

TRUCK CRANE

TS-70M
TS-70ML

JAPANESE SPECIFICATIONS

TS

| OUTLINE | SPEC. NO. |
|-------------------------------|----------------|
| Max. total rated load 4.9 ton | TS-70M-2-00001 |
| Max. total rated load 7.0 ton | TS-70M-2-00002 |

Control No. JA-02

TS-70ML, TS-70M

CRANE SPECIFICATIONS

CRANE CAPACITY

| | | | |
|-------------|---------|------------------------|-------------|
| 6.5m Boom | 7,000kg | at 2.5m (6 part-line) | ... TS-70ML |
| | 4,900kg | at 3.5m (4 part-line) | ... TS-70M |
| 10.95m Boom | 4,900kg | at 3.5m (6 part-line) | ... TS-70ML |
| | 4,900kg | at 3.5m (4 part-line) | ... TS-70M |
| 15.4m Boom | 3,850kg | at 3.5m (6 part-line) | ... TS-70ML |
| | 3,850kg | at 3.5m (4 part-line) | ... TS-70M |
| 6.1m Jib | 1,250kg | at 78° (1 part-line) | |
| Single top | 1,250kg | (1 part-line) | |

MAX. LIFTING HEIGHT

| | |
|------|-------|
| Boom | 15.4m |
| Jib | 21.4m |

MAX. WORKING RADIUS

| | |
|------|-------|
| Boom | 14.8m |
| Jib | 20.9m |

BOOM LENGTH

6.5m – 15.4m

BOOM EXTENSION

8.9m

BOOM EXTENSION SPEED

8.9m / 22s

JIB LENGTH

6.1m

MAIN WINCH SINGLE LINE SPEED

| | | |
|-------------|----------|-------------|
| High range: | 100m/min | (4th layer) |
| Low range: | 50m/min | (4th layer) |

MAIN WINCH HOOK SPEED

(TS-70ML)

| | | |
|-------------|-----------|---------------|
| High range: | 16.7m/min | (6 part-line) |
| Low range: | 8.3m/min | (6 part-line) |

(TS-70M)

| | | |
|-------------|-----------|---------------|
| High range: | 25m/min | (4 part-line) |
| Low range: | 12.5m/min | (4 part-line) |

AUXILIARY WINCH SINGLE LINE SPEED

| | | |
|-------------|---------|-------------|
| High range: | 83m/min | (2nd layer) |
| Low range: | 42m/min | (2nd layer) |

AUXILIARY WINCH HOOK SPEED

| | | |
|-------------|---------|---------------|
| High range: | 83m/min | (1 part-line) |
| Low range: | 42m/min | (1 part-line) |

BOOM ELEVATION ANGLE

-7° – 78°

BOOM ELEVATION SPEED

-7° – 78° / 24s

SWING ANGLE

360° continue

SWING SPEED

2.7rpm

WIRE ROPE

Main Winch

| | |
|---|-------------|
| 10mm × 120m (Diameter × Length) | ... TS-70ML |
| 10mm × 90m (Diameter × Length) | ... TS-70M |
| 7 × 7 + 6 × Fi(29) Class B ordinary · Z twist | |
| Spin-resistant wire rope | |
| Breaking strength | 6.89t |

Auxiliary Winch

| | |
|---|-------|
| 10mm × 50m (Diameter × Length) | |
| 7 × 7 + 6 × Fi(29) Class B ordinary · Z twist | |
| Spin-resistant wire rope | |
| Breaking strength | 6.89t |

BOOM

3-section fully hydraulically synchronized telescoping boom of box construction.

BOOM EXTENSION

1 double-acting hydraulic cylinder
1 wire rope type telescoping device

JIB

Stored within boom

SINGLE TOP

Single sheave. Mounted to main boom head for single line work.

HOIST

Driven by hydraulic motor and via spur gear speed reducer.
Power load lowering / free-fall lowering type
1-motor 2-axle 2-drum winch

BOOM ELEVATION

1 double-acting hydraulic cylinders

SWING

Driven by hydraulic motor and via worm gear speed reducer.

