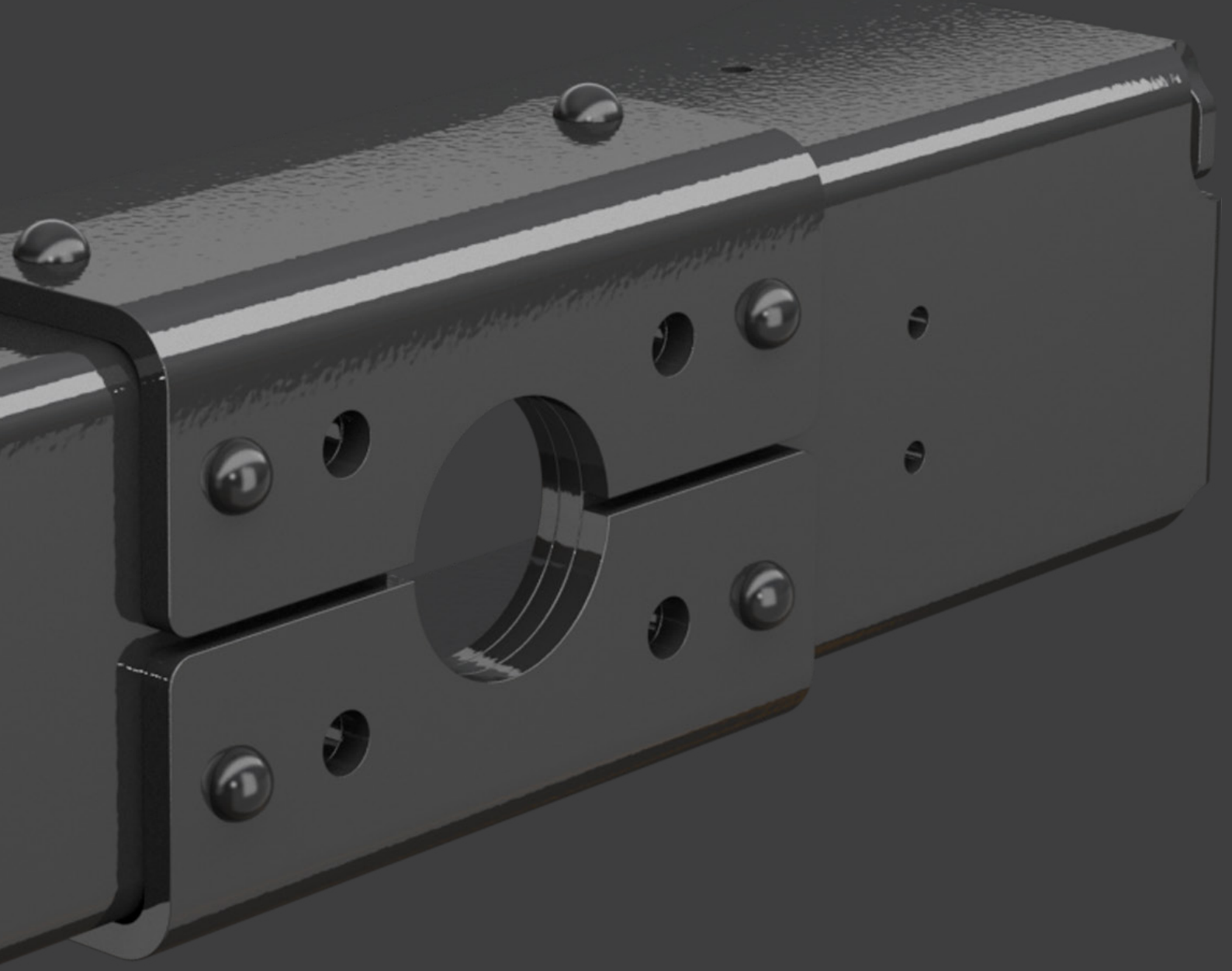


2024

Guidelines for inspection and servicing

Drawbeams and endplates

VBG

General information

General
The components used to connect a vehicle and trailer are exposed, even during normal use, to very high tensions. Regular service and maintenance is a prerequisite if the beam system is to function well for the duration of its service life.
The length of the service intervals depend on the type of trailers, the loads, roads and climatic conditions etc. The service should ideally be carried out in conjunction with other inspection of the vehicle, e.g. every 60,000 or 90,000 km.
If daily inspection or safety checks show that the function of the product has been impaired, servicing must be carried out immediately.
If any of the product's wear limits have been exceeded, this is an indication that other parts also require servicing.
Check that all type plates and warning/information labels are legible and have not been painted over, washed off or otherwise damaged. Illegible labels must be replaced and can be ordered from VBG Truck Equipment.

