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PARTS CATALOG

FOR



ELECTRIC GENERATING SETS

DFY SERIES

ONAN

1400 73RD AVENUE N.E. • MINNEAPOLIS, MINNESOTA 55432

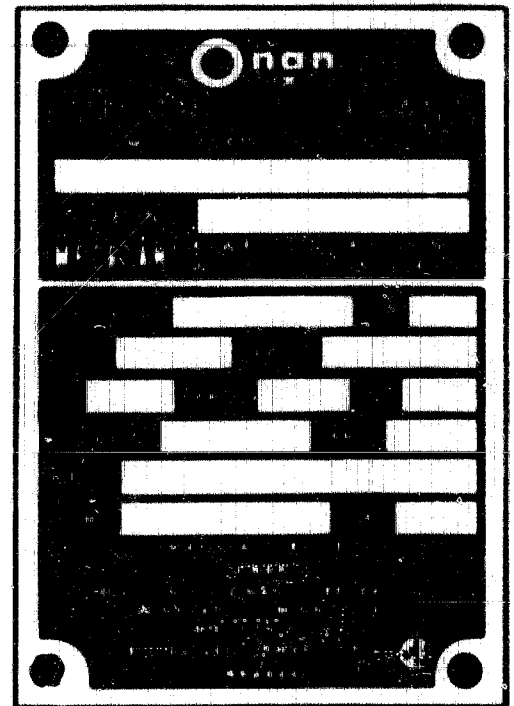
A DIVISION OF ONAN CORPORATION

PARTS CATALOG

INSTRUCTIONS FOR ORDERING REPAIR PARTS

ONAN PARTS

All parts in this list are Onan parts. For Onan parts or service, contact the dealer from whom you purchased this equipment or your nearest authorized service station. To avoid errors or delay in filling your order, please refer to the Onan nameplate and give the complete MODEL, SPECIFICATION and SERIAL NUMBER.

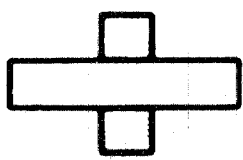


CUMMINS PARTS

All Cummins parts must be ordered from the Cummins Engine Company, Inc., Columbus, Indiana or their nearest authorized Cummins distributor or dealer.

Refer to the Cummins Engine Nameplate located on the gear cover on the right side of the engine as viewed facing the radiator end.

When ordering parts or requesting service information, supply Cummins with all information stated on the engine nameplate.

CUMMINS		CUMMINS ENGINE COMPANY, INC. COLUMBUS, INDIANA, U.S.A.			
SBM NO.		MODEL		ENG NO.	
			OTHER REF.NO.		

This catalog applies to the standard DFY generator sets as listed below. Powered by a Cummins engine (see Cummins Manual). Engine parts modified or added by Onan will be in this list and have Onan part numbers. These supersede similar parts listed in the Cummins manual. Onan parts are arranged in groups of related items and are identified by a reference. All parts illustrations are typical. Unless otherwise mentioned, parts are interchangeable. Right and left plant sides are determined by facing the front end of the engine.

PLANT DATA TABLE

MODEL AND SPEC NO. *	ELECTRICAL DATA				
	WATTS	VOLTS	HERTZ	PHASE	WIRE
500DFY-4R8/	500,000	120/208	60	3	4
500DFY-4XR8/	500,000	277/480	60	3	4
500DFY-7XR8/	500,000	240/416	60	3	4
500DFY-5DR8/	500,000	120/240	60	3	4
500DFY-6DR8/	500,000	240/480	60	3	4
500DFY-9XR8/	500,000	347/600	60	3	4
400DFY-57R8	400,000	220/380	50	3	4

* The Specification Letter advances (A to B, B to C, etc.) with manufacturing changes.

NOTE: Hertz is a unit of frequency equal to one cycle per second.

REPLACEMENT ENGINE:

