

ADDRESSEES	: Owners and operators ABC Customer Care and parts Source
VEHICLE MODEL	: Coaches with Van Hool independent wheel suspension and disc brakes on all axles
MANUAL CHAPTER	: 12.06 Axles – front axle 12.14 Axles – trailing axle
BULLETIN TYPE	: Product improvement
DATE	: January 23 rd , 2025
SUBJECT	: Introduction of “longer” articulation assembly shaft for wheel-suspension arm joints
TERMS AND CONDITIONS	: This product improvement does not entitle to any reimbursement.

DESCRIPTION

Van Hool recently changed-over in production to a “longer” articulation shaft (VH11717611) to fasten the wheel-suspension arms to the steering knuckle carrier/hub carrier. Field experience has shown that this change-over has a positive impact on the lifespan of the rubber bushings. The “longer” articulation shaft may be used with the M18 as well as with the M20 fastening system (refer to figures 2 and 3).

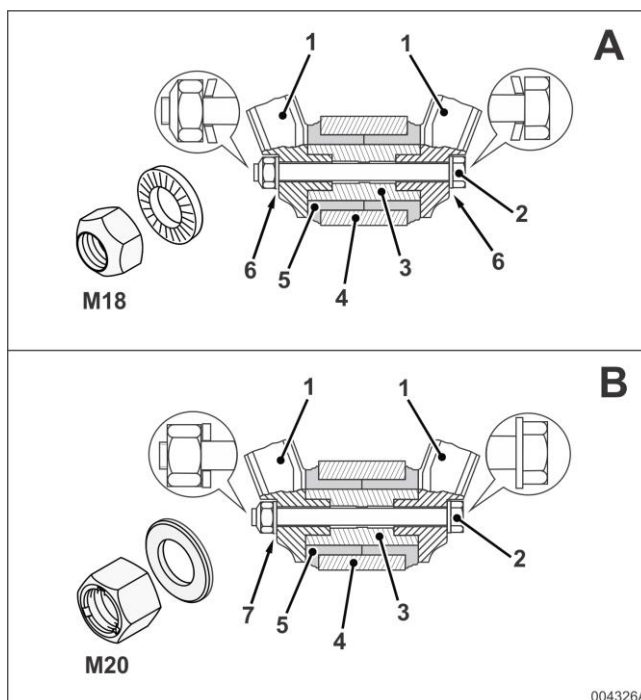


Figure 1: Articulation joint, steering knuckle carrier/hub carrier side

A: M18 fastening system
B: M20 fastening system

1. Suspension arm
2. Articulation assembly bolt (with self-locking nut)
3. Articulation assembly shaft
4. Steering knuckle carrier
5. Rubber bushing
6. Special spring washer
7. Special washer

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COMPARISON BETWEEN M18 AND M20 FASTENING SYSTEMS

M18 fastening system	M20 fastening system
<p style="text-align: right;">Figure 2</p>	<p style="text-align: right;">Figure 3</p>
<p>Properties of screw 10647991:</p> <ul style="list-style-type: none"> • width across flats: 27 mm (1.06 inch) • screw shaft thickness: 18 mm (0.71 inch) • screw shaft length: 210 mm (8.27 inch) • thread type: M18x1,5 mm 	<p>Properties of screw 11412448:</p> <ul style="list-style-type: none"> • width across flats: 27 mm (1.06 inch) • screw shaft thickness: 20 mm (0.79 inch) • screw shaft length: 205 mm (8.07 inch) • thread type: M20x1,5 mm <p><i>NOTE: Notwithstanding the thicker screw shaft, the width across flats of the M20 screw has remained 27 mm!</i></p>
<p>Properties of nut 660207287:</p> <ul style="list-style-type: none"> • width across flats: 27 mm (1.06 inch) • height: 18 mm (0.71 inch) • self-locking (by mechanical deformation of nut) 	<p>Properties of nut 11424238:</p> <ul style="list-style-type: none"> • width across flats: 27 mm (1.06 inch) • height: 20 mm (0.79 inch) • self-locking (by notches at end of thread)
<p>Tightening torque: 300 + 50 Nm (220 + 35 ft.lbf)</p>	<p>Tightening torque: 500 + 50 Nm (370 + 35 ft.lbf)⁽¹⁾</p>
<p>Van Hool ordering number of joint bolt kit: 11431005 (contains screw 10647991, nut 660207287 and two special spring lock washers 660632502)</p>	<p>Van Hool ordering number of joint bolt kit: 11499934 (contains screw 11412448, nut 11424238 and washer 11456106)</p>
<p>Reusing: Screws, nuts and washers should never be reused.</p>	<p>Reusing: Screws, nuts and washers should never be reused.</p>
<p>Interchangeability: The M18 and M20 fastening systems are interchangeable. However, with the M20 bolt, note that there is a washer only on the side of the nut.</p>	

⁽¹⁾ Place the socket of the torque wrench by preference on the screw head instead of on the nut.

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VISUAL IDENTIFICATION OF LONGER ARTICULATION ASSEMBLY SHAFT- Figure 4

For visual identification purposes, the longer shaft has L=126.5 engraved.

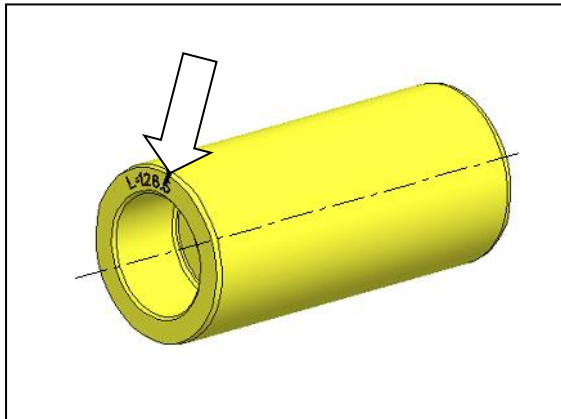


Figure 4: Location of identification mark

AFTER SALES

- Only the “longer” articulation shaft will be offered as service replacement.
- It is strongly recommended to replace all the four articulation joints of the same axle at the same time when switching-over to the “longer” articulation shaft.
- This service bulletin is not applicable to vehicles with drum brakes on all axles, and on vehicles with a combination of D3-disc brakes on front /tag axle and drum brakes. The articulation assembly shaft on these vehicles is different.

HELP DESK

If there are any questions regarding this subject, please call ABC Customer Care & Parts Source toll-free for guidance on 1-877-427-7278.

DISCLAIMER

The procedures contained herein are not exclusive. VDL Van Hool cannot possibly know, evaluate, or advise the transportation industry of 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.

INFORMATION HANDLING

Important supplements to and modifications of technical information not yet included in the manual, are communicated by means of service Bulletins.

VDL VAN HOOL CUSTOMER PORTAL

Consult the customer portal regularly for the latest service documentation. In addition to the maintenance manual, you will also find the operating manual and the spare parts catalogue of your vehicle on the customer portal. The customer portal is accessible through www.vdlvanhool.com/My VDL Van Hool, and only with a code (password) from VDL Van Hool. If you do not have a password yet, request it by using the link on the VDL Van Hool website.