## AGND ENGINE MODEL

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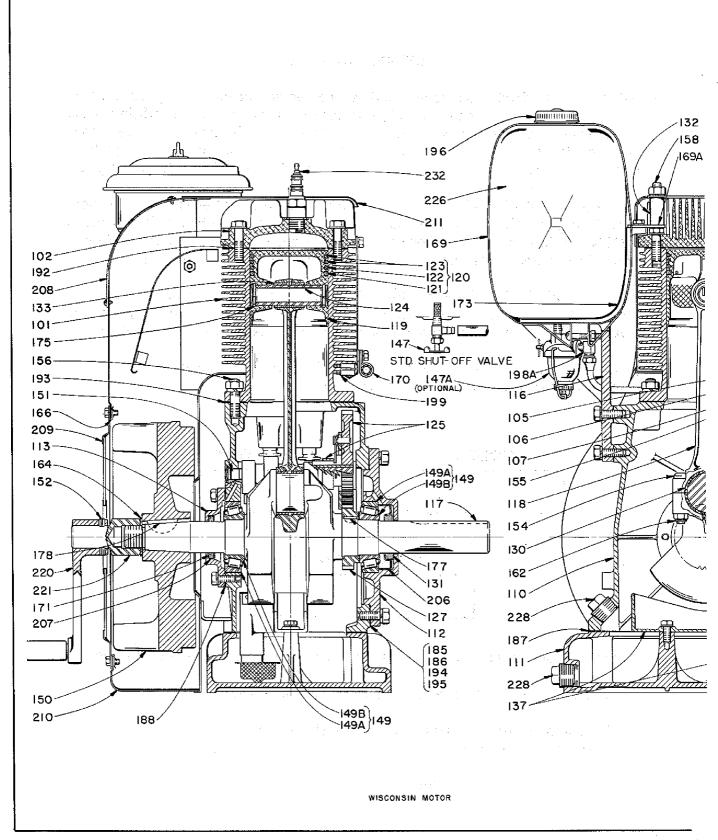
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The MODEL, SPECIFICATION and SERIAL NUMBER of your engine must be given when ordering parts. The MODEL, SPECIFICATION and SERIAL NUMBER are on the engine nameplate.



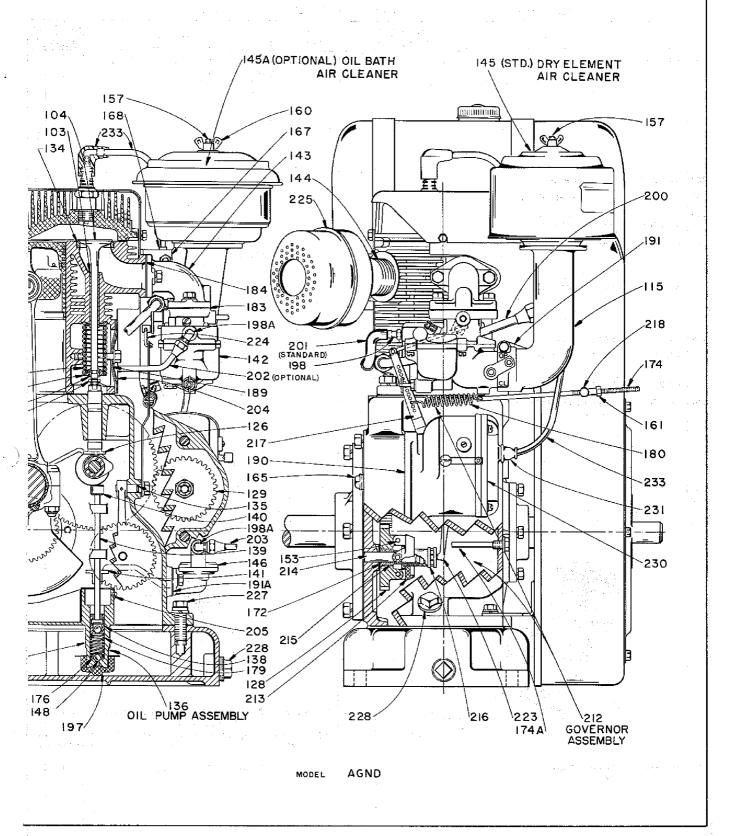
Sales Office

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#### **PARTS REFERENCE**

Parts are identified by reference number.



