

The following catalog has gaps in its page numbers, or doesn't have any numbers. We have chosen to leave the page numbering in the order that Acrobat assigns it.

PARTS CATALOG

FOR



ELECTRIC GENERATING SETS

DFP SERIES

AN

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

A DIVISION OF ONAN CORPORATION



**Power
Generation** Printed in U.S.A.

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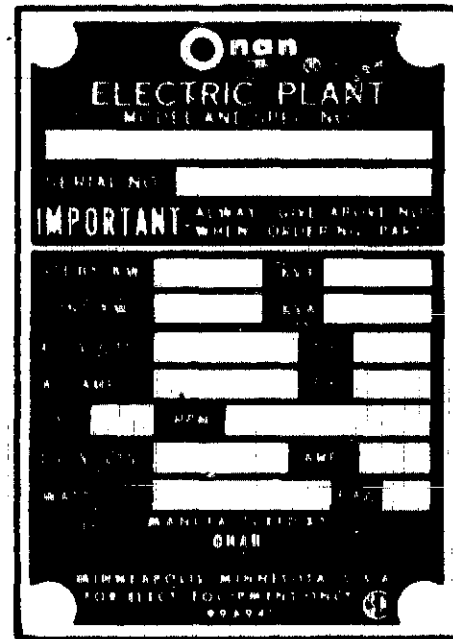


PARTS CATALOG

INSTRUCTIONS FOR ORDERING REPAIR PARTS

ONAN PARTS

All parts in this list are ONAN parts. For ONAN parts or service, contact the dealer from who 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 located on the upper right side of the flywheel housing and give the complete MODEL and SPEC NO. and SERIAL NO.

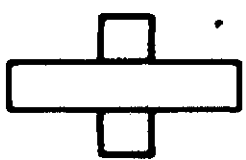


CUMMINS PARTS

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. <input type="text"/>	MODEL <input type="text"/>	ENG NO. <input type="text"/>	

This catalog applies to the standard DFP plants as listed below. Powered by a Cummins NT-855PG335 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
165DFP-54R8/	165,000	120/208	50	3	4
165DFP-54XR8/	165,000	277/480	50	3	4
165DFP-55DR8/**	165,000	120/240	50	3	4
165DFP-57R8/	165,000	220/380	50	3	4
165DFP-59XR8/	165,000	347/600	50	3	4
200DFP-4R8/	200,000	120/208	60	3	4
200DFP-4XR8/	200,000	277/480	60	3	4
200DFP-5DR8/**	200,000	120/240	60	3	4
200DFP-9XR8/	200,000	347/600	60	3	4

- * The Specification Letter advances (A to B, B to C, etc.) with manufacturing changes.
- ** This is a delta-wound 240 volt model with one phase center-tapped. A limited amount of 1 phase, 120/240 volt power can be utilized together with 3 phase power as long as no terminal current exceeds the rated nameplate current.
- *** Maximum rating is shown. Continuous rating also appears on nameplate.

