

Tadano Rough Terrain Crane

GR-160N

(6-section boom, 2-section power tilt jib, X-type outriggers)

Specifications

Spec. No. GR-160N-4-00101

TADANO LTD.

GR-160N 16 ton wheel crane

1. Specifications

© Crane

Crane capacity	6.5m boom	16,000 kg × 3.0 m (6 parts of line)
	10.7m boom	12,000 kg × 4.0 m (6 parts of line)
	14.9m boom	9,000 kg × 4.5 m (4 parts of line)
	19.1m boom	7,000 kg × 5.5 m (4 parts of line)
	23.3m boom	5,000 kg × 6.0 m (4 parts of line)
	27.5m boom	3,500 kg × 7.0 m (4 parts of line)
	4.5m jib	2,000 kg × 75° (1 part of line)
	6.9m jib	1,500 kg × 70° (1 part of line)
Maximum lifting height	Single top	3,200 kg (1 part of line)
	Boom	28.2 m
	Jib	35.0 m
Maximum load radius	Boom	24.0 m
	Jib	27.8 m
Boom length		6.5 m to 27.5 m
Boom telescoping length		21.0 m
Boom extension speed		21.0 m / 71 s
Jib length		4.5 m, 6.9 m
Main winch wire rope hoist up speed		120 m/min (5th layer)
Main winch hook block hoist up speed		30 m/min (4 parts of line)
Main winch wire rope hoist up speed(reference)		Standard:120 m/min (5th layer)
		High-speed: 170 m/min (5th layer)
Auxiliary winch wire rope hoist up speed		110 m/min (3rd layer)
Auxiliary winch hook block hoist up speed		110 m/min (1 part of line)
Auxiliary winch wire rope hoist up speed (reference)		Standard:110 m/min (3rd layer)
		High-speed:150 m/min (3rd layer)
Boom elevating angle		-9° to 82.5°
Boom raising speed		-9° to 82.5°/ 30 s
Slewing angle		360° continuous
Slewing speed		2.6 min ⁻¹ (rpm)
Wire rope	Main	Dia. 14 mm × length 155 m
		Flame-retardant wire rope
	Auxiliary	Dia. 14 mm × length 85 m
Boom		Flame-retardant wire rope
		Box-shaped 6-section hydraulic telescoping type (2nd/3rd sections synchronized, 4th/5th/6th sections synchronized)
Boom telescoping system		2 double-acting direct-pushing hydraulic cylinders
		3 wire-rope boom telescoping systems
Jib type		With pressure compensating flow control valve
		Stowed below boom 2-section (telescoping 2nd section)
		Offset (5° to 60°) Hydraulic stepless tilt type
Single top type		Fixed to top boom

Hoisting system	Hydraulic motor driven planetary gear speed reducer Automatic brake High-speed hoist down 2 single winch
Boom elevating system	With pressure compensating flow control valve 1 double-acting direct-pushing hydraulic cylinder
Slewing system	With pressure compensating flow control valve Hydraulic motor driven planetary gear speed reducer Ball bearing Slewing free/lock interchangeable Negative brake
Outriggers	Fully hydraulic X-type (floats mounted integrally) Slide and jacks with independent operation device Maximum extension width 5.2 m Middle extension width 4.8 m, 4.4 m, 3.2 m Minimum extension width 2.7 m
Operation method	Electric operated
Maximum load of outrigger	18.4 t
Power take off	PTO wet multiplate clutch type
Hydraulic pump	Tandem variable piston pump Tandem gear pump
Hydraulic oil tank capacity	285 L
Safety devices	Load moment indicator (LMI) Slewing automatic stop device Elevation slow stop device Anti-two-block device Working range limiter Outrigger extension width detector Level gauge Hook safety latch Hydraulic safety valve Boom telescoping cylinder hydraulic lock Boom elevating cylinder hydraulic lock Power tilt cylinder hydraulic lock Jack cylinder hydraulic lock
Standard equipment	Full automatic air conditioner with dehumidifier Hydraulic oil temperature gauge Loudspeaker AM/FM radio Oil cooler Visual drum rotation indicator Operating pedals ISO layout: for boom telescoping and auxiliary winch hook block Tadano layout: for boom elevating and boom telescoping
Accessories	Telematics Fuel consumption monitor Eco mode Hydraulic oil clogging alarm Wood blocks (4 pcs.) Aluminum pads (4 pcs.)

◎ **Carrier**

Vehicle name/model		Tadano YDS-T014
Engine	Model	Cummins QSB6.7-4C (with turbocharger, intake air cooling, urea SCR system)
	Type	Water-cooled, 4-cycle, 6 cylinder direct injection diesel engine
	Displacement	6.690 L
	Maximum output	175 kW{238PS} / 2,300 min ⁻¹ (rpm)
	Maximum torque	888 N·m (90.5 kgf·m) / 1,500 min ⁻¹ (rpm)
Torque converter		3-element 1-section (with automatic lockup mechanism)
Transmission		Automatic and manual transmission Power shift type (wet multiplate clutch) 4 forward and 1 reverse speeds (with Hi/Low settings)
Speed Reducer		Axle two-stage deceleration
Driving method		2WD (4×2) / 4WD (4×4) switching
Front axle system		Full-floating type
Rear axle system		Full-floating type
Suspension	Front wheels	Parallel leaf spring suspension (with hydraulic lock cylinder)
	Rear wheels	Parallel leaf spring suspension (with hydraulic lock cylinder)
Steering		Fully hydraulic power steering
Brakes	Main brake	Hydro-pneumatic front and rear disk brakes
	Parking brake	Air drive shaft internal expanding spring brake
	Auxiliary brake	Exhaust brake Auxiliary operating brake
Frame		Welded box-shaped structure
Batteries		12V–120Ah × 2 (24V)
Fuel tank capacity		250 L
Urea water tan		19 L
Tires	Front wheels	325/95R24 162/160K (160E ROAD)
	Rear wheels	325/95R24 162/160K (160E ROAD)
Cab		Crew capacity: 1 person With interior fittings Rubber mounting type Fully adjustable suspension seat (with headrest, armrest, seat belt) Adjustable handle (tilt, telescoping) Intermittent front and ceiling wipers (with washers) Power windows Side visors
Safety devices		Emergency steering device Suspension lock unit Rear wheel steering lock device Engine over-run alarm Over-shift prevention device Parking brake alarm Radiator fluid level warning device Hydraulic oil leak warning device Front-left camera

