT, Hex hd., 1/4-20 x 1-13/16 I0 STD-1875 BOLT, H	15	STD-1204	BOLT, Hex hd., 1/4-20 x 15/16 long 9													
18 STD-1931	18 STD-1831		STD-1215 BOLT, Hex hd., 1/4-20 x 1-1/4 long 1 1														
19 STD-1875 BOLT, Hex hd., 1/4-20 x 1-13/16	19 STD-1875 BOLT, Hex hd., 1/4-20 x 1-13/16 13-14-15 13-14-19 9 3 13-14-17 13-14-16		STD-1215 BOLT, Hex hd., 1/4-20 x 1-1/4 long 1 1														
3- 4- 5 3 4- 7 6 6 6 6 6 6 6 6 6	3- 4- 5 3- 4- 9 3- 4- 7 3- 4- 6 3- 4- 6		17 STD-1215 BOLT, Hex hd., 1/4-20 x 1-1/4 long 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1<														
3- 4- 9 3 4 13- 4- 5 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 1	3- 4- 5 3- 4- 9 3- 4- 7 3- 4- 6 3- 4- 6	19	18 STD-1931 BOLT, Hex hd., 1/4-20 x 1-7/8 long 2 2 2 2 2 2 2 2 1 1 1 1 1														
	Figure 10			13-14-19 13-14-19 13-14-17 13-14-15 10-11 14-16													

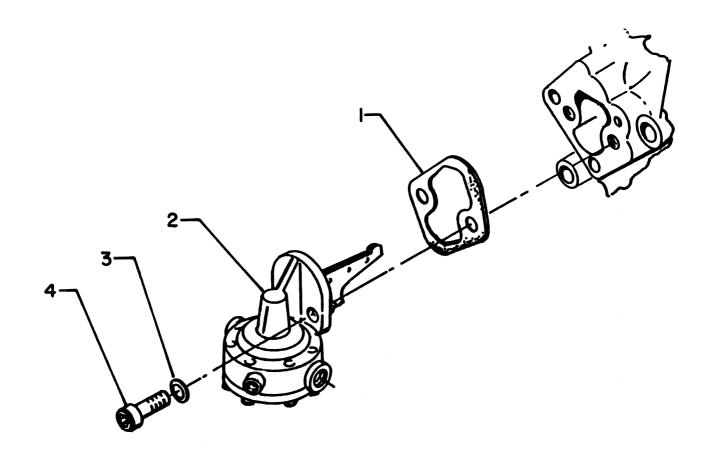
2-2

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

ACCESSORY HOUSING AND RELATED PARTS

FUEL PUMP ASSEMBLY AND ATTACHING PARTS

FIG. REF.	PART NUMBER	1	ON ALL				()U,	AN	TIT	ΓY	PE	R	AS	SE	MI	BL'	Y						
11	NUMBER	, and the second		Part		OF							7		7	/	1	7	7	/	/		/	
1	60096	GASKET, Fuel pump	$\overline{}$	1	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Ĭ	Ť	Ť	T	H	4	ኀ	十	十	\vdash	Γ	\sqcap	一	一	十	主	主	土	ľ
2	75246	FUEL PUMP, Dual diaphragm		1																		\perp		
3	STD-33	WASHER, Plain, 3/8		2								\perp											\perp	_
4	STD-1882	SCREW, Socket hd., 3/8-16 x 1-9/32												L	\perp								\perp	
		long, dr. hd.		2																	\perp		\perp	
				Т					1				- 1	1	1					- 1	- 1		1	١

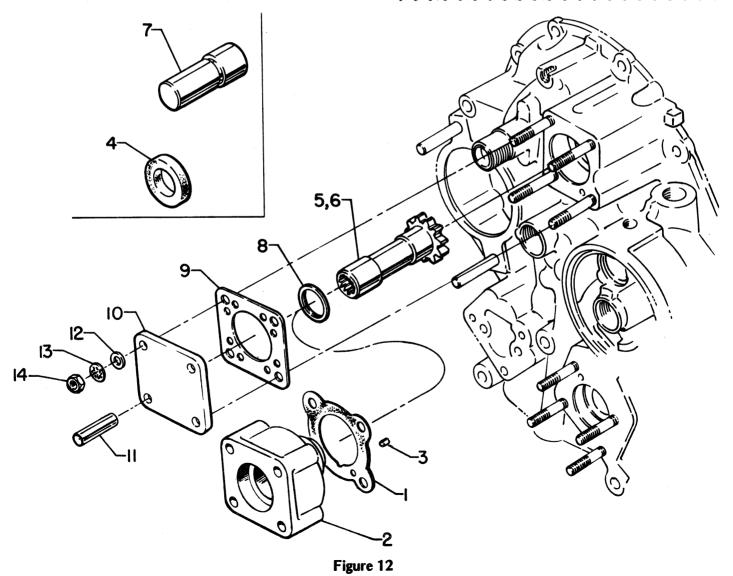


WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

ACCESSORY HOUSING AND RELATED PARTS

VACUUM PUMP, FUEL PUMP DRIVES AND COVERS

FIG. REF.	PART NUMBER	DESCRIPTION	ON AL						\$\l	A	TI	TI-	Y	PE	R	A2	SS	EM	IBI	LY \	7	1	7,	7,	7,	
1 4			-1		16	U	V	<u>\(\(\) \(\) \(\) \(\) \(\)</u>	V	1	<i>i</i> /0	P	Th	I	7	7.	7	7	7	$\overline{}$	$\overline{}$	$oldsymbol{L}$	Δ	${\it T}$	\overline{I}	7
1	61183	GASKET, Accessory adapter				1	1	1	1	1	1	1			I	I	I	I	I	I	Γ			\Box	I]
2	67536	ADAPTER ASSY., Vacuum pump						1	1	1																
3	STD-1774	DOWEL, 1/8 dia. x 1/4 long						1	1	1											L				\perp	_
4	STD-208	OIL SEAL, 7/8 ID x 1-1/2 OD x		Ш		\perp					\perp			\perp	┙		\perp	\perp		\perp	L	L				
		5/16 wide						1	1	1				1									Ш			_
5	72974	GEAR ASSY., Vacuum pump driven					\bot	1	1	1			\perp		\perp		\perp			\perp	L					
6	LW-10307	GEAR ASSY., Accessory driven												1			\perp			L		L		Ш	$oldsymbol{\perp}$	
7	LW-10303	PLUG, Vacuum pump drive											1	1	\mathbf{I}			ž								
8	71596	WASHER, Accessory driven gear						1	1	1				1	T			. /			L					
9	8313	GASKET, Vacuum pump						1	1	1			1	1												
10	60430	COVER, Vacuum pump		1																						
11	68593	SPACER, Vacuum pump stud				4	4	4			4	4				I	Ι									
12	STD-8	WASHER, Plain, 1/4 in.		4			T	T	I		T		T	Т	T		T									
13	STD-160	WASHER, Internal lock, 1/4 in.		4		1	T				Ī				T	T	T	T	Т	Τ	Τ				\Box	
14	STD-1411	NUT, Plain, 1/4-20 in.		4											I	I		I	I	I	I					_



2-4

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

ACCESSORY HOUSING AND RELATED PARTS

HYDRAULIC PUMP DRIVE AND COVER

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALI					QI	JA	N	ГΙΤ	Y	PE	R	Α	SS	E	MB	IL'	Y					
	HOMBER		\	Q	lõi	Ø	S		M	Ų,		Ti		7	7	7	1	1	1		/	7		/	
13				"						ŊŢ		B	$^{\prime}$	\	//	Ι,	Ι,	Ι,	//	\	//	//	//	' /	V_{\prime}
1	69551	GASKET, Accessory drive adapter					1	1	1		1		I	I	I						I		工	I	
	69106	COVER, Gov. drive adapter pad				1 1	1	1	_1		_1													\perp	$\perp \! \! \perp \! \! \! \! \! \perp$
	STD-35	WASHER, Plain, 5/16 in.				1 4		4	4		4		L									_		\perp	\perp
	STD-475	WASHER, Internal lock, 5/16 in.				1 4					4												\perp		
	STD-1410	NUT, Plain, 5/16-18				4 4	4	4	4		4											\perp	\perp		
6	72964	GEAR ASSY., Hydraulic pump driver	1					<u> </u>		1										_			\perp	\perp	
7	LW-10671	GEAR ASSY., Accessory driven						L				1	1												
	71596	WASHER, Accessory drive gear				L	L	<u> </u>		_1		1	1												
	68315	GASKET, Accessory drive adapter						<u> </u>		1													\perp	\perp	
10	STD-208	SEAL, Oil, 7/8 ID x 1-1/2 OD x																					\perp		
		5/16 wide										1	1										\perp	\perp	$oldsymbol{\perp}$
11	AN 123857	"O" RING, .140150 ID x .07																						\perp	
		section										1	1										\perp	L	
12	71675	ADAPTER ASSY., Hydraulic pump				T				1															
13	STD-208	SEAL, 7/8 ID x 1-1/2 OD x		П	Π	T	Г						Ī		I										\Box
		5/16 wide		П		T	T	T		1									T	Ī	T	Т	Τ	T	П
14	25C-12	STUD, 1/4-20 x 1-1/2 long	·	П			T	T		4			Ī		Ī				T				Т	T	
15	STD-1774	PIN, 1/4 dia. x 1/4 long	***************************************		1	1	1	1	1	1			1		1					1		1	T	T	
16	LW-10331	ADAPTER ASSY., Hydraulic pump			1	Ī	1	T				1	1		Ī						1		T	T	
17	STD-1631	DOWEL, 5/32 dia. x 11/32 long			1	1	1	T				1	1		1					1	1	1			\Box
18	STD-35	WASHER, Plain, 5/16 in.		tt	1	1		T	1	4	П	1	1				-				7	1	T	T	\Box
19	STD-8	WASHER, Plain, 1/4 in.		tt	1	1	†	1	1			4	4								_		T	1	
20	STD-475	WASHER, Internal lock, 5/16 in.	~····	H	_	1	1	1		4		1	1									7	1	1	
21	STD-160	WASHER, Internal lock, 1/4 in.		1 1		1	1	1	1			4	4								7	7	T	\top	11
22	STD-1410	NUT, Plain, 5/16-18		tt	_	†	†	†	1	4		1	1								1	_	1	+	1
23	STD-1411	NUT, Plain, 1/4-20	······································	tt	_	+	1	┪	†	-	-	4	4								-		十	十	+
24	8313	GASKET, Vacuum pump		tt	十	+	╈	†	†	1			7								7	1	1	+	
25	204 15	GASKET, Hydraulic pump		tt	1	+	┪	╁	†	Ė		1	1									1	T	1	
26	60430	COVER, Vacuum pump		t	T	+	1	1-	†	1			1									7	-1	+	+
27	72412	COVER, Hydraulic pump		1-1	-	+	†	†	t	┢		1	1									-	十	+	+
28	STD-1828	BOLT, 5/16-18 x 1-5/16 long,		1 1	\top	+	╁┈	†	 	†													-	-	+
***************************************		hex hd.		t		+	1	-	1	t	H	2	2										十	+	
29	STD-8	WASHER, Plain, 1/4 in.		+	\dashv	+	†	╁	†	1	\vdash		┪	-					\vdash			\dashv	-†	+	+
30	STD-35	WASHER, Plain, 5/16 in.		t	+	-	╁	t	†	╁╌		- F	6								-	-	-	+	+
31	STD-160	WASHER, Internal lock, 1/4 in.	***************************************	+	+	+	t	╁	1-	1	\vdash		-4				-	\vdash	\vdash		-		-	+	+
32	STD-475	WASHER, Internal lock, 5/16 in.		t	+	+	╁	t	t^-	†==		4										-+	+	+	-
33	STD-1411	NUT, Plain, 1/4-20 in.		+ +	-	+	╁	1	t	1	\vdash	-	귀				-						+	+	1
34	STD-1410	NUT. Plain, 1/4-20 in.	**************************************	+			+	╁┈	†	╁	\vdash	Δ			-		-	-			-		\dashv	+	-

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

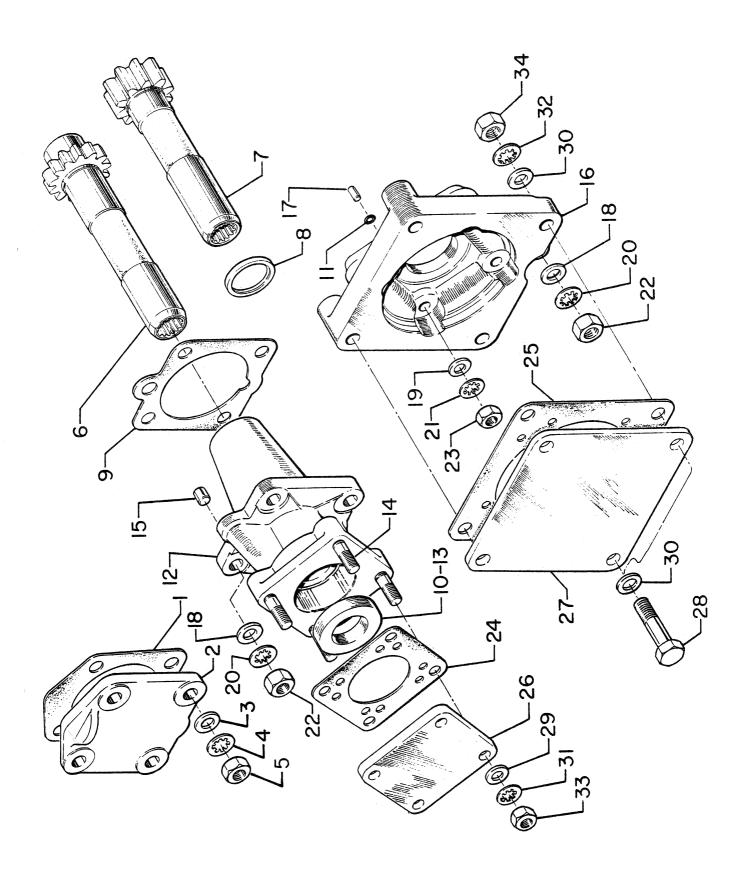


Figure 13 - Hydraulic Pump Drive and Cover

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

ACCESSORY HOUSING AND RELATED PARTS

OIL PRESSURE SCREEN FILTER AND OIL COOLER BYPASS VALVE

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALI	1				(Qι	JA	NI	ΓΙΊ	ΓY	P	ER	R A	S	SE	ME	3L	Y						
14	NUMBER	DESCRIPTION		1				N. S.						T.	1	7	7	7	1	1	1	1	1	/	7	7	
_1	STD-294	GASKET, 7/8 OD x 5/8 ID x																							\Box	Ţ	1
		3/32 annular			_	1	_	1	1		1				_										_	4	_
***************************************	62817	SCREEN ASSY., Oil pressure				1		1	1		1															_	
	61173	GASKET, Oil pressure housing			_	1		1	1		1																
4	69510	HOUSING, Thermostatic valve and oi				_																	_	\perp	_	_	4
		pressure screen				1		1	1		_1														\bot		_
	STD-8	WASHER, Plain, 1/4 in.				4	4	4	4	4	4	4															
6	STD-1856	SCREW, 1/4-20 x 1.00 long,																									
		hex hd., slotted				4	3	4	4	4	4	3															
7	75944	VALVE ASSY., Temp. control oil																									
		cooler bypass		1																							╛
8	LW-12795	GASKET, Oil filter adapter					2	2		2		2															
	77853	OIL FILTER HOUSING ASSEMBLY					1	1				1														\bot	
10	77852	OIL FILTER BASE ASSEMBLY					1	1		1		1															
11	LW-10660	OIL FILTER ASSEMBLY											1	1												$oxed{oxed}$	
12	LW-13215	OIL FILTER ASSY., Short						1		1																	
13	LW-10321	SPRING, Oil filter bypass valve											1	1													
14	76539	SEAT, Oil relief valve	***************************************										1	1												T	
15	LVv : .3320	SLEEVE, Oil filter bypass valve			П								1	1											T	T	
16	MS16625-1100	RING, Internal retaining											1	1				T	Γ							T	
17	STD-160	WASHER, Internal lock, 1/4 in.					1	1		1								Π	Γ							T	٦
18	STD-1411	NUT, Plain, 1/4-20	***************************************				1	1	l	1									Ī						7	丁	٦
19	25C-10	STUD, 1/4-20 x 1-1/4 long	***************************************	П			1	1	·	1						Π		1	Ī						1	T	٦
***************************************									T	1			·	1		T		Г	I	1						_	٦

