

TORNADO INDUSTRIES  
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## Operation & Maintenance Manual

For Commercial Use Only



## Headmaster™ Model 7080 Series Internal Electric TOX Vacs

### MODEL NOS.

97080 (115V, 21 GAL.)  
97081 (230V, 21 GAL.)  
98670 (115V, Head Only)  
98671 (230V, Head Only)

## NOTES

***This illustrated parts book covers:***

<b>MODEL</b>	<b>97080</b>	<b>97081</b>	<b>98670 **</b>	<b>98671 **</b>
<b>VOLTS</b>	115	230	115	230
<b>SERIES</b>	D	D	D	D
<b>CERTIFICATION</b>	*		*	

All specifications are subject to change without notice. \*\*Head Units Only (No Tank Included)



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<b>Tornado<sup>®</sup> Standard Warranty Program*</b>	
<p>Warranties do not cover components subject to normal wear or abuse and misuse, and have other limitations not specified here. For full details, contact your Authorized Tornado Distributor, Service Center, or the Tornado Technical Service Department.</p>	<p><b>10 Years:</b>  <i>All plastic tanks and rotationally-molded bodies</i></p>
	<p><b>2 Years:</b>  <i>Parts on all Tornado and Tornado/Karcher cleaning equipment<sup>1) 2)</sup></i></p>
	<p><b>1 Year:</b>  <i>Labor on all Tornado and Tornado/Karcher cleaning equipment<sup>1) 2)</sup></i></p>
	<p><b>1 Year:</b>  <i>Warranty on batteries, one full year, not pro-rated.</i></p>

\* Effective January 1<sup>st</sup>, 2001. Terms subject to change without notice.

1) Windshear™ Blower-Dryer, Insulation Blowers, CW 50, CW 100, and Duo-Upright Carpetkeepers™ are warranted for 1 (one) year for parts and labor.

2) Warranties on the ICC1, KMR 1200, KMR 1250, and KMR 1700 are 24 months parts/6 months labor OR 1000 hours of operation, whichever comes first. Warranties on the BR and BD 1000 are 24 months parts/12 months labor OR 1000 hours of operation, whichever comes first.

**IMPORTANT SAFETY INSTRUCTIONS**  
**WHEN USING AN ELECTRICAL APPLIANCE, BASIC PRECAUTIONS SHOULD**  
**ALWAYS BE FOLLOWED INCLUDING THE FOLLOWING:**

**READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE**

**WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY:**

Connect to a properly grounded outlet only. See grounding instructions.

Do not leave machine when plugged in. Unplug from outlet when not in use and before servicing.

To avoid electric shock, do not expose to rain - use indoors only.

Do not allow to be used as a toy. Close attention is necessary when used by or near children.

Use only as described in this manual. Use only manufacturer's recommended attachments.

Do not use with damaged cord or plug. If machine is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.

Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run machine over cord. Keep cord away from heated surfaces.

Do not unplug by pulling on cord. To unplug, grasp the plug not the cord.

Do not handle plug or machine with wet hands.

Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.

Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.

Do not pick up anything that is burning or smoking, such as cigarettes, matches or hot ashes.

Do not use without dustbag and/or filters in place.

Turn off all controls before unplugging. When unit is not in use - coil motor cord and place on unit.

Use extra care when cleaning on stairs.

Do not use to pick up flammable or combustible liquids, such as gasoline or use in areas where they may be present.

Before operating your TORNADO equipment make sure the voltage and current used are the same as indicated on the nameplate.

SAVE THESE INSTRUCTIONS

## **IMPORTANTES MESURES DE SÉCURITÉ**

**L'UTILISATION D'UN APPAREIL ÉLECTRIQUE DEMANDE CERTAINES PRÉCAUTIONS:  
LIRE TOUTES LES INSTRUCTIONS AVANT DE FAIRE FONCTIONNER CET APPAREIL**

### **AVERTISSEMENT. POUR RÉDUIRE LES RISQUES D'INCENDIE, DE CHOC ÉLECTRIQUE OU DE BLESSURE:**

Ne brancher qu'à une prise de courant avec mise à la terre. Voir les instructions visant la mise à la terre.