Swing bearing

OUTRIGGERS

Fully hydraulic type; front: H-type; rear: X-type
Full extended width 4.25m
Middle extended width 3.0m

MAX. OUTRIGGER LOAD

8.4t

FRONT JACK

Manual type

HYDRAULIC PUMPS

3 gear pumps

HYDRAULIC OIL TANK CAPACITY

115 liters

SAFETY DEVICES

Automatic moment limiter (AML-K)

Over-winding cutout

Hook safety latch

Hydraulic safety valve

Over front area control device

Elevation counterbalance valve

Telescopic counterbalance valve

Jack pilot check valve

Front jack over load alarm

Front jack misoperation prevention device

EQUIPMENTS

Crane cab heater

GENERAL DATA**MOUNTING CARRIERS
(representative examples)**

| | |
|------------|-----------|
| NISSAN | P-CM86B |
| MITSUBISHI | K-FK115DD |
| HINO | K-FD151AD |
| ISUZU | K-SBR322 |

**DIMENSIONS
(may differ according to type of mounting carrier)**

| | |
|----------------|-----------------|
| Overall length | Approx. 7,650mm |
| Overall width | Approx. 2,180mm |
| Overall height | Approx. 3,150mm |

WEIGHT

| | |
|----------------------|-----------------|
| Gross vehicle weight | Approx. 7,900kg |
|----------------------|-----------------|

UMAR
SALE & RENTAL

TOTAL RATED LOADS

Unit: ton

| · Outriggers fully extended + Front jack (360°) · Outriggers fully extended (Over rear · Over sides) | | | | | | |
|---|----------------|--------|-------|-----------------------------------|-------|------------|
| B (m) | A | | | | E (°) | C 6.1 m |
| | 6.5 m | 10.95m | 15.4m | 6.5~ 15.4 m + Single top | | |
| 2.0 | (4.90) 7.00 | | | 1.25 | 78 | 1.25 |
| 2.5 | (4.90) 7.00 | | | 1.25 | 74 | 1.20 |
| 3.0 | (4.90) 6.10 | 4.90 | | 1.25 | 70 | 1.03 |
| 3.5 | (4.90) 5.30 | 4.90 | 3.85 | 1.25 | 65 | 0.89 |
| 4.0 | 4.50 | 4.40 | 3.45 | 1.25 | 60 | 0.78 |
| 4.5 | 3.70 | 3.80 | 3.10 | 1.25 | 55 | 0.67 |
| 5.0 | 3.10 | 3.25 | 2.80 | 1.25 | 50 | 0.60 |
| 5.9 | 2.35 | 2.50 | 2.40 | 1.25 | 45 | 0.53 |
| 7.0 | | 1.90 | 1.95 | 1.25 | 40 | 0.45 |
| 8.0 | | 1.50 | 1.55 | 1.25 | 30 | 0.32 |
| 9.0 | | 1.25 | 1.30 | 1.20 | 20 | 0.25 |
| 10.35 | | 0.95 | 1.00 | 0.95 | 10 | 0.20 |
| 11.0 | | | 0.90 | 0.85 | 0 | 0.18 |
| 12.0 | | | 0.75 | 0.70 | | |
| 13.0 | | | 0.65 | 0.60 | | |
| 14.0 | | | 0.55 | 0.50 | | |
| 14.8 | | | 0.45 | 0.40 | | |

