

HYDRO-FORCE MODEL – MH44 ROTARY FLOOR MACHINE

INTRODUCTION

**OPERATING & MAINTENANCE
INSTRUCTIONS**

READ THIS BOOK

This operator's book has important information for the use and safe operation of this machine. Read this book carefully before starting the machine. Keep this book and tell all operators to read the book. If you do not follow the instructions, you can cause an injury or damage equipment, furniture or buildings.

For new books write to:

HYDRO FORCE

4282 South 590 West
Salt Lake City, UT 84123

Carefully inspect all components to ensure that there is no concealed freight damage. If such damage is discovered, file a .CONCEALED DAMAGE REPORT, immediately with the delivering carrier.

The contents of this manual are based on the latest product information available at the time of publication. Hydro Force reserves the right to make changes or improvements to its machines without notice.

**FOR YOUR CONVENIENCE, RECORD THE
MACHINE MODEL AND SERIAL NUMBER:**

MODEL _____

SERIAL NUMBER _____

PART NUMBER _____

DATE PURCHASED _____

IMPORTANT SAFETY INSTRUCTIONS

To assure the safe operation of this machine, you must read and understand all warnings and instructions in this book. If you do not understand, ask your supervisor.

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE

WARNING: To reduce the risk of fire, electric shock, or injury:

1. You must be trained to operate this machine. This machine is to be operated for its intended use only.
2. Do not operate this machine unless it is completely assembled.
3. Always use a three-wire electrical system connected to the electrical ground. For maximum protection against electrical shock, use a circuit that is protected by a ground fault circuit interrupter. Consult your electrical contractor.
4. To prevent electric shock, always remove the electrical plug from the electrical outlet before doing any repairs or maintenance and when leaving the machine unattended.
5. To prevent electric shock, keep the machine surface dry. Do not subject to rain. Store the machine in a dry building area. Clean the machine with a dry cloth only.
6. Machines can cause an explosion when near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials. Do not use flammables to clean this machine.
7. A qualified or authorized person must do maintenance and repairs.
8. To prevent damage to the power cord, do not move this machine over the power cord. Always lift the power cord over the machine. Do not pull or carry cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Keep cord away from heated surfaces.
9. Do not use with damaged cord or plug. If the machine is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.

Grounding Instructions

This machine must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the machine - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

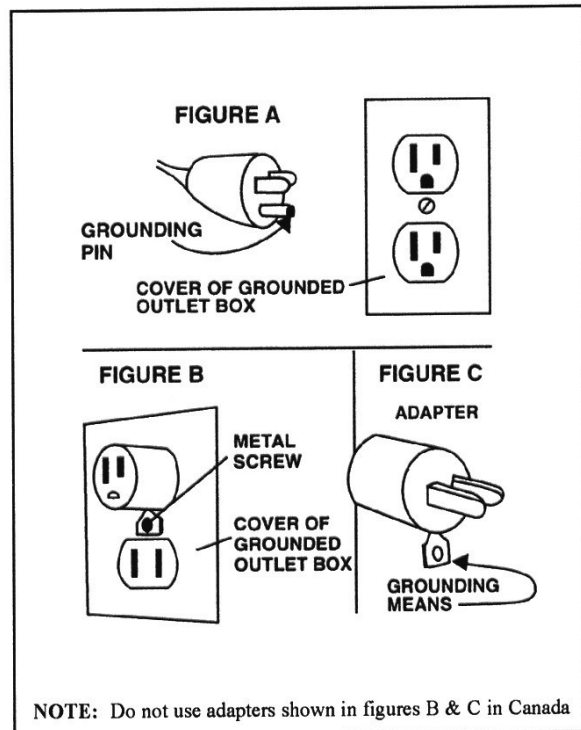
This machine is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug illustrated in figure A. A temporary adapter that looks like the adapter illustrated in figures B and C may be used to connect this plug to a 2-pole receptacle as shown in figure B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (figure A) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.

NOTE: In Canada, the use of a temporary adapter is not permitted by the Canadian Electrical Code

EXTENSION CORDS

Use only three-wire 12/3 or larger gauge approved extension cords that have three-prong grounding type plugs and three-pole receptacles that accept the appliance's plug. Replace or repair any damaged cords or plugs.

When servicing, refer to authorized person only. Use only identical replacement parts.



OPERATING PROCEDURES

WARNING! For the safe operation of this machine follow the instructions given in this manual and the training given by your supervisor. Failure to do so can result in personal injury and/or damage to machine and property!

DO NOT OPERATE MACHINE IN AN EXPLOSIVE ENVIRONMENT!

This machine is intended for commercial use.

PREPARATION

To prepare the machine for operation, make sure it is of correct voltage and properly assembled.

