

# TE-TF ENGINE MODELS

## Important Notice

The manuals contained in this computer file are reproductions from the "Wisconsin Engine" counter catalog, part number "S236". This manual was last produced in the mid 1980's.

As with any printed data, the information contained in these manuals may not be the most up-to-date available. It is provided as a convenience to our customers and all information should be verified before making repairs to an engine or component.

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Order parts from the **WISCONSIN MOTORS, L.L.C.** Distributor or Service Center in your locality. Refer to the Yellow Pages of the Telephone Directory under **ENGINES**, or visit our website, [www.wisconsinmotors.com](http://www.wisconsinmotors.com) to locate a distributor in your area. You can also call Wisconsin Motors toll free, 800-932-2858.

The **MODEL**, **SPECIFICATION** and **SERIAL NUMBER** of your engine must be given when ordering parts. The **MODEL**, **SPECIFICATION** and **SERIAL NUMBER** are on the engine nameplate.



**Wisconsin  
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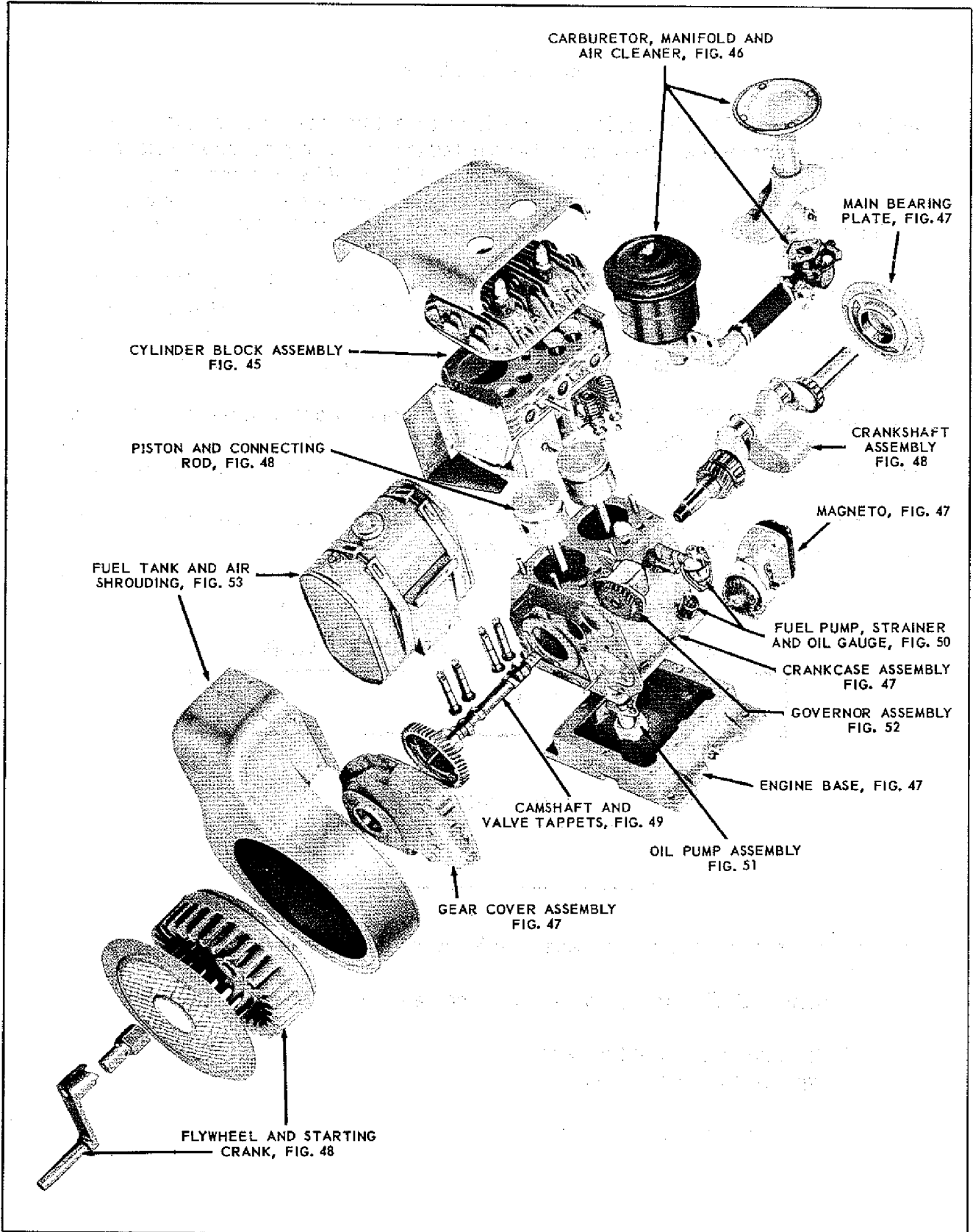
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# MODELS TE AND TF



**Fig. 44, EXPLODED VIEW OF ENGINE**

Refer to figure numbers for break down of parts.

