

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.

McGraw-Edison

Onan

**Parts
Manual**

**DHH
GenSet**

GENERAL INFORMATION

INSTRUCTIONS FOR ORDERING REPAIR PARTS

For parts or service, contact the dealer from whom you purchased this equipment or refer to your Nearest Authorized Onan Parts and Service Center.

To avoid errors or delay in filling your parts order, please furnish all information requested.

Always refer to the nameplate on your unit.

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

McGRAW-EDISON

Onan

MODEL AND SPEC NO.

SERIAL NO.

MS-1149

For handy reference, insert "YOUR" nameplate information in the spaces above.

2. Do not order by reference number; always use part number and description.
3. Give the part number, description and quantity needed of each item. If an older part cannot be identified, return the part prepaid to your dealer or nearest Onan Parts and Service Center. 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 Manual 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 extrajeros, etc."

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

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This parts catalog applies to the standard generator sets listed below. Any engine parts modified or added by Onan will be listed in this catalog and have been assigned Onan part numbers for identification. These modified or added parts supersede similar parts listed in the Engine Manufacturer's manuals. The illustrations are arranged in groups of related items, and each part or assembly is identified by a reference number. All parts illustrated are typical, and unless otherwise mentioned, parts are interchangeable. These typical illustrations are subject to change and reflect only the latest replacement parts arrangement. The Right and Left generator set sides are determined by facing the front end of the engine.

SET DATA TABLE

MODEL IDENTIFICATION	RATING	MODEL IDENTIFICATION	RATING
1.000.0DHH- * / # £	1.000.000 WATTS		

ELECTRICAL DATA TABLE

*VOLTAGE CODES	VOLTS	HERTZ	WIRE	PHASE	NOTES
4	120/208	60	4	3	
4X	277/480	60	4	3	
5D	120/240	60	4	3	
6D	240/480	60	4	3	
7	220/380	60	4	3	
7X	240/416	60	4	3	
8	127/220	60	4	3	
9X	347/600	60	4	3	
33	139/240	60	4	3	
519	110/190, 115/200	50	4	3	
520	220/380, 230/400	50	4	3	
521	120/208, 127/220	50	4	3	
522	240/416, 254/440	50	4	3	

* - Voltage codes follow model letter designations.

- Specification number; number 1 is standard, all others indicate variations.

£ - Specification letter; letter advances (A to B, B to C, etc.) with major manufacturing changes

NOTICE!

ITEMS REFERENCED AS **OPTIONAL** INDICATE PART IS FACTORY INSTALLED AND MAY NOT BE APPLICABLE TO ALL MODELS. FOR FIELD CONVERSIONS ADDITIONAL PARTS ARE USUALLY REQUIRED.

REPLACEMENT ENGINE

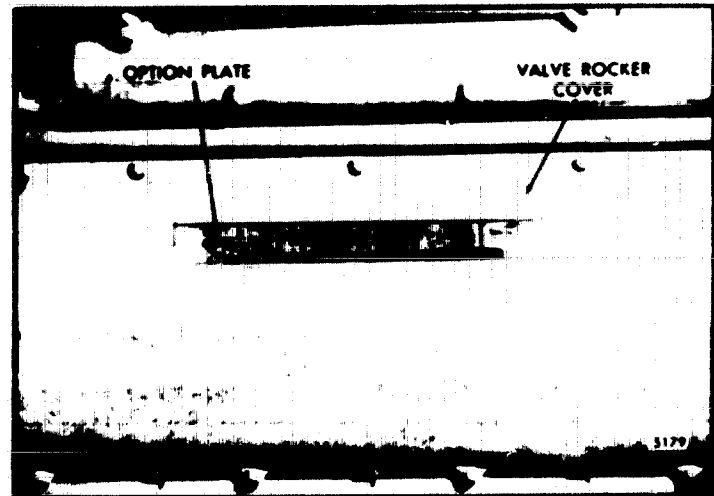
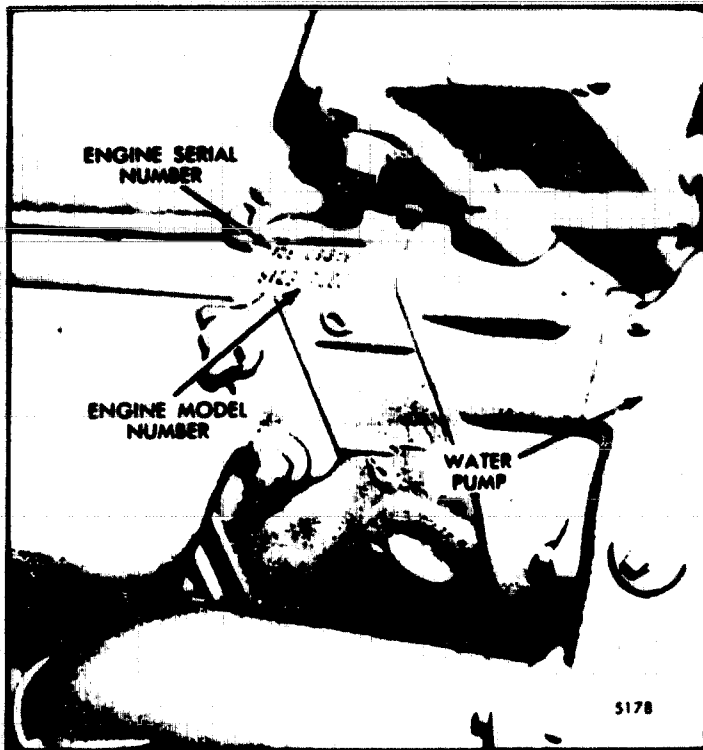
Engine, Replacement (Part number not available at time of printing)

Includes: Complete cylinder block, cylinder head(s), flywheel, fan blades, water pump, oil filter, fuel filters.

Excludes: Alternator, voltage regulator (when part of alternator), oil pressure senders, water temperature senders or cutoff switch, radiator, governor and starter.

NOTE: This replacement engine is for Onan's Standard Spec 1 generator sets, for all other refer to the factory for replacement information

