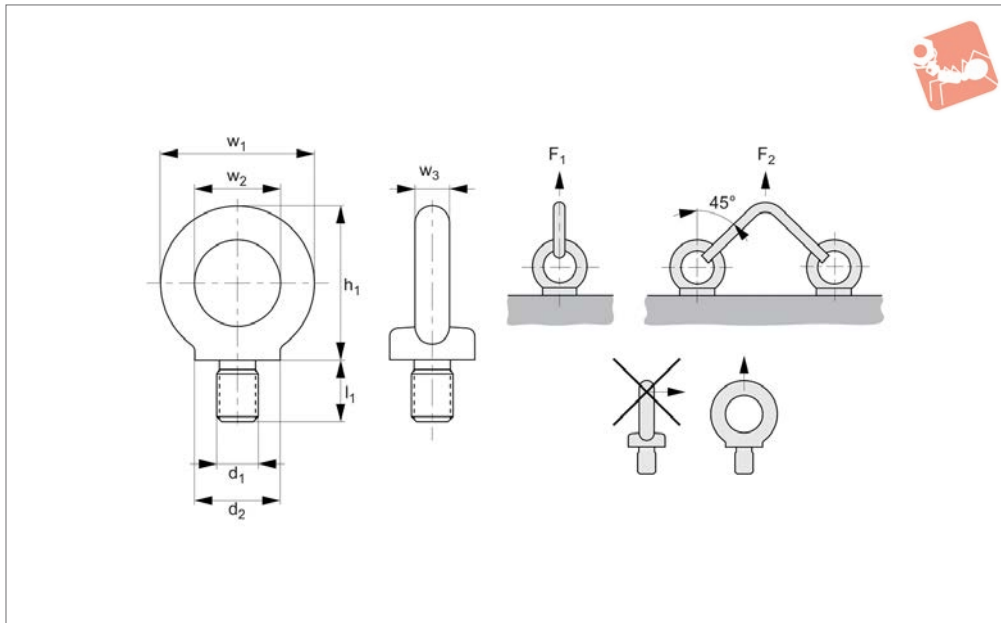




Steel Male Lifting Eye Bolts

metric sizes

Lifting Eye Bolts & Nuts



18863

LIFTING EYE BOLTS & NUTS

Material

Forged steel (C15E) annealed and zinc plated. Contact face machined. CE marked.

Technical Notes

To DIN 580.
When using lifting eye bolts it is critical to ensure that the face is in firm contact with the mating surface.
These lifting bolts are generally installed and remain on a piece of equipment for the

purpose of transporting them. They are not for repeated lifting use - if this is required our swivelling lifting bolt range should be used.

Tips

Maximum load values are only applicable when the thread is fully screwed in, and the material it is being used in is as least as strong as the that of the bolt.
Temperature range -20°C to +200°C.

F_1 and F_2 values given are for steel and cast iron components.

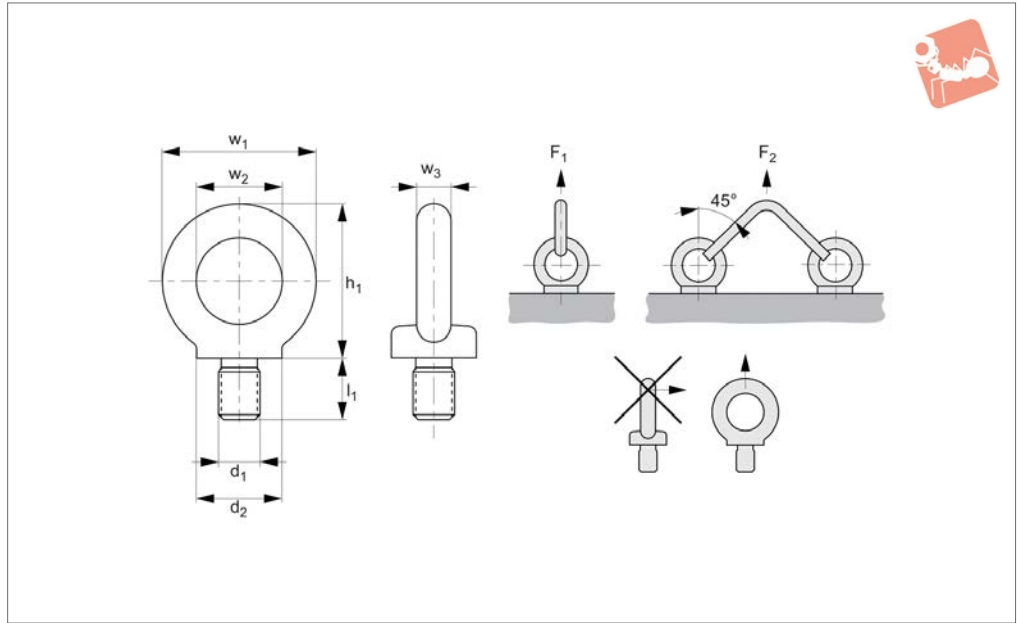
Important Notes

Not to be used at lift angles of greater than 45° or with swivelling loads.
Please refer to the safety documentation before using this part.
Supplied with certificate and operating instructions.

