

# **Service Bulletin No.1007**

MODEL : T-900/40 & T-900/45, T2140 & T2145

TYPE : Service information

MANUAL &

SECTION : Maintenance Manual: Chapter 4 - Axles, Wheels and Tires

**Parts Manual: Section 6901-Tools** 

DATE : **November 14<sup>th</sup>, 1997** 

SUBJECT: Front and tag axle inner wheel bearing puller

CONDITIONS : Service information. Tools may be purchased from

International Coach Parts Inc., 17469 West Colonial Drive,

Building A, Wintergarden, FL 34787.

**<u>DESCRIPTION</u>**: Refer to page 4.1.7 of Maintenance Manual.

A revised pinch bush has been released by MAN to replace the tool being shown in the service procedure "To remove and dismantle hubs". The revised pinch bush is similar to the former, except that separate jaws with coarse inner surface provide for improved grip on the inner bearing rollers. This Service Bulletin shows how the new tool is used.

PARTS Always use genuine maintenance products and parts. Do not accept imitations!		
Part No.	Description	Qty.
VH A996280007 (MAN 80996280007) VH A996280088 (MAN 80996280088)	No longer available  Pinch bush (clamping coupler inner bearing remover)	1

Service Bulletins are issued to supplement or supersede information in the Van Hool manuals. Note Service Bulletin number, date and subject on the register at the end of the relevant chapter(s). File Service Bulletin separately for future reference.

### **SERVICE PROCEDURE:**

#### !!! CAUTION !!!

USE SAFE SHOP PRACTICES AT ALL TIMES.

READ THE ENTIRE PROCEDURE BEFORE BEGINNING WORK.

## To remove and dismantle hubs-Figure 2

- Chock and jack the coach. Remove road wheel.
- Refer to "Front Wheel Brakes" (chapter 5 in Maintenance Manual) to remove brake caliper / anchor plate assembly.
- Unscrew hub cap (5) using special tool VH No. H061834100. Loosen hub nut pinch screw (7). Unscrew and remove hub nut (6) using special tool VH No. A996030039.
- 4. Use tool set from Figure 3 to remove complete hub assembly (with brake disc)

#### Procedure:

- a. Screw threaded bush (2, Figure 3) into hub.
- b. Screw cover (3, Figure 3) onto threaded bush.
- c. Screw spindle (1, Figure 3) into cover.
- d. Remove hub by turning the spindle into the appropriate direction.

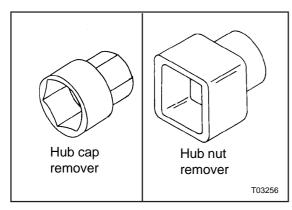
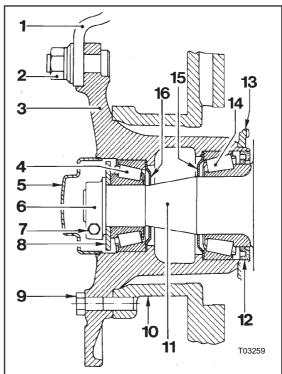


Figure 1: Tools to remove / install hub cap and hub nut



- 1. Wheel
- 2. Wheel nut
- 3. Hub
- 4. Outer roller bearing
- 5. Hub cap
- 6. Hub nut
- 7. Hub nut pinch screw
- 8. Washer
- 9. Screws securing brake disc to hub

- 10. Brake disc
- 11. Steering knuckle spindle
- 12. Grease seal
- 13. ABS/ASR tooth wheel
- 14. Inner roller bearing
- 15. Inner grease retaining disc
- 16. Outer grease retaining disc

Figure 2: Section through front wheel hub

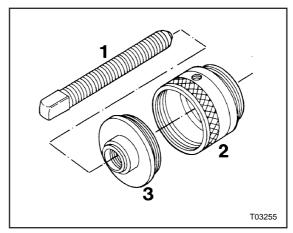


Figure 3: Tool set to remove hub

- 1. Spindle (VH No. A996060240)
- 2. Threaded bush (VH No. A996060251)
- 3. Cover (VH No. A996060238)

