

Multi Sweep - Built to Last

Operating Instructions



Multi Sweep Operating Instructions

Pre-operating Instructions

- Remove all packing material, carefully inspecting the unit for shipping damage. If any damage is found, inform the transport company and sign the delivery note damaged. If necessary notify your supplier of this product.
- Check machine for tightness of bolts and fittings.
- Grease all wheels, castors and kingpins.
- Fit the appropriate quick release couplings to the hydraulic feed hoses on the Multi Sweep.
- These couplings must be compatible with those of the carrier vehicle and must be half inch bore, or larger, so that the oil flow is not restricted.

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Forklift Powered Models

- Place the forks in the hangers of Multi Sweep machine. Close fork lock catch behind both forks.
- Locate hangers in the centre section of the hanger housing. This prevents the forklift weight "resting" back on the Multi Sweep and
- Attach the feed and return hydraulic hoses to the extra function fitting on the material handler.
- Operate extra function lever with forklift at idle speed. Ensure that main broom on the Multi Sweep is rotating in clockwise direction, i.e. brushing towards the debris container.
- Engage 1st or 2nd gear with rpm at just above idle speed. This should give a ground speed of between 2 to 4 miles per hour. (It is important that high engine rpm is not used as this will increase broom speed but not sweeping efficiency and only increases broom wear and possible damage).
- Slowly lower the Multi Sweep to the ground so that it rests on its wheels and commence sweeping in a forward direction. Ensure that fork hangers are kept at mid-section of hanger housing.



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- When the debris container is full, spillage will be seen at both sides of the machine.
- Release extra function lever to stop broom rotation keeping the Multi Sweep on the ground. (This prevents the debris container opening accidentally).
- Lift the machine over discharge area and operate the extra function lever in reverse of sweeping mode which trips the debris container (Use low rpm at all times and do not shake in an attempt to improve discharge).
- Check the container is clean of all debris, mud, etc.
- Put the machine into sweeping mode and lower to the ground whilst moving forward. This allows the debris container to lock up automatically.
- Do not attempt to close the debris container while in a static position as you may cause excess wear or damage to the retaining pins.

Kerb Brush Operation

Ensure that the kerb brush is not operating before handling.

- Hold safety ring and remove the R-clip from retaining pin and gently lower the kerb brush to the ground. Place the retainer pin in sleeve on the side of the kerb brush bracket.
- Check that the brush is in contact with the ground prior to operating
 - a) By adjusting the top bolt-stop, allows bristles to just rub on the ground. (Excessive pressure reduces brush efficiency and reduces brush life).
 - b) By adjusting the angle to give good kerb penetration, and sideways sweeping.



Water System-Gravity Spray Bar

- Fill the water tank with clean water, access point for water located on top of tank, and operate ball valves fitted between tank and spray bar.



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Engine Powered Models

The operating instructions are the same as for material handler models with the following exceptions. Please check that you are putting the correct fuel into the engine. Also check oil levels in the engine and hydraulic reservoir.

- Once the Multi Sweep has been attached to the material handler and secured, the powerpack engine can be started. **Do not start** the engine unless the hydraulic valve is in the off position as you will be putting excess load on the engine at the start
- Allow the engine to run at low rpm initially until it warms up.
- Once the engine has been allowed to warm up, increase the rpm using the throttle lever run engine at maximum rpm.
- Engage the lever on the hydraulic ball valve fitted to the powerpack hydraulic circuit. This diverts the oil flow to the main broom motor.
- You can now commence sweeping in a forward direction.



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Multi Sweep Service Guidelines :

Wheels

All wheels are fitted with a grease point to grease the axle bearings. These bearings must be greased periodically with premium quality lithium based grease. Wheels are replaced with new wheels when the solid rubber section has worn close to the steel centre. The axle reduction bush from the worn wheel can be transferred on to the new wheel.

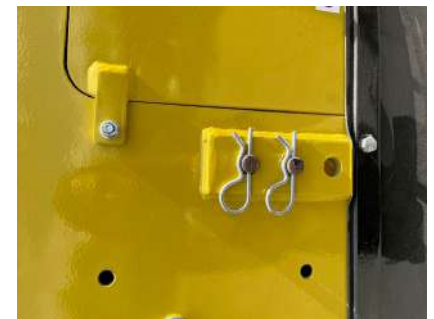
Kingpins / Castors

Wheels are mounted to a kingpin fork. Each is fitted with a grease point for periodic greasing. Casters are replaced with new casters when worn. If excessive play develops on the kingpin system the internal brass wear bushes need to be replaced.



