

Dimensions in () brackets are for retracted gantry and crawler

Fig. 2-1 Crawler Crane Outline



Table 2-1 Main technical specifications

Item		Unit	Data
Max. rated lifting capacity	Basic boom	t	55
	Fixed jib	t	5
Max. load moment		t.m	203.5
Main boom length		m	13~52
Main boom angle		°	30~80
Fixed jib length		m	9.15~15.25
Winch max. single line speed (no load, at 5th layer)		m/min	121
Boom elevating gear max. single line speed (at 1st layer)		m/min	63
Max. swing speed		r/min	1.5
Max. travel speed		km/h	1.35
Grade ability			40 %
Mean ground pressure		MPa	0.069
Engine output power		kW	125/158
Gross vehicle weight (with main hook block and 13m boom)		t	51
Max. weight of single unit in travel configuration		t	31
Max. dimension of single unit in travel configuration (L×W×H)		m	11.5×3.47×3.4

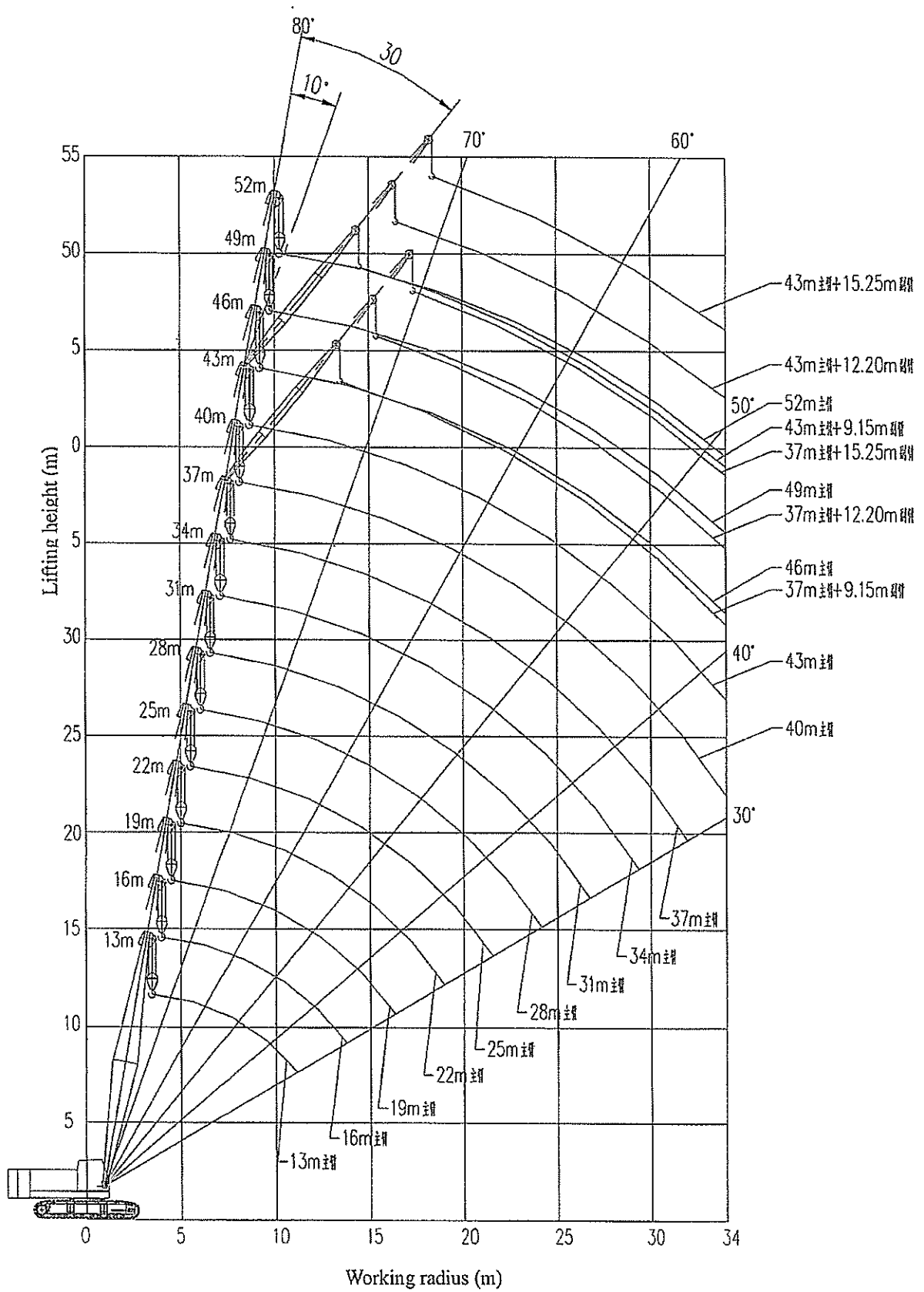


Fig. 2-2 Crawler Crane Working Area



Unit: t

Boom length Radius	13(m)	16(m)	19(m)	22(m)	25(m)	28(m)	31(m)	34(m)	37(m)	40(m)	43(m)	46(m)	49(m)	52(m)
3.7(m)	55.00													
4.0(m)	50.00	48.00												
4.5(m)	42.00	41.50	40.00											
5.0(m)	35.20	35.00	34.60	33.00										
5.5(m)	31.20	31.00	30.30	30.00	28.00									
6.0(m)	27.80	27.50	27.20	26.90	26.00	25.00								
7.0(m)	22.50	22.20	22.00	21.80	21.50	21.00	20.00							
8.0(m)	19.00	18.90	18.50	18.30	18.20	17.80	17.40	17.00	16.60					
10.0(m)	14.00	13.90	13.80	13.70	13.60	13.50	13.30	13.00	12.60	12.40	12.00	11.60	11.30	
12.0(m)	11.20	11.10	11.00	10.80	10.70	10.50	10.60	10.40	10.20	9.90	9.50	9.20	9.10	9.10
14.0(m)		9.20	9.10	9.00	8.90	8.70	8.60	8.50	8.40	8.10	7.90	7.60	7.30	7.30
16.0(m)			7.80	7.50	7.40	7.30	7.20	7.10	7.00	6.80	6.50	6.30	6.10	6.10
18.0(m)				6.50	6.40	6.30	6.20	6.10	6.00	5.80	5.70	5.40	5.20	5.00
20.0(m)				5.60	5.50	5.40	5.30	5.20	5.10	4.90	4.80	4.60	4.30	4.20
22.0(m)					4.80	4.70	4.50	4.40	4.20	4.10	4.00	3.80	3.60	3.50
