

HSL1500T

Track/Wheel Installation Instructions



Required Tools:

1/2" Dr. Impact gun
1/2" Dr. x 10" Impact Extension (Qty. 1)
1/2" Dr. x 3/4" Std Impact socket
1/2" Dr. x 15/16" Std. Impact socket
1/2" Dr. x 1" Std. Impact socket

1/2" Drive Torque wrench
1/2" Dr. Hand ratchet
1/2" Dr. x 20" extension
1/2" Dr. x 7/16" deep socket
1/2" Dr. x 1/2" socket

242 Loctite
Loctite 7649 Primer N
243 Loctite

5 ton floor jack
2 ton jack stands (Qty. 4)

1/2" UNC bottom tap
5/8" UNC bottom tap
1/2 ton two speed electric hoist (20' jib crane system)
3" x 60" nylon sling (Qty. 1)
Drain pans, 5 gallon (Qty. 2)
Tapered alignment bar set
Needle nose pliers
Chain puller
Grease gun (Multi purpose grease)

Track Installation Instructions

TRACK INSTALLATION INSTRUCTIONS

Remove any attachment, raise the boom arms and engage the boom support pins. Allow the lift arms to rest on the support pins. Do not place hydraulic force to boom support pins. (Refer to owner's manual for the correct procedure.)

Raise the restraint bar and shut off the engine. Exit the loader.

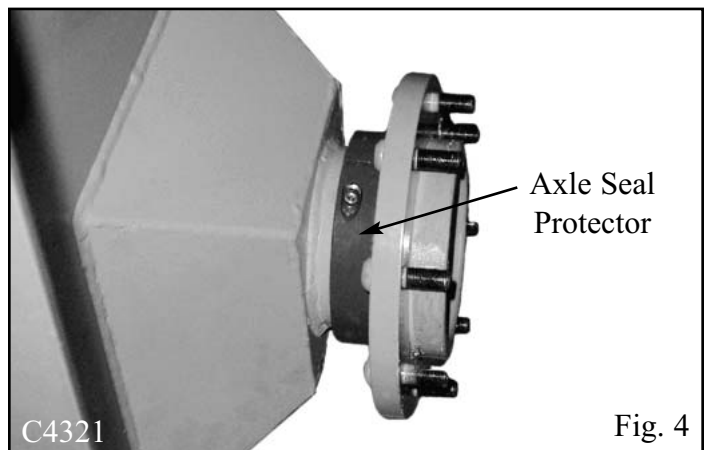
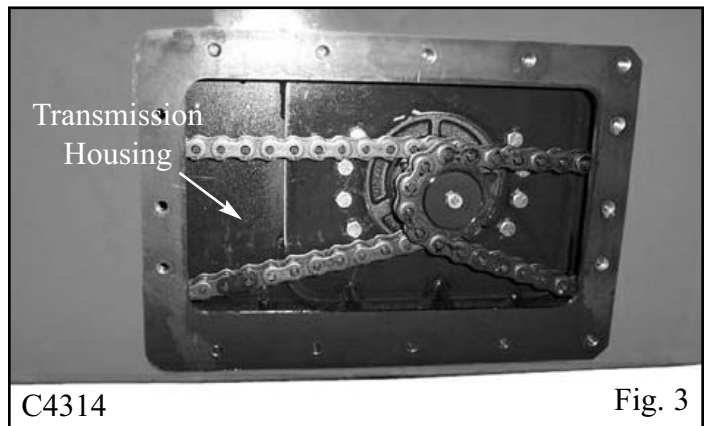
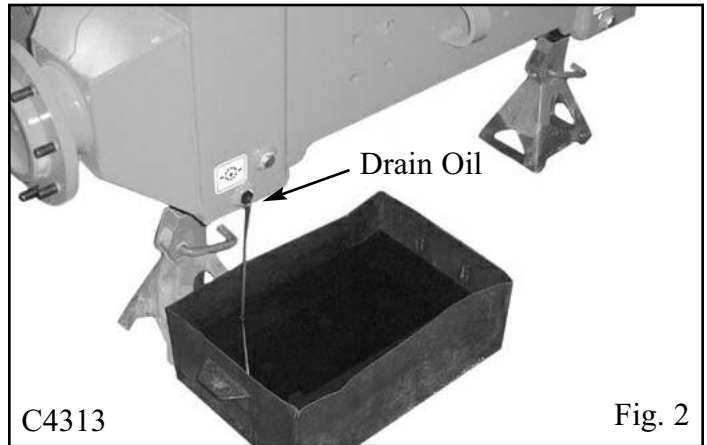
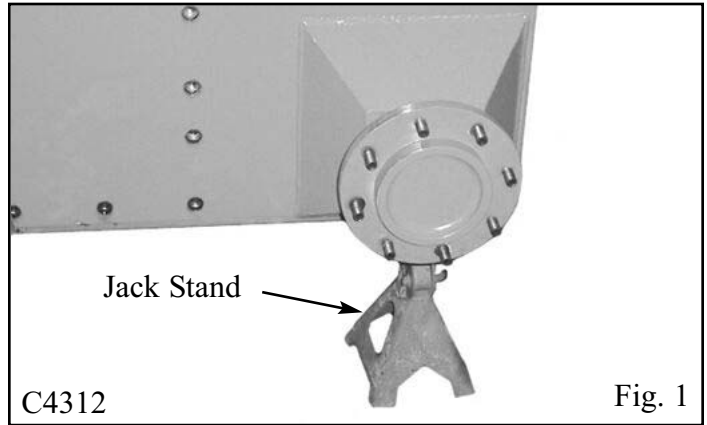
Raise the machine from the ground, securing with quantity 4 ~ 2 ton jack stands (Fig. 1).

Remove all wheels.

Drain oil from transmission housings. Have containers ready to hold 5 gallons, each side (Fig. 2).

Remove inspection covers and gaskets from transmission housings, left and right hand sides (Fig. 3).

Install axle seal protector (Fig. 4). Refer to the Axle Seal Protector Installation Instructions P/N 49660 (U-3174) for more detail.



TRACK INSTALLATION INSTRUCTIONS

Disconnect front and rear drive chains. It may be required to rotate drives to access chain master links (Fig. 5).

Ensure all personnel are standing clear of the drive. Refer to owner's manual for safe operation procedure. Start the engine and rotate. Shut off the engine and raise the seat bar to engage the park brake.