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

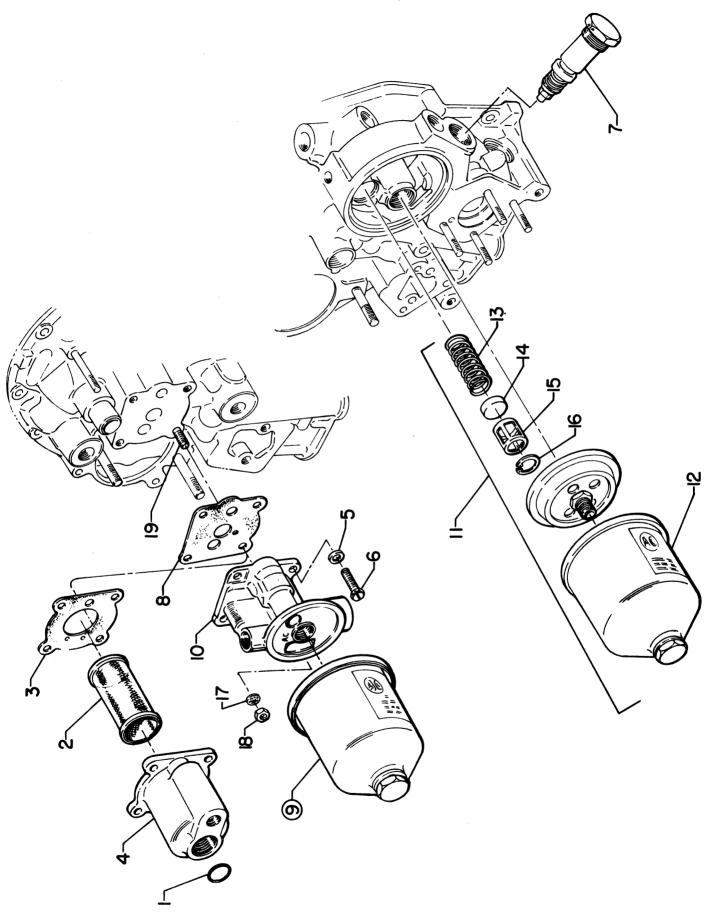


Figure 14 - Oil Pressure Screen Filter and Oil Cooler Bypass Valve

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CYLINDER, PISTON AND VALVE TRAIN

CONNECTING ROD, PISTONS AND RING ASSEMBLIES

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALI						QU	JA	N.	TI	11	P	EF	A 5	S	SE	MI	3L	Y \	7	7	7	7	7	
1	LW-11750	CONNECTING ROD ASSEMBLY		6					ocapadi			Γ															1
2	LW-13923	BUSHING, Connecting rod,														L											
***************************************		upper		6														L		<u> </u>							_
3	75061	BOLT, Connecting rod		12														L									
4	LW-12186	NUT, Connecting rod bolt		12																<u> </u>					[
5	LW-13521	BEARING, Connecting rod		12						<u> </u>									L	<u> </u>	<u> </u>						
6	75089	PISTON, Comp. ratio 8.50:1							6	6	6	6	6	6			L		<u> </u>		<u> </u>						
	754 13	PISTON, Comp. ratio 7.00:1				6	6	6								<u> </u>				<u> </u>							
7	LW-14078	PIN, Piston		6							L	1	L	L	L	<u></u>			<u> </u>								
8	60828	PLUG, Piston pin		12								<u> </u>	L	L		<u> </u>		_		<u></u>	<u> </u>						_
9	74241	RING, Piston compression		12								1_	_			<u> </u>		_	<u> </u>	L							_
10	73857	RING, Piston, oil regulating,										_	1_		L			_		<u> </u>	<u> </u>						_
		expander type		6	<u> </u>					L	1_	<u></u>	L			<u></u>	<u> </u>	<u></u>	<u></u>	<u></u>	<u> </u>	<u> </u>					

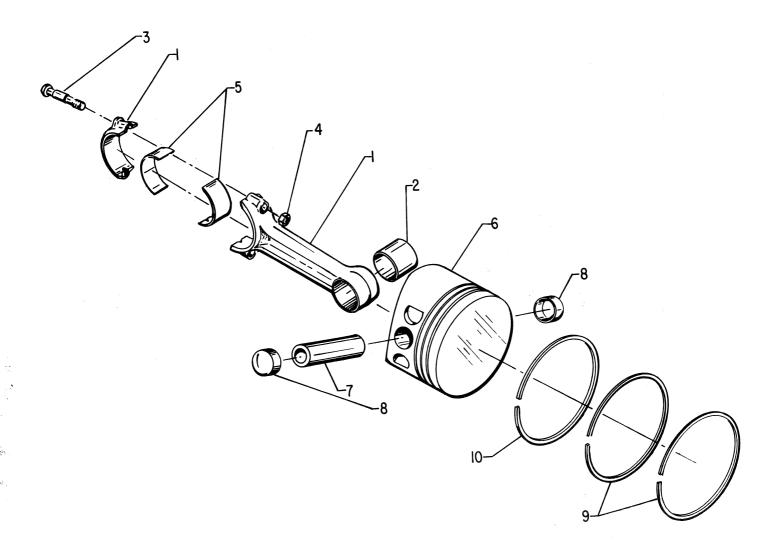


Figure 15

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CYLINDER, PISTON AND VALVE TRAIN

CYLINDER ASSEMBLY

FIG.		DESCRIPTION	ON AL					Ç	Ų	A	NT	ΊŢ	Y	PE	R	A:	SS	E	ME	BL'	Y						
REF.	NUMBER	DESCRIPTION		Q	ĺŎ	10	14	1	16	10	V		I_{ℓ}	abla	1	abla	7	7	7	7	7	7	7	7	7	7	1
16			$_{\perp}$		101	(C)	0/	S)	6	6		lo.	B	${\mathbb Z}_{I}$	7	7	7	7	7	7	7	7,	7	7,	7,	7	7
1	LW-12427	CYLINDER AND HEAD ASSY., Ni	trided	6									_				_				_	_	_	_	4	_	_
2	72057	SEAT, Intake valve		6										\perp			_	_							_	4	_
3	72058	SEAT, Exhaust valve		6	\bot			\perp	\perp				_		_		_	_	_			_			_	4	_
4	76943	GUIDE, Valve, intake		6													_									_	_
5	77160	GUIDE, Valve, exhaust		6		\perp				\bot			_		_		_						_	_	_	4	_
6	66796	INSERT, Spark plug 18-1.5 mm		12						_					_								_	_	4	4	4
7	STD-1872	INSERT, 1/4-27 Heli-coil taper								_				_			_							_	_	_	_
		pipe thd.		12											_							_			_	_	_
8	61261	STUD, 5/16-18 x 1-1/2 long		12											_									_	4	_	_
9	68510	STUD, 1/4-20 x 1-1/16 long		6		\perp			_							_									4	4	_
10	MS20823-6D	ELBOW, 45 ⁰ flared tube		6											_									_	_	_	_
11	66610	BUSHING, Rocker shaft		24							_	_		_	_	_		Щ							_	4	4
12	1102	PLUG, 1/4-27 NPT, Allen hd.		LI	1	2 1	2	12	12	12	12	12	6	6													_

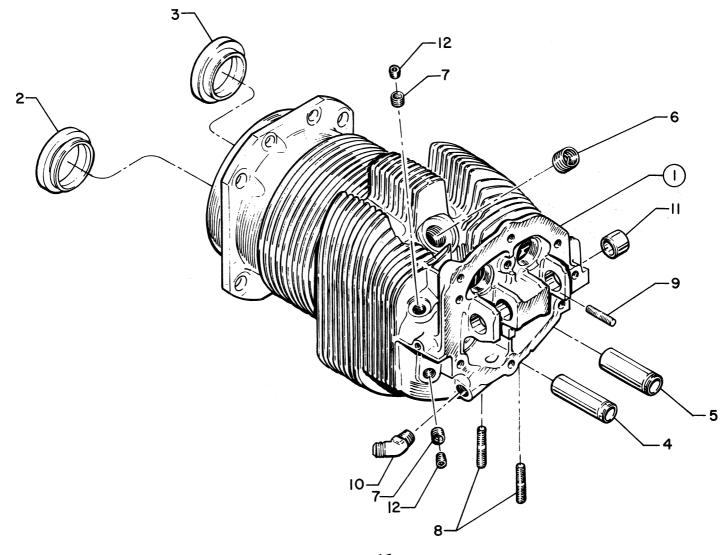


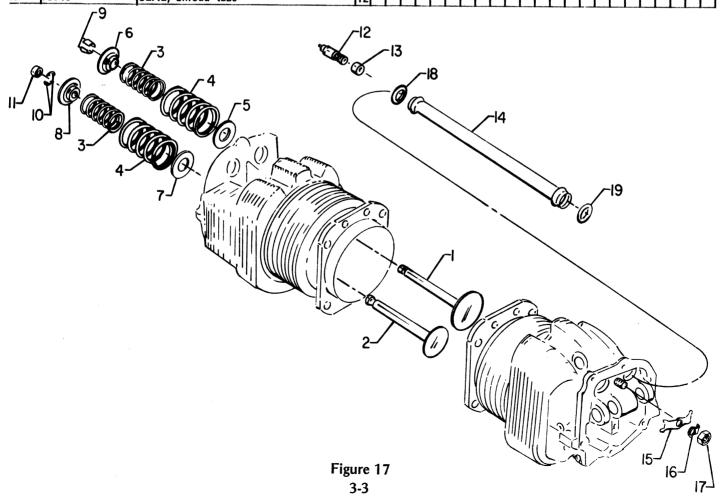
Figure 16 3-2

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CYLINDER, PISTON AND VALVE TRAIN

VALVE ASSEMBLY

FIG. REF.	PART NUMBER	DESCRIPTION	ON AL	- 1				Q	UA	N	TI.	ΓY	P	ER	A	\S	SE	MI	BL'	Y				-		1
17				1								E ST	1	/	7	1	1	/	7	7	7	1	1	7	7	
1	73938	VALVE, Intake		6	T	T	T	Γ	Т	Г	T						\Box	_	\Box	_	一	一	寸	十	十	7
2	74541	VALVE, Exhaust (rotator type)	***************************************	6	T	T	1	T		T	T											7		十	1	7
	75068	VALVE, Exhaust (rotator type)			T	1	6	1	1	T	1				-							7	1	十	T	7
	LW-11795	SPRING, Valve, inner		12	T	1	1	T	1	T											1	1		T	7	7
	LW-11800	SPRING, Valve, outer	***************************************	12		T	T	1	T	1	T													T	1	1
5	65441	SEAT, Valve spring, lower, intake		6	T	Т	T	Ī	T	1												7	1			٦
	LW-13323	SEAT, Valve spring, lower, exhaust		6		1	Т	T	1	Г	1											7	1	T	1	7
7	LW-10077	SEAT, Valve spring, upper, intake		6		T	T	Г	T	T	T						-					1	7	1	1	
8	LW-10076	SEAT, Valve spring, upper, exhaust,			T	T	Ī	T		1	1										7	7		T	T	1
***		(rotator type)	***************************************	6		T	T	Γ	T	T												7	1	1	1	7
9	60009	KEY, Valve, intake		12	1	T	Ī	T		T	1										1	7	7	7	1	1
	MS13997-3	KEY, Valve, exhaust (rotator type)		12		T	1	T	T	1	1			·					M				†	7	T	1
11	MS13998-3	CAP, Valve stem, exhaust (rotator	***************************************			T	T	T	1	T												7	7	T	T	1
		type)		6		T	T	Г	T	Ī	Ī								П			7		1	1	
12	78290	PLUNGER ASSY., Hydraulic tappet		12		T	T	T	T	Ī												7		T	1	7
13	78524	SOCKET, Push rod, hydraulic tappet		12		T	Ī	Γ	T	1												7	7	7	1	
14	LW-11485	TUBE, Push rod shroud		12		T	Τ	Ī	T		1													1	1	
<u> 15</u>	LW-13428	SPRING, Shroud tube		6	1	T	T	T	1	Ī	Ī											_	7	7	十	1
	LW-12272	LOCKPLATE, Shroud tube		6		T	T	T	T	T												_		十	1	1
	STD-1411	NUT, Plain, 1/4-20	***************************************	6	T	T	T	T	T	T											1	7	1	1	十	1
18	62922	SEAL, Shroud tube		12	1	1	T	T	1	T												_	7	十	十	1
19	70310	SEAL, Shroud tube	***************************************	12		T	T	T	1	T									П		1	1	7	十	T	1
	79								d							L			I			1		L	1	

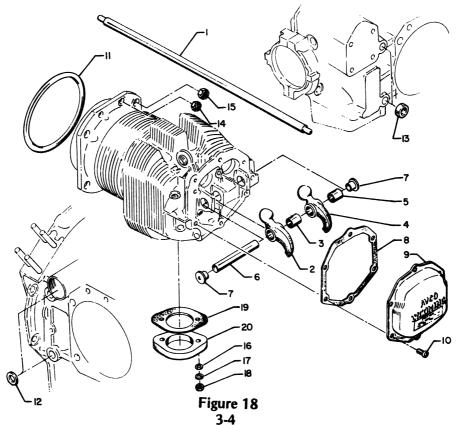


WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CYLINDER, PISTON AND VALVE TRAIN

