PARTS CATALOG

FOR



DIESEL ELECTRIC GENERATING PLANTS

DRN SERIES

ONAN

2515 UNIVERSITY AVE. S.E. • MINNEAPOLIS, MINNESOTA 55414

A DIVISION OF STUDEBAKER CORPORATION

IN CANADA: ONAN GENERATORS CANADA LTD., POST OFFICE BOX 652, GUELPH, ONTARIO INTERNATIONAL DISTRICT OFFICE: EMPIRE STATE BLDG., 350-5TH AVE., RM. 2204, NEW YORK 10001

939-2

Power Generation

1AC63 Printed in U.S.A.

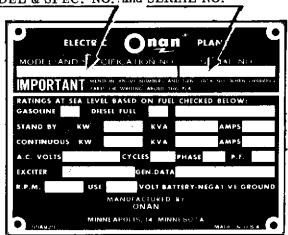
INSTRUCTIONS FOR ORDERING REPAIR PARTS

FOR PARTS OR SERVICE, CONTACT THE DEALER FROM WHOM YOU PURCHASED THIS EQUIPMENT OR REFER TO YOUR NEAREST 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.



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

- 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 AU-THORIZED 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".



PARTS CATALOG

This parts catalog applies to the standard DRN Generating Plants as listed in the Plant Data Table.

Parts are illustrated and identified by corresponding reference numbers in the Parts List. Parts 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 models. Unless otherwise mentioned in the parts description, parts are interchangeable between the various models.

Plant Data Table

			ECTRI		DATA		PARTS
MODEL AND SPEC. NO	TYPE	WATTS	VOLTS	CYCLES	PHASE	WIRE	KEY NO.
6DRN-1RV/1A *	REMOTE	6000	120	60	1	2	
6DRN-2RV/1A *	REMOTE	6000	240	60	1	2	
5DRN-51RV/1A *	REMOTE	5000	120	50	1	2	1
5DRN-52RV/1A *	REMOTE	5000	240	50	1	2	:
6DRN-3RV/1A *	REMOTE	6000	120/24	40 60	1	3	0
5DRN-53RV/1A *	REMOTE	5000	120/24	40 50	1	3	2
6DRN-4RV/1A *	REMOTE	6000	120/20	08 60	3	4	9
5DRN-54RV/1A *	REMOTE	5000	120/20	50	3	4	3
6DRN-5RV/1A *	REMOTE	6000	240	60	3	3	
5DRN-55RV/1A *	REMOTE	5000	240	50	3	3	4

^{* =} This Spec Letter advances with Manufacturing changes.



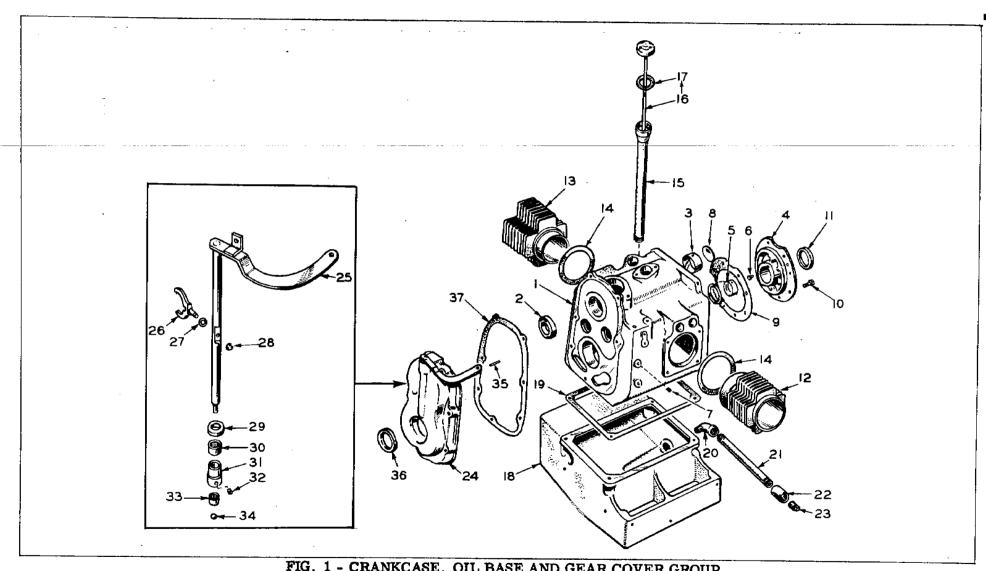
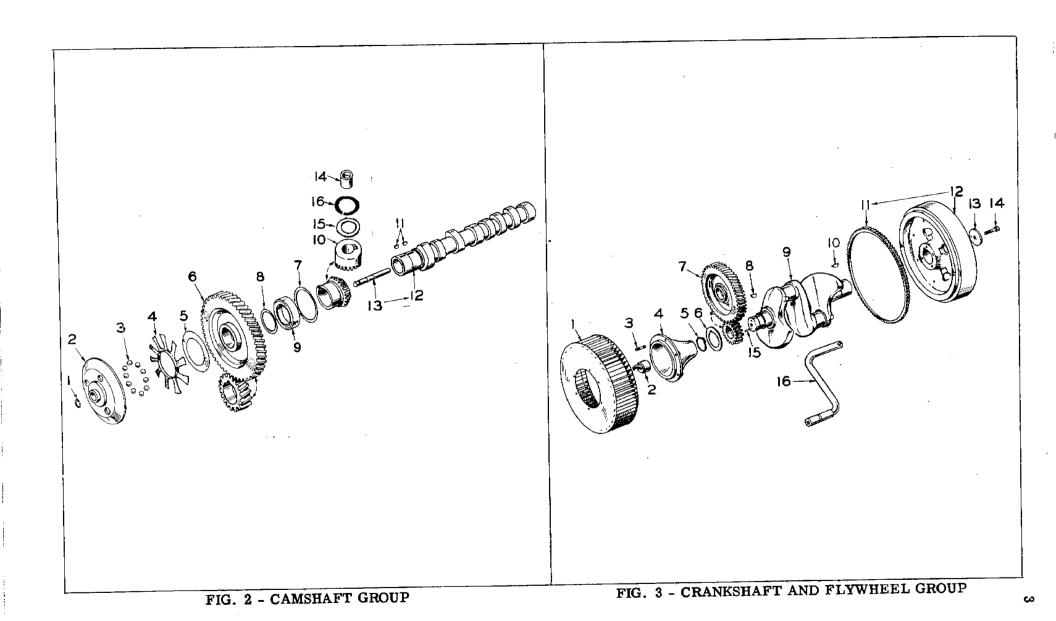


FIG. 1 - CRANKCASE, OIL BASE AND GEAR COVER GROUP







Redistribution or publication of this document by any means, is strictly prohibited.

