

SPEC. SHEET No. TM-36Z-4-03005/EX-02[TM-ZE365M]

TM-36Z-4-03065/EX-02[TM-ZE365MH]

DATE July, 2010

#### TADANO CARGO CRANE

# MODEL: TM-ZE365M TM-ZE365MH ----- with hook stowing device

## **CRANE SPECIFICATIONS**

CRANE CAPACITY 3,030 kg at 2.3 m (4-part lines)

Five-sectioned, fully powered partly synchronized telescoping **BOOM** 

boom of pentagonal box construction

Retracted length ----- 3.52 m Extended length ----- 12.3 m

Extending speed ----- 8.78 m / 18 s

Elevation ----- Elevated by a double-acting

hydraulic cylinder

Elevating speed -----  $1^{\circ}$  to  $78^{\circ}$  / 7.5 s

Boom point ----- 2 sheaves

<u>WINCH</u> Hydraulic motor driven Spur gear speed reduction, provided

with mechanical brake and cable follower

Single line pull ----- 7.45 kN{760 kgf}

Single line speed ----- 76 m/min (at 4th layer)

Wire rope

Diameter x length --- 8 mm x 74 m Breaking strength --- 43.1 kN{4.39 tf} Construction ---- 7 x 7 + 6 x WS(26)

Hook block ----- 2 sheaves

HOOK STOWING DEVICE Mechanically stowed beneath boom top portion

[TM-ZE365MH only]

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SWING Hydraulic motor driven Worm gear speed reduction Continuous

360° full circle swing on ball bearing slew ring

Automatic swing lock

Swing speed ----- 2.5 min<sup>-1</sup>{rpm}

OUTRIGGERS Manually extended sliders and hydraulically extended jacks

Integral with crane frame Power up and down

Extension width ---- Min. 2,000 mm

Mid. 2,700 mm, 3,400 mm

Full 4,200 mm

<u>HYDRAULICS</u> Hydraulic pump ----- Single gear pump

Hydraulic motors ----- Axial piston type for winch

Axial piston type for swing

Control valves ------Multiple control valves with integral safety

valve

Oil tank capacity ----- approx. 31 L

SAFETY DEVICES Load meter

Load indicator

Over-winding alarm

Hoisting limiter

P.T.O indicator lamp

Hook safety latch

Hydraulic safety valves, check valves and holding valves

Level gauge

CRANE MASS Approx. 1,470 kg (includes standardized mounting parts)

NOTE: Operating speeds of the crane are guaranteed under the condition that the pump delivery is 60 L/min.

## RATED LIFTING CAPACITIES IN KILOGRAMS

Crane Strength Rated Capacities

|                    | 3.52 m / 5.75 m Boom          |         |                    | 7.95 m<br>Boom                      |                    | 10.1 m<br>Boom                |                    | 12.3 m<br>Boom                |
|--------------------|-------------------------------|---------|--------------------|-------------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|
| Load<br>Radius     | Extension width of outriggers |         | Load<br>Radius     | Extension<br>width of<br>outriggers | Load<br>Radius     | Extension width of outriggers | Load<br>Radius     | Extension width of outriggers |
|                    | Full                          | Minimum |                    | Full                                |                    | Full                          |                    | Full                          |
| 2.3 m<br>and below | 3,030                         | 1,380   | 2.7 m<br>and below | 2,330                               | 4.0 m<br>and below | 1,030                         | 4.5 m<br>and below | 760                           |
| 2.5 m              | 2,830                         | 1,230   | 3.0 m              | 2,130                               | 5.0 m              | 880                           | 5.0 m              | 700                           |
| 3.0 m              | 2,430                         | 880     | 3.5 m              | 1,830                               | 6.0 m              | 730                           | 6.0 m              | 580                           |
| 3.5 m              | 2,030                         | 680     | 4.0 m              | 1,630                               | 7.0 m              | 630                           | 7.0 m              | 500                           |
| 4.0 m              | 1,730                         | 530     | 4.5 m              | 1,480                               | 8.0 m              | 580                           | 8.0 m              | 430                           |
| 4.5 m              | 1,480                         | 430     | 5.0 m              | 1,330                               | 9.0 m              | 510                           | 9.0 m              | 380                           |
| 5.0 m              | 1,330                         | 330     | 5.5 m              | 1,150                               | 9.92m              | 480                           | 10.0m              | 330                           |
| 5.55m              | 1,150                         | 280     | 6.0 m              | 1,050                               |                    |                               | 11.0m              | 300                           |
|                    |                               |         | 6.5 m              | 950                                 |                    |                               | 12.1m              | 280                           |
|                    |                               |         | 7.0 m              | 850                                 |                    |                               |                    |                               |

