

User Instructions

CMOD 24 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 24 has an assembled span ranging from 4ft by 4ft to 20ft by 20ft in 1ft increments.

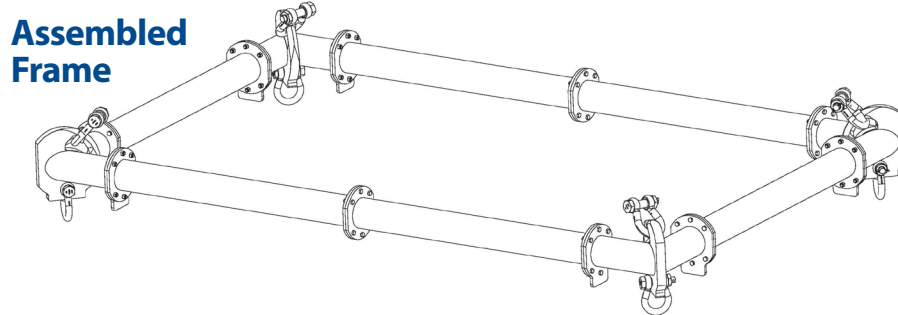


Fig. 1 – Typical CMOD Spreader Frame Assembly

α = Base to sling angle (BSA)

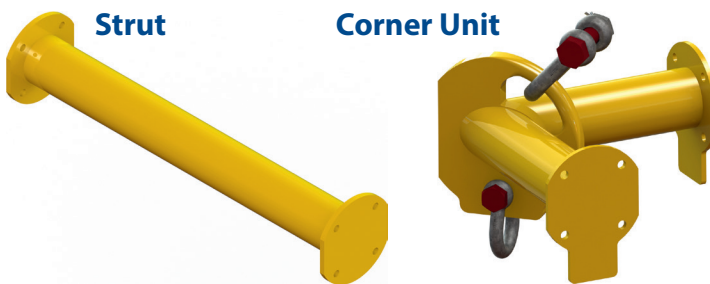
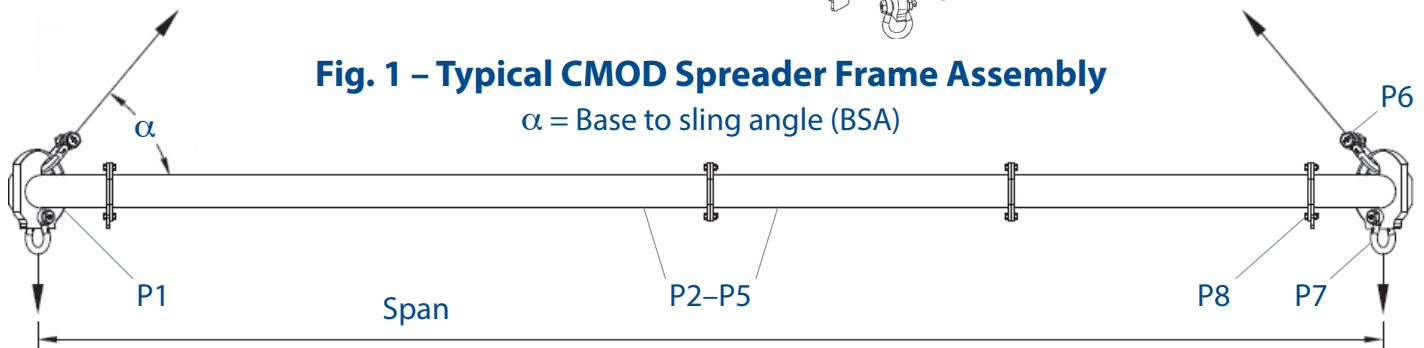


Table 1 – Component List

| Part Ref. | Description | Weight/item |
|-----------|---|-------------|
| P1 | Corner Unit (length 2ft each) | 130 lbs |
| P2 | 6ft Strut | 80 lbs |
| P3 | 4ft Strut | 56 lbs |
| P4 | 2ft Strut | 37 lbs |
| P5 | 1ft Strut | 26 lbs |
| P6 | 17t Shackle | 18 lbs |
| P7 | 12t Shackle | 11 lbs |
| P8 | M20 x 50, Grade 8.8, HT Bolts, Nuts & Washers | |

CMOD 24 Frame Specification

- Rated at a maximum of 30 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 7.5 tonnes each (30 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 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** – 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.



Table 2 – Load v Span

First pick the span required for your frame (e.g. 10ft x 16ft) 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 24: SWL / tonnes @ 60° BSA

| | | | | | | | | | |
|-----------|----|----|----|----|----|----|----|----|----|
| 20 | | | | | | | | | 23 |
| 18 | | | | | | | | 24 | 21 |
| 16 | | | | | | | 30 | 24 | 20 |
| 14 | | | | | | 30 | 30 | 24 | 19 |
| 12 | | | | | 30 | 30 | 24 | 23 | 18 |
| 10 | | | | 30 | 30 | 30 | 24 | 22 | 17 |
| 8 | | | 30 | 30 | 30 | 30 | 24 | 20 | 17 |
| 6 | | 30 | 30 | 30 | 30 | 28 | 24 | 19 | 16 |
| 4 | 30 | 30 | 30 | 30 | 30 | 27 | 23 | 19 | 16 |
| Span (ft) | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |

CMOD 24: SWL / tonnes @ 45° BSA

| | | | | | | | | | |
|-----------|----|----|----|----|----|----|----|----|----|
| 20 | | | | | | | | | 13 |
| 18 | | | | | | | | 14 | 12 |
| 16 | | | | | | | 17 | 14 | 11 |
| 14 | | | | | | 17 | 17 | 14 | 11 |
| 12 | | | | | 17 | 17 | 14 | 13 | 10 |
| 10 | | | | 17 | 17 | 17 | 14 | 12 | 9 |
| 8 | | | 17 | 17 | 17 | 17 | 14 | 11 | 9 |
| 6 | | 17 | 17 | 17 | 17 | 16 | 14 | 11 | 9 |
| 4 | 17 | 17 | 17 | 17 | 17 | 15 | 13 | 11 | 9 |
| Span (ft) | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |