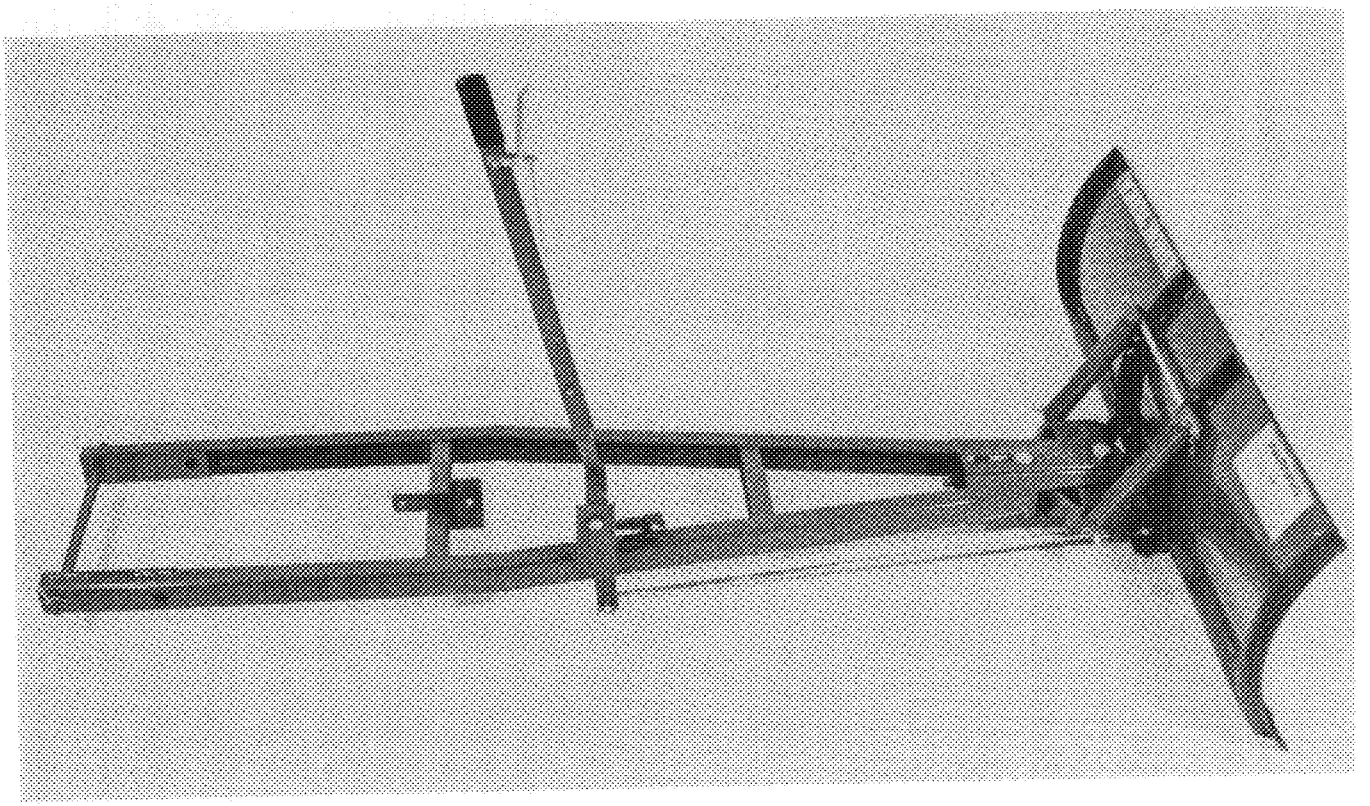
983

Operating & Maintenance Instructions



48" (122 cm) Snow Dozer Blade

Garden Tractor Snow/Dozer Blade

TORO®

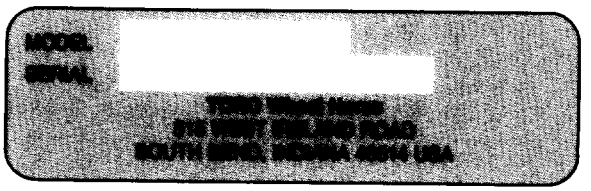
Wheel Horse®
Tractors & Riding Mowers

PRINTED IN U.S.A.

PART NO. 810746R1

MODEL AND SERIAL NUMBER

A Model and Serial Number identifies your Toro Wheel Horse attachment. These numbers should always be referred to when consulting with your dealer or factory concerning service, replacement parts, or questions you may have. If plate is removed during repair operations it should always be replaced. For your reference, record numbers from Model and Serial Number plate on your attachment.