100P1013

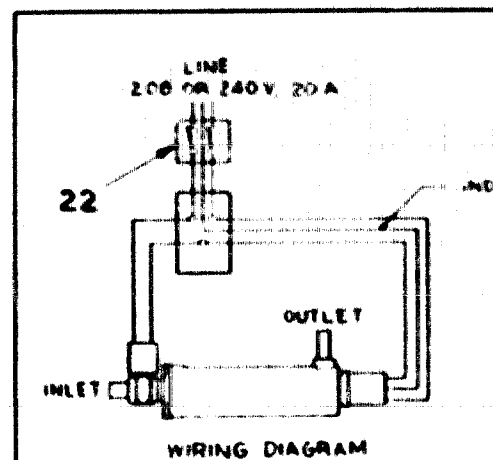
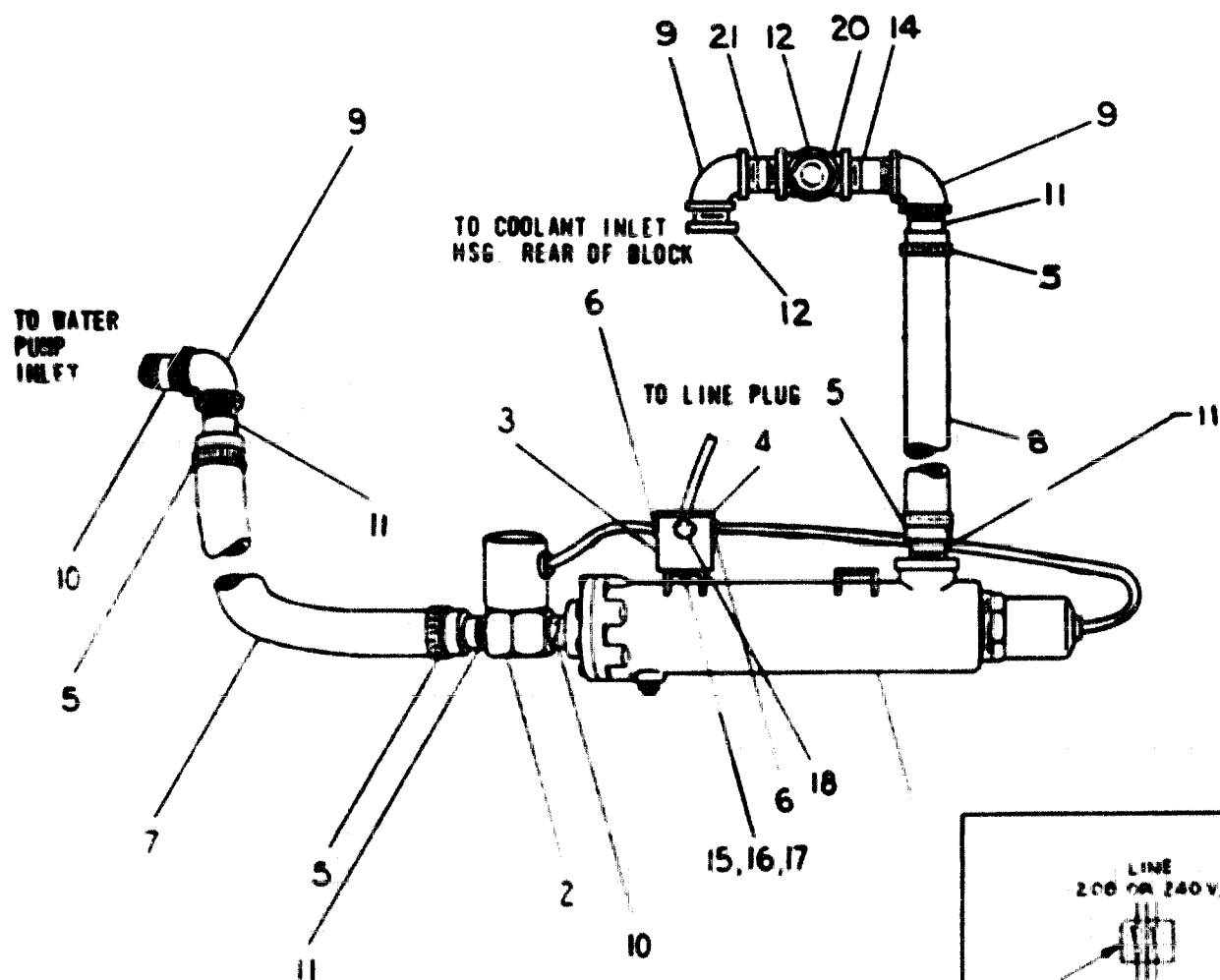
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Engine, Replacement (Cummins Engine Company Model VTA-1710-PGG-800)

General Description:

Includes - Complete Cylinder Block, Fuel Pump (24 Volt), Air Cleaner, Fuel Filter, Starter Motor (24 Volt), Governor (Woodward PSG), Fan Blades, Fan Belt, Fan Guard, Flywheel, Flywheel Housing, Water Pump, Engine Supports, Oil Pan, Oil Cooler, Exhaust Manifold, Alternator Belt Tightener, Vibration Damper, Radiator Grill, Radiator Brace, Radiator and Aftercooler.

Excludes - Alternator, Alternator Mounting Brackets, Alternator Belt, Temperature Sender, Oil Pressure Sender.