7.75m

NOTES: 1. The mass of hook block (30kg), slings and all similarly used load handling devices must be added to the mass of the load.

2. The above numerical values of total rated loads are based on crane strength only. The total rated loads based on stability may lower than those in the above table depending on the loading conditions and the types of the chassis.

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## **Empty Chassis Rated Capacities**

#### Table A

|                    | 3.52 m / 5.75 m Boom          |         |                    | 7.95 m<br>Boom                      |                    | 10.1 m<br>Boom                      |                    | 12.3 m<br>Boom                      |
|--------------------|-------------------------------|---------|--------------------|-------------------------------------|--------------------|-------------------------------------|--------------------|-------------------------------------|
| Load<br>Radius     | Extension width of outriggers |         | Load<br>Radius     | Extension<br>width of<br>outriggers | Load<br>Radius     | Extension<br>width of<br>outriggers | Load<br>Radius     | Extension<br>width of<br>outriggers |
|                    | Full                          | Minimum |                    | Full                                |                    | Full                                |                    | Full                                |
| 2.3 m<br>and below | 3,030                         | 1,280   | 2.7 m<br>and below | 2,230                               | 4.0 m<br>and below | 1,030                               | 4.5 m<br>and below | 760                                 |
| 2.5 m              | 2,780                         | 1,180   | 3.0 m              | 2,030                               | 5.0 m              | 830                                 | 5.0 m              | 630                                 |
| 3.0 m              | 2,280                         | 780     | 3.5 m              | 1,680                               | 6.0 m              | 730                                 | 6.0 m              | 480                                 |
| 3.5 m              | 1,880                         | 630     | 4.0 m              | 1,380                               | 7.0 m              | 550                                 | 7.0 m              | 400                                 |
| 4.0 m              | 1,430                         | 480     | 4.5 m              | 1,180                               | 8.0 m              | 450                                 | 8.0 m              | 350                                 |
| 4.5 m              | 1,180                         | 380     | 5.0 m              | 980                                 | 9.0 m              | 380                                 | 9.0 m              | 310                                 |
| 5.0 m              | 980                           | 330     | 5.5 m              | 830                                 | 9.92m              | 330                                 | 10.0m              | 280                                 |
| 5.55m              | 850                           | 280     | 6.0 m              | 730                                 |                    |                                     | 11.0m              | 250                                 |
|                    |                               |         | 6.5 m              | 630                                 |                    |                                     | 12.1m              | 230                                 |
|                    |                               |         | 7.0 m              | 550                                 |                    |                                     |                    |                                     |
|                    |                               |         | 7.75m              | 480                                 |                    |                                     |                    |                                     |

