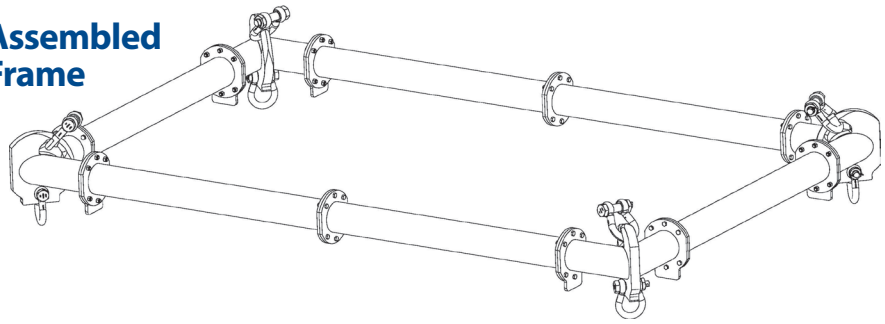
User Instructions
CMOD 50 Spreader Frame

Modulift®
working between the hook and the load

The CMOD Spreader Frame is modular in span and every frame consists of 4 Corner Units, with intermediate Struts that can be bolted into the assembly to achieve different spans. CMOD 50 has an assembled span ranging from 4ft by 4ft to 36ft by 36ft in 1ft increments.

Assembled Frame



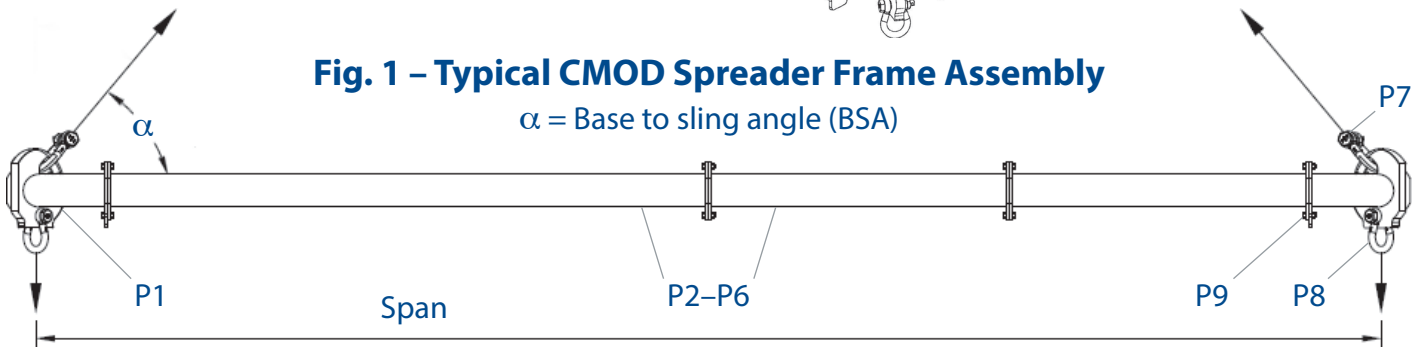
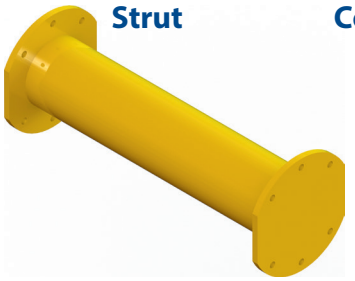


Fig. 1 – Typical CMOD Spreader Frame Assembly

α = Base to sling angle (BSA)

Strut



Corner Unit

Table 1 – Component List

Part Ref.	Description	Weight/item
P1	Corner Unit (length 2ft each)	345 lbs
P2	12ft Strut	285 lbs
P3	6ft Strut	168 lbs
P4	3ft Strut	109 lbs
P5	2ft Strut	90 lbs
P6	1ft Strut	70 lbs
P7	35t Shackle	44 lbs
P8	25t Shackle	31 lbs
P9	M20 x 65, Grade 8.8, HT Bolts, Nuts & Washers	

CMOD 50 Frame Specification

- Rated at a maximum of 60 tonnes SWL. Please see **Table 2** for SWL at specific spans.
- 'Base to Sling' angle, α, no less than 45 degrees.
- Corner Units are rated at 15 tonnes each (60 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** – Ensure you refer to the correct table.

