

TADANO ALL-TERRAIN CRANE
 MODEL : AR-1000M
 (CARRIER : FAUN RTF 100-4)

GENERAL DATA

CRANE CAPACITY 100.000 kg at 2.8 m

BOOM 5-section 11.7 m → 45.0 m

DIMENSIONS

Overall length	approx.	10.635 mm (13.530 mm)	(with superstructure)
Overall width 2.95m w/20.5	approx.	2.780 mm (2.780 mm)	
Overall height	approx.	2.765 mm (3.950 mm)	

MASS

Gross vehicle mass +560 K6	approx.	28,210 kg (60,000 kg)
-front w/20.5	approx.	16,380 kg (30,000 kg)
-rear	approx.	11,830 kg (30,000 kg)

PERFORMANCE

Max. travelling speed	computed	70 km/h (70 km/h)
Gradeability(tanθ)	computed	52 % (33.5 %)

Specifications are subject to change without notice.

CRANE SPECIFICATIONS

<u>MODEL</u>	AR-1000M
<u>CAPACITY</u>	100,000 kg at 2.8 m
<u>BOOM</u>	<p>5-section full length power telescoping boom of round hexagonal box construction with 6 sheaves at boom head.</p> <p>2-telescoping mode (I or II) selection</p> <p>Telescoping mode I: 2nd & 3rd boom sections synchronized 4th & top boom sections synchronized</p> <p>Telescoping mode II: 2nd through top boom sections synchronized</p> <p>The telescoping system consists of three double-acting telescope cylinders and a cable system. Hydraulic cylinders fitted with holding valves.</p> <p>Fully retracted length.....11.7 m Fully extended length.....45.0 m Extension speed.....33.3 m in 85 s</p>
<u>JIB</u>	<p>3-section full length power synchronized telescoping jib.</p> <p>Offset angle (5° - 45°) by tilt cylinders</p> <p>Length.....9.0 m - 19.0 m</p>
<u>SINGLE TOP</u>	Single sheave. Mounted to main boom head for single line work.
<u>ELEVATION</u>	<p>By a double-acting hydraulic cylinder, fitted with holding valve.</p> <p>Elevation speed.....-2° to 82° in 45 s</p>
<u>HOIST -Main winch</u>	<p>2-speed type with grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting.</p> <p>Equipped with automatic fail-safe brake and counterbalance valve. Controlled independently of auxiliary winch.</p> <p>Single line pull.....63.7 kN (6,500 kgf)</p> <p>Single line speed</p> <p>High range.....106 m/min. (at the 4th layer)</p> <p>Normal range.....53 m/min. (at the 4th layer)</p> <p>Wire rope.....No-spin type</p> <p>Diameter × length.....20 mm × 245 m</p>
<u>HOIST</u> <u>-Auxiliary winch</u>	<p>2-speed type with grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting.</p> <p>Equipped with automatic fail-safe brake and counterbalance valve. Controlled independently of main winch.</p> <p>Single line pull.....63.7 kN (6,500 kgf)</p> <p>Single line speed</p> <p>High range.....106 m/min. (at the 4th layer)</p> <p>Normal range.....53 m/min. (at the 4th layer)</p> <p>Wire rope.....No-spin type</p> <p>Diameter × length.....20 mm × 140 m</p>
<u>HOOK BLOCK-</u> <u>100 t capacity</u>	8 sheaves. swivel type hook with safety latch.
<u>HOOK BLOCK-</u> <u>45 t capacity</u>	3 sheaves. swivel type hook with safety latch.
<u>HOOK BLOCK-</u> <u>6.5 t capacity</u>	Swivel hook with safety latch for single line use.

SWING

Hydraulic axial piston motor driven through planetary swing speed reducer. Continuous 360° full circle swing on ball bearing slew ring. Swing free/lock selection. Equipped with spring loaded swing brake to be operated by switch.

Swing speed.....2 r/min

HYDRAULIC SYSTEM

Pumps.....2 variable piston pumps and 2 gear pumps.

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

Circuit.....Equipped with air cooled type oil cooler.
Oil pressure displayed on pressure gauge for main circuit.

Hydraulic oil tank capacity....
approx. 820 liters

Filters.....Return line filter

CRANE OPERATION

Self centering finger control levers with pilot control
.....Winch, telescoping, elevating, swing and jib.

CAB

Steel construction tilt cab with sliding door access and safety glass windows. Reclining seat with headrest and armrest.
Cab tilt angle.....0° - 20°

SAFETY DEVICES

Boom angle indicator
Boom elevation slowing-down and stop device
Pendant type over-winding cutout
Winch automatic fail-safe brake
Winch drum lock
Cable follower
Over-unwinding prevention
Hook safety latch
Pilot check valves
Holding valves
Counterbalance valves
Hydraulic pressure relief valves
Swing brake
Swing lock
Automatic outrigger extended detector
Automatic counterweight combination detector
Swing area limiting device
Automatic swing stop device
Control lever stand and lever lock.

TADANO Automatic
Moment Limiter
(Model : AML-V)

Main unit in crane cab gives audible and visual warning of approach to overload. Automatically cuts out crane motions before overload. With working range limit function and multi-display.

OUTRIGGERS

4 hydraulically operated outriggers. Each outrigger controlled simultaneously or independently from either side of carrier. Equipped with sight level gauges. All cylinders fitted with pilot check valves.

Extended width

Fully.....7,200 mm

Middle.....6,360 mm 4,900 mm 3,600mm

Minimum...2,480 mm

Float size(Square)....500 mm

ENGINE FOR CRANE

Model.....NISSAN NE6T

Type.....4 cycle, 6 cylinder in line, direct injection,
water cooled diesel engine.Piston displacement.....7.412 cm^3

Max. output.....132 kw (180 PS) at 2,200 r/min

Max. torque.....677 N·m (69 kgf·m) at 1,500 r/min

STANDARD EQUIPMENT

Control pedals for elevating and telescoping

Cloth-covered cab seat

External lamp(AWL)

Counter weight dismounting device

Superstructure dismounting device

Crane cab air-conditioner

Jib hydraulic extension device

Hook movement amount indicator

AM/FM radio

Hot & cool box

Lunch table

Bottle keeper

3-working lights

Sliding retracted float

Cab floor mats

Sun visor

Extension steps

Electric windshield wiper and washer

Roof window wiper and washer

COUNTERWEIGHT

Fitted to swing frame.

Mass.....Max. 14,000 kg

OPTIONAL EQUIPMENT

Swing alarm

Drum monitor(TV camera)

Bed for napping

