

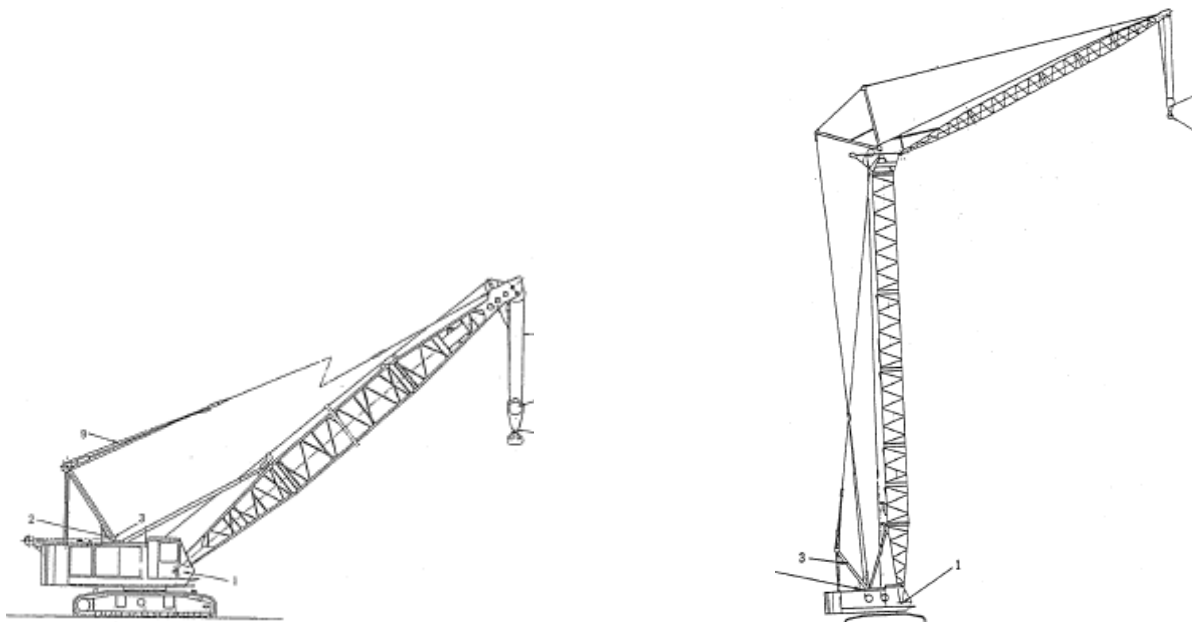
SMITH

CRANE & CONSTRUCTION LTD

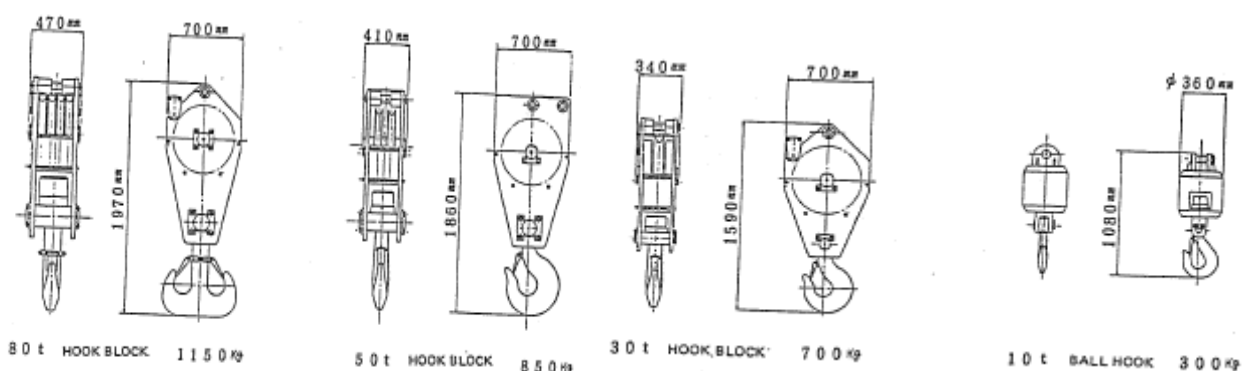
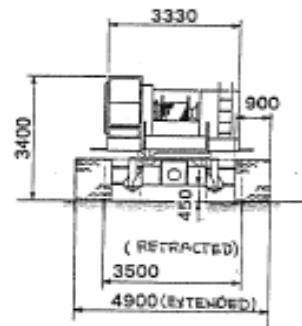
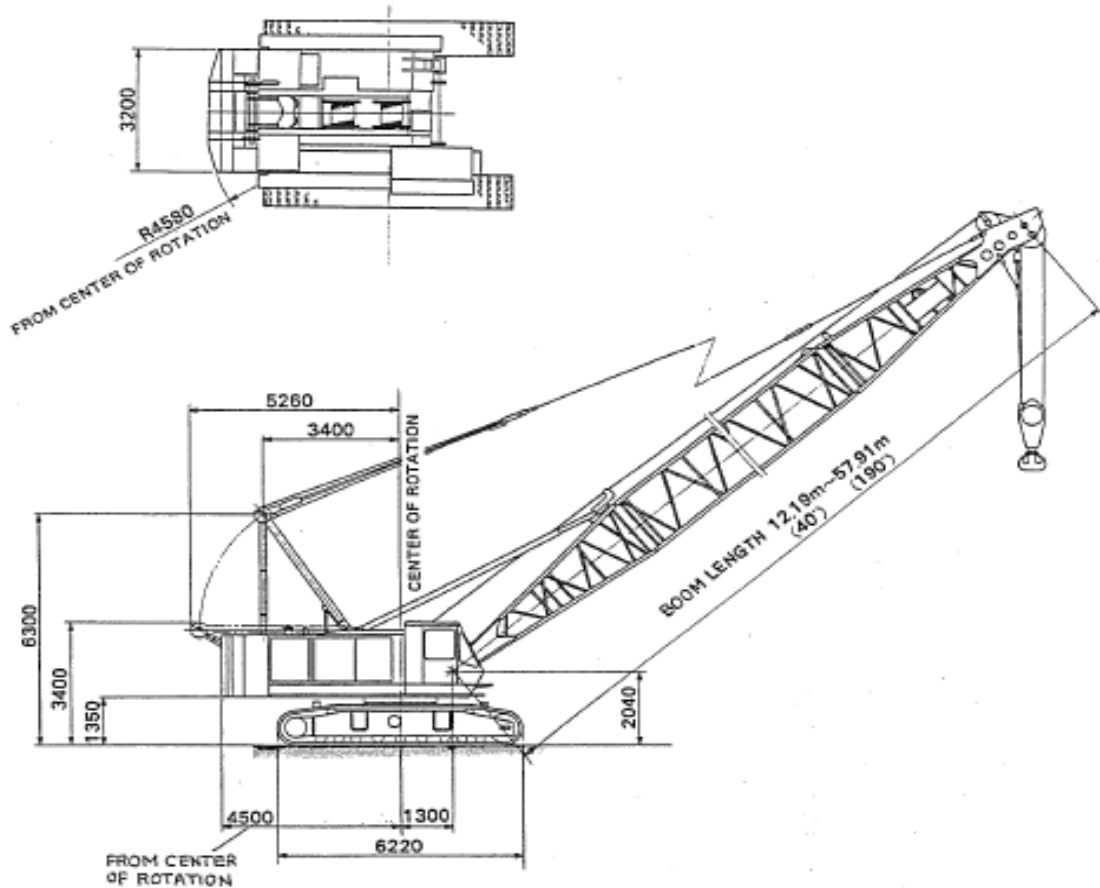
Kobelco 7080-1

