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MAINTENANCE INTERVALS

Operation and Maintenance
Manual Excerpt



Operation and Maintenance Manual

T6B, T9B and T15B Trenchers

KSK1-Up (T6B)
JAJ1-Up (T9B)
SLW1-Up (T15B)

i03671827

Maintenance Interval Schedule

SMCS Code: 6700

When Required

Tool Bar Blade (Crumber) - Inspect/Adjust 49

Daily

Chain - Inspect/Adjust 46

Chain Teeth - Inspect/Replace 46

Frame Mounting Bracket - Inspect 48

Idler Bearings - Lubricate 49

Tool Bar Blade (Crumber) - Inspect/Adjust 49

Every 40 Service Hours or Weekly

Frame Slide Bar (Upper and Lower) - Lubricate ... 49

Hub - Lubricate 49

i02356749

Chain - Inspect/Adjust

SMCS Code: 671C-025; 671C-040

Inspect

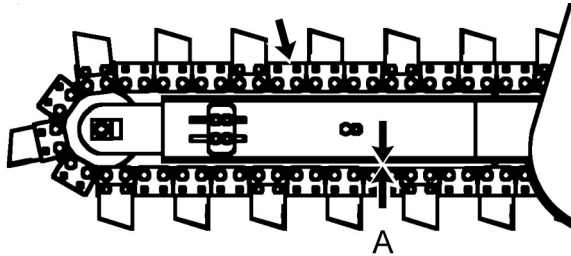


Illustration 45

g01177158

Inspect the chain for any wear or damage. Replace the chain, if necessary.

Inspect the chain for the proper amount of chain tension. The distance (A) between the inside of the chain to the bottom of the boom should be approximately 63.5 mm (2.50 inch) for the T9B and T15B trenchers. The distance (A) between the inside of the chain to the bottom of the boom should be approximately 38 mm (1.50 inch) for the T6B trencher. Adjust the chain, if necessary.

Note: A new chain stretches more readily than a chain with more usage.

Adjust

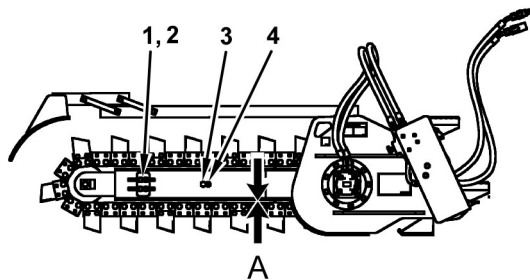


Illustration 46

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1. Use a "One Inch" box wrench and remove one drain plug (3).

2. Use a wrench with "18 MM" box end in order to loosen four clamp bolts (1) while you loosen nuts (2). Repeat this procedure for each clamp bolt (1).

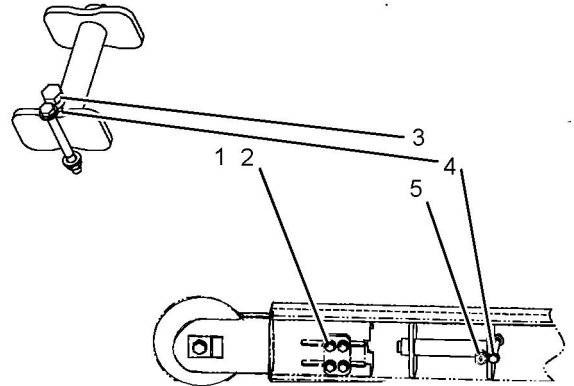


Illustration 47

g01032051

Some components are removed for clarity.

3. Apply grease to purge valve (5) in order to adjust the chain tension so that the distance (A) between the inside of the chain to the bottom of the boom should be approximately 68.5 mm (2.50 inches) for the T9B and T15B trenchers. The distance (A) between the inside of the chain to the bottom of the boom should be approximately 38 mm (1.50 inches) for the T6B trencher.
4. Hold clamp bolts (1) with the "18 MM" box wrench while you tighten the nuts (2).
5. Torque the four nuts (2) to 100 N·m (73.75 lb ft). Continue to torque all four nuts in order to ensure that all four nuts are evenly torqued to 100 N·m (73.75 lb ft).
6. Use a "One Inch" box wrench to replace drain plug (3).

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Chain Teeth - Inspect/Replace

SMCS Code: 671C-040-TTH; 671C-510-TTH

Use the following procedure to access the lower half of the chain tool. Inspect each tooth of the chain tool. Replace each tooth of the chain, as required.

1. Enter the host machine. Fasten the seat belt.
2. Lower the armrest, if equipped.
3. Start the engine.
4. Disengage the parking brake.
5. Raise the trencher slightly off the ground.