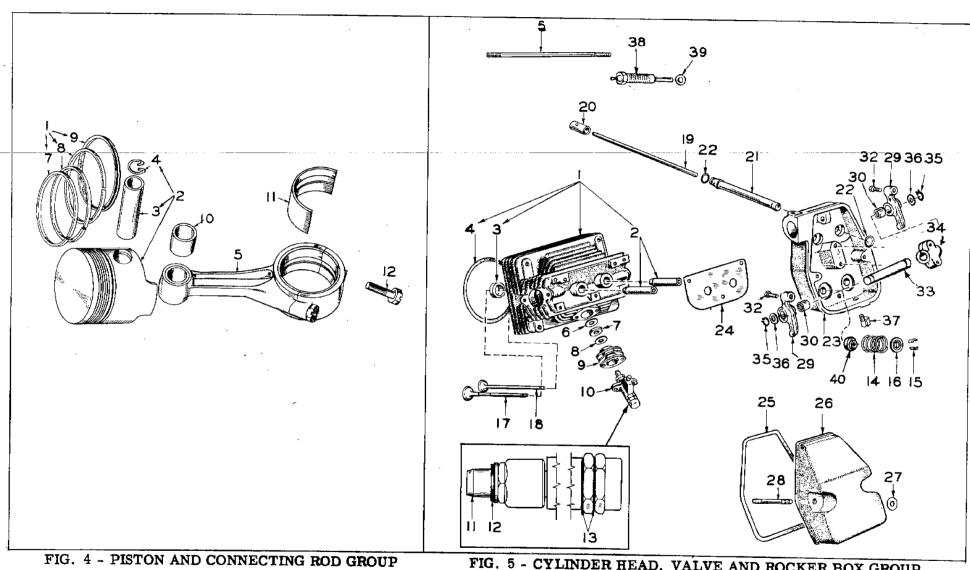
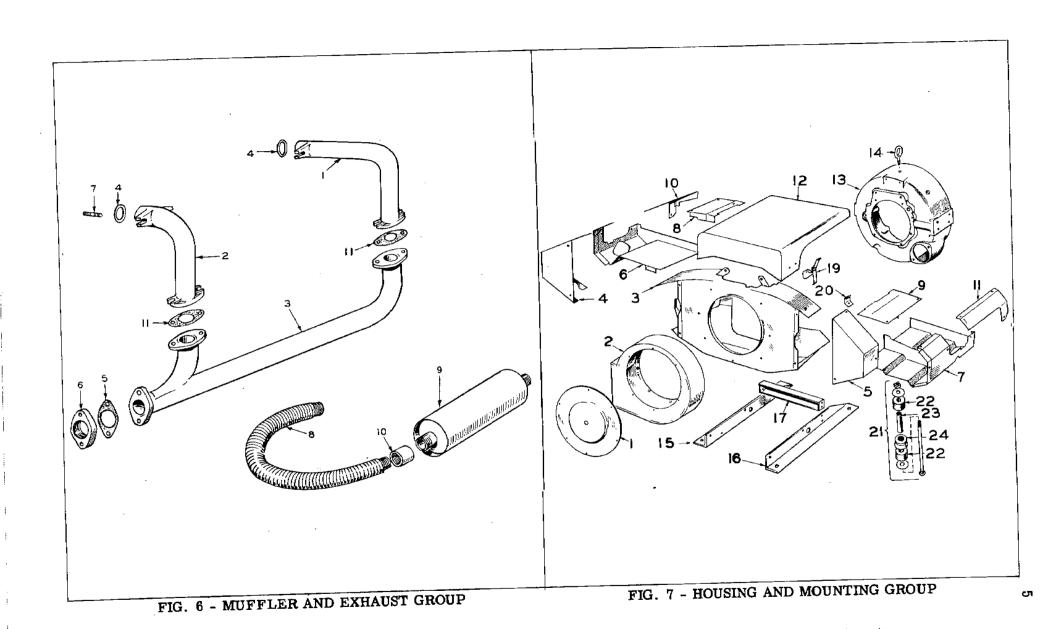
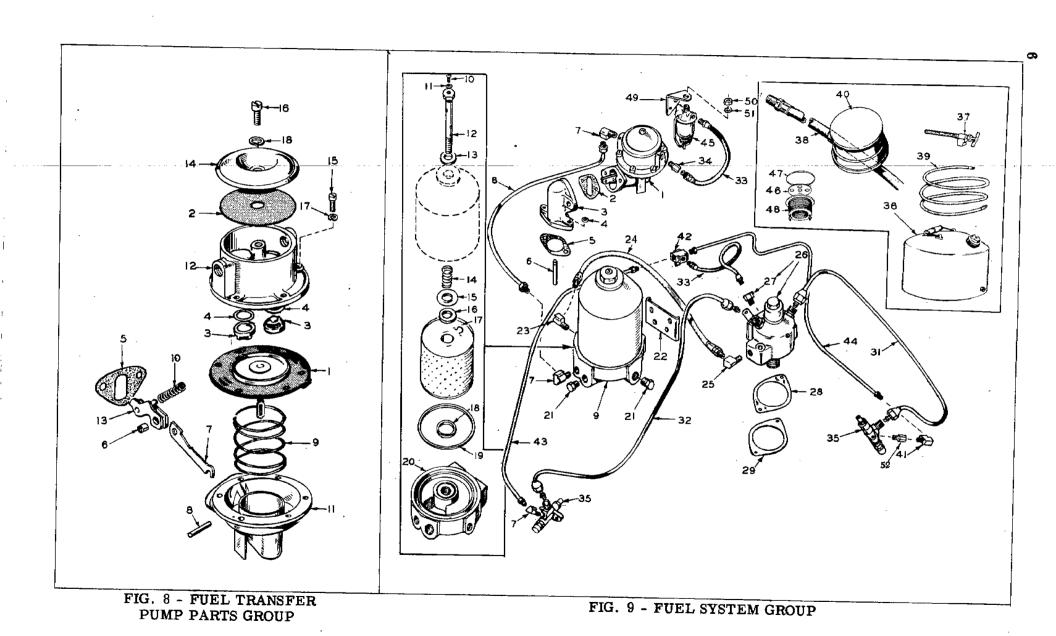


