

#### **TADANO ROUGH TERRAIN CRANE**

# MODEL: GR-800EX

(Left-hand steering)

### **GENERAL DATA**

BOOM 5-section, 12.0 m — 47.0 m

### DIMENSION

Overall length	approx.	14,375 mm
Overall width	approx.	3,315 mm
Overall height	approx.	3,795 mm

#### MASS

Gross vehicle mass	approx.	51,410 kg
-front axle	approx.	24,325 kg
-rear axle	approx.	27,085 kg

### <u>PERFORMANCE</u>

Max. traveling speed	computed	25 km/	'h
Gradeability (tan $\theta$ )	computed	94 %	(at stall)
		*57 %	

<sup>\*</sup> Machine should be operated within the limit of engine crankcase design (30°: Cummins QSB6.7).

#### CRANE SPECIFICATIONS

MODEL GR-800EX

<u>CAPACITY</u> 80,000 kg at 3.0 m

BOOM Five section full power partially synchronized telescoping boom of round

box construction with 6 sheaves at boom head. The synchronization system consists of 2 telescope cylinders, extension cables and

retraction cables.

Hydraulic cylinders fitted with holding valves.

Fully retracted length. . . . . . . 12.0 m Fully extended length. . . . . . . . . . . . 47.0 m

JIB Two staged swingaround boom extension. Triple offset (3.5°/25°/45°)

type. Stows alongside base boom section. Assistant cylinders for mounting and stowing.

Single sheave at jib head.

Length......10.1 m and 17.7 m

SINGLE TOP (AUXILIARY Single sheave.

BOOM SHEAVE) Mounted to main boom head for single line work.

ELEVATION By a double-acting hydraulic cylinder, fitted with holding valve.

Automatic speed reduction and slow stop function.

Boom angle . . . . . . . . . -1.5° to 80.5°

Boom raising speed . . . . . . . . 20° to 60° in 46 s

HOIST - Main winch Variable speed type with grooved drum driven by hydraulic axial piston

motor through winch speed reducer. Power load lowering and hoisting. Equipped with automatic brake (Neutral brake) and counterbalance

valve. Controlled independently of auxiliary winch.

Single line pull. . . . . . . . . . . 64.7 kN {6,600 kgf}

Single line speed(High). . . . . . 149 m/min (at the 4th layer) Single line speed(Low) . . . . . . 107 m/min (at the 4th layer)

Wire rope. . . . . . . . . No-spin type
Diameter x length. . . . . . . 19 mm x 250 m

<u>HOOK BLOCK(Optional)</u> - 7 sheaves, swivel type hook with safety latch.

80 t capacity

<u>HOOK BLOCK(Optional)</u> - 3 sheaves, swivel type hook with safety latch.

35 t capacity

#### HOIST -

**Auxiliary winch** 

Variable speed type with grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting. Equipped with automatic brake (Neutral brake) and counterbalance valve. Controlled independently of main winch.

Single line pull. . . . . . . . . . 64.7 kN {6,600 kgf}

Single line speed(High). . . . . 149 m/min (at the 4th layer)

Single line speed(Low) . . . . . . 107 m/min (at the 4th layer)

Wire rope. . . . . . . . . No-spin type

Diameter x length. . . . . . . . 19 mm x 139 m

#### **HOOK BLOCK -**

6.6 t capacity

Swivel hook with safety latch for single line use.

**SWING** 

Hydraulic axial piston motor driven through planetary speed reducer.

Continuous 360° full circle swing on ball bearing slew ring.

Equipped with manually locked/released swing brake.

Swing speed. . . . . . . . . . . . 1.5 min<sup>-1</sup> {rpm}

HYDRAULIC SYSTEM

Pumps..... Two variable piston pumps for telescoping,

elevating and winches.

Tandem gear pump for steering, swing and optional

equipment.

Control valves. . . . . Multiple valves actuated by pilot pressure with

integral pressure relief valves.

Circuit. . . . . . . . . Equipped with air cooled type oil cooler.

Oil pressure appears on AML display for main

circuit.

Hydraulic oil tank capacity. . .

approx. 840 liters

Filters..... Return line filter

#### **CRANE CONTROL**

By 4 control levers for swing, boom hoist, main winch, boom telescoping or auxiliary winch with 2 control pedals for boom hoist and boom telescoping based on ISO standard layout. Control lever stands can change neutral positions and tilt for easy access to cab.

### **CAB**

Both crane and drive operations can be performed from one cab mounted on rotating superstructure. One sided one-man type, steel construction with sliding door access and tinted safety glass windows opening at side. Door window is powered control.

Operator's 3 way adjustable seat with headrest and armrest.

Air conditioner (Hot water heater and cooler).

# TADANO Automatic Moment Limiter (Model: AML-C)

Main unit in crane cab gives audible and visual warning of approach to overload. Automatically cuts out crane motions before overload. With working range (load radius and/or boom angle and/or tip height and/or swing range) limit function.

Automatic Speed Reduction and Slow Stop function on boom elevation and swing.

Following functions are displayed.

Load as percentage

Number of parts of line of rope

Boom angle

Boom length

Load radius

Outriggers position

On-tire indicator

Actual hook load

Permissible load

Boom position indicator

Potential hook height

Swing angle

Main hydraulic oil pressure

Jib length and jib offset angle (only when jib operation)

#### **OUTRIGGERS**

Hydraulically operated H-type outriggers. Each outrigger controlled simultaneously or independently from the cab.

Equipped with sight level gauge. Floats mounted integrally with the jacks retract to within vehicle width.

All cylinders fitted with pilot check valves.

Crane operation with different extended length of each outrigger.

Equipped with extension width detector for each outrigger.

Extended width

 Fully.
 .7,300 mm

 Middle.
 6,700 mm

 Middle.
 5,500 mm

 Minimum.
 2,700 mm

Float size (Diameter). . . . . . 600 mm

#### COUNTERWEIGHT

Integral with swing frame (containing weight with auxiliary winch and wirerope)

Mass..... 9,980kg

### CARRIER SPECIFICATIONS

TYPE Rear engine, left hand steering, driving axle 2-way selected type (by

manual switch).

4 x 2 front drive

4 x 4 front and rear drive

FRAME High-tensile steel, all welded mono-box construction.

ENGINE Model. . . . Cummins QSB6.7 [EUROMOT Stage B]

Type. . . . . 4 cycle, turbo charged and after cooled, 6 cylinder in line,

direct injection, water cooled diesel engine.

Piston displacement. . . . 6,700 cm<sup>3</sup>

Bore x stroke. . . . . . . . 107 mm x 124 mm

<u>TRANSMISSION</u> Electronically controlled full automatic transmission.

Torque converter driving full powershift with driving axle selector.

6 forward and 2 reverse speeds.

3 speeds - High range - 2 wheel drive; 4 wheel drive

3 speeds - Low range - 4 wheel drive

AXLES Front. . . . Full floating type, steering and driving axle with planetary

reduction.

Rear. . . . Full floating type, steering and driving axle with planetary

reduction.

Non-spin differential.

<u>STEERING</u> Hydraulic power steering controlled by steering wheel.

Four steering modes available:

2-wheel front 2-wheel rear

4-wheel coordinated

4-wheel crab

<u>SUSPENSION</u> Front. . . . . Rigid mounted to the frame.

Rear. . . . Pivot mounted with hydraulic lockout cylinders.

BRAKE SYSTEM Service. . . Air over hydraulic disc brakes on all 4 wheels.

Parking / Emergency. . .

Spring applied-air released brake acting on input shaft of

front axle.

Auxiliary. . . Electro-pneumatic operated exhaust brake.

ELECTRIC SYSTEM 24 V DC. 2 batteries of 12 V - 120 Ah capacity.

FUEL TANK CAPACITY 300 liters

TIRES Front. . . . . 29.5 - 25 34PR(OR), Single x 2 Air pressure:400kPa

Rear. . . . 29.5 - 25 34PR(OR), Single x 2 Air pressure:400kPa

<u>TURN RADIUS</u> Min. turning radius (at center of extreme outer tire)

2-wheel steering. . . . . . . 11.9 m 4-wheel steering. . . . . . 6.8 m

#### EQUIPMENT

#### STANDARD EQUIPMENT

Automatic moment limiter (AML) External lamp and buzzer (AML) Pendant type over-winding cutout Winch automatic fail-safe brake Over-unwinding prevention

Cable follower
Hook safety latch
Pilot check valves
Holding valves

Counterbalance valves

Hydraulic pressure relief valves

Swing brake Swing lock

Boom angle indicator Boom elevation foot pedal Boom telescoping foot pedal Outrigger extension width detector

Air conditioner (Hot water heater and cooler)

Sight level gauge Hydraulic oil cooler

Electric windshield wiper and washer Roof window wiper and washer

Power window (Cab door) Tachometer/Speedometer

3 way adjustable cloth seat with seat belt, headrest and armrest

Cab floor mat

Sun visor (Front and roof) Automatic drive system

Transmission neutral position engine start

Overshift prevention

Parking braked travel warning Tilt-telescope steering wheel

Back-up alarm

Air cleaner dust indicator

Air dryer

Water separator with filter Engine over-run alarm

Hydraulic lockout suspension Non-spin differential (Rear) Towing eyes - front and rear

Emergency steering

Emergency engine stop system

Telematics (machine data logging and monitoring system) with - HELLO-NET via internet (availability depends on countries)

Winch drum rotation indicator (Audible and Visual type)

Fuel consumption monitor

Positive control Eco mode system Winch drum mirror

Outrigger control box(Both side of carrier)

2-speed hoist

#### **OPTIONAL EQUIPMENT**

Tire inflation kit

Hook block - 80t capacity (7 sheaves, swivel type with safety latch.

Mass: approx. 700 kg)

Hook block - 35t capacity (3 sheaves, swivel type with safety latch.

Mass: 450 kg)

### HOISTING PERFORMANCE

	Main or auxilia	ry hoist 0.362m drum 1	9mm wire rope	
	Line	pulls	drum grooved lagging	
Layer	Avai	lable	Total wire rope	
	Low	High	Total wife tope	
	N(kgf)	N(kgf)	Meters	
1st	89,100(9,090)	63,900(6,520)	34.2	
2nd	80,700(8,230)	57,800(5,900)	71.5	
3rd	73,700(7,520)	52,800(5,390)	111.8	
4th	67,800(6,920)	48,600(4,960)	155.2	
5th	62,800(6,410)	45,100(4,600)	201.6	
6th	58,500(5,970)	41,900(4,280)	251.1	
7th <sup>1</sup>	54,800(5,590)	39,300(4,010)	303.7	

<sup>&</sup>lt;sup>1</sup>Seventh layer of wire rope are not recommended for hoisting operations.

ON OUTRIGGERS FULLY EXTENDED 7.3m SPREAD  360° ROTATION (Unit: x 1,000 kg)																				
A	1:	2m	16	.4m		20.		ROIF	AHOr		iit: x 5m	1,000	Kg)	38.	3m		42	.6m	4	7m
B	С	]	C	 ]	С	20.	С		С	20.	С		С	]	С		C	]	С	
3.0	70	80.0	75	46.6	79	40.9	78	18.2			•									
3.5	67	74.2	74	46.6	77	40.9	77	18.2												
4.0	64	67.0	72	46.6	76	40.9	76	18.2												
4.5	62	60.9	70	46.6	75	40.9	74	18.2												
5.0	59	55.7	68	46.6	73	38.9	73	18.2	79	18.2	78	15.1								
5.5	56	51.1	66	46.6	72	36.8	71	18.2	78	18.2	77	15.1								
6.0	53	46.2	64	45.8	70	34.9	70	18.2	77	18.2	76	15.1								
6.5	49	42.1	62	41.7	69	33.2	68	18.2	76	18.2	75	15.1								
7.0	46	38.6	60	38.3	67	31.6	67	18.2	75	18.2	75	15.1	79	15.1	79	13.0				
7.5	42	35.6	58	34.4	66	30.1	65	18.2	74	18.2	74	15.1	78	15.1	78	13.0				
8.0	38	33.0	56	31.0	64	28.1	64	18.2	73	18.2	73	15.1	78	15.1	78	12.8				
9.0	27	24.0	51	24.9	61	23.3	60	18.2	71	18.2	71	15.1	76	15.1	76	12.1	77	11.0		
10.0			46	20.2	58	19.7	57	18.2	69	18.2	69	15.0	75	14.6	75	11.3	76	11.0	79	9.5
11.0			40	16.7	54	16.3	54	18.2	67	16.6	66	14.0	74	13.8	73	10.7	75	10.7	77	9.5
12.0			34	14.0	50	13.6	50	16.4	65	14.6	64	13.2	72	13.0	72	10.1	73	10.2	76	9.5
14.0			13	10.2	42	9.9	42	12.4	60	11.2	60	11.7	69	11.3	68	9.0	71	9.3	74	9.3
16.0					32	7.3	32	9.8	55	8.6	55	10.3	65	9.1	65	8.1	68	8.5	72	8.6
18.0					16	5.5	16	7.5	50	6.7	50	8.3	62	7.2	62	7.4	65	7.7	69	7.5
20.0									44	5.3	44	6.9	58	5.8	58	6.8	62	6.6	66	6.2
22.0									38	4.2	38	5.7	54	4.7	54	5.9	59	5.4	63	5.0
24.0									30	3.3	30	4.8	50	3.8	50	5.0	56	4.5	60	4.1
26.0									20	2.5	20	4.0	46	3.0	46	4.2	52	3.8	57	3.4
28.0													41	2.4	41	3.6	48	3.1	54	2.8
30.0													36	1.9	36	3.1	44	2.6	50	2.2
32.0													29	1.5	30	2.6	40	2.2	47	1.8
34.0													22	1.1	22	2.2	35	1.8	43	1.4
36.0																	30	1.4	39	1.1
38.0																	23	1.1		
40.0																	12	0.9		
D							-	Telesc		0	itiono	(06)							2	2
								oping	Cona										-	
Telescoping mode	I,	, II		I		I		II		I		II		I		II		II	I,	II
2nd boom		0		50	1	00		0		00		0		00		0		50	1	00
3rd boom		0		0		0		33		33		66		66		00		00		00
4th boom		0		0		0		33		33		66	(	36		00	1	00		00
Top boom		0		0		0		33		33	6	66	(	66	1	00	1	00	1	00

	LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON OUTRIGGERS FULLY EXTENDED 7.3m SPREAD 360° ROTATION											
A	A         12.0m         16.4m         20.8m         29.5m         38.3m         42.6m											
C	В		B B B B B B									
0°	0° 9.8 20.3 14.1 10.0 18.4 5.2 18.4 7.2 27.2 2.2 27.0 3.7 35.8 0.8 35.0 2.1 40.0 0.9											
Telescoping mode	Telescoping											

A:Boom length(m)

B:Load radius(m)

**C** :Loaded boom angle (°)

**D** :Minimum boom angle (°) for indicated length (no load)

				ON OU	TRIGGE		LY EXT		7.3m SI	PREAD		
		47.	0m Boom	+ 10.1m	Jib		110171	1011		47.		
С	3.5°	Tilt	25°	Tilt	45°	Tilt		С	3.5°	Tilt		
	R	W	R	W	R	W			R	W		
80	10.9	4.9	14.2	4.9	16.7	4.3		80	12.8	3.1		
79	11.8	4.9	15.2	4.7	17.7	4.2		79	14.1	3.1		
78	12.9	4.9	16.4	4.6	18.6	4.1		78	15.5	3.1		
77	14.0	4.9	17.4	4.5	19.5	4.0		77	16.9	3.1		
76	15.1	4.9	18.4	4.4	20.5	3.9		76	18.1	3.1		
75	16.0	4.9	19.3	4.2	21.7	3.9		75	19.4	3.1		
73	18.2	4.8	21.3	4.0	23.5	3.7		73	21.9	3.1		
70	21.2	4.4	24.2	3.8	26.3	3.5		70	25.6	3.1		
68	23.2	4.1	26.0	3.6	28.0	3.4		68	27.8	3.0		
65	26.0	3.8	28.6	3.4	30.5	3.1		65	30.8	2.7		
63	27.8	3.2	30.2	2.9	31.9	2.7		63	32.7	2.3		
60	30.0	2.5	32.4	2.3	33.9	2.2		60	35.2	1.7		
58	31.7	2.1	34.0	2.0	35.2	1.9		58	36.7	1.4		
55	33.9	1.6	35.9	1.5	37.0	1.5		55	39.2	1.0		
53	35.3	1.4	37.2	1.3	38.4	1.2	·					
50	37.4	1.0	39.3	1.0	40.2	0.9						

ROTAT	ROTATION											
			47.	0m Boom	+ 17.7m	Jib						
	С	3.5°	Tilt	25°	Tilt	45°	Tilt					
		R	W	R	W	R	W					
	80	12.8	3.1	19.1	2.9	23.8	2.3					
	79	14.1	3.1	20.5	2.8	24.7	2.3					
	78	15.5	3.1	21.7	2.7	26.0	2.3					
	77	16.9	3.1	22.7	2.7	27.0	2.3					
	76	18.1	3.1	24.1	2.6	28.0	2.2					
	75	19.4	3.1	25.2	2.6	29.0	2.2					
	73	21.9	3.1	27.3	2.5	30.0	2.2					
	70	25.6	3.1	30.4	2.4	33.8	2.1					
	68	27.8	3.0	32.4	2.3	35.7	2.1					
	65	30.8	2.7	35.3	2.2	38.1	2.0					
	63	32.7	2.3	36.9	2.0	39.6	1.8					
	60	35.2	1.7	39.3	1.5	41.9	1.4					
	58	36.7	1.4	40.8	1.3	43.0	1.2					
	55	39.2	1.0	43.3	0.9							