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

REPLACEMENT ENGINE

100P511

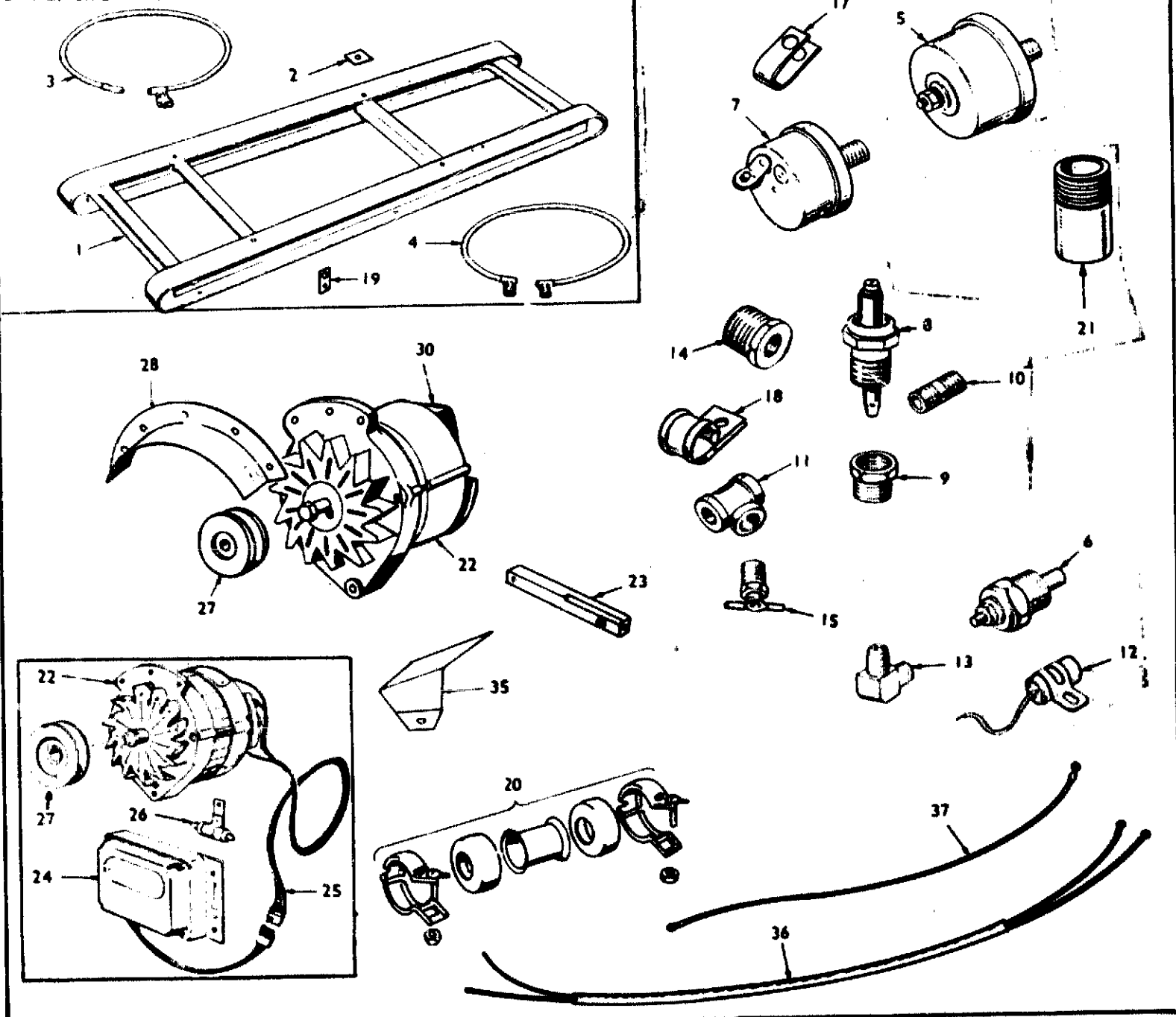
Engine, Replacement (Cummins Engine Company Model NT-855PG335).

General Description:

Includes - Complete Cylinder Block, Fuel Pump, Air Cleaner, Fuel Filter, Oil Filter, Starter and Solenoid, Governor, Radiator Water Pump, Fan Blades and Belt, Fan Guard, Exhaust Manifold, Flywheel Housing, Oil Cooler and Engine Supports.

Excludes - Throttle Control, Engine Wiring, Water Temperature and Oil Pressure Gauge Senders and Mounting Base.

