SAFETY CHECK

GENERAL

Visually inspect the coupling equipment regularly at least once a week or in case where the vehicle has experienced over loading or unusual stress to ensure this has not had an effect of the equipment. Ensure no deformation, cracks or corrosion are visible.
Deformation or cracks can arise in situations like jack-knifing, hitting or other forces from outside. If signs or damage is found the trailer must be disconnected and the deformed parts be replaced. No welding or aligning may occur.

• The components used to connect a vehicle and trailer are exposed, even during normal use, to very high tensions. Regular service and maintenance is essential for the products to function perfectly during their entire lifespan. Clean and lubricate the coupling every week. Retighten at 2,500 km after installation.

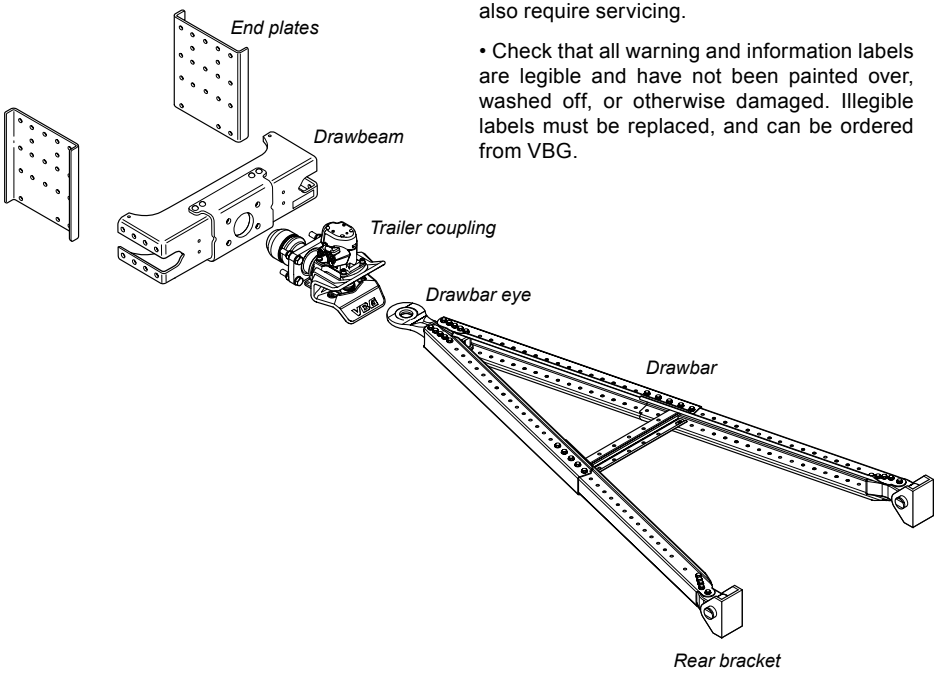
• The length of the service intervals depend on the type of trailers, the loads, roads and climatic conditions etc. Servicing can ideally be carried out in conjunction with other inspection of the vehicle, for example every 60,000 or 90,000 km.

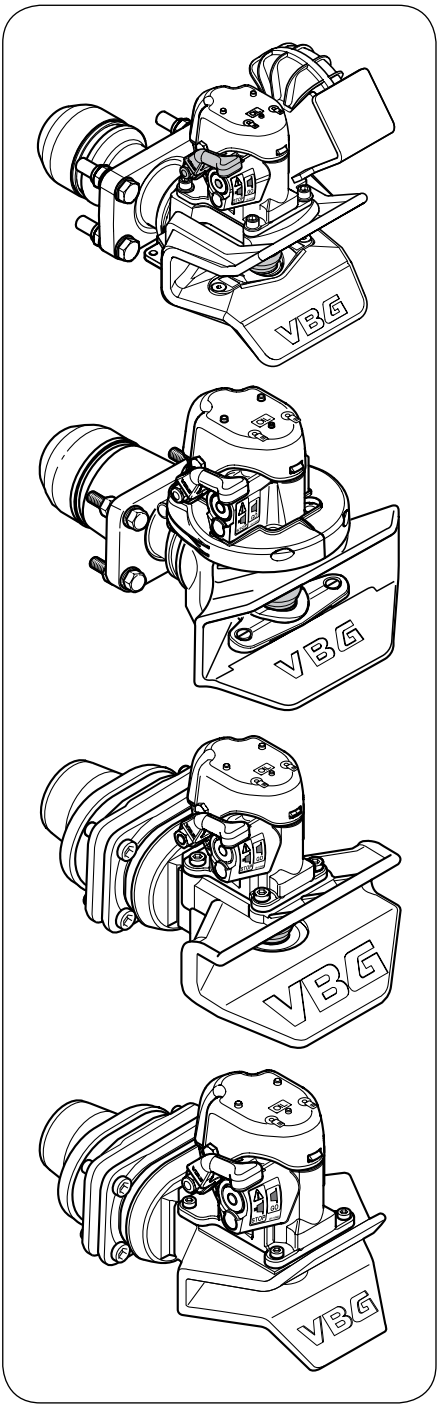
• At least once every year the coupling should be dismantled and examined for wear, corrosion, cracks or deformation. Damaged or worn parts must be replaced.