151217C-1

PARTS FOR MODELS TE AND TF ENGINES

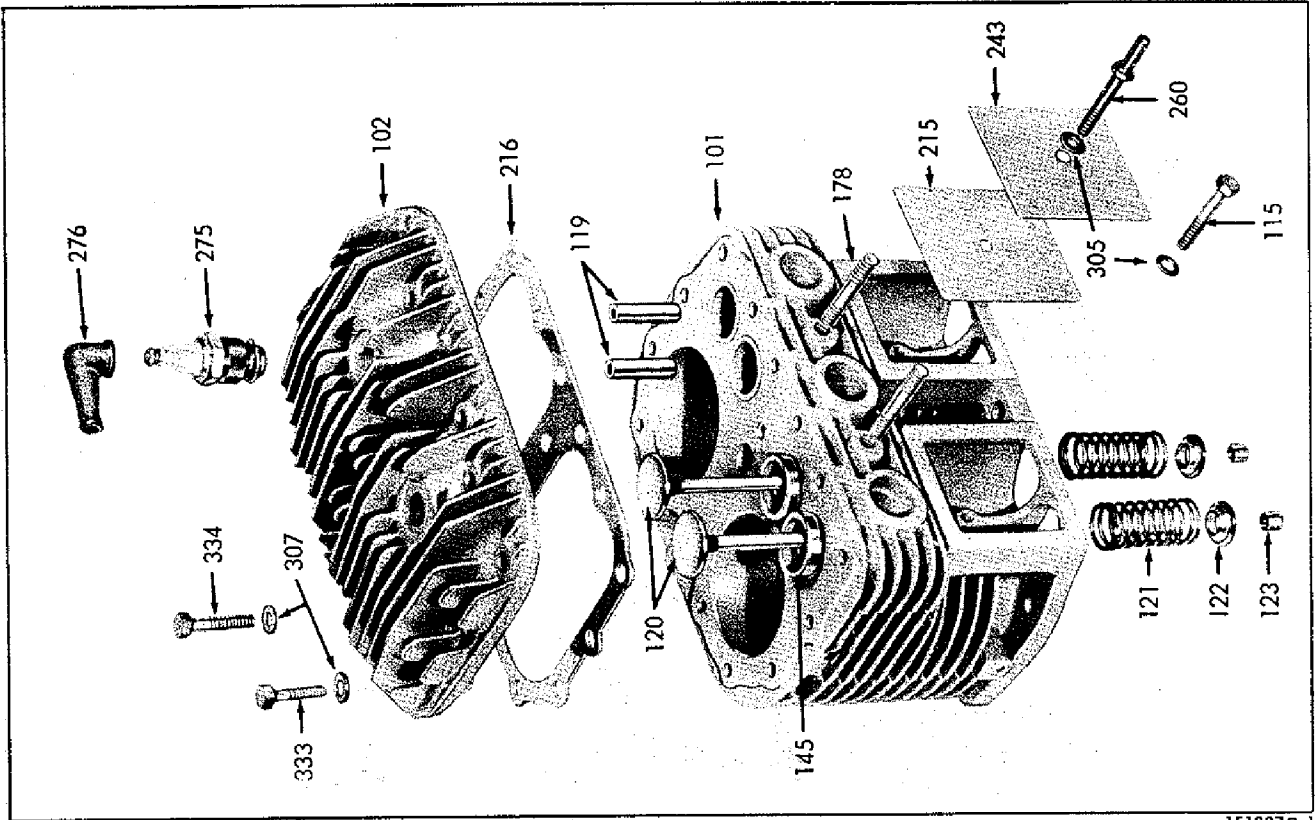


Fig. 45, CYLINDER BLOCK ASSEMBLY

151297C-1

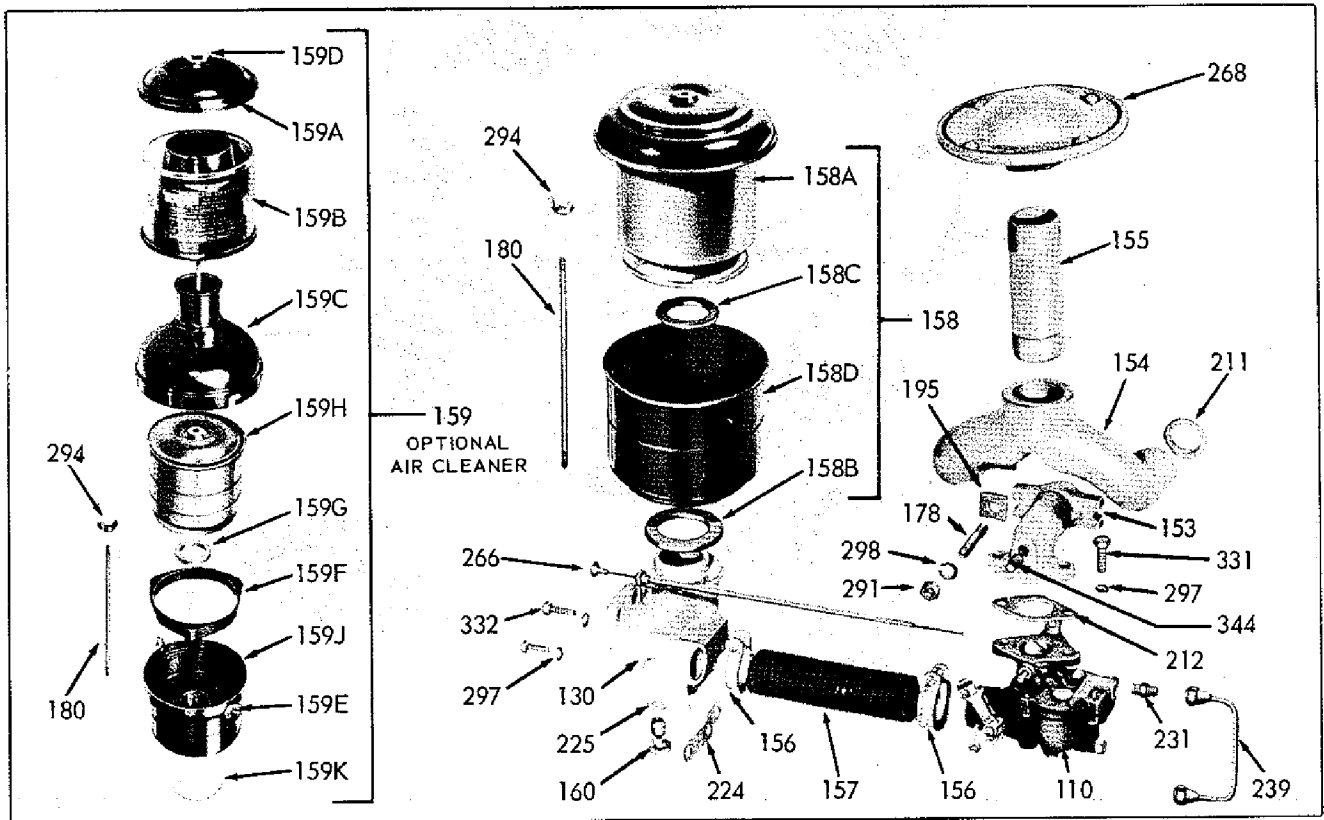


Fig. 46, CARBURETOR, MANIFOLD AND AIR CLEANER GROUP  
Parts are identified by reference number. See parts list for correct part number.