BASE, CHG. ALTERNATOR, CABLES, SENDER & MISC. GROUP



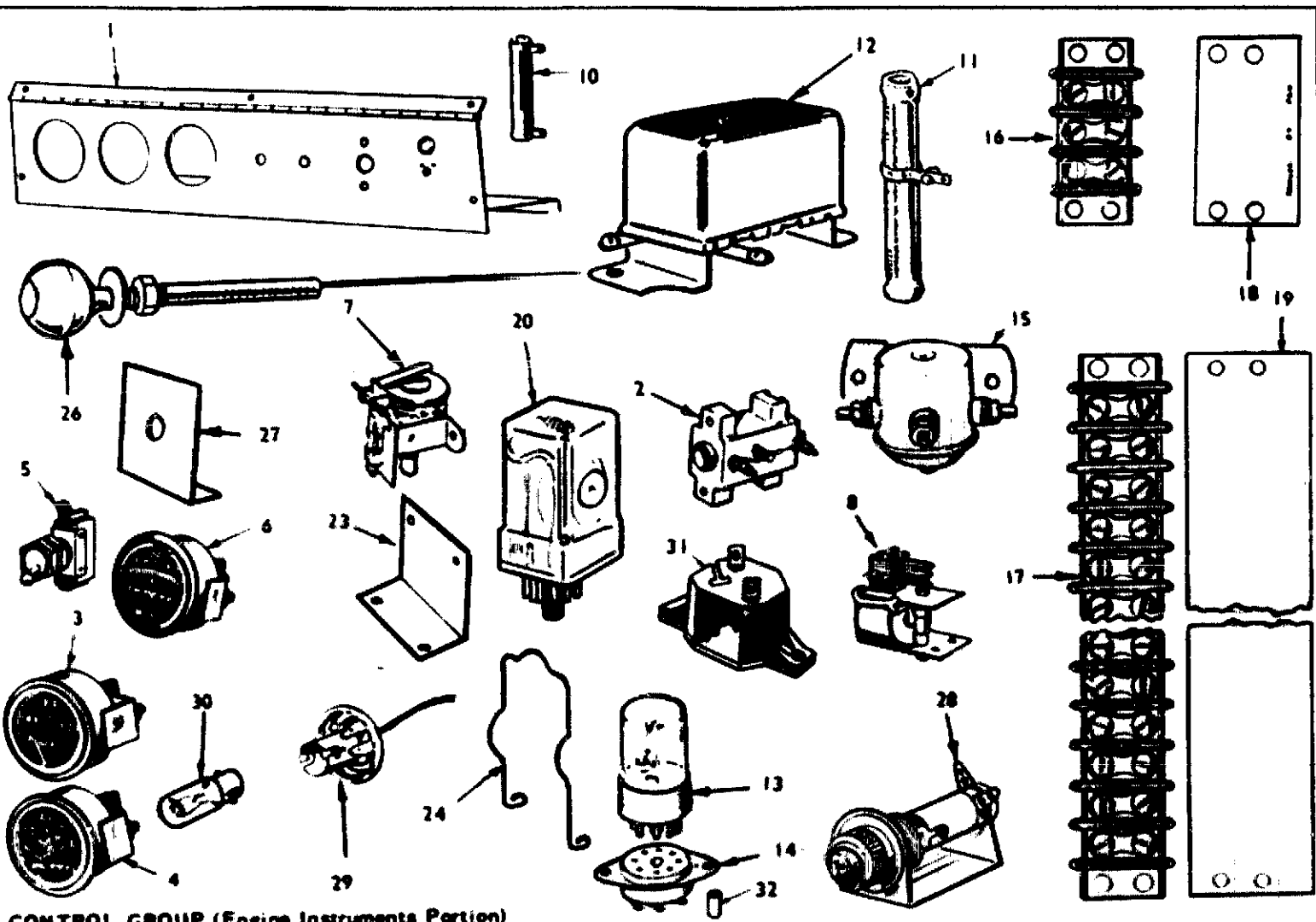
REF. NO	PART NO.	QTY. USED	PART DESCRIPTION
1	403C 559	1	Base, Mounting
2	SHIM, GENERATOR TO MOUNTING BASE		
	232A1817	As Req.	.062"
	232A1489	As Req.	.0598"
	232A1490	As Req.	.0359"
3	CABLE, BATTERY		
	416A444	1	Positive
	416A445	1	Negative
4	416A446	1	Cable, Battery Jumper
5	193A98	1	Sender, Oil Pressure
6	193A100	1	Sender, Water Temperature
7	309P64	1	Switch, Oil Pressure
8	309A178	1	Switch, High Water Temperature Cut-Off
9	505-19	2	Bushing, Pipe Reducer (1/2 x 3/8) High Water Temperature Switch & Water Temperature Sender
10	505-98	1	Nipple, Close (1/8 x 3/4") Oil Pressure Tee to Block Tee, Pipe (1/8") Oil Pressure Switch & Sender Mounting
11	505-59	1	

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	312A58	1	Condenser -(1 Mfd.) - Charge Generator
13	502-218	1	Elbow, Male (5/8" x 1/2") Brass - Injection Pump
14	505-20	1	Bushing, Reducer (3/4 x 1/4") Radiator Outlet
15	VALVE		
	504-28	1	Radiator Drain
	504-3	1	Cylinder Water Drain
	CLIP, HARNESS - ENGINE CONTROL CONNECTIONS		
17	416A96	3	"U" Shaped - All Metal
18	332-49	2	"O" Shaped - Metal with Rubber Insulator
19	191A214	1	Connector, Starter Terminal
20	505P654	1	Coupling, Exhaust (4" O.D. Pipe)
21	505-456	1	Nipple, Half (8" Long)
22	*ALTERNATOR, BATTERY CHARGING		
	191D549	1	Motorola #70D41753A01 (Includes Fan) - Prior to Spec D
	191B688	1	Motorola #70D44039B04 (Includes Regulator & Fan) - Begin Spec D

<u>REF. NO.</u>	<u>PART NO.</u>	<u>QTY. USED</u>	<u>PART DESCRIPTION</u>
23	232A1809	1	Bar, Alternator Mounting
24	191-548	1	Regulator, Charging - Prior to Spec D
25	191-544	1	Harness, Wiring - Alternator to Regulator - Prior to Spec D
26	191-550	1	Resistor, Alternator (300-Ohm) - Prior to Spec D
27	191C624	1	Pulley, Alternator
28	191B725	1	Guard, Alternator Belt
30	191P733	1	Regulator, Charging - Begin Spec D

