

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.

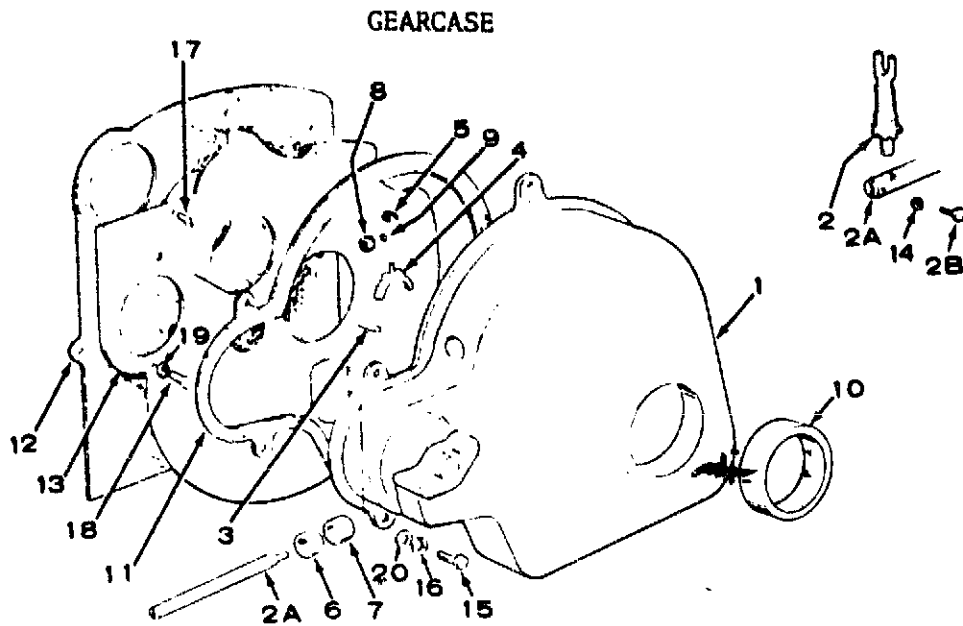
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974-1012 (5-80)  
RDJA-MS/3150A PARTS CATALOG

This catalog applies to the Industrial RDJA-MS/3150A Engines and factory installed options. Parts are arranged in groups of related items. Each illustrated part is identified by a reference number corresponding to the same reference number in the parts list for that group. Parts illustrations are typical. Using the MODEL and SPEC NO. from the nameplate, select parts that apply to your engine. Unless otherwise mentioned in the description, parts are interchangeable between models. Right and left sides are determined by facing the blower end (front) of the engine.

The Specification Letter advances (A to B, B to C, etc.) with each major manufacturing change.



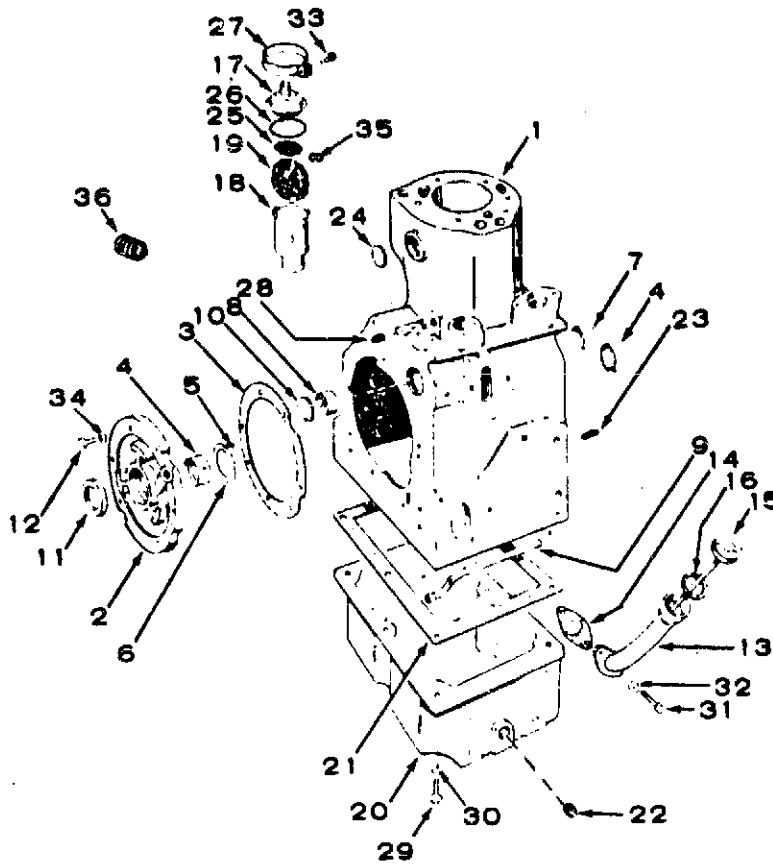
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	103-0277	1	Gearcase Assembly, Complete (Includes Parts Marked *)
2	150-1089	1	Arm, Governor
2A	150-0838	1	*Shaft, Governor
2B	815-0176	1	*Screw (#8-32 X 1/2")
3	516-0111	1	*Pin, Roll - Governor Cup Stop
4	150-0777	1	*Yoke, Governor
5	518-0129	1	*Ring, Yoke
6	509-0088	1	*Seal, Oil
7	510-0048	1	*Bearing (1/2"), Governor Shaft
8	510-0082	1	*Bearing (1/4"), Governor Shaft
9	510-0043	1	*Ball, Bearing - Governor Shaft Thrust
10	509-0087	1	*Seal, Oil
11	103-0251	1	Gasket, Gearcase
12	103-0218	1	Gasket, Backplate
13	103-0521	1	Backplate
14	850-0025	1	Washer, Lock - Spring (#8)
15	Screw, Gear Case Mounting		
	800-0028	1	5/16-18 X 1"
	110-0899	4	Special
16	850-0045	5	Washer, Lock (5/16")
17	815-0347	2	Screw, Flat Head - Gearcase Backplate Mounting (1/4-20 X 1/2")
18	800-0026	1	Screw, Hex Cap - Gearcase Backplate Mounting (5/16-18 X 3/4")
19	850-0045	1	Washer, Lock Gearcase Backplate Mounting (5/16")
20	526-0115	5	Washer, Flat (5/16")

