



Michigan
Operator's Manual
175B

Front End Loader

Operator's Manual

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MIC-O-175B

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OPERATORS MANUAL

No. 3005

Model 175B

Articulated
Tractor Shovel

Information contained herein pertains
to Machine Serial Numbers listed below:

175B G.M. — 427C101 and After

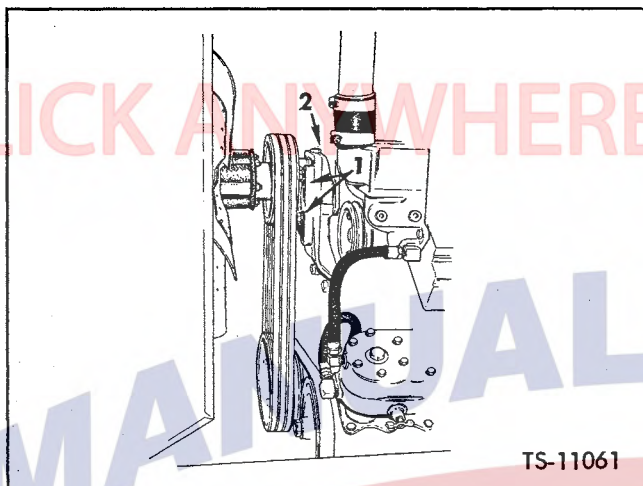
175B CUMMINS — 438C101 and After

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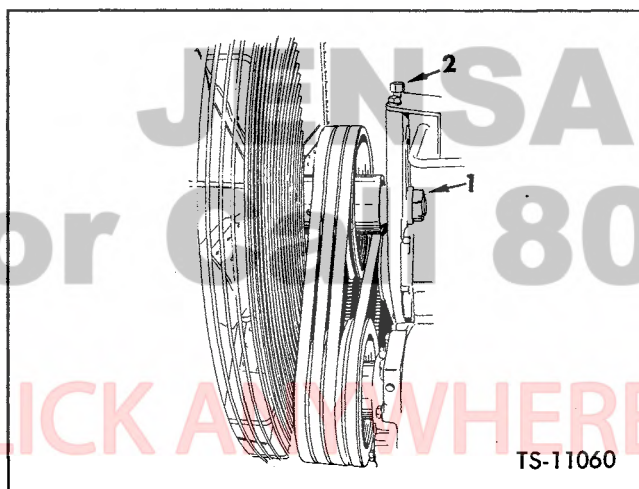
1. Mounting Bolts 2. Adjusting Bolt

Fig. 12. Check Fan Belt Tension — G.M.

bracket as shown in Figure 13.

2. Turn fan drive pulley adjusting bolt clockwise to raise fan drive pulley (increasing belt tension) or counterclockwise to lower fan drive pulley (decreasing belt tension) depending on the existing condition.
3. Turn the adjusting bolt so that $\frac{3}{16}$ inch maximum deflection is obtained on the belts midway between the pulleys.
4. When belts are properly adjusted, retighten locknut to 400-500 ft.-lbs. torque. Rotate torque one more hex.
5. Back-off adjusting screw one-half turn.

Periodically belts should be cleaned to remove



1. Locknut 2. Adjusting Bolt

Fig. 13. Check Fan Belt Tension — Cummins

grease and glaze by wiping with a cloth saturated with brake fluid. This in most instances will eliminate squeak and extend the service life of the belts.

Check Hydraulic System for Leaks: Check oil reservoirs, valve, pumps, cylinders, all hydraulic hose lines and connections for leaks, correcting where necessary. Particular attention should be paid to hoses on the intake or suction side of the pumps. Hose clamps and connections employed must be securely tightened to prevent entrance of foreign material or air into the system. Air drawn into the system at this point will cause cavitation of the pump with resultant malfunctioning and early failure. All hoses should be checked for abrasions which could result in ruptures of same. Replace hoses found in this condition.

Clean Torque Converter and Transmission Breather: The torque converter and transmission system is equipped with a breather located on top of torque converter.

Each 50 operating hours unscrew breather, wash in solvent, blow dry with compressed air and reinstall.

Check Lights and Fuses: Two fuses provide protection for the electrical system, one in gauge circuit and one in light circuit. An additional self contained fuse which is part of the lighter base and cord assembly provides protection for the lighter element. All fuses are located behind the instrument panel as shown on the Wiring Diagram.