Standard equipment

Electromotive retractable mirror with heater
Overview video display
Immobilizer
Tire chocks
LED headlamps
Human alert

© Dimensions when traveling

Overall length		8,310 mm
Overall width		2,200 mm
Overall height		3,150 mm
Wheel base		3,200 mm
Wheel track	Front wheels	1,820 mm
	Rear wheels	1,820 mm

© Weight

Gross vehicle load		19,795 kg
	Front axle load	9,825 kg
	Rear axle load	9,970 kg

© Running performance

Maximum speed		49 km/h
Gradability	(tanθ)	0.6
Minimum turning radius		4.8 m (4-wheel steering) 8.5 m (2-wheel steering)

© Options

Winch drum monitoring camera
AML external warning lamp
Position lamps
Marker lamps
External auditory alarms
Radio controller for work preparation
Centralized lubrication system
Halogen headlamps

2. Rated lifting capacity table

2-(1) When using outriggers

[Boom]

Unit (t)

		Maximum outrigger extension (5.2 m)					—360 degrees—	
Boom length Load radius	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m		
		12.0	9.0	7.0				
2.5 m	16.0	12.0	9.0	7.0				
3.0 m	16.0	12.0	9.0	7.0				
3.5 m	14.0	12.0	9.0	7.0	5.0	3.5		
4.0 m	12.5	12.0	9.0	7.0	5.0	3.5		
4.5 m	11.7	11.1	9.0	7.0	5.0	3.5		
5.0 m	(4.4 m)	10.25	8.9	7.0	5.0	3.5		
5.5 m		9.4	8.2	7.0	5.0	3.5		
6.0 m		8.8	7.6	6.6	5.0	3.5		
7.0 m		6.75	6.5	5.8	4.7	3.5		
8.0 m		5.05	4.95	5.25	4.15	3.4		
9.0 m		4.35	3.9	4.3	3.7	3.1		
10.0 m		(8.6 m)	3.1	3.45	3.3	2.8		
11.0 m			2.5	2.85	3.05	2.55		
12.0 m			2.05	2.4	2.65	2.4		
13.0 m			1.75	2.0	2.2	2.25		
14.0 m			(12.8 m)	1.7	1.9	2.05		
15.0 m				1.4	1.6	1.75		
16.0 m				1.2	1.4	1.5		
17.0 m				1.05	1.2	1.3		
18.0 m					1.05	1.15		
19.0 m					0.85	1.0		
20.0 m					0.75	0.85		
22.0 m					0.6	0.60		
24.0 m					(21.2 m)	0.45		
A (°)		0 to 82.5						

A: Boom angle range (without load)

		Outrigger middle extension (4.8 m)					—side—	
Boom length Load radius	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m		
		12.0	9.0	7.0				
2.5 m	16.0	12.0	9.0	7.0				
3.0 m	16.0	12.0	9.0	7.0				
3.5 m	14.0	12.0	9.0	7.0	5.0	3.5		
4.0 m	12.5	12.0	9.0	7.0	5.0	3.5		
4.5 m	11.7	11.1	9.0	7.0	5.0	3.5		
5.0 m	(4.4 m)	10.2	8.9	7.0	5.0	3.5		
5.5 m		9.05	8.2	7.0	5.0	3.5		
6.0 m		7.65	7.35	6.6	5.0	3.5		
7.0 m		5.6	5.6	5.8	4.7	3.5		
8.0 m		4.3	4.25	4.7	4.15	3.4		
9.0 m		3.7	3.35	3.75	3.7	3.1		
10.0 m		(8.6 m)	2.65	3.05	3.3	2.8		
11.0 m			2.1	2.5	2.7	2.55		
12.0 m			1.65	2.05	2.25	2.35		
13.0 m			1.35	1.65	1.9	2.1		
14.0 m			(12.8 m)	1.3	1.6	1.75		
15.0 m				1.05	1.35	1.5		
16.0 m				0.85	1.15	1.3		
17.0 m				0.7	0.95	1.1		
18.0 m					0.75	0.95		
19.0 m					0.6	0.8		
20.0 m					0.5	0.65		
22.0 m						0.45		
A (°)		0 to 82.5					22 to 82.5	

A: Boom angle range (without load)

[Boom]