\* - Included in Gearcase Assembly

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CYLINDER BLOCK AND OIL BASE



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	110-2440	1	Block Assembly, Cylinder (Includes Parts Marked *)
2	101-0337	1	*Plate, Bearing (Less Bearing and Pins)
3	101-0386	1	Gasket and Shim Kit - Rear Bearing Plate
4	Bearing, Precision Crankshaft		
	101-0359	2	*Standard
	101-0359-02	2	.002" Undersize
	101-0359-10	2	.010" Undersize
	101-0359-20	2	.020" Undersize
	101-0359-30	2	.030" Undersize
5	516-0072	2	*Pin, Thrust Washer
6	104-0420	2	*Washer, Crankshaft Thrust
7	101-0363	1	*Bearing, Precision Cam, Front - Standard Only
8	101-0365	1	*Bearing, Precision Cam, Rear - Standard Only
9	120-0572	1	*Tube, Crankcase Oil
10	517-0053	1	*Plug, Camshaft Opening
11	509-0086	1	Seal, Crankshaft - Rear
12	805-0019	6	*Bolt, Place (3/8-16 X 1-1/4") - Bearing Plate
13	123-0649	1	Tube, Oil Fill

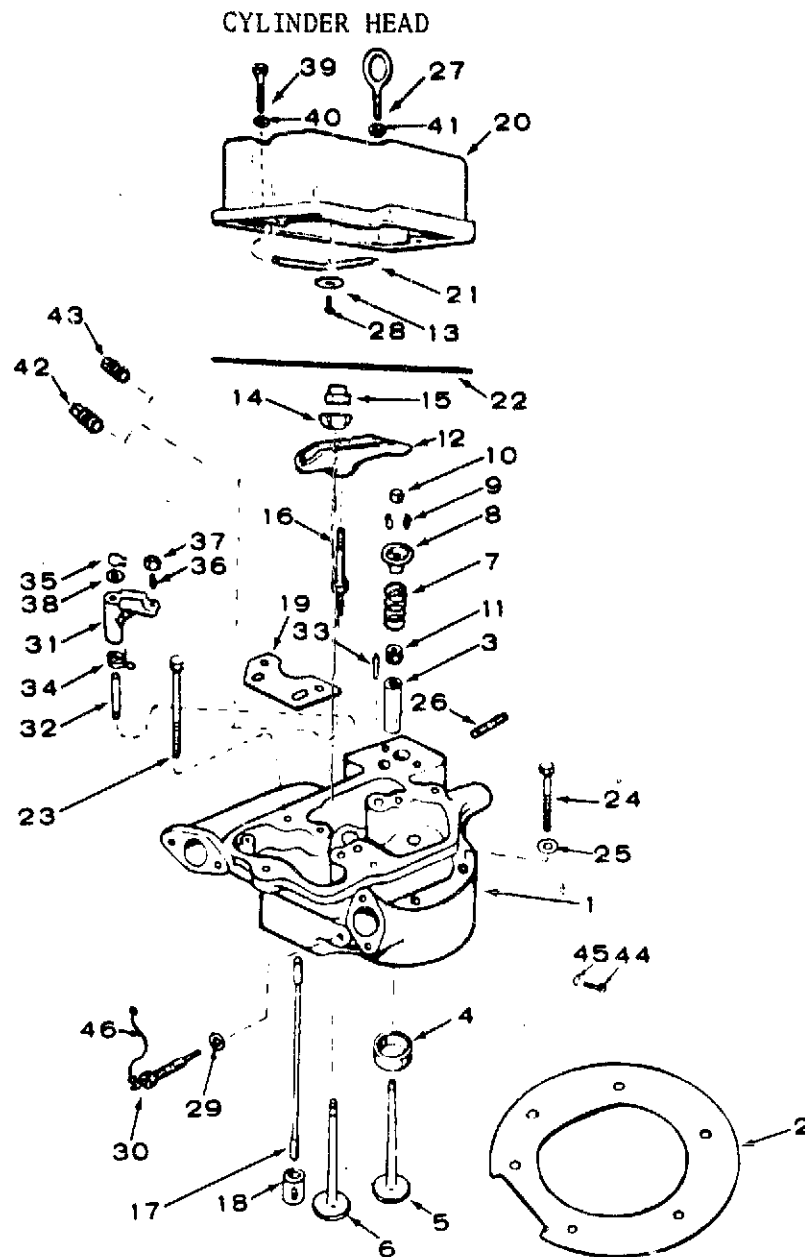
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CYLINDER BLOCK AND OIL BASE

14	123-0667	1	Gasket, Oil Fill Tube
15	123-1350	1	Cap and Indicator
16	123-0191	1	Gasket, Cap
17	123-0954	1	Cap and Valve Assembly, Breather
18	123-0952	1	Tube, Breather
19	123-0865	1	Baffle, Breather
20	102-0826	1	Base, Oil
21	102-0459	1	Gasket, Base
22	505-0247	1	Plug, Oil Drain
23	516-0141	2	Pin, Dowel - Gear Cover Locating
24	517-0059	3	*Plug, Expansion - Cylinder Block
25	123-1202	1	Screen, Breather
26	509-0117	1	Seal, "O" Ring
27	123-0951	1	Clamp, Breather
28	505-0054	2	Plug (1/4") - Water Drain
29	800-0546	6	Screw (3/8-16 X 5-1/4") - Oil Base Mounting
30	850-0050	6	Washer, Lock (3/8)
31	800-0026	2	Screw (5/16-18 X 3/4") - Oil Fill Tube Mounting
32	850-0045	2	Washer, Lock (5/16")
33	809-0035	1	Screw (#8 X 3/4") - Breather Clamp
34	526-0245	6	Washer, Flat (3/8") - Rear Bearing Plate
35	123-1201	1	Retainer, Breather Screen
36	505-0135	2	Nipple, Half (3/8 X 1-1/2")

\* - Included in Cylinder Block Assembly



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	110-1675	1	Head, (Includes Parts Marked *)
2	110-1294	1	Gasket, Head
3	Guide, Valve		
	110-1501	2	*Standard
	110-1501-01	2	.001" Oversize
4	Insert, Valve Seat		
	110-1268	2	*Standard
	110-1268-02	2	.002" Oversize
	110-1268-05	2	.005" Oversize
	110-1268-10	2	.010" Oversize
	110-1268-25	2	.025" Oversize

