

NK-300E-v

FULLY HYDRAULIC TRUCK CRANE

[SPECIFICATION]

■ CRANE	
Description	Truck crane with maximum lifting capacity 30 ton
Model	NK-300E-v
● Specification	
Maximum rated lifting capacity	10.5 m Boom 30,000 kg × 3.0 m (Parts of line : 10)
	14.2 m Boom 20,000 kg × 4.5 m (Parts of line : 8)
	18.0 m Boom 16,000 kg × 5.0 m (Parts of line : 8)
	21.7 m Boom 12,000 kg × 6.0 m (Parts of line : 4)
	25.5 m Boom 11,500 kg × 6.0 m (Parts of line : 4)
	29.2 m Boom 9,000 kg × 7.0 m (Parts of line : 4)
	33.0 m Boom 7,000 kg × 8.0 m (Parts of line : 4)
	8.7 m Jib 3,000 kg × 76° (Parts of line : 1)
	14.5 m Jib 2,000 kg × 77.7° (Parts of line : 1)
Rooster 3,000 kg (Parts of line : 1)	
Boom length	10.5 m — 33.0 m (4 section)
Fly jib length	8.7 m — 14.5 m (2 section)
Maximum lifting height	33.0 m (Boom) 47.5 m (jib)
Hoisting line speed (winch up)	Main winch 110 m / min. (at 4th layer)
	Auxiliary winch 95 m / min. (at 2nd layer)
Hoisting hook speed (winch up)	Main winch (Parts of line; 10) : 11.0 m / min. (at 4th layer)
	Auxiliary winch (Parts of line; 1) : 95.0 m / min. (at 2nd layer)
Boom derricking angle	-3° — 80°
Boom derricking time	53 s / -3° — 80°
Boom extending time	110 s (10.5 m — 33.0 m)
Slewing speed	2.6 min ⁻¹
Tail slewing radius	3,395 mm
● Equipment and structure	
Boom type	Box-shaped, 4-section hydraulically telescopic type (Boom sections 3 / 4 simultaneously operated)
Jib type	2 sections (2nd section of draw-out type, 3-step inclination type (offset angles 5°, 17° and 30°))
Boom extension/retraction equipment	Two 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 Main & Auxiliary winches	Driven by axial plunger type hoisting motor through built-in gear reduction. Controlled independently by respective operating lever. Equipped with automatic brake.
Slewing equipment	Ball bearing type
Wire rope for hoisting	Main winch Diameter: 16 mm × Length: 180 m
	Auxiliary winch Diameter: 16 mm × Length: 105 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	420 L
● Safety devices	
	ACS (Automatic crane stopper with voice alarm), Boom falling prevention device, Overhoist prevention device, Drum lock device, Automatic winch brake, Hydraulic safety valve, Outrigger lock device
● Standard equipment	
	Fly jib, Rooster sheave, Independent two winches control system, Irregular winding prevention device, Winch automatic brake, Hooks (30 ton, 3 ton), Full size fender, Large size steps, 3 working lights, Moment limiter with voice alarm, Winch drum turning indicator, Outrigger sheet, Cigar lighter, Ashtray, Cab floor mat, Tool kit
● Optional equipment	
	Winch over-unwinding device, Front jack, Hydraulic oil cooler, Cab heater, Cab cooler, Fan, Radio AM FM, Fire extinguisher

■ CARRIER	
Maker and model	FAW CA5320JQZ
● Specification	
Maximum traveling speed	70 km/h
Gradeability (tan θ)	29 % (computed at G.V.W. = 30900 kg)
Minimum turning radius (center of extreme outer tire)	11.0 m
● General dimensions	
Overall length	approx. 12,580 mm
Overall width	approx. 2,500 mm
Overall height	approx. 3,880 mm
Wheel base	5,825 mm (4,475 mm+1,350 mm)
Treads	Front 2,071 mm
	Rear 1,847 mm
Outriggers	Type Hydraulic H-beam type (with float and vertical cylinder in single unit)
	Extended outriggers 6,100 mm (Fully extended) 4,100 mm (Intermediately extended)
Gross machine weight	Gross weight approx. 30,900 kg
	Front weight approx. 6,950 kg
	Rear weight approx. 23,950 kg
● Engine	
Model	CA6DL1-28 (EURO-II)
Type	4 cycle, turbo charged, direct injection water cooled, diesel
Piston displacement	7.7 L
Max. power	206 kW / 2,300 min ⁻¹
Max. torque	1,100 N·m / 1,600 min ⁻¹
● Equipment and structure	
Drive system	6 × 4
Clutch	Single dry plate, hydraulic control with air booster
Transmission	Manual transmission type
Number of speeds	8 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 and torque rods with leaf springs (with lockout device)
Brakes	Service 2 circuit air brake, 6 wheels internal expanding type
	Parking Emergency Spring loaded brake 4 rear wheels, variable air operated
	Auxiliary Exhaust brake
Steering	Type Ball nut type with power booster
Tire size	Front 11.00R20-16 PR
	Rear (dual tire) 11.00R20-16 PR
Fuel tank capacity	300 L
Seating capacity	2 persons
Battery	(12 V — 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 cooler, Cab heater