Outrigger middle extension (4.4 m)							Unit (t)
Boom length Load radius	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m	—side—
2.5 m	16.0	12.0	9.0	7.0			
3.0 m	16.0	12.0	9.0	7.0			
3.5 m	14.0	12.0	9.0	7.0	5.0	3.5	
4.0 m	12.5	12.0	9.0	7.0	5.0	3.5	
4.5 m	11.55	11.1	9.0	7.0	5.0	3.5	
5.0 m	(4.4m)	9.0	8.55	7.0	5.0	3.5	
5.5 m		7.6	7.6	7.0	5.0	3.5	
6.0 m		6.45	6.4	6.6	5.0	3.5	
7.0 m		4.75	4.75	5.10	4.7	3.5	
8.0 m		3.6	3.65	3.95	4.15	3.4	
9.0 m		3.05	2.85	3.15	3.5	3.1	
10.0 m		(8.6m)	2.2	2.5	2.85	2.8	
11.0 m			1.7	2.0	2.35	2.4	
12.0 m			1.35	1.65	1.95	2.0	
13.0 m			1.1	1.35	1.6	1.7	
14.0 m			(12.8m)	1.05	1.35	1.45	
15.0 m				0.85	1.1	1.2	
16.0 m				0.65	0.9	1.0	
17.0 m				0.55	0.75	0.8	
18.0 m					0.6	0.7	
19.0 m					0.5	0.55	
20.0 m						0.5	
A (°)	0 to 82.5						33 to 82.5

A: Boom angle range (without load)

Outrigger middle extension (3.2 m)							Unit (t)
Boom length Load radius	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m	—side—
2.5 m	16.0	12.0	9.0	7.0			
3.0 m	14.15	12.0	9.0	7.0			
3.5 m	10.2	9.9	8.6	7.0	5.0	3.5	
4.0 m	7.75	7.85	7.55	7.0	5.0	3.5	
4.5 m	6.55	6.25	6.2	6.9	5.0	3.5	
5.0 m	(4.4m)	5.15	5.15	5.7	5.0	3.5	
5.5 m		4.35	4.3	4.8	4.9	3.5	
6.0 m		3.65	3.7	4.1	4.3	3.5	
7.0 m		2.7	2.7	3.05	3.2	3.35	
8.0 m		1.95	1.95	2.35	2.5	2.65	
9.0 m		1.65	1.4	1.8	1.95	2.1	
10.0 m		(8.6m)	1.0	1.4	1.6	1.7	
11.0 m			0.65	1.05	1.25	1.35	
12.0 m			0.4	0.75	0.95	1.05	
13.0 m				0.5	0.75	0.85	
14.0 m				0.35	0.55	0.65	
15.0 m					0.35	0.5	
A (°)	0 to 82.5						33 to 82.5

A: Boom angle range (without load)

[Boom]

Unit (t)		Outrigger minimum extension (2.7 m)						—side—
Boom length Load radius	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m		
2.5 m	12.5	12.0	9.0	7.0				
3.0 m	9.85	9.65	8.85	7.0				
3.5 m	7.4	7.5	7.55	6.8	5.0	3.5		
4.0 m	5.7	5.95	5.95	6.2	5.0	3.5		
4.5 m	4.85	4.75	4.75	5.15	4.95	3.5		
5.0 m	(4.4m)	3.9	3.85	4.25	4.45	3.5		
5.5 m		3.2	3.15	3.55	3.75	3.5		
6.0 m		2.65	2.65	2.95	3.25	3.3		
7.0 m		1.85	1.8	2.15	2.4	2.5		
8.0 m		1.25	1.2	1.55	1.8	1.95		
9.0 m		0.95	0.75	1.1	1.35	1.5		
10.0 m		(8.6m)	0.45	0.75	1.0	1.15		
11.0 m				0.45	0.7	0.85		
12.0 m					0.5	0.6		
A (°)	0 to 82.5	40 to 82.5	43 to 82.5	51 to 82.5	57 to 82.5	82.5		

A: Boom angle range (without load)

[Jib (27.5 m boom)]

Maximum outrigger extension (5.2 m) —360 degrees—																
Jib Length	27.5 m boom + 4.5 m jib								27.5 m boom + 6.9 m jib							
Offset	5°		25°		45°		60°		5°		25°		45°		60°	
Boom angle (°)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)
82.5	3.9	2.0	5.6	2.0	6.7	1.55	7.2	1.2	4.5	1.5	7.0	1.3	8.6	0.82	9.7	0.69
75	8.4	2.0	9.9	1.7	10.8	1.4	11.2	1.15	9.2	1.5	11.5	1.05	12.9	0.75	13.8	0.66
70	11.2	1.95	12.5	1.5	13.4	1.25	13.6	1.1	12.3	1.5	14.3	0.96	15.6	0.72	16.4	0.65
65	13.8	1.65	15.1	1.3	15.8	1.15	16.0	1.1	15.1	1.3	17.0	0.88	18.1	0.69	18.9	0.64
60	16.2	1.35	17.4	1.2	18.1	1.1	18.2	1.1	17.7	1.1	19.6	0.82	20.5	0.67	21.1	0.64
55	18.4	1.0	19.6	0.95	20.1	0.95			20.1	0.89	21.9	0.77	22.7	0.66		
50	20.5	0.75	21.5	0.71	21.9	0.71			22.4	0.66	24.0	0.61	24.6	0.6		
45	22.4	0.54	23.3	0.52	23.5	0.5			24.4	0.47	25.8	0.43	26.1	0.4		
40	24.1	0.38	24.9	0.37					26.2	0.32	27.4	0.3				
35	25.6	0.25	26.2	0.25					27.8	0.21						
A (°)	34 to 82.5				44 to 82.5		59 to 82.5		34 to 82.5		39 to 82.5		44 to 82.5		59 to 82.5	

R:load radius W: rated lifting capacity A:Boom angle range (without load)

