

SPECIFICATION

OF

KATO FULLY HYDRAULIC TRUCK CRANE

MODEL NK - 550VR

CARRIER : NISSAN DIESEL KG48U

UMAR
SALE & RENTAL

KATO WORKS CO., LTD.
Tokyo, Japan

STD:LH

KATO FULLY HYDRAULIC TRUCK CRANE

MODEL NK-550VR

FOREWORD:

As the production and development of construction machinery has increased, so has the demand for the KATO NK-550VR. This model has established great popularity and renown reputation for its simplified handling, all hydraulic system, reliable service and wide range of application.

These achievements are due solely to the vast technical knowledge of KATO engineers and the foresighted planning of KATO ideas presented to us by our customers, for we have, at all times, fostered good customer relationships.

This KATO NK-550VR is mounted on a truck-carrier, and it develops a maximum pay load of 55 metric tons whilst maintaining minimum weight and dimensions. This enhances the maneuverability of the KATO NK-550VR and enables the machine to be rapidly transported from site to site.

Rapid, rugged and reliable. These are the key words to describe the KATO NK-550VR for this machine is able to perform lifting, lowering, slewing and outrigger operations by a fast and reliable hydraulic system, providing the best service during handling operations.

SPECIFICATION OF NK-550VR

1. Crane Specification

Maximum rated lifting capacity	: 55 metric tons × 3.0 m
Boom length	: 11.0 m 43.0 m (5 section)
Fly jib length	: 9.2 m 15.0 m (2 section)
Boom derricking angle	: -2.5° 81°
* Boom derricking time	: 62 sec. (-2.5° 81°)
* Boom extending time	: 149 sec. (11.0m 43.0m)
* Hoisting line speed	
Main winch	: 117 m/min. (at 3rd layer)
Auxiliary winch	: 108 m/min. (at 2nd layer)
* Hoisting hook speed	
Main winch	
(part of line; 14)	: 8.35 m/min. (at 3rd layer)
Auxiliary winch	
(part of line; 1)	: 108 m/min. (at 2nd layer)
* Slewing speed	: 2.0 min ⁻¹

Wire rope for hoisting

Main winch;

Type	: SeS(48)+6 × WS(31)
Diameter	: 18 mm
Length	: 235 m

Auxiliary winch;

Type	: IWRC6 × WS(31)
Diameter	: 18 mm
Length	: 125 m

Hydraulic system

Oil pump	: 4 section gear type
Hoisting motor	: Axial plunger type
Slewing motor	: Axial plunger type
Cylinder	: Double acting type
Control valve	: 3 position 4 way double acting with integral check and relief valves
Oil reservoir capacity	: 695 L

Winch system

Main winch	: Driven by axial plunger type hoisting motor through planetary gear reduction.
Auxiliary winch	: Controlled independently by respective operating lever. Equipped with automatic brake. <u>With FREE FALL DEVICE</u>

Crane cab

: All steel welded construction

Safety devices

: ACS (Automatic crane stopper)
 Boom falling prevention device
 Winch hoisting limiter
 Winch drum lock device
 Winch drum turning indicator
 Automatic winch brake
 Irregular winding prevention device
 Hydraulic safety valve
 Outrigger lock device

* Speed

: Subject to no load

2. Carrier Specification

Maximum traveling speed	: 83 km/h
Grade ability (tan)	: 53 % (computed, @G.V.W.= 39700kg)
Minimum turning radius (center of extreme outer tire)	: 10.8 m

General dimensions

Overall length	: approx. 13370 mm
Overall width	: approx. 2820 mm
Overall height	: approx. 3650 mm
Wheel base	: 1470 mm + 3930 mm + 1400 mm = 6800 mm
Treads; Front	: 2250 mm
Rear	: 2110 mm
Center to center of extended outriggers	: 7000 mm (Fully extended) 4800 mm (Intermediately extended) 2500 mm (Fully retracted blocked on vertical cyls.)

Gross vehicle weight	: approx. 39700 kg
Front weight	: approx. 15800 kg
Rear weight	: approx. 23900 kg

Carrier

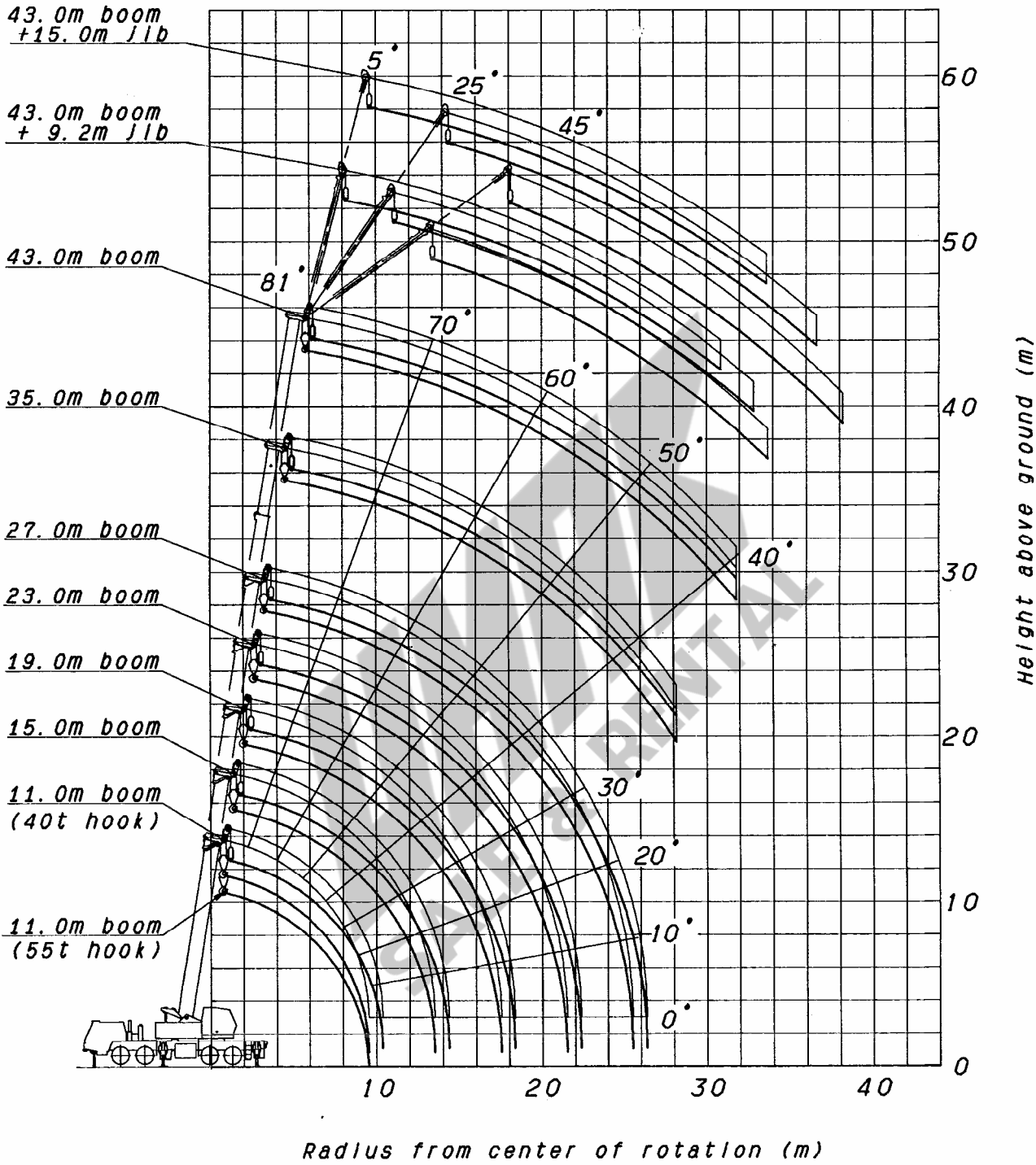
Maker	: NISSAN DIESEL
Model	: KG48U
Drive system	: 8 × 4

Engine

Maker	: NISSAN DIESEL
Model	: PF6TB (EURO-)
Type	: 4 cycle, turbo charged, direct injection water cooled, diesel
No. of cylinder	: 6 inline
Piston displacement	: 12.503 L

Max. output horsepower		: 257 kW/ 2100 min ⁻¹ (350 PS/ 2100 min ⁻¹)
Max. output torque		: 1460 N·m/ 1200 min ⁻¹ (148 kg·m/ 1200 min ⁻¹)
Clutch		: Single dry plate, hydraulic control with air booster
Transmission		: 7 forward & 1 reverse speed
Axles;	Front	: Reverse "ELLIOT" type
	Rear	: Full floating type
Steering		: Ball nut type with power booster
Suspension;	Front	: Semi-elliptic leaf springs
	Rear	: Equalizer beams and torque rods
Brake;	Service	: 2 circuit air brake, 8 wheels internal expanding type
	Parking	: Spring loaded brake
	Auxiliary	: Exhaust brake
Electric system		: 24 V
Battery		: 12 V - 115F51 × 2
Fuel tank capacity		: 300 L
Driver's cab		: Steel, two man, semi under floor type, one side cab
Tire size;	Front	: 315/80R22.5 156/150k
	Rear (dual tire)	: 315/80R22.5 156/150k

WORKING RANGE



Note: Deflection of boom and jib excluded.

RATED LIFTING CAPACITY

Based on ISO 4305

Note : Front jack is optional.

Outriggers fully extended with front jack - 360° full range									
Outriggers fully extended without front jack - over side and over rear									
Working radius(m)	11.0m Boom	11.0m Boom	15.0m Boom	19.0m Boom	23.0m Boom	27.0m Boom	35.0m Boom	43.0m Boom	
3.0	55.00	40.00	28.00	28.00	24.00				
3.5	43.70	40.00	28.00	28.00	24.00				
4.0	38.50	38.50	28.00	28.00	24.00	20.00			
4.5	34.20	34.20	28.00	28.00	24.00	20.00			
5.0	30.80	30.80	28.00	28.00	24.00	20.00	14.00		
5.5	27.80	27.80	27.40	27.20	24.00	20.00	14.00		
6.0	25.40	25.40	25.00	24.80	24.00	20.00	14.00		
6.5	23.20	23.20	22.80	22.60	22.50	20.00	14.00	8.00	
7.0	21.40	21.40	21.00	20.80	20.60	19.60	14.00	8.00	
7.5	19.70	19.70	19.30	19.10	19.00	18.00	14.00	8.00	
8.0	17.90	17.90	17.75	17.50	17.30	17.25	14.00	8.00	
8.5	16.20	16.20	15.90	15.70	15.50	15.45	13.80	8.00	
9.0	14.60	14.60	14.40	14.15	14.00	13.90	13.60	8.00	
10.0			11.90	11.65	11.50	11.45	12.30	8.00	
11.0			10.00	9.75	9.60	9.50	10.40	7.80	
12.0			8.40	8.15	8.10	8.00	8.85	7.10	
13.0			7.15	6.90	6.80	6.75	7.55	6.65	
14.0				5.90	5.80	5.75	6.50	6.15	
16.0				4.30	4.20	4.10	4.95	5.35	
18.0					3.00	2.95	3.75	4.20	
20.0					2.10	2.05	2.80	3.30	
22.0						1.30	2.10	2.55	
24.0						0.75	1.50	2.00	
26.0							1.05	1.50	
28.0							0.65	1.05	
30.0								0.70	
31.0								0.50	
Standard hook	for 40 ton + sub hook sheave	for 40 ton				for 20 ton			
Hook mass	450 + 150 kg	450 kg				320 kg			
Parts of line	14	10	8	8	6	5	4	4	
Critical boom angle	-	-	-	-	-	-	33 °	40 °	

(Unit : Metric ton)

Based on ISO 4305

Outriggers intermediately extended without front jack - 360° full range							
Outriggers fully extended without front jack - over front							
Working radius(m)	11.0m Boom	15.0m Boom	19.0m Boom	23.0m Boom	27.0m Boom	35.0m Boom	43.0m Boom
3.0	32.00	28.00	28.00	24.00			
3.5	32.00	28.00	28.00	24.00			
4.0	32.00	28.00	28.00	24.00	20.00		
4.5	29.00	28.00	28.00	24.00	20.00		
5.0	22.00	21.90	21.50	21.40	20.00	14.00	
5.5	17.30	17.20	16.90	16.80	16.70	14.00	
6.0	14.10	14.00	13.70	13.60	13.50	14.00	8.00
6.5	11.80	11.65	11.35	11.30	11.20	12.30	8.00
7.0	10.00	9.85	9.55	9.50	9.45	10.45	8.00
7.5	8.55	8.40	8.15	8.10	8.05	9.00	8.00
8.0	7.40	7.25	7.00	6.95	6.90	7.85	8.00
9.0	5.70	5.55	5.30	5.25	5.20	6.05	6.50
10.0		4.25	4.00	3.90	3.85	4.75	5.20
11.0		3.20	2.95	2.90	2.80	3.70	4.20
12.0		2.40	2.20	2.10	2.05	2.90	3.40
13.0		1.80	1.55	1.45	1.40	2.25	2.70
14.0						1.70	2.15
15.0							1.70
Standard hook	for 40 ton				for 20 ton		
Hook mass	450 kg				320 kg		
Parts of line	8	8	8	6	5	4	4
Critical boom angle	-	-	35 °	48 °	58 °	64 °	68 °

(Unit : Metric ton)

Based on ISO 4305

Outriggers fully retracted (blocked on vertical cyls.) - 360° full range	
Working radius(m)	11.0m Boom
3.0	8.00
3.5	6.40
4.0	5.10
4.5	4.20
5.0	3.40
5.5	2.80
6.0	2.30
6.5	1.90
7.0	1.60
7.5	1.25
8.0	1.00
Standard hook	for 40 ton
Hook mass	450 kg
Parts of line	10

(Unit : Metric ton)

Based on ISO 4305

Outriggers fully extended with front jack - 360° full range Outriggers fully extended without front jack - over side and over rear						
Boom angle (°)	43m Boom + 9.2m Jib					
	Offset 5°		Offset 25°		Offset 45°	
	Working radius(m)	Load (t)	Working radius(m)	Load (t)	Working radius(m)	Load (t)
81.0	10.00	3.50	12.75	2.30	14.60	1.25
80.0	11.05	3.50	13.70	2.30	15.45	1.25
79.0	12.05	3.48	14.65	2.30	16.30	1.24
78.0	13.00	3.40	15.60	2.25	17.20	1.23
77.0	13.90	3.23	16.50	2.19	18.05	1.21
76.0	14.85	3.04	17.40	2.12	18.90	1.19
75.0	15.75	2.90	18.25	2.06	19.75	1.17
74.0	16.70	2.75	19.15	1.99	20.55	1.16
72.0	18.50	2.49	20.90	1.85	22.25	1.12
70.0	20.15	2.28	22.60	1.73	23.90	1.09
68.0	21.85	2.09	24.20	1.62	25.40	1.06
66.0	23.55	1.91	25.80	1.53	26.85	1.04
64.0	25.05	1.68	27.40	1.43	28.35	1.02
62.0	26.55	1.41	28.85	1.24	29.85	1.00
60.0	28.00	1.13	30.20	1.00	31.15	0.85
59.0	28.75	1.00	30.85	0.89	31.80	0.77
58.0	29.45	0.86	31.50	0.77	32.45	0.69
57.0	30.20	0.73	32.20	0.66	33.05	0.61
56.0	30.85	0.63	32.85	0.56	33.70	0.53
Standard hook	for 4 ton					
Hook mass	120 kg					
Parts of line	1					
Critical boom angle	55 °					

(Unit : Metric ton)

Based on ISO 4305

Outriggers fully extended with front jack - 360° full range Outriggers fully extended without front jack - over side and over rear						
Boom angle (°)	43m Boom + 15m Jib					
	Offset 5°		Offset 25°		Offset 45°	
	Working radius(m)	Load (t)	Working radius(m)	Load (t)	Working radius(m)	Load (t)
81.0	11.75	2.50	16.20	1.20	19.40	0.70
80.0	12.95	2.50	17.20	1.20	20.35	0.69
79.0	14.10	2.49	18.15	1.19	21.25	0.69
78.0	15.10	2.45	19.10	1.17	22.15	0.68
77.0	16.20	2.30	20.10	1.15	23.05	0.67
76.0	17.25	2.17	21.10	1.12	24.00	0.67
75.0	18.25	2.06	22.15	1.10	24.85	0.65
74.0	19.20	1.95	23.15	1.07	25.70	0.64
72.0	21.10	1.76	25.05	1.02	27.45	0.62
70.0	23.00	1.59	26.80	0.97	29.10	0.61
68.0	24.90	1.47	28.60	0.93	30.65	0.59
66.0	26.75	1.35	30.30	0.90	32.25	0.58
64.0	28.60	1.24	32.00	0.87	33.80	0.57
62.0	30.40	1.10	33.70	0.84	35.30	0.56
60.0	32.00	0.87	35.25	0.72	36.75	0.55
59.0	32.80	0.76	36.00	0.66	37.45	0.55
58.0	33.60	0.64	36.60	0.58	38.20	0.54
Standard hook	for 4 ton					
Hook mass	120 kg					
Parts of line	1					
Critical boom angle	57 °					

(Unit : Metric ton)

Based on ISO 4305

Outriggers intermediately extended without front jack - 360° full range Outriggers fully extended without front jack - over front						
Boom angle (°)	43m Boom + 9.2m Jib					
	Offset 5°		Offset 25°		Offset 45°	
	Working radius(m)	Load (t)	Working radius(m)	Load (t)	Working radius(m)	Load (t)
81.0	10.00	3.50	12.75	2.30	14.60	1.25
80.0	11.05	3.50	13.70	2.30	15.45	1.25
79.0	12.05	3.42	14.65	2.30	16.30	1.24
78.0	12.90	3.05	15.60	2.25	17.20	1.23
77.0	13.65	2.67	16.45	2.06	18.05	1.21
76.0	14.50	2.27	17.20	1.76	18.90	1.19
Standard hook	for 4 ton					
Hook mass	120 kg					
Parts of line	1					
Critical boom angle	75°					

(Unit : Metric ton)

Outriggers intermediately extended without front jack - 360° full range Outriggers fully extended without front jack - over front						
Boom angle (°)	43m Boom + 15m Jib					
	Offset 5°		Offset 25°		Offset 45°	
	Working radius(m)	Load (t)	Working radius(m)	Load (t)	Working radius(m)	Load (t)
81.0	11.75	2.50	16.20	1.20	19.40	0.70
80.0	12.95	2.50	17.20	1.20	20.35	0.69
79.0	14.10	2.49	18.15	1.19	21.25	0.69
78.0	15.10	2.45	19.10	1.17	22.15	0.68
77.0	16.05	2.06	20.10	1.15	23.05	0.67
Standard hook	for 4 ton					
Hook mass	120 kg					
Parts of line	1					
Critical boom angle	76°					