Ne pas laisser l'appareil sans surveillance lorsqu'il est branché. Débrancher lorsque l'appareil n'est pas utilisé et avant l'entretien.

Ne pas exposer à la pluie et garder l'aspirateur à l'intérieur.

Ne pas permettre aux enfants de jouer avec l'appareil. Une attention particulière est nécessaire lorsque l'appareil est utilisé par des enfants ou à proximité de ces derniers.

N'utiliser que conformément à cette notice avec les accessoires recommandés par le fabricant.

Ne pas utiliser si le cordon ou la fiche est endommagé. Retourner l'appareil à un atelier de réparation s'il ne fonctionne pas bien, s'il est tombé ou s'il a été endommagé, oublié à l'extérieur ou immergé.

Ne pas tirer soulever ni traîner l'appareil par le cordon. Ne pas utiliser le cordon comme une poignée, le coincer dans l'embrasure d'une porte ou l'appuyer contre des arêtes vives ou des coins. Ne pas faire rouler l'appareil sur le cordon. Garder le cordon à l'écart des surfaces chaudes.

Ne pas débrancher en tirant sur le cordon. Tirer plutôt la fiche.

Ne pas toucher la fiche ni l'appareil lorsque vos mains sont humides.

N'insérer aucun objet dans les ouvertures. Ne pas utiliser l'appareil lorsqu'une ouverture est bloquée. S'assurer que de la poussière, de la peluche, des cheveux ou d'autres matières ne réduisent pas le débit d'air.

Maintenir les cheveux, les vêtements amples, les doigts et toutes les parties du corps à l'écart des ouvertures et des pièces mobiles.

Ne pas aspirer de matières en combustion ou qui dégagent de la fumée, comme des cigarettes, des allumettes ou des cendres chaudes.

Ne pas utiliser l'appareil si le sac à poussière ou le filtre n'est pas en place.

Mettre toutes les commandes à la position ARRÊT avant de débrancher l'appareil.

User de prudence lors du nettoyage des escaliers.

Ne pas aspirer des liquides inflammables ou combustibles, comme de l'essence, et ne pas faire fonctionner dans des endroits où peuvent se trouver de tels liquides.

### **INSTRUCTIONS VISANT LA MISE À LA TERRE**

## GROUNDING INSTRUCTIONS

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk 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.

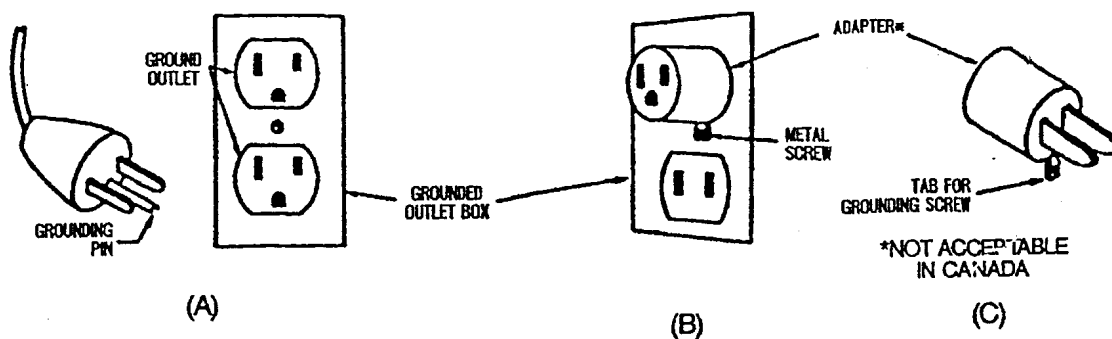
**DANGER:** Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit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

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

### NOTE:

**In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code.**

## GROUNDING METHODS



## INSTRUCTIONS VISANT LA MISE À LA TERRE

Cet appareil doit être mis à la terre. En cas de défaillance ou de panne, la mise à la terre fournit au courant un chemin de moindre résistance qui réduit le risque de choc électrique. Cet appareil est pourvu d'un cordon muni d'un conducteur de terre et d'une fiche avec broche de terre. La fiche doit être branchée dans une prise appropriée correctement installée et mise à la terre conformément aux règlements et ordonnances municipaux.

