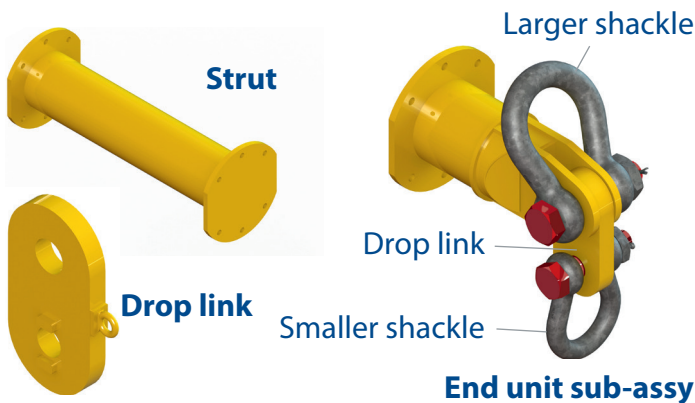
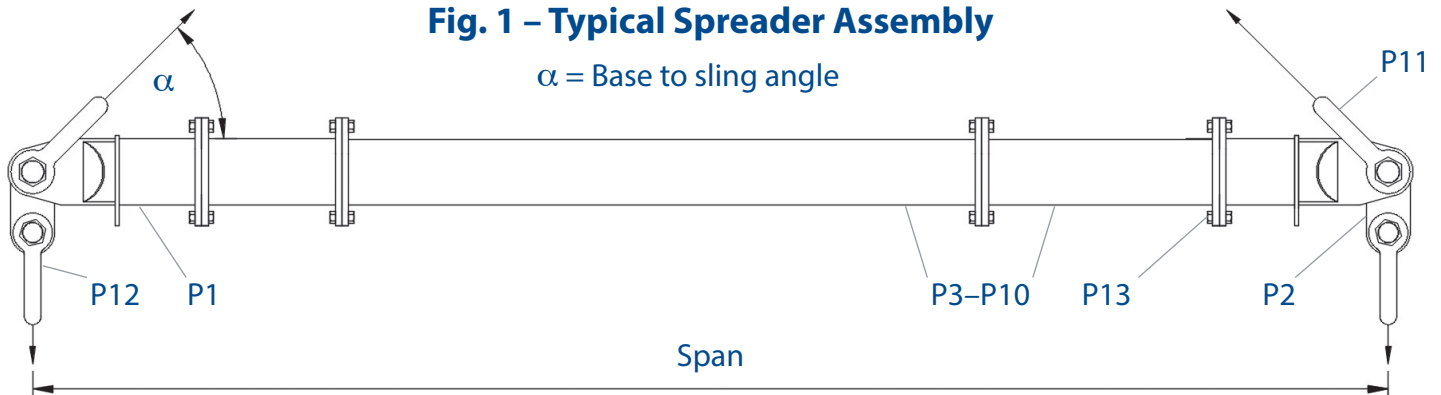


# User Instructions MOD 110SH

**Modulift**<sup>®</sup>  
working between the hook and the load

The Modulift Spreader is modular in length, and every spreader consists of 1 pair of End Units and Drop Links, with intermediate struts that can be bolted into the assembly to achieve different spans. MOD 110SH has an assembled span ranging from 6ft to 55ft in 1ft increments.

**Fig. 1 – Typical Spreader Assembly**



**Table 1 – Component List**

Part Ref.	Description	Weight/item
P1	End Unit	408 lbs
P2	Drop Link	198 lbs
P3	20ft Strut	1425 lbs
P4	12ft Strut	910 lbs
P5	10ft Strut	780 lbs
P6	8ft Strut	645 lbs
P7	6ft Strut	520 lbs
P8	4ft Strut	398 lbs
P9	2ft Strut	258 lbs
P10	1ft Strut	198 lbs
P11	150t Shackle	353 lbs
P12	120t Shackle	243 lbs
P13	M20 x 65 Grade 8.8 HT Bolts, Nuts & Washers	

## MOD 110SH Beam Specification

- Rated at 240 tonnes SWL at 28ft span (60° BSA). See Load Table for SWL at longer spans.
- 'Base to Sling' angle,  $\alpha$ , 45 degrees or more.
- End Units & Drop Links are rated at 120 tonnes WLL each (240 tonnes combined capacity).
- **Bolt tightening torque: 110 Pound-Foot.** Spanner size required: 30mm.
- Recommended additional equipment: Torque Wrench, Podger Spanner and Ring Spanner.

