2018

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User Instructions

MOD 400/500

Modulift®

working between the hook and the load

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The Modulift Spreader is modular in lenght. Every spreader consists of 1 pair of End Units & Drop Links, with intermediate struts that can be bolted into the assembly to achieve different spans.
The MOD 400/500 has an assembled span ranging from 2 meters to 23m in 0.5m increments.

Fig. 1 – Typical Spreader Assembly

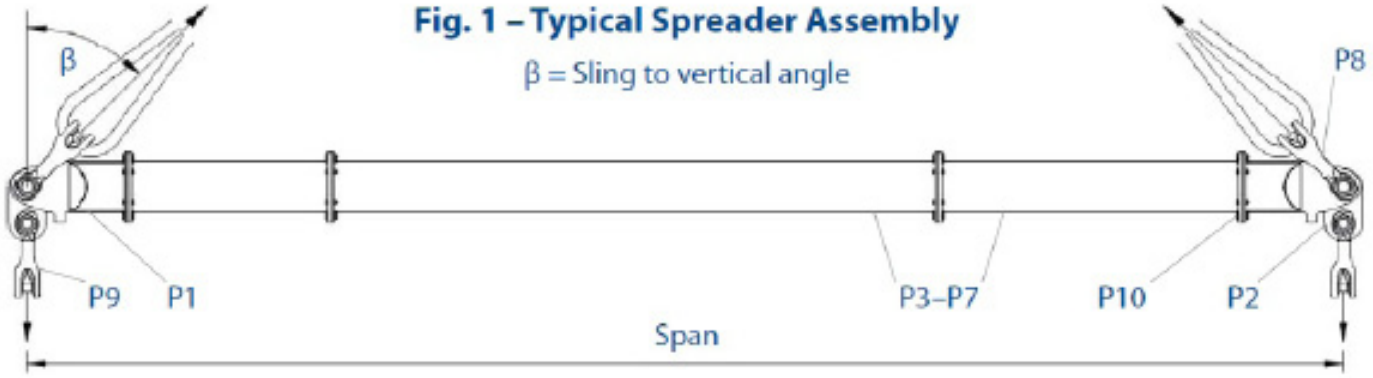


Table 1 – Component List

Part ref.	Description	weight/item
P1	End Unit WLL 250t	530kg
P2	Drop Link WLL 250t	150kg
P3	6.0m Strut	1365kg
P4	3.0m Strut	785kg
P5	2.0m Strut	590kg
P6	1.0m Strut	395kg
P7	0.5m Strut	286kg
P8	300t Wide Body Shackle	360kg
P9	250t Wide Body Shackle	264kg
P10	M24 x 90 Grade 8.8 HT Bolts, Nuts & Washers	
P11	5.0m Strut *	1171kg
P12	4.0m Strut *	977kg

*** Engineered for Safe Lifting on special request.**

MOD 400/500 - Beam specification

- Rated at 500 tonnes SWL at 15 metres span (30° STV). See load Table for SWL at longer spans.
- 'Sling to Vertical' angle, β, 45 degrees or less.
- End Units & Drop Links are rated at 250 tonnes WLL each (500 tonnes combined capacity).
- Bolt tightening torgue: 250Nm. Spanner size required: 36mm.
- Recommended additional equipment: Torgue 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 the "Lifting Operations and Lifting Equipment Regulations 1998' (LOLER).
- 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.

ASSEMBLY PROCEDURE

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

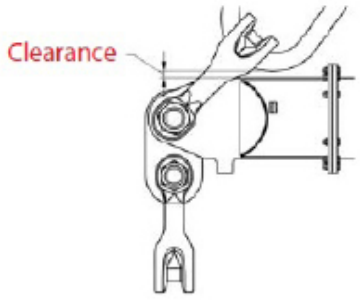
DO's and DON'TS

- 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 collision could cause failure of the spreader.
- Do ensure correct use of appropiate top slings, do not twist 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 then 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.

Table 2 – Load v Span

Span (m)	Sling To Vertical Angle (STV) β 45° SWL (t)	45° Min.top sling length (m)	30° SWL (t)	30° Min.top sling length (m)	20° SWL (t)	20° Min.top sling length (m)	Recommended Configuration EU - End Unit (1m) To calculate the SWL at intermediate spans utilising the 0.5m strut, round up the span to the next longest span in Table 2, and use the stated SWL.						
2	418	0.8	500	1.4	500	2.3	EU	EU					
3	418	1.5	500	2.4	500	3.8	EU	1	EU				
4	418	2.2	500	3.4	500	5.2	EU	2	EU				
5	418	2.9	500	4.4	500	6.7	EU	3	EU				
6	418	3.6	500	5.4	500	8.2	EU	3	1	EU			
7	418	4.3	500	6.4	500	9.6	EU	3	2	EU			
8	418	5.0	500	7.4	500	11.1	EU	6	EU				
9	418	5.7	500	8.4	500	12.5	EU	6	1	EU			
10	418	6.5	500	9.4	500	14.0	EU	6	2	EU			
11	418	7.2	500	10.4	500	15.5	EU	6	3	EU			
12	418	7.9	500	11.4	500	16.9	EU	3	6	1	EU		
13	391	8.6	500	12.4	500	18.4	EU	3	6	2	EU		
14	349	9.3	500	13.4	500	19.8	EU	6	6	EU			
15	316	10.0	500	14.4	500	21.3	EU	6	6	1	EU		
16	283	10.7	495	15.4	500	22.8	EU	6	6	2	EU		
17	253	11.4	443	16.4	500	24.2	EU	6	6	3	EU		
18	227	12.1	397	17.4	500	25.7	EU	1	6	6	3	EU	
19	202	12.8	355	18.4	500	27.2	EU	2	6	6	3	EU	
20	180	13.5	317	19.4	500	28.6	EU	6	6	6	EU		
21	160	14.2	281	20.4	450	30.1	EU	6	6	6	1	EU	
22	142	14.9	251	21.4	401	31.5	EU	6	6	6	2	EU	
23	126	15.6	223	22.4	358	33.0	EU	6	6	6	3	EU	
24	111	16.4	198	23.4	319	34.5	EU	6	6	6	3	1	EU

⚠ WARNING!



- The rigger must ensure that there is a clearance between the sling end fitting and the end unit as shown above.
- Max number of struts allowed in spreader assembly: 5.
- Assemble longer struts in the centre of the spreader configuration.
- Sling angle is crucial to safe use of spreader.

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 30 degrees or less. 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