<u>REF. NO.</u>	<u>PART NO.</u>	<u>QTY. USED</u>	<u>PART DESCRIPTION</u>
35	133B179	1	Shield, Heat - High Temperature Switch
36	HARNESS ASSEMBLY		
	338B213	1	Voltage Regulator
	338B214	1	Alternator
	338C215	1	Engine Control
	338B242	1	Static Exciter (4-1/2 Sleaving)
	338B480	1	Static Exciter (2' Sleaving)
37	336A1211	1	Lead, Starter to Solenoid

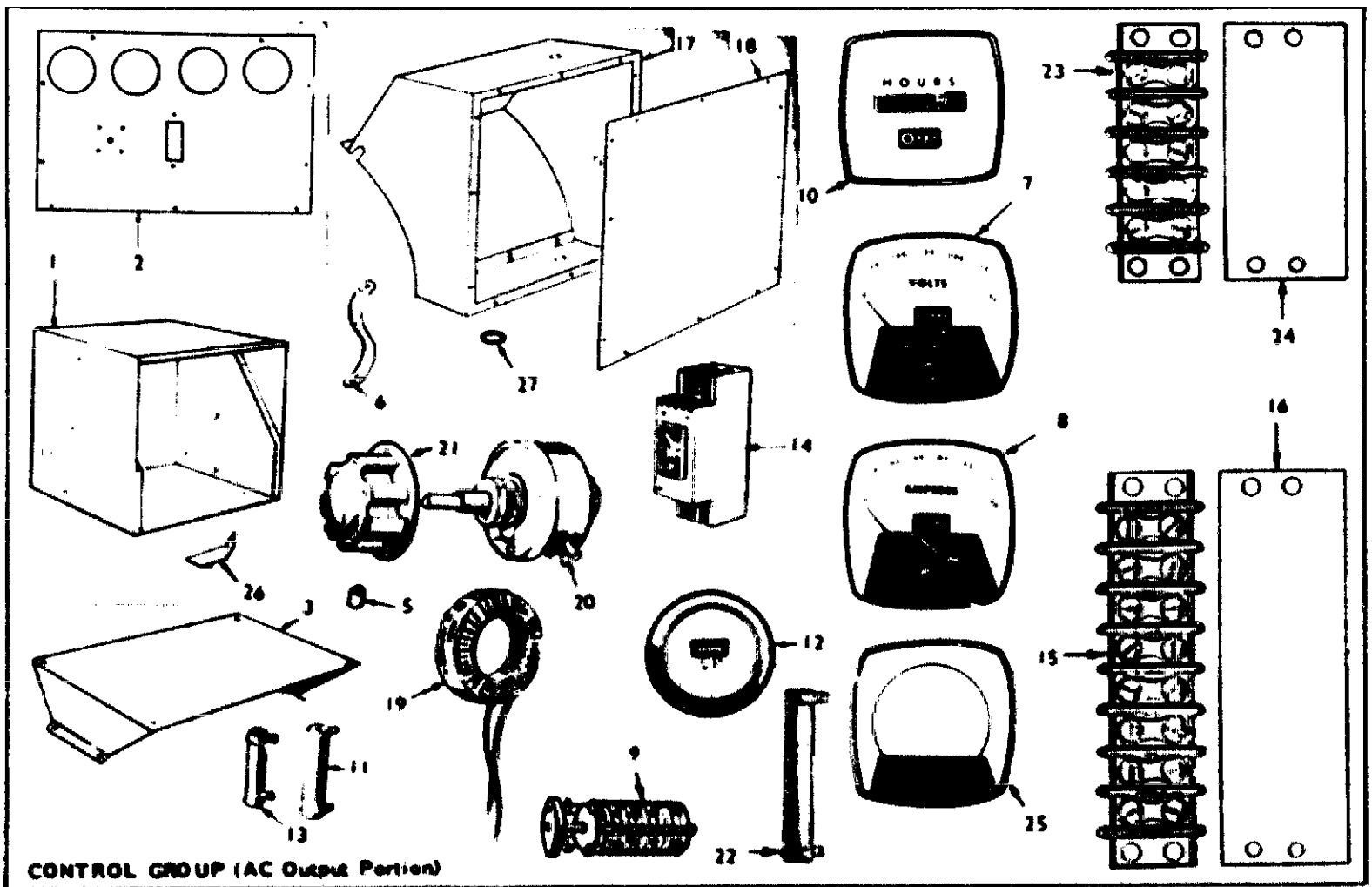
* For components, contact your nearest Motorola dealer or Motorola Automotive Products Inc., 9401 W. Grand Ave., Franklin Park, Illinois 60131.