CYLINDER RELATED PARTS

FIG. REF.		DESCRIPTION	ON ALI					QI	JA	רא	TIT	Y	PE	ER	A	SS	ΕI	МВ	L'	Y					
18	NOMBER			Jan							No.		1	7	1	7	7	7	7	1	/	7	7	7	V
1	73434	ROD ASSY., Push		un	T	T			Г	П			T	T	T	寸	1	1	7	寸	Ť	丁	十	丅	Ħ
***************************************	73435	ROD ASSY., Push		un	Т							T	T	T	T	T			T	T	T	T	Т		Π
***************************************	73436	ROD ASSY., Push		un						П	T	T	T	T	T	T	T	T		T	1	T	T	T	П
2	69444	ROCKER ASSY., Valve, intake		6	Т	Τ				П	Т	T	T	Т	T	T	T	T		T	T	T	T	T	П
	60398	BUSHING, Valve rocker, intake		6		T	Π			П		T	T	7	T	T	7		T	1	7	T	T	1	III
4	74636	ROCKER ASSY., Valve, exhaust		6								T	Ī		T			T	T	T	T	T	T	T	Π
	74637	BUSHING, Valve rocker, exhaust		6									T		T	T		T	Ī		T	T	Т	T	П
6	LW-13790	SHAFT, Valve rocker		6								T	T	T	T	T		T	T	T	T	T	T	T	П
	LW-12892	THRUST BUTTON, Rocker shaft		12										T	Ī	T	T			I	T		Τ	Τ	П
	75906	GASKET, Rocker box cover		6						П	T	T		T	T	T		T	7	T	T	T	Т	T	Π
	61247	COVER, Rocker box		6		Т	Π				T	Т	T	Τ	T	T		T	T	T	T	T	Т		П
10	STD-1925	SCREW, Self-locking, 1/4-20 x 5/8															Ī				Ī	T	T		П
-		long, pan hd.		36									T		Ī	T		Т	Ī	T	T	T	Т	T	П
11	71481	RING, Oil seal, 3/32 dia. x 4-27/32																		Ī	T	T	Т	Т	Π
***************************************		ID		6							T			T	Ī	T			Ī	T	T		T	T	Π
12	77906	SPACER, 33/64 ID x 7/8 OD x 1/8																							
		thick (rear of crankcase)		2						П		Т	T	T	Ī	T		T	T	T	Т	T	Т	T	П
13	74887	SPACER, 33/64 ID x 7/8 OD x 3/8			T		Π		Γ	П		T			Ī	T	1	T	1		T	T	T	T	
		thick (front of crankcase)		2	Π	T	Π			П	T	Τ	T	T	Ī					\neg	1	T	T	T	Π
	383-B	NUT, Plain, 3/8-24		24	T	Τ			Γ	П	T		Ī	T	T	T		T	1	T	T	T	T	T	T
	STD-2090	NUT, Plain, 1/2-20		28	T	1			Ī	П	1	1	1	T	1	1			1		1	1	1	1	TT
	STD-35	WASHER, Plain, 5/16 in.		12	Ī	T	Τ			П	1	1	7	1	1	1	7	1	7	\dashv	1	T	T	1	TT
	STD-475	WASHER, Internal lock, 5/16 in.		12	1	T	Π		Γ	П	T	T	1	T	1		1	- †	7	1	1	1	1	1	\Box
	STD-1410	NUT, Plain, 5/16 in.		12	T	T	Π		Ī	П	7	T	T	1	1	7	1	1	1	1	1	1	1	T	Π
	65321	GASKET, Exhaust flange		6	T	1	Ī		1	П	1	1	1	1	7	1	7	7	7	1	7	7	1	1	T
20	61260	FLANGE, Exhaust, stainless			1	6	6	6		П	T	1	6	1	1	7	7	-1	1	十	1	T	T	1	Ħ

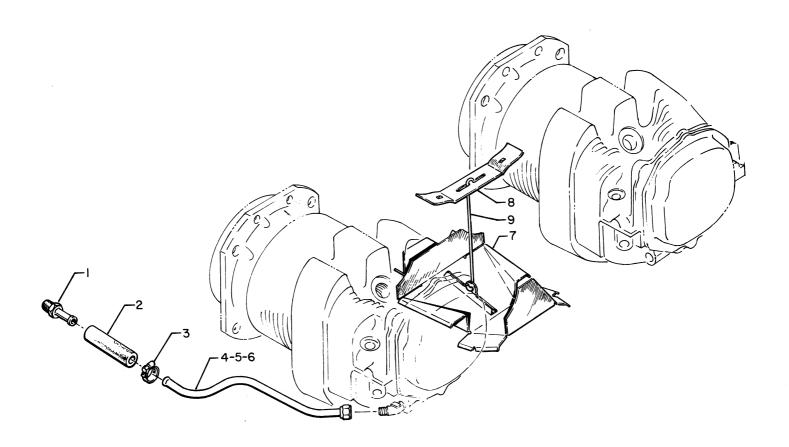


WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

CYLINDER, PISTON AND VALVE TRAIN

CYLINDER HEAD DRAIN TUBES AND INTERCYLINDER COOLING BAFFLES

FIG. REF.	PART NUMBER	DESCRIPTION	ON AL	•																			
19				la la									1	1	1				7	/	/	7	/
1	STD-684	NIPPLE, Straight, 3/8 ID hose		6												\Box		I					
2	STD-1821	HOSE, 3/8 ID x 2-1/2 long		6																		\perp	
3	LW-15592-5-05	CLAMP, Hose		12														_	L			\perp	
4	68759	TUBE ASSY., No. 1 cylinder head		$\sqcup \bot$								L											
		oil drain		1		_													<u> </u>				
5	71737	TUBE ASSY., No. 2 cylinder head									L								L				
		oil drain		1																			
6	68761	TUBE ASSY., No. 3,4,5,6 cylinder		Ш														L				\perp	
		head oil drain		4																			
7	75339	BAFFLE ASSY., Intercylinder		4	Τ																		
8	71611	RETAINER, Intercylinder baffle		4																		\perp	
9	71610	HOOK, Intercylinder baffle		4							I				I			\perp				\Box	



INTENTIONALLY LEFT BLANK

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

IGNITION SYSTEM

MAGNETO DRIVES AND MAGNETOS

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL	(
20	NOMBER			Jan Jan		No.							1	7	/	/	1	7		/	/		7,	7	
1	LW-12136	CUSHION, Magneto drive		T	14	4	4	4	4	4	4	7	1	1	1	1	十	十	十	十	十	十	٣	7	H
	62224	GASKET, Magneto adapter and magne	eto		4	2	4	4	4	2	2		1	T	T	\top	T	1	T	1	+	1	T	T	П
3	LW-12707	ADAPTER, Magneto		T	2	•	2	2	2	2	2	7	T	1	1	T	7	+	1	T	T	1	T	T	П
4	LW-12681	GASKET, Magneto			T	2				2	2	_	7	1	1	T	T	\top	T	T	┪	1	T	T	\Box
5	73000	COUPLING, Magneto drive		T	1	1	1	1	1	1	1	1	7	1	T	\top	+	\top	T	1	T	1	T	T	H
6	73013	COUPLING, Magneto drive (retard									1		T	T	T	1	T	T	T	T	T	1	T	T	П
		breaker)			T			1		T	1	T	T		T	1	1	1	T	1	1	1	T	T	\Box
7	LW-51365-46	MAGNETO			1		1				1	T	1	T	1	1	1	T	T		T	\top	T	1	П
	LW-51365-47	MAGNETO, Impulse coupling			1		1			T	1	7	1	1	T	1	1	1	1	1	T	1	1	\vdash	П
	LW-163050-9	MAGNETO		T	T			1	1		Ī	1	7		T	1	T	\top	1	1	T	T	T	T	П
	LW-163010-10	MAGNETO		T	1			1			1	\neg	1		T	7	T	T	1	T	1	1	T	T	П
	LW-349310-1	MAGNETO, S6LN-1209			Ī	1					1	1	1	1	T	1	T	T	T	T	T	1	T	1	П
	LW-349370-4	MAGNETO, S6LN-1227 (35° lag)		T	T	1				1	1	T	T		Ī	T	T	T	T	T	T	1	T		П
	LW-51365-57	MAGNETO, Impulse coupling S6LN-2			Г		1		1	Ī	1	T	T	T	T	T	T	T	T	1	T	T	T		П
***************************************	LW-349310-8	MAGNETO, S6LN-1209, electric tach.											T	T	T	T	T	1	T	T	T	1	T		П
		pick-up								1		T	T	Т	T	T	T	T	T	T	T	T	T		П
	75965	CLAMP, Magneto		T		4				4	4	T	T	T	T	T	T	T	T	T	T	T	T	Г	П
9	STD-1727	WASHER, 3/4 OD x 21/64 ID x 1/8			T							T	T		T	T		T	T	T	1	T	T	Τ	П
		thick		Т	4	Ī	4	4	4			T	Ī		T	T	T	T	T	T	T	T	T	Г	П
	STD-475	WASHER, 5/16 internal lock			4	4	- 1	4	4	4	4		T		T	T	T	T	T	T	T	T	T	П	П
	STD-1410	NUT, 5/16-18 plain		T	4	4	4	4	4	4	4	T	T	1	T	1	T	1	1	\top	1	1	T	Г	П
	LW-52305-1	KIT ASSY., Magneto ground terminal		Т	2		2				1	T	1		1	T	T	T	1	T	T	T	T		П
	LW-157209	KIT, Magneto ground terminal			Ī	Γ		2			1	1	1		1	1	T	T	1	1	1	1	1		П
	LW-157208	KIT, Magneto retard terminal		T	T	Γ		1			7	1	1	1	1	T	T	T	T	T	1	1	T	Г	П
13	67542	BEARING, Ball			2	2	2	2	2	2	2	1	7	1	Ť	T	T	+	T	T	T	1	T	T	П
14	74830	GEAR, Retainer magneto drive		1	2	2	2	2	2	2	2	7	7	7	†	1	T	1	T	十	T	†	T	T	П

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

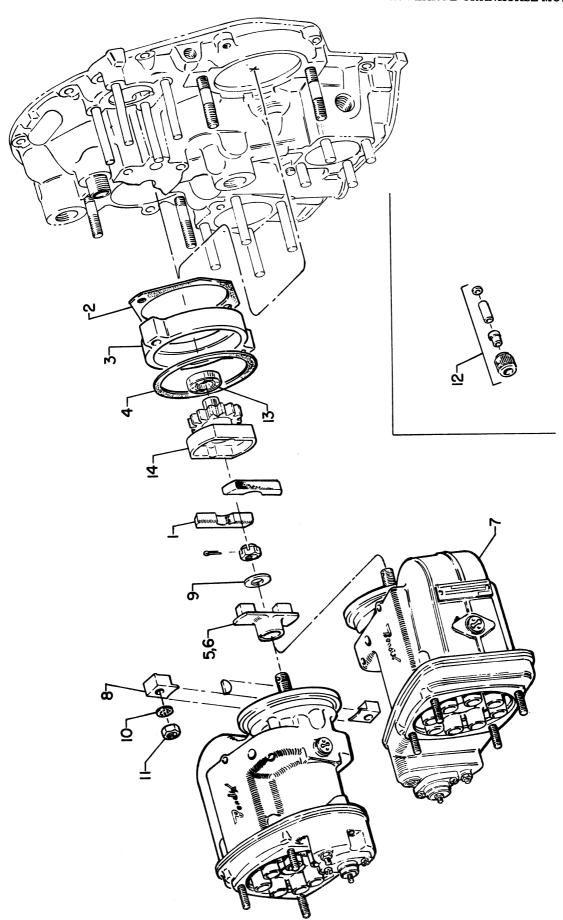


Figure 20 - Magneto Drives and Magnetos

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

IGNITION SYSTEM

MAGNETO DRIVES, MAGNETOS, LEAD ASSEMBLIES AND SPARK PLUGS (DUAL MAGNETO)

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALI				Q	U	AN	TI	TY	P	ER	A	SS	EM	1B	LY	,					
21								000	(0) (0)			1	7	7	7	7	7	7	7/	/	7	7	//	
1	LW-13642	GEAR, Retainer magneto drive					\Box	I			1	1		I							T	I	I	
1 2 3	LW-13641	CUSHION, Magneto drive									2	2								\perp				
	LW-12681	GASKET, Magneto									1	1				$_ \bot$								
4	LW-385146-106	MAGNETO IGNITION SÝSTEM																					\perp	
		(D6LN-2230)									1	1												
	LW-382610-11	MAGNETO, Ignition									1	1											\perp	$oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}}}}}}$
	LW-384602-307	HARNESS, Ignition						T		T	1	1								Ī				
	75965	CLAMP, Magneto							T		2	2		Ī			Ī	T	T	T	T		T	
8	STD-475	WASHER, 5/16 internal lock			1			T		T	2	2			1		1		T	T	T			П
9	STD-1410	NUT, 5/16-18 plain			T					Ī	2	2		Ī			Ī	T	T		Ī	T	T	
10	STD-8	WASHER, 1/4 plain			1			T		1		13		Ī			T	T	T	T	T	T		
11	LW-620026-2	CLIP, One wire for 1/4 screw			1			1	<u> </u>	1						T	T	T	1	Ī	T	T		
		(bottom leads)			1			1		1	4	4			Ī	1	_	T	T	T	1	T	T	
12	LW-14057	CLIP, One wire for 1/4 screw			1			1	1	1					1	-1	T	1	T		T	1		
	•	(top lead)			T	1		_	-	1	2	2				7	_	T	T	1	7	1		T
13	STD-8	WASHER, 1/4 plain			1		- t	1	_	1-	1	1		7			1	1	_	7	T	1	1	П
14	LW-320298-2	CLIP, Two wire for 1/4 screw			1			+	1	†	1	Ħ		t			-		T	1	7	1	1	
	1 020200 2	(bottom leads)		H	-	1			_	†	1	1			-		-	_	十			_	+	11
15	LW-14060	CLIP, Two wire for 1/4 screw			+			-		+-	†	†		1	\neg	_	-	-	1	-	-	-	+	+
10	111000	(top lead)		l	-	1		_		+	2	2					$^{+}$		-	_	-	-	1	+
16	LW-620029-6	CLIP, Three wire for no. 10-32			+	-	-	+		+-	1-	-				\neg	+	-	-	\dashv	\dashv	-	+	+
10	1244 020023 0	screw (bottom leads)		\vdash		t			_	+	1	1					-	-	+		-	\dashv	-	+
17	62255	CLIP, Three wire for 1/4 screw		I	-			\neg	_	+	t	╁					-+	-	-	-	+	-	-	+
	02200	(bottom leads)			+	1	-	-		+-	1	1		-		-	-		+	\dashv	\dashv	\dashv	T	11
18	LW-620037-4	CLIP, Six wire for no. 10-32		 	+	+		+		+	† :	<u> </u>					-	-	\dashv	-	+		+	+
10	LW-020037-4	screw		╂═╂═	+	 		-		+	1	1		\vdash		-			+	-+	-		+	+
	LW-620036-4	CLIP, Six wire for no. 10-32	***************************************			1-				+	†-	╁╌				-		-	+	-	-+		+	+
	LW-020030-4	screw		 		-	 - -	-			1 1	1		-				-		-	+	-		+
19	73050	CLIP, Ignition harness		l	-	-	-	-			$+\frac{1}{1}$.		\vdash			\dashv	-		-			-	+
20	LW-14875	BRACKET, Extension				+-	┝┈┼		-	-	+;	+ ;							╅					
21	STD-692	SCREW, No. 10-32		╂┈┼┈	+	╂	-	-			2	2	ļ	-		-			-		-			+
22	STD-670	NUT, Self-locking		 	╁	╁	-	+	-	+-	2			H		-		╅	-		-	\dashv		+
23	MS21919-G12	CLIP, 3/4 dia. with no. 10		 - -	+-	-				+-	-	_		\vdash			-	-	-			-	+	+
23	W321919-012		***************************************	╂╾╂╌	+-	-	-	-			1	1		-					+	\dashv	-		+	+
24	76734	screw ZIP STRAP		╂╌╂╌	-	╂	\vdash			+-		26		-		\vdash	\dashv		+		-		-	+
2 5	STD-696	WASHER, Plain, 1/4 in. (thin)		 		+	┝╌┼	\dashv				un						-		\dashv	\dashv	\dashv	_	-
26	······································			╁╌┟╌		-		-	-	+		7							-	-	-		+	-
	STD-1874	SCREW, 1/4-20 x 13/16 long		++			\vdash	-	+	+-						$\vdash \vdash$		_	-+	-+			+	+
27	STD-1925	SCREW, Self-locking, 1/4-20		╁┼		-	\vdash	-	-	+-	4		T			\vdash			\dashv		-	-+	+	
28	10-720631-48*	LEAD ASSY., 48 in. long		$\vdash \vdash$	-	╂	\vdash	-	\dashv			un	***************************************	 		$\vdash \downarrow$			-	-	-	\dashv	+	
29	10-720631-78*	LEAD ASSY., 78 in. long		╁┼	+-	-	\vdash	+	-	+-		un				$\vdash \vdash$		-	+			-+	+	
30	1182-D4	SPARK PLUG, Champion RHM38E	-	\vdash		-	\vdash	-		+	112	12		┞┈┨		┝╌┤			+	-			+	-
<u>31</u>	LW-382698	KIT, Magneto ground terminal		++		+	-	-	-		2	2	 		ļ.,	╟┩			-		-		+	
	LW-157208	KIT, Magneto retard terminal		11		1	<u> </u>		L_		11	L 1	<u> </u>		L	L1	1		1	1	1			

^{* -} Replacement lead furnished in 48 in. or 78 in. length with spark plug end assembled. Lead includes eyelet and ferrule for assembly to magneto plate.