6. Activate the auxiliary hydraulic control in order to rotate the lower half of the chain to the top side of the boom. Then, release the auxiliary hydraulic control.
7. Lower the trencher to the ground.
8. Stop the engine and exit the host machine.

Inspect

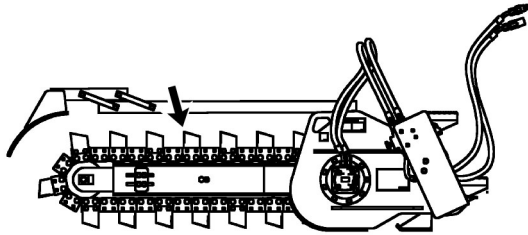


Illustration 48

g01177184

Inspect each tooth of the chain tool for wear. Replace the teeth, if necessary. Ensure that the bolts for each tooth are tightened.

Replace Teeth

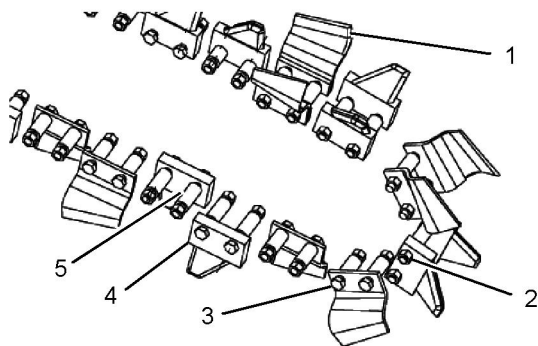


Illustration 49

g01030154

Perform the following procedure on one chain link and remove the chain tooth from the chain assembly.

1. Remove nuts (2).
2. Remove bolts (3) and remove tooth (1). Retain brackets (4) and retain spacers (5), as required.

Note: Ensure that you replace the worn tooth (1) with an identical tooth. Replace worn components or damaged components with new hardware.

3. Replace the chain tooth. Install the hardware in the proper order.

Replace Chain

Perform the following steps in order to replace the chain from the trencher.

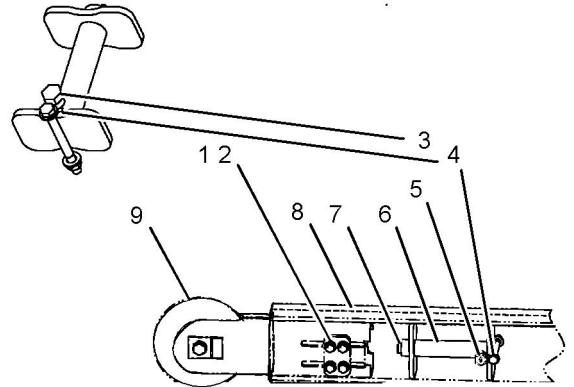


Illustration 50

g01032127

1. Use a wrench with "18 MM" box end and remove four clamp bolts (1) and nuts (2).
 - a. Remove bolt (4).
 - b. Move the idler inward in order to increase slack in the chain.
 - c. Remove the chain from the trencher.
2. Remove idler (9) from boom (8). Remove drain plug (3) and remove purge valve (5).
3. Pull pushrod (7) and remove the adjuster cylinder (6) from boom (8).

NOTICE

Care must be taken to ensure that fluids are contained during performance of inspection, maintenance, testing, adjusting and repair of the product. Be prepared to collect the fluid with suitable containers before opening any compartment or disassembling any component containing fluids.

Refer to Special Publication, NENG2500, "Caterpillar Dealer Service Tool Catalog" for tools and supplies suitable to collect and contain fluids on Caterpillar products.

Dispose of all fluids according to local regulations and mandates.

4. Push pushrod (7) back into adjuster cylinder (6) in order to drain the grease.

Note: After drainage, insert a new purge valve. Use “Teflon” tape on the threads.

5. Install adjuster cylinder (6) into boom (8). Make sure that purge valve (5) aligns with the hole for drain plug (3).
 - a. Install new bolt (4).
6. Install idler (9) into boom (8). Replace clamp bolts (1) and nuts (2) into the original position.
7. Install the chain on the trencher.
8. Apply grease to the purge valve in order to adjust the chain tension so that the distance (A) between the inside of the chain to the bottom of the boom should be approximately 68.5 mm (2.50 inches) for the T9B and T15B trenchers. The distance (A) between the inside of the chain to the bottom of the boom should be approximately 38 mm (1.50 inches) for the T6B trencher.
9. Hold clamp bolts (1) with the “18 MM” box wrench while you tighten the nuts (2).
10. Torque the four nuts (2) to 100 N·m (73.75 lb ft). Continue to torque all four nuts in order to ensure that all four nuts are evenly torqued to 100 N·m (73.75 lb ft).
11. Use a “One Inch” box wrench to replace drain plug (3).