#### Table C

|                    | 3.52 m / 5.75 m Boom          |         |                    | 7.95 m<br>Boom                      |                    | 10.1 m<br>Boom                |                    | 12.3 m<br>Boom                      |
|--------------------|-------------------------------|---------|--------------------|-------------------------------------|--------------------|-------------------------------|--------------------|-------------------------------------|
| Load<br>Radius     | Extension width of outriggers |         | Load<br>Radius     | Extension<br>width of<br>outriggers | Load<br>Radius     | Extension width of outriggers | Load<br>Radius     | Extension<br>width of<br>outriggers |
|                    | Full                          | Minimum |                    | Full                                |                    | Full                          |                    | Full                                |
| 2.3 m<br>and below | 3,030                         | 1,380   | 2.7 m<br>and below | 2,230                               | 4.0 m<br>and below | 1,030                         | 4.5 m<br>and below | 760                                 |
| 2.5 m              | 2,780                         | 1,230   | 3.0 m              | 2,030                               | 5.0 m              | 830                           | 5.0 m              | 630                                 |
| 3.0 m              | 2,280                         | 880     | 3.5 m              | 1,680                               | 6.0 m              | 730                           | 6.0 m              | 480                                 |
| 3.5 m              | 1,930                         | 680     | 4.0 m              | 1,380                               | 7.0 m              | 630                           | 7.0 m              | 400                                 |
| 4.0 m              | 1,630                         | 530     | 4.5 m              | 1,180                               | 8.0 m              | 500                           | 8.0 m              | 350                                 |
| 4.5 m              | 1,330                         | 430     | 5.0 m              | 1,050                               | 9.0 m              | 430                           | 9.0 m              | 310                                 |
| 5.0 m              | 1,080                         | 330     | 5.5 m              | 930                                 | 9.92m              | 380                           | 10.0m              | 280                                 |
| 5.55m              | 930                           | 280     | 6.0 m              | 800                                 |                    |                               | 11.0m              | 250                                 |
|                    |                               |         | 6.5 m              | 700                                 |                    |                               | 12.1m              | 250                                 |
|                    |                               |         | 7.0 m              | 630                                 |                    |                               |                    |                                     |

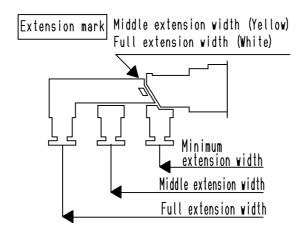
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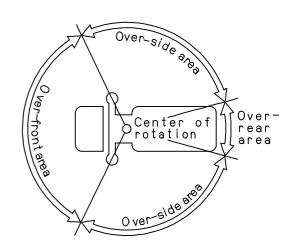
7.75m

Table D

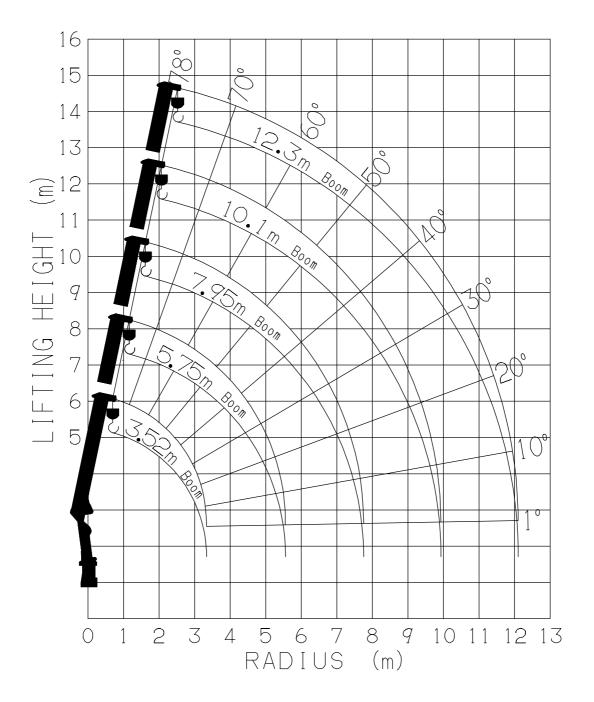
| Load<br>Radius     | 3.52 m / 5.75 m Boom          |         | Load<br>Radius     | 7.95 m<br>Boom                | Load<br>Radius     | 10.1 m<br>Boom                | Load<br>Radius     | 12.3 m<br>Boom                |
|--------------------|-------------------------------|---------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|
|                    | Extension width of outriggers |         |                    | Extension width of outriggers |                    | Extension width of outriggers |                    | Extension width of outriggers |
|                    | Full                          | Minimum |                    | Full                          |                    | Full                          |                    | Full                          |
| 2.3 m<br>and below | 3,030                         | 1,380   | 2.7 m<br>and below | 2,330                         | 4.0 m<br>and below | 1,030                         | 4.5 m<br>and below | 760                           |
| 2.5 m              | 2,830                         | 1,230   | 3.0 m              | 2,130                         | 5.0 m              | 880                           | 5.0 m              | 700                           |
| 3.0 m              | 2,430                         | 880     | 3.5 m              | 1,830                         | 6.0 m              | 730                           | 6.0 m              | 580                           |
| 3.5 m              | 2,030                         | 680     | 4.0 m              | 1,630                         | 7.0 m              | 630                           | 7.0 m              | 500                           |
| 4.0 m              | 1,730                         | 530     | 4.5 m              | 1,480                         | 8.0 m              | 580                           | 8.0 m              | 430                           |
| 4.5 m              | 1,480                         | 430     | 5.0 m              | 1,330                         | 9.0 m              | 510                           | 9.0 m              | 380                           |
| 5.0 m              | 1,330                         | 330     | 5.5 m              | 1,150                         | 9.92m              | 480                           | 10.0m              | 330                           |
| 5.55m              | 1,150                         | 280     | 6.0 m              | 1,050                         |                    |                               | 11.0m              | 300                           |
|                    |                               |         | 6.5 m              | 950                           |                    |                               | 12.1m              | 280                           |
|                    |                               |         | 7.0 m              | 850                           |                    |                               |                    |                               |
|                    |                               |         | 7.75m              | 730                           |                    |                               |                    |                               |

