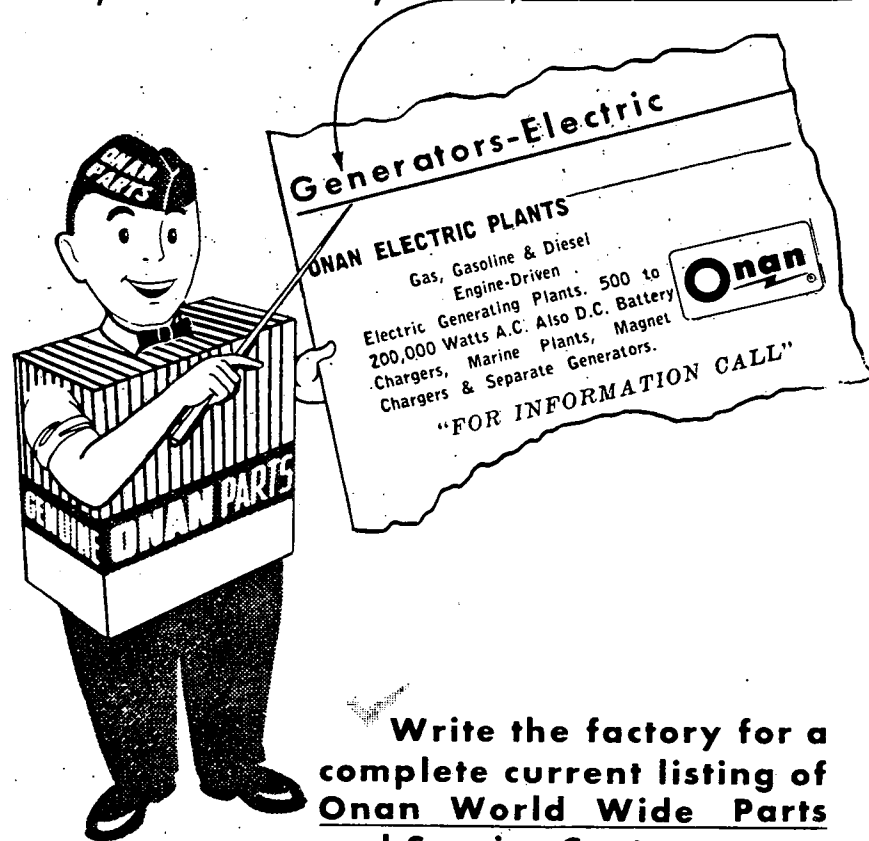


For Genuine Onan Parts and Service, see your Onan Parts and Service Center. In most major cities they are listed in the classified section of the telephone directory. See Generators-Electric.



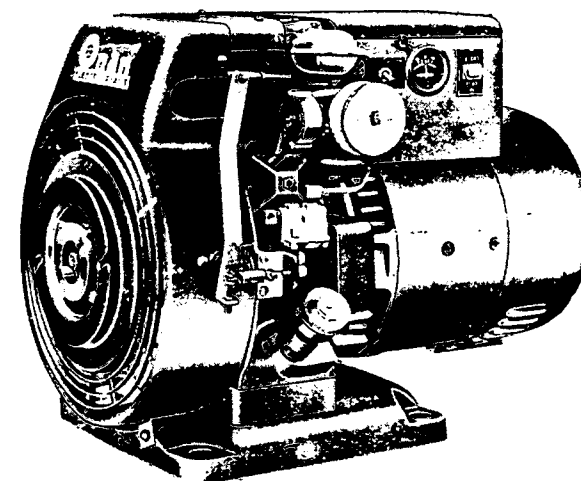
Write the factory for a complete current listing of Onan World Wide Parts and Service Centers.

PARTS CATALOG

FOR

ONAN ELECTRIC GENERATING PLANTS

Series
LK



6-60

D. W. ONAN & SONS INC. • MINNEAPOLIS 14, MINN.

930 - 2

Price \$1.00

A - B

Printed in U.S.A.

INSTRUCTIONS FOR ORDERING REPAIR PARTS

FOR PARTS OR SERVICE, CONTACT THE DEALER FROM WHOM
YOU PURCHASED THIS EQUIPMENT OR REFER TO YOUR NEAR-
EST AUTHORIZED SERVICE STATION.

TO AVOID ERRORS OR DELAY IN FILLING YOUR PARTS ORDER, PLEASE
FURNISH ALL INFORMATION REQUESTED.

REFER TO THE NAMEPLATE ON YOUR PLANT

1. Always give the MODEL & SPEC. NO. and SERIAL NO.

ELECTRIC **Onan** PLANT
MODEL AND SPEC. NO. SERIAL NO.
IMPORTANT
A.C. VOLTS _____ A.M.P.s _____ CYCLES _____ PHASE _____
D.C. VOLTS _____ A.M.P.s _____ WATTS _____
GEN. DATA _____
R.P.M. _____ USE _____ VOLT BATTERY _____
FORD W. DNAN & SONS, INC.
MINNEAPOLIS, MINN.

4229

For handy reference, copy YOUR plant
nameplate information in the spaces above.

2. Do not order by reference number or group number, use part number and description.
3. Give the part number, description and quantity needed of each item. If an old part cannot be identified, return the part prepaid to your dealer or nearest AUTHORIZED SERVICE STATION. Print your name and address plainly on the package. Write a letter to the same address stating the reason for returning the part.
4. State definite shipping instructions.

Any claim for loss or damage to your unit in transit should be filed promptly against the transportation company making the delivery. Shipments are complete unless the packing list indicates items are back ordered.

"Prices are purposely omitted from this Parts Catalog due to the confusion resulting from fluctuating costs, import duties, sales taxes, exchange rates, etc.

For Current parts prices, consult your Onan Dealer, Distributor or Parts and Service Center."

"En esta lista de partes los precios se omiten de proposito, ya que bastante confusion resulto de fluctuaciones de los precios, derechos aduanales, impuestos de venta, cambios extranjeros etc.

Consiga los precios vigentes de su distribuidor de productos "ONAN".

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
SERVICE KITS AND MISCELLANEOUS			
101K115		1	Kit, Rear Bearing Plate Gasket.
101K181		2	Kit, Main Bearing Replacement - Precision Type - Includes Stop Pin - Available In: Standard Size; 0.002" Undersize, for worn engines; or 0.020" Undersize for re-machined crankshaft crankshaft bearing Journal. Please Specify Size!
105A72		1	Set, Timing Gear.
113A87		1	Set, Piston Ring - For One Piston only.
143K80		1	Kit, Carburetor Gasket.
143K81		1	Kit, Carburetor Repair Parts.
149K526		1	Kit, Fuel Pump Repair Parts.
160A513		1	Set, Ignition Breaker Point.
168K65		1	Kit, Plant Gasket.
192K215		1	Kit, Readt-Pull Starter - Model D.
403K376		1	Kit, Carrying Frame - Parts Key Nos. 1, 2 and 3.
410C219		1	Dolly Complete, Two Wheel.
522K154		1	Kit, Plant Overhaul - Parts Key Nos. 1, 2, 4, 5 and 6.
522K155		1	Kit, Plant Overhaul - Parts Key Nos. 3 and 7.
412C21		1	Cover, Canvas.
405B1041		1	Housing Package - Optional Accessory - Fits VACU-FLO Plants Only - For component parts, order by description and furnish plant model.

PARTS CATALOG

Use this parts catalog as a general guide in selecting parts. Parts are arranged in groups of related items. Some items that are optional equipment are included. Each illustrated part is identified by a reference number. This number corresponds to the same reference number in the Parts List for that group. Illustrations represent typical items and do not necessarily portray a particular part number.

Compare your plant nameplate MODEL AND SPEC. NO. with the Plant Data Table.

Select the Parts Key No. (1, 2, etc. in the last column) that applies to your plant Model and Spec. No. This Parts Key No. appears in the Description of parts that differ between basic models. Thus when a reference is made in a parts description to "Parts Key No. 4" etc., that part is used only on the models mentioned.

When a serial number is referred to, check it with the serial number on the plant nameplate, using only the numbers following the letter.

Plant Data Table

PLANT DESIGNATION	TYPE ↑ OF PLANT	ELECTRICAL OUTPUT				PARTS KEY NO.	
MODEL NO. AND SPEC.		WATTS	# VOLTS	CYCLE	RPM		
2LK-1M /	1A ★ 1B ★	MANUAL	2000	120	60	1800	1
105LK-51M /		MANUAL	1500	120	50	1500	1
2LK-2M /		MANUAL	2000	240	60	1800	2
105LK-52M /		MANUAL	1500	240	50	1500	2
2LK-3M /		MANUAL	2000	120/240	60	1800	3
2LK-1RV1330 /		REMOTE	2000	120	60	1800	4
2LK-1R /		REMOTE	2000	120	60	1800	5
2LK-1RV /		REMOTE	2000	120	60	1800	5
105LK-51R /		REMOTE	1500	120	50	1500	5
105LK-51RV /		REMOTE	1500	120	50	1500	5
2LK-2R /		REMOTE	2000	240	60	1800	6
2LK-2RV /		REMOTE	2000	240	60	1800	6
105LK-52R /		REMOTE	1500	240	50	1500	6
105LK-52RV /		REMOTE	1500	240	50	1500	6
2LK-3R /	REMOTE	2000	120/240	60	1800	7	
2LK-3RV /	REMOTE	2000	120/240	60	1800	7	

★ - The Spec Letter advances with manufacturing changes (A to B etc.)

† - Manual type plants are designed for portable service. The manual type plant can be started only by cranking with the pull rope. Magneto ignition is used. Remote control type plants are designed for permanent, or stationary, installations. The remote control plant must be connected to batteries for electrical cranking. Extra start-stop switches, or automatic control equipment may be connected to the plant. 12-volt battery ignition is used.

- Reference to 120 Volt and 240 Volt also applies to 115 and 230 Volt.

