



SERVICE BULLETIN No.1117

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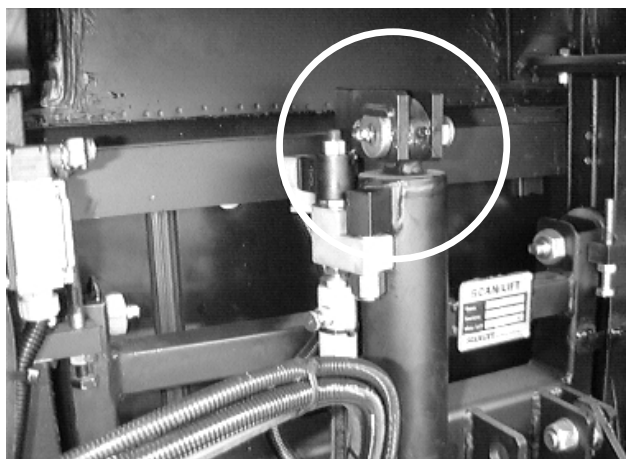
COACH MODEL	: T 2100 and C2000 Series equipped with CHZ-type ADA lift, serial numbers 99-197 (year of production – unit #) or higher
BULLETIN TYPE	: Safety Recall Program NHTSA campaign number: 03V - 236
MANUAL & SECTION	: N/A
DATE	: June 30th, 2003
SUBJECT	: Wheelchair lift – frame assembly reinforcement
TERMS & CONDITIONS	: Parts and labor allowance will be provided as per Warranty Information in this Bulletin

APPLICATION:

The modification subject of this Bulletin is applicable to following units:

Model	Engine	VIN
T2140	Cummins	40141
T2145	Cummins	43321 → 43324 ; 43406 ; 43408 & 43409 ; 43429 → 43431
	Detroit Diesel	43754 & 43755
C2045	Cummins	45002

DESCRIPTION:



- KOS Lift, manufacturers of the CHZ-type wheelchair lift, currently installed in the above-mentioned coaches, have determined that a safety defect may exist in the lift frame assembly. In some units cracks have been found in the pedestal to which main jacking cylinder is attached (see Figure 1). These cracks may eventually lead to equipment failure, causing the platform to drop, which could result in personal injury.

Figure 1: Main jacking cylinder pedestal and pivot point.

Description continued on next page.

Service personnel: please read, initial and circulate.

Service Manager	Parts Manager	Warranty Administrator	Workshop Foreman	Service Technician

Continued from page 1.

- To address the issue, KOS Lift, Van Hool NV and ABC Bus Inc are running a joint campaign to reinforce the lift frame assembly.
- The affected wheelchair lifts should remain out of service for as long as the modifications, described in this Bulletin, have not been executed.

PARTS AND PRODUCTS:

- For part numbers and part description, refer to Attachment 1 on page 7/10 of this Bulletin
- Parts will be shipped to you by KOS Lift, free of charge.
- Parts and products disposition: refer to the Warranty Information in this Bulletin.

PROCEDURE:

1. General:

- This job should be executed by a welder, certified by the American Welding Society AWS, according to ASME standard SBD 1.1.

2. Special tools, equipment or services:

- This job requires the use of MIG welding equipment and an angle grinder.

3. Preparations:

- Park the coach on a level surface with the front wheels straight. Apply the parking brake and shut down the engine.
- Switch off all systems and turn off the battery master switch.
- Put a "DO NOT OPERATE" tag on the instrument panel.
- Read the entire procedure before beginning to work.

4. Welding safety rules:

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.

- 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 which 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 etc.) from damage due to heat, contact by weld spatter, arcing or other potentially damaging events associated with welding.

CAUTION: The Van Hool procedure to protect the vehicle's electronic equipment supersedes the procedure outlined in "Attachment 3: Modification procedure No. 1."

- 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 engine, transmission and brake system ECU's;
 - disconnect HVAC ECU's;
 - on shell units, also disconnect the suspension ECU;
 - for any other electronic equipment (radio, video, ...) 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 chassis or body.
- 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.
- Make certain the welder is properly grounded.
- 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/lines coiled when not used.
- Keep cables tight in the sockets.
- Do not attach ground clamps to chrome parts, brake lines, hydraulic/pneumatic/heating tubes, wheels...
- Take great care when handling hot metal.
- Make sure there is nothing flammable near the working area.
- Always have a fire extinguisher of the correct type available.

CAUTION: Observe safe shop practices at all times.

