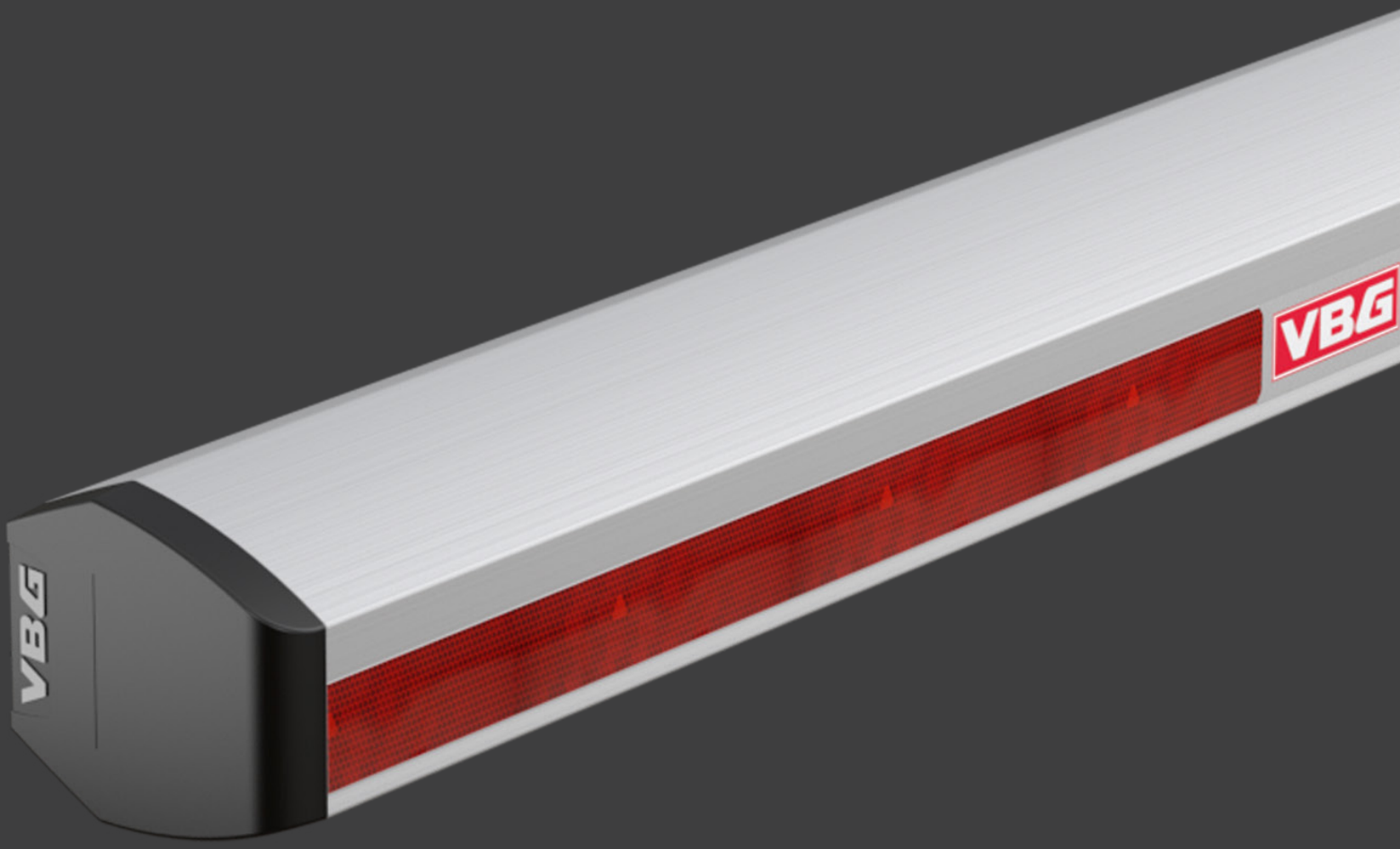


2024

Guidelines for inspection and servicing

Underrun protection

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 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.

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 VBGs instructions and the vehicle manufacturer's bodybuilding instructions.