MODEL AGND

See parts list for correct part number.

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## STANDARD ENGINE PARTS LIST MODEL AGND

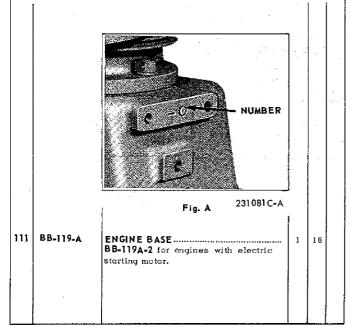
Accessories commonly supplied on this model engine begin on Page 31.

Ref.

Part

Complete - Consisting of:   1 AA-96-A Block   2 AH-9   Locks     2 AD-42   Guides   1 HG-150-A Seat     1 AE-87   Valve   1 HG-150-D Seat     1 AE-87-D Valve   1 PH-14   Washer     1 AF-52   Spring   1 QD-612-A Gasket     1 AF-55   Spring   1 SA-68   Cover     1 AG-26   Seat   1 XD-148   Screw     1 AG-31   Rotator     102   AB-102-A   CYLINDER HEAD   1     103   AD-42   VALVE STEM GUIDE   2     104   AE-87   INLET VALVE   1     105   AF-52   VALVE SPRING, inlet   1     3-1/8" approx. free length. Spring rated at 85 pounds when compressed to approx. 2" height.   AF-55   VALVE SPRING, exhaust, for engine with VALVE ROTATOR. 2-3/4" free length. Spring rated at 85 pounds when compressed to approx. 1-7/8" height.  106   AG-26   SEAT for inlet valve spring   1     VALVE ROTATOR and SPRING SEAT   1     For exhaust valve spring.   2 pr     107   AH-9   LOCK for valve spring seat   2 pr     108   CRANKCASE ASSEMBLY   1   3     Consisting of:					
101	AA-96-A-ST	Complete - Consisting of:  1 AA-96-A Block 2 AH-9 Locks 2 AD-42 Guides 1 HG-150-A Seat 1 AE-87 Valve 1 HG-150-D Seat 1 AE-87-D Valve 1 PH-14 Washer 1 AF-52 Spring 1 QD-612-A Gasket 1 AF-55 Spring 1 SA-68 Cover 1 AG-26 Seat 1 XD-148 Screw	1	25	
		2 AD-42 Guides I HG-150-A Seat 1 AE-87 Valve I HG-150-D Seat 1 AE-87-D Valve I PH-14 Washer 1 AF-52 Spring I QD-612-A Gasket 1 AF-55 Spring I SA-68 Cover 1 AG-26 Seat I XD-148 Screw			
		1 AG-31 Mototor			
102	AB-102-A	CYLINDER HEAD	1	2	6
103	AD-42	VALVE STEM GUIDE	2		1
1 1 .			:		4
105	AF-52	3-1/8" approx. free length. Spring rated at 85 pounds when compressed to ap-	1		2
	AF-55	with VALVE ROTATOR. 2-3/4" free length. Spring rated at 85 pounds when	1		2
106	A G-26	SEAT for inlet valve spring	í		1
	A G-31		1		1 .
107	AH-9	LOCK for valve spring seat	2 pr		1
110 5	See Fig. A		1	30	

**NOTE:** The basic standard crankcase part number is **BA-54.** Any special machining is indicated by a number stamped in the location shown in **FIG. A.** Add this number to **BA-54.** Order by complete number and by giving the Model, Spec. and Serial Numbers of engine.



