

ADDRESSEES	: Owners and operators of coaches listed under 'Application'
VEHICLE MODEL	: TD925US
SYSTEM/SUBSYSTEM	: Chassis
BULLETIN TYPE	: Field Change Program
DATE	: November 03rd, 2015
SUBJECT	: To inspect auxiliary structure around front axle for not properly executed welds
TERMS & CONDITIONS	: Refer to the warranty section further in this Bulletin

## APPLICATION:

The subject of this Field Change Program is applicable to following units:

Model	VIN
TD925US	42301 → 42403
	42414 → 42685
	42691 → 42724

## **DESCRIPTION**:

On the vehicles affected by this bulletin there is a possibility that the welding bead between some tubes of the front axle auxiliary structure and the main structure is insufficient (refer to figure 1). Although these tubes are part of the auxiliary structure, it is very important that these welding beads are checked and, if necessary, repaired to prevent corrosion damage by the intrusion of water and dirt in the long term. Besides that we ask you to install reinforcement plates as mentioned further on in this Bulletin..

The cause of this not well executed welds can be explained by the fact that due to a manufacturing process change the tubes of the auxiliary structure were not anymore well aligned with respect to the main structure when the robot starts welding.

From vehicle 42725 onwards, the manufacturing process has been modified so that these tubes are again properly welded to the main structure of the front axle.

This Service Information Bulletin has been released in order to inform service technicians how to inspect for/repair not properly executed welds in the front axle area of these coaches.



Figure 1: Location of possibly affected welds

# PROCEDURE

## 1. To check welds:

Step	Action
1	Underneath the coach, in the front axle area, locate the welds (refer to figure 1
	for the exact location of the welds).
2	Are the welds properly executed?
	<ul> <li>If yes, no further action required.</li> </ul>
	<ul> <li>If not, continue with step 3.</li> </ul>
3	Grind the existing welds away until you have a flat surface on all sides of the
	profiles.
4	Install a cutting disc of 1.5 – 2 mm (0.06") thick on the grinder. Cut vertically just
	in the original welding joint (the gap), through the profiles to reach a new gap of
	1.5 - 2 mm (0.06") wide, to allow putting a new weld properly.
5	Weld the seam in just one layer on the four sides of the profiles.
6	Allow to cool down.
7	Weld the reinforcement plates to the chassis.

2. Parts:



Figure 2: Reinforcement kit (VH11405450)

	VH reference	Number in figure 2
At LHS, in front of the front axle: reinforcement plate to	11406006	1
be welded at the front side of the profiles		
At LHS, in front of the front axle: reinforcement plate to	11405305	2
be welded at the bottom of the profiles		
At RHS, in front of the front axle: reinforcement plate	11405305	3
to be welded at the bottom of the profiles		
At RHS, in front of the front axle: reinforcement plate	11406165	4
to be welded at the front side of the profiles		
At RHS, behind the front axle: reinforcement plate to	11405298	5
be welded at the bottom of the profiles		
At RHS, behind the front axle: reinforcement plate to	11406003	6
be welded at the front side of the profiles		
At LHS, behind the front axle: reinforcement plate to be	11406003	7
welded at the front side of the profiles		
At LHS, behind the front axle: reinforcement plate to be	11405298	8
welded at the bottom of the profiles		

All reinforcement parts are made of stainless steel; apply the correct welding procedure.

## 2. Preparation:

- Park the coach/bus on a level-surfaced pit with the front wheels straight. Apply the parking brake, stop the engine, switch off all systems and turn off the battery master switch. When using portable post lifts (always use 6 post lifts) instead of a service pit, always lower the suspension first.
- Put a "DO NOT OPERATE" warning message on the instrument panel.
- Read the entire procedure before beginning to work.
- Observe safe shop practices at all times.
- Remove necessary road wheels to gain access to affected areas.

## 3. Welding safety rules:

- 1) The following information pertaining to welding should be read before beginning any such procedure. The prohibitions and requirements contained herein must be followed during such procedure.
- 2) Welding must be done only by a qualified and experienced person.

It is the responsibility of the welder to make sure that his/her personal safety equipment and the welding equipment he/she is using are in a condition that the welding equipment he/she is using are in a condition that will not endanger his/her health and safety or the health and safety of others.

