YONGGU

REVOLUTIONIZING RUBBER TRACKS SINCE 1978

Continuous Rubber Track Installation Guide for Compact Equipment

Excavator Direct Drill Carrier Vehicle

zc rubber

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CONTINUOUS RUBBER TRACK INSTALLATION MANUAL

Figure 1.

This manual outlining removal and installation procedures is for machines such as mini excavators as shown in Figure 1 with drive types as shown in Figure 2 utilizing sprocket systems.

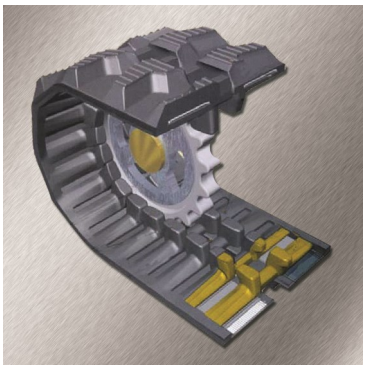

Figure 2.

This manual describes the removal and installation of rubber tracks on sprocket driven machines. Rubber tracks, just like tires, are wear items that must eventually be replaced. Using the procedures outlined in this manual, the operator can remove the used rubber track and install the new rubber track with common shop tools. The instructions may also be used to re-install a derailed track in the field.

Note that the access plate and track tension device of your specific machine may be located in a different area than the illustration used in this manual. This is simply a difference in the chassis configuration of the various makes and models of track mounted machines. The overall procedure is the same no matter whether the track tension device is located toward the front or back of the track assembly.

It is recommended that only one rubber track be removed at a time. This will allow the operator to refer to the assembled track if a question should arise when installing the new rubber track.

Required Equipment

(1) Rubber Track
(1) Ratchet/Wrench Set (Sizes will depend on the version machine)
(1) Socket Extension
(1) Allen Wrench Set
(1) Manual Grease Gun
(1) Tape Measure or Ruler

TRACK REMOVAL

The Machine must first be raised off of the ground approximately 6 inches (152mm) to allow removal of the track assembly. Fortunately, most machines will have foot and outriggers that can provide the necessary lift needed to work on the machine. Most mini and mid size excavators will have a blade which can be used to lift one end of the machine while the backhoe arm can be used to lift the other end.

CAUTION: YOUR MACHINE CAN WAY SEVERAL THOUSAND POUNDS. AVOID INJURY IN CASE OF HYDRAULIC FAILURE BY SUPPORTING THE MACHINE WITH PROPER BLOCKS OR JACK STANDS APPROVED FOR THE WEIGHT BEING SUPPORTED AFTER RAISING THE MACHINE. THE OPERATOR SHOULD NEVER POSITION THEMSELVES UNDER THE MACHINE WHILE PERFORMING THIS PROCEDURE.

1. The machine will need to be raised 6 inches from the ground surface. This is the general height needed to remove and install rubber tracks on most machines. Depending on the size of the machine being worked on it may need to be raised more.

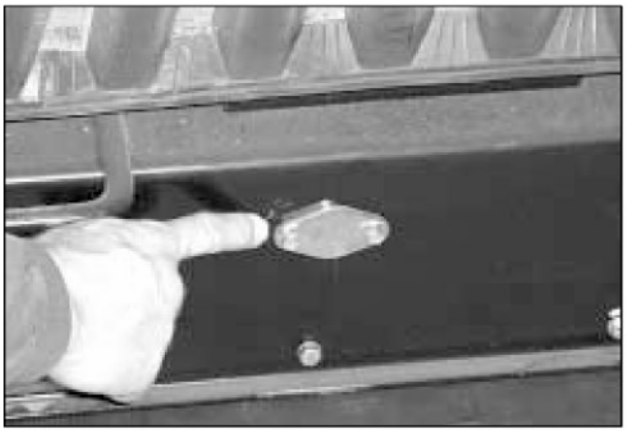

Figure 3: **Track Tension Device Cover**

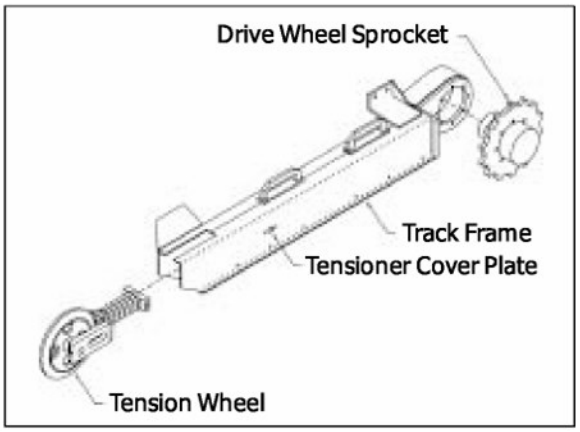

Figure 4: **Track Assembly**

Track tension is provided by pumping grease into the track tension assembly through the zirk located behind the tension device cover plate (Fig. 3). Note that the specific machine being worked on may not have a cover plate. The grease displaces a cylinder which pushes the tension wheel/idler (Fig. 4) out from the track frame to tighten the rubber track. Grease must be relieved from within the tension device to loosen the rubber track for removal.