24.0(m)						4.00	3.90	3.80	3.60	3.50	3.40	3.20	3.10	2.90
26.0(m)							3.50	3.30	3.20	3.10	2.90	2.80	2.60	2.40
28.0(m)								2.90	2.80	2.60	2.40	2.30	2.20	1.90
30.0(m)									2.40	2.20	2.00	1.80	1.60	1.50
32.0(m)										1.90	1.70	1.60	1.30	1.20
34.0(m)											1.60	1.10	1.00	0.90

Notes:

1. The unit of lifting load in the above table is ton.
2. The crawler track must be extended before lifting operation and the crane should be set up on firm and level ground.
3. The lifting loads in the table include the weight of slings and attachment.
4. The lifting load in the table does not exceed 75% of tipping load.
5. The lifting load should be subtracted 2.5t when jib is attached on boom head; the lifting load should be subtracted 0.4t when single top is attached on boom head and boom length should be less than 49m and the weight of single top should be less than 4t.



Table 2-3 Total rated lifting load for fixed jib Unit: t

Boom length (m)	25						28						31						34					
	9.15		12.20		15.25		9.15		12.20		15.25		9.15		12.20		15.25		9.15		12.20		15.25	
	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30
Jib length (m)	5.00						5.00						5.00						5.00					
Jib angle (°)																								
Radius(m)																								
9							5.00						5.00					5.00						
10							5.00					4.50					4.50							
11							5.00					4.50				4.00		4.50						
12							5.00					4.50				4.00		4.50						
13							5.00					4.50				4.00		4.50						
14							5.00					4.50				3.50		4.50						
15							5.00					4.40				3.50		4.40						
16							5.00					4.20				3.50		4.20						
18							5.00					4.10				3.50		4.00						
20							5.00					3.90				3.50		3.90						
22							4.30					3.80				3.00		3.80						
24												4.00				3.10		3.65						
26																								
28																								
30																								
32																								
34																								