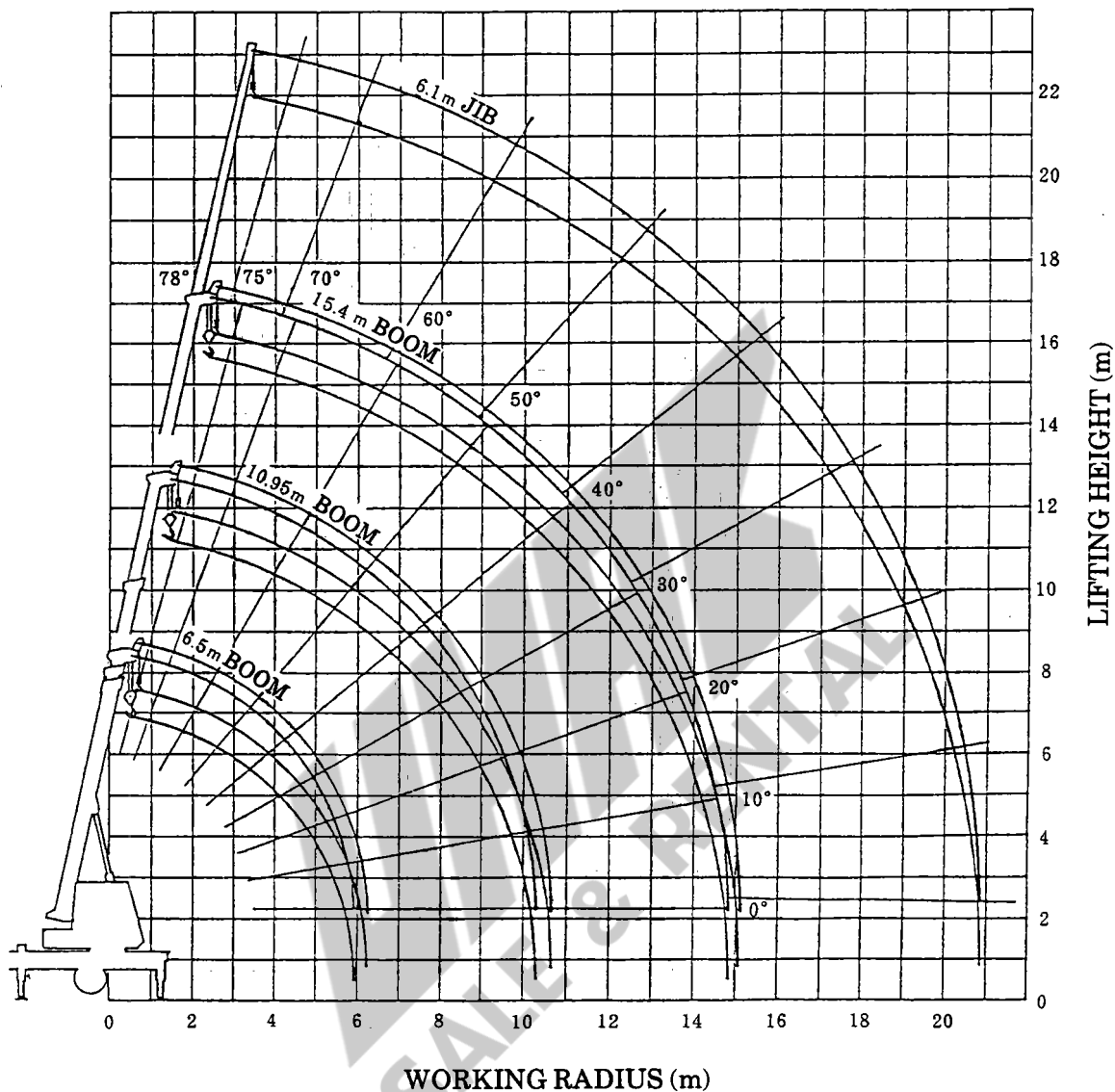
| · Outriggers middle extended (360°) · Outriggers fully extended (Over front) | | | | | | |
|---|----------------|--------|-------|-----------------------------------|-------|------------|
| B (m) | A | | | | E (°) | C 6.1 m |
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| 3.5 | 3.80 | 3.90 | 3.50 | 1.25 | 65 | 0.89 |
| 4.0 | 2.90 | 3.00 | 2.80 | 1.25 | 60 | 0.78 |
| 4.5 | 2.20 | 2.30 | 2.30 | 1.25 | 55 | 0.67 |
| 5.0 | 1.70 | 1.80 | 1.80 | 1.25 | 50 | 0.60 |
| 5.9 | 1.10 | 1.20 | 1.25 | 1.05 | 45 | 0.53 |
| 7.0 | | 0.80 | 0.85 | 0.75 | 40 | 0.45 |
| 8.0 | | 0.58 | 0.63 | 0.55 | 30 | 0.32 |
| 9.0 | | 0.40 | 0.45 | 0.40 | 20 | 0.25 |
| 10.35 | | 0.25 | 0.30 | 0.25 | 10 | 0.20 |

- A = Boom length
- B = Working radius
- C = Jib length
- E = Boom angle

NOTES:

1. Values within () are for the TS-70M type.
2. The weights of the slings and hooks (main winch hook: 68kg, auxiliary winch hook: 18kg) are included in the total rated loads shown.
3. The total rated loads shown are for the case when the outriggers are set horizontally on firm ground. The values are based on the crane strength.
4. The total rated load is based on the actual working radius including the deflection of the boom.
5. The total rated loads for free-fall operations is 1/5 of the total rated loads given above.

WORKING RADIUS - LIFTING HEIGHT



NOTES:

1. The deflection of the boom is not incorporated in the figure above.
2. The above chart is for the case where the outriggers are fully extended and where the front jack are used (over 360°).

DIMENSIONS (1/100)

May differ according to type of mounting carrier.