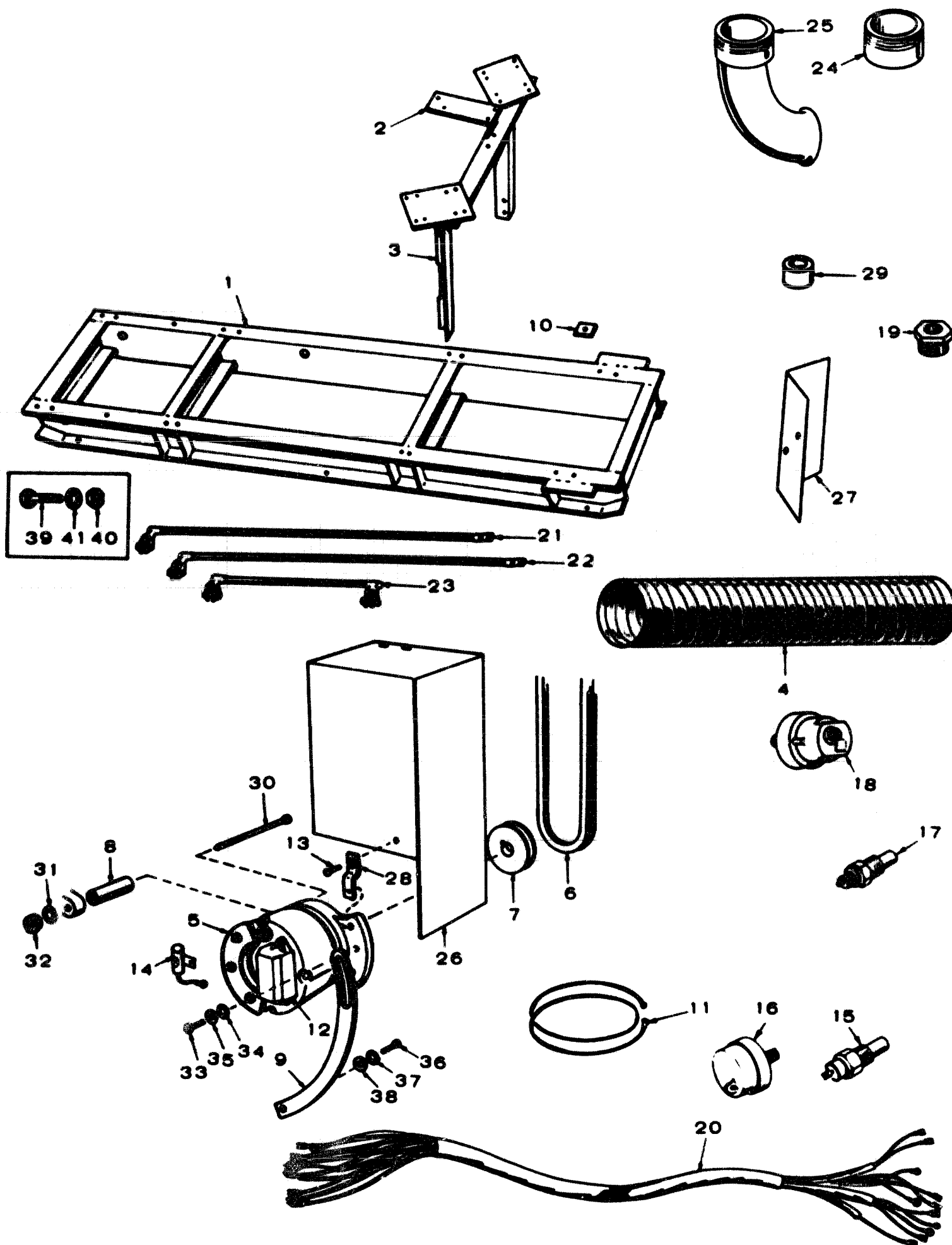
WATER JACKET HEATER INSTALLATION

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	333P138	1	Heater, Engine (4000 Watts, 240 Volts)
2	309P253	1	Thermostat
3	330A5	1	Box, Outlet
4	330-4	1	Cover, Box
5	503-429	4	Clamp, Hose
6	508P8	2	Grommet (1/2" I.D. x 1-1/16" O.D.)
7		1	Hose (Order 27" of Bulk Hose #503-587)
8		1	Hose (Order 95" of Bulk Hose #503-597)
9	505-41	3	Elbow, Pipe (1" x 90°)
10	505-107	2	Nipple, Pipe (1 x 2")
11	505A350	4	Nipple, Half (1 x 4-3/4")
12	505-129	3	Bushing, Reducer (1 x 3/4)
13			

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
14	505-86	1	Nipple, Pipe (1 x 2-1/2")
15	813-103	2	Screw, RHM (10-32 x 3/4")
16	850-30	2	Washer, Lock (#10)
17	870-53	2	Nut, Hex (10-32)
18	331-27	1	Connector, Romex (1/2")
19			
20	505-719	1	Cross, Pipe (1")
21	505-4	1	Nipple, Pipe (1 x 1-1/2")
22	309P271	1	*Switch, Oil Pressure
	333A142	1	*Support, Pressure Switch
	502-287	2	*Elbow
	501-188	1	*Line, Flexible (24")
	505-99	1	*Nipple (1/4 x Close)

* These parts not used in #179B366 Assembly. Parts are not illustrated.

