

User Instructions

MOD 250/300

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 250/300 has an assembled span ranging from 6ft to 68ft in 1ft increments.

Fig. 1 – Typical Spreader Assembly

α = Base to sling angle

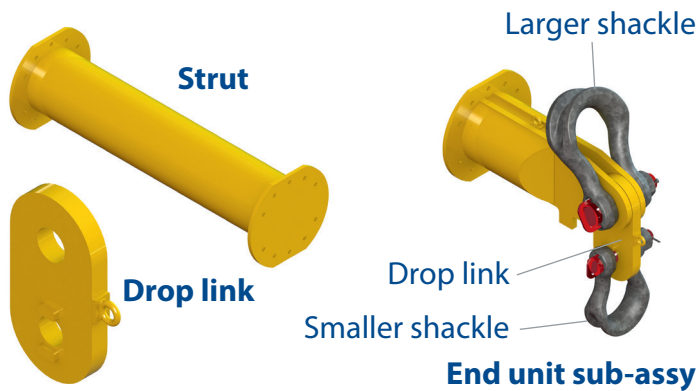
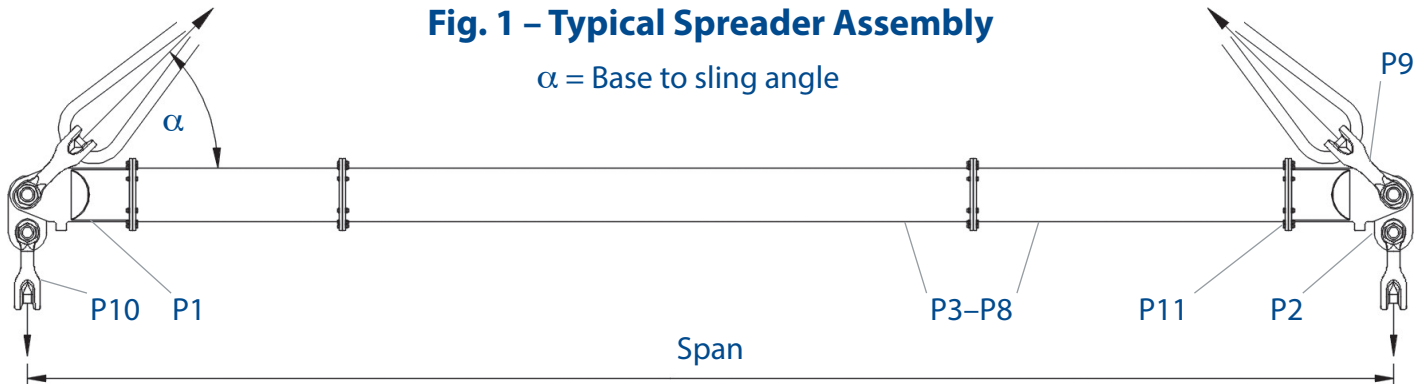


Table 1 – Component List

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	150t Wide Body Shackle	309 lbs
P11	M24 x 80 Grade 8.8 HT Bolts, Nuts & Washers	

MOD 250/300 Beam Specification

- Rated at 300 tonnes SWL at 34ft 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 150 tonnes WLL each (300 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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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 EU - End Unit (3ft)						
	45°		60°		70°		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.						
6	213	2' 6"	300	4' 4"	300	7' 1"	EU	EU					
8	213	4' 0"	300	6' 4"	300	10' 0"	EU	2	EU				
10	213	5' 5"	300	8' 4"	300	12' 11"	EU	3	1	EU			
12	213	6' 10"	300	10' 4"	300	15' 10"	EU	5	1	EU			
14	213	8' 2"	300	12' 4"	300	18' 10"	EU	5	3	EU			
16	213	9' 7"	300	14' 4"	300	21' 8"	EU	10	EU				
18	213	11' 0"	300	16' 4"	300	24' 7"	EU	10	2	EU			
20	213	12' 5"	300	18' 4"	300	27' 6"	EU	3	10	1	EU		
22	213	13' 11"	300	20' 4"	300	30' 6"	EU	5	10	1	EU		
24	213	15' 4"	300	22' 4"	300	33' 5"	EU	5	10	3	EU		
26	213	16' 8"	300	24' 4"	300	36' 4"	EU	10	10	EU			
28	213	18' 1"	300	26' 4"	300	39' 2"	EU	20	2	EU			
30	213	19' 6"	300	28' 4"	300	42' 2"	EU	3	20	1	EU		
32	200	20' 11"	300	30' 4"	300	45' 1"	EU	5	20	1	EU		
34	182	22' 4"	300	32' 4"	300	48' 0"	EU	5	20	3	EU		
36	167	23' 10"	291	34' 4"	300	50' 11"	EU	20	10	EU			
38	150	25' 2"	262	36' 4"	300	53' 11"	EU	10	20	2	EU		
40	134	26' 7"	234	38' 4"	300	56' 10"	EU	10	20	3	1	EU	
42	120	28' 0"	210	40' 4"	300	59' 8"	EU	10	20	5	1	EU	
44	107	29' 5"	188	42' 4"	300	62' 7"	EU	10	20	5	3	EU	
46	98	30' 10"	171	44' 4"	274	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.

