

RT80ZB28-3.6Q Clean Water Pump

Product Information

The RATO RT80ZB28-3.6Q clean water pump (3" standard transfer pump) features a unique design and is manufactured for general water pumping applications with high delivery rates. Features a tough aluminium housing and corrosion resistant e-coated rugged full frame with anti-vibration mounts.

All RATO products are covered by our 12 month/500 hour warranty.



SPECIFICATIONS

RT80ZB28-3.6Q

Engine model	R210 / 7hp
Engine type	Single cylinder, 4 stroke, OHV
Starting system	Recoil start
Bore x stroke	70 x 55mm
Displacement	212ml
Compression ratio	9 : 1
Net power	4.4kw / 3600rpm
Fuel consumption	≤395 (g/kw-h)
Net torque	12N.m / 2500rpm
Pump set	3" clean pump
Suction port diameter	75mm (3")
Discharge port diameter	75mm (3")
Suction head lift	8m
Total head lift	28m
Discharge capacity	60m ³ /h / 1000 litres per minute
Dimensions (L x W x H mm)	500 x 395 x 445
Net weight	25.5kg

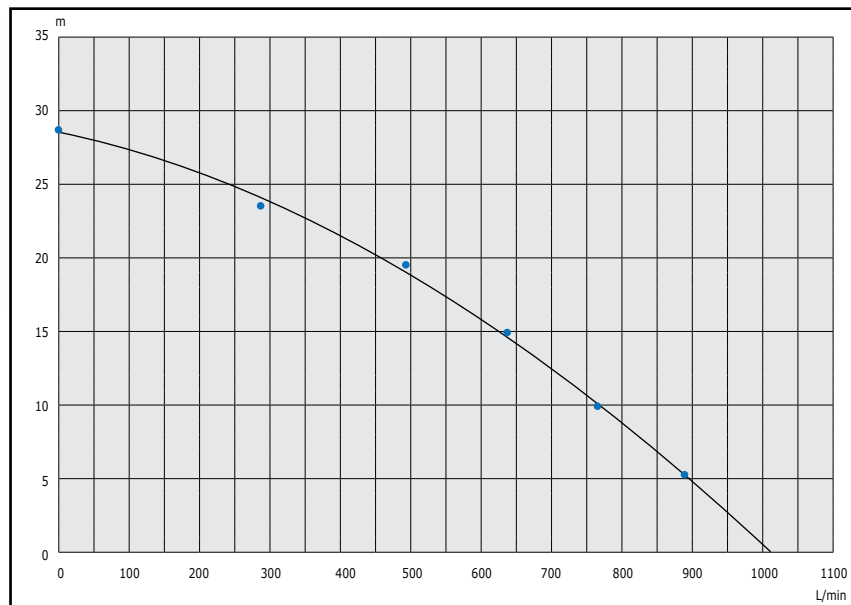
Features

- OHV 7hp engine technology by RATO.
- Cast iron volute and impeller with a silicon carbide seal.
- Complete accessories available.
- Scroll case is located by positioning pin for more reliable use.
- Anti-winding ring, so clear water pump has the function of dust water pump.
- Separated shock pad design for the support base, to minimize shock.



Performance Curve

Unload Speed	Loading Speed	Suction Head Lift	Discharge Capacity (m ³ /h)	Discharge Capacity (L/min)	Total Head Lift (M)	Test Envir. Temp (C°)	Humidity at Outlet	Pressure at Outlet
3820	3400	8.32	53.2	886.67	5.36	13.6	100	49.1
			45.9	765.00	10.04	13.6	100	92
			38	633.33	14.88	13.6	100	136.3
			29.5	491.67	19.49	13.6	100	178.5
			17.2	286.67	23.53	13.6	100	215.5
			0	0.00	28.73	13.6	100	263.1