ENGINE MODEL, SERIAL NUMBER AND OPTION PLATE

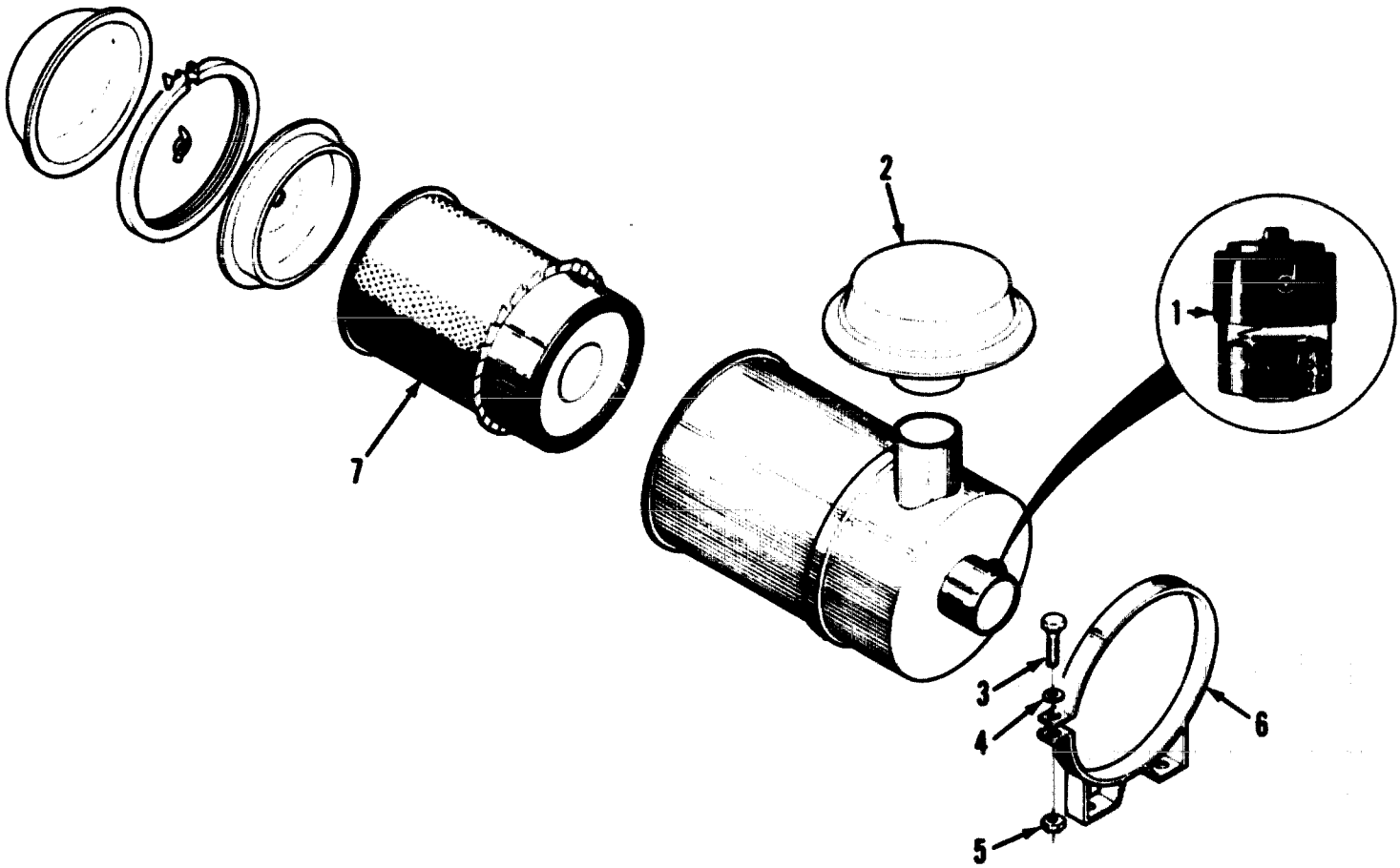


Detroit Diesel Allison
13400 W. Outer Drive
Detroit, Michigan 48228

ENGINE REPLACEMENT PARTS

All engine replacement parts must be ordered from the engine manufacturer, except those modified or added by Onan. When ordering engine parts, refer to the manufacturer's nameplate and supply the Model, Spec, Serial numbers and other available information. Refer to the engine manufacturer's manuals for your nearest authorized distributor or parts center; or contact the Onan distributor from whom you purchased this set for assistance in ordering replacement parts.

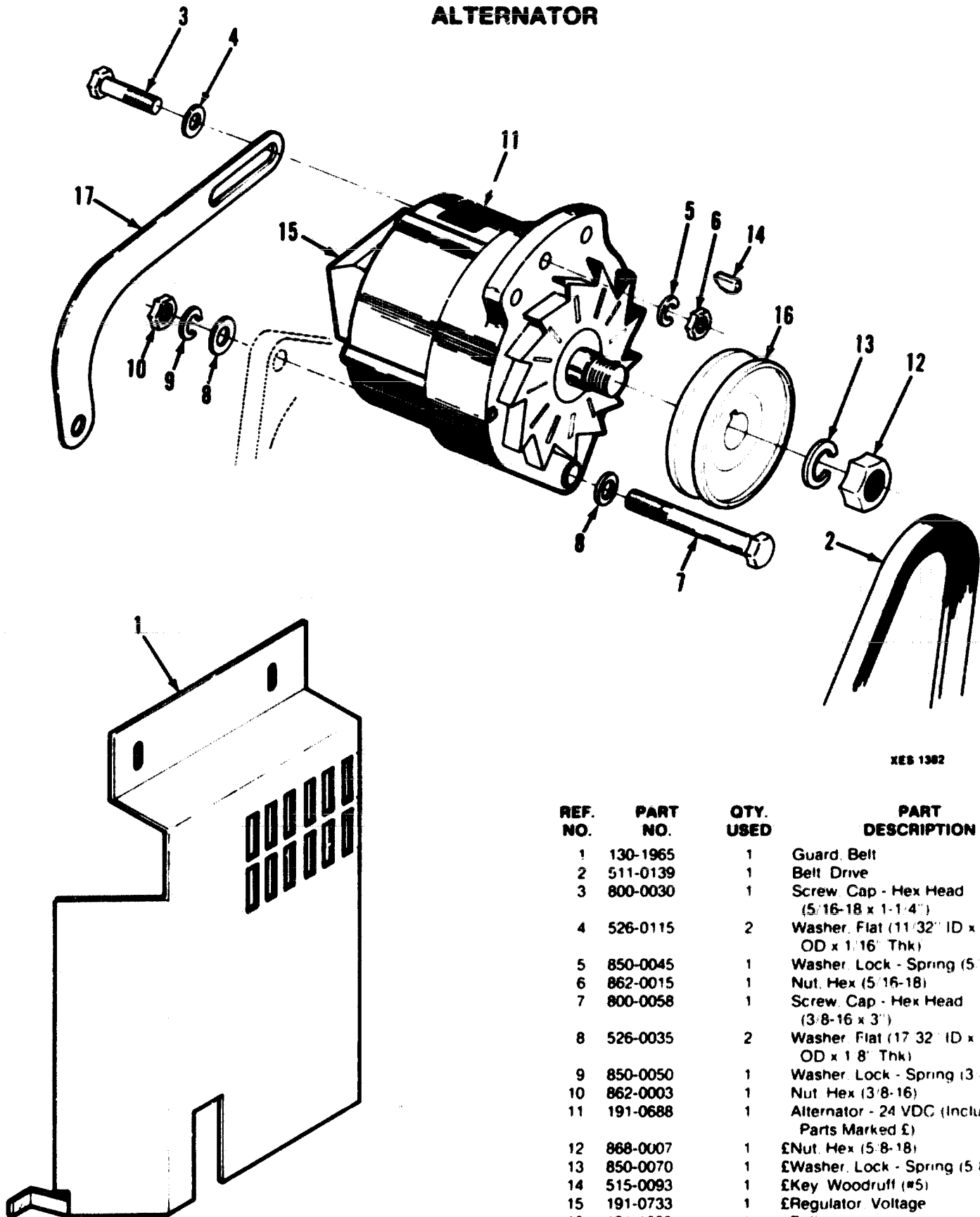
AIR CLEANER



XFS 1492

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-1548	4	Indicator, Service - Air Cleaner
2	140-1545	4	Hood, Air Cleaner (7" ID Outlet)
3	800-0037	8	Screw, Cap - Hex Head (5/16-18 x 3")
4	526-0113	16	Washer, Flat - (11/32" ID x 1" OD x 3/32" Thk)
5	870-0257	8	Nut, Self-locking - Hex Washer Head (5/16-18)
6	140-0799	8	Band, Mounting (16" ID)
7	140-1888	4	Element, Filter

