

RUGGED *MADE*

FC140 / FC185 / FC205 PLATE COMPACTOR
OWNER'S MANUAL **& PARTS LIST**



ruggedmade.com

! MECHANICAL HAZARDS

DO NOT operate the machine unless all protective guards are in place.

KEEP handles and feet clear of rotating and moving parts as they will cause injury if contacted.

ENSURE that the motor operation switch is in the OFF position and the spark plug ignition lead is disconnected before removing the guards or making adjustments.

ENSURE both the machine and the operator are stable by setting up on level terrain and the machine will not tip over, slide or fall while in operation or unattended.

DO NOT leave the machine in operation while it is unattended.

ENSURE that the walls of a trench are stable and will not collapse due to the action of the vibration, prior to commencing compaction.

ENSURE that the area to be compacted does not contain any "live" electrical cables, gas, water or communication services which may be damaged by the action of vibration.

EXERCISE CARE when operating unit. Exposure to vibration or repetitive work actions may be harmful to hands and arms.

NEVER stand on the unit while it is operating.

DO NOT increase the governed no-load motor speed above 3,500 r/min. Any increase may result in personal injury and damage to the machine.

BE CAREFUL not to come in contact with the muffler when the engine is hot, since it can cause severe burns.

ENSURE that the repairs to the motor and machine are carried out by COMPETENT personnel.

! FIRE & EXPLOSION HAZARDS

PETROL is extremely flammable and explosive under certain conditions.

ENSURE that the petrol is only stored in an approved storage container.

DO NOT refuel the motor while it is in operation or hot.

DO NOT refuel the motor in the vicinity of sparks, a naked flame or a person smoking.

DO NOT over fill the fuel tank and avoid spilling petrol when refueling. Spilled petrol or petrol vapour may ignite. If spillage occurs, ensure that the area is dry before starting the motor.

ENSURE that the fuel tank cap is securely fitted after refueling.

! CHEMICAL HAZARDS

DO NOT operate or refuel a petrol or diesel motor in a confined area without adequate ventilation.

CARBON MONOXIDE exhaust gases from internal combustion motor driven units can cause death in confined spaces.

! NOISE HAZARDS

EXCESSIVE NOISE can lead to temporary or permanent loss of hearing.

WEAR an approved hearing protection device to limit noise exposure. As required by Occupational Health and Safety regulations.

PROTECTIVE CLOTHING

ALWAYS wear approved hearing protection when working in a confined work space. Protective goggles and a dust mask should be worn when working in a dusty environment. Protective clothing and footwear may also be desirable when working with hot mix bitumen.

! ADDITIONAL HAZARDS

Slip/Trip/Fall is a major cause of serious injury or death. Beware of uneven or slippery work surfaces.

Exercise care when working in the vicinity of unprotected holes or excavations.

OPERATION

Pre-start-up inspection

The following Pre-start-up inspection must be performed before the start of each work session or after every four hours of use, whichever is first.. If any fault is discovered, the compactor must not be used until the fault is rectified.

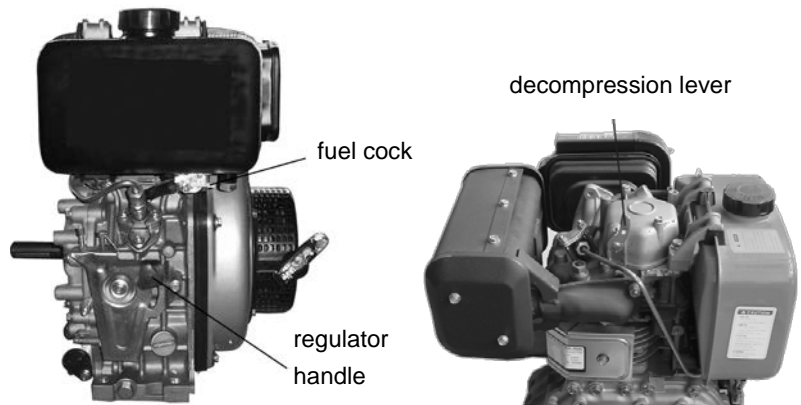
Thoroughly inspect the compactor for signs of damage. Check components are present and secure. Pay special attention to the belt drive safety guard fitted between the engine and the vibrator unit.