MOUNTING INFORMATION

As shipped, this Snow/Dozer Blade can be installed on 1973 and later tractors. To install this blade on 1972 and prior tractors, a long lift link, P/N 7706, must be purchased. Early model tractors with a wheel base **under** 45.5 in. (116 cm) also require mounting shaft, P/N 7701, and two hairpin cotters, P/N 933506.

ASSEMBLY

There are two sizes of hairpin cotters used, which will be identified as "Large" and "Small" during assembly.

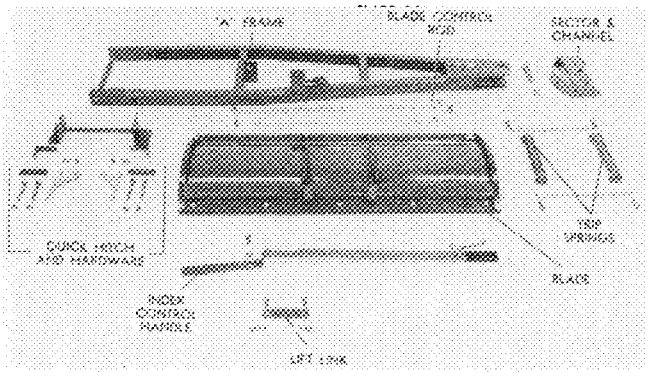


FIG. 1. Snow/Dozer Blade Package

MOUNTING SHAFT (Fig. 2)

If applicable (See "Mounting Information", above), install the P/N 7701 mounting shaft in the pair of holes ahead of the welded shaft at the rear of the "A" frame (Fig. 2A). Secure with two hairpin cotters.

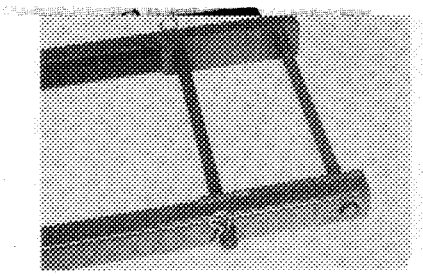


FIG. 2A. [illegible] Tractors with Wheel Base Under 45.5 in./116 cm)

Attach the lower index rod to the index pin as shown in Fig. 2B. Bend the end of the rod over to hold it in place.

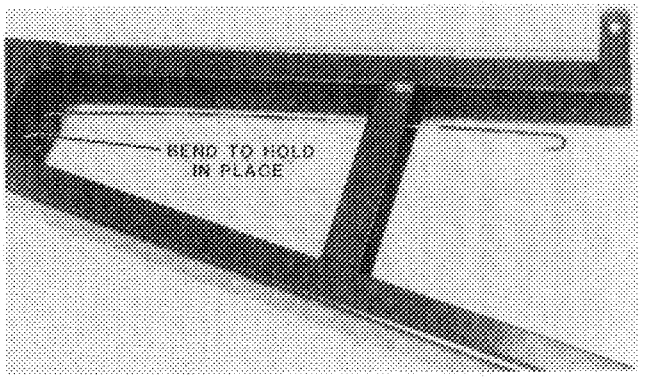


FIG. 2B. Attach Lower Index Rod

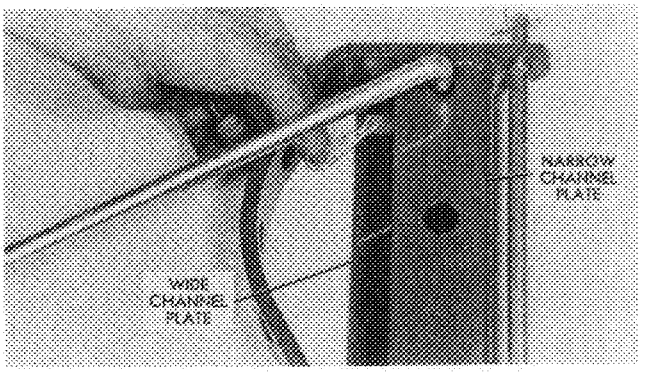


FIG. 3. Install Blade Control Rod

BLADE CONTROL ROD, FRONT (Fig. 3)

Locate the sector and channel assembly, the blade control rod, and one large hairpin cotter. The sector and channel has a wide channel plate across the top and a narrow channel plate across the bottom. With the narrow channel plate facing up, insert either end of the blade control rod into the smaller hole located at the end of the plate (Fig. 3). Secure with the hairpin cotter.

