



front



left



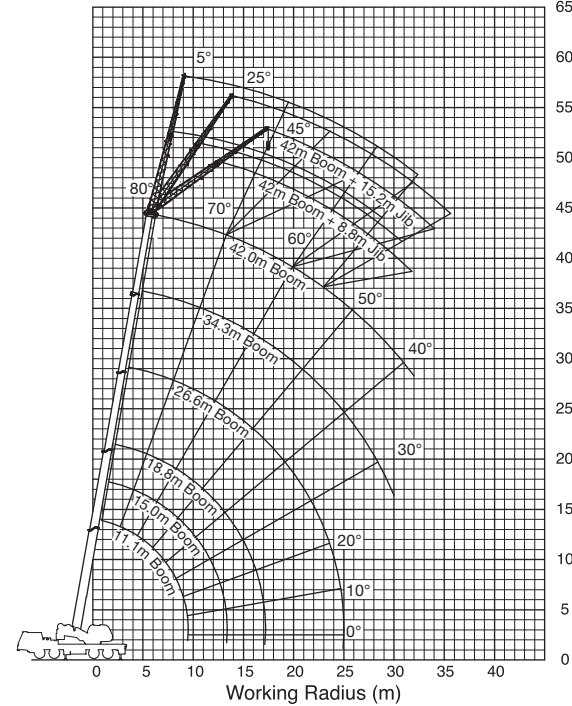
rear



right

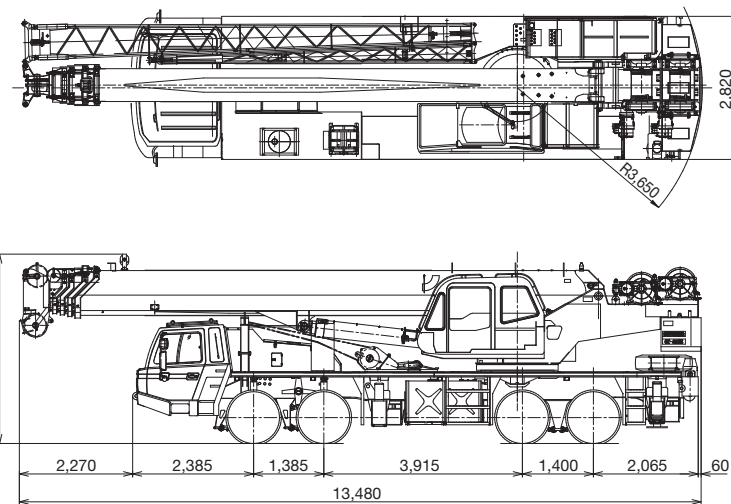
**WORKING RANGE**

[Telescoping mode I]



**DIMENSION**

(mm)



Continuing technical development requires Tadano to retain the right to make specifications, equipment and price changes without notice.

\*Some specifications are subject to change

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**BQ.TADANO**

**TRUCK CRANE**

**GT-550E-2**

**55 METRIC TON CAPACITY**





The adoption of a new hydraulic suspension system has enabled fast and comfortable road travel. The GT-550E-2 has a capacity of 55 metric tons.



Crane capacity : 55,000 kg  
 5-section long boom : 42.0 m  
 2-staged bi-fold jib : 8.8/15.2 m  
 Strong winches : 4,300 kgf

The GT-550E-2 has a round hexagonal box boom of 42.0 m—the longest boom in its class. In addition, with the introduction of a new Automatic Moment Limiter model, the AML offers customers a safer operating environment. Further, improved traveling performance ensures a comfortable drive.



Maximum traveling speed: 75 km/h  
 Maximum gradient: 58%

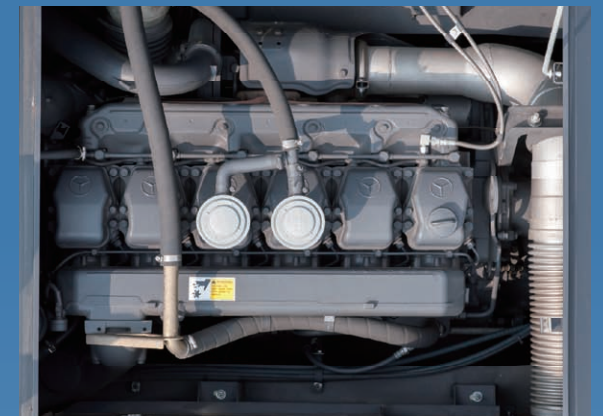
## Carrier

A high-performance engine that meets the EURO III standards is mounted on the carrier. The steering ability of the wheel when the carrier is in a stop condition, along with the adoption of a new hydraulic suspension system, substantially improves the mobility of the crane. In addition, the flat carrier fender eases access to the upper structure.



### Two-person, full-width cabin

The full-sized cabin accommodates two passengers. The telescoping and tilting steering wheel can be manipulated to adjust the driving position to suit the operator. Furthermore, the three-way adjustable air-suspended seat, with headrest, allows comfortable traveling for the operator.



