

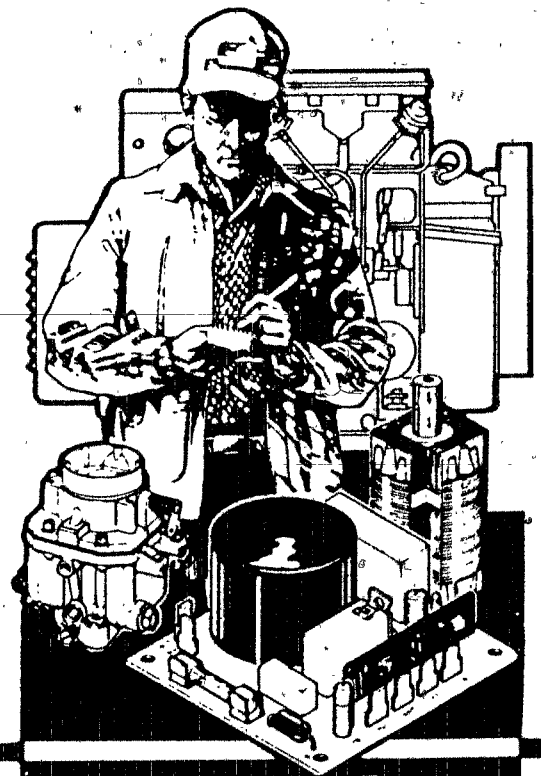
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# Onan

## Parts Manual

### YHB

### Alternators Single-Bearing



Onan Service Parts

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## Introduction

This Parts Manual applies to the Standard Units Listed below. 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 in the description column the parts are interchangeable between models.

These typical illustrations are subject to change and reflect only the latest replacement parts arrangement. The Right and Left sides of the Unit are determined by FACING the FRONT or input end of the Unit. (Ref. Fan and Drive Disk).

## Unit Data Table

MODEL IDENTIFICATION	RATING	MODEL IDENTIFICATION	RATING
30.0 YHB - */ # @	30,000 WATTS	50.0 YHB - */ # @	50,000 WATTS
33.0 YHB - */ # @	33,000 WATTS	63.0 YHB - */ # @	63,000 WATTS
45.0 YHB - */ # @	45,000 WATTS	70.0 YHB - */ # @	70,000 WATTS

## Electrical Data Table

*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
15	120/240	60	12	1	
15	120/208	60	12	3	+
	120/240	60	12	3	
	127/220	60	12	3	
	139/240	60	12	3	
	240/416	60	12	3	
	254/440	60	12	3	
	277/480	60	12	3	
515	110/220	50	12	1	+
	115/230	50	12	1	
515	110/190	50	12	3	+
	110/220	50	12	3	
	115/200	50	12	3	
	115/230	50	12	3	
	120/208	50	12	3	
	127/220	50	12	3	
	220/380	50	12	3	
	230/400	50	12	3	
	240/416	50	12	3	
	254/440	50	12	3	

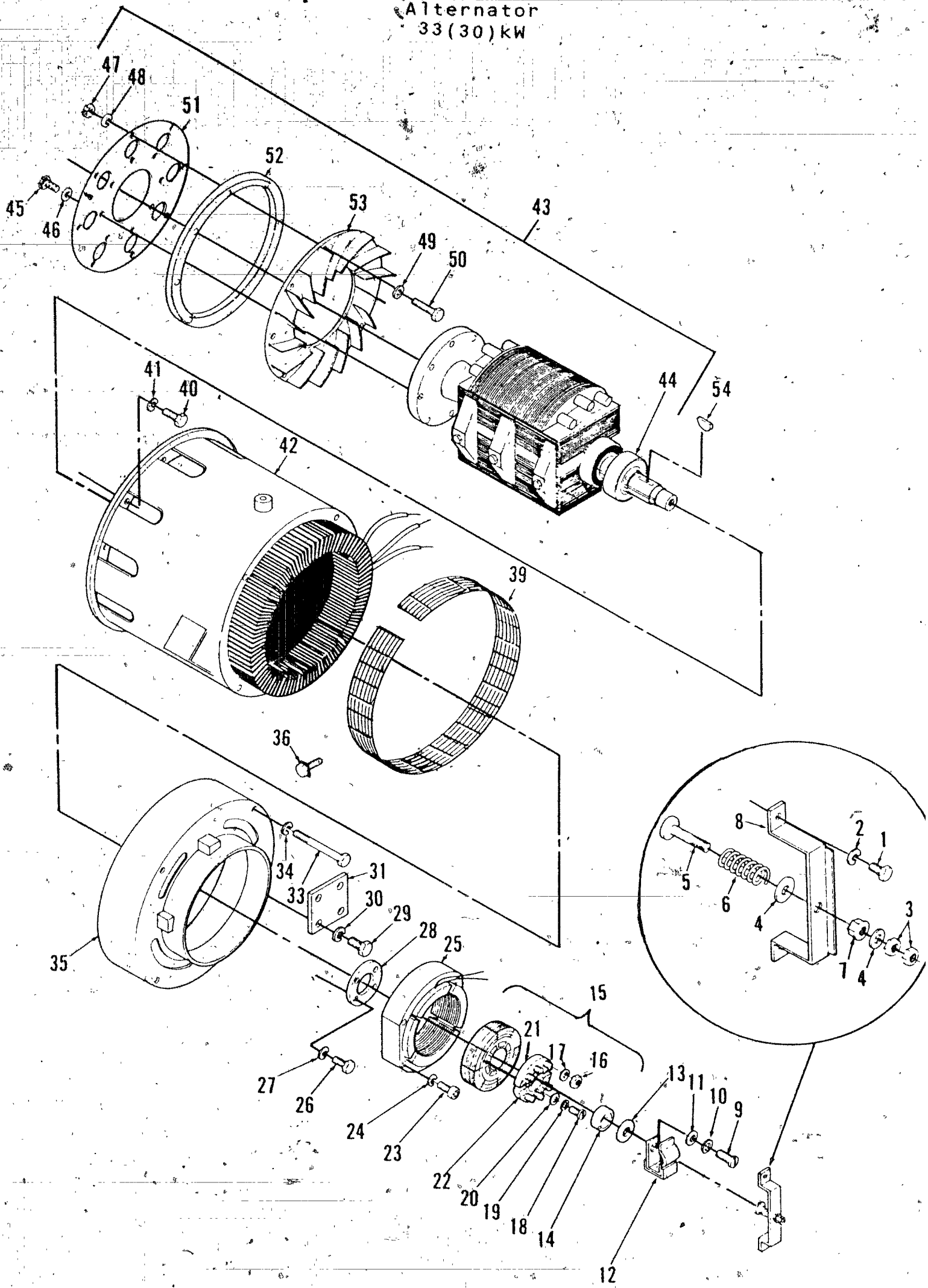
\* - Voltage Codes follow Model Letter designations.