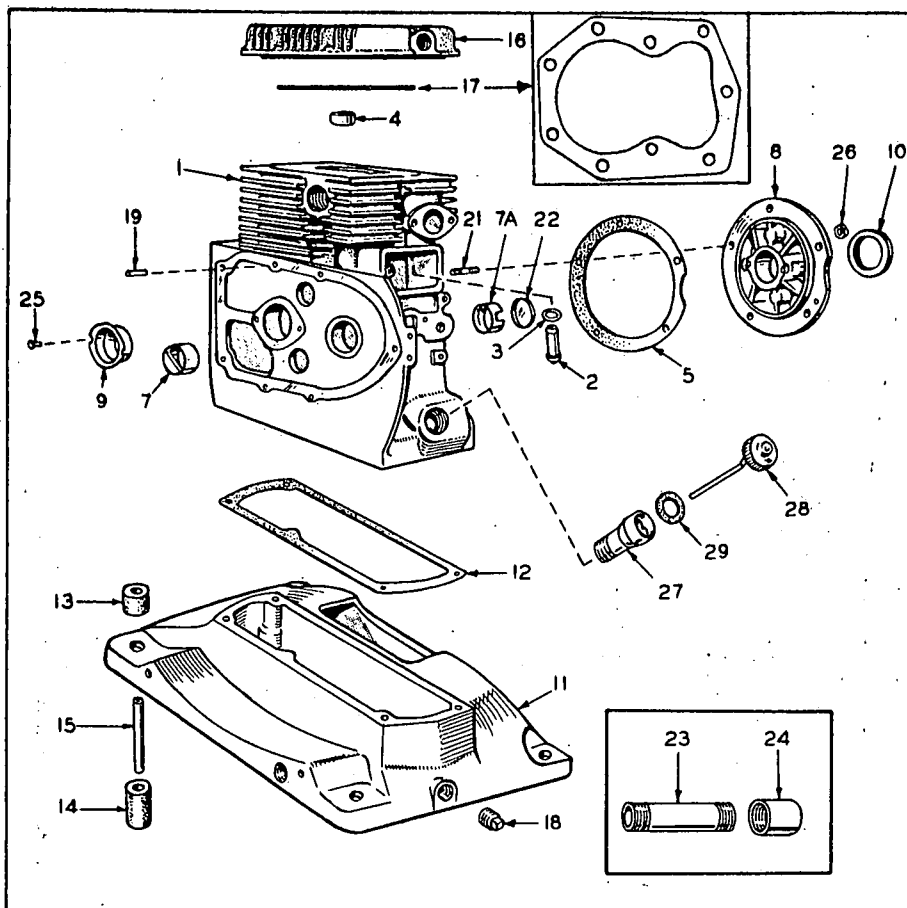


FIG. 1 - CYLINDER BLOCK AND OIL BASE GROUP

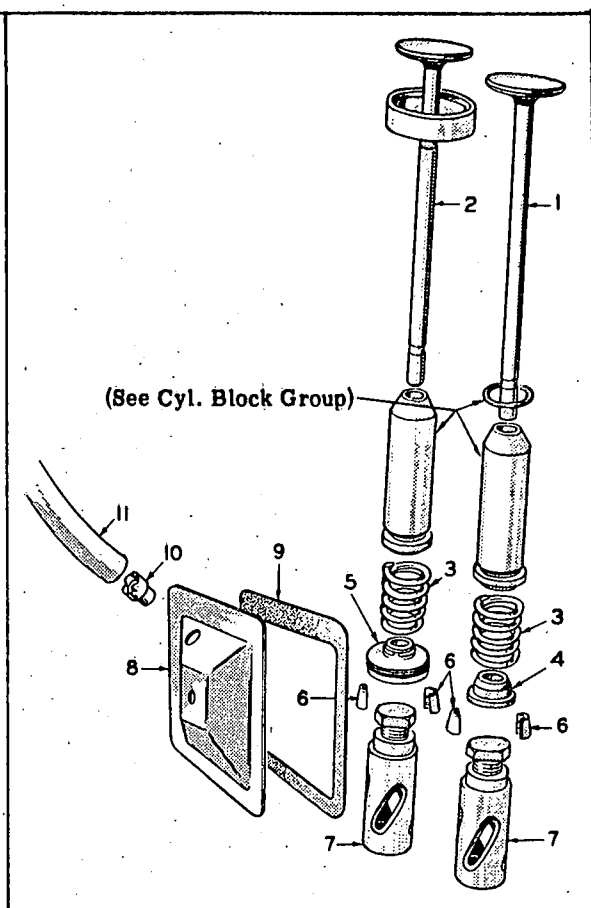


FIG. 2 - VALVE AND BREATHER GROUP

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
OPTIONAL RESERVOIR (DAY) TANK GROUP (Not Illustrated)			
	159B294	1	Tank, Reservoir (Day) - 1 quart.
	159-41	1	Cap, Reservoir Tank Vent.
	159A556	1	Band, Reservoir Tank Mounting.
	502-24	1	Elbow, Compression Male - Tank Vent Line.
	159A557	1	Support, Reservoir Tank Mounting.
	415A55	1	Bracket, Vent Cap Mounting.
			Line, Flexible Fuel -
	501B5	1	18-1/2" Long.
	501A3	1	9" Long.
	504-7	1	Valve, Shut-off - Tank Outlet.
	505-57	1	Plug, 1/8" Pipe - Tank Drain.
	502-116	1	Connector, Compression - With Nut and Sleeve - For 5/16" O.D. Vent Line (Top).
	159A345	1	Tubing, Copper - Vent Line (12 feet of 5/16" O.D.).
	502-43	1	Elbow, Inverted Male - For 3/8" O.D. Fuel Return Line.
	502-20	1	Elbow, Street - 1/8" Pipe - Tank Inlet.
OPTIONAL OIL BASE HEATER GROUP (Not Illustrated)			
	333-3	1	Element, Oil Base Heater.
	309P29	1	Thermostat.
	333A12	1	Box, Thermostat Mounting.
	333A13	1	Cover, Thermostat Mounting Box.
	133A3	1	Guard, Heater Element.
	335B58	1	Cable, Heater Element to Thermostat.
	335B57	1	Cable, Heater Connection.
	508A5	3	Grommet - Cables to Sheet Metal.
	503A19	1	Clamp, Heater Element Guard.
	520A446	2	Stud, Thermostat Mounting.
	102D362	1	Base, Oil - With provisions for heater.
	134C707	1	Housing, Blower - With provisions for heater.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 14 - READI-PULL STARTER GROUP (Cont.)			
18	870-138	1	Nut, Flexlock - Bushing to Cover Screw.
19	526A21	4	Washer - Starter to Mounting Ring - Replaces #192A185.
20	192C186	1	Ring, Mounting - Starter to Blower Housing.
21	870-110	2	Nut, Speed Grip - Starter Ring to Blower Housing - Upper.
21A	192A294	1	Bracket, Starter Mounting - Right (Carburetor Side) Lower.
21B	192A295	1	Bracket, Starter Mounting - Left Lower.
22	192A170	1	Wheel, Ratchet - Prior to Spec "B".
22A	192B309	1	Wheel, Ratchet - Begin Spec "B".
23	192A218	2	Capscrew, Socket Head - Ratchet Wheel to Flywheel - 3/8-16 x 5/8" with provision for starter installation alignment - Prior to Spec "B".

FIG. 15 - CARRYING FRAME AND DOLLY GROUP (Optional Equipment)

1	403K376	1	Frame Kit, Carrying - Includes Frame, Mounting Bolts and Grounding Strap - Excludes Mounting Cushions.
1A	337A36	1	Strap, Bond - Grounding Plant to Frame.
2	410C219	1	Dolly - Complete - 2 Wheel - For 1 cylinder plants.
3	410D216	1	Base and Handle, Dolly - Right Hand - Less Grip.
4	410D215	1	Base and Handle, Dolly - Left Hand - Less Grip (Opposite Carburetor Side).
5	402A40	2	Cushion, Rubber - Dolly Foot - with 5/16-18 Thrd Stud.
8	403-205	2	Grip, Rubber Handle.
9	410B222	1	Axle, Dolly.
10	410P223	2	Wheel and Tire - 10x2.50", Zero Pressure, 5/8" Bearing, 2-3/8" Hub.
	526-112	4	Washer, Flat - 7/64 x 11/16" I.D. x 1-3/8" O.D. - Wheel Mounting.
	516-42	4	Pin, Cotter - 1/8 x 1" - Wheel Mounting.
	800-58	4	Screw, Hex Head Cap - 3/8-16 x 3" - Oil Base to Dolly.
	850-50	6	Washer, Lock - 3/8".
	860-17	6	Nut, Hex - 3/8-16.
	526-31	4	Washer, Flat - 3/8.
	860-15	2	Nut, Hex - 5/16-18.
	850-45	2	Washer, Lock - 5/16".