• If daily inspection or safety checks show that any of the wear limits have been exceeded, or 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 warning and 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.



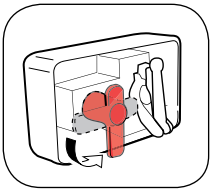


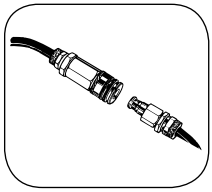
GENERAL COUPLINGS

Check the coupling regularly, but at least once a week or in the event of any abnormal stress that may have affected functionality.

If the coupling does not work as described in the function check, drive to a workshop to repair it.

NOTE: If the coupling is fitted with apower actuator the supply air to the valve box must be disconnected before working on the coupling.



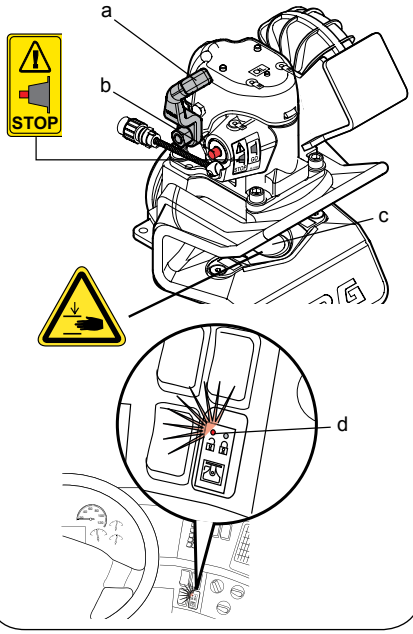


Only eyes that comply with the specified standard may be used together with VBG's coupling programme to ensure the correct angular displacement. Eyes that do not comply with the standard can cause damage to the coupling.

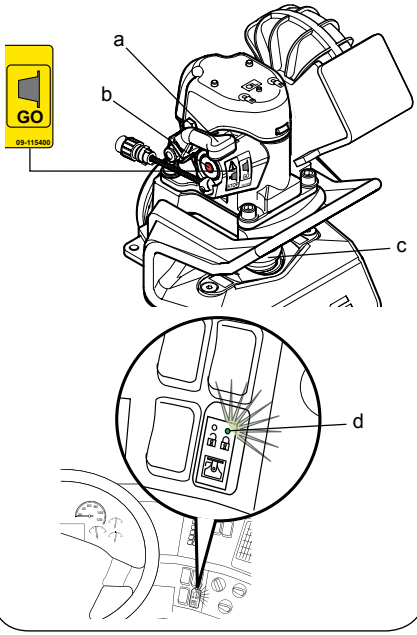
WARNING!
Power actuators for VBG couplings must NOT be operated via electrically controlled valves because there is a risk that electrical faults can cause incorrect control of the air flow.

WARNING!
Never put your fingers into the coupling mouth due to the danger of them being crushed. An open coupling always implies a pinch risk in view of the powerful springs for the coupling's closing function.

(1) Open coupling



(2) Closed, secured coupling



FUNCTION CHECK

Check that the signal and lock pin do not jam, or are damaged.

Manual coupling

• Lift the handle and check that the coupling bolt can easily be lifted up and that the handle and coupling bolt stay in a raised up position.

• Open and close the coupling and check that it corresponds with the illustrations.

AM and Power Actuator version

• Function checks are conducted by connecting a trailer.

• Requirements for an indicator lamp in the cab are in line with EU directives, meaning that point (d) must also be met.

