YOKE WELD-ON LOAD RING WARNING AND APPLICATION INSTRUCTIONS



8-082

WARNING

- · Loads may disengage from link if proper welding, assembly, and lifting procedures are not used.
- · A falling load may cause serious injury or death.
- Do not use with damaged slings or chain. For sling inspection criteria see ASME B30.9.
- Read and understand these instructions before welding on, or using the load ring.

Important Safety Information - Read and Follow

- # Use weld-on load ring only with ferrous metal (steel) work piece. Always make sure the weld-on load ring and mounting surface is free of dirt or contaminants before installation.
- # Attach lifting device ensuring free movement of weld-on lifting point bail (Figure 1).
- # Apply partial load and check proper alignment. There should be no interference between load (work piece) and weld-on load ring (Figure 2).
- # Always ensure free movement of bail. The bail should pivot 180 degrees (Figure 4).
- ** Never repair, alter, rework or reshape the load ring bail by welding, heating, burning or bending.

Weld-on Load Ring Welding Guidelines

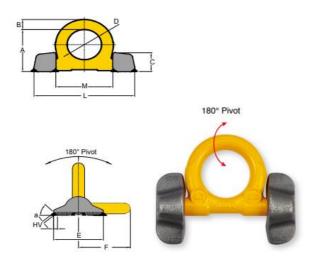
1 Welding is to be performed by a qualified welder using a qualified procedure in accordance with American Welding Society and/or American Society of Mechanical Engineers requirements. Always follow your country or local mandatory regulations or codes.

International Standard	European Standard	European Standard	American Standard
ISO 2560	DIN EN 499	BS EN 499	AWS A 5.1 E7018

- The following welding recommendations should be included in the qualified procedure for welding to low or medium carbon plate steel. For welding to other grades of steel, a qualified weld procedure must be developed.
 - A. Before welding, all weld surfaces must be clean and free from rust, grease, paint, slag and any other contaminants.
 - B. Fillet weld leg size should be minimum shown in Table 1. Weld profiles to be in accordance with AWS. Weld size is measured by length of leg.

- C. Welding should be carried out in a minimum of two passes to ensure adequate root penetration at the base of the load ring.
- D. Do not weld close to the bail. After welding, ensure bail pivots full 180° without interfering with the weld.
- E. Do not rapidly cool the weld.
- F. The ends of the weld must be ground sufficiently so that the weld-on load ring will fit flush against the mounting surface.

Table 1



Working											
Working Load Limit	Dimensions (mm)									N.W.	
tonnes	Α	В	C	D	Ε	F	L	М	HV	a	kg
4	66	14	30	48	65	70	135	76	5	3	0.6
6.7	85	20	39	60	89	91	171	98	5	3	1.5
10	95	21	46	65	100	100	196	106	7	4	2.4
16	127	30	57	90	130	136	263	149	8	4	5.5
31.5	178	42	78	130	160	160	375	213	15	4	15.8
	tonnes 4 6.7 10 16	Load Limit tonnes A 4 66 6.7 85 10 95 16 127	Load Limit tonnes A B 4 66 14 6.7 85 20 10 95 21 16 127 30	Load Limit tonnes A B C 4 66 14 30 6.7 85 20 39 10 95 21 46 16 127 30 57	Load Limit tonnes A B C D 4 66 14 30 48 6.7 85 20 39 60 10 95 21 46 65 16 127 30 57 90	tonnes A B C D E 4 66 14 30 48 65 6.7 85 20 39 60 89 10 95 21 46 65 100 16 127 30 57 90 130	Dimensions (m) tonnes A B C D E F 4 66 14 30 48 65 70 6.7 85 20 39 60 89 91 10 95 21 46 65 100 100 16 127 30 57 90 130 136	Load Limit Dimensions (mm) tonnes A B C D E F L 4 66 14 30 48 65 70 135 6.7 85 20 39 60 89 91 171 10 95 21 46 65 100 100 196 16 127 30 57 90 130 136 263	Load Limit Dimensions (mm) tonnes A B C D E F L M 4 66 14 30 48 65 70 135 76 6.7 85 20 39 60 89 91 171 98 10 95 21 46 65 100 100 196 106 16 127 30 57 90 130 136 263 149	Load Limit Dimensions (mm) tonnes A B C D E F L M HV 4 66 14 30 48 65 70 135 76 5 6.7 85 20 39 60 89 91 171 98 5 10 95 21 46 65 100 100 196 106 7 16 127 30 57 90 130 136 263 149 8	Load Limit Dimensions (mm) tonnes A B C D E F L M HV a 4 66 14 30 48 65 70 135 76 5 3 6.7 85 20 39 60 89 91 171 98 5 3 10 95 21 46 65 100 100 196 106 7 4 16 127 30 57 90 130 136 263 149 8 4

^{*} Design factor 4:1

Weld-on Load Ring Inspection / Maintenance

- **M** Never exceed the capacity (WLL) of the weld-on load ring (Table 1).
- ** Never apply load except in line with the pivot direction (Figure 4).
- **X** Always inspect weld-on load ring before use.
- Regularly inspect weld-on load ring parts (Figure 3). Never use weld-on load ring that shows signs of corrosion, wear or damage.
- # Always make sure there are no spacers used between weld-on load ring and the mounting surface.
- **X** A visual periodic inspection of the weld should be performed. Check the weld visually, or use a suitable NDE method if required.

^{**} Designed to be used with ferrous work piece only.

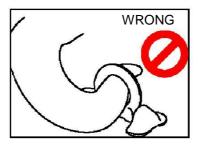


Figure 1

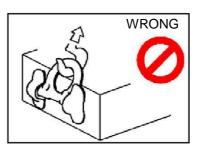


Figure 2

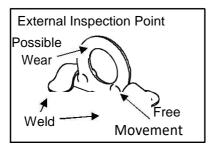


Figure 3

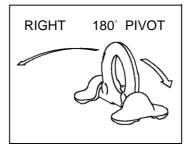
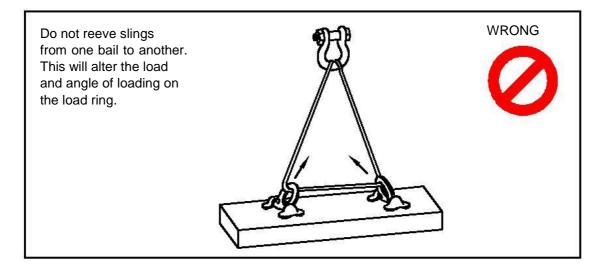
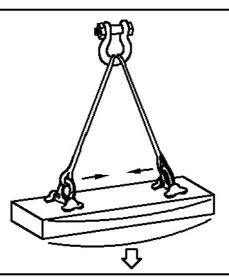


Figure 4



After slings have been properly attached to the lifting point, apply force slowly. Watch the load and be prepared to stop applying force if the load starts buckling.



Buckling may occur if the load is not stiff enough to resist the compressive force which results from the angular loading.