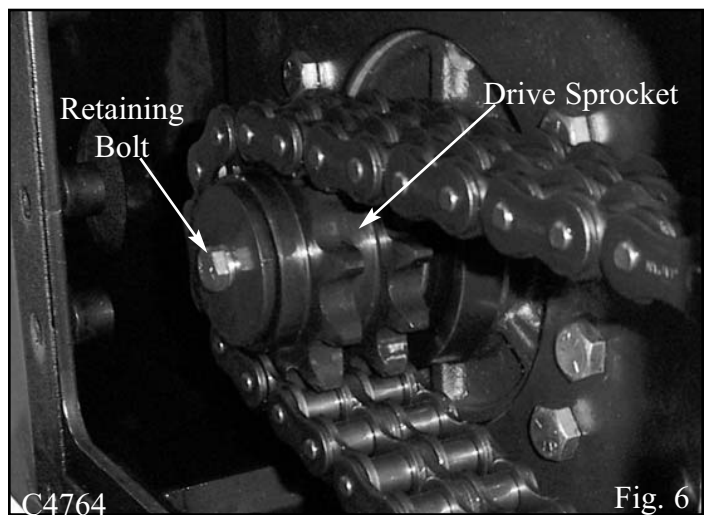
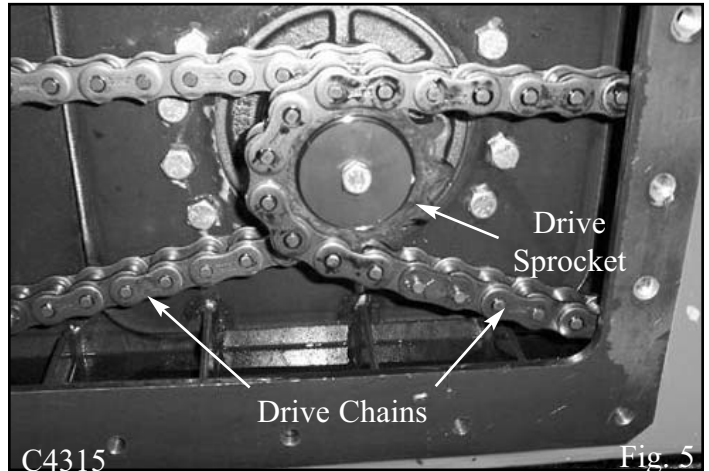
Remove chains from loader. NOTE: Pull chains from the top of the sprockets so that they do not get jammed between the sprocket and the transmission structure.

Remove drive sprocket from the drive motor.

Install double chain on rear sprocket.

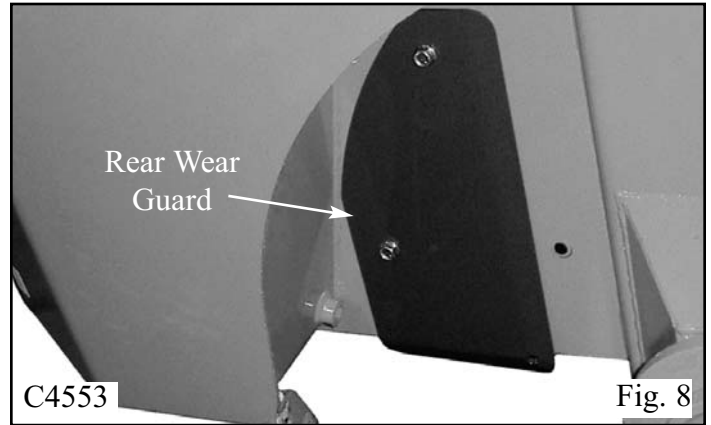
Install new drive sprocket to drive motor. Make sure that the placement of the sprocket is correct - see Fig. 6, shoulder of sprocket is located towards the outside of the loader. Tighten retaining bolt securely (Fig. 6).

Use special chain puller to pull chain ends together and install master link (Fig. 7). Bend cotter pins 90 degrees, with the cotter pins being on the inside of the chain.

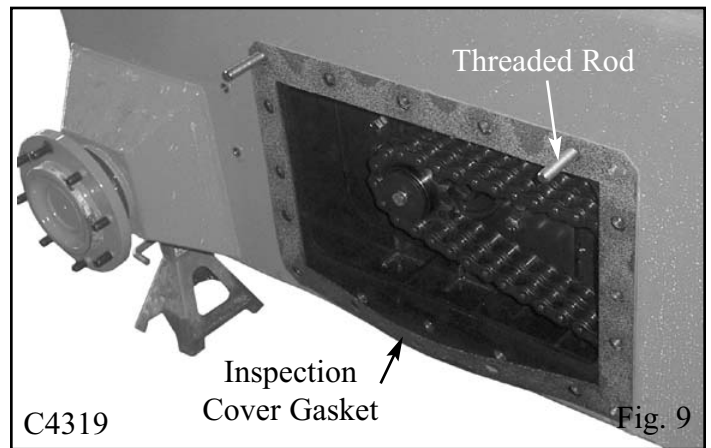


TRACK INSTALLATION INSTRUCTIONS

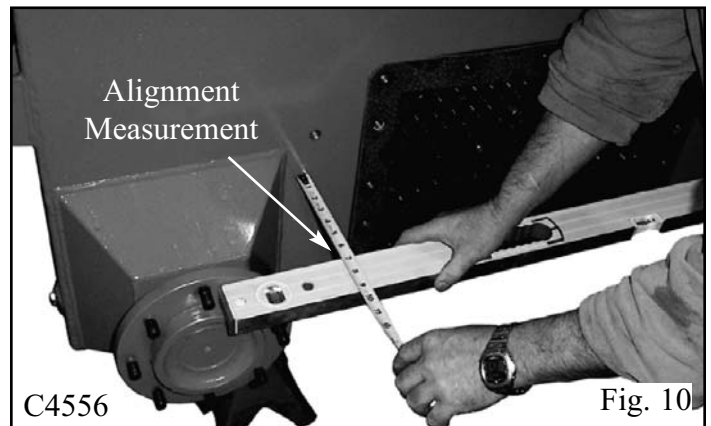
Install rear wear-guard shields (Fig. 8). Use 1/2" x 1 1/2" flange bolts.



Install inspection cover gasket. Use 5/8" x 3" sections of threaded rod to hold the gasket in place (Fig. 9).



Take measurements to ensure proper alignment between front and rear sprockets (Fig. 10, Fig. 11 and Fig.12 {next page}).



TRACK INSTALLATION INSTRUCTIONS

“D” equals the distance from the edge of the machine to the straight edge you are using (Fig. 12).

If “D” is between 7” and 7 3/16” no adjustments are needed.

If “D” is greater than 7 3/16”, move inside spacer to outside position (Fig. 13).

If “D” is less than 7”, move outside spacer to inside position.

If “D” is less than 6 7/8” or greater than 7 5/16” contact your Thomas service representative.

Before putting idler on machine, the grease fitting must be greased. Install grease in fitting located in tandem pivot support (Fig. 14).

Idler assembly and drive rollers are heavy. Use a lifting device rated for 500 lbs. minimum to aid in assembly process.