SIGNAL AND LOCK PIN

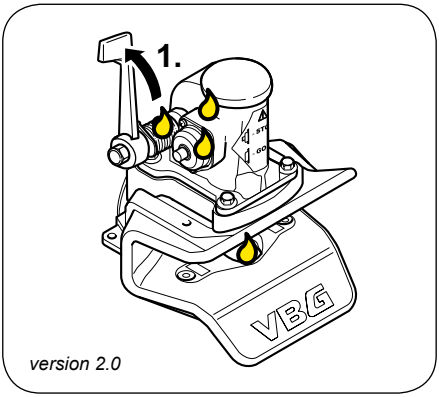
Open coupling (1)

- *(a) Handle is straight up approx. 90°*
- *(b) Lock Indicator is out*
- *(c) Coupling bolt is raised*
- *(d) Red lamp on in the cab (only a demand on remote controlled couplings)*

Closed, secured coupling (2)

- *(a) Handle is down*
- *(b) Lock Indicator is fully in*
- *(c) Coupling bolt is down*
- *(d) Green lamp on in the cab (only a demand on remote controlled couplings)*

All points (a-d) for a closed, secured coupling must be complied with before driving off.

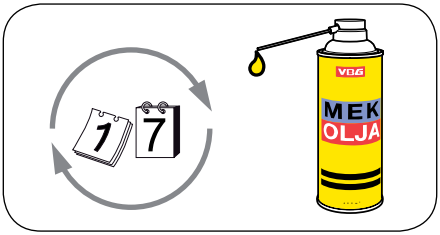


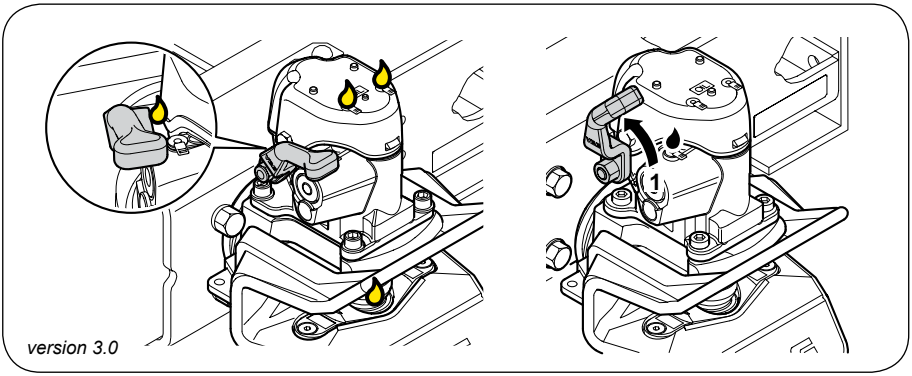
version 2.0

LUBRICATING POINTS

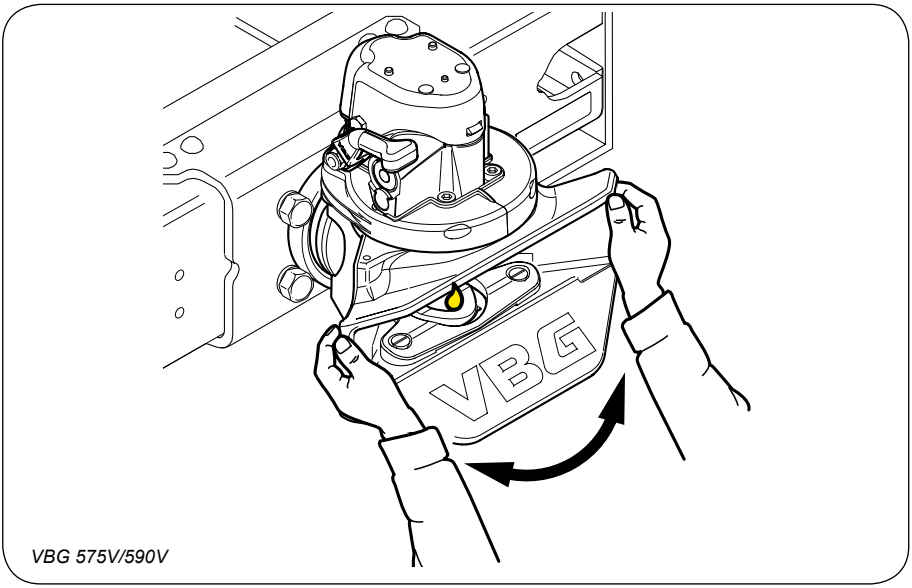
At regular intervals lubricate the mechanism with thin oil. The most simple way is to use the VBG Mechanism Oil.