FIG. 5 - CYLINDER HEAD, VALVE AND ROCKER BOX GROUP











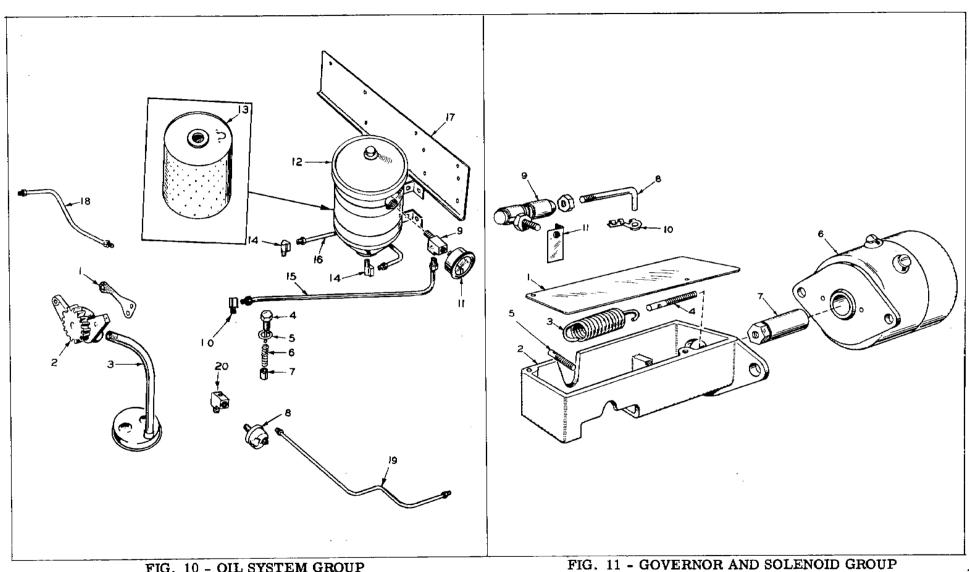


FIG. 10 - OIL SYSTEM GROUP



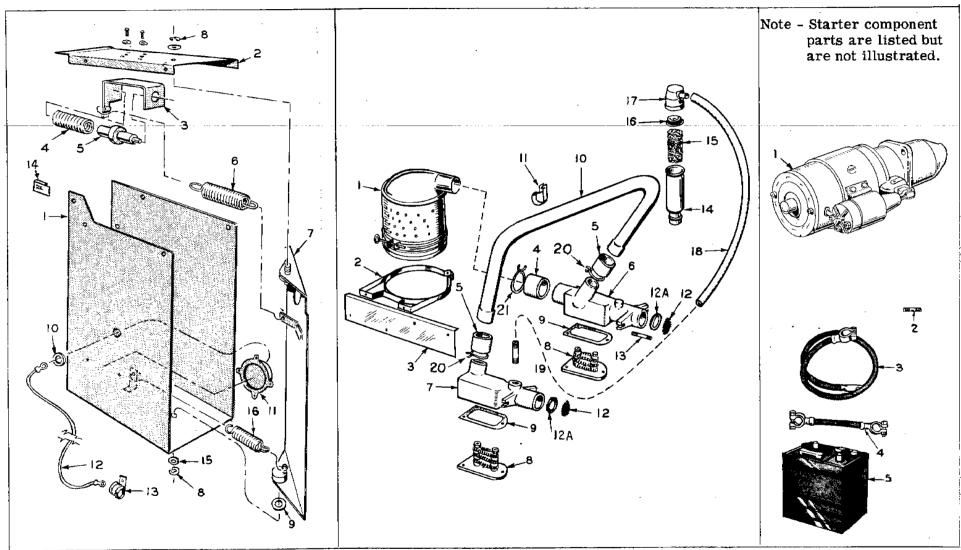


FIG. 12 - AIR SHUTTER GROUP

FIG. 13 - AIR CLEANER, HEATER AND MANIFOLD GROUP

FIG. 14 - STARTING MOTOR GROUP



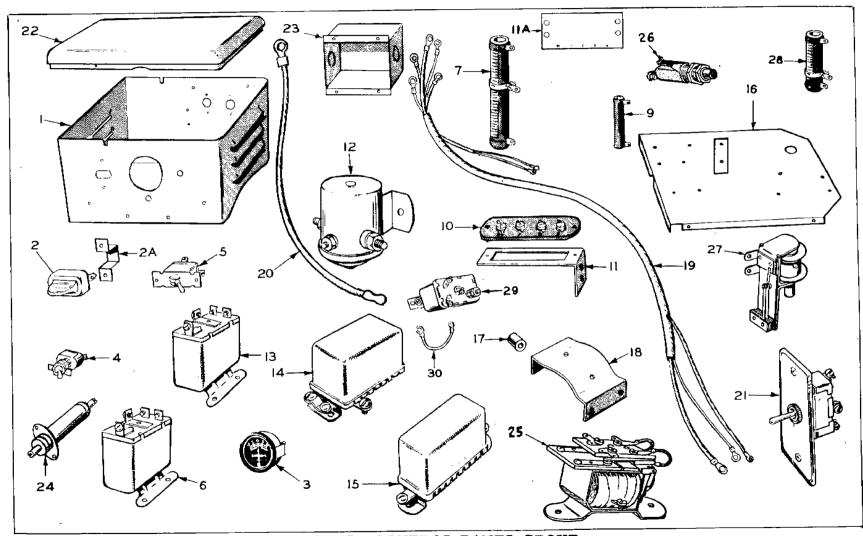
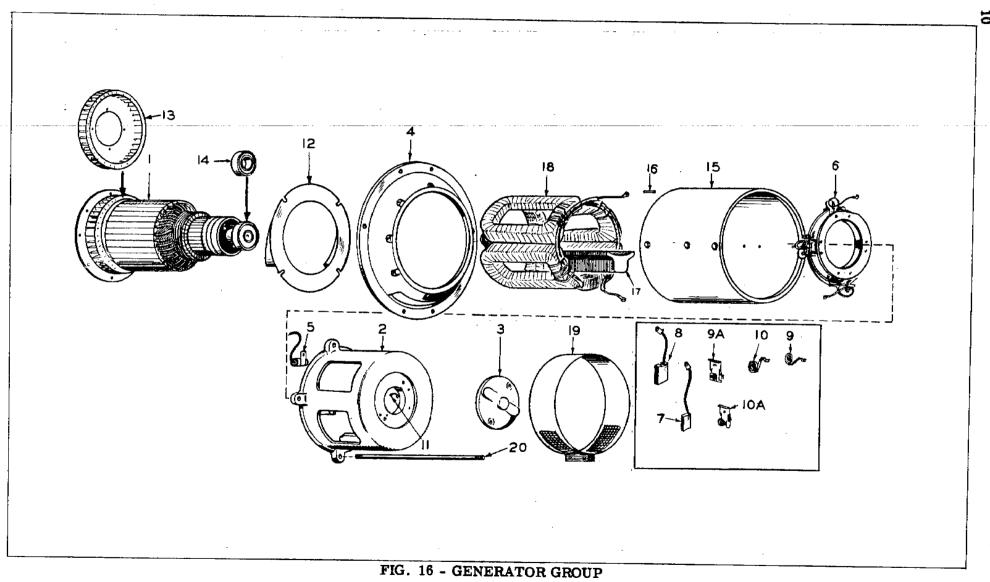


FIG. 15 - CONTROL PANEL GROUP







REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
	1	FIG. 1 - CRAI	NKCASE, OIL BASE AND GEAR COVER GROUP
1	101A310	1	Crankcase, Replacement - Includes Camshaft Sleeve Bearing, Main Bearings, Rear Bearing Plate and Plugs - Less Studs, Oil Seal, Camshaft Ball Bearing.
2	510-19	. 1	Bearing Camshaft - Front - Ball Type (Listed also with Camshaft Group).
3	101A367		Bearing, Camshaft - Rear - Sleeve Type - Precision - Replaces 101A50.
4	101C268	\cdot $\bar{1}$	Dieto Boon Main Rearing - Less Bearing and Lock Vin.
5	101K341	2	Bearing Kit, Front and Rear Main - Includes Thrust Washer and 2 Lock Pins - Precision type Bronzed Faced - Specify: Standard Size, .002", .010", .020" or .030" Undersize - (Replaces Kit 101K220, Beginning Spec C).
6	51 <i>€</i> 472	2	Pin, Lock - Main Bearing.
7	50⊸274	4	Plug. Pipe - 1/8 - Countersunk Head.
8	517-4 8	1	Plug, Expansion - Rear Camshaft Bearing Opening.
9	101K116	1	Gasket Kit, Rear Bearing Plate - Assorted Thickness.
10	805-18	8	Bolt, Place - Rear Bearing Plate - 3/8-16 x 1".
11	509P64	1	Seal, Oil - Rear Bearing Plate.
12	110D1151	1	Cylinder, R.H #2 Cylinder.
13	110D1047	1	Cylinder, L.H #1 Cylinder.
14	110K1136	2	Gasket Kit, Cylinder Base.
15	123A437	1	Tube, Oil Fill.
16	123A582	1	Indicator, Oil Level.
17	123A191	1	Gasket, Oil Level Indicator.
18	102E415	1	Base, Oil.
19	102B215	1	Gasket, Oil Base.
20	505-51	1	Elbow, Pipe - $3/4$ ".
21	505-268	1	Nipple, Pipe - $3/4 \times 9$ ".
22	505-2 9	1	Coupling, Pipe - 3/4".
23	505-130	1	Plug, Pipe - 3/4".
24	103A203	1	Cover Assembly, Gear - Includes parts marked A.
25	150A720	1	▲Arm and Shaft, Governor.
26	150A620	1	▲Yoke, Governor - Includes Retainer Ring.
27	526-140	1	▲Washer, Flat - Yoke Spacing.
28	518-129	1	▲Ring, Retainer "E" - Yoke.



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
		FIG. 1 -	CRANKCASE, OIL BASE AND GEAR COVER GROUP (Cont.)
29	509P8	1	▲Seal, Oil - Governor Shaft.
30	510P13	1	ABearing, Needle - Governor Shaft (Large).
31	150A229		Collar, Governor Shaft.
32	815-154	1	AScrew, Set - Socket Head - #10-32 x 3/16" - Governor Shaft Collar.
33	510A8	1	*Bearing Needle - Governor Shaft (Small).
34	510P14	ī	ABall, Bearing - Governor Shaft.
35	516-130	1	△Pin, Roll - 3/16 x 7/8" - Governor Cup Stop.
36	509-19	· 1	ASeal, Oil.
37	103B36	ī	Gasket, Gear Cover.