# - 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.

+ - The Stators are Reconnectable.

# Alternator 33(30)kW

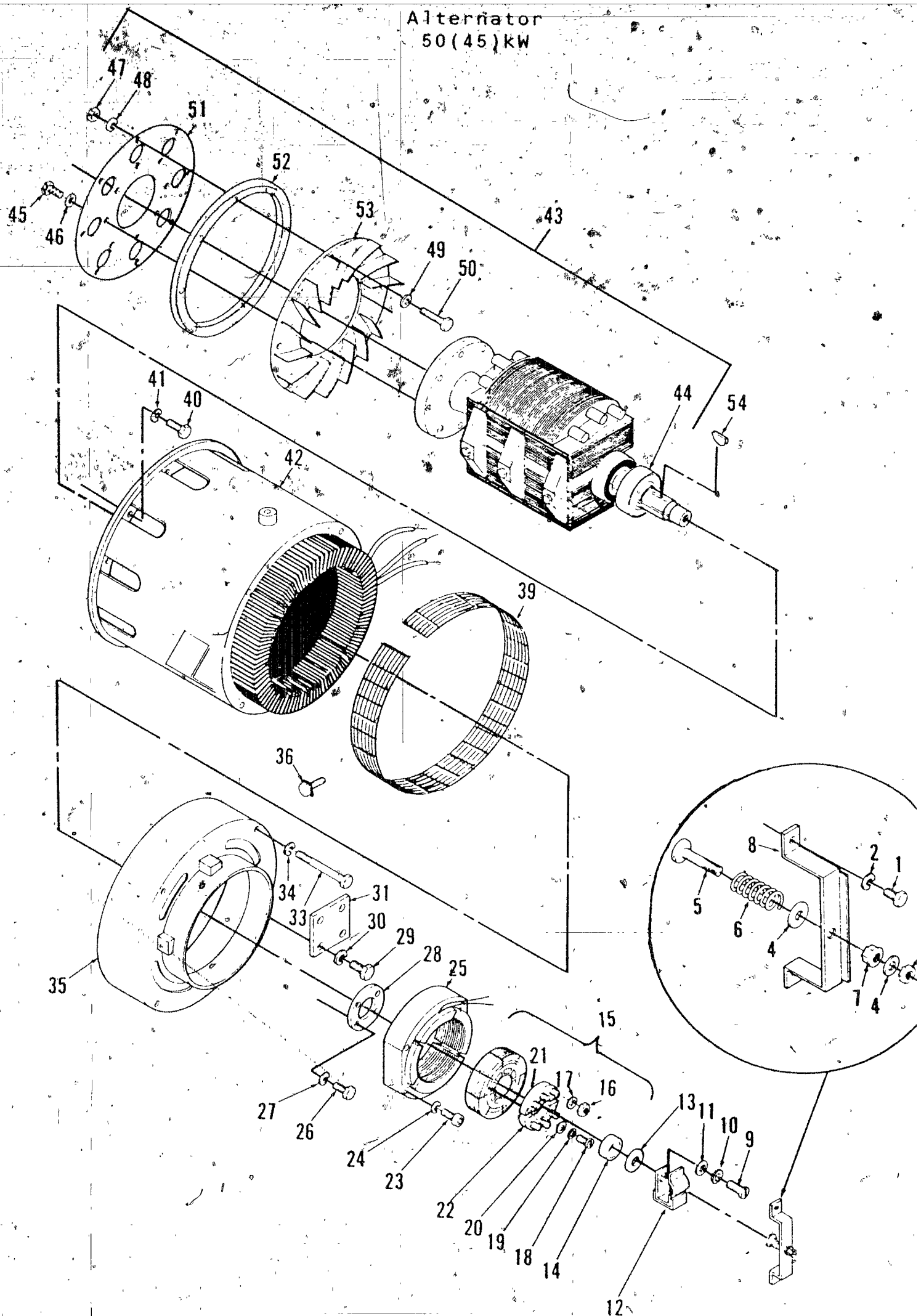


# Alternator 33 (30) kW

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-2029	2	Screw, Cap - Hex Head (M6 x 1 x 12mm)	27	850-2006	4	Washer, Lock - Spring (M6)
2	850-2006	2	Washer, Lock - Spring (M6)	28	232-2959	1	Retainer, Bearing
3	860-2006	2	Nut, Hex (M5 x 0.8)	29	800-2004	2	Screw, Cap - Hex Head (M5 x 0.8 x 12mm)
4	526-2060	2	Washer, Flat (M5)	30	850-2005	2	Washer, Lock - Spring (M5)
5	150-1962	1	Contact, Electrical	31	232-2418	1	Board, Terminal
6	150-1964	1	Spring	33	800-2100	4	Screw, Cap - Hex Head (M10 x 1.5 x 100mm)
7	870-0171	1	Nut, Insulated	34	850-2010	4	Washer, Lock - Spring (M10)
8	150-1963	1	Bracket, Mounting	35	211-0367	1	Bell, End
9	720-1057	1	Screw, Cap - Hex Head (M10 x 1.5 x 40mm)	36	815-0337	4	Screw, Tapping - Hex Wash Head (1/4-20 x 3/4")
10	853-2010	1	Washer, Lock - ET (M10)	39	234-0720	1	Screen, Air
11	526-2120	3	Washer, Flat (M10)	40	800-2088	12	Screw, Cap - Hex Head (M10 x 1.5 x 35mm)
12	150-2038	1	Switch, Over Speed	41	850-2010	12	Washer, Lock - Spring (M10)
13	526-2129	1	Washer, Flat (M11)	42	220-3857	1	Stator, Alternator 30kW, Code 515
14	232-2929	1	Spacer		220-3814	1	33kW, Code 15