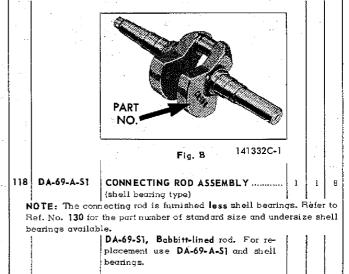
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-	ło.	Number	Description	Req	LЬ	Οz
1	re	OTE: Engines quire a special	MAIN BEARING PLATE ASSEMBLY Take-off end. Consisting of: 1 BG-105A-2 Plate 1 HF-236 Seal 1 ME-66-1 Bearing cup 1 SD-35 Retainer equipped with a clutch, or clutch redu main bearing plate as specified in rear et these accessories are located.			
	113	BG-125-51	BEARING RETAINER PLATE ASSEMBLY, Flywheel end	1	1	2
	175	B1-332-S1	AIR CLEANER BRACKET ASSEMBLY Consisting of: 1 BI-332 Bracket 1 QD-647 Gasket 1 XD-8 Screw	1		8
-	116	B[-333-A B[-333A-S]	FUEL TANK BRACKET, only, for eng's. beginning with Serial No. 2960485. FUEL TANK and BRACKET ASSEMBLY BI-333 Bracket for engines to and including SerialNo. 2960484. For replace-	l .	7	8
	117	See Fig. B	ment, order BI-333A-S2 Tank and Bracket Assembly.  CRANKSHAFT ASSEMBLY  Consisting of: 1 Crankshaft 1 GA-30-B Gear 2 ME-66 Bearings	1	18	8

No. Net Wt.

NOTE: The basic crankshaft part number is CA-73. Dosh numbers are added to the basic part number to identify special machining at the take-off end. The dash (-) number will be found stamped on the cheek facing the take-off end of the shaft, as illustrated in Fig. B. Order by complete part number, (dash number added to basic number) and by giving the model, spec. and serial numbers of engine.

Key

1 PL-55



Ref. No.	Part Number	Description	No. Reg				₹ef. No.	Part Number	Description	No. Reg		
119	DB-220	PISTON, cam ground, standard size NOTE: Pistons are available, .010", .020", .030" oversize.	1		13		138	KF-14-S1	OIL PUMP PLUNGER ASSEMBLY Consisting of: 1 KF-14 Plunger	1		2
120	DR-32	PISTON RING SET, standard size Consisting of:	l		4				1 ME-38-A Ball 1 PA-217 Pin			
121 122 123		OIL RING	1 1 2		1 1 1			Ķ F•18-1	OIL PUMP PUSH ROD, S-27/32" long KF-26-4 4-3/16" long rod, for engines with fuel pump		-	2
	DR-43	TRI-CROME RE-RING SET, Std. size010", .020", .030" oversize available.			6		140	KF-19-A KF-29-B	PLUNGER for engines with fuel pump			1 2
124	DE-63	PISTON PIN, standard size	1		4		142	L-63-A-51	CARBURETOR, Zenith No. 12188	1	1	4 2