MISCELLANEOUS ENGINE PARTS GROUP

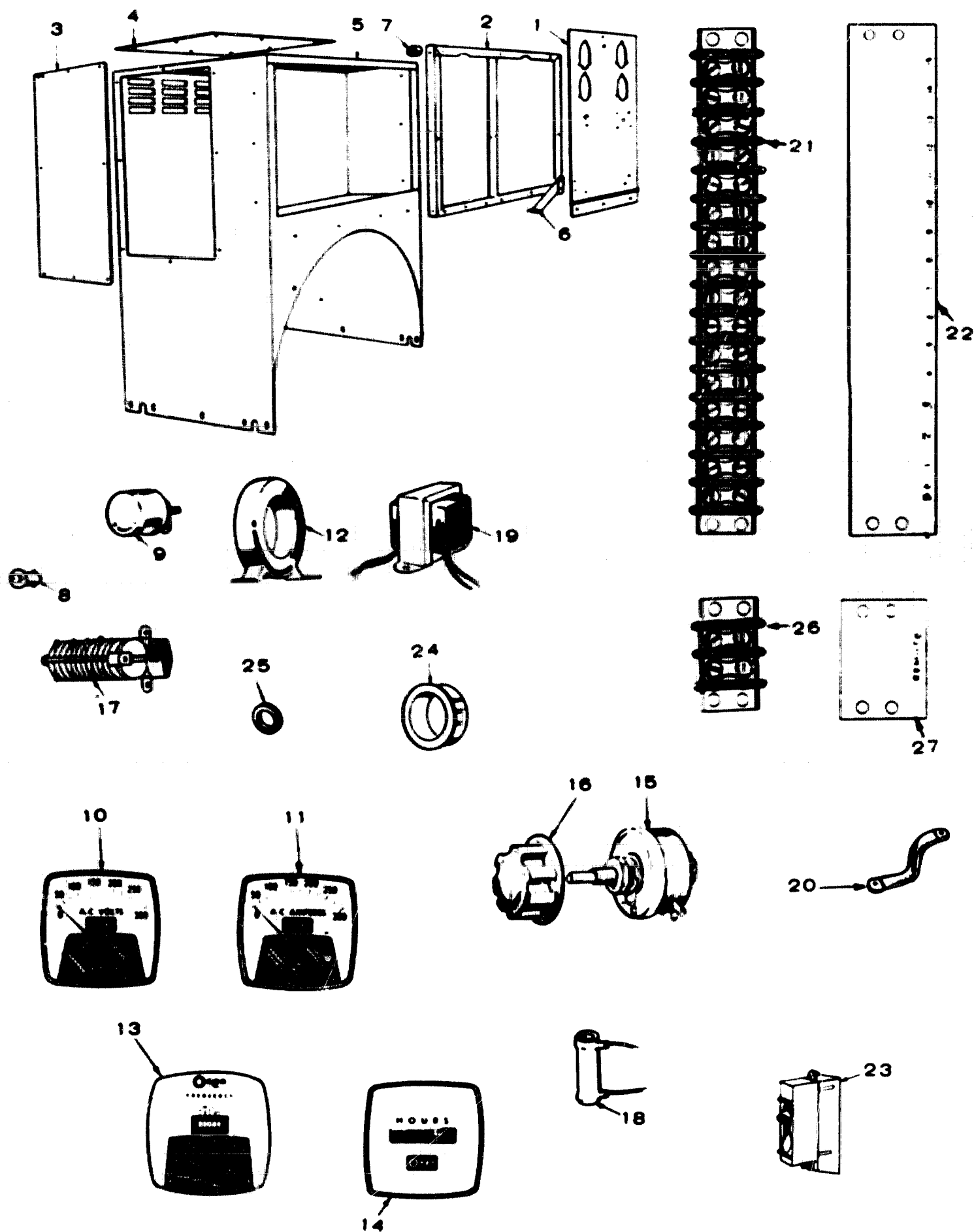


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403D980	1	Base, Mounting
2	140A1079	1	Brace, Air Cleaner Mounting
3	140D1076	1	Support, Air Cleaner
4		1	Hose, Air Cleaner (Order 41" of Bulk Hose #503P641)
5	191F871	1	*Alternator, Charge - includes Regulator & Fan (Motorola #70D44039B04 - SPECIFY: #49A41756A01 Fan)
6	511P37	1	Belt, Alternator Drive
7	191C624	1	Pulley, Alternator
8	403A996	1	Spacer, Alternator Mounting
9	191B900	1	Bracket, Alternator Adjusting
10	SHIM, GENERATOR TO MOUNTING BASE		
	232A1817	As Req.	.062"
	232A1489	As Req.	.0598"
	232A1490	As Req.	.0359"
11	336A1721	1	Lead, Starter to Solenoid
12	191P733	1	Regulator, Voltage - Alternator
13	821-10	1	Screw (1/4-20 x 1/2") - Belt Guard to Bracket
14	312A58	1	Condenser, Alternator
15	309B178	1	Switch, High-Temperature
16	309B272	1	Switch, Low-Oil Pressure
17	193A109	1	Sender, Water Temperature
18	193A195	1	Sender, Oil Pressure
19	BUSHING, REDUCER		
	505-21	1	3/4 to 1/2"
	505-131	1	3/4 to 3/8"
20	HARNES, WIRING		
	338C621	1	Engine to Control
	338B517	1	Line to Control
	338A515	1	Line to Voltage Regulator
	338A634	1	Voltage Regulator to Control
21	416A444	1	Cable, Battery - Positive

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
22	416A445	1	Cable, Battery - Negative
23	416A446	1	Cable, Jumper
24	505-689	1	Nipple, Exhaust Outlet
25	155B1035	1	Elbow, Exhaust Outlet
26	191B899	1	Guard, Alternator Belt
27	309A246	1	Shield, Heat - High Temperature Switch
28	191A898	1	Bracket, Belt Guard Mounting
29	403A851	8	Spacer
30	800-103	1	Screw (1/2-13 x 4-1/4") - Alternator Mounting
31	850-60	1	Washer, Lock (1/2) - Alternator Mounting
32	862-5	1	Nut, Hex (1/2) - Alternator Mounting
33	800-26	1	Screw (5/16-18 x 3/4") - Alternator Adjusting Bracket
34	526-22	1	Washer, Flat (5/16)
35	850-45	1	Washer, Lock (5/16)
36	800-92	1	Screw (1/2-13 x 1-1/2") - Adjustment Bracket to Engine
37	850-60	1	Washer, Lock (1/2)
38	526-231	1	Washer, Flat (1/2)
39	SCREW, HEX HEAD		
	800-153	6	Radiator Support to Base (3/4-10 x 1-1/2")
	800-158	2	Generator to Base (3/4-10 x 2-3/4")
	800-159	8	Engine to Base (3/4-10 x 3")
40	862-8	18	Nut, Hex (3/4-10)
41	850-79	14	Washer, Lock (3/4)