	ON OUTRIGGERS FULLY EXTENDED 7.3m SPREAD												
				ON OU	TRIGGE				7.3m SI	PREAD			
						360°	, KOLVI	ION					
	42.6	m Boom(	telescopir	ng mode I	l) + 10.1m	ı Jib			42.6	m Boom(			
С	3.5°	Tilt	25°	Tilt	45° Tilt			С	3.5°	Tilt			
	R	W	R	W	R	W			R	W			
80	9.4	5.3	13.4	5.2	15.6	4.6		80	11.5	3.3			
79	10.4	5.3	14.3	5.1	16.5	4.5		79	12.6	3.3			
78	11.3	5.3	15.3	5.0	17.5	4.4		78	13.8	3.3			
77	12.4	5.3	16.3	4.8	18.3	4.3		77	15.1	3.3			
76	13.5	5.3	17.2	4.7	19.2	4.2		76	16.3	3.3			
75	14.5	5.3	18.1	4.6	19.9	4.1		75	17.5	3.3			
73	16.5	5.2	19.8	4.3	21.6	4.0		73	19.6	3.3			
70	19.2	4.7	22.5	4.0	23.9	3.7		70	23.0	3.3			
68	21.1	4.5	24.1	3.9	25.5	3.6		68	25.2	3.3			
65	23.5	4.1	26.4	3.6	27.6	3.4		65	28.1	3.0			
63	25.2	3.9	28.0	3.5	29.1	3.3		63	30.2	2.9			
60	27.5	3.5	30.2	3.2	31.1	3.0		60	32.7	2.6			
58	28.9	3.1	31.6	2.9	32.4	2.7		58	34.3	2.2			
55	31.1	2.6	33.6	2.4	34.3	2.3		55	36.7	1.8			
53	32.5	2.3	34.8	2.1	35.3	2.0		53	38.0	1.6			
50	34.4	1.9	36.5	1.8	37.0	1.7		50	40.2	1.3			
48	35.7	1.7	37.7	1.6	38.1	1.5		48	41.6	1.1			
45	37.5	1.4	39.3	1.3	39.5	1.3							
43	38.6	1.2	40.4	1.1									
40	40.3	1.0	41.9	0.9									

ROTAT	TION						
		42.6	m Boom(	telescopir	ng mode l	l) + 17.7m	ı Jib
	С	3.5°	Tilt	25°	Tilt	45°	Tilt
		R	W	R	W	R	W
	80	11.5	3.3	18.5	3.0	22.6	2.4
	79	12.6	3.3	19.6	2.9	23.4	2.3
	78	13.8	3.3	20.4	2.8	24.5	2.3
	77	15.1	3.3	21.3	2.8	25.5	2.3
	76	16.3	3.3	22.3	2.7	26.4	2.3
	75	17.5	3.3	23.3	2.7	27.3	2.3
	73	19.6	3.3	25.4	2.6	28.9	2.2
	70	23.0	3.3	28.3	2.5	31.5	2.1
	68	25.2	3.3	30.1	2.4	33.1	2.1
	65	28.1	3.0	32.8	2.3	35.4	2.1
	63	30.2	2.9	34.6	2.3	36.9	2.0
	60	32.7	2.6	36.9	2.2	39.2	2.0
	58	34.3	2.2	38.4	2.0	40.4	1.9
	55	36.7	1.8	40.6	1.7	42.2	1.6
	53	38.0	1.6	41.7	1.4	43.4	1.4
	50	40.2	1.3	43.7	1.2	45.0	1.1
	48	41.6	1.1	45.0	1.0	46.0	1.0

				ON OU	TRIGGE				7.3m SI	PREAD
						360	, KOLY	ΓΙΟN		
	38.3	3m Boom	(telescopi	ng mode I	) + 10.1m	Jib			38.3	3m Boom
С	3.5°	Tilt	25°	Tilt	45°	Tilt		С	3.5°	Tilt
	R	W	R	W	R	W			R	W
80	8.4	6.6	12.5	6.4	14.7	4.9		80	10.5	4.0
79	9.3	6.6	13.4	6.2	15.5	4.8		79	11.6	4.0
78	10.3	6.6	14.1	6.0	16.3	4.7		78	12.7	4.0
77	11.2	6.6	15.1	5.9	17.1	4.7		77	13.7	4.0
76	12.1	6.6	15.8	5.7	18.0	4.6		76	14.8	4.0
75	13.0	6.6	16.6	5.6	18.6	4.6		75	15.9	4.0
73	14.9	6.6	18.2	5.4	20.1	4.5		73	18.0	4.0
70	17.4	6.2	20.6	5.1	22.3	4.4		70	20.8	3.8
68	19.0	5.9	22.1	4.9	23.6	4.4		68	22.7	3.6
65	21.4	5.5	24.3	4.7	25.7	4.3		65	25.4	3.4
63	22.8	4.8	25.6	4.3	26.9	3.9		63	27.3	3.2
60	24.9	3.9	27.3	3.5	28.7	3.3		60	29.8	2.8
58	26.2	3.4	28.6	3.1	29.8	2.9		58	31.2	2.4
55	28.0	2.8	30.3	2.6	31.5	2.5		55	33.5	2.0
53	29.5	2.5	31.5	2.3	32.6	2.2		53	34.9	1.7
50	31.3	2.1	33.1	1.9	34.2	1.8		50	37.0	1.4
48	32.5	1.8	34.2	1.7	35.1	1.6		48	38.3	1.2
45	34.2	1.5	35.7	1.4	36.5	1.3		45	40.2	0.9
43	35.3	1.3	36.7	1.2		·				
40	36.8	1.0	38.2	1.0						
38	37.7	0.9								

ROTA	ΓΙΟΝ		<b></b>				
		38.3	m Boom(	telescopir	ng mode I	) + 17.7m	ı Jib
	С	3.5°	Tilt	25°	Tilt	45°	Tilt
		R	W	R	W	R	W
	80	10.5	4.0	17.1	3.2	20.8	2.4
	79	11.6	4.0	18.0	3.1	21.7	2.3
	78	12.7	4.0	19.0	3.0	22.6	2.3
	77	13.7	4.0	19.9	3.0	23.5	2.3
	76	14.8	4.0	20.7	2.9	24.4	2.3
	75	15.9	4.0	21.7	2.9	25.2	2.3
	73	18.0	4.0	23.5	2.8	26.8	2.2
	70	20.8	3.8	26.1	2.6	29.1	2.1
	68	22.7	3.6	27.8	2.6	30.7	2.1
	65	25.4	3.4	30.4	2.5	32.8	2.1
	63	27.3	3.2	31.9	2.4	34.2	2.1
	60	29.8	2.8	34.2	2.3	36.2	2.0
	58	31.2	2.4	35.5	2.1	37.5	2.0
	55	33.5	2.0	37.5	1.8	39.2	1.7
	53	34.9	1.7	38.6	1.5	40.4	1.5
	50	37.0	1.4	40.4	1.2	41.8	1.2
	48	38.3	1.2	41.6	1.1	42.7	1.0
	45	40.2	0.9	•	•		•

C :Loaded boom angle (°)

R :Load radius(m)

