PARTS CATALOG

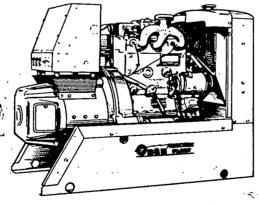
FOR

ONAN ELECTRIC GENERATING PLANTS

DZB

SERIES





NOTE!!

The ONAN Manual and/or Parts Catalog only has been supplied. This model series has been out of production for a number of years. Due to reasons beyond our control we no longer stock or supply the engine manufacturers Manual or Parts Catalog. However we believe they are available direct from the engine manufacturer providing you furnish the SERIAL NUMBER and SPEC from the engine manufacturers nameplate on the engine. Refer to Parts Catalog and order from manufacturer as indicated under "Instructions for Ordering Repair Parts".



DIVISION OF STUDEBAKER CORPORATION

MINNEAPOLIS 14, MINNESOTA

PARTS CATALOG

DZB SERIES

This parts catalog applies to the standard ONAN DZB Series electric generating plants. Prior to Spec D Models are powered by a Hercules Series DD-149 Engine, and beginning Spec D are powered by a Hercules Series D-1500, which is more completely described in the Hercules manual. Basically, the engine is a 3 cylinder, water cooled, diesel (compression ignition) type. The cylinder bore is 3-3/4 inches, piston stroke is 4-1/2 inches and displacement is 149 cubic inches.

Hercules Engine parts must be selected from the appropriate Hercules parts list and parts must be secured from the Hercules Motor Corporation.

Engine parts that are modified or added by ONAN will be found in this ONAN list. They all have Onan part numbers and must be used in place of a like part that may be listed by Hercules in their list.

"Right" and "Left" sides of the Generator, Controls and Housing are determined by FACING the Radiator (Front) End.

ONAN parts are illustrated in groups and have reference numbers which correspond to the like numbers in the list for that group. Parts illustrations are typical and should not be construed to represent a particular part number.

Compare your ONAN plant nameplate MODEL and SPEC. 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.

UNLESS OTHERWISE MENTIONED IN THE PARTS DESCRIPTION, PARTS ARE INTERCHANGEABLE BETWEEN THE VARIOUS PARTS KEYS.

MODEL & SPEC NO.† ELECTRICAL DATA

MODEL & SPEC NO.†		ELECTRICAL DATA				PARTS	
HOUSED	UNHOUSED	WATTS	VOLTS	CYCLES*	PHASE	WIRE	KEY NO.
10DZB-3R/	10DZB-3R8/	10, 000	120/240	60	1	3	1
10DZB-4R/	10DZB-4R8/		120/208	60	3	4	2
10DZB-5R/	10DZB-5R8/	10,000	240	60	3	3	3
15DZB-3R/	15DZB-3R8/	15,000	120/240	60	1	3	4
15DZB-4R/	15DZB-4R8/	15,000	120/208	60	3	4	5
15DZB-5R/	15DZB-5R8/	15, 000	240	60	3	3	6

- † The NUMBER after the diagonal line (/) signifies standard or optional features.
 (1 is standard). The LETTER ending the model and spec. no. is the Spec Letter and will advance with manufacturing changes, (A to B, B to C. etc.)
- ★ Applies to the AC OUTPUT CONTROL and GENERATOR Groups Only. This list covers 60 Cycle Plants only. For 50 Cycle Plants, (Check ONAN Nameplate) use only as a guide except where 50 Cycle is specified. Order parts for 50 Cycle Plants by description and be sure to give complete Onan Nameplate information.