Outrigger middle extension (4.8 m) —side—																
Jib Length	27.5 m boom + 4.5 m jib								27.5 m boom + 6.9 m jib							
Offset	5°		25°		45°		60°		5°		25°		45°		60°	
Boom angle (°)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)
82.5	3.9	2.0	5.6	2.0	6.7	1.55	7.2	1.2	4.5	1.5	7.0	1.3	8.6	0.82	9.7	0.69
75	8.4	2.0	9.9	1.7	10.8	1.4	11.2	1.15	9.2	1.5	11.5	1.05	12.9	0.75	13.8	0.66
70	11.2	1.95	12.5	1.5	13.4	1.25	13.6	1.1	12.3	1.5	14.3	0.96	15.6	0.72	16.4	0.65
65	13.8	1.65	15.1	1.3	15.8	1.15	16.0	1.1	15.1	1.3	17.0	0.88	18.1	0.69	18.9	0.64
60	16.1	1.15	17.4	1.05	18.1	1.05	18.1	1.0	17.7	1.05	19.6	0.82	20.5	0.67	21.1	0.64
55	18.3	0.84	19.5	0.78	20.0	0.77			20.1	0.78	21.9	0.71	22.7	0.66		
50	20.4	0.59	21.4	0.56	21.8	0.56			22.3	0.55	23.9	0.5	24.5	0.48		
45	22.3	0.4	23.2	0.38	23.5	0.38			24.3	0.36	25.7	0.34	26.1	0.32		
40	24.0	0.25	24.8	0.23					26.1	0.23	27.3	0.21				
A (°)	39 to 82.5				44 to 82.5		59 to 82.5		39 to 82.5				44 to 82.5		59 to 82.5	

R: load radius W: rated lifting capacity A:Boom angle range (without load)

[Jib (27.5 m boom)]

Outrigger middle extension (4.4 m) —side—																
Jib Length	27.5 m boom + 4.5 m jib								27.5 m boom + 6.9 m jib							
Offset	5°		25°		45°		60°		5°		25°		45°		60°	
Boom angle (°)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)
82.5	3.9	2.0	5.6	2.0	6.7	1.55	7.2	1.2	4.5	1.5	7.0	1.3	8.6	0.82	9.7	0.69
75	8.4	2.0	9.9	1.7	10.8	1.4	11.2	1.15	9.2	1.5	11.5	1.05	12.9	0.75	13.8	0.66
70	11.2	1.95	12.5	1.5	13.4	1.25	13.6	1.1	12.3	1.5	14.3	0.96	15.6	0.72	16.4	0.65
65	13.6	1.3	15.0	1.15	15.8	1.1	16.0	1.05	15.1	1.3	17.0	0.88	18.1	0.69	18.9	0.64
60	16.0	0.9	17.2	0.82	17.9	0.82	18.0	0.77	17.6	0.87	19.5	0.8	20.5	0.67	21.1	0.64
55	18.2	0.62	19.4	0.58	19.9	0.58			20.0	0.57	21.7	0.53	22.5	0.53		
50	20.3	0.41	21.3	0.4	21.7	0.39			22.2	0.35	23.7	0.33	24.3	0.33		
45	22.2	0.24	23.1	0.22	23.4	0.21			24.2	0.23	25.6	0.2	26.0	0.2		
A (°)	44 to 5						59 to 82.5		44 to 82.5						59 to 82.5	

R: load radius W: rated lifting capacity A: Boom angle range (without load)

Outrigger middle extension (3.2 m) —side—																
Jib Length	27.5 m boom + 4.5 m jib								27.5 m boom + 6.9 m jib							
Offset	5°		25°		45°		60°		5°		25°		45°		60°	
Boom angle (°)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)
82.5	3.9	2.0	5.6	2.0	6.7	1.55	7.2	1.2	4.5	1.5	7.0	1.3	8.6	0.82	9.7	0.69
75	8.4	2.0	9.9	1.7	10.8	1.4	11.2	1.15	9.2	1.5	11.5	1.05	12.9	0.75	13.8	0.66
70	10.9	1.2	12.3	1.05	13.3	0.99	13.6	0.96	12.3	1.1	14.3	0.90	15.6	0.72	16.4	0.65
65	13.4	0.71	14.7	0.63	15.5	0.6	15.7	0.59	15.0	0.65	16.8	0.53	18.0	0.51	18.7	0.49
60	15.8	0.39	17.0	0.34	17.6	0.32	17.7	0.31	17.5	0.35	19.1	0.28	20.1	0.27	20.7	0.26
A (°)	59 to 82.5								59 to 82.5							

R: load radius W: rated lifting capacity A: Boom angle range (without load)

[Jib (23.3 m boom)]

