

Maintenance instructions according to EN 1176-1

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Im Südloh 5 – D27324 Eystrup – Telefon 0 42 54/93 15-0 – Fax 0 42 54/93 15 24 – E-Mail info@kaiser-kuehne-play.com

2019-09-10

Single point swing Item: 040710004



Instructions for the professional inspection and maintenance of single point swings

- Playground equipment is subject to a wide range of stresses and strains over the course of its useful life, which can reduce or even eliminate the original safety. Regular inspection and maintenance ensures that the required safety of playground equipment is maintained.
- This maintenance manual contains all the instructions needed to perform the inspection tasks and to comply with the inspection periods. It is assumed in this maintenance manual that the playground equipment is installed in a normally frequented playground in normal surroundings. If there are local factors that deviate from the normal, the inspection periods must be adjusted. This may cause the time intervals specified by the manufacturer / distributor to be shortened. An extension of the time intervals is excluded as these are minimum requirements.
- Among the local factors that require shortening of the inspection periods are, for example, locations with heavy use, e.g. schoolyards, kindergartens, amusement parks; location with high levels of vandalism; locations near the coast; locations with air pollution; playground equipment increasing age.
- Furthermore, this maintenance manual assumes that the described inspections and maintenance work will be carried out by personnel with suitable qualifications. Certain tasks (such as welding) can only be performed by qualified professionals or require machining by the manufacturer / distributor.
- The owner / operator of the playground should set up a suitable inspection plan for the playground and document the inspections and maintenance performed there for the particular playground equipment.

One-time maintenance work

Four weeks after installation, all screw connections must be checked and tightened if necessary. In this case, the specified advice in the regular maintenance work e. g. to turning moments has to be observed.

Regular maintenance

1. Routine visual inspection

1.1. **1x weekly** (or different, determined by local factors)

- Check the **minimum space** of the playground equipment for cleanliness.
- Check **playground equipment** for consequences of **vandalism**, e. g. missing or damaged components.
- **Check playground** equipment for the effects of **weather conditions**, eg. B. by storm or frost

2. Operational inspection

2.1. **1x monthly** (or different, determined by local factors)

- **Check for visibility of the warning groove** (red-colored ring on the swivel housing). If the ring is visible in a horizontal direction, there is a need for repair. See appendix "A1 Visual inspection of swivel at least once a month"
- **Testing for smoothness of running.** Relieve the swing platform and the universal joint from load. To check the swivel is slowly put into rotation by hand. If the swivel rotates without angular offset (well visible on the swing chains), it is fine and smooth of running.
- Check **swing chains and connecting elements** for wear, replace if necessary. Please note that the cylinder screws in the chain adapters are fastened hand-tight with a long Allen key or a ratchet with a socket wrench, without over-tightening the hexagon socket.
- **Check plastic parts such as protective edges**, linings, sheathing, sleeves, etc. for loss, signs of wear and damaged areas and replace if necessary.

- Check the **condition of the ground surface**, if applicable, follow the instructions for the inspection and maintenance of shock-absorbing floors specified by the manufacturer / distributor of playground floors, especially with regard to the level of loose fill material.
- Check the **ground clearance** of the swing platforms / seats.

2.2. every 3 months (or different, determined by local factors)

- **Check axles, hubs and bearings** for smooth running, bearing shake, wear or corrosion.
- **Check for bearing play** and wear. To check, the swing platform and the universal joint must be relieved by lifting the platform (e.g. by 2nd person or trestles). The swivel housing is manually set in motion to all directions. If wearout in excess of the intended swivel and rotary movements is detected damage requiring repair is present.

2.3. every 6 months (or different, determined by local factors)

- Check **components** for tight fit; check screw connections and tighten if necessary. The instructions given in the regular maintenance work, e.g. regarding torques, must be observed.
- **Replace lubrication** as described in appendix "A2 Replace lubrication at least every 6 months".

3. Annual main inspection

- Check **playground equipment** including all components and construction elements above and below the playing level for damage caused by wear, vandalism, weather events, rotting, corrosion and element formation, etc. This may require excavation or access to areas below the playground level and subsequent repair of the playground surfacing.
- Check **foundations** for damage due to wear, vandalism, weather events, rotting, corrosive and element formation, etc. This may require excavation or access to areas below the playing level and subsequent repair of the playground surfacing.
- Inspect the **playground surfacing** using the inspection procedures and maintenance instructions provided by the manufacturer/distributor of playground floors, particularly with regard to levels of loose fill material.