15	201-2299	1	Rotor, Exciter - Environmental Protected (Includes Parts Marked *)		220-3960	1	33kW, Code 15 Enviromer Protected
16	870-0131	6	*Nut, Self-locking - Hex with ET Lock Washer (#10-32)	43	201-3099	1	Rotor Assembly, Alternator Environmental Protected (Includes Parts Marked @)
17	526-0008	6	*Washer, Flat (#10)	44	510-0063	1	@Bearing, Ball
18	813-0100	4	*Screw, Machine - Round Head (#10-32 x 1/2")	45	800-2112	8	@Screw, Cap - Hex Head (M12 x 1.75 x 30mm)
19	853-0008	4	*Washer, Lock - ET (#10)	46	526-2148	8	@Washer, Flat (M12)
20	526-0008	4	*Washer, Flat (#10)	47	860-2009	4	@Nut, Hex (M10 x 1.5)
21	358-0069	1	*Rectifier - Positive	48	850-2010	8	@Washer, Lock - Spring (M10)
22	358-0070	1	*Rectifier - Negative	49	526-2121	8	@Washer, Flat (M10)
23	802-2073	4	Screw, Cap - Socket Head (M6 x 1 x 45mm)	50	800-2533	8	@Screw, Cap - Hex Head (M10 x 1.5 x 55mm)
24	850-2006	4	Washer, Lock - Spring (M6)	51	232-3071	1	#Disk, Drive
25	220-3968	1	Standard	52	232-3082	1	@Spacer
	220-3969	1	Environmental Protected	53	205-0161	1	@Fan
26	800-2029	4	Screw, Cap - Hex Head (M6 x 1 x 12mm)	54	515-0158	1	Key, Woodruff

\* - Parts Included in Exciter Rotor.  
@ - Parts Included in Alternator Rotor

50 (45) KW



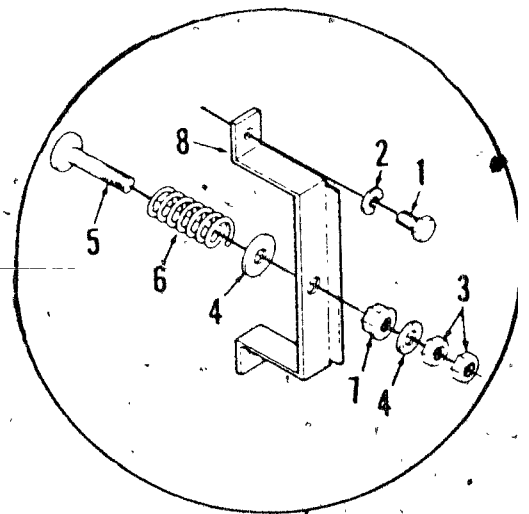
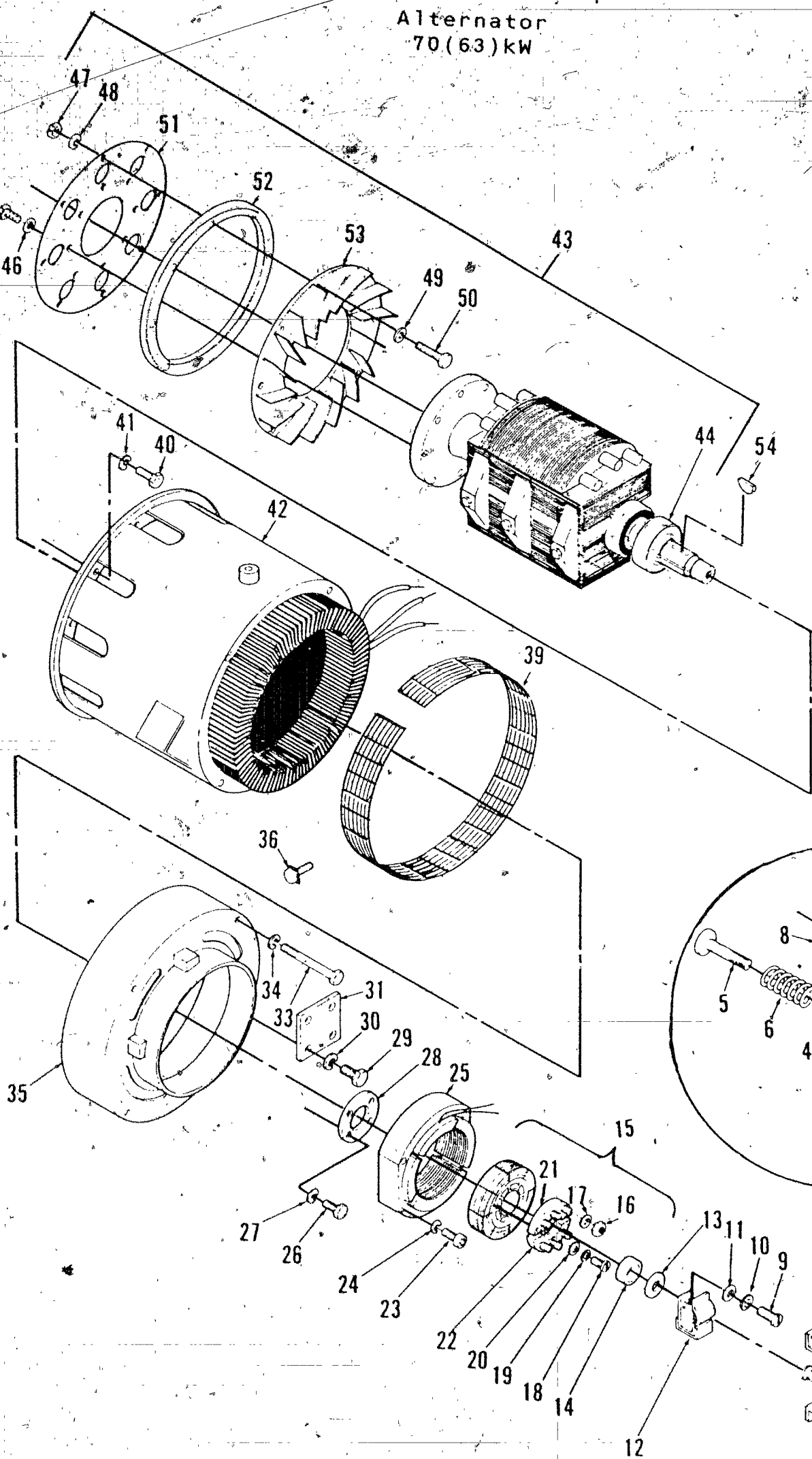
# Alternator 50(45)kW

