

Correct use of handsignals and radio communication

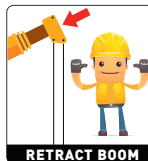
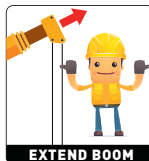
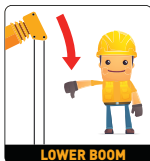
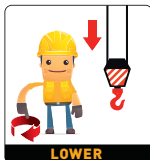
It's important that slinger, flagman and crane operator has knowledge about hand signals, and other expressions.

HAND SIGNALS

NB! Operators and flagmen must use agreed signals

Orange text are commandoes in **NORSOK R-003N / R-005N**

RADIO SIGNALS



- Learn the signals
- Be placed in the right position.
- Check that the load is hooked correctly
- Give the signals clearly
- Avoid lifting with angle

- Learn the correct use of radio
- Test the radio before lifting
- Speak clear and slow
- Use continuous radio when load is out of sight of the crane driver
- Avoid unnecessary use of the radio

LIFTING TABLE FOR FIBER SLINGS

Permitted lifting capacity (WLL) in accordance with EN 1492-1 and 2 in tonnes

Safety factor = 7

Rev.nr. 1.2023

● Follow the manufacturer's recommendations according to the diameter of the load when choked/ basket hitch

● With choking, lifting capacity is reduced to 80% of straight lift WLL

Colour	Recom. Min. Bar diameter	Straight WLL	Choked	Basket hitch	Basket hitch angle	0-45°		45,1°-60°		0-45°		45,1°-60°	
						Direct	Choked	Direct	Choked	Direct	Choked	Direct	Choked
		ONE LEG				TWO LEGS				THREE AND FOUR LEGS			
Violet	20 mm	1,0	0,8	2,0	1,7	1,4	1,1	1,0	0,8	2,1	1,6	1,5	1,2
Green	20 mm	2,0	1,6	4,0	3,4	2,8	2,2	2,0	1,6	4,2	3,3	3,0	2,4
Yellow	30 mm	3,0	2,4	6,0	5,1	4,2	3,3	3,0	2,4	6,3	5,0	4,5	3,6
Grey	40 mm	4,0	3,2	8,0	6,8	5,6	4,4	4,0	3,2	8,4	6,7	6,0	4,8
Red	50 mm	5,0	4,0	10,0	8,5	7,0	5,6	5,0	4,0	10,5	8,4	7,5	6,0
Brown	60 mm	6,0	4,8	12,0	10,2	8,4	6,7	6,0	4,8	12,6	10,0	9,0	7,2
Blue	80 mm	8,0	6,4	16,0	13,6	11,2	8,9	8,0	6,4	16,8	13,4	12,0	9,6
Orange	80 mm	10,0	8,0	20,0	17,0	14,0	11,2	10,0	8,0	21,0	16,8	15,0	12,0
Orange	115 mm	15,0	12,0	30,0	25,5	21,0	16,8	15,0	12,0	31,5	25,2	22,5	18,0
Orange	120 mm	20,0	16,0	40,0	34,0	28,0	22,4	20,0	16,0	42,0	33,6	30,0	24,0
Orange	125 mm	25,0	20,0	50,0	42,5	35,0	28,0	25,0	20,0	52,5	42,0	37,5	30,0
Orange	130 mm	30,0	24,0	60,0	51,0	42,0	33,6	30,0	24,0	63,0	50,4	45,0	36,0
Orange	140 mm	40,0	32,0	80,0	68,0	56,0	44,8	40,0	32,0	84,0	67,2	60,0	48,0
FACTOR		1	0,8	2	1,7	1,4		1		2,1		1,5	
ASYMMETRICAL FACTOR						Use lifting capacity for 1 leg				Use lifting capacity for 2 legs			
Avoid friction, sharp edges and alkaline substances. - WLL for fibre slings of polyester applies for temperatures between -40°- 100° Follow the manufacturer's instructions for safe use, control and maintenance													

booking@biks.no · biks.no

LIFTING TABLE CHAIN SLINGS - GRADE 80

Permitted workload (WLL) in tonnes in accordance with EN 818-4

Safety factor = 4

Rev.nr. 1.2023

• The load's diameter and installation diameter should be min. 9 times the diameter of the chain slings.