2. Check the engine oil level and top up as necessary.
3. Check the engine fuel level and top up as necessary.
4. Check for fuel and oil leaks

Start and stop Procedure

Diesel Engine

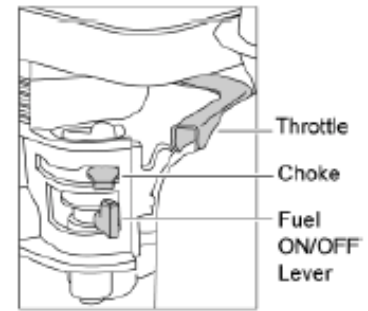
1. Open the fuel cock.
2. Turn the governor lever to "STARTING" position.
3. Hold the recoil starter handle.
4. Pull the starter handle until you feel the resistance, then return handle slowly.
5. Press the decompression lever to "Non-compression" position. The lever will return back automatically after the engine started.
6. Hold the recoil starter handle with two hands and pull it hardly.
7. It is difficult to start the engine at cold weather. Remove the rubber plug on the cylinder head and fill about 2CC engine oil before starting.
8. To stop the engine, set the governor lever to the low speed position, then run the engine at zero load five minutes.
9. Set the governor lever to the "STOP" position. Do not stop the engine with the decompression lever.
10. Set the fuel cock the "OFF" position.
11. Pull the recoil starter handles slowly, until you feel resistance. (At this point, the decompression just begins and intake/exhaust valves are both closed, thus the cylinder can be prevented from rust.)



Gasoline Engine

1. Open the fuel tap by moving the fuel ON/OFF lever fully to the right.
2. If starting the engine from cold, set the choke ON by moving the choke lever fully to the left. If restarting a warm engine, the choke is usually not required. However, if the engine has cooled to a degree, partial choke may be required.

3. Turn the engine ON/OFF switch clockwise to the "1" position.
4. Set the throttle to the idle position by moving the throttle lever fully to the right. Do not start the engine on full throttle, as the compactor will vibrate as soon as the engine starts.
5. Taking a firm hold of the control handle with one hand, grasp the recoil starter
6. handle with the other. Pull the recoil starter until engine resistance is felt, then let starter return.
7. Taking care not to pull the starter's cope fully out, pull the starter handle briskly.
8. Repeat until the engine fires.
9. Once the engine fires gradually, set the choke lever to the OFF position by moving it to the right.
10. If the engine fails to fire after several attempts, follow the trouble-shooting guide on page 9.
11. To stop the engine, set the throttle to idle and turn the engine ON /OFF switch anticlockwise to the "0" position.
12. Turn the fuel off.



The machine is best suited to the compaction of bituminous and granular materials e.g. granular soils such as silt and clay are best compacted using the impact force produced by a vibrating rammer.

Where possible the site should be graded and leveled before commencing compaction.

Correct moisture content in soil is vital to proper compaction. Water acts as a lubricant to help slide soil particles together. Too little moisture means inadequate compaction; too much moisture leaves water-filled voids that weaken the soil's load-bearing ability.

Compaction of dry materials will be facilitated by moistening with a water hose fitted with a sprinkler.

Excessive watering or water content will cause the machine to stall.

The optional water tank kit is recommended when the machine is used on bituminous surfaces as the water film prevents a build up of material on the underside of the plate.

Use unleaded grade petrol and ensure that the fuel is free from contamination.

The vibratory motion provides a self propelling action. Position the handle at the opposite end of the machine to the vibrator.

For more information on starting and correct operating procedures of the motor, refer to the motor operation manual supplied with the unit.

Increase the motor speed to the maximum setting using the hand throttle lever, before commencing compacting.

The machine should be controlled by grasping the handle with both hands and applying restraint to control the forward motion.

Steer the machine by moving the handle sideways to the right or left.