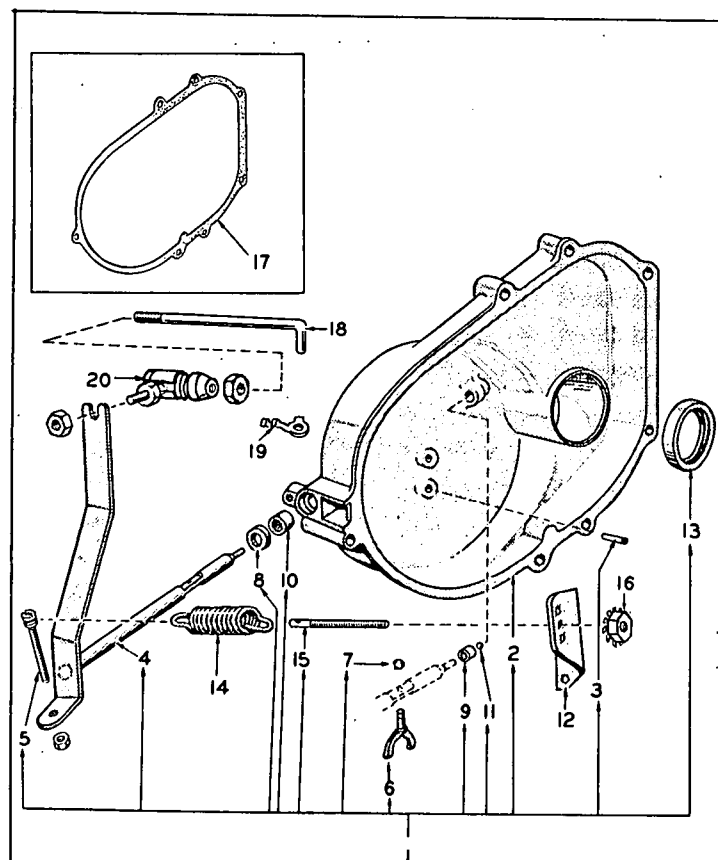


FIG. 3 - GEAR COVER GROUP

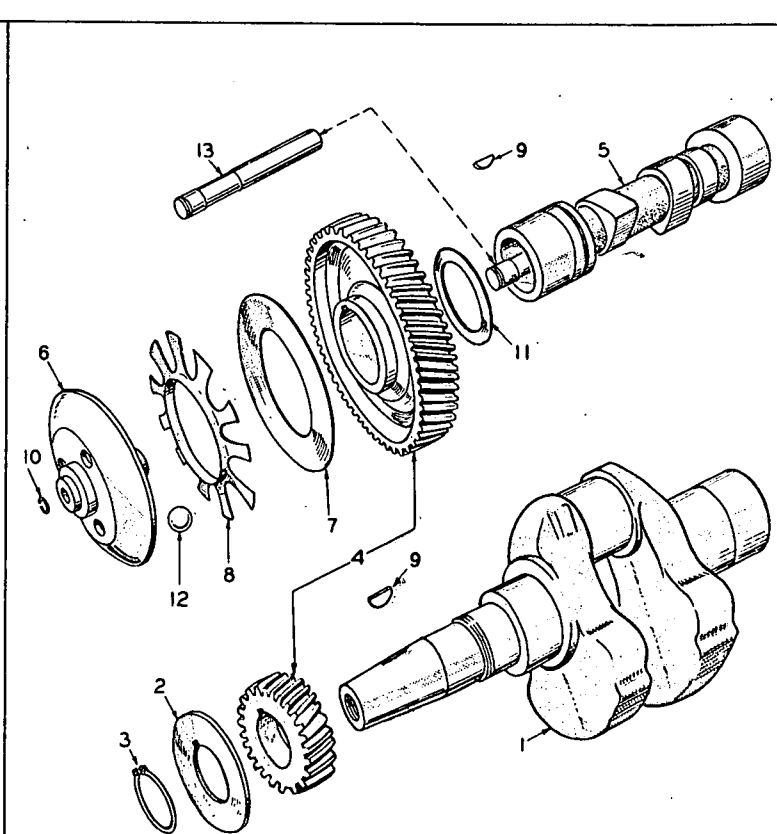


FIG. 4 - CRANKSHAFT, CAMSHAFT AND GOVERNOR CUP GROUP

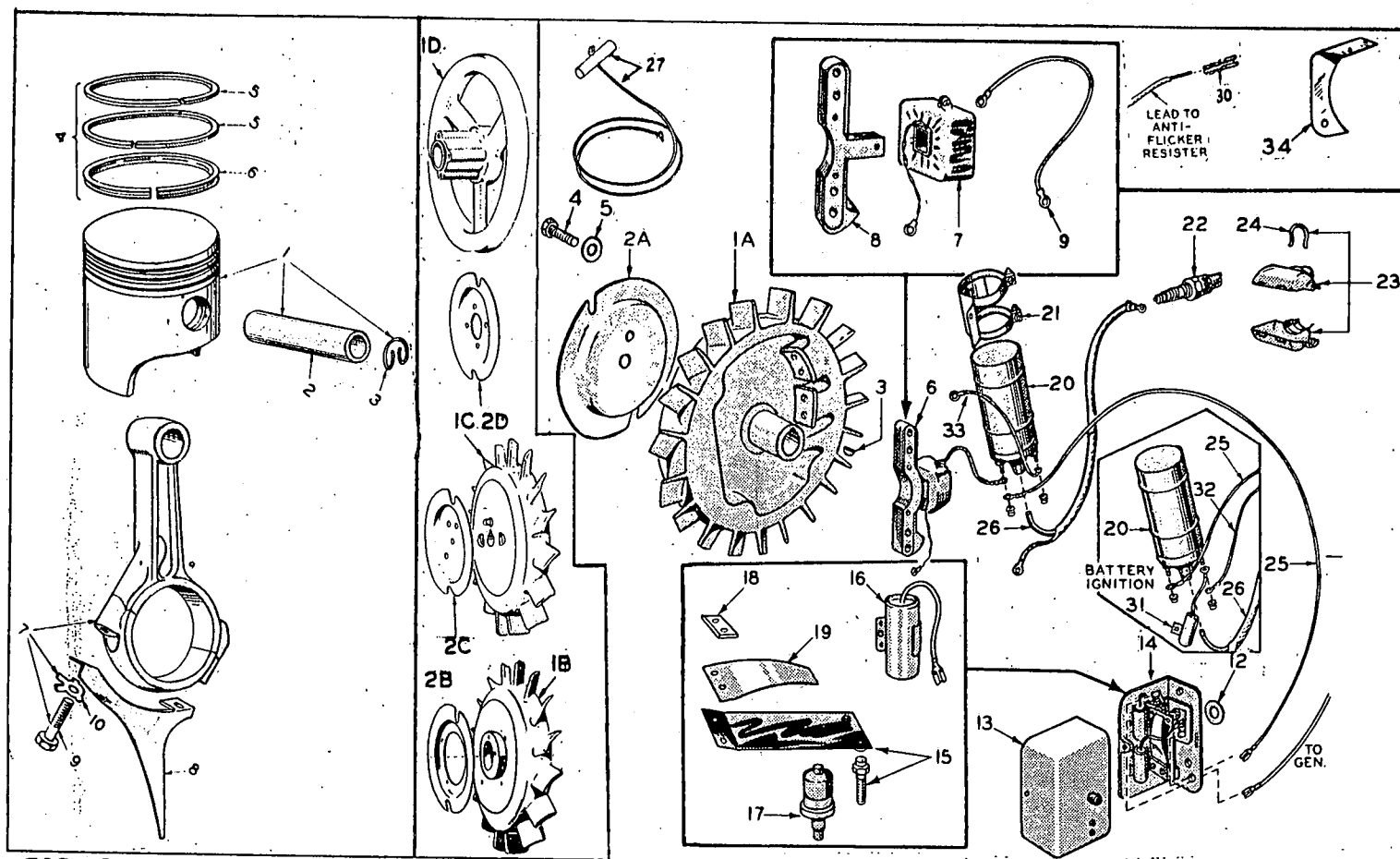


FIG. 5 - PISTON AND CONNECTING ROD GROUP

FIG. 6 - IGNITION, FLYWHEEL AND ANTI-FLICKER GROUP

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 13 - CONTROL GROUP (Cont.)

28	416A77	2	Cable, Battery - Parts Key Nos. 5, 6 and 7.
29	416A4	1	Cable, Battery Jumper - Parts Key Nos. 5, 6 and 7.
30	110A300	1	Spacer, Junction Box Mounting - Parts Key Nos. 1, 2 and 3.
31	320A158	1	Breaker, Circuit - Parts Key No. 4.

FIG. 14 - READI-PULL STARTER GROUP

NOTE: Starter does not fit Vacu-Flo cooled plants. Starter is optional on remote type plants.

As Follows

Starter Kit - Includes Mounting Ring and Ratchet Wheel - Order also one #192A294 and one #192A295 Bracket -

	192K325	1	For Pressure Cooled Plants, Begin Spec "B".
	192K215	1	For Pressure Cooled Plants, Prior to Spec "B".
1	192A45	1	Rope and Grip Assembly.
2	192-43	1	Rope Only, Starter - #7 Nylon x 83" Long.
3	192A44	1	Grip Only, Ball - Rubber.
4	517A25	1	Plug, Starter Rope Grip.
5	192C152	1	Cover, Starter.
6	192A153	1	Wheel, Cog - Anti-Backlash.
6A	526A168	1	Washer, Spring Retainer - (Used on Later Model Starters).
7	516-83	1	Pin, Roll - 3/16" x 5/8" - Recoil Spring.
8	192A39	1	Spring, Recoil.
9	526A123	1	Washer, Thrust - Sheave Bushing to Cover.
10	192B180	1	Sheave, Rope.
11	192A172	2	Pawl.
12	192A165	2	Spring, Pawl.
13	192A168	2	Arm, Ratchet.
14	516A110	4	Pin, Roll - 5/16 x 1/2 - Replaces #192A192 - (2) Arm Pivot, (2) Pawl Pivot.
15	192A167	1	Clamp, Rope (Mounted with two 1/4-20 x 5/8" R.H.M. Screws).
16	192A163	1	Bearing, Sheave Hub - Bronze.
17	192A323	1	Capscrew, Socket Head - 3/8-16 x 1-1/2" - Sheave Bushing to Cover (Replaces 802-74).
17A	516-132	1	Pin, Spirol - Starter Locating - Begin Spec "B".

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 13 - CONTROL GROUP (Cont.)

4	331-27	1	Connector, Load Conductor - Parts Key Nos. 1, 2 and 3.
5			Box, Control - Includes Panel and Resistor Bracket -
	301C1160	1	Parts Key Nos. 5, 6 and 7.
	301C1630	1	Parts Key Nos. 4.
6	301B1198	1	Bracket, Control Box Mounting - Parts Key Nos. 4, 5, 6 and 7.
7	301C1244	1	Cover, Control Box - Parts Key Nos. 4, 5, 6 and 7.
8	301B1271	1	Plate, End - Parts Key Nos. 4, 5, 6 and 7.
9	301A974	1	Bracket, Start-Stop Switch - Parts Key Nos. 4, 5, 6 and 7.
10	308-90	1	Switch, Start-Stop - Parts Key Nos. 4, 5, 6 and 7.
11			Ammeter, Charge -
	302-58	1	10-0-10 - Parts Key Nos. 5, 6 and 7.
	302A62	1	45-0-45 - Parts Key No. 4.
12	308-2	1	Switch, Toggle - Manual, Electric Start - Parts Key Nos. 4, 5, 6 and 7.
13	307B253	1	Relay, Stop - Parts Key Nos. 4, 5, 6 and 7.
14	304-251	1	Resistor, Fixed - 30 Ohm, 5 Watt - Parts Key Nos. 4, 5, 6 and 7.
15	304A344	1	Resistor, Fixed - 1 Ohm, 25 Watt - Parts Key Nos. 5, 6 and 7.
16	304-175	1	Resistor, Adjustable 10 Ohm - Parts Key Nos. 5, 6 and 7.
17	312A17	1	Condenser, 0.5 Mfd. - Load Terminal - Parts Key Nos. 4 and 5.
18	312A58	AS REQ.	Condenser, 0.1 Mfd. - Load Terminal - Parts Key No. 6 (1), Parts Key No. 7 (2).
19	312A57	1	Condenser, 1 Mfd. - Start Solenoid - Parts Key Nos. 4, 5, 6 and 7.
20	305A1	1	Regulator, Voltage - Charge Circuit - Parts Key Nos. 5, 6 and 7.
21			Relay, Reverse Current -
	307B180	1	Parts Key Nos. 5, 6 and 7.
	307B495	1	Parts Key No. 4 (Replaces # 307B123).
	307B454	1	Relay, Charge Disconnect - Parts Key No. 4.
22	332A537	1	Block, Terminal - Remote Control - Parts Key Nos. 4, 5, 6 and 7.
23	307B40	1	Solenoid, Start - Parts Key Nos. 4, 5, 6 and 7.
24	332-142	2	Terminal, Solderless - Parts Key Nos. 4, 5 and 6.
25	332A540	1	Marker, Load Terminal - Parts Key Nos. 4, 5 and 6.
26	332A539	1	Marker, Load Terminal - Parts Key No. 7.
27	332A231	1	Block, Terminal - Load - Parts Key No. 7.