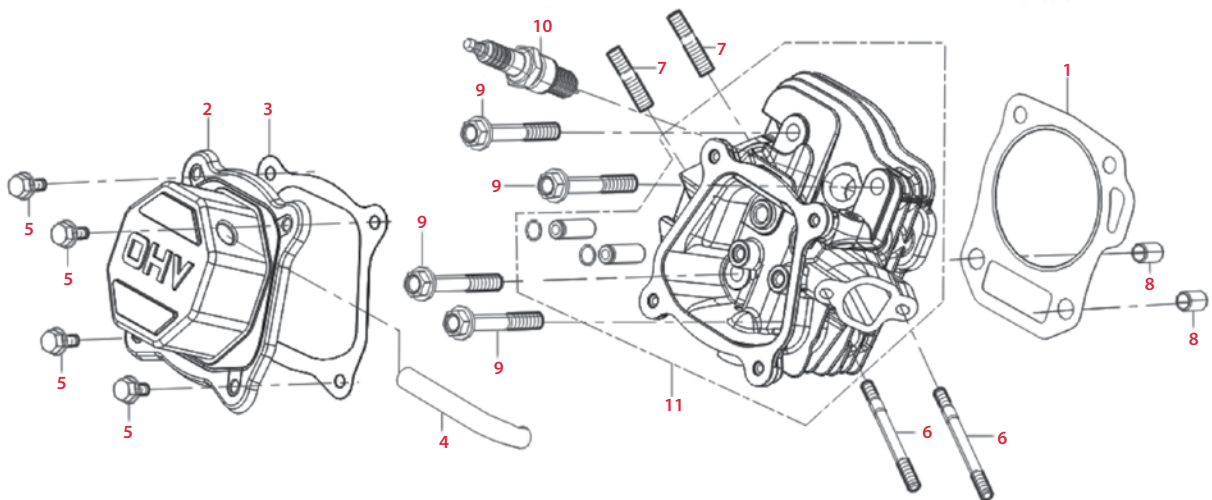


*NS - Not Stocked by JAK Max however available from RATC. Special order only, 3 month lead time.

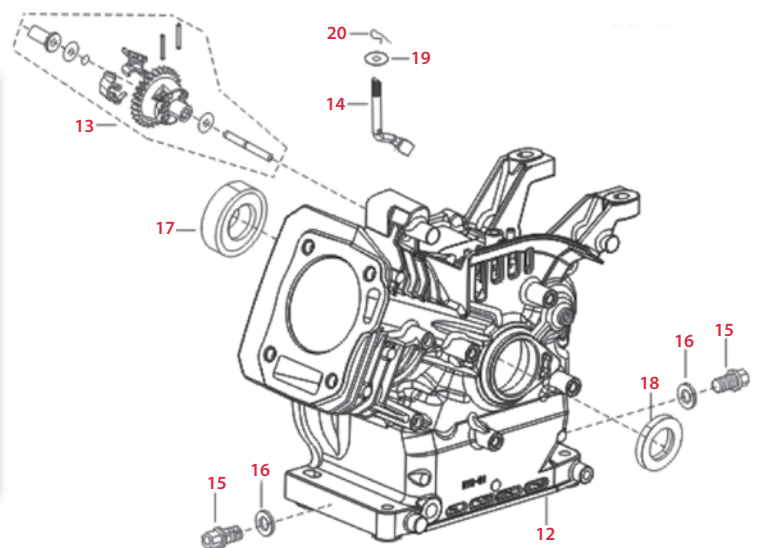
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Item	JAK Max Part No.	RATO Part No.	Description
Cylinder Head Subassembly & Spark Plug (below)			
1	JMRT1105	12131-Z040110-0000	Cylinder head gasket
2	NS	12410-Z440110-0099	Cylinder head cover subassembly
3	NS	12004-Z440110-0000	Cylinder head cover gasket
4	NS	17004-Z010310-0000	Breather tube
5	NS	90001-0612-01	Bolt
6	NS	90204-Z010310-0000	Stud