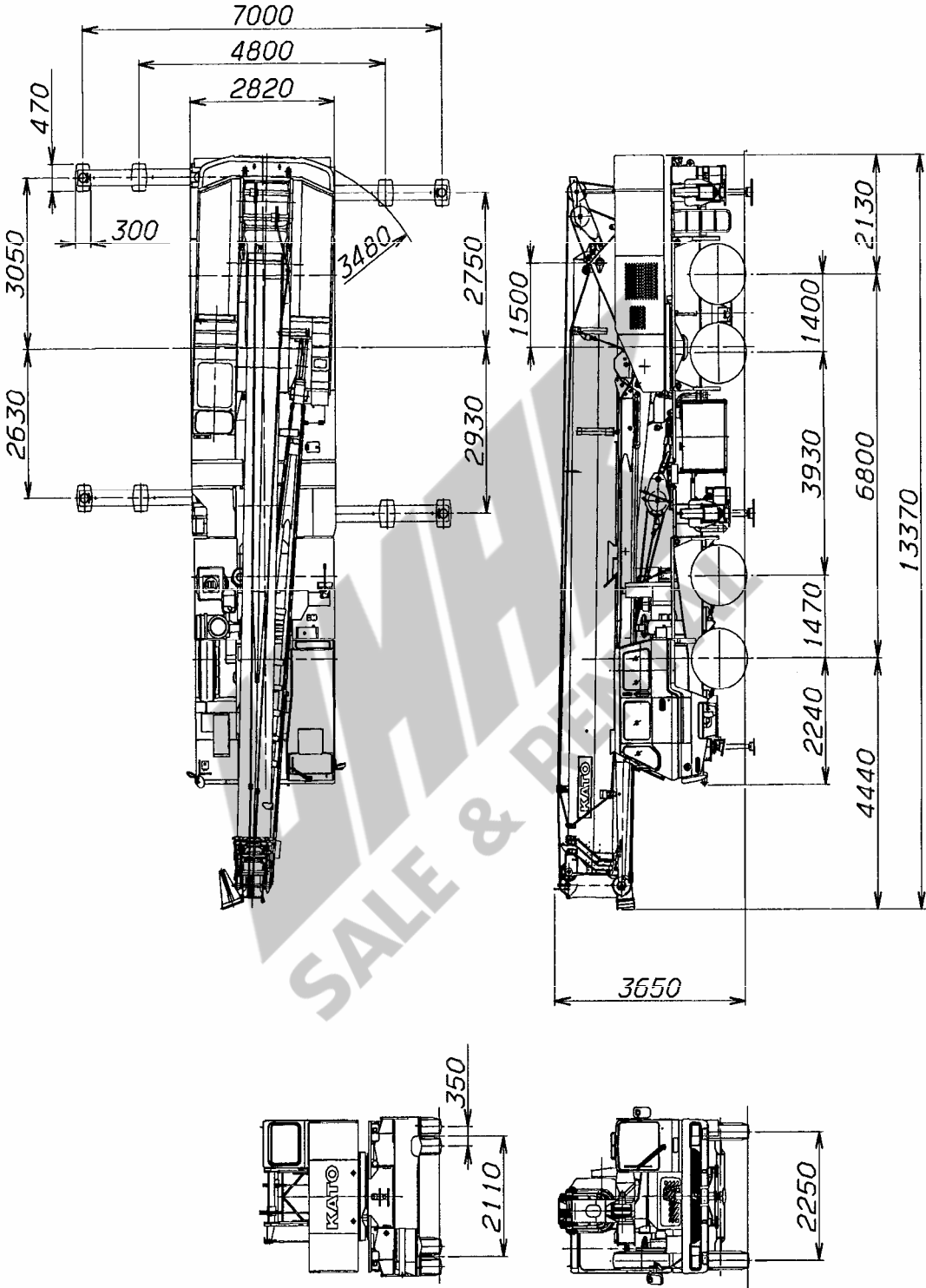
(Unit : Metric ton)

NOTES:

- (1) The rated lifting capacities are the maximum load guaranteed on a firm level ground and include the mass of hook block and other lifting equipment. The capacities enclosed with bold lines are based on the structural strength of machine and the others are based on the stability of machine.
- (2) The working radii as given in the table are the actual values including the deflection of the boom. Therefore, operate the machine based on the working radius. However, the working radii shown for jib operations are based on the values obtained when the boom is fully extended (43 m). Jib operations should be performed on the basis of boom angle only, regardless of boom length when the boom is not fully extended.
- (3) The rated lifting capacities for the rooster sheave are equivalent to the rated lifting capacities for the main boom to a maximum of 4000 kg. At all times the mass of all lifting equipment in use (including main hook block suspended from boom head) forms part of load and must be subtracted from the rated lifting capacity.
- (4) If the boom length exceeds the specified value, the rated lifting capacities for the boom length above and below the present boom length should be referred to, and the crane should be operated within the smaller lifting capacity.
- (5) When using the main boom with the jib installed, 2000 kg plus the mass of hook block and other lifting equipment, etc., should be subtracted from the rated lifting capacities.
When performing the above operation, do not use the rooster sheave.
- (6) Critical boom angles for each boom length are shown on bottommost line of lifting capacity table.
If the boom angle is lowered to less than the critical boom angle, the machine will tip over without load. Therefore, never lower the boom below these angles.

- (7) The standard number of parts of line is shown in the rated lifting capacity table. If you work with a non-standard number of parts of line, take 39.2kN (4tf) as the maximum load on any part of the wire rope.
- (8) Over front lifting performance is inferior to over side and over rear lifting performance. Great care should be taken when transferring from over side to over front since there is a danger of overloading.
- (9) Free fall is adopted in principle to lower the hook only. If it is necessary to lower a load by free fall, its mass should be less than 20 % of the rated lifting capacity and abrupt braking should not be allowed.
- (10) Crane operation is permissible up to a wind speed of 10m/s. Even in relatively light wind conditions, extra care should be taken when handling loads presenting large wind catching areas.
- (11) The machine will tip over or be damaged if operated with a load exceeding that specified in the rated lifting capacity table or not conforming to correct handling. If such trouble occurs, the machine will not be guaranteed.

KATO FULLY HYDRAULIC TRUCK CRANE MODEL NK-550VR
(CARRIER : NISSAN DIESEL KG48U)



Standard equipment	
For crane	For carrier
<ul style="list-style-type: none"> * Front jack * Fly jib * Rooster sheave * Independent two winches control system * Irregular winding prevention device * Winch automatic brake * Free fall device * Control pedals for main winch & auxiliary winch * Sub hook sheave for 55t * Hooks (40 ton, 20 ton, 4 ton) * Hydraulic oil cooler * Full size fender * Large size steps * 3 working lights * Moment limiter with voice alarm (English) * Winch drum turning indicator * Sun visor * Cigar lighter * Ashtray * Cab floor mat * Tool kit 	<ul style="list-style-type: none"> * Towing hook (front and rear, eye type) * Spare tire & wheel * Air dryer * Cab heater * Radio AM * Cigar lighter * Ashtray

Optional equipment	
For crane	For carrier
<ul style="list-style-type: none"> * Winch over-unwinding device * Winch drum mirror (hoist mirror) * Yellow rev. light * Cab heater * Cab cooler * Fan * Radio AM FM * Fire extinguisher 	<ul style="list-style-type: none"> * Cab cooler * Radio AM FM

Performance and specifications are for cranes fitted with all standard equipment.

WE RESERVE THE RIGHT TO MAKE SPECIFICATION
AND EQUIPMENT CHANGES WITHOUT NOTICE

CONCLUSION

This is the KATO NK-550VR specification, and should there be any further details you require information on, or any points you wish to have clarified, please do not hesitate to contact our Overseas Marketing Department at ; -

KATO WORKS CO., LTD.

9-37, Higashi-ohi 1-chome,
Shinagawa-ku, Tokyo, 140 Japan

Phone : Head Office

Tokyo (03) 3458-1111

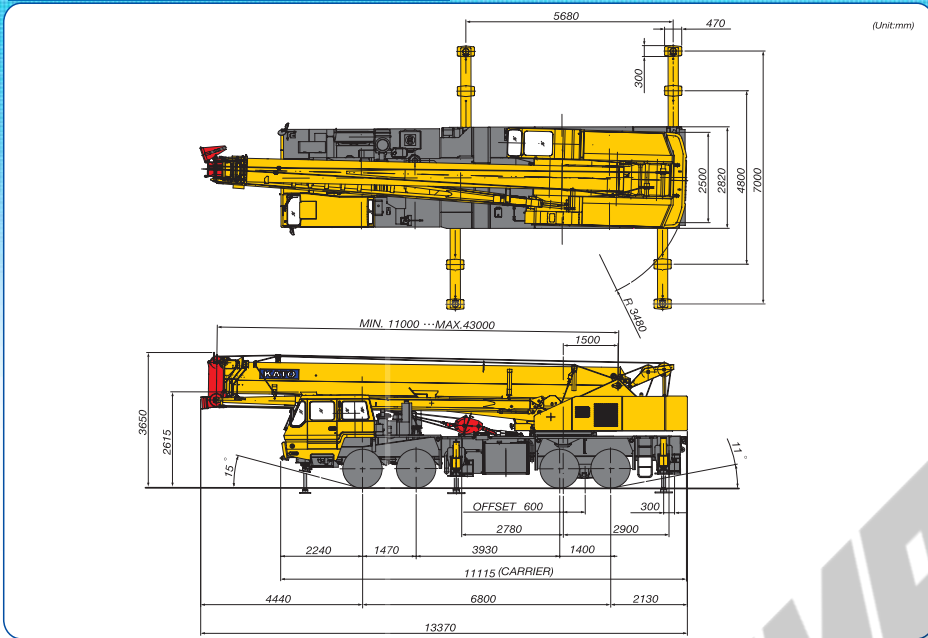
Overseas Marketing Dept.

Tokyo (03) 3458-1115

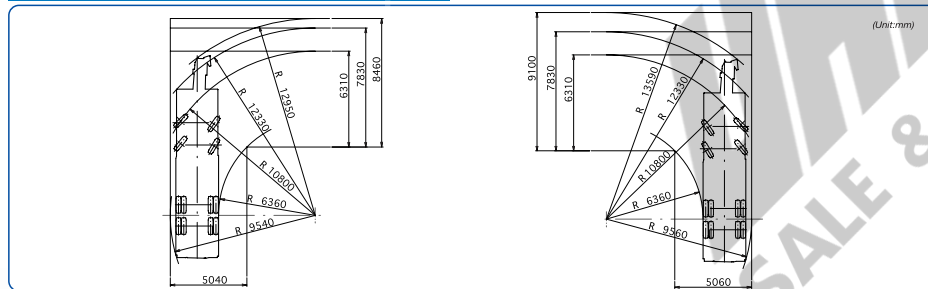
Fax. : Tokyo (03) 3458-1151

where our Overseas Marketing Dept. staff will be happy to assist you.

Dimensions



Turning radius (left hand steering)



URL <http://www.kato-works.co.jp>

NOTE : Illustrations may include optional equipment, KATO products and specifications are subject to improvements and changes without notice.
 Before you use this crane, study the instruction manual thoroughly and follow the instructions it contains.
 Some differences may arise between the machine delivered and the photographs in the catalogue due to the country the crane will be used in or any added improvements.
 The specification may be changed without notice.
 The actual colours of the body and interior may appear slightly different from those shown in this catalogue due to the limitations of photography and printing.

Address inquiries to :



KATO KATO WORKS CO.,LTD.
 QUALITY & EXPERIENCE SINCE 1955

9-37, Higashi-ohi 1-chome, Shinagawa-ku, Tokyo 140-0011, Japan.
 Tel. : Head Office Tokyo(03)3458-1111
 Overseas Marketing Department Tokyo(03)3458-1115
 Fax. : Tokyo(03)3458-1163



SUPERBOOM

NK-550VR

FULLY HYDRAULIC TRUCK CRANE



KATO

More Height and More Working Ranges with 43m Solid **SUPERBOOM**



Advanced “**SUPERBOOM**”

- Max. boom length 43 m
- Fly jib length 9.2 m & 15 m
- Max lifting height 43 m (boom)
58 m (boom + fly jib)

Wide working ranges in narrows spaces

- Max. derricking angle 81°
- Fly jib with 3 offset angles 5°, 25°, 45°
- Small tail slewing radius 3.48 m

Wide & roomy operator’s cabin

- Operating lever system ISO Type
- Safe load indicator ACS COMPULOAD
with working range
limiting function

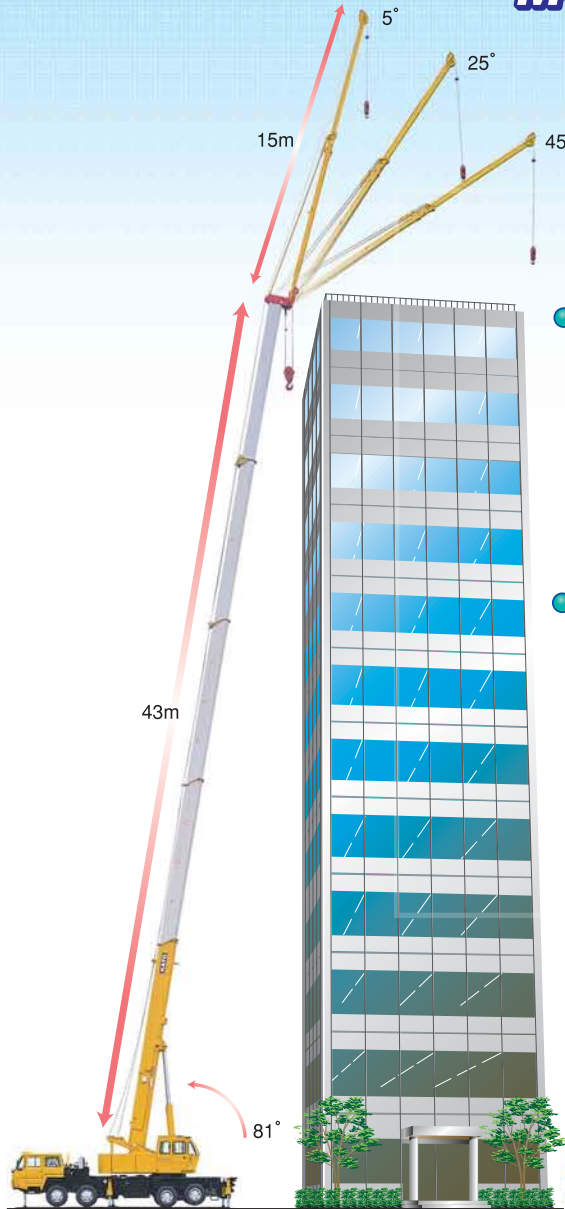
Compact body with better mobility

- Overall length 13.37 m
- Overall height 3.65 m
- Min. turning radius 10.80 m

New model engine

- Conformity regulation Euro II Engine
- Max. output 257 kw
- Max. torque 1,460 Nm

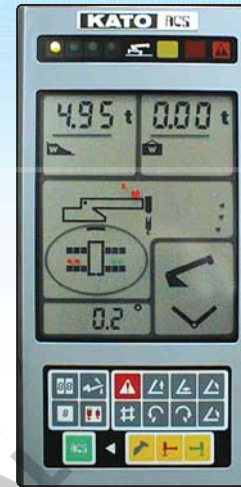
MORE CLOSER!
MORE HIGHER!
MORE FARTHER!



● Newly designed solid 43m **SUPERBOOM** combined with 15m fly jib offers you steady operation and wider range capacity in narrow spaces.

● Fly jib is stored under the boom while traveling and set up easily & speedily even in narrow spaces at job site.

Wide & roomy operator's cabin for the safe work



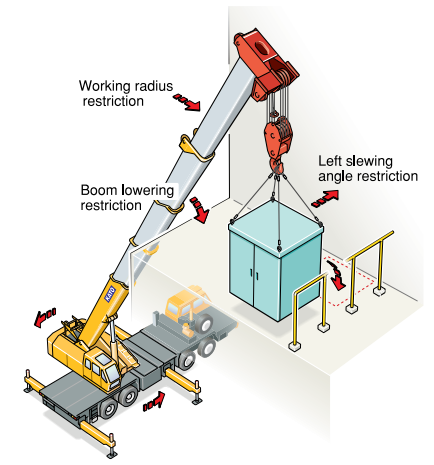
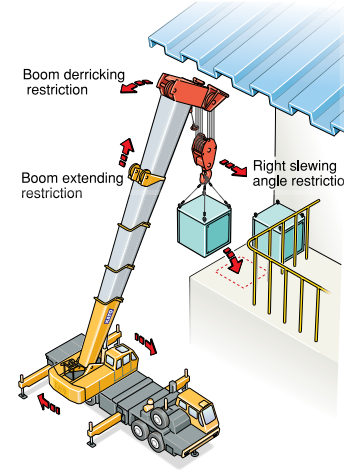
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(With freefall pedal)

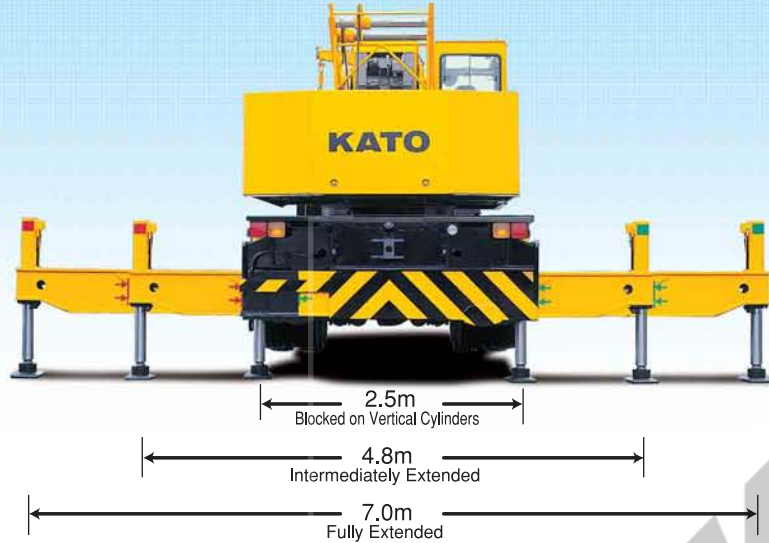
Safe load indicator “ACS COMPULOAD” with working range limiting function

● Working range limiting function ensures safe operation in a confined and limited job site with control of 6 factors: boom extending, boom derricking, boom lowering, working radius, left slewing angle, right slewing angle.



Slewing does not stop automatically, sound alarm only.

Three-position outrigger setting offers variations of machine-setting in the limited space



Easy accessibility with large steps and full-sized fenders



Safety Devices

- ACS (Automatic Crane Stopper)
- Winch hoisting limiter
- Winch drum turning indicator
- Irregular winding prevention device
- Outrigger lock device
- Boom falling prevention device
- Winch drum lock device
- Automatic winch brake
- Hydraulic safety valve
- Slewing lock device

Standard equipment

For crane

- Front jack
- Fly jib
- Rooster sheave
- Independent two winches control system
- Irregular winding prevention device
- Winch automatic brake
- Free fall device
- Control pedals for main winch & auxiliary winch
- Sub hook sheave for 55t
- Hooks (40 ton, 20 ton, 4 ton)
- Hydraulic oil cooler
- Full size fender
- Large size steps
- 3 working lights
- Moment limiter with voice alarm (English)
- Winch drum turning indicator
- Sun visor
- Cigar lighter
- Ashtray
- Cab floor mat
- Tool kit

For carrier

- Towing hooks (front and rear, eye type)
- Spare tire & wheel
- Air dryer
- Cab heater
- Radio AM
- Cigar lighter
- Ashtray

Optional equipment

For crane

- Winch over-unwinding device
- Winch drum mirror (hoist mirror)
- Yellow rev. light
- Cab heater
- Cab cooler
- Fan
- Radio AM FM
- Fire extinguisher

For carrier

- Cab cooler
- Radio AM FM

NOTE : Performance and specifications are based on the condition fitted with all standard equipment.

