

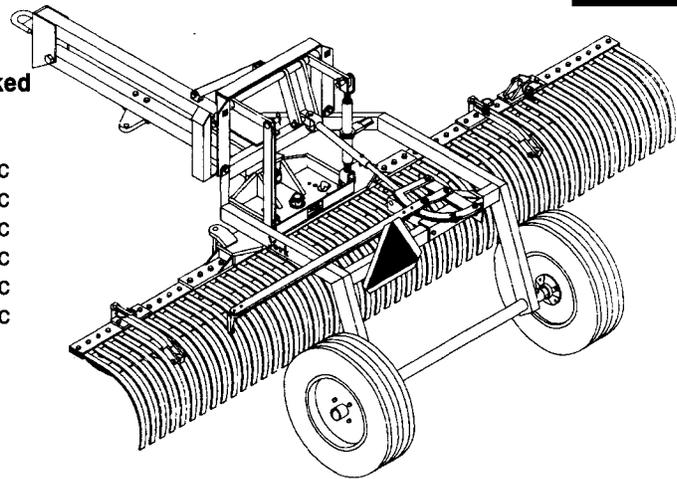
Assembly, Operating and Maintenance Instructions



YORK RAKES MODEL HT

The YORK RAKE, Model HT, is shipped in (2) pieces, knocked down as follows:

- (1) Skid containing the following:
 - Main Frame (1) Pc
 - Drawbar (1) Pc
 - Pole (1) Pc
 - Lift Lever Assembly (1) Pc
 - Wheel w/Hub & Spindle (2) Pc
 - Parts Box (1) Pc
- (2) Complete 10' Rake Assembly



IMPORTANT: Read all assembly and operating instructions before attempting to assemble or operate this equipment. A drawing has been provided on Page 4 to aid in assembling this rake. The letter following each written assembly step, refers to an area on the drawing which corresponds to that step. We recommend that it be assembled by two people.

Look for this symbol. It means



**ATTENTION! BECOME ALERT!
YOUR SAFETY IS INVOLVED!**



WARNING! Due to the weight and design of the Model HT, extra care must be taken to avoid injury.



WARNING! Make sure the engine is off and the parking brake is set before making any adjustments to the rake.

ASSEMBLY: FRAME and RAKE

1. Place the main frame axle tubing (A) up on a safe support 12-14 inches high. Insert the spindle end of the wheel and hub assembly (B) into the main frame axle tubing (A) and align the holes in the frame axle and spindles. Insert 1/2" x 3-1/2" NC capscrews and 1/2" NC self-locking nuts and tighten.
2. Block the wheels front and rear, and remove the support from the axle tubing. Raise the front of the frame (A), and place a safe support under the front edge so the frame is in a level position. Install the frame pole (C) in the main frame (A) and insert (2) 5/8" x 5" NC capscrews and (2) 5/8" NC self-locking nuts and tighten.
3. Install the pole jack (D) onto the main frame pole (C) and insert the locking pin provided on the pole jack. Place a safe support under the front end of the main frame pole, and lower the pole jack to stabilize the main frame for further assembly.
4. Install the pole hitch (E) onto the frame pole (C) and secure with (2) 1/2" x 2-1/4" NC capscrews and 1/2" NC self-locking nuts.
5. Place the crank assembly (F) onto the main frame, with the crank support tabs facing the main frame pole, and secure with (2) 5/8" x 1-3/4" NC capscrews and (2) 5/8" self-locking nuts.
6. Place one end of the support link (G) between the crank support tabs and secure with 5/8" x 2-1/4" NC capscrew and 5/8" NC self-locking nut. Place the opposite end between the tabs on the frame pole (C) and secure with 5/8" x 1-3/4" NC capscrew and 5/8" NC self-locking nut.
7. Insert the drawbar (H) through the frame pole stabilizers so the alignment tabs for the angling bracket points down toward the ground. Secure to the pole (C) with 1" x 5-1/2" NC capscrew and 1" self-locking nut. Position the angling bracket between the alignment tabs so the angled edge faces front and secure with 5/8" X 5" NC capscrews and 5/8" self-locking nuts.
8. Insert the swivel pin (J) into the drawbar, aligning the holes in all three parts and secure with 5/8" x 5" NC capscrew and 5/8" NC self-locking nut.