* For components, contact your nearest Motorola Dealer or Motorola Automotive Products, Inc., 9401 W. Grand Ave., Franklin Park, Illinois 60131.

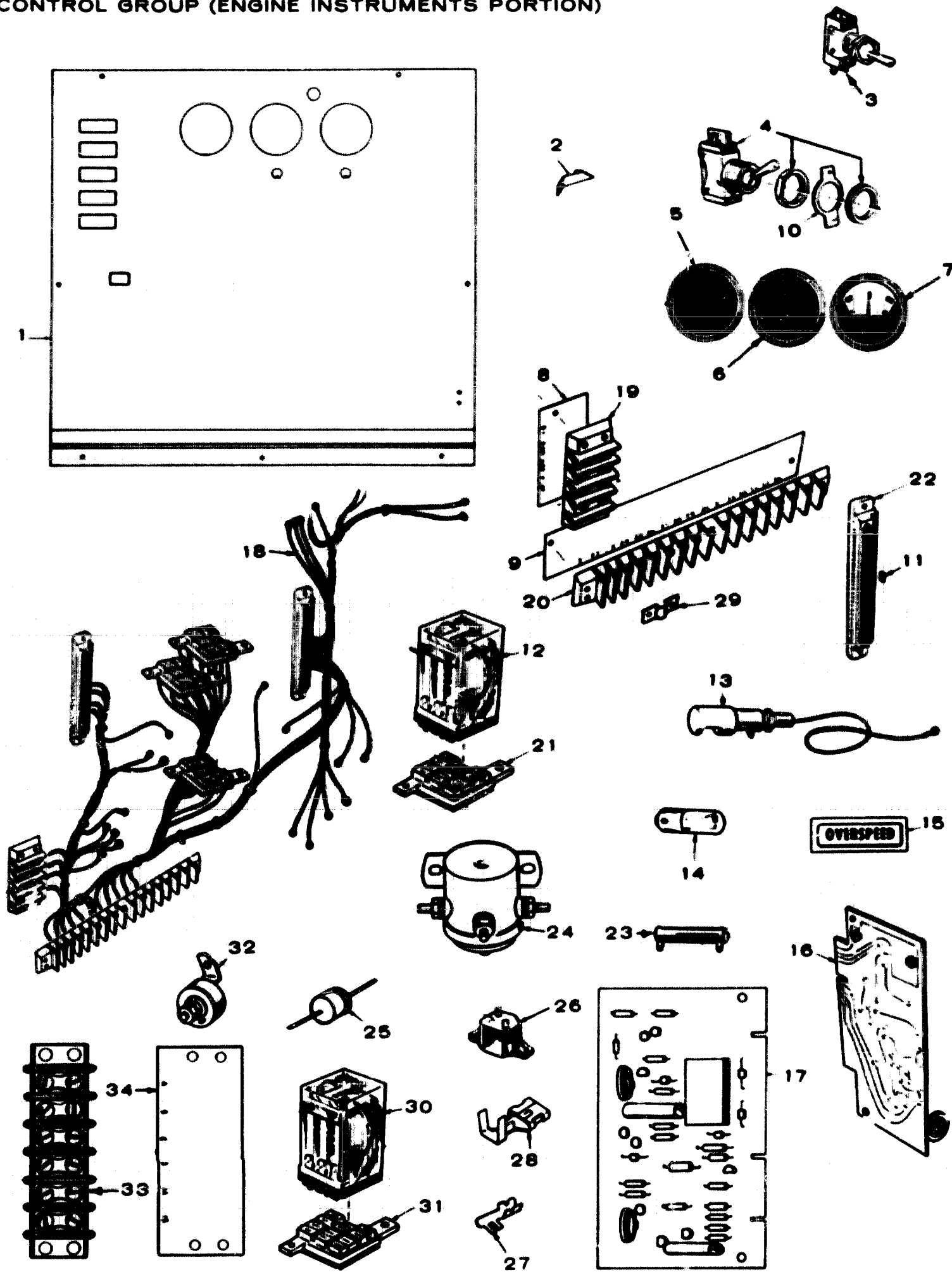
CONTROL GROUP (AC OUTPUT PORTION)