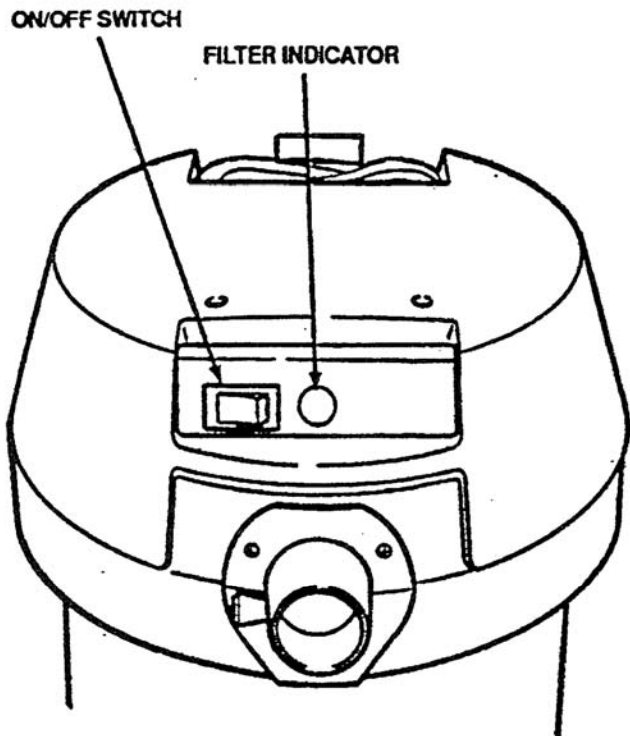
**AVERTISSEMENT:** Un conducteur de terre mal raccordé peut entraîner un risque de choc électrique. Consulter un électricien ou un technicien d'entretien qualifié si vous n'êtes pas certain que la prise est correctement mise à la terre. Ne pas modifier la fiche fournie avec l'appareil - si elle ne peut être insérée dans la prise, faire installer une prise adéquate par un électricien qualifié.

Cet appareil est destiné à un circuit de 120 V et est muni d'une fiche de terre semblable à celle illustrée par le croquis A. Un adaptateur temporaire semblable à celui illustré par les croquis B peut être utilisé pour brancher cette fiche à une prise bipolaire comme l'illustre le croquis B si une prise avec mise à la terre n'est pas disponible. L'adaptateur temporaire devrait être utilisé seulement jusqu'à ce qu'une prise avec mise à la terre soit installée par un électricien qualifié. L'oreille rigide ou le crochet ou autre dispositif semblable, de couleur verte, prolongeant l'adaptateur doit être raccordé à un élément correctement mis à la terre comme le couvercle d'une boîte de sortie mise à la terre. L'adaptateur doit être fixé par une vis métallique.

NOTE: Au Canada, l'utilisation d'un adaptateur temporaire n'est pas autorisée par le Code canadien de l'électricité.

# OPERATION & MAINTENANCE INSTRUCTIONS

## CONTROL PANEL/FEATURES



## DRY PICK-UP FILTRATION/ DAMP PICK-UP FILTRATION

Your unit is shipped with dry filters (part # 98592 & 98588) NOT installed. Please simply install the main H.E.P.A. filter by using the screw provided and then install the dry filter cover over the H.E.P.A. filter. For damp applications, the paper filter (98588) and only the scafitex filter used. Plastic trash liner can be used inside the tank for collection of debris and immediate disposal.