- Adequate ground contact and barriers must be positioned as required to protect components (wiring, air-lines, hydraulic lines, fuel lines etc.) from damage due to heat, contact by weld spatter, arcing or other potentially damaging events associated with welding.
- 4) The following precautions must be taken to protect the vehicle's electronic equipment:
  - FIRST disconnect the wires from the GND (ground) terminal of the battery
  - equalizer.
  - Disconnect the batteries (disconnect ground cable first, reconnect ground cable
  - last).
  - Disconnect the engine, transmission and brake system ECU's.
  - Disconnect the HVAC and combustion heater ECU's.
  - Disconnect the MUX nodes.
  - with an electronic control unit.
  - For any other electronic equipment (radio, video, ICE...) refer to the OEM
  - prescriptions.
  - Keep the ground clamp as close as possible to the work and make sure the
  - clamp makes perfect contact with the drive axle housing.
  - Make certain the welder is properly grounded will not endanger his/her health
  - and safety or the health and safety of others.
  - Never look at the arc unless wearing a suitable helmet or face shield.
  - Wear protective clothing and gloves.
  - Do not permit bystanders, unless they are wearing protective gear.
  - Never weld while standing in water or on damp ground.
  - Have adequate ventilation.
  - Do not adjust machine settings while the machine is under load.
  - Keep cables tight in the sockets.
  - Do not touch hot metal.
  - Do not allow the welding rod/wire to touch anything but the work.

- Make sure there is nothing flammable near the working area.
- Always have a fire extinguisher of the correct type available.

### 4. <u>Grinding safety rules:</u>

Grinders can be dangerous. When improperly used, they are responsible for many serious and lasting injuries to the eyes, hands, face and body. Therefore you must always observe the following safety rules:

- Always wear eye protection (safety goggles, face shield). Wear leather gloves.
- Adequate barriers must be positioned as required to protect components (glass, wiring,
- airlines, hydraulic lines, fuel lines, drive shaft etc.) from damage by grinding sparks.
- Before doing any grinding on the coach, thoroughly clean the affected area.
- Keep abrasive discs tight, clean and true.
- Allow grinder to reach full rpm before using.
- Do not put aside the grinder until the wheel has completely stopped revolving.
- Never strike a grinding wheel while revolving. It may shatter and explode.
- Do not grind in the presence of explosive vapors (gasoline, paint thinner, batteries...)
- Before installing a new grinding disc, disconnect the electric mains or air supply line.
- When installing a new disc make certain:
  - It is designed for the rpm of the grinder.
  - It has the correct size.
  - It is properly fixed.
- Never remove the grinding disc guard.

### 5. Welding data:

Welding data for stainless steel: Refer to AWS A5.9-93 ER309LSi

- Steel: Stainless 304L
- Wire section: 1.0 mm
- Wire feed: 2.9-8.4 m/min
- Current: 80-190 A
- Gas: 88% Ar + 10% He + 2% CO2

### 6. <u>At LHS, in front of front axle: to weld reinforcement plates 11406006 and 11405305 to</u> <u>the chassis</u>

The reinforcement plates are welded to the chassis with strip welds as indicated in figure 3.



# 7. <u>At RHS, in front of front axle: to weld reinforcement plates 11406165 and 11405305 to the chassis</u>

The reinforcement plates are welded to the chassis with strip welds as indicated in figure 4.



# 8. <u>At RHS, behind front axle: to weld reinforcement plates 11406003 and 11405298 to the chassis</u>

The reinforcement plate is welded to the chassis with strip and plug welds as indicated in figure 5



# 9. <u>At LHS, behind front axle: to weld reinforcement plates 11406003 and 11405298 to the</u> chassis

The reinforcement plates are welded to the chassis with strip and plug welds as indicated in figure 6



## Figure 6

## 10. Aftertreatment:

- Clean the welded area with a steel brush thoroughly.
- Coat the new weld after cooling and bare metal with primer + undercoating allow to dry.

## WARRANTY:

## 1. Application:

The Field Change Program, subject of this Bulletin is applicable to following units:

Model	VIN
TD925US	42301 → 42403
	42414 → 42685
	42691 → 42724

### 2. Terms and conditions:

Van Hool/ABC-Companies will accept warranty claims for this inspection/repair as follows:

#### Parts:

- Supply: parts will be supplied through regular channels, free of charge.
- Return: none

Labor allowance: hours of labor will be awarded as follows:

- Inspection: 30 minutes per vehicle
- Repair: 5 to 7 hours per vehicle

Campaign/target date: Service Bulletin issue date + 1 year

#### 3. Claim references:

• Job code: D10108H

**Claim submission:** If there are any questions regarding this campaign, please call ABC Customer Care & Parts Source toll-free for guidance on 1-877-427-7278. Listen for the prompts for warranty and select that option.

### **INFORMATION HANDLING:**

Important supplements to and modifications of the technical information not yet included in the Van Hool manuals are communicated by means of Service Bulletins.

File the Service Bulletins at the back of your manual, in numerical order.

To make sure that you will be reminded of the Bulletins that have appeared in the meantime while paging the manual, mark the pages concerned by hand with the Service Bulletin number.