80 Tonne Crawler Crane

Load Chart



Kobelco 7080-1 80 Tonne Crawler Crane



Kobelco 7080-1

80 Tonne Crawler Crane

Main Boom (Crane Type) in Metric Tonnes

Boom Length Radius (m) \ a (ft)	12.19 (40)	15.24 (50)	18.29 (60)	21.34 (70)	24.38 (80)	27.43 (90)	30.48 (100)	33.53 (110)	36.58 (120)	39.62 (130)	42.67 (140)	45.72 (150)	48.77 (160)	51.82 (170)	54.86 (180)	57.91 (190)
4	80.0															
4.5	71.9	71.2														
5	59.7	59.6	59.5													
5.5	51.0	50.9	50.8	50.7												
6	44.5	44.3	44.2	44.1	44.0	38.0/6.5m										
7	35.3	35.2	35.1	35.0	34.9	34.8	34.7	31.3/7.5m								
8	29.2	29.1	29.0	28.8	28.8	28.7	28.6	28.4	28.3	25.7/8.5m						
9	24.8	24.7	24.6	24.5	24.4	24.3	24.2	24.0	23.9	23.8	23.4	20.5/9.6m				
10	21.6	21.4	21.3	21.2	21.1	21.0	20.9	20.7	20.6	20.5	20.3	20.2	20.0/10.1m	17.2/10.6m		
12	17.0	16.9	16.8	16.6	16.5	16.4	16.2	16.1	16.0	16.0	15.9	15.6	15.5	15.4	15.3	14.0
14		13.8	13.7	13.6	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.7	12.5	12.4	12.3	12.2
16			11.5	11.4	11.2	11.2	11.0	10.9	10.8	10.7	10.7	10.5	10.4	10.3	10.2	10.1
18			10.7/17m	9.8	9.6	9.5	9.4	9.3	9.2	9.1	9.0	8.9	8.8	8.7	8.6	8.5
20				8.5	8.3	8.3	8.1	8.0	7.9	7.8	7.7	7.6	7.5	7.4	7.3	7.2
22					7.3	7.2	7.1	7.0	6.9	6.8	6.7	6.6	6.5	6.4	6.3	6.2
24					6.9/23m	6.4	6.3	6.2	6.1	6.0	5.9	5.8	5.6	5.5	5.5	5.3
26						6.0/25m	5.6	5.5	5.4	5.3	5.1	5.0	4.9	4.8	4.7	4.6
28							5.0	4.9	4.8	4.7	4.5	4.4	4.3	4.2	4.1	4.0
30								4.4	4.3	4.2	4.0	3.9	3.8	3.7	3.6	3.5
32									3.9	3.7	3.6	3.5	3.3	3.2	3.1	3.0
34									3.7/33m	3.3	3.2	3.1	2.9	2.8	2.7	2.6
36										3.0	2.8	2.7	2.6	2.5	2.3	2.2
38											2.5	2.4	2.3	2.2	2.0	1.9
40												2.1	2.0	1.9	1.7	1.6

Main Boom (Tower Type) in Metric Tonnes

Boom Length Radius (m) \ a (ft)	12.19 (40)	15.24 (50)	18.29 (60)	21.34 (70)	24.38 (80)	27.43 (90)	30.48 (100)	33.53 (110)	36.58 (120)	39.62 (130)	42.67 (140)	45.72 (150)	48.77 (160)	51.82 (170)	54.86 (180)	57.91 (190)
4	80.0															
4.5	71.9	71.2														
5	59.7	59.6	59.5													
5.5	51.0	50.9	50.8	50.7												
6	44.5	44.3	44.2	44.1	44.0	38.0/6.5m										
7	35.3	35.2	35.1	35.0	34.9	34.8	34.7	31.3/7.5m								
8	29.2	29.1	29.0	28.8	28.8	28.7	28.6	28.4	28.3	25.7/8.5m						
9	24.8	24.7	24.6	24.5	24.4	24.3	24.2	24.0	23.9	23.8	23.4	21.4/9.6m				
10	21.6	21.4	21.3	21.2	21.1	21.0	20.9	20.7	20.6	20.5	20.4	20.3	20.0/10.1m	16.7/10.6m		
12	17.0	16.9	16.8	16.6	16.5	16.4	16.2	16.1	16.0	16.0	15.9	15.6	15.5	15.4	15.3	15.2
14		13.8	13.7	13.6	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.8	12.7	12.6	12.4	12.2
16			11.5	11.4	11.2	11.2	11.0	10.9	10.8	10.7	10.7	10.7	10.5	10.5	10.3	10.2
18			10.7/17m	9.9	9.6	9.5	9.4	9.3	9.2	9.1	9.0	9.0	8.9	8.9	8.7	8.6
20				8.5	8.3	8.3	8.1	8.0	7.9	7.8	7.7	7.7	7.6	7.6	7.4	7.3
22					7.3	7.2	7.1	7.0	6.9	6.8	6.7	6.7	6.5	6.5	6.3	6.2
24					6.9/23m	6.4	6.3	6.2	6.1	6.0	5.9	5.8	5.6	5.6	5.4	5.3
26						6.0/25m	5.6	5.5	5.4	5.3	5.1	5.1	4.9	4.8	4.7	4.6
28							5.0	4.9	4.8	4.7	4.5	4.4	4.3	4.2	4.0	3.8
30								4.4	4.3	4.2	4.0	3.9	3.7	3.6	3.4	3.2
32									3.9	3.7	3.6	3.4	3.2	3.1	2.9	2.7
34									3.7/33m	3.3	3.2	3.0	2.8	2.7	2.5	2.2
36										3.0	2.8	2.6	2.4	2.3	2.1	1.8
38											2.5	2.2	2.1	1.9	1.7	1.4
40												1.9	1.8	1.6	1.4	1.1