MAIN H.E.P.A.  
98592



IMPACT FILTER 98593

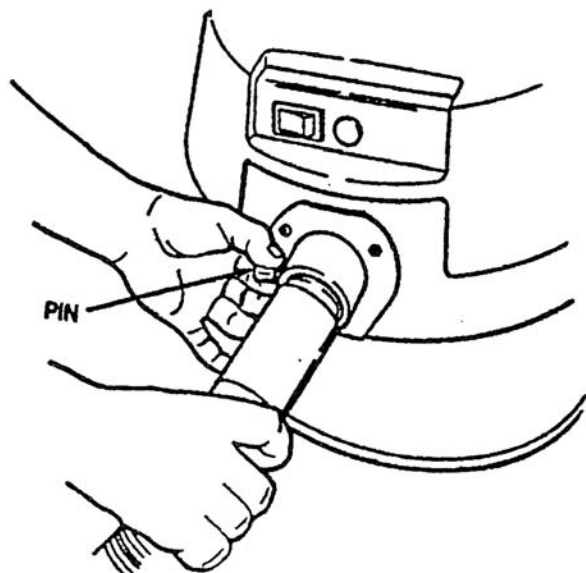


PRIMARY PAPER  
98588 PKG 12



MOTOR H.E.P.A. 98594  
USED ON 97088 & 98670

## CONNECTING VACUUM HOSE



PLASTIC TRASH  
LINER

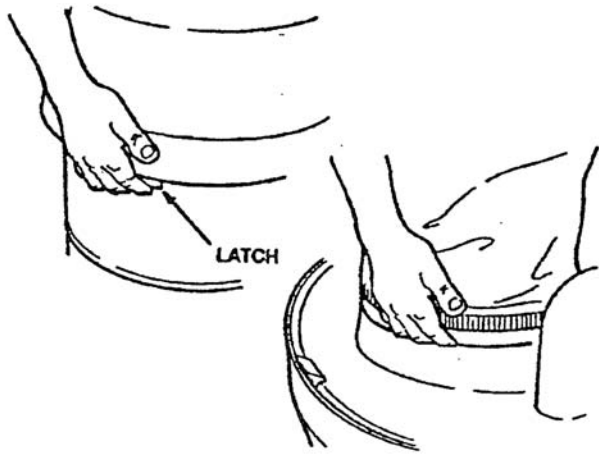
**CAUTION:**  
For wet applications use the #94655  
Add-a-Tank.

## H.E.P.A. FILTER REPLACEMENT INSTRUCTIONS

### CAUTION:

Follow filter changing cleaning directions exactly. Always wear mask, gloves, and other appropriate attire when changing filters that have been exposed to hazardous material. Discard filters as directed by your HEALTH and SAFETY DEPARTMENT. All filters must be in the proper location for this machine to operate properly.

1. Locate latches on side of vacuum head. Press in, then out. Lift vacuum head off and turn upside down on flat surface.
2. Remove primary paper (A) by stretching the top elastic, carefully pulling over impact filter (B). When removed place in trash liner (D) or discard per safety regulations.



3. Remove impact filter (B) by stretching the top elastic, carefully pulling over HEPA filter. Brush clean in trash liner or other appropriate disposal device.

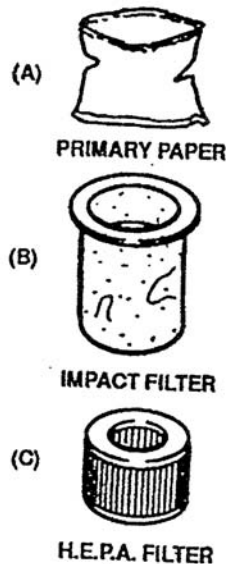
The HEPA filter (C) does not have to be cleaned. It should be replaced yearly or as required by local, government regulations.

To remove HEPA filter remove the screw in center of HEPA frame and dispose of accordingly.