Note: Optional Gas Fuel System Group and Optional Reservoir (Day) Tank Group are listed but not illustrated.

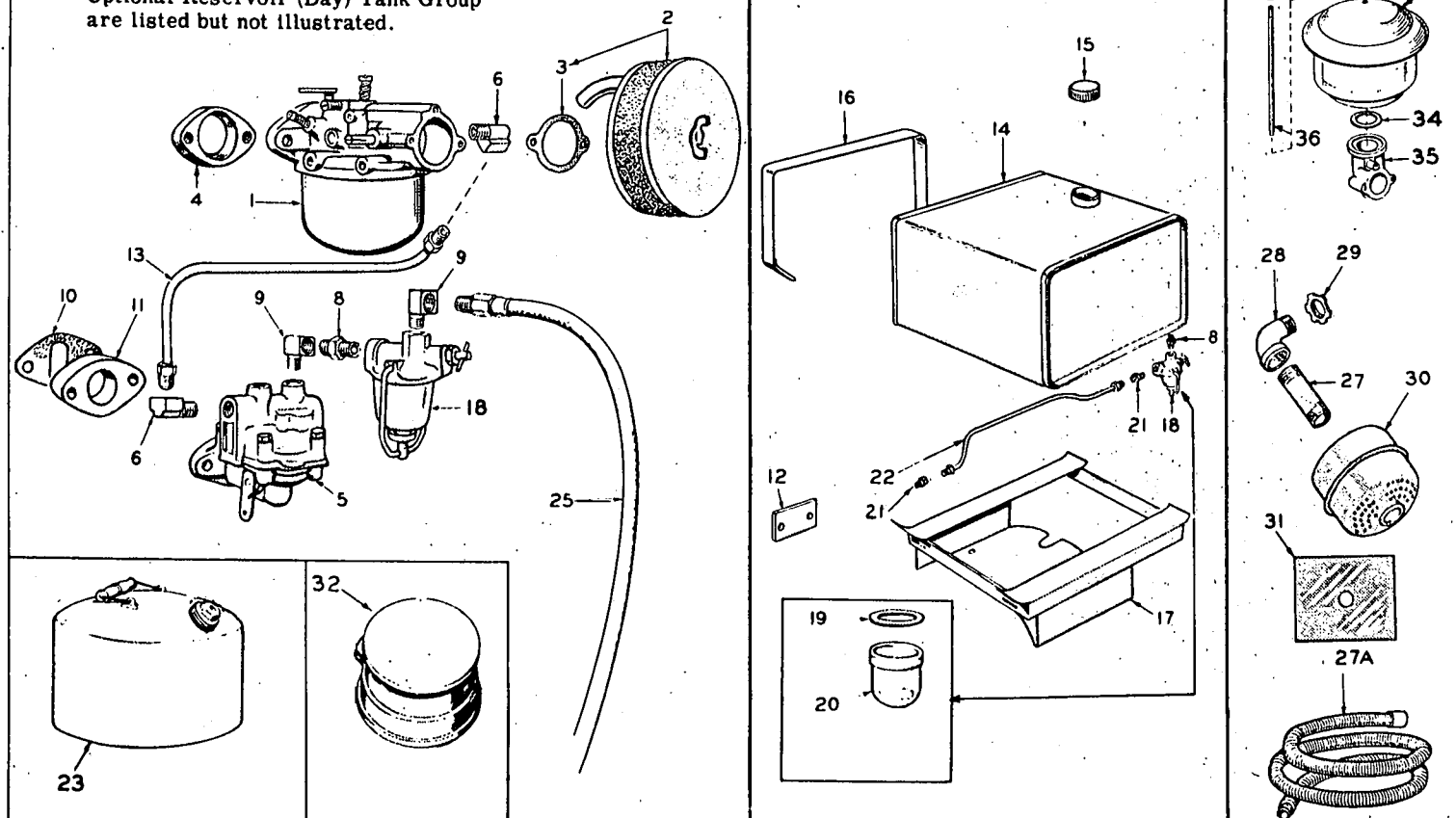


FIG. 7 - FUEL SYSTEM GROUP (GASOLINE)

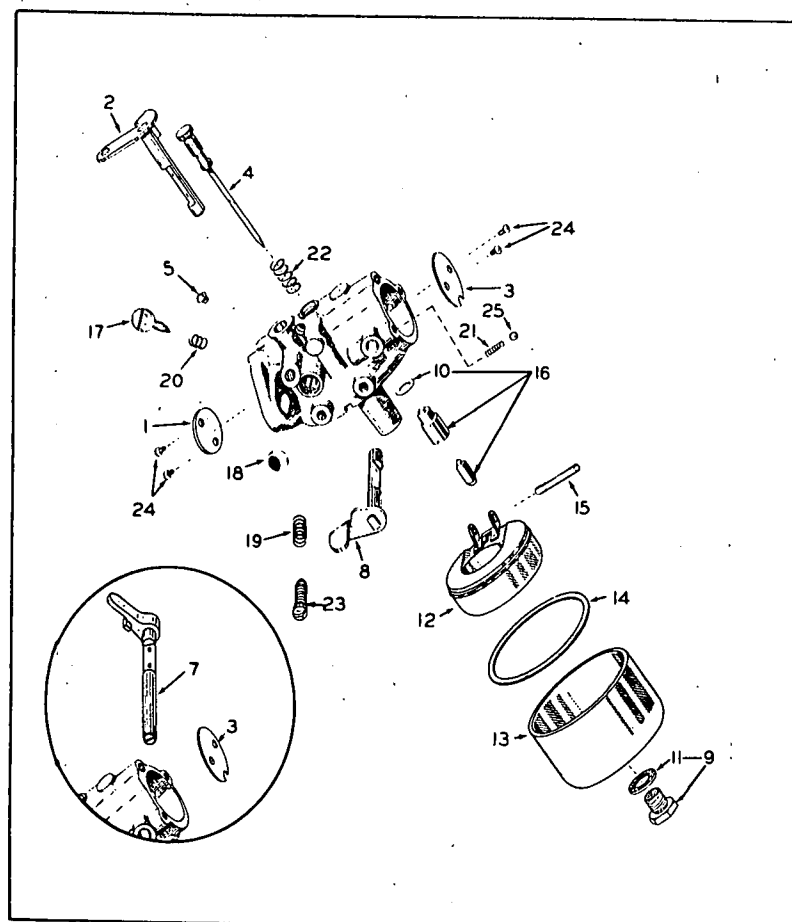


FIG. 8 - CARBURETOR PARTS GROUP

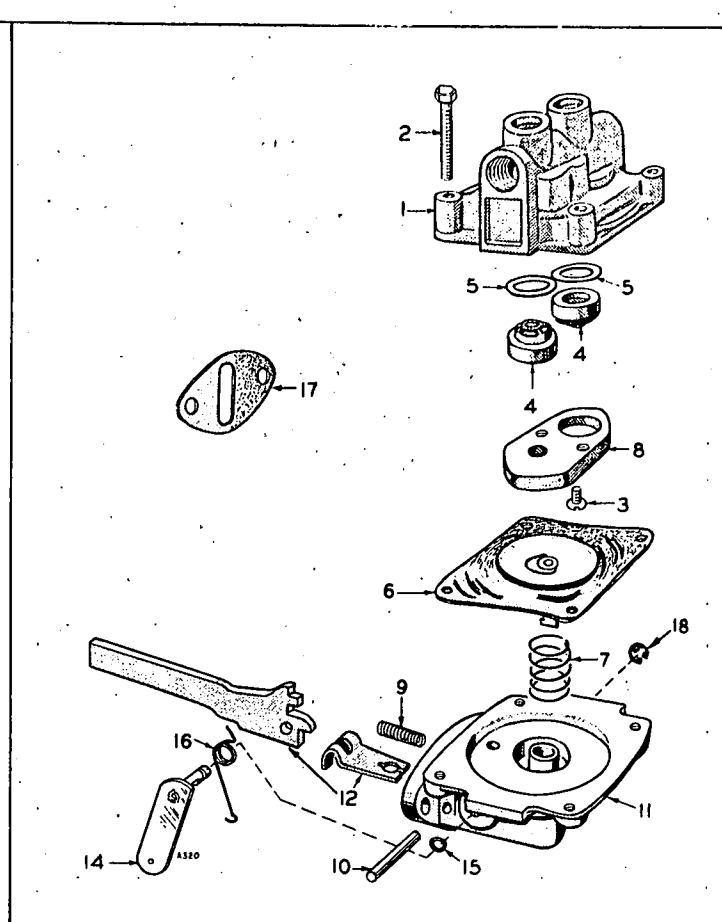


FIG. 9 - FUEL PUMP PARTS GROUP

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 12 - GENERATOR GROUP (Cont.)			
17	234C2	1	Band, End Bell - Parts Key Nos. 1, 2, 4, 5 and 6.
	234C5	1	Parts Key Nos. 3 and 7.
18	520A337	2	Stud, Through - Frame - Parts Key Nos. 1, 2, 4, 5 and 6.
	520A329	2	Parts Key Nos. 3 and 7.
19	312A15	1	Condenser - 0.1 Mfd. - AC Brush - Parts Key Nos. 1, 2, 4, 5 and 6.
		2	Parts Key Nos. 3 and 7.
20	312A17	1	Condenser - 0.5 Mfd. - DC Brush.
22	212B1105	8	Spring, Brush - Parts Key Nos. 1, 2, 4, 5 and 6.
23	212A1004	3	Spring, Brush - Collector Ring - Parts Key Nos. 3 and 7.
24	212A1003	4	Spring, Brush - Commutator - Parts Key Nos. 3 and 7.
25	214A32	3	Brush, Collector Ring - Parts Key Nos. 3 and 7.
26	214A30	4	Brush, Commutator - Parts Key Nos. 3 and 7.
27	214A50	4	Brush, Collector Ring - Parts Key Nos. 1, 2, 4, 5 and 6.
28	214A61	4	Brush, Commutator - Parts Key Nos. 1, 2, 4, 5 and 6.
29	304A323	1	Bracket, Anti-Flicker Resistor Mounting.
30	304A15	2	Washer, Centering - Resistor Mounting.
31			Resistor, Anti-Flicker -
	304A42	1	50 Cycle Unit - Parts Key Nos. 1, 2, 5 and 6.
	304A377	1	60 Cycle Unit - Parts Key Nos. 1, 2, 3, 5, 6 and 7.
	304A438	1	Parts Key No. 4.