Item	JAK Max Part No.	RATO Part No.	Description
Cylinder Head Subassembly & Spark Plug- continued (below)			
7	NS	90203-Z010110-0000	Stud
8	NS	90502-1014-00	Pin
9	NS	12003-Z010110-0000	Cylinder head bolt
10	JMRT1107	30010-Z010210-0000	Spark plug
11	NS	12140-Z040610-0000	Cylinder head subassembly



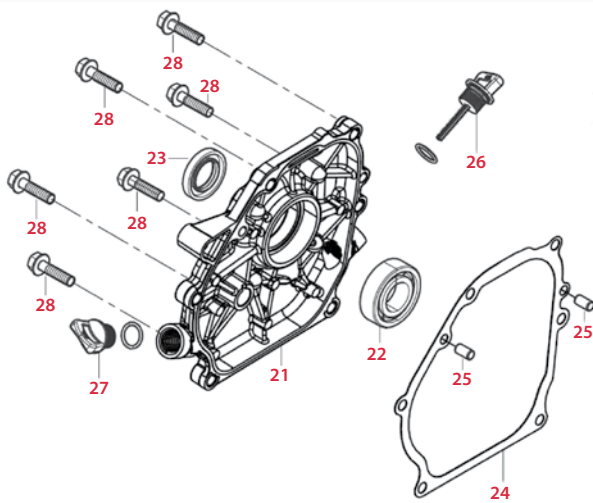
Item	JAK Max Part No.	RATO Part No.	Description
Crankcase & Governor Gear Assembly (right)			
12	NS	11310-Z300710-0000	Crankcase assembly
13	NS	16400-Z010110-0000	Governor gear assembly
14	NS	16061-Z010110-0000	Governor arm
15	NS	11007-Z010110-0000	Drain plug bolt
16	NS	90408-Z010110-0000	Washer
17	JMRT1008	90548-0205-CL	Bearing
18	JMRT1005	90682-Z300110-0000	Oil seal
19	NS	90408-Z010210-0000	Governor gear washer
20	NS	90501-Z010110-0000	Pin



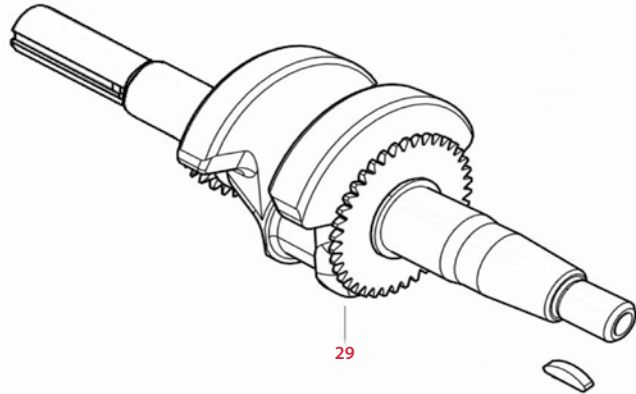
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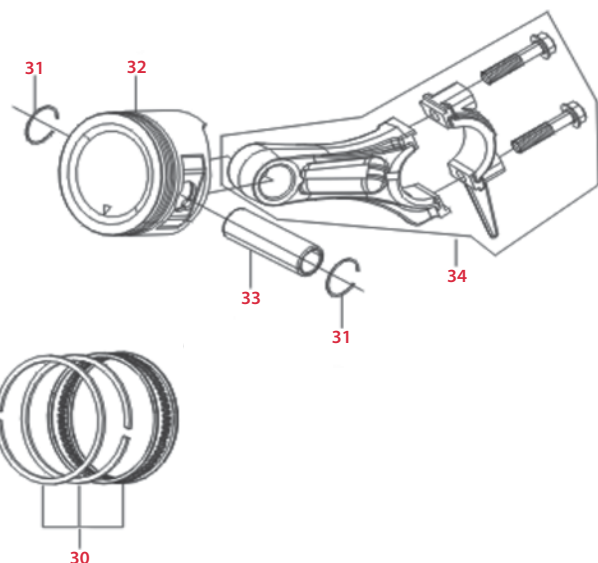
Item	JAK Max Part No.	RATO Part No.	Description
Crankcase Cover Subassembly (below left)			
21	NS	11411-Z010310-0000	Crankcase cover
22	JMRT1008	90548-0205-CL	Bearing
23	JMRT1005	90682-Z300110-0000	Oil seal
24	JMRT1007	11001-Z010120-0000	Crankcase gasket
25	NS	90502-0812-00	Pin
26	JMRT1007	15010-Z010120-Q500	Oil dipstick subassembly
27	NS	15030-Z010120-Q500	Engine oil plug subassembly
28	NS	90001-0832-01	Bolt



