

Introduction

First we would like to thank you for purchasing our product. We believe you have made the right choice and hope that we can help you with your future needs.

We ask that you direct your attention to the safety section of the manual and carefully read and understand the instructions found therein. We do not feel that safety can be ignored. Thanks

The RMB500 Heavy Duty Rear Mount Sweeper Has features that help to make it a superior product, among them are:

- 1) A double c/v joint telescoping drive shaft to eliminate broken universal joints due to binding.
- 2) A new style hood, with a 1/16" thick steel wrapper fitted to two 1/8" thick side plates for longer wear. The side plates have been designed to help keep bent bristles and other debris from getting outside of the hood.
- 3) A Parking stand option is available so that the broom can be removed from the tractor and stored without leaving the broom on the ground, a practice that can damage the bristles and subsequently hinder performance.
- 4) A general heavy-duty construction! The drive shafts, chain drive, gearbox, and bearings are all engineered to withstand stresses equal to, or greater than those involved in the sweeping process.

The RMB500 heavy-duty Rear mount Sweeper is designed and manufactured to give long and satisfactory service, given reasonable care. As with all mechanical equipment, eventually the need for replacement or spare parts will arise. This manual, with its parts list and drawing will be invaluable when this occurs.

To help speed parts service we suggest that you the following information at hand when ordering parts:

MODEL NUMBER _____

SERIAL NUMBER _____

PURCHASE DATE _____

We suggest that you record the above information in the blanks for your future convenience.

SAFETY PRECAUTIONS

TRAINING

- Before operating the unit, read and thoroughly understand this manual.
- Know where the controls are and become familiar with them.
- Before allowing anyone to operate the unit, read this manual and instruct them in its safe operation.
- **KEEP CHILDREN AWAY FROM THE SWEEPER AND USE CAUTION TO PREVENT ACCIDENTS!!**

PREPARATION

- Clear area to be swept of all foreign objects.
- Wear the proper clothing to prevent injury, (i.e. long sleeve shirt, safety glasses or goggles.)
- Do not make adjustments to the unit while the tractor is running.
- Do not operate the unit without all guards, hood, covers, and shields in place.
- To help in avoiding accidents, plan your work ahead.
- Keep pets, children and other people clear of the sweeping area. Make sure the work area is clear of all obstacles that could cause personal injury.

SERVICE

- Avoid hazardous conditions such as using power tools around water.
- Use plenty of light and use the right tool for the right job.
- Always pick up and account for all tools after using them.

OPERATION

READ THE ENTIRE OWNERS MANUAL. An uninformed operator subjects himself and others to possible serious injury or death.

Wear safety glasses, goggles, or an OSHA approved face shield whenever you are operating the sweeper to avoid injury from the dust and debris generated by the sweeping action.

When the engine is running, keep hand, feet and loose clothing out of the way. Also avoid the driveline, brush and other moving parts.

Do not operate a unit that is in need of repair. Replace or repair worn parts promptly. Periodically check bolts to make sure they are tight.

MOUNTING INSTRUCTIONS

The RMB500 rear mount tractor sweeper is designed to mount on any category 1 or category 2 type hitch and is powered from the rear powered take-off at approximately 540 RPM.

This sweeper is shipped fully assembled and required no assembly by purchaser with the exception of what is involved in the mounting of the broom on the tractor.

If your sweeper is not equipped with parking stands, we recommend that you retain the shipping skid, as it is a convenient place to store and perform maintenance on your sweeper. **THE BROOM SHOULD NOT BE LEFT STATIONARY ON THE GROUND AS THE BRISTLES WILL BECOME DISTORTED AND HINDER PERFORMANCE!**

Back the tractor up to the sweeper assembly and connect the lower hitch arms to the lower hitch pins and secure with ring pins.

Then connect the adjustable top link arm to the top of the mounting assembly.

Raise the unit clear of the parking stands, skid, or other parking method and take it to a clear area.

Next install the drop chin assembly as outlined in the maintenance section of this manual. Then install the spring chain and transport chains as shown in the same section.

After attaching the telescoping drive shaft to the tractors PTO visually check the unit to make sure nothing has been damaged in shipment or handling.

Refer to the leveling instructions on the next page.

LEVELING INSTRUCTIONS

To maintain even brush wear and to produce efficient sweeping, the RMB500 sweeper should be leveled. To avoid stress and excessive wear on the drive train, the broom has to be leveled at first and periodically there after. To level the broom easily, follow these simple steps:

1. Drive the assembled broom on to a level paved or cement area. Connect the transport chain and lower the brush head assembly so the tips of the brush bristles are about 2" off the ground.
2. Turn off the tractor and make it secure by applying the brakes and blocking the wheels.
3. Measure from the brush frame tubing to the ground at each end.
4. If the measurements are not the same, loosen the two bolts that fasten the main from hinge to the pivot plate (the nuts are visible by looking down between the hood and the gear box guard)

5. Adjust the head assembly until both sides measure the same and tighten the two assembly bolts.

MAINTENANCE

The following instructions are for the mechanical maintenance of the sweeper. By keeping the unit in proper adjustment you can greatly increase its life, as well as that of the broom.