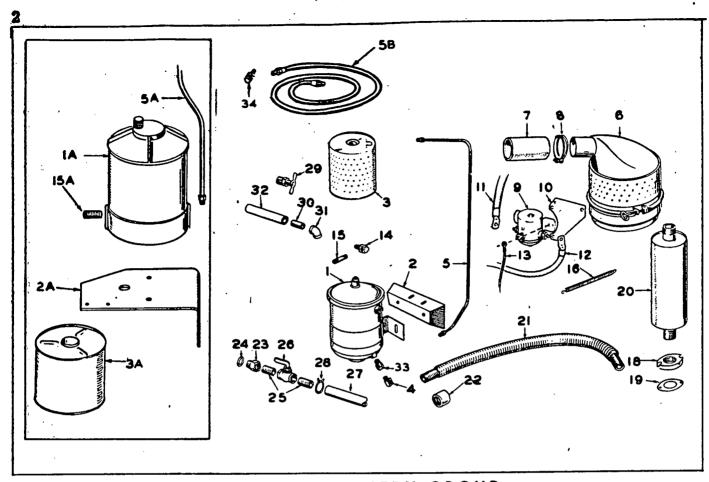


FIG.1 -FUEL SYSTEM GROUP

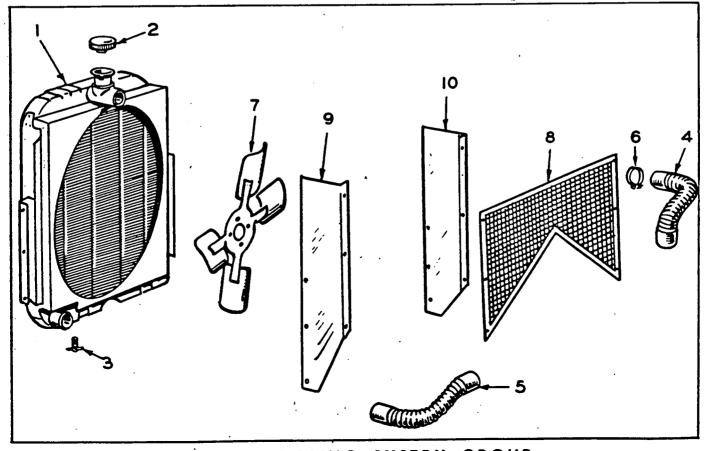


FIG.2 -COOLING SYSTEM GROUP

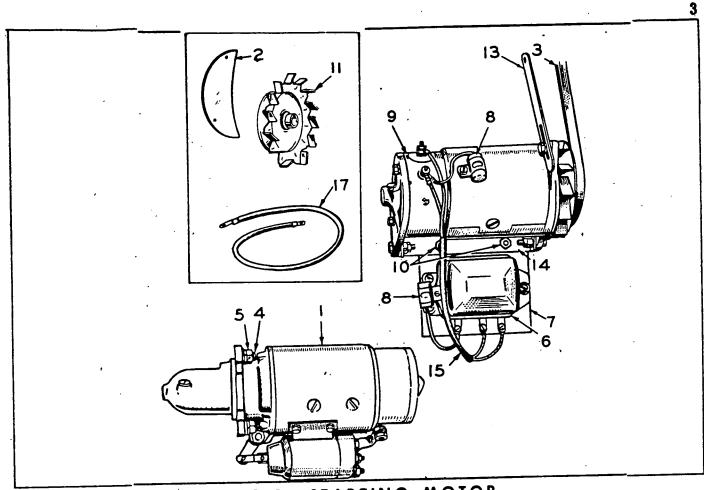


FIG.3 -STARTING MOTOR AND BATTERY CHARGE GENERATOR GROUP

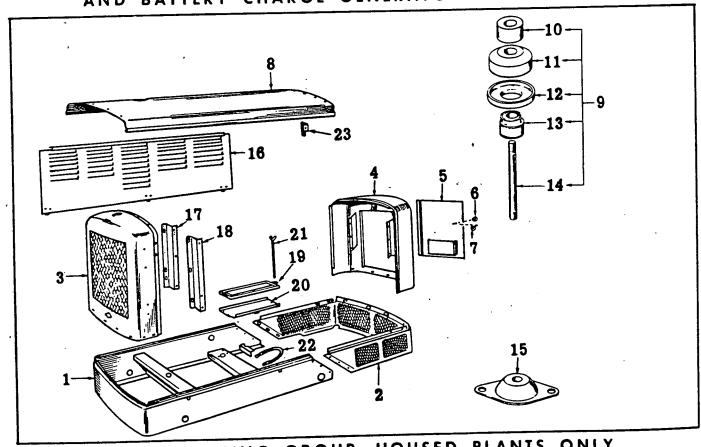


