



## Electronic Service Manuals

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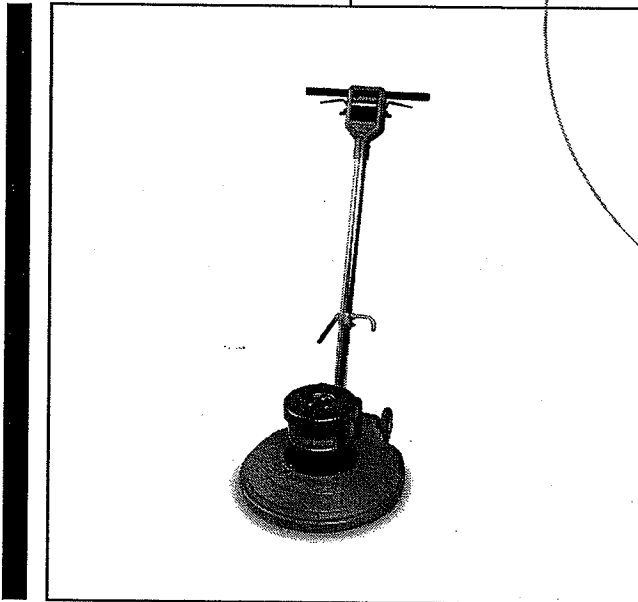
***Serving the Cleaning Industry Since 1922***

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# Crewman™ 20 Heavy Duty Floor Machine

Item #E83014-00

## Operator's Manual Parts Schematic



*Chemicals*  
*Equipment*  
*Programs*  
*Process*

**BETCO®**

<b>Operating Instructions - Betco Crewman™ 17HD, Crewman™ 20HD Floor Machines</b>
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## Specifications

- **Cleaning Path/Pad Size:** 17", 20"
- **Motor:** 1.5 hp, 120v, 12 A, 60 HZ
- **Pad Speed:** 175 RPM
- **Power Cord:** 50' 14/3 Safety Yellow
- **Handle Grips:** Anti-Fatigue
- **Operating Wheels:** 5" Non-marking
- **Productivity:** Bonnet-1100 sq.ft/hr., buff/scrub-2400 sq.ft/hr., strip-800 sq.ft/hr.
- **Weight:** 90 lbs.
- **Dimensions:** Length 24.25", Width 20", Height 48"

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## **! WARNING! IMPORTANT SAFETY INSTRUCTIONS**

Carefully read and understand this manual before operating this machine.

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

- Do not operate in explosive areas, near flammable liquids or gases.
- Only plug into a properly grounded outlet.
- Do not exposure to rain, store indoors.
- Do not plug in or handle machine with wet hands.
- Do not operate the machine with a damaged cord or plug.
- Do not block or disconnect safety lever.
- Do not leave machine plugged in while unattended.
- Unplug machine before servicing.
- Do not put fingers under the pad or pad holder.
- Unplug the machine before installing or removing the pad.
- Use only high speed burnishing pads.
- Do not put any foreign object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, & anything that may reduce airflow.
- Keep hair, loose clothing, fingers, & all parts of body away from openings & moving parts.
- Turn off all controls before unplugging.
- Do not use in or around flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Connect to a properly grounded outlet only. See grounding instructions.

**Operating Instructions - Betco Crewman™ 17HD, Crewman™ 20HD  
Floor Machines**

### **Grounding Instructions**

This machine must be grounded. If it should electrically malfunction, 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 & grounding plug. The plug must be plugged into an appropriate outlet that is properly installed & grounded in accordance with all local codes & 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 machine. If plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

Replace the plug if the grounding pin is damaged or broken.

Extension cords connected to this machine should be 12 gauge, 3-wire cords with 3-prong plugs & outlets. DO NOT use extension cords more than 50 feet long.

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### **Warranty Policy**

#### **10 Year**

Subject to conditions stated below. Betco warrants the rotationally molded polyethylene tanks/housings and injection molded vacuum head assemblies to be free from defects in materials and workmanship for a period of ten years to the original purchaser.