DRIVE CHAIN

As the drive chain wears it will be necessary to adjust it to remove some of the slack. Follow these steps for the proper procedures.

1. Make sure the tractor brakes are on and that the wheels have been clocked to insure your safety while performing and maintenance on the sweeper.
2. Loosen (do not remove) the four bolts holding the core bearings in place.
3. Remove the lower chain guard to give access to the chain so that you can test the amount of slack in the chain.
4. Turn the adjusting bolt clockwise to remove the slack from the chain. IT IS IMPORTANT THAT THE CHAIN HAVE $\frac{3}{8}$ TO $\frac{1}{2}$ " OF PLAY. DO NOT OVERTIGHTEN THE CHAIN.
5. Measure the distance from the back of the broom frame to the center of the core shaft and check the opposite side of the broom at the same point. If the measurements are not the same, adjust the non-drive side until the measurements are equal.
6. Tighten the bolts in the core bearings and replace the guard.

SPROCKET ALIGNMENT

Improper alignment of the drive chain sprockets will cause the drive chain to derail, and also cause excessive wears on sprockets and chains.

1. Make sure the tractor is securely blocked for safely as with all maintenance procedures.
2. remove the upper chain guard and the pinion guard to gain access to the chain sprockets.
3. Loosen the setscrews in the core bearings to allow the shaft to slide from side to side.
4. Using a straight price of steel stock or some other type of straight edge, place one end against the flat side of the core sprocket; the other end should rest against the side of the smaller sprocket. Slide the core assembly from side to side as required for proper alignment.

5. Tighten the setscrews in the core bearings and replace all guards.

DROP CHAIN ASSEMBLY

The drop chain assembly is used to support the sweeper when in the lowered sweeping position and also to prevent the sweeper from lowering too far. The two chains are shipped bolted in place on the bottom of the hitch frame and held together by the supports chain plate. Pin the support chain plate to the tractor at the base of the adjustable top link and adjust the length of the chains until the mounting assembly is about 16" off the ground when lowered.

SPRING CHAIN ASSEMBLY

Adjust the spring chain assembly to give a two to four inch brush pattern. A properly adjusted brush will have a slight bounce when lifted a couple of inches and dropped (do not lift the brush by the hood). Only the tips of the bristles should touch the ground when lowered.

TRANSPORT CHAIN

The purpose of the transport chain is to take the weight off the spring chain assembly when moving from job to job. Lower the sweeper to the ground and pull the transport chain right and secure the chain in the chain holder on the mounting assembly. Now raise the sweeper off the ground. Most of the weight of the brush head assembly hold be on the transport chain, not on the spring chain assembly.

BENT BRISTLES

The new hood style of the RMB500 sweeper is designed to help keep bent bristles from causing problems, however, if any bristle are damaged enough to get outside of the hood they should be cut off to eliminate the possibility that they might derail the drive chain.

LUBRICATION

GEAR BOX –it is recommended that the lubricant in the right angle gearbox be periodically checked for the proper level.

This can be done by first making sure the gearbox is level by clocking the broom frame. Next, turn off the tractor and apply parking brakes and/or block the tractors wheels. Make sure the unit is stationary before doing any maintenance!

Remove the four bolts from the gear box cover, and remove the cover (be careful not to lose guard spacers if so equipped). Next remove the side plug from the gearbox. If no lubricant drips from hole, remove top plug and fill with 90-weight multi-purpose gear lube until it is visible in the side hold.

Once you have finished filling the gear box, replace the plugs and the guard.

CHAIN-- Periodic lubrication of the chain with a spray chain lubricant will prolong the chains life, however, we recommend that the chain be removed and soaked in clean 30 weight motor oil to allow oil into the rollers where it is needed.

BEARINGS—The bearings are equipped with Alemite grease fittings and should be greased with any EP1 type grease every 20 to 30 hours of use.

DRIVE SHAFTS—Because of the heat build-up in the drive shafts, we recommend synthetic or semi-synthetic grease such as Drydene SFG (available at NAPA). Because of the environment that the shafts operate in, the more frequently they are lubricated the better. It is recommended that they not go without lubrication any longer than 15 to 20 hours.

GENERAL—In order to prolong the life of the sweeper, and to make it easier to service, it is advisable to apply a rest inhibitive lubricant, such as silicone, to the shaft ends and to transport and spring chains to aid in eliminating rust and corrosion.

The hinge hint on the main frame is equipped with Alemite fittings and should be greased with EP1 or an equivalent once a week.

Because of the conditions associated with sweeping, the more care that is taken in maintaining should be taken in its maintenance. Consult your tractors owners' manual, or contact the dealer for recommendations.

Another item to check is the tractors air cleaner. Because of the dust raised by the sweeper, air cleaners may become stopped up more frequently. In some cases it may be necessary to up-grade the tractor air filtering system.