## CYLINDER HEAD

5	110-1320	1	Valve, Intake
6	110-1278	1	Valve, Exhaust
7	110-1221	2	Spring, Valve
8	110-1220	2	Retainer, Valve Spring
9	110-0858	4	Lock, Valve Spring Retainer
10	110-0859	2	Cap, Valve Stem
11	509-0090	1	Seal, Oil, Intake Valve (Includes Retainer Rings)
12	Arm, Rocker		
	115-0128	1	Exhaust
	115-0129	1	Intake
13	526-0130	1	+Washer, Flat - Oil Line Mounting
14	115-0127	2	Ball, Rocker Arm
15	115-0150	2	Lock Nut, Rocker Arm
16	115-0152	2	Stud, Rocker Arm
17	115-0149	2	Rod, Valve Push (Steel)
18	115-0195	2	Tappet, Valve
19	115-0147	1	Guide, Push Rod
20	115-0188	1	Cover, Rocker (Includes Parts Marked +)
21	120-0595	1	+Line, Oil, Rocker Cover
22	115-0160	1	Gasket, Rocker Cover
23	110-1264	2	Screw, Cylinder Head (Special)
24	800-0501	4	Screw, Cylinder Head (Special)
25	526-0174	4	Washer, Cylinder Head
26	520-0608	2	Stud, Exhaust Manifold
27	403-0671	1	Bolt, Lifting
28	809-0042	1	+Screw, Oil Line, Rocker Cover
29	110-0546	1	Gasket, Glow Plug
30	333-0106	1	Kit, Glow Plug (Includes Gasket)
31	110-1512	1	Arm, Decompression Release
32	110-1444	1	*Pin, Decompression Release
33	516-0192	1	Pin, Roll (3/16 X 1-3/8")
34	110-1356	1	Spring, Decompression Release
35	518-0207	1	Ring, Retainer, Decompression Release
36	815-0252	1	Set Screw, Decompression Release
37	870-0134	1	Palnut, Decompression Release
38	110-1511	1	Washer, Decompression Release
39	800-0030	2	Screw, Cap-Hex Head (5/16-18 X 1-1/4")
40	850-0045	2	Washer, Lock
41	862-0003	1	Nut, Hex (3/8)
42	505-0110	1	Plug, Pipe - Square Head (3/8")
43	505-0056	1	Plug, Pipe - Square Head (1/2")
44	813-0096	2	Screw, Machine - Round Head (#10-32 X 1/4")
45	850-0030	2	Washer, Lock - Spring (#10)
46	336 1504	1	Lead, Glow Plug

\* - Included in 110- Cylinder Head Assembly.

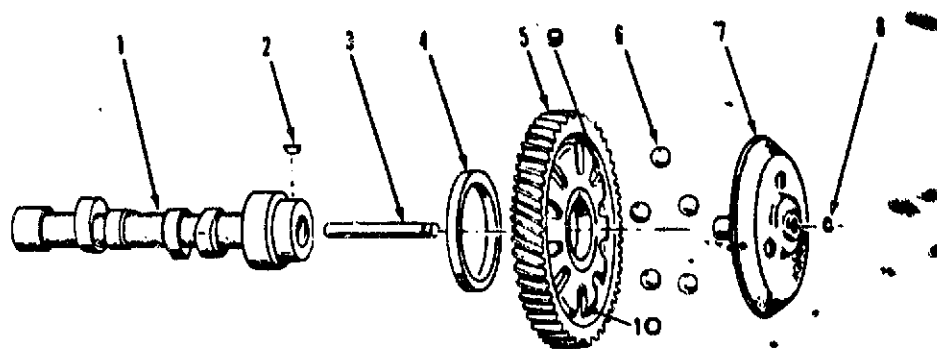
+ - Included in 115-0188 Rocker Cover Assembly.

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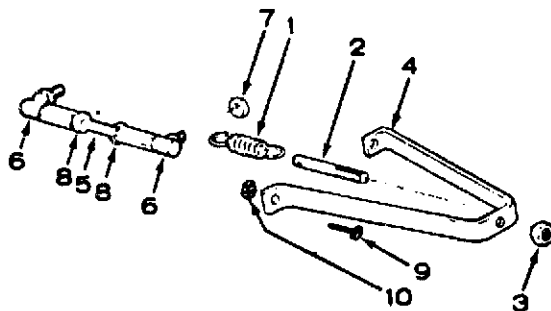


CAMSHAFT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	105-0299	1	Camshaft - Includes Center Pin
2	515-0001	1	Key, Camshaft Gear Or Distributor Gear
3	150-0075	1	Pin, Center
4	105-0205	1	Washer, Thrust
5	105-0218	1	Gear, Camshaft (Includes Flyball Spacer And Plate)
6	510-0046	5	Ball, Fly - Governor
7	150-0775	1	Cup, Governor
8	150-0078	1	Ring, Snap - Center Pin
9	150-0773	1	Plate, Governor Flyball
10	150-1674	1	Spacer, Governor Flyball

GOVERNOR

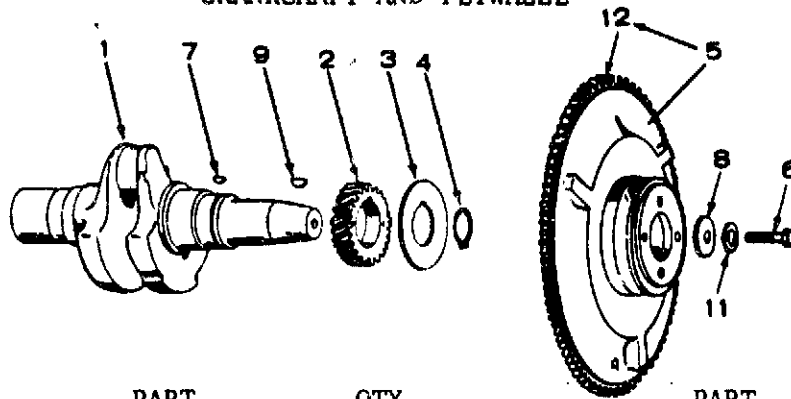


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	150-1084	1	Spring
2	150-1082	1	Stud, Adjusting
3	862-0003	1	Nut, Adjusting Stud
4	150-1103	1	Bracket Assembly
5	150-0883	1	Link, Governor
6	150-0639	2	Joint, Ball
7	870-0131	2	Nut, Keps, Joint Arm
8	870-0053	2	Nut, Lock - Governor Link
9	821-0010	2	Screw, Cap - HWH (1/4-20 X 1/2")
10	862-0001	2	Nut, Hex (1/4-20)