Your new floor machine operates in the normal side to side motion of a conventional single disc machine. Be prepared before starting by removing all obstructions or other obstacles in the area to be cleaned. Check the proper application recommendations and procedures found on the label of your cleaning or finish container. **IF IN DOUBT, CALL YOUR SUPERVISOR.**

WARNING! NEVER USE THIS MACHINE WITH FLAMMABLE OR EXPLOSIVE MATERIAL!

For Scrubbing or Polishing: Select the correct floor pad or brush (your supplier can help you). If in doubt, ask your supervisor.

NEVER OPERATE THE MACHINE WITHOUT THE FLOOR PAD OR BRUSH INSTALLED!

To properly attach the brush, **UNPLUG THE FLOOR MACHINE**, place the handle in the vertical position, then tilt the machine back until the handle rests on the floor. Straddle the handle, facing the motor, and grasp the brush with the block toward you. Place the brush or pad clutch plate over the three lugs on the motor drive adapter. Twist the brush right to lock it into position. To remove the brush, **UNPLUG THE MACHINE** and follow the same procedure as above, but by twisting the brush off with a firm jerk to the left. Remove the brush or pad driver when the machine is not in use. This will help prevent brush damage and reduce wobble problems.

OPERATION

Plug the machine's power cable into a properly grounded outlet (see Safety Instructions). Next, adjust the handle height to a comfortable position.

Pull out on the "Watch Dog" Safety Lock button and start the machine by depressing either the left or right switch levers.

Both hands should be placed on the handle when the machine is in operation. The machine will glide sideways over the floor by a slight raising and lowering of the handle. Raise the handle slightly to go to the right. Lower the handle slightly to go left. **Releasing the switch lever stops the machine at once.**