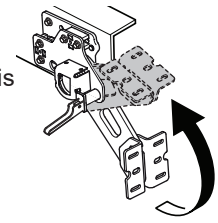
Guidelines for inspection and servicing Underrun protection 2024

Version e, 01/06/2024

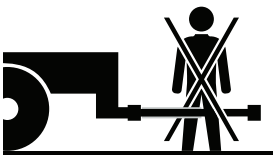
Explanation of symbols

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.

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



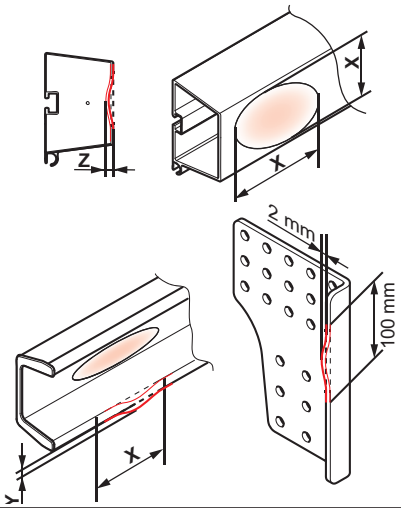
WARNING!
Risk of crushing. Do not stand in the danger area when underrun protection URSP is enabled.

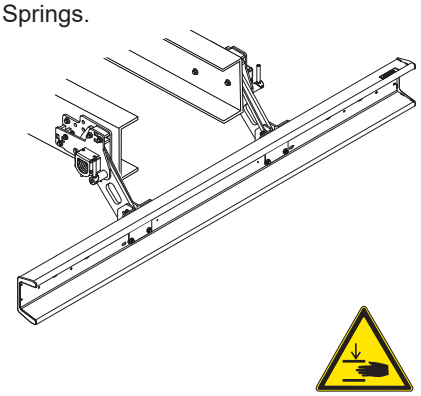


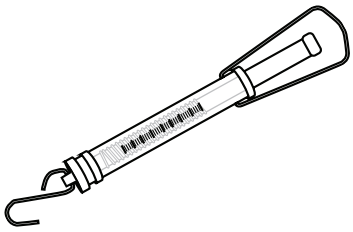
		Torque (Nm)	
Size	Quality	Flange	Washer
M14	8.8	140	125
M14	10.9	163	
M16	8.8	210	195
M16	10.9	250	290
Prescribed tightening torques apply to bolt kits supplied by VBG Group Truck Equipment AB.			

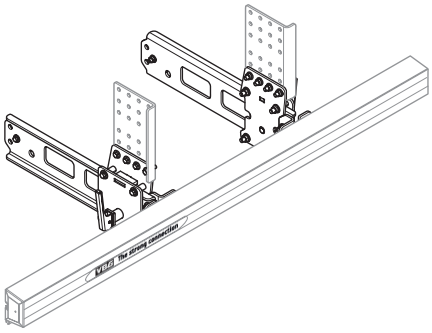
Contents

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.

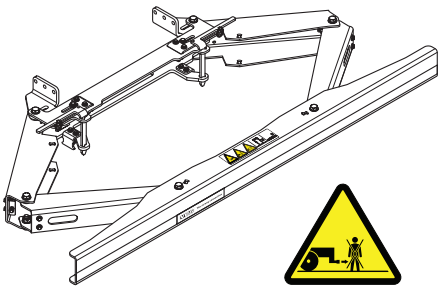
Inspection method	Requirements, wear limits, etc.	①②③ Instructions for rectification
Visually check. Attachment and damage. Movement between protective beam/ endplate or endplate/frame member. Deformation of protective beams or endplates. Welds. Checks for rust damage using a tool are performed when 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 AB.	
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.	② In the event of pitting, damaged parts must be replaced. Welding is not permitted.
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. 	① Damaged/deformed protective beam and/or endplate must be replaced. ③ Damaged/deformed endplate in combination with the drawbeam and coupling must be replaced.

Checkpoint	Symptom	Fault
Springs. 	The protective beam is heavy to lift.	Heavy to lift. Broken torsion 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.	① ② ③ Instructions for rectification
Lifting checks using scales. 	Max. 40 daN lifting power.	① If any springs are defective, these must be replaced.
Lift the protective beam and measure the play in the different positions for use.	Max. 10 mm play vertically, measured next to the protective beam.	① In the event of play greater than 10 mm, worn parts must be replaced.
Lifting checks using scales.	Max. 40 daN lifting power.	① 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.
Check the locking function by trying to open/close.	Must always work.	② 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.
Check the locking function by trying to open/close several times.	Must always work.	② 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.