A - Parts contained in Gear Cover Assembly.

FIG. 2 - CAMSHAFT GROUP

1	150A78	1	Ring, Snap - Camshaft Center Pin.
2	150B612	1	Cup, Governor.
3	510P15	10	Ball, Governor.
4	150B85	1	Spacer, Governor Ball.
5	150A77	1	Plate, Governor Ball.
6	105-184	1	Gear Set. Timing - Includes Com and Cook Cook (7 to 1 1 1 1
7	526A162	1	Gear Set, Timing - Includes Cam and Crank Gears (Listed also in Crankshaft Group). Washer, Camshaft Thrust.
8	526A163	1	Washer, Camshaft Gear Spacing.
9	510-19	1	Bearing, Ball - Camshaft Front (Listed also in Crankcase Group).
10	147-99	1	Gear Set, Injection Pump.
11	515-1	2	Key, Gear.



PARTS
TIST

REF.	PART NO.	QUANT. USED	DESCRIPTION
			FIG. 2 - CAMSHAFT GROUP (Cont.)
12 13 14	105-185 150A75 115A114 526A157	1 1 1	Camshaft - Includes Center Pin. Pin, Camshaft Center. Tappet. Washer, Thrust - Driven Gear to Crankcase.
15 16	518-174	1	Ring, Internal Retaining - Driven Gear to Crankcase.
	40.470.40		FIG. 3 - CRANKSHAFT AND FLYWHEEL GROUP
1	134C848	1	Wheel, Blower.
$\frac{1}{2}$	104B252	1	Dog, Crank. Screw, Blower Wheel and Crank Dog - 7/16-14 x 2".
	800-75	1	Hub, Blower Wheel.
Ą	134C845 518-16	i 1	Ring, Snap - Crankshaft Gear Retaining.
5	104A95	1	Washer Crankshaft Gear Retaining.
6 7	104A93 105-184	1	Gear Set - Timing - Includes Cam and Crank Gears - Listed also in Camshaft Group.
8	515-1	1	Key, Crankshaft Gear.
9	104D172	1	Crankshaft.
10	515-90	1	Key, Flywheel.
11	104-137	1	Gear, Ring.
12	104B404	1	Flywheel - Includes Ring Gear (Replaces #104D251).
13	104A160	1	Washer, Flywheel - Flat.
14	800-73	1	Screw, Flywheel - $7/16-14 \times 1-1/2$ ".
15	516-116	2	Pin, Roll - Blower Wheel Hub.
16	192B29	1	Crank, Hand.



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
			FIG 4 - PISTON AND CONNECTING ROD GROUP
1	113-91	2	Ring Set, Piston - Includes (1) #113A 43 (2) #113A 15 and (1) #113A 40 G
2	112-82	2	
3	112A16	2	Tibloit and Fill A SSEIIDIV - Specify: Standard or A1011 Apolt Apolt Andreas
4	112A 19	4	
5	114B52	2	Retainer, Piston Pin.
	202	2	Rod, Connecting - Includes Bushing and Bearings - Specify: Standard or, .002", .010",
6	805-20	4	,
7	113A 43	2	Bolt, Place - Connecting Rod - 3/8-24 x 1-1/2".
8	113A15	4	Ring, Top Compression - Order 113-91.
9	113A 49		Ring, Compression - Lands 2 and 3 - Order 113-91.
10	114A 54	2	Ring, Oil Control - Order 113-91
11	114B53	4	Bushing, Connecting Rod - To Wrist Pin - Semi-Finished.
	114000	4	Bearing Half, Connecting Rod - Precision Type - Specify: Standard or, .002", .010", .020" or .030" Undersize.
		FI	G 5 - CYLINDER HEAD, VALVE AND ROCKER BOX GROUP
1			Head Assembly, Cylinder - Includes Valve Guides and Seats -
	110A 1140	1	Left Hand or #1 Cylinder.
	110A1063	1	Right Hand or #2 Cylinder.
2	110A 1043	4	Guide, Valve.
3	110A 343	2	Seat, Valve Insert - Exhaust - Specify: Standard or .005'', .010'', or .025'' Oversize.
<u>4</u> -	110A 1048	2	- Thanks, Officar Tour - Copper.
5	520A 549	8	Stud, Cylinder - $1/2 \times 7 - 7/8$ ".
3	110A 419	2	Gasket, Nozzle Heat Shield to Head - Copper - 1/32" Thick.
7	147A 44	2	Shield, Nozzle Heat - Steel (Approximately 3/16" Thick).
3	147A 43	2	2 10 22 10 11 Cat - Steel IA HILLIAN WALLEY WALLEY



P
\rightarrow
Z
\dashv
Ś
S
-

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
		FIG.	5 - CYLINDER HEAD, VALVE AND ROCKER BOX GROUP (Cont.)
 9	147B78	2	Adapter, Nozzle.
10	147B81	2	Nozzle and Holder Assembly.
11	147-16	2	Nozzle only - Component of Nozzle and Holder Assembly.
12	147-12	2	Gasket, Nozzle Holder - Copper - Component of Nozzle and Holder Assembly.
13	147-33	4	Gasket, Nozzle Holder Cap - Copper - 1/16" Thick.
14	110A236	4	Spring, Valve.
15	110A501	4	Lock, Valve Spring Retainer.
16	110/.1038	4	Washer, Valve Spring Retainer.
17	11/ 11041	2	Valve, Exhaust.
1 8	110A1042	2	Valve, Intake.
19	115A103	4	Rod, Push - Valve.
20	115B96	4	Tappet, Valve.
21	115A102	4	Shield, Push Rod.
22	509P18	8	Seal, "O" Ring - 7/8"O.D. x 3/32" Diameter - Push Rod Shield.
23			Box, Rocker.
	115 D 97	2	Spec "A" Models only (Replaces #115D120).
	115D119	2	Begin Spec "B".
24	⁻√ 115A104	2	Gasket, Rocker Box.
2 5	∍ 115 A 109	2	Gasket, Rocker Box Cover.
26	115C100	2	Cover, Rocker Box.
27	526-65	10	Washer, Flat - Copper (4) Rocker Box Cover, (6) Rocker Box Mounting.
2 8	520A554	4	Stud, Rocker Box Cover - 5/16 x 3-9/16".
2 9	115A108	4	Arm, Rocker - Intake or Exhaust - Includes Needle Bearing and Screw.
30	510-51	4	Bearing, Needle - Rocker Arm.
32	115A91	2	Screw, Rocker Arm to Push Rod Adjustment (Valve Clearance) Self Locking.
33	115A106	2	Shaft, Rocker Arm.
34	115A113	2	Bracket, Rocker Arm Shaft Mounting.
35	518-7	4	Ring, Retaining - External - Rocker Arm to Shaft.
36	115A105	4	Washer, Rocker Arm.
37	502-2	2	Elbow, Inverted Male - 400 x 4 - Rocker Box Oil Drain.
3 8	333A37	2	Plug, Glow - With Gasket.
39	110A546	2	Gasket, Glow Plug.
40	110A1158	4	Spacer, Valve Spring - Begin Spec "B".