The light circuit fuse and gauge circuit fuse are contained in plastic connectors. Push and twist to open and lock plastic connectors for fuse replacement. The self contained lighter fuse is a screw on type fuse secured between the lighter base and cord assembly.

To replace fuses remove instrument panel mounting bolts and swing panel outward.

The circuits and fuse protection are:

- Gauge Circuit AGC $\frac{3}{4}$ Amp.
 Light Circuit SFE 20 Amp.
 Lighter Circuit 10 Amp.

(a) Headlamps and Back-Up Lamps: The machine is equipped with headlamps and back-up lamps mounted in shock resistant rubber retainers.

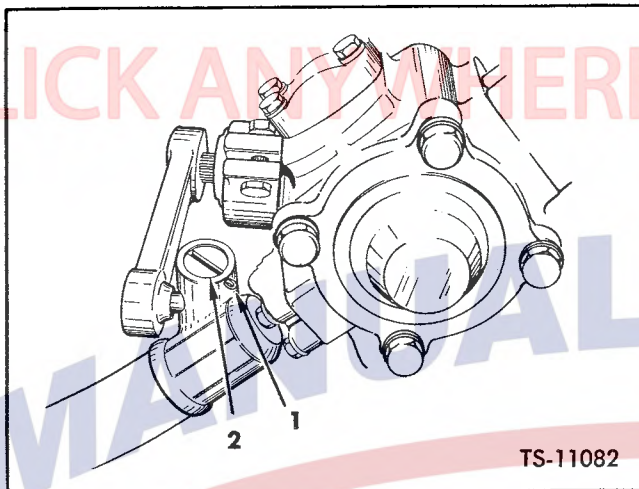


Fig. 38. Adjust Draglink Ball Joints

Inspect all mounting bolts for evidence of looseness, stripped threads, cracked or broken heads or any other signs of damage.

Note: Where spring bolts are used on engine mounts, bolts should be tightened to compress spring, and then backed-off two full turns.

Remove and replace damaged or missing mounting bolts and tighten all loose mounting bolts as necessary. Refer to Bolt Torque Chart.

Steam Clean Machine: Periodically or whenever working machine in muddy or swampy areas or when machine begins to cake up with excessive dirt, the entire machine should be steam cleaned. If allowed to accumulate, dirt will find its way into the various systems when plugs, covers or caps are removed or during unit replacement eventually cause serious damage and down time.

Dirt packed on or around the axle, transmission, torque converter and engine breathers will cause oil losses.

Steam is the most effective and recommended method of cleaning a dirty machine. If unavailable use a spray of mineral spirits or a similar solvent non-harmful to exposed hoses, lines and electrical wiring.

Note: Prior to steam cleaning, cover all alternator and cranking motor openings to protect them from the force of the steam jet.

Service Air Cleaner Element: Recommended servicing procedures and intervals for replacing the air cleaner filter element are described below,

but it should be understood that no set rule can be established for replacing the filter element because the replacement interval is automatically established by a service indicator installed on the air cleaner outlet to the engine. The service indicator insures maximum engine efficiency by providing the operator with a fast, safe and efficient method of determining when the filter element should be replaced. This is accomplished by a WARNING SIGNAL (red band) which is actuated by the pressure drop across the air cleaner.

Dirt trapped by the filter element gradually increases the pressure drop across the air cleaner. As the resistance increases, a WARNING SIGNAL (red band) inside the indicator will become visible in the indicator window. This indicates the life reserve of the filter element. When restriction of the air flow through the filter reaches the upper limit for efficient filter element performance, the WARNING SIGNAL (red band) will lock and remain in a position visible to the operator regardless of whether or not the engine is running. This is an indication that the filter must be serviced.

Note: Extended operation of machine without replacing filter element when indicated by the service indicator will create excessive restriction resulting in high fuel consumption, excessive smoke, lower horsepower and poor acceleration.

Figures 39 thru 41 illustrate the removal and cleaning procedure of the air cleaner element.