CONTROL GROUP (Engine Instruments Portion)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301C2124	1	Panel Only, Lower Control
2	320A104	1	Limiter, Cranking
3	193B112	1	Gauge, Water Temperature
4	193B111	1	Gauge, Oil Pressure
5	SWITCH, TOGGLE 308P2	1	Panel Lights
	308P138	1	Run, Stop, Remote
6	302A61	1	Ammeter, Charge (30-0-30)
7	RELAY, TIME DELAY 307A388	1	Prior to Spec C
	307A899	1	Begin Spec C
8	307A655	1	Relay, Latching
10	RESISTOR, FIXED 304A446	2	(1) Water Temperature Gauge, (1) Oil Pressure Gauge (15-Ohm, 10Watts) 5/16 x 1-3/4"
	304-248	1	Time Delay Relay (100-Ohm, 10Watts) 5/16 x 1-3/4" - Prior to Spec C
	304A276	1	Between Fuel Solenoid Relay & Emergency Stop Relay (75-Ohm, 10Watts) 5/16 x 1-3/4"
	304A62	1	Pilot Relay (25-Ohm, 25Watts) 3/4 x 2" - Prior to Spec C
11	304A66	1	Resistor, Adjustable, Start-Disconnect Relay & Cranking Limiter 3/4 x 4"
12	307B597	1	Relay, Fuel Solenoid - Prior to Spec C
13	RELAY, CYCLE CRANKING - PLUG-IN TYPE 307A697	1	10 Second Delay - Prior to Spec C
	307A753	1	5 Second Delay - Prior to Spec C

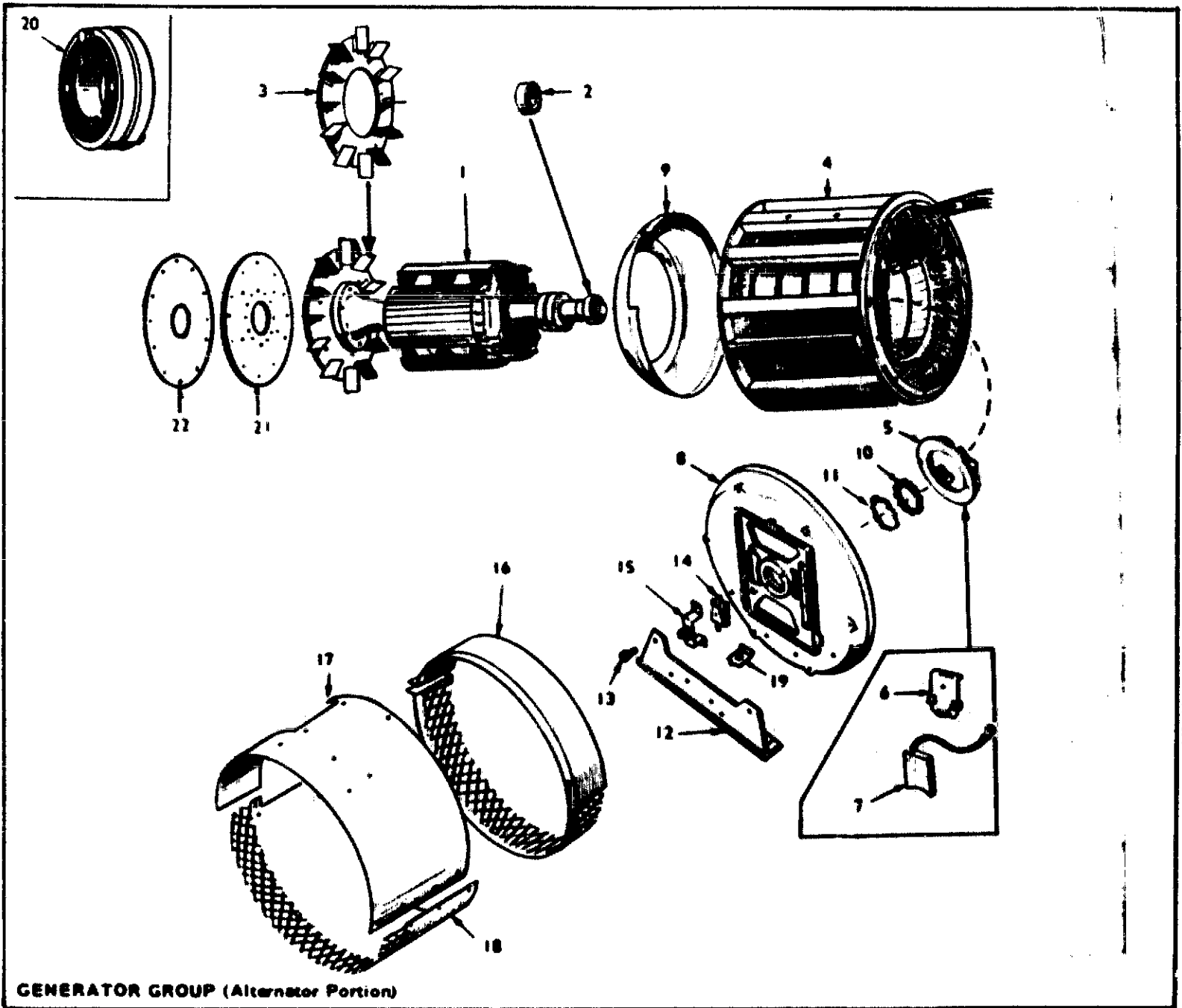
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
14	323-52	2	Socket, Fuel Solenoid Relay & Start-Disconnect Relay (Qty. 3 - Prior to Spec C - Used for Cycle Cranking Relays)
15	307-61	1	Relay, Pilot - Prior to Spec C
16	BLOCK, TERMINAL 332A611	1	Remote Operation Connection (3 Place)
17	332A607	1	Engine Connection (12 Place) - Prior to Spec C
17	332A795	1	Engine Connection (16 Place) - Begin Spec C
	STRIP, BLOCK MARKER		
18	332A1009	1	For Remote Operation Block (Marked REMOTE, B-, GND)
19	332A608	1	For Engine Connection Block (Marked 4 through 15) - Prior to Spec C
19	332A862	1	For Engine Connection Block (Marked 4 through 19) - Begin Spec C
20	307P820	1	Relay, Start-Disconnect
20	307P820	1	Relay, Fuel Solenoid - Begin Spec C
23	301A1685	1	Bracket, Mounting - Time Delay Relay
24	307P778	2	Spring, Relay Hold-Down
26	152P120	1	Control, Vernier
27	151A230	1	Bracket, Vernier Control
28	322P69	1	Receptacle, Pilot Light
29	322P72	2	Receptacle, Panel Light
30	322P17	3	Bulb, (1) Pilot Light, (2) Panel Lights
31	320P240	1	Breaker, Circuit - Starter Motor - Begin Spec C
32	332A943	4	Spacer, Relay Socket Mounting - Begin Spec C