Maximum outrigger extension (5.2 m) —360 degrees—																
Jib Length	23.3 m boom + 4.5 m jib								23.3 m boom + 6.9 m jib							
Offset	5°		25°		45°		60°		5°		25°		45°		60°	
Boom angle (°)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)
82.5	3.2	2.0	4.8	2.0	5.9	1.55	6.4	1.2	3.7	1.5	6.1	1.3	7.8	0.82	8.8	0.69
75	6.9	2.0	8.4	1.9	9.3	1.45	9.7	1.15	7.8	1.5	9.9	1.05	11.4	0.75	12.2	0.66
70	9.3	2.0	10.7	1.75	11.5	1.4	11.8	1.1	10.4	1.5	12.4	0.96	13.7	0.72	14.4	0.65
65	11.5	2.0	12.8	1.65	13.6	1.4	13.7	1.1	12.8	1.4	14.7	0.88	15.8	0.69	16.4	0.64
60	13.7	1.85	14.9	1.55	15.5	1.35	15.6	1.1	15.1	1.2	16.9	0.82	17.8	0.67	18.3	0.64
55	15.6	1.4	16.7	1.3	17.3	1.3			17.3	1.05	18.9	0.77	19.7	0.66		
50	17.4	1.05	18.4	1.0	18.8	1.0			19.3	0.98	20.7	0.74	21.3	0.66		
45	19.1	0.84	20.0	0.8	20.2	0.8			21.0	0.73	22.4	0.68	22.8	0.64		
40	20.6	0.64	21.3	0.62					22.7	0.56	23.8	0.52				
35	21.9	0.49	22.5	0.48					24.1	0.42	25.0	0.4				
30	23.1	0.37	23.5	0.37					25.3	0.32	26.1	0.31				
25	24.0	0.29	24.4	0.29					26.4	0.24	26.9	0.23				
20	24.8	0.23														
A (°)	19 to 82.5		24 to 82.5		44 to 82.5		59 to 82.5		24 to 82.5				44 to 82.5		59 to 82.5	

R: load radius W: rated lifting capacity A: Boom angle range (without load)

Outrigger middle extension (4.8 m) —side—																
Jib Length	23.3 m boom + 4.5 m jib								23.3 m boom + 6.9 m jib							
Offset	5°		25°		45°		60°		5°		25°		45°		60°	
Boom angle (°)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)
82.5	3.2	2.0	4.8	2.0	5.9	1.55	6.4	1.2	3.7	1.5	6.1	1.3	7.8	0.82	8.8	0.69
75	6.9	2.0	8.4	1.9	9.3	1.45	9.7	1.15	7.8	1.5	9.9	1.05	11.4	0.75	12.2	0.66
70	9.3	2.0	10.7	1.75	11.5	1.4	11.8	1.1	10.4	1.5	12.4	0.96	13.7	0.72	14.4	0.65
65	11.5	2.0	12.8	1.65	13.6	1.4	13.7	1.1	12.8	1.4	14.7	0.88	15.8	0.69	16.4	0.64
60	13.6	1.65	14.9	1.5	15.5	1.35	15.6	1.1	15.1	1.2	16.9	0.82	17.8	0.67	18.3	0.64
55	15.6	1.2	16.7	1.15	17.2	1.1			17.3	1.05	18.9	0.77	19.7	0.66		
50	17.4	0.92	18.4	0.87	18.8	0.85			19.2	0.8	20.7	0.73	21.3	0.66		
45	19.0	0.69	19.9	0.67	20.2	0.65			21.0	0.59	22.3	0.54	22.7	0.5		
40	20.5	0.51	21.3	0.49					22.6	0.43	23.8	0.39				
35	21.9	0.37	22.5	0.36					24.1	0.3	25.0	0.28				
30	23.0	0.25	23.5	0.25					25.3	0.21						
A (°)	29 to 82.5				44 to 82.5		59 to 82.5		29 to 82.5		34 to 82.5		44 to 82.5		59 to 82.5	

R: load radius W: rated lifting capacity A: Boom angle range (without load)

[Jib (23.3 m boom)]

Outrigger middle extension (4.4 m) —side—																
Jib Length	23.3 m boom + 4.5 m jib								23.3 m boom + 6.9 m jib							
Offset	5°		25°		45°		60°		5°		25°		45°		60°	
Boom angle (°)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)
82.5	3.2	2.0	4.8	2.0	5.9	1.55	6.4	1.2	3.7	1.5	6.1	1.3	7.8	0.82	8.8	0.69
75	6.9	2.0	8.4	1.9	9.3	1.45	9.7	1.15	7.8	1.5	9.9	1.05	11.4	0.75	12.2	0.66
70	9.3	2.0	10.7	1.75	11.5	1.4	11.8	1.1	10.4	1.5	12.4	0.96	13.7	0.72	14.4	0.65
65	11.5	1.75	12.8	1.5	13.6	1.4	13.7	1.1	12.8	1.4	14.7	0.88	15.8	0.69	16.4	0.64
60	13.6	1.26	14.8	1.1	15.4	1.05	15.5	1.0	15.1	1.2	16.9	0.82	17.8	0.67	18.3	0.64
55	15.6	0.91	16.6	0.84	17.1	0.8			17.2	0.85	18.9	0.77	19.7	0.66		
50	17.4	0.66	18.3	0.63	18.7	0.61			19.2	0.63	20.7	0.56	21.3	0.54		
45	19.0	0.48	19.8	0.45	20.1	0.45			21.0	0.46	22.3	0.38	22.7	0.37		
40	20.5	0.34	21.2	0.29					22.6	0.31	23.7	0.25				
35	21.9	0.20														
A (°)	34 to 82.5		39 to 82.5		44 to 82.5		59 to 82.5		39 to 82.5				44 to 82.5		59 to 82.5	

R: load radius W: rated lifting capacity A: Boom angle range (without load)