151299C-3





PARTS FOR MODELS TE AND TF ENGINES

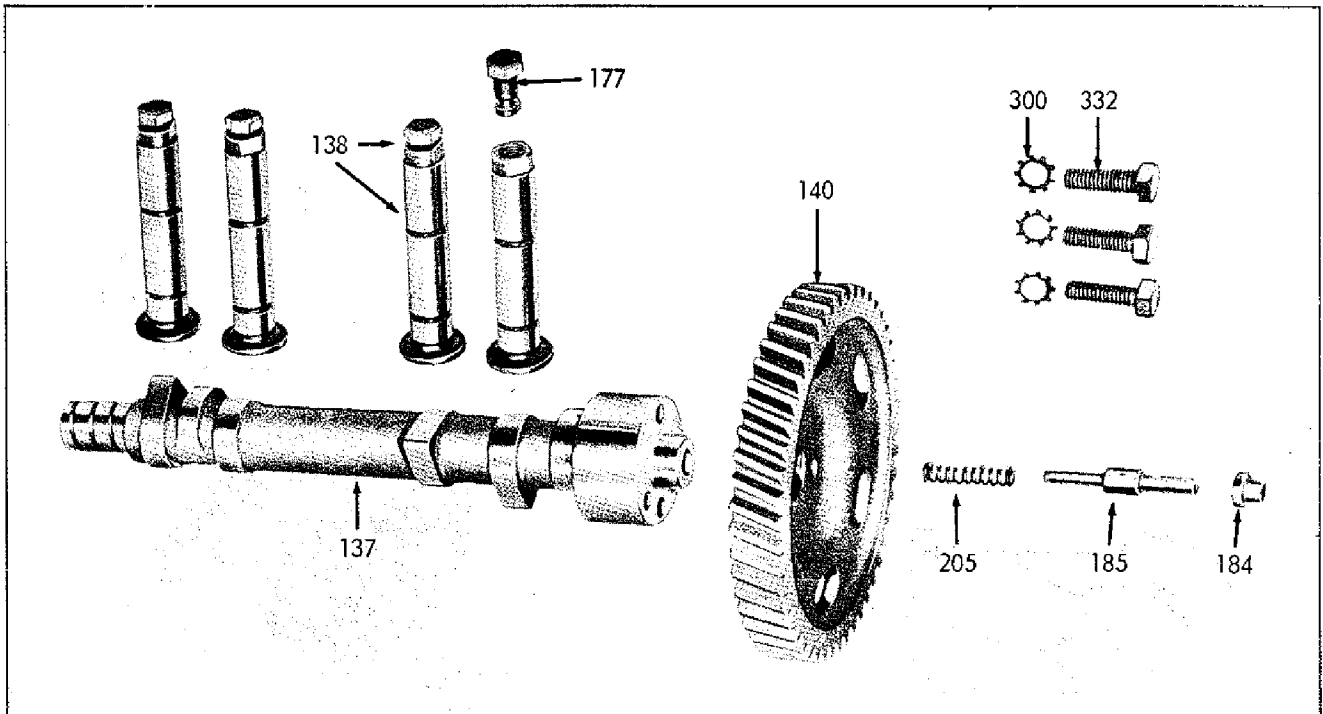


Fig. 49, CAMSHAFT AND VALVE TAPPET GROUP

151294C

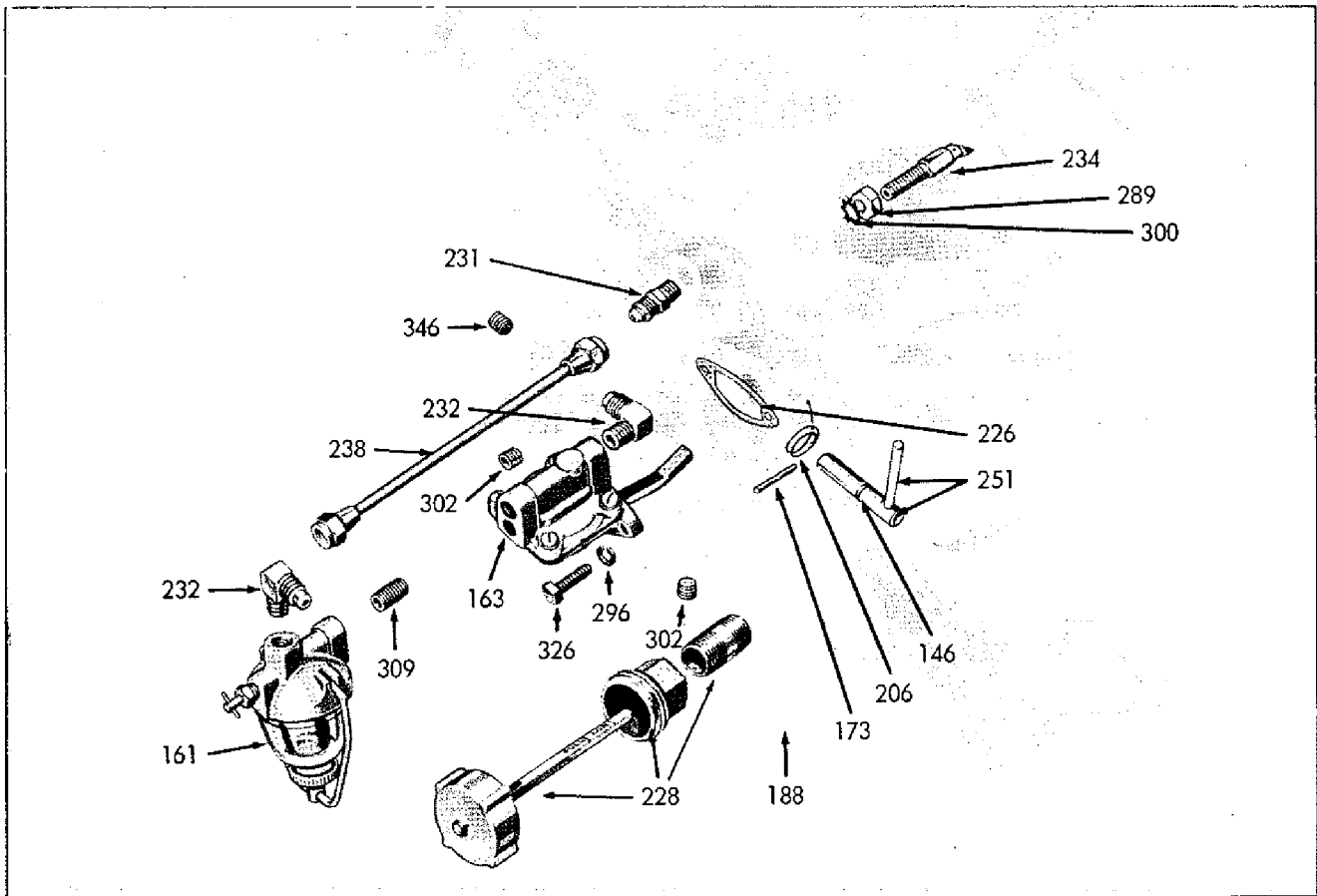


Fig. 50, FUEL PUMP, OIL GAUGE AND OIL SPRAY NOZZLE GROUP

Parts are identified by reference number. See parts list for correct part number.

151293C-2

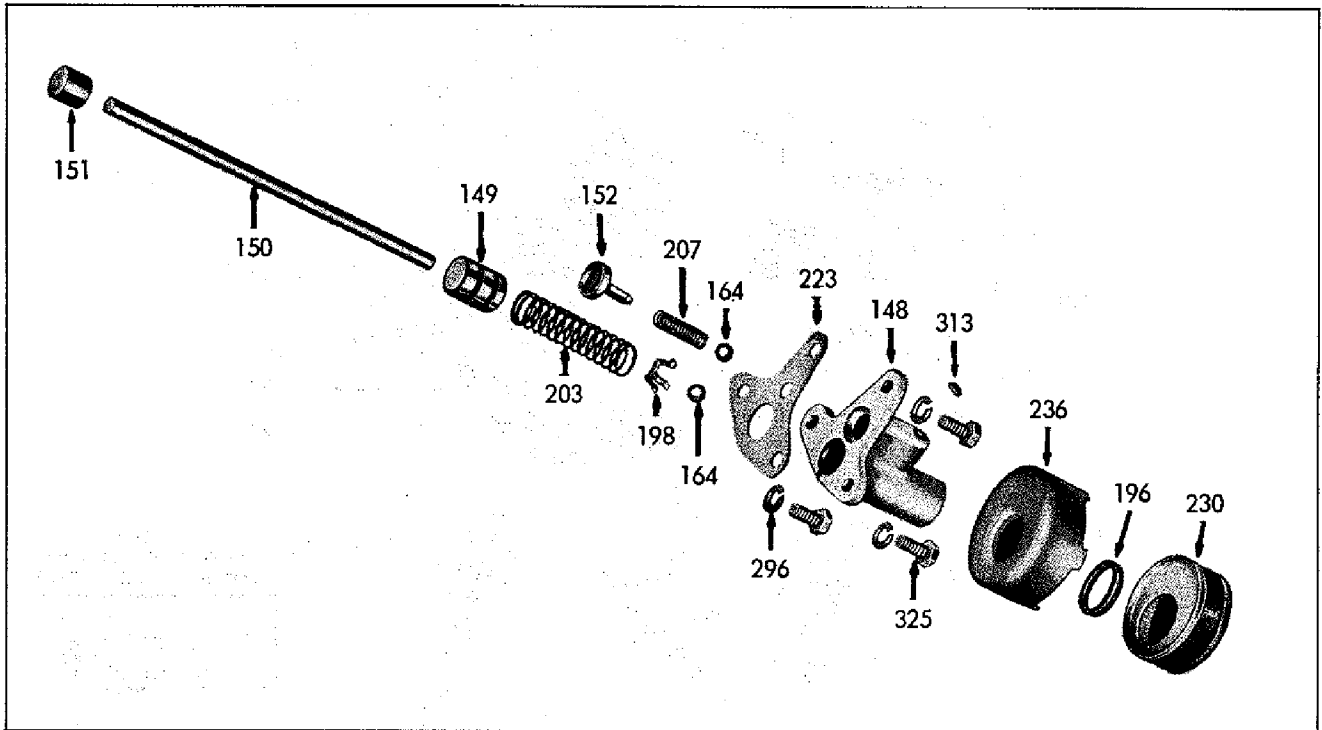
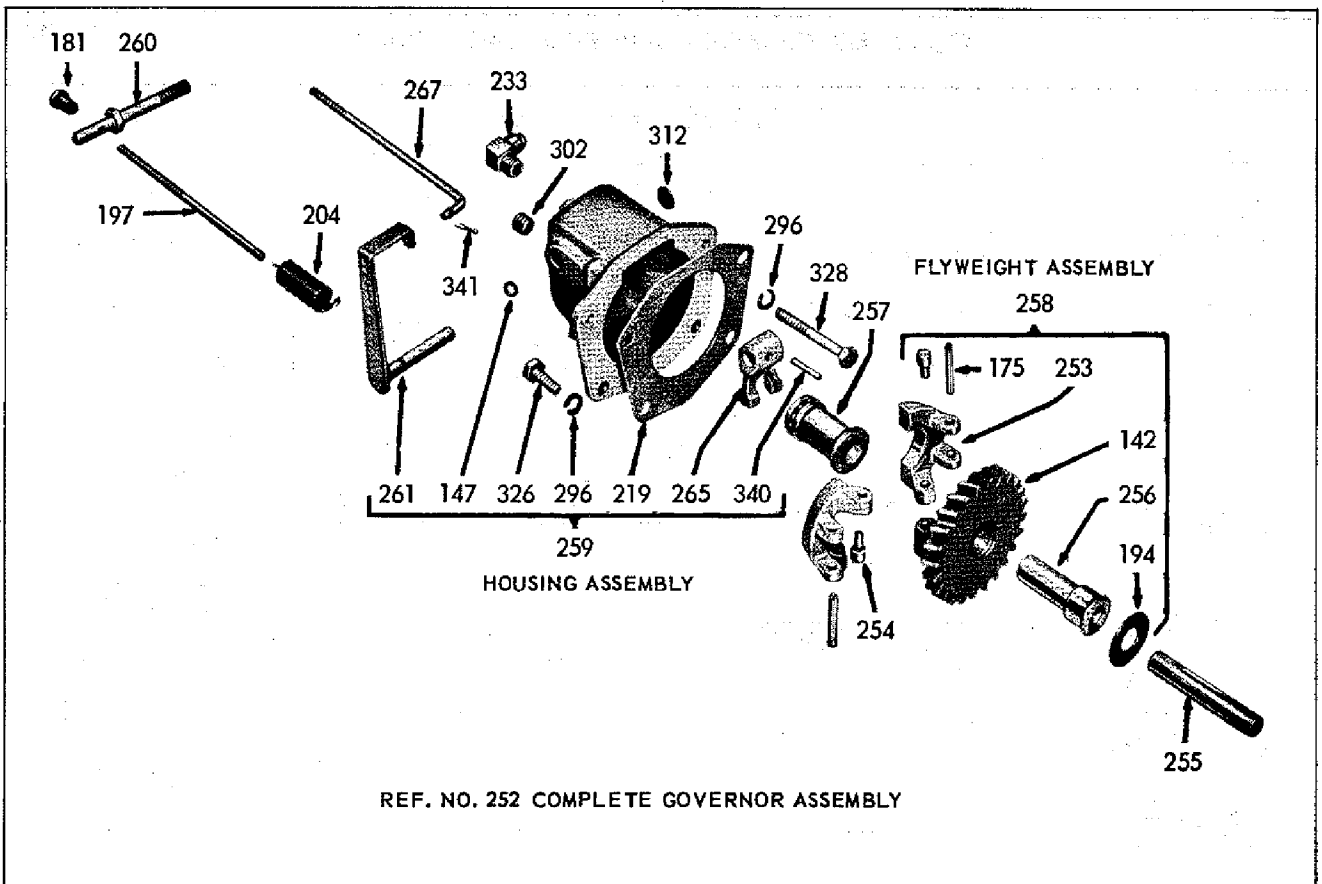