**W** :Rated lifting capacity(Unit: × 1,000kg)

				ON OUTR									PREA	D						
								ROTA	TION			1,000	kg)					_		
_ A		2m		4m		20.		т П		_ 29.	5m	7		38.		,		.6m		'm
В	С		С		С		С		С		С		С		С		С		С	
3.0	70	80.0	76	46.6	79	40.9	78	18.2												
3.5	67	72.1	74	46.6	77	40.9	77	18.2												
4.0	65	65.0	72	46.6	76	40.9	76	18.2												
4.5	62	59.0	70	46.6	75	40.9	74	18.2												
5.0	59	53.8	68	46.6	73	38.9	73	18.2	79	18.2	78	15.1								
5.5	55	49.3	66	46.6	72	36.8	71	18.2	78	18.2	77	15.1								
6.0	52	44.0	64	43.5	70	34.5	70	18.2	77	18.2	76	15.1								
6.5	49	40.0	62	38.0	69	32.0	68	18.2	76	18.2	75	15.1								
7.0	46	35.5	60	33.6	67	30.0	67	18.2	75	18.2	74	15.1	79	15.1	79	13.0				
7.5	42	31.8	58	30.1	66	27.3	65	18.2	74	18.2	74	15.1	78	15.1	78	13.0				
8.0	37	27.8	55	27.1	64	24.6	64	18.2	73	18.2	73	15.1	78	15.1	78	12.8		44.0		
9.0	27	22.0	51	21.3	61	20.4	61	18.2	71	18.2	71	15.1	76	15.1	76	12.1	77	11.0		
10.0			46	17.2	57	16.8	57	18.2	69	17.0	69	15.0	75	14.6	75	11.3	76	11.0	79	9.5
11.0			40	14.2	54	13.8	54	16.7	67	14.7	66	14.0	73	13.8	73	10.7	75	10.7	78	9.5
12.0			34	11.9	50	11.5	50	14.2	64	12.9	64	13.2	72	12.6	72	10.1	73	10.2	77	9.5
14.0			13	8.6	42	8.2	42	10.8	60	9.6	60	11.3	69	10.0	68	9.0	70	9.3	74	9.3
16.0					32	6.0	32	8.4	55	7.3	55	8.9	65	7.9	65	8.1	68	8.3	71	8.0
18.0					16	4.3	15	6.7	50	5.6	50	7.2	62	6.2	62	7.2	65	6.9	69	6.5
20.0									44	4.3	44	5.9	58	4.9	58	6.1	62	5.6	66	5.2
22.0									38	3.3	38	4.8	54	3.9	54	5.1	59	4.6	63	4.2
24.0									30	2.5	31	4.0	50	3.1	50	4.2	56	3.8	60	3.4
26.0									20	1.9	20	3.4	46	2.4	46	3.5	52 48	3.1 2.5	57 53	2.7
28.0													41 36	1.8	41 36	3.0	48		50	2.1
30.0 32.0													30	1.4		2.5		2.0		1.7
34.0													30	1.0	29 21	2.1 1.7	40 35	1.6	46 43	0.9
36.0															<u> </u>	1./	30	1.0	40	0.9
36.0 <b>D</b>							)	I		]		l .	0	<u> </u> 3	(	<u> </u>		1.0 23	3	4
								elesco	pina	cond	itions	(%)	•	,		,		.0	J	-
Telescoping mode	I,	II		I		l		II		l		II		l		I		II	I,	II
2nd boom		0	5	0	1	00		0	10	00		0	1	00	(	0	5	50	10	00
3rd boom	(	0	(	0	(	0		33	3	3	6	66	6	66	10	00	1	00	10	00
4th boom	(	0		0	(	0		33		3		66	6	66	10	00	1	00		00
Top boom		0	-	0	-	0	3	33	3	3	6	66	6	66	10	00	1	00	10	00

L	LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON OUTRIGGERS MID EXTENDED 6.7m SPREAD 360° ROTATION																		
<b>A</b>	A         12.0m         16.4m         20.8m         29.5m         38.3m																		
C	В		В		В		В		В		В				В				
0°	9.8	###	14.2	8.3	18.5	4.0	18.3	6.5	27.2	1.5	27.2	3.0			35.4	1.6			
Telescoping mode	I,	=				i		ii i		I	I	_			ı	I	•		

- A :Boom length(m)
- **B**:Load radius(m)
- **C** :Loaded boom angle (°)
- **D** :Minimum boom angle (°) for indicated length (no load)

### **EN13000**

### ON OUTRIGGERS MID EXTENDED 6.7m SPREAD

				0		J (O	_
						360°	, E
		47	.0m Boom	+ 10.1m	Jib		
С	3.5°	Tilt	25°	Tilt	45°	Tilt	Ì
	R	W	R	W	R	W	Ì
80	10.8	4.9	14.3	4.9	16.7	4.3	l
79	11.9	4.9	15.4	4.7	17.8	4.2	l
78	13.0	4.9	16.4	4.6	18.8	4.1	l
77	14.1	4.9	17.6	4.5	19.8	4.0	l
76	15.2	4.9	18.5	4.4	20.8	3.9	l
75	16.1	4.9	19.6	4.2	21.9	3.9	l
73	18.3	4.8	21.5	4.0	23.6	3.7	l
70	21.2	4.4	24.3	3.8	26.4	3.5	l
68	23.1	3.9	26.0	3.5	28.0	3.2	l
65	25.7	3.0	28.2	2.7	30.2	2.5	l
63	27.4	2.5	29.9	2.3	31.6	2.2	l
60	29.9	1.9	32.3	1.8	33.8	1.7	l
58	31.4	1.6	33.8	1.5	35.1	1.4	l
55	33 7	12	35.7	11	37.0	1.0	

35.1

0.9

ROTAT	TION						
			47	.0m Boom	ı + 17.7m	Jib	
	С	3.5°	Tilt	25°	Tilt	45°	Tilt
		R	W	R	W	R	W
	80	12.8	3.1	19.1	2.9	23.8	2.3
	79	14.1	3.1	20.5	2.8	24.7	2.3
	78	15.5	3.1	21.6	2.7	26.1	2.3
	77	16.9	3.1	22.9	2.7	27.2	2.3
	76	18.1	3.1	24.2	2.6	28.1	2.2
	75	19.4	3.1	25.4	2.6	29.2	2.2
	73	21.9	3.1	27.5	2.5	31.1	2.2
	70	25.6	3.1	30.5	2.4	33.9	2.1
	68	27.6	2.7	32.5	2.3	35.7	2.1
	65	30.2	2.0	35.0	1.8	37.9	1.7
	63	32.3	1.7	36.4	1.5	39.3	1.4
	60	34.6	1.2	38.9	1.1	41.4	1.0
	58	36.4	1.0		•		•

_	_	· .	, <u> </u>		_	_
	42.6m Boom	(telescoping mode II	l) + 10.1m Jib			42.6m Boo
			360°	ROTA1	TION	
		ON C	DUTRIGGERS M	IU EXTE	:NDED 6	.7m SPREAD

	42.6	m Boom	(telescopir	ng mode II	) + 10.1m	Jib
С	3.5°	Tilt	25°	Tilt	45°	Tilt
	R	W	R	W	R	W
80	9.3	5.3	13.3	5.2	15.7	4.6
79	10.4	5.3	14.3	5.1	16.5	4.5
78	11.5	5.3	15.2	5.0	17.4	4.4
77	12.5	5.3	16.2	4.8	18.4	4.3
76	13.6	5.3	17.2	4.7	19.1	4.2
75	14.5	5.3	18.1	4.6	19.9	4.1
73	16.4	5.2	19.7	4.3	21.6	4.0
70	19.2	4.7	22.3	4.0	23.9	3.7
68	21.1	4.5	24.0	3.9	25.5	3.6
65	23.5	4.1	26.4	3.6	27.6	3.4
63	25.1	3.7	27.9	3.3	28.9	3.1
60	27.2	3.0	29.9	2.7	30.9	2.6
58	28.7	2.6	31.3	2.4	32.2	2.3
55	30.7	2.1	33.2	1.9	34.0	1.9
53	32.1	1.8	34.5	1.7	35.1	1.6
50	34.1	1.5	36.3	1.4	36.8	1.3
48	35.4	1.3	37.4	1.2	37.9	1.2
45	37.2	1.0	39.2	1.0	39.4	0.9

HON						
	42.6	6m Boom(	telescopir	ng mode II	) + 17.7m	Jib
С	3.5°	Tilt	25°	Tilt	45°	Tilt
	R	W	R	W	R	W
80	11.5	3.3	18.6	3.0	22.5	2.4
79	12.7	3.3	19.4	2.9	23.4	2.3
78	13.8	3.3	20.4	2.8	24.4	2.3
77	15.0	3.3	21.3	2.8	25.4	2.3
76	16.1	3.3	22.2	2.7	26.3	2.3
75	17.4	3.3	23.3	2.7	27.2	2.3
73	19.6	3.3	25.4	2.6	29.0	2.2
70	23.0	3.3	28.2	2.5	31.4	2.1
68	25.3	3.3	30.3	2.4	33.1	2.1
65	28.1	3.0	32.7	2.3	35.3	2.1
63	29.8	2.7	34.7	2.2	36.8	2.0
60	32.1	2.1	36.5	1.8	38.8	1.7
58	33.8	1.8	38.0	1.6	40.1	1.5
55	36.2	1.4	40.0	1.2	42.0	1.2
53	37.7	1.2	41.4	1.1	43.1	1.0
50	39.8	0.9		•	•	·

