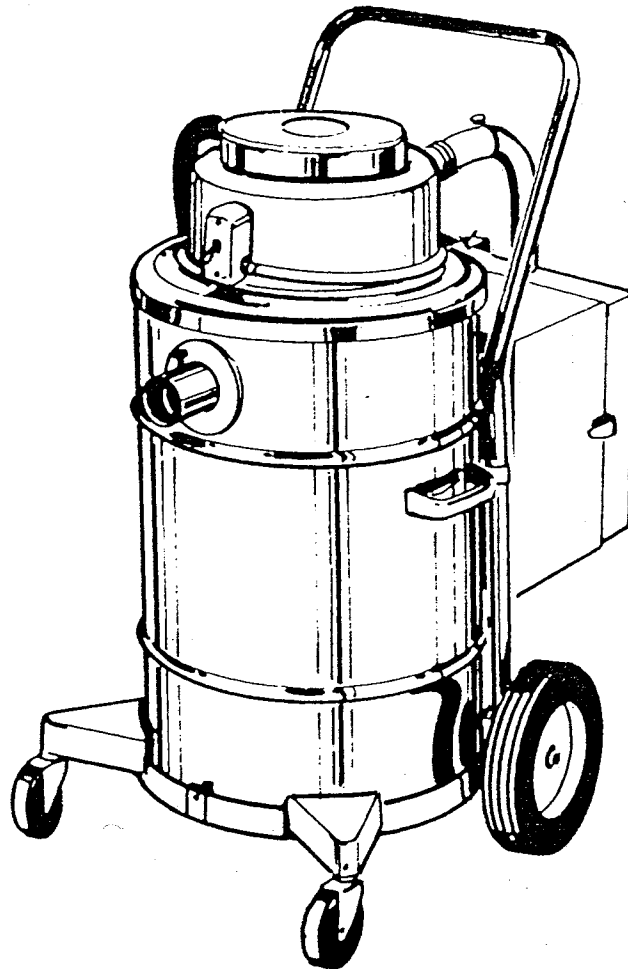


*Service Dept
Rack Copy.*

- OPERATION
- SERVICE
- PARTS
- CARE

Hako®
Minuteman®

Model No: C80015-01,02,03,04
C80030-01,02
X100



OPERATING INSTRUCTIONS

INSPECTION

Carefully unpack and inspect your machine for shipping damage. Each unit is tested and thoroughly inspected before shipment, and any damage is the responsibility of the delivering carrier who should be notified immediately.

WARNING

To avoid electric shock, do not expose to rain, store indoors.

Hazardous materials must be disposed of properly. Never throw contaminated debris in your usual trash receptacle. Place debris in a plastic bag or can marked "HAZARDOUS MATERIALS" and take to a hazardous waste handler.

Electric motors can cause explosions when operated near explosive materials or vapors. Do not operate this machine near flammable materials such as solvents, thinners, fuels, grain dust, etc.

ELECTRICAL

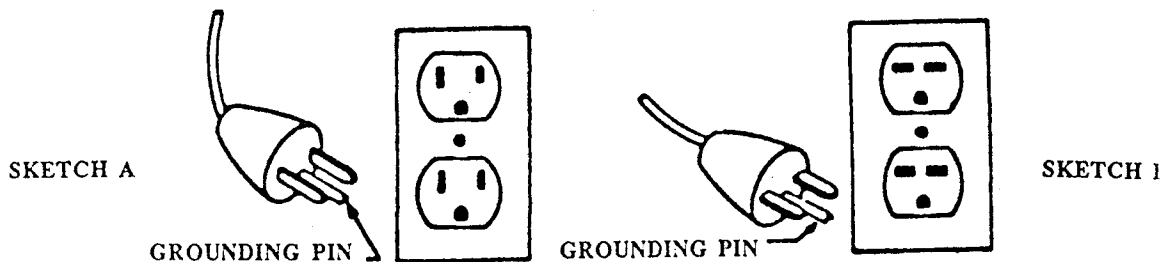
This machine is designed to operate on a standard 15 amp, 115 volt, 60 hz, AC circuit. Voltages below 105 volts AC or above 125 volts AC could cause serious damage to the motor.

GROUNDING INSTRUCTIONS

To protect the operator from electrical shock, this machine must be grounded while in use. This machine is equipped with an approved three-conductor power cord and grounding type plug to fit the proper grounding type receptacle.

This machine is for use on a nominal 120 volt circuit and has a grounding plug that looks like the plug illustrated in Sketch A. Make sure that the machine is connected to an outlet having the same configuration as the Plug. No adapter should be used with this machine.

For equipment rated 150-250 volts: If the machine is provided with an attachment plug as shown in Sketch B, it is intended for use on a 240 volt (nominal) circuit. No adapter is available for this plug.



EXTENSION CORDS

If an extension cord is used, the wire size must be at least one size larger than the power cord on the machine and must be limited to 25 feet in length. Extension cord must be three-wire grounded.

MAINTENANCE AND USAGE SPECIAL WARNING TO PURCHASER

Use of replacement filters and/or prefilters not manufactured by Hako Minuteman, Inc. or its designated licensees, will void all warranties expressed or implied.

A potential health hazard exists without exact original equipment replacement.

Keep the motor intake cooling air screen clean. If this screen (on top of the motor) becomes clogged, it restricts the flow of cooling air to the motor and will cause overheating.

No lubrication of the motor is required. Machine is equipped with sealed bearings.

For optimum performance, empty and clean filter bag regularly. A clogged and dirty bag restricts the flow of air and results in reduced vacuum.

For liquid pickup, remove the dry dust filter bag. Check the automatic shut-off to be certain it is working properly.

Do not operate the machine without removing coiled electric cable from around the motor head so as not to restrict the flow of exhausted cooling air and to prevent overheating.

Always unplug the machine when removing the motor head off the tank. This will prevent the accidental starting of the motor and the possibility of fingers or objects getting into the unprotected impeller intake.

ASSEMBLY PROCEDURE FOR DRY RECOVERY
Model C80015-01, C80015-02, C80015-03 and C80015-04
(See schematic Page 14, Figure 1)

1. Place filter bag #3 into Tank #5. Center rubber ring gasket on rim of tank. (Note: When using filter bag protector #4 as a prefilter, install it onto vacuum tank before inserting cloth filter. Elastic band on filter protector must be draped over tank rim to hold it in place.)
2. Place vacuum lid assembly #2 into tank and center around tank rim.
3. Fasten lid down with tank lid latches. Latches must fit into grooves on lid.
4. Before installing H.E.P.A. filter assembly onto vacuum, refer to Page 7 for assembly of unit. The H.E.P.A. filter must be installed with arrow (air flow) toward perforated metal in box. Before installing H.E.P.A. into metal box, place two metal removing strips #8 into base of box as shown, then slide H.E.P.A. into box, arrows pointing forward. Place a clean pink impact prefilter #3 into H.E.P.A., be sure to square off evenly. Place box cover #6 with elbow onto housing and secure with clamps. Secure two opposite clamps at same time.
5. Place clear vinyl connecting tube onto tube elbow on H.E.P.A. filter assembly #1. Place both hose clamps loosley over vinyl tube. After removing wing nuts and lock washers from studs on vacuum lid, place one holding bracket on H.E.P.A. unit onto stud, slide vinyl tube onto exhaust tube coming out of vacuum lid until second bracket is located over second stud on lid. Attach lock washers and wing nuts to hold H.E.P.A. filter assembly in place. Place one hose clamp at each end of vinyl tube and tighten.
6. Vacuum is now ready for dry recovery.

EMPTYING PROCEDURE AFTER DRY RECOVERY

1. Unplug electric cord from wall receptacle.
2. Loosen clamps on clear vinyl hose at vacuum exhaust and at H.E.P.A. filter assembly.
3. Remove wing nuts and lock washers at filter brackets on vacuum lid.
4. Remove filter box brackets from studs and slide clear vinyl tube from exhaust.
5. Remove filter exhaust cover from H.E.P.A. and inspect pink impact prefilter. Soiled filter should be replaced with clean one.

6. Inspect H.E.P.A. filter. A soiled H.E.P.A. indicates penetration through prefilters indicating the need for emptying and cleaning cloth filter more frequently. If you are recovering very fine dust, you should be using the optional filter bag protector. Filter bag should be checked for tears or holes. Check for proper installation of impact prefilter.
7. Remove vacuum lid assembly.
8. Remove cloth filter bag. Clean and inspect for tears or holes. If your vacuum is used to recover any type of toxic dust material, the filter bag should be vacuumed to clean it. If you are not recovering toxic materials, filter bag can be brushed or shaken within a waste receptacle for cleaning.
9. Remove and dispose of filter bag protector when used.
10. Empty vacuum tank into proper disposal container.
11. Reassemble vacuum following assembly procedures.

ASSEMBLY PROCEDURE FOR WET RECOVERY
Models C80015-01, C80015-02, C80015-03 and C80015-04

For wet recovery, assembly vacuum leaving cloth filter #3 and filter protector #4 out when used.

Lint protector screen around ball float assembly should be kept clean to permit float to operate properly after 10 to 11 gallon recovery.

Option: A dump valve can be installed at base of tank for emptying into floor drain.

ASSEMBLY PROCEDURE FOR DRY RECOVERY
Models C80030-01 and C80030-02
(See schematic Page 14, Figure 2)

1. A heavy-duty bag liner #6 can be placed into 30 gallon drum for recovery of dry debris. Drape top of bag liner over rim of drum to hold in place.
2. Place adaptor ring #5 onto drum.
3. Insert optional filter bag protector #4 into adaptor ring and drape elastic over rim to secure in place.

Insert filter bag assembly #3 into adaptor ring and center bag gasket around rim.

Place vacuum motor lid assembly onto adaptor ring and center.

Attach lid latches.

Follow steps 4 and 5 in assembly procedure for Model C80015-01 to prepare and install H.E.P.A. filter assembly. (Note: Two extension bars have been provided to attach to H.E.P.A. filter assembly when installing onto 30 gallon unit.)

Plug in electric cord. Vacuum is ready for use.

EMPTYING PROCEDURE AFTER DRY RECOVERY

Follow steps 1 through 8 "Emptying Procedure" for 15 gallon vacuum.

Remove elastic band around adaptor ring and push filter bag protector into drum.