If the drawbeam has been damaged due to e.g. jackknifing, off-road driving, reversing or collision, the drawbeam with endplates must be replaced.

Always follow VBGs instructions and the vehicle manufacturer's bodybuilding instructions.

Guidelines for inspection and servicing Drawbeams and endplates 2024

Version e, 01/06/2024

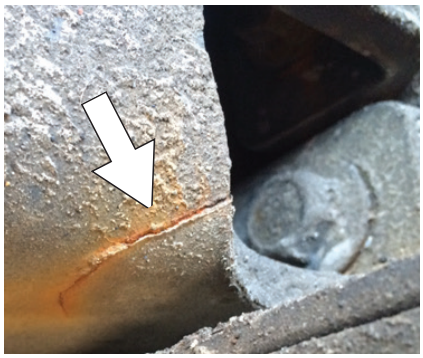
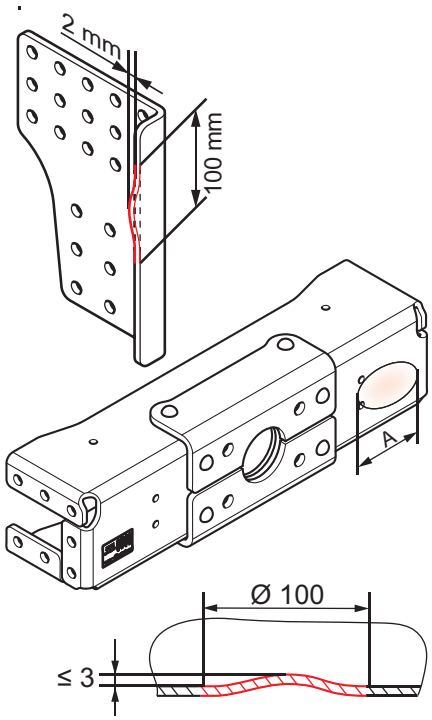
Explanation of symbols

Severity
3 = STOP to ensure future use.
2 = Rectify as soon as possible, within four weeks.
1 = Rectify when able or during next service. Within no more than one year.

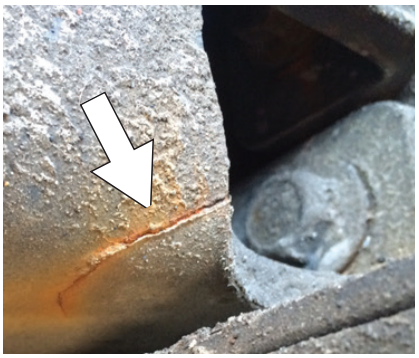
		Torque (Nm)	
Size	Quality	Flange	Washer
M14	8.8	140	125
M14	10.9	163	
M16	8.8	210	195
M16	10.9	250	290
M27			600-650
Prescribed tightening torques apply to bolt kits supplied by VBG Group Truck Equipment AB.			

Contents

Checkpoint	Symptom	Fault
Drawbeam endplate coupling system	Dents, folds, kinked/bent/cracked endplates/drawbeams. Deformed jackknifing indicators. Welds. Marks from straightening work such as in heat-affected zones.	Damaged/deformed drawbeam and/or endplate.
Drawbeam endplate coupling system	Scuff marks around bolted joint drawbeam/endplate/frame member. Rust around bolt heads/nuts. 	Loose bolted joints between frame member/endplate and/or endplate/ drawbeam.
Drawbeam endplate coupling system.	Peeling paint, rust-related discolouration of the part, flakes of rust, porosity.	Rust on parts such as “Pitting” and “Surface rust”.