## ON OUTRIGGERS MID EXTENDED 6.7m SPREAD 360° ROTATION

						360°
	38.	3m Boom	(telescopi	ng mode l	) + 10.1m	Jib
С	3.5°	Tilt	25°	Tilt	45°	Tilt
	R	W	R	W	R	W
80	8.4	6.6	12.5	6.4	14.7	4.9
79	9.3	6.6	13.2	6.2	15.5	4.8
78	10.3	6.6	14.1	6.0	16.2	4.7
77	11.2	6.6	15.0	5.9	17.1	4.7
76	12.2	6.6	15.8	5.7	17.8	4.6
75	13.0	6.6	16.6	5.6	18.6	4.6
73	14.9	6.6	18.2	5.4	20.0	4.5
70	17.4	6.2	20.6	5.1	22.3	4.4
68	19.1	5.9	22.1	4.9	23.7	4.4
65	21.2	4.8	24.0	4.1	25.6	3.8
63	22.6	4.2	25.3	3.6	26.8	3.4
60	24.7	3.4	27.0	2.9	28.5	2.8
58	26.1	2.9	28.3	2.5	29.7	2.4
55	28.0	2.4	30.1	2.1	31.4	2.0
53	29.3	2.0	31.3	1.8	32.5	1.8
50	31.1	1.6	33.0	1.5	34.1	1.4
48	32.3	1.4	34.1	1.3	35.0	1.2
45	34.0	1.1	35.6	1.0	36.4	1.0
43	35.1	0.9				

TION						
	38.	3m Boom	(telescopi	ng mode I	) + 17.7m	Jib
С	3.5°	Tilt	25°	Tilt	45°	Tilt
	R	W	R	W	R	W
80	10.5	4.0	17.0	3.2	20.8	2.4
79	11.6	4.0	18.1	3.1	21.7	2.3
78	12.7	4.0	18.9	3.0	22.7	2.3
77	13.7	4.0	19.9	3.0	23.5	2.3
76	14.8	4.0	20.8	2.9	24.4	2.3
75	15.9	4.0	21.8	2.9	25.3	2.3
73	17.8	4.0	23.5	2.8	26.7	2.2
70	20.8	3.8	26.2	2.6	29.3	2.1
68	22.7	3.6	28.0	2.6	30.7	2.1
65	25.6	3.4	30.4	2.5	32.8	2.1
63	27.2	3.0	32.1	2.4	34.4	2.1
60	29.4	2.3	34.0	2.0	36.2	1.9
58	30.9	2.0	35.4	1.7	38.4	1.6
55	33.3	1.6	37.3	1.4	39.1	1.3
53	34.7	1.3	38.5	1.1	40.2	1.1
50	36.8	1.0		•	•	•

- $\boldsymbol{C}$  :Loaded boom angle (°)
- $\textbf{R} : \!\! \text{Load radius}(m)$
- W :Rated lifting capacity(Unit:×1,000kg)

	ON OU												READ							
A	11	2m	16	.4m	1	20.	360°	ROTA	OITA	<u>V (Un</u> 29.		1,000	kg)	38.	2m		42	.6m	47m	
В	C	<u> </u>	<b>C</b>	. <del>4</del> 1111 ]	С	20. 	C		С		C	]	С	36. 	C		C	.0111	C	111
3.0	70	75.4	75	46.6	79	40.9	78	18.2	)				)				)		-	
3.5	67	67.0	74	46.6	77	40.9	77	18.2												
4.0	64	60.1	72	46.6	76	40.9	76	18.2												
4.5	61	52.8	70	46.6	75	40.9	74	18.2												
5.0	58	47.2	68	41.1	73	36.5	73	18.2	79	18.2	78	15.1								
5.5	55	40.3	66	35.4	72	31.6	71	18.2	78	18.2	77	15.1								
6.0	52	35.0	64	30.9	70	27.8	70	18.2	77	18.2	76	15.1								
6.5	49	30.1	62	27.3	69	24.6	68	18.2	76	18.2	75	15.1								
7.0	45	25.9	60	24.3	67	22.0	67	18.2	75	18.2	74	15.1	79	15.1	79	13.0				
7.5	42	22.6	58	21.9	66	19.8	65	18.2	74	18.2	74	15.1	78	15.1	78	13.0				
8.0	38	19.9	55	19.4	64	17.9	64	18.2	73	17.4	73	15.1	78	15.1	78	12.8				
9.0	27	15.9	51	15.3	61	14.8	61	16.7	71	14.8	71	15.1	76	14.1	76	12.1	77	11.0		
10.0			46	12.4	57	12.0	57	14.8	69	12.6	69	14.6	75	12.2	75	11.3	76	11.0	79	9.5
11.0			40	10.2	54	9.8	54	12.5	66	10.9	66	12.8	73	10.7	73	10.7	75	10.7	77	9.5
12.0			34	8.5	50	8.1	50	10.6	64	9.5	64	11.2	71	9.4	71	10.1	73	9.9	76	9.1
14.0			13	5.9	42	5.5	42	8.0	60	6.9	59	8.5	68	7.4	68	8.8	71	8.0	74	7.3
16.0					32	3.8	32	6.2	55	5.1	55	6.7	65	5.7	65	6.9	68	6.4	71	5.9
18.0					16	2.5	14	4.8	49	3.7	50	5.3	61	4.3	61	5.5	65	5.0	68	4.7
20.0									44	2.7	44	4.2	57	3.3	58	4.4	62	4.0	65	3.6
22.0									38	1.9	38	3.4	54	2.5	54	3.6 2.9	59	3.2	62	2.8
24.0 26.0									30	1.3	30 20	2.7	50 45	1.8	50 45	2.9	55 52	2.5 1.9	59 56	2.1 1.6
28.0											20	2.2	40	1.3	40	1.9	48	1.5	53	1.0
30.0															35	1.5	44	1.1	55	1.1
32.0															29	1.2	77	1.1		
34.0															20	0.9				
D		I		1		0	)	I		1		I	3	35		0.0	2	29	3	8
							7	Telesc	oping	cond	itions	(%)								
Telescoping mode	I,	, II	_	I		I		II		1		II		1		II		II	l,	II
2nd boom		0	Ę	50	1	00		0	1	00		0	1	00		0	į	50	1	00
3rd boom		0		0		0	3	33	3	33	6	36	(	36	1	00	1	00	1	00
4th boom		0		0		0		33		33	6	66	(	36	1	00	1	00	1	00
Top boom		0		0		0	3	33	3	33	6	66	(	36	1	00	1	00	1	00

	LI	FTING	G CAF	PACIT	IES A	T ZEF	RO DI	EGRE	E BO	OM A	NGLI	E ON	OUT	RIGGI	ERS I	MID E	XTEN	DED		
	5.5m SPREAD 360° ROTATION																			
A	12.0m 16.4m 20.8m 29.5m 38.3m																			
C \	В		В		В	ВВ			В		В				В					
0°	9.8	13.0	14.1	5.8	18.5	2.3	18.3	4.6	27.2	0.5	27.1	2.0			35.4	0.4				
Telescoping	pping I, II I II			1 11										ĺ	l					

A:Boom length(m)

B:Load radius(m)

**C** :Loaded boom angle (°)

**D** :Minimum boom angle (°) for indicated length (no load)

### EN13000

### ON OUTRIGGERS MID EXTENDED 5.5m SPREAD

						360°
		47	.0m Boom	ı + 10.1m	Jib	
С	3.5°	Tilt	25°	Tilt	45°	Tilt
	R	W	R	W	R	W
80	10.7	4.9	14.2	4.9	16.8	4.3
79	11.9	4.9	15.4	4.7	17.8	4.2
78	13.0	4.9	16.5	4.6	18.8	4.1
77	14.0	4.9	17.6	4.5	19.8	4.0
76	15.2	4.9	18.6	4.4	20.8	3.9
75	16.3	4.9	19.5	4.2	21.9	3.9
73	18.3	4.2	21.5	3.5	23.6	3.3
70	21.2	3.1	24.2	2.7	26.4	2.5
68	23.2	2.5	26.1	2.2	28.0	2.1
65	26.1	1.8	28.7	1.6	30.5	1.6
63	27.8	1.5	30.2	1.3	32.0	1.3

60

30.1

1.0

° ROTAT	TION							
			47.	.0m Boom	+ 17.7m	Jib		
	С	3.5°	Tilt	25°	Tilt	45° Tilt		
		R	W	R	W	R	W	
	80	12.8	3.1	19.3	2.9	23.9	2.3	
	79	14.1	3.1	20.5	2.8	24.9	2.3	
	78	15.6	3.1	21.7	2.7	26.0	2.3	
	77	16.9	3.1	22.9	2.7	27.1	2.3	
	76	18.2	3.1	24.0	2.6	28.2	2.2	
	75	19.5	3.1	23.1	2.6	29.1	2.2	
	73	22.2	2.8	27.5	2.3	31.2	2.2	
	70	25.8	2.0	30.7	1.7	33.9	1.6	
	68	27.9	1.6	32.5	1.4	35.8	1.3	
	65	31.2	1.1	35.4	0.9	38.2	0.9	