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-2029	2	Screw, Cap - Hex Head (M6 x 1 x 12mm)	27	850-2006	4	Washer, Lock - Spring (M6)
2	850-2006	2	Washer, Lock - Spring (M6)	28	232-2959	1	Retainer, Bearing
3	860-2006	2	Nut, Hex (M5 x 0.8)	29	800-2004	2	Screw, Cap - Hex Head (M5 x 0.8 x 12mm)
4	526-2060	2	Washer, Flat (M5)	30	850-2005	2	Washer, Lock - Spring (M5)
5	150-1962	1	Contact, Electrical	31	232-2418	1	Board, Terminal
6	150-1964	1	Spring	33	800-2100	4	Screw, Cap - Hex Head (M10 x 1.5 x 100mm)
7	870-0171	1	Nut, Insulated	34	850-2010	4	Washer, Lock - Spring (M10)
8	150-1063	1	Bracket, Mounting	35	211-0367	1	Bell, End
9	720-1057	1	Screw, Cap - Hex Head (M10 x 1.5 x 40mm)	36	815-0337	4	Screw, Tapping - Hex Washer Head (1/4-20 x 3/4")
10	853-2010	1	Washer, Lock - ET (M10)	39	234-0720	1	Screen, Air
11	526-2120	3	Washer, Flat (M10)	40	800-2088	12	Screw, Cap - Hex Head (M10 x 1.5 x 35mm)
12	150-2038	1	Switch, Over Speed	41	850-2010	12	Washer, Lock - Spring (M10)
13	526-2129	1	Washer, Flat (M11)	42			Stator, Alternator
14	232-2929	1	Spacer		220-3860	1	45kW, Code 515
15	201-2299	1	Rotor, Exciter - Environmental Protected (Includes Parts Marked *)		220-3817	1	50kW, Code 15
16	870-0131	6	*Nut, Self-locking - Hex with ET Lock Washer (#10-32)		220-3963	1	50kW, Code 15 Environment Protected
17	526-0008	6	*Washer, Flat (#10)	43	201-3101	1	Rotor Assembly, Alternator Environmental Protected
18	813-0100	4	*Screw, Machine - Round Head (#10-32 x 1/2")				(Includes Parts Marked @)
19	853-0008	4	*Washer, Lock - ET (#10)	44	510-0063	1	@Bearing, Ball
20	526-0008	4	*Washer, Flat (#10)	45	800-2112	8	@Screw, Cap - Hex Head (M12 x 1.75 x 30mm)
21	358-0069	1	*Rectifier, Positive	46	526-2148	8	@Washer, Flat (M12)
22	358-0070	1	*Rectifier, Negative	47	860-2009	4	@Nut, Hex (M10 x 1.5)
23	802-2073	4	Screw, Cap - Socket Head (M6 x 1 x 45mm)	48	850-2010	8	@Washer, Lock - Spring (M10)
24	850-2006	4	Washer, Lock - Spring (M6)	49	526-2121	8	@Washer, Flat (M10)
25			Stator, Exciter	50	800-2533	8	@Screw, Cap - Hex Head (M10 x 1.5 x 55mm)
	220-3968	1	Standard	51	232-3071	1	#Disk, Drive
	220-3969	1	Environmental Protected	52	232-3082	1	@Spacer
26	800-2029	4	Screw, Cap - Hex Head (M6 x 1 x 12mm)	53	205-0161	1	@Fan
				54	515-0158	1	Key, Woodruff