Note: A new chain stretches more readily than a chain with more usage. Adjust the chain, if necessary.

Chain Groups

Chain groups are available with different configurations of teeth. Chain groups are available in several widths. Refer to Service Manual, RENR4457, “Trencher Tooth” for additional information on replacing chain groups or replacing the entire chain.

Single Standard

A single standard chain group has standard cup teeth on alternate link assemblies.

The chain group is used for ground conditions that are soft digging up to normal digging. The chain group is used for digging sticky materials such as clay.

Double Standard

A double standard chain group has standard cup teeth on every link assembly.

The chain group is used for digging sand or other soft material.

50/50 Carbide

A 50/50 carbide chain group has carbide teeth and standard cup teeth.

The chain group is used for ground conditions that are medium digging up to hard digging. The chain group is used for breaking the ground and for removing the soil from the trench.

50/50 Rock-Frost

A 50/50 rock-frost chain group has rock teeth and standard cup teeth.

The chain group is used for ground conditions that are medium digging up to hard digging. The chain group is used for breaking the ground and for removing the soil from the trench. The chain group is a great pick and shovel.

Rock-Frost

A rock-frost chain group has rock teeth on every link pitch.

The chain group is used for digging conditions that are severe. The chain group is used for digging soil such as caliche, rock, asphalt, frost, and hard clay.

Consult your Caterpillar dealer for additional information on replacement chain groups.

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Frame Mounting Bracket - Inspect

SMCS Code: 7050-040-MT

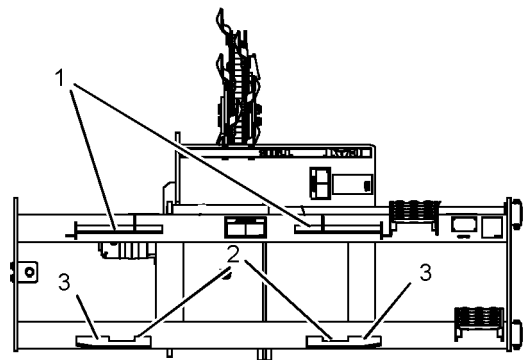


Illustration 51
Rear view

g01030185

Inspect upper angled plate (1) and ensure that the plate is not bent or otherwise damaged. Inspect holes (2) for wear and for damage. Inspect lower angled plate (3) and ensure that the plate is not bent or otherwise damaged. Consult your Caterpillar dealer if any wear is suspected or any damage is suspected.

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Frame Slide Bar (Upper and Lower) - Lubricate

SMCS Code: 7050-086-BAR

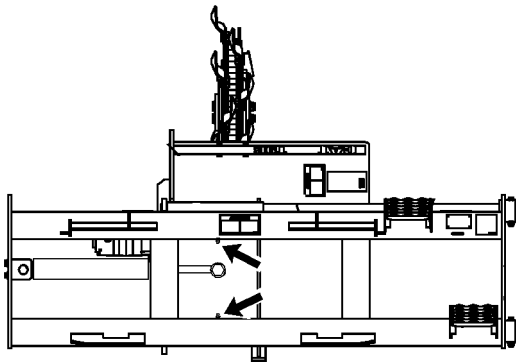


Illustration 52

g01177288

Apply lubricant to the grease fittings for the upper slide bar and for the lower slide bar on the frame mounting bracket.

i02356833

Hub - Lubricate

SMCS Code: 4184-086

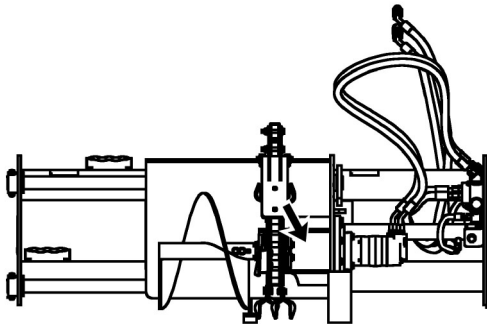


Illustration 53

g01177195

Front view

Grease fitting is on the opposite side of the hub.

Apply lubricant to the grease fitting for the hub bearings. Perform this procedure from the machine side.