### WARNING

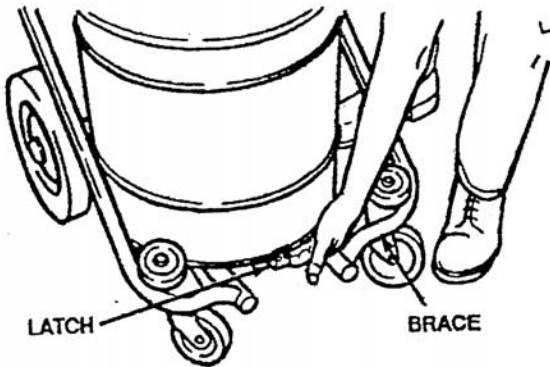
Do not operate this machine without HEPA filter in place. Electric shock could occur during wet applications if used without HEPA filter installed.

4. Replace impact filter (B) by pulling HEPA. Stretch over lip of vacuum housing, making sure no leaks could occur.
5. Replace primary paper same as outlined in 4, taking extra care not to tear paper. Replace vacuum head securely to tank.



## TANK & CARRIER

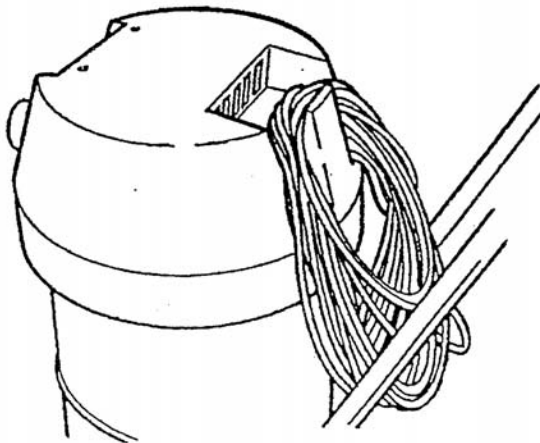
This vacuum is supplied with a Tip & Pour Carrier feature. To empty tank remove head. Place foot on lower foot brace as shown. Reach under the tank and press plastic latch upward.



Lift tank through handle assembly. After emptying, rinse out tank and allow to air dry.



Wrap cable around your arm from machine towards plug. Place wrapped cable on built in cable storage hook.



Use utility basket located on rear of carrier assembly for storage of floor tools and extra filters.

## REPLACEMENT FILTERS



(1) 98588 Dry Paper Filters packaged in tank (one installed)