FIG. 13 - CONTROL GROUP

1	330-28	1	Box, Junction - Parts Key Nos. 1, 2 and 3.
2	330-6	1	Cover, Junction Box - Parts Key Nos. 1, 2 and 3.
3	301C1276	1	Bracket, Junction Box Mounting - Parts Key Nos. 1, 2 and 3.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 12 - GENERATOR GROUP

1	231B1005	1	Adapter, Generator to Engine.
2	516-6	1	Key, Generator Blower to Crankshaft.
3	800-50	5	Screw - Adapter to Engine.
4	205C53	1	Blower, Generator.
5	232C1256	1	Plate, Air Baffle.
6			Armature - Includes Bearing and Blower -
	201A766	1	115 V, 60 Cycle - Parts Key Nos. 1 and 5.
	201A767	1	230 V, 60 Cycle - Parts Key Nos. 2 and 6.
	201A777	1	115/230 V, 60 Cycle - Parts Key Nos. 3 and 7.
	201A948	1	115 V, 60 Cycle - Parts Key No. 4.
		1	50 Cycle Plant - Order by description - Give Model and Serial No. of Unit.
7	510A47	1	Bearing, Ball - Armature.
8	232A596	1	Clip, Bearing Stop.
9			Stud, Armature Through -
	520A408	1	Parts Key Nos. 1, 2, 4, 5 and 6.
	520A527	1	Parts Key Nos. 3 and 7.
10	221A86	4	Shoe, Pole.
11			Coil Assembly, Field - Set of 4 -
	222A1441	1	Parts Key Nos. 1, 2 and 3.
	222A1534	1	Parts Key No. 4.
	222A1440	1	Parts Key Nos. 5, 6 and 7.
12	210C243	1	Frame - Less Coil Set.
13	212A1060	4	Clip, Brush Rig Mounting - Parts Key Nos. 3 and 7.
14			Rig Assembly, Brush -
	212C225	1	Parts Key Nos. 1, 2, 4, 5 and 6.
	212C122	1	Parts Key Nos. 3 and 7.
15			Bell, End -
	211D97	1	Parts Key Nos. 1, 2, 4, 5 and 6.
	211D98	1	Parts Key Nos. 3 and 7.
16	211C99	1	Cover, End Bell.

