

ROUGH TERRAIN CRANE

GR-300N

(Power Tilt Jib)

JAPANESE SPECIFICATIONS

GR

SPEC. NO.	OUTLINE
GR-300N-1-00101	Winch without free-fall device
GR-300N-1-00102	Winch with free-fall device

Control No. JA-02

GR-300N

CRANE SPECIFICATIONS

CRANE CAPACITY

7.7m Boom	30,000kg	at 3.0m	(8part-line)
12.7m Boom	19,000kg	at 5.0m	(6part-line)
17.7m Boom	17,000kg	at 4.5m	(6part-line)
22.7m Boom	12,000kg	at 6.0m	(4part-line)
27.7m Boom	9,000kg	at 7.0m	(4part-line)
30.5m Boom	8,000kg	at 7.0m	(4part-line)
32.0m Boom	7,000kg	at 7.0m	(4part-line)
6.5m Jib	3,200kg	at 72°	(1part-line)
11.0m Jib	2,000kg	at 70°	(1part-line)
Single top	4,000kg		(1part-line)

MAX. LIFTING HEIGHT

Boom	32.8m
Jib	43.9m

MAX. WORKING RADIUS

Boom	29.5m
Jib	32.5m

BOOM LENGTH

7.7m - 32.0m

BOOM EXTENSION

24.3m

BOOM EXTENSION SPEED

24.3m/77s

JIB LENGTH

6.5m, 11.0m

MAIN WINCH SINGLE LINE WINDING SPEED

120m/min (4th layer)

MAIN WINCH HOOK SPEED

15.0m/min (8 part-line)

MAIN WINCH SINGLE LINE UNWINDING SPEED

<Reference>

Standard 110m/min (4th layer)
High speed 200m/min (4th layer) --- only on cranes fitted with winches without free-fall device

AUXILIARY WINCH SINGLE LINE WINDING SPEED

120m/min (4th layer)

AUXILIARY WINCH HOOK SPEED

120m/min (1 part-line)

AUXILIARY WINCH SINGLE LINE UNWINDING SPEED

<Reference>

Standard 110m/min (4th layer)
High speed 200m/min (4th layer) --- only on cranes fitted with winches without free-fall device

BOOM ELEVATION ANGLE

-8° - 83°

BOOM ELEVATION SPEED

-8° - 83°/47s

SWING ANGLE

360° continue

SWING SPEED

2.5min⁻¹ (rpm)

WIRE ROPE

Main Winch:	16mm x 182m (Diameter x Length) Spin-resistant wire rope
Auxiliary Winch:	16mm x 98m (Diameter x Length) Spin-resistant wire rope

BOOM

6-section hydraulically telescoping boom of box construction
(stages 2,3: synchronized; stages 4,5,6: synchronized)

BOOM EXTENSION

2 double-acting hydraulic cylinders

JIB

Two-stage type stored alongside boom (with 2nd stage being a pull-out type)

Hydraulic non-stage offset (5°-60°) type

SINGLE TOP

Mounted and fixed on the top boom section.

HOIST

Driven by hydraulic motor and via spur gear reducer.

Automatic brake

High-speed unwind function - only on cranes fitted with winches without free-fall device

Free-fall device (with foot brake) - only on cranes fitted with winches with free-fall device

2 single winches

With flow regulator valve with pressure compensation

BOOM ELEVATION

1 double-acting hydraulic cylinders

With flow regulator valve with pressure compensation

SWING

Hydraulic motor driven planetary gear reducer

Swing bearing

Negative brake

OUTRIGGERS

Fully hydraulic Htype (floats mounted integrally)

Slides and jacks each provided with independent operation device.

Fully extended width 6.7m

Middle extended width 6.3m, 5.2m, 3.8m

Minimum extended width 2.08m

OPERATION METHOD

Hydraulic pilot valve operation

MAX. VERTICAL LOAD CAPACITY OF OUTRIGGER

28.4t

POWER TAKE-OFF

PTO wet multi-plate clutch

HYDRAULIC PUMPS

2 variable piston pumps

Gear pumps + piston pumps

HYDRAULIC OIL TANK CAPACITY

430 liters

SAFETY DEVICES

Automatic moment limiter (AML)

Swing automatic stop device

Elevation slow down and stop device

Over-winding cutout device

Working area control device

Free-fall interlock device - only on cranes fitted with winches with free-fall device

Outrigger extension width detector

Level gauge

Hook safety latch

Hydraulic safety valve

Telescopic counterbalance valve

Elevation counterbalance valve

Power tilt counterbalance valve

Jack pilot check valve

EQUIPMENT

Air-conditioner with dehumidifier

Hydraulic oil temperature indication lamp

Radio

Oil cooler/Visual-type winch drum rotation indicator

Operation pedals

ISO arrangement: for telescoping/auxiliary hoisting

TADANO arrangement: for elevating/telescoping

Television (option)