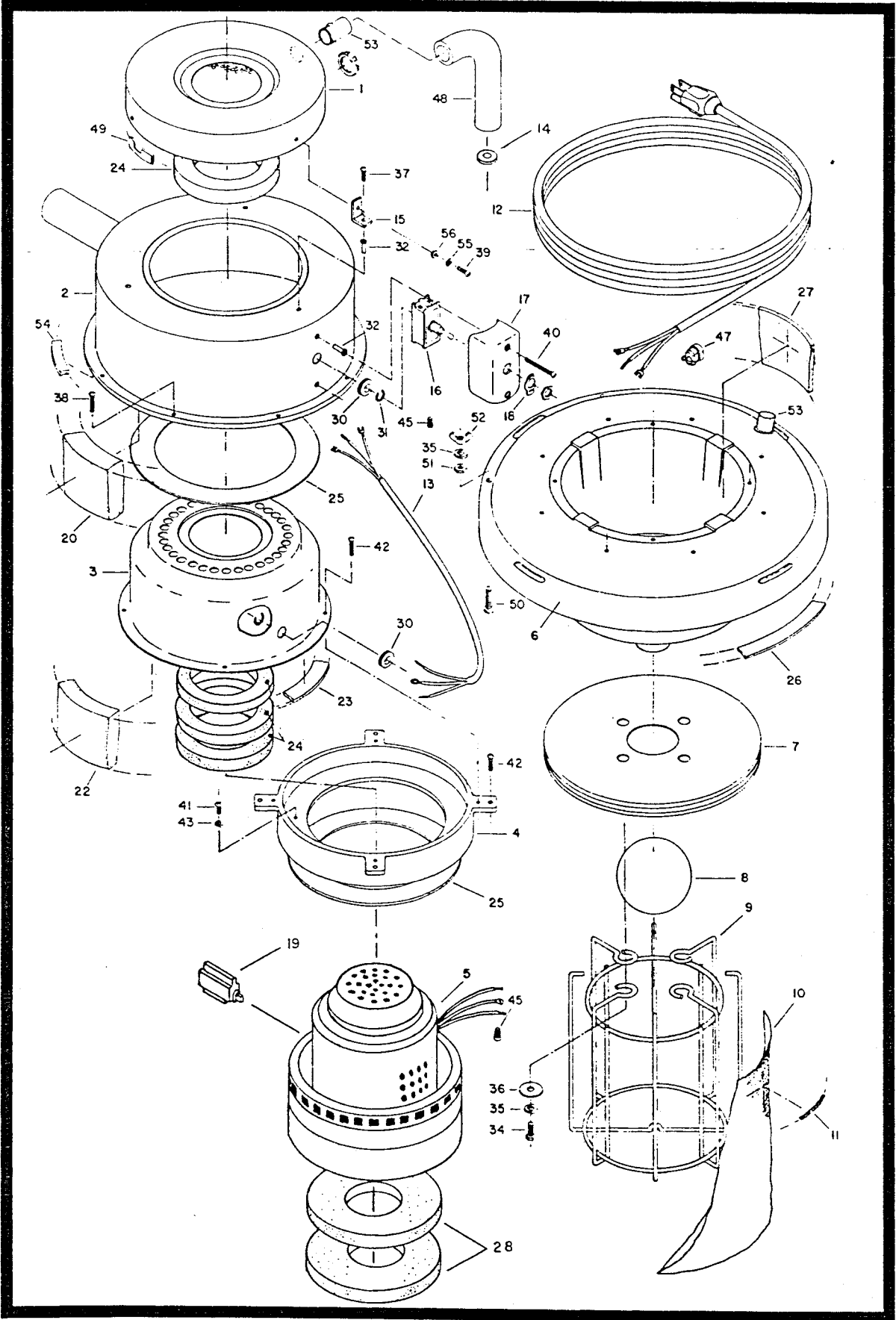
Remove adaptor ring from drum.

Gather plastic drum liner and tie to seal in contents. If bag liner with debris is to be removed, turn drum onto its side and slide bag liner out of drum.

ASSEMBLY PROCEDURE FOR WET RECOVERY Models C80030-01 and C80030-02

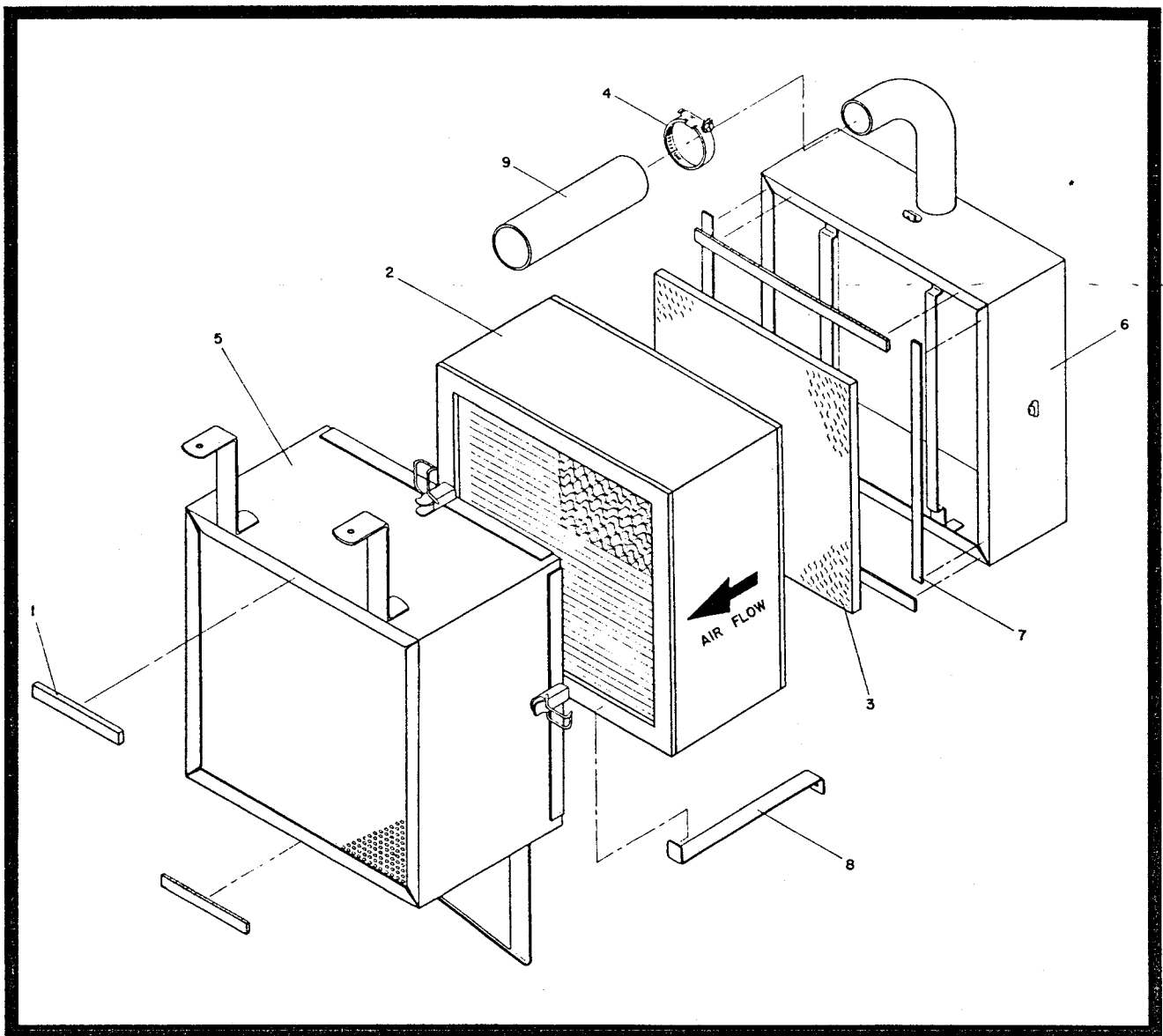
For wet recovery, assemble vacuum leaving out bag liner #6, cloth filter #3, and filter protector #4 when used.