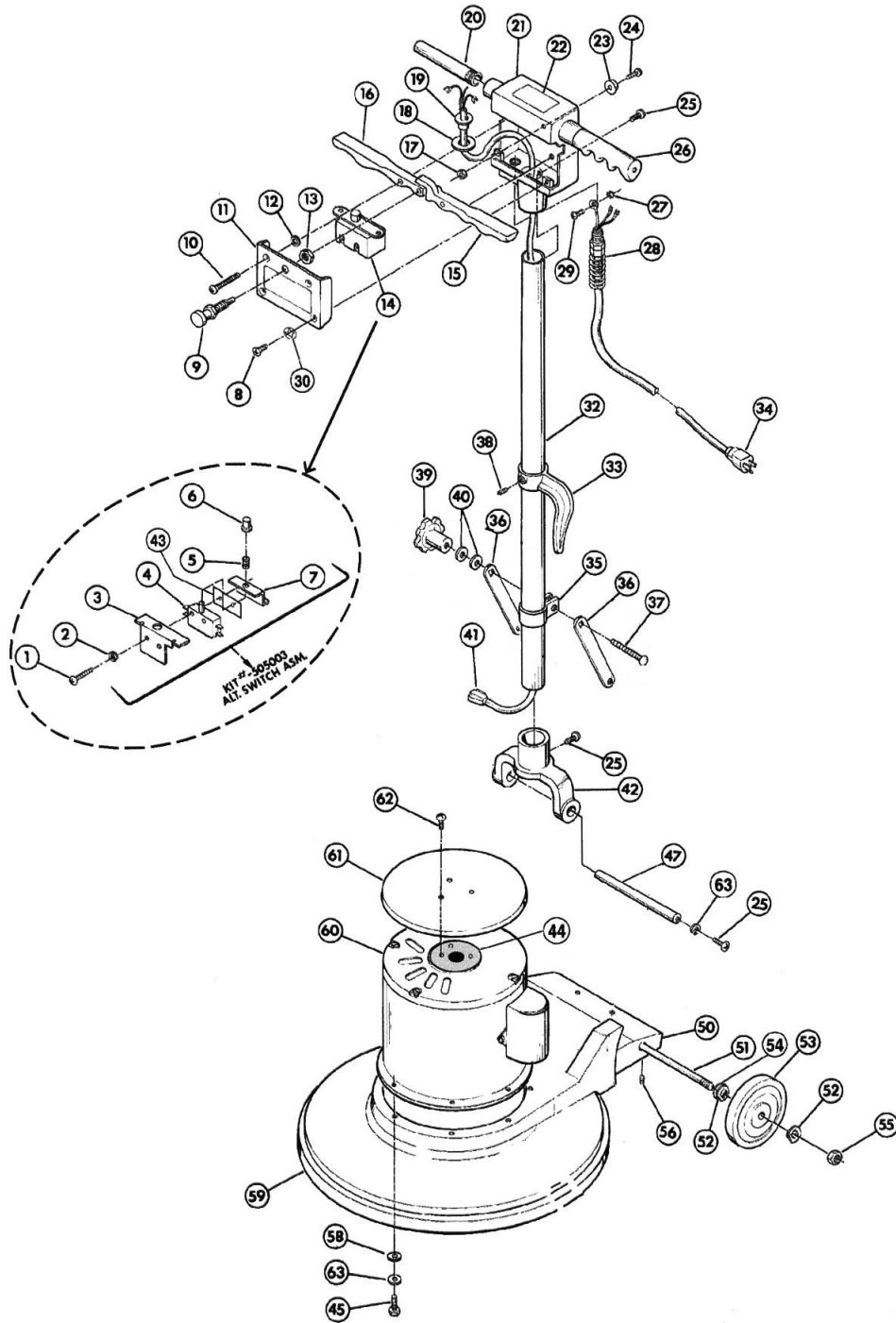
MAINTENANCE

AFTER EACH USE: Store the machine in a clean dry area. Wipe the entire machine and cord down with a clean cloth. Remove the pad or brush and clean thoroughly. Wrap the machine's electrical cord onto the handles and the cord hook provided. **CHECK** the cord and plug for nicks, cuts or damage. Report these to your supervisor for correction.

WARNING! Always disconnect the machine's electrical plug from the electrical outlet before performing any service, maintenance, pad changing or inspection of the machine.

MOTOR: The motor is lubricated for life under normal use. No oiling or greasing is necessary. However, if the machine is used in dusty areas or is used for spray buffing, the motor should be cleaned. Blowing the motor out with compressed air or with the exhaust from a vacuum is suggested. Keeping the motor clean will allow the clear passage of air for ventilation and prevent overheating. If you have any questions regarding the maintenance of your floor machine, **ASK YOUR SUPERVISOR.**

