



# Excavator Weld-on Hook Welding Instructions

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**The welding should only be carried out by qualified welder according to Standards, e.g. EN 287 or AWS.**

### Support material

- The support material ST 52-3.
- Prior to welding, the contact areas must be free from impurities, oil, paint, rust, scale, etc., for example by grinding. If the surface is at all corroded, all rust must be completely removed from the weld area. Painted surface must be prepared in the same way.
- The steel support member must have a carbon content of no less than 0.25% and no more than 0.40%.
- The hook must be positioned that the weld is loaded only in shear. No bending moment can be permitted on weld seam.
- In ambient temperature of 10°C and below, pre-heating of the weld area prior to welding must be carried out.

### Seam welding

- The welds must be sufficiently strong to take the required loads.
- A minimum weld-seam width must be maintained to give adequate weld strength (see table)
- The gauging points on the supports guarantee the gap necessary for the root pass (approx. 3mm)
- Start both, the root pass and final weld pass from the centre of the support to be welded.
- Before starting the final weld pass, clean well the root pass to avoid inclusions.
- The complete welding operation must be carried out continuously so that the parts do not have time to cool.

### Welding procedure and metal composition

#### MIG arc welding:

Wire diameter 0.8 - 1.2 as per DIN 8559-SG 3.  
Important: do not weld in the open air during bad weather

Manual electric:

Direct current supply welding:

Electrodes according to EN ISO 2560-A - E 42 6 B 3 2, AWS A 5.5 : E 8018-G.

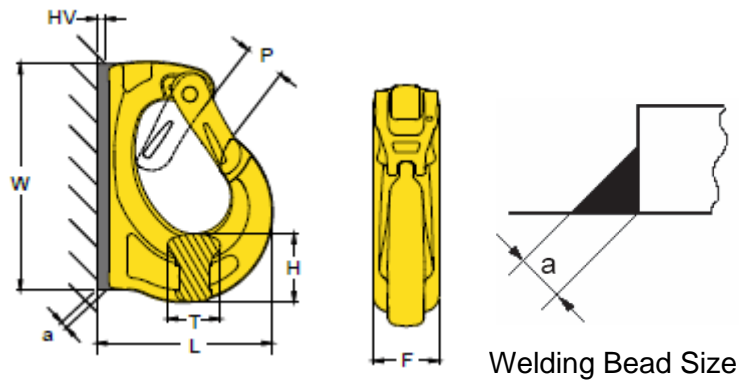
Electrode: root pass and final weld pass, type E5154 B10 as per DIN 1913, used in accordance with the manufacturers.

Alternating current supply welding:

Electrode as per DIN 1913, modified for alternating current use.

HV welding and final weld pass, type E5155 B10.

**Specifications:**



Item No.	Working Load Limit									N.W. kg	
	tonnes		F	H	L	P	T	W	HV		a
8-081-01	1.0		25	27	70	18	18	95	7	4	0.6
8-081-02	2.0		30	30	85	25	20	115	8	5	1.0
8-081-03	3.0		35	30	107	28	23	133	9	6	1.4
8-081-04	4.0		42	38	114	28	30	142	10	7	2.2
8-081-05	5.0		44	47	135	30	31	167	12	7	3.0
8-081-08	8.0		50	52	137	32	39	176	12	8	3.7
8-081-10	10.0		56	56	170	44	42	222	13	8	6.2
8-081-15	15.0		61	67	184	54	45	242	14	10	7.9

\* Design factor 5:1  
YOKE recommends that the working load limit should be reduced to meet any appropriate legislative requirements, if welding on to an excavator. Please contact your YOKE distributors for further information.

## Mounting and Application Instruction

1. This welding hook may be mounted only when the relevant standards and security regulation for the application range (construction machines, loaders, cranes, traverses and so on. See the example in Fig. 2) permit.
2. The hook should be mounted on a easy accessible place to ensure a secure operation. (No risk of getting squeezed or cut)
3. It may not happen that the load holding agents are locked or damaged during the lifting operation.
4. The safe load capacity of each hook may not be exceeded in any case. See Fig. 3 for the main loading range. The safe operation temperature is between  $-40^{\circ}\text{C}$  and  $+200^{\circ}\text{C}$ .
5. Without the approval of the manufacturer the hook may not be used together with acid.
6. Reparation of the hook is permissible only under the condition that the original spare parts will be used. Welding, except on the provided welding plate, is not permissible.
7. Avoid to load the security device of the hook or to pull at draft angle.
8. The usage of the attached hook must be confirmed through an expert evaluation. The manual of the equipment / construction machine must be supplemented with the technical data of the hook.
9. According to UVV regular checks are necessary. (The crucial checking points include damages, wear, corrosion, notches, cracks, missing security flaps, etc..) Damaged hooks basically should be exchanged.

Fig: 2

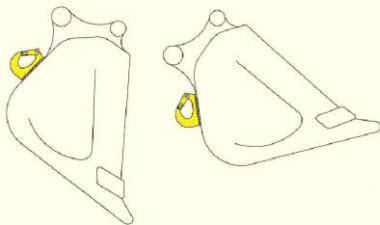


Fig: 3