NOTE

The above spark plugs are those used in current production only; this list does not include additional spark plugs that are approved for use in these engines. See latest edition of Service Instruction No. 1042 for complete listing of all approved spark plugs.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

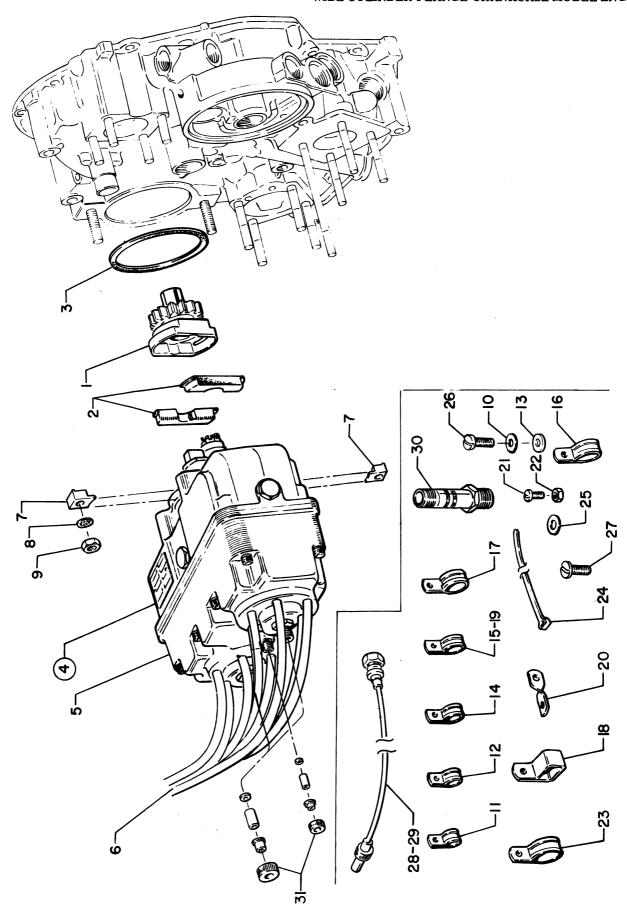


Figure 21 - Magneto Drives, Magnetos, Lead Assemblies and Spark Plugs (Dual Magnetos)

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

IGNITION SYSTEM

IGNITION HARNESS, LEAD ASSEMBLY AND SPARK PLUGS

	<u> </u>		7	Т																-				******			_
FIG.	PART		ON					Q	U	41	١T	IT	Y	ΡI	ER	A	S:	SE	M	BL	Y.						
REF.		DESCRIPTION	ALI	-																							
KLI.	NOMBER			1	daj	0	M	W	W	0	(II	Œ.	abla	7	7	7	\mathcal{T}	7	7	7	7	7	7	\mathcal{T}	7	\mathcal{T}	
22		· ·	- /	,	is in	1/2	A/S	$N_{\mathcal{S}}$	Slo	1	⋛\ (ĮĮ.	Ź	\	′ ,	Ι,	Ι,	Ι'	\	/	/	/	\	Ι,	Ι,	Ι,	$\setminus \bot$
				400	100	ĮÚ!	101	(J)	ØΙ.	iO	(O)	6	6	7	7		$oldsymbol{\Delta}$	$oldsymbol{\Delta}$	_					.)	. \	. \	N
1	LW-M-2457	HARNESS ASSY., Left magneto					1	1		Γ	1	1	T	T	٦				Γ	Т	Γ	Т	Τ	Т	Г	П	П
	LW-M-2463	HARNESS ASSY., Left magneto				1	1	ı i	1	1	Т	T	T	T					Γ		Γ	Т	T	T	Ī	П	
2	LW-M-2458	HARNESS ASSY., Right magneto				Ι	1	Π		I	1	1	T	Ī					1	T	Ī	Т	T	1			П
	LW-M-2464	HARNESS ASSY., Right magneto			T	1	1	1	1	1	Т	T	T	Ī					Γ	Ī	Ī	Т	T	Ì	Ī		П
	LW-M-2376	PLATE, Spark plug cable			1	2	2 2	2 2	2 2	2	2	2	T	T					1	T	Т	T	1	T	Γ		
	72351	SCREW, Self-locking, no. 10-32				В	8	3 8	3 8	3		T	Τ	Ī					Γ	T	Π	T	T	Τ			
	LW-14057	CLIP, One wire for 1/4 screw			Т	Τ	2	T	1		2	2	T	T					Ī	1	Т	T	T	1		П	
6	LW-14060	CLIP, Two wire for 1/4 screw			T	Τ	2	T	T		2	2	T	7				<u> </u>	T	T	T	1	T	T	1		
7	72255	CLIP, Three wire for 1/4 screw				2	5 2	2 2	2 2	2		5	T	1				T	1	1	T	T	T	1	1		П
8	LW-320472-4	CLIP, Six wire for no. 10 screw			Ī	T	1	T	T			1	T	1				1	T	1	T	1	1	T			
9	71910	CLAMP, 1-3/4 ID (offset)	***************************************			6	1	3 6	3 6	3	T	T	1	1				T	T	T	T	1	T	1			П
10	STD-692	SCREW, No. 10-32 x 1/2 long				T	4	T	1		4	4	1	1				T	T	T	T	1	t	1	T		П
11	STD-553	SCREW, No. 6-32 x 1/2 long				6	1	3 (6 (6	T	T	T	1				T	1	1	T	T	T	1			П
12	STD-670	NUT, Self-locking, no. 10-32			T	1	4	T	T		4	4	1	1				1	1	1	1	T	1	1	1		П
13	AN365-632A	NUT, Self-locking, No. 6-32				6	1	3 (6 (6	1	T	1	1				Г	T	1	T	1	1	1	1		П
14	72815	BRACKET, Twist				T	4	Т	T	-	4	4	1	1			**********		T	1	T	1	T	1	T		П
15	STD-8	WASHER, Plain, 1/4 in.				1	0	T	T	1	0 1	0	T	1				1	1	1	T	T	T	1	T	Г	П
16	STD-160	WASHER, Internal lock, 1/4 in.	***************************************			T	5	T	T	1	5	5	1	1				1	Ī	1	T	1	1	T	T	T	П
17	STD-696	WASHER, Plain, 1/4 in.				u	n	T			nu	n	T	1				Г		1	T	T	1	1	Г	T	
18	STD-1874	SCREW, 1/4-20				T	5	T	T			5	1	1				i	1	1	T	T	1	1	1	1	П
	76734	ZIP STRAP				1	1	T	†	1	111	1	1	7				ऻ	1	†	T	T	✝	1	T	T	П
20 21	72351	SCREW, Self-locking, no. 10-32				T	8	1	T	T	8	8	1	7				1	t	1	T	1	†	T	T	T	П
21	M-1985-48*	LEAD ASSY., 48 in. long			u	nlu	nu	ıluı	ıluı			n	1	7				t –	t-	1	T	1	t	1	†	╁	П
22	M-1985-72*	LEAD ASSY., 72 in. long				-	nu	-	************			-	1	7	_			T	1	1	T	†	T	T	†	T	H
23	1182-B3	SPARK PLUG, (Champion REM-40E	:)	_		1			2 12				1	7	_		ļ	1	t	†	†	T	T	1	t^{-}	T	H
	1182-B6	SPARK PLUG, (Champion EM41E)	··········		1	2 1		+	Ť	T	Ŧ	7	+	7				 	†	1	T	T	✝	†	t	T	H

^{* -} Replacement lead furnished in 48 in. or 72 in. length with spark plug end assembled. Lead includes eyelet and ferrule for assembly to magneto plate.

NOTE

The above spark plugs are those used in current production only; this list does not include additional spark plugs that are approved for use in these engines. See latest edition of Service Instruction No. 1042 for complete listing of all approved spark plugs.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

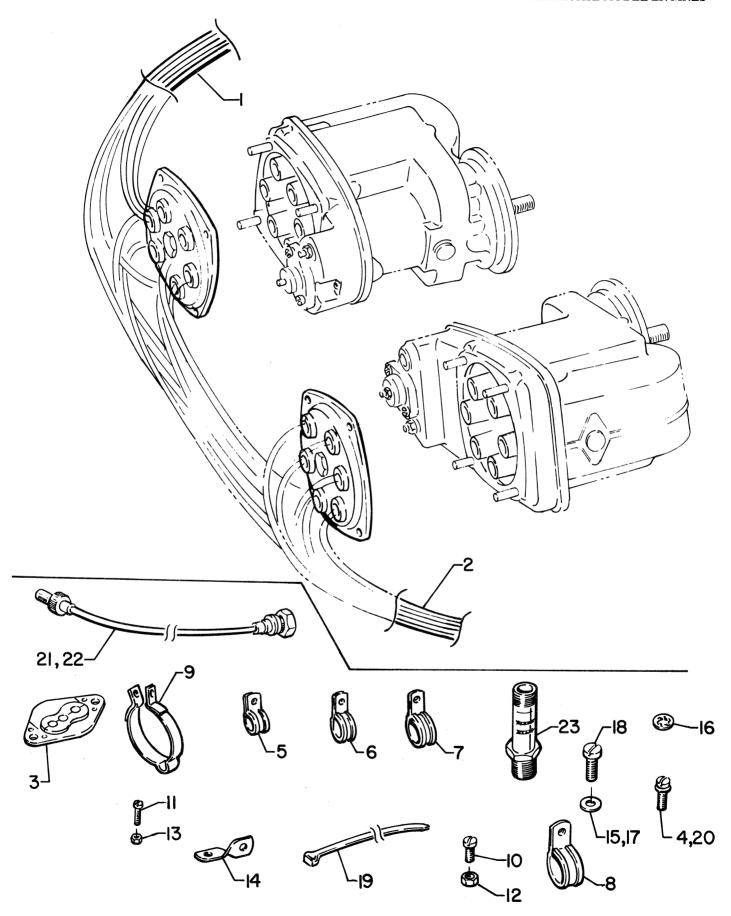


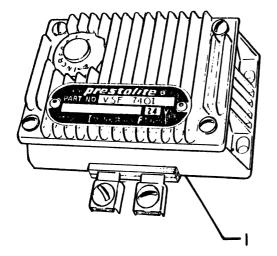
Figure 22 - Ignition Harness, Lead Assembly and Spark Plugs

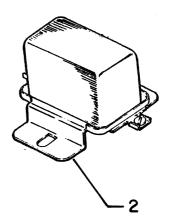
WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

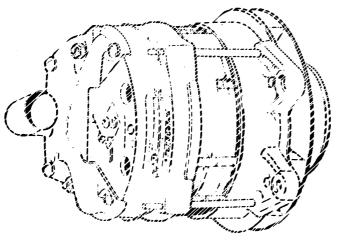
ELECTRICAL SYSTEM

VOLTAGE REGULATOR, RELAYS AND ALTERNATOR DRIVE BELTS

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL			QL	JAN	NTI	TY	P	ER	AS	SSI	EM	BL	Y				
23	NOMBER												/		$^{\prime}/$				//	
1	LW-10185	REGULATOR, Voltage, 12V., full					T					T		Τ	Τ			\Box	T	\prod
		transistor (VSF-7203)		1	1									\perp	1					
***************************************	LW-10179	REGULATOR, Voltage, 24V., full																		
		transistor (VSF-7403)								1										Ш
2	78059	OVERVOLTAGE RELAY, 12V.,											Т							
		(X-17621)		1	1														\perp	$oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}}}}}}}$
	78060	OVERVOLTAGE RELAY, 24V.,																		
		(X-17620)			T			1		1									\perp	
3	76026	BELT, Alternator drive (3/8 wide)		1	1	1		1												
	78877	BELT, Alternator drive 3.63:1 ratio			1				1	1										







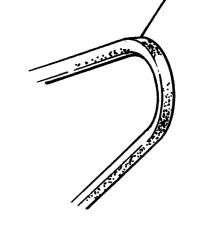


Figure 23

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

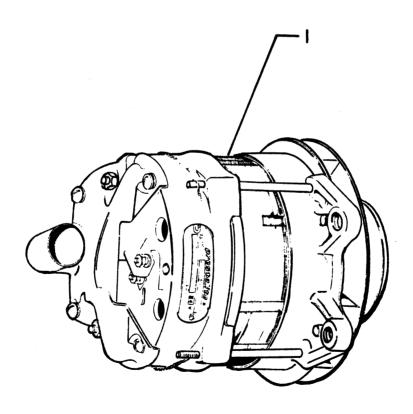
ELECTRICAL SYSTEM

ALTERNATORS

FIG. REF.	PART NUMBER	DESCRIPTION	N L L				SON	AN CON	TI	TY	PE	R	AS	SE	MI	BL	Y	7	7	7	7	7
1	LW-14316	ALTERNATOR, 12V 70 Amp.						_	<u> </u>				_	_	1			_	4	+	+	H
		(externally grounded) (ALX-8421)		 1		1	_	1_	1		_	_	_	_	1	1	_	-	-	_	+-	H
***************************************	LW-14319	ALTERNATOR, 24V. ; 50 Amp.		 <u></u>		_	_		_		_	_		_	1	1		_	-	-	+	+
		(externally grounded) (ALT-8421)					1		1					_	_			_	_	_	_	11
***************************************	LW-14324	ALTERNATOR, 24V 70 Amp.						_				_	_		1	1		_		_	1	+
		(externally grounded) (ALU-8421)					1	L	1						1_	_		_	_	_	_	\perp
	LW-14315	ALTERNATOR, 12V 60 Amp. (3.63:	1		Ш				1_						1	_			-	_ _	4	+
		ratio) (ALY-6427)			1				1			_		\perp	1	1_			_	_	_	+
	LW-14322	ALTERNATOR, 24V 50 Amp.						\perp				_	\perp	1	_	1	<u> </u>		_	_	4	+
		(externally grounded) (3.63:1 ratio)		 						1		L		_L_			<u> </u>			L		Ш

NOTE

See the latest edition of Service Instruction No. 1154 for complete list of FAA approved starters, generators, alternators, regulators and relays.



WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

ELECTRICAL SYSTEM

ALTERNATOR MOUNTING AND ATTACHING PARTS

FIG. REF.	,	DESCRIPTION	ON ALI	•				QI	UA	וא	ΓIT	ΓY	P	ER	Α	SS	E	ИΒ	L١	1					
				10	le)	Ø	B	B	B	Ų.	$q_{\vec{k}}$	Tà	1	1	\mathcal{T}	7	7	7	abla	abla	abla	7	\mathcal{T}	T	٦
25			\	/		No.		NO.	J.C	$\sqrt{\Sigma}$	illi	B	<i>\\</i>	\	\'	Ι,	Ι'	//	' /	()	()	Λ	/	//	
	LW-13039	BRACKET, Alternator		T				1		Ĭ	1	1	4	十	十	十	7	十	十	十	十	\	\vdash	\rightarrow	4
2	73383	LOCKPLATE, 5/16 bolt x 1.00	***************************************		1	T	1				_		1	7	T	1	1	1	1	十	†	T	\Box	1	†
		spacing				1	1	1		1	1	1	1			Ī		T	T	Т	T	1	П	T	٦
3	STD-1838	BOLT, 5/16-18 x 15/16 long,			1	L												Т	T	Т	Т	T	П	П	7
	75000	hex hd.			1	2	2	2		2	2	2											П]
4	75380	LINK, Alternator, adjusting	······		1	1	1	1		1	1	1	1					T			Π	Τ	П	Т	7
	STD-35	WASHER, Plain, 5/16 in.				1	1	1		1	1	1	1							\perp	Τ		П	T	1
6	STD-1817	BOLT, 5/16-18 x 3/4 long,			_	<u> </u>	L																П		
		hex hd. dr.			11	1	1	1		1	1	1	1							Т		Τ	П		٦
7	STD-1727	WASHER, Plain, 3/4 OD x 11/32 ID					L													Τ	Т	Π		T	7
		x 1/8 thick			1	1	1	1		1	1	1	1					T	T	Τ	T	Т	П	Т	٦
8	STD-1817	BOLT, 5/16-18 x 3/4 long, hex			L											\Box				Ι	Ι	Π			1
		hd. dr.					1	1		1	1	1	1								П		П		7
	74323	STRUT, Alternator support			1	1	1	1		1	1	1	1							Τ		Т			7
10	STD-1817	BOLT, 5/16-18 x 3/4 long, hex			\perp														I	Ι	Τ	Π		Т	7
		hd. dr.			1	1	1	1		1	1	1	1				T	Т	Т	Т	Т	T			7
11	STD-690	WASHER, 13/16 OD x 25/64 ID x											I		T	Т	T	T	Т	Т	Т	Τ	П		7
***************************************		1/16 thick			1	1	1	1		1	1	1	1			T		Ī	T	T	T	T	П	1	1
12	AN6-14	BOLT, 3/8-24 x 1-19/32 long, hex				L										I			Т	Т	Т	Τ	П	Т	7
		hd., drilled end			1	1	1	1		1	1	1	1			T	T	T	Т	П	Τ	Τ	П	Т	7
13	STD-690	WASHER, 13/16 OD x 25/64 ID x												T		T	T	T	T		T	T	П	T	7
		1/16 thick			un	un	un	นท		un	un	un	un	T	T	T		T	T	1	T	T	П		7
	STD-872	NUT, Slotted, 3/8-24			1	1	1	1		1	1	1	1	T		1	T	T	T	T	T	1	П	1	7
	STD-713	PIN, Cotter, 3/32 dia. x 3/4 long			1	1	1	1		1	1	1	1	T	T	T	T	T	T	T	T	1		T	7
16	AN6-13	BOLT, 3/8-24 x 1-29/64 long, hex			Т	Ī				T	1			T		1	T	1	1	T	1	1	П	\top	1
		hd., drilled end		П	T	1					1			1	1	1	1	_	T	1	1	1	П	1	1
-	AN6-16	BOLT, 3/8-24 x 1-53/64 long, hex			Τ	Π						1	1	T	T	T			1	\top	1	1	ΙĪ	1	1
***************************************		hd., drilled end			1	Π	1	1		1		1	1	T	T	T	T	T	T	T	T	T			1
17	76534	SHIM, 1-1/8 OD x 13/32 ID x			T	T							1	T	T	7	T	T	T	1	T	T		T	1
		.005 thick			un	un	un	un		un	un	un	un	T	T	T	1	T	1	1	1	1	\Box	1	1
18	STD-690	WASHER, 13/16 OD x 25/64 ID		T	T					1	7	7	7	1		1	1	1	1	1	T	1	Π	1	7
		x 1/16 thick		T	un	un	un	un		un	un	un	un	T	\top	1	1	1	T	1	1	†	口	\top	1
	STD-872	NUT, Slotted, 3/8-24		1	1	1	1	1		1	1	1	1	1	7	1	1	1	T	1	1	T	H	十	1
20	STD-713	PIN, Cotter, 3/32 dia. x 3/4 long			1	1	1	1		1	1	1	1	亅	1	1	1	1	1	1	1	T	口		1

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

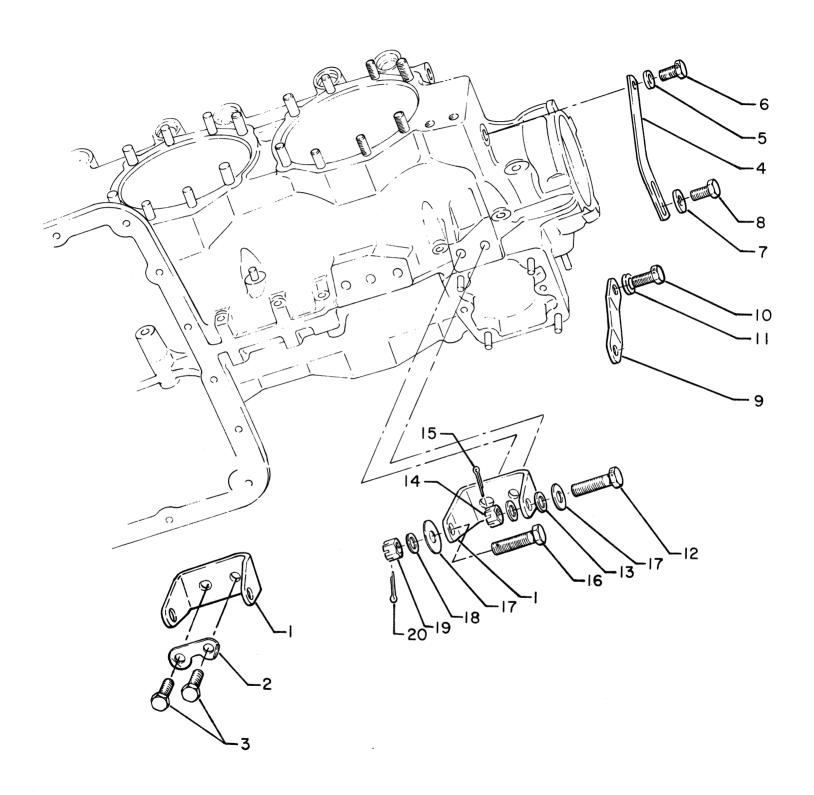


Figure 25 - Alternator Mounting and Attaching Parts

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

ELECTRICAL SYSTEM

STARTING MOTORS AND ATTACHING PARTS

FIG.	PART	DESCRIPTION	ON ALI					(Qι	JA	N'	ΓI	ΓY	Р	ER	A	SS	SEI	ME	3L	Y					
REF.	NUMBER	DESCRIPTION	\	1	<u>olo</u>	1	3/1	1	1	M	Ti.	J.	T_{i}	7	abla	abla	abla	abla	abla	abla	7	abla	abla	abla	7	\Box
26			$\sqrt{}$		B			Ž.					S.	Ŀ	7	7	7	7,	7	7,	7	7	7	7	7	\bigcup
1	LW-15571	STARTER, 12V., 12/14 pitch pinion,														,									T	
		3.38:1 internal reduction																				_				
wanning in the second		(MZ-4227)				1	1	1		1		1											_			
	LW-15572	STARTER, 24V., 12/14 pitch pinion,										<u> </u>														
		3.38:1 internal reduction									<u> </u>													_		
		(MHB-4016)							1		1		1	1											\perp	
2	STD-35	WASHER, Plain, 5/16 in.		4		`																				
3	STD-475	WASHER, Internal lock, 5/16 in.		4																						$\perp \perp \perp$
4	STD-2156	BOLT, Hex hd., 5/16-18 x 1-5/32 lo	ng	1																						
5	STD-1410	NUT, Plain, 5/16-18		3																				_		
6	LW-12083	SWITCH, Magnetic, 12V. (SAZ-4201E	-1)			1		1																		
	LW-12085	SWITCH, Magnetic, 24V. (SAZ-4401C)	<u> </u>					1		1		1	1	<u> </u>			L	L							

NOTE

See the latest edition of Service Instruction No. 1154 for complete list of FAA approved starters, generators, alternators, regulators and relays.

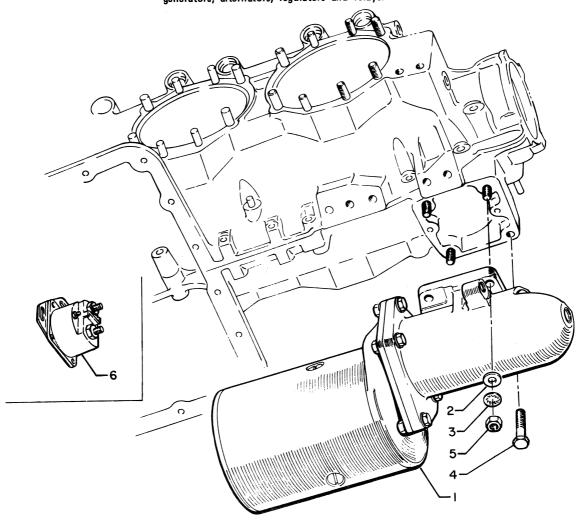


Figure **26** 5-5

INTENTIONALLY LEFT BLANK

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

OIL SUMP AND INDUCTION SYSTEM

OIL SUMP ASSEMBLY AND ATTACHING PARTS

FIG.	PART	DESCRIPTION	ON ALL				Q	UA	.N1	רוז	Υ	PE	R	AS	SSI	ΕM	1BI	_Y						
REF. 27	NUMBER	DESCRIPTION		Part								1	1	7	7	7	/			7	7	7	7	
1	LW-13306	GASKET, Oil sump		1				<u> </u>							1	_		_	_	 		_	_	_
2	72056	SUMP ASSEMBLY		1	 _		_	<u> </u>					_			_	_	_		 			4	4
2 3 4	71699	CONNECTION, Intake pipe		6	 1	1_	1	↓						_ _	1	4	_	_		╀-			+	\dashv
4	25C-11	STUD, 1/4-20 x 1-3/8 long		14	 1	_	1_				ļ				4	_	_		+	 	-			
<u>5</u>	31C-15	STUD, 5/16-18 x 1-7/8 long		4	 1		ļ	 	L					-	_	_	_	+	-	-	-			
6	38-15	STUD, 3/8-16 x 1-7/8 long		8	 _	_	1	1_				_	_	_	_	_		_	_	1	ļ	-	4	
7	STD-1173	INSERT, 1/4-20 Heli-coil x 1/2			 _	_	1_	_					_	_	4	_	_	4	_	 	-			
		long		4	1		1	<u> </u>	<u> </u>				_		4	4	_	_	-	1	-		\dashv	-
8	STD-8	WASHER, Plain, 1/4 in.		34	1		1_	_	<u> </u>				.	_	4	_		_		-	1		-	-
9	STD-160	WASHER, Internal lock, 1/4 in.	***************************************	27	1		1	1_	<u> </u>	<u> </u>				4	_	_	_	_		.	_			
10	STD-1419	BOLT, 1/4-20 x 1-1/8 long, hex hd.	•	7			1_		<u> </u>						_			_	_	4	<u> </u>			
11	STD-1688	BOLT, 1/4-20 x 1.00 long, hex hd.		6	1		1	1_	ļ				_	_	_	_	_		4	╄	ļ		-	
12	STD-1411	NUT, Plain, 1/4-20		21	1			_	_	<u> </u>			_		1	_	_	4	_	-	_			_
13	STD-551	PLUG, 1/2-14 NPT, Sq. hd., drilled			 _	2	2	2 2	2 2	2	2	2	_		_	4		_	1	1	 		-	\dashv
	AN932-5	PLUG, 1/2-14 NPT, Allen hd.	.,,,		2		\perp	\perp	<u> </u>	<u> </u>				_	_	-	4	_	4	1-	╄		_	\dashv
14	61548	NAMEPLATE		1		\perp	1		1_	1					4	4	_		4	4	 	\vdash	\vdash	_
15	STD-1901	DRIVE STUD, No. 4 x 3/16 long,					1		1_	<u> </u>				_	4	_		_	4	4	 	<u> </u>	$\vdash \vdash$	
3 344		rd. hd.		4	 				1_	<u> </u>	<u> </u>			1					\bot	L	1		Ш	

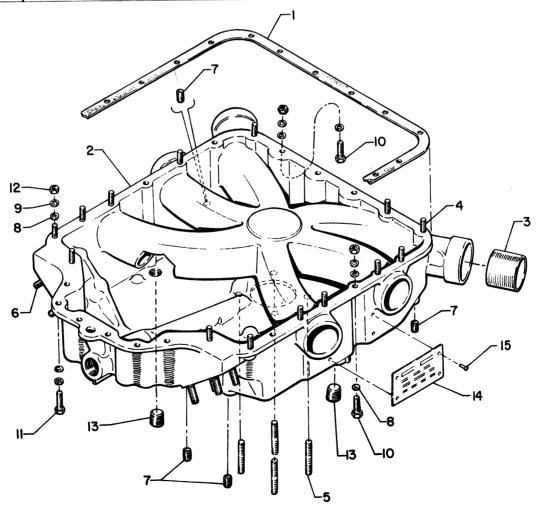


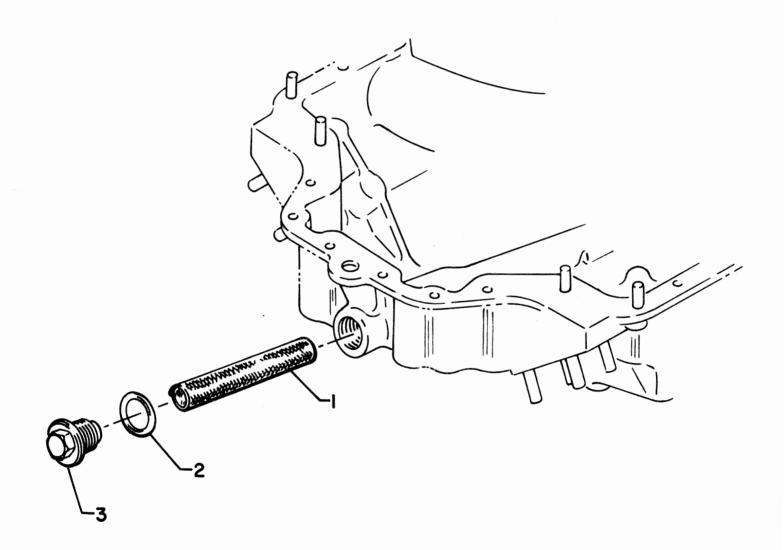
Figure 27

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

OIL SUMP AND INDUCTION SYSTEM

OIL SUCTION SCREEN

FIG. REF.	PART NUMBER	1	ON ALL	la la			QI	UA	NT	TY	PE	R	AS:	SEM	иві	<u>Y</u>	1	7	7	7	
1	70484	SCREEN, Oil suction		1	\top	T	Τ	П		T	П	Т		\Box		Τ		口	十	十	\vdash
2	STD-111	GASKET, 1.00 ID x 1-1/4 OD x 3/32					T	П					T			T			T	\top	
		annular		1		I	T		I			T								T	\Box
3	LW-12545	PLUG, 5/8 hex hd. x 1.00-20 thd.	1	1			Ī					T				T			1	T	