Kobelco 7080-1

80 Tonne Crawler Crane

Main Boom (Crane Type) + Fixed Fly Jib

Jib Rated Crane Loads in 360° Work Area in Ton
(Extended Crawler)

Unit: metric tons

Boom Length m(ft)	Jib Offset Angle: 10°																				
	33.53(110)			36.58(120)			39.62(130)			42.67(140)			45.72(150)			48.77(160)			51.82(170)		
Jib Length Radius (m) \ m(ft)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	
10	10.0																				
12	10.0	8.0		10.0			10.0			10.0			10.0								
14	10.0	8.0	4.3	10.0	8.0		10.0	8.0	4.3	10.0	8.0	4.3	10.0	8.0	4.3	10.0	8.0	4.3	10.0	8.0	
16	10.0	8.0	4.3	10.0	8.0	4.3	10.0	8.0	4.3	10.0	8.0	4.3	10.0	8.0	4.3	10.0	8.0	4.3	10.0	8.0	8.0
18	9.3	8.0	4.3	9.2	8.0	4.3	9.1	8.0	4.3	9.0	8.0	4.3	8.9	8.0	4.3	8.8	8.0	4.3	8.7	8.0	8.0
20	8.0	8.0	4.3	7.9	7.9	4.3	7.8	7.8	4.3	7.7	7.7	4.3	7.6	7.6	4.3	7.5	7.5	4.3	7.4	7.4	7.4
22	7.0	7.0	4.3	6.9	6.9	4.3	6.8	6.8	4.3	6.7	6.7	4.3	6.6	6.6	4.3	6.5	6.5	4.3	6.4	6.4	6.4
24	6.2	6.2	4.3	6.1	6.1	4.3	6.0	6.0	4.3	5.9	5.9	4.3	5.8	5.8	4.3	5.6	5.6	4.3	5.5	5.5	5.5
26	5.5	5.5	4.3	5.4	5.4	4.3	5.3	5.3	4.3	5.1	5.1	4.3	5.0	5.0	4.3	4.9	4.9	4.3	4.8	4.8	4.8
28	4.9	4.9	4.3	4.8	4.8	4.3	4.7	4.7	4.3	4.5	4.5	4.3	4.4	4.4	4.3	4.3	4.3	4.3	4.2	4.2	4.2
30	4.4	4.4	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.0	4.0	4.0	3.9	3.9	3.9	3.8	3.8	3.8	3.7	3.7	3.7
32				3.9	3.9	3.9	3.7	3.7	3.7	3.6	3.6	3.6	3.5	3.5	3.5	3.3	3.3	3.3	3.2	3.2	3.2
34				*3.7	*3.7	*3.7	3.3	3.3	3.3	3.2	3.2	3.2	3.1	3.1	3.1	2.9	2.9	2.9	2.8	2.8	2.8
36							3.0	3.0	3.0	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.6	2.6	2.5	2.5	2.5
38										2.5	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2
40													2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9

The load with * mark shows the value at working radius of 33m.