Fig. 51, OIL PUMP ASSEMBLY

151292C-1



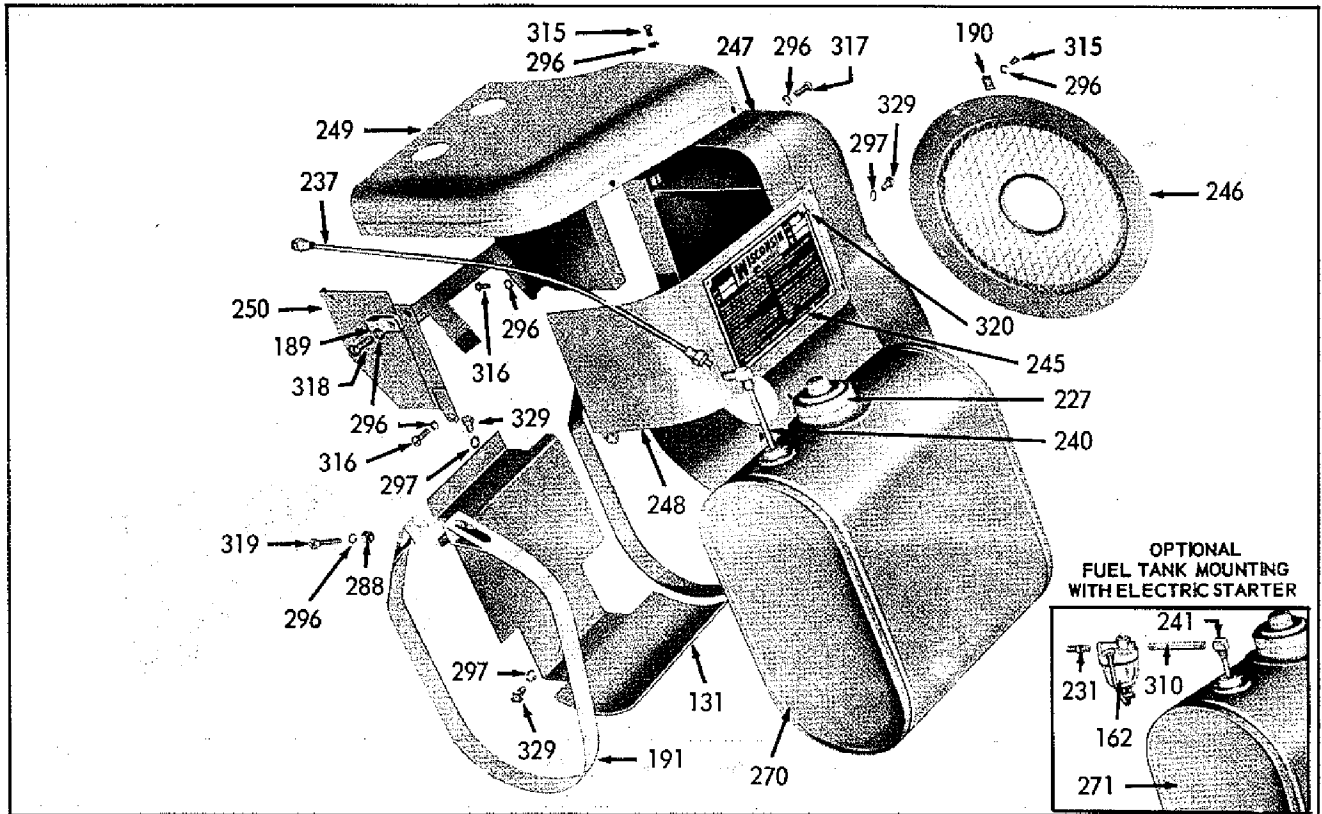
REF. NO. 252 COMPLETE GOVERNOR ASSEMBLY

151296C-1

Fig. 52, GOVERNOR ASSEMBLY

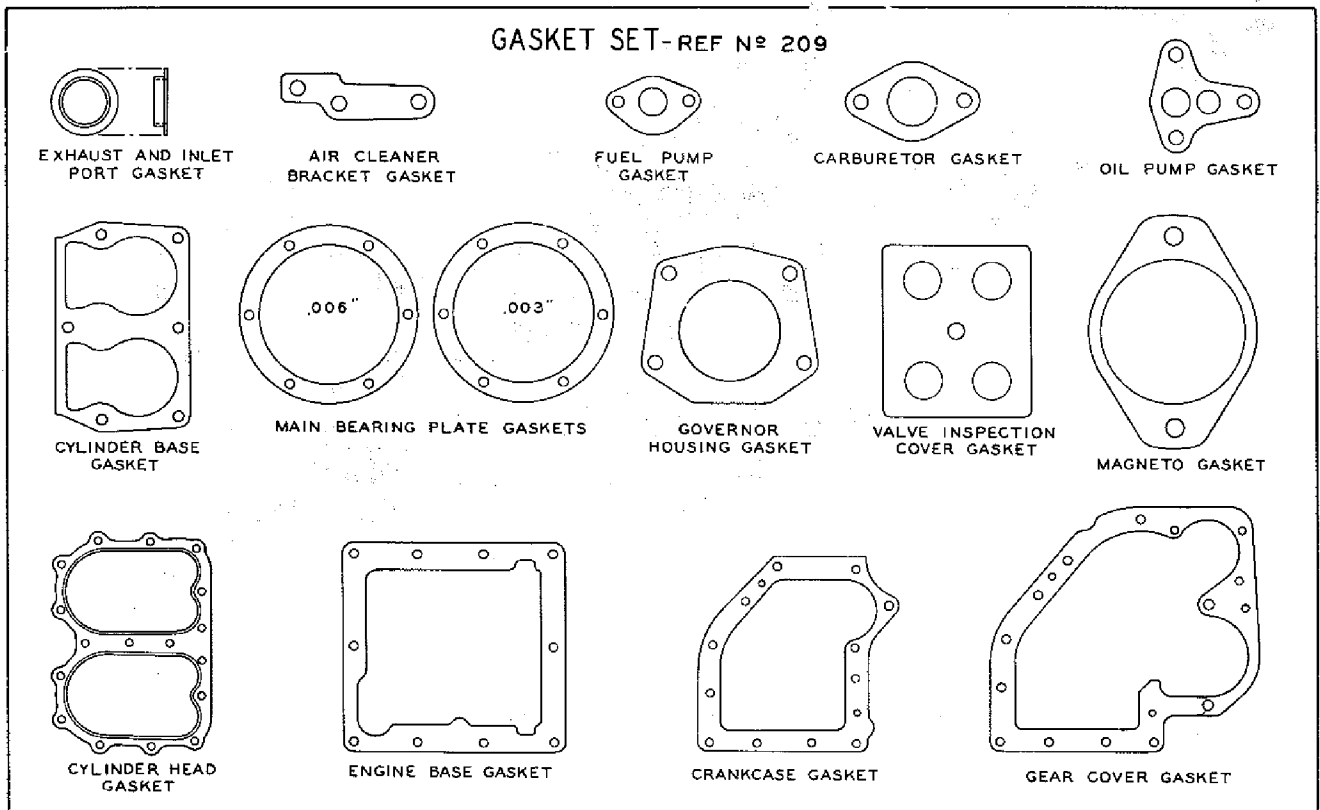
Parts are identified by reference number. See parts list for correct part number.

**PARTS FOR MODELS TE AND TF ENGINES**



**Fig. 53, AIR SHROUDING AND FUEL TANK GROUP**

151216C-1



**Fig. 54, GASKET SET**

Parts are identified by reference number. See parts list for correct part number.



## PARTS LIST

### MODELS TE and TF – 2 CYLINDER STANDARD ENGINE

ENGINES HAVING STELLITE EXHAUST VALVES AND INSERTS ARE DESIGNATED AS MODELS TED AND TFD.

The following parts are for a standard engine without house. If power unit house parts are required, refer to Page 42.

