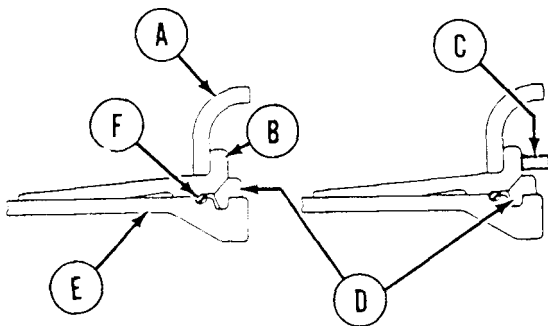


# Special Instruction

## Dismounting Tires on Caterpillar Machines with Five Piece Rims

### All Machines Equipped with Five Piece Rims



#### Introduction

Section View of Outer Portion of Assembled Wheel Assembly. A. Outer Flange. B. Former Bead Seat Band.

C. New Band (Extension Added), D Lockring. E. Rim Base. F. O-Ring Seal.

Caterpillar has improved the bead seat band for five piece tire rims to assist in correct lock ring assembly. Changing tires with the new bead seat band requires the use of certain adapters with the beadbreaker tools.

- The 6V7043 Adapter Plate must be used for all vehicles except Wheel Tractor-Scrapers.

- The 4C4624 Adapter must be used on the Wheel Tractor-Scrapers.

Caterpillar has also released the 4C4105 Beadbreaker Group to allow easier dismounting of large tires. The 4C4105 is larger than the 3P22t9 Beadbreaker Group it replaces. To use the 4C4105 with the 6V7043 Adapter Plate requires some alterations to the adapter plate.

This instruction will show the changes required to allow using the 6V7043 Adapter Plate with the 4C4105 Beadbreaker Group. It will show how the 4C4624 Adapter may be fabricated. It will also show the correct use of the beadbreaker and the adapters for dismounting Caterpillar tires.

### ⚠ WARNING

**Correct procedures must be followed while servicing tires and rims. If not, the assemblies could burst with explosive force and cause serious personal injury or death. Servicing and changing tires and rims should be done only by trained personnel using proper tools and procedures.**

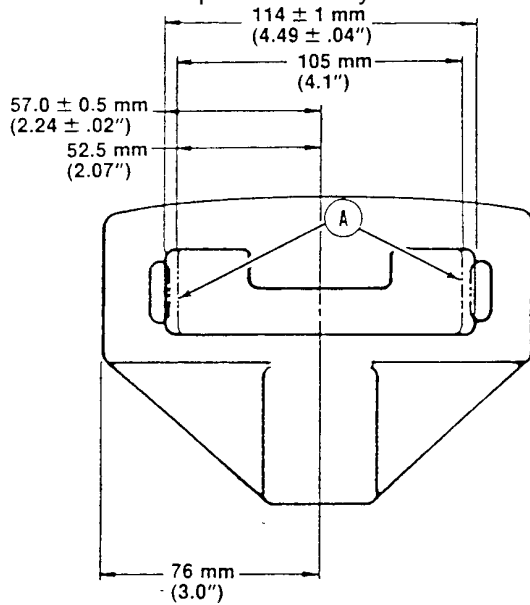
#### Necessary Parts

Part No.	Description	Quan.
4C4105	Beadbreaker Group	1 <sup>1</sup>
FT2304	Adapter Brace	1 <sup>2</sup>
4C4624	Adapter	1 <sup>3</sup>
4C4621	Clamping Setscrew	1

1789 Truck Tires require two used side by side  
 2Used on all machines except Wheel Tractor-Scrapers - Make from 6V7043 as per the illustration provided.  
 3Used only on Wheel Tractor-Scrapers. See the illustration provided for fabrication

### Modification of the 6V7043 Adapter Plate

- The 6V7043 Adapter Plate may be modified to

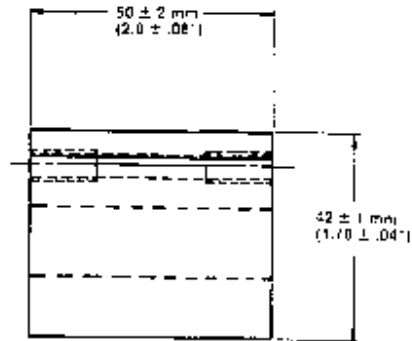
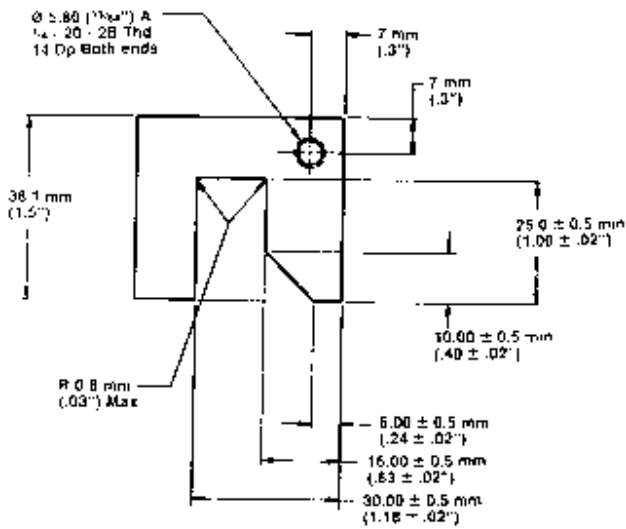


allow use with the 4C4105 Beadbreaker Group. This plate may be used for all five-piece rims except Wheel Tractor-Scrapers

Mill out  $4.5 \pm 0.5$  mm ( $.180 \pm .020$  inches) at each of two locations (A).