Lubricating points

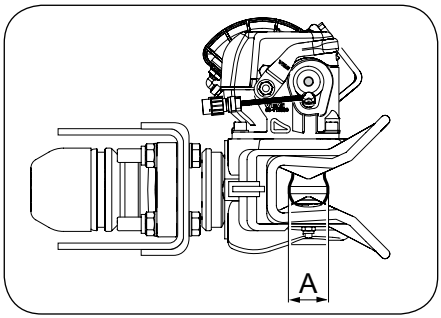




version 3.0



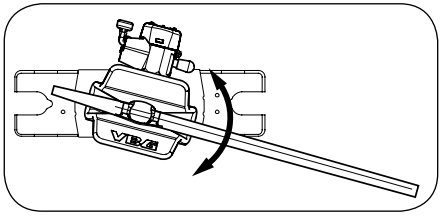
VBG 575V/590V

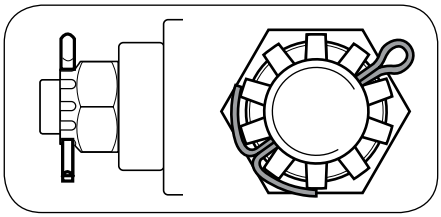


WEAR LIMITS

When the coupling pin is worn to minimum tolerance the complete mechanism should be replaced. The simplest way to check the wear is to use a VBG Wear Gauge, part No. 18-004600 (for 50 and 57 mm) or part No. 18-004800 (for 40 mm).

Bolt	Measurement A
Ø 57	55 mm
Ø 50	47 mm
Ø 40	36,5 mm

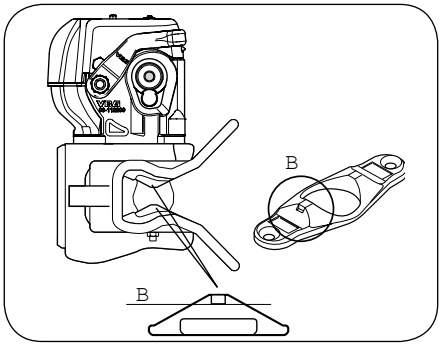




ATTACHMENT COUPLING VBG 575V/590V, 750V/795V/795VR, 620/623, 6000, 1050

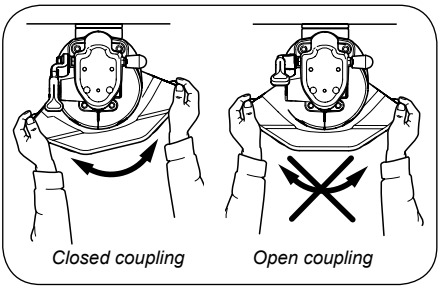
Check that the coupling can be rotated in its chassis drawbeam. The coupling must be in its closed position before this is attempted. Inspection of wear, corrosion and deformation of the coupling's attachment in the drawbeam is normally conducted by the service workshop when the vehicle is handed in for its regular service. For further information, refer to the VBG Workshop Manual.

Check that the cotter lies completely within the turrets of the castellated nut and is correctly secured as shown in the illustration.



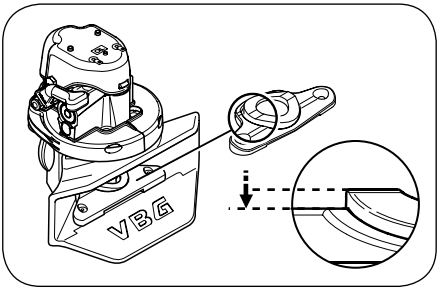
WEAR PLATE COUPLING VBG 750V/795V, VBG 795VR

Measurement B. The marking (B) on the wear plate must not be exceeded. Additional wear results in connection problems.



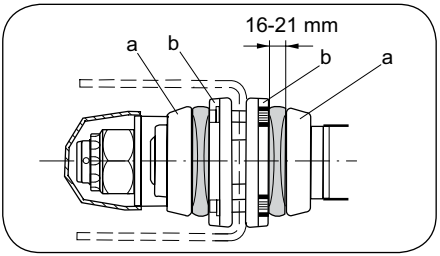
☑ GUIDING FUNNEL VBG 575V/590V, VBG 590VR, VBG 575V AM, VBG 590 V AM AUS

Check that the coupling mouth is not deformed and that it can be turned by hand when the coupling is closed. The coupling should return to neutral position by means of the spring tension in the coupling mouth after turning.
When the coupling is open it should not be possible to turn the guiding funnel.