Order No.	Thread	d ₁	d ₂	w ₁	l ₁	h ₁	w ₂	w ₃	F ₁ kg max.	F ₂ kg max.	Weight kg
18863.W0006	Coarse	M 6	20	36	13.0	36	20	8	70	50	0.05
18863.W0008	Coarse	M 8	20	36	13.0	36	20	8	140	95	0.06
18863.W0010	Coarse	M10	25	45	17.0	45	25	10	230	170	0.11
18863.W0012	Coarse	M12	30	54	20.5	53	30	12	340	240	0.18
18863.W0016	Coarse	M16	35	63	27.0	62	35	14	700	500	0.28
18863.W0020	Coarse	M20	40	72	30.0	71	40	16	1200	830	0.45
18863.W0024	Coarse	M24	50	90	36.0	90	50	20	1800	1270	0.74
18863.W0030	Coarse	M30	65	108	45.0	109	60	24	3200	2300	1.66
18863.W0036	Coarse	M36	75	126	54.0	128	70	28	4600	3300	2.65
18863.W0042	Coarse	M42	85	144	63.0	147	80	32	6300	4500	4.03
18863.W0048	Coarse	M48	100	166	68.0	168	90	38	8600	6100	6.38
18863.W0056	Coarse	M56	110	184	78.0	187	100	42	11500	8200	8.80
18863.W5012	Fine	M12 x 1,5	30	54	20.5	53	30	12	340	240	0.18
18863.W5016	Fine	M16 x 1,5	35	63	27.0	62	35	14	700	500	0.28
18863.W5020	Fine	M20 x 2,0	40	72	30.0	71	40	16	1200	830	0.45
18863.W5024	Fine	M24 x 2,0	50	90	36.0	90	50	20	1800	1270	0.74
18863.W5030	Fine	M30 x 2,0	65	108	45.0	109	60	24	3600	2600	1.66
18863.W5036	Fine	M36 x 3,0	75	126	54.0	128	70	28	5100	3700	2.58
18863.W5042	Fine	M42 x 3,0	85	144	63.0	147	80	32	7000	5000	3.95
18863.W5048	Fine	M48 x 3,0	100	166	68.0	168	90	38	8600	6100	6.38
18863.W5056	Fine	M56 x 4,0	110	184	78.0	187	100	42	11500	8300	8.48



18866



Material

Forged steel (C15E) annealed and zinc-plated (-ZP). Contact face machined. CE marked.

Hot dipped galvanised versions (for more demanding applications and limited outside use) also available on request, suffix changes to -GV.

Technical Notes

To DIN 580.

When using lifting eye bolts it is critical to ensure that the face is in firm contact with

the mating surface.

These lifting bolts are generally installed and remain on a piece of equipment for the purpose of transporting them. They are not for repeated lifting use - if this is required our swivelling lifting bolt range should be used.

Tips

Maximum load values are only applicable when the thread and the material, it is being used in is as least as strong as the

that of the bolt.

F_1 and F_2 values given are for steel and cast iron components.

Important Notes

Not to be used at lift angles of greater than 45° or with swivelling loads.

Please refer to the safety documentation before using this part.

Supplied with certificate and operating instructions.

Order No.	d_1	Thread type	d_2	w_1	l_1	h_1	w_2	w_3	F_1 kg max.	F_2 kg max.	Weight kg
18866.W0025	1/4"-20	UNC	20	36	13.0	36	20	8	70	50	0.06
18866.W0038	3/8"-16	UNC	25	45	17.0	45	25	10	230	170	0.11
18866.W0050	1/2"-12	UNC	30	54	20.5	53	30	12	340	240	0.18
18866.W0063	5/8"-11	UNC	35	63	27.0	62	35	14	700	500	0.28
18866.W0075	3/4"-10	UNC	40	72	30.0	71	40	16	1200	830	0.45
18866.W0088	7/8"-9	UNC	50	90	36.0	90	50	20	1500	1050	0.74
18866.W0100	1"-8	UNC	50	90	36.0	90	50	20	1800	1270	0.74
18866.W0112	1-1/8"-7	UNC	65	108	45.0	109	60	24	2500	1650	1.66
18866.W0125	1-1/4"-7	UNC	75	126	54.0	128	70	28	4300	3200	2.65
18866.W0150	1-1/2"-6	UNC	85	144	63.0	147	80	32	6100	4300	4.03
18866.W0200	2"	UNC	100	166	68.0	168	90	38	9900	7300	6.38
18866.W0250	2-1/2"	UNC	120	206	90.0	208	110	48	16000	11000	12.40