Unit: metric tons

Boom Length m(ft)	Jib Offset Angle: 30°																				
	33.53(110)			36.58(120)			39.62(130)			42.67(140)			45.72(150)			48.77(160)			51.82(170)		
Jib Length Radius (m) \ m(ft)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	21.34 (70)	9.14 (30)	15.24 (50)	
14	5.0			5.0			5.0			5.0			5.0			5.0			5.0		
16	5.0			5.0			5.0			5.0			5.0			5.0			5.0		
18	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
20	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
22	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	5.0
24	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	5.0
26	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	3.1	5.0	5.0	5.0
28	4.9	4.9	3.1	4.8	4.8	3.1	4.7	4.7	3.1	4.5	4.5	3.1	4.4	4.4	3.1	4.3	4.3	3.1	4.2	4.2	4.2
30	4.4	4.4	3.1	4.3	4.3	3.1	4.2	4.2	3.1	4.0	4.0	3.1	3.9	3.9	3.1	3.8	3.8	3.1	3.7	3.7	3.7
32				3.9	3.9	3.1	3.7	3.7	3.1	3.6	3.6	3.1	3.5	3.5	3.1	3.3	3.3	3.1	3.2	3.2	3.2
34				*3.7	*3.7	*3.1	3.3	3.3	3.1	3.2	3.2	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.8	2.8	2.8
36							3.0	3.0	3.0	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.6	2.6	2.5	2.5	2.5
38										2.5	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2
40													2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9

The load with * mark shows the value at working radius of 33m.

