



Caterpillar

Service Manual

955L Traxcavator

S/n 64J, 71J & 85J

Volume 1 of 2

Service Manual

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CT-S-955LTX64J

INTRODUCTION

The specifications given in this book are on the basis of information available at the time the book was written. These specifications give the torques, operating pressure, measurements of new parts, adjustments and other items that will affect the service of the product.

When the words "use again" are in the description, the specification given can be used to determine if a part can be used again. If the part is equal to or within the specification given, use the part again.

NOTE: The specifications given for "use again" and "permissible" are intended for guidance only and Caterpillar Tractor Co. hereby expressly denies and excludes any representation, warranty or implied warranty of the reuse of any component.

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NOTE: For Systems Operation and Testing and Adjusting, make reference to 3304 & 3306 Vehicle Engines, Form No. REG01349.

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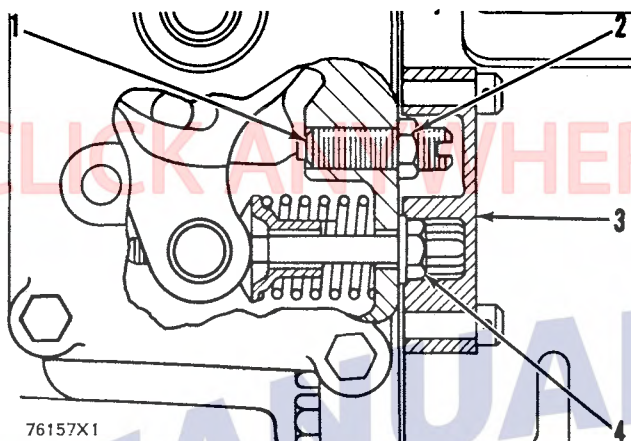
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**LOCATION OF IDLE ADJUSTMENT
SCREWS**

1. High idle adjustment screw. 2. Locknut. 3. Cover. 4. Low idle adjustment bolt.

slower. Turning the screw out makes the engine run faster. Hold screw (1) and tighten locknut (2) after adjustment procedure is done.

3. To make an adjustment to the low idle rpm, turn bolt (4). Turning the bolt in makes the engine run faster. Turning the bolt out makes the engine run slower. Grooves in cover (3) hold bolt (4) and keep it from turning after adjustment is done and the cover is installed.
4. After each idle adjustment is made, move the governor lever to change the rpm of the engine. Now move the governor lever back to the point of first adjustment to check the idle adjustment. Keep doing the adjustment procedure until the low idle and high idle rpm are the same as given in RACK SETTING INFORMATION.

Checking Balance Point (Full Load Speed)

Checking the Balance Point of the engine is a fast way to make a diagnosis of engine performance.

The balance point for the engine is:

1. At full load speed.
2. The point where the load stop pin is against the load stop or torque spring.
3. The point where the engine gets the maximum amount of fuel.
4. The point where the engine has the most horsepower output.

5. The point where an increase in load on the engine puts the engine in a lug condition (a condition in which a small increase in load makes the engine speed get much less).

Procedure for Checking Balance Point

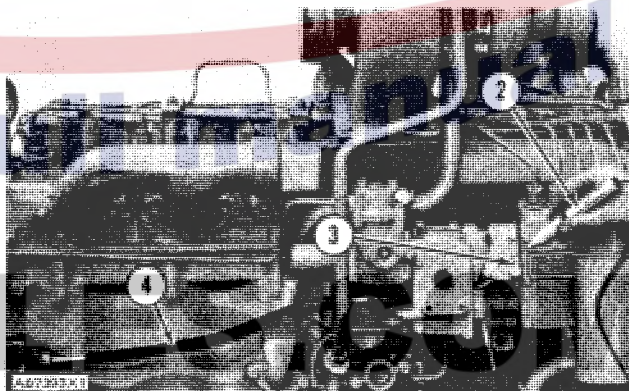
1. Connect a tachometer which has good accuracy to adapter (1) on the end of the fuel injection pump.