125	EA-115-B-S1	CAMSHAFT and GEAR ASSEMBLY Beginning with Serial No. 4394816. Includes:	1	2	8			Optional L-64-A-SI	CARBURE TOR, Marvel-Schebler No. TSX-770.			
		Compression release PA-216 Support pin					on	carburetor nar	carburetors are identified by Part Numb ne plate. Refer to this number for servic or parts. See carburetor bulletins in back	e re	plac	:e <del>-</del>
		EA-115-S1 (without compression release) For replacement use EA-115-B-S1.					for	service replac	cement parts list.	1	. 1	1
126	F-63	VAL VE TAPPET with lockscrew	2		4	11	143	LC-276	INTAKE MANIFOLD	l i		6
127 128	GA-30-B GD-124-A	GOVERNOR GEAR and FLYWEIGHT ASSEMBLY			12		144	LJ-312	NIPPLE, 1¼" x 2¾" long, W.1. pipe For exhaust muffler mounting.	1		6
		Consisting of: 1 GD-124 Geor 2 TC-322E Flyweights 2 PA-340 Pins 2 TC-328D Pins 1 PH-313A Shim 1 TC-389A Bushing					145	LO-175 (Standard)	AIR CLEANER — Dry Element type Service parts: LO-175-B Element		1	4
129	GD-125	MAGNETO GEAR	1		12				LO-175-D Body SD-295 Decal			8
130	HA-132-5	SHELL BEARING (2 halves) std. size For connecting rod  NOTE: The following undersize shell bearing are also available: HA-132-S1	ľ		4		1454	LO-24 (Optional)	AIR CLEANER — Oil Bath type	1 1 1	1	12 2 6 1
131	HF-236	CORK O!L SEALFor main bearing, take-off end.	1		1		146	LP-42-G-51 LQ-28	REPAIR KIT for fuel pump	1		10
132	HF-550 HG-131-C	SPACER for air shroud cover stud  PISTON PIN BUSHING	1		1				sheet in back of manual for maintenance and repair.			
134	HG-150-A HG-150-D	VALVE SEAT INSERT, inlet	1		1		147 147 A	RG-41 Optional LP-43	SHUT-OFF VALVE and STRAINER (standard) FUEL STRAINER	1		5
135		'O' RING for governor lever fulcrum pin OIL PUMP ASSEMBLY complete	1		. 1				LQ-31 Repair Kit (bowl, gasket, screen) NOTE: See illustration in back of parts list for service replacement parts.			
		Consisting of:  1 KA-85-S1 Body ossembly  1 KF-18-1 Push rod  1 KF-19-A Cap  2 PE-4 Lockwashers  2 XD-15 Capscrews					148	ME-38-A ME-66	CHECK BALL for oil pump, 5/18" dia. steel	1 2	1	1
137	KA-65-51	OIL PUMP and BODY ASSEMBLY  Consisting of:  1 KA-65 Body 1 PM-58 Spring 1 KF-14-S1 Plunger 1 RD-107-A Screen 1 ME-38-A Ball 1 SA-109 Cover 1 PK-50-A Retainer 2 XA-67 Screws		2	3		149A 149B		Consisting of:  1 ME-66-1 Cap *  1 ME-66-2 Cone *  * Not sold separately.	1	,	

