

User Instructions

MOD 250/250

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 250/250 has an assembled span ranging from 6ft to 68ft in 1ft increments.

Fig. 1 – Typical Spreader Assembly

α = Base to sling angle

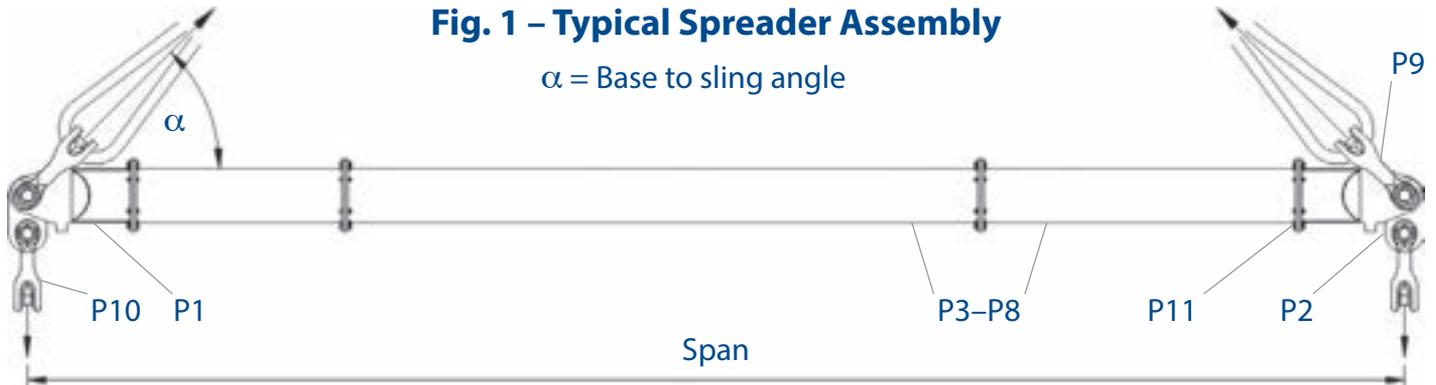


Table 1 – Component List

Part Ref.	Description	Weight/item
P1	End Unit	743 lbs
P2	Drop Link	198 lbs
P3	20ft Strut	1900 lbs
P4	10ft Strut	1087 lbs
P5	5ft Strut	680 lbs
P6	3ft Strut	518 lbs
P7	2ft Strut	436 lbs
P8	1ft Strut	355 lbs
P9	200t Wide Body Shackle	452 lbs
P10	125t Wide Body Shackle	203 lbs
P11	M24 x 80 Grade 8.8 HT Bolts, Nuts & Washers	

MOD 250/250 Beam Specification

- Rated at 250 tonnes SWL at 38ft 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 125 tonnes WLL each (250 tonnes combined capacity).
- **Bolt tightening torque: 184 Pound-Foot.** Spanner size required: 36mm.
- 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.

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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, 10 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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Table 2 – Load v Span

Span (ft)	Base to Sling Angle (BSA) α						Recommended Configuration 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	213	2' 6"	250	4' 4"	250	7' 1"	EU	EU					
8	213	4' 0"	250	6' 4"	250	10' 0"	EU	2	EU				
10	213	5' 5"	250	8' 4"	250	12' 11"	EU	3	1	EU			
12	213	6' 10"	250	10' 4"	250	15' 10"	EU	5	1	EU			
14	213	8' 2"	250	12' 4"	250	18' 10"	EU	5	3	EU			
16	213	9' 7"	250	14' 4"	250	21' 8"	EU	10	EU				
18	213	11' 0"	250	16' 4"	250	24' 7"	EU	10	2	EU			
20	213	12' 5"	250	18' 4"	250	27' 6"	EU	3	10	1	EU		
22	213	13' 11"	250	20' 4"	250	30' 6"	EU	5	10	1	EU		
24	213	15' 4"	250	22' 4"	250	33' 5"	EU	5	10	3	EU		
26	213	16' 8"	250	24' 4"	250	36' 4"	EU	10	10	EU			
28	213	18' 1"	250	26' 4"	250	39' 2"	EU	20	2	EU			
30	213	19' 6"	250	28' 4"	250	42' 2"	EU	3	20	1	EU		
32	200	20' 11"	250	30' 4"	250	45' 1"	EU	5	20	1	EU		
34	182	22' 4"	250	32' 4"	250	48' 0"	EU	5	20	3	EU		
36	167	23' 10"	250	34' 4"	250	50' 11"	EU	20	10	EU			
38	150	25' 2"	250	36' 4"	250	53' 11"	EU	10	20	2	EU		
40	134	26' 7"	234	38' 4"	250	56' 10"	EU	10	20	3	1	EU	
42	120	28' 0"	210	40' 4"	250	59' 8"	EU	10	20	5	1	EU	
44	107	29' 5"	188	42' 4"	250	62' 7"	EU	10	20	5	3	EU	
46	98	30' 10"	171	44' 4"	250	65' 6"	EU	20	20	EU			
48	86	32' 2"	152	46' 4"	242	68' 6"	EU	20	20	2	EU		
50	76	33' 8"	134	48' 4"	214	71' 5"	EU	3	20	20	1	EU	
52	67	35' 1"	119	50' 4"	191	74' 4"	EU	5	20	20	1	EU	
54	60	36' 6"	106	52' 4"	170	77' 2"	EU	5	20	20	3	EU	
56	54	37' 11"	96	54' 4"	154	80' 2"	EU	20	20	10	EU		
58	47	39' 4"	85	56' 4"	137	83' 1"	EU	10	20	20	2	EU	
60	42	40' 8"	75	58' 4"	121	86' 0"	EU	10	20	20	3	1	EU
62	37	42' 1"	67	60' 4"	108	88' 11"	EU	10	20	20	5	1	EU
64	32	43' 7"	59	62' 4"	96	91' 11"	EU	10	20	20	5	3	EU
66	29	45' 0"	53	64' 4"	87	94' 10"	EU	10	20	20	10	EU	
68	25	46' 5"	47	66' 4"	77	97' 8"	EU	10	20	20	10	2	EU

To calculate the SWL at intermediate spans utilising the 1ft strut, round up the span to the next longest span in Table 2, and use the stated SWL.

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.