SECTOR AND CHANNEL (Fig. 4)

Apply a liberal amount of general purpose grease to the sector and channel. Attach the sector and channel assembly to the "A" frame using the $\frac{3}{4}$-16 x $3\frac{3}{4}$ hex bolt and secure with the $\frac{3}{4}$-16 hex nut. Leave the bolt loose enough to allow the sector and channel to operate freely (Fig. 4).

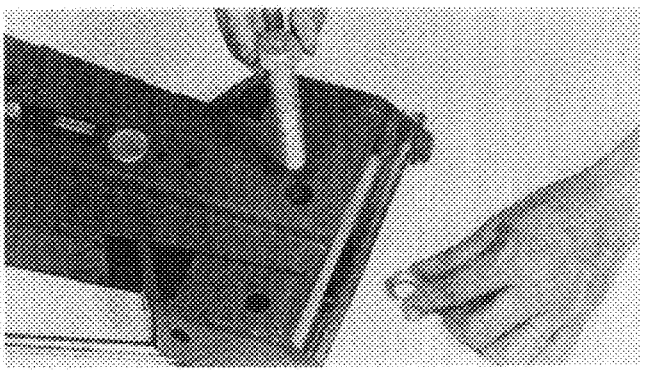


FIG. 4. Attach Sector & Channel to "A" Frame

ASSEMBLE REAR "QUICK HITCH" (Fig. 5 & 6)

Locate the hitch mounting bracket, two latching plates, two metal links, two $\frac{3}{8}$-16 x 1 hex bolts, two $\frac{3}{8}$ washers, six $\frac{3}{8}$-16 E.S. nuts, two angle spacers, and four $\frac{3}{8}$-16 x $3\frac{1}{2}$ carriage bolts.

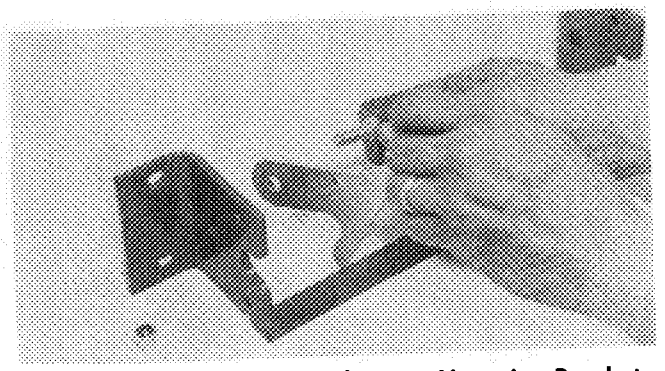


FIG. 5. Attach Latching Plates to Mounting Bracket

Attach the two latching plates to the hitch mounting bracket using the 3/8-16 x 1 hex bolts, 3/8 washers and 3/8-16 E.S. nuts. The washers are used between the mounting bracket and the latching plate. The latching plates are installed on the inside of the mounting bracket (Fig. 5). Tighten bolts so the latching plates will move with a small amount of force.

Install the two metal links on the hitch mounting bracket using two 3/8-16 x 3½ carriage bolts and two 3/8-16 E.S. nuts. Install the bolts in the holes farthest from the latching plates (Fig. 6). Finger tighten nuts only.

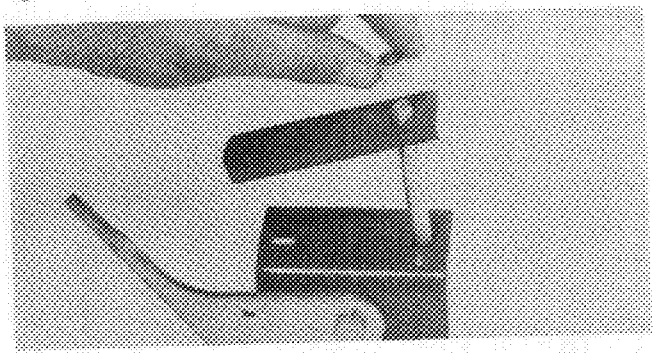


FIG. 6. Install Metal Links

ATTACH REAR "QUICK HITCH" TO AXLE (Fig. 7 & 8)

From the rear of the tractor, install the rear hitch assembly to the tractor's rear axle housings. This is done by placing the hitch assembly under the tractor's transmission so the latch plate ends face rearward. Turn the metal links toward the front of the tractor (Fig. 7).