ALTERNATOR



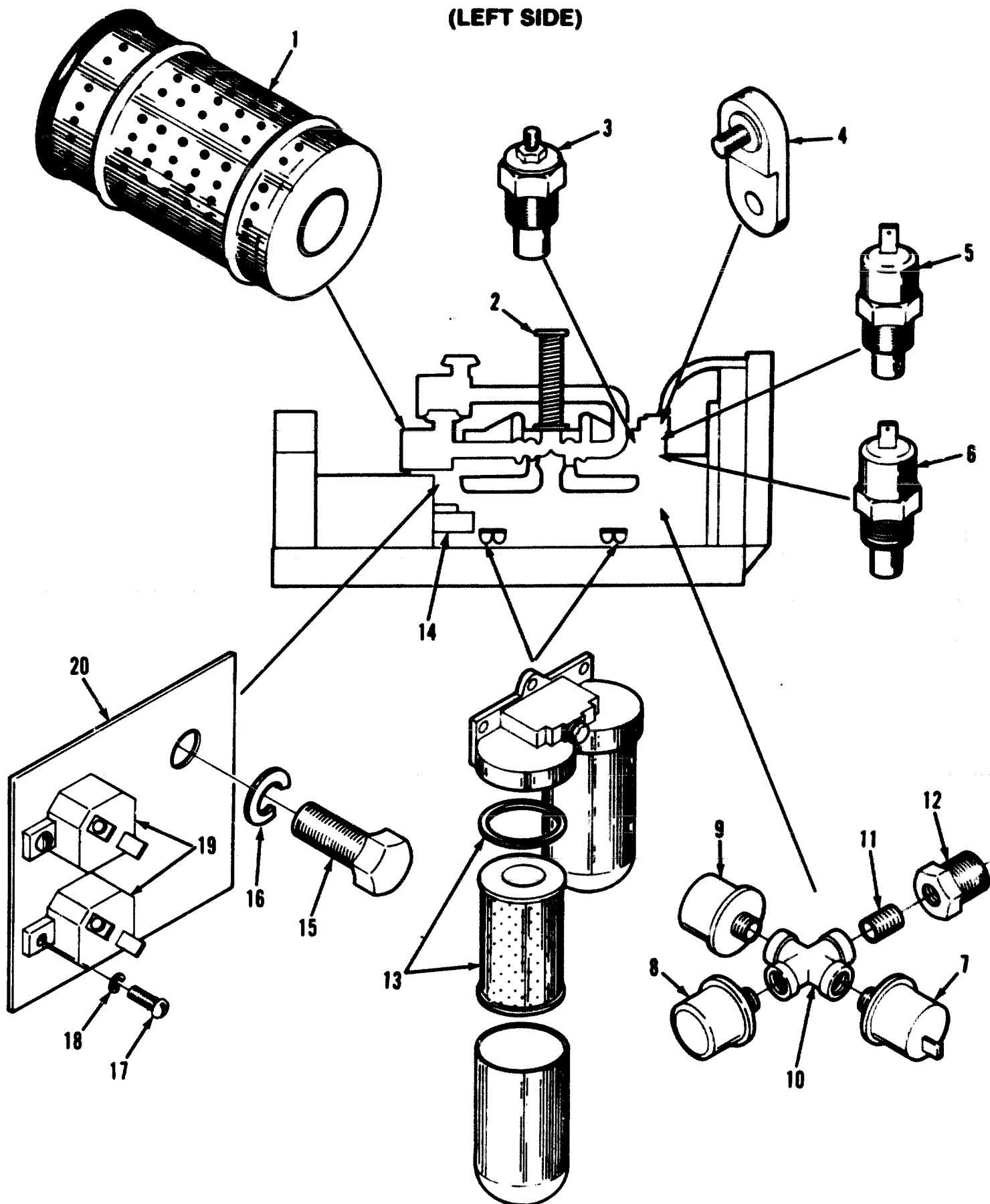
XES 1382

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-1965	1	Guard, Belt
2	511-0139	1	Belt Drive
3	800-0030	1	Screw, Cap - Hex Head (5/16-18 x 1-1/4")
4	526-0115	2	Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk)
5	850-0045	1	Washer, Lock - Spring (5/16")
6	862-0015	1	Nut, Hex (5/16-18)
7	800-0058	1	Screw, Cap - Hex Head (3/8-16 x 3")
8	526-0035	2	Washer, Flat (17/32" ID x 7/8" OD x 1/8" Thk)
9	850-0050	1	Washer, Lock - Spring (3/8")
10	862-0003	1	Nut, Hex (3/8-16)
11	191-0688	1	Alternator - 24 VDC (Includes Parts Marked £)
12	868-0007	1	£Nut, Hex (5/8-18)
13	850-0070	1	£Washer, Lock - Spring (5/8")
14	515-0093	1	£Key Woodruff (#5)
15	191-0733	1	£Regulator, Voltage
16	191-1099	1	Pulley
17	#	1	Arm, Adjusting

£ - Parts Included with Alternators

- Part Supplied by Engine Manufacturer - Refer to Engine Parts Manual.