4. Endurance of the rotating swivel

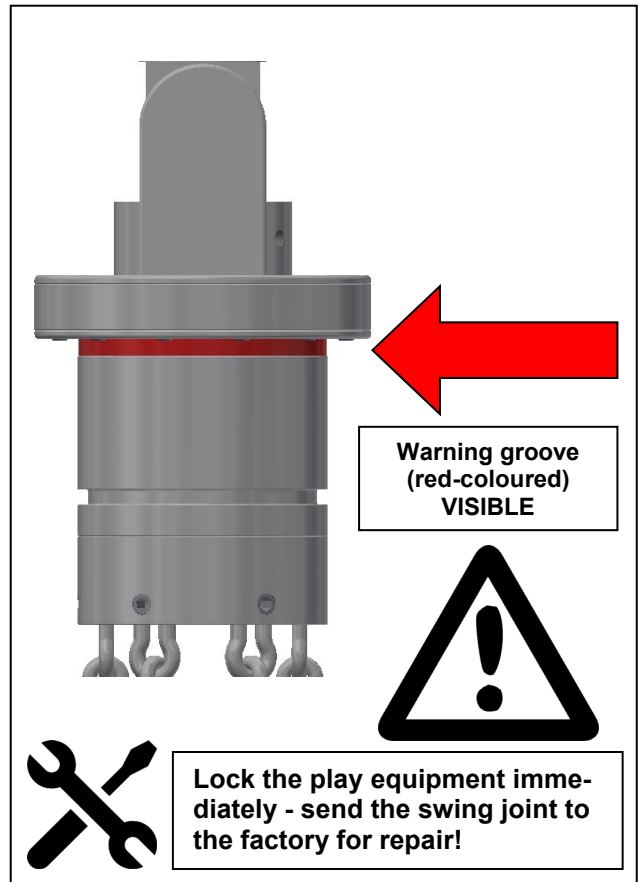
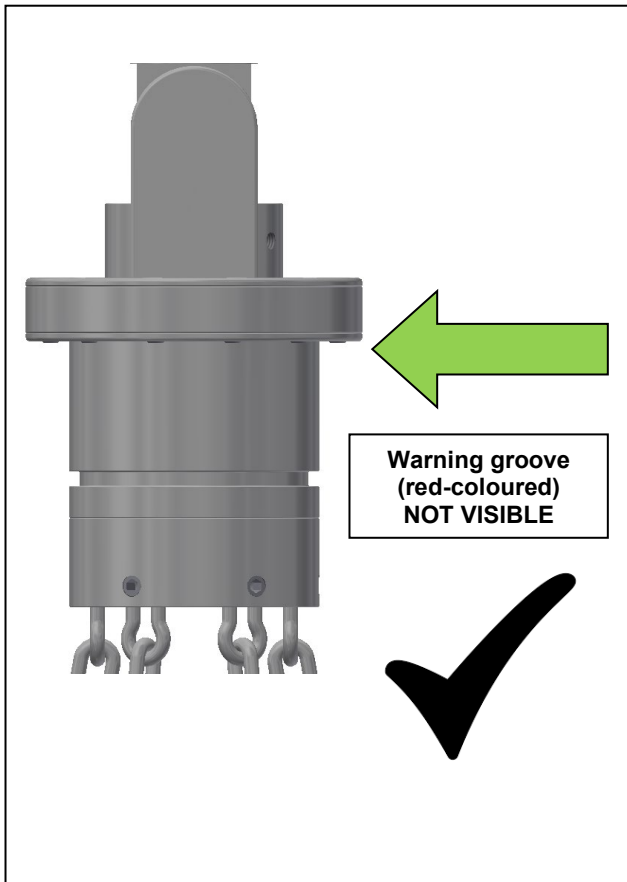
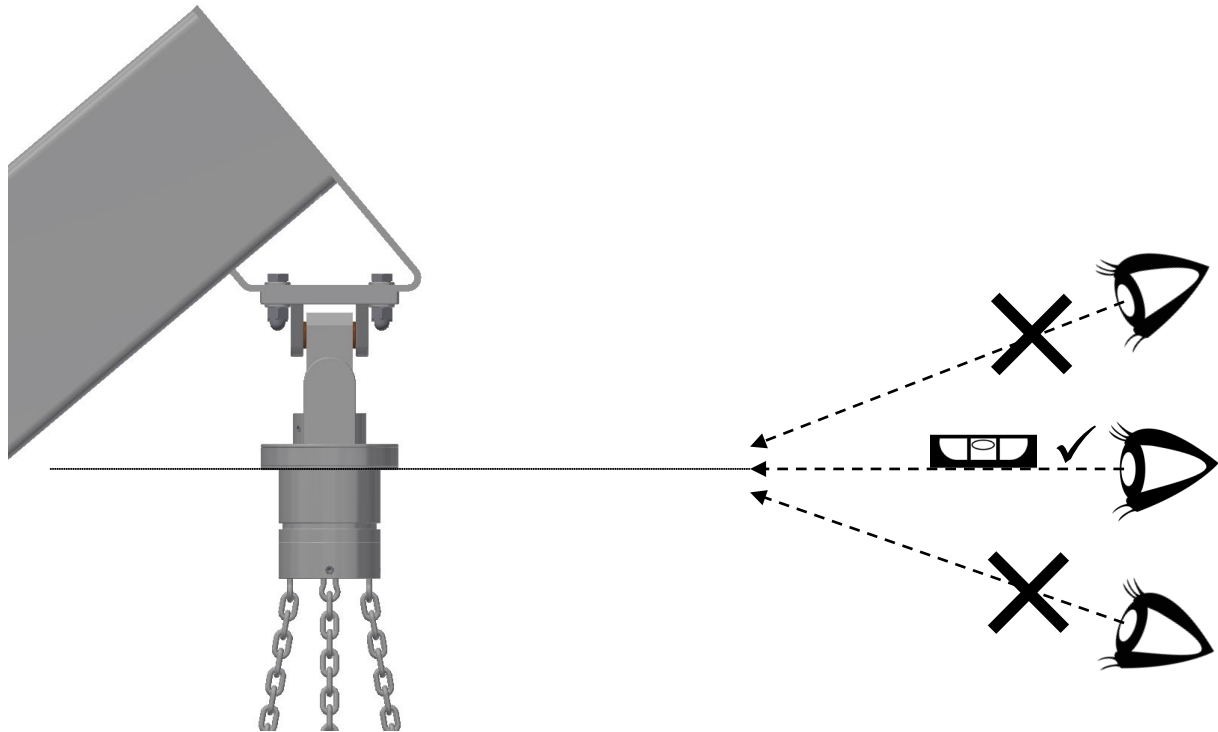
Dismount the **swing joint** of the playground equipment at the latest after a service life of 10 years and send it to the manufacturer/distributor for revision. It is assumed that the playground equipment is installed on a normally frequented playground in a normal environment. If the previous operational inspections have shown that local factors exist that deviate from normal, the life span must be adjusted. This can lead to a shortening of the service life specified by the manufacturer/distributor. An extension of the life span is excluded as this is the maximum duration.

If **damage is found to the swing joints**, the affected play equipment must be taken out of service and must be closed until overhauled by the manufacturer/distributor or the swing joint is replaced. Access to the public, including children, must be prevented.

Annexion A1

Visual inspection of swivel at least once a month:

Check for visibility of the red-coloured warning groove.



Dismount the swing joint of the playground equipment at the latest after a service life of 10 years and send it to the manufacturer/distributor for revision.

Annexion A2

Replace lubrication at least every 6 months

Replace lubrication

required equipment:

- Lever grease press for taper lubricating nipple (K&K item 5200732)
- Fluid grease for K&K swing joints (K&K item 5200733)
- Ladder
- Cleaning rags/paper towels
- Allen key (wrench size 5 mm)

The lubricant must comply with Kaiser & Kühne specifications.

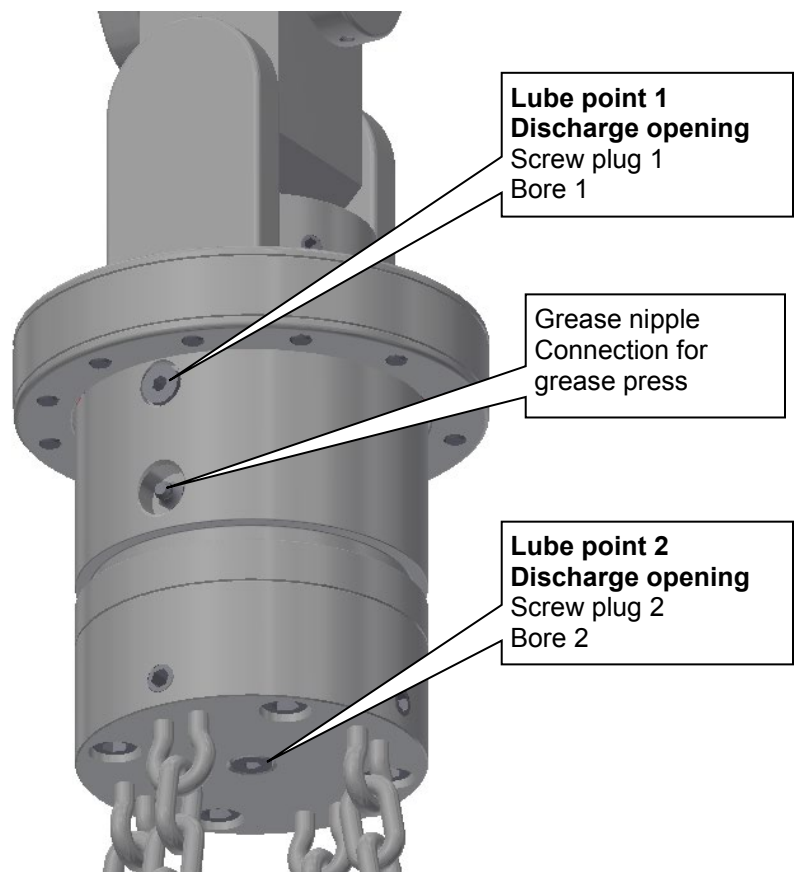
Procedure:

Lube point 1:

1. Remove the screw plug 1 with an Allen key size 5 mm (do not lose the sealing ring).
2. Press lubricant into the grease nipple using a lever grease press until fresh lubricant emerges from bore 1.
3. Pick up escaping old lubricant with e.g. cleaning rags and dispose of it properly.
4. Insert screw plug 1 and tighten firmly.

Lube point 2:

5. Remove the screw plug 2.
6. Press lubricant into the grease nipple using a lever grease press until fresh lubricant emerges from bore 2.
7. Pick up escaping old lubricant with e.g. cleaning rags and dispose of it properly.
8. Insert screw plug 2 and tighten firmly.



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Annexion E1

Spare parts




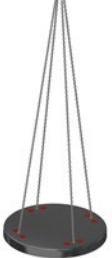


Item	Qty.	Title	Illustration
1060841	1	Single point swing-assembled steel beam L. approx. 5,42 m , W. approx. 0,60 m, H. approx. 0,18 m Weight approx. 253 kg	
1060147	1	Steel beam without swing joint and rubber bump	
1060829	1	Universal joint with swivel (four chain strands)	
3400477	4	Hexagonal screw M16x45 DIN 933 galvanized for installation of universal joint [1060829]	
3430019	2	Washer Ø 17mm DIN 125 for installation of universal joint [1060829]	

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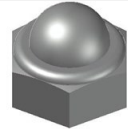





3430018	8	Hexagon cap nut M16 for installation of universal joint [1060829]	
1060693	4	U-Link of universal joint	
2030204	4	Dog point screw M16x25 stainless steel	
1060713	1	Single point platform swing, chains included L. approx. 1,40 m , W. approx. 1,40 m, H. approx. 0,25 m Weight approx. 40 kg	
3590050	1	Single point swing seat	
1060742	4	U-Link 6 mm plastic-coated for single point swing seat [3590050]	

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3430010	8	Hexagon cap nut M8 DIN 986 A2 for U-Link 6 mm [1060742]	
015753		stainless steel chain 1.4310 nominal size Ø 7,0 mm -material sold by meter-	
1060180	1	Rubber bump stop for K&K Single point swing (steel beam) incl. steel sheet	
3400290	2	Hexagon screw M16x 60 DIN 933 zinc. for installation of rubber bump [1060180]	
3430019	2	Washer Ø 17mm DIN 125 for installation of rubber bump [1060180]	
1060148	1	Ground fixing for K&K Single point swing L. approx. 0,95 m , W. approx. 0,27 m, H. approx. 0,27 m Weight approx. 21 kg	

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3400381	4	Hexagon screw M20 x 35 DIN 933 for installation of ground fixing [1060148]	
3430027	4	Washer Ø 21 DIN 125 for installation of ground fixing [1060148]	
1060033	2	support for K&K Single point swing L. approx. 2,71 m , W. approx. 0,24 m, H. approx. 0,20 m Weight approx. 54 kg	
3400318	4	Hexagon screw M16 x 230 DIN 931 zinc for installation of support [1060033]	
3430018	4	hexagon cap nut M16 for installation of support [1060033]	
3430019	8	Washer Ø 17mm DIN 125 for installation of support [1060033]	

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3300010	8	Cap grey SKS 16 for installation of support [1060033]	
5200733	1	Fluid grease cartridge 400 g for K&K swing joints	
5200732	1	Lever grease press (e. g. for K&K swing joint)	
SFWZ0000014	1	Lubricating metal, bag (4g) as assembly grease for stainless steel fasteners	