

Criteria for replacement state of the Spherical head lifting clutch

Lifting devices must be inspected according to the regulation DGUV 100-500, chapter 2.8 par. 3.15.4, by an expert annually considering the following criteria. Depending on the working conditions the inspections might be necessary in shorter intervals than only once a year. This might be caused by frequent use, increased wear, corrosion or heat treatment.

Prior inspection of the Spherical head lifting clutch it must be cleaned. Within an inspection the following points have to be considered:



Twisted coupling link



Pressure marks



Deformation of the sphere



Dropping below measurement m_{min}



Deformed coupling link



Crack in sphere



Deformation of the sphere



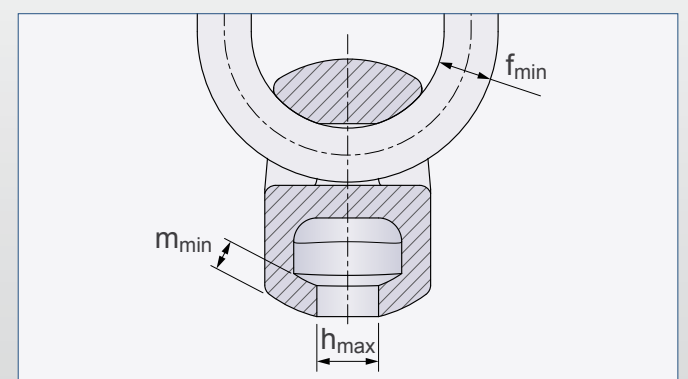
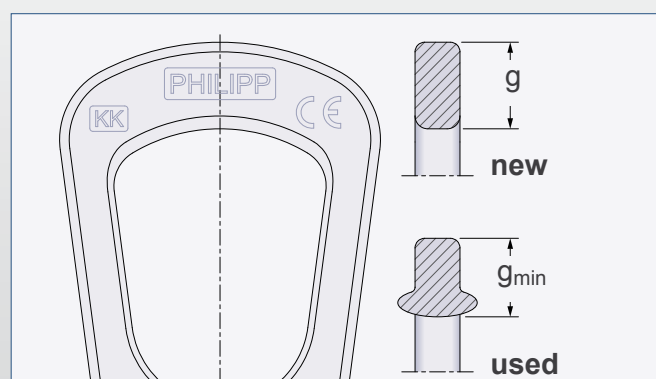
Exceeding of measurement h_{max}

- ☑ Twisted or deformed coupling link (Picture)
- ☑ Deformed sphere (Picture)
- ☑ Pressure marks caused by rigging hardware at the coupling link
- ☑ Cracks at coupling link or sphere (Picture)
- ☑ Welding or other strong heat influences
- ☑ Corrosion pits
- ☑ Marking not readable anymore
- ☑ Exceeding of upper or lower test dimensions (Picture)

PHILIPP offers a gauge to check the test dimensions of the Spherical head lifting clutch quickly and easily. With the help of the check gauge the internal rim width h_{max} and the lip thickness m_{min} can be checked (see Application Instruction of the Spherical head lifting clutch).



Test dimensions				
Load class	h_{max} [mm]	m_{min} [mm]	f_{min} [mm]	g_{min} [mm]
1.3	13.5	5.5	10.8	19.8
2.5	18.0	6.0	12.6	24.3
5.0	25.0	7.5	17.1	36.0
10.0	33.5	13.5	25.2	45.0
20.0	48.5	18.0	34.2	67.5
32.0	60.0	25.0	37.8	90.0



If one of the above-mentioned points is fulfilled the Spherical head lifting clutch has reached its replacement state and **must not be used anymore.**

To be replaced