5. **Grinding safety rules:**

Grinders improperly used are dangerous. They are responsible for many serious and lasting injuries to the eyes, hands and face. Therefore you must ALWAYS observe the following safety rules:

- Always wear eye protection (safety goggles, face shield). Wear leather gloves.
- Keep abrasive discs tight, clean and true.
- Allow grinder to reach full rpm before using.
- 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.

4. To replace the pedestal of the main jacking cylinder:

- 1) For welding instructions refer to Attachment 2 on page 7/10 of this Bulletin.
- 2) For replacement instructions refer to Attachment 3 on pages 7 through 9/10 of this Bulletin.
- 3) With the modification complete, undo the precautions taken to protect the vehicle's electronic equipment:
- 4) Check lift operation as per "Attachment 3: Modification procedure No. 1 on page 9/10 of this Bulletin.

Procedure complete.

DISCLAIMER:

The procedures contained herein are not exclusive. Van Hool NV, KOS Lift and ABC Bus Inc. cannot possibly know, evaluate, or advise the transportation industry on all conceivable ways in which a procedure may be undertaken or of the possible consequences of each such procedure. Other procedures may be as good, or better, depending upon the particular circumstances involved. Each carrier who uses the procedures herein must first satisfy itself thoroughly that neither the safety of its employees or agents, nor the safety or usefulness of any products, will be jeopardized by any procedure selected.

SERVICE INFORMATION:

Service Bulletins are issued to supplement or supersede information in the Van Hool and KOS Lift 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.

WARRANTY INFORMATION:

1. Claim references:

- Causal part:: KOS CHZ-type wheel chair lift
- Job code: L53509N

2. Terms and conditions:

***NOTE:** Owners are required to certify on the standard notification document attached to this Bulletin that the recall remedy has been executed in accordance with the manufacturer's instructions.*

Van Hool/KOS Lift will accept warranty claims for this repair as follows:

Parts:

- Supply: parts will be supplied by KOS Lift free of charge.
- Disposition: please return old parts to ABC Customer Care & Parts Source, free of charge.

Labor allocation: a fixed amount of USD 80.00 labor per unit repaired will be awarded.

Campaign expiration date: Service Bulletin issue date + 1 months.

For guidance on claim submission contact:

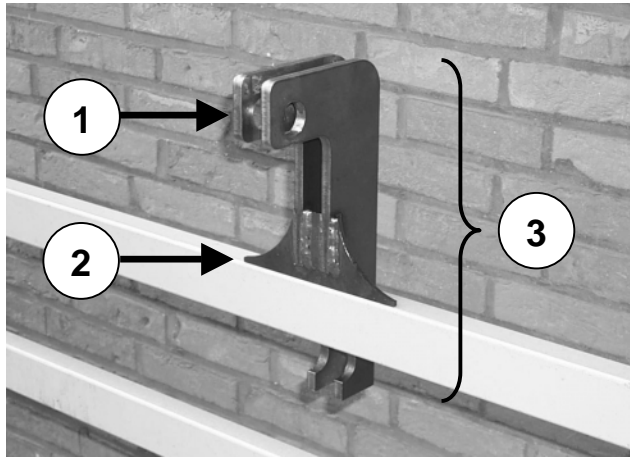
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Attachment 1: Parts list:



Kos Lift Part # LO311401

Dimensions:

1. Main pillar section (1): 25/64 inch (10 mm)
2. Gusset section (2): 13/64 inc(5 mm)
3. Height overall: (330 mm)

Part No.	Description	Qty.
LO311401	Top pedestal for main jacking cylinder, modified	1

Attachment 2: Welding parameters:

- Classification: AWS A5.18-93
- Steel: non-alloy structural steel, spec EN10025
- Wire section: 0.045 inch (1.0 mm)
- Wire feed: 106 – 590 inch/min (2.7 – 15 m/min)
- Current: 80-300A
- Arc voltage : 18-32V
- Deposition rate: 2.2 –12.3 lb (1.0-5.6 kg) weld metal/hour
- Shielding gas: Ar/20CO2

Attachment 3: Modification procedure No. 1:

- Product** CHZ wheelchairlift
production number 99-197 or higher number (99 = year of production, 197 serial number)
- Part** mounting pedestal vertical / telescopic cylinder. The pedestal is made of a 1-37/64 x 1-37/64 inch (40 x 40 mm) steel square tube. On the back of this tube a steel strip of 1-3/16 x 25/64 inch (30 x 10 mm) is welded as reinforcement. The top end of the strip is angled to 45°.
- Method**
- Lower the platform to ground level.
 - Keep the down button activated for 20 seconds.
 - Disconnect the negative battery cable.