\* - Parts Included in Exciter Rotor  
@ - Parts Included in Alternator Rotor



Alternator  
70(63)kW



# **Alternator 70(63)kW**

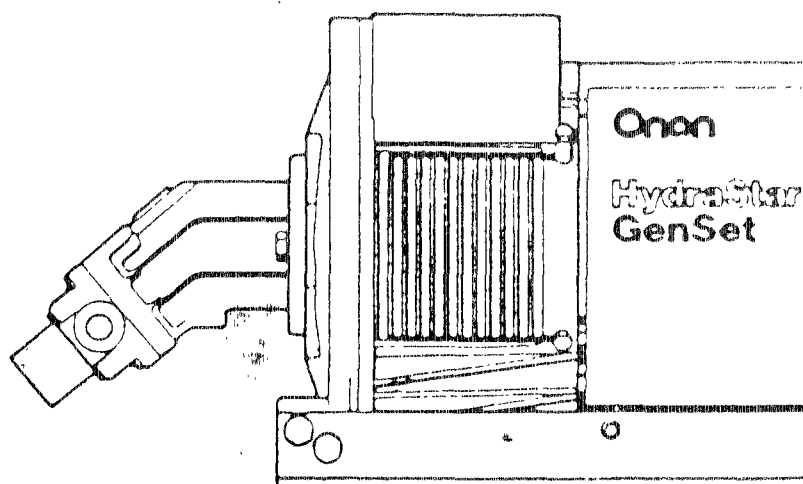
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-2029	2	Screw, Cap - Hex Head (M6 x 1 x 12mm)	27	850-2006	4	Washer, Lock - Spring (M6)
2	850-2006	2	Washer, Lock - Spring (M6)	28	232-2959	1	Retainer, Bearing
3	860-2006	2	Nut, Hex (M5 x 0.8)	29	800-2004	2	Screw, Cap - Hex Head (M5 x 0.8 x 12mm)
4	526-2060	2	Washer, Flat (M5)	30	850-2005	2	Washer, Lock - Spring (M5)
5	150-1962	1	Contact, Electrical	31	232-2418	1	Board, Terminal
6	150-1964	1	Spring	33	800-2100	4	Screw, Cap - Hex Head (M10 x 1.5 x 100mm)
7	870-0171	1	Nut, Insulated	34	850-2010	4	Washer, Lock - Spring (M10)
8	150-1963	1	Bracket, Mounting	35	211-0367	1	Bell, End
9	720-1057	1	Screw, Cap - Hex Head (M10 x 1.5 x 40mm)	36	815-0337	4	Screw, Tapping - Hex Washer Head (1/4-20 x 3/4")
10	853-2010	1	Washer, Lock - ET (M10)	39	234-0720	1	Screen, Air
11	526-2120	3	Washer, Flat (M10)	40	800-2088	12	Screw, Cap - Hex Head (M10 x 1.5 x 35mm)
12	150-2038	1	Switch, Over Speed	41	850-2010	12	Washer, Lock - Spring (M10)
13	526-2129	1	Washer, Flat (M11)	42	220-3861	1	Stator, Alternator 63kW, Code 515
14	232-2929	1	Spacer		220-3818	1	70kW, Code 15
15	201-2299	1	Rotor, Exciter - Enviromental Protected (Includes Parts Marked *)		220-3964	1	70kW, Code 15 Enviromental Protected
16	870-0131	6	*Nut, Self-locking - Hex with ET Lock Washer (#10-32)	43	201-3103	1	Rotor Assembly, Alternator Enviromental Protected (Includes Parts Marked @)
17	526-0008	6	*Washer, Flat (#10)	44	510-0063	1	@Bearing, Ball
18	813-0100	4	*Screw, Machine - Round Head (#10-32 x 1/2")	45	800-2112	8	@Screw, Cap - Hex Head (M12 x 1.75 x 30mm)
19	853-0008	4	*Washer, Lock - ET (#10)	46	526-2148	8	@Washer, Flat (M12)
20	526-0008	4	*Washer, Flat (#10)	47	860-2009	4	@Nut, Hex (M10 x 1.5)
21	358-0069	1	*Rectifier - Positive	48	850-2010	8	@Washer, Lock - Spring (M10)
22	358-0070	1	*Rectifier - Negative	49	526-2121	8	@Washer, Flat (M10)
23	802-2073	4	Screw, Cap - Socket Head (M6 x 1 x 45mm)	50	800-2533	8	@Screw, Cap - Hex Head (M10 x 1.5 x 55mm)
24	850-2006	4	Washer, Lock - Spring (M6)	51	232-3071	1	#Disk, Drive
25	220-3968	1	Standard	52	232-3082	1	@Spacer
	220-3969	1	Enviromental Protected	53	205-0161	1	@Fan
26	800-2029	4	Screw, Cap - Hex Head (M6 x 1 x 12mm)	54	515-0158	1	Key, Woodruff

\* - Parts Included in Exciter Rotor.  
@ - Parts Included in Alternator Rotor

**Onan**

# **PARTS CATALOG**

## **YKH HydraStar Generating Set**



**Hydraulic Electric Generating Set**

# Introduction

## FORWARD

This Service Parts Catalog provides identification for the model(s) listed on this cover. The catalog is arranged in illustrated groups of related items. Each part illustrated is identified by a Reference Number corresponding to the same Reference Number in the parts list.

RIGHT or LEFT side of the engine is determined by FACING the front (radiator end) of the engine. Illustrations are typical and subject to change.

## SAFETY PRECAUTIONS

The following symbols are used in Onan manuals to alert users to the potentially dangerous conditions relating to maintenance of the equipment and replacement of parts. Please read and observe.



*This symbol warns of immediate hazards which will result in severe personal injury or death.*



*This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.*



*This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.*

## MODEL IDENTIFICATION

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO., and SERIAL NO. from the Onan nameplate.

For handy reference, insert your nameplate information in the spaces below:

MODEL AND SPEC NO.

SERIAL NO.

## PRODUCT SAFETY PRECAUTIONS

### WARNING

Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.

### WARNING

Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!

### WARNING

Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives, or

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## Introduction

This manual applies to the standard YKH Hydraulic Generator Sets as listed in the Generator Set Data Table. Parts are arranged in groups of related items and each illustrated part is identified by a reference number corresponding to the same reference number in the parts list. Using the model and specification number from your generator set nameplate, select parts that apply to your set. Unless otherwise mentioned in the description, parts are interchangeable between models. Throughout this manual, left and right sides are determined by facing the hydraulic motor end (front) of the set.

### Generator Set Data Table

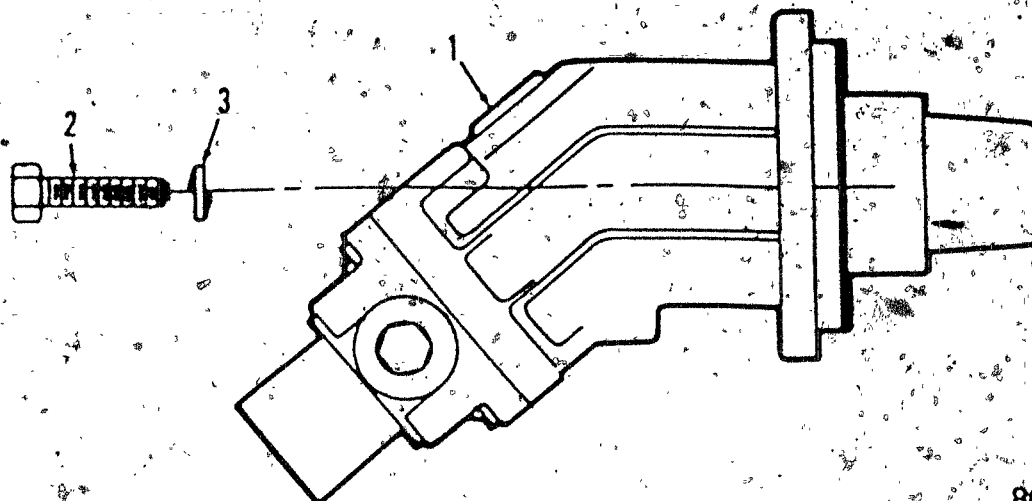
MODEL IDENTIFICATION	RATING
5 YKH-**/*	5,000 WATTS