FIG.4 -HOUSING GROUP-HOUSED PLANTS ONLY

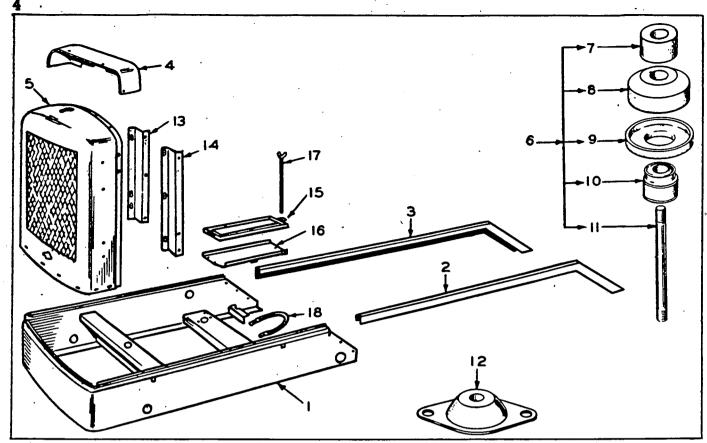


FIG.5 - MOUNTING GROUP-UNHOUSED PLANTS ONLY

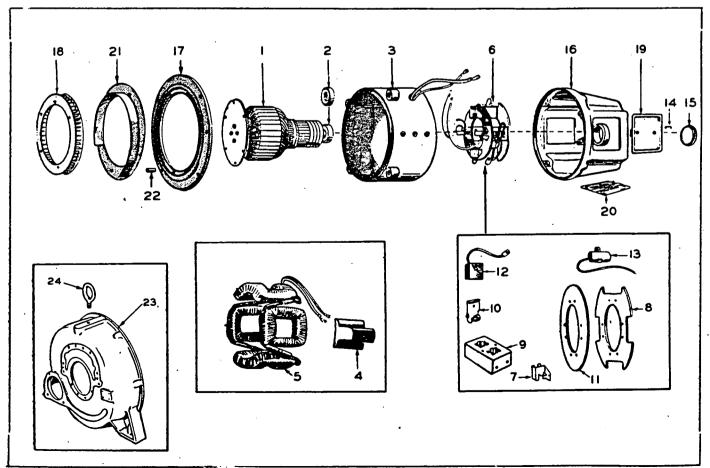


FIG. 6 -GENERATOR GROUP

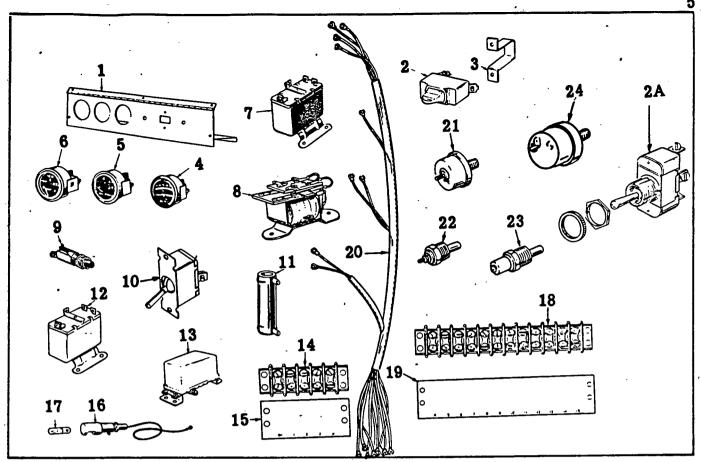


FIG. 7 -ENGINE CONTROL PANEL GROUP (ENGINE INSTRUMENT)