### ON OUTRIGGERS MID EXTENDED 5.5m SPREAD

						360°
	42.	6m Boom	(telescopir	ng mode II	) + 10.1m	Jib
С	3.5°	Tilt	25°	Tilt	45°	Tilt
	R	W	R	W	R	W
80	9.3	5.3	13.4	5.2	15.7	4.6
79	10.4	5.3	14.3	5.1	16.6	4.5
78	11.4	5.3	15.2	5.0	17.4	4.4
77	12.4	5.3	16.2	4.8	18.3	4.3
76	13.6	5.3	17.2	4.7	19.1	4.2
75	14.5	5.3	18.1	4.6	20.0	4.1
73	16.5	5.2	19.8	4.3	21.6	4.0
70	19.2	4.5	22.3	3.9	23.9	3.6
68	20.7	3.8	23.8	3.3	25.2	3.1
65	23.0	3.0	26.0	2.6	27.2	2.4
63	24.5	2.5	27.3	2.2	28.5	2.1
60	26.7	1.9	29.5	1.7	30.5	1.6
58	28.1	1.6	30.8	1.5	31.8	1.4
55	30.3	1.2	32.8	1.1	33.7	1.1
53	31.7	1.0		•	•	<u> </u>

° ROTA	ΓΙΟΝ							
		42.0	6m Boom	(telescopir	ng mode II	) + 17.7m	Jib	
	С	3.5°	Tilt	25°	Tilt	45° Tilt		
		R	W	R	W	R	W	
	80	11.5	3.3	18.6	3.0	22.5	2.4	
	79	12.7	3.3	19.6	2.9	23.5	2.3	
	78	13.9	3.3	20.2	2.8	24.4	2.3	
	77	15.0	3.3	21.2	2.8	25.3	2.3	
	76	16.2	3.3	22.3	2.7	26.3	2.3	
	75	17.5	3.3	23.1	2.7	27.3	2.3	
	73	19.7	3.3	25.9	2.6	29.0	2.2	
	70	23.0	3.2	28.2	2.5	31.5	2.1	
	68	24.7	2.6	29.9	2.3	33.0	2.0	
	65	27.4	2.0	32.4	1.8	35.0	1.5	
	63	29.1	1.7	33.8	1.5	36.4	1.3	
	60	31.6	1.3	36.0	1.1	38.5	1.0	
	58	33.2	1.0			·		

### ON OUTRIGGERS MID EXTENDED 5.5m SPREAD

					360°
38.	3m Boom	(telescopi	ng mode I	) + 10.1m	Jib
3.5°	Tilt	25°	Tilt	45°	Tilt
R	W	R	W	R	W
8.4	6.6	12.5	6.4	14.7	4.9
9.3	6.6	13.4	6.2	15.5	4.8
10.3	6.6	14.2	6.0	16.3	4.7
11.2	6.6	15.0	5.9	17.1	4.7
12.2	6.6	15.9	5.7	17.9	4.6
13.0	6.6	16.6	5.6	18.7	4.6
14.8	6.3	18.3	5.4	20.1	4.5
17.1	5.0	20.3	4.3	22.2	3.9
18.6	4.2	21.7	3.7	23.4	3.4
20.8	3.3	23.6	2.9	25.3	2.7
22.3	2.8	24.9	2.5	26.5	2.3
24.4	2.1	26.8	1.9	28.3	1.8
25.8	1.8	28.1	1.6	29.5	1.5
27.8	1.3	29.9	1.2	31.3	1.1
28.9	1.0	31.0	1.0	32.3	0.9
	35° R 8.4 9.3 10.3 11.2 12.2 13.0 14.8 17.1 18.6 20.8 22.3 24.4 25.8 27.8	3.5° Tilt  R W  8.4 6.6  9.3 6.6  10.3 6.6  11.2 6.6  12.2 6.6  13.0 6.6  14.8 6.3  17.1 5.0  18.6 4.2  20.8 3.3  22.3 2.8  24.4 2.1  25.8 1.8  27.8 1.3	3.5° Tilt 25° R W R 8.4 6.6 12.5 9.3 6.6 13.4 10.3 6.6 14.2 11.2 6.6 15.0 12.2 6.6 15.9 13.0 6.6 16.6 14.8 6.3 18.3 17.1 5.0 20.3 18.6 4.2 21.7 20.8 3.3 23.6 22.3 2.8 24.9 24.4 2.1 26.8 25.8 1.8 28.1 27.8 1.3 29.9	3.5°         Tilt         25°         Tilt           R         W         R         W           8.4         6.6         12.5         6.4           9.3         6.6         13.4         6.2           10.3         6.6         14.2         6.0           11.2         6.6         15.0         5.9           12.2         6.6         15.9         5.7           13.0         6.6         16.6         5.6           14.8         6.3         18.3         5.4           17.1         5.0         20.3         4.3           18.6         4.2         21.7         3.7           20.8         3.3         23.6         2.9           22.3         2.8         24.9         2.5           24.4         2.1         26.8         1.9           25.8         1.8         28.1         1.6           27.8         1.3         29.9         1.2	3 5°         Tilt         25°         Tilt         45°           R         W         R         W         R           8.4         6.6         12.5         6.4         14.7           9.3         6.6         13.4         6.2         15.5           10.3         6.6         14.2         6.0         16.3           11.2         6.6         15.0         5.9         17.1           12.2         6.6         15.9         5.7         17.9           13.0         6.6         16.6         5.6         18.7           14.8         6.3         18.3         5.4         20.1           17.1         5.0         20.3         4.3         22.2           18.6         4.2         21.7         3.7         23.4           20.8         3.3         23.6         2.9         25.3           22.3         2.8         24.9         2.5         26.5           24.4         2.1         26.8         1.9         28.3           25.8         1.8         28.1         1.6         29.5           27.8         1.3         29.9         1.2         31.3

° ROTA1 		38.	3m Boom	(telescopii	ng mode I	) + 17.7m	Jib	
	С	3.5°	Tilt	25°	Tilt	45°. Tilt		
		R	W	R	W	R	W	
	80	10.5	4.0	17.0	3.2	20.8	2.4	
	79	11.6	4.0	18.1	3.1	21.7	2.3	
	78	12.7	4.0	19.0	3.0	22.7	2.3	
	77	13.8	4.0	19.9	3.0	23.6	2.3	
	76	14.8	4.0	20.8	2.9	24.5	2.3	
	75	15.9	4.0	21.8	2.9	25.3	2.3	
	73	18.0	4.0	23.6	2.8	26.9	2.2	
	70	20.7	3.7	26.3	2.6	29.2	2.1	
	68	22.5	3.1	28.0	2.5	30.8	2.1	
	65	25.0	2.4	30.1	1.9	32.8	1.8	
	63	26.6	1.9	31.5	1.6	34.0	1.5	
	60	28.9	1.4	33.7	1.2	35.9	1.1	
	58	30.5	1.1	35.1	1.0	37.1	0.9	

 $<sup>\</sup>boldsymbol{C}$  :Loaded boom angle (°)

R :Load radius(m)

W :Rated lifting capacity(Unit:×1,000kg)

ON OUTRIGGERS MIN EXTENDED 2.7m SPREAD																				
	360° ROTATION (Unit: x 1,000 kg)																			
A		2m		.4m		20.		_		29.	5m	-		38.			42	.6m	47m	
В	С		С		С		С		С		С		С		С		С		С	
3.0	70	33.8	75	28.9	79	20.9	78	18.2												
3.5	67	27.7	74	23.9	78	20.9	77	18.2												
4.0	64	23.3	71	20.2	76	17.8	75	18.2												
4.5	61	19.9	70	17.3	75	15.3	74	18.2												
5.0	58	17.2	68	15.0	73	13.2	73	16.1	78	12.7	78	14.6								
5.5	55	14.5	66	13.0	72	11.5	71	14.4	77	11.3	77	13.1								
6.0	52	12.3	64	11.5	70	10.1	70	12.9	76	10.1	76	11.9								
6.5	48	10.6	62	10.1	68	8.9	68	11.6	75	9.0	75	10.8								
7.0	45	9.2	60	8.7	67	7.8	67	10.5	74	8.1	74	9.9	78	7.8	79	8.5				
7.5	42	8.0	57	7.5	66	6.9	65	9.6	73	7.3	73	9.1	77	7.1	78	8.5				
8.0	38	7.0	55	6.5	64	6.1	63	8.7	72	6.6	72	8.3	77	6.5	77	7.8				
9.0	28	5.4	50	4.9	61	4.6	60	7.0	70	5.4	70	7.1	75	5.4	76	6.7	77	5.9		
10.0			46	3.7	57	3.3	57	5.7	68	4.4	68	6.1	74	4.5	74	5.8	76	5.1	78	4.4
11.0			40	2.7	54	2.3	53	4.6	66	3.6	66	5.1	72	3.8	72	5.0	74	4.4	76	3.6
12.0			34	1.9	50	1.5	49	3.8	63	2.8	63	4.3	71	3.1	71	4.4	73	3.6	75	2.9
14.0							41	2.5	59	1.6	59	3.0	67	2.0	68	3.2	70	2.5	72	1.9
16.0							32	1.6			54	2.1	64	1.1	64	2.3	67	1.7	69	1.1
18.0							12	0.9			49	1.4			61	1.6	64	1.0		
20.0															57	1.0				
D	(	0	1	2	4	2	(	0	5	4	4	3	6	0	5	3	5	8	6	3
							1	<u> Felesc</u>	oping	cond	itions	(%)								
Telescoping mode	I	, II		I		l		II		I		II		l		II		II	I,	, II
2nd boom		0	į	50	1	00		0	1	00		0	1	00		0	5	50	1	00
3rd boom		0		0		0	3	33	3	33	(	66	6	66	1	00	1	00	1	00
4th boom		0		0		0	3	33	3	33	(	66	6	6	1	00	1	00	1	00
Top boom									63	33	(	66	6	66	1	00	1	00		

	LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON OUTRIGGERS MIN EXTENDED 2.7m SPREAD 360° ROTATION													
CA	A 12.0m 20.8m													
0°	0° 9.8 4.0 18.3 0.8													
Telescoping mode														

A :Boom length(m)

**B**:Load radius(m)

**C** :Loaded boom angle (°)

**D** :Minimum boom angle (°) for indicated length (no load)

#### NOTES FOR "ON OUTRIGGERS" TABLE

- Rated lifting capacities shown in the table are based on condition that crane is set on firm level surface. Those above thick lines are based on crane strength and those below, on its stability.
- 2. Rated lifting capacities based on crane stability are according to EN13000.
- 3. The mass of the hook (700 kg for 80t capacity, 450 kg for 35t capacity, 165 kg for 6.6 t capacity), slings and all similarly used load handling devices must be considered as part of the load and must be deducted from the lifting capacities.
- 4. For rated lifting capacity of single top, reduce the rated lifting capacities of relevant boom according to a weight reduction for auxiliary load handling equipment. Capacities of single top shall not exceed 6,600 kg including main boom hook mass and the net capacity must be so reduced.
- 5. Standard number of parts of line for each boom length is as shown below. Load per line should not surpass 64.7 kN {6,600 kgf} for main winch and auxiliary winch.

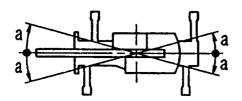
Boom length	12.0m	t	.0m o .8m	20.8m to 47.0m	Single top Jib
Telescoping mode	I, II	I	Ш	I, II	I, II
Number of parts of line	14	8	4	4	1

The lifting capacity data stowed in the AUTOMATIC MOMENT LIMITER (AML) is based on the standard number of parts of line listed in the chart.

Maximum lifting capacity is restricted by the number of parts of line of AUTOMATIC MOMENT LIMITER (AML).

6. The lifting capacity for over-side area differs depending on the outrigger extension width. Work with the capacity corresponding to the extension width. The lifting capacities for over-front and over-rear areas are for "outriggers fully extended". However, the areas(angle **a**) differ depending on the outrigger extension width.

Outriggers extended width	6.7m	5.5m	2.7m
	(middle)	(middle)	(minimum)
Angle <b>a</b> °	60	40	15



			ON	RUBBE	R STA	TIONAR'		x 1,000	(g)			
A				Front		1101011	. (01110.)	1,0001	360° F	Rotation		
	12	?m		8m	29.	5m	12	2m	20.	.8m	29.	5m
В	С		C		С		C		С	1 [	С	
3.5	67	28.5										
4.0	64	25.3					64	15.5				
4.5	61	23.0					61	12.9				
5.0	58	20.9					58	10.9				
5.5	55	19.0					55	9.3				
6.0	52	17.3	70	13.5			52	7.9	70	9.0		
6.5	49	15.9	68	13.5			49	6.6	68	7.8		
7.0	45	14.7	67	13.5	74	10.4	45	5.6	67	6.8		
7.5	42	13.3	65	13.5	73	10.4	42	4.7	65	6.0	73	6.8
8.0	38	12.2	63	12.6	72	10.4	38	3.8	63	5.2	72	6.0
8.5	33	11.0	62	11.7	71	10.0	33	3.3	62	4.7	71	5.2
9.0	28	10.0	60	10.8	70	9.8	28	2.8	60	4.2	70	4.6
10.0			57	9.0	68	9.3			57	3.3	68	3.5
11.0			53	7.6	66	8.3			53	2.5	66	2.8
12.0			50	6.5	64	7.2			50	2.0	63	2.2
14.0			42	4.8	59	5.3			42	1.0	59	1.5
16.0			32	3.5	54	4.1						
18.0			13	2.5	49	3.2						
20.0					44	2.5						
22.0					37	1.8						
24.0					30	1.2						
26.0					19	0.9				Ļ		
D				(			(0()		3	1	5	4
<del>-</del>						ing condit	_ ` ′			1		
Telescopin	I,	II		I		II	I,	II		II		II
2nd boom	(	)		)		0	(	)		0		0
3rd boom	(	)	3	3	6	6	(	)	3	33	6	6
4th boom	(	)	3	3	6	6	(	)	3	33	6	6
Top boom	(	)	3	3	6	6	(	)	3	33	6	66
	LIFTIN	G CAPA	CITIES	AT ZERO	DEGR	EE BOC	M ANGL	E ON-R	UBBER	STATIO	VARY	
A				Front						otation		
	12	?m		8m	29.	.5m	12	2m		J		
c \	В		В		В		В			1		
0	9.9	8.5	18.3	2.4	27.2	0.6	9.9	2.0				

				ON-RUB	BFR C	RFFP (	Unit: x 1	.000kg)				
A			Over	Front				1000	360° R	otation		
	12	lm	20.	8m	29.	.5m	12	2m	20.	8m	29	.5m
В	С		С		С		С		С		С	
4.0	65	19.0					64	11.2				
4.5	61	17.0					62	9.8				
5.0	58	15.1					58	8.5				
5.5	55	13.6					55	7.5				
6.0	52	12.4	70	13.5			52	6.5	69	7.5		
6.5	49	11.4	68	12.3			49	5.4	68	6.5		
7.0	45	10.3	66	11.4	74	10.4	45	4.7	67	5.8		
7.5	42	9.5	65	10.5	73	10.4	42	3.8	65	5.0	73	5.8
8.0	39	8.7	64	9.7	72	10.0	38	3.1	63	4.3	72	5.0
8.5	33	8.0	62	9.1	71	9.4	34	2.5	62	3.8	71	4.3
9.0	27	7.3	60	8.5	70	8.7	28	2.3	60	3.3	70	3.8
10.0			57	7.3	68	7.7			57	2.5	69	3.0
11.0			53	6.3	66	6.7			53	2.0	68	2.5
12.0			50	5.6	64	6.0			50	1.5	66	1.9
14.0			42	4.2	59	4.7					59	1.1
16.0			32	3.3	54	3.7						
18.0			13	2.5	49	2.6						
20.0					43	2.0						
22.0					37	1.4						
24.0					30	1.0						
D		0				9	(	)	3	8	5	54
					Telescop	ing condit	ions (%)					
Telescopin a	I,			I		ll .		II		I		II
2nd boom	(			)		0		0		)		0
3rd boom	(			3		66		0		3		36
4th boom	(			3		66		0		3		36
Top boom	(			3		6		0		3		36
	LIFTIN	<u>G CAPA</u>	CITIES	<u>AT ZERO</u>	) DEGR	EE BOC	<u>M ANGI</u>	_E ON-R	<u>UBBER</u>	<u>STATIOI</u>	NARY	
A				Front					360°R	otation		
	12	:m		8m		-		2m				-
C	В		В				В					
0	9.9	6.3	18.3	2.4			9.9	1.6				

A :Boom length(m)
B :Load radius(m)

C :Loaded boom angle (°)

**D** :Minimum boom angle (°) for indicated length (no load)

#### NOTES FOR "ON-RUBBER" TABLES

- 1. Rated lifting capacities shown in the table are based on condition that crane is set on firm level surface, with suspension lock applied. Those above thick lines are based on tire capacity and those below, on crane stability. They are based on actual load radius increased by tire deformation and boom deflection.
- 2. Rated lifting capacities based on crane stability are according to EN13000.
- 3. The mass of the hook (700 kg for 80t capacity, 450 kg for 35t capacity, 165 kg for 6.6t capacity), slings and all similarly used load handling devices must be considered as part of the load and must be deducted from the lifting capacities.
- 4. For rated lifting capacity of single top, reduce the rated lifting capacities of relevant boom according to weight reductions for auxiliary load handling equipment. Capacities of single top shall not exceed 6,600 kg including main hook.
- 5. On-rubber lifting with "jib" is not permitted. Maximum permissible boom length is 29.5 m (over front).
- 6. CREEP is motion for crane not to travel more than 60 m in any 30 minute period and to travel at the speed of less than 1.6 km/h.
- 7. During "CREEP" duties travel slowly and keep the lifting load as close to the ground as possible, and especially avoid any abrupt steering, accelerating or braking.
- 8. Do not operate the crane while carrying the load.
- 9. Tires should be inflated to their correct air pressure of 400kPa.
- 10. For CREEP operation, choose the drive mode and proper gear according to the road or working condition.
- 11. Standard number of parts of line for on-rubber operation should be according to the following table.