Item	JAK Max Part No.	RATO Part No.	Description
Crankshaft (below right)			
29	JMRT1010	13300-Z140330-0000	Crankshaft assembly



Item	JAK Max Part No.	RATO Part No.	Description
Oil Ring Set & Crankshaft Connecting Rod (right)			
30	JMRT1011	13200-Z300110-0000	Piston rings set
31	JMRT1012	13122-Z010110-0000	Piston pin clip
32	JMRT1013	13111-Z300110-0000	Piston
33	JMRT1014	13121-Z010110-0000	Piston pin
34	JMRT1016	13010-Z360110-0000	Connecting rod

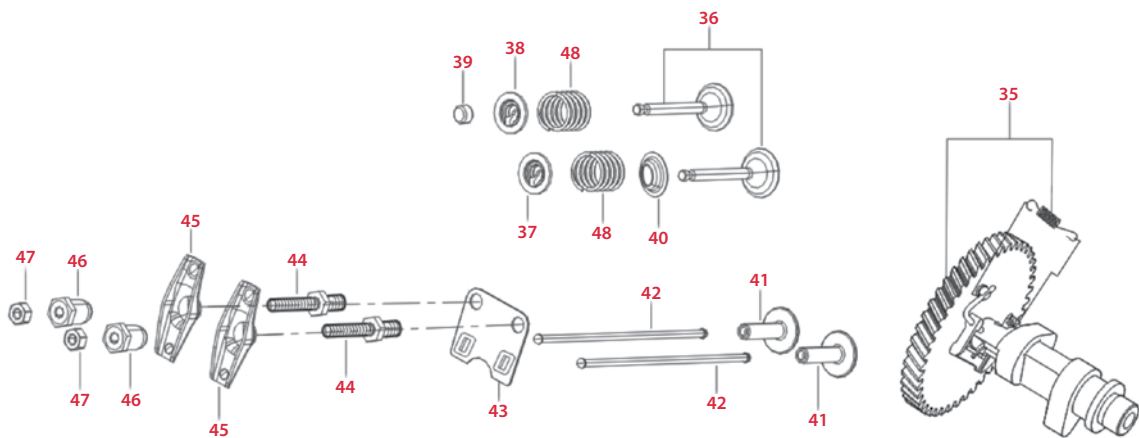


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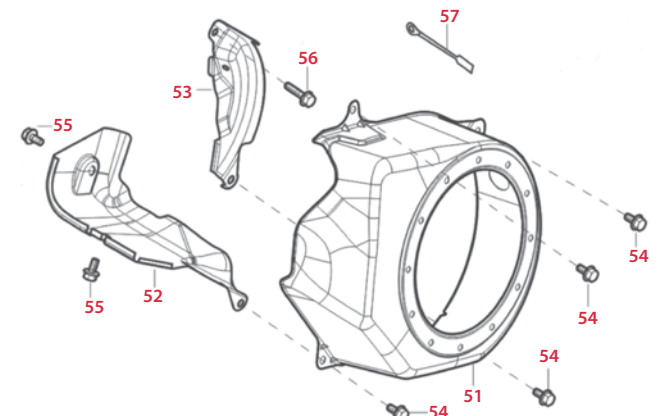
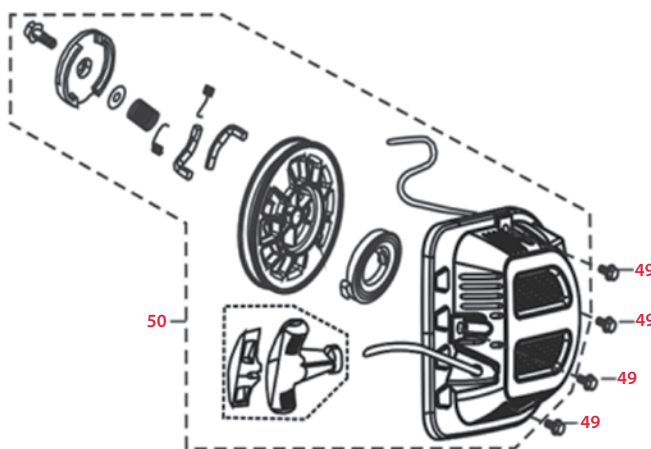
Item	JAK Max Part No.	RATCO Part No.	Description
Valve Train & Camshaft Subassembly (below)			
35	JMRT1017	14200-Z300210-0000	Camshaft assembly
36	JMRT1018	12110-Z010110-0000	Valve set
37	NS	12112-Z010110-0000	Valve spring seat
38	JMRT1020	12107-Z010110-0000	Exhaust valve retainer
39	JMRT1021	12104-Z010110-0000	Valve rotator
40	JMRT1022	12101-Z810210-0000	Seal guide
