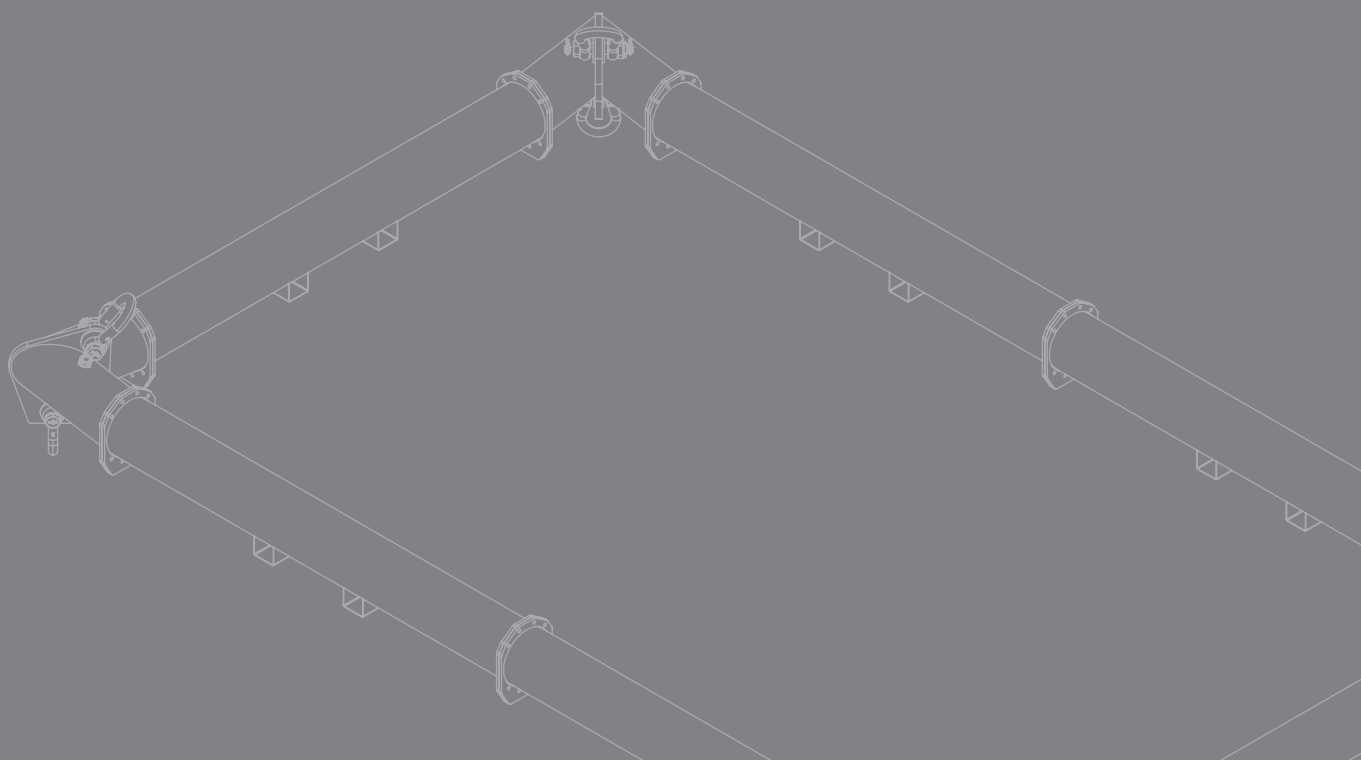




HI SB 070

Modular spreader frame
User Manual

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User Manual



Introduction

The HI SB 070 is a spreader frame designed for carrying loads. The HI SB 070 may only be assembled and used by suitably skilled staff. This user manual tells you the correct way to assemble the HI SB 070 in the desired configuration and how you can use it safely. Always keep this user manual in a safe place near the HI SB 070.

Product Description

The HI SB 070 has a modular construction and it comprises a set of corner pieces, associated shackles and various struts. The lengths of the struts vary from half a meter to six metres. See Figure 1, Figure 2 and Table 1 for more information about the various parts.