Ref. No.	Part Number		Description	No. Req.	Net Weight	
	TE	TF			Lbs.	Oz.
101	AA-85-S22	AA-86A-S22	<b>CYLINDER BLOCK ASSEMBLY</b> , standard..... Complete with valves, guides, springs, seats, locks and inserts. PC-110 Studs for mounting manifold must be ordered separately. AA-86-S22, replaced by AA-86A-S22.	1	30	
	AA-85-S19 (TED)	AA-86A-S19 (TFD)	<b>CYLINDER BLOCK ASSEMBLY</b> , complete with <b>STELLITE</b> exhaust valves and inserts, guides, springs, seats, locks, studs, inspection plate, gasket, screw and pin. AA-86-S19, replaced by AA-86A-S19.			
102	AB-100-B		<b>CYLINDER HEAD</b> ..... AB-80-E Cylinder Head, replaced by AB-100-B.	1	2	13
		AB-100	<b>CYLINDER HEAD</b> ..... AB-86 Cylinder Head, replaced by AB-100.	1	4	
103	DB-209		<b>PISTON</b> , standard size..... DB-187B-1 Piston, replaced by DB-209. DB-208 Piston, replaced by DB-209. <b>NOTE:</b> These pistons are interchangeable only in sets.	2		8
		DB-210	<b>PISTON</b> , standard size..... DB-190 Piston, replaced by DB-210, interchangeable only in sets. Pistons are also furnished .005", .010", .020", .030" oversize and semi-finished.	2		9
104	DR-19	DR-20	<b>PISTON RING SET</b> , standard size ..... Consisting of	1		5
105	DC-109	DC-112-A	<b>OIL RING</b> .....	2		1
106	DC-163	DC-125-2	<b>COMPRESSION RING</b> .....	4		1
107	DC-163-1	DC-210	<b>SCRAPER RING</b> ..... DC-125-3, replaced by DC-210. Piston rings and ring sets are also furnished .005", .010", .020" and .030" oversize.	2		1
110	L-48-L (ZENITH No. 10627-B)	L-48-J (ZENITH No. 10595-C)	<b>CARBURETOR</b> , Zenith Model 161-7..... For engines with fuel pump.	1	2	15
	L-48L-1	L-48J-1 (ZENITH No. 11774)	<b>CARBURETOR</b> for engines with fuel pump and generator-distributor ignition .....			
	L-48-D (ZENITH No. 5-1548-B)	L-48-C (ZENITH No. 5-1329-C)	<b>CARBURETOR</b> , Zenith Model 161-7 ..... For power unit engines with gravity feed fuel system.	1	2	15
	L-48D-1	L-48C-1	<b>CARBURETOR</b> for power unit engines with generator-distributor ignition and gravity feed fuel system .....			
115	XD-148		<b>SCREW</b> , 5/16"-18 thread x 1-5/8" long, hexagon head..... For valve inspection cover plate, No. 1 cylinder.	1		2
		XD-21	<b>SCREW</b> , 5/16"-18 thread x 1-1/2" long, hexagon head..... For valve inspection cover plate, No. 1 cylinder.	1		2

Order parts from nearest **SERVICE STATION** shown in directory following parts list.

**IMPORTANT:** Always give Model, Specification and Serial Numbers as shown on name plate.

## PARTS INTERCHANGEABLE ON MODELS TE AND TF

Ref. No.	Part Number	Description	No.			Net Wt.			Ref. No.	Part Number	Description	No.			Net Wt.		
			Req	Lb	Oz	Req	Lb	Oz				Req	Lb	Oz	Req	Lb	Oz
119	AD-41	VALVE STEM GUIDE for engines beginning with Serial No. 2247771 .....	4		2				125	BB-126-A	OIL PAN and ENGINE BASE .....	1	21				
		For open engine.															
120	AE-75-B	VALVE, inlet and exhaust, standard .....	4		3					BB-126A-1	ENGINE BASE, for engine covered with sheet metal house (Has tapped holes for mounting house panels) .....		21				
	AE-75-D	STELLITE EXHAUST VALVE .....	2		3												
		For TED and TFD engines. Valves are also furnished with .004" oversized stem.								126	BD-103B-S1	GEAR COVER ASSEMBLY .....	1	8			
121	AF-49-A	VALVE SPRING, standard .....	4		2							Consisting of: 1 BD-103-B Gear cover 1 PF-25 Pipe plug 1 PF-52 Button 1 PH-299 Oil seal 1 SA-26 Plug 1 TC-388-2 Governor shaft BD-103-S1 Cover, replaced by BD-103B-S1.					
	AF-51	VALVE SPRING, (1-31/32" approx. free length) for TED and TFD engines with Stellite exhaust valves .....	2		2					127	BG-209	BEARING RETAINER PLATE .....	1	10			
		(2-5/16" approx. free length).															
122	AG-26	SEAT for valve spring .....	4		1					128	BG-224-S1	MAIN BEARING PLATE ASSEMBLY .....	1	4	8		
123	AH-9	LOCK for valve spring seat .....	4pr		1							take-off end. Consisting of: 1 BG-224 Bearing plate 1 HF-261 Cork seal 1 SD-43 Cork retainer					
124		CRANKCASE ASSEMBLY .....	1	30							BG-224-S2	MAIN BEARING PLATE ASSEMBLY .....		5			
		Consisting of: 1 Crankcase 1 JK-50 Primer packing 1 PA-332 Primer stop pin 6 PC-337 Studs 1 PD-78 Nut 2 PE-3 Lockwashers 1 PE-46 Lockwasher 2 PF-18 Plugs 1 PM-163 Primer spring 1 QD-670 Gasket 1 RF-270 Elbow 1 RF-1196 Spray nozzle 1 RF-1199 Header tube 1 SA-10 Plug 1 SA-52 Plug 1 SA-92 Cover 1 TA-124 Primer shaft 1 TA-125 Primer handle 2 XD-6 Screws 1 XK-121 Plug											Consisting of: 1 BG-224 Bearing plate 1 HF-261 Cork seal 1 ME-130-2 Main bearing cup 1 SD-43 Cork retainer				
		<b>NOTE:</b> The part number of the crankcase is stamped on the case in the location shown in Fig. 1. <b>ORDER BY THIS NUMBER</b> and by giving the Model, Specification and Serial Number of the engine.								130	BI-286-S1	AIR CLEANER BRACKET ASSEMBLY .....	1	1	10		
												Consisting of: 1 BI-286 Bracket 1 LO-84 Breather assembly 1 PC-447 Stud					
										131	BK-79-A	BRACKET for fuel tank .....	1	3	12		
											BK-80	FUEL TANK BRACKET .....		5			
												For engine with electric starter.					
										132		CRANKSHAFT ASSEMBLY .....	1	26	8		
												Consisting of: 1 Crankshaft 1 GA-36A-1 Gear 1 ME-71 Bearing, flywheel end 1 ME-130 Bearing, take-off end 1 PL-53 Key					
												<b>NOTE:</b> The part number of the crankshaft will be found stamped on the counterweight as illustrated in Fig. 2. <b>ORDER BY THIS NUMBER</b> and by giving Model Specification and Serial Number of the engine.					

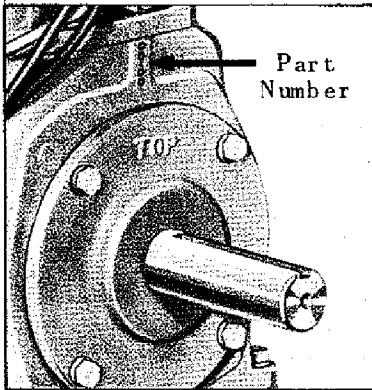


Fig. 1 152521C

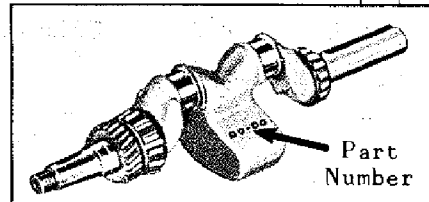


Fig. 2 152520C

Order parts from nearest **SERVICE STATION** shown in directory following parts list.