**MISCELLANEOUS ENGINE PARTS
(LEFT SIDE)**

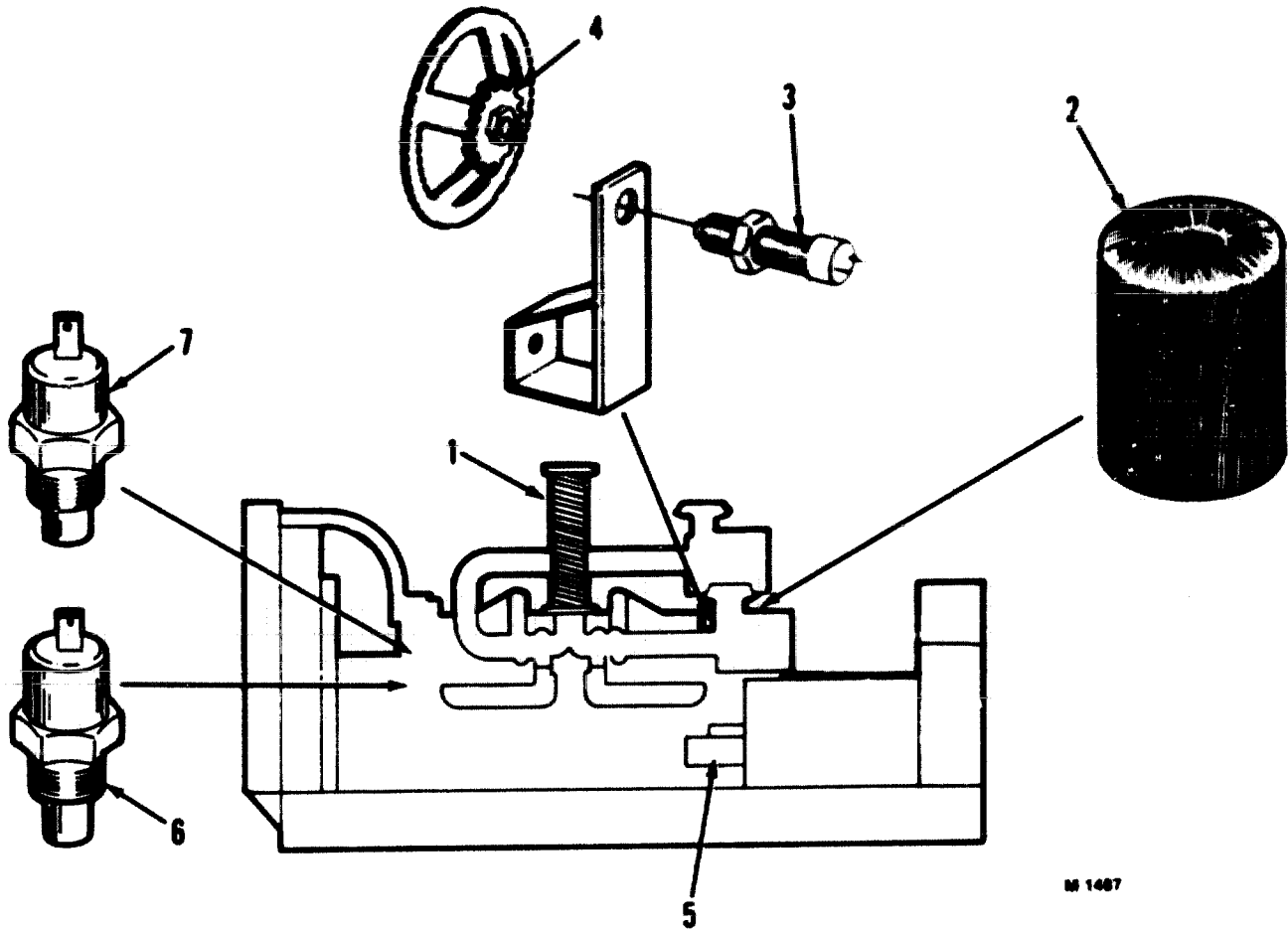


XM 1480

**MISCELLANEOUS ENGINE PARTS
(LEFT SIDE)**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-1896	1	Element - Secondary Fuel Fritter
2	155-1978	1	Tube, Exhaust
3	193-0247	1	Sender, Temperature - Engine Coolant
4		1	Switch, Thermostatic - Low Engine Temperature
5	309-0178	1	Switch, Thermostatic - Hi Engine Coolant Temperature (Shutdown)
6	309-0179	1	Switch, Thermostatic - Hi Engine Coolant Temperature (Pre-Alarm)
7	193-0244	1	Sender, Oil Pressure
8	309-0272	1	Switch, Pressure - Oil (Pre-Alarm)
9	309-0169	1	Switch, Pressure - Oil (Shutdown)
10	505-0763	1	Cross, Pipe (1/8" NPT)
11	505-0104	1	Nipple, Pipe - Close (1/8" NPT x 1-1/2")
12	505-0016	1	Bushing, Reducer - Hex (3/8" NPT x 1/8" NPT)
13	122-0608	4	Element - Lube Oil Filter
14	191-1588	1	Starter - 24 VDC
15	800-0151	1	Screw, Cap - Hex Head (3/4-10 x 1")
16	850-0079	1	Washer, Lock - Spring (3/4")
17	811-0103	2	Screw, Machine - Round Head (#10-32 x 3/4")
18	850-0030	2	Washer, Lock - Spring (#10)
19	320-0240	2	Circuit Breaker
20	301-4206	1	Plate, Mounting

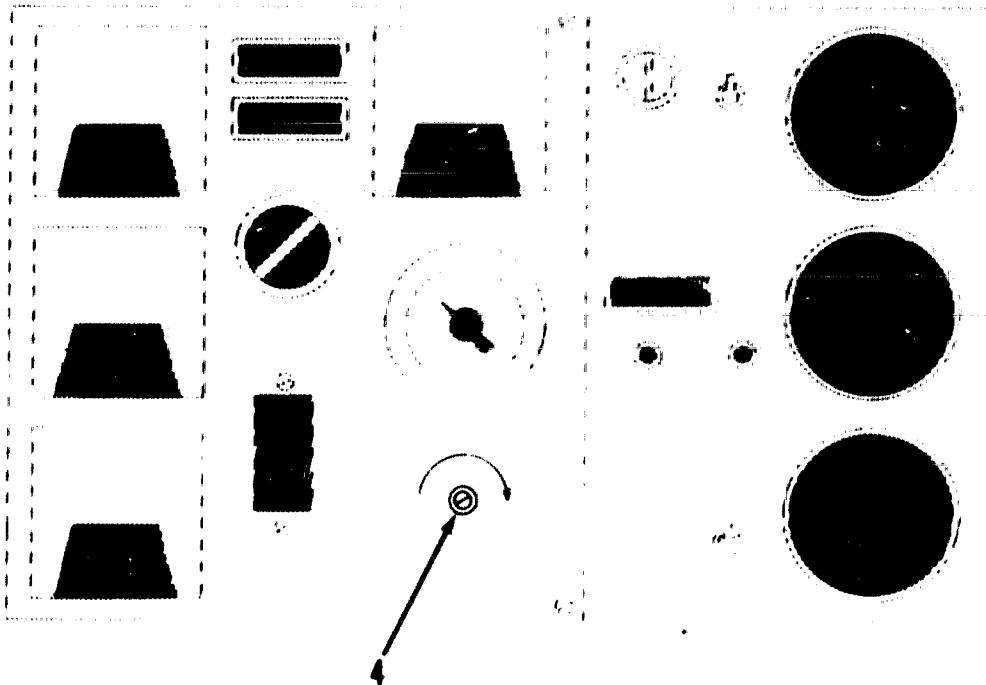
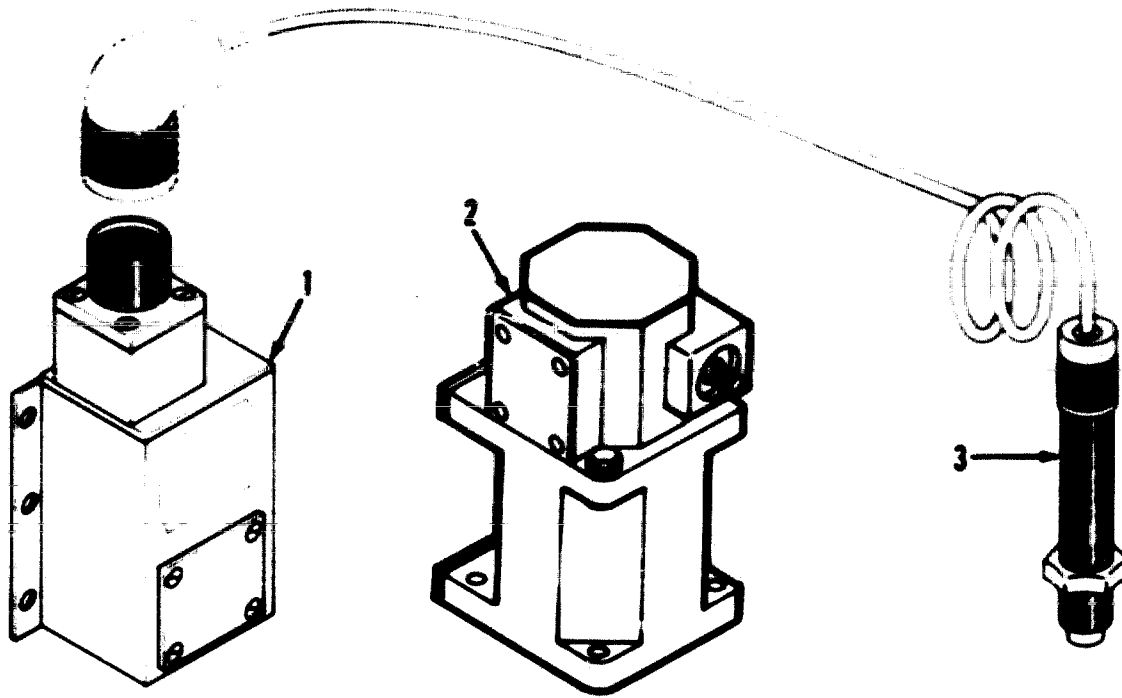
**MISCELLANEOUS ENGINE PARTS
(RIGHT SIDE)**