ALWAYS maintain good footing so that you do not slip and loose control when starting or operating the machine.

If the optional water tank is fitted, the flow rate can be controlled by adjusting the cock in the supply hose to sprinkler bar.

Inspect the water hose and its connections to ensure that they do not leak.

CARE AND PREVENTIVE MAINTENANCE

Check the oil level in the motor crankcase daily.

Inspect the rubber anti vibration mounts for wear or deterioration.

If the optional water tank is fitted inspect the water hose and its connections to ensure that they do not leak.

Clean the underside of the plate regularly to prevent a build up of material.

CAUTION:



Inspection and other services should always be carried out on hard and level ground with the engine shutdown.

Inspection and Maintenance Service Tables.

To make sure your plate compactor is always in good working condition before using, carry out the maintenance inspection in accordance with Tables 1 through 3.

TABLE 1. MACHINE INSPECTION

Item	Frequency
(Pre-Start check)	Every 8 hours (every day)
Loose or missing hardware	Every 8 hours (every day)
Damage of any part	Every 8 hours (every day)
Function of control system	Every 8 hours (every day)
Vibrator oil check	Every 100 hours
Vibrator oil replacement	Every 200 hours
V-belt (clutch) check	Every 200 hours

TABLE 2. ENGINE CHECK

(For details, see separate engine Manual)	
Item	Hours of Operation
Leakage of oil & fuel	Every 8 hours (every day)
Tightness of bolts and fasteners	Every 8 hours (every day)
Engine oil check and replenishment	Every 8 hours (every day) (Replenish to specified Max. level)
Engine oil replacement	At first 20 hours, then every 100 hours
Air filter replacement	Every 50 hours

TABLE 3. TIGHTENING TORQUE (in. kg/cm) Diameter

Material	6mm	8mm	10mm	12mm	14mm	16mm	18mm	20mm
4T	70	150	300	500	750	1100	1400	2000
6-8T	100	250	500	800	1300	2000	2700	3800
11T	150	400	800	1200	2000	2900	4200	5600
*	100 (6mm)		300-350 (8mm)		650-700 (10mm)			
*(In case counter-part is of aluminium)								
(Threads in use with this machine are all right handed)								
Material and quality of material is marked on each bolt, and screw.								

CAUTION:



These inspection intervals are for operation under normal conditions. Adjust your inspection intervals based on the number hours plate compactor is in use, and particular working conditions.

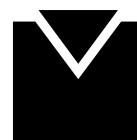
CAUTION:



Fuel hoses and connections should be replaced every 2 years.

Daily Service

- Check for leakage of fuel or oil.
- Remove soil and clean the bottom of compaction plate.
- Check engine oil.
- Check for loose screws including tightness. See Table 3 above (tightening torque), for retightening.