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⚠ WARNING!

- Do not under any circumstances hang load(s) from the tube or flanges – the Spreader Frame is designed for compression – not bending.
- Ensure that the top Shackle contacts the bow of the corner plate 'bow-to-bow'.
- The components in the frame will be marked as ASME 'Category B', however the frame is modular and some arrangements may be 'Category A' due to this please contact Modulift prior to any 'Category B' application (e.g. Offshore).
- **Max number of Struts allowed in assembly: 5 per side**
- **Assemble longer Struts in the centre of the configuration**
- **Sling angle is crucial to safe use of frame.**
- **The top sling must be positioned centrally in the Shackle pin to ensure even loading. Contact your Modulift supplier for supply of loose spacers where required.**

Do's & Don'ts

- Do ensure that the frame is only loaded at the Corner Units and they are all equally loaded.
- Do ensure enough clearance between frame and the load to prevent the load hitting the frame. Any collision could cause failure of the frame.
- Do not undertake a lift without the correct use of appropriate top slings.
- Do not hang any loads from the Strut tube or flanges.
- Do not exceed the stated SWL for your span.
- Do not rig the lower slings more than 6° from vertical.

Assembly Procedure

- Check the ID plates on each Modulift component to ensure the correct size is used.
- Lay out the Struts and Corner Units in the correct configuration.
- Check all flanges are clear from debris, sand etc. before connection.
- Bolt the components together* using bolts, nuts & washers provided. Tighten the bolts to torque as shown overleaf.
- Loop the top Shackles through the bows of the Corner Units so they contact 'bow-to-bow'. The eye of the top slings can then be passed through the jaws of the Shackles and the pins replaced.
- Loop the bottom Shackles through the eyes of the drop slings and connect to the bottom of the Corner Unit with the Shackle pin.
- Attach the lower slings to the load to be lifted.
- The assembled Spreader Frame and lifting rig must be thoroughly checked by a competent person prior to lifting.

*The use of a Podger Spanner will aid in assembly by helping to align the bolt holes by forcing it through.

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

First pick the span required for your frame (e.g. 10ft x 28ft) and the Sling Angle (we recommend 60° BSA where possible), then check the SWL via the appropriate table. Read the table by locating the lower span on the y axis of the chart and the larger on the x. The cell which you are referred to, will indicate the SWL for your chosen span. If your exact span is not noted in the table, then please round up or down to the values that will give you the lowest SWL (to ensure no overloads are applied). Please contact Modulift for confirmation on your SWL if required. SWL given in Metric Tons (Tonnes).

CMOD 50: SWL / tonnes @ 60° BSA

36												32
34											38	31
31										45	36	30
28									54	44	34	29
25								54	53	42	33	27
22							60	53	51	40	32	26
19						60	60	51	47	38	30	25
16					60	60	56	47	45	36	29	25
13				60	60	60	52	45	43	34	28	24
10			60	60	60	60	50	45	42	34	27	23
7		60	60	60	60	60	50	45	41	33	26	23
4	60	60	60	60	60	60	50	45	41	32	26	22
Span (ft)	**4**	**7**	**10**	**13**	**16**	**19**	**22**	**25**	**28**	**31**	**34**	**36**

CMOD 50: SWL / tonnes @ 45° BSA

36												18
34											22	18
31										25	21	17
28									31	24	19	16
25								31	30	23	18	15
22							31	30	29	22	18	14
19						40	31	29	27	22	17	14
16					40	40	29	27	25	21	16	13
13				50	40	36	27	25	24	19	15	13
10			50	50	40	36	25	25	23	19	15	12
7		50	50	50	40	36	25	25	22	18	14	12
4	50	50	50	50	40	36	25	25	22	18	14	12
Span (ft)	**4**	**7**	**10**	**13**	**16**	**19**	**22**	**25**	**28**	**31**	**34**	**36**