REF.	PART NO.	QUANT. USED	DESCRIPTION
		FIG.	5 - CYLINDER HEAD, VALVE AND ROCKER BOX GROUP (Cont.)
	869-2	4	Nut, Hex Cap - 5/16-24 - Rocker Box Cover.
	860-15	4	Nut, Hex - $5/16-18$ - Rocker Box.
	526A35	8	Washer, Flat - Cylinder Head.
	110A707	8	Nut, Hex - $1/2$ -20, Hardened - Cylinder Head.
	800- 2 8	2	Screw, Hex Head Cap - 5/16-18 x 1" - Rocker Box to Head.
	800- 34	4	Screw, Hex Head Cap - $5/16-18 \times 2-1/4$ " - Nozzle Holder.
	800-53	4	Screw, Hex Head Cap - 3/8-16 x 1-3/4" - Rocker Arm Shaft Bracket.
	850-45	4	Washer, Lock - 5/16" - Nozzle Holder.
	850-50	4	Washer, Lock - 3/8" - Rocker Arm Shaft Bracket.
			FIG. 6 - MUFFLER AND EXHAUST GROUP
1	154C496	1	Manifold, Exhaust - Right Hand, #2 Cylinder - "L" Shaped.
$\overline{2}$	154C497	1	Manifold, Exhaust - Left Hand, #1 Cylinder - "L" Shaped.
3	154C498	1	Manifold, Exhaust Crossover.
4	154A460	2	Gasket, Exhaust Manifold to Head.
5	154A133	1	Gasket, Exhaust Flange.
6	155A170	1	Flange, Exhaust.
7	520A553	4	Stud, Exhaust Manifold to Head.
8	155B492	1	Tube, Flexible Exhaust.
9	155B330	1 .	Muffler, Exhaust.
10	505-31	1	Coupling, Pipe.
11	155A343	2	Gasket, Exhaust Crossover.
			•



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
			FIG. 7 - HOUSING AND MOUNTING GROUP
1	134D923	1	Plate, Blower Cover.
2	134D846	1	Scroll, Blower Housing.
3	134E866	1	Housing, Plenum Chamber.
4	134C922	1	Cover, Cylinder Head Front - Left Hand or #1 Cylinder.
5	134C921	1	Cover, Cylinder Head Front - Right Hand or #2 Cylinder.
6	134D858	1	Shroud, Cylinder Bottom - Left Hand or #1 Cylinder.
7	134D861	1	Shroud, Cylinder Bottom - Right Hand or #2 Cylinder.
8	134C859	1	Shroud, Cylinder Top - Left Hand or #1 Cylinder.
9	134D860	1	Shroud, Cylinder Top - Right Hand or #2 Cylinder.
10	134B924	1	Cover, Cylinder Head Top - Left Hand or #1 Cylinder.
11	134B928	1	Cover, Cylinder Head Top - Right Hand or #2 Cylinder.
12	405D1168	1	Hood, Engine.
13	101D147	1	Housing, Flywheel.
14	403A576	1	Bolt, Eye - Lifting.
15	403B550	1	Angle, Mounting Base - Left Hand.
16	403B549	1	Angle, Mounting Base - Right Hand.
17	403B548	1	Base, Cross Member Mounting.
19	406-105	2	Fastener, Hood.
20	405A1170	2	Clip, Hood Fastener.
21	402A216	4	Cushion Assembly, Mounting.
22	402A36	8	Cushion, Mounting.
23	402A72	4	Bushing, Spacer.
24	402A94	4	Cup, Mounting Alignment.



REF.	PART	QUANT.	
NO.	NO.	USED	DESCRIPTION

FIG. 8 - FUEL TRANSFER PUMP PARTS GROUP

NOTE: - AC part numbers are prefixed by "AC".

	149C734	1	Pump, Fuel Transfer (AC Mfr., modified by ONAN).
	149P762	1	Kit, Fuel Pump Repair (AC #5622415) Contains parts marked (†) and (††).
	149P761	1	† Kit, Diaphragm (AC #5622414).
1		1	†† Diaphragm and Pull Rod Assembly.
2		1	† † Diaphragm, Pulsator. Not sold separately.
3		2	†† Valve, Assembly.
4		2	††Gasket, Valve.
5	149A277	1	††Gasket, Fuel Transfer Pump Mounting (Equal to AC #837329).
6	149P577	1	† Bushing, Rocker Arm Pin (AC #1521864).
7	149P579	1	† Link (AC #1521863).
8	149P578	1	† Pin, Rocker Arm (AC #1521640).
9	(AC)1538217	1	† Spring, Diaphragm.
10	149P580	1	† Spring, Rocker Arm (AC #1522091).
11	(AC)5593518	1	Body and Priming Lever Assembly - Existing vent hole must be plugged!
12	(AC)5593544	1	Cover and Valve Assembly - Includes Valves and Valve Gaskets.
13	149P581	1	Arm, Rocker (AC #1521862).
14	(AC)5593542	1	Plate, Pulsator Cover.
15	(AC)855493	6	Screw, Top Cover.
16	(AC)456935	1	Screw, Pulsator Cover.
17	(AC)855064	6	Lockwasher, Cover Screw.
18	(AC)456416	1	Lockwasher, Pulsator Cover Screw.



^{† -} Parts contained in Fuel Pump Repair Kit #149P762. † † - Parts contained in Diaphragm Kit #149P761 and also in Fuel Pump Repair Kit #149P762.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
	-		FIG. 9 - FUEL SYSTEM GROUP
1	149C734	1	Pump, Fuel Transfer - See separate group for component parts.
2	149A277	1	Gasket, Fuel Transfer Pump.
3	149C699	1	Adapter, Fuel Transfer Pump.
4	526-65	2	Washer, Flat Copper - Fuel Transfer Pump Adapter.
5	149A702	1	Gasket, Fuel Transfer Pump Adapter.
6	149A701	1	Rod, Fuel Transfer Pump Push.
7	502-2	3	Elbow, Inverted Male - Fuel Pump Outlet, Fuel Filter Inlet, Nozzle.
8	149B742	1	Line, Fuel - Transfer Pump to Filter.
9	149B448	1 .	Filter Assembly, Fuel.
10	815-179	1	Screw, Hex Head - #10-32 x 3/8" - Fuel Filter Bleeding.
11	526-71	1	Washer, Filter Bleed Screw - Copper.
12	149A452	1	Bolt, Fuel Filter.
13	149P531	1	Gasket, Assembly Screw to Body - Filter.
14	(Fram)10074	1	Spring, Cartridge Securing - Filter.
15	122-4 8	1	Washer, Cartridge Securing Spring Faced - Secondary Filter.
16	149P495	1	Gasket, Cartridge to Spring - Filter (Note: Must seal against Spring).
17	149P428	1	Cartridge only, Fuel Filter - order Gaskets Separately.
1 8	149P455	1	Gasket, Cartridge to Base - Filter.
19	149P456	1	Gasket, Body to Base - Filter.
20	149C451	1	Base only, Fuel Filter.
21	505-57	2	Plug, Pipe - 1/8" Square Head - Filter Drain and unused outlet.
22	149A729	1	Bracket, Fuel Filter Mounting.
23	502-20	1	Elbow, Street - Fuel Filter Outlet.
24	501A 2	1	Line, Flexible Fuel - Fuel Filter to Injection Pump (Replaces #501A1).
25	502-41	1	Elbow, Inverted Male - 434 x 4 - Injection Pump Inlet.
26	147C91	1	Pump Assembly, Injection.
27	147A96	1	Fitting, Injection Pump Bleed.
28	147A89	4 or As Req.	Shim, Injection Pump Mounting005 Thick.
29	147A103	1	Shim, Injection Pump Mounting020 Thick.
31	149C732	1	Line, Fuel Injection - Right Hand, #2 Cylinder - Includes Rings and Nuts.
32	149C731	, 1	Line, Fuel Injection - Left Hand, #1 Cylinder - Includes Rings and Nuts.