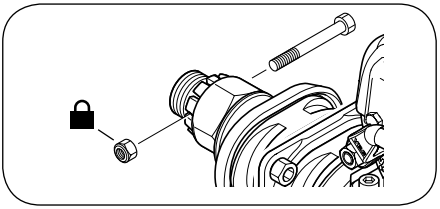
☑ WEAR PLATE COUPLING VBG 575V/590V, VBG 590VR, VBG 575V AM, VBG 590V AM AUS

The wear plate must be replaced when it is worn down level with the wear plate holder. Additional wear results in problems with the movement of the coupling mouth and prevents it returning to neutral position. This can cause disconnection problems.

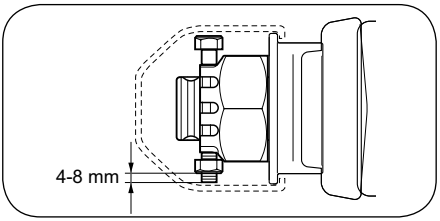


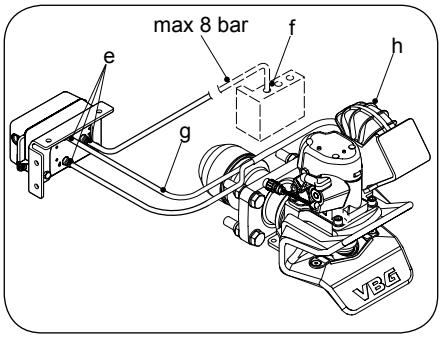
☑ RUBBER BLOCKS/ BEARING BOXES VBG 760/8500/8040/5190D

Check that the distance between the inner edge of the bearing boxes (a) and the flange plates (b) is 16-21 mm. Ensure the bearing boxes are not deformed.



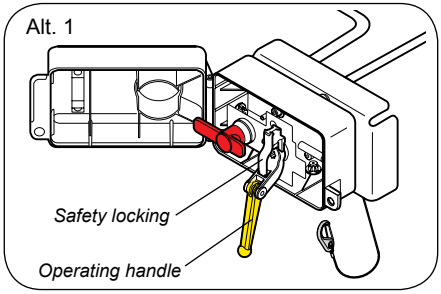
Check that the screw lies completely within the turrets of the castellated nut and is correctly secured as shown in the illustration.





POWER ACTUATOR

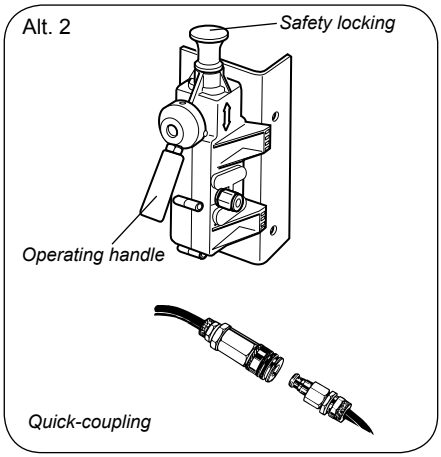
Regularly check, at least once a week or if any faults are suspected in the equipment, that there is no audible leakage of air in the valve (e), the connection to the truck's air outlet (f), hoses (g), or torsion device (h).



Air leakage can occur in extremely cold conditions. This can be eliminated by opening and closing the coupling several times, or disconnecting the supply air by:

Alternative 1 turning the red handle on the valve a quarter of a turn anticlockwise to OFF.

Alternative 2 disconnecting the quick-coupling.



CONTROL BOX

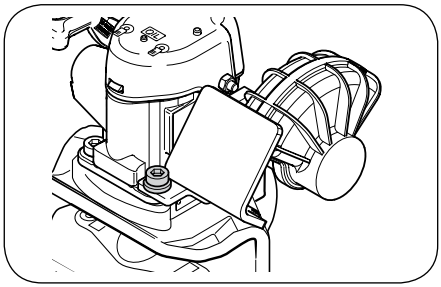
Alt. 1 and 2

Check that the control lever does not jam, or is loose.