41	JMRT1023	14081-Z040110-0000	Valve tappet

Item	JAK Max Part No.	RATCO Part No.	Description
Valve Train & Camshaft Subassembly - continued (below)			
42	JMRT1024	14071-Z010110-0000	Valve lifter
43	JMRT1025	14090-Z010110-0000	Lifter stopper plate subassembly
44	JMRT1026	14313-Z010110-0000	Valve adjusting bolt
45	JMRT1027	14311-Z010110-0000	Valve rocker
46	JMRT1028	14314-Z010110-0000	Valve adjusting nut
47	JMRT1029	14312-Z010110-0000	Valve lock nut
48	JMRT1030	12103-Z010110-0000	Valve spring



Item	JAK Max Part No.	RATCO Part No.	Description
Starter Recoil (below left)			
49	NS	90001-0612-01	Bolt
50	JMRT1031	28200-Z010320-Q200	Starter Recoil assembly

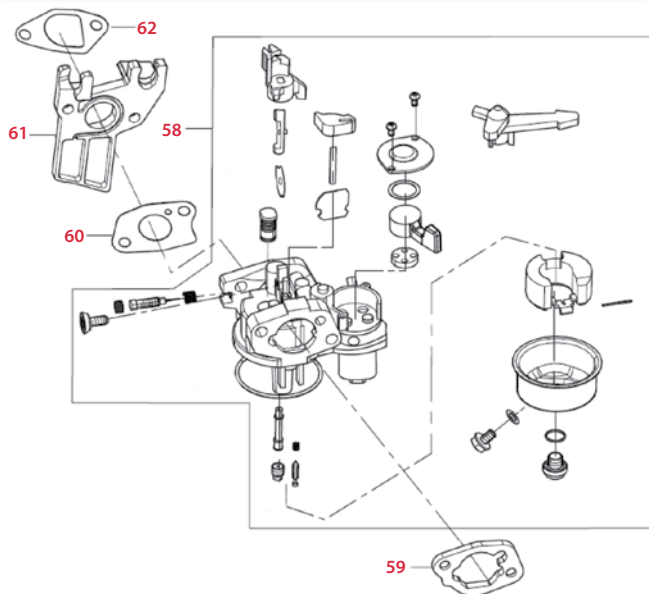
Item	JAK Max Part No.	RATCO Part No.	Description
Shroud & Lower Shield (below right)			
51	NS	28110-Z010410-Y100	Shroud
52	NS	19304-Z010410-0000	Cylinder body shroud
53	NS	19340-Z010120-0000	Lower shield
54	NS	90001-0612-01	Bolt
55	NS	90001-0610-01	Bolt
56	NS	90001-0616-01	Bolt
57	NS	30009-Z010110-0000	