#### **3 Year**

Betco offers a three-year warranty to the original purchaser on other Betco components to be free from defects in material and workmanship. \*See list of exempted wear items.

\*Note: Wear items exempt from warranty include power cords, transport wheels, belts, pad drivers, clutch plates, handle grips, filters, screens, gaskets, throttle cables and brushes.

<p align="center"><b>Operating Instructions - Betco Crewman™ 17HD, Crewman™ 20HD Floor Machines</b></p>
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## **Operating Instructions**

**Check machine for damage to cord or plug.**

**Use suitable pads or brushes.**

**To install or change the pad:**

1. Unplug the machine.
2. Tip the machine back on the wheels.
3. Install pad driver or brush.
4. Center the pad on the pad driver.

**To operate the machine:**

1. Plug into a grounded outlet.
2. Release the handle and lower it.
3. The handle can be locked into a comfortable position for the operator or used free floating.
4. Press the safety lever and squeeze the trigger to start the machine.
5. Do not operate in one place as damage to the floor or finish could result.
6. Do not operate the machine with the handle in the upright position.
7. Remove the pad after every use.
8. Store the machine tilted back on the transport wheels.
9. Use only new or clean pads and reverse them as needed.

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## **Maintenance Instructions**

To maintain appearance – wipe the machine with a damp cloth after use.

**Warning – Unplug the machine before servicing**

This machine is equipped with an hour meter to signal maintenance intervals of 250 hours. It will begin flashing at 245 hrs and stop at 255 hrs to signal the operator to check the following:

1. Check the motor brushes for wear or excessive arcing.
2. Check the cord and electrical system.
3. Check the safety lockout on the trigger.
4. Check wheels.

View	Betco SKU	LOC.	Description	Qty
<b>Fig. 1</b>				
	83125	310122	Switch Box, handle	1
	83325	310121	Cover, Switch Box	1
	85032	210102	Switch	1
		310124	Handle Tube 7/8x16"	1
	83127	310118	Grips	2
	83128	310169	Trigger, Switch	1
	83129	310119	Safety Lock	1
	83130	110149	Spring	1
	83270	110163	Clip, Spring	1
	85037	210121	Cord, 50' - 14-3 ST	1
	83132	210105	Cord, Handle 14-3	1
		210106	Grommet 3/8 ID	1
		310125	Handle, Weldment	1
		110178	Screw 1/4 - 20 x 3/4 Hex	2
		110115	Nut, 1/4 - 20 Nylok	2
		110140	Screw 1/4 - 20 x 1 3/4	4
		210109	Wire, ground	1
		210110	Wire Nut	2
		110146	Wire Tie	1
		110116	Screw # 6	2
		110159	Decal, Safety	1
<b>Fig. 2</b>				
		110130	Washer, Fender 1/4"	2
		110150	Screw, 1/4-20x1"	2
	83141	310111	Bumper	1
		110119	Washer, Flat 5/16 USS	4
		110120	Washer, lock 5/16	4
		110177	Bolt, 5/16-18 x 1.5" Hex	4
<b>Fig. 3</b>				
		310137	Base, F M 20"	1
		310138	Base, F M 17"	1
	83191	210111	Motor, 1.5 HP, AC	1
		210113	Motor, 1 HP, AC	1
		210112	Motor, 1.5 HP, 2 speed	1
	83144	310114	Wheel 5"	2
		310132	Axel, 1/2" x 12.375	1
		310115	Axel, 1/2" x 13.875"	1
	83143	110144	Caps, Axel 1/2"	4