30 gallon drum should be equipped with dump valve at bottom for emptying into floor drain.



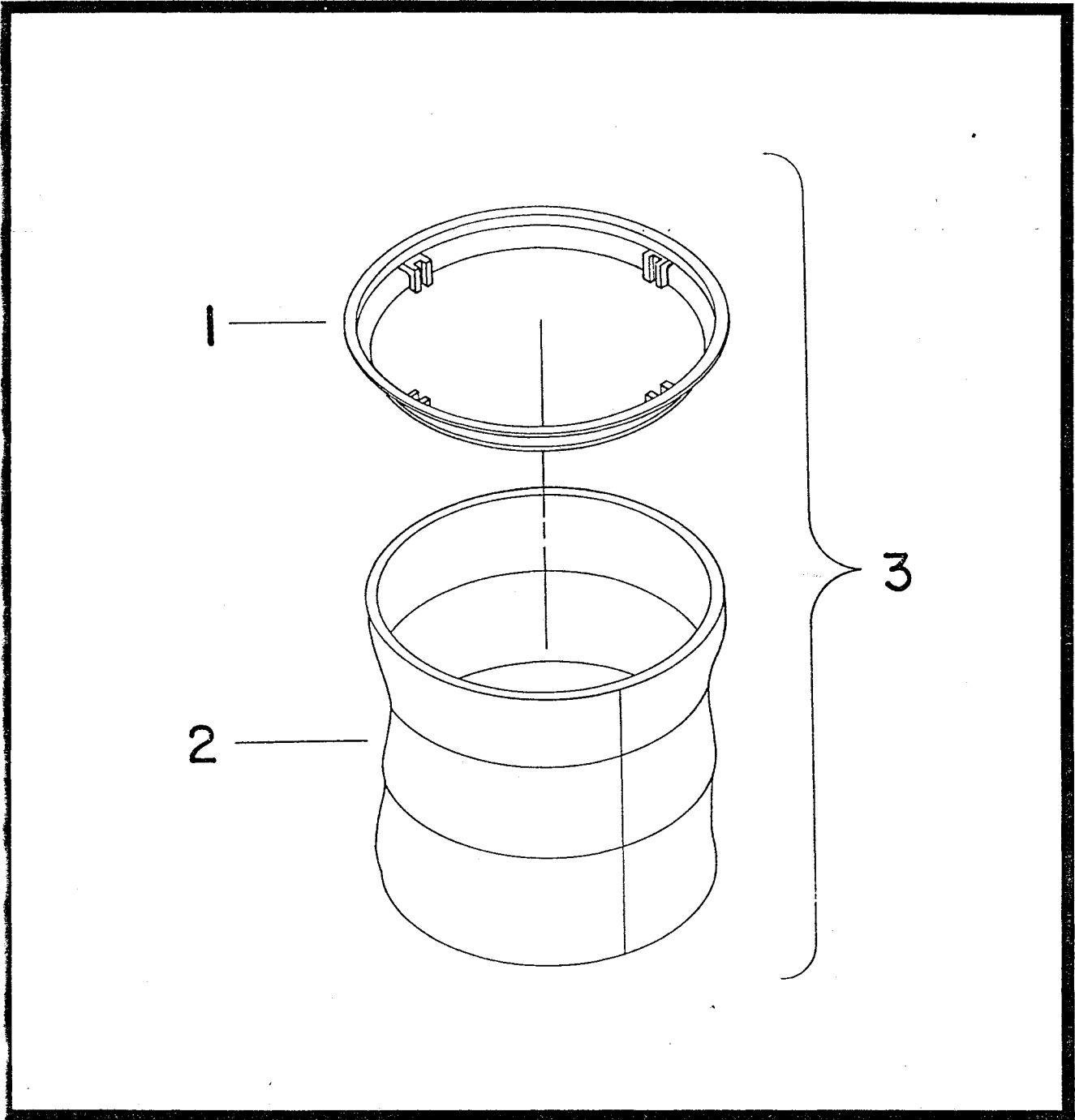
PARTS LISTING

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	101040PLT	1	Dome motor
2	750286	1	Cover, air exhaust
3	101006PTD	1	Inter vent dome
4	480042MCH	1	Cast motor hold down MCH
5	831524	1	Motor, 115 V
5a	831526	1	Motor, 220 V
6	480060	1	Casting, lid polished
7	760231MCH	1	Bag ring retainer
8	380046	1	Ball, float
9	380045CTD	1	Float cage
10	760234	1	Lint trap bag
11	760260	1	Filter retainer
12	381020	1	Cord set, 16-3 50 feet
13	101018	1	Assembly, cord M100
14	711515	1	WSR, orifice
15	101030	3	Bracket
16	380002	1	Switch, toggle, 1.5 HP
17	101019	1	Switch box
18	101020	1	Plate, Off/On indicator
19	807297	2	Brush, carbon
20	101033	1	Insulation, foam 3 x 15 x 1
22	101007	1	Insul, foam rub. 1 x 2.50 x 23
23	101009	1	Gasket, rub. .25 x .56 x 28
24	101005	4	Gasket, rub. .75 x 3.19 x 4.37
25	480049	4	Gasket, motor
26	480057	1	Gasket, .25 x .87 x 50"
27	480040	1	Felt, .25 x 3 x 28
28	828995	2	Motor, gasket
30	101008	2	Grommet, rubber
31	100028	2	Strain relief
32	711401	5	Nut-Riv 10-32
33	760006	3	Ring, clamp on
34	711202	4	Bolt, 1/4-20 x .50 ST PL
35	711544	4	WSR, Helical SOR LOC 1/4
36	711574	4	WSR, Flat 1" OD x .25 ID
37	710355	3	SCR-MC 10-32 x .50 ST PL
38	710331	8	SCR-MC 8-32 x .75 ST PL
39	710329	8	SCR-MC 8-32 x .50 ST PL
40	710365	2	SCR-MC 10-32 x 1.75 ST PL
41	710353	2	SCR-MC 10-32 x .37 ST PL
42	710356	8	SCR-MC 10-32 x .62 ST PL
43	711543	2	WSR, Helical SPR LOC #10
45	740005	3	Cap, wire 18-14 73B
46	380061	8	Bushing
47	380032	1	Strain relief, round
48	761076	1	Hose
49	760877	1	Gasket
50	710382	2	SCR-MC 1/4-20 x 1 RH
51	711316	2	Nut, hex 1/4-20
52	711364	2	Nut, wing 1/4-20
53	740043	2	Tube w/nut
54	101012	2	Gasket
55	711543	3	#10 Lockwasher
56	711304	3	Nut 8/32
****	100111		Lid assembly complete, 115 V
****	100222		Lid assembly complete, 220 V