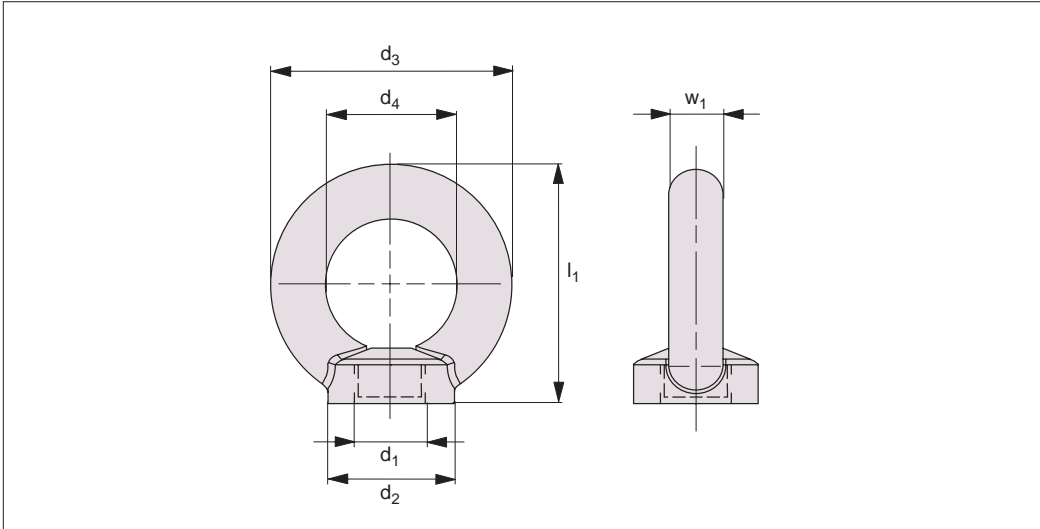


DIN 580 Lifting Eye Bolts

mounting information & instructions

18843 -18866
Clamping & Height Setting

Important Note: DIN 580 lifting eye bolts are mainly intended for permanent mounting to components such as motors, switchgear cabinets and gears, and for transporting these items of equipment. Please take care to take particular note of the following advice.



- 1) To be used by authorised, qualified and instructed personnel. Lifting eye bolts must be marked permanently raised with manufacturer's mark, material ID (e.g. C15E, A2 or A4), load-bearing capacity and axial direction (WLL in kg, see also Table/ F in N), and with CE symbol.
- 2) Check the lifting points for proper bolt seat, corrosion, wear and tear, deformation, etc. at regular intervals and before every use.
- 3) Select the lifting point such that the introduced forces are absorbed by the base material without any deformation. Screw-in depth for steel with a tensile strength of $R_m > 340 \text{ N/mm}^2$, e.g. S235JR (1.0037); or GG25 (0.6025 - without cavities or shrinkage): $1.5 \times \text{thread size } d_1 (=L)$. For screw-in material with lower strength, use lifting points with greater screw-in length. Minimum screw-in depths recommended: $2 \times \text{thread size } d_1$ in aluminium alloys, $2.5 \times \text{thread size } d_1$ in light metal with low strength. For light materials, non-ferrous metals and grey cast iron, select the thread such that the load-bearing capacity of the thread corresponds with the requirements involving the base material. For through-holes, a nut ($0.8 \times d$) should be fully and firmly bolted from the opposite side. If the thread length of the screw is sufficient, the use of an additional washer is recommended.
- 4) Select the position of the fixing points to avoid swivel or load shifts.
 - a.) Arrange the lifting point for a single strand sling perpendicular above the load centre.
 - b.) Arrange the lifting points for a twin strand sling to ensure both sides are above the load centre. Caution: Avoid turning or rotating movements during transport!
 - c.) Position the eye bolt such that no shear tension acts on the eye bolt (illustration below, incorrect use). The introduced force must act in the direction of the eye bolt plane (illustration right, correct use).