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
	,		FIG. 9 - FUEL SYSTEM GROUP (Cont.)
33	501A3	2	Line, Flexible Fuel - 9" - Primary Filter to Transfer Pump and Injection Pump Fuel Return
34	502-65	1	Elbow, Inverted Male - 450 - 352 x 4 - Fuel Transfer Pump Inlet.
35			Nozzle and Holder Assembly - Refer to Cylinder Head Group.
36	415A126	1	Tank Assembly, Fuel.
37	504A16	1	Valve Assembly, Fuel Tank - Straight, Inverted.
38	501A27	1	Line, Flexible - Nozzle to Tank - (Works for 501A81).
39	501A9	1	Line, Flexible - Tank to Filter.
40	415B124	1	Cap, Rain - Fuel Tank - With provision for return line.
41	502-1	1	Tee, Adapter - 550 x 4 - Nozzle, Fuel Return.
42	502-224	1	Tee, Inverted - Includes Bracket - Fuel Return Line Junction.
43	149C754	1	Line, Fuel Return - L.H., #1 Nozzle to Injection Pump.
44	149C755	1	Line, Fuel Return - R.H., #2 Nozzle to Injection Pump.
45	149B426	1	Filter Assembly, Primary Fuel - Complete.
46	149P494	1	Gasket, Fiber - Primary Filter Element to Cover.
47	149P439	1	Gasket, Neoprene - Primary Filter Bowl to Cover.
48	149P438	1	Element, Primary Filter - Brass Disc Permanent Type - Order Gaskets Separately.
49	149A757	1	Bracket, Primary Fuel Filter.
50	868-7	ī	Nut, Hex Jam - 5/8"-18 - Mounting Primary Filter.
51	854-28	1	Washer, Internal Tooth - 5/8" - Mounting Primary Filter.
52	502-175	ī	Adapter, 1/8 Pipe - Spaces Nozzle Return Line Tee Fitting.
			FIG. 10 - OIL SYSTEM GROUP
1	120K161	1	Gasket Kit, Oil Pump - Includes Mounting and Assembly Gaskets.
2	120A279	1	Pump Assembly, Oil - Sold only as a unit.
3	120B275	1	Cup, Oil Intake.
4	120A224	1	Guide, Oil By-pass Cap and Spring.
5	526-153	1	Washer, Oil By-pass Relief Cap - Copper.
6	120A221	1	Spring, Oil By-pass.
7	120A222	1	Piston, Oil By-pass.
8	309P64	1	Switch, Oil Pressure.
9	502-1	1	Tee, Oil Pressure Gauge.
10	502-65	1	Elbow, Street - 352 x 4 - Oil Filter Line.



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
			FIG. 10 - OIL SYSTEM GROUP (Cont.)
11 12 13 14 15 16 17	193-6 122C56 122-37 502-2 122A172 122A171 122B168 120B503	1 1 3 1 1 1	Gauge, Oil Pressure. Filter, Oil - Includes Cartridge. Cartridge, Oil Filter Replacement - Includes Gasket. Elbow, Inverted Male - 400 x 4 - Oil Filter Lines. Line, Oil Filter Pressure. Line, Oil Filter Return. Bracket, Oil Filter Mounting. Line, Rocker Box Oil Drain - Left Hand, #1 Cylinder.
19 20	120B504 502-58	1	Line, Rocker Box Oil Drain - Right Hand, #2 Cylinder. Tee, Street - 3750 x 2 - Oil Pressure Switch.
			FIG. 11 - GOVERNOR AND SOLENOID GROUP
1 2 3 4 5 6 7 8 9 10 11	150A722 150C721 150A731 150A213 150A146 307B455 306A152 150A732 150A639 518-6 150A727	1 1 1 1 1 1 1 1 1	Cover, Governor Spring Mounting Box. Box, Governor Spring Mounting. Spring, Governor. Stud, Governor Speed Adjusting (Replaces #150A96). Stud, Governor Spring Sensitivity Adjusting. Solenoid, Governor Spring. Plunger, Solenoid. Link, Governor. Joint, Ball. Clip, Rod End - Replaces 518-52, listed in error. Bracket, Governor Stop.



FIG. 12 - AIR SHUTTER GROUP Box, Shutter. 134C937	
134C937 1 Prior to Spec C 134C1142 1 Begin Spec C 2 Plate, Vernatherm Element Mounting. 134B938 1 Prior to Spec C	
134C1142 1 Begin Spec C 2 Plate, Vernatherm Element Mounting. 134B938 1 Prior to Spec C	
Plate, Vernatherm Element Mounting. 134B938 1 Prior to Spec C	
134B938 1 Prior to Spec C	
134B1140 1 Begin Spec C	
3 134B660 1 Bracket, Vernatherm Element Mounting.	
4 134A656 1 Spring, Vernatherm Element.	
5 309P85 1 Element, Vernatherm.	
6 134A658 1 Spring, Upper Shutter.	
7 134A940 1 Shutter, Circulated Air Control.	•
8 518P74 2 Ring, External Retaining - Shutter Shaft.	
9 526-102 4 Washer, Flat - Shutter Spacing.	
10 508A5 1 Grommet, Rubber - For 5/16" Hole - Begin	
11 309-2 1 Switch, Air Temperature Cut-off - Begin Spe	ec B.
12 336A759 1 Lead, Switch to Stop Circuit - Begin Spec B.	
13 332-49 1 Clip, Tinnerman - Lead Securing - Begin Spe	ec B.
14 870-167 3 Nut, Speed - Type J - Tinnerman - #10 - Air	r Shutter Box Mounting.
15 134P1141 2 Bushing, Nylined Flanged Snap-in (Begin Spe	ec C).
16 150A471 1 Spring, Lower Shutter (Begin Spec C).	
FIG. 13 - AIR CLEANER, HEATER AND MANIFOLI	D GROUP
1 140B500 1 Cleaner, Air.	
2 140B519 1 Band, Air Cleaner Mounting.	,
3 140B520 1 Bracket, Air Cleaner Mounting.	
4 503A330 1 Hose, Air Cleaner - 2'' i.d. x 1-5/8'' long.	
5 503A329 2 Hose, Air Intake - 1-3/4" i.d. x 2" long.	
6 140A517 1 Adapter, Air Cleaner and Heater - r.h #2	? Cylinder.
7 154C553 1 Adapter, Air Heater - 1.h #1 Cylinder.	·



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
		FIG	. 13 - AIR CLEANER, HEATER AND MANIFOLD GROUP (Cont.)
8	140B166	2	Element, 12 Volt Air Heater.
9	140A156	2	Gasket, Air Heater Element.
10	15 4D 554	1	Manifold, Crossover Intake.
11	154A557	1	Band, Intake Manifold.
12	140A528	2	Screen, Intake Manifold System to Head.
12A	154A460	2	Gasket, Intake Manifold System to Head.
13	520A553	4	Stud, Intake Manifold System to Head.
14	123A596	1	Tube, Breather.
15	123P452	1	Baffle, Breather Tube.
16	123A315	1	Valve, Breather.
17	123A458	1	Cap, Breather.
18	503-342	1	Hose, Breather. Nipple, Pipe Half - 1/8" - Breather.
19.	505A325	1	
20	503-287	4	Clamp, Hose - Crossover Manifold.
21	503-142	2	Clamp, Hose - Air Cleaner.
			FIG. 14 - STARTING MOTOR GROUP
1			Motor, 12 Volt Starting.
	191B24	1	Prior to Spec C - Autolite No. MBJ-4115 (See Breakdown, this section).
	191C314	1	Begin Spec C - Autolite No. MEO-6001 - Less Relay (See Breakdown, this Section).
2	520A404	2	Stud, Starting Motor.
3	416A110	2	Cable, Battery.
4	416A4	1	Cable, Battery Jumper.
5	416P258	2	Battery, Starting - 6 Volt (Not included with plant).