2. Remove the tension device cover plate from the side of the track frame. Most machines will have a cover plate. Do not be alarmed if the machine does not have a cover plate.
3. Unthread the grease zirk from the track tension device (Fig. 5). Unthread the zirk slowly as some machines do not have a check valve to relive track tension. This will prevent the zirk from expelling too quickly and stripping the threads.

Figure 5: **Remove the grease zirk from the track tension device.**

4. On many machines there may be a check ball inside the tuber from which the zirk was removed in step 3. Depress the check ball with an Allen wrench (Fig. 6) usually a 3/32-inch or other object of similar size will suffice. This will allow grease to escape from the track tension device so the track may be loosened for removal.

Figure 6: **Depress check valve to relieve tension device.**

5. While continuing to depress the check ball in the grease tube, push down on the center of the rubber track with your foot. This should cause the tension the tension/idler wheel to retract toward the center of the track frame and loosen the rubber track. If no check ball is installed simply apply pressure to the center of the rubber track with your foot. Grease will escape from the tube as the wheel is retracted (Fig. 7).

Figure 7: **Grease will escape from the tube as the tension wheel is retracted to loosen the track**.

CAUTION: NEVER PUT PRESSURE ON THE TENSION/IDLER WHEEL WITH ANY MECHANICAL DEVICE. USE DOWNWARD PRESSURE ONLY ON THE CENTER OF THE TRACK TO RETRACT THE TENSION/IDLER WHEEL. APPLYING ARTIFICAL PRESSURE DIRECTLY TO THE TENSION/IDLER WHEEL MAY CAUSE DAMAGE TO SEALS LOCATED WITHIN THE TENSION/IDLER WHEEL CYLINDER.

6. It may be necessary to a second person help push down on the rubber track in order to fully retract the tension/idler wheel. On most machines the tension/idler wheel is fully retracted when it is in contact with the track frame (Fig. 8). The rubber track can now be removed.

Figure 8: **The tension/idler wheel will contact the track frame when fully retracted.**

TRACK INSTALLATION

The following procedure may be used to install a new rubber track or reinstall a thrown track and is best performed with two people.

The lugs of the rubber tracks can be directional, non directional or bi directional. It is imperative the rubber track be installed correctly according to the tread design used.

1. Begin installation by placing the rubber track on the drive wheel sprocket (Fig. 9). The followers (embedded metal pieces or links) on the inside of the rubber track should straddle the sprocket and will fit into the valleys of the sprocket teeth.

2. While a second person holds the middle of the rubber track up from the frame, start the edge of the track over the tension/idler wheel.

NOTE: Depending on the size of the rubber track sometimes it may be necessary to use a pry bar to force the track over the tension/idler wheel. Be careful not to damage the rubber track or tension/ idler wheel in the process.

Figure 9: **Place the rubber track over the drive wheel sprocket.**

3. With the second person still holding the middle of the rubber track, push the rubber track completely onto the tension/idler wheel using your foot. The track followers (embedded metal pieces or links) should straddle the wheel.
4. Reinstall the grease zirk in the track tension device grease tube.
5. Apply grease to the track tension device to tighten the rubber track. Pump grease through the zirk using a hand operated grease gun (Fig. 10). This extends the cylinder on the tension assembly which in turn moves the tension/idler wheel out from the track frame and tensions the rubber track.

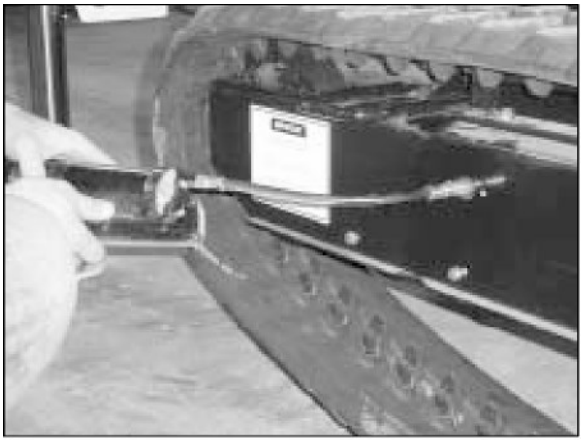
Figure 10: Pump grease into cylinder.

Note: Occasionally during the tensioning process, measure the track sag at the middle of the track frame. Stop pumping grease into the tension device when the track sags about 2.5 - 3 inches (65 - 75 mm) from the bottom of the track frame to the inside surface of the rubber track. ***This distance is different for every machine and can be greater on machines operating larger rubber tracks and lower for machines operating smaller rubber tracks. Always consult the owner/operators manual provided by the Manufacturer.***

6. Start the machine engine and set it at idle rpm. Using the rubber track control lever, rotate the track in both directions for two - three revolutions. Shut off the engine.
7. Again, measure the track sage as shown in Figure 11. Be sure to measure at the point of greatest sag.
8. It is extremely important to maintain proper track tension to prevent premature wear of the track assembly. If, after rotating the tracks, the sag is 2.5 - 3.0 inches (65 - 75 mm) then proceed to step 9. If the track sags more than recommended amount repeat steps 5 through 7 until the instructed sag is within the specified range according the Manufacturers specifications.

9. Replace tension cover poate.
10. Remove jack stands or blocks and lower machine to the ground.