CHECKING BALANCE POINT

1. Adapter.

2. Connect a continuity light (2) to the brass terminal screw (3) on the cover for the load stop. Connect the other end of the light to a place on the fuel system which is a good electrical connection.
3. Start the engine.



CHECKING BALANCE POINT

2. Continuity light. 3. Brass terminal screw. 4. Tachometer drive shaft.

4. With the engine at operating temperatures, run the engine at high idle.
5. Make a record of the speed of the engine at high idle.
6. Add load on the engine slowly until the continuity light just comes on. This is the balance point.

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**DISCONNECT BATTERIES
BEFORE PERFORMANCE
OF ANY SERVICE WORK**

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RADIATOR CORE

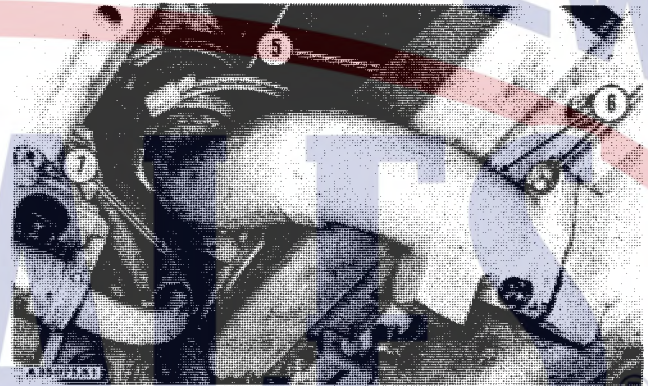
REMOVE RADIATOR CORE

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start by:

a) remove hood

1. Drain the coolant from the radiator.
2. Remove the left and right fan guards and remove top shields (4).
3. Disconnect hose (1) and water line (2).
4. Remove two bolts (3) from each side of the core.
5. Remove the front section of the crankcase guard and disconnect oil line (7) from under the radiator.
6. Disconnect lower pipe (6) and remove lower left shield (5) from the radiator.
7. Remove bolts (9) and lockwashers from lower right shield (8).
8. Remove two bolts (10) from each side of the radiator, that hold the bar to the core. Remove bolts on each side of the radiator that hold bracket (11) to the radiator guard.
9. Pull the bracket and the bar out of the way before the removal of the core.



10. Install two 3/8"—16 NC forged eyebolts in the top of the core and fasten a hoist to the eyebolts.

11. Remove radiator core (12). Weight of core is 325 lb. (147.4 kg).

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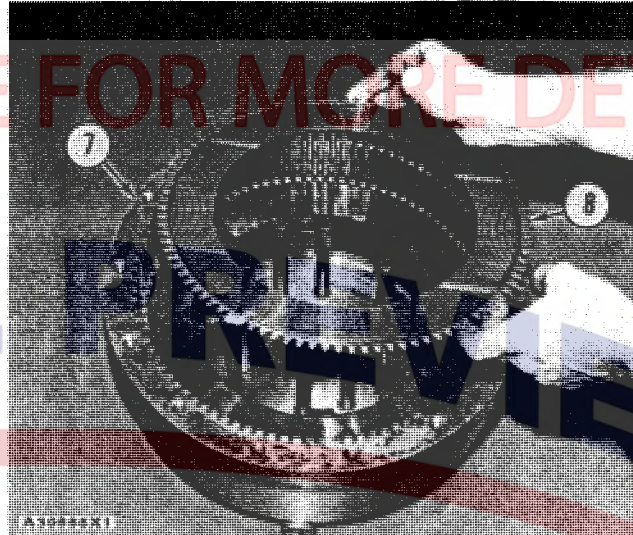
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STEERING CLUTCHES