Ref. No.	Part Number	Description		Net Lb		Ref. No.	Part Number	Description		Net Lb	
150	NC-145-G	FLYWHEEL, Standard	1	33		180	PM-74	GOVERNOR SPRING, 1-1/32" free length of coils x 1/2" O.D			1
		No. 3,252,140. Incl. <b>GH-55</b> Ring Gear.  NC-145G-13-S1 for engine with starting					PM-75	2400 R.P.M.  GOVERNOR SPRING, 1-3/8" free length of coils x 9/16" O.D			1
		motor — to and including Serial No. 3,252,139. Includes <b>GH-46</b> Ring Gear. of the variations in flywheels; for mountinafts, flywheel alternators, etc., only the	-		- 1		PM-76	For engine speeds 2450 to 3000 R.P.M. GOVERNOR SPRING, 1-7/8" free length of coils x 17/32" O.D	-:		1
		rheels are listed. Therefore, give Model, ambers of engine when ordering new flywh	-	cifico	1-	181	Q-31	For engine speeds above 3000 R.P.M.  ENGINE GASKET SET (not illustrated)	1		6
151	PA-216	CAMSHAFT SUPPORT PIN	1		6.			Consisting of: 1 QC-71 1 QD-514-B 1 QD-647			
152	PA-333	ROLL PIN for hand cranking	1		ì			1 QC-71-A 1 QD-518 1 QD-712			
153	PA-340	ROLL PIN for governor flyweight	2		1			3 QD-479-A 1 QD-612-A 1 QD-713-A 2 QD-479-C 1 QD-616			
154	PB-146-1-51	CONNECTING ROD BOLT ASSEMBLY Includes: 1 PD-247 Nut.	2		2	183	QC-71	GASKET for carburetor flange	1		1
155 156	PB-169-A PC-337	VALVE TAPPET ADJUSTING SCREW STUD for mounting cylinder block	2 5		1 2	184	QC-71-A	GASKET for manifold to cylinder block QC-58-A, replaced by QC-71-A.	1		1
157	PC-372 PC-372-A	STUD for cil bath air cleaner, 3-3/8" lg. STUD for dry element cleaner, 3-9/16" lg.	1		l I	185	QD-479-A	GASKET for main bearingplate, T.O. end .006" to .007" thick.,	3		1
158	PC-3/2-A PC-526	STUD for mounting cylinderhead attank PC-498, replaced by PC-525.	1		2	186	QD-479-C	GASKET for main bearing plate, T.O. end .003" to .004" thick.	2		1
160	PD-147	WING NUT for air cleaner mounting	1		-1.	187	QD-514-B	GASKET for engine base	1		1
161	PD-147 PD-173-A	ADJUSTING NUT for governor spring			1	188	QD-518	GASKET for bearing retainer plate Flywheel end.			· 1
162	PD-247	LOCK NUT, 3/8"-24 thread (special)	2		1	189	QD-612-A	GASKET for valve inspection coverplate	1		<sub>1</sub>
		For connecting rod bolts.				190	QD-616	GASKET for magneto flange			1
164	PE-59	LOCKWASHER, 1" external Everlock	1		ı	191	QD-647	GASKET for air cleaner bracket slot	1	İ	1
		For starting crank nut.				1914	QD-670	GASKET for fuel pump mounting	ŀ.	ĺ	
165	XK-4	PLUG, 1/2" square head, pipe	1		1	192	QÐ-712	GASKET for cylinder head	1	-	1
144	PG-315	For timing hole in crankcase.				193	QD-713-A	GASKET for cylinder base	ł		1
167		SPEED NUT for flywheel screen mtg SUPPORT CLIP for dir cleaner brack et PG-343-A, PG-343-D, repl'd by PG-343-C.	1		1	194	QF-62	SHIM for main bearing plate, T.O. end013" to .014" thick.  * Use I or 2 as required.	*	i	1
168	PG-430	SUPPORT CLIP for ignition cable	1		1	195	QF-62-A	SHIM (obsolete) for main bearing plate.			
	PG-864 PG-891	FUEL TANK STRAP			4			T.O. end	**.		1.
l .	PG-961	CLIP for flexible fuel line	1		1	196	RC-122	FUEL TANK CAP (screw-type)	1		2
171	PH-193-1	For bearing plate, flywheel end.	1		1			RC-77 cap for obsolete WE-344 bayonet neck type tanks.			
172	PH-313-A	SHIM for gove mor gear bushing	1		1	197	RD-107-A	OIL PUMP SCREEN	1	İ	1
173	PH-479	FELT for fuel tank straps	2		1			RD-107, replaced by RD-107-A.			
174	PI-145-J	ADJUSTING SCREW for go v. spring	1		2	198	RF-1438	STRAIGHT FITTING (standard)	1		ľ
1744	PI-185	STOP SCREW, governor assembly	1		1		Optional	For flexible fuel line in carburetor.			
	PK-37-A	RETAINING RING for piston pin PK-37, replaced by PK-37-A.	2		1	1984	RF-1225	line	4		1
	PK-50-A	RETAINER for oil pump check ball	1		.1			2-for fuel pump:			
177	P.Ł55	WOODRUFF KEY, No. 6	1		1	199	RF-296	ELBOW for breather line	2		1
178	PL-83	WOODRUFF KEY, No. 23 For flywheel.	1		1	200	RM-1357	l-in air cleaner bracket.  BREATHER LINE, 3/8* tubing withnuts			
179	PM-58-E	SPRING for oil pump plunger	1		1			air cleaner bracket to cylinder block RM-185, replaced by RM-1357.	1		2