NK-550VR

FULLY HYDRAULIC TRUCK CRANE

[SPECIFICATION]

■ CRANE		
Description	Truck crane with maximum lifting capacity 55 ton	
Model	NK-550VR	
● Specification		
Maximum rated lifting capacity	11.0 m Boom	55,000 kg × 3.0 m (Parts of line : 14)
	11.0 m Boom	40,000 kg × 3.5 m (Parts of line : 10)
	15.0 m Boom	28,000 kg × 5.0 m (Parts of line : 8)
	19.0 m Boom	28,000 kg × 5.0 m (Parts of line : 8)
	23.0 m Boom	24,000 kg × 6.0 m (Parts of line : 6)
	27.0 m Boom	20,000 kg × 6.5 m (Parts of line : 5)
	35.0 m Boom	14,000 kg × 8.0 m (Parts of line : 4)
	43.0 m Boom	8,000 kg × 10.0 m (Parts of line : 4)
	9.2 m Jib	3,500 kg × 80° (Parts of line : 1)
	15.0 m Jib	2,500 kg × 80° (Parts of line : 1)
Rooster	4,000 kg (Parts of line : 1)	
Boom length	11.0 m — 43.0 m	
Fly jib length	9.2 m, 15.0 m	
Maximum lifting height	43.0 m (Boom) 58.0 m (Jib)	
Hoisting line speed	Main winch	114 m/min. (at 3rd layer)
	Auxiliary winch	105 m/min. (at 2nd layer)
Hoisting hook speed	Main winch	(part of line; 14) : 8.1 m/min. (at 3rd layer)
	Auxiliary winch	(part of line; 1) : 105 m/min. (at 2nd layer)
Boom derricking angle	-2.5° — 81°	
Boom derricking time	70 s (-2.5° — 81°)	
Boom extending time	170 s (11.0 m — 43.0 m)	
Slewing speed	1.85 min ⁻¹	
Tail slewing radius	3,480 mm	
● Equipment and structure		
Boom type	Box-shaped, 5-section hydraulically telescopic type (boom sections 2/3 and 4/5 simultaneously operated)	
Jib type	2 sections (2nd section of draw-out type, 3-step inclination type (offset angles 5° , 25° and 45°))	
Boom extension/retraction equipment	Three hydraulic cylinders and wire ropes used together	
Boom derricking/lowering equipment	One hydraulic cylinder of direct acting type with pressure-compensated flow control valve	
Winch system	Driven by axial plunger type hoisting motor through planetary gear reduction.	
Main & Auxiliary winches	Controlled independently by operating lever. Equipped with automatic brake.	
Slewing equipment	Ball bearing type	
Wire rope for hoisting	Main winch	Diameter : 18 mm × Length : 235 m
	Auxiliary winch	Diameter : 18 mm × Length : 125 m
● Hydraulic system		
Oil pump	4 section gear type	
Hydraulic motor	Hoisting motor	Axial plunger type
	Slewing motor	Axial plunger type
Control valve	3 position 4 way double acting with integral check and relief valves	
Cylinder	Double acting type	
Oil reservoir capacity	695 L	
● Safety devices		
	ACS (Automatic Crane System with voice alarm), Boom falling prevention device, Winch hoisting limiter, Winch drum lock device, Winch drum turning indicator, Automatic winch brake, Irregular winding prevention device, Hydraulic safety valve, Outrigger lock device, Joystick control safety stop system, Slewing lock device	
● Standard equipment		
	Front jack, Fly jib, Rooster sheave, Independent two winches control system, Irregular winding prevention device, Winch automatic brake, Hooks (40 ton, 20 ton, 4 ton), Hydraulic oil cooler, Full size fender, Large size steps, 3 working lights, Moment limiter with voice alarm, Winch drum turning indicator, Sun visor, Cigar lighter, Ashtray, Cab floor mat, Tool kit	
● Optional equipment		
	Winch over-unwinding device, Winch drum mirror (hoist mirror), Yellow rev. light, Cab heater, Cab cooler, Fan, Radio AM FM, Fire extinguisher, Roof visor, Sub hook sheave for 55t, Outrigger sheet, Cab level gauge	

■ CARRIER		
Maker and model	FAW CA5425JQZ	
● Specification		
Maximum traveling speed	70 km/h	
Gradeability	30% (theoretical value)	
Minimum turning radius	11.9 m	
● General dimensions & G.V.W.		
Overall length	approx. 13,370 mm	
Overall width	approx. 2,800 mm	
Overall height	approx. 3,780 mm	
Wheel base	1,450 mm + 3,900 mm + 1,350 mm = 6,700 mm	
Treads	Front	2,282 mm
	Rear	2,059 mm
Outriggers	Type	Hydraulic H-beam type (with float and vertical cylinder in single unit)
	Extension width	7,000 mm (Fully extended)
		4,800 mm (Intermediately extended) 2,500 mm (Fully retracted)
Gross machine weight	Gross weight	approx. 41,600 kg
	Front weight	approx. 15,650 kg
	Rear weight	approx. 25,950 kg
● Engine		
Model	CA6DL2-35E3 (EURO-III) (turbo charged)	
Type	6-inline, 4 cycle, water cooled, diesel	
Piston displacement	8.6 L	
Max. power	258 kW/ 2,100 min ⁻¹ (350 PS/ 2,100 min ⁻¹)	
Max. torque	1,500 N·m/ 1,600 min ⁻¹ (153 kg·m/ 1,600 min ⁻¹)	
* NOTE : Diesel Fuel recommended by KATO must be used		
● Equipment and structure		
Drive system	8 × 4	
Clutch	Single dry plate, hydraulic control with air booster	
Transmission	Manual transmission type	
Number of speeds	9 forward & 1 reverse speed	
Axles	Front	Reverse "ELLIOT" type
	Rear	Full floating type with hub reduction
Suspension	Front	Leaf springs with shock absorber
	Rear	Equalizer beams & torque rods with leaf springs (with lockout device)
Brake	Service	2 circuit air brake, 8 wheels internal expanding type
	Parking	Spring loaded brake
	Auxiliary	Exhaust brake
Steering	Type	Ball nut type with power booster
Tire size	Front	315 / 80R 22.5-18PR
	Rear	315 / 80R 22.5-18PR
Fuel tank capacity	380 L	
Seating capacity	2 persons	
Battery	(12V-6-QAW-180) × 2	
● Standard equipment		
	Towing hook (front and rear, eye type), Spare tire & wheel, Air dryer, Radio AM FM , Cigar lighter, Ashtray, Cab heater, Cab cooler	

- Stow the hooks in place before traveling.
- Before you use this machine, read the precautions in the instruction manual thoroughly to operate it correctly.
- KATO products and specifications are subject to improvements and changes without notice.

LIFTING CAPACITIES

Based on ISO 4305
Not exceed 75% of static tipping loads

11.0 m — 43.0 m Boom

(Unit : Metric ton)

Outriggers fully extended with front jack - 360° full range									
Outriggers fully extended without front jack - over side and over rear									
Working radius (m)	11.0m Boom	11.0m Boom	15.0m Boom	19.0m Boom	23.0m Boom	27.0m Boom	35.0m Boom	43.0m Boom	
3.0	55.00	40.00	28.00	28.00	24.00				
3.5	43.70	40.00	28.00	28.00	24.00				
4.0	38.50	38.50	28.00	28.00	24.00	20.00			
4.5	34.20	34.20	28.00	28.00	24.00	20.00			
5.0	30.80	30.80	28.00	28.00	24.00	20.00			
5.5	27.80	27.80	27.40	27.20	24.00	20.00	14.00		
6.0	25.40	25.40	25.00	24.80	24.00	20.00	14.00		
6.5	23.20	23.20	22.80	22.60	22.50	20.00	14.00	8.00	
7.0	21.40	21.40	21.00	20.80	20.60	19.60	14.00	8.00	
7.5	19.70	19.70	19.30	19.10	19.00	18.00	14.00	8.00	
8.0	17.90	17.90	17.75	17.50	17.30	17.25	14.00	8.00	
8.5	16.20	16.20	15.90	15.70	15.50	15.45	13.80	8.00	
9.0	14.60	14.60	14.40	14.15	14.00	13.90	13.60	8.00	
10.0			11.90	11.65	11.50	11.45	12.30	8.00	
11.0			10.00	9.75	9.60	9.50	10.40	7.80	
12.0			8.40	8.15	8.10	8.00	8.85	7.10	
13.0			7.15	6.90	6.80	6.75	7.55	6.65	
14.0				5.90	5.80	5.75	6.50	6.15	
16.0				4.30	4.20	4.10	4.95	5.35	
18.0					3.00	2.95	3.75	4.20	
20.0					2.10	2.05	2.80	3.30	
22.0						1.30	2.10	2.55	
24.0						0.75	1.50	2.00	
26.0							1.05	1.50	
28.0							0.65	1.05	
30.0								0.70	
31.0								0.50	
Standard hook	for 55 ton	for 40 ton				for 20 ton			
Hook mass	600 kg	450 kg				320 kg			
Parts of line	14	10	8	8	6	5	4	4	
Critical boom angle	—	—	—	—	—	—	33°	40°	

421-75103000

(Unit : Metric ton)

Outriggers intermediately extended without front jack - 360° full range								
Outriggers fully extended without front jack - over front								
Working radius (m)	11.0m Boom	15.0m Boom	19.0m Boom	23.0m Boom	27.0m Boom	35.0m Boom	43.0m Boom	
3.0	32.00	28.00	28.00	24.00				
3.5	32.00	28.00	28.00	24.00				
4.0	32.00	28.00	28.00	24.00	20.00			
4.5	29.00	28.00	28.00	24.00	20.00			
5.0	22.00	21.90	21.50	21.40	20.00	14.00		
5.5	17.30	17.20	16.90	16.80	16.70	14.00		
6.0	14.10	14.00	13.70	13.60	13.50	14.00	8.00	
6.5	11.80	11.65	11.35	11.30	11.20	12.30	8.00	
7.0	10.00	9.85	9.55	9.50	9.45	10.45	8.00	
7.5	8.55	8.40	8.15	8.10	8.05	9.00	8.00	
8.0	7.40	7.25	7.00	6.95	6.90	7.85	8.00	
9.0	5.70	5.55	5.30	5.25	5.20	6.05	6.50	
10.0		4.25	4.00	3.90	3.85	4.75	5.20	
11.0		3.20	2.95	2.90	2.80	3.70	4.20	
12.0		2.40	2.20	2.10	2.05	2.90	3.40	
13.0		1.80	1.55	1.45	1.40	2.25	2.70	
14.0						1.70	2.15	
15.0							1.70	
Standard hook	for 40 ton				for 20 ton			
Hook mass	450 kg				320 kg			
Parts of line	8	8	8	6	5	4	4	
Critical boom angle	—	—	35°	48°	58°	64°	68°	

421-75104000

43 m Boom + 9.2 m Jib

43 m Boom + 15 m Jib

(Unit : Metric ton)

Outriggers fully extended with front jack - 360° full range													
Outriggers fully extended without front jack - over side and over rear													
43m Boom + 9.2m Jib							43m Boom + 15m Jib						
Boom angle (°)	Offset 5°		Offset 25°		Offset 45°		Boom angle (°)	Offset 5°		Offset 25°		Offset 45°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)		Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
81.0	10.00	3.50	12.75	2.30	14.60	1.25	81.0	11.75	2.50	16.20	1.20	19.40	0.70
80.0	11.05	3.50	13.70	2.30	15.45	1.25	80.0	12.95	2.50	17.20	1.20	20.35	0.69
79.0	12.05	3.48	14.65	2.30	16.30	1.24	79.0	14.10	2.49	18.15	1.19	21.25	0.69
78.0	13.00	3.40	15.60	2.25	17.20	1.23	78.0	15.10	2.45	19.10	1.17	22.15	0.68
77.0	13.90	3.23	16.50	2.19	18.05	1.21	77.0	16.20	2.30	20.10	1.15	23.05	0.67
76.0	14.85	3.04	17.40	2.12	18.90	1.19	76.0	17.25	2.17	21.10	1.12	24.00	0.67
75.0	15.75	2.90	18.25	2.06	19.75	1.17	75.0	18.25	2.06	22.15	1.10	24.85	0.65
74.0	16.70	2.75	19.15	1.99	20.55	1.16	74.0	19.20	1.95	23.15	1.07	25.70	0.64
72.0	18.50	2.49	20.90	1.85	22.25	1.12	72.0	21.10	1.76	25.05	1.02	27.45	0.62
70.0	20.15	2.28	22.60	1.73	23.90	1.09	70.0	23.00	1.59	26.80	0.97	29.10	0.61
68.0	21.85	2.09	24.20	1.62	25.40	1.06	68.0	24.90	1.47	28.60	0.93	30.65	0.59
66.0	23.55	1.91	25.80	1.53	26.85	1.04	66.0	26.75	1.35	30.30	0.90	32.25	0.58
64.0	25.05	1.68	27.40	1.43	28.35	1.02	64.0	28.60	1.24	32.00	0.87	33.80	0.57
62.0	26.55	1.41	28.85	1.24	29.85	1.00	62.0	30.40	1.10	33.70	0.84	35.30	0.56
60.0	28.00	1.13	30.20	1.00	31.15	0.85	60.0	32.00	0.87	35.25	0.72	36.75	0.55
59.0	28.75	1.00	30.85	0.89	31.80	0.77	59.0	32.80	0.76	36.00	0.66	37.45	0.55
58.0	29.45	0.86	31.50	0.77	32.45	0.69	58.0	33.60	0.64	36.60	0.58	38.20	0.54
57.0	30.20	0.73	32.20	0.66	33.05	0.61							
56.0	30.85	0.63	32.85	0.56	33.70	0.53							
Standard hook	for 4 ton						Standard hook	for 4 ton					
Hook mass	120 kg						Hook mass	120 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	55°						Critical boom angle	57°					

421-75105000

43 m Boom + 9.2 m Jib

43 m Boom + 15 m Jib

(Unit : Metric ton)

Outriggers intermediately extended without front jack - 360° full range													
Outriggers fully extended without front jack - over front													
43m Boom + 9.2m Jib							43m Boom + 15m Jib						
Boom angle (°)	Offset 5°		Offset 25°		Offset 45°		Boom angle (°)	Offset 5°		Offset 25°		Offset 45°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)		Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
81.0	10.00	3.50	12.75	2.30	14.60	1.25	81.0	11.75	2.50	16.20	1.20	19.40	0.70
80.0	11.05	3.50	13.70	2.30	15.45	1.25	80.0	12.95	2.50	17.20	1.20	20.35	0.69
79.0	12.05	3.42	14.65	2.30	16.30	1.24	79.0	14.10	2.49	18.15	1.19	21.25	0.69
78.0	12.90	3.05	15.60	2.25	17.20	1.23	78.0	15.10	2.45	19.10	1.17	22.15	0.68
77.0	13.65	2.67	16.45	2.06	18.05	1.21	77.0	16.05	2.06	20.10	1.15	23.05	0.67
76.0	14.50	2.27	17.20	1.76	18.90	1.19							
Standard hook	for 4 ton						Standard hook	for 4 ton					
Hook mass	120 kg						Hook mass	120 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	75°						Critical boom angle	76°					

421-75106000

(Unit : Metric ton)

Outriggers fully retracted (blocked on vertical cyls.) - 360° full range	
Working radius (m)	11.0 m Boom
3.0	8.00
3.5	6.40
4.0	5.10
4.5	4.20
5.0	3.40
5.5	2.80
6.0	2.30
6.5	1.90
7.0	1.60
7.5	1.25
8.0	1.00
Standard hook	for 40 ton
Hook mass	450 kg
Parts of line	10

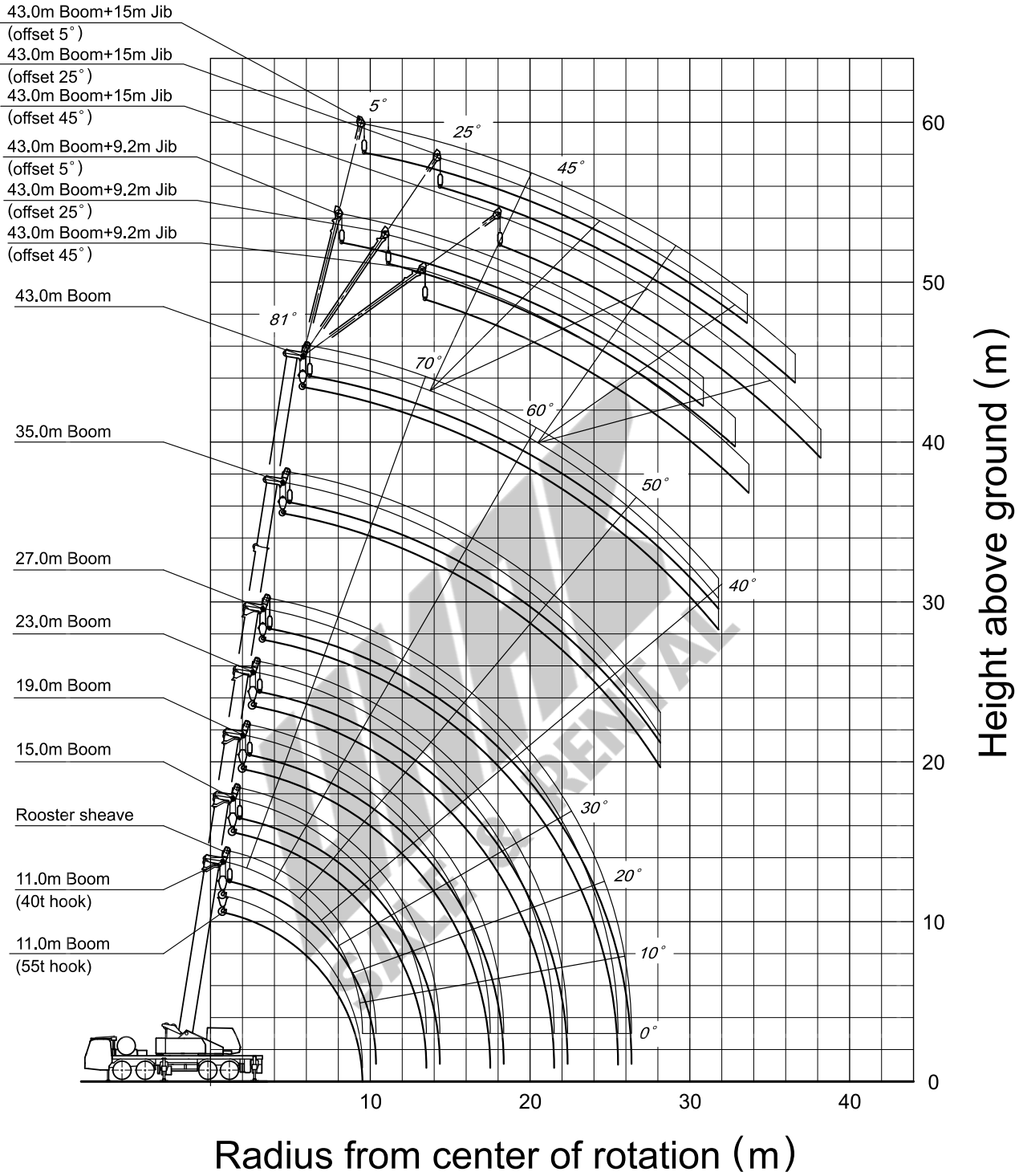
WMAK
SALE & RENTAL

■ Notes for the rated lifting capacity chart

Precautions

1. The rated lifting capacities are the maximum load guaranteed on a firm level ground and include the mass of hook block and other lifting equipment. The capacities enclosed with bold lines are based on the structural strength of machine and the others are based on the stability of machine.
2. The working radii as given in the table are the actual values including the deflection of the boom. Therefore, operate the machine based on the working radius. However, the working radii shown for jib operations are based on the values obtained when the boom is fully extended (43 m). Jib operations should be performed on the basis of boom angle only, regardless of boom length when the boom is not fully extended.
3. The rated lifting capacities for the rooster sheave are equivalent to the rated lifting capacities for the main boom to a maximum of 4000 kg. At all times the mass of all lifting equipment in use (including main hook block suspended from boom head) forms part of load and must be subtracted from the rated lifting capacity.
4. If the boom length exceeds the specified value, the rated lifting capacities for the boom length above and below the present boom length should be referred to, and the crane should be operated within the smaller lifting capacity.
5. When using the main boom with the jib installed, 4000 kg plus the mass of hook block and other lifting equipment, etc., should be subtracted from the rated lifting capacities. When performing the above operation, do not use the rooster sheave.
6. Critical boom angles for each boom length are shown on bottommost line of lifting capacity table. If the boom angle is lowered to less than the critical boom angle, the machine will tip over without load. Therefore, never lower the boom below these angles.
7. The standard number of parts of line is shown in the rated lifting capacity table. If you work with a non-standard number of parts of line, take 39.2kN (4tf) as the maximum load on any part of the wire rope.
8. Over front lifting performance without front jack is inferior to over side and over rear lifting performance. Great care should be taken when transferring from over side to over front since there is a danger of overloading.
9. Crane operation is permissible up to a wind speed of 10m/s. Even in relatively light wind conditions, extra care should be taken when handling loads presenting large wind catching areas.
10. The machine will tip over or be damaged if operated with a load exceeding that specified in the rated lifting capacity table or not conforming to correct handling. If such trouble occurs, the machine will not be guaranteed.