CONTROL GROUP (AC Output Portion)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301D2115	1	Box Only, Control
2	301C1815	1	Panel Only, Upper Control
3	301C1830	1	Bracket, Control Box Mounting
5	402-78	4	Rubber, Mounting - Control Box
6	337A44	1	Strap, Ground
7	VOLTMETER, AC (CHECK VOLTMETER SCALE - SELECT ACCORDING TO RATING)		
	302P421	1	Scale Reads 0-300
	302P422	1	Scale Reads 0-600
	302P423	1	Scale Reads 0-750
8	AMMETER, AC (CHECK AMMETER SCALE - SELECT ACCORDING TO RATING)		
	302P413	1	Scale Reads 0-300
	302P414	1	Scale Reads 0-500
	302P415	1	Scale Reads 0-750
9	308-22	1	Switch, Voltage & Current Selector
10	METER, RUNNING TIME		
	302P465	1	120 208, 120 240, 600, 347-600 Volt, 3 Phase, 60 Hertz Plants
	302P466	1	220-380 Volt, 3 Phase, 60 Hertz Plants
	302P467	1	277-480 Volt, 3 Phase, 60 Hertz Plants
	302P469	1	220-380 Volt, 3 Phase, 50 Hertz Plants
	302P468	1	120-208, 120-240, 600, 347-600 Volt, 3 Phase, 50 Hertz Plants
	302P470	1	277-480 Volt, 3 Phase, 50 Hertz Plants
11	304A536	1	Resistor, Running Time Meter - 600 Volt, 3 Phase, 60 Hertz Plants - (Use with 302P465 Meter)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	METER, FREQUENCY		
	302-213	1	60 Hertz Models
	302-234	1	50 Hertz Models
13	RESISTO, FREQUENCY METER		
	304A305	1	For 277-480 Volt, 3 Phase Plants
	304A402	1	For 600 Volt, 347-600 Volt, 3 Phase Plants
	304A125	1	For 220-380 Volt, 3 Phase Plants
14	320B170	1	Breaker, Circuit-18Amp
15	332A503	1	Block, Terminal (8 Place)
16	332A1174	1	Strip, Block Marker (Marked 55 through 62)
17	301E1682	1	Box Only, Output Terminal - Mounts on Side of Generator
18	301C1683	1	Cover, Output Terminal Box
19	TRANSFORMER, CURRENT (MOUNTS IN OUTPUT TERMINAL BOX) CHECK TRANSFORMER NAME-PLATE - SELECT ACCORDING TO RATING		
	302B107	3	Reads Ratio 300 : 5 (Use with 0-300 AC Ammeter)
	302B372	3	Reads Ratio 500 : 5 (Use with 0-500 AC Ammeter)
	302B385	3	Reads Ratio 750 : 5 (Use with 0-750 AC Ammeter)
20	303-111	1	Rheostat, Voltage Regulator - 175-Ohm, Model H
21	303-32	1	Knob, Rheostat
22	304A484	1	Resistor, Fixed - Rheostat (825-Ohm, 75 Watt)
23	332A604	1	Block, Terminal - Exciter Connections - (5 Place)
24	332A690	1	Strip, Block Marker (5 Place)
25	302B448	1	Plate, Meter Face
26	301A1914	1	Bracket, Panel Stop
27	508P63	3	Grommet, Rubber (For 2-7/8" Hole)