9. Slide the rake swivel (K) onto the swivel pin (J) and secure with the orange 1-1/2" special flat washer and 1-1/2" slotted hex nut. Tighten the nut as tight as possible and then back it off enough to allow the swivel to work freely, then insert the cotter pin through the swivel pin (J).
10. Looking at the frame from the rear, install one end of the ratchet jack (L) onto the right side of the rake swivel (K) and the opposite end onto the crank (F) and insert the clevis pins and clips. Install the linking arm (M) on the left side in the same manner, making sure that the flared end is down.
11. Standing at the rear of the frame, install the lift lever support (N) onto the right side of the main frame (A) with the teeth on the sector facing to your left and secure with (2) 1/2" x 3-1/4" NC capscrews and 1/2" NC self-locking nuts.
12. Place the lift lever assembly (O) onto the lift lever support (N) with the handle facing down, and secure with 1/2" x 2" NC capscrew, 1/2" SAE flat washer and 1/2" NC self-locking nut. If the holes don't line up, squeeze the handle slightly. Tighten the nut as tight as possible and then back it off enough to allow the lever to work freely.
13. Assemble the linking block (P) with the female rod (Q) using 5/8" x 3-3/4" NC capscrew and 5/8" NC self-locking nut (the nut should be on the top). Assemble the male rod (R) with the female rod using the 3/8" x 2-1/4" NC capscrew and 3/8" NC self-locking nut.
14. Assemble the linking block (P) end of the linking rod assembly between the crank arms (F) and insert the crank pin (S) and secure with (2) 3/16" x 1-1/2" cotter pins. Place the opposite end of the linking rod assembly up through the lift lever assembly (O) and secure with 3/4" SAE flat washer and 3/16" x 1-1/2" cotter pin. Squeeze the lift lever handle (O) and pull the lever to the rear, lifting the swivel as high as possible, and lock it into place by releasing the handle.
15. Install the center pin (V) into the hole in the saddlebar on the 10' main rake assembly (U), and secure with 1/2" x 3-1/2" NC capscrew and 1/2" NC self-locking nut. Place the 10' main rake assembly (U) underneath the main frame (A) in the working position, on a safe support 12-13 inches high.
16. Align the center pin (V) in the main rake assembly (U) with the hole in the drawbar swivel (K) and lower the swivel onto the saddlebar with the lift lever. Make sure the swivel is flat to the surface of the saddlebar, and secure with 1-1/2" SAE flat washer and 1-1/2" slotted hex nut. Tighten the nut as tight as possible and then back it off enough so the swivel works freely, then insert the cotter pin through the nut and the center pin. Leveling adjustments can be made using the lift lever and the ratchet jack. Adjust the rake section to the desired angle and insert the angle locking pins. Pull the lift lever to the rear to raise the rake section to its highest position and install the snap pin in the hole on the sector. (The snap pin prevents the lift lever from working loose during transport, and allowing the rake to drop to the road surface.)

17. Install the SMV sign (T) onto the main frame (A) and secure with the 1/4" x 2-1/2" NC capscrew and 1/4" NC self-locking nut.

NOTE: 18. When using hydraulic cylinders for the angling, raising and tilting features, mount cylinders as shown in the drawing in these instructions. For angling use position (1), for raising use position (2) and for tilting use position (3). **Mounting points are provided by YORK RAKES, hydraulic cylinders are not.**



WARNING! Make sure the engine is off and the parking brake is set before making any adjustments to the rake.

OPTIONAL EQUIPMENT

The optional 2' rake extension is shipped as follows:

* 1 Pc Rake Section

ASSEMBLY: 2' Rake Extension

1. Lower the rake section with the lift lever so the teeth are contacting the ground. Standing at the rear of the 10' main rake assembly (U), remove capscrews #1 and #2 from the right end of the rake. Remove the 1/2" x 3" NC capscrews and 1/2" self-locking nuts from the male hinges (W) attached to the 2' extension and slide the extension onto the main rakehead so that one male is on the top, and the other is on the bottom of the main rake section (U). Align the holes in the rakehead and hinges, and secure with (2) 1/2" x 3" NC capscrews and 1/2" NC self-locking nuts. Before tightening remove the locking pin from the lower hinges and make sure that the extension works freely up and down. Swing the extension up out of the way so it rests back on the main rake section. When in use, always insert the locking pin in the lower hinges to lock the extension in the working position.

The Optional 10' Sawtooth Grader Blade Assembly is shipped as follows:

* 1 Bundle of (2) Brackets

* 1 Pc 10' Blade Assembly

ASSEMBLY: 10' Sawtooth Grader Blade

1. Standing at the rear of the 10' main rake assembly (U) and counting from the end of the saddle bar on either side, remove the 5th, 6th and 7th capscrews from the rakehead. Remove the self-locking nuts from the capscrews in the blade bracket (Y), and with the long end of the bracket positioned over the rear of the rake and the two hole portion of the mounting plate facing the saddlebar, align the bracket with the holes in the rakehead, insert and secure with (3) 1/2" x 2-1/2" NC capscrews and 1/2" NC nuts. Attach the opposite bracket in the same manner.
2. To attach the blade (Z), position the blade underneath the 10' main rake assembly (U) with the arms on the bottom and pointing to the rear. Raise the blade so that the arms slide up between the 5th and 6th rake teeth from each end and into the tabs on the blade brackets (Y). Align the holes on the arms of the blade and the tabs of the blade brackets, insert and secure with 1/2" x 2-3/4" NC capscrews and 1/2" self-locking nuts.