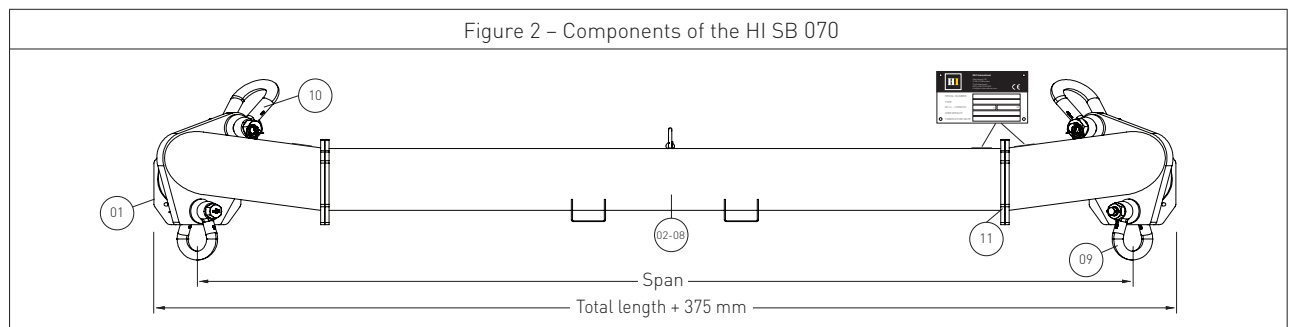
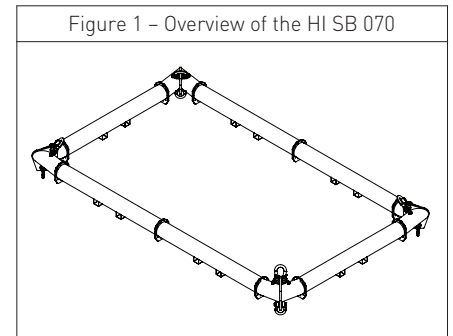


Table 1 - Components	#	Type	Description	Specifications	Weight (kg)	Qty
	01	HI SB 070 01	HI Corner section	0,50m	160	4
	02	HI SB 070 05	HI Strut	0,50m	50	*
	03	HI SB 070 10	HI Strut	1m	75	*
	04	HI SB 070 20	HI Strut	2m	134	*
	05	HI SB 070 30	HI Strut	3m	184	*
	06	HI SB 070 40	HI Strut	4m	233	*
	07	HI SB 070 50	HI Strut	5m	282	*
	08	HI SB 070 60	HI Strut	6m	332	*
	09	G-4163	Green Pin shackle	WLL 25t	14	4
	10	G-4163	Green Pin shackle	WLL 35t	18,8	4
	11	Grade 8.8	Bolts, Nuts and Washers	M20x70	6 pcs per connection	

*Depending on the configuration.



Safety Instructions

- Use the hoisting eyes at the tops of the strut or corner section only for moving a single component.
- Never use the HI SB 070 if the information on the documents supplied with it does not match the data on the identification plate.
- Never exceed the working load limit. See Table 2 and Table 3 for additional information.
- Never use less than the mandatory minimum sling length. See Table 4 for more information.
- Never use the HI SB 070 if the angle of the lower slings is more than 6 degrees from perpendicular.
- Always use suitable and certified slings.
- Use ropes to guide the load while it is being moved.
- Never use the HI SB 070 for lifting people.
- Never use the HI SB 070 if the annual inspection has not taken place or if it has expired. Make sure that the HI SB 070 is inspected and declared to be safe at least annually by a certified inspector of hoisting equipment.
- Never make alterations to the HI SB 070. Modifications can have consequences for safety.
- Never suspend loads from the struts or the flanges of the HI SB 070.
- Observe the locally applicable legislation and regulations about the use of the crane from which the HI SB 070 is suspended.