GENERATOR GROUP (Alternator Portion)

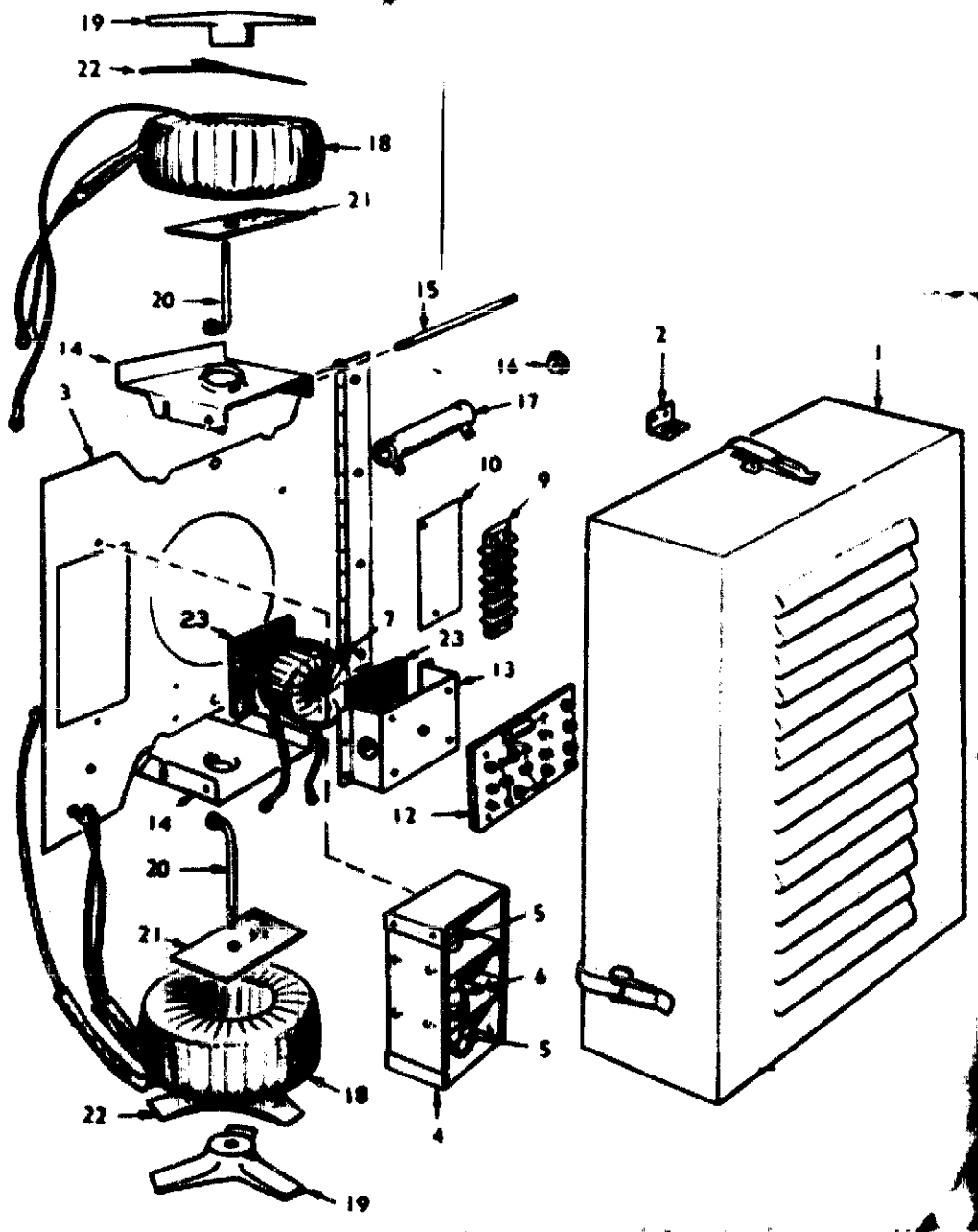
NOTE: Output Terminal Box, Cover & Internal Parts are listed in the AC Output Control Group (Mounts on Side of Generator).