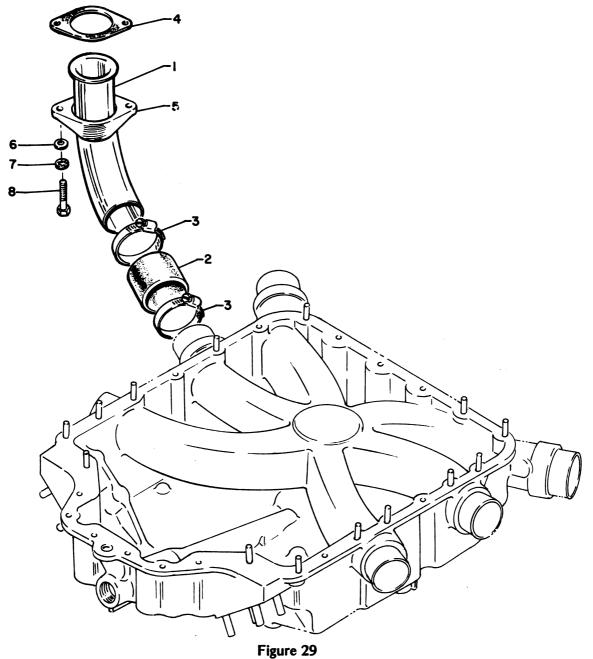


WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

OIL SUMP AND INDUCTION SYSTEM

INTAKE PIPE AND ATTACHING PARTS

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL					QI	JA	N.	ΓI	ΓY	PI	ER	A	SS	E	MB	BL'	Y	4					
29	NOMBER			Ja.									1	/	1	/	/	/	/		/	/	/	/	/	
1	70485	PIPE, Intake		6	T	T	Г	Г						٦	T	ヿ	コ	ヿ	7	T	1	寸	Ť	亣	T	٦
2	69603	HOSE, 1-3/4 ID x 2-3/16 QD x				Ī		Ī											T	T			T	Τ	Τ	
		1-3/4 long		6																Ī	I			Ι		
3	LW-15592-8-28	CLAMP, Hose		12	Т	T	Γ	Γ					Ī			Ī										
4	71973	GASKET, 2 bolt flange, 1-7/8 ID	T I	6		ĺ		Ī							I						I			I	I	
5	73346	FLANGE, Intake pipe, upper		6				Π																		
6	STD-8	WASHER, Plain, 1/4 in.		12	Ι																			\perp		
7	STD-160	WASHER, Internal lock, 1/4 in.		12		П																			\perp	
8	STD-1215	BOLT, $1/4-20 \times 1-1/4$ long, hex hd.		12		I		Π							I						Ι					



WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

OIL SUMP AND INDUCTION SYSTEM

CARBURETORS AND RELATED PARTS

FIG.	PART	DESCRIPTION	ON ALL				(QU	Αľ	۱T۱	T	/ P	EF	R A	SS	SEI	МВ	L	Y					
REF.	NUMBER	DESCRIPTION		B									7		1	1	/	1	/	/	1	7	7	
1	66224	GASKET, Carburetor		1																I		\Box	I	
2	72740	CARBURETOR, (10-4404)						1		1		<u> </u>								\perp			\perp	
***************************************	74121	CARBURETOR, (10-4404-1)				1					1 1	1 1	<u></u>							_				
	LW-10540	CARBURETOR, (10-5054)			1		1		1	\perp			L									\perp		
3	STD-35	WASHER, Plain, 5/16 in.		4							_		<u> </u>					_			_		_	
4	STD-1410	NUT, Plain, 5/16-18		4								_	L					_		_		_	_	
5	STD-1763	LOCKNUT, Palnut, 5/16 in.		4					\perp			L	<u> </u>								\perp	\bot	\bot	

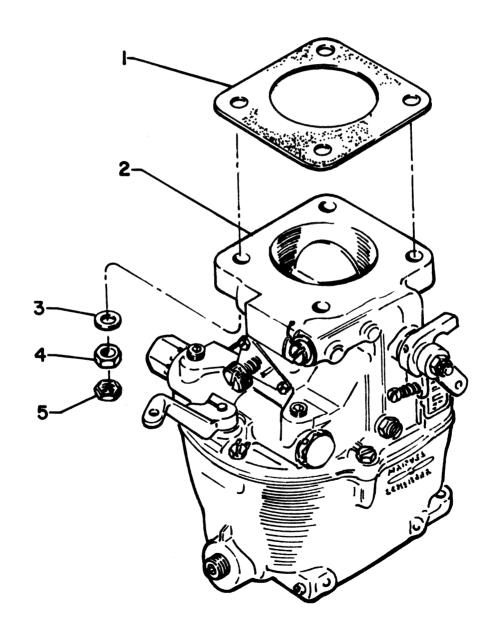


Figure 30

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

OIL SUMP AND INDUCTION SYSTEM

PRIMING SYSTEM

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL			Qι	JA	NT	IT'	Y F	EF	R A	SS	SEI	MB	3L'	Y]
31			$\sqrt{}$	Ja.				No.				7	7	/	/				7	7	7	
1	LW-12098-1-153	TUBE ASSY., Primer, cyl.no.3									1								I	I	$oldsymbol{\mathbb{I}}$	1
	LW-12098-1-183	TUBE ASSY., Primer, cyl.no.4									1											
3	LW-12098-1-116	TUBE ASSY., Primer, cyls.no.																				
		5 and 6									2								\perp	\perp	\bot	
4	LW-12098-0-100	TUBE ASSY., Primer, inter., right									1											
5	LW-12098-0-116	TUBE ASSY., Primer, inter., left									1									_[
6	LW-12293	CLIP, Primer line								4	4										\perp	
7	71910	CLAMP, Primer line								1	4											
8	STD-553	SCREW, No. 6-32 x 1/2 long,																	\perp			
		rd. hd.								1	4											
9	AN365-632A	NUT, No. 6-32 self-locking								1	4								\perp	\perp		
10	STD-853	TEE, Union, 1/4 tube								;	3											
11	74225	NIPPLE ASSY., Primer								1	4											
12	1102	PLUG, Allen, 1/4-27 (assemble in																			\perp	
		no. 1 and 2 cyl. hds.									2							\Box				

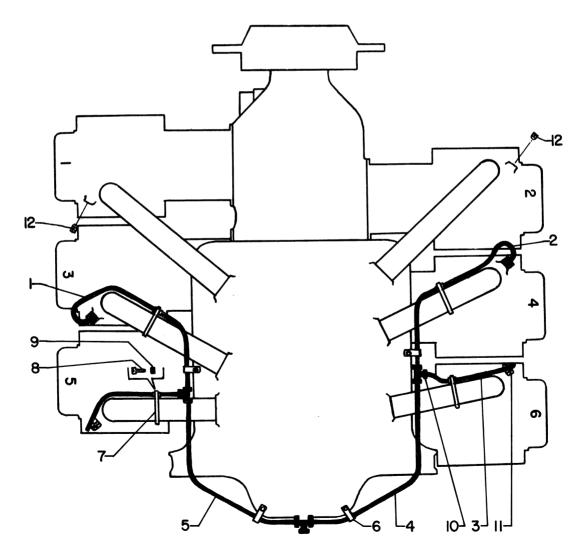


Figure 31

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

SERVICE KIT SECTION

SEAL AND GASKET SET 0-540-B, -E, -G, -H SERIES

PART	DESCRIPTION	QTY.	
NUMBER	DESCRIPTION	PER	
NUMBER		ENG.	
	·		
71569-1	SEAL AND GASKET SET	1	
STD-111	GASKET	1	
STD-208	SEAL, Oil	${f 2}$	
STD-213	SEAL, Oil	1	
STD-294	GASKET, Annular	2	
STD-1045	GASKET, Annular	1	
1691-C	GASKET, Fuel pump	1	
8313	GASKET, Vacuum pump	2	
60096	GASKET, Fuel pump	1	
LW-14260	SEAL, Tach. drive oil	$\bar{1}$	
61173	GASKET, Oil press. hsg.	$\bar{1}$	
61183	GASKET, Accy. adapter	1	
62224	GASKET, Mag. adapter	$\bar{4}$	
62922	SEAL, Shroud tube	$1\overline{2}$	
66224	GASKET, Carburetor	1	
67516	LOCKPLATE, Crankshaft gear	î	
68315	GASKET, Accy. drive adapter	1	
LW-12272	LOCKPLATE, Shroud tube	6	
69164	GASKET, Fuel pump adapter	1	
69551	GASKET, Puer pump adapter GASKET, Accy. dr. adapter	1	
70310			
70455	SEAL, Shroud tube	12	
	GASKET	1	
70457	GASKET	1	
71193	BOX, Set-up	1	
71481	RING, Oil seal	6	
71667	LOCKPLATE, Fuel pump idler gear	1	
71973	GASKET, 2 bolt flange	6	
72053	GASKET, Governor	1	
72059	GASKET	1	
72075	RING, Oil seal	8	
72078	LOCKPLATE, Cam gear	2	
72091	RING, Oil seal	2	
72210	GASKET	1	
72220	GASKET, Oil level gage	ī	
72312	RING, Oil seal	ī	
LW-13306	GASKET, Oil sump	$\overline{1}$	
73383	LOCKPLATE, Generator bracket	2	
73818	GASKET, Accy. hsg.	ĩ	
74305	SEAL	ī	
75906	GASKET, Rocker box cover	6	
76510	GASKET	1	
LW-12795	GASKET	1	
76940	SEAL, Crankshaft oil	1	
LW-12681	GASKET	$\overset{1}{2}$	
LW-15628	SEAL, Crankshaft	1	
LW-13026 LW-13792	SEAL, Crankshaft oil	1	
69345			
LW-14995	SPACER	6	
	SPRING	6	
MS16625-1081	RING, Internal retaining	1	
65321	GASKET	6	

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

SERVICE KIT SECTION

SEAL AND GASKET SET 0-540-B, -E, -G, -H SERIES

PART NUMBER	DESCRIPTION	OTY. Per Eng.	
LW-13378	SEAL AND GASKET SET	1	
AN123857	GASKET, Hydraulic pump	ī	
MS29512-10	SEAL, Oil	1	
MS16625-1081	RING, Internal retaining	1	
STD-111	GASKET, Oil suction screen	1	
STD-208	SEAL, OII	1	
STD-1045	GASKET, Oil press. relief valve	1	
8313	GASKET, Vacuum and hydraulic pump	2	
20415	GASKET, Hydraulic pump	1	
60096	GASKET, Fuel pump	1	
LW-14260	SEAL, Tach. drive	1	
62922	SEAL, Shroud tube	12	
65321	GASKET, Exhaust flange	6	
66224	GASKET, Carburetor	1	
70310	SEAL, Shroud tube	12	
70455	GASKET, Prop. dr. gear plug	1	
70457	GASKET, Oil filler ext.	1	
71481	RING, Cyl. base seal	6	
LW-14820	RING, Internal retaining	8	
71973	GASKET, Intake pipe flange	6	
72053	GASKET, Governor	1	
72059	GASKET, Oil level gage	1	
72091	RING, Oil seal	$ar{f 2}$	
72220	GASKET, Oil level gage	$\bar{1}$	
72312	RING, Oil level gage	ī	
73383	LOCKPLATE	ī	
73818	GASKET, Accy. hsg.	ī	
75906	GASKET, Rocker box cover	6	
LW-15628	SEAL, Crankshaft oil	ĺ	
LW-10332	LOCKPLATE, Crankshaft gear	ī	
LW-13792	SEAL, Crankshaft	ī	
LW-12272	LOCKPLATE, Shroud tube	6	
LW-14995	SPRING, Shroud tube	6	
LW-12681	GASKET, Magneto	ĭ	
LW-13306	GASKET, Oil sump	ĩ	
71193	BOX	ī	

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

SERVICE KIT SECTION

CYLINDER, PISTON AND RING ASSY. 0-540-B SERIES (NITRIDED CYLINDER, HALF-WEDGE RINGS)

PART NUMBER	DESCRIPTION	QTY. PER ENG.	
LW-12742	CYLINDER, PISTON AND RING AS	SSY.	
MS13997-3	KEY, Valve	2	
MS13998-3	CAP, Valve stem	1	
STD-1215	BOLT	${f 2}$	
STD-1411	NUT, Plain, 1/4-20	1	
STD-1925	SCREW	6	
60009	KEY, Valve	2	
LW-13790	SHAFT, Valve rocker	1	
60828	PLUG, Piston pin	2	
61247	COVER, Rocker box	1	
62922	SEAL, Shroud tube	2	
65441	SEAT, Valve spring, lower	1	
LW-14995	SPRING, Shroud tube	2	
LW-12272	LOCKPLATE, Shroud tube	1	
69444	ROCKER ASSY., Valve, intake	1	
LW-14077	PIN, Piston	1	
70310	SEAL, Shroud tube	2	
71195	BOX, Set-up	1	
71481	SEAL, Cylinder base	1	
73857 or LW-12328	RING, Piston, oil reg.	1	
73938	VALVE, Intake	1	
74241	RING, Piston, top comp.	2	
LW-13323	SEAT, Valve sp. lower exhaust	1	
74636	ROCKER ASSY., Exhaust	1	
74541	VALVE, Exhaust	1	
75413	PISTON, 3 ring	1	
LW-12427	CYLINDER ASSY., Nitrided	1	
75906	GASKET, Rocker box cover	1	
LW-10076	SEAT, Valve spring	1	
LW-10077	SEAT, Valve spring	1	
LW-11795	SPRING, Valve, auxiliary	2	
LW-11800	SPRING, Valve, outer	2	
LW-11775	PLUG, Piston pin	2	
SSP2272	TAG	1	
SSP2472	TAG	1	
LW-12892	THRUST BUTTON	2	

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

SERVICE KIT SECTION

CYLINDER, PISTON AND RING ASSY. 0-540-E, -G, -H SERIES (NITRIDED CYLINDER, CHROME PLATED RINGS)