NOTE: Contoct as		Andalida Analas Company
NOIL: Contact yo		Autolite dealer for starting motor parts
(AL)MAW-2030	1	Armature Assembly - Includes Spacer #(AL)MAW-31.
(AL)MAW-24		Band, Cover.
(AL)MP-41A	1	Bearing, Bronze - Pinion Housing.
(AL)MW-20A	2	*Bolt, Thru.
191-17	1	•*Brush Set, Service - (AL)MAY-2012AS.
(AL)MAW-37	1	*Bushing, Terminal Stud Insulator.
(AL)MAX-41	1	Bushing, Yoke Pivot - Clutch.
(AL)MAX-42	1	Bushing, Yoke Pivot - Clutch.
191P121	1	•Clutch, Starter - Replaces (AL)MAY-3048.
(AL)MAY-3005BS	1	*Coil Assembly Package, Field - Includes parts marked (+).
(AL)MAY-1009A	1	+Coil, Field - Lower Left.
(AL)MAY-1008A	1	+Coil, Field - Lower Right.
(AL)MAY-1007F	1	+Coil, Field - Upper Left.
(AL)MAY-1010	1	+Coil, Field - Upper Right
(AL)MAY-33	1	*Connector, Field Connection.
(AL)MAX-64	2	+Connector, Field Coil.
(AL)SS-116L	1	Connector - Switch Assembly.
(AL)SS-1128	1	Core Assembly, Switch - Includes parts marked A.
(AL)SS-128	1	▲Core, Switch.
(AL)MAX-38	1	Cover, Dust - Clutch Assembly.
(AL)MAD-110	1	Felt, Commutator End Head.
(AL)MAY-2157	1	Frame and Field Assembly - Includes parts marked (*).
(AL)MAX-37	1	Gasket, Dust Cover - Clutch Assembly.
(AL)MAX-2002	1	Head Assembly, Commutator End - Includes Felt #(AL)MAD-110.
(AL)PS-1094B	1	Housing Assembly, Pinion - Includes Bearing #(AL)MP-41A.
(AL)MAX-67	1	*Insulation, Field Connection - Drive End.
	_	sembly Package #(AL)MAY-3005BS.

- *- Included in Frame and Field Assembly #(AL)MAY-2157.

 A- Included in Switch Core Assembly #(AL)SS-1128::
- •- Also available from ONAN.



P/
<i>-</i>
RI
IS
(0)
L
S
H

REF.	PART NO.	QUANT USED	DESCRIPTION
-		PAF	RTS LIST FOR STARTING MOTOR #191B24 (NOT ILLUSTRATED (Cont.)
	(AL)MAB-30	. 1	*Insulation, Field Connection - Commutator End.
	(AL)12X-201	2	Lockwasher, Switch Terminal - 3/8".
	(AL)12X-201	2	*Lockwasher, Terminal Stud - 3/8".
	(AL)12X-199	2	*Lockwasher, Thru Bolt - 1/4".
	(AL)12X-1014	. 1 .	Lockwasher, Yoke Pivot - 5/16" - Clutch Assembly.
	(AL)8X-794	1	Nut, Cover Band, Square #10-32.
	860-17	2	Nut, Switch Terminal - Hex 3/8-16 (AL)X-830.
	860-17	2	*Nut, Terminal Stud - Hex 3/8"-16 (AL)X-830.
	862-2	1	Nut, Yoke Pivot - Hex 5/16"-18 - Clutch Assembly (AL)8X-147.
	(AL)X-401	1	Pin, Cotter - Link Pin - 1/16" x 3/8" - Clutch Assembly.
	(AL)MN-21	2	*Pin, Dowel.
	(AL)MCH-76	1	Pin, Link - Clutch Assembly.
	(AL)MAX-39	1	Plate, Dust - Clutch Assembly.
	(AL)8X-61	2	*Screw, Brush Ground Flat Head - #10-32 x 7/16"
	(AL)8X-714	1	Screw, Cover Band - Round Head - #10-32 x 1/2".
	813-97	4	Screw, Dust Cover - Round Head - #10-32 x 3/8" - Clutch Assembly (AL)8X-311.
	(AL)SS-59	1	AScrew, Link - Switch Assembly.
	(AL)GK-38	4	*Screw, Poleshoe.
	(AL)X-3002	4	Screw, Switch Mounting - Hex - 1/4-20 x 3/8".
	(AL)X-97	1	Screw, Yoke Pivot - Hex - $5/16-18 \times 3-1/4$ - Clutch Assembly.
	(AL)MAW-31	1	Spacer, Armature Shaft.
	191-19	4	•Spring, Brush - Commutator End Head (AL)MZ-19.
	(AL)SS-61	1	ASpring, Switch Core.
	(AL)MAX-46	1	Spring, Yoke - Clutch Assembly.
	(AL)MAY-28	1	*Stud, Terminal.
	307-98	1	•Switch, Solenoid Starting (AL)SS-4204.
	(AL)MAD-96	1	Washer, Armature Thrust - Commutator End.
	(AL)MU-54A		Washer, Armature Thrust - Commutator End - 1/64" Thick.

^{* -} Included in Frame and Field Assembly #(AL)MAY-2157.

4 - Included in Switch Core Assembly #(AL)SS-1128.

• - Also available from ONAN.



DESCRIPTION

PARTS LIST FOR STARTING MOTOR #191B24 (NOT ILLUSTRATED) Cont.)

(AL)MU-54B	As Req	. Washer, Armature Thrust - Commutator End - 3/64" Thick.
854-10	4	Washer, Dust Cover - Clutch Assembly (AL)X-1270.
(AL)DK-45	1	*Washer, Insulated - Terminal Stud Inner.
(AL)MAX-35	1	*Washer, Insulated - Terminal Stud Outer.
526-60	1	*Washer, Plain - Terminal Stud - 3/8" (AL)MAX-44.
(AL)MN-18	1	Washer, Thrust - Drive End.
(AL)MAD-2087	1	Yoke, Clutch Assembly.

^{* -} Included in Frame and Field Assembly #(AL)MAY-2157.

PARTS LIST FOR STARTING MOTOR 191C314 (NOT ILLUSTRATED) NOTE: Contact your Autolite dealer for starting motor parts

	oui Au	to the dealer for starting motor parts.
†MCH-2133	1	Armature
MP41A	1	Bearing, Absorent Bronze.
MEC-20	2	Bolt, Thru
(ONAN)191P434	1	Brush Set, Service (Autolite MEJ-2012AS).
SAD-33	1	Cap, Rubber
MCL-59	1	Clamp, Yoke Cover
(ONAN)191-458	1	Clutch, Starter (Autolite MDL-3130.
MDF-26	1	Connector, Switch
SAD-21	1	Core, Moving
MED-28	1	Cover, Yoke
MAD-110	1	Felt
MDY-1005BS	1	Field Coil Package
MDY-2001B	1	Frame and Field Assembly
MEC-27	1	Grommet, Connector
PS-1388	1	Housing Assembly, Pinion