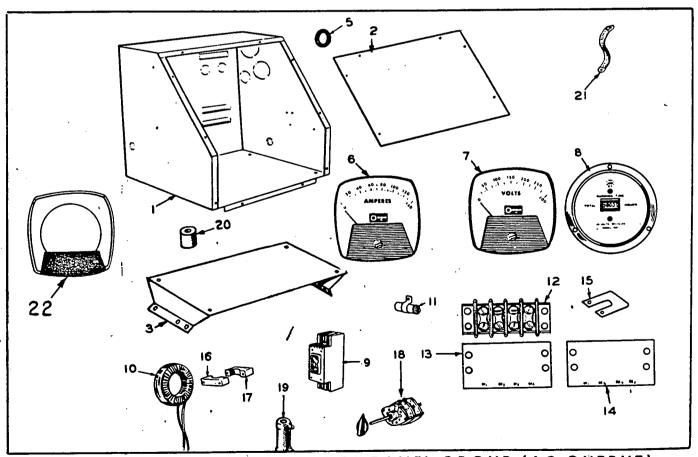


FIG. 8 -ELECTRICAL CONTROL PANEL GROUP (AC OUTPUT)

18

154B519

1

REF. PART QUANT. NO. NO. USED

DESCRIPTION

REPLACEMENT ENGINE NO. 100P424 (Hercules Motor Corp. D1500 X 2)

Replaces 100P418 (D149 x 34) and 100P248 (D149 x 17 and D149 x 28)

General Description:

Includes - Complete Cylinder Block; Oil Pan; Governor and Fuel Pump Assembly;
Hand Primer Pump; Oil Pump; Oil Filter; Water Pump; Intake and Exhaust Manifold; 12 Volt Air Intake Heater; and Flywheel Housing (Generator Adapter).

Excludes - Air Cleaner & Hose; Oil Drain Assembly; Fuel Filter, Mounting Bracket & Line; Starter; Voltage Regulator & Mounting Bracket; Charge Generator, Mounting Bracket & Harness Assy.; Radiator & Hoses; Fan Blades, Belt & Guard; Air Intake Heater Solenoid, Mounting Bracket & Leads; Exhaust Muffler, Flange & Flexible Tube; Oil Pressure & Water Temperature Gauge Senders; High Water Temperature Cut off Switch; and Engine Mounts.

			FIG 1 - FUEL SYSTEM GROUP
1	149P745	1	Filter, Fuel (Fram #F-1101PL) Includes Cartridge - Used Begin ONAN Serial #601377.
1A	149P722	1	Filter, Fuel (Hartford Mach. #2600-1A) Includes Element - Used Prior to ONAN-Serial #601377.
2	149C743	1	Bracket, Fuel Filter Mounting - Begin Serial #601377.
2A	. 149C721	1	Bracket, Fuel Filter Mounting-Prior to Serial #601377.
3 -	149P744	1	Cartridge, Fuel Filter (Fram #C-1101PL) Begin ONAN Serial #601377.
3A	149-726	1	Element, Fuel Filter (Hartford Mach. #2603) Prior to ONAN Serial #601377.
4			Elbow, Fuel Filter Outlet -
	502-42	1	Prior to Spec C.
	502 - 20	1	Begin Spec C.
5	149B747	1	Line, Fuel Filter to Injection Pump - Begin Serial
		1.	#601377 - Prior to Spec C
5A	149B716	1	Line, Fuel Filter to Inj. Pump - Prior to Serial 601377.
5B	501A88	1	Line, Fuel Filter to Inj. Pump-Flex - Begin Spec C.
6	140B500	1	Cleaner, Air.
7	503-134	1	Hose, Air Cleaner.
8	503-44	2	Clamp, Air Cleaner Hose.
9	307B40	1	Solenoid, Intake Manifold Heater.
10	301A1623	1	Bracket, Solenoid Mounting (With provision for mounting Injection Pump Spring).
11	336A1199	1	Lead, Solenoid to Intake Manifold Heater - 10" Long.
12	336A1200	1	Lead, Solenoid to Starter - 36" Long.
13	336A713	1	Jumper, Injection Pump Terminal to Ground - 8" Long.
14	502-54	1	Elbow, Street - Primer Pump Inlet.
15	505-105	1	Nipple, Pipe - Primer Pump to Fuel Filter - Begin ONAN Serial #601377.
15A	502-47	1	Nipple, Pipe - Primer Pump to Fuel Filter - Prior to ONAN Serial #601377.
16	149A738	1	Spring, Injection Pump - Replaces 145A158.
10	1540510		