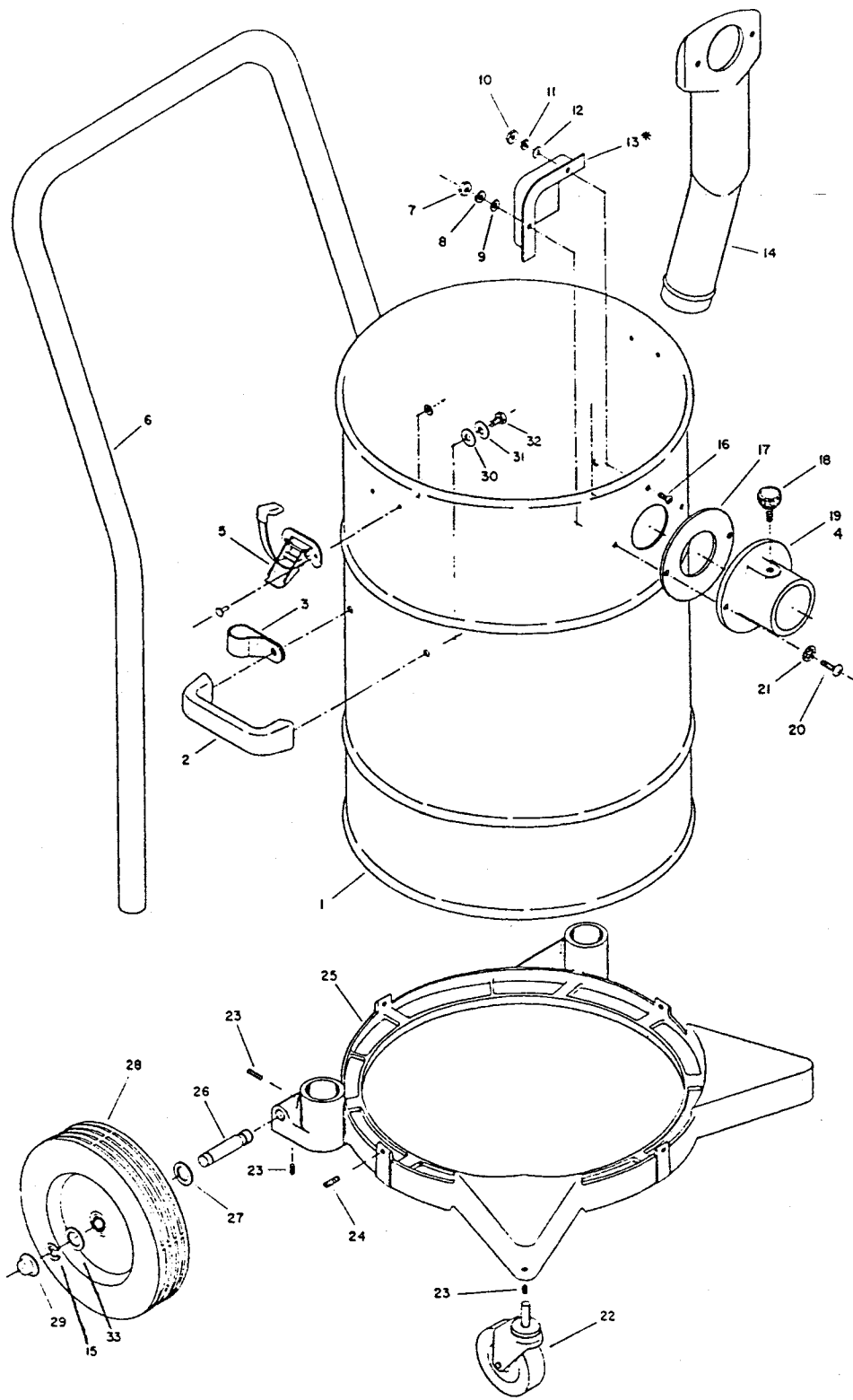
PARTS LISTING

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	101012	1	Gasket, rub .25 x .56 x 38
2	101025	1	H.E.P.A. Filter square-X100
3	101026PKG	1	Impact filter sq. x 100 PKG
4	270249	2	Hose clamp #24
5	750282	1	Housing, weldment filter
6	750285	1	Retainer, filter weldment
7	760097	4	Gasket, .23 x .50 x 2.00 PSBK
8	760874	2	Remover, filter
9	761165	1	Tube, clear vinyl