### Engine

The engine used in this model of crane is made by Daimler OM457LA and has a maximum output of 260 kW. It satisfies the EURO III standards and is environment-friendly.

#### Daimler OM457LA

4-cycle, turbo charged and inter cooled  
 Max. output 260kW {354PS}  
 Max. torque 1,850N-m {190kgf-m}



### Hydraulic suspension

All axles are equipped with a hydraulic suspension system which helps absorb the shocks and vibrations which take place due to a change in road conditions (on a bad road) to realize comfortable roadability.

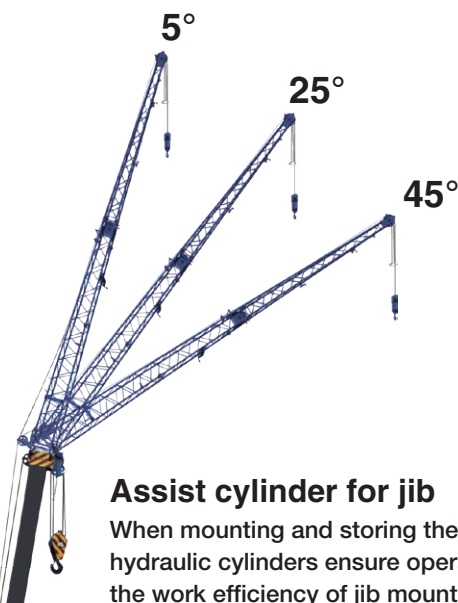
### Strengthened functions and equipment

- Multistage transmission: 9-speed transmission forward
- Differential gear lock
- Electrically adjustable and defrosting rear view mirror
- Cruise control
- Emergency steering pump for greater safety
- Tool box



# Crane

The 42-meter boom is the longest in its class.  
The round hexagonal box boom is made of high tensile steel, which allows for decreased boom weight as well as increased boom strength.  
In addition, the high-performance AML secures safe operation.



## Bi-fold fly jib

A two-stage, bi-fold lattice-type jib is used for this model of crane. It is offsettable at 5°, 25°, and 45° to enable the operator to carry out jobs that require extra reaching ability.

## Assist cylinder for jib

When mounting and storing the fly jib, assistant hydraulic cylinders ensure operation, thus increasing the work efficiency of jib mounting and storage.



## Operator Comfort

The crane cabin provides improved livability and offers the operator a comfortable working environment.



The crane operating levers are of finger control type and surely and steadily respond to the operator.

There is no need to detach the counterweights of the GT-550E-2 when traveling on roads. Thus, crane operations can be started once the crane has arrived at a work site.



## Two telescoping modes [ I ] & [ II ]

The operator can select either of the two boom telescoping modes based on the designated job plan. This provides enhanced crane capabilities in accordance with work needs.



### Mode [ I ]

Mode [ I ] is extension of 2nd section only. Then synchronized extension of 3rd, 4th and 5th sections.



### Mode [ II ]

Mode [ II ] is synchronized extension of 3rd, 4th and 5th sections. Then 2nd section independently.



## Two winches with cable follower

Both the main winch and the auxiliary winch have powerful 4.3-ton line pull and operate at high speeds for increased work efficiency.



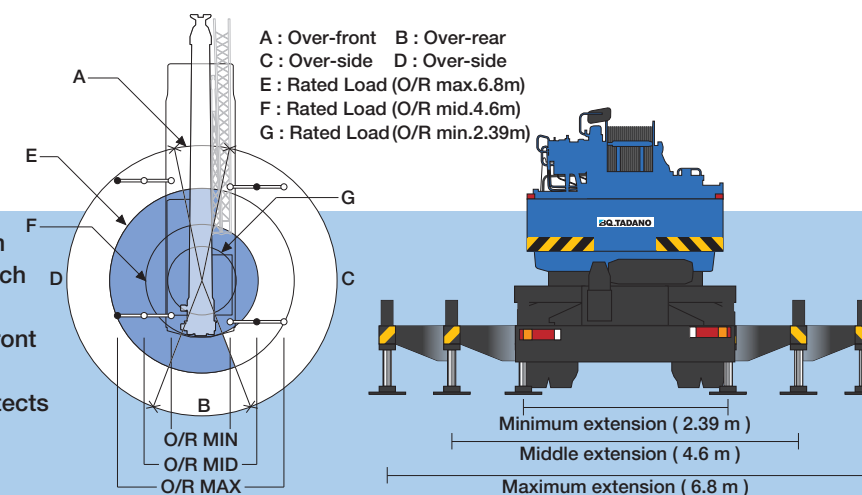
## Automatic moment limiter [AML]

The easy-to-view AML of BQ.TADANO's latest model monitors and displays crane operating conditions (such as boom length, boom angle, load radius, swing position, actual load, total rated load, outrigger position, jib length, jib offset angle, and number of parts of line) to secure safety in operation. In addition, the AML is provided with a working range limit function.