WORKING RANGE

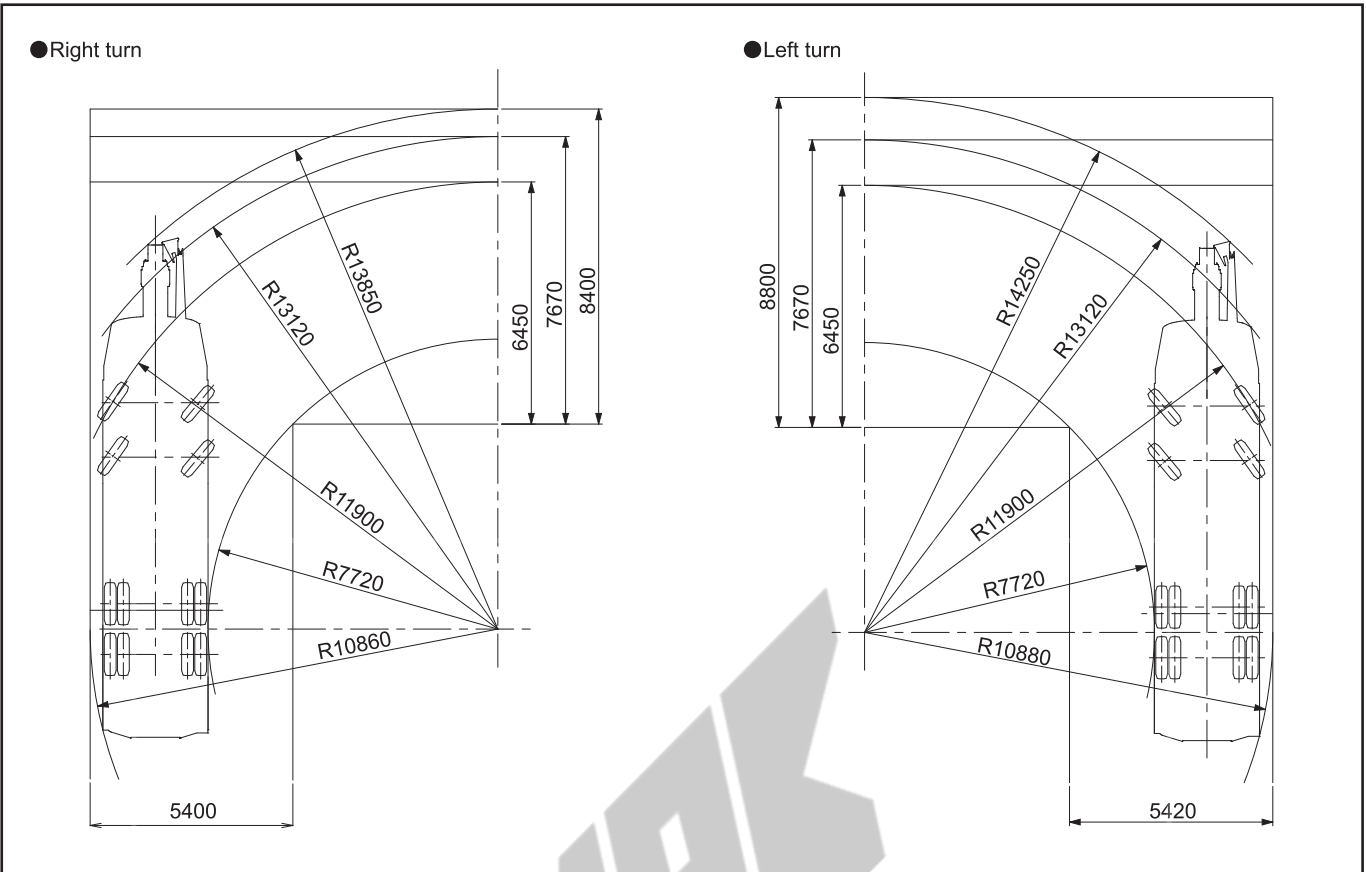


Radius from center of rotation (m)

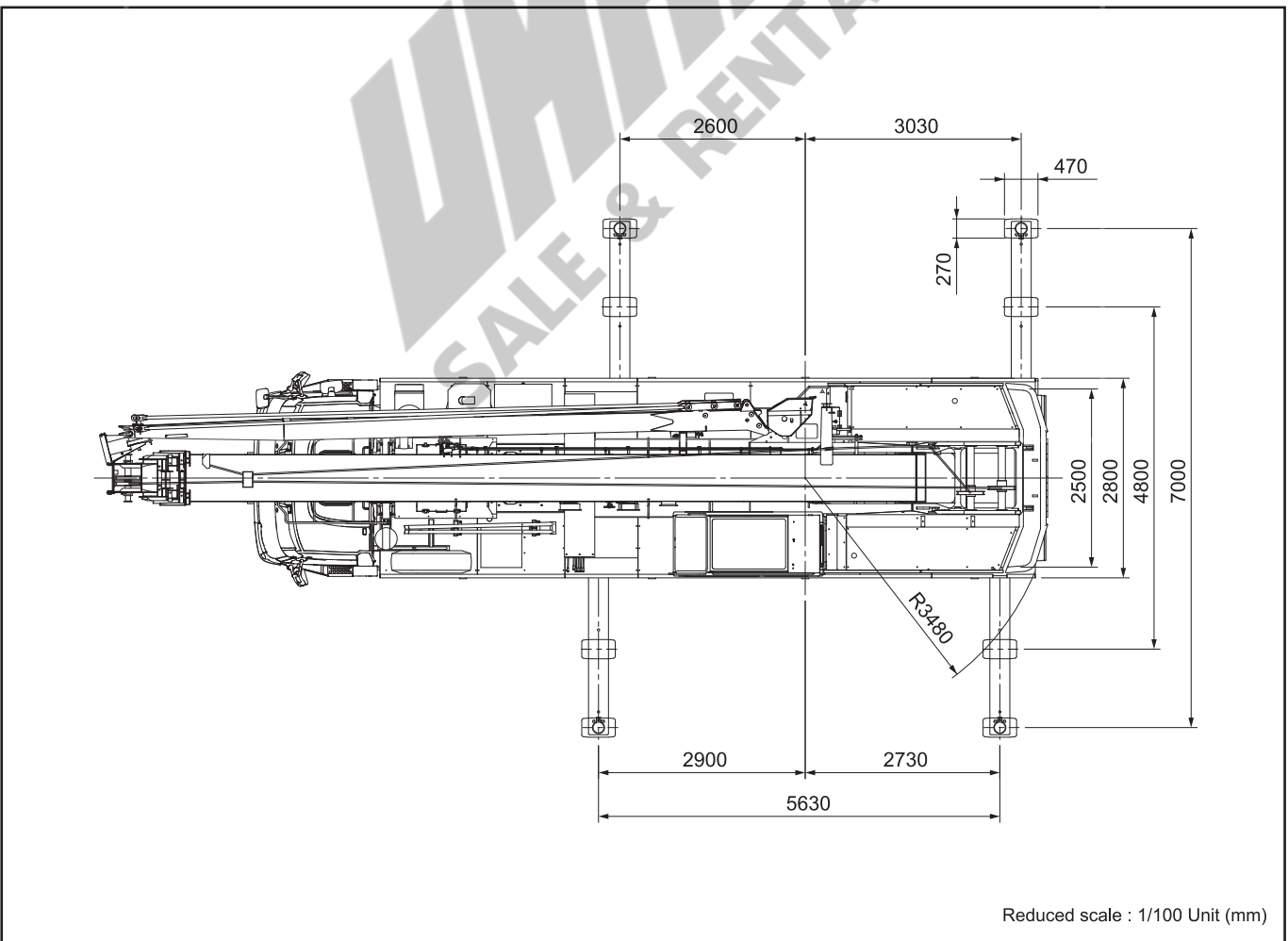
Note

1. This diagram does not include deflection of Boom and Fly jib.
2. The outriggers are fully extended.

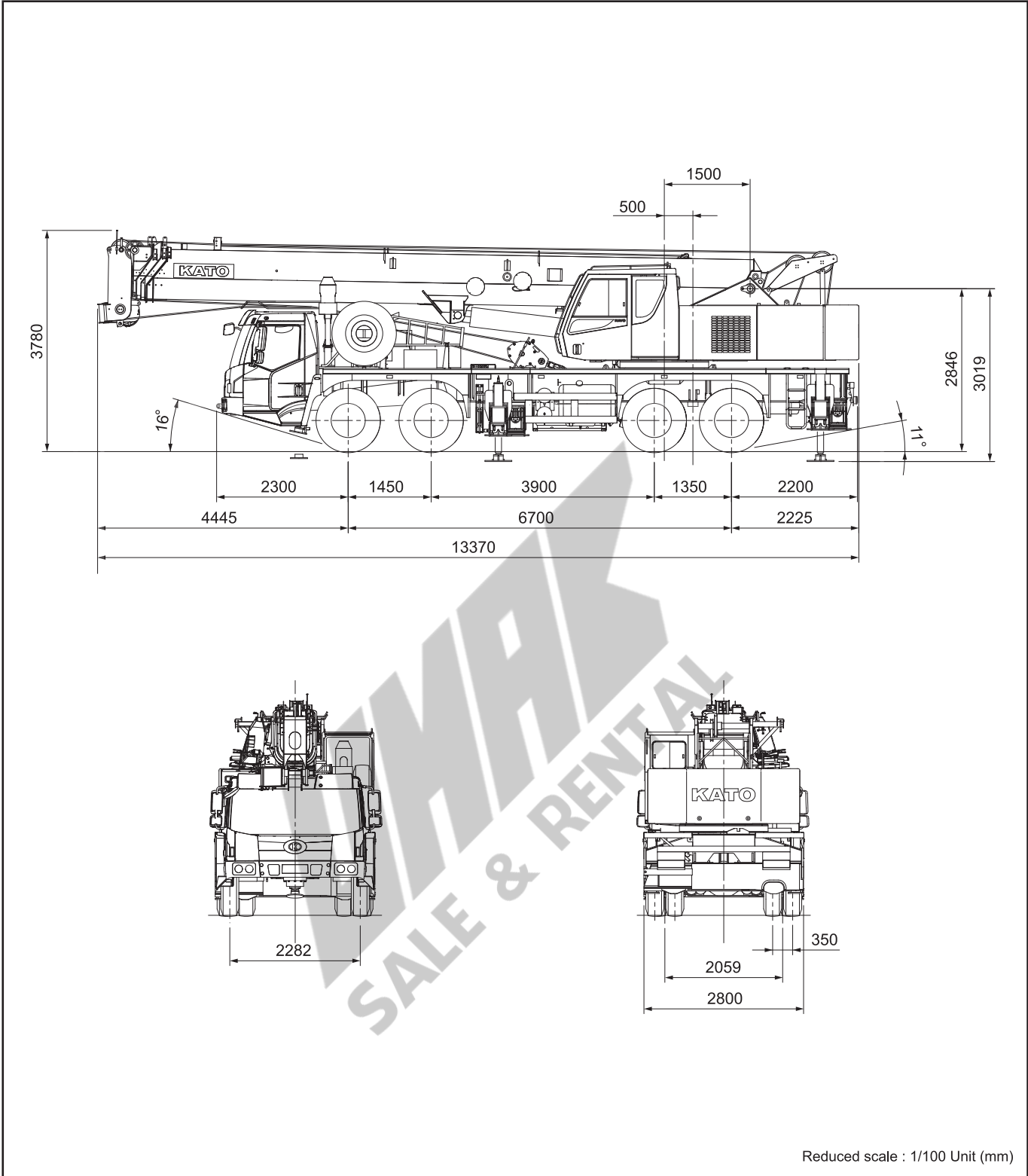
Minimum path width



Overall view



Overall view



Reduced scale : 1/100 Unit (mm)

* KATO products and specifications are subject to improvements and changes without notice.

Address inquiries to:

KATO
KATO WORKS CO.,LTD.

9-37, Higashi-ohi 1-chome, Shinagawa-ku, Tokyo, 140-0011, Japan
 Tel. : Head Office Tokyo (03) 3458-1111
 Overseas Marketing Department. Tokyo (03) 3458-1115
 Fax. : Tokyo (03) 3458-1163
 URL http://www.kato-works.co.jp

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We acquired the "ISO 9001" certification which is an international standard for quality assurance.

NK-550VR

FULLY HYDRAULIC TRUCK CRANE

【SPECIFICATION】

■CRANE

Description	Truck crane with maximum lifting capacity 55 ton
Model	NK-550VR

●Specification

Maximum rated lifting capacity	11.0 m Boom	55,000 kg × 3.0 m (Parts of line : 14)
	11.0 m Boom	40,000 kg × 3.5 m (Parts of line : 10)
	15.0 m Boom	28,000 kg × 5.0 m (Parts of line : 8)
	19.0 m Boom	28,000 kg × 5.0 m (Parts of line : 8)
	23.0 m Boom	24,000 kg × 6.0 m (Parts of line : 6)
	27.0 m Boom	20,000 kg × 6.5 m (Parts of line : 5)
	35.0 m Boom	14,000 kg × 8.0 m (Parts of line : 4)
	43.0 m Boom	8,000 kg × 10.0 m (Parts of line : 4)
	9.2 m Jib	3,500 kg × 80° (Parts of line : 1)
15.0 m Jib	2,500 kg × 80° (Parts of line : 1)	
Rooster	4,000 kg (Parts of line : 1)	
Boom length	11.0 m — 43.0 m	
Fly jib length	9.2 m, 15.0 m	
Maximum lifting height	43.0 m (Boom) 58.0 m (Jib)	
Hoisting line speed	Main winch Auxiliary winch	114 m/min. (at 3rd layer) 105 m/min. (at 2nd layer)
Hoisting hook speed	Main winch Auxiliary winch	(part of line; 14) : 8.1 m/min. (at 3rd layer) (part of line; 1) : 105 m/min. (at 2nd layer)
Boom derricking angle	-2.5° — 81°	
Boom derricking time	70 s (-2.5° — 81°)	
Boom extending time	170 s (11.0 m — 43.0 m)	
Slewing speed	1.85 min ⁻¹	
Tail slewing radius	3,480 mm	

●Equipment and structure

Boom type	Box-shaped, 5-section hydraulically telescopic type (boom sections 2/3 and 4/5 simultaneously operated)	
Jib type	2 sections (2nd section of draw-out type, 3-step inclination type (offset angles 5°, 25° and 45°))	
Boom extension/retraction equipment	Three hydraulic cylinders and wire ropes used together	
Boom derricking/lowering equipment	One hydraulic cylinder of direct acting type with pressure-compensated flow control valve	
Winch system	Driven by axial plunger type hoisting motor through planetary gear reduction.	
Main & Auxiliary winches	Controlled independently by operating lever. Equipped with automatic brake.	
Slewing equipment	Ball bearing type	
Wire rope for hoisting	Main winch Auxiliary winch	Diameter : 18 mm × Length : 235 m Diameter : 18 mm × Length : 125 m

●Hydraulic equipment

Oil pump	4 section gear type	
Hydraulic motor	Hoisting motor Slewing motor	Axial plunger type Axial plunger type
Control valve	3 position 4 way double acting with integral check and relief valves	
Cylinder	Double acting type	
Oil reservoir capacity	695 L	

●Safety devices

ACS (Automatic crane system with voice alarm), Boom falling prevention device, Winch hoisting limiter, Winch drum lock device, Winch drum turning indicator, Automatic winch brake, Irregular winding prevention device, Hydraulic safety valve, Outrigger lock device, Joystick control safety stop system, Slewing lock device
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●Standard equipment

Front jack, Fly jib, Rooster sheave, Independent two winches control system, Irregular winding prevention device, Winch automatic brake, Hooks (40 ton, 20 ton, 4 ton), Hydraulic oil cooler, Full size fender, Large size steps, 3 working lights, Moment limiter with voice alarm, Winch drum turning indicator, Sun visor, Cigar lighter, Ashtray, Cab floor mat, Tool kit

●Optional equipment

Winch over-unwinding device, Winch drum mirror (hoist mirror), Yellow rev. light, Cab heater, Cab cooler, Fan, Radio AM FM, Fire extinguisher, Roof visor, Sub hook sheave for 55t, Outrigger sheet, Cab level gauge
--

■CARRIER

Maker and model	FAW CA5425JQZ
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●Specification

Maximum traveling speed	70 km/h
Gradeability	30% (theoretical value)
Minimum turning radius	11.75 m

●General dimensions & G.V.W.

Overall length	approx. 13,370 mm
Overall width	approx. 2,800 mm
Overall height	approx. 3,780 mm
Wheel base	1,450 mm + 3,900 mm + 1,350 mm = 6,700 mm
Treads	Front 2,282 mm Rear 2,059 mm
Outriggers	Type Hydraulic H-beam type (with float and vertical cylinder in single unit)
	Extension width 7,000 mm (Fully extended) 4,800 mm (Intermediately extended) 2,500 mm (Fully retracted)
Gross machine weight	Gross weight approx. 41,600 kg Front weight approx. 15,650 kg
	Rear weight approx. 25,950 kg

●Engine

Model	CA6DL2-35E3 (EURO-III) (turbo charged)
Type	6-inline, 4 cycle, water cooled, diesel
Piston displacement	8.6 L
Max. power	258 kW/ 2,100 min ⁻¹ (350 PS/ 2,100 min ⁻¹)
Max. torque	1,500 N·m/ 1,600 min ⁻¹ (153 kg·m/ 1,600 min ⁻¹)

* NOTE : Diesel Fuel recommended by KATO must be used

●Equipment and structure

Drive system	8 × 4	
Clutch	Single dry plate, hydraulic control with air booster	
Transmission	Manual transmission type	
Number of speeds	9 forward & 1 reverse speed	
Axles	Front	Reverse "ELLIOT" type
	Rear	Full floating type with hub reduction
Suspension	Front	Leaf springs with shock absorber
	Rear	Equalizer beams & torque rods with leaf springs (with lockout device)
Brake	Service	2 circuit air brake, 8 wheels internal expanding type
	Parking	Spring loaded brake
	Auxiliary	Exhaust brake
Steering	Type	Ball nut type with power booster
Tire size	Front	315 / 80R 22.5-18PR
	Rear	315 / 80R 22.5-18PR
Fuel tank capacity	380 L	
Seating capacity	2 persons	
Battery	(12V-6-QAW-180) × 2	

●Standard equipment

Towing hook (front and rear, eye type), Spare tire & wheel, Air dryer, Radio AM FM, Cigar lighter, Ashtray, Cab heater, Cab cooler
--

- Stow the hooks in place before traveling.
- Before you use this machine, read the precautions in the instruction manual thoroughly to operate it correctly.
- KATO products and specifications are subject to improvements and changes without notice.