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	**	1	Rotor Assembly, Wound - Includes Bearing, Blower & Drive Assembly
2	BEARING 510P63 510P88 205C61	1 1 1	Spec A Only Begin Spec B Blower
3	**	1	Stator Assembly, Wound
4	212C248	1	Rig Assembly, Brush - Includes Brushes & Springs
6	212B1105	4	Spring, Brush
7	214A46	4	Brush
8	211D153	1	*Bell, End - Alternator to Exciter
9	234D69	1	Baffle, Air
10	RING, BEARING HOLDER - ANTI-ROTATION 232A1186 232A1807	1 1	Spec A Only Begin Spec B
11	SPRING, BEARING HOLDER - ANTI-ROTATION 232A1187 232A1808	1 1	Spec A Only Begin Spec B

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	232D1396	1	Support
13	805-35	16	Bolt, Place - Generator Mounting
14	150A717	1	Switch Assembly, Overspeed
15	150A713	1	Bracket, Overspeed Switch - Includes Contact Point
16	234D70	1	Band - Front (Narrow) BAND, GENERATOR - REAR (WIDE)
17	**	1	Upper Half
18	**	1	Lower Half
19	234A107	1	Bracket, Conduit Connector
20	204A83	1	Ring, Collector
21	232C1394	1	Disc, Drive
22	232B1378	As Req.	Shim, Drive Disc

** Order by description, giving Model, Spec and Serial Number (ONAN Nameplate).

* To order end bell for Spec A plants also order 232A1807 Ring, 232A1808 Spring, 510P88 Bearing, 526A17 Spacer and 812-192 Screw.



GENERATOR GROUP (Exciter Portion) Model 25X

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	234D116	1	Cover, Exciter
2	232A1376	3	Bracket-Exciter Cover to End Bell
3	234D74	1	Panel Only, Exciter
4	305B228	1	Rectifier Assembly, Power-Complete-Includes two #305P233 & #305P234 Rectifiers plus wire & hardware.
5	RECTIFIER ONLY, POWER (FIELD) 305P233	2	Lower two-Negative (Included in Rectifier Assembly #305B228)
6	305B234	2	Upper two-Positive (Included in Rectifier Assembly #305B228)
7	REACTOR, VOLTAGE CONTROL 315A80 315A78	1 1	50 Hertz Plants 60 Hertz Plants
8	304P476	1	Resistor, Voltage Control Reactor (Included in Rectifier & Resistor Assembly #305B227)
9	332A532	1	Block, Terminal-5 Place
10	332A693	1	Strip, Terminal Block Marker
11	305P240	4	Rectifier, Voltage Control Reactor (Included in Rectifier & Resistor Assembly #305B227)

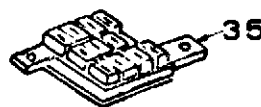
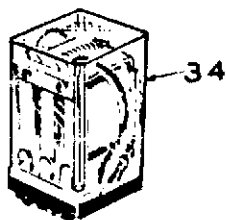
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	305B227	1	Rectifier & Resistor Assembly (Includes #304P476 Resistor & (4) Rectifiers #305P240)
13	234B115	1	Bracket, Mounting-Voltage Control
14	234B75	2	Bracket, Gate Reactor Mounting
15	520A190	1	Stud, Fixed Resistor Mounting
16	304A15	2	Washer, Fixed Resistor Centering
17	304A442	1	Resistor, Fixed (300-Ohm, 75 Watt)
18	REACTOR, GATE 315A61 315A51	2 2	50 Hertz Plants 60 Hertz Plants
19	232A1389	2	Retainer, Gate Reactor
20	232A1403	2	Stud, Gate Reactor Mounting
21	232B1388	2	Gasket, Gate Reactor Mounting
22	232B1387	2	Gasket, Gate Reactor to Retainer
23	232A1548	2	Gasket, Control Reactor Coil Mounting

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

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SUPPLEMENTARY PARTS LIST

A starter motor protection relay has been added to the engine control to prevent engagement of the starter motor when the engine is running. These parts apply to Series DFP begin Spec E. Use these parts in place of/or in addition to those listed in the main parts catalog #960-301. Parts that are similar in appearance to those in the main parts catalog are not illustrated.



(CONTROL GROUP (ENGINE INSTRUMENTS PORTION))

<u>REF. NO.</u>	<u>PART NO.</u>	<u>QTY. USED</u>	<u>PART DESCRIPTION</u>
17	332A1005	1	Block, Terminal (20 Place)
19	332A1006	1	Strip, Marker (Marked 4 Through 23)
34	307B1061	1	Relay, Starter Motor Protection
35	323A760	1	Socket, Starter Motor Protection Relay