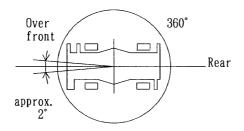
Load per line should not surpass 64.7 kN {6,600 kgf} for main winch and auxiliary winch.

Boom length	12.0m	12.0m to 29.5m	Single top
Telescoping mode	I, II	II	I, II
Number of parts of line	6	4	1

The lifting capacity data stowed in the AUTOMATIC MOMENT LIMITER (AML) is based on the standard number of parts of line listed in the chart.

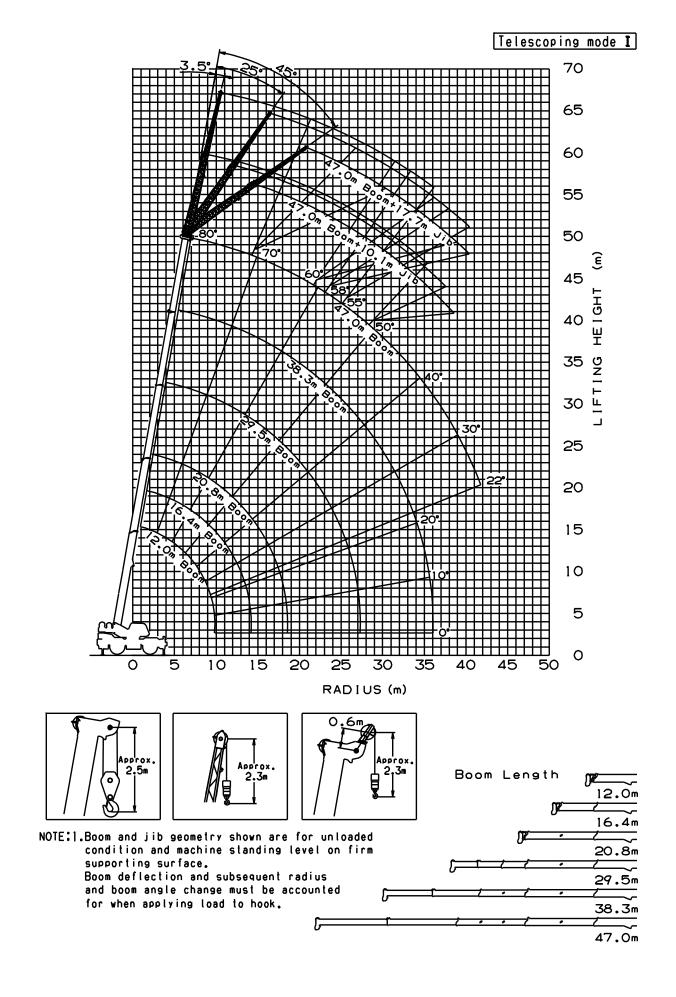
Maximum lifting capacity is restricted by the number of parts of line of AUTOMATIC MOMENT LIMITER (AML).

#### **WORKING AREA**

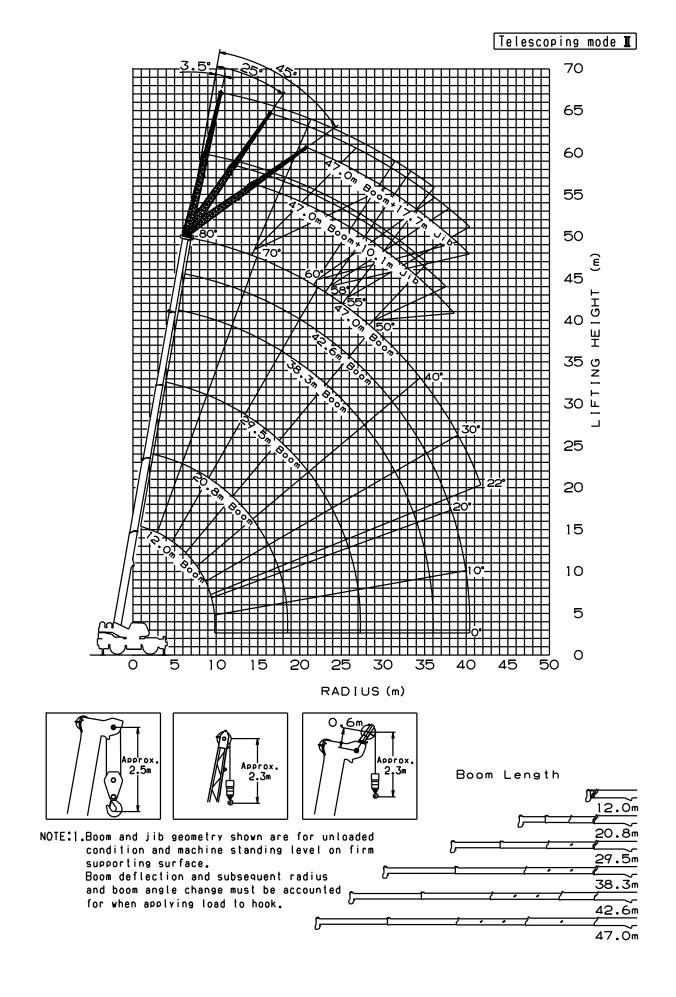


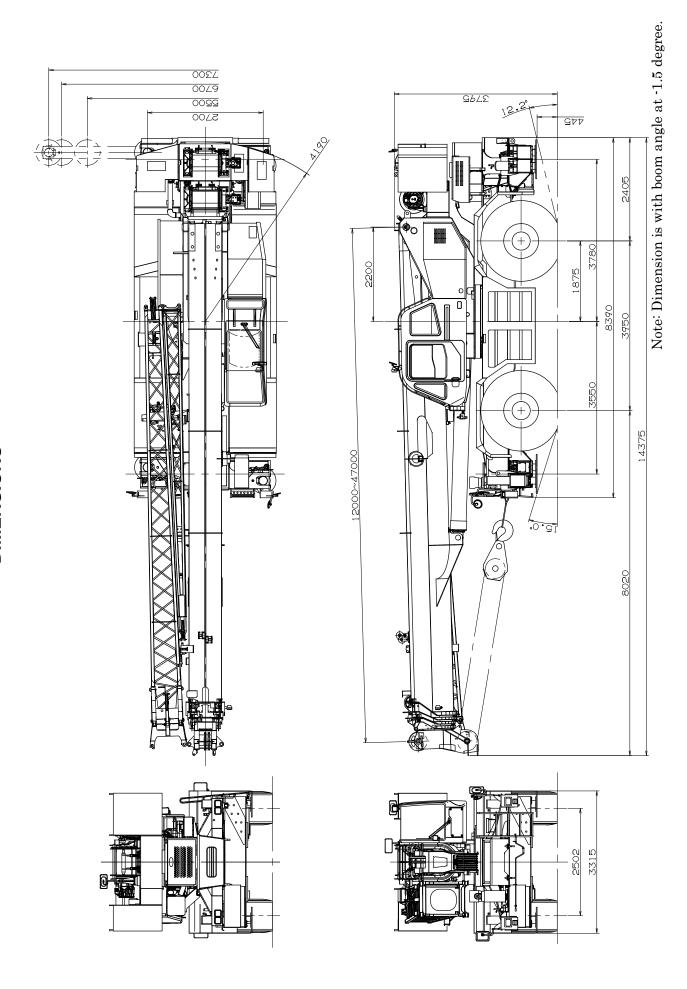
Without outriggers "Over front" operation should be performed within 2 degrees in front of chassis.

### **WORKING RANGE CHART**



### **WORKING RANGE CHART**





GR-800EX Axle Weight Distribution Chart		UNIT : kg	
	GVW	Front	Rear
Basic standard machine includes: 5-section boom (12.0 m - 47.0 m) 2-stage jib (10.1 m, 17.7 m) Single top 6.6 ton hook block	51,410	24,325	27,085
Add: 1. 80t 7 sheaves hook block 2. 35t 3 sheaves hook block	+700 +450	+1,350 +870	-650 -420
Remove: 1. 6.6 ton hook block 2. Top jib 3. Base jib 4. Counter weight with auxiliary winch and wire rope	-165 -335 -865 -9,980	-235 -450 -1,705 +4,240	+70 +115 +840 -14,220