Inspection method	Requirements, wear limits, etc.	Instructions for rectification
Visually inspect the attachment and any damage such as e.g. – Scuff marks between drawbeam/ endplate, endplate/frame member or drawbeam/frame member after overloading. – Measure any deformations in the drawbeam or endplate. – Cracks, greatest risk of cracking is close to bend radii, welds and hole edges. 	Generally, no deformations are permitted. Deviation from theoretical surface/shape greater than the specified dimensions below is considered to be a deformation. Deformation of flange, max. 2 mm on 100 mm measuring section. Dent in flat surface, A = max. 3 mm deep for min. diameter 100 mm. Cracks, welds or warping is not permitted. 	③ In the event of any crack, driving with the trailer should cease immediately and damaged parts replaced. ② In the event of deformation, warping or welds, the damaged parts must be replaced.
Be aware of banging/clicking sounds or jolts when driving with a trailer. Watch out for rust forming around bolt heads as well as holes where there have previously been bolts. Check to see whether there has been any movement in the bolted joint. Test-tighten to the prescribed tightening torque according to the table on page 2.	No movement is permitted and there should be no rotation during test tightening to the prescribed tightening torque. There should be no cracks. Prescribed tightening torques apply to bolt kits supplied by VBG Group Truck Equipment AB.	② In the event of any movement or too low a tightening torque, the parts should be dismantled and checked. If there is any visible damage, these parts must be replaced. When the components have been dismantled, they must be re-tightened after driving 2,500 km.
Visually check. “Pitting”; particular attention should be paid to the inside of cavities and partially enclosed areas. Identified “pitting” is examined using a chipping hammer and wire brush.	There must be no “pitting”. Pitting = rust flakes that are loose or able to be knocked loose from the base material and/or porosity that goes down into the base material are not permitted.	③ In the event of pitting, damaged parts must be replaced. Welding is not permitted.

Checkpoint	Symptom	Fault
Drawbeam endplate coupling system	Movement in the areas around bolted joints in the drawbeam/endplate/cross members/frame member. Discolouration of bolted joints, marks from micro-movements, no dirt or dust around the overlap plates, bolt heads, etc. or larger scuff marks. 	Loose bolted joints between frame members/cross members/endplates and/or endplates/drawbeams due to insufficient retightening and/or jackknifing damage.
DrawbeamCMS 63V and CMS DBI Bolted joint.	Movement in the areas around the bolted joints in the vehicle part/ endplate/cross members/frame member.	Vehicle parts fitted underneath: Loose bolted joints between frame member/cross members/endplate and/ or end plate/vehicle part. Vehicle parts fitted centrally: Loose bolted joint vehicle part/U beam and/or U-beam/frame member.
Drawbeam DBI 150 Support/cross beam.	Banging and/or clicking sounds. Discolouration of rust water.	Play or loose support against cross beam.

Inspection method	Requirements, wear limits, etc.	①②③ Instructions for rectification
Be aware of banging/clicking sounds or jolts when driving with a trailer. Be aware of rust around bolt heads as well as holes where there have previously been bolts. Check to see if there has been any movement in the bolted joints. Test-tighten to the prescribed tightening torque according to the table on page 2.  	NB! No deformations from any type of overloading are permitted, such as reversing, off-road driving, jackknifing, etc. No movement is allowed and there should be no rotation when test tightened to the prescribed torque. Prescribed tightening torques apply to bolt kits supplied by VBG Group Truck Equipment AB.	② In the event of movement or too low a tightening torque, the risk of cracking increase and the parts must be removed and checked. If there is any visible damage, these parts must be replaced. When the components have been dismantled, they must be re-tightened after driving 2,500 km. 
Test-tighten to the prescribed tightening torque according to the table on page 2.	No movement is allowed and there should be no rotation when test tightened to the prescribed torque. Prescribed tightening torques apply to bolt kits supplied by VBG Group Truck Equipment AB.	② In the event of movement or too low a tightening torque, the risk of cracking increase and the parts must be removed and checked. If there is any visible damage, these parts must be replaced. When the components have been dismantled, they must be re-tightened after driving 2,500 km.
Brake the trailer and drive the vehicle forward/back. Listen for clattering sounds. Visually inspect any movement.	No play is permitted.	① If there is any play, replace damaged parts. ② Check that the end beams are fitted. If there are no end beams, these must be fitted.

The strong connection

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