This completes your Assembly Instructions. Please read the Operating and Maintenance Instructions before operating the equipment.



WARNING! The rake should always be angled during transport, with the traffic-side end closest to the motive power.

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WARNING! Make sure that the engine is off and the parking brake is set before making any adjustments to the rake.



WARNING! This machine should not be operated at speeds exceeding 20 miles per hour, at any time.

IMPORTANT: Read all assembly and operating instructions before attempting to operate the equipment.

Operating Instructions

The Model HT should first be adjusted to the proper working position so that it can be used most effectively. To make this adjustment, put your motive power (power grader, tractor, truck, etc.) on level ground in front of the rake. Adjust the height of the jack stand until the frame is level from front to rear, and adjust the hitch at the front of the pole to maintain this level position when attached to the motive power. This ensures that the teeth contact the ground at the proper angle.

The Model HT not only does an excellent job of raking stones, but at the same time, with the sawtooth grader blade in place, acts as an effective leveling device or grader. On bad surface conditions, one pass of the Model HT may not be sufficient to secure the desired results. It may be necessary to make several trips to break up material before stones can be raked out. York Rakes can be used in any soil, but since soil conditions vary widely, no fixed rules can be given which will apply to all conditions. Moisture, hardness, texture and composition will determine speeds, angles, depths and other adjustments necessary to achieve maximum effectiveness.

OPERATION OF OPTIONAL EQUIPMENT

2' Extension Wing (optional): The optional 2' extension wing gives the Model HT additional working width on the right, safely allowing greater roadside coverage. Before using the extension, lock it into place by inserting the locking pin through the lower male hinges. When not in use, simply remove the pin and swing the extension up out of the way.

Sawtooth Grader Blade (optional): When equipped with the optional 10' sawtooth grader blade assembly, the Model HT can be used to grade an area in preparation for raking. The grader blade should only be lowered when the rake is in the raised position. Always grip it by the outside edge. To lower the blade, lift slightly to relieve pressure on the blade latches, swing the latch handles outward, and lower the blade. Make sure that when the blade is not in use and in the raised position, both latch assemblies secure the blade.



WARNING! The Model HT should never be operated at more than 20 MPH.

RAKE: The Model HT has a 10' rake section that can be angled for left or right discharge of material. To make this adjustment, make sure the rake is in the raised position, then simply remove the locking pins, adjust the rake to the desired angle, and replace the pins. The rake is raised and lowered, and down pressure may be applied, using the lever. For best results it is recommended that no more pressure be applied than is necessary to achieve the desired results. If the bulk of the material being raked is large, it may be necessary to apply pressure, particularly to the leading end of the rake. If there is less material, pressure may be unnecessary, and on light raking, it may be that the trailing end of the rake may be raised slightly off the ground. Fine adjustments may be made by adjusting the ratchet jack. Using the mounting points supplied, hydraulic cylinders can be added to control the angle, lift, and tilt functions. **These cylinders are not supplied by York Rakes.**



WARNING! Do not back up while the rake teeth are contacting the ground. This will cause damage and breakage.



WARNING! Do not allow the extension wing or the blade to drop freely when lowering, as this may cause personal injury or damage to the machine.

MAINTENANCE INSTRUCTIONS

RAKE AND FRAME: YORK RAKES require very little maintenance. Any required service will depend on the nature and amount of use that the equipment receives. All moving parts should be lubricated before the equipment is put into use, and thereafter as needed. The Model HT has 4 grease fitting, 2 on the crank assembly and 2 on the ratchet jack.

CAPSCREWS should be checked for tightness periodically, since the vibrating action of the rake teeth may cause them to work loose.

RAKE TEETH are made from durable alloy steel. However, if a tooth needs replacement, loosen several capscrews on the rakehead to either side of the tooth. Pry the rakeheads apart far enough to remove the tooth. Pry the rakeheads apart far enough to remove the tooth, insert a new tooth, and then retighten the capscrews and nuts.

WHEELS and bearings are prelubricated at the factory, and should be checked periodically, and repacked annually, or as conditions dictate.

THE TIRES are standard rib implement tires and should be inflated to a maximum 35 PSI. If replaced, do not exceed the manufacturers recommended inflation rate.

No other maintenance is required on the YORK RAKE, Model HT, except the normal care of the equipment such as cleaning, repainting, etc..

IMPORTANT: York Rakes are not designed for any additional weights, attachments, or modifications other than those authorized by York Rakes. The use of any unauthorized weights, attachments, or modifications will void all warranties set forth by YORK RAKES, a division of YORK MODERN CORPORATION.

If any problems or situations arise that are not covered by your **ASSEMBLY, OPERATING AND MAINTENANCE INSTRUCTIONS, PARTS LISTS, SPEC SHEET, AND WARRANTY SHEET**, please contact your dealer or our customer service department.