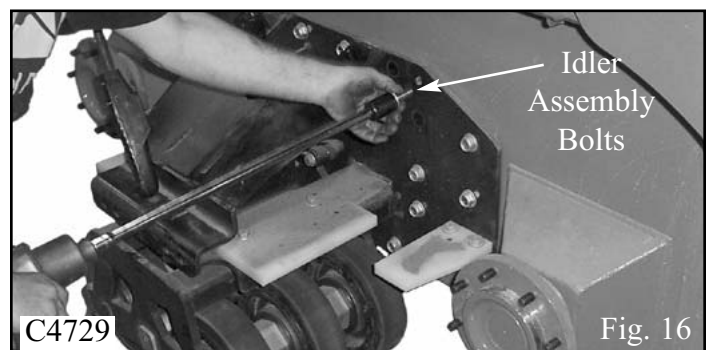
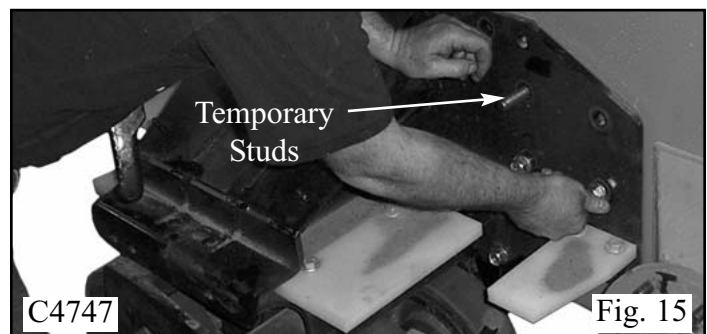
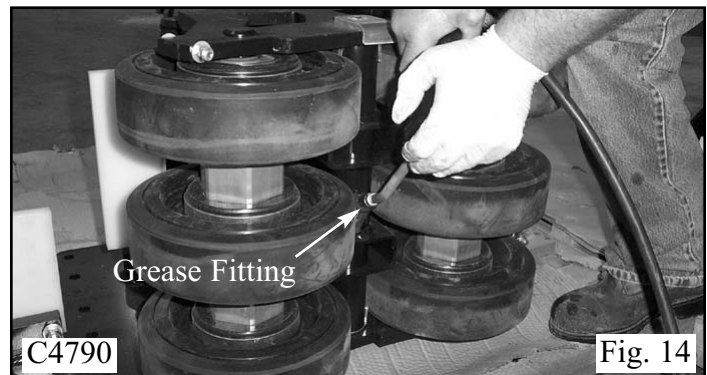
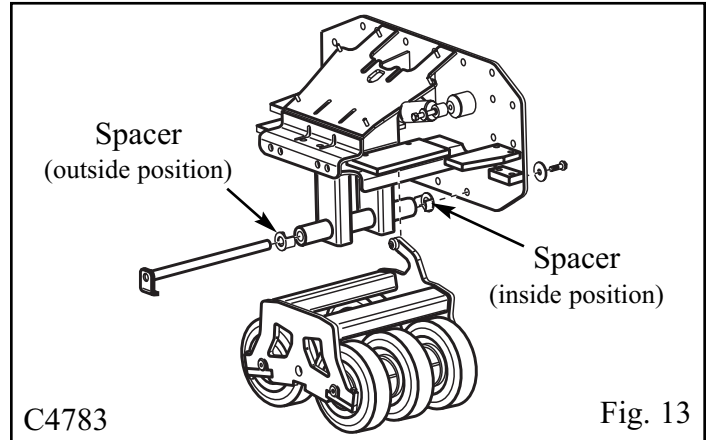
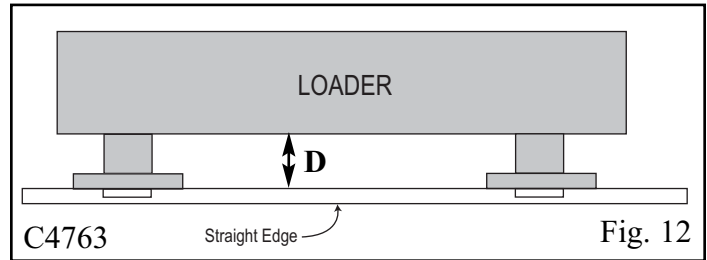
Use 5/8” x 3” temporary studs (3) to assist in placing the idler assembly onto the transmission housing. Use lifting eye on top of assembly to pick it up.

Carefully guide the idler assembly onto the temporary studs (Fig. 15).

Install idler assembly (Fig. 16).

If 5/8” x 1 1/2” flange bolts are used, torque bolts to 150 ft. lbs.

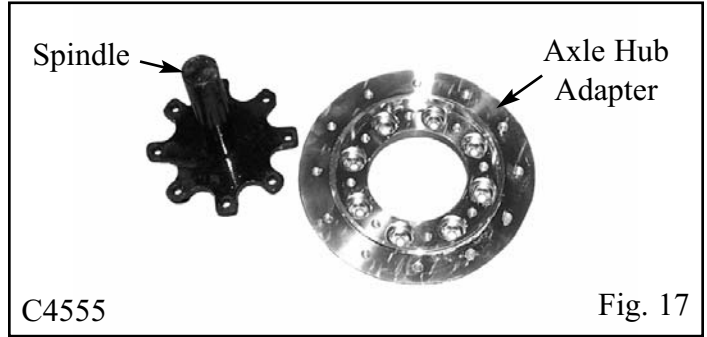
If 5/8” x 1 1/2” hex head bolts and grade 8 lock washers are used, clean bolts and threads with Loctite 7649 Primer N. Apply 243 Loctite to bolt and torque to 110 ft. lbs.



TRACK INSTALLATION INSTRUCTIONS

Bolt spindle to axle hub adapter (Fig. 17) using 1/2" x 1 1/2" flange bolts. Torque bolts to 75 ft. lbs.

Torque front adapter plates after tracks are installed.

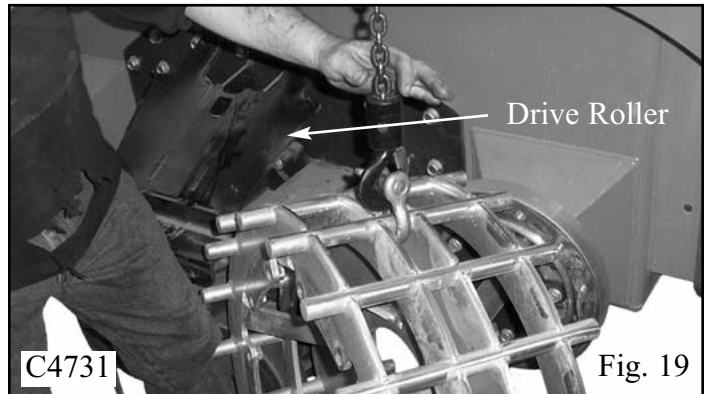


Install adapter hubs on axles using 9/16" wheel nuts (Fig. 18). Torque nuts to 110 ft. lbs.

NOTE: Adapter on front axle will have to be torqued after track is installed.



Install rear drive roller (using appropriate lifting device) to adapter hub using 1/2" x 1 1/2" flange bolts. Torque bolts to 75 ft. lbs. (Fig. 19).



TRACK INSTALLATION INSTRUCTIONS

Track assembly is heavy. Use a lifting device rated for 500 lbs. minimum to aid assembly process.

Install track to rear drive roller. Place front of track over front hub (Fig. 21).

Arrow on track points forward on top to show correct rotation direction.

Using a 1/2" x 2" temporary stud, install first section of three part roller assembly (Fig. 22). Lightly tighten retaining hardware.

Ensure that all personnel are clear of the track area. Refer to owner's manual for safe operation procedure. Start the engine and rotate the track.