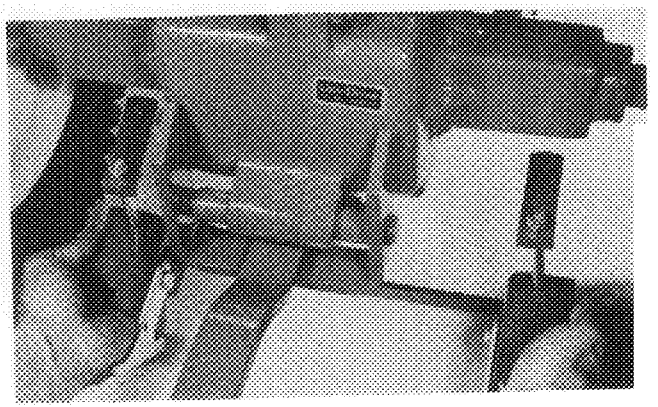


FIG. 7. Attach Rear Hitch

Raise the rear hitch so the hitch touches the bottom of the axle housing. Turn the metal links rearward so they hold the hitch in place. Install the two remaining 3/8-16 x 3½ carriage bolts in the rear mount holes and secure with two 3/8-16 E.S. nuts.

Note: On 8-Speed tractors, use the angle spacers to take out undue slack between the hitch and the rear axle. Install the angle spacers between the metal links and the tractor axle housings.

Center the rear hitch evenly between the rear wheels. Tighten the 3/8-16 nuts evenly to insure maximum strength.

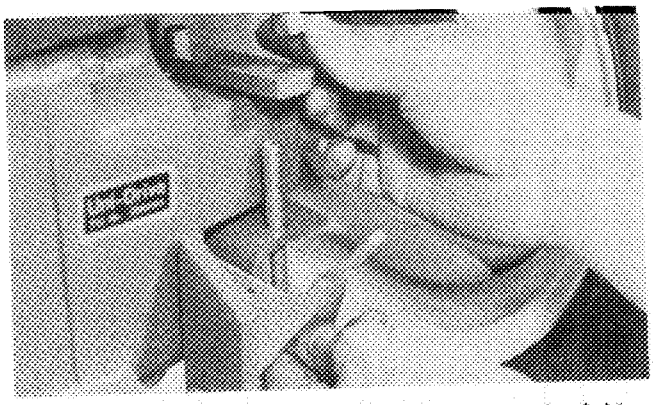


FIG. 8. Install two 3/8-16 x 3¾ Carriage Bolts & Nuts

INSTALL "A" FRAME TO TRACTOR (Fig. 9 & 10)

Slide the "A" frame under the tractor so the rear mounting shaft is directly under the rear hitch assembly. Open both sides of the hitch by lifting the latching plates. Raise the rear of the "A" frame so the mounting shaft slips into the hitch bracket. Close the hitch by pushing down on both latching plates (Fig. 9). Tighten the bolts that secure the latching plates.

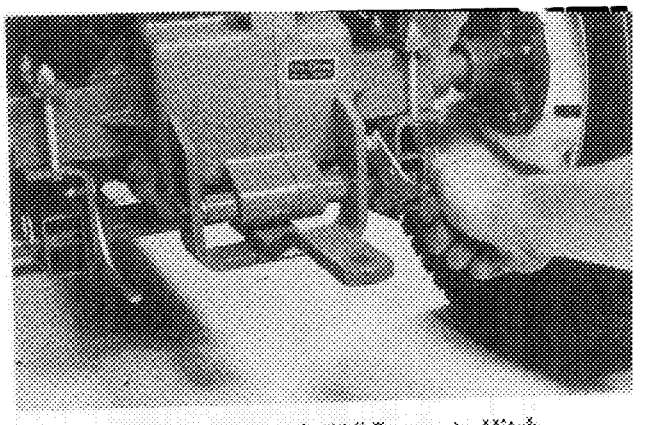


FIG. 9. Attach "A" Frame to Hitch

The supplied short lift link is used on 1973 and later tractors, and is used for normal operation. Lower the tractor's attachment lift and install the short lift link as shown in Fig. 10. Retain with two clevis pins and two small hairpin cotters.

If the tractor is a 1972 or prior model which requires the long lift link (See Mounting Information), lower the tractor's lift lever and install the lift link as shown in Fig. 19.

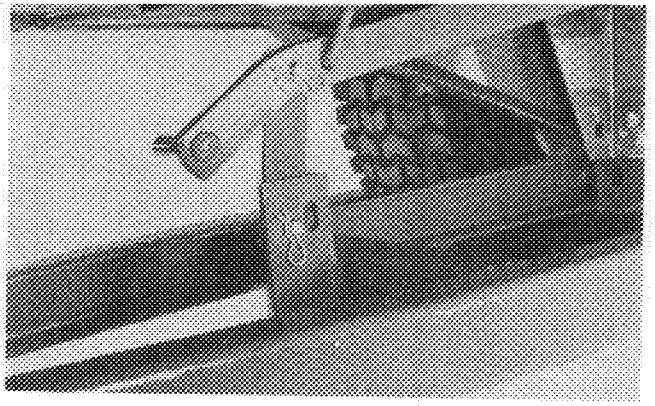


FIG. 10. Attach Lift Link — 1973 and Later Models

INSTALL BLADE TO "A" FRAME (Fig. 11-13)

Raise the "A" frame with the attachment lift. Locate the blade assembly, the two trip spring assemblies, one short mounting rod, two long mounting rods, four large hairpin cotters, and two cotter pins. Align the lower mounting holes of the blade assembly with the front holes of the sector and channel assembly. Install the short mounting rod and secure with two cotter pins (Fig. 11).

Mount the trip spring assemblies by inserting the mounting rod through the second hole from the top of the blade. Secure with two hairpin cotters (Fig. 12).

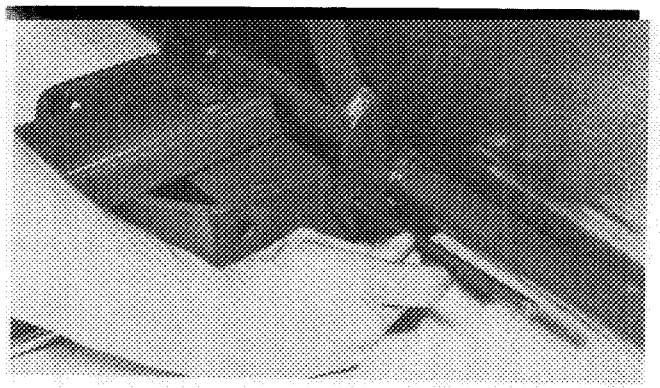


FIG. 11. Install Lower Mounting Rod

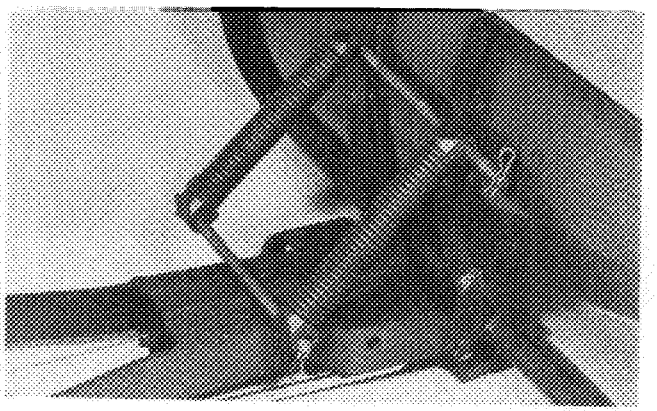


FIG. 12. Attach Trip Springs to Blade

Mount the bottom of the springs to the rear hole of the sector and channel assembly (Fig. 13). Secure with two hairpin cotters.

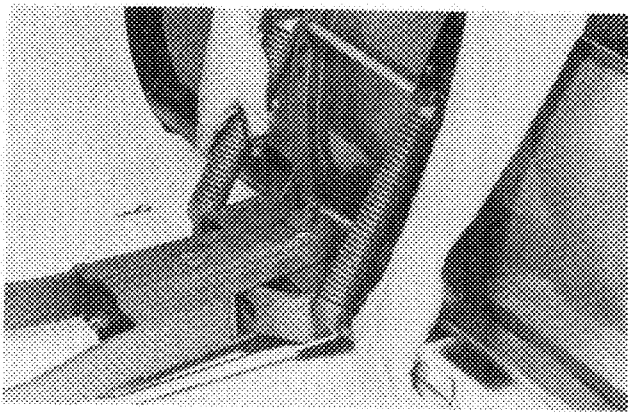


FIG. 13. Attach Trip Springs to Sector and Channel Assembly

ATTACH INDEX HANDLE TO "A" FRAME (Fig. 14)

Attach the index handle to the "A" frame using a ½-13 x 1 bolt and ½-13 nut. The handle has a 2 in. (5 cm) offset. Mount the handle with the top of the offset inboard for all 1974 and later manual shift transmission models with separate clutch and brake pedals. Mount the handle with the top of the offset outboard for all other models (Fig. 14).