M 1487

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	155-1978	1	Tube, Exhaust
2	149-1895	1	Element - Primary Fuel Filter
3	150-1406	1	Pickup - Magnetic
4	150-1557	1	Wheel, Signal - Magnetic Pickup
5	191-1588	1	Starter - 24 VDC
6	309-0179	1	Switch, Thermostatic - Hi Engine Coolant Temperature (Shutdown)
7	309-0178	1	Switch, Thermostatic - Hi Engine Coolant Temperature (Pre-Alarm)

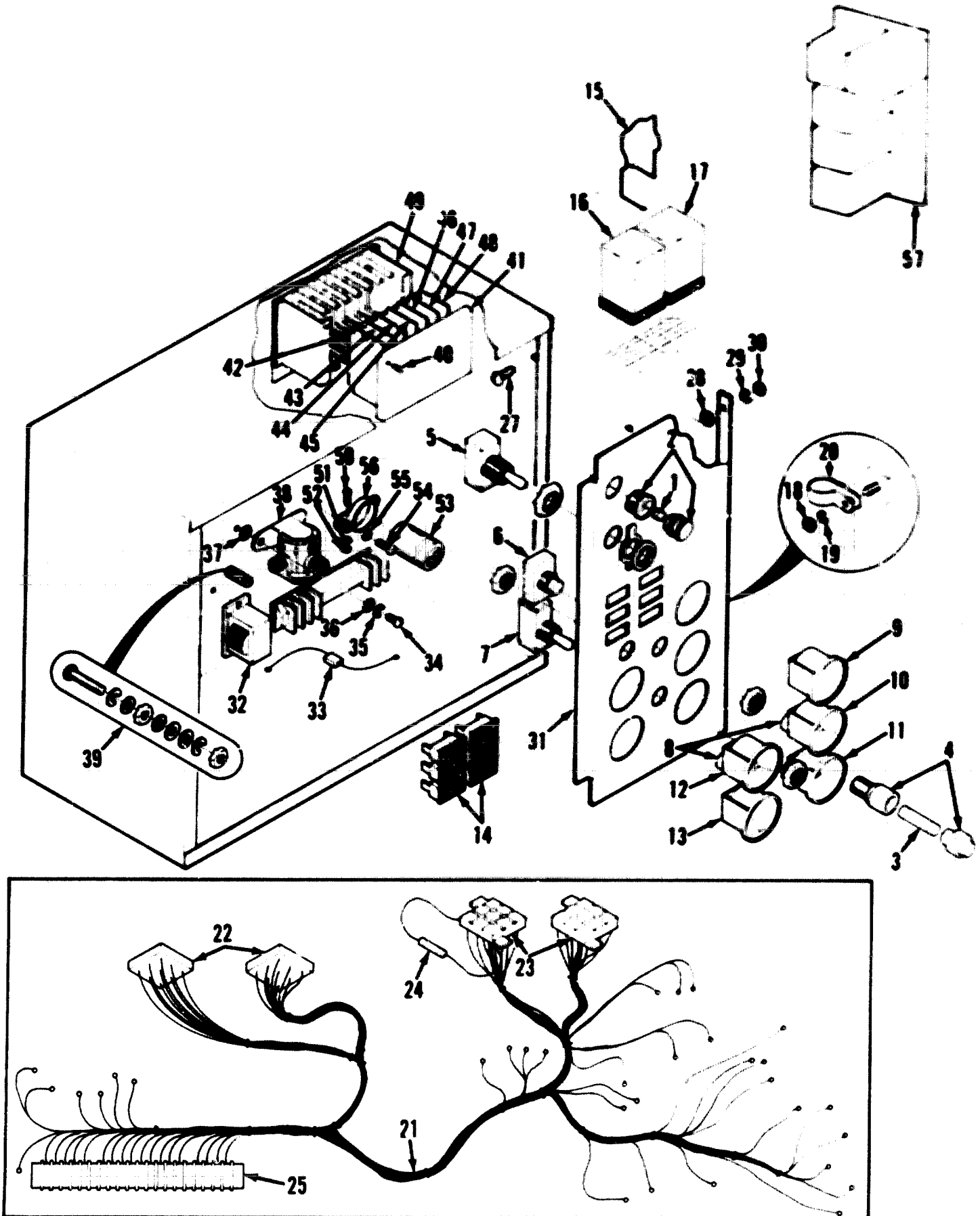
GOVERNOR



FS 1272-2

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	151-0399	1	Control Unit - Governor (24 Volt)
2	151-0569	1	Actuator - Governor (24 Volt)
3	151-0411	1	Pickup, Magnetic
4	151-0402	1	Potentiometer - Speed Control (5K Ohms)