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301C2908	1	Panel, Control
2	301C2906	1	Frame, Control Panel Mounting
3	301A2905	2	Plate, Control Box - Side
4	301B2904	1	Plate, Control Box - Top
5	301D2903	1	Box, Control
6	301A1914	1	Bracket, Panel Stop
7	402A78	5	Mount, Rubber-Control Box Frame
8	322-81	1	Lamp, Panel
9	322P73	1	Receptacle, Panel Lamp
10	VOLTMETER, AC (CHECK VOLTMETER SCALE - SELECT ACCORDING TO RATING)		
	302P421	1	Scale Reads 0-300
	302P612	1	Scale Reads 0-500
	302P422	1	Scale Reads 0-600
	302P423	1	Scale Reads 0-750
11	AMMETER, AC (CHECK AMMETER SCALE - SELECT ACCORDING TO RATING)		
	302P414	1	Scale Reads 0-500
	302P415	1	Scale Reads 0-750
	302P416	1	Scale Reads 0-1000
	302P640	1	Scale Reads 0-1200
	302P641	1	Scale Reads 0-1500
	302P642	1	Scale Reads 0-2000
12	TRANSFORMER, CURRENT (CHECK TRANSFORMER NAMEPLATE - SELECT ACCORDING TO RATING)		
	302B547	3	Transformer Nameplate Reads 500'S (Use with 0-500 Ammeter)
	302B625	3	Transformer Nameplate Reads 750'S (Use with 0-750 Ammeter)
	302P589	3	Transformer Nameplate Reads 1000'S (Use with 0-1000 Ammeter)
	302P643	3	Transformer Nameplate Reads 1200'S (Use with 0-1200 Ammeter)
	302P644	3	Transformer Nameplate Reads 1500'S (Use with 0-1500 Ammeter)
	302B645	3	Transformer Nameplate Reads 2000'S (Use with 0-2000 Ammeter)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
13	METER, FREQUENCY		
	302B213	1	120/208, 120/240, 277/480 Volt, 3 Phase, 60 Hertz
	302P221	1	240/480 Volt, 3 Phase, 60 Hertz
	302B717	1	347/600 Volt, 3 Phase, 60 Hertz
	302D256	1	220/380 Volt, 3 Phase, 50 Hertz
14	METER, RUNNING TIME		
	302P465	1	120/208, 120/240, 347/600 Volt, 3 Phase, 60 Hertz
	302P466	1	240/480 Volt, 3 Phase, 60 Hertz
	302P467	1	277/480 Volt, 3 Phase, 60 Hertz
	302P469	1	220/380 Volt, 3 Phase, 50 Hertz
15	303-111	1	Rheostat, Voltage Adjustment
16	303P32	1	Knob, Rheostat
17	308B22	1	Switch, Voltage & Current Selector
18	RESISTOR, FIXED		
	304A305	1	45,000-Ohm, 10 Watt (277/480 Volt Sets)
	304A536	1	9000-Ohm, 50 Watt (347/600 Volt Sets)
	353A36	1	1600-Ohm, 10 Watt (220/380 Volt Sets)
19	TRANSFORMER, POTENTIAL		
	315B292	1	120/240 Volt Sets
	315B32	1	240/480 Volt Sets
	315B36	1	277/480, 240/480 Volt Sets
	315B67	1	347/600 Volt Sets
	315B35	1	220/380 Volt Sets
20	337-44	1	Strap, Ground
21	332A795	1	Block, Terminal (16 Place)
22	332A1134	1	Strip, Terminal Block Marker (1 through 16)
23	320B431	1	Breaker, Circuit (2 Amp)
24	331A88	1	Bushing (Nylon)
25	508PI	3	Grommet (For 1-1/16" Hole)
26	332A609	1	Block, Terminal (2 Place) - 220/380 Volt Sets
27	332A610	1	Strip, Marker (2 Place) - 220/380 Volt Sets