5. Lift cone and roller assembly of inner bearing (14) out of hub (3). Follow procedure below to remove cone and roller assembly of inner bearing from steering knuckle spindle:

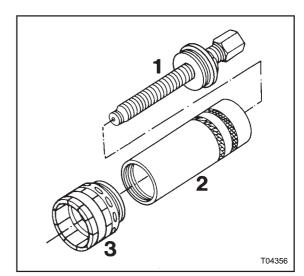


Figure 4: Tool set to remove cone and roller assembly of inner bearing

- 1. Spindle / cover (VH No.A996010053)
- 2. Threaded bush (VH No.A996010055)
- 3. Pinch bush (VH No.A996280088)

## 6. New procedure

 a. Slide outer ring of pinch bush (3, Figure 4) forwards to release inner ring. If inner ring remains stuck...



Figure 5

...hold pinch bush upright with threaded end uppermost and slam jaws on flat wooden surface. Inner ring will now move forwards. Pull outer ring back until resistance is felt.

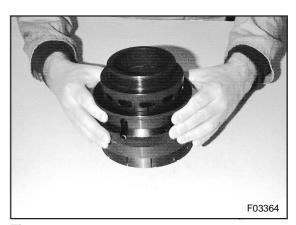
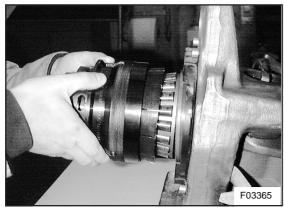


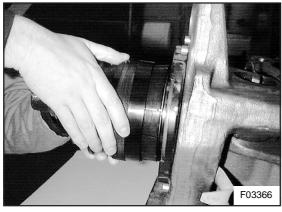
Figure 6

DATE: NOV 14th, 1997



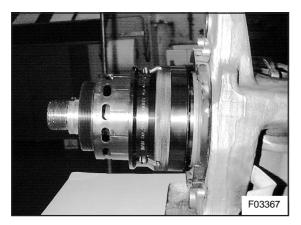
b. Push pinch bush over inner bearing cage until hooks of jaws slip over bearing rollers.

Figure 7



 c. Pull pinch bush back until hooks of jaws touch bearing rollers.
 Slide outer ring forwards over coarse outer surface of jaws as far as possible...

Figure 8



...to lock jaws over bearing rollers. Tool inner ring must remain loose.

Figure 9

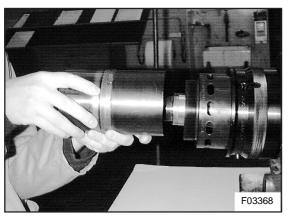
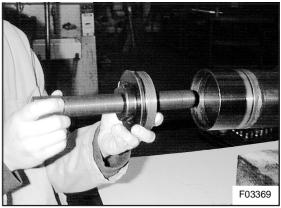


Figure 10

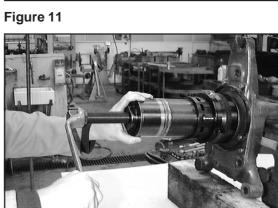
d. Screw threaded bush (2, Figure 4) onto pinch bush (3, Figure 4).

e. Screw spindle/cover assembly (1, Figure 4) into threaded bush.



f. Remove cone and roller

assembly by turning the spindle into the appropriate direction.



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Figure 12

g. Free cone and roller assembly from pinch bush by holding bush at outer ring and striking threaded end on flat wooden surface.

New procedure complete.



Figure 13

- 7. Wheel studs that require replacement can be driven out with a hammer and bronze drift.
- 8. Clean and dry all parts as described under "To Replace Hub Grease". Inspect taper roller bearings for evidence of pitting, wear, overheating, seized rollers and distorted cages. If any bearing is found to be defective, complete bearing and race must be replaced as a matched set.
- 9. If inspection indicates need for removing cup of inner bearing (14) or outer bearing (4), use either a press and a suitable sleeve or drive cup (together with grease retaining disc) out with a hammer and copper drift. When using a drift, tap cup alternately in opposite locations to avoid cocking.

SERVICE INFORMATION:			
Only new parts will be available for service.			
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