ENGINE CONTROL



ENGINE CONTROL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	322-0017	1	Lamp, Incandescent (24 VDC)	32	315-0361	1	Transformer, Step-down
2	322-0149	1	Lampholder	ATTACHING PARTS FOR TRANSFORMER			
3	321-0147	1	Fuse (5 Amp)	812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")	
4	321-0217	1	Fuseholder	853-0003	2	Washer, Lock - EIT (#6)	
5	308-0002	1	Switch, Toggle (SPST)	33	357-0018	1	Diode With Terminals
6	308-0410	1	Switch, Push	34	813-0098	2	Screw, Machine - Round Head (#10-32 x 3/8")
7	SWITCH, TOGGLE-SELECTOR			35	850-0030	2	Washer, Lock - Spring (#10)
	308-0220	1	Standard & Cycle Cranking Controls	36	526-0009	2	Washer, Flat (7/32" ID x 1/2" OD x 1/16" Thk)
	308-0347	1	Penn State Controls	37	856-0003	2	Washer, Lock - EIT (#10)
	308-0539	1	Remote Alarm Circuit Controls	38	307-0061	1	Relay, Solenoid - Start (24 VDC)
8	193-0250	3	Resistor, Gauge	39	GROUND TERMINAL ASSEMBLY (Includes Parts Marked #)		
9	302-0061	1	Ammeter	871-0010	2	#Nut, Hex - Brass (#10-32)	
10	193-0243	1	Gauge, Pressure - Oil	850-0030	1	#Washer, Lock - Spring (#10)	
11	193-0245	1	Gauge, Temperature - Engine Coolant	526-0062	2	#Washer, Flat - Brass (13/64" ID x 1/2" OD x 1/16" Thk)	
12	193-0248	1	‡Gauge, Temperature - Oil	853-0008	1	#Washer, Lock - ET (#10)	
13	302-0749	1	‡Tachometer - Electrical	856-0003	1	#Washer, Lock - EIT (#10)	
14	*LIGHT, INDICATOR - 28 VDC (Lens Color & Legend Listed Below)			815-0203	1	#Screw, Machine - Round Head, Brass (#10-32 x 7/8")	
	322-0119	1	RED - OVERCRANK	40	815-0387	4	Screw, Machine - Pan Head, Cross-Recessed Drive (#6-32 x 1/4")
	322-0120	1	RED - LO OIL PRESS	41	301-4015	1	Cover, Access - Control Plug-in Modules
	322-0121	1	RED - HI ENG TEMP	42	300-1573	1	Control, Cycle Cranker
	322-0122	1	RED - LO ENG TEMP	43	300-1574	1	Control, Start - Disconnect
	322-0123	1	RED - OVER SPEED	44	300-1575	1	Control, Overspeed
	322-0135	1	RED - OVER VOLTAGE	45	300-1576	1	Control, Engine Monitor No. 1
	322-0137	1	RED - (No Legend)	46	300-1577	1	Control, Engine Monitor No. 2
15	307-1157	3	Spring, Hold Down - Relay	47	300-1578	1	Control, Engine Shutdown
16	307-1061	1	Relay	48	300-1579	1	Control, Time Delay, Start-Stop
17	307-1056	2	Relay	49	300-1572	1	Chassis, Control
18	870-0053	1	Nut, Hex (#10-32)	50	812-0061	1	Screw, Machine - Round Head (#6-32 x 3/8")
19	850-0030	1	Washer, Lock - Spring (#10)	51	860-0006	1	Nut, Hex (#6-32)
20	332-0052	1	Clamp, Loop	52	853-0003	1	Washer, Lock - ET (#6)
21	338-1016	1	Harness, Wiring - Engine Control (Includes Parts Marked †)	53	356-0072	1	Capacitor, Fixed, Electrolytic (4000 MFD, 30 VDC)
	ATTACHED HARDWARE FOR WIRING HARNESS			54	812-0063	2	Screw, Machine - Round Head (#6-32 x 1/2")
	812-0061	4	Screw, Machine - Round Head (#6-32 x 3/8")	55	853-0003	2	Washer, Lock - ET (#6)
	812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")	56	356-0070	1	Clamp, Capacitor Mounting
	853-0003	6	Washer, Lock - Spring (#6)	57	300-1342	1	Control, Alarm Relay - Optional
	860-0006	4	Nut, Hex (#6-32)				
22	323-0984	2	†Connector, Plug, Electrical (12 Pin)				
23	323-0765	3	†Socket, Relay				
24	357-0004	1	†Diode				
25	332-1005	1	†Board, Terminal (20 Place)				
26	332-1559	1	Strip, Marker				
27	815-0026	3	Screw, Machine - Truss Head (#10-32 x 3/8")				
28	856-0003	3	Washer, Lock - EIT (#10)				
29	850-0030	3	Washer, Lock - Spring (#10)				
30	870-0053	3	Nut, Hex (#10-32)				
31	PANEL, CONTROL - ENGINE						
	301-4086	1	With Three Gauge Mtg. Holes				
	301-4223	1	With Four Gauge Mtg. Holes				
	301-3997	1	With Five Gauge Mtg. Holes				

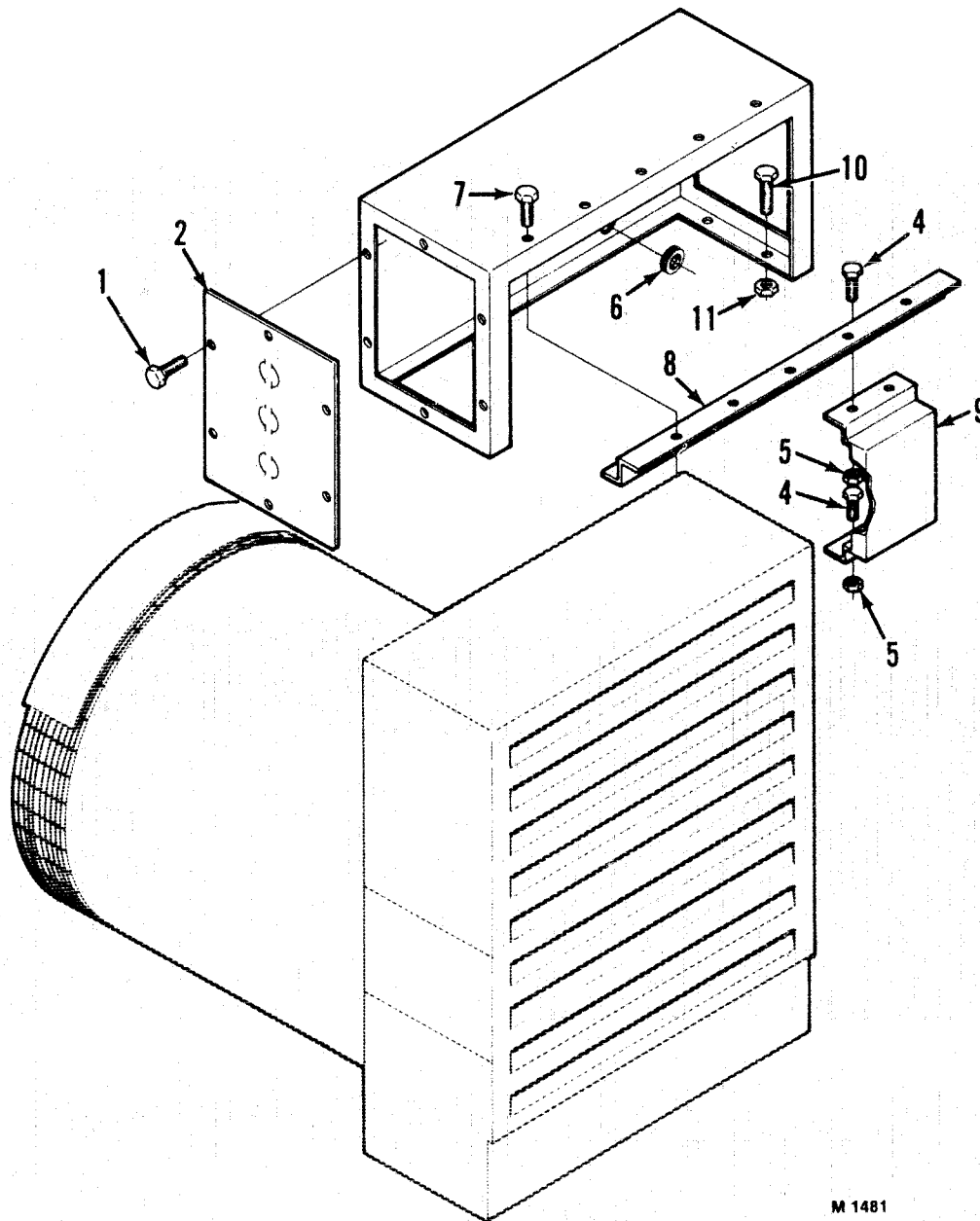
‡ - Optional Items Used with Engine Mounted Senders.