LIFTING CAPACITIES

Based on ISO 4305
Not exceed 75% of static tipping loads

11.0 m — 43.0 m Boom

(Unit : Metric ton)

Outriggers fully extended with front jack - 360° full range								
Outriggers fully extended without front jack - over side and over rear								
Working radius (m)	11.0m Boom	11.0m Boom	15.0m Boom	19.0m Boom	23.0m Boom	27.0m Boom	35.0m Boom	43.0m Boom
3.0	55.00	40.00	28.00	28.00	24.00			
3.5	43.70	40.00	28.00	28.00	24.00			
4.0	38.50	38.50	28.00	28.00	24.00	20.00		
4.5	34.20	34.20	28.00	28.00	24.00	20.00		
5.0	30.80	30.80	28.00	28.00	24.00	20.00		
5.5	27.80	27.80	27.40	27.20	24.00	20.00	14.00	
6.0	25.40	25.40	25.00	24.80	24.00	20.00	14.00	
6.5	23.20	23.20	22.80	22.60	22.50	20.00	14.00	8.00
7.0	21.40	21.40	21.00	20.80	20.60	19.60	14.00	8.00
7.5	19.70	19.70	19.30	19.10	19.00	18.00	14.00	8.00
8.0	17.90	17.90	17.75	17.50	17.30	17.25	14.00	8.00
8.5	16.20	16.20	15.90	15.70	15.50	15.45	13.80	8.00
9.0	14.60	14.60	14.40	14.15	14.00	13.90	13.60	8.00
10.0			11.90	11.65	11.50	11.45	12.30	8.00
11.0			10.00	9.75	9.60	9.50	10.40	7.80
12.0			8.40	8.15	8.10	8.00	8.85	7.10
13.0			7.15	6.90	6.80	6.75	7.55	6.65
14.0				5.90	5.80	5.75	6.50	6.15
16.0				4.30	4.20	4.10	4.95	5.35
18.0					3.00	2.95	3.75	4.20
20.0					2.10	2.05	2.80	3.30
22.0						1.30	2.10	2.55
24.0						0.75	1.50	2.00
26.0							1.05	1.50
28.0							0.65	1.05
30.0								0.70
31.0								0.50
Standard hook	for 40 ton + sub hook sheave	for 40 ton				for 20 ton		
Hook mass	450 + 150 kg	450 kg				320 kg		
Parts of line	14	10	8	8	6	5	4	4
Critical boom angle	—	—	—	—	—	—	33°	40°

421-75103000

(Unit : Metric ton)

Outriggers intermediately extended without front jack - 360° full range							
Outriggers fully extended without front jack - over front							
Working radius (m)	11.0m Boom	15.0m Boom	19.0m Boom	23.0m Boom	27.0m Boom	35.0m Boom	43.0m Boom
3.0	32.00	28.00	28.00	24.00			
3.5	32.00	28.00	28.00	24.00			
4.0	32.00	28.00	28.00	24.00	20.00		
4.5	29.00	28.00	28.00	24.00	20.00		
5.0	22.00	21.90	21.50	21.40	20.00	14.00	
5.5	17.30	17.20	16.90	16.80	16.70	14.00	
6.0	14.10	14.00	13.70	13.60	13.50	14.00	8.00
6.5	11.80	11.65	11.35	11.30	11.20	12.30	8.00
7.0	10.00	9.85	9.55	9.50	9.45	10.45	8.00
7.5	8.55	8.40	8.15	8.10	8.05	9.00	8.00
8.0	7.40	7.25	7.00	6.95	6.90	7.85	8.00
9.0	5.70	5.55	5.30	5.25	5.20	6.05	6.50
10.0		4.25	4.00	3.90	3.85	4.75	5.20
11.0		3.20	2.95	2.90	2.80	3.70	4.20
12.0		2.40	2.20	2.10	2.05	2.90	3.40
13.0		1.80	1.55	1.45	1.40	2.25	2.70
14.0						1.70	2.15
15.0							1.70
Standard hook	for 40 ton				for 20 ton		
Hook mass	450 kg				320 kg		
Parts of line	8	8	8	6	5	4	4
Critical boom angle	—	—	35°	48°	58°	64°	68°

421-75104000

43 m Boom + 9.2 m Jib

43 m Boom + 15 m Jib

(Unit : Metric ton)

Outriggers fully extended with front jack - 360° full range													
Outriggers fully extended without front jack - over side and over rear													
43m Boom + 9.2m Jib							43m Boom + 15m Jib						
Boom angle (°)	Offset 5°		Offset 25°		Offset 45°		Boom angle (°)	Offset 5°		Offset 25°		Offset 45°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)		Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
81.0	10.00	3.50	12.75	2.30	14.60	1.25	81.0	11.75	2.50	16.20	1.20	19.40	0.70
80.0	11.05	3.50	13.70	2.30	15.45	1.25	80.0	12.95	2.50	17.20	1.20	20.35	0.69
79.0	12.05	3.48	14.65	2.30	16.30	1.24	79.0	14.10	2.49	18.15	1.19	21.25	0.69
78.0	13.00	3.40	15.60	2.25	17.20	1.23	78.0	15.10	2.45	19.10	1.17	22.15	0.68
77.0	13.90	3.23	16.50	2.19	18.05	1.21	77.0	16.20	2.30	20.10	1.15	23.05	0.67
76.0	14.85	3.04	17.40	2.12	18.90	1.19	76.0	17.25	2.17	21.10	1.12	24.00	0.67
75.0	15.75	2.90	18.25	2.06	19.75	1.17	75.0	18.25	2.06	22.15	1.10	24.85	0.65
74.0	16.70	2.75	19.15	1.99	20.55	1.16	74.0	19.20	1.95	23.15	1.07	25.70	0.64
72.0	18.50	2.49	20.90	1.85	22.25	1.12	72.0	21.10	1.76	25.05	1.02	27.45	0.62
70.0	20.15	2.28	22.60	1.73	23.90	1.09	70.0	23.00	1.59	26.80	0.97	29.10	0.61
68.0	21.85	2.09	24.20	1.62	25.40	1.06	68.0	24.90	1.47	28.60	0.93	30.65	0.59
66.0	23.55	1.91	25.80	1.53	26.85	1.04	66.0	26.75	1.35	30.30	0.90	32.25	0.58
64.0	25.05	1.68	27.40	1.43	28.35	1.02	64.0	28.60	1.24	32.00	0.87	33.80	0.57
62.0	26.55	1.41	28.85	1.24	29.85	1.00	62.0	30.40	1.10	33.70	0.84	35.30	0.56
60.0	28.00	1.13	30.20	1.00	31.15	0.85	60.0	32.00	0.87	35.25	0.72	36.75	0.55
59.0	28.75	1.00	30.85	0.89	31.80	0.77	59.0	32.80	0.76	36.00	0.66	37.45	0.55
58.0	29.45	0.86	31.50	0.77	32.45	0.69	58.0	33.60	0.64	36.60	0.58	38.20	0.54
57.0	30.20	0.73	32.20	0.66	33.05	0.61							
56.0	30.85	0.63	32.85	0.56	33.70	0.53							
Standard hook	for 4 ton						Standard hook	for 4 ton					
Hook mass	120 kg						Hook mass	120 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	55°						Critical boom angle	57°					

421-75105000

43 m Boom + 9.2 m Jib

43 m Boom + 15 m Jib

(Unit : Metric ton)

Outriggers intermediately extended without front jack - 360° full range													
Outriggers fully extended without front jack - over front													
43m Boom + 9.2m Jib							43m Boom + 15m Jib						
Boom angle (°)	Offset 5°		Offset 25°		Offset 45°		Boom angle (°)	Offset 5°		Offset 25°		Offset 45°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)		Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
81.0	10.00	3.50	12.75	2.30	14.60	1.25	81.0	11.75	2.50	16.20	1.20	19.40	0.70
80.0	11.05	3.50	13.70	2.30	15.45	1.25	80.0	12.95	2.50	17.20	1.20	20.35	0.69
79.0	12.05	3.42	14.65	2.30	16.30	1.24	79.0	14.10	2.49	18.15	1.19	21.25	0.69
78.0	12.90	3.05	15.60	2.25	17.20	1.23	78.0	15.10	2.45	19.10	1.17	22.15	0.68
77.0	13.65	2.67	16.45	2.06	18.05	1.21	77.0	16.05	2.06	20.10	1.15	23.05	0.67
76.0	14.50	2.27	17.20	1.76	18.90	1.19							
Standard hook	for 4 ton						Standard hook	for 4 ton					
Hook mass	120 kg						Hook mass	120 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	75°						Critical boom angle	76°					

421-75106000

(Unit : Metric ton)

Outriggers fully retracted (blocked on vertical cyls.) - 360° full range	
Working radius (m)	11.0 m Boom
3.0	8.00
3.5	6.40
4.0	5.10
4.5	4.20
5.0	3.40
5.5	2.80
6.0	2.30
6.5	1.90
7.0	1.60
7.5	1.25
8.0	1.00
Standard hook	for 40 ton
Hook mass	450 kg
Parts of line	10

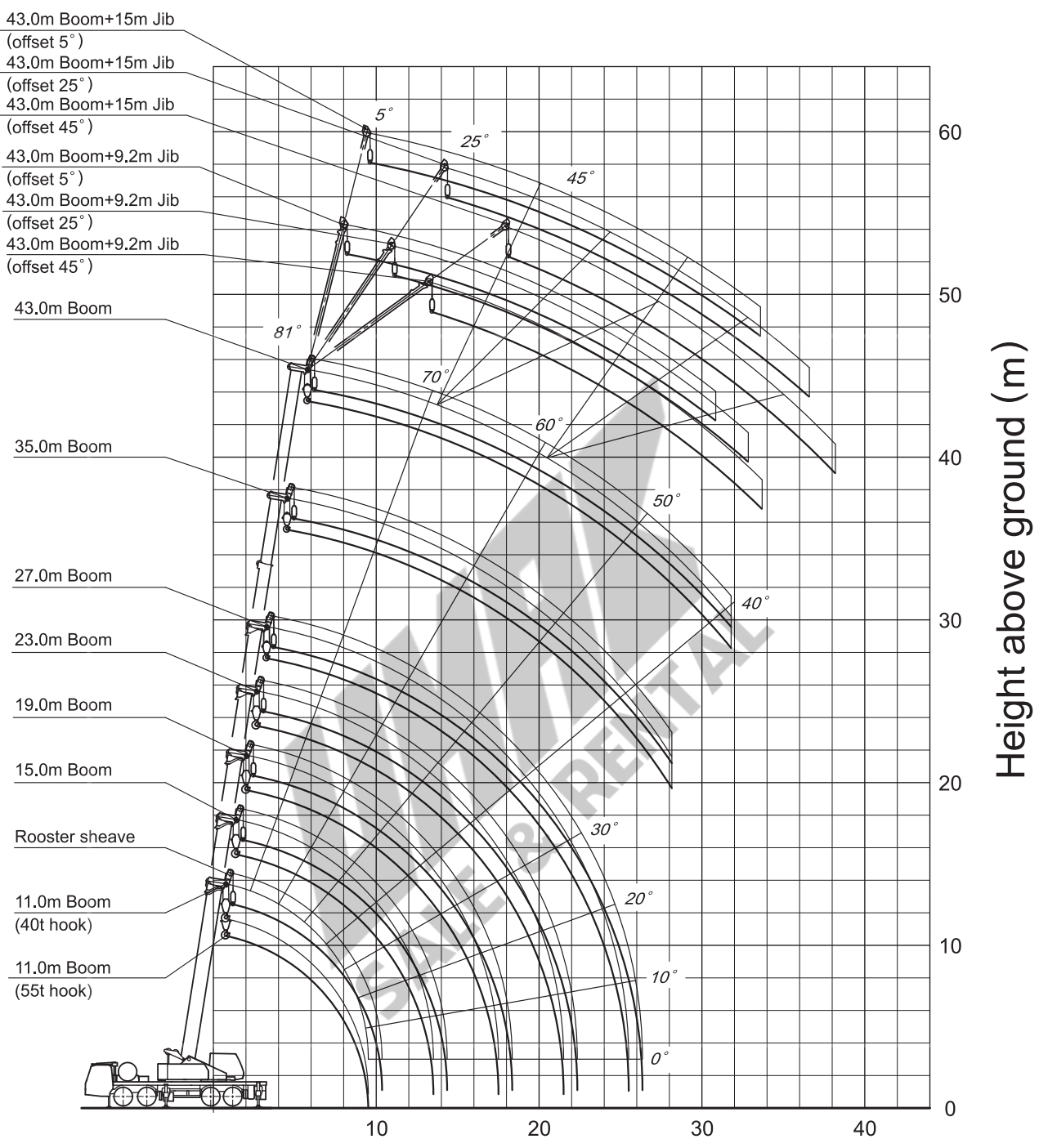
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SALE & RENTAL

■ Notes for the rated lifting capacity chart

Precautions

1. The rated lifting capacities are the maximum load guaranteed on a firm level ground and include the mass of hook block and other lifting equipment. The capacities enclosed with bold lines are based on the structural strength of machine and the others are based on the stability of machine.
2. The working radii as given in the table are the actual values including the deflection of the boom. Therefore, operate the machine based on the working radius. However, the working radii shown for jib operations are based on the values obtained when the boom is fully extended (43 m). Jib operations should be performed on the basis of boom angle only, regardless of boom length when the boom is not fully extended.
3. The rated lifting capacities for the rooster sheave are equivalent to the rated lifting capacities for the main boom to a maximum of 4000 kg. At all times the mass of all lifting equipment in use (including main hook block suspended from boom head) forms part of load and must be subtracted from the rated lifting capacity.
4. If the boom length exceeds the specified value, the rated lifting capacities for the boom length above and below the present boom length should be referred to, and the crane should be operated within the smaller lifting capacity.
5. When using the main boom with the jib installed, 4000 kg plus the mass of hook block and other lifting equipment, etc., should be subtracted from the rated lifting capacities.
When performing the above operation, do not use the rooster sheave.
6. Critical boom angles for each boom length are shown on bottommost line of lifting capacity table. If the boom angle is lowered to less than the critical boom angle, the machine will tip over without load. Therefore, never lower the boom below these angles.
7. The standard number of parts of line is shown in the rated lifting capacity table. If you work with a non-standard number of parts of line, take 39.2kN (4tf) as the maximum load on any part of the wire rope.
8. Over front lifting performance without front jack is inferior to over side and over rear lifting performance. Great care should be taken when transferring from over side to over front since there is a danger of overloading.
9. Crane operation is permissible up to a wind speed of 10m/s.
Even in relatively light wind conditions, extra care should be taken when handling loads presenting large wind catching areas.
10. The machine will tip over or be damaged if operated with a load exceeding that specified in the rated lifting capacity table or not conforming to correct handling.
If such trouble occurs, the machine will not be guaranteed.

WORKING RANGE

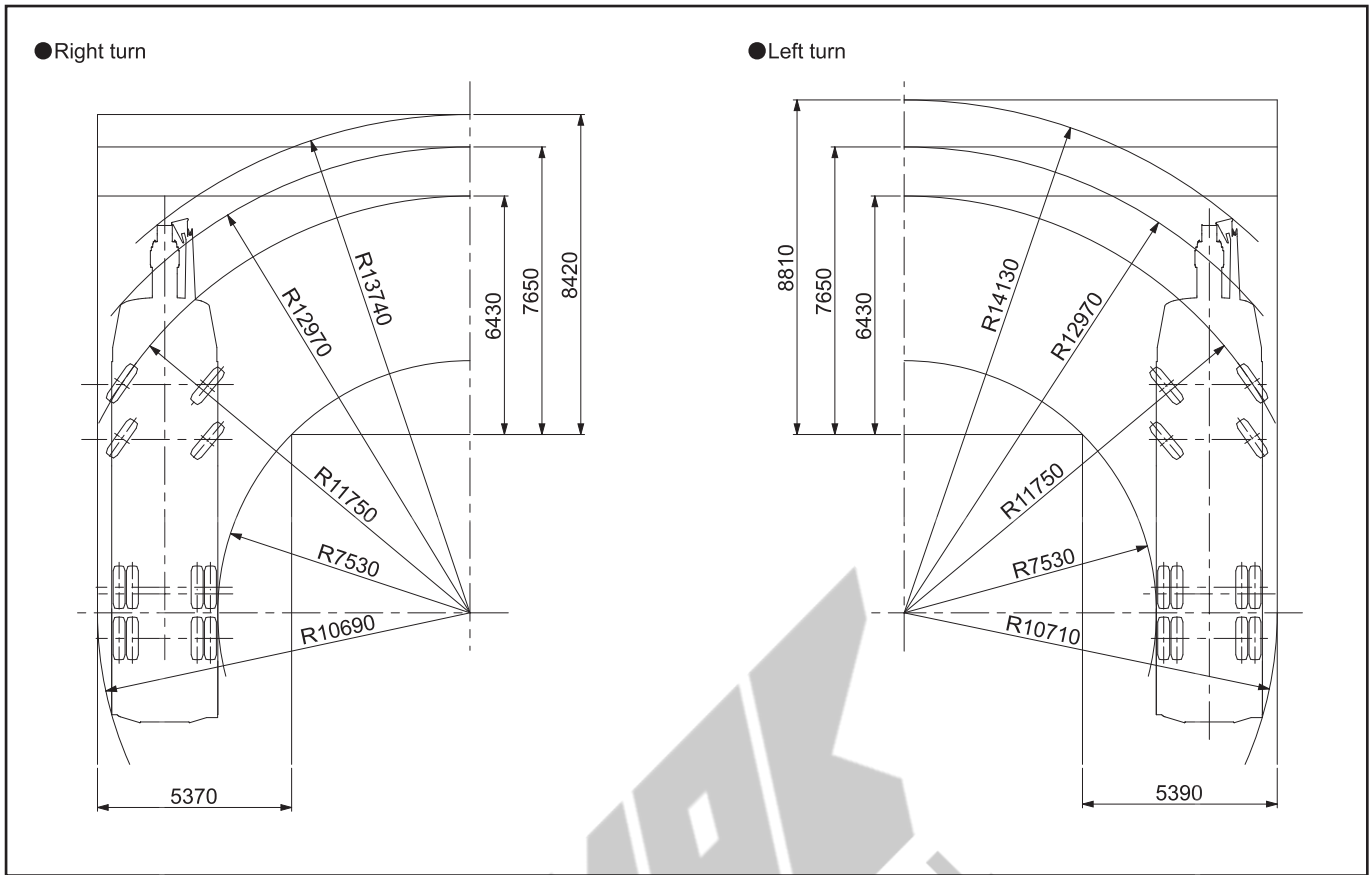


Radius from center of rotation (m)