## **WARNING!**

- Personnel using this system should be suitably trained, competent and have a clear understanding of Safe Slings procedures.
- The use of Modulift equipment must be in accordance with the procedures laid down in 'ASME B30.20 - 2013'.
- **Never exceed stated SWL** – Adhere to SWL in **Table 2** for particular sling angle used.
- **The top sling length is critical to the safe use of the spreader** – Adhere to **Table 2**.
- Ensure Drop Links hang down, and smaller shackles are connected to bottom hole of Drop Link.
- Do not under any circumstances hang load(s) from the tube or flanges – the spreader is designed for axial compression, not bending.

# User Instructions MOD 110SH

## Assembly Procedure

- Check the ID plates on each Modulift component to ensure the correct size is used.
- Lay out the Struts and End Units in the correct configuration (see **Table 2**), laid on flats to prevent rolling.
- Check that all pairs of flanges are clear from debris, sand etc. before connection.
- Bolt the components together using bolts, nuts & washers provided. Tighten the bolts to a torque as shown overleaf, 6 bolts per connection. The number and grade of bolts is critical for the safe use of the spreader particularly at longer spans.
- Place drop link inside the jaw of an end unit, with the larger hole of drop link lined up with the End Unit hole.
- Place a top sling onto the body of a top shackle, and put jaw of top shackle over the end unit jaw.
- Put top shackle pin through shackle, end unit jaw and drop link, and repeat for other spreader beam end.
- Attach free ends of top slings to crane hook.
- Attach lower slings and shackles to lower holes of drop links, and attach them to the load to be lifted.
- The assembled spreader beam and lifting rig must be thoroughly checked by a competent person prior to lifting.

## Do's & Don'ts

- Do ensure to load the spreader through the drop links only. i.e. adhere to **Fig. 1**.
- Do keep the loaded spreader clear of obstacles – any contact could cause beam failure.
- Do ensure correct use of appropriate top slings, do not twist any slings unnecessarily.
- Do not hang any load from the spreader tube or flanges.
- Do not exceed stated SWL for that particular span – adhere to **Table 2**.
- Do not rig the lower slings more than 6 degrees from vertical.
- When moving or positioning long struts or assemblies use tag lines to control movement.
- Individual components can be heavy and extreme care must be taken if manual handling.

## Recommended top sling types:

Textile slings, wire rope slings with soft eyes and chain slings with small end fittings. If thimble eyes are used with wire rope slings, make sure sling angle is 60 degrees or more. Other types exist but not all are suitable due to end fitting size, particularly larger capacity chain hook and thimble eyes.

**Note:** Lengthening the slings can give greater clearance. Refer to Modulift supplier if in doubt.

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Should you find your equipment is no longer of use, please dispose of in a responsible manner. Please contact Modulift if you need further guidance