^{† -} Autolite Part Numbers



REF. No.	PART NO.	QUANT. USED	DESCRIPTION
		PARTS	LIST FOR STARTING MOTOR 191C314 (Cont.)
	†MDT-1002	1	Head Assembly, Commutator End.
	MDL-66	2	Insulation, Field Connection
	12X-195	5	Lockwasher, (1)Switch Con., (1)Ground Lead, (1)Bearing Plate, (1)Mounting Screw, (1) No. 8
	12X-199	6	Lockwasher, 1/4" - (2)Thru Bolt, (4)Switch Mounting Screw.
	12X-200	1	Lockwasher, 5/16" Terminal Stud
	SAD-1021	1	Moving Core Assembly
	8X-2988	1	Nut, 5/16" - 18 Terminal Stud Hex
	MEJ-1064	1	Plate Assembly, Brush
	SSX-36	1	Plug
	MCL-58	.1	Pin, Yoke
	MDF-27	1	Pin, Link
	X-401	1	Pin, 1/16" x 3/8 Cotter, Link Pin
	MN-21	1	Pin, Dowel
	MCS-46	1	Retainer and Pinion Stop
	MCS-47A	1	Ring, Snap, Retainer and Pinion Stop
(ONA	N) 191-369	1	Screw, Pole Shoe (Autolite GK-38)
	8X-304	1	Screw, Switch Connector - #8-32 x 5/16 Round Head.
	8X-3407	4	Screw, Bearing Plate Mounting - #8-32 x 3/8 Round Head
	8X-467	4	Screw, Switch Mounting - 1/4-20 x 3/8 Hex Head
	SAD-1022	1	Screw and Link Assembly
	SAD-4401	1	Solenoid Starting Switch
	SAD-27	1	Spring, 3-17/32" Plunger
	SSX-35	1	Spring, Rubber Cap
(ONA	N) 191-19	4	Spring, Brush - (Autolite MZ-19)
	MN-18	1	Washer, Drive End Thrust065"
	MU-54	As Req.	Washer, Commutator End Thrust - 1/32"
	MU-54B	As Req.	Washer, Commutator End Thrust - 3/64"
	MU-54L	1	Washer, Commutator End Thrust - 1/16"
	SS-60	1	Washer, 3/8" Steel
	MCH-1074E	1	Yoke



† - Autolite Part Numbers

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION	
			FIG. 15 - CONTROL PANEL GROUP	
1	301C1017	1	Box, Control.	
2			Switch, Start-Stop -	
	308A166	1	Prior to Spec C - Replaces 308-90.	
	308-154	1	Begin Spec C.	
2A	301A974	1	Bracket, Start-Stop Switch Mounting - Prior to Spec C.	
3	302A58	1	Ammeter, Charge.	
4	308P7	1	Switch, High-Low Charge Rate.	
5	308P37	1	Switch, Manifold Heater.	
6			Relay, Starting Pilot -	
	307B81	1	Prior to Spec C.	
	307B597	1	Begin Spec C.	
7	304A175	1	Resistor, Adjustable - 1 Ohm.	
9	304A32	1	Resistor, Fixed - 15 Ohm.	
10			Block, Terminal - Remote Connections -	
	332A222	1	Prior to Spec C - 4 Place.	
	332A604	1	Begin Spec C - 5 Place.	
11			Bracket, Terminal Block -	
	332A198	1	Prior to Spec C.	
	332A718	1	Begin Spec C.	
11A	332A616	1	Strip, Marker - Terminal	
12	307B40	1	Relay, 12 Volt - Manifold Heater.	
12	307B40	1	Relay, 12 Volt - Governor - Prior to Spec C.	
13	307B52	1	Relay, Start-Disconnect	
14	307B4	1	Relay, Stop.	
15 ~	307B180	1	Relay, Charge.	
16	301B634	1	Panel Only, Control Box.	
17	402-78	4	Cushion, Rubber - Control Box Mounting.	
18	301A632	1	Bracket, Control Box Mounting.	
19			Harness Assembly, Wiring -	_
	338B212	1	Prior to Spec C.	
	338B259	1	Begin Spec C.	



-			

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
			FIG. 15 - CONTROL PANEL GROUP (Cont.)
20	336A 1174	1	Lead, Glow Plug - 7 inch.
20	336A 875	1	Lead, Glow Plug - 13 inch.
21	308A 165	1	Switch Assembly, Remote Start-Stop - Complete with Wall Plate - Optional Equipment - Replaces 308A94.
22	301B621	1	Cover, Control Box.
23	301B1030	1	Cover, Output Terminal.
24	- -	-	Condenser, Feed Through - Radio Suppression - 0.1 Mfd
	312P87	· 1	For 1 Phase, 2 Wire Plant.
	312P87	$\overline{2}$	For 1 Phase, 3 Wire Plant.
	312P87	3	For 3 Phase Plant.
2 5	307B614	1	Relay, Latching - Reset - Begin Spec C.
26	308-91	: 1	Switch, Reset - Begin Spec C.
27	307A388	1	Relay, Time Delay - Begin Spec C.
28	304A 193	1	Resistor, Adjustable - 10 Ohms, 25 Watts - Begin Spec C.
29	307B619	1	Relay, Starting Motor - Begin Spec C.
30	336A 1390	1 .	Lead, Starting Relay - Ground.
		-	
	=		FIG. 16 - GENERA TOR GROUP
1	•		Armature Assembly - Includes Bearing -
.	201A994	1	For 120 Volt, 60 Cycle plants with Parts Key No. 1.
	201A 995	1	For 240 Volt, 60 Cycle plants with Parts Key No. 1.
	201A 991	1	For 60 Cycle plants with Parts Key No. 1.
	201A 992	1	For 60 Cycle plants with Parts Key No. 3.
	Describe	î	For 60 Cycle plants with Parts Key No. 4.
2	20001100	•	Bell End -
-	211D10	1	For plants with Parts Key Nos. 1, 2, and 4.
	211C29	î	For plants with Parts Key No. 3.



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION		
			FIG . 16 - GENERATOR GROUP (Cont.)		
6			Rig Assembly, Brush - Includes Brushes and Springs -		
	212C188	1	For plants with Parts Key No. 1.		
	212C199	1	For plants with Parts Key Nos. 2 and 4.		
	212C200	1	For plants with Parts Key No. 3.		
7			Brush, A.C		
	214A8	4	For plants with Parts Key No. 1.		
	214A54	6	For plants with Parts Key Nos. 2 and 4.		
	214A54	8	For plants with Parts Key No. 3.		
8			Brush, D.C		
	214A23	4	For plants with Parts Key No. 1.		
	214A57	4	For plants with Parts Key Nos. 2, 3 and 4.		
9	212A1004	4	Spring, AC Brush - For plants with Parts Key No. 1.		
9A	212A1123	6	Spring, AC Brush - For plants with Parts Key Nos. 2 and 4.		
9A	212A1123	8	Spring, AC Brush - For plants with Parts Key No. 3.		
10	212A1011	4	Spring, DC Brush - For plants with Parts Key No. 1.		
10A	212A1106	4	Spring, DC Brush - For plants with Parts Key Nos. 2, 3 and 4.		
11	232A615	1	Clip, Bearing Stop.		
12	234C87	1	Scroll, Air.		
13	205C62	1	Blower.		
14	510A52	1	Bearing, Armature Ball.		
15	210C315	1	Frame only, Generator.		
16			Pin,		
	516-79	1	Dowel - Generator Frame to Fnd Bell (1/4 x 1").		
	516-103	1	Roll - Generator Frame to Adapter (1/8 x 1/2").		
17	221A90	4	Shoe, Field Pole.		
18	222A1500	1	Coil Assembly, Field.		
19			Band, Fnd Bell Cover -		
	234B98	1	For plants with Parts Key Nos. 1, 2 and 4.		
	234B97	1	For plants with Parts Key No. 3.		
20	520A386	4	Stud, Generator Through.		

REF. NO.	PART NO.	QUANT	DESCRIPTION
(g)			SERVICE KITS
		NOTE:	For other kits, refer to the group for the part in question.
	168K76	1	Gasket Kit, Plant.
	522K181	1	Overhaul Kit, Plant - For plants with Parts Key No. 1.
	522K182	1	Overhaul Kit, Plant - For plants with Parts Key Nos. 2 and 4.
	522K183	1	Overhaul Kit, Plant - For plants with Parts Key No. 3. STA-BIL - Gasoline Additive to Prevent Gum Formation.
	524-73	1	4 Ounce Can.
	524-74	1	16 Ounce Can.
	524-75	1	32 Ounce Can.
9			Paint, Touch-up Enamel.
8AC61	525P90	1	Mouse Grey - 12 Ounce Pressurized Can.
6	525P137	1	Green - 16 Ounce Pressurized Can.