Check the function of the safety chain catch and then secure with the safety chain. Damaged or defective parts must be immediately replaced.

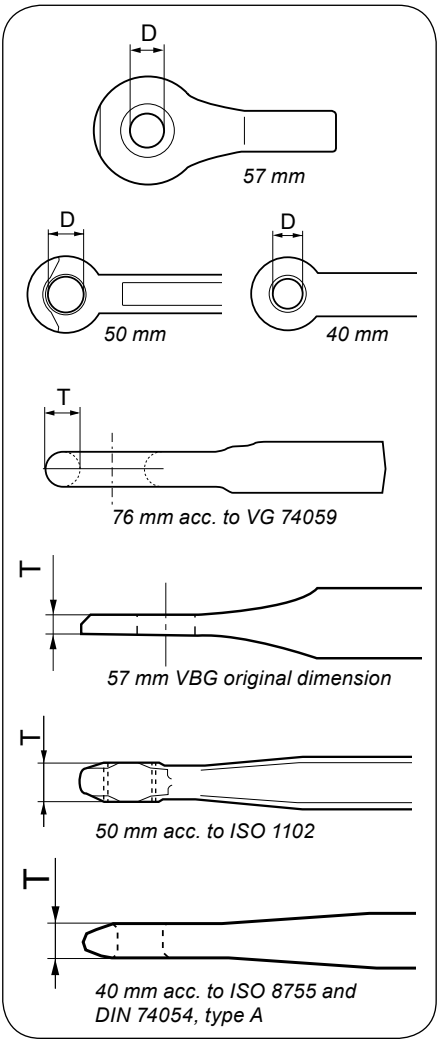
Alt. 2

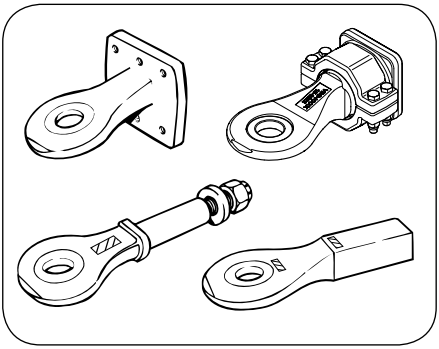
Check that the quick-coupling works.



ATTACHMENT OF TORSION DEVICE AND BRACKET

Check the attachment bolts for the torsion device and bracket.





DRAWBAR EYES

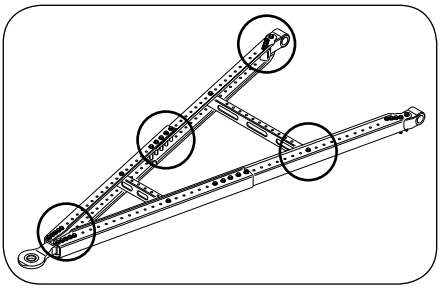
WEAR RING DRAWBAR EYE

The wear limits for the drawbar eye can easily be checked with the wear gauge.

Check that no movement has occurred in the bolted joint or castellated nut.

Drawbar eye

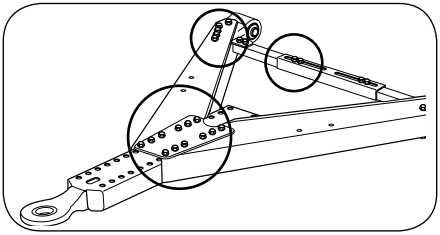
Type	Max. D (mm)	Min. T (mm)
NATO 76	-	37
VBG 57	59,5	19
ISO 50	52	42,5
DIN 40	42	28



DRAWBARS

GENERAL

Retighten at 2,500 km after installation.

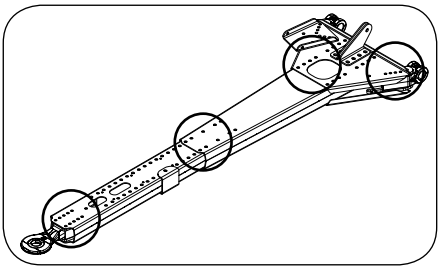


☑ BOLTED JOINT

Check that there has been no movement in the bolted joint.