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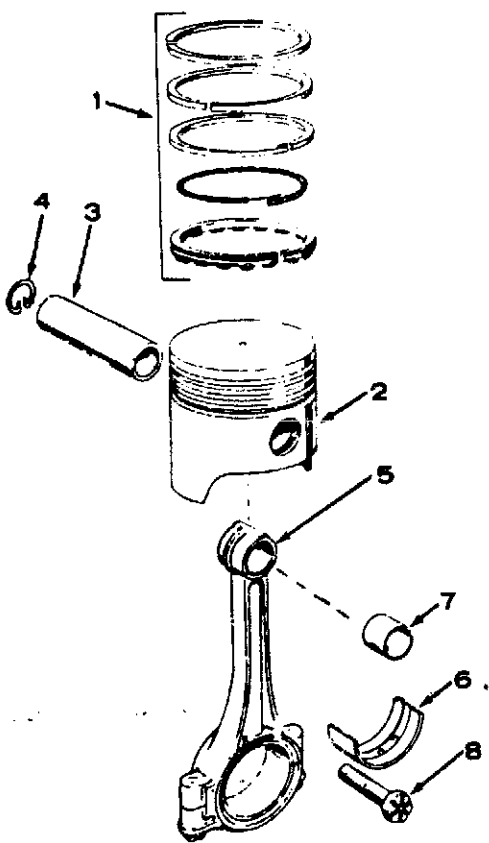
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CRANKSHAFT AND FLYWHEEL



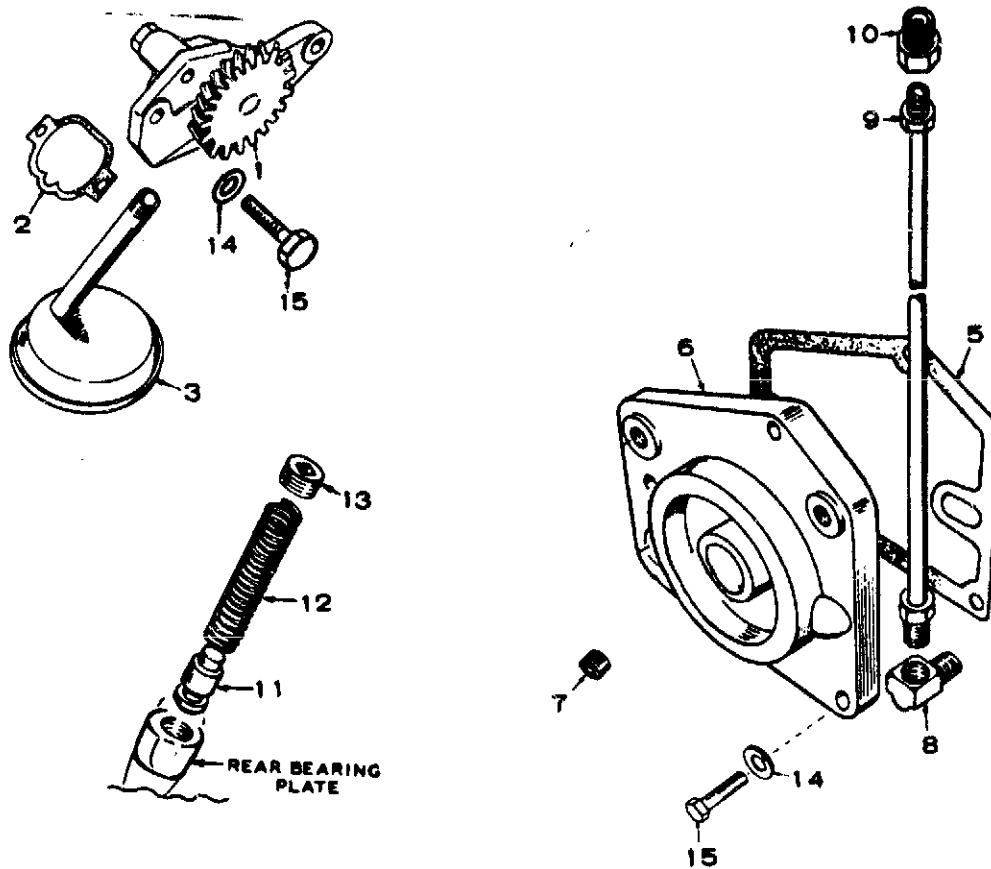
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	104-0944	1	Crankshaft
2	104-0418	1	Gear, Crankshaft
3	104-0416	1	Washer, Retainer
4	518-0188	1	Ring, Lock
5	104-0448	1	Flywheel
6	800-0500	1	Screw, Flywheel Mounting (Special)
7	515-0001	1	Key, Gear
8	526-0185	1	Washer, Flywheel
9	515-0153	1	Key, Flywheel to Crankshaft
11	850-0055	1	Washer, Lock (7/16")
12	104-0423	1	Gear, Ring - Flywheel