Assembly

1. Lay out the struts with the longest strut in the middle in the desired configuration on a flat and clean surface.
2. Connect up each flange using 6 pcs. M20x70 8.8 bolts, nuts and washers.
3. Tighten the bolts in stages, using a diagonal pattern. See Figure 3 for additional information. Use the tightening torques
 - Step 1: 50 per cent, i.e. 70 Nm
 - Step 2: 80 per cent, i.e. 120 Nm
 - Step 3: 100 per cent, i.e. 150 Nm
4. Fit the Green Pin shackle (G-4163), WLL 35 tons, in the top hole in each corner section.
5. Use the sling to attach the HI SB 070 to the crane hook. When doing so, take account of the desired vertex angle, the sling length and the size of the load. See Figure 4 and Table 4 for more information.
6. Fit the Green Pin shackle (G-4163), WLL 25 tons, in the bottom hole in each corner section.
7. Get the HI SB 070 checked before use by a suitably competent member of staff or an external specialist.

Table 2 – Working load - $\beta = 60^\circ$ - WLL = tons*																33
16																63
15																44
14															80	76
13														80	80	80
12													80	80	80	80
11												80	80	80	80	80
10											80	80	80	80	80	80
9										80	80	80	80	80	80	80
8									80	80	80	80	80	80	80	58
7								80	80	80	80	80	80	80	80	44
6							80	80	80	80	80	80	80	77	68	37
5						80	80	80	80	80	80	80	75	69	64	32
4					80	80	80	80	80	80	71	65	60	57	54	29
3				80	80	80	80	75	66	60	55	52	50	48	46	27
2			80	80	80	66	57	52	48	46	44	42	41	40	39	26
1	80	66	48	42	39	37	36	35	35	34	33	33	33	32	32	24
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Table 3 – Working load - $\beta = 90^\circ$ - WLL = tons*																44
16																
15																76
14															76	58
13															77	45
12														77	77	64
11													77	77	75	51
10													77	77	77	66
9													77	77	77	71
8													78	77	77	75
7													78	78	77	74
6													78	78	76	73
5													78	78	75	72
4													78	78	74	71
3													79	76	72	69
2													79	73	65	47
1	79	44	31	27	25	24	23	22	22	21	21	21	21	20	20	13
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

*Other configurations are possible (see data sheet).

Table 4 – Top sling - $\beta = 60^\circ$ - In metres*																21,9
16																20,5
15																19,1
14																19,8
13																18,4
12																17,7
11																16,3
10																15,6
9																14,8
8																13,4
7																12,7
6																11,3
5																10,6
4																9,2
3																8,5
2																7,8
1																6,4
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Figure 3 – Pattern for tightening the bolts diagonally