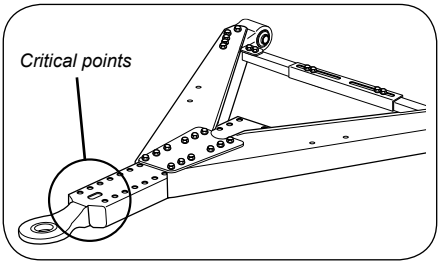
☑ FRONT SLIDERS

Check the critical area for cracks/deformation.



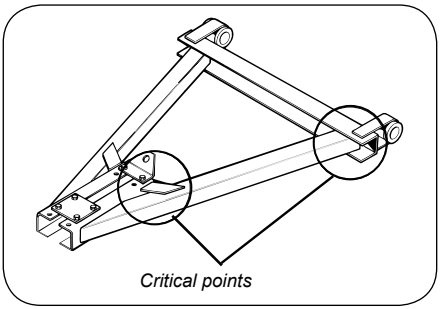
☑ REAR MEMBER/ SIDE MEMBERS

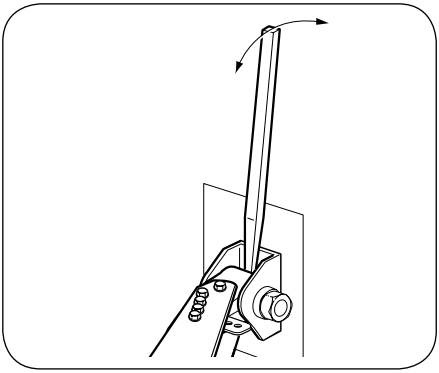
Check the critical area for cracks/deformation.

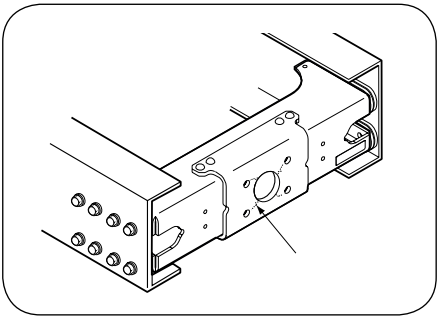


☑ HINGE BRACKETS

Check by insertion of a bar that there is no play in the hinge brackets and that there has been no movement in the bolted joint.







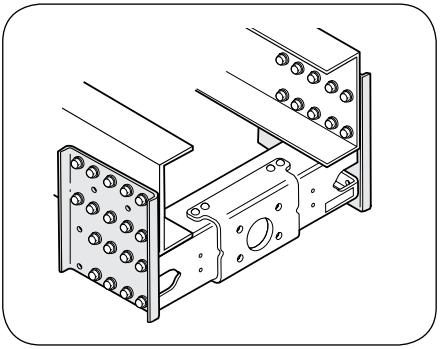
DRAWBEAMS/ END PLATE KIT

GENERAL

Retighten at 2,500 km after installation.

☑ DRAWBEAM

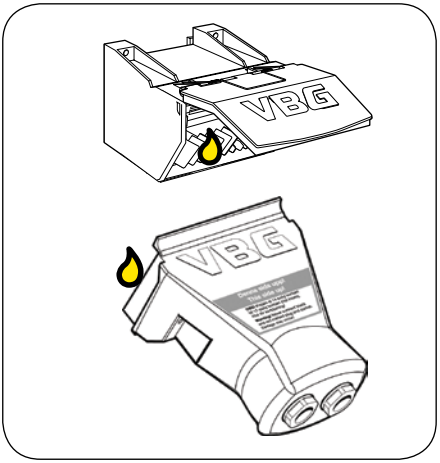
Check that there are no signs of cracking or deformation on the drawbeam.



☑ SCREWED JOINT

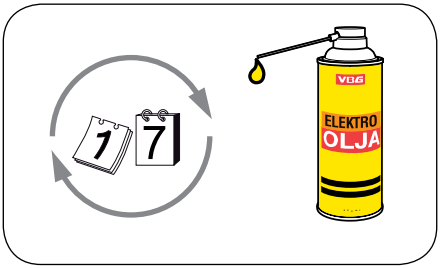
Check that there have been no movement occur in the bolted joint.

POWER PLUGS



☑ POWER PLUGS

Maintain the contact surfaces on the power plug every week with VBG Electro Oil for cleaning and corrosion protection.



Checklist Re-tightening

Bolted joint

			Date
Drawbar	2500 km	☐	_____
Drawbeam/ endplates	2500 km	☐	_____
Eye	2500 km	☐	_____
Coupling	2500 km	☐	_____

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