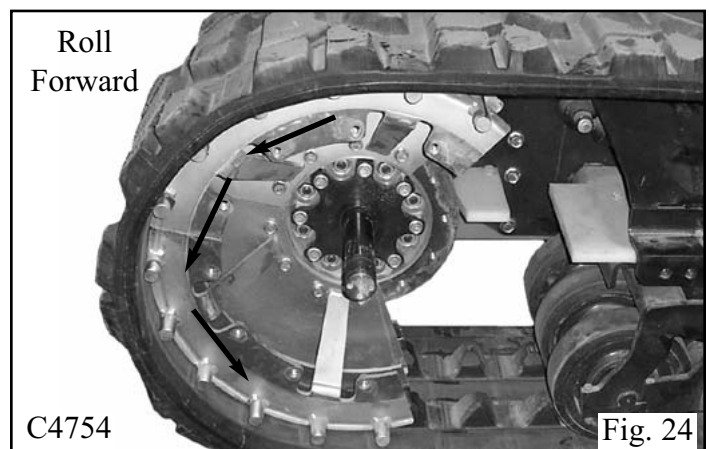
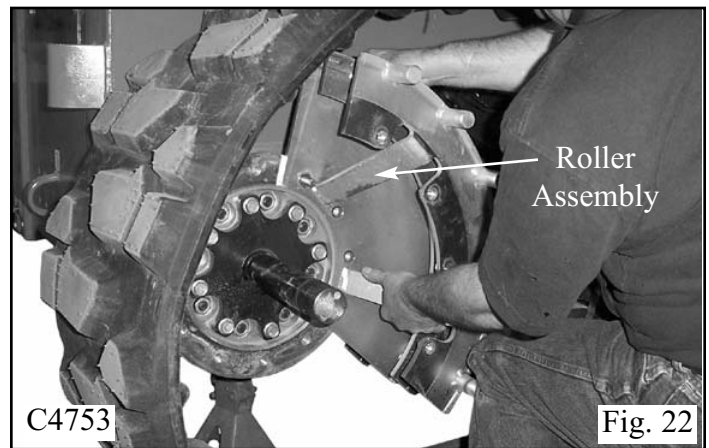
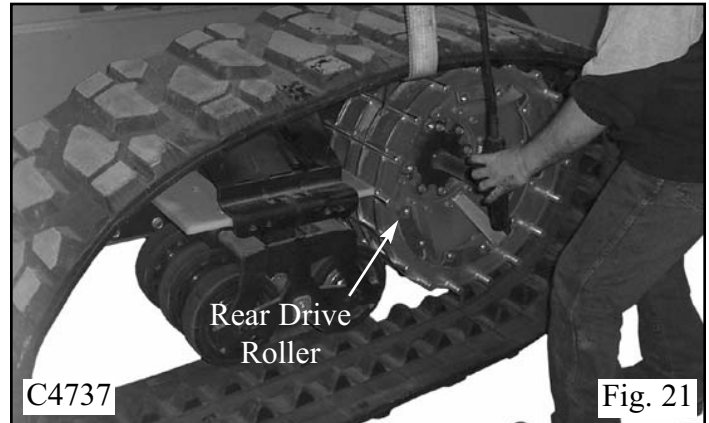
Roll track assembly forward, rotating first section of roller to top position.

Turn the engine off and ensure the parking brake is engaged by raising the seat bar.

Install the second section of the roller assembly. Lightly tighten the retaining hardware (Fig. 23).

Roll track forward (following safety precautions listed below), rotating second roller section to the top position (Fig. 24).

Ensure that all personnel are clear of the track area. Refer to owner's manual for safe operation procedure. Start the engine and rotate the track.



TRACK INSTALLATION INSTRUCTIONS

Install third section of roller assembly using 1/2" x 1 1/2" flange bolts (Fig. 25). Lightly tighten retaining hardware.

Ensure all roller sections are flat to adapter hub surface.

Install inner roller plate gussets and retaining hardware. Stagger plates to over lap roller sections (Fig. 26).

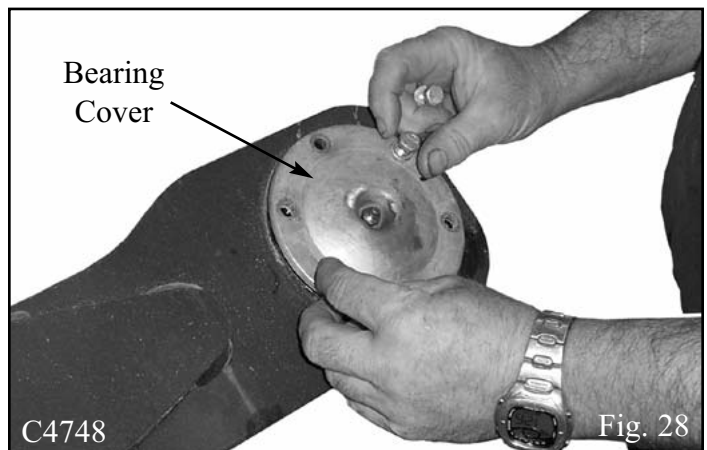
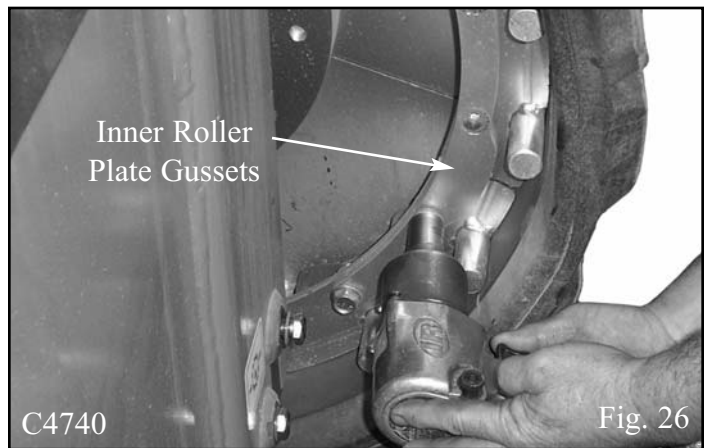
Ensure that all personnel are clear of the track area. Repeat safe start and run instructions to start the loader and rotate the track assembly.

Torque all roller sections and inner plate retaining gusset hardware to 75 ft. lbs.

Torque all wheel lug nuts on the hub adapter to 110 ft. lbs. and bolts on the inner plate retaining gusset to 75 ft. lbs.

Install outer support ring to front roller using 1/2" x 1 1/2" flange bolts. Torque all retaining hardware to 75 ft. lbs. (Fig. 27).

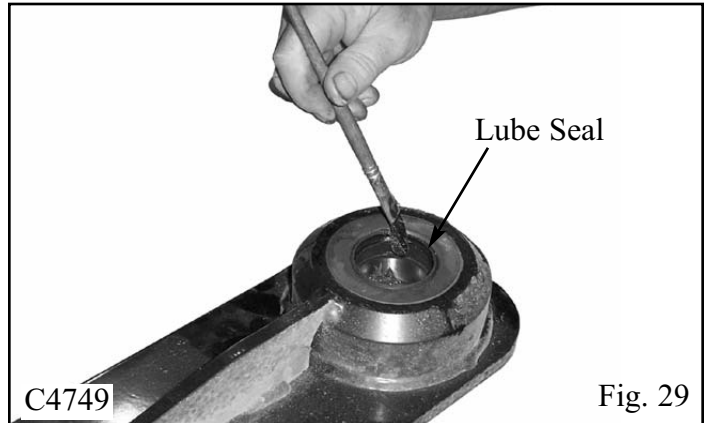
Remove bearing covers from the outer support arms, front and rear. Use care not to loosen roller bearings (Fig. 28).