### Table 2 – Load v Span

Span (ft)	Base to Sling Angle (BSA) α						Recommended Configuration							
	45°		60°		70°		EU - End Unit (3ft)							
	SWL metric tons (tonnes)	Min.top sling length (ft in)	SWL metric tons (tonnes)	Min.top sling length (ft in)	SWL metric tons (tonnes)	Min.top sling length (ft in)								
6	185	2' 10"	240	4' 6"	240	7' 4"	EU	EU						
7	185	3' 6"	240	5' 6"	240	8' 10"	EU	1	EU					
8	185	4' 2"	240	6' 6"	240	10' 2"	EU	2	EU					
9	185	4' 11"	240	7' 6"	240	11' 8"	EU	2	1	EU				
10	185	5' 7"	240	8' 6"	240	13' 2"	EU	4	EU					
11	185	6' 4"	240	9' 6"	240	14' 7"	EU	4	1	EU				
12	185	7' 0"	240	10' 6"	240	16' 1"	EU	6	EU					
13	185	7' 8"	240	11' 6"	240	17' 6"	EU	6	1	EU				
14	185	8' 5"	240	12' 6"	240	19' 0"	EU	6	2	EU				
15	185	9' 1"	240	13' 6"	240	20' 6"	EU	2	6	1	EU			
16	185	9' 10"	240	14' 6"	240	21' 11"	EU	6	6	EU				
17	185	10' 7"	240	15' 6"	240	23' 5"	EU	1	6	4	EU			
18	185	11' 4"	240	16' 6"	240	24' 10"	EU	12	EU					
19	185	12' 0"	240	17' 6"	240	26' 4"	EU	12	1	EU				
20	185	12' 8"	240	18' 6"	240	27' 10"	EU	12	2	EU				
21	185	13' 5"	240	19' 6"	240	29' 2"	EU	2	12	1	EU			
22	185	14' 1"	240	20' 6"	240	30' 8"	EU	12	4	EU				
23	183	14' 10"	240	21' 6"	240	32' 2"	EU	4	12	1	EU			
24	176	15' 6"	240	22' 6"	240	33' 7"	EU	12	6	EU				
25	167	16' 2"	240	23' 6"	240	35' 1"	EU	6	12	1	EU			
26	159	16' 11"	240	24' 6"	240	36' 6"	EU	6	12	2	EU			
27	149	17' 7"	240	25' 6"	240	38' 0"	EU	6	12	2	1	EU		
28	142	18' 4"	240	26' 6"	240	39' 6"	EU	6	12	4	EU			
29	133	19' 0"	232	27' 6"	240	40' 11"	EU	6	12	4	1	EU		
30	127	19' 8"	221	28' 6"	240	42' 5"	EU	12	12	EU				
31	119	20' 6"	207	29' 6"	240	43' 11"	EU	12	12	1	EU			
32	112	21' 2"	195	30' 6"	240	45' 4"	EU	12	12	2	EU			
33	104	21' 11"	182	31' 6"	240	46' 10"	EU	2	12	12	1	EU		
34	98	22' 7"	171	32' 6"	240	48' 2"	EU	12	12	4	EU			
35	91	23' 4"	159	33' 6"	240	49' 8"	EU	4	12	12	1	EU		
36	86	24' 0"	150	34' 6"	239	51' 2"	EU	6	12	12	EU			
37	80	24' 8"	139	35' 6"	222	52' 7"	EU	6	12	12	1	EU		
38	74	25' 5"	130	36' 6"	207	54' 1"	EU	6	12	12	2	EU		
39	69	26' 1"	120	37' 6"	192	55' 6"	EU	2	12	12	6	1	EU	
40	64	26' 10"	113	38' 6"	180	57' 0"	EU	6	12	12	4	EU		
41	59	27' 6"	105	39' 6"	167	58' 6"	EU	6	12	12	4	1	EU	
42	57	28' 2"	100	40' 6"	159	59' 11"	EU	12	12	12	EU			
43	53	28' 11"	93	41' 6"	148	61' 5"	EU	12	12	12	1	EU		
44	49	29' 7"	87	42' 6"	139	62' 11"	EU	12	12	12	2	EU		
45	46	30' 5"	81	43' 6"	129	64' 4"	EU	2	12	12	12	1	EU	
46	43	31' 1"	76	44' 6"	122	65' 10"	EU	4	12	12	12	EU		
47	40	31' 10"	71	45' 6"	114	67' 2"	EU	4	12	12	12	1	EU	
48	38	32' 6"	67	46' 6"	107	68' 8"	EU	12	12	12	6	EU		
49	35	33' 2"	62	47' 6"	100	70' 2"	EU	6	12	12	12	1	EU	
50	33	33' 11"	58	48' 6"	94	71' 7"	EU	6	12	12	12	2	EU	
51	30	34' 7"	54	49' 6"	87	73' 1"	EU	6	12	12	12	2	1	EU
52	29	35' 4"	51	50' 6"	83	74' 7"	EU	6	12	12	12	4	EU	
53	26	36' 0"	48	51' 6"	77	76' 0"	EU	6	12	12	12	4	1	EU
54	25	36' 8"	45	52' 6"	73	77' 6"	EU	12	12	12	12	EU		
55	23	37' 5"	42	53' 6"	69	78' 11"	EU	12	12	12	12	1	EU	

## WARNING!

- The rigger must ensure that there is a clearance between the sling end fitting and the end unit as shown opposite.
- Max number of struts allowed in spreader assembly: 6
- Assemble longer struts in the centre of the spreader configuration.
- Sling angle is crucial to safe use of spreader.