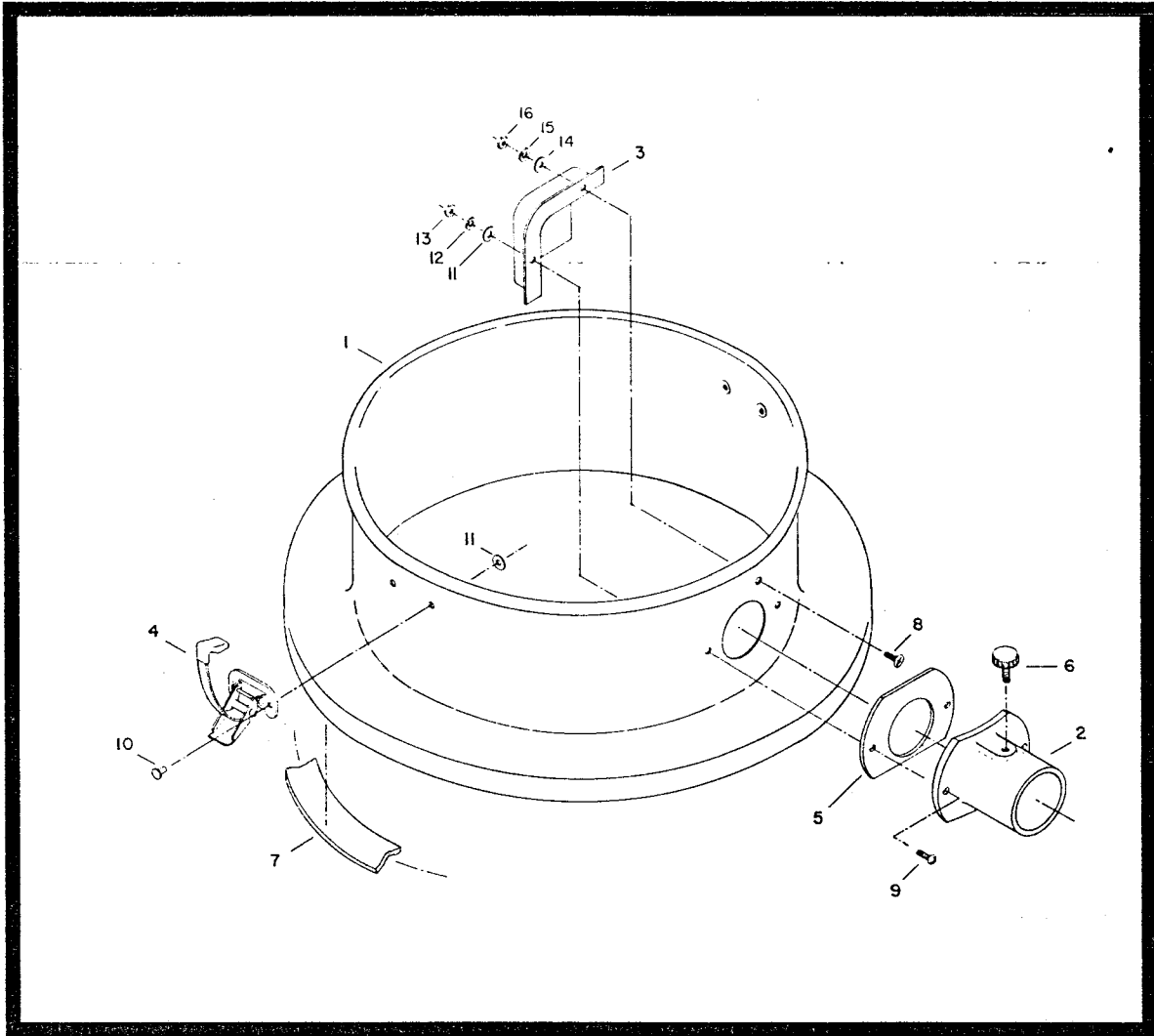
Parts Listing

ITEM NO	PART NO.	QTY	DESCRIPTION
1	760131	1	Molded bag ring
2	805054	1	Cloth bag only
3	805058	XX	Cloth bag asy. complete