† - Parts Included in Wiring Harness.

- Parts Included in Ground Terminal Assembly.

* - **NOTE:** For lamp replacement order 322-0137 remove and discard plain red lens, install lens with legend from burned out light - lights snap in and out of panel.

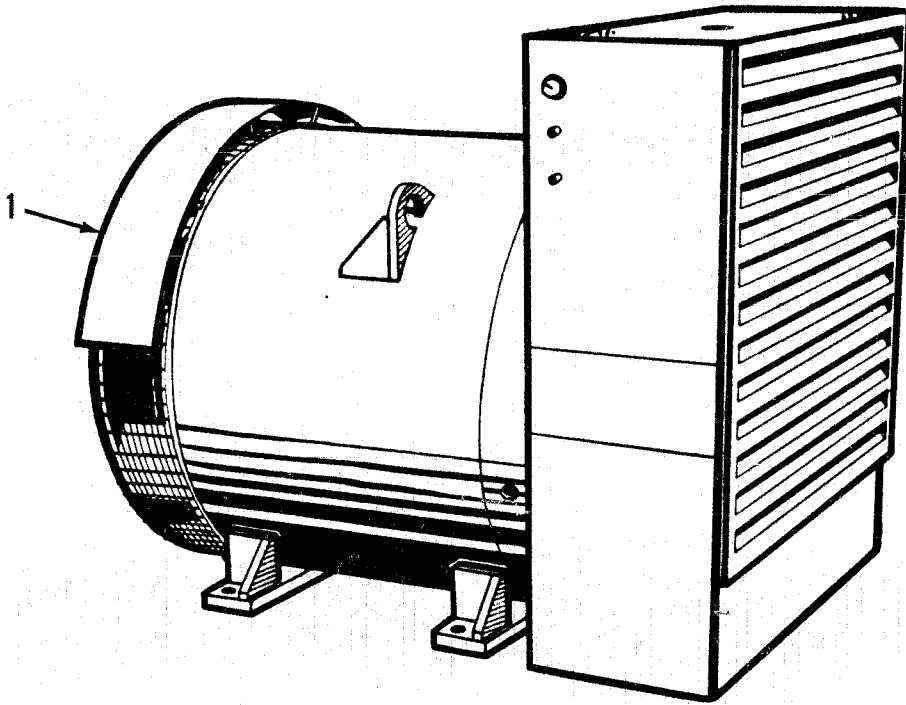
CONTROL, HOUSING



M 1481

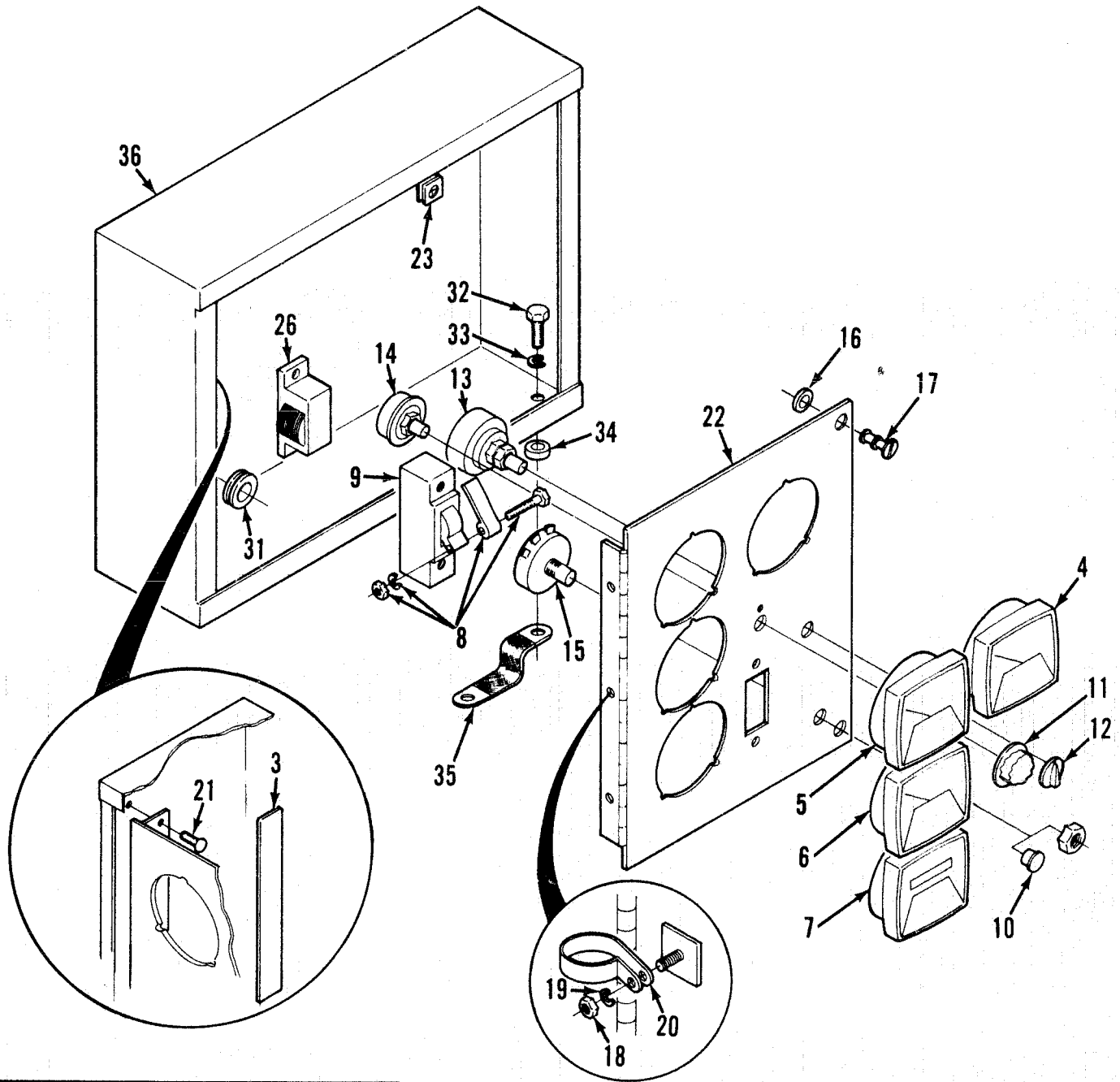
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	821-0005	12	Screw, Self-locking - Hex Washer Head (#10-32 x 1/2")
2	301-6399	2	Panel, Access - Side
4	821-0014	4	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
5	870-0257	4	Nut, Self-locking - Hex (5/16-18)
6	508-0004	3	Grommet
7	821-0010	5	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
8	301-4125	1	Bracket, Double Angle
9	301-4110	1	Panel, Control - Blank
10	821-0014	7	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
11	870-0212	7	Nut, Self-locking - Hex (1/4-20)
12	301-6424	1	Housing, Control