Thread the bolt into the mounting bracket so that the index handle is still free to move and then install the jam nut securely.

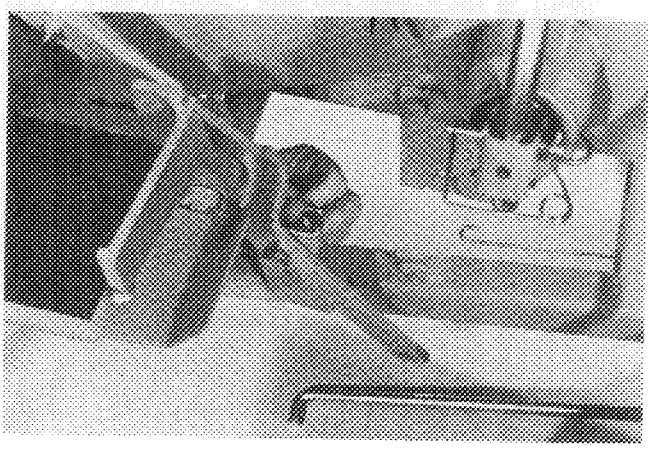


FIG. 14. Mount Index Handle to "A" Frame

ATTACH BLADE CONTROL ROD TO INDEX HANDLE (Fig. 15)

Insert the blade control rod into the hole at the bottom of the index handle. Secure with a large hairpin cotter (Fig. 15).

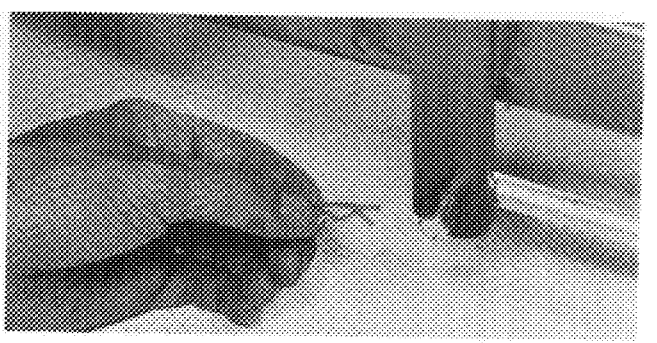


FIG. 15. Attach Blade Control Rod to Index Handle

INSTALL INDEX RODS AND PLATE (Fig. 16 & 17)

Check that the eyebolt on the index handle is mounted with the "eye" on the inside of the handle. Slide the top index release rod through the eye bolt. Hook this rod and the lower index release rod to the triangular index plate (Fig. 16).

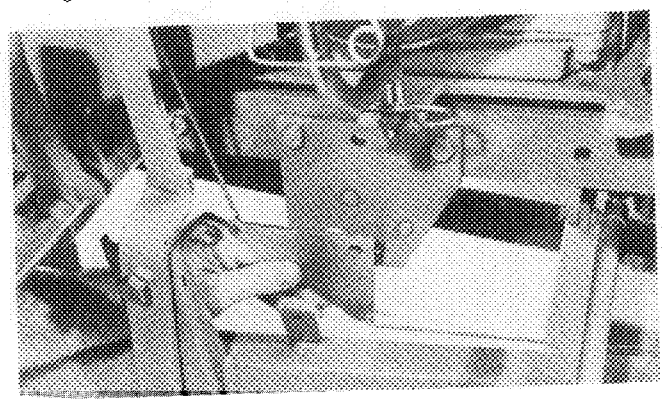


FIG. 16. Connect Release Rods to Index Plate

Attach the index plate to the mounting bracket on the "A" frame with a $\frac{3}{8}$-16 x 1 bolt, $\frac{3}{8}$ washer and $\frac{3}{8}$-16 nut. The washer should be placed between the index plate and mounting bracket. Thread the bolt into the mounting bracket so that the index plate is still free to move, then tighten the nut (Fig. 17).