- The AML detects the state of overloading to prevent damage to the boom and overturning of the crane.
- The emergency release function restores crane operation even when the crane is automatically stopped due to overloading.
- In view of stringent safety measures to be taken, it is advisable that the emergency release switch key be kept by a work supervisor.

## Control of asymmetric outrigger extension width

At all times, the new type AML system offers a maximum "work value" for each work area. Even when the outrigger extension width differs between the front and the rear of the crane, or between its two sides, the AML detects such working conditions and displays the optimal value.



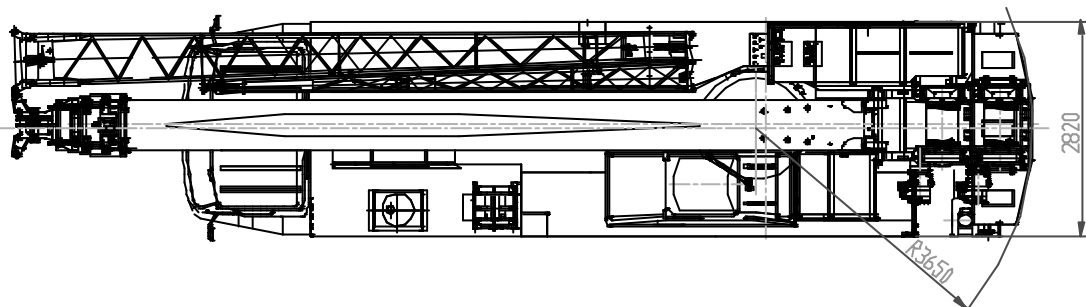
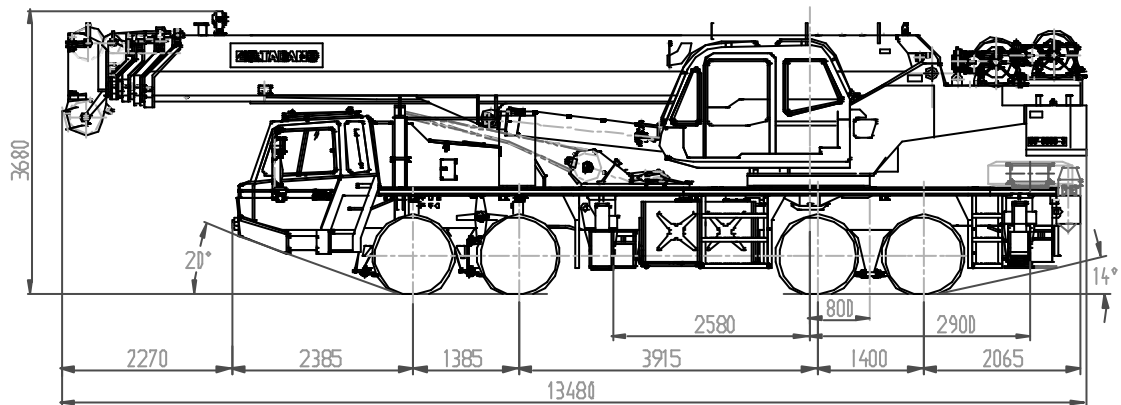
# BQ.TADANO

## GT-550E-2

Crane Capacity 55,000 kg at 3.0 m

Euro-3

Hydraulic Truck Crane



### DIMENSIONS

- Over all length: 13,480mm
- Over all width: 2,820mm
- Over all height: 3,680mm

### MASS

Gross Vehicle mass: 41,500kg

- Front: 16,800kg
- Rear : 24,700kg

### PERFORMANCE

Max. traveling speed: 75km/h

Gradeability(tan $\theta$ ): 58%

Min. Turning radius: 11.3m(at center of extreme outer tire)

CRANE CAPACITY	55,000kg at 3.0m
BOOM FULLY RETRACTED LENGTH FULLY EXTENDED LENGTH EXTENSION SPEED ELEVATION SPEED	5-section full length power telescoping boom 11.1m 42.0m 30.9m in 132s -2° to +80°in 72s
JIB  LENGTH	Two-staged swing around boom extension. Triple offset (5 °/25 °/45 °) type. Stored alongside base boom section. Assistant cylinders for mounting and stowing. Single sheave at jib head. 8.8m and 15.2m
HOIST —MAIN WINCH  SINGLE LINE PULL SINGLE LINE SPEED WIRE ROPE	Variable speed with grooved drum driven by hydraulic axle piston motor through speed reducer. 42.2KN(4,300kgf) 143m/min(at the 4th layer) Spin-resistant type, 19.05mm×227m
HOIST —AUXILIARY WINCH  SINGLE LINE PULL SINGLE LINE SPEED WIRE ROPE	Variable speed with grooved drum driven by hydraulic axle piston motor through speed reducer. 44.1KN(4,500kgf) 123m/min(at the 2nd layer) Spin-resistant type, 19.05mm×127m
SWING REAR SWING RADIUS	1.6 min-1(rpm) 3.65m
HYDRAULIC SYSTEM	Pumps----- Two variable piston pumps for telescoping, elevating and winches. Tandem gear pump for swing and optional equipment. Control valves-----multiple valves actuated by pilot pressure integral pressure relieve valve. Circuit----equipped with air cooled type oil cooler. Hydraulic oil tank capacity-----approx.690L Filters-----return line filter
CRANE CONTROL	By 4 control levers based on ISO standard layout. Control lever stands can change neutral positions and tilt for easy access to cab.
CAB	One sided one-man type, steel construction with sliding door access and tinted safety glass windows opening at side.