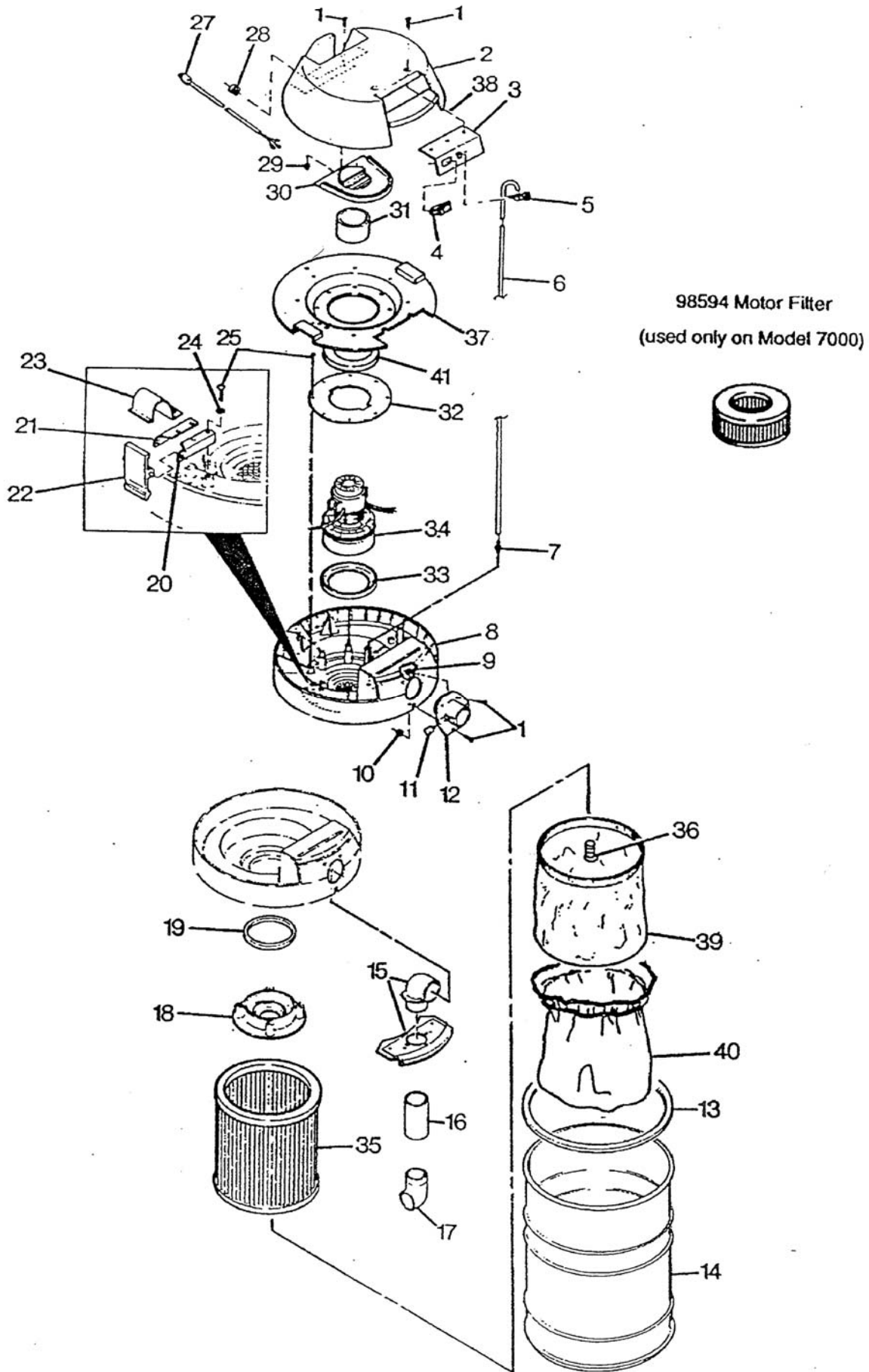
(1) 98593 Impact Filter  
(1) 98592 HEPA (installed)  
(1) 98594 Motor Filter (used only on 97080 & 98670)



Tornado Tox Vacuums are shipped after being factory tested to meet the specifications shown below.