TRACK INSTALLATION INSTRUCTIONS

Lube seal with multi-purpose grease (Fig. 29).

Install rear support arm positioning bearings over hub adapter spindle. (NOTE: Do not force bearing in place. This can cause damage to the bearing). Take care to not knock out roller bearings from support housing.



Apply removable Loctite to bearing cap bolts, front and rear (Fig. 30).



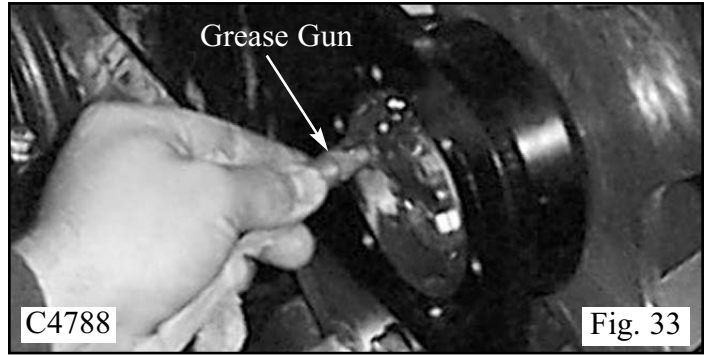
Install bearing retainer cap (Fig. 31). Torque bolts to 13 ft. lbs. (Fig. 32).

Repeat for front support arm.

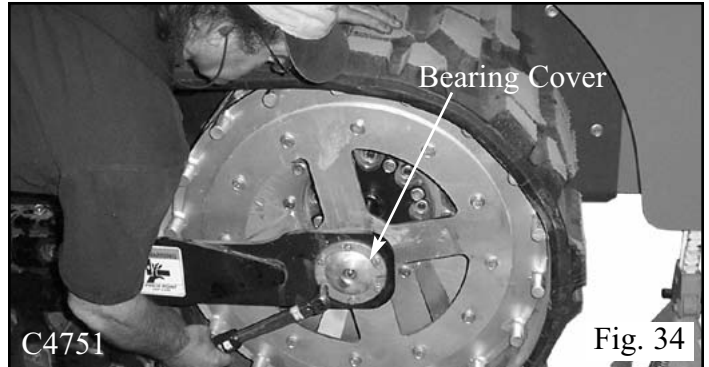


TRACK INSTALLATION INSTRUCTIONS

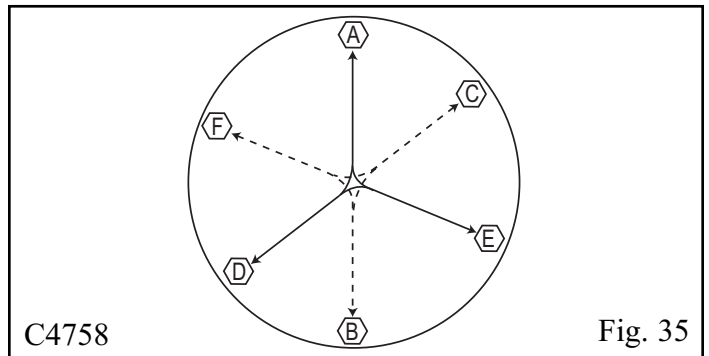
Fill support arm bearing cavity with multi-purpose grease (Fig. 33).



Install support arm bearing cover to support arm. Make sure "O" ring seal is in position on bearing cover (Fig. 34).



Install bolts and lock washers in the following order to prevent the cover from jamming or breaking: A, B, C, D, E, F (Fig. 35). Turn bolts 1/2 turn at a time, then repeat sequence until snug. Torque bolts in same order to 20 ft. lbs.



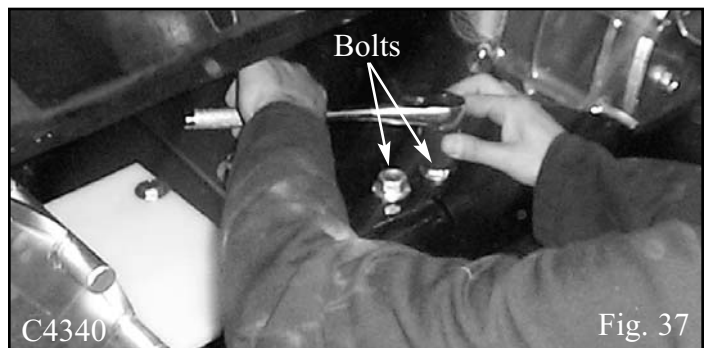
Fill support arm bearing with multi-purpose grease until grease exits through the relief valve (Fig. 36).

Repeat for opposite side.

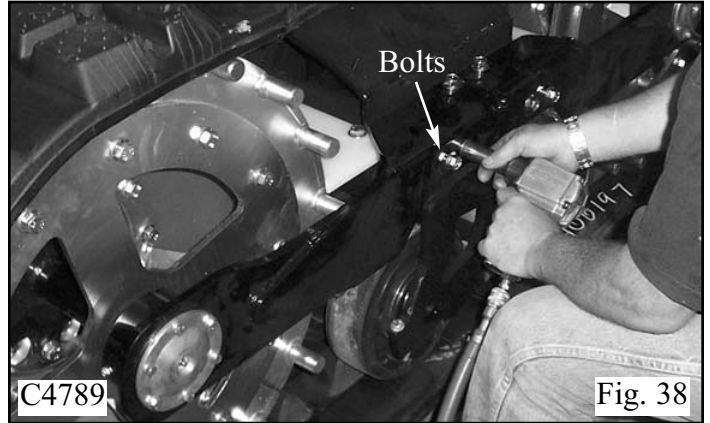


Using bolts, tighten the support arms down, aligning mounting slots with the idler assembly (Fig. 37 and Fig. 38 {next page}).

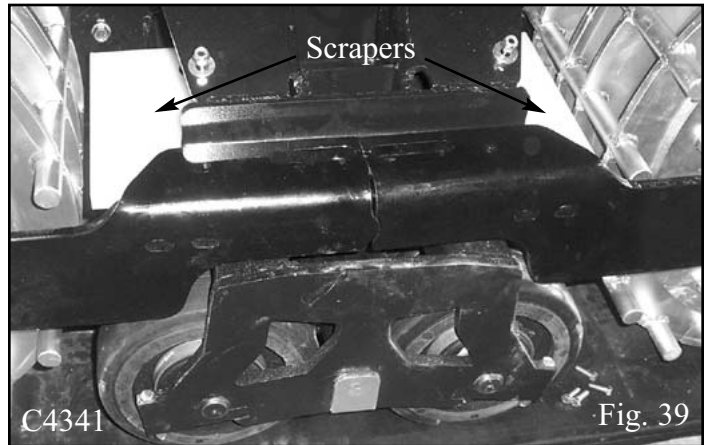
Torque bolts to 75 ft. lbs.



TRACK INSTALLATION INSTRUCTIONS



Adjust scrapers bars if necessary. Required to have clearance of 1/4" to 1/2" from rollers (Fig. 39).