• With choking, lifting capacity is reduced to 80% of straight lift WLL

Diameter mm	Min. Rec. Bar Dia.	Straight WLL	Choked	Basket hitch	Basket hitch Angle	0-45°		45,1°-60°		0-45°		45,1°-60°	
						Direct WLL	Choked	Direct	Choked	Direct WLL	Choked	Direct	Choked
													
ONE LEG						TWO LEGS				THREE AND FOUR LEGS			
7	63 mm	1,5	1,20	3,00	2,55	2,12	1,7	1,5	1,2	3,15	2,52	2,24	1,8
8	72 mm	2,00	1,60	4,00	3,40	2,80	2,24	2,00	1,60	4,25	3,40	3,00	2,40
10	90 mm	3,15	2,52	6,30	5,36	4,25	3,40	3,15	2,52	6,70	5,40	4,75	3,80
13	117 mm	5,30	4,24	10,60	9,00	7,50	6,00	5,30	4,24	11,20	9,00	8,00	6,40
16	144 mm	8,00	6,40	16,00	13,60	11,20	9,00	8,00	6,40	17,00	13,60	11,80	9,44
18	162 mm	10,00	8,00	20,00	17,00	14,00	11,20	10,00	8,00	21,20	17,00	15,00	12,00
19	171 mm	11,20	9,00	22,40	19,04	16,00	12,80	11,20	9,00	23,60	18,90	17,00	13,60
20	180 mm	12,50	10,00	25,00	21,25	17,00	13,60	12,50	10,00	26,50	21,20	19,00	15,20
22	198 mm	15,00	12,00	30,00	25,50	21,20	17,00	15,00	12,00	31,50	25,20	22,40	17,92
23	207 mm	16,00	12,80	32,00	27,20	23,60	18,90	16,00	12,80	35,50	28,40	25,00	20,00
25	225 mm	20,00	16,00	40,00	34,00	28,00	22,40	20,00	16,00	40,00	32,00	30,00	24,00
26	234 mm	21,20	17,00	42,40	36,04	30,00	24,00	21,20	17,00	45,00	36,00	31,50	25,20
28	252 mm	25,00	20,00	50,00	42,50	33,50	26,80	25,00	20,00	52,50	40,00	37,50	30,00
32	288 mm	31,50	25,20	63,00	53,55	45,00	36,00	31,50	25,20	67,00	53,60	47,50	38,00
FACTOR		1	0,8	2	1,7	1,4		1		2,1		1,5	
ASYMMETRICAL FACTOR						Use lifting capacity for 1 leg				Use lifting capacity for 2 legs			
WLL For chain tools applies to temperature range from -40°C up to 200°C - Always follow the manufacturer's recommendations when lifting													

LIFTING TABLE CHAIN SLINGS - GRADE 100

Permitted working load (WLL) in tonnes in accordance with EN 818-4

Safety factor = 4

Rev.nr. 1.2023

• The load's diameter and installation diameter should be min. 9 times the diameter of the chain slings.