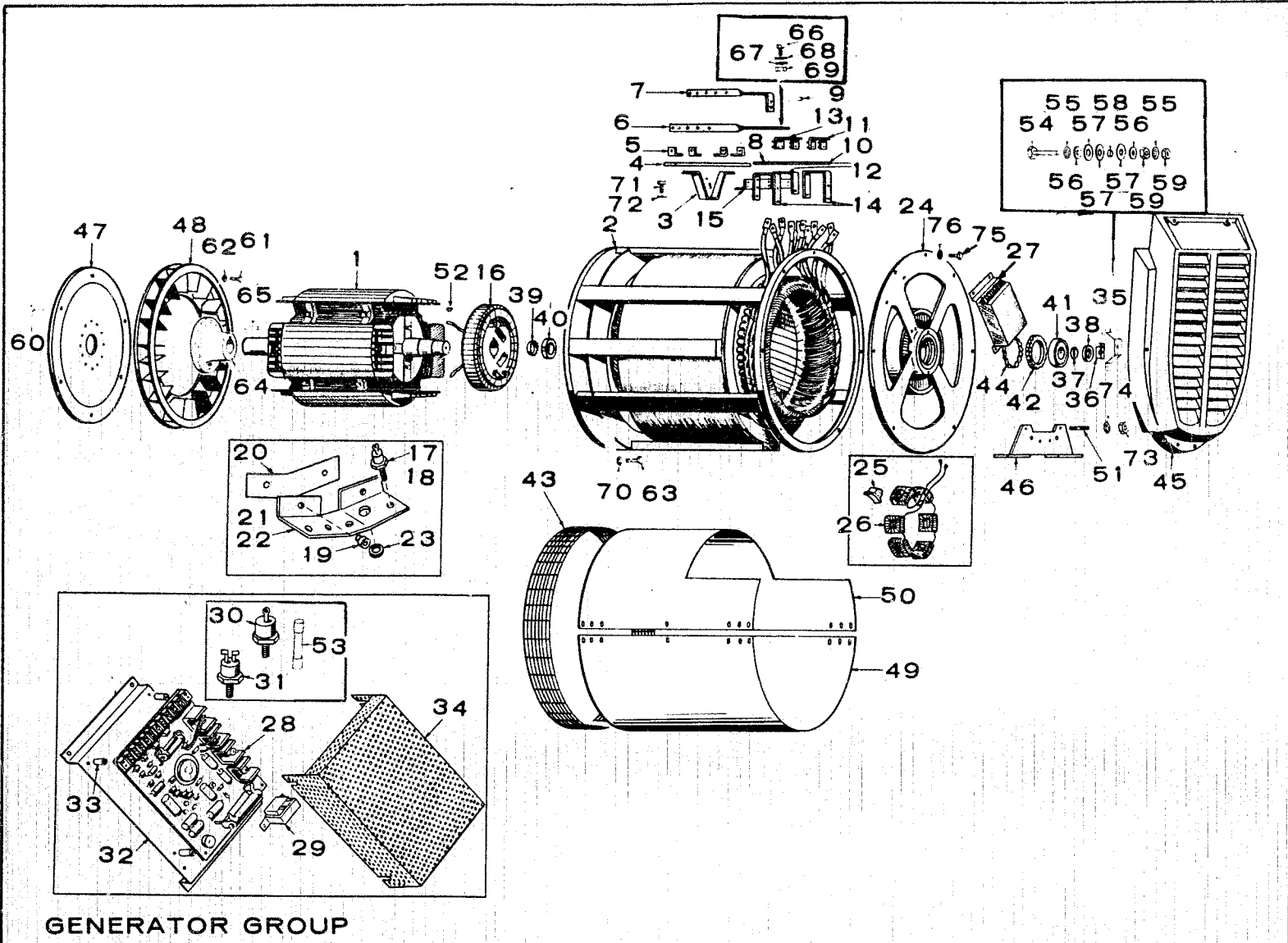
CONTROL GROUP (ENGINE INSTRUMENTS PORTION)



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PANEL ONLY, ENGINE CONTROL		
	301D3400	1	For One Fault Light
	301D3401	1	For Five Fault Lights (Optional)
2	301A2951	1	Bracket, Panel Stop
3	308P138	1	Switch, Selector
4	308-2	1	Switch, Panel Light
5	193B194	1	Gauge, Oil Pressure
6	193B106	1	Gauge, Water Temperature
7	302A61	1	Ammeter, Charge (30-0-30)
8	332A1239	1	Strip, Marker (B+, Remote, Ground, Alarm)
9	332A1241	1	Strip, Marker (21 through 36)
10	308A3	1	Plate, Switch (On-Off)
11	332-1276	4	Plug, Keying (3 Used on Sets With Five Fault Lights)
12	307B1056	2	Relay, (1) Start Disconnect (1) Ignition
13	322P73	1	Holder, Lamp
14	322P81	1	Lamp, Panel
15	LAMP, FAULT		
	322A129	1	Standard Sets
	322A119	1	Overcrank (Optional)
	322A123	1	Overspeed (Optional)
	322A120	1	Low Oil Pressure (Optional)
	322A121	1	High Engine Temperature (Opt.)
	322A122	1	Low Engine Temperature (Opt.)
16	CONTROL, CRANKER		
	300A751	1	Standard Cranker (Includes (1) #357A4 Rectifier)
	300C715	1	Cycle Cranker (Optional) - (See Separate Group for Components)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
17	MONITOR, ENGINE CONTROL (SEE SEPARATE GROUP FOR COMPONENTS)		
	300C680	1	Sets With One Fault Light - Std.
	300D682	1	Sets With Five Fault Lights - Optional
18	HARNESS ASSEMBLY, WIRING-CONTROL (INCLUDES PARTS MARKED *)		
	338D617	1	Sets With One Fault Light - Std.
	338D618	1	Sets With Five Fault Lights - Optional
19	332A537	1	*Block, Terminal - 4 Place
20	332A795	1	*Block, Terminal - 16 Place
21	323A765	2	*Socket, Relay - 11 Place
22	332B1271	2	*Housing, Printed Circuit Board Terminal
23	304A262	1	Resistor, Oil Pressure Gauge
24	307B61	1	Relay, Starter Pilot
25	357A4	1	Rectifier, Diode
26	320P240	1	Breaker, Circuit (12.5 Amp)
27	332A1269	As Req.	*Terminal, PC Board
28	332A1280	As Req.	*Terminal, Crimp
29	332C1043	1	*Jumper, Terminal - Standard Sets
30	307B1143	1	Relay, Starter Protection
31	323A764	1	*Socket, Relay - 8 Place
32	193P189	1	Resistor, Water Temperature Gauge
33	332A699	1	*Block, Terminal (6 Place) - Sets With Five Fault Lights (Opt.)
34	332A1240	1	Strip, Marker (53 through 58) - Sets With Five Fault Lights (Optional)

* Included in Control Wiring Harness Assembly.