Outrigger middle extension (3.2 m) —side—																
Jib Length	23.3 m boom + 4.5 m jib								23.3 m boom + 6.9 m jib							
Offset	5°		25°		45°		60°		5°		25°		45°		60°	
Boom angle (°)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)	R (m)	W (t)
82.5	3.2	2.0	4.8	2.0	5.9	1.55	6.4	1.2	3.7	1.5	6.1	1.3	7.8	0.82	8.8	0.69
75	6.9	2.0	8.3	1.7	9.3	1.4	9.7	1.15	7.8	1.5	9.9	1.05	11.4	0.75	12.2	0.66
70	9.3	1.7	10.6	1.45	11.5	1.25	11.8	1.1	10.4	1.45	12.4	0.96	13.7	0.72	14.4	0.65
65	11.5	1.05	12.7	0.95	13.4	0.87	13.7	0.85	12.8	0.91	14.7	0.79	15.8	0.69	16.4	0.64
60	13.6	0.66	14.6	0.6	15.3	0.55	15.4	0.5	15.0	0.55	16.7	0.5	17.7	0.45	18.1	0.4
55	15.6	0.37	16.5	0.35	17.0	0.32			17.1	0.31	18.7	0.28	19.5	0.25		
A (°)	54 to 82.5						59 to 82.5		54 to 82.5						59 to 82.5	

R: load radius W: rated lifting capacity A: Boom angle range (without load)

Precautions when using outriggers

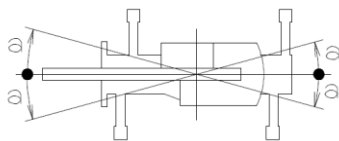
1. The rated lifting capacities assume that the crane is set horizontally on firm ground, and include the weight of the lifting devices and main winch hook block (140 kg) when working with the boom and the weight of the lifting devices and auxiliary hook block (50 kg) when working with the jib. The values above the bold line are based on the structural strength while those below are based on the crane stability factor.
2. The load radius is based on the actual figure including the boom deflection, so always use the load radius as the standard when working with the boom.
3. Jib rated lifting capacity table differs depending on whether or not boom length exceeds 23.3 m.
4. When performing jib lifting, use boom angle as the standard. Furthermore, load radius values assume the jib is attached to a 23.3 or 27.5 m boom, and actual load radius may differ.
5. The rated lifting capacity for the single top is the value obtained by subtracting 90 kg from the boom rated lifting capacity, and includes the weight of the lifting devices and auxiliary winch hook block (50 kg), and must not exceed 3.2 t.
6. High-speed hoist down should only be used when only the hook block is being lowered. Also, sudden lever operations should be avoided.
7. The standard number of parts of line on the hook block for each boom length are as shown in the chart below.

However, when using other number of parts of line, the load per line must not exceed 2.9 t for main winch wire rope or 3.2 t for auxiliary winch wire rope.

Boom length	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m	Jib/single top
Number of parts	6	6	4	4	4	4	1

8. When using the jib, the wire rope number of parts of line is 1.
9. The lifting capacity in the over-side area depends on the extension width of the outriggers. Perform work within the capacity according to the extension width.
The lifting capacity for the over-front and over-rear areas is the rated lifting capacity of the "maximum outriggers extension," but the range (angle **a**) in the over-front and over-rear areas depends on outrigger extension width in use.

Extension width	Middle extension (4.8 m)	Middle extension (4.4 m)	Middle extension (3.2 m)	Minimum extension (2.7 m)
Angle a °	50	45	20	15



2-(2) When on-rubber

Unit (t)

Load radius	When stopped							
	6.5 m boom		10.7 m boom		14.9 m boom		19.1 m boom	
	Front	360 degrees	Front	360 degrees	Front	360 degrees	Front	360 degrees
3.0 m	3.7	2.3	3.6	2.3	3.55	2.3	3.7	2.3
3.5 m	3.2	1.9	3.1	1.8	3.1	1.8	3.25	2.0
4.0 m	2.8	1.6	2.7	1.4	2.7	1.4	2.85	1.6
4.5 m	2.55	1.3	2.4	1.1	2.35	1.05	2.5	1.3
5.0 m	(4.4m)	(4.4m)	2.1	0.8	2.05	0.75	2.2	1.1
5.5 m			1.85	0.5	1.8	0.45	2.0	0.85
6.0 m			1.6		1.6		1.75	0.6
7.0 m			1.25		1.25		1.4	
8.0 m			1.0		0.95		1.15	
9.0 m					0.7		0.9	
10.0 m					0.5		0.7	
11.0 m					0.35		0.55	
12.0 m							0.4	
13.0 m							0.3	
A (°)	0 to 82.5		37 to 82.5	0 to 82.5	56 to 82.5	35 to 82.5	64 to 82.5	

A: Boom angle range (without load)

Unit (t)

Load radius	When travelling (1.6 km/h or less)							
	6.5 m boom		10.7 m boom		14.9 m boom		19.1 m boom	
	Front	360 degrees	Front	360 degrees	Front	360 degrees	Front	360 degrees
3.0 m	2.6	1.6	2.6	1.6	2.6	1.6	2.6	1.6
3.5 m	2.3	1.3	2.2	1.2	2.2	1.2	2.3	1.3
4.0 m	1.9	1.0	1.9	0.9	1.9	0.9	2.0	1.1
4.5 m	1.7	0.9	1.6	0.7	1.6	0.7	1.8	0.9
5.0 m	(4.4m)	(4.4m)	1.4	0.6	1.4	0.5	1.6	0.7
5.5 m			1.2	0.35	1.2	0.3	1.4	0.6
6.0 m			1.1		1.1		1.2	0.45
7.0 m			0.8		0.8		1.0	
8.0 m			0.6		0.6		0.8	
9.0 m					0.45		0.6	
10.0 m					0.3		0.45	
11.0 m							0.35	
A (°)	0 to 82.5		46 to 82.5	33 to 82.5	61 to 82.5	50 to 82.5	68 to 82.5	

A: Boom angle range (without load)

Precautions when on-rubber

1. The rated lifting capacities assume that the crane is set horizontally on firm ground, the tires are at the standard pressure (900 kPa {9.00 kgf/cm²}) and the suspension lock is fully engaged, and include the weight of the lifting devices and main winch hook block (140 kg) when working with the boom.