Ref. No.	Part Number	Description		Net Lb		Ref.	Part Number	Description		Net Lb	
201	LL-178-15	FLEXIBLE FUEL LINE, 15" long, 1/4" neoprene tubing	1			225	WD-66-S1	EXHAUST MUFFLER with LJ-312 pipe nipple	1	1	8
202	Optional RM-846	FUEL LINE, 13" long, 1/4" bundy weld tubing with nuts	1.			226	WE-417-S1	WD-66 (less pipe nipple)  FUEL TANK with RC-122 cap  WE-344 with RC-77 cap, replaced by WE-417.	1	3	
		RM-536 (19-1/2" long) with strainer at flywheel end.				227	XB-98	COLLAR BOLT, 1/2"-13 thread x 11/4" long For crankcase to engine base mounting.		2	
203	Optional RM-776	FUEL LINE, %" tubing, 9%" long, with nuts, fuel pump to carburetor	. 1		2	228	XK-7	PIPE PLUG, %" square head	4		2
204	SA-68	COVER PLATE for valve tappet in spection	1		4	230	Y-107B-51	MAGNETO, "Fairbanks-Morse" No. FMXDIB7RI with gear		4	12
205	SA-109	COVER for oil pump trough	1		1			YQ-7 Points and condenser kit.	1	1	``
206	SD-35	RETAINER for crankshaft oil seal,	1		1			YQ-4 Overhoul kit. Y-107A-S1, replaced by Y-107B-S1.	-		
207	SD-39-1	RETAINER for crankshaft oil seal, fly- wheel end	1		1		Optional Y-108B-\$1	MAGNETO, "Wice" No. XH-2523B, with		4	
208	SD-312	NAME PLATE			1			YQ-5 Points and condenser kit. YQ-2 Overhaul kit. Y-108A-S1, replaced by Y-108B-S1.			
209	5E-3	for correct stamping.  FLYWHEEL SCREEN (Standard)  5E-3-2 (with 5-1/8" dia. hole) for engines			4	ог		ngines are equipped with either a 'Fairba to, See magneto bulletins in back of manu t parts list.			
210	SE-217	with generator drive pulley		8	4	231	YD-20	RUBBER NIPPLE	1	-	1
		SE-217-F for starter and generator.	-	Ĭ		232	YD-154-\$1	SPARK PLUG, 18mm, Champion No.D-21	1	١.	3
		SE-217-H for engines with starter only, or starter and flywheel alternator, beginning with Serial No. 3,252,140. SE-217A-1 for starter and generator on				233	YL-339-24	IGNITION CABLE ASSEMBLY	1		4
		engines to and including Serial No. 3,252,139.					DA 047				
211	SE-218	COVER for air shroud	1		6		PA-367	For governor yoke mounting.	1		1
212	T-100	GOVERNOR ASSEMBLY, complete	1	2			*	XH-1, No. 0 x 3/4" taper pin, replaced by PA-367 (not interchangeable).			
213	TC-322E-S1	GOVERNOR FLYWEIGHT ASSEMBLY Includes TC-328-D thrust pin.	2		1 ½		PB-184	SCREW, 1/4"-28 thread x 5/8" long, hexagon head, self locking	2		1
214	TC-388-2	GOVERNOR SHAFT	1		3			For mounting air cleaner bracket clip.			ĺ
215	TC-389-A-1	GOVERNOR GEAR BUSHING TC-389-1, replaced by TC-389A-1.	1		2		PD-9	NUT, 1/4*-28 thread, hex., steel For air cleaner bracket clip.	1		1
216	TC-391-B	THRUST SLEEVE and BEARING For gavernor.	1		2		PD-11	NUT, 3/84-24 thread, hexagon steel For cylinder head stud.	1		1
217	TC-453	GOVERNOR LEVER	1		I		PD-12	NUT, 7/16#-20 thread, hexagon steel For mounting cylinder block.	5		1
218	TC-454	PIN for governor adjusting screw	l		1		PD-77	NUT, 1/4"-20 thread, hexagon steel	3		1
220	U-212 UC-75-51	STARTING CRANKSTARTING CRANK NUT ASSEMBLY	1	1	8			1-for governor lever fulcrum pin. 2-for fuel tank straps.			•
		Consisting of: 1 PA-333 Pin 1 UC-75 Cronknut					PD-77-1	NUT, 1/4-20 thread, hexagon steel jam For governor adjusting screw pin.	1		1
223	VB-198-A	GOVERNOR YOKE and FULCRUM PIN ASSEMBLY	1		3		PD-79	NUT, 3/8"-16 thread, hexagon steel For magneto mounting screw (lower).	1		1
		Consisting of: 1 JK-50 'O' Ring					PD-141	NUT, 5/16"-24 thread, hexagon steel For governor lever mounting.	1		1
		1 TC-452 Fulcrum pin 1 VB-198 Yoke 1 PA-367 Roll pin					PE-3	LOCKWASHER, 1/4" spring lock l-for tank bracket strap. 3-for air shroud to cylinder block.	8		1
224	VE-683	CONTROL ROD to carburetor	ì		i			2-for fuel tank straps. 2-for fuel pump mounting.			
							····				