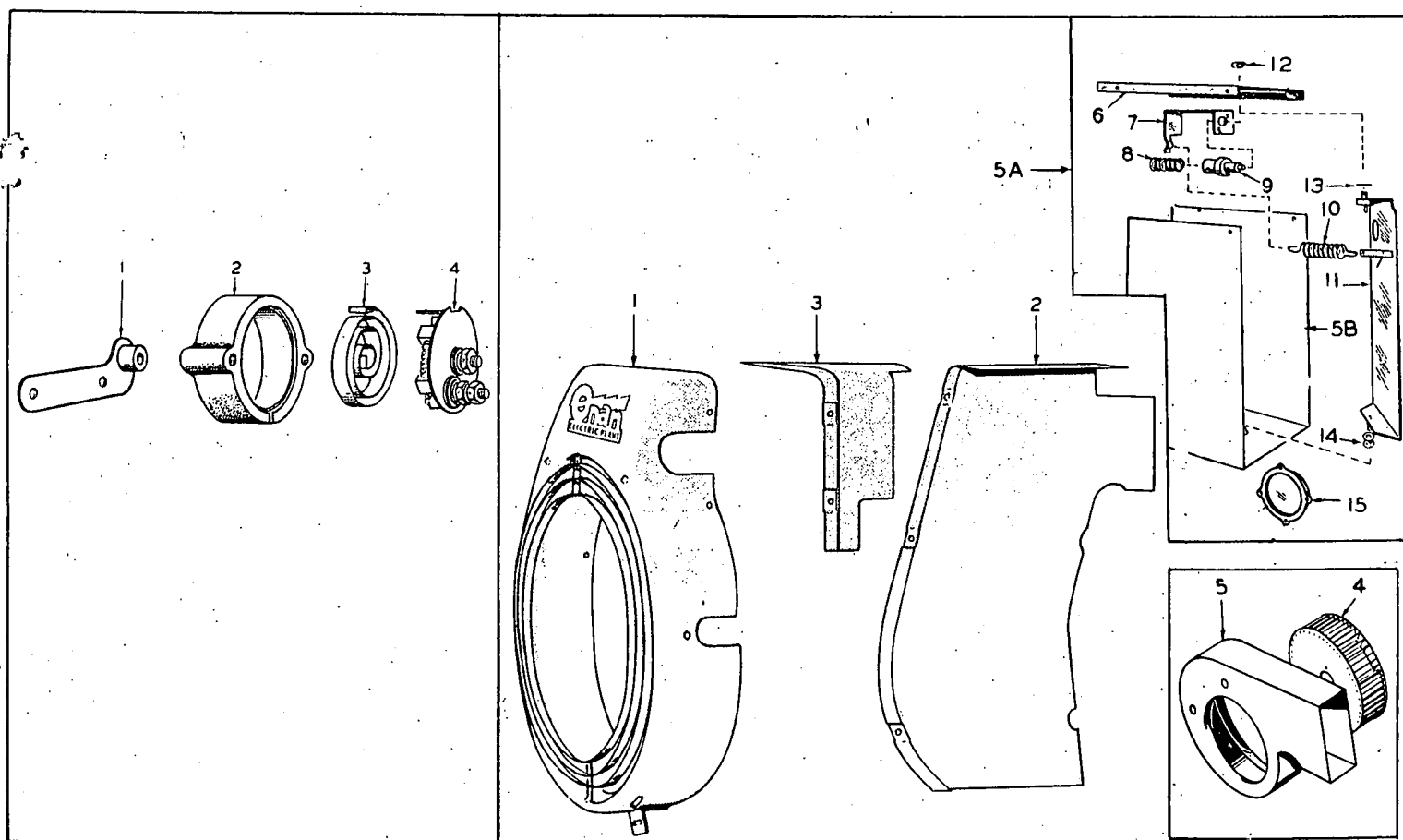


FIG. 10 - ELECTRIC CHOKE GROUP FIG. 11 - AIR HOUSING AND OPTIONAL AIR SHUTTER GROUP

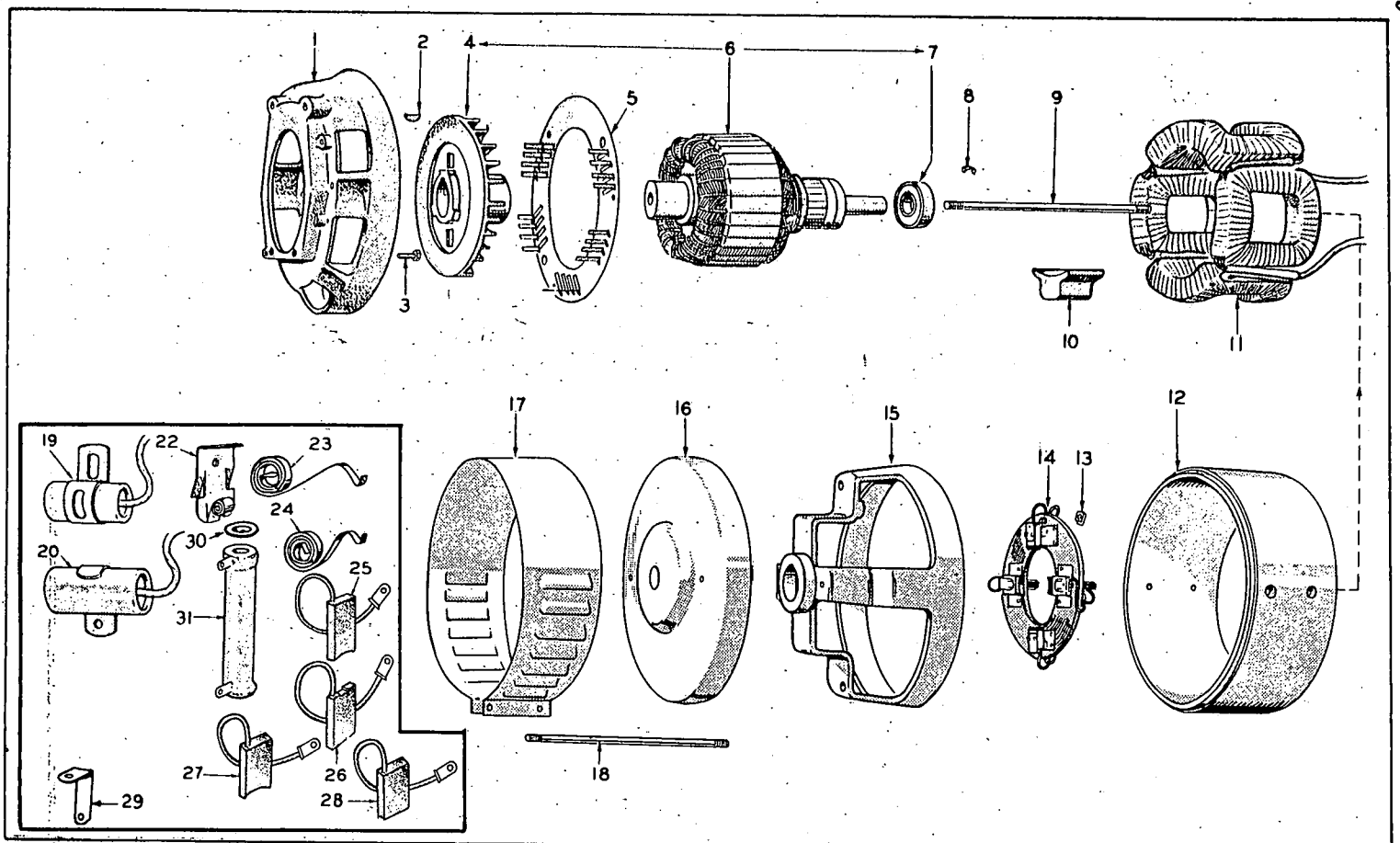


FIG. 12 - GENERATOR GROUP

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 11 - AIR HOUSING & OPTIONAL AIR SHUTTER GROUP			
1	134D590	1	Housing, Blower -
	134C618	1	† Pressure Cooled Plants.
2	134D584	1	Vacu-Flo Plant - Parts Key Nos. 4, 5, 6 and 7.
3	134C586	1	Housing, Cylinder Air.
4	134B565	1	Cover, Cylinder Head.
5	134D564	1	Wheel, Blower - For Vacu-Flo Plant with Parts Key Nos. 4, 5, 6 and 7.
5A	134C816	1	Scroll, Air Duct - For Vacu-Flo Plant with Parts Key Nos. 4, 5, 6 and 7.
5B	134D815	1	Shutter Assembly, Discharge Air - Optional on Vacu-Flo Cooled Plants with Parts Key Nos. 4, 5, 6 and 7.
6	134B661	1	Scroll, Air Duct - With provisions for Air Shutter - See note ††.
7	134B660	1	Plate, Vernatherm Element Mounting - See note ††.
8	134A656	1	Bracket, Vernatherm Element Mounting - See note ††.
9	309P85	1	Spring, Vernatherm Element - See note ††.
10	134A658	1	Element, Vernatherm - See note ††.
11	134A655	1	Spring, Shutter - See note ††.
12	518P74	1	Shutter - Circulated Air Control - See note ††.
13	526-102	1	Ring, Retaining - External - Shutter Shaft - See note ††.
14	526-16	1	Washer, Flat - Large - Shutter Spacing - See note ††.
15	309A2	3	Washer, Flat - Small - Shutter Spacing - See note ††.
	508-31	1	Switch, Hi-Temperature Cutoff - See note ††.
		1	Grommet, Rubber - See note ††.

† - Units Prior to Serial #532241 use also Brackets 192A294 and 192A295.

†† - Component part of OPTIONAL Air Shutter Assembly 134C816 described above.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 9 - FUEL PUMP PARTS GROUP (Parts Key Nos. 4, 5, 6 and 7) Cont.

9	149A675	1	***Spring, Rocker Arm - Replaces #149A94.
10	516A113	1	Pin, Rocker Arm.
11			Body, Lower - Not Sold Separately.
12	149-710	1	Arm and Link, Rocker - Sold only as a set.
14	149A551	1	Lever, Hand Primer.
15	509-65	2	Seal, "O" Ring.
16	149A404	1	Spring, Fuel Pump Priming Lever.
17	149A3	1	***Gasket, Fuel Pump Mounting.
18	518-129	1	Ring, Retainer - Primer Lever.

FIG. 10 - ELECTRIC CHOKE GROUP (Parts Key Nos. 4, 5, 6 and 7)

1	153A196	1	Adapter, Electric Choke.
2	153A58	1	Bracket, Electric Choke.
3	153A17	1	Element, Choke Bimetal.
4	153A113	1	Cover Assembly, Choke - Includes 12 Volt Heating Element.

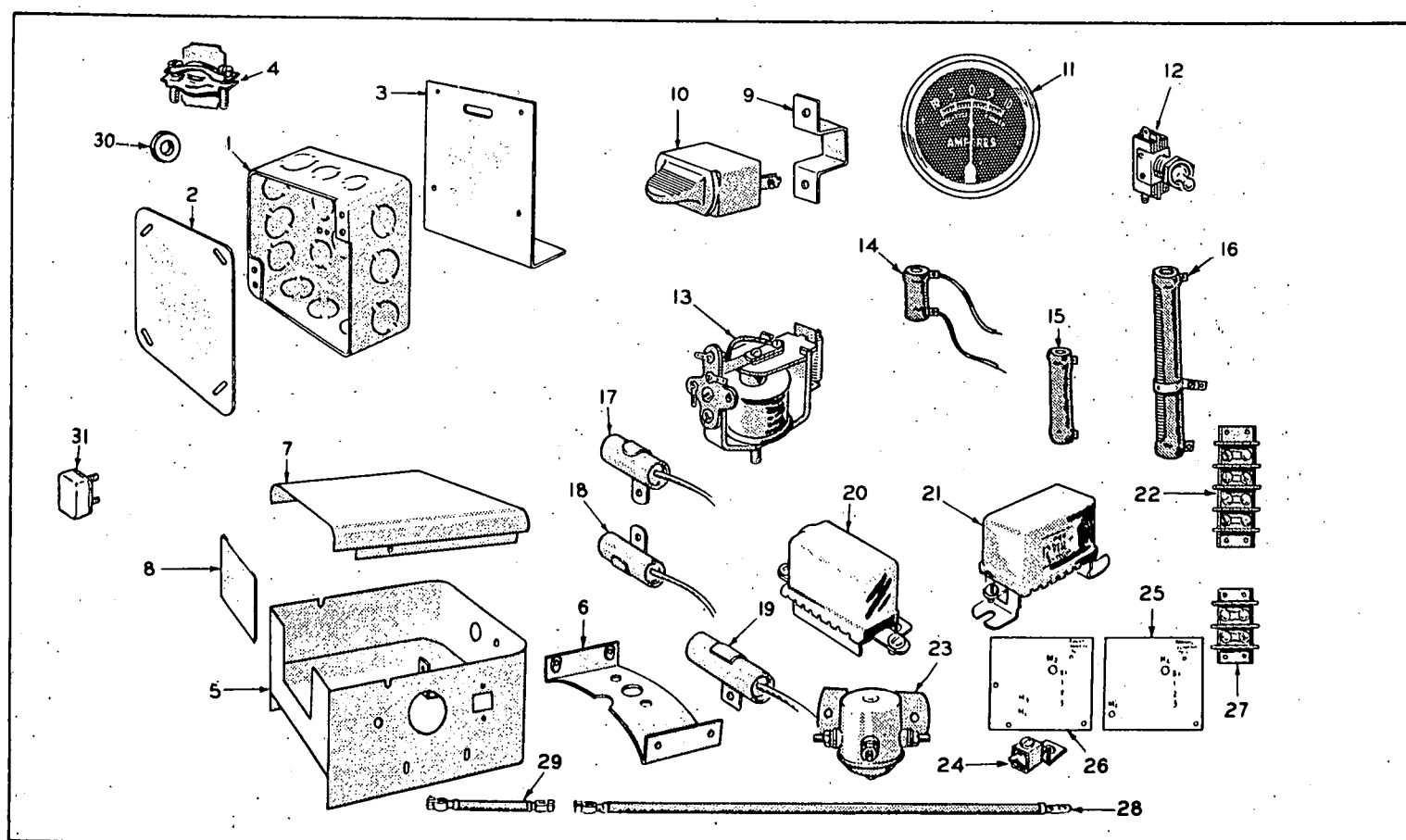


FIG. 13 - CONTROL GROUP

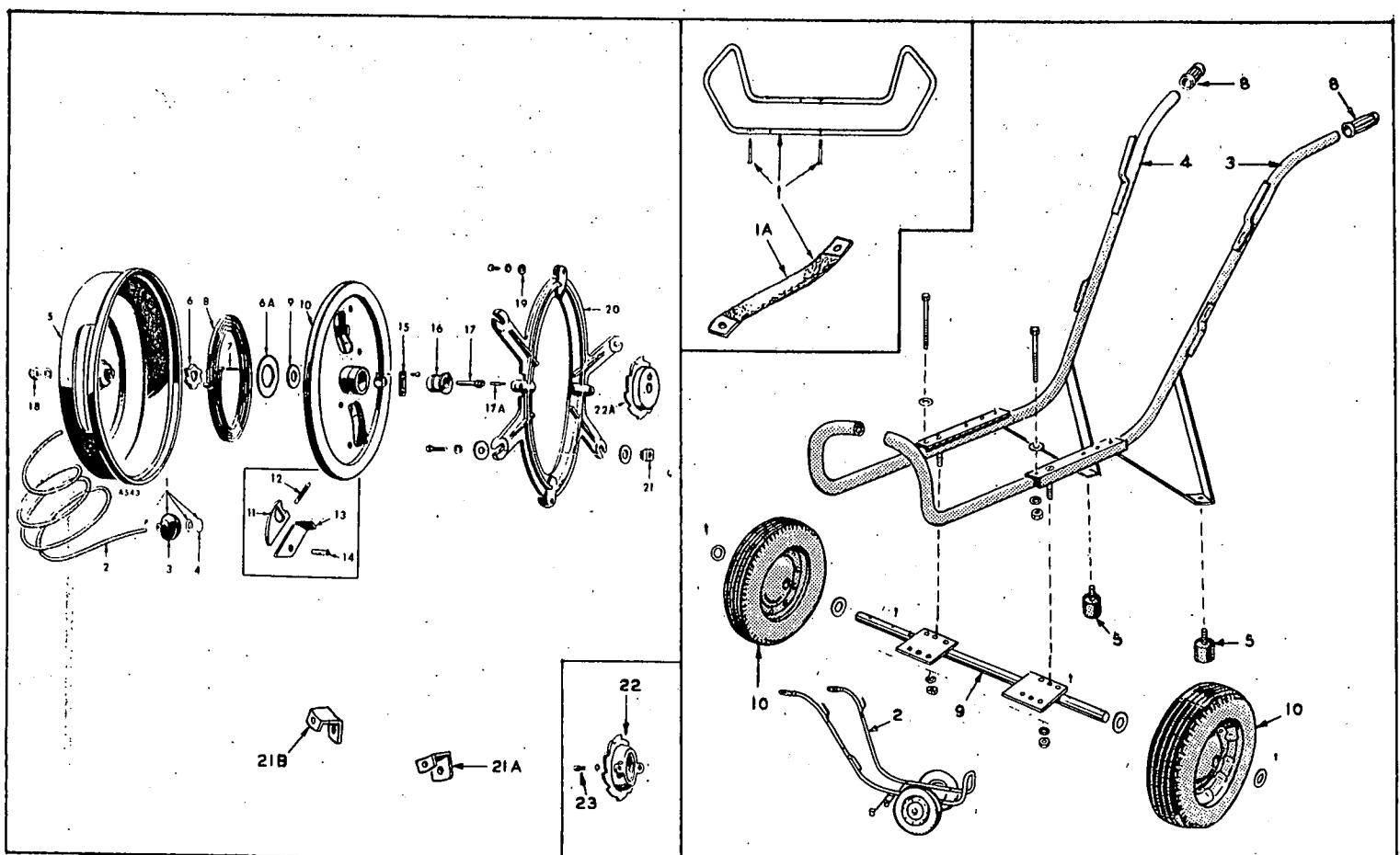


FIG. 14 - READI-PULL STARTER GROUP

FIG. 15 - CARRYING FRAME AND DOLLY GROUP

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 8 - CARBURETOR PARTS GROUP (Cont.)			
10	143A15	1	*Gasket, Fuel Inlet Valve.
11	143-36	1	*Gasket, Bowl Screw.
12	143-105	1	Float and Lever.
13	143-119	1	Bowl.
14	143-77	1	*Gasket, Bowl Ring.
15	143-107	1	Pin, Float Lever.
16	143-39	1	**Valve, Fuel Inlet.
17	143-109	1	Screw, Idle Adjustment.
18	143-110	1	Plug, Welch.
19	143-111	1	Spring, Throttle Lever Adjusting Screw.
20	143-112	1	Spring, Idle Adjustment Screw.
21	143-113	1	Spring, Choke Shaft - Parts Key Nos. 1, 2 and 3.
22	143-114	1	Spring, High Speed Adjusting Needle.
23	143-115	1	Screw, Throttle Lever Adjusting.
24	812-14	4	**Screw, Round Head Machine - #3-48 x 3/16 - Choke and Throttle Valve Attaching.
25	143-117	1	Ball, Choke Shaft - Parts Key Nos. 1, 2 and 3.

FIG. 9 - FUEL PUMP PARTS GROUP (Parts Key Nos. 4, 5, 6 and 7)

	149D893	1	Pump, Fuel - ONAN with Primer Lever - Replaces all earlier Pumps.
	149K526	1	Kit, Fuel Pump Repair - Includes Parts marked (***)
1			Body, Upper - Not Sold Separately.
2	815-148	4	Screw, Hex Head Self Tapping - #8-32 x 7/8 - Pump Assembly.
3	815-147	2	Screw, Phillips Flat Head Self Tapping - #6-32 x 5/8 - Valve Retainer.
4	149-96	2	***Valve and Cage.
5	149A95	2	***Gasket, Valve.
6	149A582	1	***Diaphragm Assembly.
7	149A672	1	***Spring, Diaphragm - Replaces #149A93.
8	149A539	1	Retainer, Valve Cage.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
OPTIONAL GAS FUEL SYSTEM GROUP (Not Illustrated) Cont.			
	148-9	1	*Regulator, Gas Pressure (Ensign Manufacture).
	148C311	1	*Regulator, Gas Pressure (Garretson Manufacture).
	501A25	1	Hose, Regulator to Carburetor (Use with Ensign Manufacture Regulator only).
	503A315	1	Hose, Regulator to Carburetor (Use with Garretson Manufacture Regulator only).
	503-27	2	Clamp, Hose.
	148A107	1	Vent, Atmospheric (Use with Garretson Manufacture Regulator only).
	149A136	1	Cover, Fuel Pump Opening.
	149A3	1	Gasket, Fuel Pump Opening Cover.
	110D883	1	Head, Cylinder High Compression.
	307P312	1	Valve, Gas Solenoid - Optional - Gas Supply Line Shutoff - 12 Volt.
	149P558	1	Strainer, Gas Fuel - 3/4" pipe - Optional - Use ahead of regulator.
	148-300	1	Repair Kit, Gas Regulator - (Ensign Regulator).
	148P390	1	Repair Kit, Gas Regulator - (Garretson Regulator).

* - Two types of gas pressure regulators were used. Compare nameplate on regulator for manufacturer and order parts accordingly.

FIG. 8 - CARBURETOR PARTS GROUP

	143B73	1	Carburetor - Gasoline - Parts Key Nos. 1, 2 and 3.
	143B75	1	Carburetor - Gasoline - Parts Key Nos. 4, 5, 6 and 7.
	143K81	1	Kit, Carburetor Repair Parts - Includes parts below marked (**) (*).
	143K80	1	**Kit, Carburetor Gasket - Includes parts below marked (*).
	145A111	1	Gasket, Air Cleaner to Carburetor (See Fuel System Group).
	145A110	1	*Gasket, Spacing - (Illustrated in Fuel System Group).
1	143-97	1	Valve, Throttle.
2	143-98	1	Shaft and Lever, Throttle.
3	143-99	1	Valve, Choke.
4	143-78	1	**Needle, Idle Jet and High Speed Adjusting.
5	143-30	1	Plug, Idle Passage.
7	143-100	1	Shaft and Weight, Choke - Parts Key Nos. 4, 5, 6 and 7.
8	143-101	1	Shaft and Lever, Choke - Parts Key Nos. 1, 2 and 3.
9	143-118	1	Screw and Gasket, Bowl.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 1 - CYLINDER BLOCK AND OIL BASE GROUP			
1	110A918	1	Block Assembly, Cylinder - 3-1/4" Bore, Cast Iron - Machined for splash lubrication - Includes parts below marked (*).
2	110A902	2	*Guide, Valve.
3	509-30	1	**"O" Ring, Valve Guide - Intake.
4	110A872	1	*Insert, Exhaust Valve Seat - Stellite.
5	101K115	1	*Gasket Kit, Rear Bearing Plate.
7	101A49	1	*Bearing, Front Camshaft.
7A	101A50	1	*Bearing, Rear Camshaft.
8	101B259	1	*Plate, Rear Bearing - Excludes Bearing and Stop Pin - Order Bearing separately in the desired size.
9	101K181	2	*Bearing Kit, Crankshaft - Front or Rear - Precision Type - Specify Standard, or 0.002" or 0.020" Undersize.
10	509-1		Seal, Oil - Crankshaft Rear.
11	102D100	1	Base, Oil.
12	102B107	1	Gasket, Oil Base.
13	402A147	4	Cushion, Rubber Mounting - Upper.
14	402A146	4	Cushion, Rubber Mounting - Lower.
15	402A148	4	Bushing, Cushion Spacing.
13,14,15	402A149	4	Cushion Assembly - Plant Mounting - Includes Cushions and Hardware.
16	110D891	1	Head, Cylinder - Standard Compression - For Gasoline Fuel.
16	110D883	1	Head, Cylinder - High Compression - For Only Gaseous Fuel (Special Models).
17	110A892	1	Gasket, Cylinder Head - Metal Clad.
18	505-110	1	Plug, Square Head Pipe - 3/8" - Oil Drain.
19	516-64	2	*Pin, Groove - Gear Cover Alignment.
21	520A114	4	*Stud, Rear Bearing Plate - 5/16" x 1-5/16" - All except top location.
21	520A532	1	*Stud, Rear Bearing Plate - 5/16" x 1-3/16" - Top Location.
22	517-48	1	*Plug, Expansion - Camshaft (Replaces #517-18).
23	505-76	1	Nipple, Pipe - 3/8" x 3" - Oil Drain Extension.
24	505-28	1	Coupling, Pipe - 3/8" - Oil Drain Extension.
25	516A72	2	*Pin, Crankshaft Bearing Stop - (1) Block, (1) Bearing Plate.
26	110A445	5	*Nut, Hex - Hardened - 5/16-24" - Mounting Bearing Plate.

* Parts within assembly.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 1 - CYLINDER BLOCK AND OIL BASE GROUP (Cont.)

27	123A517	1	Tube, Oil Fill - Includes Neck and Adapter.
28	123A519	1	Cap and Indicator, Oil Fill.
29	123A191	1	Gasket, Oil Fill Cap.
	110A879	4	Screw, Hex Head Cap - Hardened - 5/16-18" x 1-1/4" - Cylinder Head.
	114A22	5	Screw, Hex Head Cap - Hardened - 5/16"-18" x 1-3/4" - Cylinder Head.
	114A22	4	Screw, Hex Head Cap - 5/16-18 x 1-3/4" - Gear Cover (Replaces #800-32).
	800-34	1	Screw, Hex Head Cap - 5/16-18 x 2-1/4" - Gear Cover.
	800-56	4	Screw, Hex Head Cap - 3/8-16 x 2-1/2" - Oil Base.

FIG. 2 - VALVE AND BREATHER GROUP

1	110B881	1	Valve, Intake.
2	110B880	1	Valve, Exhaust - Stellite Faced.
3	110A539	2	Spring, Valve.
4	110A893	1	Retainer, Valve Spring - Intake.
5	110A904	1	Rotocap - Exhaust Valve.
6	110A639	4	Lock, Valve Spring Retainer.
7	115A6	2	Tappet, Valve.
8	110A919	1	Cover, Valve Compartment.
9	110A667	1	Gasket, Valve Compartment Cover.
10	123A486	1	Valve, Breather - With 5/16" Ball.
11	503A288	1	Hose, Breather - 5/16" I.D. x 5" Long - Use on Air Cleaner with Straight Inlet Tube - Models prior to Serial #534687.
11	503A193	1	Hose, Breather - 5/16" I.D. x 3-3/8" Long - Use on Air Cleaner with Curved Inlet Tube - Models begin With Serial #534687.
11	503-271	1	Hose, Breather - 5/16" I.D. x 5-5/8" Long - With Oil Bath Air Cleaner.
	800-15	1	Screw, Hex Head Cap - 1/4-20 x 3" - Valve Compartment Cover.
	526-63	1	Washer, Flat - Copper - Valve Compartment Cover Screw.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 7 - GASOLINE FUEL SYSTEM GROUP (Cont.)