• With choking, lifting capacity is reduced to 80% of straight lift WLL

Diameter mm	Min. Rec. Bar Dia.	Straight WLL	Choked	Basket hitch	Basket hitch Angle	0-45°		45,1°-60°		0-45°		45,1°-60°	
						Direct WLL	Choked	Direct	Choked	Direct WLL	Choked	Direct	Choked
													
ONE LEG						TWO LEGS				THREE AND FOUR LEGS			
5	45 mm	1,00	0,80	2,00	1,70	1,40	1,12	1,00	0,80	2,00	1,60	1,50	1,20
6	54 mm	1,40	1,12	2,80	2,38	2,00	1,60	1,40	1,12	3,00	2,40	2,12	1,70
7	63 mm	1,90	1,50	3,80	3,23	2,65	2,12	1,90	1,50	4,00	3,20	2,80	2,24
8	72 mm	2,50	2,00	5,00	4,25	3,55	2,80	2,50	2,00	5,30	4,24	3,75	3,00
10	90 mm	4,00	3,15	8,00	6,80	5,60	4,25	4,00	3,15	8,00	6,40	6,00	4,80
13	117 mm	6,70	5,30	13,40	11,40	9,50	7,50	6,70	5,30	14,00	11,20	10,00	8,00
16	144 mm	10,00	8,00	20,00	17,00	14,00	11,20	10,00	8,00	21,20	17,00	15,00	12,00
18	162 mm	12,50	10,00	25,00	21,25	17,50	14,00	12,50	10,00	26,20	21,00	18,70	15,00
19	171 mm	14,00	11,20	28,00	23,80	20,00	16,00	14,00	11,20	30,00	24,00	21,20	17,00
20	180 mm	16,00	12,80	32,00	27,20	21,20	17,90	16,00	12,80	33,60	26,90	24,00	19,20
22	198 mm	19,00	15,00	38,00	32,30	26,50	21,20	19,00	15,00	40,00	32,00	28,00	22,40
23	207 mm	21,00	16,80	42,00	35,70	29,50	23,60	21,00	16,80	44,10	35,20	31,50	25,20
26	234 mm	26,50	21,20	53,00	45,05	37,50	30,00	26,50	21,20	56,00	44,80	40,00	32,00
32	288 mm	40,00	31,50	80,00	68,00	56,00	45,00	40,00	31,50	85,00	68,00	60,00	48,00
FAKTOR		1	0,8	2	1,7	1,4		1		2,1		1,5	
ASYMMETRICAL FACTOR						Use lifting capacity for 1 leg				Use lifting capacity for 2 legs			
WLL For chain tools applies to temperature range from -40°C up to 200°C - Always follow the manufacturer's recommendations when lifting													

LIFTING TABLE FOR WIRE ROPE SLINGS

Ferrule-secured eye terminations fibre cord(FC) according to EN 13414-1

Safety factor = 5

- The load's diameter and installation diameter should be min. 6 x diameter of the the wire rope when choked/ basket hitch

- With choking, lifting capacity is reduced to 80 % of straight lift WLL

Rev.nr. 1.2023

Diameter mm	Min. Rec. Bar Dia.	Straight WLL	Choked	Basket hitch	Basket hitch Angle	0-45°		45,1°-60°		0-45°		45,1°-60°	
						Direct WLL	Choked	Direct	Choked	Direct WLL	Choked	Direct	Choked
													