- 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

10.5 m — 33.0 m Boom

(Unit : Metric ton)

Working radius(m)	Outriggers fully extended with front jack - 360° full range						
	10.5 m Boom	14.2 m Boom	18 m Boom	21.7 m Boom	25.5 m Boom	29.2 m Boom	33 m Boom
2.5	30.00	20.00	16.00				
3.0	30.00	20.00	16.00				
3.5	25.40	20.00	16.00	12.00			
4.0	22.90	20.00	16.00	12.00	11.50		
4.5	21.00	20.00	16.00	12.00	11.50		
5.0	19.40	18.40	16.00	12.00	11.50	9.00	
6.0	16.20	15.30	13.70	12.00	11.50	9.00	7.00
7.0	13.70	12.65	11.95	11.00	10.00	9.00	7.00
8.0	11.15	10.65	10.55	10.20	8.90	8.20	7.00
8.5	10.25	9.70	9.65	9.65	8.45	7.80	6.60
9.0		8.80	8.80	9.20	8.05	7.45	6.25
10.0		7.30	7.15	7.65	7.30	6.75	5.70
12.0		5.10	4.95	5.40	5.65	5.65	4.80
12.5		4.70	4.55	5.05	5.25	5.45	4.55
13.0			4.20	4.65	4.90	5.05	4.45
14.0			3.55	4.00	4.25	4.40	4.10
16.0			2.55	2.95	3.20	3.40	3.50
18.0				2.20	2.45	2.65	2.80
20.0				1.65	1.85	2.05	2.20
22.0					1.40	1.60	1.70
24.0						1.20	1.35
26.0						0.90	1.00
27.5						0.70	0.85
29.0							0.65
31.0							0.45
Standard hook	for 30 ton						
Hook mass	300 kg						
Parts of line	10	8			4		
Critical boom angle	—	—	—	—	—	—	—

(Unit : Metric ton)

Working radius(m)	Outriggers intermediately extended without front jack - 360° full range						
	10.5 m Boom	14.2 m Boom	18 m Boom	21.7 m Boom	25.5 m Boom	29.2 m Boom	33 m Boom
2.5	25.00	20.00	16.00				
3.0	25.00	20.00	16.00				
3.5	25.00	20.00	16.00	12.00			
4.0	22.90	20.00	16.00	12.00	11.50		
4.5	17.35	16.20	16.00	12.00	11.50		
5.0	14.00	13.60	13.45	12.00	11.50	9.00	
5.5	11.60	11.40	11.20	12.00	11.50	9.00	
6.0	10.00	9.80	9.60	10.20	10.10	9.00	7.00
6.5	8.50	8.50	8.15	8.95	9.10	9.00	7.00
7.0	7.55	7.25	7.15	7.80	8.10	8.30	7.00
7.5	6.50	6.40	6.20	6.85	7.25	7.35	7.00
8.5	5.00	4.95	4.85	5.40	5.75	5.85	5.80
9.0		4.35	4.30	4.80	5.10	5.25	5.30
10.0		3.45	3.35	3.85	4.10	4.30	4.40
12.0		2.10	1.95	2.45	2.70	2.90	3.05
12.5		1.70	1.70	2.15	2.40	2.65	2.80
13.0			1.40	1.90	2.15	2.40	2.55
14.0			0.95	1.40	1.70	1.95	2.10
15.0			0.55	1.05	1.30	1.55	1.75
16.0				0.70	1.00	1.20	1.40
17.0				0.40	0.70	0.95	1.10
18.0					0.45	0.70	0.85
19.0						0.45	0.60
20.0							0.40
Standard hook	for 30 ton						
Hook mass	300 kg						
Parts of line	10	8			4		
Critical boom angle	—	—	—	25°	35°	42°	47°