Flange, Exhaust Manifold.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
		FIG 1	- FUEL SYSTEM GROUP (Cont.)
19	154A543	1	Gasket, Exhaust Flange.
20	155B456	1	Muffler, Exhaust.
21	155B493	. 1	Tube, Flexible Exhaust.
22	505-32	1 .	Coupling, Exhaust Tube.
23	102A33	. 1	Adapter, Oil Drain.
24	102A34	1	Gasket, Oil Drain.
25	505-100	2	Nipple, Pipe Close - Oil Drain - 1/2".
26	504P4	1	Valve, Shut-off - Oil Drain.
27	503-98	1	Hose, Oil Drain - Specify 14" length when ordering.
2 8	503-197	1	Clamp, Oil Drain Hose.
29	504-3	1	Valve, Drain - Cylinder Block.
30	505-99	3	Nipple, Pipe Close - Crankcase Breather - 1/4".
31	505-38	1	Elbow, Pipe (90°) Crankcase Breather.
32	503P110	1	Hose, Crankcase Breather - SPECIFY Length Req.
33	505-7	1	Bushing, Fuel Filter Outlet - Begin Spec C
34	502-41	1	Elbow, Fuel Line to Injection Pump - Begin Spec C
		, F	IG 2 - COOLING SYSTEM GROUP
1	130D404	1	Radiator.
2	130P431	1 .	Cap, Radiator.
3	504-3	1	Valve, Radiator Drain.
4	503C320	1	Hose, Engine to Radiator - Upper.
5	503C319	1	Hose, Engine to Radiator - Lower.
6	503-129	4	Clamp, Radiator Hose.
7	130B410	1	Fan Only, Cooling.
8	130C407	1	Guard, Fan - Rear Portion.
9	130C406	1	Guard, Fan - Right Hand Side.
10	130C405	1	Guard, Fan - Left Hand Side.
FI	G 3 - STAI	RTING MOT	OR & BATTERY CHARGE GENERATOR GROUP
l	191D428	1 🛦 S	Starter, 12 Volt (Delco Remy #1107534) - Replaces 191D237 (Delco Remy #1108661)
2	191A259	1 (Cover, Starter Hole.
3			Belt, Charge Generator and Fan Drive.
	•	1	Spec A Only - Order 511K63 Belt and Pulley Kit
	511P60	1	Begin Spec B
Ł	520A95	3 8	Stud, Starter Mounting.
,	104A91		Nut, Hex - Starter Mounting Stud.
;	191A228	1 ▲F	Regulator, Voltage - 12 Volt (Delco Remy #1119001).
•	191B238	1 F	Bracket, Voltage Regulator MtgEarly Spec A Model
}	312A15	2 (Condenser1 Mfd (1) Charge Generator, (1)
, }	191P251	1 🗚	Voltage Regulator Generator, Battery Charge - 12 Volt (Delco Remy #1102044).
			-

^{▲ -} For Component Parts not listed, contact your nearest Delco Remy Dealer. Supply Delco Model Number.

REF.	PART	QUANT.	DESCRIPTION
NO.	NO.	USED	

FIG. 3 - STARTING MOTOR & BATTERY CHARGE GENERATOR GROUP (Cont.)

110A445	2	Nut, Hex - Charge Generator Mounting. Fan and Pulley, Generator - 1 Piece (Replaces previously used 3 Piece Fan, Pulley and Plate)
	1	Spec A Only - Order 511K63 Belt and Pulley Kit.
191B459	1	Begin Spec B.
191A235	1	Strap, Adjusting - Charge Generator.
191A234	1	Bracket, Charge Generator Mounting.
338B105	1	Harness Assembly, Charge Generator to Voltage Regulator - 2 Wires in Sleeving.
		Cable, Battery -
416A77	1	28" Long.
416A49	1	14" Long.
	191B459 191A235 191A234 338B105	1 191B459 1 191A235 1 191A234 1 338B105 1

FIG. 4 - HOUSING GROUP (HOUSED PLANTS ONLY)