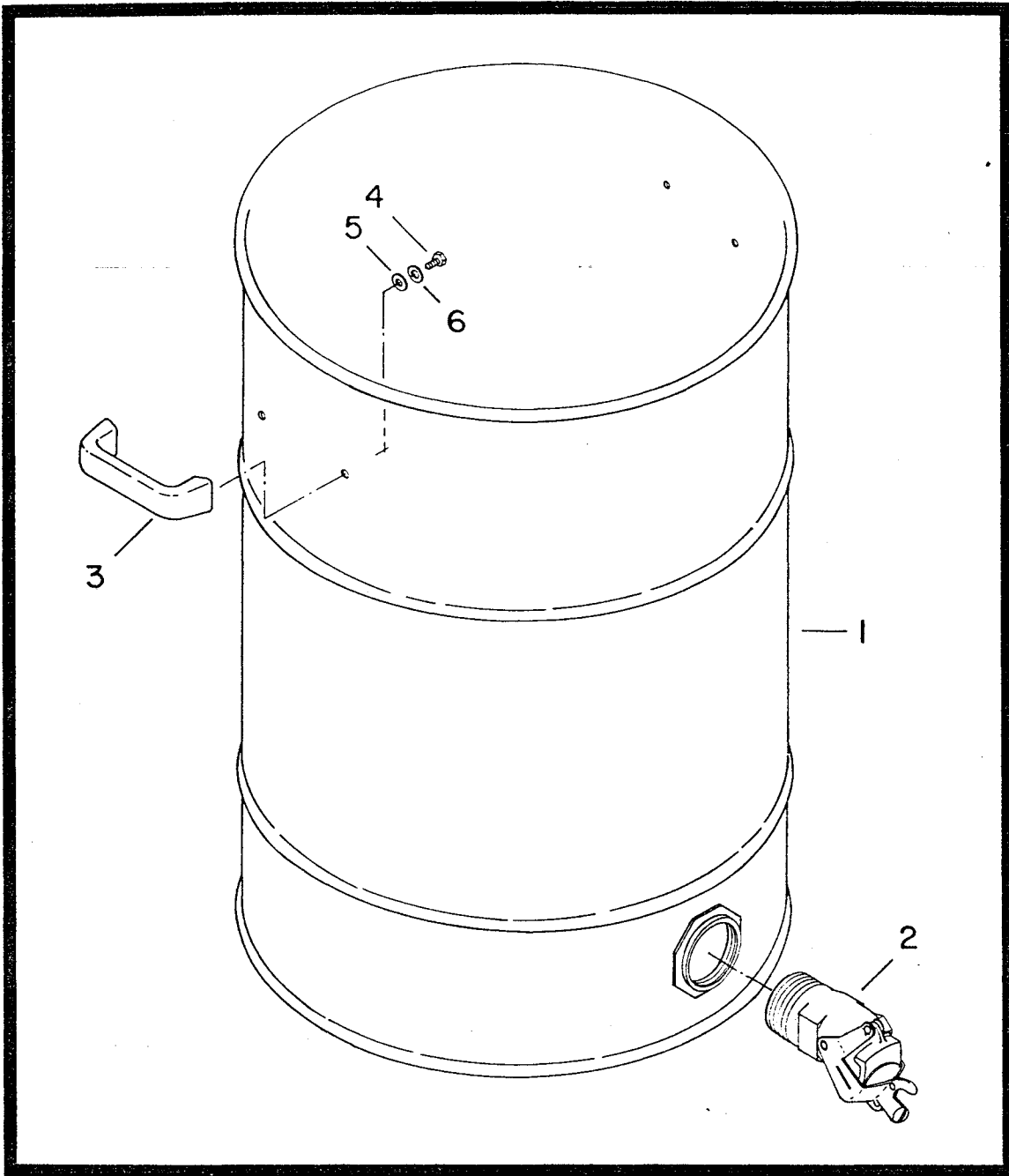
Parts Listings

ITEM NO.	PART NO.	QUANTITY	DESCRIPTION
1	900001	1	Tank, PTD 15 Gal.
1a	900003POL	1	Tank, Polished 15 Gal. SS
2	900031POL	2	Handle, Tank Polished
3	900038	2	Clamp, Handle
4	900114	1	Intake MRS PLT New Style
4a	750650	1	Intake Asy w/Downtube MRS Only
5	761054	2	Latch
6	900037PLT	1	Handle, Plated
7	711310	2	Nut-Hex 10-32 ST PL
8	711543	2	WSR - Helical #10
9	711503	2	WSR - Flat #10
10	711304	1	Nut - Hex 8-32 ST PL
11	711542	1	WSR - Helical #8
12	711502	1	WSR - Flat #8
13	900035	1	Deflector, Intake
14	390016	1	Molded Downtube New Style
15	711713	2	Retaining Ring-E Ext.
16	710530	1	SCR - MC 8-32 x .50 BR
17	900036	1	Gasket
18	500033	1	Locking Screw
19	900112POL	1	Intake Polished Hi Intake
19a	750632	1	Intake Asy w/Molded Downtube
20	710154	2	SCR - MC 10-32 x .562 SS
21	711553	2	WSR - Internal Lock #10
22	900033	2	Caster, Swivel
23	711005	4	SCR - SK 1/4-20 x .31
24	711006	6	SCR - SK 1/4-20 x .62
25	760984PTD	1	BKT, Wheel
26	900066	2	Axle
27	711524	2	WSR - Wave .52 x .87 x .01
28	900040	2	Wheel
29	130032	2	Cap, Retainer
30	711591	4	WSR - Rubber
31	711505	4	WSR - Flat 1/4
32	711203	4	BLT - HH 1/4-20 x .62
33	711594	2	WSR - Flat .56 x .88 x .03 NI
***	750220		Tank Asy Comp 15G PTD Asbestos
***	750221		Tank Asy Comp 15G SS Asbestos
***	750322		Wheel Bkt Asy Complete
***	750381		Tank Asy Comp PTD w/Deflector
***	750382		Tank Asy Comp SS w/Deflector