**IMPORTANT:** Always give Model, Specification and Serial Numbers as shown on name plate.

**PARTS INTERCHANGEABLE ON MODELS TE AND TF**

Ref. No.	Part Number	Description	No. Req.	Net Wt.		Ref. No.	Part Number	Description	No. Req.	Net Wt.	
				Lb	Oz					Lb	Oz
135	DA-51B-51	<b>CONNECTING ROD ASSEMBLY</b> ..... Consisting of: 1 DA-51-B Connecting rod (not furnished separately), 1 HG-157A Bushing 2 PB-148 Bolts 2 PD-10 Nuts 2 PD-181 Palnuts 2 QA-114 Shims Connecting rods are also furnished .010", .020" and .030" undersize.	2	1	7	158	LO-83	<b>OIL BATH AIR CLEANER</b> , United Specialties No. T-12B12..... Service parts: United Specialties Part No. 179B4 Cap and filter assembly ..... A-7419 Mounting gasket..... 615A1 Filter gasket..... 176B8 Oil cup assembly..... LO-83, United Specialties No. B-13845—replaced by LO-83, United Specialties No. T-12B12, Interchangeable as a unit only. The old LO-83, United Specialties No. B-13825 consists of: 10792 Cap E-13829 Filter unit E-13831 Oil cup A-7419 Base gasket	1		2
136	DE-65	<b>PISTON PIN</b> , standard size ..... Piston pins are also furnished .010", .020" and .030" oversize.	2		3	158A			1		
137	EA-106	<b>CAMSHAFT</b> .....	1	3	6	158B			1		
138	F-61	<b>VALVE TAPPET</b> with lockscrew ..... FA-40-B Tappet—replaced by F-61.	4		4	158C			1		
139	GA-36A-1	<b>CRANKSHAFT GEAR</b> .....	1		14	158D			1		
140	GB-45A-2	<b>CAMSHAFT GEAR</b> .....	1	2	2						
141	GD-93C-1	<b>MAGNETO GEAR</b> .....	1		9		<b>OPTIONAL</b>				
142	GD-100A-1	<b>GOVERNOR GEAR</b> ..... GD-100-A Gear—replaced by GD-100A-1.	1		7	159	LO-98	<b>OIL BATH AIR CLEANER</b> with pre-cleaner, U.S. No. 12C2 ..... Service parts: U.S. Part Numbers. A-16380 Pre-cleaner cap assembly ..... B-16382 Pre-cleaner body assembly ..... 180B2 Air cleaner cap assembly ..... A-11812 Wing nut for top..... 990A1 Wing nut on side..... 615B2 Rubber spacer gasket..... A-7421 Gasket for filter unit ..... A-17936 Filter unit ..... A-17752 Body assembly ..... A-7419 Mounting gasket .....	1		5
143	HF-261	<b>CORK OIL SEAL</b> .....	1		1	159A			1		
144	HG-157A-1	<b>PISTON PIN BUSHING</b> .....	2		1	159B			1		1
145	HG-201	<b>VALVE SEAT INSERT</b> , standard .....	4		1	159C			1		1
	HG-201-D	<b>STELLITE EXHAUST VALVE SEAT INSERT</b> , for TED and TFD engines ....	2		1	159D			2		
146	JK-50	<b>'O' RING OIL SEAL</b> .....	1		1	159E			1		
		For fuel pump primer shaft.				159F			1		
147	JK-52	<b>'O' RING OIL SEAL</b> for governor cross shaft, beginning with engine Serial No. 1604246—replaces PH-318A Oil Seal and PF-118 Retainer—for engines to and including Serial No. 1604245. Not interchangeable unless complete TC-428-C Governor Cross Shaft and Lever Assembly, which includes JK-52 'O' Ring, is ordered.	1		1	159G			1		
						159H			1		1
						159J			1		1
						159K			1		
148	KA-63B-1-S1	<b>OIL PUMP BODY ASSEMBLY</b> ..... Beginning with engine Serial 1139705. Consisting of: 1 KA-63B-1 Body 1 KF-28 Retainer 1 KF-30 Insert 1 ME-38 Ball 1 PM-165-1 Spring 1 SA-93 Plug KA-63A-S1 and KA-63B-S1 Oil Pump Assembly—replaced by KA-63B-1-S1, Interchangeable. KA-63-S1 Oil Pump Assembly (for engines to and including Serial 1139704)	1		6	160	LO-84-C	<b>BREATHER ASSEMBLY</b> .....	1		
								Mounted in air cleaner bracket. LO-84—replaced by LO-84-C.			
149	KF-23-1	<b>OIL PUMP PLUNGER</b> ..... KF-23 Plunger—replaced by KF-23-1.	1		2	161	LP-43	<b>FUEL STRAINER</b> (small) Tillotson No. OW-480-T ..... Mounted to fuel pump inlet, beginning with engine Serial No. 1893056. LP-19-B Strainer (large) mounted to carburetor, for engines to and including Serial No. 1893057—replaced by LP-43, interchangeable if fuel line to carburetor is also changed.	1		
150	KF-24	<b>OIL PUMP PUSH ROD</b> .....	3		2	162	LP-19-B	<b>FUEL STRAINER</b> (large) Tillotson No. OW-444 ..... Mounted to fuel tank, for engines with electric starter. <b>NOTE:</b> See illustration in back of manual for service parts list of fuel strainers	1		
151	KF-25	<b>PUSH ROD CAP</b> .....	1		1	163	LP-42-A	<b>FUEL PUMP</b> , Blackstone No. GI-205.....	1		1
152	KF-28	<b>RETAINER</b> for oil pump outlet ball..... SA-26-1—replaced by KF-28.	1		1	164	LQ-28	<b>REPAIR KIT</b> for fuel pump ..... <b>NOTE:</b> Refer to fuel pump instruction sheet in back of manual for maintenance and repair.	1		
153	LC-266-A	<b>INLET MANIFOLD</b> .....	1	1	4	165	ME-38	<b>CHECK BALL</b> , for oil pump, 5/16" dia. steel .....	2		
154	LD-242	<b>EXHAUST MANIFOLD</b> .....	1	3	8	166	ME-71	<b>MAIN BEARING ASSEMBLY</b> ..... Flywheel end. Consisting of: 1 ME-69-1 Bearing cup—Timken 414..... 1 ME-71-1 Bearing cone—Timken 420.....	1	1	1
155	LJ-192	<b>PIPE NIPPLE</b> for muffler, 1 1/4" x 4 1/2" long, for open engine .....	1		10	167			1		
	LJ-188	<b>PIPE NIPPLE</b> for muffler, 1 1/4" x 6" long, for engine covered with sheet metal house .....	1		12	168	ME-130	<b>MAIN BEARING ASSEMBLY</b> ..... Take-off end. Consisting of: 1 ME-130-1 Bearing cone—Timken 26881 1 ME-130-2 Bearing cup—Timken 26822A	1		1
156	LK-5	<b>HOSE CLAMP</b> for air cleaner connection 1-5/8" I.D. ....	2		1	169					
157	LL-92	<b>HOSE CONNECTION</b> for air cleaner .....	1		3	170					
						171	NC-145-C	<b>FLYWHEEL</b> .....	1		33
								NC-145-B—replaced by NC-145-G.  (Continued)			

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## PARTS INTERCHANGEABLE ON MODELS TE AND TF

Ref. No.	Part Number	Description	No.		Net Wt.		Ref. No.	Part Number	Description	No.		Net Wt.	
			Req		Lb	Oz				Req		Lb	Oz
	NC-145G-1-S1	<b>FLYWHEEL</b> for engines with electric starter. Includes: 1 GH-46 Ring gear 3 XE-17 Set screws NC-145B-1-S1—replaced by NC-145G-1-S1		34			201	PL-83	<b>KEY</b> for flywheel, No. 23 Woodruff .....	1		1	
172	PA-333	<b>PIN</b> for starting crank nut .....	1		1		203	PM-58	<b>SPRING</b> for oil pump plunger .....	1		1	
		PA-239 Pin—replaced by PA-333.					204	PM-75	<b>SPRING</b> for governor .....	1		1	
173	PA-332	<b>PIN</b> for fuel pump primer stop.....	1		1		205	PM-108	<b>SPRING</b> for camshaft thrust plunger.....	1		1	
		PA-281 Groov-pin—replaced by PA-332.					206	PM-163-A	<b>SPRING</b> for fuel pump primer handle .....	1		1	
174	PA-291	<b>DOWEL PIN</b> for gear cover to crankcase	2		1			207	PM-165-1	<b>SPRING</b> for oil pump outlet.....	1		1
175	PA-340	<b>ROLL PIN</b> for governor flyweights .....	2		1				PM-162 and PM-165 Springs—replaced by PM-165-1.				
		XJ-47 Rivet—replaced by PA-340 roll pin					209	Q-21	<b>GASKET SET</b> (Fig. 54).....	1		8	
176	PB-148-S1	<b>CONNECTING ROD BOLT ASSEMBLY</b> ..	4		1				Consisting of: 3 QE-75 1 QD-613-C 1 QD-661-A 1 QC-58-A 1 QD-616 1 QD-662-A 9 QD-487-A 1 QD-617 1 QD-663-A 1 QD-487-B 1 QD-639-A 1 QD-667 2 QD-612-A 1 QD-660 1 QD-670				
		Consisting of: 1 PB-148 Bolt 1 PD-10 Nut 1 PD-181 Palnut							Q-20 Gasket set for TE engine—replaced by Q-21.				
177	PB-169-A	<b>VALVE TAPPET ADJUSTING SCREW</b> ..	4		1		210	QA-114	<b>CONNECTING ROD SHIM</b> .....	4		1	
		For F-61 Tappet. PB-169 Adj. screw—replaced by PB-169A PB-147 Screw with PD-141 nut for obsolete FA-40-B tappet.					211	QB-75	<b>GASKET</b> for manifold mounting .....	3		1	
178	PC-110	<b>STUD</b> for manifold to cylinder block mounting .....	2		1		212	QC-58-A	<b>GASKET</b> for carburetor mounting .....	1		1	
179	PC-337	<b>STUD</b> for cylinder block to crankcase mounting .....	6		1		213	QD-487-A	<b>GASKET</b> for main bearing plate, .006" thick .....	9		1	
180	PC-447	<b>STUD</b> for air cleaner to bracket mounting	1		1		214	QD-487-B	<b>GASKET</b> for main bearing plate, .003" thick .....	1		1	
181	PD-173-A	<b>NUT</b> for governor adjusting screw.....	1		1		215	QD-612-A	<b>GASKET</b> for valve inspection cover .....	2		1	
182	PD-181	<b>PALNUT</b> for connecting rod bolt, 5/16-24 .....	4		1		216	QD-613-C	<b>GASKET</b> for cylinder head .....	1		4	
									QD-613-B for TE engine—replaced by QD-613-C.				
183	PE-59	<b>WASHER</b> for starting cranknut, 1" external Everlock.....	1		1		217	QD-616	<b>GASKET</b> for magneto mounting.....	1		1	
184	PF-52	<b>BUTTON</b> for camshaft thrust plunger .....	1		1		218	QD-617	<b>GASKET</b> for cylinder block to crankcase	1		1	
185	PF-101	<b>CAMSHAFT THRUST PLUNGER</b> .....	1		1		219	QD-638-A	<b>GASKET</b> for governor housing .....	1		1	
									QD-638 Gasket—replaced by QD-638-A.				
189	PG-314	<b>CLIP</b> for spark plug cables .....	1		1		220	QD-660	<b>GASKET</b> for gear cover to spacer .....	1		1	
190	PG-315	<b>CLIP</b> for mounting flywheel screen to shroud .....	4		1		221	QD-661-A	<b>GASKET</b> for gear cover spacer to crankcase .....	1		1	
									QD-661 Gasket—replaced by QD-661-A.				
191	PG-488	<b>FUEL TANK STRAP</b> .....	2		8		222	QD-662-A	<b>GASKET</b> for engine base to crankcase ..	1		1	
		<b>NOTE:</b> Early model engines had fuel tank mounted with steel binder strapping which is not serviceable. For replacement, order 2 each of PG-488 straps, XA-52 screws, PD-77 nut and PE-3 lock-washers.					223	QD-663-A	<b>GASKET</b> for oil pump to crankcase .....	1		1	
									QD-663 Gasket—replaced by QD-663-A.				
193	PH-299	<b>CRANKSHAFT OIL SEAL</b> in gear cover	1		2		224	QD-667	<b>GASKET</b> for air cleaner bracket to gear cover.....	1		1	
194	PH-313-A	<b>SHIM</b> for governor bushing.....	1		1		225	QD-669	<b>GASKET</b> for breather (Part of LO-84 assembly).....	1		1	
195	PH-356	<b>CLAMP WASHER</b> for manifold mounting..	2		1		226	QD-670	<b>GASKET</b> for fuel pump or pad cover mtg.	1		1	
196	PH-387	<b>SPACING WASHER</b> for oil strainer .....	1		1		227	RC-77-5	<b>CAP</b> for fuel tank .....	1		3	
197	PI-115F-1	<b>SCREW</b> for adjusting governor spring .....	1		2		228	R-123	<b>OIL FILLER and GAUGE ASSEMBLY</b> ..	1		7	
									Consisting of: 1 LJ-310 1/2" Pipe Nipple, 1 1/2" long .. 1 RB-86 Body .....				
198	PK-50-A	<b>RETAINER</b> for oil pump check ball.....	1		1				1 RC-106-S1 Cap and Gauge Assembly ..				
		PK-50 Retainer—replaced by PK-50-A.							R-114-9—replaced by R-123.				
199	PK-52	<b>RETAINING RING</b> for piston pin.....	4		1		230	RD-107-A	<b>OIL STRAINER</b> .....	1		1	
200	PL-53	<b>KEY</b> for crankshaft gear, No. 8 Woodruff.	1		1				RD-107 Strainer—replaced by RD-107-A.				