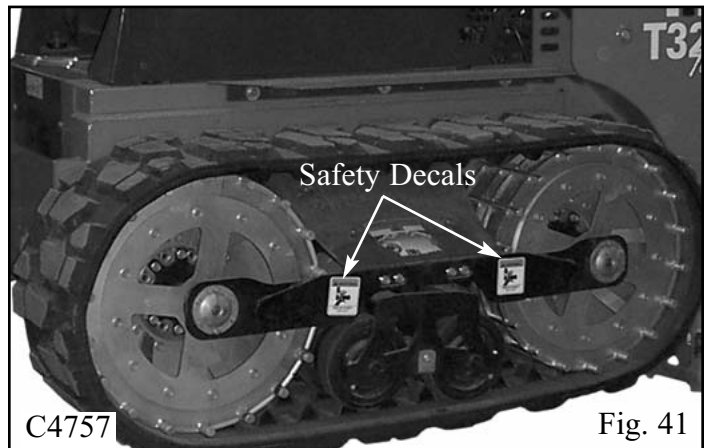


Refill the transmission housings with specified oil (refer to owners manual). Check for leaks.

Install dirt shield, torque retaining hardware to 17 ft. lbs.

Roll track 5 revolutions ahead and 5 revolutions back to check alignment of the drive lugs with the tandem wheels. Lower machine and remove jack stands.

Apply safety decals to the support arms (Fig. 41) and model decals to the lift arms.



Wheel Installation Instructions

WHEEL INSTALLATION INSTRUCTIONS

Remove any attachment, raise the boom arms and engage the boom support pins. Allow the lift arms to rest on the support pins. Do not place hydraulic force to boom support pins. (Refer to Section 2.7 in your owner's manual for the correct procedure.)

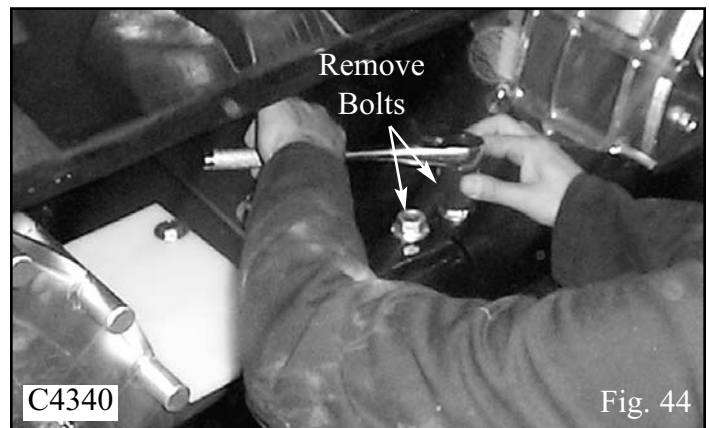
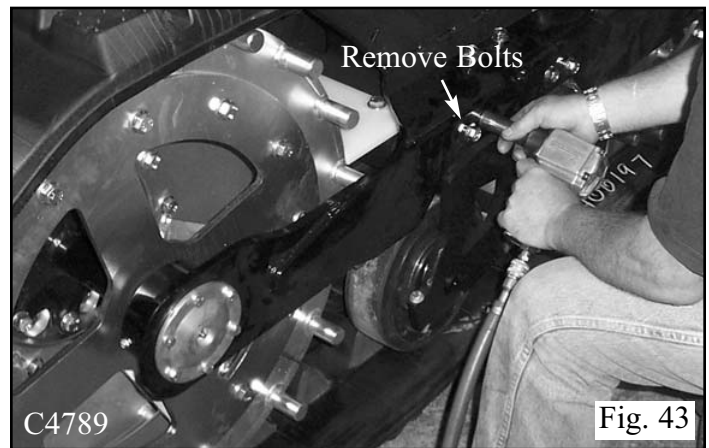
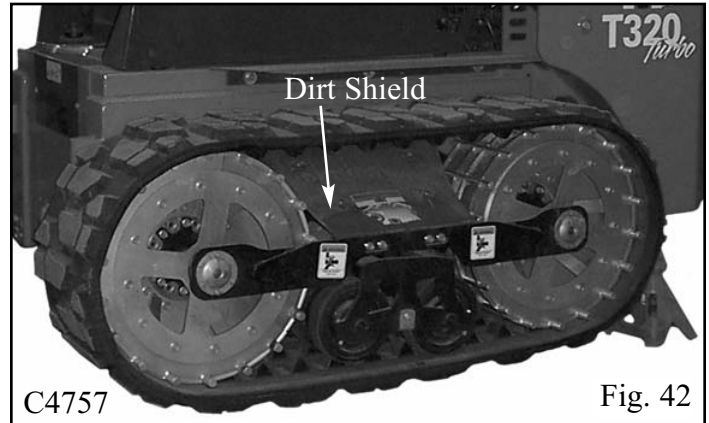
Raise the restraint bar and shut off the engine. Dismount from the machine.

Raise the machine from the ground, securing with four 2 ton jack stands or equivalent.

Remove the dirt shield (Fig. 42).

Remove bolts holding support arms in place (Fig. 43 and Fig. 44).

Remove the support arm bearing cover (Fig. 45).



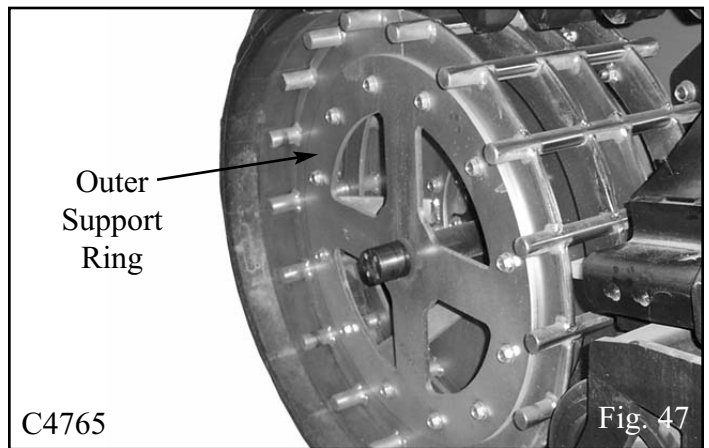
WHEEL INSTALLATION INSTRUCTIONS

Remove bearing caps (Fig. 46).

Remove the support arms.

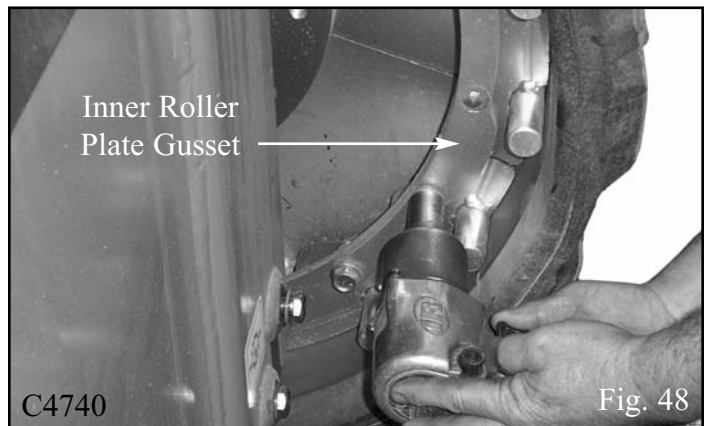


Remove hardware and the outer support ring to the front roller (Fig. 47).