1 403D531 1 Chassis, Mounting.	
2 403D532 1 Chassis Mounting - Rear Section	ion
3 405D1133 1 Panel, Front End.	1011.
4 405D1081 1 Panel Rear End - Excludes do	OF
5 405B1080 1 Panel, Rear Door - Includes hi	nge
6 406-2 1 Knob, Panel Door - Attach with	machina canaw
7 406-88 1 Catch, Panel Door.	macinie screw.
8 405D1135 1 Panel, Top.	
9 402A201 1 Mounting Assy., Front Engine -	Includes parts
marked * plus washers and nu	te
10 403A533 1 *Spacer, Front Engine Mounting.	its.
11 402A10 1 *Mount, Rubber - Upper.	
12 402A12 1 *Cup, Rubber Mount Retainer.	
13 402A11 1 *Mount, Rubber - Lower.	
14 520A576 1 *Stud, Engine Mounting.	
15 402P190 2 Mount, Vibration - Generator.	
16 405C1084 2 Panel, Side Door - Includes Hold	d-down Factorone
17 130B408 1 Bracket, Radiator - Left Hand.	d-down rasteners.
18 130B409 1 Bracket, Radiator - Right Hand	•
19 416B338 1 Frame, Battery Hold-down.	•
20 - 416D431 1 Tray, Battery.	
21 520A435 2 Stud, Battery Hold-down.	
22 336A476 1 Strap, Ground - Generator Adap	ster to Mountine
Chassis.	ter to momittud
23 405A1181 2 Stop. Door.	

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION		
-	FIG. 5 - MOUNTING GROUP (UNHOUSED PLANTS ONLY)				
1	403D531	1	Chassis, Mounting.		
2	403C478	1	Trim, Chassis - Right Hand Side.		
3	403C479	1	Trim, Chassis - Left Hand Side.		
4	405B1089	1	Trim, Front Panel.		
5	405D1133		Panel, Front End.		
6	402A201	1	Mounting Assy., Front Engine - Includes parts marked * plus washers and nuts.		
7	403A533	1	*Spacer, Front Engine Mounting.		
8	402A10	1	*Mount, Rubber - Upper.		
9	402A12	1	*Cup, Rubber Mount Retainer.		
10	402A11	1	*Mount, Rubber - Lower.		
11	520A576	ī	*Stud, Engine Mounting.		
12	402P190	$ar{2}$	Mount, Vibration - Generator.		
13	130B408	1	Bracket, Radiator - Left Hand.		
14	130B409	• 1	Bracket, Radiator - Right Hand.		
15	416B338	1	Frame, Battery Hold-down.		
16	416D431	1	Tray, Battery.		
17	416A90	2	Stud and Wing Nut, Battery Hold-down.		
18	336A476	1	Strap, Ground - Generator Adapter to Mounting Chassis.		
			FIG. 6 - GENERATOR GROUP		
1			Armature Assembly - Includes Ball Bearing and Drive Disc.		
	201A899	1	Parts Key No. 1.		
	201A900	ī	Parts Key No. 2.		
	201A901	ī	Parts Key No. 3.		
	201A905	1	Parts Key No. 4.		
	201A906	1	Parts Key No. 5.		
	201A909	1	Parts Key No. 6.		
2	510A52	ī	Bearing, Armature Ball.		
3		_	Frame only, Generator - Machined and Drilled.		
	210C304	1	Parts Key No. 1.		
	210C305	1	Parts Key Nos. 2 and 3.		
	210C306	1	Parts Key No. 4.		
	210C307	1	Parts Key Nos. 5 and 6.		
4			Shoe, Pole.		
	221B94	4	Parts Key No. 1.		
	221B96	4	Parts Key Nos. 2 and 3.		
	221B122	4	Parts Key No. 4.		
	221B121	4	Parts Key Nos. 5 and 6.		