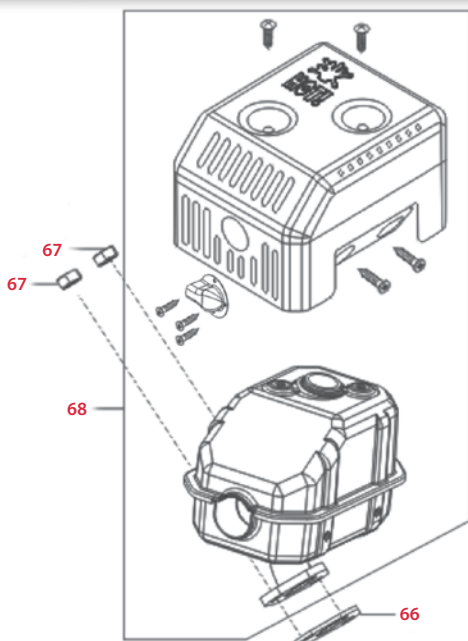
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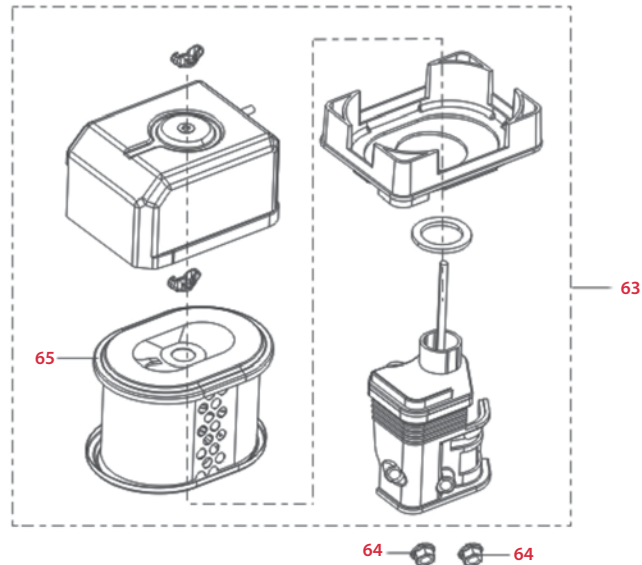
Item	JAK Max Part No.	RATO Part No.	Description
Carburettor Assembly (below left)			
58	JMRT1035	16100-Z040210-0000	Carburettor assembly
59	JMRT1037	17001-Z010210-0000	Air cleaner gasket
60	JMRT1038	16001-Z300110-0000	Carburettor gasket
61	JMRT1039	16003-Z010110-0000	Carburettor insulator plate
62	JMRT1040	16002-Z300110-0000	Carburettor insulator gasket



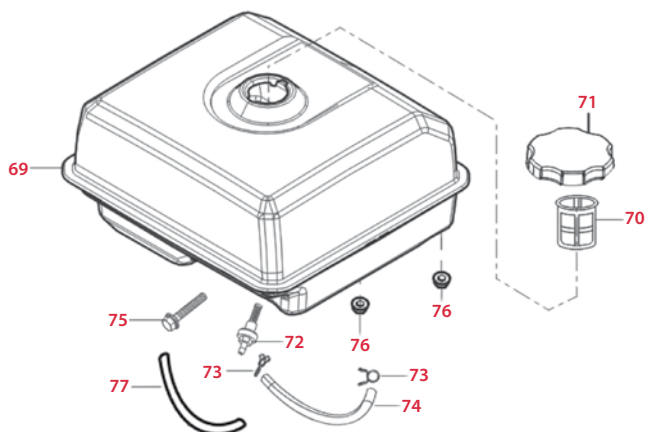
Item	JAK Max Part No.	RATO Part No.	Description
Muffler Assembly (below left)			
66	JMRT1045	18001-Z300110-0000	Exhaust outlet gasket
67	NS	90303-0800-31	Nut
68	JMRT1043	18100-Z010710-H300	Muffler assembly