	Operator's 3 way adjustable seat with headrest and armrest.
TADANO AUTOMATIC MOMENT LIMITER	<p>Main unit in crane cab gives audible and visual warning of approach to overload. Automatically cuts out crane motions before overload.</p> <p>Digital liquid crystal display:</p> <ul style="list-style-type: none"> <li>·Either boom angle or moment%</li> <li>·Either boom length or potential hook height</li> <li>·Actual load radius or swing angle</li> <li>·Actual hook load</li> <li>·Permissible load</li> <li>·Either jib offset angle or number of parts line of rope</li> <li>·Outrigger position indicator</li> </ul> <p>Bar graphical display:</p> <ul style="list-style-type: none"> <li>·Either moment as percentage or main hydraulic pressure.</li> <li>·Boom position indicator</li> </ul>
SAFETY DEVICES	<p>Boom angle indicator</p> <p>Pendant type over-winding cutout</p> <p>Winch automatic fail-safe brake</p> <p>Hook safety latch</p> <p>Pilot check valves</p> <p>Holding valves</p> <p>Counterbalance valves</p> <p>Hydraulic pressure relief valves</p> <p>Front jack overload alarm</p>
OUTRIGGER	<p>Hydraulic operated H-type outriggers.</p> <p>Each outrigger controlled simultaneously or independently from either side of carrier.</p> <p>Equipped with level gauge.</p> <p>Float mounted integrally with the jack retractor to within vehicle width. All cylinders are fitted with pilot check valves.</p> <p>Crane operation with different extended length of each outrigger.</p> <p>Equipped with extension width detector for each outrigger.</p>
EXTENDED WIDTH	<p>Fully6.8m, middle4.6m, minimum2.39m</p> <p>Float size(diameter)----400mm</p>

FRONT JACK	A fifth hydraulically operated outrigger jack. Mounted to the front frame of carrier to permit 360 ° lifting capacities. Hydraulic cylinder fitted with pilot check valve. Float size(diameter)----400mm
STANDARD EQUIPMENT (UPPER STRUCTURE)	4.5 t capacity hook block (swivel hook) 20t capacity hook block 55t capacity hook block Control pedals for boom hoist and boom telescoping. 3 working lights External lamp (AML) Cable follower Winch drum mirror (Hoist mirror) Electric fan Sun visor Sun shade Cab floor mat Air conditioner

