

Guidelines for inspection and servicing

Underrun protection

2026

RINGFEDER

General information

General information
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 mechanism for the underrun protection is to function well for the duration of its service life.
The length of the service intervals depends on usage, 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 any of the function limits have been exceeded or that the function of the product has been impaired, servicing must be carried out immediately.
None of the product's wear limits having been exceeded indicates 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 GMBH.

If the underrun protection has been damaged due to e.g. jackknifing, off-road driving, reversing or collision, the underrun protection with attachment parts must be replaced.

Always follow the vehicle manufacturer's bodybuilding instructions.

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Explanation of symbols

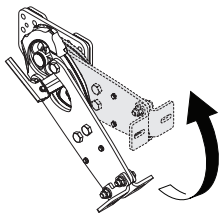


Severity
3 = STOP to ensure future use.
2 = Rectify as soon as possible, within four weeks.
1 = Rectify when able or during next service. Within no more than one year.



WARNING!

When the protective beam is not fitted, the arm is raised with great force and speed when released.

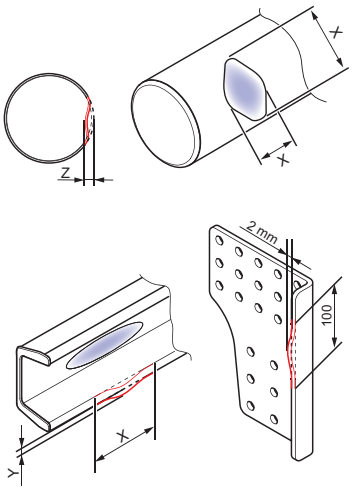


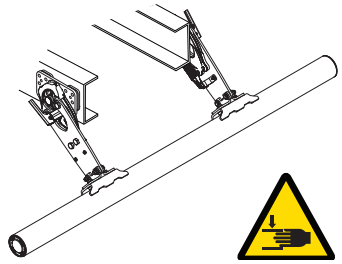
		Torque (Nm)	
Size	Quality	Flange	Washer
M14	8.8	140	125
M14	10.9	163	
M16	8.8	210	195
M16	10.9	250	290
Prescribed tightening torques apply to bolt kits supplied by VBG Group Truck Equipment GMBH.			

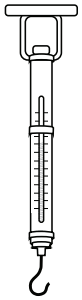
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Checkpoint	Symptom	Fault
Protective beams/endplates.	Movement in the areas around the protective beam/endplate/frame member bolted joints..	Loose bolted joints between frame member/endplate and/or endplate/ protective beam.
Protective beams/endplates.	Peeling paint, rust-related discolouration of the protective beam, flakes of rust, porosity.	Corrosion/pitting.
Protective beams/endplates.		Damaged/deformed protective beam and/ or endplate.

Inspection method	Requirements, wear limits, etc.	Instructions for rectification
Visually check. Attachment and damage. Movement between protective beam/ endplate or endplate/frame member. Deformation of protective beams or endplates. Welds. Checks for rust damage using a tool are performed when corrosion is found. Loose bolts. Cracks. Play in joints.		
Grip the protective beam, shake and listen for a clicking or clattering sound. 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. Check whether any rotation occurs during test-tightening to the prescribed tightening torque in accordance with the table on page 2.	No movement is permitted, everything must hold firm. There should be no rotation during test-tightening to the prescribed tightening torque. Prescribed tightening torques apply to bolt kits supplied by VBG Group Truck Equipment GMBH.	
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.	 In the event of pitting, damaged parts must be replaced. Welding is not permitted. (2)
Visually check. Attachment and damage. Scuff marks between the protective beam/endplate, endplate/frame member after overloading. Deformation of protective beams or endplates. Cracks, greatest risk of cracking is close to bend radii, welds and hole edges.	No deformation is allowed. Deviation from the theoretical surface/shape greater than the specified dimensions is considered to be a deformation. X = 50–100 mm, Y = 2 mm Dent on flat surface, Z = max. 5 mm deep for diameter 50–100 mm. Cracks, welds or warping is not permitted. 	 Damaged/deformed protective beam and/or endplate must be replaced. (1)  Damaged/deformed endplate in combination with the drawbeam and coupling must be replaced. (3)

Checkpoint	Symptom	Fault
Springs. 	The protective beam is heavy to lift.	Heavy to lift. Broken support spring.
Locking pins and joints.	Significant vertical movement of the protective beam. Rattling/noise. Lights and fixtures shake apart.	Play due to wear/overloading.
Locking pins and joints.	Difficult to change the position or secure completely.	Difficult to change the position due to rust/ice/dirt on the sliding surfaces.
Locking pins and joints.	Cannot be locked/unlocked.	Cannot be locked/unlocked. Deformation in locking mechanism.
Locking pins and joints.	Cannot be locked.	Dirt in lock hole.

Inspection method	Requirements, wear limits, etc.	Instructions for rectification
Lifting checks using scales. 	Max. 40 daN (40 kg) lifting power.	If any springs are defective, these must be replaced. ①②③ ①
Lift the protective beam and measure the play in the different positions for use.	Max. ±20 mm play vertically, measured next to the protective beam.	In the event of play greater than ±20 mm, worn parts must be replaced. ①②③ ①
Lifting checks using scales.	Max. 40 daN (40 kg) lifting power.	Rinse clean using water and air, and then lubricate all joints and redo the lifting test. If this does not help, the damaged parts must be replaced. ①②③ ①
Check the locking function by trying to open/close.	Must always work.	Rinse clean using water and air, and then lubricate all joints and redo the lifting test. If this does not help, the damaged parts must be replaced. ①②③ ②
Check the locking function by trying to open/close several times.	Must always work.	Check the locking function by trying to open/close several times. Rinse clean using water and air, and then lubricate all joints and redo the lifting test. If this does not help, the damaged parts must be replaced. ①②③ ②



Produced in a certified company

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