18	149B79	1	Filter, Fuel.
19	149A149	1	Gasket, Fuel Filter Bowl.
20	149-150	1	Bowl, Fuel Filter.
21	502-3	2	Connector, Inverted - Male - Filter (1) Carburetor (1) - Parts Key Nos. 1, 2 and 3.
22	159A536	1	Line, Fuel - Filter to Carburetor - Parts Key Nos. 1, 2 and 3.
23	415A126	1	Tank, Fuel (Replaces #415A10) Parts Key Nos. 5, 6 and 7.
24	504A13	1	Valve, Fuel Shut-off - With Screen - Obsolete tank #415A10
25	501A27	1	Line, Fuel - Parts Key Nos. 5, 6 and 7 - NOTE: To install this line through rain cap when replacing 501A81, remove fitting from one end.
26	140P587	1	Knob, Plastic - Oil Bath Air Cleaner Mounting.
27	505-87	1	Nipple, Pipe - 1 x 3 - Muffler.
27A	155B127	1	Tube, Flexible - Exhaust - Includes Coupling - Parts Key Nos. 4, 5, 6 and 7.
28	505-3	1	Elbow, Street - 1" x 90° - Exhaust.
29	331-53	1	Locknut - Exhaust Elbow.
30	155B484	1	Muffler.
31	155A293	1	Plate, Wall - Exhaust Line - Parts Key Nos. 5, 6 and 7.
32	415B124	1	Cap, Rain - For Tank #415P125 - Parts Key Nos. 5, 6 and 7.
33	140B441	1	Cleaner, Air - Oil Bath Type.
34	140A443	1	Gasket, Air Cleaner (Oil Bath).
35	140B493	1	Adapter, Air Cleaner (Oil Bath).
36	520A538	1	Stud, Air Cleaner to Adapter (Oil Bath).
	520A363	2	Stud, Carburetor Mounting.
	815-190	2	Screw, Tapping - #8-32 x 3/8 - Choke Mounting - Parts Key Nos. 4, 5, 6 and 7.
	526-63	2	Washer, Gasket - Copper - Fuel Pump or Cover Screw.

OPTIONAL GAS FUEL SYSTEM GROUP (Not Illustrated)

NOTE: Refer first to this group for gas fuel system parts.

148K336	1	Kit, Gas (only) Conversion - Contains Garretson Regulator, Carburetor and associated parts.
143A91	1	Carburetor, Gas Fuel - Includes #148A268 Main Adjusting Needle Valve.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 6 - IGNITION AND FLYWHEEL GROUP (Cont.)			
26	167A1296	1	Lead, High Tension - Spark Plug.
27	192A23	1	Rope and Handle, Manual Starting.
30	332P529	2	Terminal, Solderless - Anti-Flicker Lead - Condensers.
31	312A15	1	Condenser, 0.1 Mfd. - Ignition Coil - Parts Key Nos. 4, 5, 6 and 7.
32	336A324	1	Lead, Coil to Control Box - Parts Key Nos. 4, 5, 6 and 7.
33	336A443	1	Lead, Coil to Ground - Parts Key Nos. 1, 2 and 3.
34	160B500	1	Bracket, Timing - Vacu-Flo Plant - Parts Key Nos. 4, 5, 6 and 7.

FIG. 7 - GASOLINE FUEL SYSTEM GROUP

1			Carburetor -
	143B73	1	Parts Key Nos. 1, 2 and 3.
	143B75	1	Parts Key Nos. 4, 5, 6 and 7.
2	140A397	1	Cleaner, Air.
3	145A111	1	Gasket, Air Cleaner to Carburetor.
4	145A110	1	Gasket, Spacing - Carburetor Flange.
5	149D693	1	Pump, Fuel - Parts Key Nos. 4, 5, 6 and 7 - (Replaces all earlier Pumps).
6	502-2	2	Elbow, Inverted - Male - Carburetor and Fuel Pump.
8	502-46	1	Nipple, Close - Fuel Filter.
9	502-20	2	Elbow, Street - Filter and Fuel Pump.
10	149A3	AS REQ.	Gasket, Fuel Pump (2) or Hole Cover (1).
11	149A45	1	Spacer, Fuel Pump Mounting - Parts Key Nos. 4, 5, 6 and 7.
12	149A136	1	Cover, Fuel Pump Hole - Parts Key Nos. 1, 2 and 3.
13	149B614	1	Line, Fuel - Fuel Pump to Carburetor - Parts Key Nos. 4, 5, 6, and 7
14	159C530	1	Tank, Fuel - Less Cap and Drain Plug - Parts Key Nos. 1, 2 and 3.
15	159A7	1	Cap, Fuel Tank - Less Chain - Parts Key Nos. 1, 2 and 3.
16	159A537	2	Strap, Fuel Tank - Parts Key Nos. 1, 2 and 3.
17	159D531	1	Bracket, Fuel Tank - Parts Key Nos. 1, 2 and 3.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 3 - GEAR COVER GROUP			
1	103C160	1	Cover Assembly, Gear - Includes parts marked (*).
2		1	*Cover, Gear - Not Sold Separately.
3	516-130	1	*Pin, Roll - 3/16" x 7/8" - Governor Cup Stop - (Replaces 516-117).
4	150B610	1	*Arm and Shaft, Governor - Excludes Stud.
5	150A136	1	*Stud, Governor Sensitivity Adjusting.
6	150A620	1	*Yoke, Governor Shaft - Includes Retainer Ring #518-129 (Replaces #150A236).
7	518-129	1	*Ring, Retaining - Governor Yoke.
8	509-8	1	*Seal, Oil - Governor Shaft.
9	510-8	1	*Bearing, Needle - Governor Shaft - Lower.
10	510-13	1	*Bearing, Needle - Governor Shaft - Upper.
11	510-14	1	*Ball, Governor Shaft Thrust.
12	150A611	1	Bracket, Governor Spring.
13	509-11	1	*Seal, Oil - Crankshaft - Front.
14	150A98	1	Spring, Governor.
15	150A213	1	Stud, Governor Spring Tension Adjusting.
16	870-131	1	Nut, Governor Adjusting - Small.
17	103B11	1	Gasket, Gear Cover.
18	150A578	1	Link, Governor Arm to Carburetor (Replaces #150A609).
19	518-6	1	Clip, Governor Link to Carburetor.
20	150A639	1	Joint, Ball (Replaces #150A300).

* - Parts within Assembly.

FIG. 4 - CRANKSHAFT, CAMSHAFT AND GOVERNOR CUP GROUP

1	104D272	1	Crankshaft
2	104A43	1	Washer, Crankshaft Gear.
3	518-14	1	Ring, Lock - Crankshaft Gear.
4	105A72	1	Gear Set, Timing - Crankshaft and Camshaft.
5	105-141	1	Camshaft and Pin Assembly.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 4 - CRANKSHAFT, CAMSHAFT AND GOVERNOR CUP GROUP (Cont.)

6	150B612	1	Cup, Governor.
7	150A77	1	Plate, Governor Ball.
8	150B85	1	Spacer, Governor Ball.
9	515-1	2	Key, Gear.
10	150A78	1	Ring, Lock - Governor Center Pin.
11	105A4	1	Washer, Camshaft Thrust.
12	510-15	10	Ball, Governor Fly.
13	150A75	1	Pin, Governor Center.

FIG. 5 - PISTON AND CONNECTING ROD GROUP

1	112-71	1	Piston and Pin Assembly - Specify: Standard or, .010", .020", .030" Oversize.
2	112A69	1	Pin, Piston - Specify: Standard or .002" Oversize.
3	112A3	2	Ring, Piston Pin Retaining.
4	113A87	1	Ring Set, Piston - Specify: Standard or .010", .020", .030" Oversize.
5		2	Ring, Piston Compression - Order Ring Set #113A87.
6		1	Ring, Piston Oil Control - Order Ring Set #113A87.
7	114C107	1	Rod, Connecting - Specify: Standard or .020" Undersize.
8	114B108	1	Dipper, Oil - Splash Lubrication.
9	110A284	2	Screw, Hex Head Cap - 5/16-18 x 1-1/2" - Connecting Rod.
10	114A59	2	Washer, Connecting Rod (Replaces #854-17).

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 6 - IGNITION AND FLYWHEEL GROUP

1A	160D650	1	Flywheel, Magneto - Parts Key Nos. 1, 2 and 3 - Begin Spec "B".
1B	160D202	1	Flywheel, Magneto - Parts Key Nos. 1, 2 and 3 - Prior to Spec "B".
1C	134D591	1	Flywheel - For PRESSURE COOLED Plants with Parts Key Nos. 5, 6 and 7.
1D	104D266	1	Flywheel - For VACU-FLO COOLED Plants with Parts Key Nos. 4, 5, 6 and 7.
2A	192B308	1	Sheave, Rope - For PRESSURE COOLED Plants with Parts Key Nos. 5, 6 and 7 - Begin Spec "B".
2A	192B308	1	Sheave, Rope - Parts Key Nos. 1, 2 and 3 - Begin Spec "B".
2B	160B222	1	Sheave, Rope - Parts Key Nos. 1, 2 and 3 - Prior to Spec "B".
2C	192B291	1	Sheave, Rope - For PRESSURE COOLED Plants with Parts Key Nos. 5, 6 and 7 - Prior to Spec "B".
2D	192B272	1	Sheave, Rope - For VACU-FLO COOLED Plants with Parts Key Nos. 4, 5, 6 and 7.
3	515-2	1	Key, Flywheel (Replaces #515A112).
4	104A170	1	Screw, Flywheel Mounting.
5	526A17	1	Washer, Flywheel Mounting - All models(except not used Begin Spec "B" on Parts Key Nos. 1, 2 & 3).
6	162A196	1	Stator Assembly, Magneto - Parts Key Nos. 1, 2 and 3. -(Replaces 162A237)
7	160A282	1	Coil, Magneto Stator - Parts Key Nos. 1, 2 and 3.
8	160A281	1	Pole Shoe, Magneto - Parts Key Nos. 1, 2 and 3.
9	336A388	1	Lead, Stator to High Tension Coil - Parts Key Nos. 1, 2 and 3.
12	160A515	1	Gasket, Breaker Box Mounting.
13			Cover, Breaker Box -
	160B497	1	Parts Key Nos. 4, 5, 6 and 7.
	160B510	1	Parts Key Nos. 1, 2 and 3.
14	160B498	1	Box Assembly, Ignition Breaker - Less Cover.
15	160A513	1	Contact Point Set - Dual - Ignition and Anti-Flicker.
16	312A100	2	Condenser - 0.5 Mfd. - Ignition or Anti-Flicker.
17	160A262	1	Plunger, Breaker.
18	166A67	1	Strip, Breaker Dampener Hold-down.
19	166A49	1	Dampener, Breaker Spring.
20	166B278	1	Coil, Ignition - High Tension. - (Replaces 166B259)
21	166B260	1	Bracket, Coil Mounting.
22	167-28	1	Plug, Spark.
23	167A139	1	Shield, Spark Plug - Includes Clamp #167A64.
24	167A64	1	Clamp, Spark Plug Shield.
25	336A1061	1	Lead, Coil to Breaker Points.