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## PARTS INTERCHANGEABLE ON MODELS TE AND TF

Ref. No.	Part Number	Description	No. Req.	Net Wt.		Ref. No.	Part Number	Description	No. Req.	Net Wt.	
				Lb	Oz					Lb	Oz
231	RF-269	<b>STRAIGHT FITTING</b> ..... 1-for oil line to governor housing. 1-in carburetor for fuel line. 1-in fuel strainer (when mounted to fuel tank).	3		1	250	SE-138-B	<b>AIR SHROUD HEAT DEFLECTOR</b> for engines beginning with Serial 1873091.. SE-138 Deflector for engines to and including Serial 1873090, interchangeable with SE-138-B if SE-136-B cylinder shroud is used.	1		12
232	RF-270	<b>ELBOW</b> for 1/4" tubing nut..... 1-in fuel strainer. 1-in fuel pump outlet.	2		1	251	TA-126	<b>FUEL PUMP PRIMER SHAFT and HANDLE ASSEMBLY</b> ..... With JK-50 'O' ring oil seal.	1		1
233	RF-270-4	<b>RESTRICTED ELBOW FITTING</b> ..... 1 governor housing for oil line. RF-269-3 Straight fitting—replaced by RF-270-4 Elbow fitting.	1		1	252	T-96-S1	<b>GOVERNOR ASSEMBLY</b> ..... Consisting of: 1 TC-391-A Thrust sleeve & bearing. 1 TC-422B-S1 Housing assembly. 1 TC-405-A Flyweight assembly.	1	2	12
234	RF-1196	<b>OIL SPRAY NOZZLE</b> .....	1		1	253	TC-322-A	<b>GOVERNOR FLYWEIGHT</b> .....	2		3
235	RK-170	<b>OIL SLING</b> for crankshaft .....	1		2	254	TC-328	<b>GOVERNOR FLYWEIGHT THRUST PIN</b> .....	2		1
236	RK-178	<b>CUP</b> for oil strainer .....	1		1	255	TC-388-2	<b>GOVERNOR SHAFT</b> .....	1		2
237	RM-477	<b>FUEL LINE</b> , tank to strainer, 18" long.. Tubing with nuts. RM-450 Fuel line, 20" long—replaced by RM-477.	1		4	256	TC-389-1	<b>GOVERNOR GEAR BUSHING</b> .....	1		2
238	RM-849	<b>OIL LINE</b> , governor to crankcase, 6" long Tubing with nuts. RM-776 Oil line, 9 1/2" long—replaced by RM-849 but mount in upper tap of oil header tube in crankcase.	1		2	257	TC-391-B	<b>GOVERNOR THRUST SLEEVE and BEARING</b> .....	1		2
239	RM-1122	<b>FUEL LINE</b> , pump to carburetor, 6 1/2" long. Tubing with nuts .....	1		2	258	TC-405-A	<b>GOVERNOR FLYWEIGHT ASSEMBLY</b> .. Consisting of: 1 GD-100A-1 Gear 2 PA-340 Roll pin 1 PH-313-A Shim 2 TC-322-A Flyweights 2 TC-328 Pins 1 TC-389-1 Bushing TC-405 Flyweight assembly—replaced by TC-405-A.	1		1
240	RM-1206	<b>SUCTION TUBE and ELBOW</b> .....	1		3	259	TC-422B-S1	<b>GOVERNOR HOUSING ASSEMBLY</b> ..... (Aluminum) Consisting of: 1 JK-52 'O' ring 1 PF-18 Plug 1 QD-638A Gasket 1 RF-270-4 Fitting 1 SA-52 Plug 1 TC-422-B Housing 1 TC-422-C Shaft and lever 1 VB-166 Yoke 1 XH-1 Pin TC-422-1-S1 and TC-422-2-S1 (cast iron) Housing assemblies—replaced by TC-422B-S1.	1		1
241	RM-1211	<b>SUCTION TUBE</b> for engines with electric starter (fuel strainer mounted to fuel tank) .....	1		3	260	TC-427-B	<b>SUPPORT PIN</b> for governor adjusting screw .....	1		2
243	SA-68	<b>COVER PLATE</b> for valve tappet inspection .....	2		2	261	TC-428-C	<b>GOVERNOR CROSS SHAFT &amp; LEVER</b> . With JK-52 'O' ring—beginning with engine Serial No. 1249047. TC-428-A Shaft and lever— for engines to and including Serial No. 1249046.	1		2
244	SD-43	<b>RETAINER</b> for main bearing cork oil seal, take-off end .....	1		1	263	U-212	<b>STARTING CRANK</b> .....	1		7
245	SD-153	<b>ENGINE INSTRUCTION and NAME PLATE</b> .....	1		1	264	UC-75-S1	<b>STARTING CRANK NUT ASSEMBLY</b> .... Consisting of: 1 PA-333 Pin 1 UC-75 Nut	1		1
246	SE-3	<b>FLYWHEEL SCREEN</b> .....	1		12	265	VB-166	<b>GOVERNOR YOKE</b> .....	1		2
247	SE-135	<b>FLYWHEEL AIR SHROUD</b> .....	1		7						
	SE-135-J	<b>SHROUD</b> with pad for mounting electric starter..... SE-135-A Shroud—replaced by SE-135-J.			8						
248	SE-136-B	<b>CYLINDER SHROUD</b> for engines beginning with Serial No. 1873091 .....	1	1	6						
		SE-136 Shroud for engines to and including Serial No. 1873090, interchangeable with SE-136B if SE-138B deflector is used.									
249	SE-137-B	<b>AIR SHROUD COVER</b> .....	1	1	6						
		SE-137 Cover—replaced by SE-137-B.									