33 m Boom + 8.7 m Jib

33 m Boom + 14.5 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													
33 m Boom + 8.7 m Jib							33 m Boom + 14.5 m Jib						
Boom angle (°)	Offset 5°		Offset 17°		Offset 30°		Boom angle (°)	Offset 5°		Offset 17°		Offset 30°	
	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)
80.0	8.0	3.00	9.6	2.20	11.3	1.60	80.0	9.9	2.00	12.5	1.30	15.1	0.90
76.0	11.0	3.00	12.5	2.20	14.0	1.60	77.7	12.0	2.00	14.5	1.30	16.9	0.90
74.0	12.5	2.72	14.0	2.05	15.3	1.54	76.3	13.2	1.85	15.7	1.24	18.0	0.90
70.0	15.3	2.26	16.6	1.78	18.0	1.45	72.0	16.4	1.50	19.0	1.06	21.2	0.81
66.0	18.0	1.92	19.2	1.57	20.4	1.30	68.0	19.5	1.25	22.0	0.91	24.0	0.74
62.0	20.5	1.68	21.8	1.38	22.8	1.17	64.0	22.6	1.06	24.8	0.79	26.6	0.67
58.0	23.0	1.48	24.1	1.24	25.0	1.06	60.0	25.4	0.90	27.4	0.70	29.1	0.60
56.0	24.0	1.28	25.2	1.18	26.0	1.02	56.0	28.0	0.77	29.9	0.64	31.5	0.55
54.0	25.1	1.08	26.3	1.00	27.1	0.98	52.0	30.7	0.66	32.4	0.57	33.7	0.52
50.0	27.2	0.74	28.2	0.70	29.0	0.67	51.0	31.2	0.61	33.0	0.55	34.2	0.51
46.0	29.2	0.47	30.1	0.44	30.7	0.43	50.4	31.6	0.57	33.3	0.52	34.5	0.50
43.0	30.6	0.30	31.5	0.30	32.0	0.30	48.0	32.9	0.45	34.5	0.40	35.6	0.38
							46.0	33.9	0.35	35.2	0.33	36.5	0.30
Standard hook	for 3 ton						Standard hook	for 3 ton					
Hook mass	60 kg						Hook mass	60 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	40°						Critical boom angle	42°					