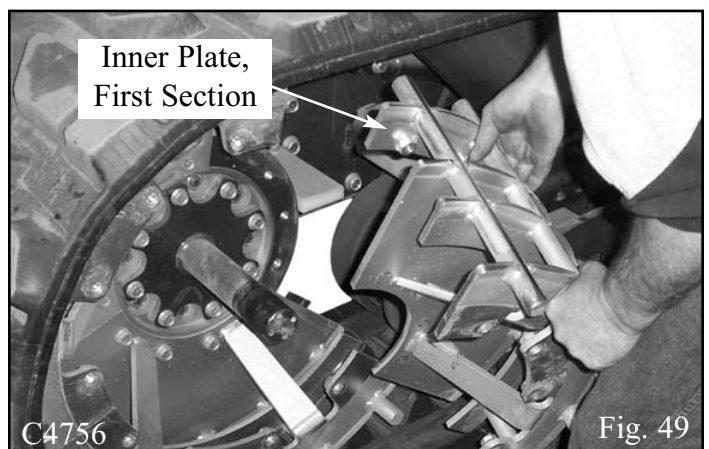


Ensure that all personnel are clear of the track area. Start the engine and rotate the track to access gussets.

Remove all of the inner plate retaining gusset hardware and the inner roller plate gussets (Fig. 48).



Remove the inner plate retaining hardware from the first section of the roller assembly and remove it (Fig. 49).

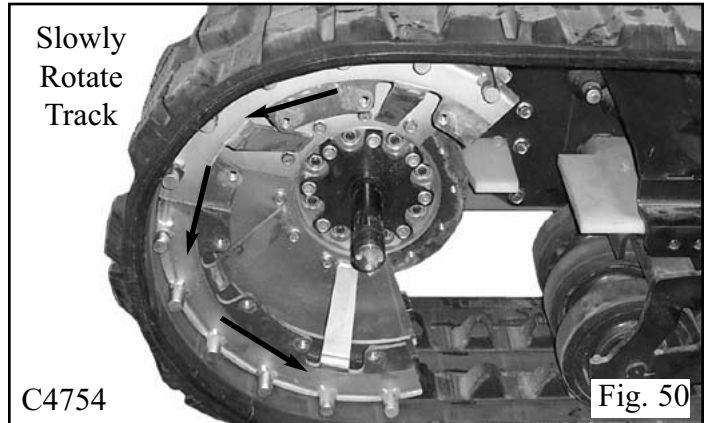


WHEEL INSTALLATION INSTRUCTIONS

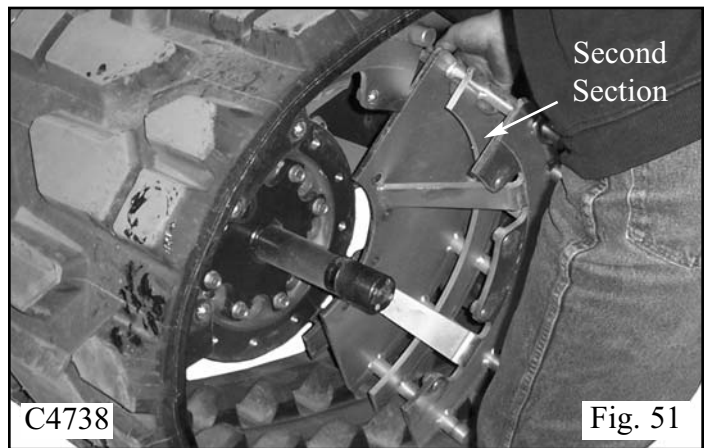
Ensure that all personnel are clear of the track area.

Start the engine and slowly rotate the track until the next section of the roller assembly is clear of the track lugs (Fig. 50).

Turn the engine off and ensure the parking brake is engaged by raising the seat bar.



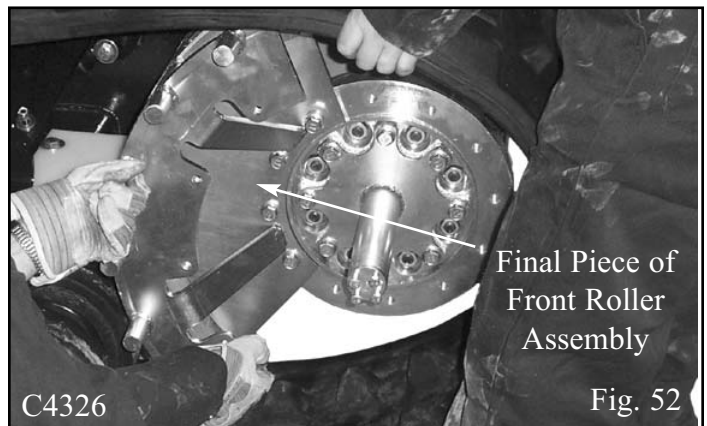
Remove the second section (Fig. 51).



Ensure that all personnel are clear of the track area.

Start the engine and slowly rotate the track until the final section is clear of it (Fig. 52).

Turn the engine off and ensure the parking brake is engaged by raising the seat bar.



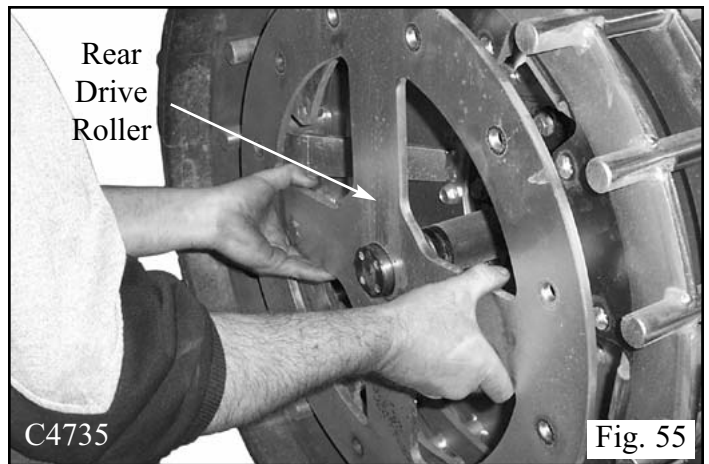
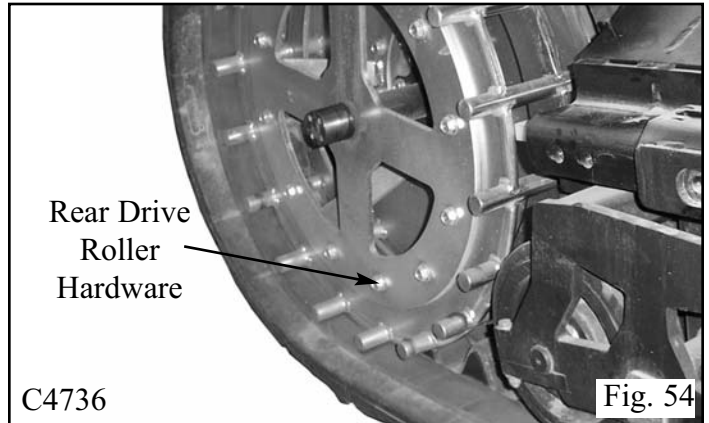
Track assembly is heavy. Use a lifting device rated for 500 lbs. minimum to aid assembly process.