Item	JAK Max Part No.	RATO Part No.	Description
Air Cleaner (below right)			
63	JMRT1371	17100-Z010210-0000	Air cleaner complete
64	NS	90305-0600-31	Nut
65	JMRT1042		Air cleaner element



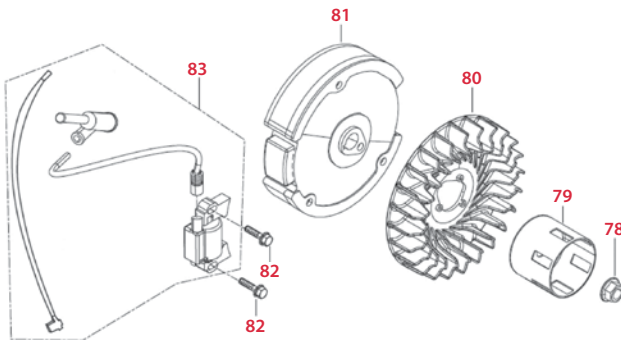
Item	JAK Max Part No.	RATO Part No.	Description
Fuel Tank (below right)			
69	JMRT1046	16620-Z440120-Y100	Fuel tank
70	JMRT1047	16652-Z010610-0000	Fuel strainer
71	JMRT1048	16730-Z300120-0000	Fuel tank cover
72	JMRT1049	16680-Z010110-0000	Fuel tank oil outlet subassembly
73	NS	90740-Z010210-0000	Clamp
74	NS	90686-Z010510-0000	Fuel tube
75	NS	90007-0630-A1	Bolt
76	NS	90305-0600-31	Nut
77	NS	30431-Z010110-0000	Rubber jacket



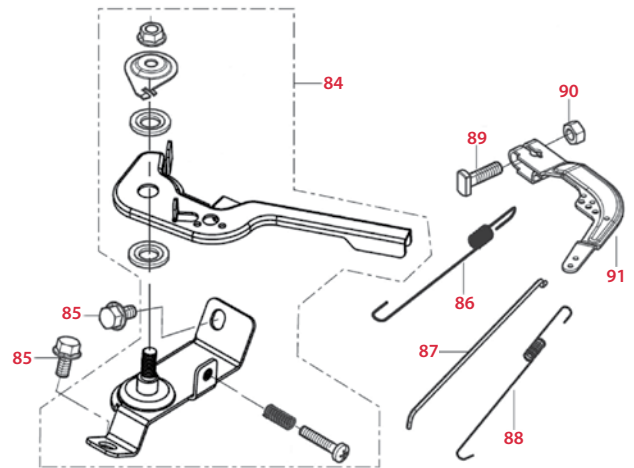
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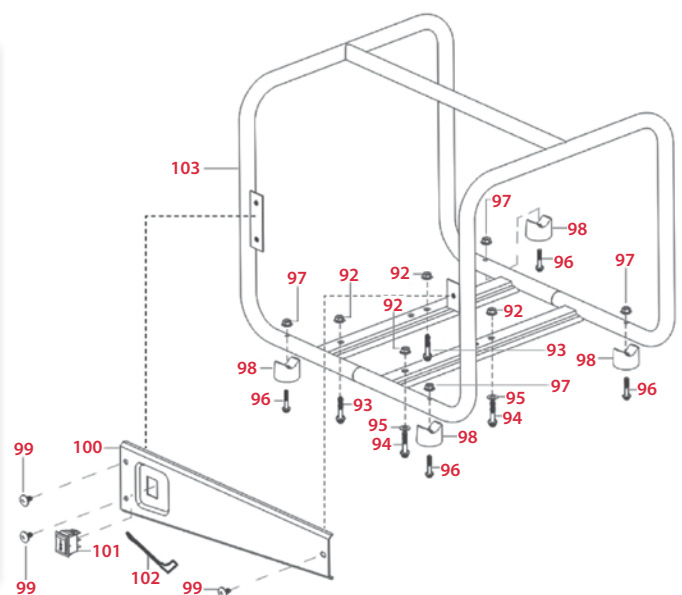
Item	JAK Max Part No.	RATO Part No.	Description
Flywheel, Impeller, Starter Pulley & Ignition Coil (below)			
78	NS	13501-Z010110-0000	Flywheel nut
79	JMRT1051	28002-Z300210-0000	Starter cup
80	NS	19352-Z010310-0000	Impeller
81	NS	13510-Z010110-0000	Flywheel subassembly
82	NS	90001-0625-01	Bolt
83	JMRT1052	30400-Z010210-0000	Ignition coil