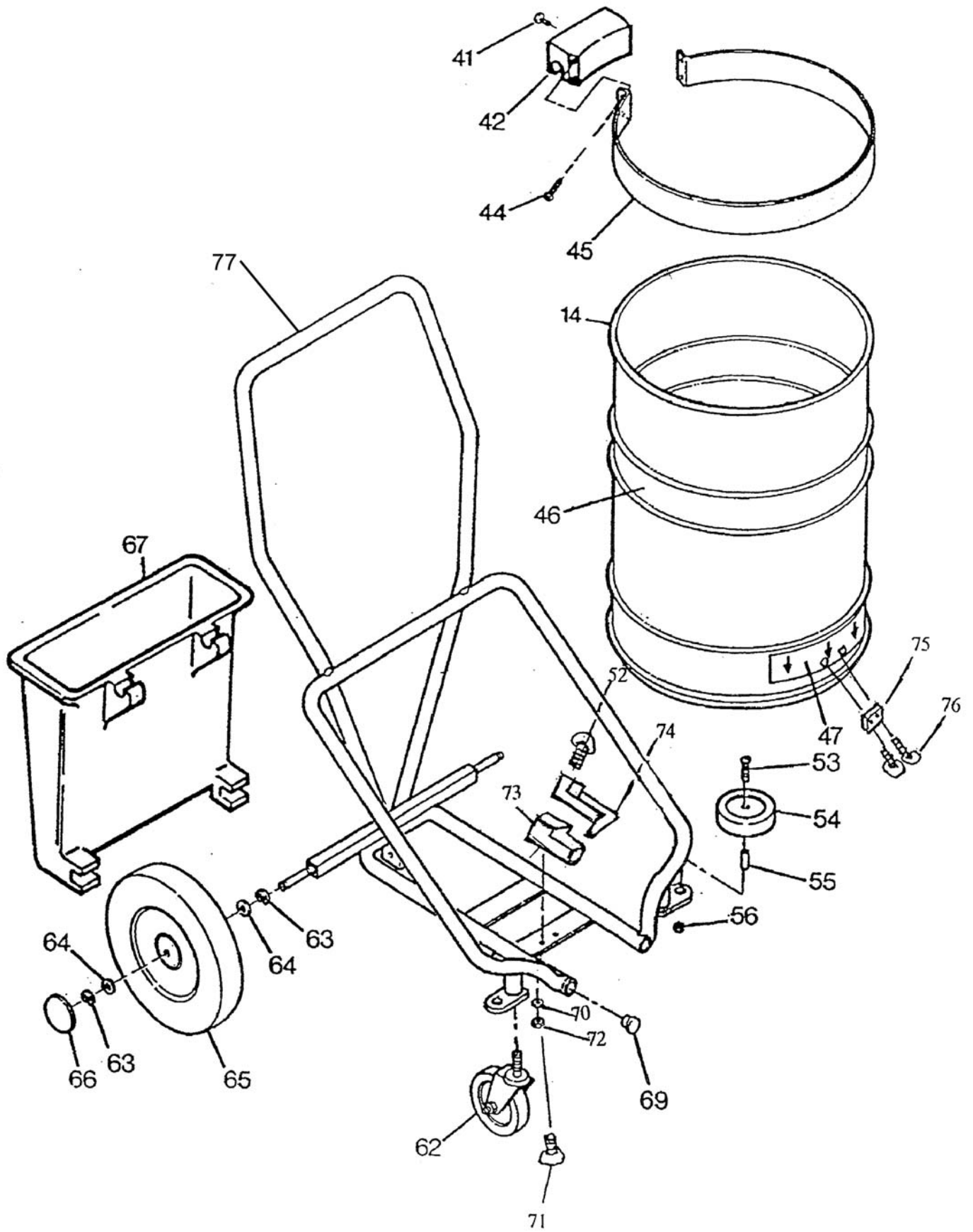
Your unit will have the certificate of compliance affixed to the power cord.

CERTIFICATE OF COMPLIANCE	
<small>THIS PRODUCT IS EQUIPPED WITH A TYPE C HEPA FILTER CONSTRUCTED PER IES-PP-CO-001-M (99.97% EFFICIENT AT 0.3 MICRON PARTICLE SIZE). IT HAS BEEN TESTED FOR PARTICLE LEAKAGE PER FEDERAL STANDARD 209B AND FOUND TO BE WITHIN ACCEPTABLE LIMITS. WHEN PROPERLY MAINTAINED THIS PRODUCT WILL MEET O.S.H.A. LIMITS FOR HAZARDOUS SUBSTANCES SUCH AS ASBESTOS, LEAD AND OTHER AIR POLLUTANTS.</small>	
PRODUCT CODE _____	TESTED BY _____
SERIAL NO. _____	<b>SAMPLE</b> _____
BREUER®ELECTRIC MFG. CO. 7401 W.LAWRENCE AVE. CHICAGO, IL 60656	
	