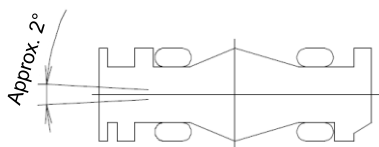
The values above the bold line are based on the structural strength while those below are based on the crane stability factor. When performing actual work, use after considering the ground and operating conditions, etc.

2. The load radius is based on the actual figure including boom and tire deflection, so always use the load radius as the standard.
3. The standard number of parts of line on the hook block for each boom length are as shown in the chart below.

However, when using other number of parts of line, the load per line must not exceed 2.9 t for main winch wire rope or 3.2 t for auxiliary winch wire rope.

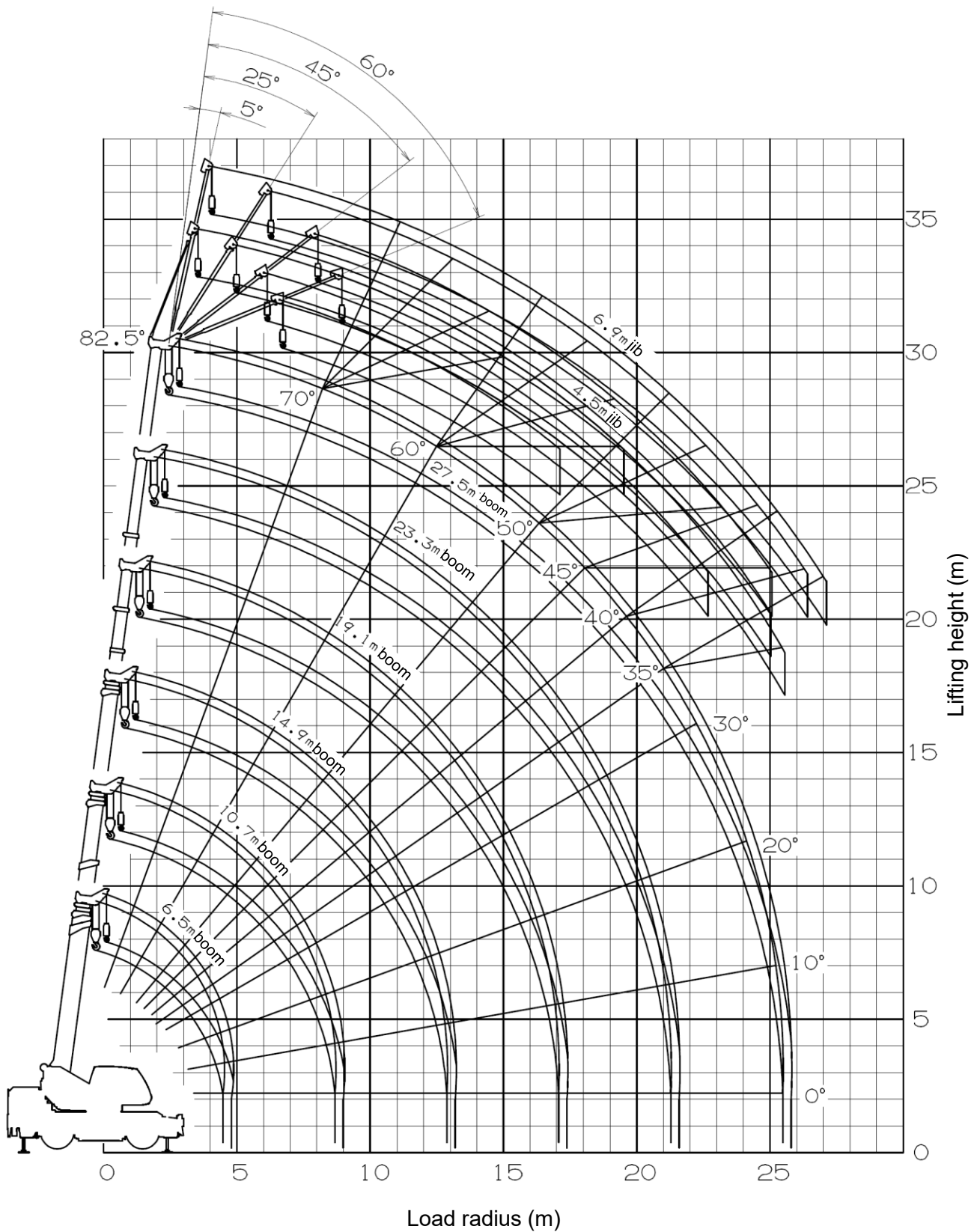
Boom length	6.5 m	10.7 m	14.9 m	19.1 m	Single top
Number of parts	4	4	4	4	1

4. Do not perform high-speed unwinding with a boom longer than 19.1 m or a jib.
5. Only perform crane operations in the front area while the AML "front position symbol" is lit. The front area is when the boom is within 2° of the front of the carrier.



