Disassembly and Assembly

621E, 623E, & 627E TRACTORS POWER TRAIN

Media Number -SENR3303-01

Publication Date -01/02/1991

Date Updated -10/03/2010

SENR33030002

Final Drive Planetary Carriers

SMCS - 4092-010; 4092-017

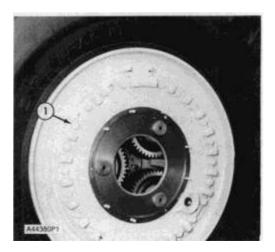
Remove And Install Final Drive Planetary Carriers

Start By:

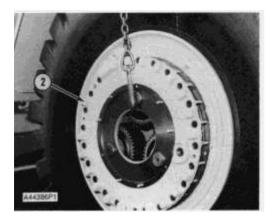
a. remove drive axles

🏠 WARNING

Hold the carrier assembly level when it is removed. The pins and gears will fall out of the carrier if the assembly is not held level.



1. Remove twenty-two nuts (1) and washers.



2. Fasten a hoist to carrier assembly (2) and remove it from the hub assembly. Weight of the carrier assembly is approximately **150 kg (330 lb)**.

3. Check the condition of the O-ring seal on the carrier. If the seal has damage, use a new part for replacement.

NOTE: The following steps are for the installation of the final drive planetary carriers.



4. Fasten a hoist to carrier assembly (2). Install the gear end of the drive axle in the carrier assembly as shown. The axle is used to hold the carrier assembly level and to help put the gears in the carrier assembly in alignment with the hub assembly.

5. Put the carrier assembly in position in the hub assembly. Remove the hoist and drive axle.

6. Install the twenty-two nuts that hold the carrier assembly in position.

7. Tighten the nuts to a torque of 370 ± 50 N·m (273 ± 37 lb ft).

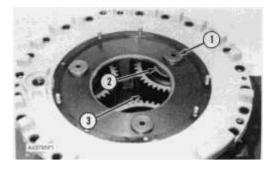
End By:

a. install drive axles

Disassemble And Assemble Final Drive Planetary Carriers

Start By:

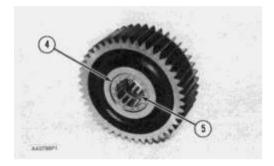
a. remove final drive planetary carriers



1. Put the final drive planetary carrier on wood blocks as shown.

2. Remove pin (1) and the ring as a unit that holds gear (3) and two spacers (2) in position in the carrier assembly.

- 3. Remove the gear and two spacers from the carrier assembly.
- 4. Remove the other two gears from the carrier assembly as in Steps 1 through 3.



5. Remove two bearings (4) and spacer (5) from each gear.

NOTE: The following steps are for the assembly of the final drive planetary carriers.

6. Install two bearings (4) and spacer (5) in each gear (3).

7. Put a spacer (2) on each side of the gear. Put the gear in position in the carrier assembly.

8. Install the ring and pin (1) that holds the gear in position. Turn pins (1) in the carrier until the flat side of the pins are toward the outside of the carrier as shown.

9. Install the other two gears in the carrier assembly as in Steps 7 and 8.

End By:

a. install final drive planetary carriers

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Disassembly and Assembly

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Date Updated -10/03/2010

SENR33030003

Final Drive Gears And Hubs

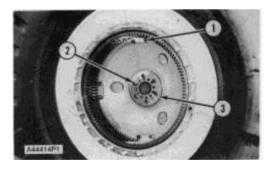
SMCS - 4054-010; 4055

Remove And Install Final Drive Gears And Hubs

		Tools Needed	A
FT121	Lifting Bracket		1

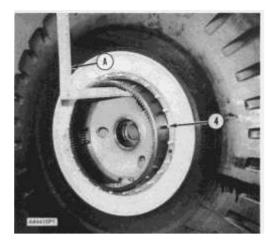
Start By:

a. remove final drive planetary carriers



Put wood blocks under the outside edge of tire as supports to hold it in correct position before the hub and gear are removed. If supports are not used, the tire will fall and personal injury can be the result.

1. Remove bolts (2), ring (3) and the shims from the end of the axle housing.



2. If retainer (1) is in the position shown, it must be removed to permit the installation of tool (A) in the groove of the gear.

3. Fasten tool (A) to a hoist. Put tool (A) in the groove of gear (4). Remove the gear and hub as a unit from the end of the axle housing. Weight of the unit is approximately **88.5 kg (195 lb)**.

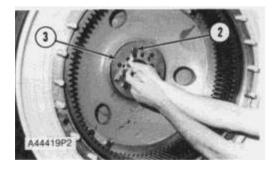
4. Remove the retainers (1) that hold the gear and hub together. Remove the gear from the hub. Weight of the gear is **43 kg (95 lb).** Weight of the hub is **45 kg (100 lb).**

NOTE: The following steps are for the installation of the final drive gears and hubs.

NOTE: Before adjustment of the wheel bearings is started, check to be sure the bearing cups have a tight seat against the bottom of the bore in the wheel. Use a **0.03 mm (.001 in) or 0.05 mm (.002 in)** feeler gauge to check for any clearance behind the bearing cup. If any clearance is found, use a bearing driver or press to move the bearing cup until it has a tight seat with no clearance.

5. Put gear (4) in position over the hub. Install the bolts, lock and retainers (1) that hold the unit together.

6. Fasten a hoist and tool (A) to the gear and hub. Put the unit in position on the end of the axle housing.



- 7. Make an adjustment to the wheel bearings as follows:
- a. Install ring (3) without shims. Install three bolts (2) the same distance apart to hold the ring.

b. Tighten the bolts evenly to a torque of **35** N·m (**25** lb ft).

c. Turn the wheel and tighten the three bolts again to a torque of 70 ± 7 N·m (50 ± 5 lb ft) as the wheel is turned. Tighten each bolt only once.

d. Use a depth micrometer and measure through the threaded holes in ring to find the average depth. Make a record of the average depth.

e. Remove ring (3) and measure the thickness of the ring at the holes with the threads to find an average thickness. Make a record of the average thickness.

f. Find the average difference between the two average measurements. This difference is the distance between the end of the axle housing and ring. Make a record of this distance.

g. The average difference in Step 7f plug **0.30 mm (.012 in)** is the amount of shims to install between the end of the axle housing and ring.

h. Install the correct amount of shims, ring (3) and the bolts that hold the ring. Turn the wheel and tighten the bolts to a torque of 275 ± 27 N·m (200 ± 20 lb ft) as the wheel is turned. Tighten each bolt only once.

8. To make an adjustment to the wheel bearings off the machine, see Adjustment Of Wheel Bearings "OFF" Machine in Specification, Form No. REG01621.

End By:

a. install final drive planetary carriers

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Disassembly and Assembly 621E, 623E, & 627E TRACTORS POWER TRAIN

Media Number -SENR3303-01

Publication Date -01/02/1991

Date Updated -10/03/2010

SENR33030004

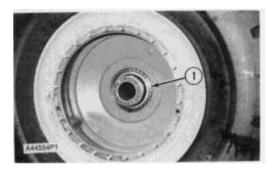
Tires And Wheels, Wheel Bearings And Duo-Cone Seals

SMCS - 4200; 4208-011; 4208-012

Remove Tires And Wheels, Wheel Bearings And Duo-Cone Seals

Start By:

a. remove final drive gears and hubs



🛕 WARNING

Put wood blocks under the outside edge of the tire as supports to hold it in the correct position before the outer bearing cone is removed. If supports are not used, the tire will fall and personal injury can be the result.

1. Remove bearing cone (1).

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