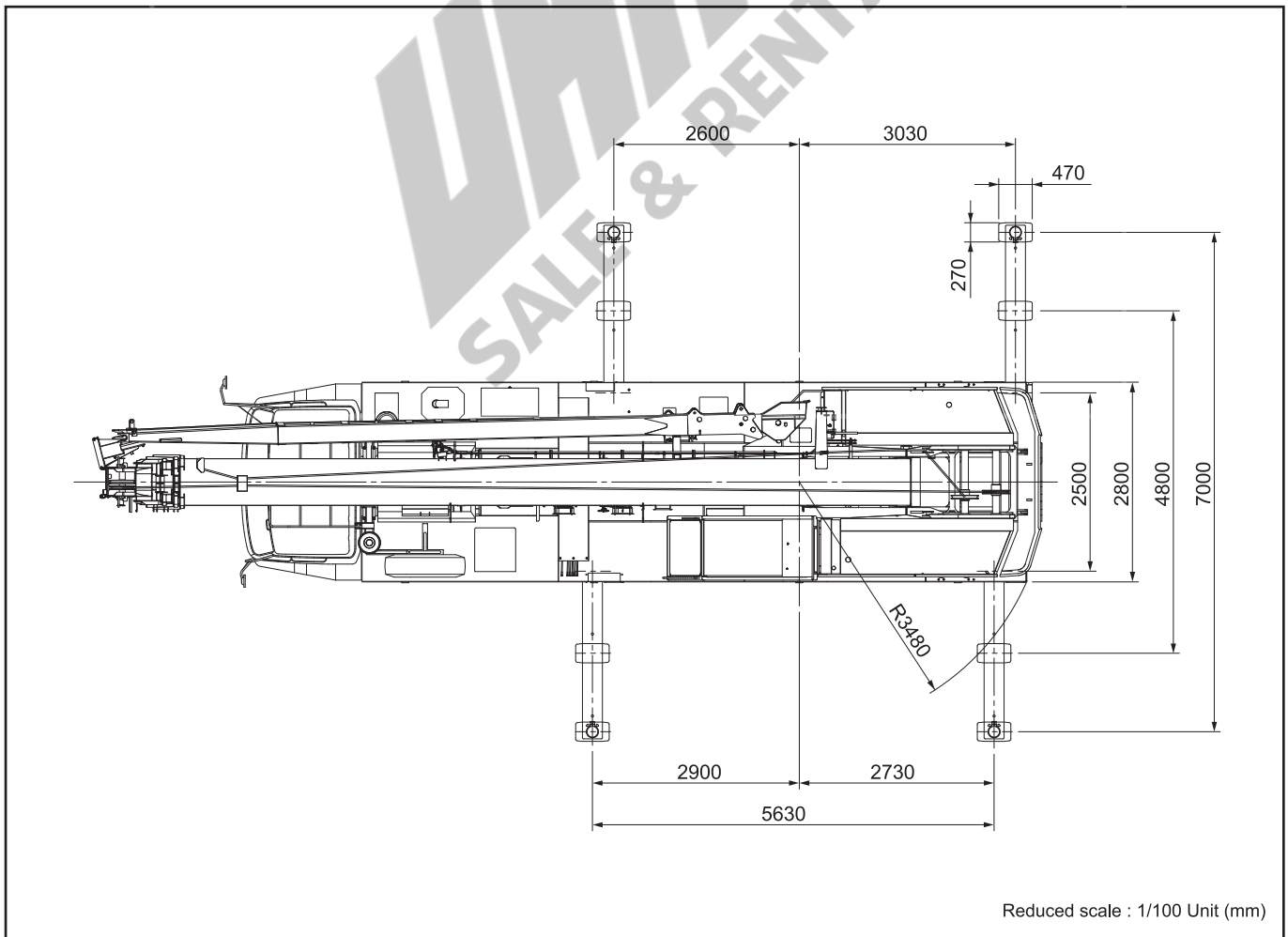
Note

1. This diagram does not include deflection of Boom and Fly jib.
2. The outriggers are fully extended.

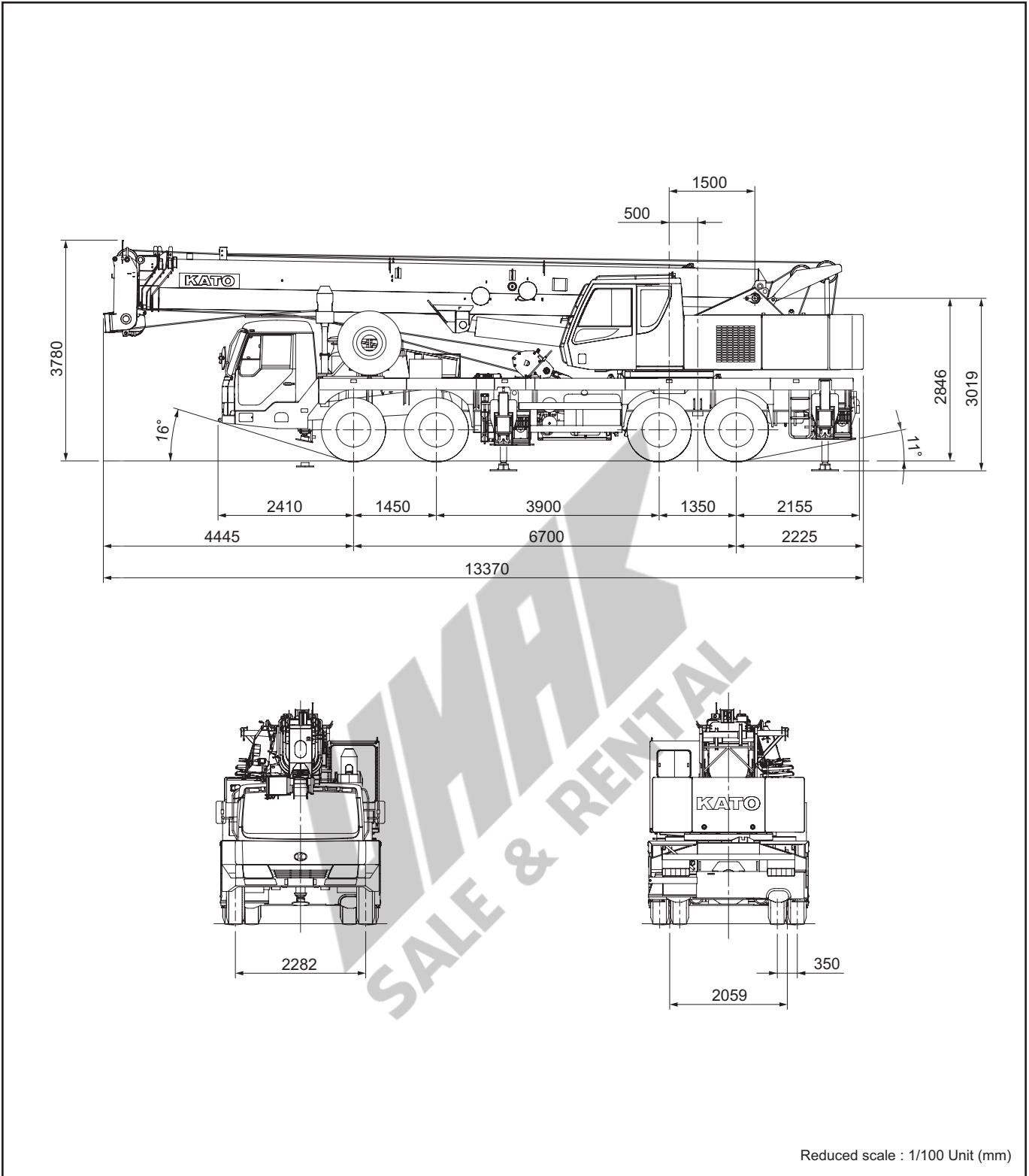
Minimum path width



Overall view



Overall view



Reduced scale : 1/100 Unit (mm)

* KATO products and specifications are subject to improvements and changes without notice.

Address inquiries to:

KATO
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 Overseas Marketing Department. Tokyo (03) 3458-1115
 Fax. : Tokyo (03) 3458-1163
 URL http://www.kato-works.co.jp

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We acquired the "ISO 9001" certification which is an international standard for quality assurance.

NK-550VR



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<http://www.kato-works.co.jp>

NOTE : Illustrations may include optional equipment. KATO products and specifications are subject to improvements and changes without notice.
Before you use this crane, study the instruction manual thoroughly and follow the instructions it contains.
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**QUALITY & EXPERIENCE
SINCE 1895**

KATO WORKS CO.,LTD.

9-37, Higashi-ohi 1-chome, Shinagawa-ku, Tokyo 140-0011 Japan.
Tel. : Head Office Tokyo(03)3458-1111
Overseas Marketing Department Tokyo(03)3458-1115
Fax. : Tokyo(03)3458-1163

NK-550VR

FULLY HYDRAULIC TRUCK CRANE

Maximum rated lifting capacity: 55t×3.0m
Maximum boom length: 43.0m
Engine output: 258kW/2,100min⁻¹(ISO Net)



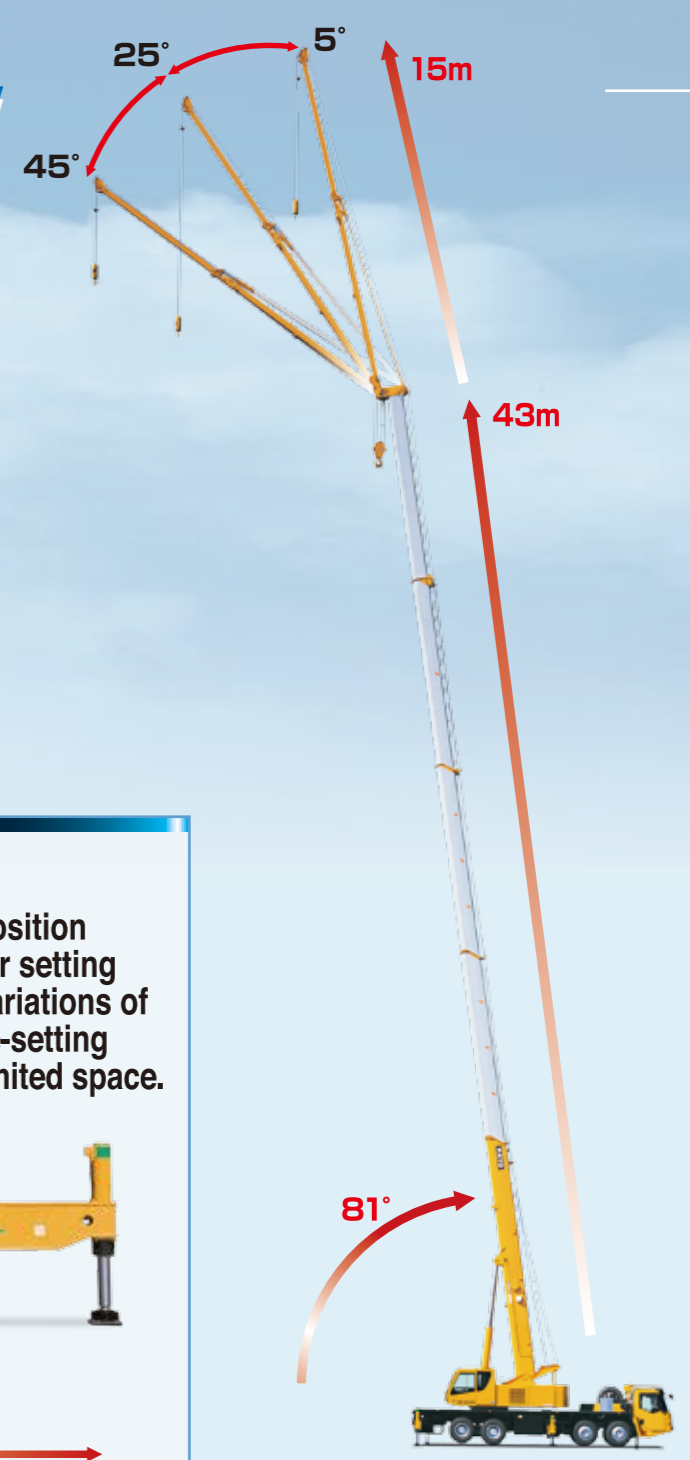
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KATO WORKS CO.,LTD.

POWERFUL AND ECO-FRIENDLY

**More Closer!
More Higher!
More Farther!**

Solid 43m **SUPERBOOM** combined with 15m **fly jib** offers you steady operation and wider working ranges in narrow spaces.



Advanced "SUPERBOOM"

- Max. boom length ————— 43 m
- Fly jib length ————— 9.2 m & 15 m
- Max. lifting height ————— 43 m (boom)
58 m (boom + fly jib)

Wide working ranges in narrows spaces

- Max. derricking angle ————— 81°
- Fly jib with 3 offset angles ————— 5°, 25°, 45°
- Small tail slewing radius ————— 3.48 m

Wide & roomy operator's cabin

- Operating lever system ————— ISO Type
- Safe load indicator ————— ACS COMPULOAD with working range limiting function

Compact body with better mobility

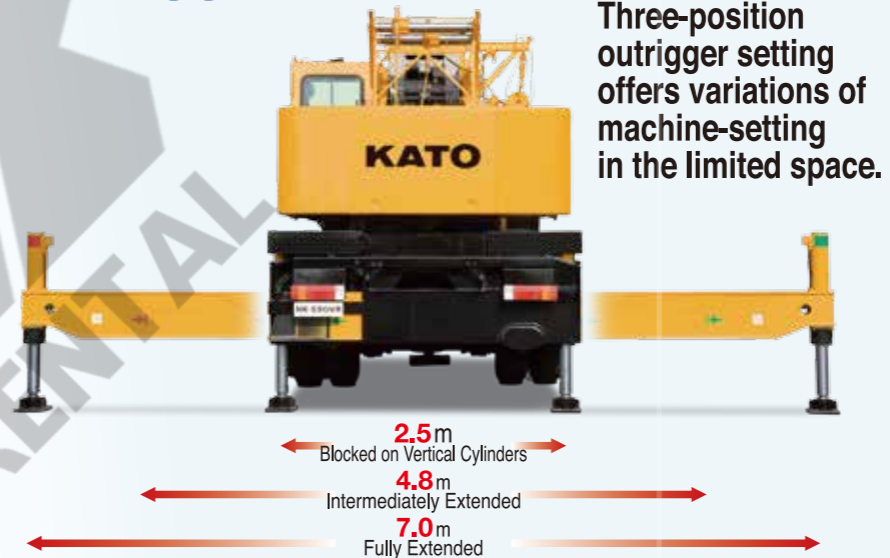
- Overall length ————— 13.37 m
- Overall height ————— 3.78 m
- Min. turning radius ————— 11.9 m

New engine FAW CA6DL2-35E3

- Conformity regulation ————— Euro III Engine
- Max. output ————— 258 kW
- Max. torque ————— 1,500 Nm



Outrigger width



Wide & roomy operator's cab for the safe operation

New ACS Moment Limiter Compuload (MS-200) with working range limiting function.



- Easy touch panel operation
- High quality color display
- Working range limiting function



NK-550VR



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KATO

NK-550VR

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Maximum boom length: 43.0m
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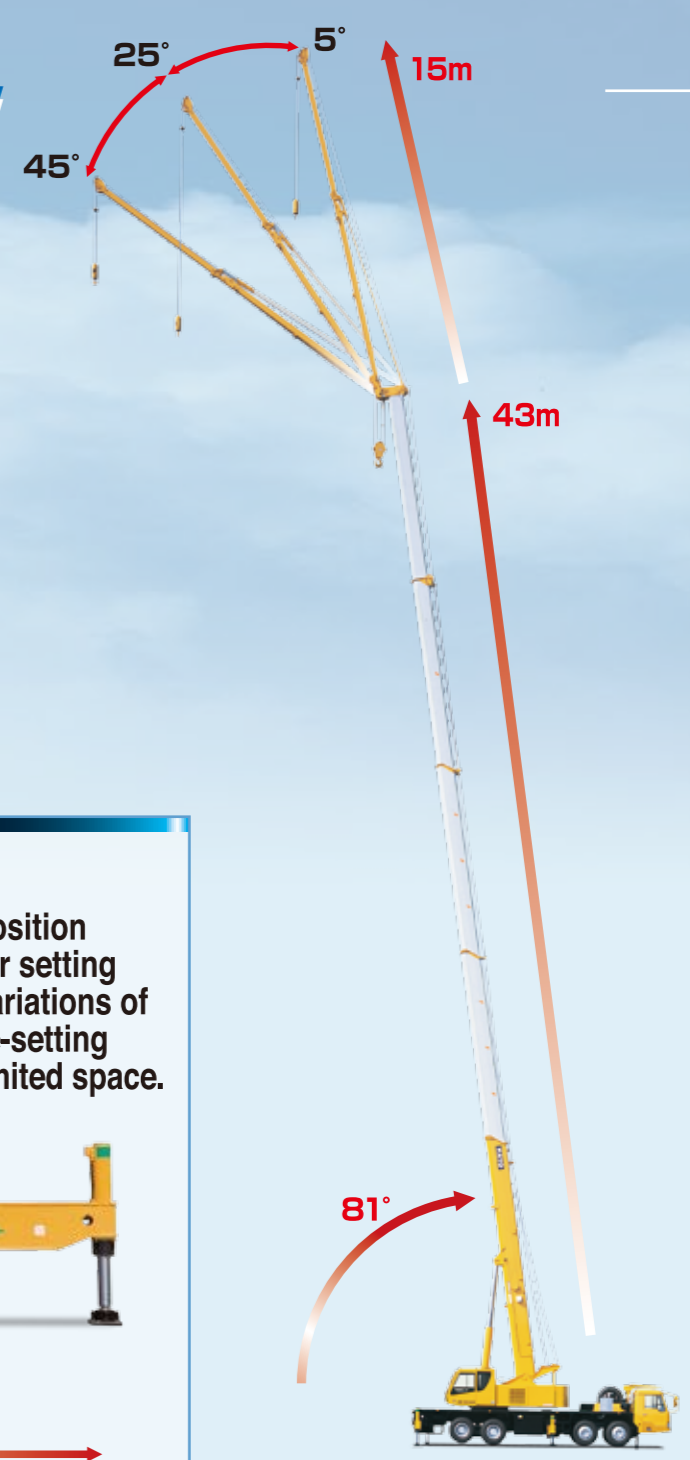
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Wide & roomy operator's cabin

- Operating lever system — ISO Type
- Safe load indicator — ACS COMPULOAD with working range limiting function

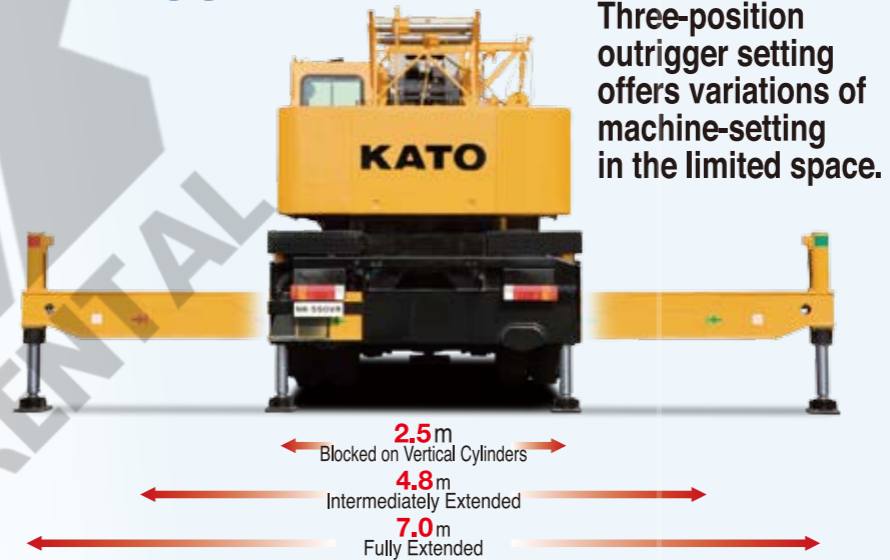
Compact body with better mobility

- Overall length — 13.37 m
- Overall height — 3.78 m
- Min. turning radius — 11.75 m

New engine FAW CA6DL2-35

- Conformity regulation — Euro II Engine
- Max. output — 258 kW
- Max. torque — 1,475 Nm

Outrigger width



Wide & roomy operator's cab for the safe operation

New ACS Moment Limiter Compuload (MS-200) with outrigger width detector and working range limiting function.