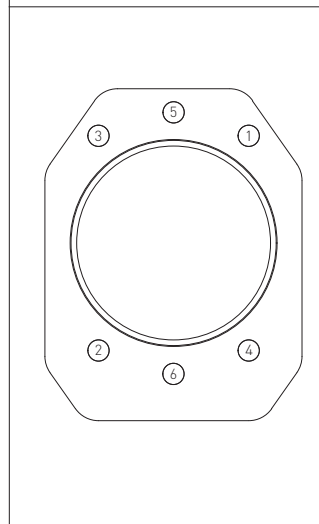
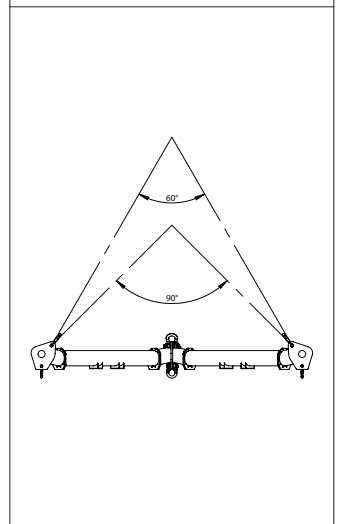
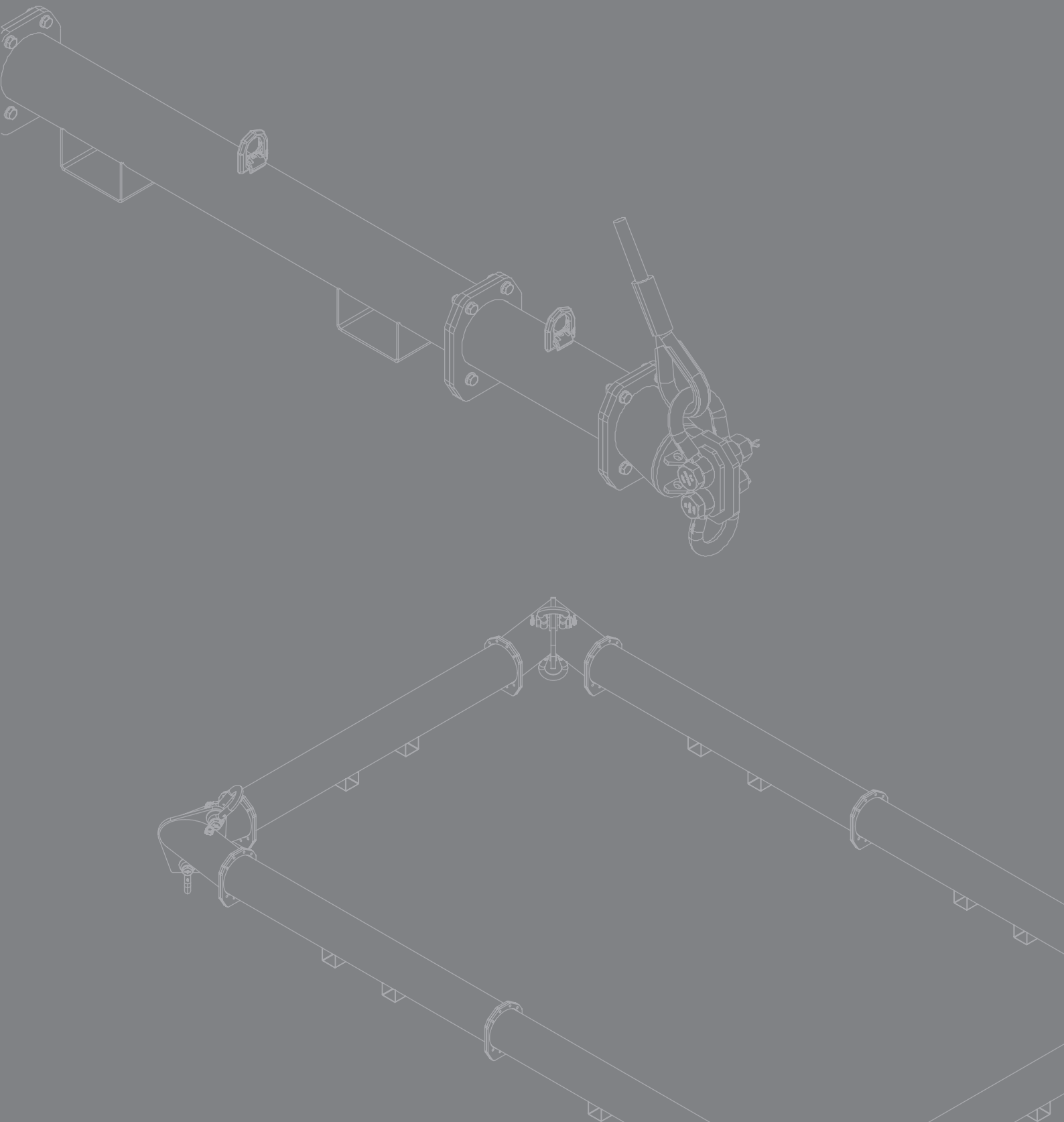


Figure 4 – Desired vertex angle for the sling



*When using $\beta = 90^\circ$, multiply the stated sling length by 0.707



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