### Electrical Data Table

**VOLTAGE CODES	VOLTS	HERTZ	WIRE	PHASE	NOTES
AD	120/240	60	4	3	
AJ	120/240	60	4	1	

- \* - The diagonal line (/) in the model and specification number separates generator set characteristics from the specification number and letter. The specification number denotes customer requested options or deviations from a standard (1A, 1B, etc.) model. The specification letter advances (A to B, B to C, etc.) with major manufacturing changes.
- \*\* - Voltage Codes follow model letter designations.
- These generators have four load wires which are reconnectable for 120 volt 2 wire service or 240 volt, 2 wire service or 120/240 volt, 3 wire service.

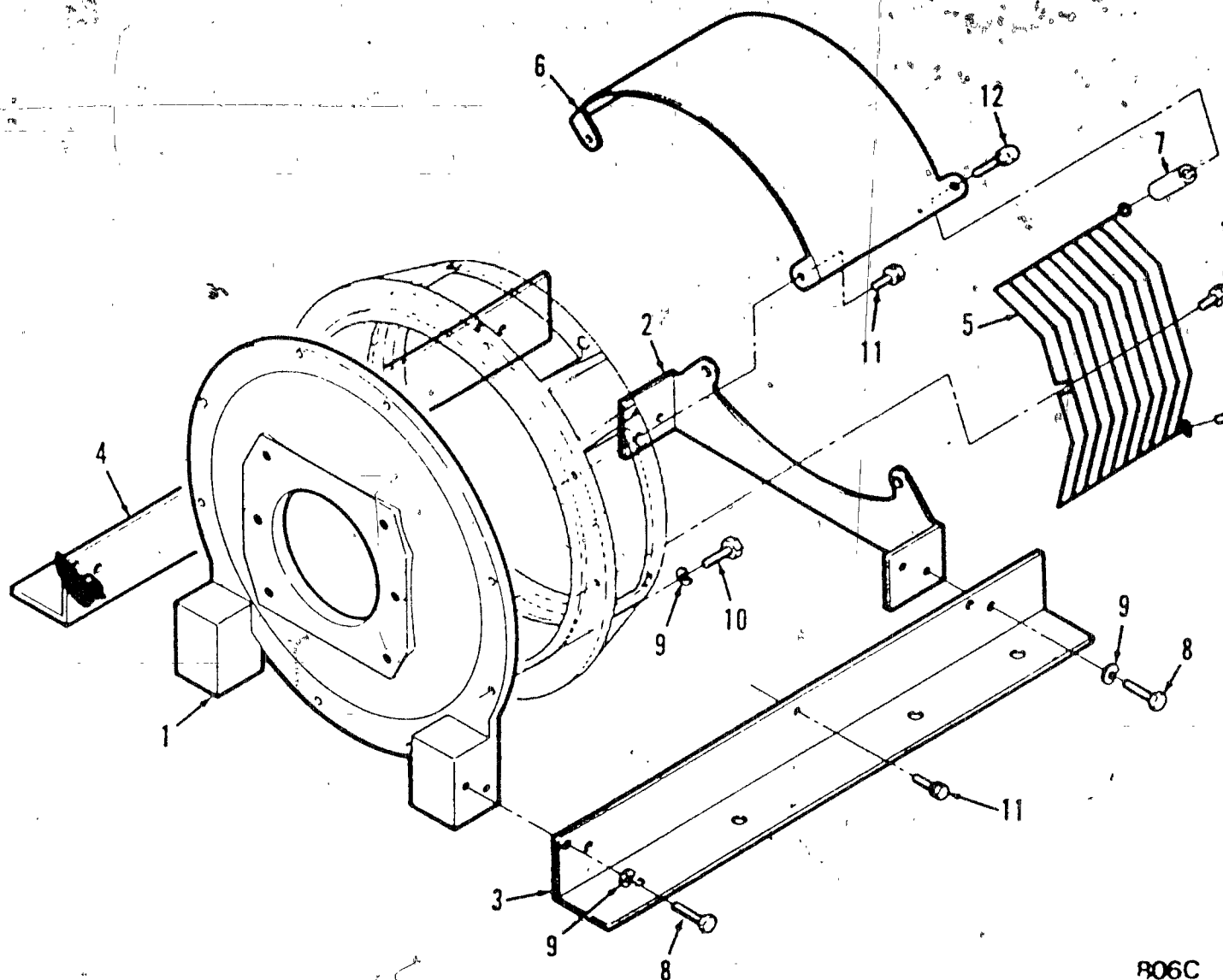
# Hydraulic Motor



804A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	121-0082	1	Motor Assembly, Hydraulic (Includes Adapter) SAE B
2	800-2112	2	Screw, Cap - Hex Head (M12 x 30mm)
3	850-2012	2	Washer, Lock - Spring (M12)