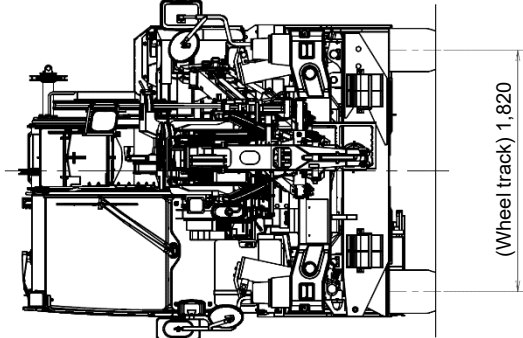
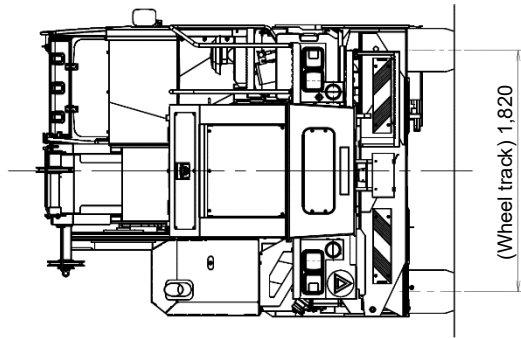
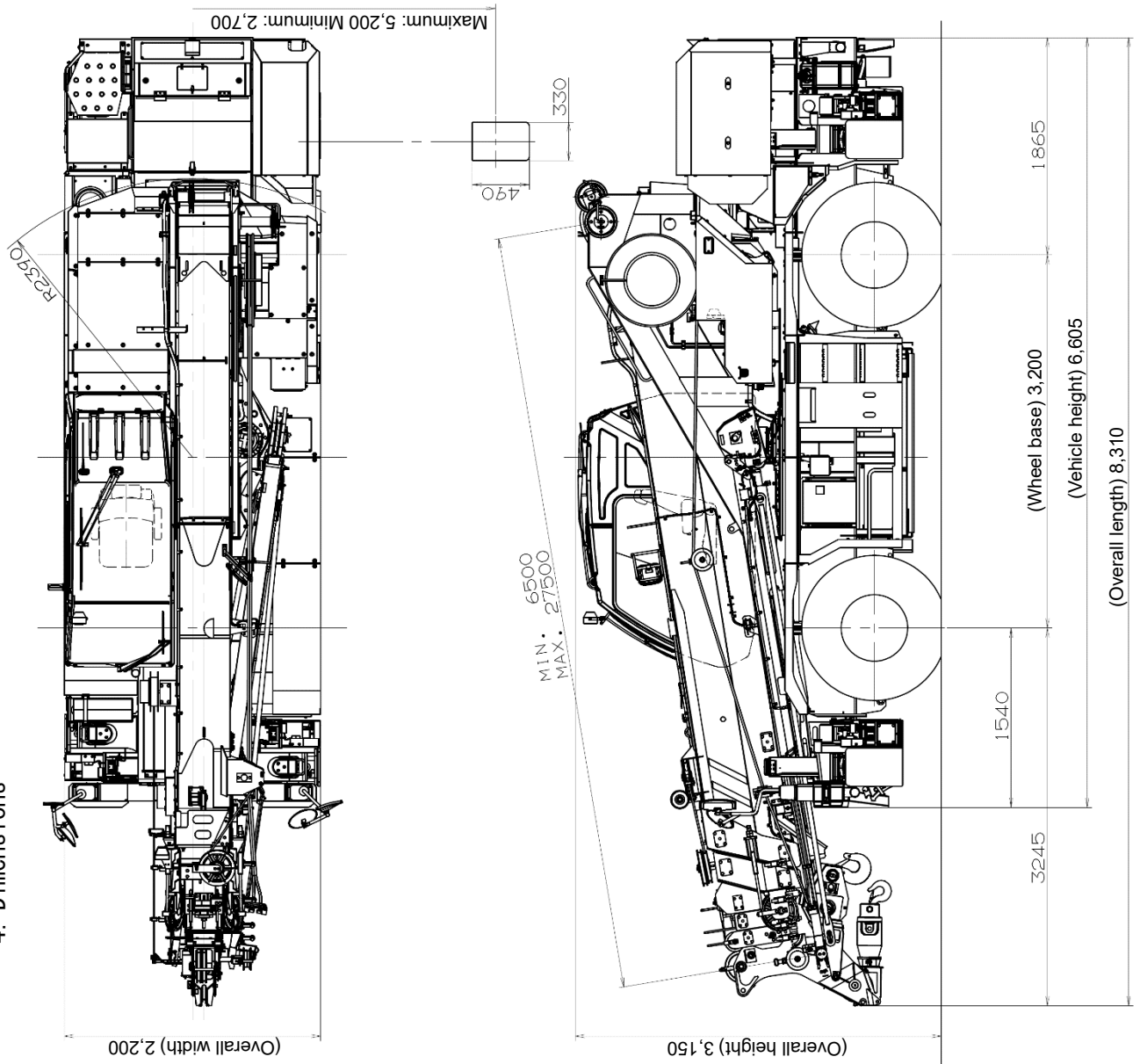
6. The rated lifting capacity for the single top is the value obtained by subtracting 90 kg from the boom rated lifting capacity, and includes the weight of the lifting devices and auxiliary winch hook block (50 kg), and must not exceed 3.2 t.
7. Perform pick and carry with the "drive mode selector" switch set to "4WD low speed traveling" and the gearshift switch set to first gear.
8. Perform pick and carry with the slewing brake on, the load close to the ground so it will not swing, and at a speed of 1.6 km or lower. In particular, abrupt steering, starting or braking must be avoided.
9. Do not perform crane operations while performing pick and carry.

3. Working range chart



- Note
1. The above drawing does not include boom deflection.
 2. The above drawing shows outrigger maximum (5.2 m) extension.

4. Dimensions



The following items depicted in this drawing are optional equipment:

- AML external warning lamp
- Position lamps^o
- Marker lamps