QUALITIES THAT MAKE THE DIFFERENCE

Service Bulletin No.1023

MODEL	: **T-815/9 45FT DD (T-915/45 DD); T-900/40 & T-900/45; T-900/45 SHELL; T 2140 & T 2145**
TYPE	: **Service information**
MANUAL & SECTION	: **Maintenance Manual: Chapter 4 - Axles, wheels and tires**
DATE	: **December 14th, 1998**
SUBJECT	: **WHEEL ALIGNMENT SPECIFICATIONS**
CONDITIONS	: **Service information only**

DESCRIPTION:

1. In the interest of improved service life of the tires, we have revised the wheel alignment specifications of front,drive and tag axles.

2. Following items in the Maintenance Manual are affected by the service information in this bulletin.

   Chapter 4, page 4.1.1: Alignment specifications
   Chapter 4, page 4.3.1: Alignment specifications

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 GUIDELINES FOR WHEEL ALIGNMENT:

GENERAL

- Wheel alignment on coaches with independent suspension is critical to tire service life.

- Eliminate all other possible causes of abnormal tire wear before changing wheel alignment within specification limits.

- When checking the wheel alignment of an axle, compare the measurement results with the wear pattern of the tires of that axle. The wear pattern may indicate which way the wheel settings should be changed.

- Wheel alignment data and tire wear patterns should be registered and filed for future reference to establish a suspension adjustment baseline.

FRONT AXLE

- Correct front wheel alignment must be maintained for ease of steering and satisfactory tire life. Road shocks, vibrations, normal stress and strains on the front axle under average operation can result in loss of front wheel alignment.

- A preliminary check should be made to check that all bolts are tight and that no damage and distortion have taken place. Checkpoints should include:

  - upper and lower suspension arm ball joints, rubber bushings and suspension arm mounting bolts (tightness, wear, damage);
  - tie rods (tightness, damage);
  - steering knuckle (kingpin and bearing play);
  - steering linkage pivot points (looseness);
  - wheel bearing end-play;
  - shock absorbers (leaks, damage);
  - air bellows (correct height, damage).

  If any of the items above is not up to standard, corrective action should be taken before attempting to align the wheels.

DRIVE AXLE

The drive axle alignment consists in aligning the axle according to the frame. The axle must be perpendicular to the frame. Drive axle alignment is factory set and is not subject to change, except if the vehicle has been damaged by an accident, if there are requirements for replacement, or if the locating links are damaged.

TAG AXLE

Tag axle alignment is achieved with the use of shims inserted between the suspension arm ball joints and the frame. Tag axle alignment is factory set and is not subject to change, except when suspension arm ball joints or rubber bushings are worn or when there is excessive wheel bearing end-play. Alignment should also be checked if the vehicle has been damaged by an accident or if there are requirements for part replacement.

WHEEL ALIGNMENT SPECIFICATIONS:

NOTE
Wheel alignment data are for an empty vehicle with suspension air bellows at correct height. Refer to Chapter 4 "Axles, wheels and tires" of the Maintenance Manual for proper alignment procedures.

	Front axle	Drive axle	Tag axle
Camber (Degrees)	**0°$^{+1/2°}$**	**0°$^{+1/2°}$**	**0°$^{+1/2°}$**
Caster (Degrees)	**3°$^{\pm1/4°}$**	Not applicable	Not applicable
King-pin inclination (Degrees)	**5°$^{\pm1/4°}$**	Not applicable	Not applicable
Toe (Degrees)	**0°$^{\pm1/8°}$ (*)**	**0°$^{\pm1/8°}$ (*)**	**0°$^{\pm1/8°}$ (*)**
Thrust angle (Degrees)	Not applicable	**0°$^{\pm1/8°}$**	Not applicable

(*) negative value = Toe-out
positive value = Toe-in

NOTE
Any information on fitting wheels and tires different from factory original equipment will be provided by your nearest ABC Service Center.