- After modification the part number of the adapter plate will be FT2304.

### Fabricate the 4C4624 Adapter



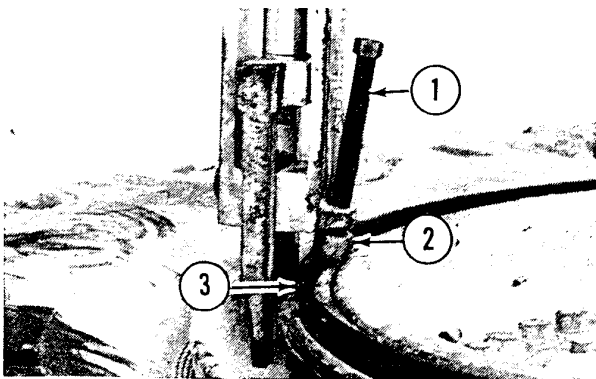
#### 4C4624 Adapter.

- Fabricate the adapter using SAE 1018 stock.
- May be used on Wheel Tractor-Scrapers.

### Using the Beadbreaker on Bead Seat Bands With the Extension Added

1. Stand in a position so the valve stem is not pointed at your body. Remove the valve core from the valve stem. Run a piece of stiff wire through the valve stem to be sure the stem is not clogged with dirt. Allow the tire to fully deflate before proceeding.

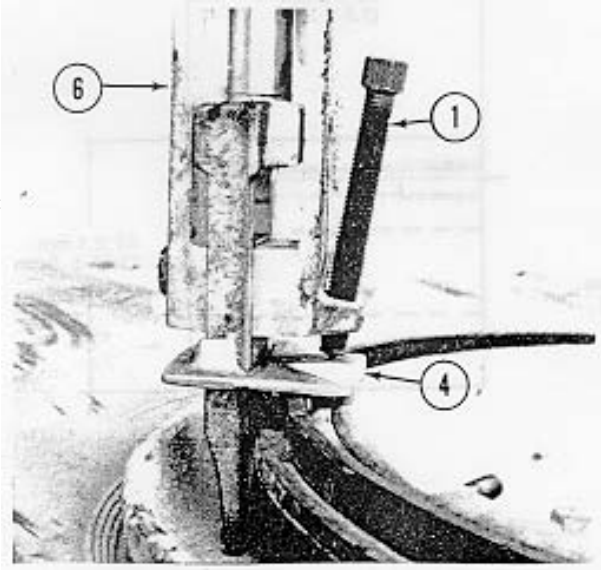
**NOTE:** The standard pressure nut (2) will encounter new extension band (3) that has been added to the bead seat band. Caterpillar recommends replacing the standard bolt with the 4C4621 bolt because the floating ball end will apply a better distribution of pressure than the bolt that was removed.



2. Remove nut (2) and bolt (1).

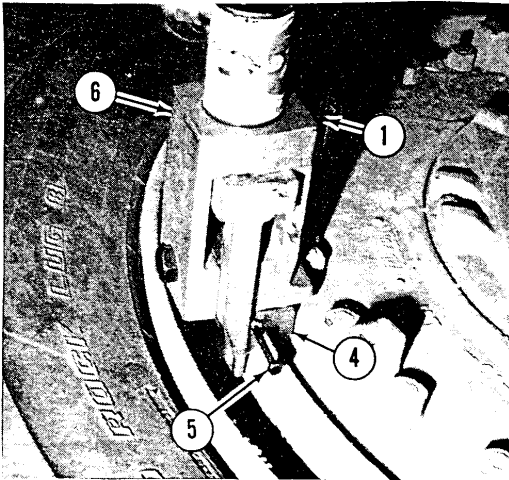
## Setting up the Tooling

### All Models Except Wheel Tractor-Scrapers



· Install FT2304 Adapter (4) and 4C4621 Clamping Setscrew (1) on the bead breaking tool as shown.

### Wheel Tractor-Scrapers



· Install 4C4621 Clamping Setscrew (1) on the bead breaking tool as shown Place 4C4624 Adapter (4) so that it "bridges" new beadseat band under the bead breaking tool. Positioning of

## Using the Tooling (All Models)

3. Position the tire tool and the adapter on the rim as shown in the tooling setup.

4. Adjust bolt (1) to hold tire tool (6) perpendicular to the rim face.

### **⚠ WARNING**

**Do not proceed until the tire tool remains perpendicular to the rim when under pressure, The hydraulic demounting tools apply considerable pressure when breaking the bead seal on a tire. Always stand to the side when applying pressure. If the tool comes loose under pressure it could fly off causing severe injury or death.**

5. Close the pump valve and apply enough pressure to take up the slack in the tool. If the tool tilts sideways, release the pressure and readjust bolt (1) so the tool is perpendicular to the rim when under pressure

6. The tire may now be dismounted in the conventional manner