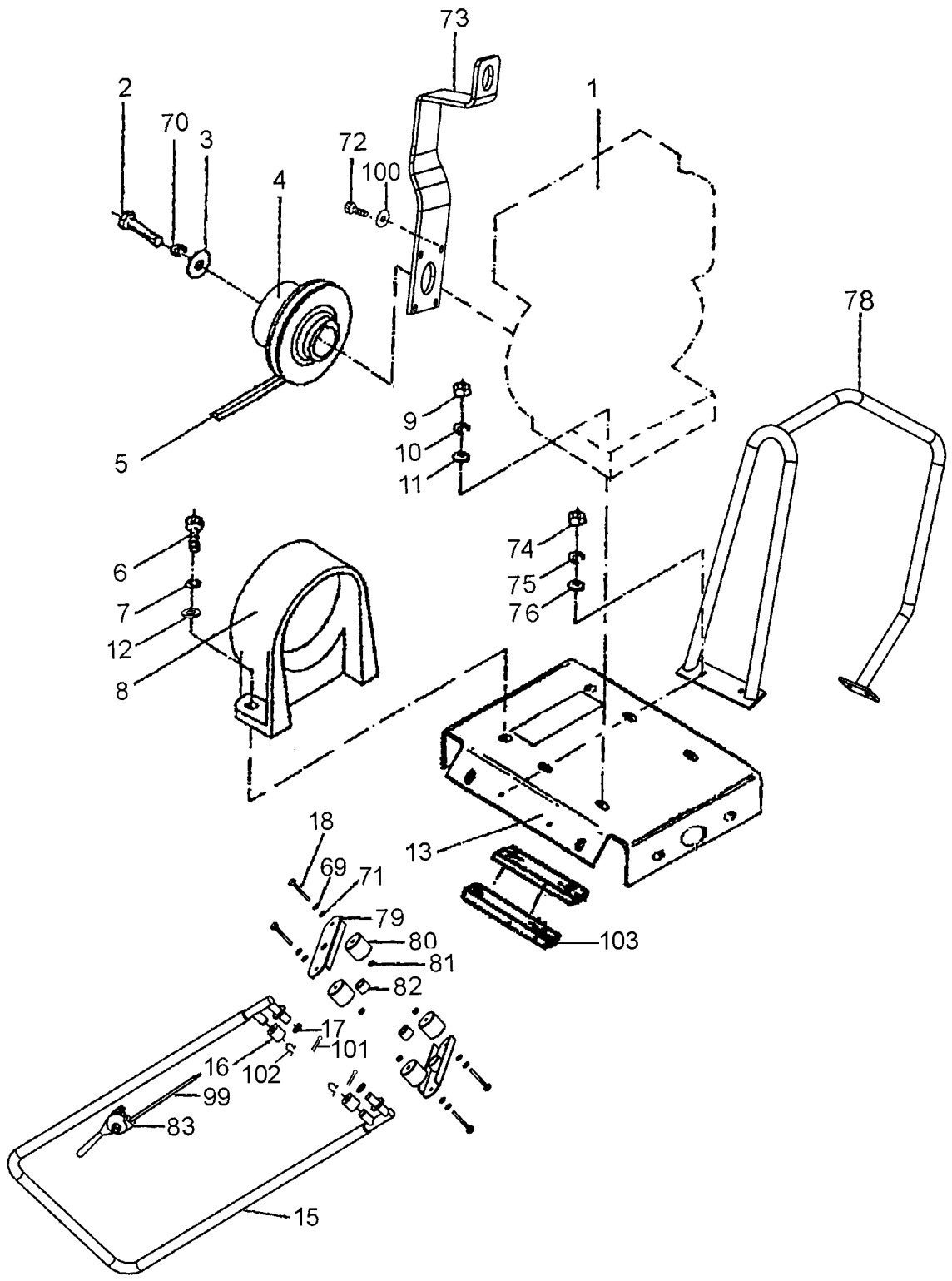


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MS100 PLATE COMPACTOR - PARTS LIST