Loosen clamp assembly, (Item 1 Figure 40), and remove dust cup, (Item 2 Figure 40). Unscrew the wing nut, (Item 3 Figure 40), and remove element, (Item 4 Figure 40). Pat sides of element

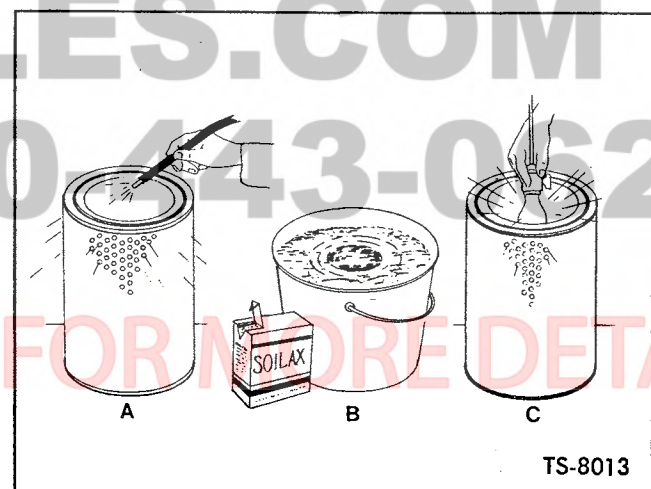
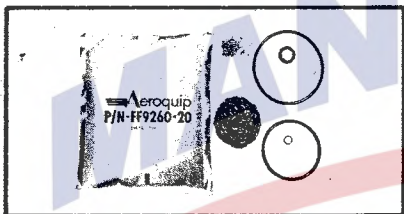


Fig. 39. Clean and Inspect Filter Element

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Service Instructions



2510803 DESICCANT REFILL KIT

STEP 5

Remove number two screen and desiccant retaining spring.

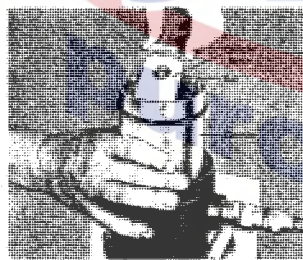
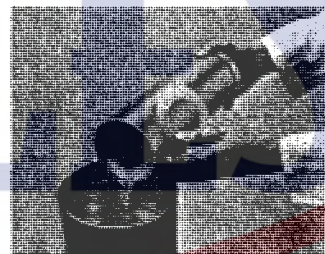


STEP 1

To remove the cap, first release the pressure from the unit by loosening the hose fitting from the port adapter at the inlet or outlet. Then remove the top retaining nuts with a $\frac{3}{4}$ " end wrench. Next, remove the cap and bypass spring.

STEP 6

Tip canister over a receptacle and remove screen number three, allowing desiccant to flow out.



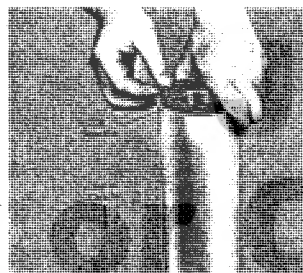
STEP 2

Using the bail, remove the canister from the Aerofiner housing. It may be necessary to loosen the canister from the housing by using a twisting back and forth motion while pulling upwards.

Note: During reassembly, rotate the canister while inserting and make sure the canister O-ring seats below the housing shoulder.

STEP 7

Clean all components before reassembly. Then pour new pre-measured desiccant into canister. Jar desiccant canister to settle the desiccant. Reassemble in reverse order, replacing all O-rings with the new O-rings included in the replacement kit. Lubricate all O-rings before inserting canister in housing.



STEP 3

CAUTION — DO NOT REMOVE TOP SCREEN

Invert the canister and, with a small screwdriver, release and remove the retaining ring. Then while the canister is still inverted, remove screen number one and the oil separator.

Note: During reassembly, make sure the oil separator pad is pushed below the snap ring groove.



STEP 4

Using a small screwdriver, release and remove the next retaining ring from the center post.

Caution: Screen is under spring tension. Hold screen down with vise grips or a similar tool, clamping on the outer canister wall in the vertical position while depressing the screen.

961419 Canister Replacement Kit

For large volume users, a complete canister kit is available as a spare. Follow steps 1 and 2 as described above and install in the body in reverse order. Retrieved container can be recharged using Kit Number 2510803 and following all steps described above. If the recharged canister is to be stored it should be sealed from the atmosphere in a plastic bag.