- Easy touch panel operation
- High quality color display
- Working range limiting function



NK-550VR



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NK-550VR

FULLY HYDRAULIC TRUCK CRANE

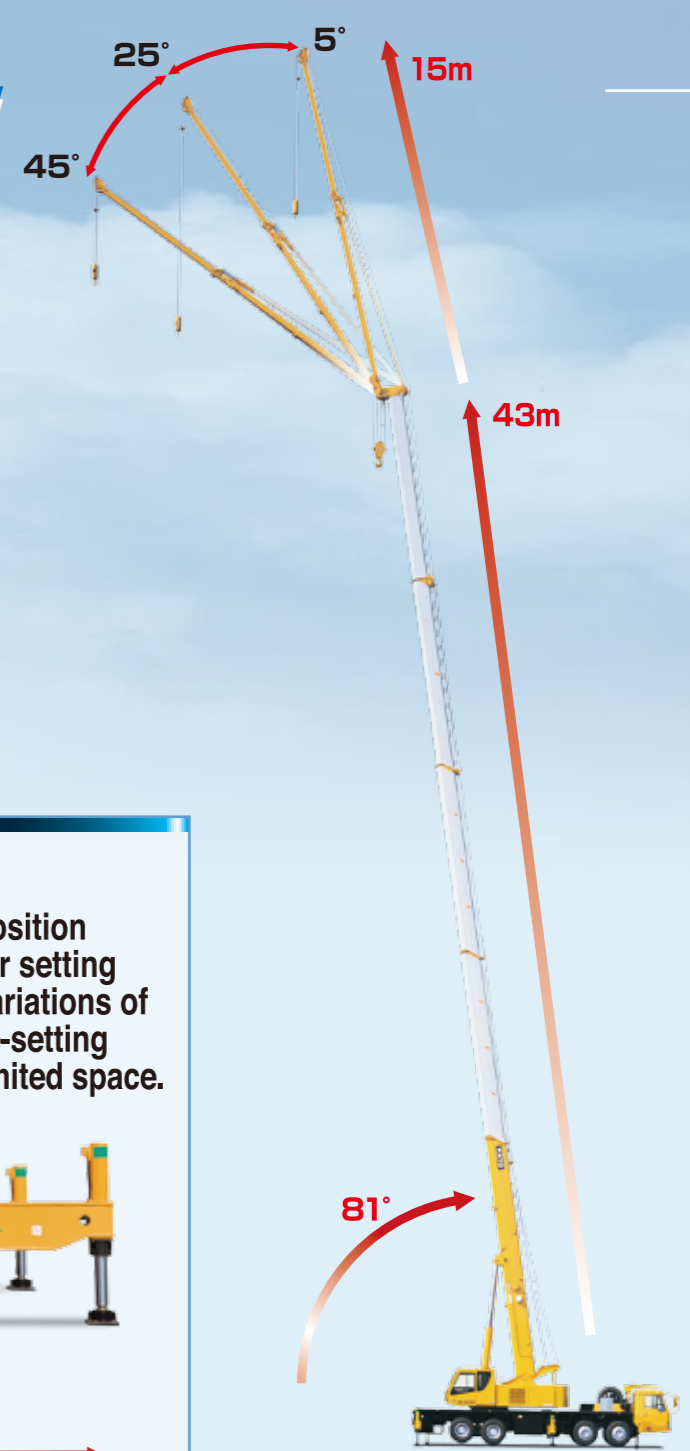
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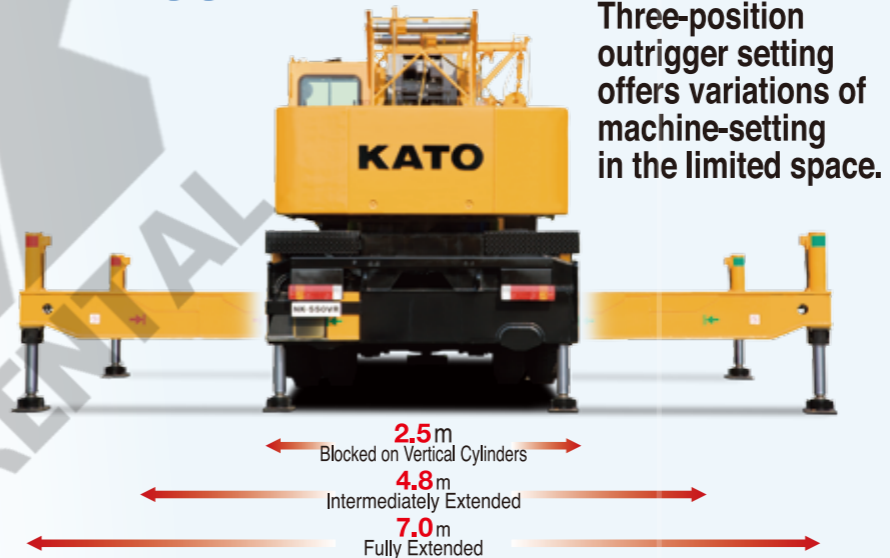
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- Min. turning radius — 11.75 m

New engine FAW CA6DL2-35E3

- Conformity regulation — Euro III Engine
- Max. output — 258 kW
- Max. torque — 1,500 Nm

Outrigger width

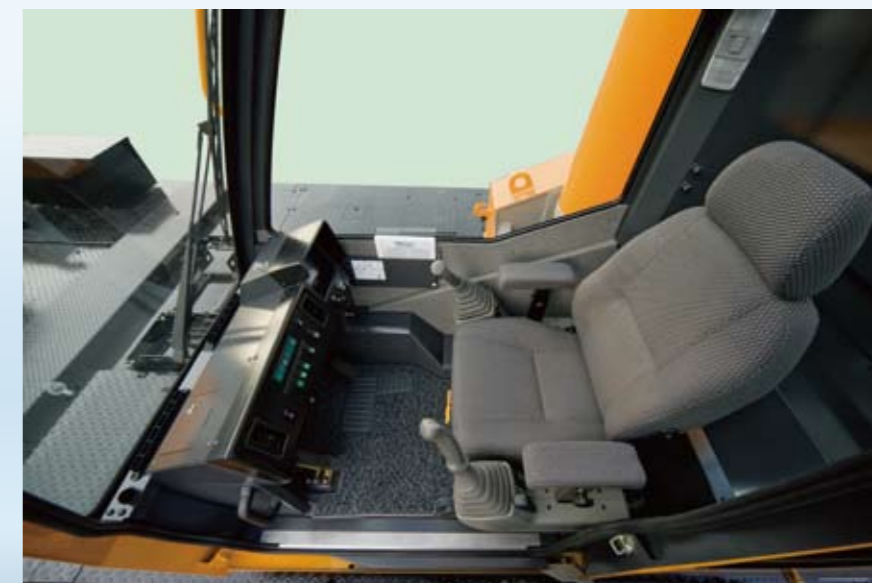


Wide & roomy operator's cab for the safe operation

New ACS Moment Limiter Compuload (MS-200) with outrigger width detector and working range limiting function.



- Easy touch panel operation
- High quality color display
- Working range limiting function



NK-550VR

FULLY HYDRAULIC TRUCK CRANE

[SPECIFICATION]

■ CRANE

Description	Truck crane with maximum lifting capacity 55 ton
Model	NK-550VR

● Specification

Maximum rated lifting capacity	11.0 m Boom	55,000 kg × 3.0 m (Parts of line : 14)
	11.0 m Boom	40,000 kg × 3.5 m (Parts of line : 10)
	15.0 m Boom	28,000 kg × 5.0 m (Parts of line : 8)
	19.0 m Boom	28,000 kg × 5.0 m (Parts of line : 8)
	23.0 m Boom	24,000 kg × 6.0 m (Parts of line : 6)
	27.0 m Boom	20,000 kg × 6.5 m (Parts of line : 5)
	35.0 m Boom	14,000 kg × 8.0 m (Parts of line : 4)
	43.0 m Boom	8,000 kg × 10.0 m (Parts of line : 4)
	9.2 m Jib	3,500 kg × 80° (Parts of line : 1)
	15.0 m Jib	2,500 kg × 80° (Parts of line : 1)
Rooster	4,000 kg (Parts of line : 1)	
Boom length	11.0 m — 43.0 m	
Fly jib length	9.2 m, 15.0 m	
Maximum lifting height	43.0 m (Boom) 58.0 m (Jib)	
Hoisting line speed	Main winch	114 m/min. (at 3rd layer)
	Auxiliary winch	105 m/min. (at 2nd layer)
Hoisting hook speed	Main winch	(part of line; 14) : 8.1 m/min. (at 3rd layer)
	Auxiliary winch	(part of line; 1) : 105 m/min. (at 2nd layer)
Boom derricking angle	-2.5° — 81°	
Boom derricking time	70 sec. (-2.5° — 81°)	
Boom extending time	170 sec. (11.0 m — 43.0 m)	
Slewing speed	1.85 min ⁻¹	
Tail slewing radius	3,480 mm	

● Equipment and structure

Boom type	Box-shaped, 5-section hydraulically telescopic type (boom sections 2/3 and 4/5 simultaneously operated)	
Jib type	2 sections (2nd section of draw-out type, 3-step inclination type (offset angles 5° , 25° and 45°))	
Boom extension/retraction equipment	Three hydraulic cylinders and wire ropes used together	
Boom derricking/lowering equipment	One hydraulic cylinder of direct acting type with pressure-compensated flow control valve	
Winch system	Driven by axial plunger type hoisting motor through planetary gear reduction.	
Main & Auxiliary winches	Controlled independently by operating lever. Equipped with automatic brake.	
Slewing equipment	Ball bearing type	
Wire rope for hoisting	Main winch	Diameter : 18 mm × Length : 235 m
	Auxiliary winch	Diameter : 18 mm × Length : 125 m

● Hydraulic equipment

Oil pump	4 section gear type	
Hydraulic motor	Hoisting motor	Axial plunger type
	Slewing motor	Axial plunger type
Control valve	3 position 4 way double acting with integral check and relief valves	
Cylinder	Double acting type	
Oil reservoir capacity	695 L	

● Safety devices

ACS (Automatic crane stopper), Boom falling prevention device, Winch hoisting limiter, Winch drum lock device, Winch drum turning indicator, Automatic winch brake, Irregular winding prevention device, Hydraulic safety valve, Outtrigger lock device, Joystick control safety stop system, Slewing lock device

● Standard equipment

Front jack, Fly jib, Rooster sheave, Independent two winches control system, Irregular winding prevention device, Winch automatic brake, Sub hook sheave for 55t, Hooks (40 ton, 20 ton, 4 ton), Hydraulic oil cooler, Full size fender, Large size steps, 3 working lights, Moment limiter with voice alarm, Winch drum turning indicator, Sun visor, Cigar lighter, Ashtray, Cab floor mat, Tool kit

● Optional equipment

Winch over-unwinding device, Winch drum mirror (hoist mirror), Yellow rev. light, Cab heater, Cab cooler, Fan, Radio AM FM, Fire extinguisher, Roof visor

■ CARRIER

Maker and model	FAW CA5420JQZ
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● Specification

Maximum traveling speed	71 km/h
Gradeability	63% (theoretical value)
Minimum turning radius	11.75 m

● General dimensions & G.V.W.

Overall length	approx. 13,370 mm
Overall width	approx. 2,800 mm
Overall height	approx. 3,780 mm
Wheel base	1,450 mm + 3,900 mm + 1,350 mm = 6,700 mm

Treads	Front	2,282 mm
	Rear	2,059 mm

Outriggers	Type	Hydraulic H-beam type (with float and vertical cylinder in single unit)
	Extension width	7,000 mm (Fully extended)
		4,800 mm (Intermediately extended)
		2,500 mm (Fully retracted)

Gross machine weight	Gross weight	approx. 41,600 kg
	Front weight	approx. 15,650 kg
	Rear weight	approx. 25,950 kg

● Engine

Model	CA6DL2-35 (EURO-II) (turbo charged)
Type	6-inline, 4 cycle, direct injection water cooled, diesel
Piston displacement	8.6 L
Max. power	258 kW/ 2,100 min ⁻¹ (350 PS/ 2,100 min ⁻¹)
Max. torque	1,475 N·m/ 1,450 min ⁻¹ (150 kg·m/ 1,450 min ⁻¹)

● Equipment and structure

Drive system	8 × 4	
Clutch	Single dry plate, hydraulic control with air booster	
Transmission	Manual transmission type	
Number of speeds	9 forward & 1 reverse speed	
Axles	Front	Reverse "ELLIOT" type
	Rear	Full floating type with hub reduction
Suspension	Front	Leaf springs with shock absorber
	Rear	Equalizer beams & torque rods with leaf springs (with lockout device)
Brake	Service	2 circuit air brake, 8 wheels internal expanding type
	Parking	Spring loaded brake
	Auxiliary	Exhaust brake
Steering	Type	Ball nut type with power booster
Tire size	Front	315 / 80R 22.5
	Rear	315 / 80R 22.5
Fuel tank capacity	380 L	
Seating capacity	2 persons	
Battery	(12V-6-QAW-180) × 2	

● Standard equipment

Towing hook (front and rear, eye type), Spare tire & wheel, Air dryer, Radio AM FM with cassette deck, Cigar lighter, Ashtray, Cab heater, Cab cooler

- Stow the hooks in place before traveling.
- Before you use this machine, read the precautions in the instruction manual thoroughly to operate it correctly.
- KATO products and specifications are subject to improvements and changes without notice.

RATED LIFTING CAPACITY

Based on ISO 4305

11.0 m — 43.0 m Boom

(Unit : Metric ton)

Outriggers fully extended with front jack - 360° full range									
Outriggers fully extended without front jack - over side and over rear									
Working radius (m)	11.0m Boom	11.0m Boom	15.0m Boom	19.0m Boom	23.0m Boom	27.0m Boom	35.0m Boom	43.0m Boom	
3.0	55.00	40.00	28.00	28.00	24.00				
3.5	43.70	40.00	28.00	28.00	24.00				
4.0	38.50	38.50	28.00	28.00	24.00	20.00			
4.5	34.20	34.20	28.00	28.00	24.00	20.00			
5.0	30.80	30.80	28.00	28.00	24.00	20.00			
5.5	27.80	27.80	27.40	27.20	24.00	20.00	14.00		
6.0	25.40	25.40	25.00	24.80	24.00	20.00	14.00		
6.5	23.20	23.20	22.80	22.60	22.50	20.00	14.00	8.00	
7.0	21.40	21.40	21.00	20.80	20.60	19.60	14.00	8.00	
7.5	19.70	19.70	19.30	19.10	19.00	18.00	14.00	8.00	
8.0	17.90	17.90	17.75	17.50	17.30	17.25	14.00	8.00	
8.5	16.20	16.20	15.90	15.70	15.50	15.45	13.80	8.00	
9.0	14.60	14.60	14.40	14.15	14.00	13.90	13.60	8.00	
10.0			11.90	11.65	11.50	11.45	12.30	8.00	
11.0			10.00	9.75	9.60	9.50	10.40	7.80	
12.0			8.40	8.15	8.10	8.00	8.85	7.10	
13.0			7.15	6.90	6.80	6.75	7.55	6.65	
14.0				5.90	5.80	5.75	6.50	6.15	
16.0				4.30	4.20	4.10	4.95	5.35	
18.0					3.00	2.95	3.75	4.20	
20.0					2.10	2.05	2.80	3.30	
22.0						1.30	2.10	2.55	
24.0						0.75	1.50	2.00	
26.0							1.05	1.50	
28.0							0.65	1.05	
30.0								0.70	
31.0								0.50	
Standard hook	for 40 ton + sub hook sheave	for 40 ton				for 20 ton			
Hook mass	450 + 150 kg	450 kg				320 kg			
Parts of line	14	10	8	8	6	5	4	4	
Critical boom angle	—	—	—	—	—	—	33°	40°	

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(Unit : Metric ton)

Outriggers intermediately extended without front jack - 360° full range								
Outriggers fully extended without front jack - over front								
Working radius (m)	11.0m Boom	15.0m Boom	19.0m Boom	23.0m Boom	27.0m Boom	35.0m Boom	43.0m Boom	
3.0	32.00	28.00	28.00	28.00	24.00			
3.5	32.00	28.00	28.00	24.00				
4.0	32.00	28.00	28.00	24.00	20.00			
4.5	29.00	28.00	28.00	24.00	20.00			
5.0	22.00	21.90	21.50	21.40	20.00	14.00		
5.5	17.30	17.20	16.90	16.80	16.70	14.00		
6.0	14.10	14.00	13.70	13.60	13.50	14.00	8.00	
6.5	11.80	11.65	11.35	11.30	11.20	12.30	8.00	
7.0	10.00	9.85	9.55	9.50	9.45	10.45	8.00	
7.5	8.55	8.40	8.15	8.10	8.05	9.00	8.00	
8.0	7.40	7.25	7.00	6.95	6.90	7.85	8.00	
9.0	5.70	5.55	5.30	5.25	5.20	6.05	6.50	
10.0		4.25	4.00	3.90	3.85	4.75	5.20	
11.0		3.20	2.95	2.90	2.80	3.70	4.20	
12.0		2.40	2.20	2.10	2.05	2.90	3.40	
13.0		1.80	1.55	1.45	1.40	2.25	2.70	
14.0						1.70	2.15	
15.0							1.70	
Standard hook	for 40 ton				for 20 ton			
Hook mass	450 kg				320 kg			
Parts of line	8	8	8	6	5	4	4	
Critical boom angle	—	—	35°	48°	58°	64°	68°	

421-75104000

43 m Boom + 9.2 m Jib

43 m Boom + 15 m Jib

(Unit : Metric ton)

Outriggers fully extended with front jack - 360° full range													
Outriggers fully extended without front jack - over side and over rear													
43m Boom + 9.2m Jib							43m Boom + 15m Jib						
Boom angle (°)	Offset 5°		Offset 25°		Offset 45°		Boom angle (°)	Offset 5°		Offset 25°		Offset 45°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)		Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
81.0	10.00	3.50	12.75	2.30	14.60	1.25	81.0	11.75	2.50	16.20	1.20	19.40	0.70
80.0	11.05	3.50	13.70	2.30	15.45	1.25	80.0	12.95	2.50	17.20	1.20	20.35	0.69
79.0	12.05	3.48	14.65	2.30	16.30	1.24	79.0	14.10	2.49	18.15	1.19	21.25	0.69
78.0	13.00	3.40	15.60	2.25	17.20	1.23	78.0	15.10	2.45	19.10	1.17	22.15	0.68
77.0	13.90	3.23	16.50	2.19	18.05	1.21	77.0	16.20	2.30	20.10	1.15	23.05	0.67
76.0	14.85	3.04	17.40	2.12	18.90	1.19	76.0	17.25	2.17	21.10	1.12	24.00	0.67
75.0	15.75	2.90	18.25	2.06	19.75	1.17	75.0	18.25	2.06	22.15	1.10	24.85	0.65
74.0	16.70	2.75	19.15	1.99	20.55	1.16	74.0	19.20	1.95	23.15	1.07	25.70	0.64
72.0	18.50	2.49	20.90	1.85	22.25	1.12	72.0	21.10	1.76	25.05	1.02	27.45	0.62
70.0	20.15	2.28	22.60	1.73	23.90	1.09	70.0	23.00	1.59	26.80	0.97	29.10	0.61
68.0	21.85	2.09	24.20	1.62	25.40	1.06	68.0	24.90	1.47	28.60	0.93	30.65	0.59
66.0	23.55	1.91	25.80	1.53	26.85	1.04	66.0	26.75	1.35	30.30	0.90	32.25	0.58
64.0	25.05	1.68	27.40	1.43	28.35	1.02	64.0	28.60	1.24	32.00	0.87	33.80	0.57
62.0	26.55	1.41	28.85	1.24	29.85	1.00	62.0	30.40	1.10	33.70	0.84	35.30	0.56
60.0	28.00	1.13	30.20	1.00	31.15	0.85	60.0	32.00	0.87	35.25	0.72	36.75	0.55
59.0	28.75	1.00	30.85	0.89	31.80	0.77	59.0	32.80	0.76	36.00	0.66	37.45	0.55
58.0	29.45	0.86	31.50	0.77	32.45	0.69	58.0	33.60	0.64	36.60	0.58	38.20	0.54
57.0	30.20	0.73	32.20	0.66	33.05	0.61							
56.0	30.85	0.63	32.85	0.56	33.70	0.53							
Standard hook	for 4 ton						Standard hook	for 4 ton					
Hook mass	120 kg						Hook mass	120 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	55°						Critical boom angle	57°					