Ref. No.	Part Number	Description		Ne:			Ref. No.	Part Number	Description No. Net	
	PE-4	LOCKWWSHER, 5/16" spring lock 2-for oil pump trough. 2-for carburetor mounting.	10		1			XD-29	SCREW, 3/8"-16 x 1½" long, hex. head (special hardness)2  For mounting cylinder head.	1
		4-for bearing retainer plate, fan end. 2-for manifold to cylinder block.						XD-30	SCREW, 3/8*-16 x 1½* long, hex. head (special hardness)	1
	PE-5	LOCKWASHER, 3/8" spring lock	10		'			XD-34	For mounting cylinder head.  SCREW, 3/8"-16 x 2½" long, hex. head 1 For mounting magneto (upper hole).	1
	PE-6	2-for magneto mounting. 1-for air shroud cover stud. LOCKWASHER, 7/16" spring lock	5					XD-77	SCREW, 3/8"-16 x 3" long, hex. head 1 For mounting magneto (lower hole).	1
	PE-7	For mounting cylinder block.  LOCKWASHER, 1/2" spring lock						XD-148	SCREW, 5/16"-18 x 1-5/8" long, hex.hd. 1 For valve tappet inspection cover.	1
,		For engine base mounting.						X I-32	COTTER PIN, 3/64" x 3/8" long 1 For governor control rod.	1
	PE-52	LOCKWASHER, 5/16" Internal 'Everlock' For governor lever mounting.	1		1				·. ·	
	PE-74	LOCKWASHER, 1/4" internal-external "Everlock", plated	1			1				1.5
	PH-14	WASHER, 5/16" copper, plain	1							
	PH-22	<b>WASHER,</b> 3/8" x 1/16" thick, steel, plain For cylinder head mounting.	6		]	۱			at a	
	PH-22-A	<b>WASHER</b> , 3/8" x 3/32" thick, steel, plain For governor stop screw.	.1			ı				
	RF-794	NIPPLE, 1/8" x %" long, close pipe For fuel strainer mounting. (optional)	1		] 1	l				
	SA-13	PLUG, 3/4" expansion For camshaft pin hole.	1			1				
	X A-33	SCREW, 1/2-20 x 3/8" long, ind.hex.hd. 2-for air shroud to cylinder block. 4-for flywheel screen mounting.	6		;	L				
	X A-34	<b>SCREW,</b> $\frac{1}{4}^n \cdot 20 \times \frac{1}{2}^n$ long, ind. hex. hd. For air shroud and fuel line clip.	1			1				
	X A-67	SCREW, Parker-Kalon No. 4 — Type 'A', 1/4" long, stove-head, self-tapping 4-for instruction plate mounting. 2-for oil trough cover mounting.	6			1				the factor
	XA-69	SCREW, 1/4 x 20 x 2" long, round head For fuel tank straps. XA-74 (2-1/4"), replaced by XA-69,	2			1				
	XD-4	SCREW, ¼"-30 x ½" long, hex. head For fuel tank bracket strap.	1			1				
	XD-5	SCREW, 1/4-20 x 5/8" long, hex. head For fuel pump mounting.	1			1				
	XD-8	SCREW, $\frac{1}{4}$ -20 x $\frac{1}{4}$ long, hex. head For air cleaner bracket clamp.			ŀ	1				
	XD-15	SCREW, 5/16*-18 x ¾* long, hex. head 2-for oil pump trough. 4-for bearing retainer plate, fan end.	6			1				
	XD-16	SCREW, 5/16"-18 x 7/8" long, hex. hd. 2-for carburetor mounting. 2-for manifold to cylinder block.	4	-		1				
	XD-27	SCREW, 3/8"-16 x 1" long, hex. head For fuel tank bracket to case.	3			1				
	XD-28	SCREW, 3/8"-16 x 1-1/8" long, hex. hd. For main bearing plate, T.O. end. XD-27, replaced by XD-28.	4			1				