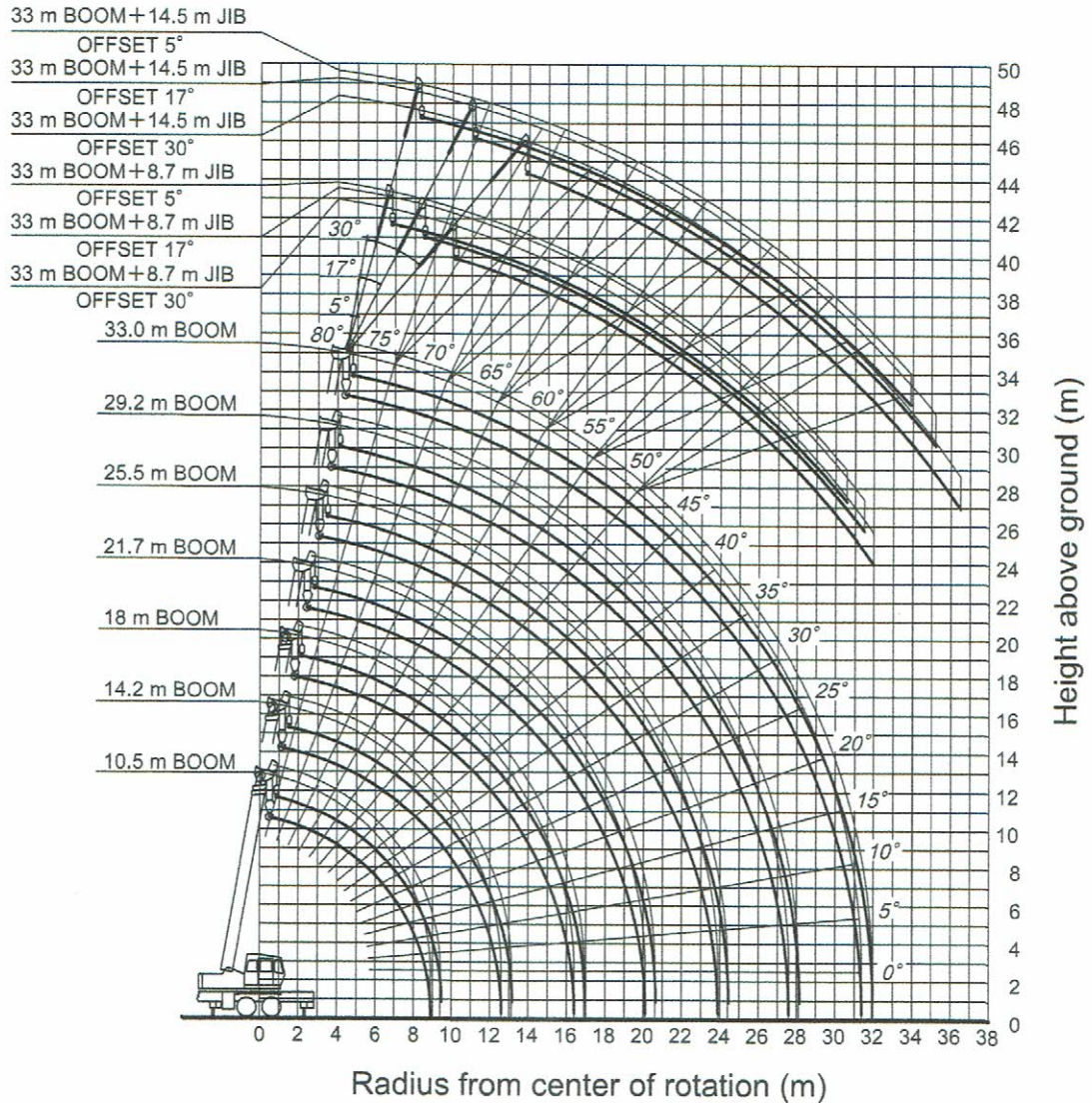
33 m Boom + 8.7 m Jib

33 m Boom + 14.5 m Jib

(Unit : Metric ton)

Outriggers intermediately extended without front jack - 360° full range Outriggers fully extended without front jack - over front													
33 m Boom + 8.7 m Jib							33 m Boom + 14.5 m Jib						
Boom angle (°)	Offset 5°		Offset 17°		Offset 30°		Boom angle (°)	Offset 5°		Offset 17°		Offset 30°	
	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)
80.0	8.0	3.00	9.6	2.20	11.3	1.60	80.0	9.9	2.00	12.5	1.30	15.1	0.90
76.0	11.0	3.00	12.5	2.20	14.0	1.60	77.7	12.0	2.00	14.5	1.30	16.9	0.90
72.5	13.5	2.56	15.0	1.94	16.2	1.50	76.3	13.2	1.85	15.7	1.24	18.0	0.90
71.0	14.5	2.14	16.0	1.84	17.3	1.47	73.0	15.6	1.57	18.2	1.10	20.4	0.84
70.0	15.1	1.90	16.6	1.65	18.0	1.45	69.0	18.7	1.31	21.2	0.95	23.3	0.76
68.0	16.3	1.48	17.8	1.28	19.0	1.18	68.4	19.1	1.18	21.7	0.92	23.8	0.75
65.0	18.1	0.97	19.5	0.86	20.7	0.78	67.8	19.5	1.08	22.0	0.88	24.2	0.73
60.0	21.0	0.37	22.4	0.30	23.3	0.30	64.0	22.0	0.60	24.4	0.49	26.4	0.43
							62.0	23.4	0.39	25.6	0.33	27.5	0.30
Standard hook	for 3 ton						Standard hook	for 3 ton					
Hook mass	60 kg						Hook mass	60 kg					
Parts of line	1						Parts of line	1					
Critical boom angle	58°						Critical boom angle	60°					

WORKING RANGE



Note: Deflection of boom and jib excluded

Overall view