Checkpoint	Symptom	Fault
Locking pins and sliding surfaces. 	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 sliding surfaces.	Cannot be locked/unlocked.	Cannot be locked/unlocked due to dirt, corrosion, ice or deformation in the locking mechanism.
Significant vertical movement of the protective beam. Rattles/makes noise during driving. Lights and fixtures shake apart.	Play in locking pins due to wear.	Lift the underrun protection into the positions for resting and usage.

Inspection method	Requirements, wear limits, etc.	① ② ③ Instructions for rectification
Move the protective beam into the various positions. Check whether anything is deformed.	It must be possible to use all positions.	② In the event of deformation, it must be replaced. If nothing is deformed, rinse clean using water and air, and then lubricate all sliding surfaces using light oil and perform new movement tests. If this does not help, the attachment must be adjusted or damaged components replaced.
Check the locking function by trying to open/close.	Must always be kept clean, well lubricated and in working order.	② Rinse clean using water and air, and then lubricate all joints/sliding surfaces and redo the tests. If this does not help, a component is damaged and must be replaced.
Check the locking function by trying to open/close.	Max. 15 mm movement/play by the protective beam.	② Replace worn parts.

Checkpoint	Symptom	Fault
Joints/arms. 	Significant vertical movement of the protective beam. Rattles/makes noise during driving. Horizontal play.	Play in joints/arms.
Joints/arms.	Protection that is difficult to move.	The protection is jammed due to dirt/ sand/gravel in the joints and on the sliding surfaces.
Joints/arms/protective beam, bolted joints. Plastic bearings.	Difficult to move/jamming. Askew. Bent components.	Damaged/deformed or loose components. Broken plastic bearings.
Cylinder/valve/hydraulic system.	The protection moves slowly over time. Visible oil leakage. May perhaps be moved slowly by hand.	The underrun protection moves while driving or when the engine is switched off due to air in the system, faulty valves, leaky valves, leakage in the connections or internal leakage in the cylinder.
Joints/arms/beam.	Locking pins cannot be inserted or removed.	Damaged arms/beam.
URSP 180 Nordic Parallel brackets/angle brackets.	The protection does not move in a parallel motion between its two positions.	Damaged parallel brackets.

Inspection method	Requirements, wear limits, etc.	①②③ Instructions for rectification
Lift and measure vertical movement around the protective beam when the protection is extended.	Max. vertical movement in extended position 25 mm. No horizontal play.	① Torque-tighten the joints and recheck. If necessary, worn components must be replaced. Adjust using the adjustment screw.
Visually inspect for dirt etc.	Must always be kept clean, well lubricated and in working order. URSP 180 must not be lubricated.	① Rinse clean using water and air, and then lubricate all joints/sliding surfaces and redo the tests. If this does not help, a component is damaged and must be replaced.
Check that the protection can be pushed out/in without difficulty and that no components are deformed.	Should be easy to manoeuvre and lock in the two different positions, and all bolted joints should be tightened to the prescribed tightening torque. No load-bearing parts may be deformed (arms, beam).	① Adjust the attachment and torque-tighten the bolted joints. Load-bearing damaged parts must be replaced.
Check for any oil leakage. Pull the retracted cover continuously for a minute with the engine switched off. Check that the load-holding valve and engine housing are correctly fitted.	The hydraulic system must be structured as shown in the diagram, no oil leakage should occur and the protection must be tight and not yield when pulled in its folded position.	① When the system is correctly built-up and there is no oil leak, bleeding must be carried out. If this does not help, each component must be checked for internal leaks and replaced as necessary.
Check that the protection slides in/out without difficulty and that no components are deformed.	Make sure that no load-bearing parts (arms, beam, and endplate) are deformed. Joints/arms must be able to be locked in the two alternative positions.	② Replace damaged parts or the entire protection.
Visually inspect the motion.	The protection must be able to move in a parallel motion between its two positions.	① Replace damaged parts or the entire protection.

The strong connection

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