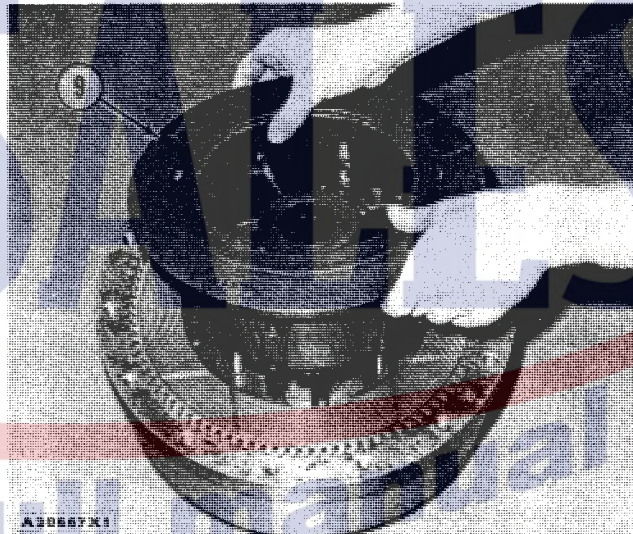
7. Put brake drum (7) in position on the plate assembly as shown.

8. Install discs and disc assemblies (8) in the drum in the correct order.

NOTE: For the best wear distribution, the discs and disc assemblies must be installed so the discs and disc assemblies that were on the top of the steering clutch unit are installed on the bottom with the same faces up. New discs can be installed with any face up.



9. Install drum (9) in the steering clutch assembly.



10. Put the two springs and the retainer on each stud in the plate assembly. Install tooling (D) as shown. Put the springs under compression until two locks (10) can be installed on each stud. Remove tooling (D). Remove the brake drum.

CAUTION: Make sure the eight studs are in alignment with the holes in the 7S8431 Plate when the spring is put under compression.



WARNING: To make sure the locks are in place, hit each stud with a hammer. Keep back from the steering clutch when the studs are hit.



INTRODUCTION

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When the word "permissible" is in the description, the specification given is the "maximum or minimum" tolerance permitted before adjustment, repair and/or new parts are needed.

A comparison can be made between the measurements of a worn part, and the specifications of a new part to find the amount of wear. A part that is worn can be safe to use if an estimate of the remainder of its service life is good. If a short service life is expected, replace the part.

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NOTE: For Systems Operation, Testing and Adjusting, make reference to 955L LOADER HYDRAULIC SYSTEM, Form No. SENR7372.

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26 TRANSMISSION



WARNING

Use caution when draining oil. Hot oil can cause personal injury.

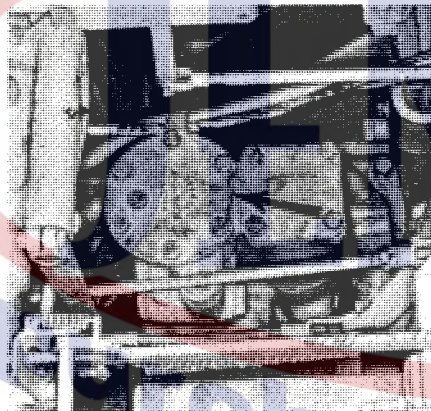
Machine level, parking brake and transmission safety engaged, oil warm and engine stopped.



1. Remove filter housing drain plug.



2. Remove floor plate.



3. Remove cover and filter element.



4. Remove used elements and install new element. Tighten filter retainer nuts to 10 ± 2 lb.ft. (13.6 ± 1.7 N·m).



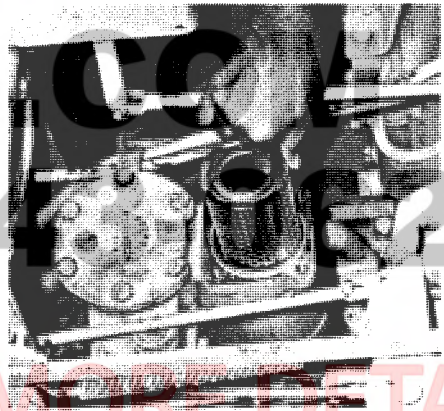
5. Inspect seal. Use new seal if necessary. Install filter.

6. Clean and install filter housing drain plug.



7. Remove cover.

CAUTION
Do not drop or rap magnets against hard objects.



8. Remove washer, screen and tube assembly.