Kobelco 7080-1 80 Tonne Crawler Crane Range Diagram

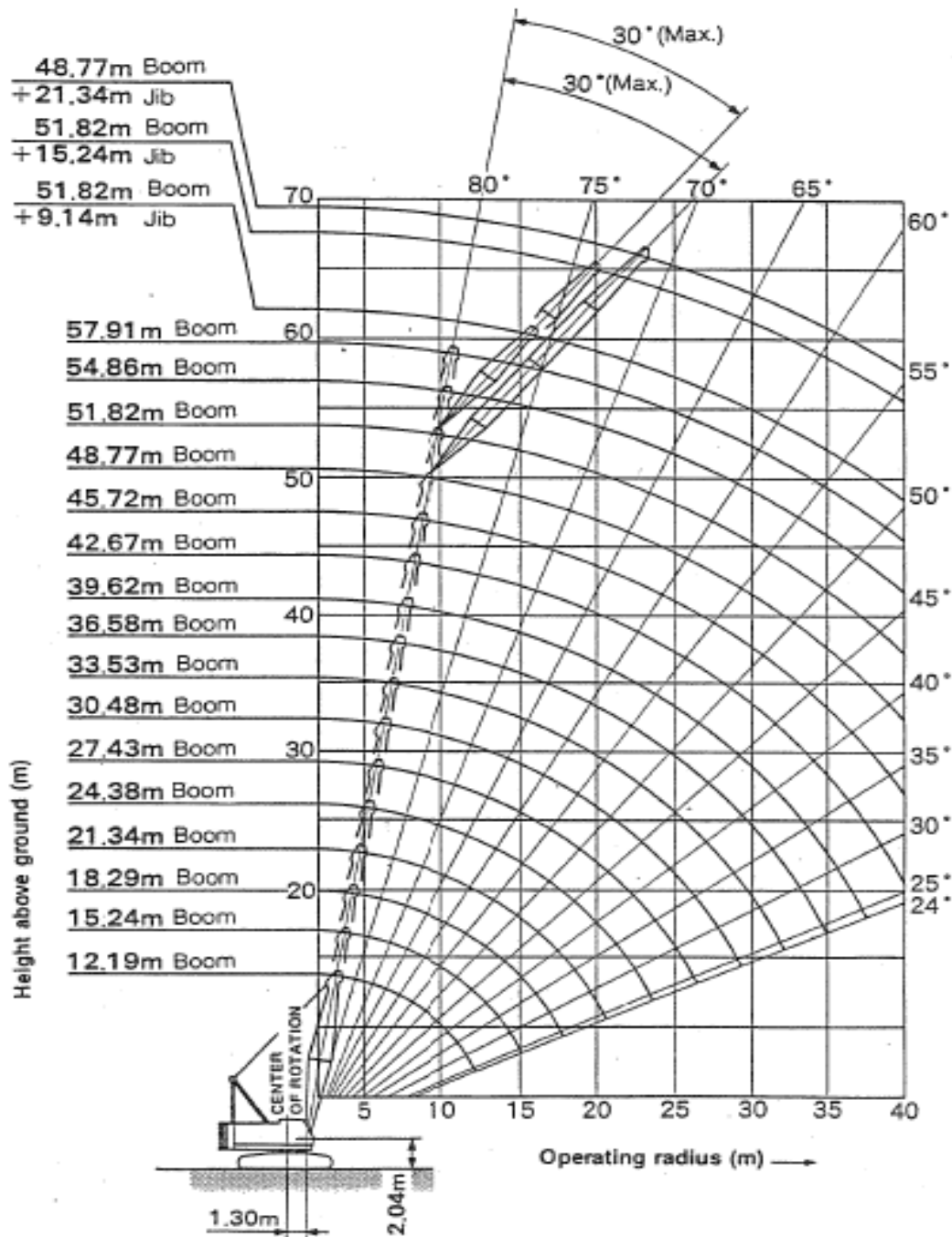
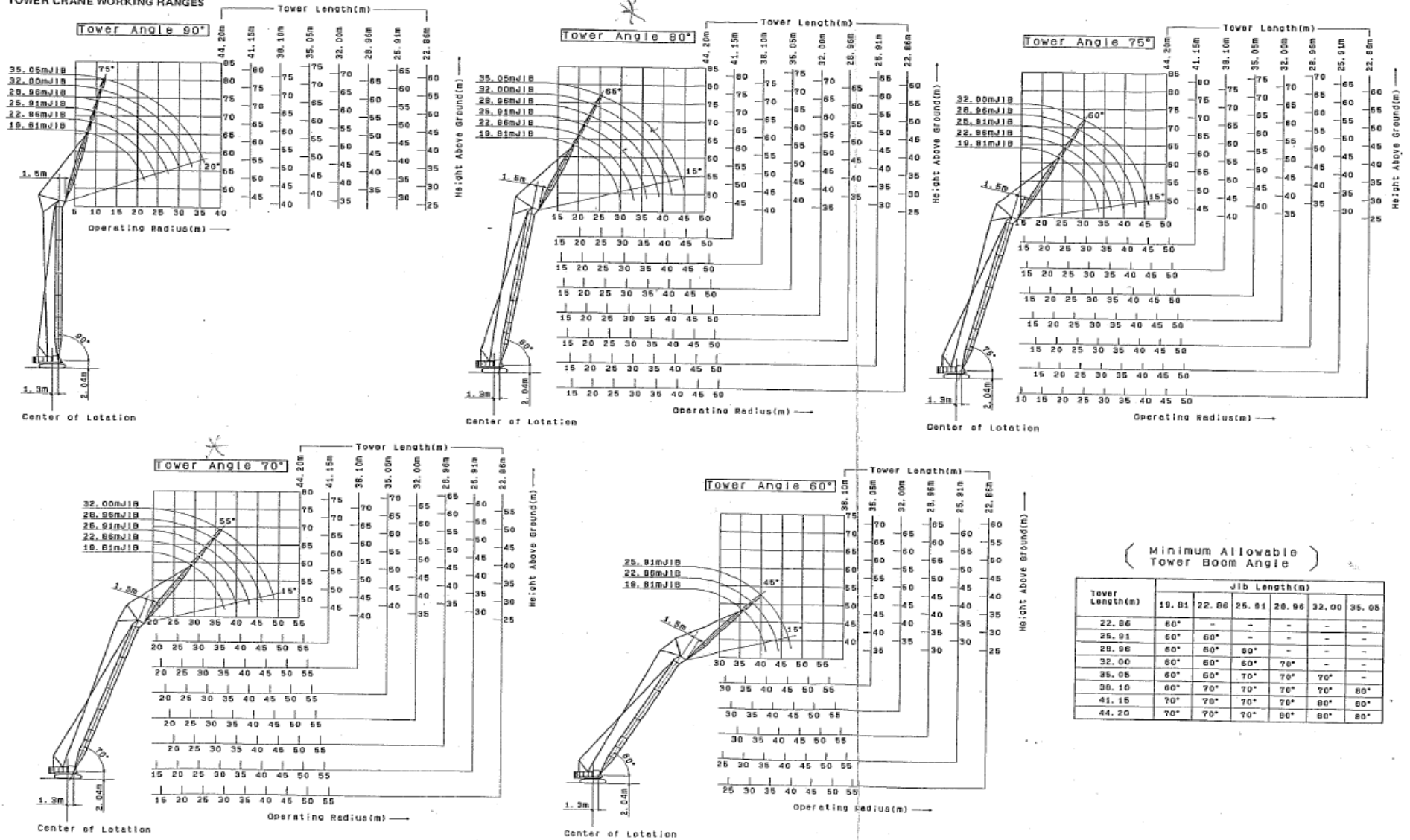