## CARRIER SPECIFICATIONS

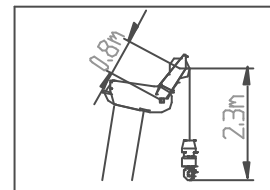
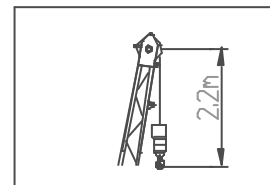
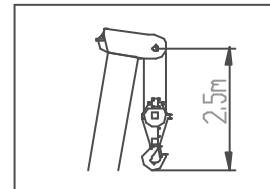
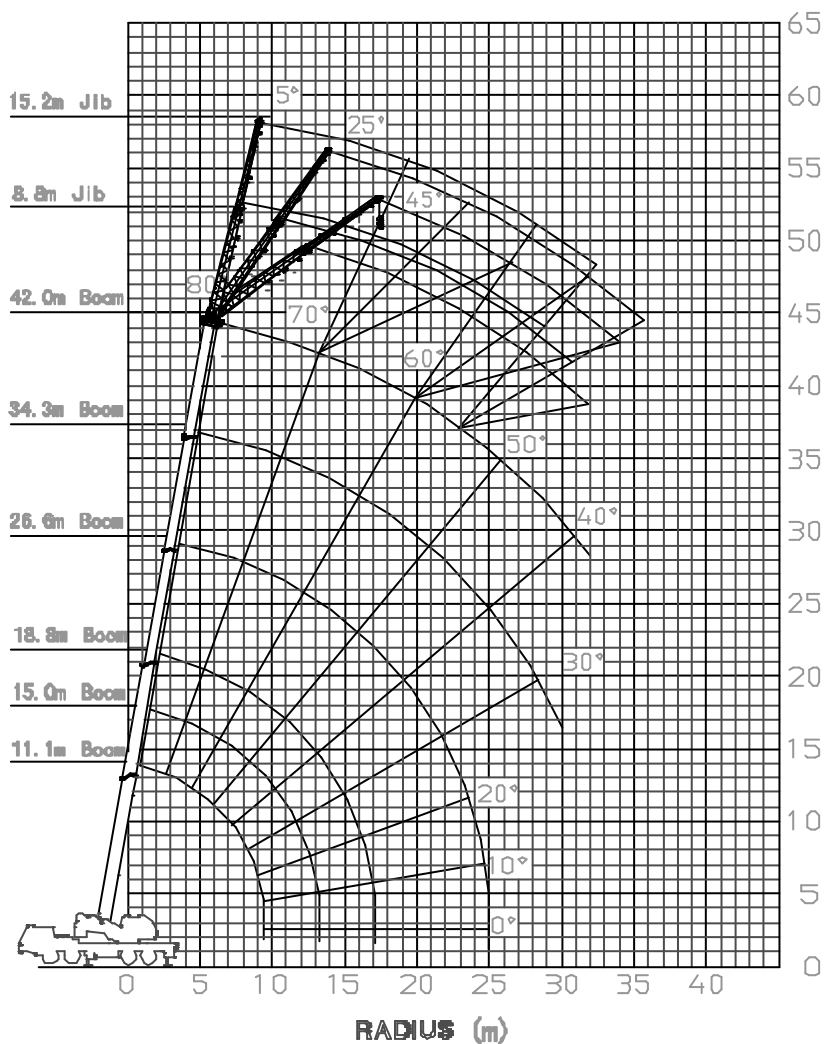
MANUFACTURER	JINGCHENG HEAVY INDUSTRY CO.,LTD., BCW5431JQZ, left hand steering, 8×4
ENGINE (Euro 3)	Manufacturer--- Daimler Model---OM457LA. III/7 Type-----4 cycle, turbo charged,6 cylinder in line, direct injection, water cooled diesel engine. Piston displacement---11,967cm <sup>3</sup> Max. output---260KW(354ps)/1,900r/min Max. torque---1,850N.m(190kgf.m)/1,100r / min
CLUTCH	Dry single plate, hydraulically operated clutch release mechanism with air assisted booster.
TRANSMISSION	9 forward an 1 reverse speeds, synchromesh on 2nd – 9th gear and constant-mesh on 1st and reverse gear.
AXLES	Front-----Reverse-elliot type, steering axle. Rear-----Full floating type, driving axle with inter-wheel differential lock.
STEERING	Dual circuit hydraulic and mechanical steering of both front axles with hydraulic power booster.
SUSPENSION	Front-----Hydraulic/pneumatic suspension, with hydraulic lock system and leveling adjustment. Rear----- Hydraulic/pneumatic suspension, with hydraulic lock system and leveling adjustment.
BRAKE SYSTEM	Service-----Full air brakes on all wheels. Dual-circuit system. Parking/Emergency -----Spring laded brake on rear 4-wheel controlled by knob of spring brake valve. Auxiliary----Constant throttle system with exhaust flap brake.
ELECTRIC SYSTEM	24 V DC. 2 batteries of 12V Alternator-----28V—80A
FUEL TANK CAPACITY	300L



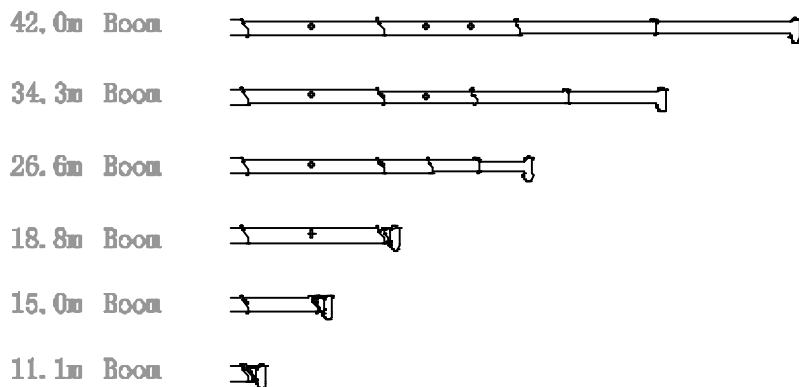
CAB	2-man full width cab of steel structure, with safety glass. Seats adjustable and air-suspended with headrest and 3point safety belt.
TIRE	- Front 315/80 R22.5 single x4 - Rear 315/80 R22.5 double x4 - Spare 315/80 R22.5 x1
TURN RADIUS	Min. turning radius (at center of extreme outer tire) -----11.3 m
STANDARD EQUIPMENT	Spare tire carrier Rear fog lights Inter-wheel differential gear lock Fuel tank cap with lock key Air dryer Towing hook (Front and rear, Eye type) Engine over-run alarm Air filter warning light (Instrument cluster) Cooling water level warning light Engine hour meter PTO hour meter Reversing signal Low air pressure warning lamp and buzzer Adjustment and heating rearview mirror Sun visor Tilting-telescoping steering wheel 3 way adjustable air suspension seat Tachometer/speedometer(with odometer) Air conditioner(hot water cab heater and cooler)with defroster 3 point type seat belt. Windshield wiper (with intermittent wiping) and washer Cigarette lighter Owner's tool set Cruise control AM/FM radio