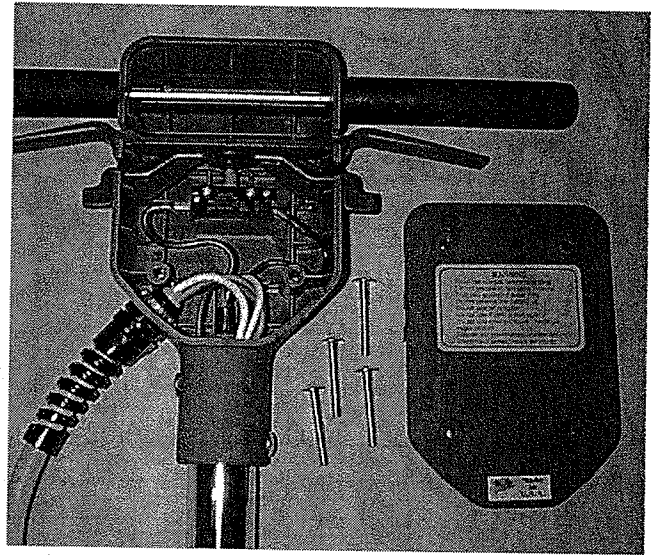


Fig. 1

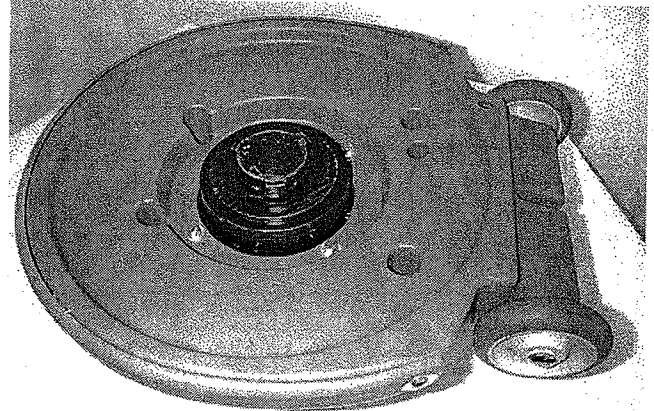


Fig. 2

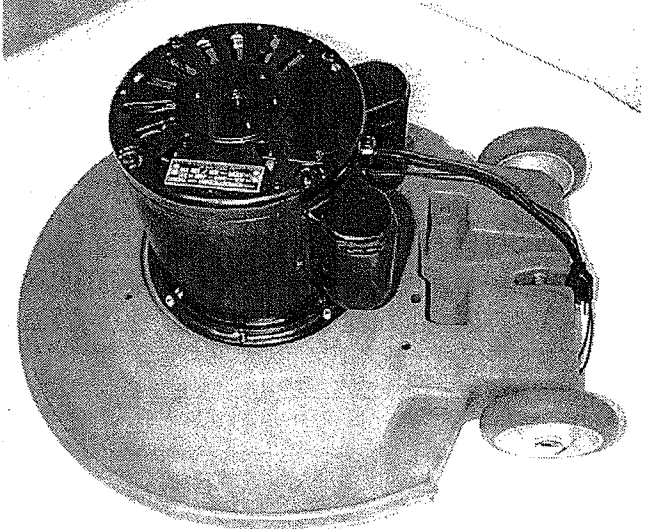


Fig. 3

View	Betco SKU	LOC.		
View	Betco SKU	LOC.	Description	Qty
Fig. 4				
	83133	310129	Handle Cam Lock	1
	83134	110111	Bolt, Adj 5/16-18 Cam	1
	83135	110112	Washer, Oval	1
	85073	110148	Nut, 5/16-18 Nylock	2
	83137	310128	Cord Hook	1
	83136	310130	Bracket, Handle	1
	83143	110114	Pin 1/4 x 3/4	1
	83267	110164	Washer, Spring 1/4"	1
	83268	110151	Cap, Push 1/4"	1
	87415	110169	Washer, Spring 3/8"	1
	83269	110168	Washer, Spring 1/2"	7
	83145	110103	Washer, Nylon	7
Fig. 5				
		Vac Formed	Cover, Motor, Black	1
		110141	Screw 1/4-20 x 1"	4
		110142	Washer 1/4 Flat	4
		110143	Washer 1/4 Lock	4
		110180	Decal, 20HD	1
		110181	Decal, 20DS	1
		110186	Decal, 17HD	1
		110187	Decal, 20DS	1
			Manual, 17 & 20 FL M	1
		110174	Box, Packaging 20"	1
		110175	Box, Packaging 17"	1
		110135	Box, Insert Handle 20"	1
		110176	Box, Insert Handle 17"	1



Fig. 4