Figure 1-5. Crane Range Diagram

Kobelco 7080-1 Tower + Luffing Jib Range Diagrams

TOWER CRANE WORKING RANGES



(Minimum Allowable Tower Boom Angle)

Tower Length(m)	Jib Length(m)					
	19.81	22.86	25.91	28.96	32.00	35.05
22.86	80°	-	-	-	-	-
25.91	60°	60°	-	-	-	-
28.96	60°	80°	60°	-	-	-
32.00	60°	60°	60°	70°	-	-
35.05	60°	60°	70°	70°	70°	-
38.10	60°	70°	70°	70°	70°	80°
41.15	70°	70°	70°	70°	80°	80°
44.20	70°	70°	70°	80°	80°	80°

Inclining Tower Rated Crane Loads in Tons																	
Tower Length		38.10 (125)															
Jib Length	19.81 (65)			22.86 (75)			25.91 (85)			28.96 (95)			32.00 (105)			35.05 (115)	
Tower Angle	90 °	75 °	60 °	90 °	80 °	70 °	90 °	80 °	70 °	90 °	80 °	70 °	90 °	80 °	70 °	90 °	80 °
RADIUS (m)																	
8.0	15.0			8.7m/15.0													
9.0	15.0			15.0			9.5m/15.0										
10.0	15.0			15.0			15.0			10.3m/15.0							
11.0	15.0			15.0			15.0			15.0			12.7				
12.0	15.0			15.0			15.0			15.0			12.7			10.5	
13.0	15.0			15.0			15.0			15.0			12.7			10.5	
13.5	15.0			15.0			15.0			15.0			12.7			10.5	
14.0	14.3			14.3			14.3			14.3			12.7			10.5	
15.0	13.0			13.0			13.0			13.0			12.3			10.5	
16.0	11.9			11.9			11.9			11.9			11.9			10.1	
18.0	10.2			10.2	19.0m/7.9		10.2			10.2			10.2			9.4	
20.0	8.9			8.9	7.5		8.9	20.3m/7.3		8.9	21.6m/6.7		8.9			8.6	
22.0	21.4m/8.3	22.5m/6.2		7.9	6.6		7.9	6.6		7.9	6.5		7.9	22.9m/6.1		7.9	
24.0		5.7		7.1	6.0		7.1	5.9		7.1	5.8		7.1	5.7		7.1	24.2m/5.5
26.0		5.1		24.3m/7.0	5.4		6.4	5.3		6.4	5.2		6.4	5.1		6.4	5.0
28.0		4.7			4.9	20.0m/3.7	27.2m/6.0	4.8		5.9	4.8		5.9	4.7		5.9	4.6
30.0		4.3			4.5	3.6		4.4	30.6m/3.5	5.4	4.4		5.4	4.2		5.4	4.2
32.0		31.7m/3.9			31.4m/4.2	3.3		4.1	3.2		4.0	32.3m/3.0	5.0	3.9		5.0	3.8
34.0			35.6m/1.9			3.0		3.7	2.9		3.7	2.8	32.9m/4.0	3.6	34.1m/2.6	4.6	3.5
36.0			1.9			2.8		34.4m/3.6	2.7		3.4	2.6		3.3	2.4	35.9m/4.1	3.2
38.0			1.7			37.8m/2.6			2.5		37.3m/3.2	2.4		3.1	2.2		3.0
40.0			1.6						2.2			2.2		2.8	2		2.8
42.0			40.7m/1.5						40.7m/2.1			2.0		40.3m/2.0	1.8		2.6
44.0												43.7m/1.8			1.6		43.2m/2.5
46.0															1.5		
48.0															46.6m/1.5		