Telescoping mode I

**GT-550E-2 WORKING RANGE**



**Boom Length**

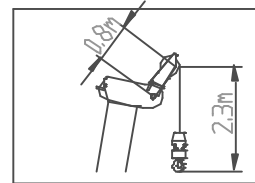
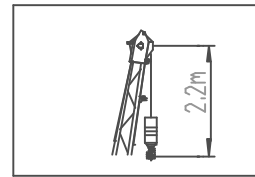
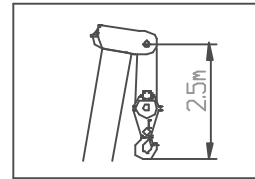
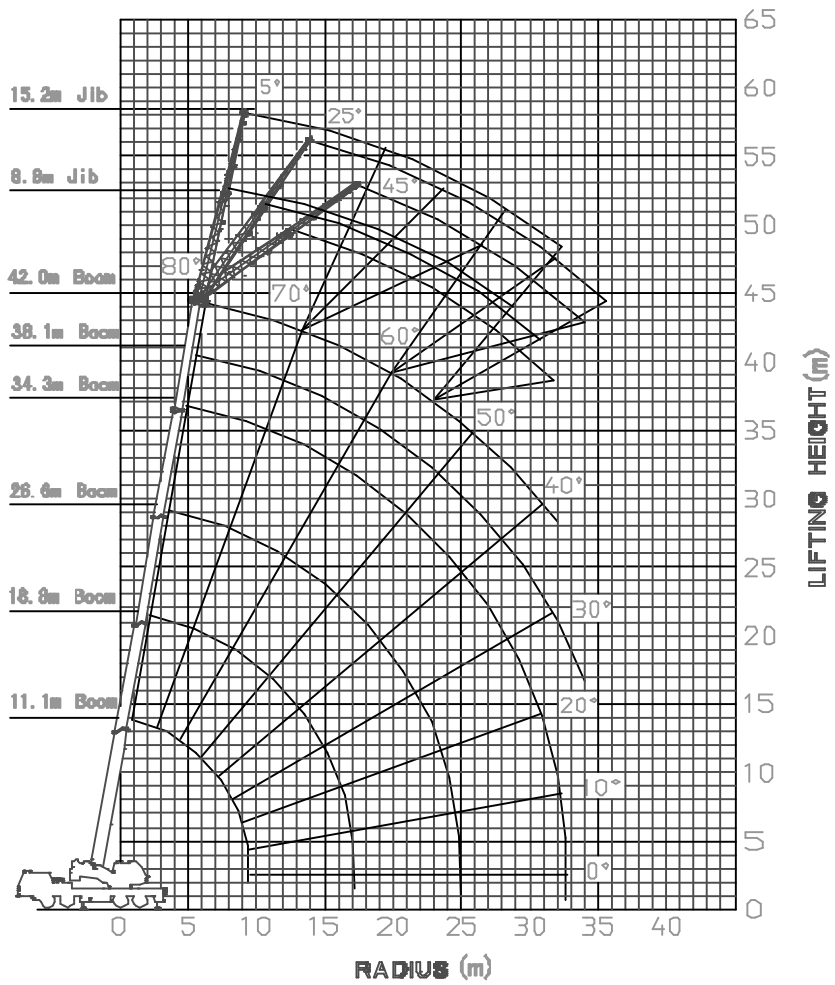


**NOTE:**

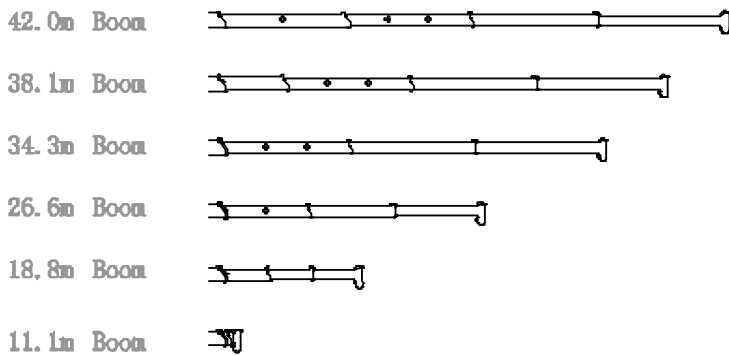
The above lifting height and boom angle are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden conditions.