**PARTS LIST**  
**7000 SERIES TOX VACS - HEAD AND TANK ASSY.**

<u>ITEM</u>	<u>PART NO</u>	<u>QTY</u>	<u>DESCRIPTION</u>
1	17451	7	Screw-Phil.Pan.Hd. #10-24 x 7/16"
2	17335	1	Cover-Vac. Head
3	18055	1	Panel
4	17342	1	Switch-Rocker, D.P.S.T. 20A/125-277Vac/1-1/2HP
8	17471	1	Base Assembly-Vac. Head
9	3105	2	Nut-Clinch, #10-24
10	10894	1	Locknut-Hex. #10-24
11	17398	1	Intake Hose Retainer (Spring Plunger)
12	17368	1	Intake-Vac. Head
13	17405	1	Gasket, Vacuum Head to Tank
14	17389	1	Tank-18 Gallon
15	17472	1	Intake Plate Assembly
16	17430	1	Intake Elbow Adapter
17	17339	1	Elbow 90 Degrees
18	17371	1	HEPA Filter Holder
19	17600	2	Gasket
20	17354	2	Bracket-Tank Latch (L/H)
21	17356	2	Bracket-Tank Latch (R/H)
22	17357	2	Latch-Tank
23	17353	2	Spring-Tank Latch
24	11007	2	Lockwasher-(I/T) #10
25	11390	20	Screw-Pan.Hd. #10-16 x 5/8"
27	19412	1	Power Cord Assembly
28	2961	1	Strain Relief Bushing
29	17376	1	Locknut-Hex. #10-24 (Nylon)
30	17377	1	Panel-Motor Exhaust Vent
33	10971	1	Gasket, Motor
34	17348	1	Motor-Vacuum, Bypass, P/D, 2-Stage, 115V/50-60HZ
*	17426	1	Motor-Vacuum, Bypass, P/D, 2-Stage, 230V/50-60HZ
35	98592	1	Main HEPA Filter
36	14669	1	Screw-Phil.Rd.Hd. 1/4-20 x 2 1/4"
37	17816	1	Baffle
38	17562	1	Electrical Panel Closure
39	98593	1	Filter-Cloth Bag
40	98588		Filters (Pkg. Of 12)
*	30817	1	Decal-Tornado w/ Logo



**PARTS LIST**  
**7000 SERIES TOX VACS - TANK AND CARRIER ASSEMBLY**

<u>ITEM</u>	<u>PART NO</u>	<u>QTY</u>	<u>DESCRIPTION</u>
41	3261	1	Screw-Pan.Hd. #10-32 x 3/8"
42	17823	1	Pivot Block-T/P Carrier
44	1995	4	Screw-Phil.Pan.Hd. #10-24 x 7/8"
45	17822	1	Tank Strap
46	30817	1	Decal-Tornado w/ Logo
47	14676	1	Decal-Tank
48	3660	1	Screw-Phil.Pan.Hd. #10-24 x 7/16"
53	1978	2	Screw-Phil.Pan.Hd. 1/4-20 x 1-1/2"
54	3264	2	Wheel-3" Dia.
55	17400	2	Spacer-1/4"
56	7533	2	Nut-Hex.Lock (P/T) 1/4-20
62	17373	2	Caster, 4" Dia.
63	2663	4	Ring-Retaining 1/2"
64	16581	4	Washer, Plain 1/2" ID
65	2661	2	Wheel, 10"
66	3084	2	Hub Cap
67	17817	1	Tool Basket
*	98186		Tip and Pour Carrier with Tool Basket
69	17784	4	Plug-Tube, 18 Ga. X 1" OD
70	1713	3	Washer-Lock (H/S) #10
71	4735	6	Screw-Phil.Trs.Hd. #10-24 x 3/4"
72	11219	2	Washer, Plain #10 ID
73	18743	1	Block-Latch Mounting
74	18745	1	Latch-Carrier Tank
75	18744	1	Latch-Stop
76	15621	2	Screw-Hex.Hd. #10-24 x 5/8"
77	17818	1	Weldment-Carrier Frame
78	17832	2	Nut-Tp Spot Weld #10-32

**NAMEPLATES**

*	17407	1	7000 Tox Vac
*	11898	1	Carrier Band Decal

\* Not Shown

**MICELLANEOUS VACUUM HEADS, COMPLETE**

98670	Internal Tox Vac Head 7000 115 Volt w/Filters 98592, 98593, 98595 & 3 Primary Paper
98671	Internal Tox Vac Head 7000 230 Volt w/Filters 9892, 98593, 985985 & 3 Primary Paper

(230 Volt Components Upon Request)