PISTON AND ROD



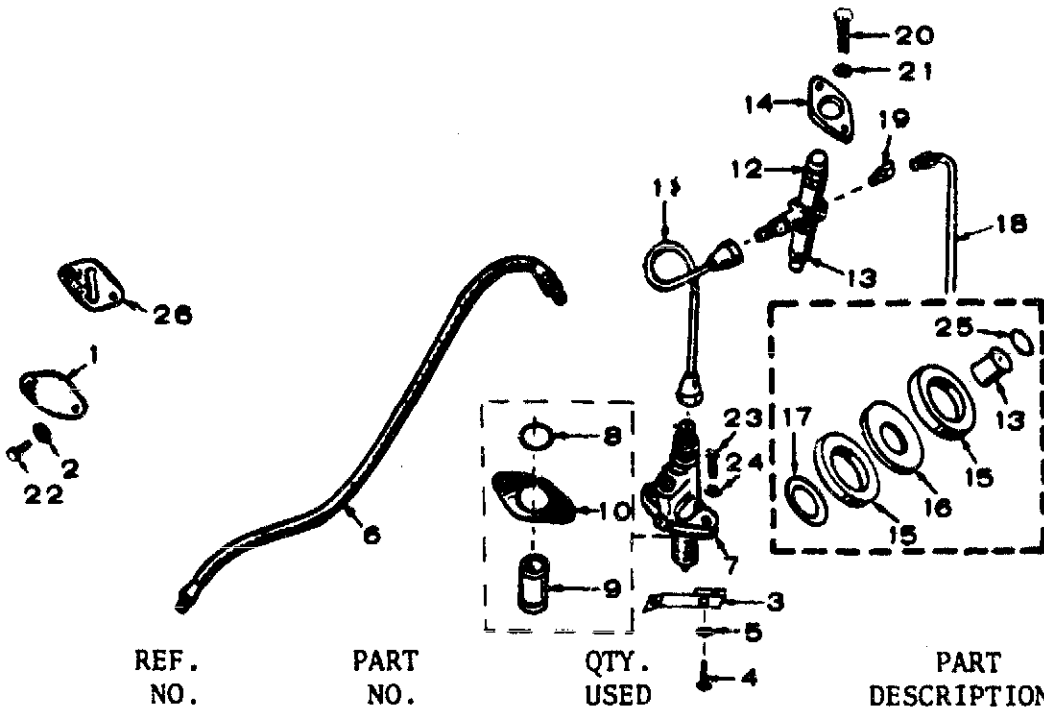
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	Ring Set		
	113-0130	1	Standard
	113-0130-05	1	.005" Oversize
	113-0130-10	1	.010" Oversize
	113-0130-20	1	.020" Oversize
	113-0130-30	1	.030" Oversize
	113-0130-40	1	.040" Oversize
2	Piston And Pin (Includes Pin Retainer Rings)		
	112-0109	1	Standard
	112-0109-05	1	.005" Oversize
	112-0109-10	1	.010" Oversize
	112-0109-20	1	.020" Oversize
	112-0109-30	1	.030" Oversize
	112-0109-40	1	.040" Oversize
3	112-0093	1	Pin, Piston
4	112-0085	2	Ring, Retaining Pin
5	114-0168	1	Rod Assembly, Connecting (Forged)
6	Bearing Half, Connecting Rod		
	114-0164	2	Standard
	114-0164-02	2	.002" Undersize
	114-0164-10	2	.010" Undersize
	114-0164-20	2	.020" Undersize
	114-0164-30	2	.030" Undersize
7	114-0170	2	Bushing, Piston Pin, Connecting Rod
8	805-0012	2	Bolt (Special)

## OIL SYSTEM



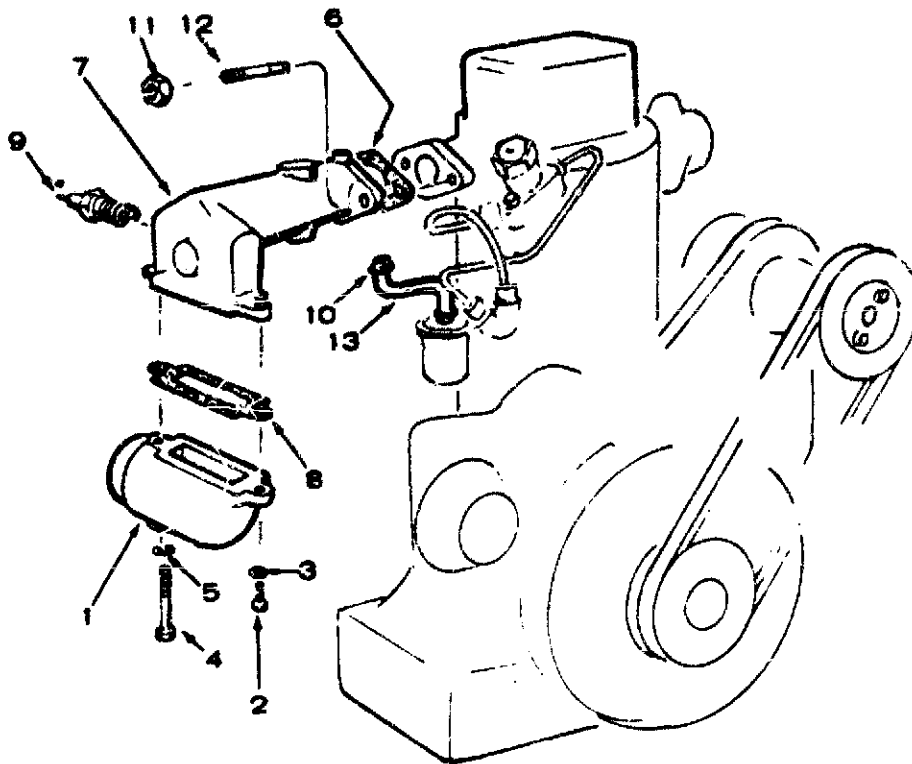
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	120-0547	1	Pump Assembly, Oil
2	120-0580	1	Gasket Kit, Pump
3	120-0755	1	Cup, Oil Pump Intake
5	122-0188	1	Gasket, Adapter
6	122-0413	1	Adapter, Oil Filter
7	505-0057	2	Plug, 1/8"
8	502-0037	1	Elbow, Oil Line To Filter Adapter
9	120-0622	1	Line, Adapter To Cylinder Head
10	502-0281	1	Connector, Restricted - Cylinder Head
11	120-0539	1	Valve, Oil By-Pass
12	120-0555	1	Spring, By-Pass Valve
13	505-0274	1	Plug, 1/8" Oil By-Pass
14	Washer, Lock		
	850-0045	2	Oil Pump Mounting (5/16")
	850-0045	3	Oil Filter Adapter Mounting (5/16")
15	Screw, Hex Cap		
	800-0030	2	Oil Pump Mounting (5/16-18 X 1")
	800-0028	3	Oil Filter Adapter Mounting (5/16-18 X 1")