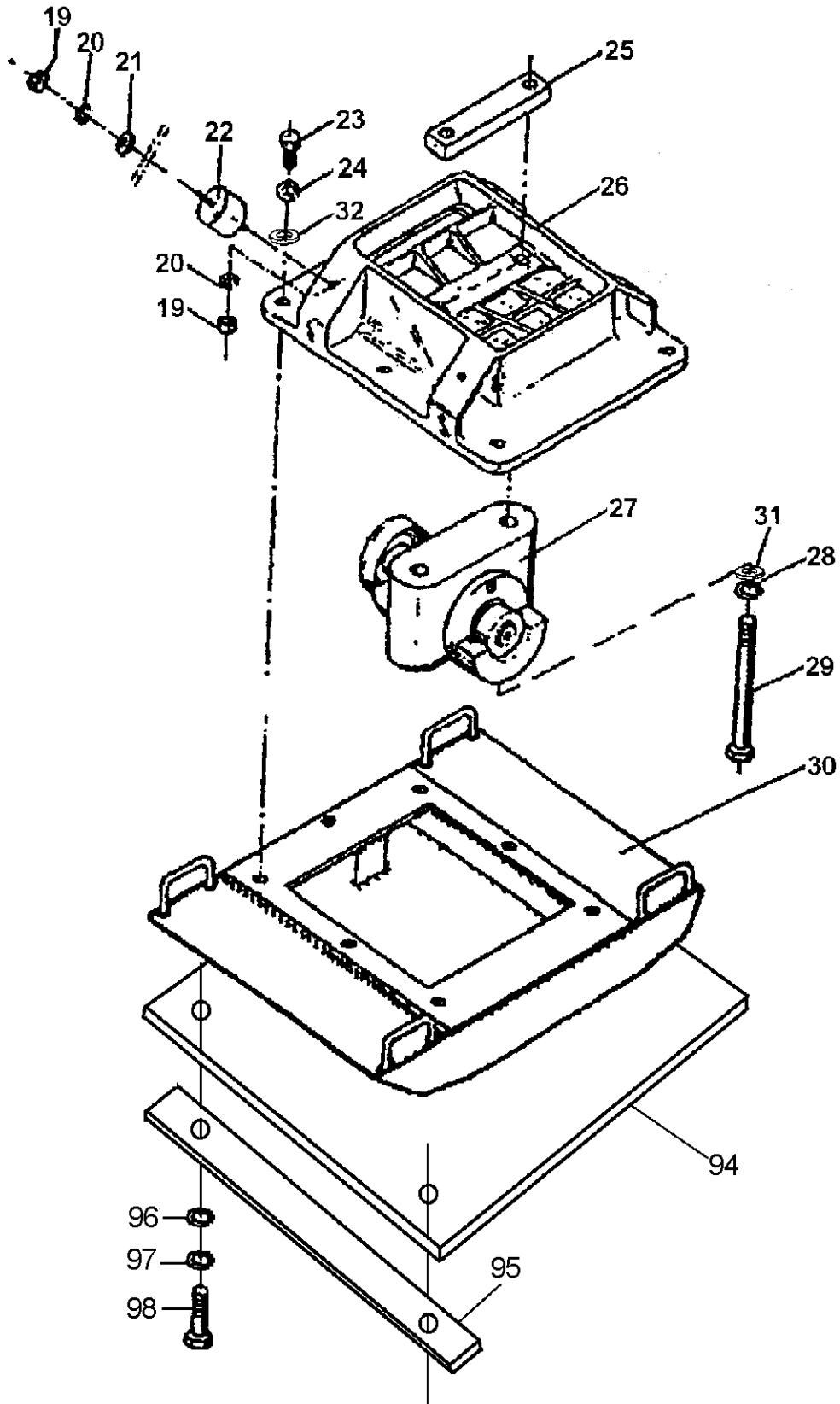




MS100 PARTS LIST 1

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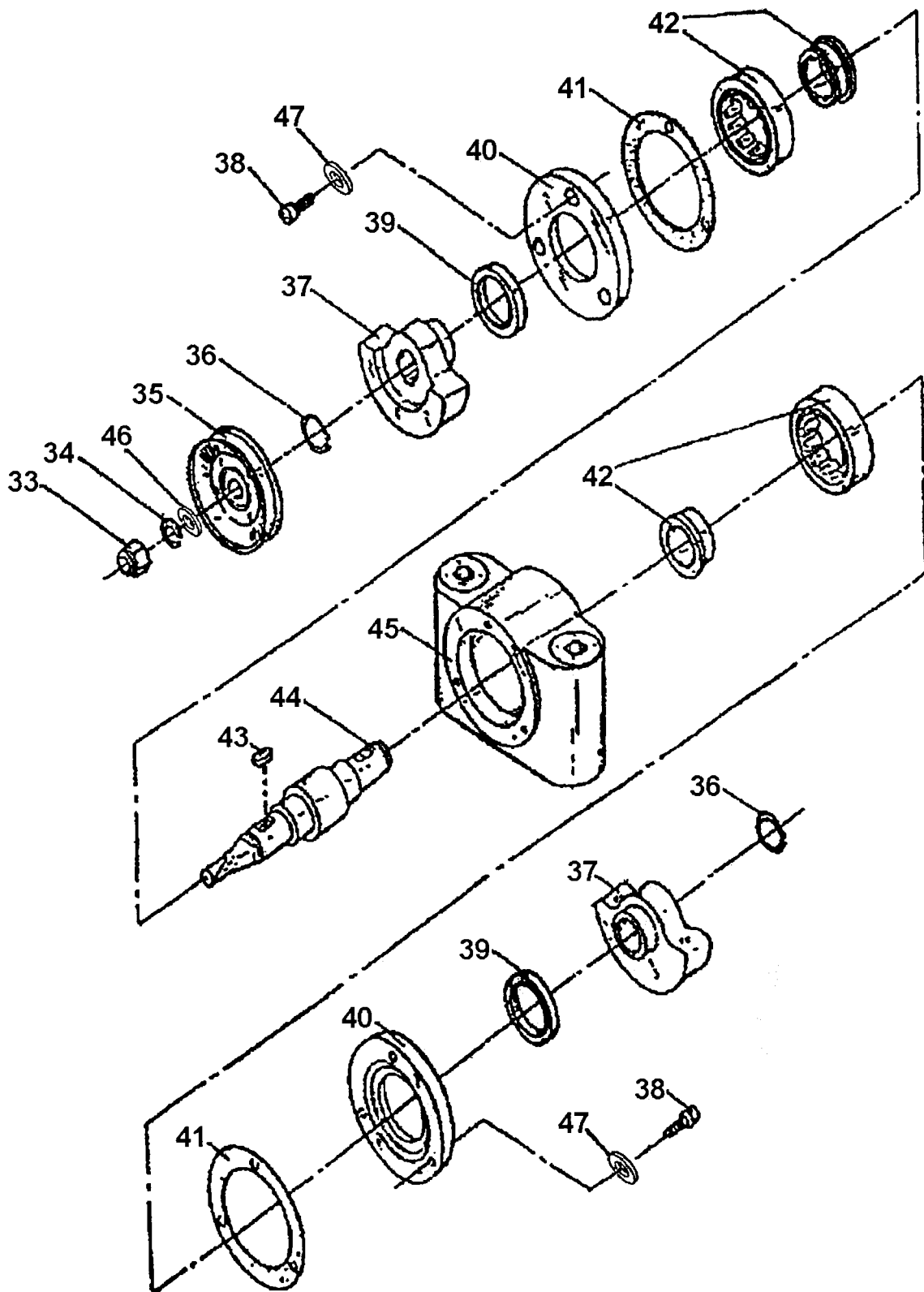
ITEM NO.	PART NO.	DESCRIPTION	QTY
1	0020001-1	DIESEL ENGINE	1
	0020001-2	HONDA ENGINE	1
	0020001-3	ROBIN ENGINE	1
2	0070000	BOLT-GB70	1
3	0097000	WASHER-GB97.1	1
4	2006000-1	CLUTCH CPL FOR DIESEL ENGINE	1
	2006000-2	CLUTCH CPL FOR HONDA ENGINE	1
	2006000-3	CLUTCH CPL FOR ROBINE ENGINE	1
5	0013575-1	V-BELT FOR DIESEL ENGINE	1
	0013575-2	V-BELT FOR PETROL ENGINE	1
6	0070006	CAP SCREW M6 X 20-GB70	2
7	0093006	SPRING WASHER6-GB93	2
8	2003000	V-BELT GUARD	1
9	0061708	NUT M8-GB6170	4
10	0093008	SPRING WASHER8-GB93	4
11	0097008	WASHER8-GB97.1	4
12	0097006	WASHER6-GB97.1	2
13	2002000	ENGINE MOUNTING PLATE	1
15	2004000	HANDLE ASSY	1