# Generator Support



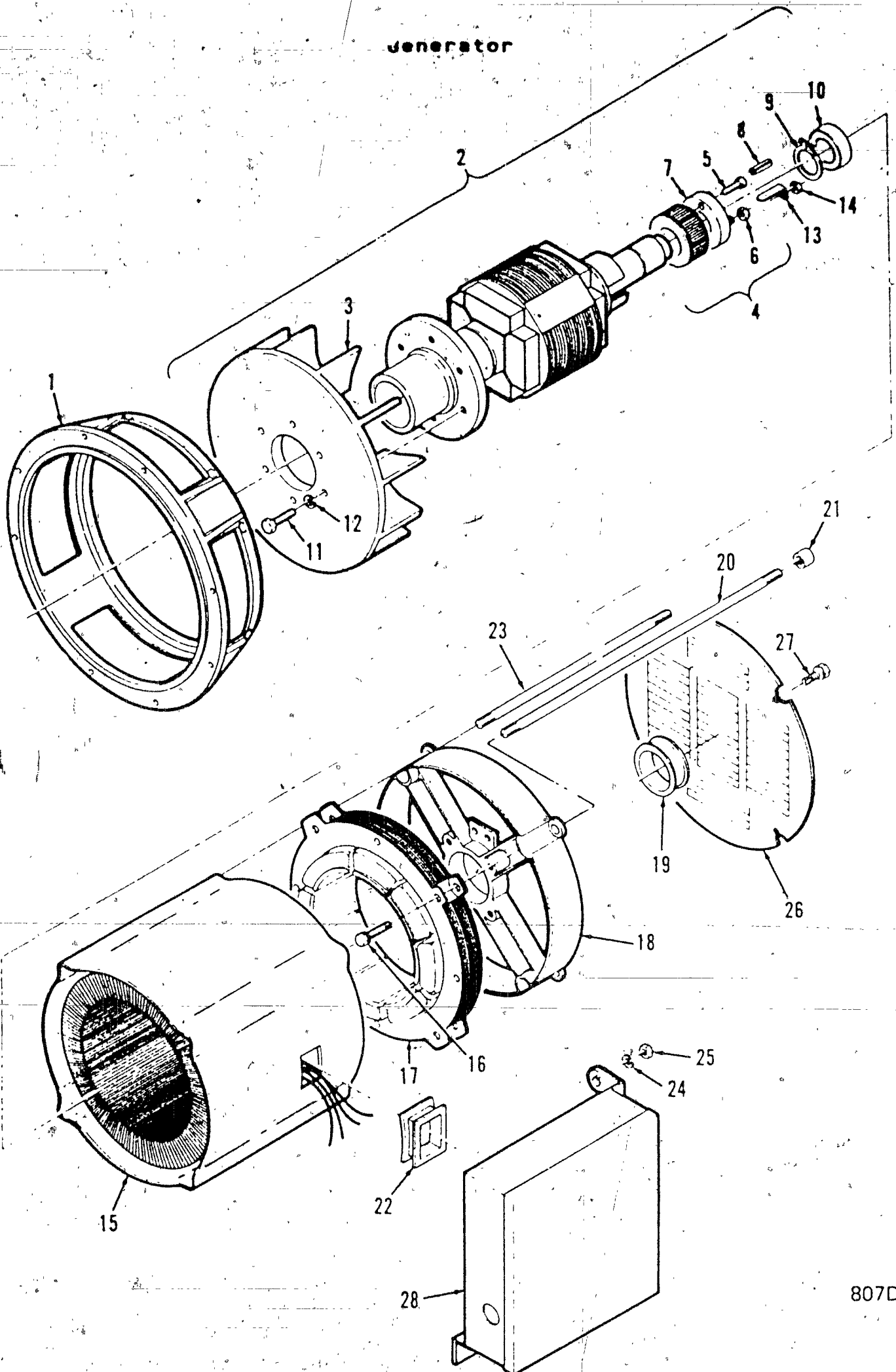
806C

REF NO	PART NO.	QTY USED	PART DESCRIPTION
1	231-0309-01	1	Adapter, Hydraulic
2	232-3419	1	Bracket, Generator Support
3	232-3417-01	1	Foot, Mounting - Right Side
4	232-3418-01	1	Foot, Mounting - Left Side
5	232-3459	4	Guard, Fan
6	232-3460	1	Cover, Air Outlet
7	232-3347	2	Spacer, Cover
8	800-2086	8	Screw, Cap - Hex Head (M10 x 25mm)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	850-2010	16	Washer, Lock - Spring
10	800-2087	8	Screw, Cap - Hex Head (M10 x 30mm)
11	821-2031	13	Screw, Self-Locking - Washer Head (M6 x 8mm)
12	821-2037	2	Screw, Self-Locking - Washer Head (M6 x 35mm)