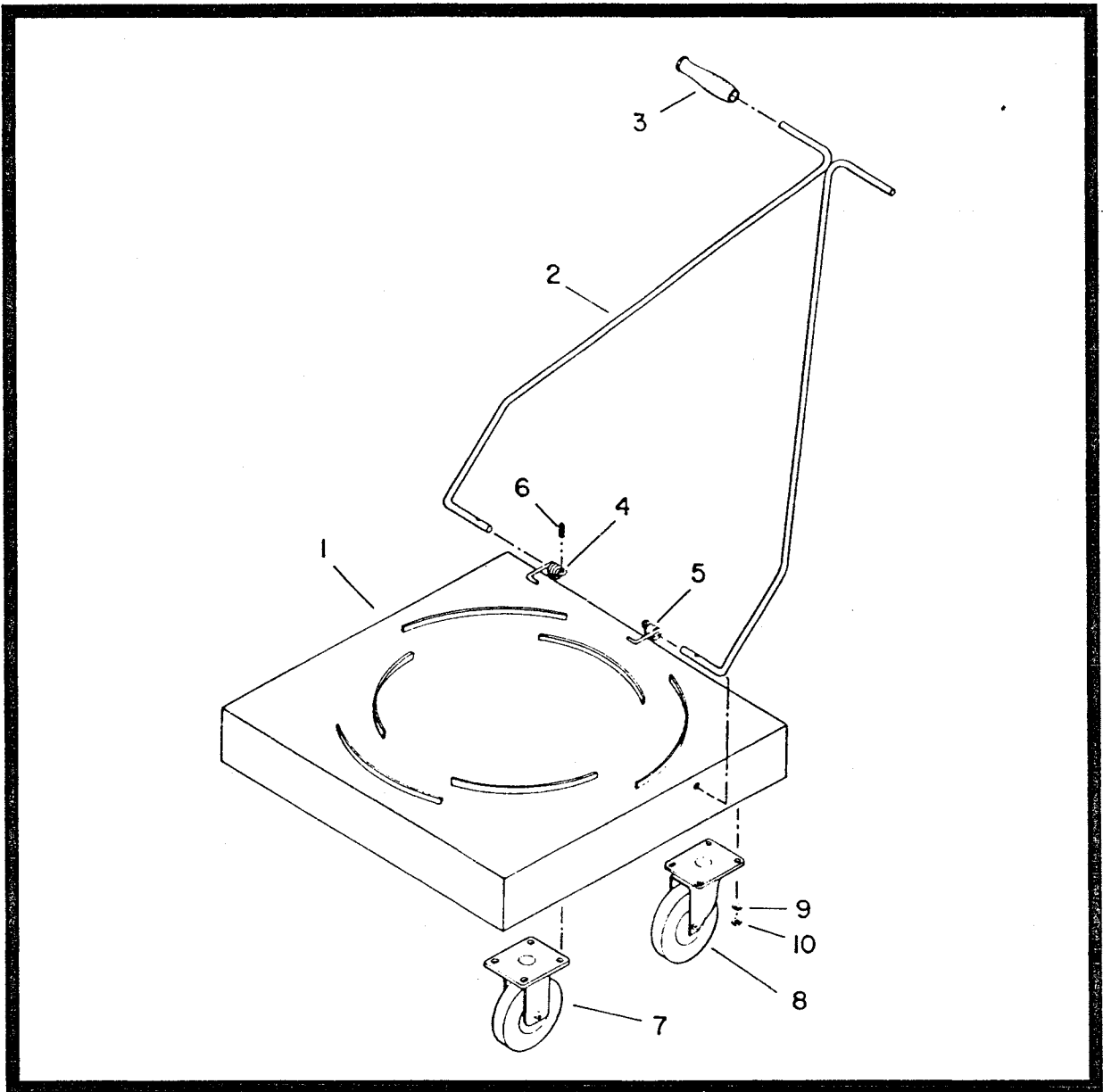
PARTS LISTING

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1a	806015PTD	1	30 Gal. Adapter Painted
2	760078	1	Intake
3	900035	1	Deflector, intake
4	761054	2	Latch
5	900036	1	Gasket
6	500033	1	Knob
7	806006	1	Gasket
8	710530	1	SCR, FHMS 8/32 x .50 Brass
9	710356	2	SCR-MC 10-32 x .62 ST PL
10	711915	4	Rivet, .19 x .28 x .37 HD STNI
11	711503	6	WSR, Flat #10
12	711543	2	WSR, Helical SPR LOC #10
13	711310	2	Nut, Hex 10-32 ST PL
14	711502	1	WSR, Flat #8
15	711542	1	WSR, LOC #8
16	711304	1	Nut, Hex 8-32
****	C80601-70		Adapter Complete 30 Gallon



Parts Listing 30 Gallon Tank

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	900078PTD	1	Tank 30 Gal PTD Less Handles
2	900047	1	Dump Valve
3	900031POL	2	Handle, Tank Polished
4	711203	4	BLT, HH 1/4-20 x .62
5	711591	4	Washer, Rubber
6	711505	4	WSR, Flat 1/4
****	C90007-80		Tank 30 Gal Complete
****	805037PKG		Drum Liner 30 Gal Pkg. 12



PARTS LISTING

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	750045	1	Weldment dolly 30/55
2	900051	1	Weldment, handle
3	900052	2	Grip, handle
4	900080	1	Spring, torsion RH
5	900081	1	Spring LH
6	711642	2	Rollpin
7	761050	2	Caster, rigid 5"
8	761049	2	Caster, swivel 5"
9	711545	16	WSR, Helical SPR LOC 5/16
10	711319	16	Nut-Hex 5/16-18 ST PL
****	900048		Dolly cart complete

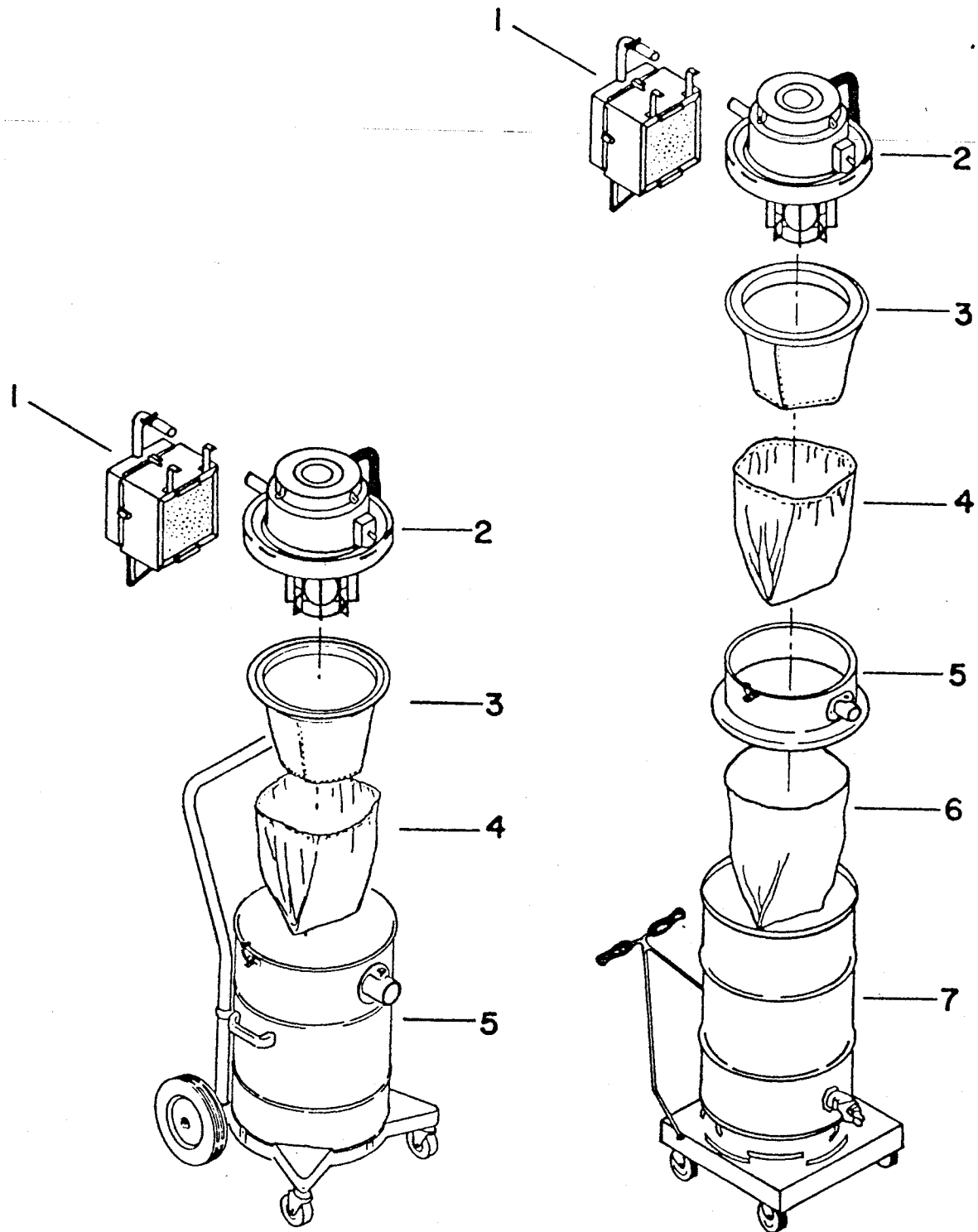


Figure 1

Figure 2