Main Broom

When the main broom wears it will need to be adjusted to compensate for this wear. The adjustment blocks are located at each side of the Multi Sweep (one on each side).



The retaining R-clips are removed and the adjustment blocks are moved down to the lower location point on the body. This allows the broom side arms to swing

down further and the maximum broom life can be obtained before a replacement broom is fitted. The broom needs replacing when the bristle length is reduced to approx. 11.5cm, (4.5"). This length is from bristle tip to the steel centre band.

To fit a new broom the complete broom core is removed from the Multi Sweep. The 4 retaining bolts are removed from the circular end-plate and the individual broom sections and spacers are removed. The new broom sections are then put back on the broom core while re-using the original section spacers. When assembling a new broom, a section spacer is first onto the core, and then according to your mix, the spacer is followed by a wafer/broom section, a spacer, a wafer, etc. The end-plate is re-fitted and the retaining bolts are set in place with studlock. The re-bristled core is then re-fitted to the Multi Sweep.



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Kerb Brush

The Side Kerb Brush has a threaded adjustment stud fitted on the main support arm. This is adjusted according to brush wear. When the Kerb Brush is fully worn the three attachment bolts are removed and the complete brush head is replaced with a new brush head.



Broom Bearing

A self-align bearing is fitted on the non-drive-side of the main broom. This must be greased periodically with lithium based grease. It is recommended that this bearing is checked for wear when the broom is removed for re-bristling and replaced if necessary.



Dust Apron

The dust apron is the PVC border around the sweeper base. The apron helps prevent dust escaping from underneath whilst sweeping. If the apron is damaged or torn it is less effective and should be replaced. The apron is fitted as one complete piece and the lower edge should just touch the ground when the sweeper is operating.

Engine Service

Some MultiSweep machines can be fitted with a Diesel engine. For service of these engines please refer to the engine handbook.

On the engine models there is a return hydraulic filter fitted in the hydraulic reservoir. It is recommended that this filter is changed after every twelve months of operation.

On Robin Diesel engines you will also be required to change the engine oil filter, consult your engine manual for this procedure.

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Service Recommendations For Multi Sweep UpKeep

Three Month Service

- Check wheels, castors and kingpins for wear.
- Grease all wheels and castors.
- Check dust apron for wear.
- On Petrol engine models;
 - Clean spark plug.
 - Clean air filter.
- On Diesel engine models;
 - Clean air filter.

Nine Month Service

- Check wheels, kingpins and dust skirt for wear.
- Grease all wheels and castors.
- Grease main broom bearing.
- Check main broom for wear, adjust if necessary.
- On Petrol engine models;
 - Clean spark plug.
 - Clean air filter
- On Diesel engine models;
 - Clean / replace air filter.

Six Month Service

- Check wheels, castors and dust apron for wear.
- Grease all wheels and castors.
- Grease main broom bearing.
- Check main broom for wear, adjust if necessary.
- On Petrol engine models;
 - Replace engine oil.
 - Clean spark plug.
 - Clean / replace air filter.

Twelve Month Service

- Check wheels, castors, kingpins and dust skirt for wear.
- Grease all wheels and castors.
- Check main broom for wear, replace if necessary.
- Check main broom bearing for wear, replace if necessary
- On engine models:
 - Change engine oil.
 - Change spark plug.
 - Replace oil filter.
 - Replace air filter.
 - Clean fuel filter (diesel).
 - Replace hydraulic filter.
 - Replace engine oil filter

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Trouble Shooting Guide

- Sweeper not collecting debris effectively.
 - Main broom worn & needs adjusting downwards.
 - Debris container may be full of caked debris & needs cleaning out.
- Debris container opens accidentally.
 - Keep the Multi Sweep on the ground when releasing the 3rd function lever to stop sweeping. Then lift the Multi Sweep & take to the tipping area.
 - Check to see if trip lever is damaged or bent in anyway.
- Engine under excessive load whilst sweeping.
 - Engine maybe revved too high for the effective performance. It is recommended that the engine revs are set at well below maximum to avoid undue loading.
- Water sprinkler system ineffective.
 - With gravity system check pipe-work for silt blockage, or damage to the spray bar.
 - With electric system check pump inlet filter and filter on spray nozzle for blockage.
- Broom stops turning on power-pack model.
 - If the broom stops turning and the hydraulic oil has warmed up it may indicate a worn hydraulic pump, replace pump if necessary.