MH44 PARTS

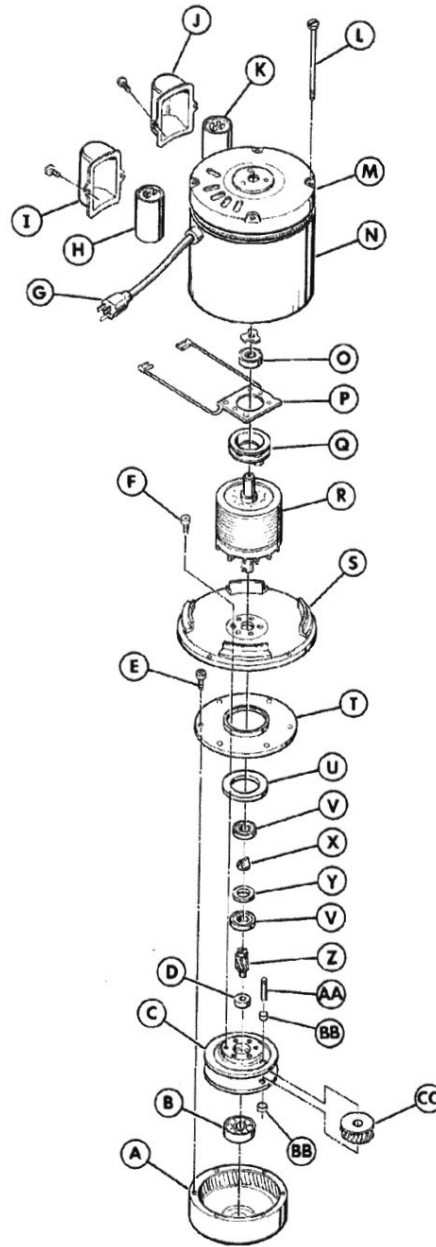


MH44 PARTS LIST

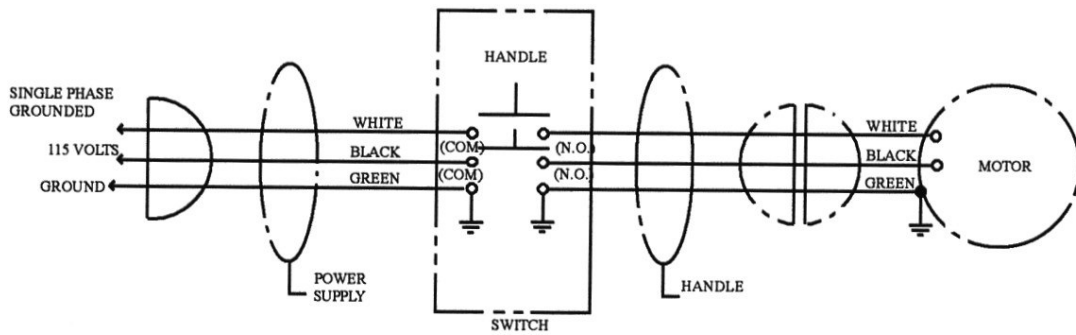
ITEM	PART NO.	DESCRIPTION	QTY.
1	W323D	Screw, 6-32x1 Pan Hd.	2
2	980016	Washer, #6 Ext. Tooth	2
3	500801	Bracket, Switch Mounting	1
4	911135	Switch	1
5	508301	Spring	1
6	507001	Plunger	1
7	500802	Bracket, Switch	1
8	962002	Screw, 10-32 x 1/2 Oval Hd.	2
9	504810	Interlock Asm.-Switch	1
10	962011	Screw, 10-32 x 3/4 Oval Hd.	2
11	486404	Switch Cover Plate	1
12	509821	Washer, Rubber	2
13	920005	Nut, 3/8-24 Hex	1
14	508020	Switch Asm. (or 505003)	1
15	505121	Lever, Switch Left	1
16	505120	Lever, Switch Right	1
17	920001	Nut, 10-32 Elastic Stop	1
18	509830	Washer, Handle Tube	1
19	503320	Flange, Strain Relief	1
20	505720	Handle Nipple	2
21	481304	Switch Housing,w/o Circuit Brk	1
22	515150	Warning Label	1
23	501210	Bumper, Handle	1
24	962003	Screw, 10-32 x 3/4 Pan Hd.	1
25	962006	Screw, 1/4-20 x 1/2 Pan Hd.	6
26	503711	Handle Grip, Grey	2
	501501	Cap, Protective End (Blue)	2
27	980015	Washer, #10 Shakeproof	2
28	508520	Strain Relief-Complete	1
	502020	Strain Relief-Brass Clamp	1
29	962015	Screw, 10-32 x 3/8 Pan Hd.	2

ITEM	PART NO.	DESCRIPTION	QTY.
30	980018	Washer, #10 Countersunk	1
32	509082	Handle Tube	1
33	504420	Cord Hook	1
34	502421	Cord Asm.-50 ft. Grey	
	502422	Cord Asm.-50 ft. Yellow	1
35	502021	Clamp-Handle	1
36	500840	Arm, Handle Support	2
37	962009	Bolt, Carriage 5/16-18 x 2-1/2	1
38	962005	Screw, 1/4-20 x 3/8 Allen	1
39	505010	Turn Knob	1
40	980007	Washer, 5/16 Flat	2
41	908004	Handle Cord	1
42	509920	Yoke, Handle	1
43	504702	Insulator-Switch	1
44	509823	Washer, Felt	1
45	962010	Screw, 1/4-20 x 1 HH	4
47	507480	Shaft, Handle Pivot	1
50	483215	Base 17"	1
	483216	Base 20"	1
51	487702	Wheel Axle	1
52	980005	Washer, Wave	2
53	509781	Wheel, 5"	2
54	509820	Washer, Fiber	2
55	W502D	Nut, 1/2-13 Hex	2
56	962016	Screw, 10-32 x 3/8 Set	1
58	980004	Washer, 1/4 Flat	4
59	481202	Bumper, 17"	1
	481203	Bumper, 20"	1
60	See Page 6	Motor Assembly	1
61	502373	Drip Cover	1
62	962019	Screw, 10-32 x 5/8 PHP	3
63	980002	Washer, 1/4 Lock	6

AC MOTOR ILLUSTRATION



WIRING DIAGRAM



MOTOR PARTS LIST

for MH44

		1 HP MOTOR & GEAR ASM. 115V 60C
		505297-1HP Motor #36J377Y799
		503522 Gear Asm. 10:1 - 2 Idler
A	Ring Gear Housing	504209
B	Bearing, Ring Gear Housing	902007
C	Planet Gear Hsing	504216
D	Bearing, Pinion Lower	902005
E	Screw-Ring Gear Hs.	
F	Screw, Planet Gear Housing	
G	Motor Cord	908090
H	Run Capacitor	911235 - 40MFD/370V
I	Cover,Run Capacitor	502375
J	Cover, Start Capacitor	502375
K	Start Capacitor	911239 - 400/480MFD-115V
L	Bolt	960035
M	End Bell	502931
N	Stator Asm,115V-60C	503124
O	Bearing, Motor Top	902003
P	Stationary Switch	911251
Q	Rotary Switch	911219
R	Rotor Assembly	500428
S	End Bell-Motor Lower	502927
T	Cover, Ring Gear	502317
U	Bearing, Upper Gear Housing	902015
V	Bearing, Pinion Upper	902005
X	Coupling Flexible	502460
Y	Spacer	508211
Z	Pinion	503510
AA	Shaft-Planet Gear	507701 (Qty.2)
BB	Bearing-Planet Shaft	902016 (Qty.4)
CC	Gear-Planet	503511 (Qty.2)

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ERROR: undefined
OFFENDING COMMAND: ~
STACK:
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