GENERATOR ASSEMBLY

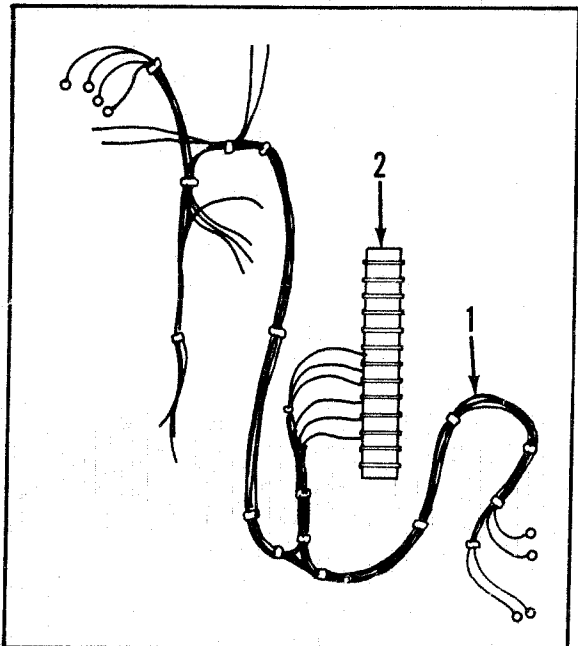


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1		REF	Generator Assembly NOTE: Refer to Marathon's manual (Onan #945-0011) for parts and service information.

GENERATOR CONTROL



XES 1387



GENERATOR CONTROL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	WIRING HARNESS - GENERATOR CONTROL (Includes Terminal Block) 338-0759	1	Used on All Codes (Modified As Required)	10	517-0131	1	Plug, Plastic
	ATTACHING HARDWARE FOR WIRING HARNESS			11	303-0032	1	Knob
	812-0066	2	Screw, Machine - Round Head (#16-32 x 3/4")	12	303-0076	1	Knob, Pointer
	850-0020	2	Washer, Lock - Spring (#6)	13	308-0284	1	Switch, Selector
2	332-0795	1	Block, Terminal - 16 Place	14	303-0170	1	Rheostat (35K Ohms, 25 Watt)
3	332-1242	1	Strip, Marker - 16 Place	15	151-0402	1	Potentiometer (5K Ohms)
4	AMMETER (Select As Required)			16	406-0334	2	Clip, Retaining - Turnbutton Fastener
	302-0414	1	Scale Reads 0-500 Amperes	17	406-0333	2	Stud, Turnbutton Fastener
	302-0415	1	Scale Reads 0-750 Amperes	18	870-0053	1	Nut, Hex (#10-32)
	302-0416	1	Scale Reads 0-1000 Amperes	19	850-0030	1	Washer, Lock - Spring (#10)
	302-0640	1	Scale Reads 0-1200 Amperes	20	332-0051	1	Clamp, Loop
	302-0641	1	Scale Reads 0-1500 Amperes	21	815-0026	3	Screw, Machine - Truss Head (#10-32 x 3/8")
	302-0642	1	Scale Reads 0-2000 Amperes	22	301-3342	1	Panel, Control
	302-1044	1	Scale Reads 0-2500 Amperes	23	406-0332	2	Receptacle, Turnbutton Fastener
	302-1045	1	Scale Reads 0-3000 Amperes	26	TRANSFORMER, VOLTAGE		
5	VOLTMETER (Select As Required)			315-0034	1	220/440 VAC Output Signal	
	302-0421	1	Scale Reads 0-300 Volts	NOTE: Transformer is Matched to Voltage Regulator			
	302-1283	1	Scale Reads 0-500 Volts	ATTACHING PARTS FOR TRANSFORMER			
	302-0422	1	Scale Reads 0-600 Volts	812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")	
	302-0779	1	Scale Reads 0-750 Volts	853-0003	2	Washer, Lock - ET (#6)	
6	METER, FREQUENCY (Select As Required)			27	812-0065	4	Screw, Machine - Round Head (#6-32 x 5/8")
	302-0810	1	60 Hertz, 208 Volt	28	853-0003	4	Washer, Lock - ET (#6)
	302-0811	1	60 Hertz, 240 Volt	31	508-0001	4	Grommet, Rubber
	302-0894	1	50 Hertz, 208 Volt	32	800-0045	4	Screw, Cap - Hex Head (5/16-18 x 3/8")
	302-0895	1	50 Hertz, 240 Volt	33	850-0045	4	Washer, Lock - Spring (5/16")
7	METER, TIME TOTALIZING (Select As Required)			34	402-0070	4	Dampener, Vibration
	302-0466	1	60 Hertz	35	337-0049	1	Strap, Ground
8	320-0307	1	Lock, Handle - Circuit Breaker (Used on Penn State Sets)	ATTACHING PARTS FOR STRAP			
	ATTACHING HARDWARE FOR LOCK			800-0046	1	Screw, Cap - Hex Head (5/16-18 x 3/8")	
	815-0203	1	Screw, Machine - Round Head (#10-32 x 7/8")	850-0045	1	Washer, Lock - Spring (5/16")	
	854-0010	1	Washer, Lock - IT (#10)	856-0008	2	Washer, Lock - EIT (5/16")	
	871-0010	1	Nut, Hex (#10-32)	862-0015	1	Nut, Hex (5/16-18)	
9	320-0456	1	Circuit Breaker - 3 Amp	36	301-4135	1	Box, Control
	ATTACHING HARDWARE FOR CIRCUIT BREAKER						
	812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")				
	850-0020	2	Washer, Lock - Spring (#6)				
	815-0203	1	Screw, Machine - Round Head, Brass (#10-32 x 7/8")				
	871-0010	1	Nut, Hex - Brass (#10-32)				
	853-0008	1	Washer, Lock - ET (#10)				
	526-0049	1	Washer, Flat - Brass (13/64" ID x 7/16" OD x 1/32" Thk)				