Telescoping mode II

GT-550E-2 WORKING RANGE



Boom Length



NOTE:

The above lifting height and boom angle are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden conditions.



unit: kg class: C3

Outrigger max extended 6.8m										
Working radius	11.1m boom	15.0m boom	18.8m boom		26.6m boom		34.3m boom		38.1m boom	42.0m boom
3.0	55,000	40,000	28,000	20,000						
3.5	43,700	40,000	28,000	20,000						
4.0	38,500	38,100	28,000	20,000						
4.5	34,200	33,800	28,000	19,800	20,000	14,000				
5.0	30,800	30,400	28,000	19,000	20,000	14,000				
5.5	27,800	27,400	27,200	18,200	20,000	13,600				
6.0	25,400	25,000	24,700	17,500	20,000	12,800	14,000	8,000		
6.5	23,200	22,800	22,500	16,800	18,900	12,000	14,000	8,000		
7.0	21,400	21,000	20,700	16,200	17,800	11,400	13,500	8,000	8,000	8,000
7.5	19,700	19,300	19,100	15,700	16,700	10,800	13,000	8,000	8,000	8,000
8.0	18,300	17,900	17,600	15,200	15,800	10,200	12,500	8,000	8,000	8,000
9.0	15,200	14,600	14,200	14,300	14,200	9,300	11,300	7,600	8,000	8,000
10.0		11,600	11,300	13,500	12,500	8,500	10,400	7,000	7,500	8,000
11.0		9,500	9,100	11,400	10,300	7,800	9,600	6,400	6,900	7,500
12.0		7,800	7,500	9,600	8,600	7,200	8,800	5,800	6,400	6,900
14.0			5,100	7,200	6,200	6,200	6,800	4,900	5,500	5,900
16.0			3,500	5,500	4,500	5,400	5,100	4,200	4,700	5,200
18.0					3,300	4,700	3,900	3,600	4,100	4,200
20.0					2,400	3,700	3,000	3,200	3,600	3,200
22.0					1,700	3,000	2,200	2,800	2,800	2,500
24.0					1,200	2,400	1,600	2,500	2,200	1,900
26.0							1,200	2,100	1,800	1,400
28.0							800	1,700	1,400	1,000
30.0							500	1,400	1,000	700
32.0								1,100	700	450
34.0									500	
Telescoping condition (%)										
Telescoping mode	I, II	I	I	II	I	II	I	II	II	I, II
2nd boom	0	50	100	0	100	0	100	0	50	100
3rd boom	0	0	0	33	33	66	66	100	100	100
4th boom	0	0	0	33	33	66	66	100	100	100
Top boom	0	0	0	33	33	66	66	100	100	100

## NOTE

- Rated lifting capacities shown in the table are based on the condition that the crane is set on firm ground horizontally. Those above bold line are based on crane strength and those below, it is stability.
- Rated lifting capacities in the stability area comply with part 2 /ISO 4305.
- The mass of load handling devices such as hook blocks {570 kg for 55 ton capacity, 400 kg for 20 ton capacity and 130 kg for 4.5 ton capacity} and slings, shall be considered part of the load and must be deducted from rated lifting capacities.
- Without front jack extended, when the boom is within the Over-front, Rated lifting capacities are different from those for the boom in the Over-side and Over-rear.
- Standard number of parts of line for each boom length is as shown below. Load per-line should not surpass 42.2 kN {4,300 kgf} for main winch rope and 44.1 kN {4,500 kgf} for auxiliary winch rope.

Boom length (m)	11.1	15.0	18.8	26.6	34.3	38.1	42.0	Jib/Single top
No. of Parts line	**13/12	10	7	5	4	4	4	1

\*\* : With single top (When the lifting capacity is 55,000 kg)

- Special weather caution: Refer to the operation and maintenance manual.
- For rated lifting capacity of single top, subtract the main hook mass from the relevant boom rated lifting capacity. Rated lifting capacity of single top should not exceed 4,500 kg.

unit: kg Class : C3

Outrigger middle extended 4.6m										
Working radius	11.1m boom	15.0m boom	18.8m boom		26.6m boom		34.3m boom		38.1m boom	42.0m boom
3.0	32,000	28,000	28,000	20,000						
3.5	32,000	28,000	28,000	20,000						
4.0	32,000	28,000	28,000	20,000						
4.5	26,300	25,500	24,900	19,700	20,000	14,000				
5.0	20,200	19,200	18,700	18,900	20,000	14,000				
5.5	15,800	15,100	14,600	17,700	16,400	13,500				
6.0	12,800	12,200	11,800	14,600	13,300	12,700	14,000	8,000		
6.5	10,600	10,000	9,600	12,300	11,100	12,000	11,900	8,000		
7.0	8,900	8,300	8,000	10,500	9,400	11,100	10,100	8,000	8,000	8,000
7.5	7,500	7,000	6,600	9,100	8,000	9,700	8,700	8,000	8,000	8,000
8.0	6,400	5,900	5,500	7,900	6,800	8,500	7,500	8,000	8,000	7,900
9.0	4,700	4,200	3,900	6,100	5,100	6,700	5,800	7,100	6,500	6,100
10.0		3,000	2,700	4,800	3,800	5,300	4,500	5,600	5,200	4,800
11.0		2,100	1,800	3,800	2,900	4,300	3,500	4,600	4,200	3,800
12.0		1,300	1,000	3,000	2,100	3,500	2,700	3,800	3,400	3,000
14.0				1,900	1,000	2,300	1,600	2,600	2,200	1,900
16.0				1,100		1,500		1,800	1,400	1,000
18.0								1,200		
Telescoping condition (%)										
Telescoping mode	I, II	I	I	II	I	II	I	II	II	I, II
2nd boom	0	50	100	0	100	0	100	0	50	100
3rd boom	0	0	0	33	33	66	66	100	100	100
4th boom	0	0	0	33	33	66	66	100	100	100
Top boom	0	0	0	33	33	66	66	100	100	100