16	2005000	VIBRATION MOUNT	2
17	0089412	RETAINING RING 12-GB894.1	2
18	0057810	BOLT M10X50-GB5785	4
69	0093010	SPRING WASHER 10-GB93	4
70	0093008	SPRING WASHER 8 - GB93	1
71	0097010	WASHER 10-GB97	4
72	0061708	NUT M8 - GB6170 (OPTIONAL)	4
73	2006001	LIFTING HOOK (OPTIONAL)	1
74	0061708	NUT M8 - GB6170 (OPTIONAL)	4
75	0093008	SPRING WASHER 8 - GB93 (OPTIONAL)	4
76	0097008	WASHER 8 -GB97.1 (OPTIONAL)	4
78	2009000	FRAME ASSEMBLY (OPTIONAL)	1
79	2005001	PLATE	2
80	2005002	VIBRATION DAMPER	4
81	0061710	NUT M10-GB6170	4
82	2005003	VIBRATION DAMPER	2
83	A2004001-1	THROTTLE CONTROL LEVER (OPTIONAL)	1
99	156006-1	THROTTLE CONTROL WIRE (OPTIONAL)	1
100	0093008	SPRING WASHER 8 - GB93 (OPTIONAL)	4
101	2004001	SPLIT PIN	2
102	2004002	RETAINING RING	2
103	2005004	BRACKET	2