GENERATOR GROUP

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	*	1	Rotor Assembly, Wound	25	221B153	6	±Shoe, Pole-Exciter
2	*	1	Stator Assembly, Wound	26	222B1693	1	±Coil Assembly, Field (Set of 6 Coils)
3	232B1994	1	Bracket, Bus Bar Support	27	305C455	1	Regulator, Voltage (Includes Parts Marked †)
4	232B1997	1	Board, Insulating - Bus Bar Support	28	332D1160	1	†Board Assembly, Printed Circuit (Includes Parts Marked ■)
5	232A1992	4	Bracket, Bus Bar	29	315D301	1	†Inductor
6	232B1996	1	Bar, Bus	30	■RECTIFIER, VOLTAGE REGULATOR		
7	232B2001	3	Bar, Bus		358C15	1	300 Volt, 12 Ampere - Negative Base
8	232B1995	1	Board, Insulating - Terminal Stud, Terminal Board		358C16	1	300 Volt, 12 Ampere - Positive Base
9	520A693	16	Board, Insulating - Terminal	31	364B9	2	■Rectifier, Gate Controlled 300 Volt, 5.5 Ampere - Negative Base
10	232B1998	1	Board, Insulating - Terminal	32	305C454	1	†Chassis, Voltage Regulator
11	232A1990	3	Bar, Bus	33	305A458	4	†Spacer, Printed Circuit Board Mounting
12	232B2000	1	Bracket, Terminal Board Mounting	34	305C456	1	†Cover, Voltage Regulator
13	232A1991	1	Bar, Bus	35	150B1194	1	Bracket, Overspeed Switch
14	232B1999	2	Bracket, Terminal Board Mounting	36	150B717	1	Switch Assembly, Overspeed
15	315C302	1	Shelf, Current Transformer	37	510P93	1	Lockwasher, Bearing
16	201D1501	1	Rotor Assembly, Exciter (Wound) (Includes Parts Marked ★)	38	510P91	1	Locknut, Bearing
17	358C11	3	★Rectifier, Positive Stud	39	510P94	1	Lockwasher, Bearing
18	358C12	3	★Rectifier, Negative Stud	40	510P92	1	Locknut, Exciter
19	508A124	4	★Bushing, Shoulder - Heat Sink Mounting	41	510P90	1	Bearing
20	232A1985	4	★Insulator, Heat Sink Mounting	42	232B1923	1	Ring, Bearing Holder
21	363B25	1	★Sink, Heat - Rectifier (Positive)	43	234B272	1	Cover, Fan
22	363B33	1	★Sink, Heat - Rectifier (Negative)	44	232B1924	1	Spring, Bearing Holder
23	508P93	1	★Grommet, Heat Sink				
24	211C170	1	Bell, End (Includes Parts Marked ±)				

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
45	232E1973	1	Grille, End Bell
46	232D1957	1	Support, Generator End
47	232C1880	1	Disc, Rotor Drive
48	205D76	1	Fan, Generator
49	234C280	1	Band, Stator - Bottom
50	234C290	1	Band, Stator - Top
51	520A692	2	Stud, Generator Support
52	515A162	1	Key, Exciter Rotor
53	321-38	1	■ Fuse - 10 Amp, 250 Volt
54	150A723	1	Contact Assembly, Overspeed Switch
55	854-14	2	Washer, Lock (1/4), Overspeed Switch
56	526-52	2	Washer, Flat, Overspeed Switch
57	508-18	3	Washer, Insulator (1/4" I.D. x 3/4" O.D.) Overspeed Switch
58	508-6	1	Washer, Insulator (1/4" I.D. x 3/8" O.D.) Overspeed Switch
59	871-16	2	Nut (Brass), Hex (1/4-20) - Overspeed Switch
60	805A35	12	Screw (5/8-11 x 1-1/2") - Drive Disc to Hub
61	800-133	6	Screw (5/8-11 x 1-3/4") - Fan to Flywheel
62	850-70	6	Washer, Lock (5/8")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
63	800-92	16	Screw (1/2-13 x 1-1/2") - Stator Assembly to Engine
64	232C1870	1	Hub, Rotor Drive
65	515A161	1	Key, Drive Hub
66	800-52	15	Screw (3/8-16 x 1-1/2") - Bus Bars to Insulating Board
67	850-50	15	Washer, Lock (3/8)
68	526A29	24	Washer, Flat (3/8)
69	862-3	15	Nut, Hex (3/8-16)
70	850-60	16	Washer, Lock (1/2)
71	800-151	1	Screw (3/4-10 x 1") - Bus Bar Support Bracket to Stator Assembly
72	850-79	1	Washer, Lock (3/4)
73	862-7	4	Nut, Hex (5/8-11) - Support Stud
74	850-70	4	Washer, Lock (5/8)
75	800-51	6	Screw (3/8-16 x 1-1/4") - End Bell to Stator Assembly
76	850-50	6	Washer, Lock (3/8)

* Order by description, giving plant Model, Spec and Serial Number from ONAN nameplate.

★ Included in 201D1501 Rotor Assembly.

‡ Included in End Bell Assembly.

† Included in 305C455 Regulator Assembly.

■ Included in 332D1160 Printed Circuit Board Assembly.