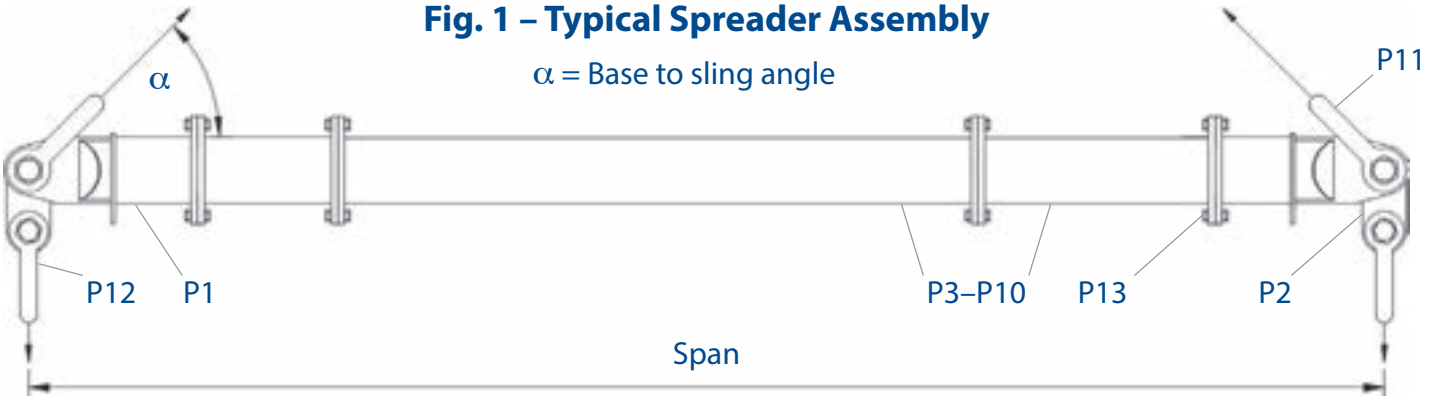
User Instructions
MOD 110H

Modulift®
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 110H has an assembled span ranging from 6ft to 59ft in 1ft increments.

Fig. 1 – Typical Spreader Assembly



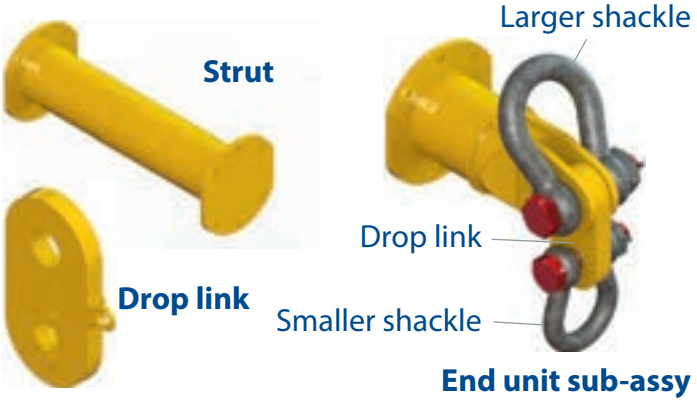


Table 1 – Component List

Part Ref.	Description	Weight/item
P1	End Unit	384 lbs
P2	Drop Link	171 lbs
P3	20ft Strut	1170 lbs
P4	12ft Strut	750 lbs
P5	10ft Strut	650 lbs
P6	8ft Strut	540 lbs
P7	6ft Strut	440 lbs
P8	4ft Strut	345 lbs
P9	2ft Strut	230 lbs
P10	1ft Strut	185 lbs
P11	120t Shackle	243 lbs
P12	85t Shackle	137 lbs
P13	M20 x 65 Grade 8.8 HT Bolts, Nuts & Washers	

MOD 110H Beam Specification

- Rated at 170 tonnes SWL at 30ft span (60° BSA). See Load Table for SWL at longer spans.
- 'Base to Sling' angle, α, 45 degrees or more.
- End Units & Drop Links are rated at 85 tonnes WLL each (170 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 Slinging 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.

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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.