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION		
FIG. 6 - GENERATOR GROUP (Cont.)					
5			Coil Assembly, Field - Set of 4 Coils, Connected.		
	222A1391	1	Parts Key No. 1.		
	222A1390	_	Parts Key Nos. 2 and 3.		
	222A1530		Parts Key No. 4.		
	222A1531	•	Parts Key Nos. 5 and 6.		
6		_	Rig Assy., Brush - Includes Brushes and Springs.		
	212C202	1	Parts Key Nos. 1, 2, 4 and 5.		
	212C207	ī	Parts Key Nos. 3 and 6.		
7	212A1121		Guide, Commutator Brush.		
8	212A1138		Spider, Brush Rig Mounting.		
9	212A1120		Block, Holder - Collector Ring Brush.		
10	· ·		Spring, Brush.		
	212A1106	4	Commutator Brush.		
	212A1123	_	Collector Ring Brush - (8) Parts Key Nos. 1, 2,		
	,		4 and 5; (6) Parts Key Nos. 3 and 6.		
11	213B116	1	Ring, Insulator - Brush Guide.		
12		_	Brush.		
	214A57	4	Commutator.		
	214A54	As Req.	Collector Rings (8) Parts Key Nos. 1, 2, 4 and		
		•	5; (6) Parts Key Nos. 3 and 6.		
13	312A17	. 1	Condenser5 Mfd Parts Key Nos. 1, 2 and 3.		
14	232A1478	1	Clip, Bearing Stop.		
15	232A601	1	Cover, Bearing.		
16	211D133	1	Bell, End.		
17	231C84	1	Ring, Spacer - Generator Adapter to Gen. Frame.		
18	205B33	1	Blower, Generator.		
			Cover, End Bell Opening.		
19	232B814	3	Top and Sides (Blank).		
2 0	232B841	1	Bottom (Screened).		
21	234C63	1	Scroll, Air.		
22	232A1355	4	Spacer, Air Scroll Mounting.		
23	101D303	1	Adapter, Generator (Flywheel Housing) Included		
			with Replacement Engine.		
24	403A95	1	Eye, Lifting - Mounts on Generator Adapter.		
	FIG. 7 - 1	ENGINE CON	TROL PANEL GROUP (ENGINE INSTRUMENTS)		
1	3 01C1619	1	Panel Only, Lower. Switch, Start-Stop -		
2	30 8-90	1	Prior to Approx. 2-10-61 - Use #308A166 to Replace.		
2A	308P154	1	Use Began Approx. 2-10-61.		
3	301A974	1	Bracket. Switch Mtg Used with #308-90 Switch Only.		
4	302P60	1	Ammeter, Charge (20-0-20).		
5	193B107	1	Gauge, Oil Pressure (Panel Unit only) - Includes Clamp.		

PARTS LIST

, •		•	PARTS LIST
	PART NO.	QUANT. USED	DESCRIPTION L PANEL GROUP (ENGINE INSTRUMENTS) Cont. The Temperature (Panel Unit only -
FIG	7 - ENGI	NE CONTRO	L PANEL GROUP (ENGINE
6	193B106	1	Gauge, Water Temperature (
_	007759	1	Relay, Start-Disconnect.
7	307B52 307B299		Relay, Start Stop. Relay, Emergency Stop. Switch, Emergency Stop Reset Button.
8		. 1	Switch Emergency Stop 1000
9	308-91	ī	Switch, Manifold Heater. Switch, Manifold Heater. Resistor, Fixed (Between Stop Relay and Starter Resistor, Fixed (Between Stop Relay).
10	308-37	ī	Desigtor Wixed (Delween Der
11	304P32	2	Pelay, Pilot - (1) Fuel Solenoid Circuit, (1) Starter
12	307B81	Z	Colonnia Circaic.
13	307B4	1	Relay, Stop. Block, Terminal - 5 Place (Remote Operation). Block, Terminal - 5 Place (Remote Operation). Strip, Block Marker - Marked B+, 1, 2, 3, H. Strip, Block Marker - Housed Plants only.
• 14	332A604		Strip, Block Marker - Marked B+, 1, 2, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,
15	332A616	3 1	Decontacte Faller
16	322P49	1	Dulh Panel Die - 'magine Connections'
17	322-26	1	Plock Terminal and Athrongh 15.
18	332-60'	1	Strip Block Marker - Markey 4 the Supers in
19	332-60	1	Strip, Block Marker - Marked 4 through Harness Assy., Engine to Control-9 Wires in
20	338B21	0 1	Sleeving. Sender, Oil Pressure Gauge - Engine Sending
21	193B10	1	Sender, Oil Pressure Gauge - Engine Sender, Water Temperature Gauge - Engine
22	193A1	09 1	Sender, Water Temperature Cut-off Sending Unit only. Temperature Cut-off
23	309B4	7 1	Switch, High Water Temporary (Mounts at Engine).
24	309-1	0 1	Switch, Low Oil Pressure at Engine). (Ontional Equipment - Mounts at Engine).
			DANEL GROUP (AC OUTPUT)
	FIG	.8-ELECT	TRICAL CONTROL PANEL GROUP (AC OUTPUT)
1		1560 1	Box, Control. Panel Only, Upper. Parts Key Nos. 1 through 6 (Unhoused Plants
2	301C	1195 1	only).
	2010	1555 1	Parts Key Nos. 2, 3, 5 and 6 (Housed Plants only) Parts Key Nos. 1 and 4 (Housed Plants only) Parts Key Nos. 1 and 4 (Housed Plants only)
	3010	1000	Parts Key Nos. 1 and 4 (Housed Plants only) Parts Key Nos. 1 and 4 (Housed Plants only) Bracket, Control Box Mtg Single Piece (Replaces Bracket, Control Box mtg Single Piece (Replaces)
	301C 3 301C	1551 1 1845 1	Bracket, Control Box Mig. two piece brackets previously used). Grommet, Rubber (For 2-3/4" Hole).
	5 5081	263 1	Grammet, Rubber (FOI 2 0)