Remove the track from the rear drive roller (Fig. 53).



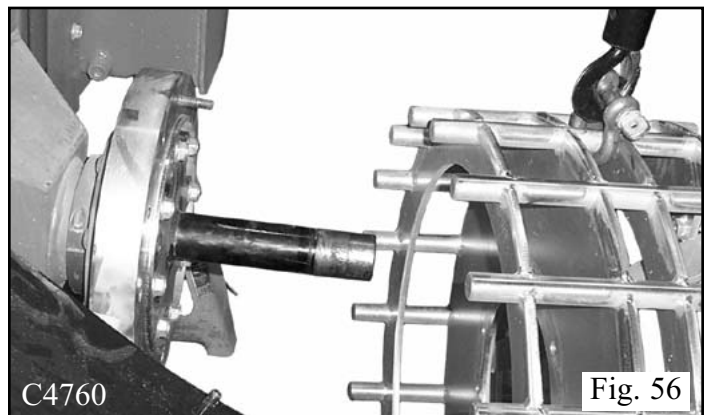
WHEEL INSTALLATION INSTRUCTIONS

Remove the hardware for the outer ring and the outer ring from the rear drive roller (Fig. 54 and Fig. 55).

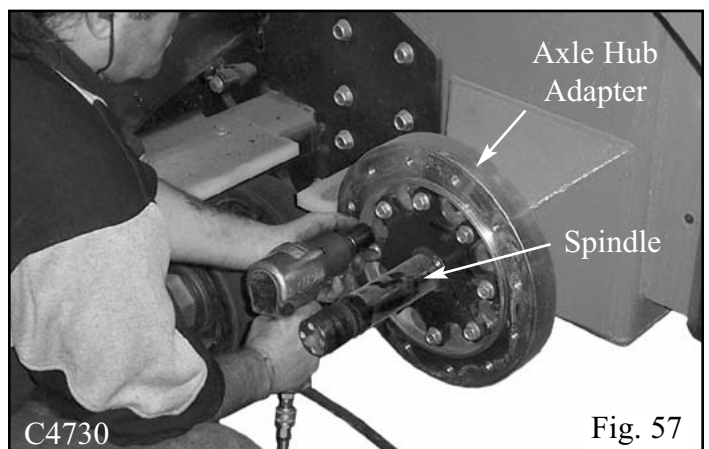


Drive rollers are heavy. Ensure that a properly rated lifting device (500 lbs. minimum) is used to aid in the lifting and supporting at all times.

Remove the bolts holding the rear drive roller to the adapter hub and remove the rear drive roller (Fig. 56).

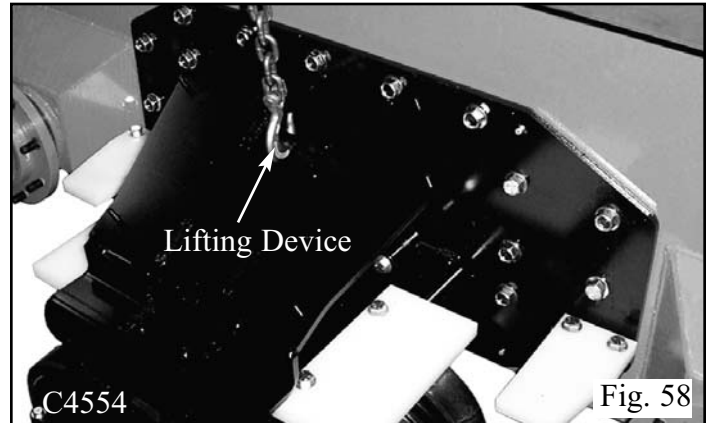


Remove the bolts holding the spindle to the axle hub adapter. Then remove the the axle hub adapter (Fig. 57).



WHEEL INSTALLATION INSTRUCTIONS

Idler assembly and drive rollers are heavy. Ensure that a properly rated lifting device (500 lbs. minimum) is used to aid in the lifting and supporting at all times (Fig. 58).

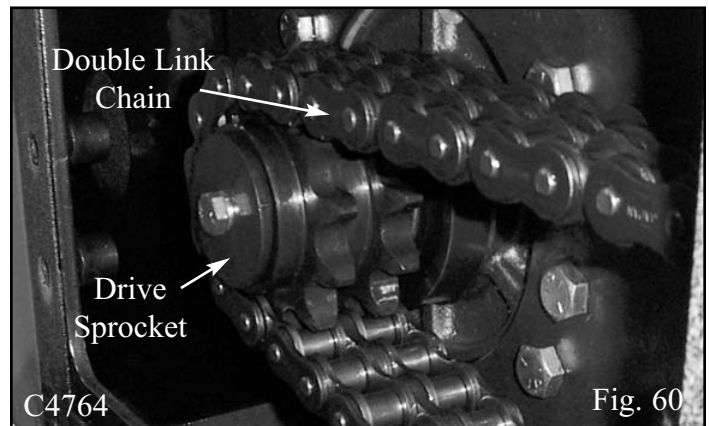


Remove supporting hardware and using lifting device carefully lower idler assembly and drive rollers to the ground (Fig. 59).



Remove the double link chain that is used only on the track machine (Fig. 60).

Remove the drive sprocket that is used with the double link chain from the drive motor (Fig. 60).

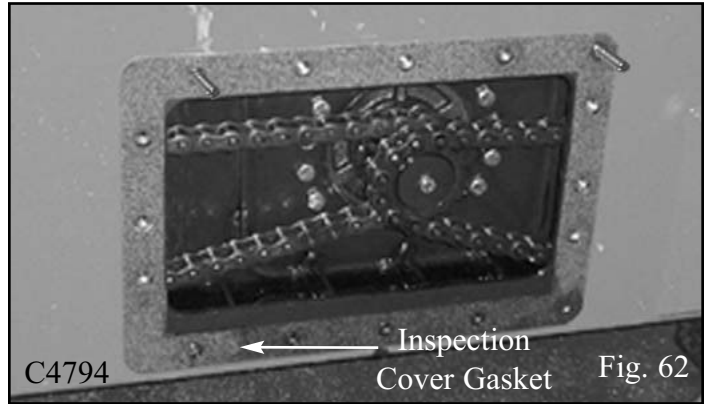


Install the standard drive sprocket and the standard drive chain (Fig. 61). Use special chain puller, P/N 43979, to pull the chain ends together and install the master link. Bend cotter pin 90 degrees.



WHEEL INSTALLATION INSTRUCTIONS

Install inspection cover gasket (Fig. 62), then the inspection cover (Fig.63). Use 5/8" x 1" hex bolts and lock washers. Install two 5/16" flange nuts on studs at rear of cover.



Install tires (Fig. 64). Torque wheel nuts to 110 ft. lbs.

Refill the transmission housings with specified oil (refer to owners manual). Check for leaks. Lower machine and remove the jack stands.