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 45° SWL metric tons (tonnes)	45° Min.top sling length (ft in)	60° SWL metric tons (tonnes)	60° Min.top sling length (ft in)	70° SWL metric tons (tonnes)	70° Min.top sling length (ft in)	Recommended Configuration EU - End Unit (3ft)							
6	165	2'10"	170	4'7"	170	7'5"	EU	EU						
7	165	3'6"	170	5'7"	170	8'10"	EU	1	EU					
8	165	4'2"	170	6'7"	170	10'4"	EU	2	EU					
9	165	4'11"	170	7'7"	170	11'8"	EU	2	1	EU				
10	165	5'8"	170	8'7"	170	13'2"	EU	4	EU					
11	165	6'5"	170	9'7"	170	14'8"	EU	4	1	EU				
12	165	7'1"	170	10'7"	170	16'1"	EU	6	EU					
13	165	7'10"	170	11'7"	170	17'7"	EU	6	1	EU				
14	165	8'6"	170	12'7"	170	19'0"	EU	6	2	EU				
15	165	9'2"	170	13'7"	170	20'6"	EU	2	6	1	EU			
16	165	9'11"	170	14'7"	170	22'0"	EU	6	4	EU				
17	165	10'7"	170	15'7"	170	23'5"	EU	1	6	4	EU			
18	165	11'4"	170	16'7"	170	24'11"	EU	12	EU					
19	165	12'0"	170	17'7"	170	26'5"	EU	12	1	EU				
20	165	12'8"	170	18'7"	170	27'10"	EU	12	2	EU				
21	160	13'5"	170	19'7"	170	29'4"	EU	2	12	1	EU			
22	155	14'1"	170	20'7"	170	30'8"	EU	12	4	EU				
23	148	14'10"	170	21'7"	170	32'2"	EU	4	12	1	EU			
24	142	15'7"	170	22'7"	170	33'8"	EU	12	6	EU				
25	135	16'4"	170	23'7"	170	35'1"	EU	6	12	1	EU			
26	128	17'0"	170	24'7"	170	36'7"	EU	6	12	2	EU			
27	121	17'8"	170	25'7"	170	38'1"	EU	6	12	2	1	EU		
28	115	18'5"	170	26'7"	170	39'6"	EU	6	12	4	EU			
29	108	19'1"	170	27'7"	170	41'0"	EU	6	12	4	1	EU		
30	103	19'10"	170	28'7"	170	42'5"	EU	12	12	EU				
31	96	20'6"	168	29'7"	170	43'11"	EU	12	12	1	EU			
32	91	21'2"	158	30'7"	170	45'5"	EU	12	12	2	EU			
33	84	21'11"	147	31'7"	170	46'10"	EU	2	12	12	1	EU		
34	80	22'7"	139	32'7"	170	48'4"	EU	12	12	4	EU			
35	74	23'4"	129	33'7"	170	49'8"	EU	4	12	12	1	EU		
36	70	24'0"	122	34'7"	170	51'2"	EU	6	12	12	EU			
37	65	24'8"	113	35'7"	170	52'8"	EU	6	12	12	1	EU		
38	60	25'6"	106	36'7"	169	54'1"	EU	6	12	12	2	EU		
39	56	26'2"	98	37'7"	156	55'7"	EU	2	12	12	6	1	EU	
40	52	26'11"	92	38'7"	146	57'1"	EU	6	12	12	4	EU		
41	48	27'7"	85	39'7"	136	58'6"	EU	6	12	12	4	1	EU	
42	46	28'4"	81	40'7"	130	60'0"	EU	12	12	12	EU			
43	43	29'0"	75	41'7"	121	61'5"	EU	12	12	12	1	EU		
44	40	29'8"	70	42'7"	113	62'11"	EU	12	12	12	2	EU		
45	37	30'5"	65	43'7"	105	64'5"	EU	2	12	12	12	1	EU	
46	35	31'1"	62	44'7"	99	65'10"	EU	4	12	12	12	EU		
47	32	31'10"	57	45'7"	92	67'4"	EU	4	12	12	12	1	EU	
48	30	32'6"	54	46'7"	87	68'10"	EU	12	12	12	6	EU		
49	28	33'2"	50	47'7"	81	70'2"	EU	6	12	12	12	1	EU	
50	26	33'11"	47	48'7"	76	71'8"	EU	6	12	12	12	2	EU	
51	24	34'7"	44	49'7"	71	73'1"	EU	6	12	12	12	2	1	EU
52	23	35'5"	41	50'7"	67	74'7"	EU	6	12	12	12	4	EU	
53	21	36'1"	38	51'7"	62	76'1"	EU	6	12	12	12	4	1	EU
54	20	36'10"	37	52'7"	59	77'6"	EU	12	12	12	12	EU		
55	19	37'6"	34	53'7"	55	79'0"	EU	12	12	12	12	1	EU	
56	17	38'2"	32	54'7"	52	80'5"	EU	12	12	12	12	2	EU	
57	16	38'11"	30	55'7"	48	81'11"	EU	12	12	12	12	2	1	EU
58	15	39'7"	28	56'7"	46	83'5"	EU	12	12	12	12	4	EU	
59	14	40'4"	26	57'7"	42	84'10"	EU	12	12	12	12	4	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.