# Generator



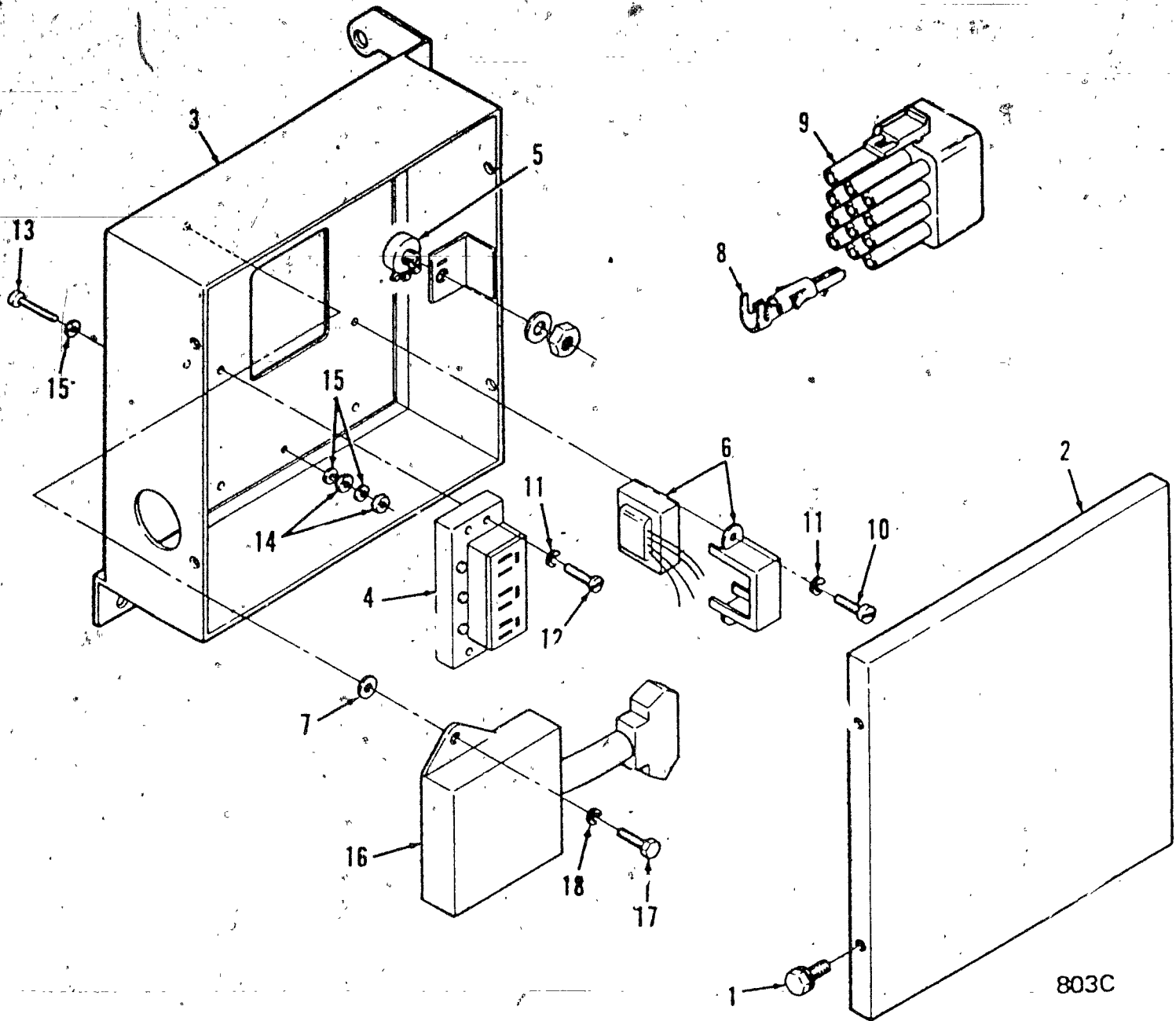
# Generator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	231-0298	1	Adapter, Generator
2	201-3441-01	1	Rotor Assembly, Generator (Includes Parts Marked *)
3	205-0176	1	*Fan, Generator
4	201-3405-02	1	*Rotor Assembly, Exciter (Includes Parts Marked #)
5	815-0666-02	2	**Screw, Pan Head - Thread Forming (#8-32 x 1")
6	870-0221	3	**Nut, Hex * ET (#8-32)
7	358-0129	1	**Rectifier
8	516-0090	3	*Pin, Roll
9	518-0012	1	*Ring, Retaining, - External
10	510-0099	1	*Bearing, Ball
11	800-2034	6	*Screw, Cap - Hex Head (M6 x 20mm)
12	850-2006	6	*Washer, Lock - Spring (M6)
13	232-3314-02	2	*Connector, Exciter Rotor
14	870-0221	2	*Nut, Hex - ET (#8-32)
15			Stator, Generator
	220-4235-01	1	Voltage Code AD
	220-4271-03	1	Voltage Code AJ

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
16	815-0655-05	4	Screw, Cap - Hex Washer Head Thread Forming (M4 x 46mm)
17	220-4159-02	1	Stator, Exciter
18	211-0405-02	1	Bell, End
19	518-0519	1	Ring, Tolerance
20	520-2428-01	1	Stud (389mm)
21	870-0272	1	Nut, Socket - Internal Drive (3/8-16)
22	508-0360	1	Grommet - Lead Exit
23	520-0973-01	4	Stud (265mm)
24	850-0050	4	Washer, Lock - Spring (3/8")
25	862-0011	4	Nut, Hex (3/8-16)
26	234-0831	1	Cover, End Bell
27	815-0855-01	4	Screw, Cap - Hex Washer Head Thread Forming (M4 x 8mm)
28			Control Assembly (See Separate Page for Component

- \* - Parts Included in 201-3441-01 Generator Rotor Assembly.
- # - Parts Included in 201-3405-02 Exciter Rotor Assembly.

# Control



REF. NO.	PART NO.	QTY USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-2020	4	Screw, Self-Locking - Hex Washer Head (M5 x 10mm)	9	323-1314	1	Plug, Connector - 12 Place (J1)
2	319-0634	1	Cover, Control Box (Without Decals)	10	822-3073	2	Screw, Machine - Pan Head (M4 x 10mm) Three Phase Generator
	98-6026-01	1	Decal - Model Identification	11			Washer, Lock - Spring (M4)
	98-6152	1	Decal - Schematic - Single Phase Generator		850-2004	4	Single Phase Generator
	98-6140	1	Decal - Schematic - Three Phase Generator		850-2004	6	Three Phase Generator
3	319-0632	1	Box, Control	12	822-3076	4	Screw, Machine - Pan Head (M4 x 20mm)
4	332-2145	1	Block, Terminal - 4 Place (TB1)	13	822-3090	1	Screw, Machine - Pan Head (M5 x 20mm) Grounding Stud
5	303-0275	1	Potentiometer (R1)	14	860-2006	2	Nut, Hex (M5)
6	315-0688	1	Transformer Assembly, Voltage (Includes Bracket) Three Phase Generator (T1)	15	853-2005	3	Washer, Lock - ET (M5)
7	526-2081	2	Washer, Flat (M6)	16	305-0833	1	Regulator, Voltage (VR1)
8	323-1200	1	Socket, Contact (Use as required)	17	800-2034	2	Screw, Cap - Hex Head (M6 x 20mm)
				18	850-2006	2	Washer, Lock - Spring (M6)

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121-0082	3	850-0050	7				
201-3405-02	7	850-2004	8				
201-3441-01	7	850-2006	7				
205-0176	7	850-2010	5				
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323-1200	8						
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508-0300	7						
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520-2428-01	7						
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815-0666-02	7						
821-2020	8						
821-2031	5						
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