MS100 PARTS LIST 2

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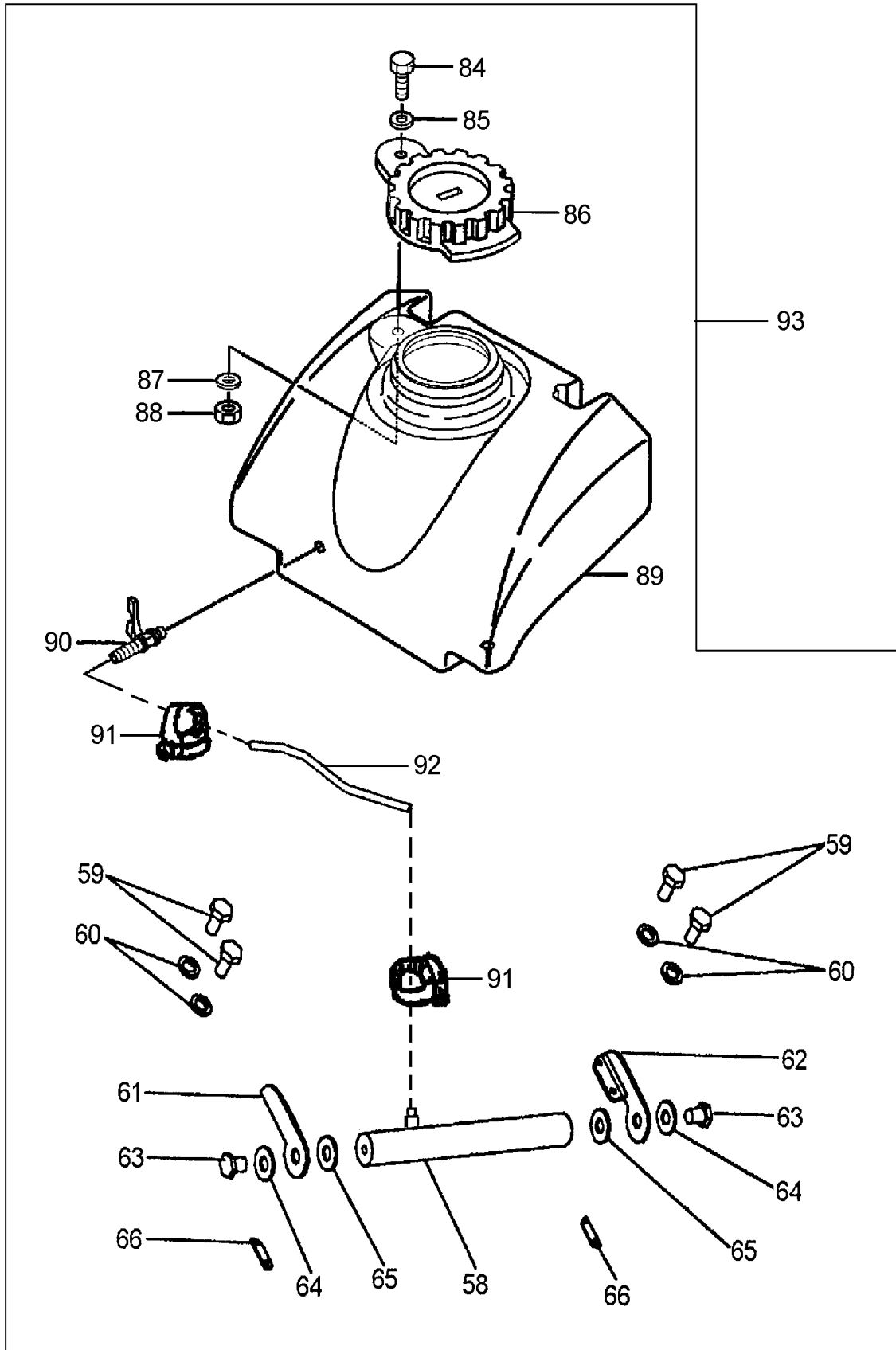
ITEM NO.	PART NO.	DESCRIPTION	QTY
19	0061710	NUT M10-GB6170	8
20	0093010	SPRING WASHER10-GB93	8
21	0097010	WASHER10-GB97.1	4
22	2002001	VIBRATION DAMPER	4
23	0057812	BOLT M12 X 40-GB5782	8
24	0093012	SPRING WASHER12-GB93	8
25	2007007	MOUNTING BAR	1
26	2007006	ALUMINIUM BASE	1
27	2007000	EXCITER CPL	1
28	0093016	SPRING WASHER16-GB93	2
29	0057816	BOLT M16 X 155-GB5782	2
30	2001000	BASE PLATE	1
31	0097016	WASHER16-GB97.1	2
32	0097012	WASHER12-GB97.1	8
94	2001001	RUBBER MAT (OPTIONAL)	1
95	2001002	FIX STRIP (OPTIONAL)	1
96	0097017	WASHER 10-GB97 (OPTIONAL)	2
97	0093010	SPRING WASHER 10-GB93 (OPTIONAL)	2
98	0057810	BOLT M10X40-GB5783 (OPTIONAL)	2