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Ref. No.	Part Number	Description	No. Req.	Net Wt.		Ref. No.	Part Number	Description	No. Req.	Net Wt.	
				Lb	Oz					Lb	Oz
266	VE-693	<b>CHOKE CONTROL</b> ..... VE-575-A replaced by VE-693.	1		4	289	PD-78	<b>NUT, 5/16"-18 thread, hexagon steel</b> .... For oil spray nozzle.	1		1
267	VE-555-A	<b>GOVERNOR CONTROL ROD</b> to carburetor .....	1		1	291	PD-109	<b>NUT, 3/8"-24 thread, hexagon brass</b> ..... For manifold to cylinder block studs.	2		1
268	WD-26-A	<b>MUFFLER</b> .....	1	2	1	294	PD-147	<b>WING NUT, 1/4"-20 thread</b> .....	1		1
269	WE-293-1	<b>GEAR COVER SPACER</b> for engines beginning with Serial No. 1964973..... WE-293 Spacer— To and including Serial No. 1964972.	1	1	6	296	PE-3	<b>LOCKWASHER, 1/4" Positive</b> .....	28		1
270	WE-302-S1	<b>FUEL TANK ASSEMBLY</b> .....	1	5	12			2-for fuel tank straps. 3-for mounting oil pump to crankcase. 13-for mounting air shrouding. 4-for mounting governor housing. 4-for gear cover spacer to crankcase. 2-for mounting fuel pump.			
271	WE-302-S2	<b>TANK ASSEMBLY</b> with RM-1211 Suction tube for engines with electric starter .... (Fuel strainer mounted to tank). <b>NOTE:</b> Fuel tanks were mounted to the tank bracket with steel binder strapping which is not serviceable in the field. When replacing fuel tank, order correct replacement straps.				297	PE-4	<b>LOCKWASHER, 5/16" Positive</b> .....	21		1
274	Y-80-S1	<b>MAGNETO</b> , with gear, Fairbanks-Morse No. FMX1-2B7 .....	1		7			2-for carburetor mounting. 3-for flywheel shroud to gear cover. 10-for gear cover and spacer to crankcase. 4-for mounting fuel tank bracket. 2-for mounting air cleaner bracket.			
	Optional	Y-52-S1 and Y-75-S1 — replaced by Y-80-S1.				298	PE-5	<b>LOCKWASHER, 3/8" Positive</b> .....	18		1
	Y-67A-S1	<b>MAGNETO</b> , with gear, Wico XH-2531 .... Y-55-S1 and Y-67-S1 — replaced by Y-67A-S1. <b>NOTE:</b> These engines are equipped with either a 'Fairbanks-Morse' or 'Wico' magneto as shown above. See magneto bulletins in back of manual for service replacement parts list.			6	299	PE-6	<b>LOCKWASHER, 7/16" Positive</b> .....	6		1
275	YD-6-S1	<b>SPARK PLUG</b> , 18mm, Champion No. D-16 or AC No. C86 Com.....	2		2	300	PE-46	<b>LOCKWASHER, 5/16" external Everlock</b> 3-for mounting camshaft gear. 1-for oil spray nozzle.	4		1
276	YD-12	<b>SPARK PLUG SAFETY NIPPLE</b> .....	2		1	301	PE-49	<b>LOCKWASHER, 5/16" countersunk Everlock</b> , for bearing retainer plate—flywheel end .....	4		1
277	YL-79	<b>MAGNETO IGNITION CABLE</b> to No. 1 cylinder, 24 1/2" long .....	1		2	302	PF-18	<b>PIPE PLUG, 1/8" slotted</b> .....	3		1
278	YL-120	<b>MAGNETO IGNITION CABLE</b> to No. 2 cylinder, 21 1/2" long .....	1		2			1-for governor housing. 2-for oil holes in crankcase.			
<b>STANDARD HARDWARE</b>											
<b>NOTE:</b> The following nuts, washers, capscrews and etc., are of a common hardware variety and can be purchased from local plumbing or hardware stores.											
285	PD-10	<b>NUT, 5/16"-24 thread, hexagon steel</b> .... For connecting rod bolts.	4		1	303	PF-25	<b>PIPE PLUG, 3/8" slotted</b> .....	1		1
286	PD-12	<b>NUT, 7/16"-20 thread, hexagon steel</b> .... For mounting cylinder block to crankcase.	6		1	305	PH-14	<b>PLAIN WASHER, 5/16" copper</b> .....	2		1
287	PD-79	<b>NUT, 3/8"-16 thread, hexagon steel</b> .....	1		1	306	PH-22-A	<b>PLAIN WASHER, 3/8" steel</b> .....	1		1
288	PD-77	<b>NUT, 1/4"-20 thread, hexagon steel</b> .....	2		1			For magneto mounting screw—lower hole.			
						307	PH-77-A	<b>PLAIN WASHER, 5/16" steel</b> .....	17		1
						309	RF-794-A	<b>PIPE NIPPLE, 1/8" x 3/4" long, brass</b> ..	1		1
						310	RF-948	<b>PIPE NIPPLE, 1/8" x 3" long</b> .....	1		1
						311	SA-10	<b>PLUG, 7/8" Expansion</b> .....	1		1
						312	SA-52	<b>PLUG, 1/2" Expansion</b> .....	2		1
						313	SA-93	<b>PLUG, 5/16" Expansion</b> .....	1		1

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**PARTS INTERCHANGEABLE ON MODELS TE AND TF  
STANDARD HARDWARE**

Ref. No.	Part Number	Description	No. Req.	Net Wt.		Ref. No.	Part Number	Description	No. Req.	Net Wt.	
				Lb	Oz.					Lb	Oz.
315	XA-33	SCREW, 1/4"-20 thread x 3/8" long, round head ..... 4-for mounting flywheel screen. 6-for mounting air shroud cover.	10		1	333	XD-19	SCREW, 5/16"-18 thread x 1 1/4" long, (special hardness) hexagon head ..... 8-for gear cover and spacer mounting. 15-for mounting cylinder head.	23		2
316	XA-34	SCREW, 1/4"-20 thread x 1/2" long, round head ..... For air shroud to cylinder block, lower holes.	4		1	334	XD-21	SCREW, 5/16"-18 thread x 1 1/2" long, (special hardness) hexagon head ..... For mounting cylinder head.	2		2
317	XA-36	SCREW, 1/4"-20 thread x 3/4" long, round head ..... For air shroud to cylinder block, upper hole, fan end.	1		1	336	XD-27	SCREW, 3/8"-16 thread x 1" long, hexagon head ..... 4-for main bearing plate—take-off end. 6-for mounting engine base.	12		2
318	XA-38	SCREW, 1/4"-20 thread x 1" long, round head ..... For air shroud to cylinder block, upper hole, take-off end.	1		1	337	XD-33	SCREW, 3/8"-16 thread x 2 1/4" long, hexagon head ..... For mounting magne	2		2
319	XA-52	SCREW, 1/4"-20 thread x 1 1/2" long, round head ..... For fuel tank straps.	2		1	338	XD-34	SCREW, 3/8"-16 thread 2 1/4" long, hexagon head ..... For mounting engine base—from bottom. XD-113 Screw, 2 1/4" long—replaced by XD-34.	2		2
320	XA-67	SCREW, No. 4 x 1/4" long, self-tapping sheet metal ..... For mounting name and instruction plate.	4		1	340	XH-1	TAPER PIN, No. 0 x 3/4" long ..... For governor yoke.	1		1
322	XC-17	SCREW, 5/16"-18 thread x 3/4" long, flat head ..... For bearing retainer plate—flywheel end	4		1	341	XI-32	COTTER PIN, 3/64" x 3/8" long ..... For governor control rod.	1		1
324	XD-4	SCREW, 1/4"-20 thread x 1/2" long, hexagon head ..... For mounting spacer plate to crankcase	4		1	344	XK-1	PIPE PLUG, 1/8" square head ..... For tap in inlet manifold.	1		1
325	XD-5	SCREW, 1/4"-20 thread x 5/8" long, hexagon head ..... For mounting oil pump.	3		1	345	XK-3	PIPE PLUG, 3/8" square head ..... For oil drain.	2		1
326	XD-6	SCREW, 1/4"-20 thread x 3/4" long, hexagon head ..... 2-for mounting governor housing—lower holes. 2-for mounting fuel pump.	4		1	346	XK-121	PIPE PLUG, 1/8" Allen socket head ..... For oil header tube—front face of crankcase.	1		1
328	XD-11	SCREW, 1/4"-20 thread x 2" long, hexagon head ..... For mounting governor housing—upper holes.	2		1						
329	XD-13	SCREW, 5/16"-18 thread x 1/2" long, hexagon head ..... 3-for mounting air shroud to gear cover. 4-for mounting fuel tank bracket. PC-396 Studs for mounting fuel tank—replaced by XD-13.	7		1						
330	XD-14	SCREW, 5/16"-18 thread x 5/8" long, hexagon head ..... For gear cover to spacer plate—magneto side and upper hole.	2		1						
331	XD-16	SCREW, 5/16"-18 thread x 7/8" long, hexagon head ..... For mounting carburetor.	2		1						
332	XD-17	SCREW, 5/16"-18 thread x 1" long, hexagon head ..... 3-for mounting camshaft gear. 2-for mounting air cleaner bracket.	5		1						

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