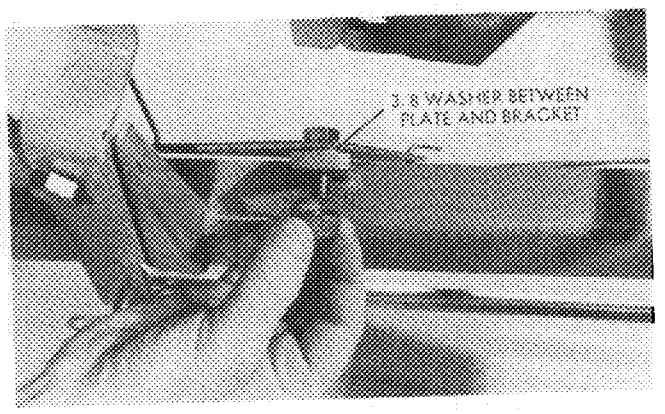


FIG. 17. Install Index Plate

ATTACH RELEASE LEVER TO INDEX HANDLE (Fig. 18)

Locate the release lever, the $\frac{1}{4}$-20 x 1 bolt and $\frac{1}{4}$-20 hex nut. Connect the index release rod to the release lever and attach the lever to the front side of the index handle, installing the bolt through the lower hole on the handle. Finger tighten the nut (Fig. 18).

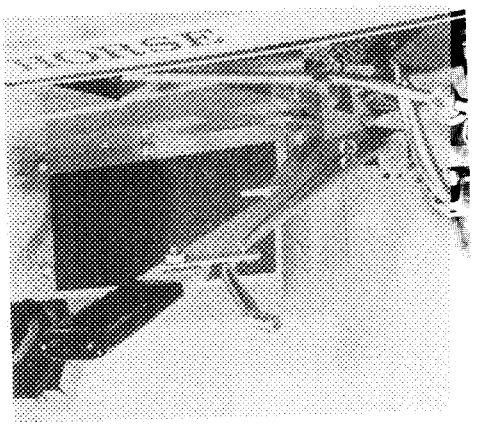


FIG. 18. Attach Release Lever to Index Handle

Test the action of the index mechanism by squeezing the release lever and index handle together. The blade should move right and left as the index handle is moved forward and backward. If the blade remains locked in position, move the release lever to the upper hole position on the index handle. Now tighten the bolt and nut on the release lever so that it is still free to move. Lubricate all moving parts of the linkage with light machine oil.

REMOVAL

The blade is easily removed from the tractor by following these simple steps.

1. Lower the attachment lift and disconnect the lift link from the tractor.
2. Open the rear "Quick Hitch" to release the "A" frame from the tractor.
3. Either lift the right front wheel of the tractor with an overhead hoist so the "A" frame can be maneuvered from under the tractor, or disassemble the index handle so the "A" frame can be slid out from under the tractor.

The rear "Quick Hitch" need not be removed from the tractor.

INSTALLATION

After the initial assembly, the blade can be installed quickly by following these simple steps:

1. Lift the right front wheel of the tractor with an overhead hoist so the "A" frame can be maneuvered under the tractor, or disassemble the index handle so the "A" frame can be slid under the tractor.
2. Attach the "A" frame to the rear "Quick Hitch". Tighten bolts that retain latch plates.
3. Attach lift link. Reassemble index handle.

OPERATION AND ADJUSTMENT

Although this blade is primarily designed for snow removal, it can also be used for pushing dirt, sand, gravel, or other loose substance. Tire chains and wheel weights are available from your dealer and will minimize tire slippage.

Clearing snow from a driveway is usually done by making the first pass down the center of the drive, and pushing snow off to the sides on the following passes.

The blade can be indexed to 5 positions from the driver's seat. This is done by squeezing the release lever and either pushing, or pulling the handle to the desired position. Releasing the lever will lock the blade in position. The blade can be lifted or lowered by using the attachment lift.

The blade "Trip Springs" can be mounted in one of four positions on the blade. The top position provides maximum scraping agressiveness. The bottom hole provides the minimum agressiveness and is

mostly used for leveling loose material. The second hole from the top is generally recommended for snow removal.

> **⚠ CAUTION ⚠**
>
> **Avoid hitting solid objects with the blade, as this could result in damage to the blade and injury to the operator. Always travel at a safe, slow speed.**

On 1973 and later models the short lift link should be installed between the mower lift arm and the snow/dozer blade "A" frame, as shown in Fig. 19. For maximum blade height, relocate the trunnion on the lift chain (or lift rod) to the end hole of the lift bellcrank (Fig. 19).