- NOTES: 1. Empty Chassis Rated Capacities in these tables depend on condition that crane is set level on firm level ground.
  - 2. The mass of hook block (30 kg), slings and all similarly used load handling devices must be added to the mass of load.
  - 3. For boom lengths not shown, use the rated lifting capacity of next longer boom.
  - 4. When outriggers are extended to middle extension width, use the rated lifting capacities for outriggers are extended to minimum extension width.
  - 5. For boom lengths longer than 5.75m, extend outriggers to full extension width.
  - 6. When the boom length is 10.1 m, a half of the  $\Box$  mark on lateral face of the 4th boom section is exposed out of the 3rd boom section.
  - 7. Empty Chassis Rated Capacities table A ,C and D depend on the types of chassis.
  - 8. Empty Chassis Rated Capacities are shown for over-side areas and over-rear area. These capacities for over-front area may lowered depending on the types of chassis.



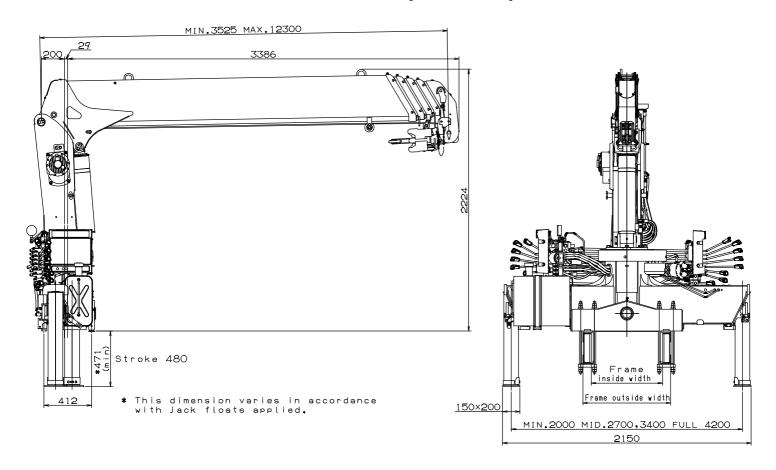


## **WORKING RANGE**



NOTE: The above lifting heights and boom angles are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden conditions.

# DIMENSIONS [TM-ZE365MH]



# GENERAL DATA FOR SUITABLE TRUCKS

| Gross vehicle mass (including crane mass) | - 8,000 to 15,000 kg                         |
|---|--|
| P.T.O. torque                             | 190 N-m{19.4 kgf-m} min.                     |
| P.T.O. revolution                         | Approx. 300 to 1,900 min <sup>-1</sup> {rpm} |
| Width for crane mounting                  | Approx. 640 mm min.                          |
| Frame                                     | Weight distribution and frame strength       |
|   | should be calculated for each truck          |
| Frame width range (inside to outside)     | Approx. 610 to 860 mm                        |
| Frame height (ground to frame top)        | Approx. 1,070 mm max.                        |
|   | (Height of crane mounting base can be        |
|   | changed by combination of jack floats and    |
|   | crane bases)                                 |