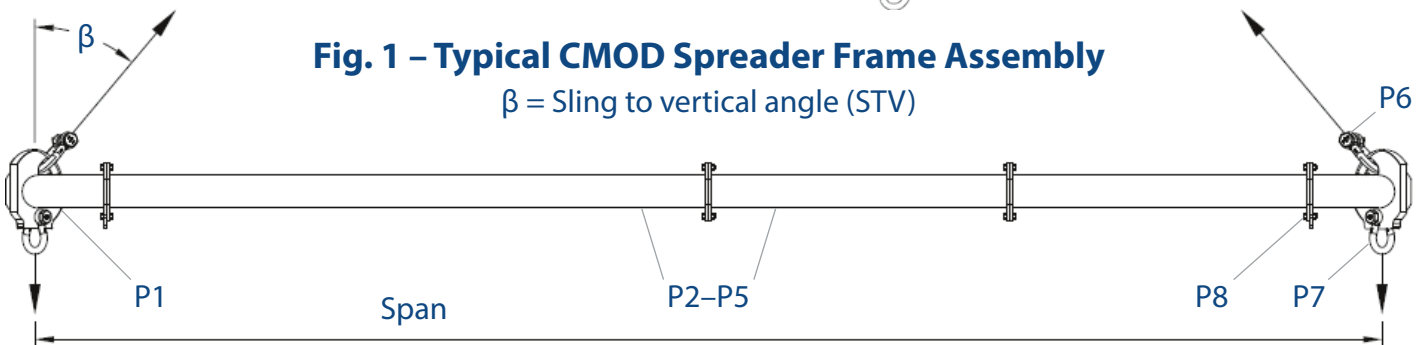
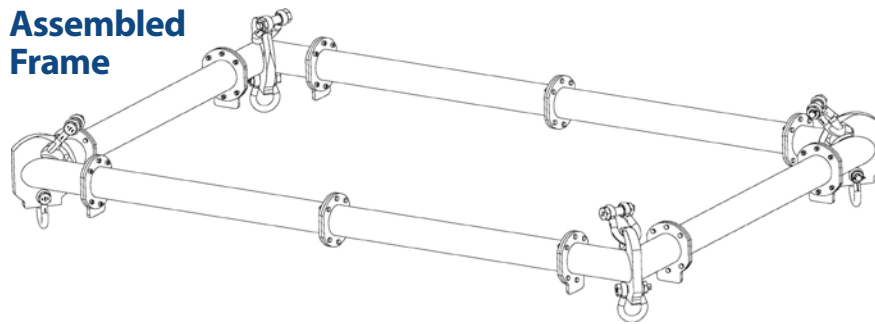


# User Instructions

## CMOD 50 Spreader Frame

**Modulift**<sup>®</sup>  
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 1m by 1m to 11m by 11m and all spans inbetween.



### Strut



### Corner Unit



### Table 1 – Component List

Part Ref.	Description	Weight/item
P1	Corner Unit (length 0.5m each)	150kg
P2	4.0m Strut	140kg
P3	2.0m Strut	82kg
P4	1.0m Strut	53kg
P5	0.5m Strut	38kg
P6	35t Shackle	20kg
P7	25t Shackle	14kg
P8	M20 x 65, Grade 8.8, HT Bolts, Nuts & Washers	

### CMOD 50 Frame Specification

- Rated at a maximum of 60 tonnes WLL. Please see **Table 2** for WLL at specific spans.
- 'Sling to Vertical' angle,  $\beta$ , 45 degrees or less.
- Corner Units are rated at 15 tonnes each (60 tonnes combined capacity).
- **Bolt tightening torque: 150Nm.** 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 'Lifting Operations and Lifting Equipment Regulations 1998' (LOLER).
- **Never exceed stated WLL** – Adhere to WLL 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.

# User Instructions

## CMOD 50 Spreader Frame



### 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 CMOD system is designed in accordance with BS EN13155: Cranes, Safety, Non- fixed Load Lifting Attachments.
- **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 WLL 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 that 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. 2m x 5m) and the Sling Angle (we recommend 30° STV where possible), then check the WLL 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 WLL 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 WLL (to ensure no overloads are applied). Please contact Modulift for confirmation on your WLL if required. WLL given in tonnes.

#### CMOD 50: WLL / tonnes @ 30° STV

11											32
10										41	31
9									50	39	29
8								50	48	37	28
7							60	50	45	35	27
6						60	60	50	43	33	26
5					60	60	60	50	40	32	25
4				60	60	60	50	49	38	31	24
3			60	60	60	60	50	47	37	30	23
2		60	60	60	60	60	50	45	36	29	23
1	60	60	60	60	60	60	50	44	35	28	22
Span (m)	1	2	3	4	5	6	7	8	9	10	11

#### CMOD 50: WLL / tonnes @ 45° STV

11											18
10										23	17
9									28	21	16
8								28	27	20	15
7							34	28	25	19	14
6						40	34	28	24	18	14
5					40	40	34	28	23	17	13
4				50	40	40	28	28	21	17	13
3			50	50	40	40	28	26	21	16	12
2		50	50	50	40	34	28	25	20	16	12
1	50	50	50	50	40	34	28	25	20	15	12
Span (m)	1	2	3	4	5	6	7	8	9	10	11

# CMOD Sling length guide

## 30° STV

To be read in conjunction with appropriate CMOD User Instructions.

23																							32.5
22																						31.1	31.8
21																					29.7	30.4	31.1
20																				28.3	29.0	29.7	30.5
19																			26.9	27.6	28.3	29.1	29.8
18																		25.5	26.2	26.9	27.7	28.4	29.2
17																	24.0	24.8	25.5	26.2	27.0	27.8	28.6
16																22.6	23.3	24.1	24.8	25.6	26.4	27.2	28.0
15															21.2	21.9	22.7	23.4	24.2	25.0	25.8	26.6	27.5
14														19.8	20.5	21.3	22.0	22.8	23.6	24.4	25.2	26.1	26.9
13													18.4	19.1	19.8	20.6	21.4	22.2	23.0	23.9	24.7	25.6	26.4
12												17.0	17.7	18.4	19.2	20.0	20.8	21.6	22.5	23.3	24.2	25.1	25.9
11											15.6	16.3	17.0	17.8	18.6	19.4	20.2	21.1	22.0	22.8	23.7	24.6	25.5
10										14.1	14.9	15.6	16.4	17.2	18.0	18.9	19.7	20.6	21.5	22.4	23.3	24.2	25.1
9									12.7	13.5	14.2	15.0	15.8	16.6	17.5	18.4	19.2	20.1	21.0	21.9	22.8	23.8	24.7
8								11.3	12.0	12.8	13.6	14.4	15.3	16.1	17.0	17.9	18.8	19.7	20.6	21.5	22.5	23.4	24.4
7							9.9	10.6	11.4	12.2	13.0	13.9	14.8	15.7	16.6	17.5	18.4	19.3	20.2	21.2	22.1	23.1	24.0
6						8.5	9.2	10.0	10.8	11.7	12.5	13.4	14.3	15.2	16.2	17.1	18.0	19.0	19.9	20.9	21.8	22.8	23.8
5					7.1	7.8	8.6	9.4	10.3	11.2	12.1	13.0	13.9	14.9	15.8	16.8	17.7	18.7	19.6	20.6	21.6	22.6	23.5
4				5.7	6.4	7.2	8.1	8.9	9.8	10.8	11.7	12.6	13.6	14.6	15.5	16.5	17.5	18.4	19.4	20.4	21.4	22.4	23.3
3			4.2	5.0	5.8	6.7	7.6	8.5	9.5	10.4	11.4	12.4	13.3	14.3	15.3	16.3	17.3	18.2	19.2	20.2	21.2	22.2	23.2
2		2.8	3.6	4.5	5.4	6.3	7.3	8.2	9.2	10.2	11.2	12.2	13.2	14.1	15.1	16.1	17.1	18.1	19.1	20.1	21.1	22.1	23.1
1	1.4	2.2	3.2	4.1	5.1	6.1	7.1	8.1	9.1	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0
Span (m)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23



### WARNING!

If the CoG of the load is central, then all top slings can be sized at the above lengths.

If the CoG is offset then this should be accounted for by resizing the top slings.

**Please contact Modulift directly if you are unsure of how to proceed.**

# CMOD Sling length guide

## 45° STV

To be read in conjunction with appropriate CMOD User Instructions.

23																							23.0
22																						22.0	22.5
21																					21.0	21.5	22.0
20																				20.0	20.5	21.0	21.6
19																			19.0	19.5	20.0	20.6	21.1
18																		18.0	18.5	19.0	19.6	20.1	20.7
17																	17.0	17.5	18.0	18.6	19.1	19.7	20.2
16																16.0	16.5	17.0	17.6	18.1	18.7	19.2	19.8
15															15.0	15.5	16.0	16.6	17.1	17.7	18.2	18.8	19.4
14														14.0	14.5	15.0	15.6	16.1	16.7	17.3	17.8	18.4	19.0
13													13.0	13.5	14.0	14.6	15.1	15.7	16.3	16.9	17.5	18.1	18.7
12												12.0	12.5	13.0	13.6	14.1	14.7	15.3	15.9	16.5	17.1	17.7	18.3
11											11.0	11.5	12.0	12.6	13.2	13.7	14.3	14.9	15.5	16.1	16.8	17.4	18.0
10										10.0	10.5	11.0	11.6	12.2	12.7	13.3	13.9	14.6	15.2	15.8	16.4	17.1	17.7
9									9.0	9.5	10.0	10.6	11.2	11.8	12.4	13.0	13.6	14.2	14.9	15.5	16.2	16.8	17.5
8								8.0	8.5	9.1	9.6	10.2	10.8	11.4	12.0	12.6	13.3	13.9	14.6	15.2	15.9	16.6	17.2
7							7.0	7.5	8.1	8.6	9.2	9.8	10.4	11.1	11.7	12.3	13.0	13.7	14.3	15.0	15.7	16.3	17.0
6						6.0	6.5	7.1	7.6	8.2	8.9	9.5	10.1	10.8	11.4	12.1	12.7	13.4	14.1	14.8	15.4	16.1	16.8
5					5.0	5.5	6.1	6.7	7.3	7.9	8.5	9.2	9.8	10.5	11.2	11.9	12.5	13.2	13.9	14.6	15.3	16.0	16.6
4				4.0	4.5	5.1	5.7	6.3	7.0	7.6	8.3	8.9	9.6	10.3	11.0	11.7	12.3	13.0	13.7	14.4	15.1	15.8	16.5
3			3.0	3.5	4.1	4.7	5.4	6.0	6.7	7.4	8.1	8.7	9.4	10.1	10.8	11.5	12.2	12.9	13.6	14.3	15.0	15.7	16.4
2		2.0	2.5	3.2	3.8	4.5	5.1	5.8	6.5	7.2	7.9	8.6	9.3	10.0	10.7	11.4	12.1	12.8	13.5	14.2	14.9	15.6	16.3
1	1.0	1.6	2.2	2.9	3.6	4.3	5.0	5.7	6.4	7.1	7.8	8.5	9.2	9.9	10.6	11.3	12.0	12.7	13.5	14.2	14.9	15.6	16.3
Span (m)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23



### WARNING!

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