## INJECTION SYSTEM



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-0638	1	Cover, Fuel Pump Cavity
2	526-0065	2	Washer, Flat (21/64" ID X 9/16" OD X 1/16")
3	147-0303	1	Bracket, Injection Pump
4	801-0007	2	Screw, Cap - HWH (1/4-28 X 1")
5	850-0040	1	Washer, Lock (1/4")
6	501-0007	1	Line, Fuel
7	147-0180	1	Pump, Injection
8	509-0101	1	Seal, "O" Ring - Injection Pump to Crankcase
9	115-0166	1	Tappet, Injection Pump
10	147-0172	1	Shim Kit, Injection Pump Mounting
11	149-0936	1	Line, Injection Pump to Nozzle
12	147-0136	1	Nozzle and Holder Assembly
13	147-0134	1	Nozzle Only (Component of Nozzle and Holder Assembly)
14	147-0141	1	Flange, Injection Nozzle Hold-down
15	147-0044	2	Shield, Nozzle Head (Steel)
16	147-0043	1	Gasket, Heat Shield (Asbestos)
17	110-0419	1	Gasket, Shield To Head (Cooper)
18	149-0947	1	Line, Nozzle Fuel Return
19	502-0065	1	Elbow, Inverted, 45°, Nozzle (Fuel Return Line)
20	114-0171	2	Screw, Nozzle Mounting (Special)
21	526-0122	4	Washer, Flat
22	800-0026	2	Screw (5/16-18 X 3/4")
23	800-0031	2	Screw (5/16-18 X 1-1/2") - Injection Pump Mounting
24	850-0045	2	Washer, Lock (5/16)
25	147-0243	1	Gasket, Nozzle Tip
26	149-0792	1	Gasket, Pump Mounting

## AIR CLEANER ADAPTER

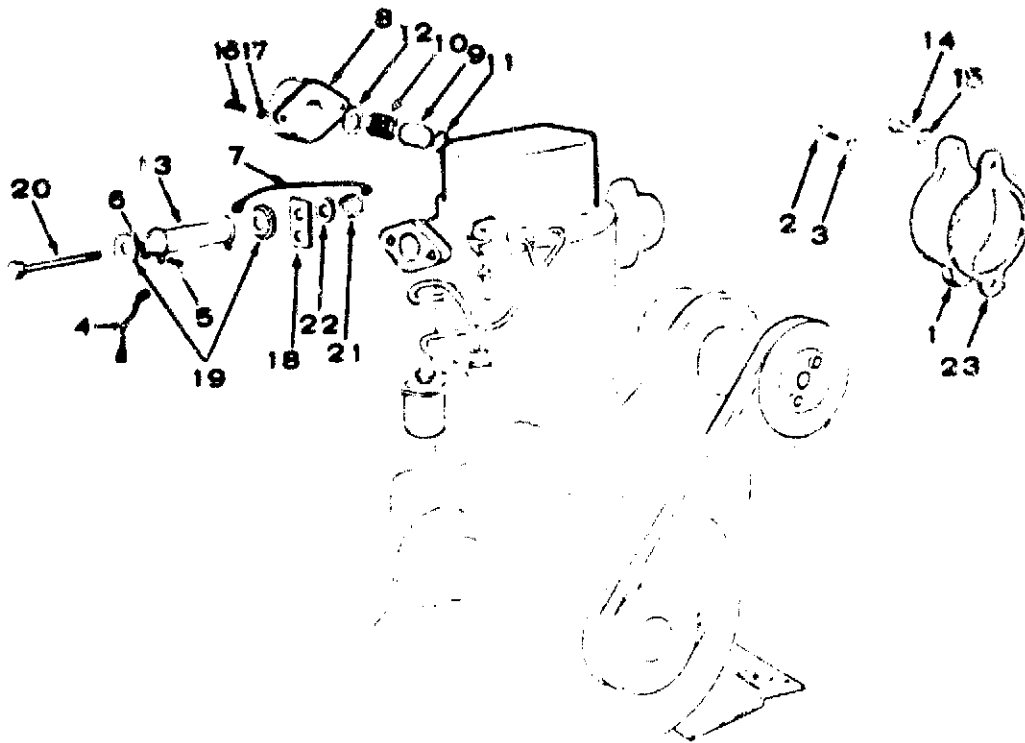


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-0645	1	Adapter, Air Cleaner Hose
2	800-0007	1	Screw, Cap - Hex Head (1/4-20 X 1")
3	850-0040	1	Washer, Lock - Spring (1/4")
4	800-0015	1	Screw, Cap - Hex Head (1/4-20 X 3")
5	536-0108	1	Washer, Flat (1/4")
6	141-0281	1	Gasket, Air Cleaner Adapter To Engine
7	140-1416	1	Adapter, Air Cleaner
8	140-0584	1	Gasket, Hose Adapter
9	154-0712	1	Heater, Manifold (Includes Gasket), (12 Volt)
10	503-0171	2	Clamp, Breather Hose
11	870-0137	2	Nut, Huglock (5/16) - Adapter Mounting
12	Stud, Air Cleaner	1	Adapter Mounting
	520-0011	1	1-7/16" Long
	520-0752	1	1-15/16" Long
13	503-0560	1	Hose, Breather

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### DECOMPRESSION SOLENOID

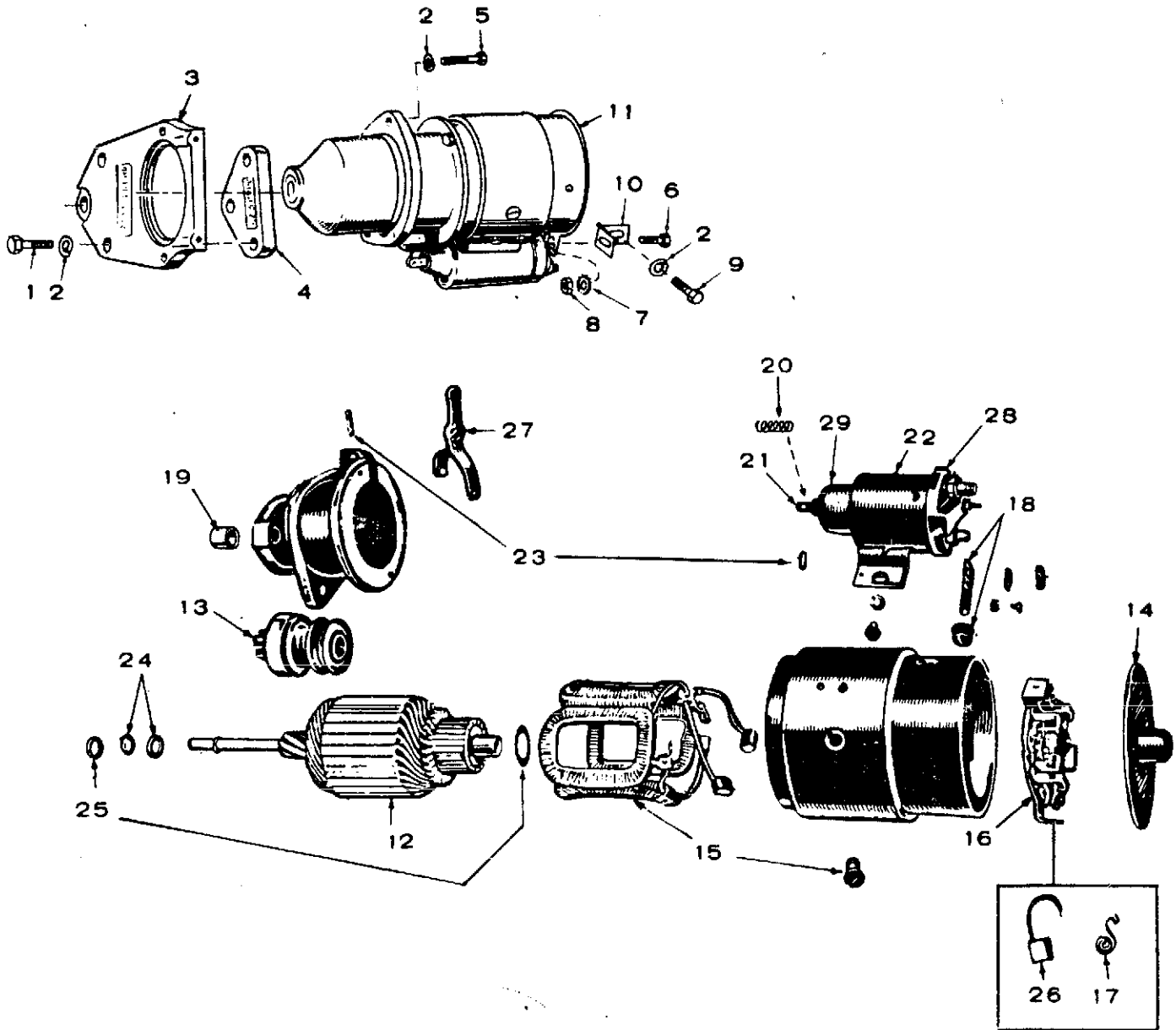


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	103-0221	1	Plate, Cover (Start Disconnect Cavity)
2	800-0069	1	Screw, Cap - Hex Head (7/16-14 X 3/4")
3	526-0068	1	Washer, Flat - Copper (29/64" ID X 3/4" OD X 1/6")
4	336-1057	1	Lead, Resistor To Ground
5	815-0201	2	Screw, Machine - Round Head W/ET (#8-B2 X 3/8")
6	860-0008	2	Nut, Hex (#8-32)
7	336-1597	1	Lead, Resistor
8	307-1541	1	Solenoid, Decompression Release
9	306-0167	1	Plunger, Solenoid (Includes Pin)
10	306-0166	1	Spring, Solenoid Plunger
11	509-0018	1	Seal, "O" Ring - Stop Solenoid
12	307-0736	1	Gasket, Solenoid Mounting
13	304-0003	1	Resistor, Decompression Release Solenoid
14	800-0051	2	Screw (3/8-16 X 1-1/4)
15	850-0050	2	Washer, Lock (3/8")
16	812-0150	2	Screw (1/4-20 X 5/8") - Solenoid Mounting
17	850-0040	2	Washer, Lock (1/4")
18	304-0704	1	Bracket, Resistor Mounting
19	304-0427	2	Washer, Centering
20	812-0165	1	Screw (1/4-20 X 4-1/2")
21	862-0001	1	Nut, Hex (1/4-20)
22	856-0006	1	Washer, Lock (1/4")
23	160-0721	1	Gasket, Cover Plate

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# STARTER MOTOR



STARTER MOTOR

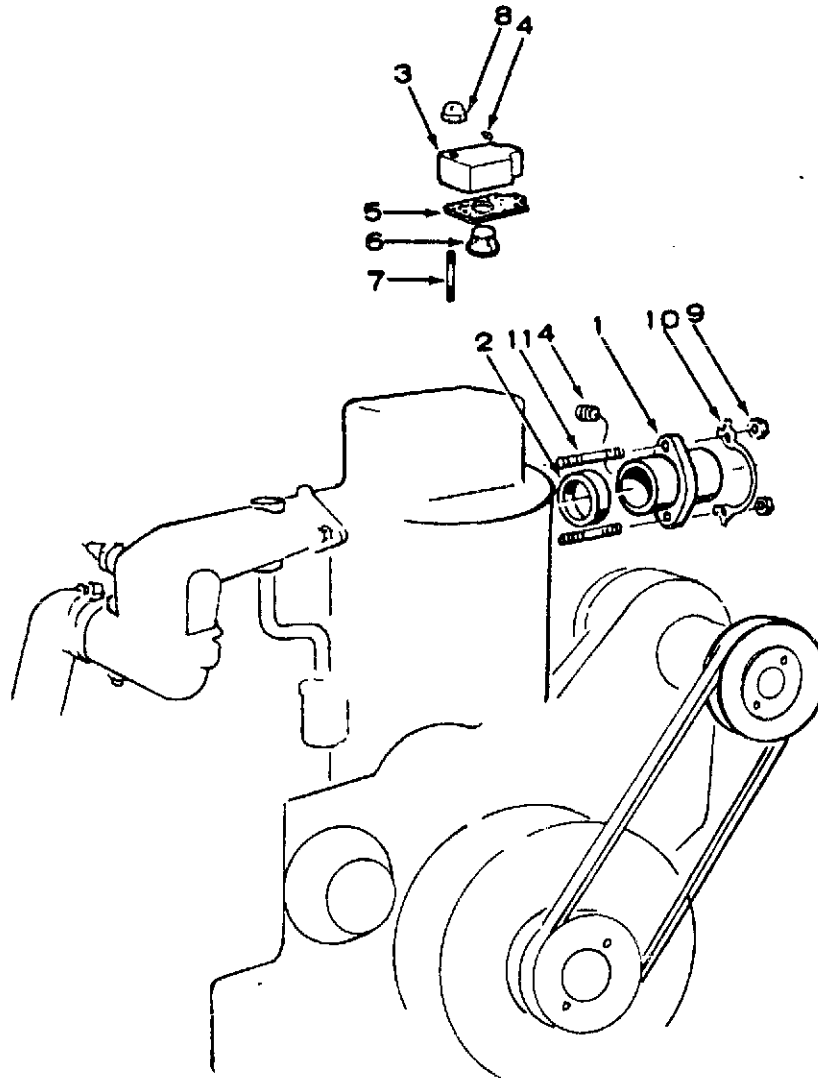
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	800-0054	2	Screw, Cap - Hex Head (3/8-16 X 2")
2	850-0050	3	Washer, Lock - Spring (3/8")
3	191-0512	1	Flange, Mounting
4	191-0311	1	Spacer, Flange
5	800-0051	2	Screw, Cap - Hex Head (3/8-16 X 1-1/4")
6	800-0047	1	Screw, Cap - Hex Head (3/8-16 X 5/8")
7	856-0010	1	Washer, Lock - EIT (3/8")
8	364-0003	1	Nut, Hex (3/8-16)
9	800-0048	2	Screw, Cap - Hex Head (3/8-16 X 3/4")
10	191-0461	1	Bracket, Support
11	191-0324	1	Starter
12	191-0712	1	Armature
13	191-0432	1	Clutch
14	191-1023	1	Head Assembly (Commutator End)
15	191-1024	1	Coil Package, Field
16	191-1025	1	Plate Assembly, Brush
17	191-1020	1	Spring Set, Brush (Set Of 4)
18	191-1026	1	Connector Package
19	191-0497	1	Bearing, Drive End
20	191-1027	1	Spring, Plunger
21	191-1028	1	Core Assembly, Moving
22	191-0433	1	Switch, Solenoid (Includes Cover And Boot)
23	191-1029	1	Yoke Parts Package
24	191-1030	1	Stop & Lock Ring Package Pinion
25	191-1031	1	Thrust Washer Package, Armature
26	191-0434	1	Brush Set
27	191-1032	1	Yoke
28	191-0468	1	Cover, Solenoid
29	191-1134	1	Boot Rubber, Solenoid