Item	JAK Max Part No.	RATO Part No.	Description
Throttle Control Assembly (below right)			
84	NS	16520-Z010230-0000	Throttle control assembly
85	NS	90001-0610-01	Bolt
86	JMRT1053	16063-Z010110-0000	Governor spring
87	NS	16062-Z010110-0000	Governor rod
88	JMRT1054	16012-Z010110-0000	Throttle valve returning spring
89	NS	16072-Z010110-0000	Governor support bolt
90	NS	90305-0600-31	Nut
91	NS	16070-Z010110-0000	Governor support subassembly



Item	JAK Max Part No.	RATO Part No.	Description
Engine Frame Assembly (right)			
92	NS	90327-0800-31	Nut
93	NS	90001-0835-01	Bolt
94	NS	90001-0825-01	Bolt
95	NS	90406-0800-E1	Washer
96	NS	90001-0635-01	Bolt
97	NS	90305-0600-31	Nut
98	JMRT1166	51014HX090120-0000	Engine frame shock absorption seat
99	NS	90111-Y460110-0000	Bolt
100	NS	51025-V340110-H700	Decorative frame
101	NS	35160-Y450110-QG00	Switch subassembly
102	NS	35541-V330210-0000	Wire, stop engine
103	NS	51100-V340210-H7L0	Engine frame assembly



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Item	JAK Max Part No.	RATO Part No.	Description
Pump Assembly (below)			
104	NS	90001-1025-51	Bolt
105	JMRT1143	70108-V340110-0000	Water outlet
106	JMRT1144	70109-V340110-0000	Outlet gasket
107	JMRT1145	70105-V340110-0000	Pump body
108	NS	90001-1020-51	Bolt
109	NS	90001-1030-01	Bolt
110	NS	90001-V020110-0000	Bolt
111	NS	90409-V260110-0000	Washer
112	JMRT1146	70118-V340110-0000	Water pump joint
113	NS	90522-V010110-0000	Key
114	NS	90001-V070110-0000	Bolt
115	JMRT1147	70119-V340110-0000	Water pump joint cushion
116	NS	90505-0618-00	Pin
117	JMRT1148	70102-V340110-0000	Water pump impeller
118	JMRT1149	70103-V340110-0000	Whorl case

Item	JAK Max Part No.	RATO Part No.	Description
Pump Assembly - continued (below)			
119	JMRT1150	70104-V340110-0000	Whorl case sealing ring
120	JMRT1151	70300-V260210-0000	Mechanical seal assembly
121	JMRT1152	70309-V260210-0000	Porcelain seal
122	JMRT1153	70125-V260210-0000	Washer
123	NS	70122-V260110-0000	Screw plug washer
124	JMRT1154	70107-V330110-0000	Thread plug
125	JMRT1155	70115-V340110-0000	Inlet water gasket
126	JMRT1156	70116-V340110-0000	Water inlet
127	JMRT1157	70131-V340110-0000	Hose joint seal ring
128	JMRT1158	70111-V270310-0000	Hose joint
129	JMRT1159	70112-V270310-0000	Hose interface
130	JMRT1160	70400-V270110-0000	Hose hoop assembly
131	JMRT1161	70113-V270110-0000	Filter cover
132	JMRT1162	70114-V270110-0000	Filter
133	JMRT1163	70100-V340710-0K00	Water pump assembly