DADT	DECCE INTO IN	QTY.
PART	DESCRIPTION	PER
NUMBER		ENG.
76292	CYLINDER, PISTON AND RING ASSY.	
STD-1411	NUT, Plain, 1/4-20	1
STD-1925	SCREW	6
60009	KEY, Valve intake	2
62922	SEAL, Shroud tube	2
LW-13790	SHAFT, Valve rocker	. 1
60828	PLUG, Piston pin	2
75906	GASKET, Rocker box cover	1
61247	COVER, Rocker box	1
MS13998-3	CAP, Valve stem, exhaust (rotator type)	1
LW-11800	SPRING, Valve, outer	2
65441	SEAT, Valve spring, lower (intake)	1
LW-11795	SPRING, Valve, inner	2
LW-10077	SEAT, Valve spring, upper, intake	1
LW-14995	SPRING, Shroud tube	1
LW-12272	LOCKPLATE, Shroud tube	1
69444	ROCKER ASSY., Valve, intake	1
LW-10076	SEAT, Valve spring, upper, exhaust (rotator type)	1
LW-14077	PIN, Piston	$\bar{1}$
70310	SEAL, Shroud tube	2
71195	BOX, Set-up	ī
71481	SEAL, Cylinder base	1
71541	VALVE, Exhaust (rotator type) sodium cooled chrome	_
	stem	1
MS13997-3	KEY, Valve, exhaust (rotator type)	$ar{f 2}$
LW-12328	RING, Piston, oil reg. (ch.) (expander type)	ī
73938	VALVE, Intake	ī
74241	RING, Piston, compression (ch.)	2
LW-12427	CYLINDER AND HEAD ASSY. (Nitrided cyls., straight	
	valve head)	1
75089	PISTON	ī
74636	ROCKER ASSY., Exhaust	<u>1</u>
LW-13323	SEAT, Valve sp. lower, exhaust	ī
LW-12892	THRUST BUTTON	$ar{f 2}$
STD-1215	BOLT	2
72198	PLUG	2
SSP672	TAG	ī
LW-11775	PLUG, Piston pin (alum.)	$\overline{2}$
SSP2472	TAG	ī
		-

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

SECTION 8 PARTS SUPERSEDURES

Part No.	Superseded by	Name	Remarks
		SECTION 1	
Reference Page 1-1			
LW-13799	LW-13831	Crankcase Assy.	Due to increased flange thickness at bottom parting line.
Reference Page 1-3.			
72986	75761	Extension	To incorporate reinforced nylon oil filler tube.
72051	75737	Extension	To incorporate reinforced nylon oil filler tube.
75759	77527	Extension	Product improvement.
74313	75759	Extension	To incorporate reinforced nylon oil filler tube.
45187	72220	Gasket	Product improvement.
72984	73120	Gage Assy.	Product improvement.
72043	LW-14756	Gage Assy.	Parts standardization.
77722	LW-14734	Gage Assy.	Parts standardization.
71047	70456	Bracket	Product improvement.
Reference Page 1-4.			
71714	76529	Plug, Oil relief valve	Product improvement.
LW-10124	LW-11021	Bearing, Crankshaft	Product improvement.
73049	LW-10124	Bearing, Crankshaft	Product improvement.
724 15	73049	Bearing, Crankshaft	Product improvement.
74303	LW-11575	Bearing, Crankshaft	To incorporate straight main bearing dowels.
77044	LW-13884	Bearing, Crankshaft	Product improvement.
75210	77044	Bearing, Crankshaft	Product improvement.
71637	75210	Bearing, Crankshaft	Product improvement.
78319	LW-13885	Bearing, Crankshaft	Product improvement.
74304	78319	Bearing, Crankshaft	Product improvement.
LW-12077	LW-13792	Seal	To incorporate seal having glue retention grooves.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PARTS SUPERSEDURES (CONT.)

SECTION 1 (CONT.)

Part No.	Superseded by	Name	Remarks
69529	72877	Body, Hydraulic Tappet	Product improvement.
Reference Page 1-5.			
74582	75073	Crankshaft & Counterweight Assembly	To incorporate crankshaft & counterweight assy. withou lightening holes.
72727	74582	Crankshaft & Counterweight Assembly	Product improvement.
72024	72727	Crankshaft & Counterweight Assembly	Product improvement.
74953	75040	Crankshaft & Counterweight Assembly	Product improvement.
74581	75039	Crankshaft Assembly	To incorporate crankshaft assy, without lightening holes.
72728	74581	Crankshaft Assembly	Product improvement.
70459	72728	Crankshaft Assembly	Product improvement.
70256	73810	Bushing	Product improvement.
71906	LW-14820	Ring	To incorporate reinforced retaining rings.
Reference Page 1-7.			
71328	72565	Support Assembly	To provide 23 ⁰ timing.
Reference Page 1-8.			
71643	76155	Shaft Assy.	Product improvement.
75709	78368	Pin	Product improvement.
LW-10575	LW-13795	Shaft	Product improvement.
73014	LW-10575	Shaft	Product improvement.
70390	73014	Shaft	Product improvement.
Reference Page 1-9.			
70395	73249	Washer, Thrust	Product improvement.
70394	73250	Washer, Thrust	Product improvement.
70393	73251	Washer, Thrust	Product improvement

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PARTS SUPERSEDURES (CONT.)

SECTION 1 (CONT.)

Part No.	Superseded by	Name	Remarks
70454	LW-13896	Plug	To incorporate shorter hex head.
179-B	72053	Gasket	To use (1) common gasket instead of (2).
180-G	72378	Cover	Product improvement.
Reference Page 1-10.			
There are no supersedures or	Page 1-10.		
		SECTION 2	
Reference Page 2-1.			
61352	73818	Gasket	Product improvement.
75367	76152	Housing Assembly	Product improvement.
71648	75367	Housing Assembly	Product improvement.
71650	76156	Shield	Product improvement.
Reference Page 2-2.			
76354	78528	Body Assembly	To incorporate centered oil pump impellers.
67512	74641	Shaft	To incorporate Sintered oil pump impellers.
Reference Page 2-3.			
75148	75246	Fuel Pump	Product improvement.
74798	75148	Fuel Pump	Product improvement.
74082	74798	Fuel Pump	Product improvement.
74060	74082	Fuel Pump	Product improvement.
Reference Page 2-4.			
67537	72974	Gear Assy.	Product improvement.
Reference Page 2-5.			
71673	72964	Gear Assy.	Product improvement.
Reference Page 2-7.			
69451	75944	Valve Assembly	Product improvement.
76691	LW-12795	Gasket	Product improvement.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PARTS SUPERSEDURES (CONT.) SECTION 2 (CONT.)

Part No.	Superseded by	Name	Remarks
74904	76691	Gasket	Product improvement.
		SECTION 3	
Reference Page 3-1.			
LW-11457	LW-11750	Connecting Rod Assembly	Product improvement.
LW-10722	LW-11457	Connecting Rod Assembly	Parts standardization.
74502	LW-10722	Connecting Rod Assembly	Product improvement.
71987	74502	Connecting Rod Assembly	Product improvement.
68519	LW-13923	Bushing, Connecting Rod	To incorporate bushing with indexing slots.
74644	75061	Bolt, Connecting Rod	Parts standardization.
71087	74644	Bolt, Connecting Rod	Product improvement.
74646	LW-12186	Nut, Connecting Rod	Product improvement.
71950	74646	Nut, Connecting Rod	Product improvement.
71086	71950	Nut, Connecting Rod	Product improvement.
72218	LW-13521	Bearing	Product improvement.
74530	75089	Piston	To incorporate 2 compression ring piston.
72967	74530	Piston	Product improvement.
71594	72967	Piston	Product improvement.
74059	754 13	Piston	Parts standardization.
73196	74059	Piston	To provide wide gap piston rings.
LW-13444	LW-14078	Pin, Piston	To incorporate new piston pin with positive identification.
69650	LW-13444	Pin, Piston	To incorporate new piston pin with carburized I.D.
74061	74241	Ring	Parts standardization.
75254	73857	Ring	Parts standardization.
Reference Page 3-2.			
75874	LW-12427	Cylinder & Head Assembly	Product improvement.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PARTS SUPERSEDURES (CONT.) SECTION 3 (CONT.)

Part No.	Superseded by	Name	Remarks
60028	76943	Guide	Product improvement.
74230	77160	Guide	To incorporate flangeless valve guides.
69533	74230	Guide	Product improvement.
Reference Page 3-3.			
72625	73938	Valve	Product improvement.
69534	75068	Valve	Product improvement.
71595	69534	Valve	Product improvement.
65567	LW-11795	Spring	Product improvement.
76994	LW-11800	Spring	Product improvement.
65427	76994	Spring	Product improvement.
74554	LW-13323	Seat	To incorporate new lower valve spring seat with increased I.D.
68327	LW-10077	Seat	Product improvement.
73115	LW-10076	Seat	Product improvement.
76290	78290	Plunger Assembly	Product improvement.
73062	76290	Plunger Assembly	Product improvement.
72876	73062	Plunger Assembly	Product improvement.
71791	72876	Plunger Assembly	Product improvement.
65074	78524	Socket	Product improvement.
71083	LW-11485	Tube	Parts standardization.
75774	71083	Tube	Product improvement.
LW-12273	LW-13428	Spring	To incorporate new shroud tube spring on parallel heads.
68517	LW-12273	Spring	Product improvement.
68518	LW-12272	Lockplate	Product improvement.
Reference Page 3-4.			
71135	73434	Rod Assy.	Product improvement.
71136	73435	Rod Assy.	Product improvement.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PARTS SUPERSEDURES (CONT.) SECTION 3 (CONT.)

Part No.	Superseded by	Name	Remarks
71 137	73436	Rod Assy.	Product improvement.
60401	LW-13790	Shaft	Product improvement.
61246	75906	Gasket	Product improvement.
Reference Page 3-5.			
STD-2188	LW-15592-5-05	Clamp	Product improvement.
72152	75339	Baffle Assembly	To incorporate different baffles on wide cylinder flange.
71104	72152	Baffle Assembly	Product improvement.
		SECTION 4	
Reference Page 4-1.			
68874	LW-12136	Cushion	Product improvement.
73627	LW-12707	Adapter	Product improvement.
78292	LW-12681	Gasket	Product improvement.
73820	78292	Gasket	Product improvement.
71601	73000	Coupling	Product improvement.
61566	LW-52305-1	Kit Assembly	Parts standardization.
71574	LW-157209	Kit	Parts standardization.
71571	LW-157208	Kit	Parts standardization.
Reference Page 4-3.			
LW-10302	LW-13642	Gear	Product improvement.
LW-12136	LW-13641	Cushion	Product improvement.
68874	LW-12136	Cushion	Product improvement.
78292	LW-12681	Gasket	Product improvement.
73820	78292	Gasket	Product improvement.
LW-320297-2	LW-620026-2	Clip	To incorporate larger clips for new purple harness.
LW-320297-3	LW-14057	Clip	Product improvement.
LW-320298-3	LW-14060	Clip	Product improvement.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PARTS SUPERSEDURES (CONT.) SECTION 4 (CONT.)

Part No.	Superseded by	Name	Remarks
LW-320299-6	LW-620029-6	Clip	To incorporate larger clips for new purple harness.
LW-320472-4	LW-320299-6	Clip	For changing of attaching parts on Piper harnesses.
LW-320472-4	LW-620037-4	Clip	To incorporate larger clips for new purple harness.
LW-320232	LW-620036-4	Clip	To incorporate larger clips for new purple harness.
LW-320300-7	73050	Clip	Product improvement.
LW-89027-17	LW-14875	Bracket	Product improvement.
71571	LW-157208	Kit	Parts standardization.
Reference Page 4-5.			
77514	LW-M-2457	Harness Assy.	To add Slick Harness Assy. as alternate to 77514.
78535	LW-M-2463	Harness Assy.	To add Slick Harness Assy. as alternate to 78535.
77029	78535	Harness Assy.	Product improvement.
75855	77029	Harness Assy.	Product improvement.
71888	75855	Harness Assy.	Product improvement.
66838	71888	Harness Assy.	Product improvement.
77514	LW-M-2458	Harness Assy.	To add Slick Harness Assy. as alternate to 77514.
78535	LW-M-2464	Harness Assy.	To add Slick Harness Assy. as alternate to 78535.
LW-320297-3	LW-14057	Clip	Product improvement.
LW-320298-3	LW-14060	Clip	Product improvement.
		SECTION 5	
Reference Page 5-1.			
77345	LW-10185	Regulator	Product improvement.
77347	LW-10179	Regulator	Product improvement.
74322	76026	Belt	Product improvement.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PARTS SUPERSEDURES (CONT.)

SECTION 5 (CONT.)

Part No.	Superseded by	Name	Remarks
Reference Page 5-2.			
78310	LW-14316	Alternator	Product improvement.
77470	78310	Alternator	Product improvement.
78312	LW-14319	Alternator	Product improvement.
77346	78312	Alternator	Product improvement.
78314	LW-14324	Alternator	Product improvement.
77751	783 14	Alternator	Product improvement.
LW-10009	LW-14315	Alternator	Product improvement.
LW-12277	LW-14322	Alternator	Product improvement.
Reference Page 5-3.			
76533	LW-13039	Bracket	Product improvement.
73276	75380	Link	Parts standardization.
Reference Page 5-5.			
LW-14207	LW-15571	Starter	Product improvement.
76211	LW-14207	Starter	Product improvement.
74092	76211	Starter	Product improvement.
73269	74092	Starter	Product improvement.
72567	73269	Starter	Product improvement.
LW-14208	LW-15572	Starter	Product improvement.
76212	LW-14208	Starter	Product improvement.
72462	76212	Starter	Product improvement.
73270	72462	Starter	Product improvement.
71452	73270	Starter	Product improvement.
76773	LW-12083	Switch	Product improvement.
61427	76773	Switch	Product improvement.
76775	LW-12085	Switch	Product improvement.
76268	76775	Switch	Product improvement.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PARTS SUPERSEDURES (CONT.)

SECTION 5 (CONT.)

1	Part No.	Superseded by	Name	Remarks
(61941	76268	Switch	Product improvement.
			SECTION 6	
	Reference Page 6-1.			
	72812	LW-13306	Gasket	Product improvement.
	71697	72056	Sump Assy.	To relocate nameplate from crankcase to oil sump assy.
	Reference Page 6-2.			
	There are no supersedures on	Page 6-2.		
	Reference Page 6-3.			
	STD-1269	LW-15592-8-28	Clamp	Product improvement.
	60131	71973	Gasket	Parts standardization.
	60069	73346	Flange	Product improvement.
	Reference Page 6-4.			
	71654	72740	Carburetor	Product improvement.
	73373	72740	Carburetor	Product improvement.
	LW-10196	LW-10540	Carburetor	Product improvement.
	72740	LW-10196	Carburetor	Product improvement.
	Reference Page 6-5.			
	61581-1	LW-12098-1-153	Tube Assy.	Product improvement.
	61581-7	LW-12098-1-183	Tube Assy.	Product improvement.
	61581-2	LW-12098-1-116	Tube Assy.	Product improvement.
	61581-3	LW-12098-0-100	Tube Assy.	Product improvement.
	62254	LW-12293	Clip	Product improvement.