> **⚠ CAUTION ⚠**
>
> **When moving trunnion for maximum blade height, check models with separate (right hand) brake pedal for interference between the brake pedal and the index handle. Pull the index handle back to its extreme rearward position and raise the blade. If the index handle prevents normal brake pedal travel, loosen the nut on top of the trunnion until the interference is eliminated.**

The blade can be set up for "down pressure" by purchasing a long lift link (P/N 7706). Remove the lift chain (or lift rod) and trunnion from the tractor, and install the long link as shown in Fig. 19.

For 1972 and prior models, install the long lift link as shown in Fig. 19.

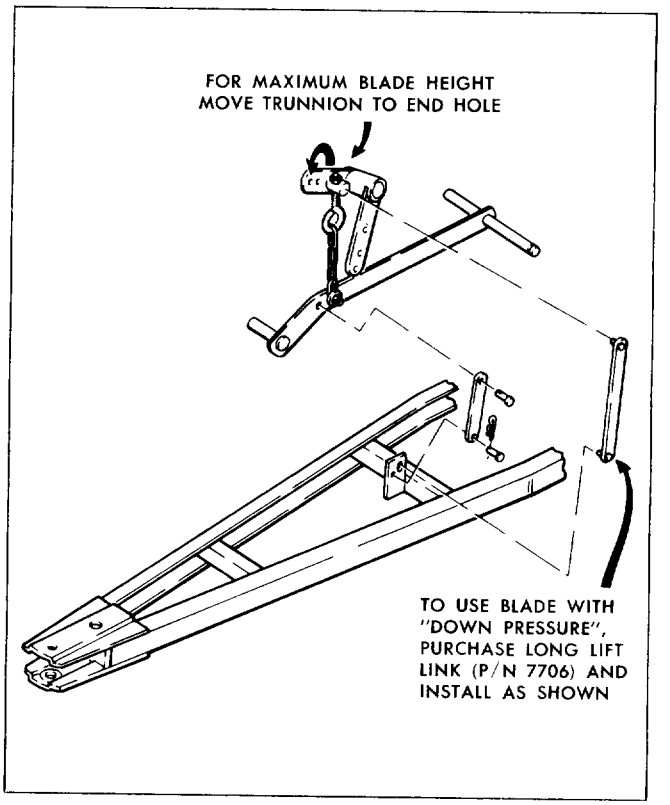


FIG. 19. Linkage Connections

MAINTENANCE AND STORAGE

Like all mechanical equipment, the blade should be cleaned after each use. Wash the blade using a garden hose. A mild automotive detergent may be used to remove stubborn dirt. During the snow season, when washing is impractical, avoid areas exposed to road salt. Thoroughly clean the blade at the end of the season.

Exposed bare metal surfaces should be coated with oil or grease to prevent rust until permanent repairs can be made. Aerosol cans of "Wheel Horse Red" touch up paint are available through your Authorized Wheel Horse Dealer.

Before operation, make sure all bolts are tight and cotter pins are in place. Excessive play in the pivot sector can be removed by tightening the large pivot bolt.

A light grade of machine oil should be applied to all moving parts of the linkage after every 10 hours of use. Lubricate the channel and sector assembly with general purpose grease at the same interval.

The blade edge is reversible and replaceable. When the edge becomes worn, remove the attaching bolts and turn the blade edge plate over, providing a new cutting edge.

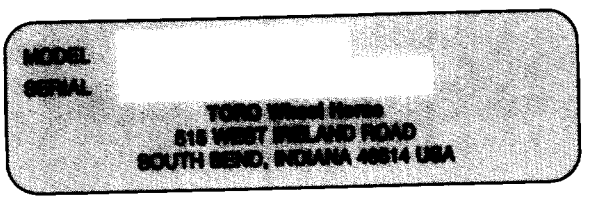
Store the blade in a clean, dry place or protect it with a weather-proof cover if stored outdoors.

A separate parts manual for your Toro Wheel Horse attachment can be obtained by completing the attached form below. You will receive an invoice with manual.

PUBLICATIONS
TORO WHEEL HORSE
8111 Lyndale Ave. So.
Bloomington, Minnesota 55420

PARTS MANUAL ORDER FORM

Enter number shown on your attachment:



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