Unit: t

Table 2-3 Continued Total rated lifting load for fixed jib

Boom length (m)	37						40						43						
	9.15		12.20		15.25		9.15		12.20		15.25		9.15		12.20		15.25		
	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
Jib length (m)																			
Jib angle (°)																			
Radius (m)																			
9																			
10																			
11	5.00																		
12	5.00		4.50				5.00												
13	5.00	4.80	4.50		4.00		5.00		4.50										
14	5.00	4.80	4.50		4.00		5.00	4.80	4.50		3.50								3.50
15	5.00	4.70	4.50		4.00		5.00	4.80	4.50		3.50								3.50
16	5.00	4.70	4.50	3.80	4.00		5.00	4.50	4.50	4.00	3.50								3.40
18	5.00	4.55	4.50	3.70	3.80	3.20	5.00	4.50	4.30	4.00	3.40	3.20	5.00	4.70	4.30	3.80	3.30		3.30
20	4.60	4.40	4.15	3.60	3.65	3.10	4.50	4.30	4.15	3.80	3.30	3.15	4.45	4.40	4.15	3.75	3.20		3.20
22	4.10	4.20	4.00	3.40	3.50	3.00	4.00	4.10	4.00	3.65	3.20	3.05	3.95	4.15	4.00	3.65	3.10		3.10
24	3.60	3.70	3.70	3.30	3.35	2.90	3.60	3.65	3.50	3.45	3.10	2.95	3.50	3.60	3.50	3.45	3.00		3.00
26	3.20	3.30	3.30	3.20	3.20	2.80	3.15	3.20	3.10	3.30	2.95	2.85	3.10	3.10	3.05	3.15	2.80		2.90
28	2.90	2.90	2.90	2.90	3.00	2.75	2.80	2.80	2.80	2.80	2.70	2.75	2.70	2.70	2.70	2.80	2.70		2.80
30	2.50	2.55	2.60	2.60	2.60	2.65	2.45	2.50	2.40	2.50	2.40	2.50	2.40	2.30	2.30	2.45	2.35		2.50
32	2.20	2.20	2.30	2.30	2.30	2.40	2.10	2.20	2.10	2.20	2.10	2.25	2.00	2.05	2.00	2.10	2.00		2.20
34							1.85	1.90	1.80	1.90	1.90	2.00	1.70	1.80	1.70	1.85	1.70		2.00

1. The lifting load in the table is the rated lifting capacity for the crane set up on firm and level ground, which should not exceed 75% of tipping load.
2. The lifting load in the table is the rated lifting capacity subtracted the weight of slings (main hook block + auxiliary hook block).
3. The counterweight is 16.5t, and the 5t capacity hook block is 0.115t.
4. The crawler track must be extended before lifting operation
5. The radius is the actual working radius for the crane lifting a load.



Notes on Table 2-2, Table 2-3

- (1). The total rated lifting loads shown in the tables are based on the condition that the crane is set on firm and level ground (no risk of sinking) with specified boom length and working radius, ground gradient do not exceed 1%. Never operate the crane beyond the rated load. In case of unfavorable conditions such as soft or unlevel ground, wind, side load, oscillating effect, multi cranes lifting, the total rated lifting loads should be limited or reduced.
- (2). Each total rated load includes the weight of hook block and slings.
- (3). The working radius in above tables is the horizontal distance from vertical line of hook block with a suspended load to centerline of slewing, including the actual value of boom deflection.
- (4). The blank space in above table means the operation under these conditions is not allowed.
- (5). The boom can be used with a single top equipped.
- (6). The max. rated lifting load for single top (including the weight of hook block, slings and wire rope) is 5t, and lifting operation is according to the load if it is less than 5t.
- (7). The max. working radius of single top should not exceed the corresponding value for main boom. The min. one is determined by the boom angle under same working condition.
- (8). Lifting operation is allowed when the wind speed is not more than 9.8 m/s.
- (9). It is not allowed to use main hook block and single top hook block at the same time.
- (10). There are three kinds of hook block with capacity of 55t, 26t and 5t. The 5t capacity hook block is for jib and single top, and the weight of hook block is as the following:

Hook block capacity	55t	26t	5t
Weight of hook block	600kg	280kg	115kg

Table 2-4 Relation among boom length, parts of line and rated lifting load

Boom length (m)	13	16	19	22	25	28	31
Parts of line	10	9	8	7	6	5	4
Lifting load (t)	55	48	40	33	28	25	20
Boom length (m)	34	37	40	43	46	49	52
Parts of line	3	3	3	3	2	2	2
Lifting load (t)	17	16.6	12.4	12	11.6	11.3	9.1