- Disconnect the positive battery cable.
- Remove the hydraulic hose clamp nearest to the cylinder.
- Remove the hose rupture valve from the cylinder.
- Remove the 2 pivot joints that connect the vertical cylinder to the lift frame.
- Move the cylinder sideways.
- Cover the area around the pedestal with a welding blanket. Pay attention to covering the hydraulic connections.
- Cut off the pedestal made of 1-37/64 x 1-37/64 inch (40 x 40mm) tube and 1-3/16 x 25/64 inch (30 x 10mm) strip. Cut just above the joint to the horizontal 40x40mm tube. A stump of maximum 3/64 inch (1 mm) should remain, (see Figure 2).

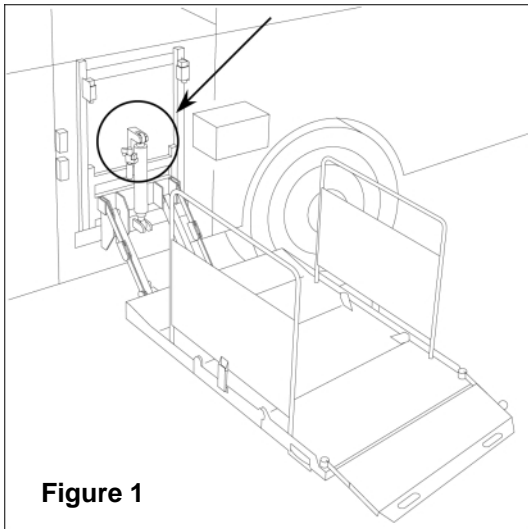


Figure 1

Modification procedure No. 1:

Figures 1 through 3

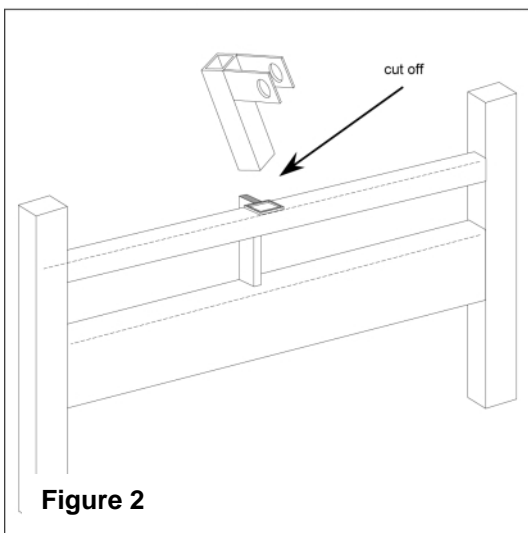


Figure 2

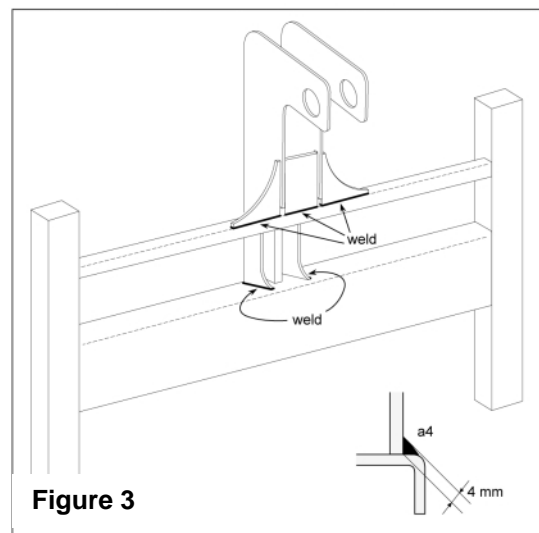


Figure 3



- Make the area around the stump free of paint.
- Make the area around the 1-3/16 x 25/64 inch (30 x 10mm) strip welded onto the mainframe 6 x 3 inch (150 x 75mm tube), free of paint.
- Place the modified pedestal in position as indicated in Figure 3.
- Weld as indicated in Figure 3.
- Apply conservative paint to the welded parts and the modification part.
- Reinstall the telescopic cylinder (pivot joints 192 ft.lbf - 260 Nm, hose rupture valve 37 ft.lbf - 50 Nm).
- Connect positive battery cable.
- Connect negative battery cable.
- Go through several complete lift cycles to de-air the hydraulic system.
- Check functioning of lift.

Modification procedure No. 1 complete.



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