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
AN123857	"O" ring	2-5	LW-12280	Crankshaft and C'wt. Assy.	1-5
AN365-632A	Nut	4-5	LW-12293	Clip	6-5
AN365-632A	Nut	6-5	LW-12427	Cylinder and Head Assy.	3-2
AN565B1032H5	Set Screw	1-9	LW-12545	Plug	6-2
AN6-13	Bolt	5-3	LW-12589	Insert	2-1
AN6-14	Bolt	5-3	LW-12681	Gasket	4-1
AN6-16	Bolt	5-3	LW-12681	Gasket	4-3
AN6-34A	Bolt	1-10	LW-12707	Adapter	4-1
AN8-14A	Bolt	1-5	LW-12795	Gasket	2-7
AN932-5	Plug	6-1	LW-12892	Thrust Button	3-4
LW-10076	Seat	3-3	LW-13039	Bracket	5-3
LW-10077	Seat	3-3	LW-13215	Oil Filter Assy.	2-7
LW-10179	Regulator	5-1	LW-13306	Gasket	6-1
LW-10185	Regulator	5-1	LW-13323	Seat	3-3
LW-10284	Gear	1-5	LW-13428	Spring	3-3
LW-10290	Gear Assy.	1-8	LW-13521	Bearing	3-1
LW-10297	Gear Assy.	1-8	LW-13641	Cushion	4-3
LW-10303	Plug .	2-4	LW-13642	Gear	4-3
LW-10307	Gear Assy.	2-4	LW-13775	Impeller Assy.	2-2
LW-10318	Gear Assy.	2-2	LW-13790	Shaft	3-4
LW-10320	Sleeve	2-7	LW-13792	Seal	1-4
LW-10321	Spring	2-7	LW-13794	Stud	1-1
LW-10331	Adapter Assy.	2-5	LW-13795	Shaft	1-8
LW-10332	Lockplate	1-5	LW-13831	Crankcase Assy.	1-1
LW-10341	Insert	2-1	LW-13838	Crankcase Assy.	1-1
LW-10344	Body Assy.	2 -2	LW-13844	Crankcase Assy.	1-1
LW-10442	Gear	1-9	LW-13884	Bearing	1-4
LW-10540	Carburetor	6-4	LW-13885	Bearing	1-4
LW-10541	Gear Assy.	1-9	LW-13896	Plug	1-9
LW-10647	Dowel	1-1	LW-13923	Bushing	3-1
LW-10660	Oil Filter Assy.	2-7	LW-14021	Shaft	1-9
LW-10671	Gear Assy.	2-5	LW-14057	Clip	4-3
LW-10916	Housing Assy.	2-1	LW-14057	Clip	4-5
LW-11021	Bearing	1-4	LW-14060	Clip	4-3
LW-11485	Tube	3-3	LW-14060	Clip	4-5
LW-11575	Bearing	1-4	LW-14078	Pin	3-1
LW-11750	Connecting Rod Assy.	3-1	LW-14260	Seal	2-2
LW-11795	Spring	3-3	LW-14315	Alternator	5-2
LW-11800	Spring	3-3	LW-14316	Alternator	5-2
LW-12083	Switch	5-5	LW-14319	Alternator	5-2
LW-12085	Switch	5-5	LW-14322	Alternator	5-2
LW-12098-0-100	Tube Assy.	6-5	LW-14324	Alternator	5-2
LW-12098-0-116	Tube Assy.	6-5	LW-14734	Gage Assy.	1-3
LW-12098-1-116	Tube Assy.	6-5	LW-14747	Gage Assy.	1-3
LW-12098-1-153	Tube Assy.	6-5	LW-14756	Gage Assy.	1-3
LW-12098-1-183	Tube Assy.	6-5	LW-14820	Ring	1-5
LW-12136	Cushion	4-1	LW-14875	Bracket	4-3
LW-12186	Nut	3-1	LW-15571	Starter	5-5
LW-12272	Lockplate	3-3	LW-15572	Starter	5-5
LW-12279	Crankshaft Assy.	1-5	LW-15592-5-05	Clamp	3-5

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
LW-15592-8-28	Clamp	6-3	STD-33	Washer	2-3
LW-15628	Seal .	1-4	STD-35	Washer	1-9
LW-157208	Kit	4-1	STD-35	Washer	2-2
LW-157208	Kit	4-3	STD-35	Washer	2-5
LW-157209	Kit	4-1	STD-35	Washer	3-4
LW-163010-10	Magneto	4-1	STD-35	Washer	5-3
LW-163050-9	Magneto	4-1	STD-35	Washer	5-5
LW-320298-2	Clip	4-3	STD-35	Washer	6-4
LW-320472-4	Clip	4-3	STD-111	Gasket	6-2
LW-349310-1	Magneto	4-1	STD-160	Washer	1-10
LW-349310-8	Magneto	4-1	STD-160	Washer	2-2
LW-349370-4	Magneto	4-1	STD-160	Washer	2-4
LW-382610-11	Magneto	4-3	STD-160	Washer	2-5
LW-382698	Kit	4-3	STD-160	Washer	2-7
LW-384602-307	Harness	4-3	STD-160	Washer	4-5
LW-385146-106	Magneto Ignition System	4-3	STD-160	Washer	6-1
LW-51365-46	Magneto	4-1	STD-160	Washer	6-3
LW-51365-47	Magneto	4-1	STD-208	Oil Seal	2-4
LW-51365-57	Magneto	4-1	STD-208	Oil Seal	2-5
LW-52305-1	Kit Assy.	4-1	STD-294	Gasket	2-7
LW-620026-2	Clip	4-3	STD-425	Washer	1-4
LW-620029-6	Clip	4-3 4-3	STD-475	Washer	1-9
		4-3 4-3	STD-475 STD-475	Washer	2-5
LW-620036-4	Clip Clip	4-3 4-3	STD-475 STD-475	Washer	2-5 3-4
LW-620037-4		4-5 4-5		Washer	3-4 4-1
LW-M-2376	Plate	4-5 4-5	STD-475	Washer	4-1
LW-M-2457	Harness Assy.	4-5 4-5	STD-475	Washer	4-3 5-5
LW-M-2458	Harness Assy.	4-5 4-5	STD-475		5-5 1-1
LW-M-2463	Harness Assy.	4-5 4-5	STD-514	Dowel	6-1
LW-M-2464	Harness Assy.		STD-551	Plug	
M-1985-48	Lead Assy.	4-5	STD-553	Screw	4-5
M-1985-72	Lead Assy.	4-5	STD-553	Screw	6-5
MS124703	Insert	2-1	STD-557	Dowel	1-1
MS13997-3	Key	3-3	STD-596	Nut	1-3
MS13998-3	Cap	3-3	STD-596	Nut	1-10
MS16625-1081	Ring	1-8	STD-670	Nut	4-3
MS16625-1100	Ring	2-7	STD-670	Nut	4-5
MS20823-6D	Elbow	3-2	STD-678	Washer	1-3
MS21919-G12	Clip	4-3	STD-678	Washer	1-10
STD-8	Washer	1-10	STD-684	Nipple	3-5
STD-8	Washer	2-2	STD-690	Washer	5-3
STD-8	Washer	2-4	STD-692	Screw	4-3
STD-8	Washer	2-5	STD-692	Screw	4-5
STD-8	Washer	2-7	STD-696	Washer	4-3
STD-8	Washer	4-3	STD-696	Washer	4-5
STD-8	Washer	4-5	STD-713	Pin	5-3
STD-8	Washer	6-1	STD-784	Plug	2-1
STD-8	Washer	6-3	STD-798	Dowel	1-9
STD-19	Dowel	1-9	STD-853	Tee	6-5
STD-33	Washer	1-3	STD-872	Nut	1-10
STD-33	Washer	1-10	STD-872	Nut	5-3

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
STD-1045	Gasket	1-4	STD-1937	Screw	1-5
STD-1065	Dowel	1-5	STD-2078	Dowel	1-5
STD-1173	Insert	6-1	STD-2084	Bolt	1-10
STD-1204	Bolt	2-2	STD-2090	Nut	3-4
STD-1211	Plug	1-5	STD-2156	Bolt	5-5
STD-1215	Bolt	2-2	STD-2167	Screw	1-8
STD-1215	Bolt	6-3	STD-2168	Nut	1-8
STD-1339	Plug	1-1	10-720631-48	Lead Assy.	4-3
STD-1339	Plug	2-2	10-720631-78	Lead Assy.	4-3
STD-1409	Nut	1-10	25C-10	Stud	2-7
STD-1410	Nut	1-9	25C-11	Stud	6-1
STD-1410	Nut	2-5	25C-12	Stud	2-1
STD-1410	Nut	3-4	25C-12	Stud	2-5
STD-1410	Nut	4-1	25C-21	Stud	2-1
STD-1410	Nut	4-3	31C-15	Stud	6-1
STD-1410	Nut	5-5	31CD-20	Stud	2-1
STD-1410	Nut	6-4	38-13	Stud	1-1
STD-1411	Nut	1-10	38-15	Stud	6-1
STD-1411	Nut	2-4	38-16	Stud	1-1
STD-1411	Nut	2-5	38D-17	Stud	1-1
STD-1411	Nut	2-3 2-7	38-22	Stud	1-1
STD-1411	Nut	3-3	50-15	Stud	1-1
STD-1411	Nut	6-1	383-B	Nut	3-4
STD-1414	Bolt	1-10	1028-В	Bali	1-4
STD-1416	Bolt	1-10	1102	Plug	1-1
STD-1410 STD-1419	Bolt	1-10	1102	Plug	2-1
STD-1419	Bolt	2-2	1102	Plug	3-2
STD-1419	Bolt	2-2 6-1	1102	Plug	3-2 6-5
STD-1419	Nut	2-2	1182-B3	Spark Plug	6-5 4-5
STD-1420 STD-1631	Dowel	2-2 2-5	1182-B6	Spark Plug	4-5 4-5
STD-1688	Bolt	2-5 6-1	1182-D4	Spark Plug	4-3 4-3
STD-1000 STD-1727	Washer	4-1	8313	Gasket	4-3 2-4
STD-1727 STD-1727	Washer	5-3	8313	Gasket	2-4 2-5
STD-1727	Locknut	5-3 6-4	20415	Gasket	2-5 2-5
STD-1703 STD-1774	Dowel	2-4	60009	Key	2-5 3-3
STD-1774	Pin	2- 4 2-5	60096	Gasket	2-3
STD-1774 STD-1817	Bolt	2-5 5-3	60398	Bushing	2-3 3-4
STD-1817 STD-1821	Hose	3-5	60430	Cover	3-4 2-4
				_	
STD-1828 STD-1838	Bolt Bolt	2-5 5-3	60430 60746	Cover	2-5
STD-1856		5-3 2-7		Impeller	2-2
	Screw		60803	Strap	1-10
STD-1872	Insert	3-2	60828	Plug	3-1
STD-1874	Screw	4-3	60945	Plug	1-5
STD-1874	Screw	4-5	61173	Gasket	2-7
STD-1875	Bolt	2-2	61183	Gasket	2-4
STD-1882	Screw	2-3	61247	Cover	3-4
STD-1901	Drive Stud	6-1	61260	Flange	3-4
STD-1925	Screw	3-4	61261	Stud	1-1
STD-1925	Screw	4-3	61261	Stud	2-1
STD-1931	Bolt	2-2	61261	Stud	3-2

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
61265	Stud	2-1	71652	Gear Assy.	1-8
61297	Impeller	2-2	71668	Gear Assy.	1-8
61298	Impeller	2-2	71675	Adapter Assy.	2-5
61544	Plunger	1-8	71699	Connection	6-1
61548	Nameplate	6-1	71737	Tube Assy.	3-5
62224	Gasket	4-1	71903	Bushing	1-5
62255	Clip	4-3	71904	Counterweight Assy.	1-5
62255	Clip	4-5	71907	Washer	1-5
62817	Screen Assy.	2-7	71910	Clamp	6-5
62922	Seal	3-3	71910	Clamp	4-5
65007	Retainer	1-1	71973	Gasket	6-3
65321	Gasket	3-4	72022	Roller	1-5
65441	Seat	3-3	72053	Gasket	1-9
66224	Gasket	6-4	72056	Sump Assy.	6-1
66610	Bushing	3-2	72057	Seat	3-2
66796	Insert	3-2	72058	Seat	3-2
67514	Gear	1-5	72059	Gasket	1-3
67516	Lockplate	1-5	72060	Bushing	1-5
67528	Stud	1-1	72061	Bushing	1-5
67528	Stud	2-1	72062	Bushing	1-5
67530	Bushing	1-8	72091	Ring	1-4
67536	Adapter Assy.	2-4	72155	Bushing	1-5
67556	Stud	1-1	72158	Bushing	1-1
68315	Gasket	2-5	72220	Gasket	1-3
	Stud	1-1	72306	Bracket	1-3
683 16 685 10	Stud	3-2	72312	Ring	1-3
68593	Spacer	2-4	72351	Screw	4-5
	Spring	1-4	72378	Cover	1-9
68668	Tube Assy.	3-5	72412	Cover	2-5
68759	Tube Assy.	3-5	7256 5	Support Assy.	1-7
68761	Cover	2-5	72566	Gear	1-7
69106	Rocker Assy.	3-4	72740	Carburetor	6-4
69444 COE 10		2-7	72797	Roller	1-5
69510	Housing Gasket	2-5	72801	Counterweight Assy.	1-5
69551	Hose	6-3	72815	Bracket	4-5
69603	Dowel	1-1	72877	Body	1-4
69796	Seal	3-3	72964	Gear Assy.	2-5
70310		1-5	72965	Roller	1-5
70416	Roller	1-9	72974	Gear Assy.	2-4
70455	Gasket	1-3	73000	Coupling	4-1
70456 70457	Bracket Gasket	1-3	73013	Coupling	4-1
70457		2-1	73050	Clip	4-3
70470	Stud	6-2	73120	Gage Assy.	1-3
70484	Screen	6-3	73249	Washer	1-9
70485	Pipe Diag	3-4	73250	Washer	1-9
71481	Ring	3 -4 2-4	73251	Washer	1-9
71596	Washer	2-4 2-5	73251 73252	Washer	1-9
71596	Washer		73252 73346	Flange	6-3
71610	Hook	3-5 2-5		Lockplate	5-3
71611	Retainer	3-5	73383	Rod Assy.	3-4
71640	Plug	1-5	73434	nou masy.	04

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
73435	Rod Assy.	3-4	75944	Valve Assy.	2-7
73436	Rod Assy.	3-4	75965	Clamp	4-1
73772	Nozzle Assy.	1-1	75965	Clamp	4-3
73810	Bushing	1-5	76026	Belt	5-1
73818	Gasket	2-1	76118	Spacer	1-8
73857	Ring	3-1	76148	Camshaft Assy.	1-5
73938	Valve	3-3	76152	Housing Assy.	2-1
74058	Plug	1-9	76155	Shaft Assy.	1-8
74121	Carburetor	6-4	76156	Shield	2-1
74225	Nipple Assy.	6-5	76220	Stud	1-10
74241	Ring	3-1	76529	Plug	1-4
74323	Strut	5-3	76534	Shim	5-3
74541	Valve	3-3	76539	Seat	2-7
74636	Rocker Assy.	3-4	76734	Zip Strap	4-3
74637	Bushing	3-4	76734	Zip Strap	4-5
74641	Shaft	2-2	76943	Guide	3-2
74887	Spacer	3-4	77160	Guide	3-2
75030	Support Assy.	1-7	77192	Crankshaft Assy.	1-5
75039	Crankshaft Assy.	1-5	77193	Crankshaft and C'wt. Assy.	1-5
75040	Crankshaft and C'wt. Assy.	1-5	77527	Extension	1-3
75061	Bolt	3-1	77579	Support Assy.	1-7
75068	Valve	3-3	77770	Extension	1-3
75073	Crankshaft and C'wt. Assy.	1-5	77852	Oil Filter Base Assy.	2-7
75089	Piston	3-1	77853	Oil Filter Housing Assy.	2-7
75246	Fuel Pump	2-3	77872	Bushing	1-9
75339	Baffle Assy.	3-5	77906	Spacer	3-4
75380	Link .	5-3	78059	Overvoltage Relay	5-1
75413	Piston	3-1	78060	Overvoltage Relay	5-1
75656	Bushing	1-5	78290	Plunger Assy.	3-3
75657	Bushing	1-5	78368	Pin	1-8
75737	Extension	1-3	78524	Socket	3-3
75761	Extension	1-3	78528	Body Assy.	2-2
75906	Gasket	3-4	78589	Plug	1-9
			78877	Belt	5-1