421-75105000

43 m Boom + 9.2 m Jib

43 m Boom + 15 m Jib

(Unit : Metric ton)

Outriggers intermediately extended without front jack - 360° full range													
Outriggers fully extended without front jack - over front													
43m Boom + 9.2m Jib							43m Boom + 15m Jib						
Boom angle (°)	Offset 5°		Offset 25°		Offset 45°		Boom angle (°)	Offset 5°		Offset 25°		Offset 45°	
	Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)		Working radius (m)	Load (t)	Working radius (m)	Load (t)	Working radius (m)	Load (t)
81.0	10.00	3.50	12.75	2.30	14.60	1.25	81.0	11.75	2.50	16.20	1.20	19.40	0.70
80.0	11.05	3.50	13.70	2.30	15.45	1.25	80.0	12.95	2.50	17.20	1.20	20.35	0.69
79.0	12.05	3.42	14.65	2.30	16.30	1.24	79.0	14.10	2.49	18.15	1.19	21.25	0.69
78.0	12.90	3.05	15.60	2.25	17.20	1.23	78.0	15.10	2.45	19.10	1.17	22.15	0.68
77.0	13.65	2.67	16.45	2.06	18.05	1.21	77.0	16.05	2.06	20.10	1.15	23.05	0.67
76.0	14.50	2.27	17.20	1.76	18.90	1.19							
Standard hook	for 4 ton						Standard hook	for 4 ton					
Hook mass	120 kg						Hook mass	120 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	75°						Critical boom angle	76°					

421-75106000

(Unit : Metric ton)

Outriggers fully retracted (blocked on vertical cyls.) - 360° full range	
Working radius (m)	11.0 m Boom
3.0	8.00
3.5	6.40
4.0	5.10
4.5	4.20
5.0	3.40
5.5	2.80
6.0	2.30
6.5	1.90
7.0	1.60
7.5	1.25
8.0	1.00
Standard hook	for 40 ton
Hook mass	450 kg
Parts of line	10

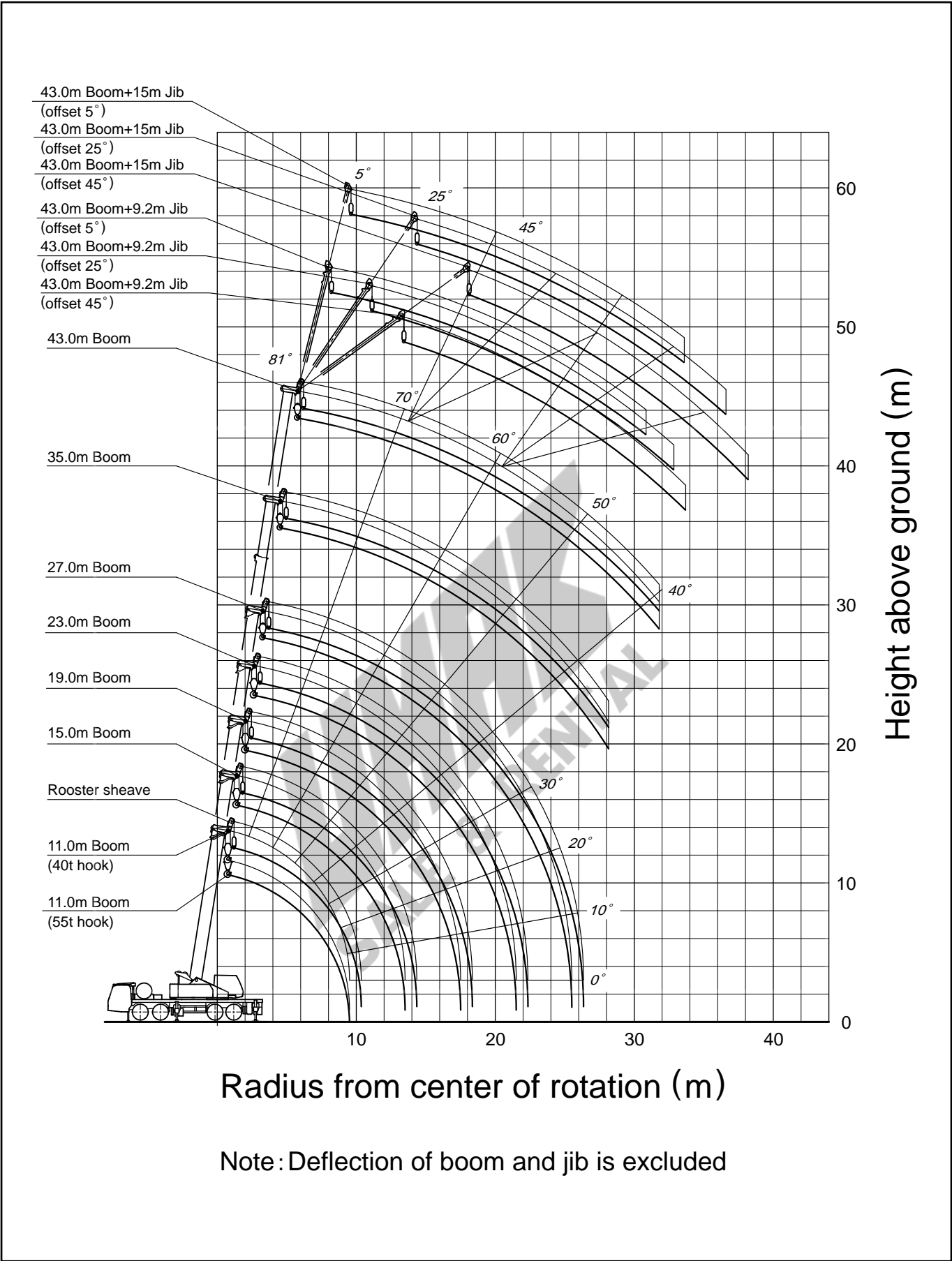
UMAX
SALE & RENTAL

■ Notes for the rated lifting capacity chart

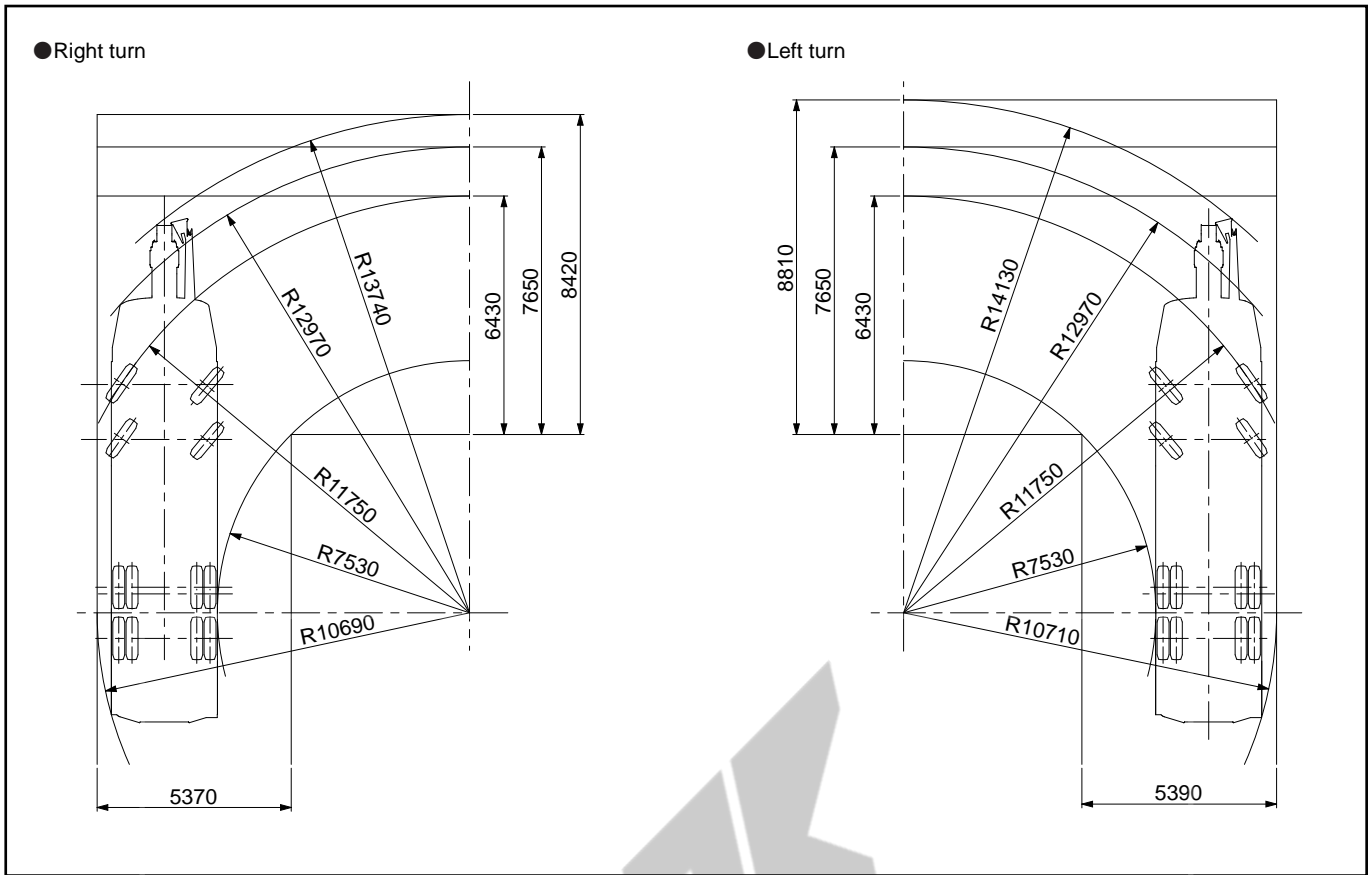
Precautions

1. The rated lifting capacities are the maximum load guaranteed on a firm level ground and include the mass of hook block and other lifting equipment. The capacities enclosed with bold lines are based on the structural strength of machine and the others are based on the stability of machine.
2. The working radii as given in the table are the actual values including the deflection of the boom. Therefore, operate the machine based on the working radius. However, the working radii shown for jib operations are based on the values obtained when the boom is fully extended (43 m). Jib operations should be performed on the basis of boom angle only, regardless of boom length when the boom is not fully extended.
3. The rated lifting capacities for the rooster sheave are equivalent to the rated lifting capacities for the main boom to a maximum of 4000 kg. At all times the mass of all lifting equipment in use (including main hook block suspended from boom head) forms part of load and must be subtracted from the rated lifting capacity.
4. If the boom length exceeds the specified value, the rated lifting capacities for the boom length above and below the present boom length should be referred to, and the crane should be operated within the smaller lifting capacity.
5. When using the main boom with the jib installed, 4000 kg plus the mass of hook block and other lifting equipment, etc., should be subtracted from the rated lifting capacities.
When performing the above operation, do not use the rooster sheave.
6. Critical boom angles for each boom length are shown on bottommost line of lifting capacity table. If the boom angle is lowered to less than the critical boom angle, the machine will tip over without load. Therefore, never lower the boom below these angles.
7. The standard number of parts of line is shown in the rated lifting capacity table. If you work with a non-standard number of parts of line, take 39.2kN (4tf) as the maximum load on any part of the wire rope.
8. Over front lifting performance without front jack is inferior to over side and over rear lifting performance. Great care should be taken when transferring from over side to over front since there is a danger of overloading.
9. Crane operation is permissible up to a wind speed of 10m/s.
Even in relatively light wind conditions, extra care should be taken when handling loads presenting large wind catching areas.
10. The machine will tip over or be damaged if operated with a load exceeding that specified in the rated lifting capacity table or not conforming to correct handling.
If such trouble occurs, the machine will not be guaranteed.

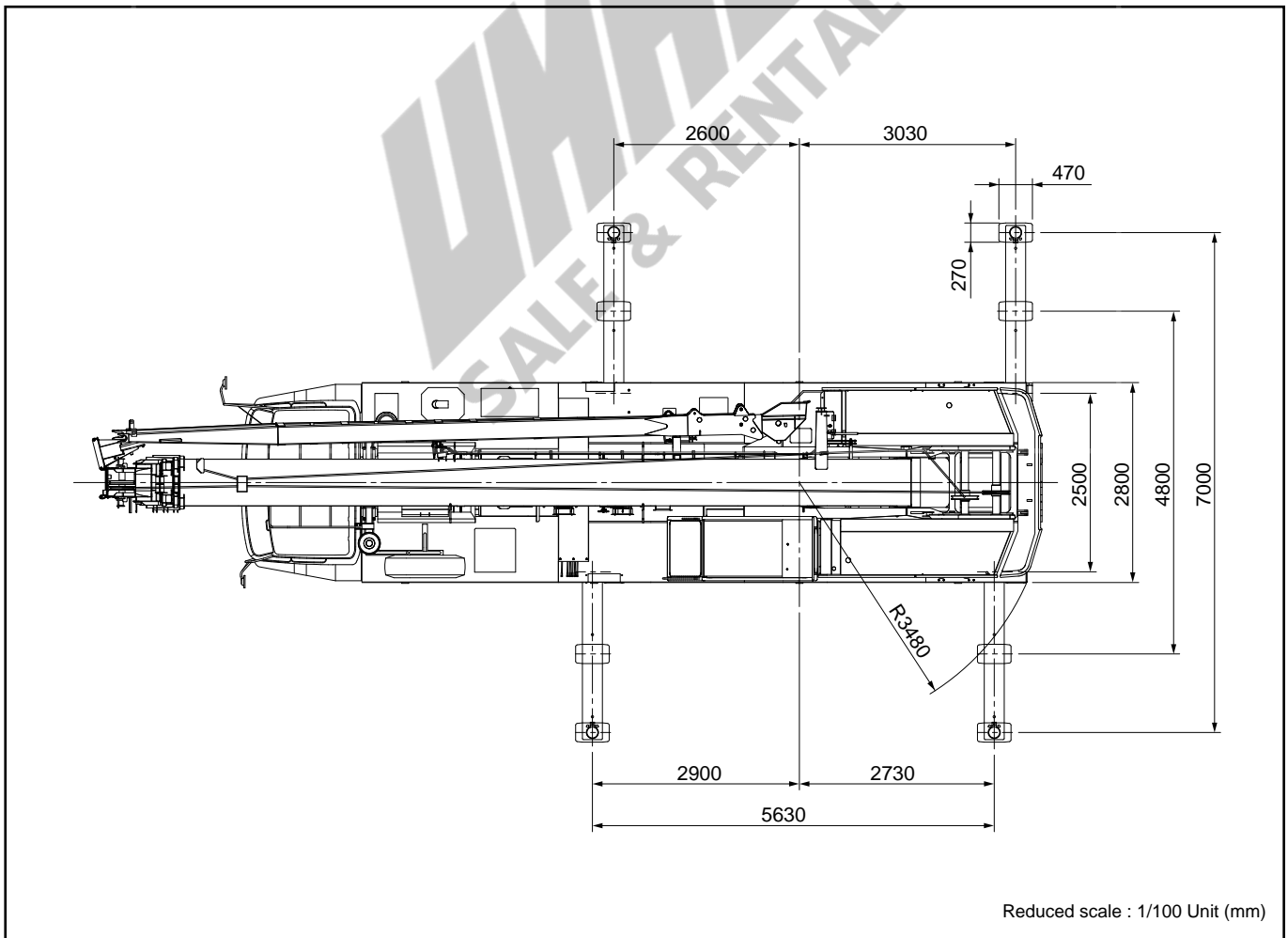
WORKING RANGE



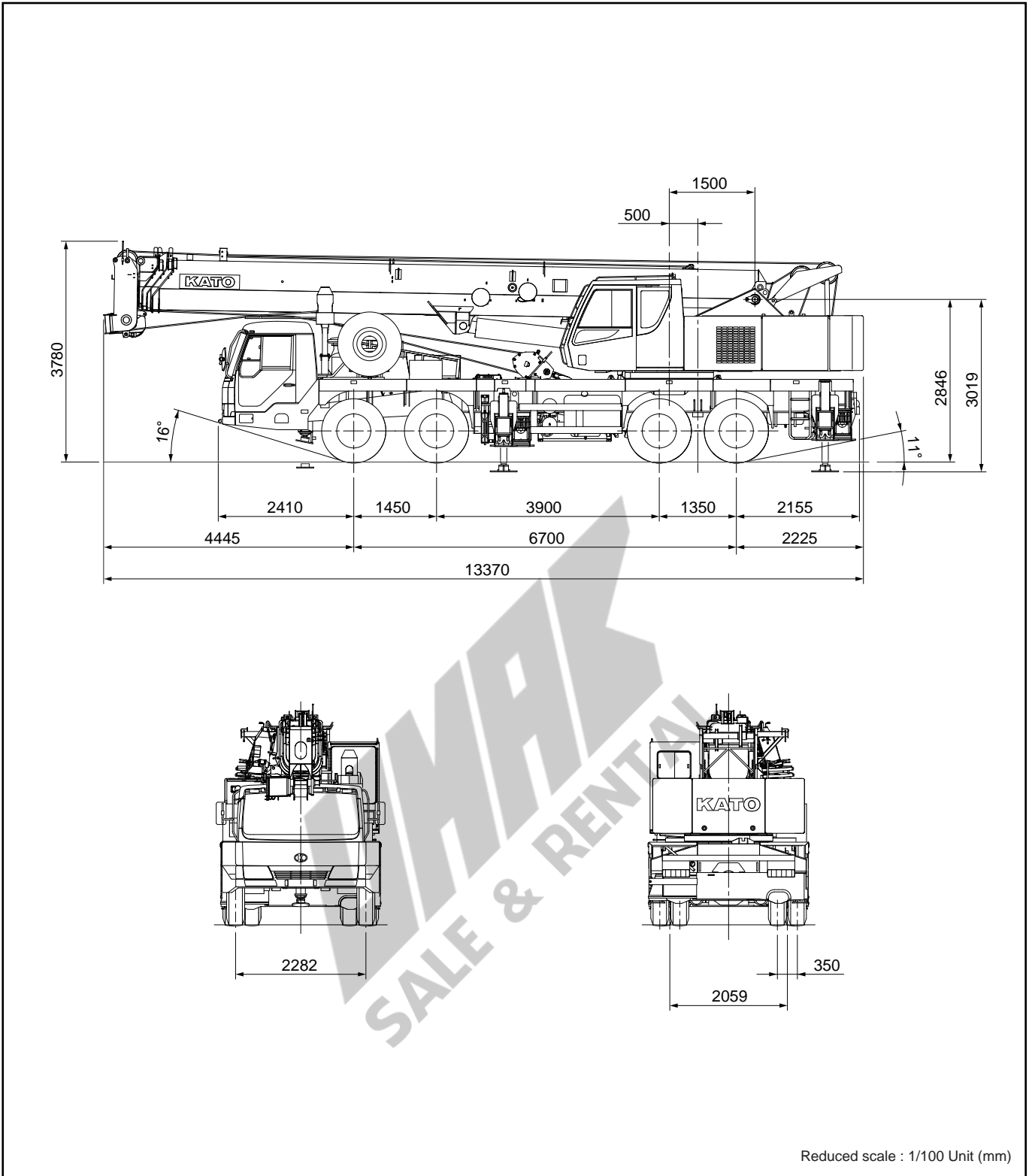
Minimum path width



Overall view



Overall view



* KATO products and specifications are subject to improvements and changes without notice.

Address inquiries to:

KATO
KATO WORKS CO.,LTD.

9-37, Higashi-ohi 1-chome, Shinagawa-ku, Tokyo, 140-0011, Japan
 Tel. : Head Office Tokyo (03) 3458-1111
 Overseas Marketing Department. Tokyo (03) 3458-1115
 Fax. : Tokyo (03) 3458-1163
 URL http://www.kato-works.co.jp

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We acquired the "ISO 9001" certification which is an international standard for quality assurance.