ONE LEG						TWO LEGS				THREE AND FOUR LEGS			
8	48 mm	0,7	0,5	1,4	1,1	0,9	0,7	0,7	0,5	1,5	1,2	1,0	0,8
10	60 mm	1,0	0,8	2,1	1,7	1,5	1,2	1,0	0,8	2,2	1,8	1,6	1,2
12	72 mm	1,5	1,2	3,0	2,6	2,1	1,7	1,5	1,2	3,3	2,6	2,3	1,8
14	84 mm	2,1	1,7	4,2	3,6	3,0	2,4	2,1	1,7	4,3	3,4	3,1	2,5
16	96 mm	2,7	2,1	5,4	4,6	3,8	3,0	2,7	2,1	5,6	4,5	4,2	3,3
18	108 mm	3,4	2,7	6,8	5,7	4,8	3,8	3,4	2,7	7,2	5,7	5,2	4,1
20	120 mm	4,3	3,4	8,7	7,4	6,0	4,8	4,3	3,4	9,0	7,2	6,5	5,2
22	132 mm	5,2	4,1	10,4	8,8	7,2	5,7	5,2	4,1	11,0	8,8	7,8	6,2
24	144 mm	6,3	5,0	12,6	10,7	8,8	7,0	6,3	5,0	13,5	10,8	9,4	7,5
26	156 mm	7,2	5,7	14,4	12,2	10,0	8,0	7,2	5,7	15,0	12,0	11,0	8,8
28	168 mm	8,4	6,7	16,8	14,2	11,8	9,4	8,4	6,7	18,0	14,4	12,5	10,0
32	192 mm	11,0	8,8	22,0	18,7	15,0	12,0	11,0	8,8	23,5	18,8	16,5	13,2
FACTOR		1	0,8	2	1,7	1,4		1		2,1		1,5	
ASYMMETRICAL FACTOR						Use lifting capacity for 1 leg				Use lifting capacity for 2 legs			
WLL for slings with fibre cord applies for temperatures -40°C up to 100°C													
Always read the manufacturer's instructions for safe use, maintenance and inspection													

LIFTING TABLE FOR WIRE ROPE SLINGS

Ferrule-secured eye terminations steel cord (IWRC) according to EN 13414-1

Safety factor = 5

- The load's diameter and installation diameter should be min. 6 x diameter of the the wire rope when choked/ basket hitch

- With choking, lifting capacity is reduced to 80 % of straight lift WLL

Rev.nr. 1.2023

Diameter mm	Min. Rec. Bar Dia.	Straight WLL	Choked	Basket hitch	Basket hitch Angle	0-45°		45,1°-60°		0-45°		45,1°-60°	
						Direct WLL	Choked	Direct	Choked	Direct WLL	Choked	Direct	Choked
													
ONE LEG						TWO LEGS				THREE AND FOUR LEGS			
8	48 mm	0,75	0,6	1,5	1,2	1,0	0,8	0,7	0,6	1,5	1,2	1,1	0,8
10	60 mm	1,1	0,9	2,3	1,9	1,6	1,2	1,1	0,9	2,4	1,9	1,7	1,3
12	72 mm	1,7	1,3	3,4	2,9	2,3	1,8	1,7	1,3	3,5	2,8	2,5	2,0
14	84 mm	2,2	1,8	4,5	3,8	3,1	2,5	2,2	1,8	4,8	3,8	3,4	2,7
16	96 mm	3,0	2,4	6,0	5,1	4,2	3,3	3,0	2,4	6,3	5,0	4,5	3,6
18	108 mm	3,7	2,9	7,4	6,3	5,2	4,1	3,7	2,9	7,8	6,2	5,6	4,5
20	120 mm	4,6	3,6	9,2	7,8	6,5	5,2	4,6	3,6	9,8	7,8	6,9	5,5
22	132 mm	5,6	4,5	11,3	9,6	7,8	6,2	5,6	4,5	11,8	9,4	8,4	6,7
24	144 mm	6,7	5,3	13,4	11,4	9,4	7,5	6,7	5,3	14,0	11,2	10,0	8,0
26	156 mm	7,8	6,2	15,6	13,2	11,0	8,8	7,8	6,2	16,5	13,2	11,5	9,2
28	168 mm	9,0	7,2	18,0	15,3	12,5	10,0	9,0	7,2	19,0	15,2	13,5	10,8
32	192 mm	11,8	9,4	23,6	20,0	16,5	13,2	11,8	9,4	25,0	20,0	17,5	14,0
FACTOR		1	0,8	2	1,7	1,4		1		2,1		1,5	
ASYMMETRICAL FACTOR						Use lifting capacity for 1 leg				Use lifting capacity for 2 legs			
WLL for slings with fibre cord applies for temperatures -40°C up to 150°C													
Always read the manufacturer's instructions for safe use, maintenance and inspection													