

CRITERIA OF REPLACEMENT STATE OF THE WIRBELSTAR

Lifting devices are strictly recommended to be inspected 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 Wirbelstar it must be cleaned. Within an inspection the following points have to be considered:



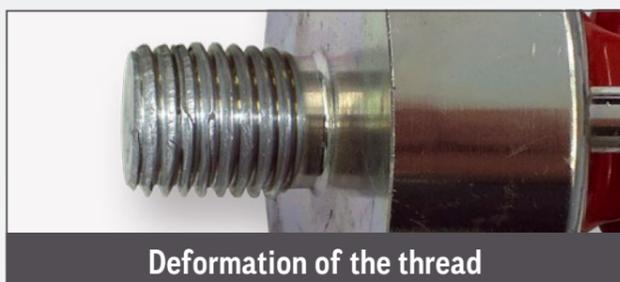
Deformed chain link



Welding



Exceeding of measurement T_{max}



Deformation of the thread



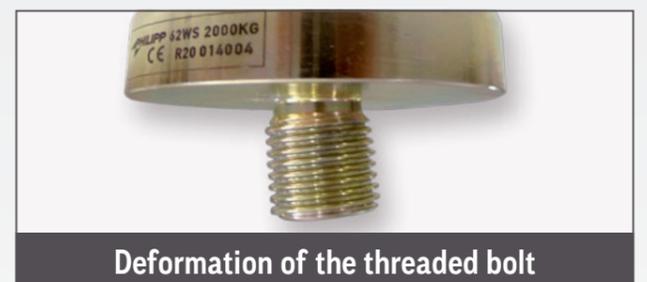
Crack at chain link



Pressure marks



Crack on threaded bolt

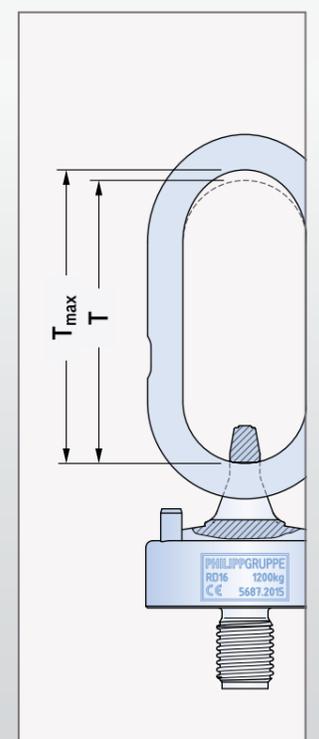
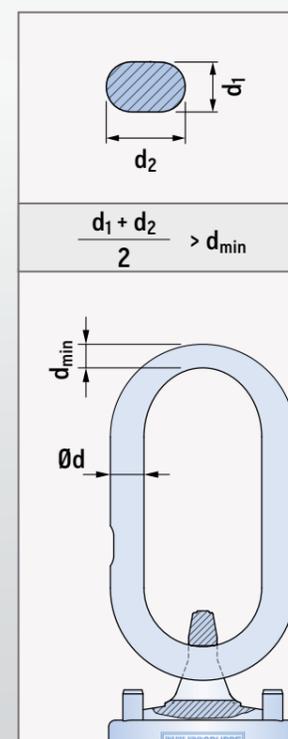
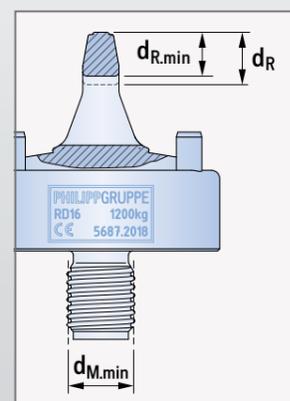


Deformation of the threaded bolt

- » Breakage of chain link
- » Deformation of chain link (picture)
- » Pressure marks on chain link caused by rigging hardware (picture)
- » Cracks or capacity reducing corrosion pits (picture)
- » Twisted threaded bolt (picture)
- » Damaged threaded bolt (picture)
- » Welding or other strong heat influences (picture)
- » Marking not readable anymore
- » Exceeding of upper or lower test dimensions (picture)

TEST DIMENSIONS

Load class	$d_{M,min}$ (mm)	d_R (mm)	$d_{R,min}$ (mm)	$\emptyset d$ (mm)	d_{min} (mm)	T (mm)	T_{max} (mm)
12	11,50	10,0	9,0	10,0	9,0	85	89
14	13,50	10,0	9,0	10,0	9,0	85	89
16	15,45	10,0	9,0	10,0	9,0	110	116
18	17,40	17,0	15,3	16,0	14,4	95	100
20	19,40	17,0	15,3	16,0	14,4	102	107
24	23,40	17,0	15,3	18,0	16,2	125	131
30	29,40	22,0	19,8	22,0	19,8	148	155
36	35,40	28,0	25,2	26,0	23,4	160	168
42	41,20	28,0	25,2	26,0	23,4	160	168
52	51,20	30,0	27,0	36,0	32,4	220	231
56	55,20	30,0	27,0	36,0	32,4	220	231
60	59,20	30,0	27,0	36,0	32,4	220	231



If one of the above-mentioned points is fulfilled the Wirbelstar has reached its replacement state and must not be used anymore.

TO BE REPLACED