Unit : kg Class : C3

Outrigger min. extended 2.39m						
Working radius	11.1m boom	15.0m boom	18.8m boom		26.6m boom	
3.0	22,800	22,100	21,700	20,000		
3.5	16,900	16,300	15,900	18,600		
4.0	13,100	12,500	12,100	14,600		
4.5	10,400	9,900	9,500	11,900	10,800	12,500
5.0	8,400	7,900	7,600	9,800	8,800	10,400
5.5	6,900	6,500	6,100	8,300	7,300	8,800
6.0	5,700	5,300	5,000	7,000	6,100	7,600
6.5	4,800	4,300	4,000	6,000	5,100	6,500
7.0	4,000	3,500	3,200	5,200	4,300	5,700
7.5	3,300	2,900	2,600	4,500	3,600	5,000
8.0	2,700	2,300	2,000	3,900	3,000	4,400
9.0	1,800	1,400	1,100	2,900	2,100	3,400
10.0				2,200	1,400	2,700
11.0				1,600		2,100
12.0				1,100		1,600
Telescoping condition (%)						
Telescoping mode	I, II	I	I	II	I	II
2nd boom	0	50	100	0	100	0
3rd boom	0	0	0	33	33	66
4th boom	0	0	0	33	33	66
Top boom	0	0	0	33	33	66

Unit : kg Class: C3

Outrigger max extended 6.8m						
Boom angle	42.0m Boom					
	8.8m Jib			15.2m Jib		
	5°offset	25°offset	45°offset	5°offset	25°offset	45°offset
80°	3500	2500	1400	2300	1150	750
75°	3500	2330	1380	2100	1040	670
72°	3300	2250	1350	1950	1000	630
70°	3000	2100	1320	1750	950	610
65°	2300	1900	1250	1440	880	560
60°	1400	1300	1150	1100	830	520
55°	750	700	650	500	400	

Unit: kg Class: C3

Outrigger max extended 6.8m						
Boom angle	38.1m Boom (Telescoping mode II ) or less than that					
	8.8m Jib			15.2m Jib		
	5°offset	25°offset	45°offset	5°offset	25°offset	45°offset
80°	3500	2500	1400	2300	1150	750
75°	3500	2330	1380	2100	1040	670
72°	3300	2250	1350	1950	1000	630
70°	3000	2100	1320	1750	950	610
65°	2300	1900	1250	1440	880	560
60°	1900	1600	1150	1220	830	520
55°	1450	1350	1080	1100	750	490
50°	950	850	800	650	550	450
45°	500	450	450			

Unit: kg Class: C3

Outrigger max extended 6.8m						
Boom angle	34.3m Boom (Telescoping mode I ) or less than that					
	8.8m Jib			15.2m Jib		
	5°offset	25°offset	45°offset	5°offset	25°offset	45°offset
80°	3500	2500	1400	2300	1150	750
75°	3500	2330	1380	2100	1040	670
72°	3300	2250	1350	1950	1000	630
70°	3000	2100	1320	1750	950	610
65°	2300	1900	1250	1440	880	560
60°	1900	1600	1150	1220	830	520
55°	1450	1350	1080	1100	750	490
50°	950	850	800	650	550	450
45°	500	450	450			



Unit: kg Class: C3

Outrigger extended 4.6m						
Boom angle	42.0m Boom					
	8.8m Jib			15.2m Jib		
	5°offset	25°offset	45°offset	5°offset	25°offset	45°offset
80°	3500	2500	1400	2300	1150	750
75°	1950	1500	1380	1500	1010	670
72°	1000	750	650	700	450	
70°	500	400				

Unit: kg Class: C3

Outrigger extended 4.6m						
Boom angle	38.1m Boom (Telescoping mode II) or less than that					
	8.8m Jib			15.2m Jib		
	5°offset	25°offset	45°offset	5°offset	25°offset	45°offset
80°	3500	2500	1400	2300	1150	750
75°	2800	2150	1380	2100	1040	670
72°	1700	1350	1150	1300	930	630
70°	1200	950	800	850	600	450

Unit: kg Class: C3

Outrigger extended 4.6m						
Boom angle	34.3m Boom (Telescoping mode I) or less than that					
	8.8m Jib			15.2m Jib		
	5°offset	25°offset	45°offset	5°offset	25°offset	45°offset
80°	3500	2500	1400	2300	1150	750
75°	2800	2150	1380	2100	1040	670
72°	1700	1350	1150	1300	930	630
70°	1200	950	800	850	600	450

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NOTES: Due to constant development, the specifications above  
mentioned are subject to change without notice.