MS100 PARTS LIST 3

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ITEM NO.	PART NO.	DESCRIPTION	QTY
33	0057808	BOLT M8X20 - GB5782	1
34	0093008	SPRING WASHER 8-GB93	1
35	2007001	PULLEY	1
36	0089424	RETAINING RING24-GB894	2
37	2007005	UNBALANCE WEIGHT	2
38	0070006	CAP SCREW M6 X 20-GB70.1	6
39	0098770	OIL SEAL-GB9877	2
40	2007004	BEARING COVER	2
41	2007008	BEARING COVER GASKET	2
42	0027606	BEARING42306-GB276	2
43	0010768	KEY A8 X 25-GB1076	2
44	2007002	SHAFT	1
45	2007003	PILLOW BLOCK	1
46	0097008	WASHER 8 - GB97.1	1
47	0097006	WASHER 6 - GB97.1	6



MS100 PARTS LIST 4

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ITEM NO.	PART NO.	DESCRIPTION	QTY
58	A2008009-1	SPRING PIPE	1
59	0070008	BOLT M8X16-GB70	4
60	0093008	SPRING WASHER8-GB93	4
61	A2008010	PIPE HOLDER (L.)	1
62	A2008011	PIPE HOLDER (R.)	1
63	0057838	BOLT M8X16-GB5783	2
64	0093008	SPRING WASHER8-GB93	2
65	A2008012	SEAT PACKING	2
66	A2008013	RUBBER WASHER	2
67	0093008	SPRING WASHER 8-GB93	4
84	0081800	BOLT M10X30-GB818	1
85	0097010	WASHER 10-GB97.1	1
86	A2008005-1	CAP OF WATER TANK	1
87	0097010	WASHER 10-GB97.1	1
88	0088910	NUT M10-GB889	1
89	A2008006-1	WATER TANK	1
90	A2008007-1	COCK	1
91	A2008003-1	CLIP HOOP	1
92	A2008008	HOSE ϕ 10X100	1
93	2008014	WATER TANK ASSY. (OPTIONAL)	1