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Idler Bearings - Lubricate

SMCS Code: 6248-086-BD

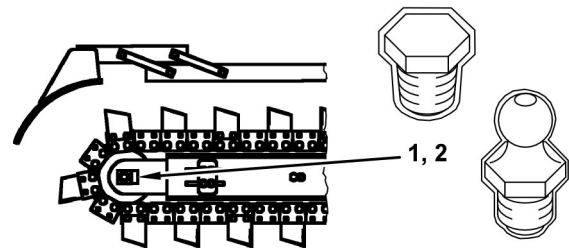


Illustration 54

g01177188

1. Remove cover bolt (1) in order to access grease fitting (2).
2. Apply lubricant to grease fitting (2) for the idler.
3. Install cover bolt (1).

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Tool Bar Blade (Crumber) - Inspect/Adjust (If Equipped)

SMCS Code: 6304-BG; 6710-BG

Inspect the tool bar blade (crumber) (1) for any damage. Replace the tool bar blade (crumber), if necessary. Refer to Service Manual, RENR4457, "Tool Bar Blade (Crumber) - Remove and Install" for additional information.

Scraper with Nonadjustable Blade

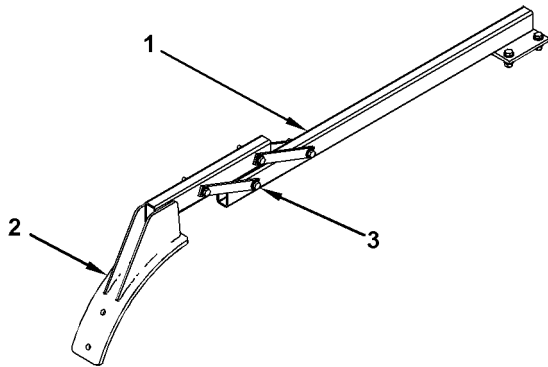


Illustration 55

g01134001

1. Inspect the scraper (2) for any damage. Replace the scraper, if necessary. Refer to Service Manual, RENR4457, "Scraper - Remove and Install" for additional information.
2. Inspect the scraper for proper movement. The scraper must be able to move when a small force is applied. If the scraper is unable to move, or if the scraper is easily moved, inspect the torque on the four bolts (3).
3. Torque the four bolts to 50 ± 10 N·m (37 ± 7 lb ft).

Scraper with Adjustable Blade

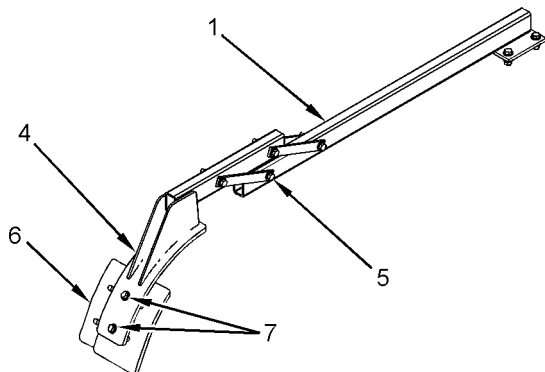


Illustration 56

g01134002

1. Inspect the scraper (4) for any damage. Replace the scraper, if necessary. Refer to Service Manual, RENR4457, "Scraper - Remove and Install" for additional information.
2. Inspect the scraper for proper movement. The scraper must be able to move when a small force is applied. If the scraper is unable to move, or if the scraper is easily moved, inspect the torque on the four bolts (5).
3. Torque the four bolts to 50 ± 10 N·m (37 ± 7 lb ft).

Note: Chain groups are available with different configurations of teeth. Chain groups are available in several widths. Refer to Service Manual, RENR4457, "Trencher Tooth" for additional information on replacing chain groups or replacing the entire chain.

4. If the chain group is replaced, inspect the blade on the scraper (6) for proper width. If a chain group that has a different width has been mounted to the trencher, the width of the blade will need to be adjusted.

Note: The adjustable blade (6) is available in two different widths in order to properly match the width of the chain group.

Table 9

Adjustable Scraper Blade Kit	
Adjustable Width	Part Number
152.4 to 203.2 mm (6 to 8 inch)	264-7597 Blade Kit
254.0 to 304.8 mm (10 to 12 inch)	264-7598 Blade Kit

5. Loosen the two bolts (7) on the blade (6) in order to adjust the width of the blade.
6. Adjust the two halves of the blade inward for narrower chain groups. Adjust the two halves of the blade outward for wider chain groups.
7. Adjust the two halves of the blade to the appropriate width for the attached chain group and for the ground conditions.
8. Tighten the two bolts (7) on the blade (6). Torque the two bolts to 105 ± 20 N·m (77 ± 15 lb ft).