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EXHAUST MANIFOLD, AND THERMOSTAT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-0971	1	Manifold, Exhaust
2	154-1057	1	Gasket, Exhaust Manifold
3	309-0293	1	Cover, Thermostat
4	505-0274	2	Plug (1/8") - (1) Thermostat Cover, (1) Exhaust Manifold
5	309-0145	1	Gasket, Thermostat Cover
6	309-0289	1	Thermostat
7	520-0143	2	Stud, Thermostat Cover
8	869-0002	2	Nut, Acorn (5/16-24) - Thermostat Cover Stud
9	110-0445	2	Nut, Hex (Special)
10	154-1665	1	Tab, Lock - Exhaust Manifold
11	520-0608	2	Stud, Exhaust

SPECIAL PARTS LIST FOR MODEL RDJA-MS SPEC 3784A

FOR STANDARD PARTS REFER TO CATALOG 974-1012 KEY NO. \_\_\_\_\_

OPTIONAL GROUPS IN CATALOG ARE LISTED BY GROUP NO. BELOW WHEN USED.

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
123-1283	1	Filter, Breather (Crankcase)			
123-1153	1	Cup, Baffle (Crankcase Breather)			
104-1146	1	Flywheel (Includes Ring Gear)			
800-0193	2	Screw, Cap - Hex Head (5/16-18 X 1-7/8")			
850-0045	2	Thermostat Cover Mounting Washer, Lock - Spring (5/16")			
309-0395	1	Thermostat Cover Mounting Gasket, Thermostat Cover Mounting			
110-1871	2	Valve, Intake			
509-0132	1	Seal, Valve Stem Oil (Intake)			
147-0399	1	Pump, Injection			
800-0194	2	Screw, Cap - Hex Head (5/16-18 X 1-3/8")			
501-0007	1	Injection Pump Mounting Line, Fuel Return - 24"			
501-0289	1	Line, Fuel Supply - 11"			
120-0874	1	Pump, Oil			
103-0366	1	Gearcase Assembly			
520-0011	2	Stud, Air Cleaner Adapter Mounting			
110-2872	1	Gasket, Cylinder Head Mounting			
191-1264	1	Starter			
191-1383	1	Stop and Lock Ring Package, Pinion (Starter)			
191-1323	1	Switch, Solenoid (Starter)			
191-1386	1	Spring and Plug Package, Plunger (Starter)			
191-1139	1	Thrust Washer Package, Armature (Starter)			
191-1382	1	Yoke Parts Package (Starter)			
191-1384	1	Brush Set (Starter)			
191-1385	1	Cover and Stud Package, Switch (Starter)			

Parts Not Furnished by Onan  
Decompression Release System

SPECIAL PARTS LIST FOR MODEL RDJA-MS SPEC 3830B  
 FOR STANDARD PARTS REFER TO CATALOG 974-1012 KEY NO. \_\_\_\_\_  
 OPTIONAL GROUPS IN CATALOG ARE LISTED BY GROUP NO. BELOW WHEN USED.

PART NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION
123-1283	1	Filter, Breather (Crankcase)			
123-1153	1	Cup, Baffle (Crankcase Breather)			
104-1146	1	Flywheel (Includes Ring Gear)			
800-0193	2	Screw, Cap - Hex Head (5/16-18 X 1-7/8")			
		Thermostat Cover Mounting			
850-0045	2	Washer, Lock - Spring (5/16")			
		Thermostat Cover Mounting			
309-0395	1	Gasket, Thermostat Cover Mounting			
110-1871	2	Valve, Intake			
509-0132	1	Seal, Valve Stem Oil (Intake)			
110-2872	1	Gasket, Cylinder Head Mounting			
103-0366	1	Gearcase Assembly			
191-1264	1	Starter			
191-1383	1	Stop and Lock Ring Package, Pinion (Starter)			
191-1323	1	Switch, Solenoid (Starter)			
191-1386	1	Spring and Plug Package, Plunger (Starter)			
191-1139	1	Thrust Washer Package, Armature (Starter)			
191-1382	1	Yoke Parts Package (Starter)			
191-1384	1	Brush Set (Starter)			
191-1385	1	Cover and Stud Package, Switch (Starter)			
147-0399	1	Pump, Injection			
800-0194	2	Screw, Cap - Hex Head (5/16-18 X 1-3/8")			
		Injection Pump Mounting			
501-0007	1	Line, Fuel Return - 24"			
501-0289	1	Line, Fuel Supply - 11"			
120-0879	1	Pump, Oil			
870-0133	1	Nut, Lock - Palnut (3/8-16)			
		Governor Adjusting Stud			
520-0011	2	Stud, Air Cleaner Adapter Mounting			

Parts Not Furnished By Onan  
 Decompression Release System