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG.	8 - ELEC	TRICAL CON	NTROL PANEL GROUP (AC OUTPUT) Cont.
6			Ammeter, AC - Housed Plants only.
,	302P419	2	Parts Key No. 1 (0-50) - Replaces 302-7.
	302-116	1	Parts Key Nos. 2, 3 and 6 (0-50).
	302P406	2	Parts Key No. 4 (0-75) - Replaces 302-9.
	302P406	1	Parts Key No. 5 (0-75) - Replaces 302-9.
7	302P421	ī	Voltmeter, AC (0-300) Housed Plants Only -
•	0021 421	•	Replaces 302-41.
8	302-212	1	Meter, Running Time (Housed Plant only) Note: For 50 Cycle Plants, Use #302-102 Meter.
9		•	Breaker, Circuit - Housed Plants only.
	320B52	2	Parts Key No. 1.
	320-20	. 3 2	Parts Key Nos. 2 and 3.
	320P148	2	Parts Key No. 4.
	320-21	3	Parts Key No. 5.
	320B52	3	Parts Key No. 6.
10			Transformer, Current - Housed Plants only.
	302B117	3	Parts Key Nos. 2, 3 and 6.
٠	302B76	2	Parts Key No. 4.
	302B76	3	Parts Key No. 5.
11	312A58	As Req.	Condenser, 0.1 mfd - Output Term. Suppression -
			Replaces 312A15.
12	332-419	1	Block, Terminal - AC Output - 4 Place.
	•		Strip, Block Marker - AC Output Block.
13	332A437	, 1	Parts Key Nos. 1 and 4 (Marked M1, M3, M2, M4).
14	332A436	1	Parts Key Nos. 2, 3, 5 and 6 (Marked M1, M2,
			M3, M0).
. 15	332A440	As Req.	Jumper, Terminal - Brass - AC Output Terminal - Parts Key Nos. 1 and 4 (1 or 2 required). Clamp, Current Transformer - Housed Plants only.
16	302A235	As Req.	Inside Half - (3) Parts Key Nos. 2, 3, 5 and 6; and (2) Parts Key No. 4.
17	302A236	As Req.	Outside Half - (3) Parts Key Nos. 2, 3, 5 and 6; and (2) Parts Key No. 4.
18	308-22	1	Switch, Selector (Voltmeter-Ammeter) Housed Plants only with Parts Key Nos. 2, 3, 5 and 6.
19	304-99	1	Resistor, Fixed - Running Time Meter (Housed Plants only with Parts Key Nos. 2, 3, 5 and 6.)
20	402-78	. 4	Mounts, Rubber - Control Box to Brackets (Unhoused Plants Only).
21	337A44	1 ·	Strap, Ground - Unhoused Plants only.
22	302B448	1	Plate, Meter Face - Square - For Round Faced
	5,022 110	-	Running Time Meter.