

Operation and Maintenance Manual

Cargo Crane

Model **TM-1000-1 series**

Applicable Serial No. 655661 ~

⚠ CAUTION: Read this manual before operating the crane. Save this manual for future reference.

TADANO LTD.

Rules for Operation (Power Lines, Radio Waves)

⚠ Prevent Electric Shock Accidents

Approaching too closely to power lines may result in electric shock accidents, depending on the voltage. If it is absolutely necessary to operate the crane near power lines or distribution lines, take the following actions to prevent accidents:

- Meet with the power company concerned to take necessary safety measures.
- Make sure that the rigging personnel and other concerned personnel wear insulated shoes made of rubber or leather.
- Keep the crane and load away from power lines, at least at the required stand-off distance.
- Post a full-time signal person to make sure that the crane or load does not approach power lines, and to keep unauthorized people off the work site.
- The operator must pay attention not to touch the truck, crane or load. If it is necessary to control the load position, attach dry guide rope made of fiber to the load to prevent the load from rotating or swaying.
- Do not place a load beneath or near power lines.
- Operate the crane slowly with the utmost care and attention.

(Reference value)

Voltage	Required stand-off distance(ft)
to 50kV	10 (3m)
over 50kV to 200kV	15 (4.6m)
over 200kV to 250kV	25 (7.6m)
over 250kV to 750kV	35 (10.7m)
over 750kV to 1,000kV	45 (13.7m)

must change to 20'
per new OSHA
regulations

12. Warning/Owner registration



314-933-70311-0

13. Warning/Outrigger beam lock pin



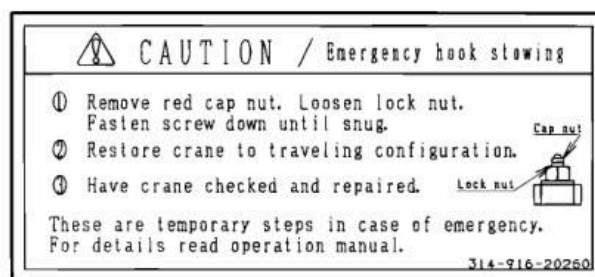
314-916-20300-0

14. Warning/Hand



314-916-20240-0

15. Caution/Emergency hook stowing



314-916-20260-0

16. Caution/Do not fail to cap



313-945-80620-0

Referring to the rated lifting capacity table, read the rated lifting capacity corresponding to the boom length and load radius (boom angle) of your crane.

The following description shows how to read the rated lifting capacity table for the TM-1052.

◆ The figure below shows an example of the rated lifting capacity table. The maximum lifting capacity varies with specifications. For actual jobs, see the rated lifting capacity table affixed on the crane.

(1) Select the rated lifting capacity table corresponding to the boom length of your crane.

◆ The rated lifting capacity tables show the performance of a leveled crane with the outriggers extended. The rated lifting capacity includes the weight of the rigging device and the hook block.

◆ The values in the shaded sections of the tables are based on the crane strength.

◆ If the boom length of your crane exceeds the length listed in this table even a little, select the table corresponding to the next longer boom.

(2) Read the rated lifting capacity corresponding to the actual load radius.

◆ When the outrigger is extended to the middle width, read the capacities rated for the minimum extension width.

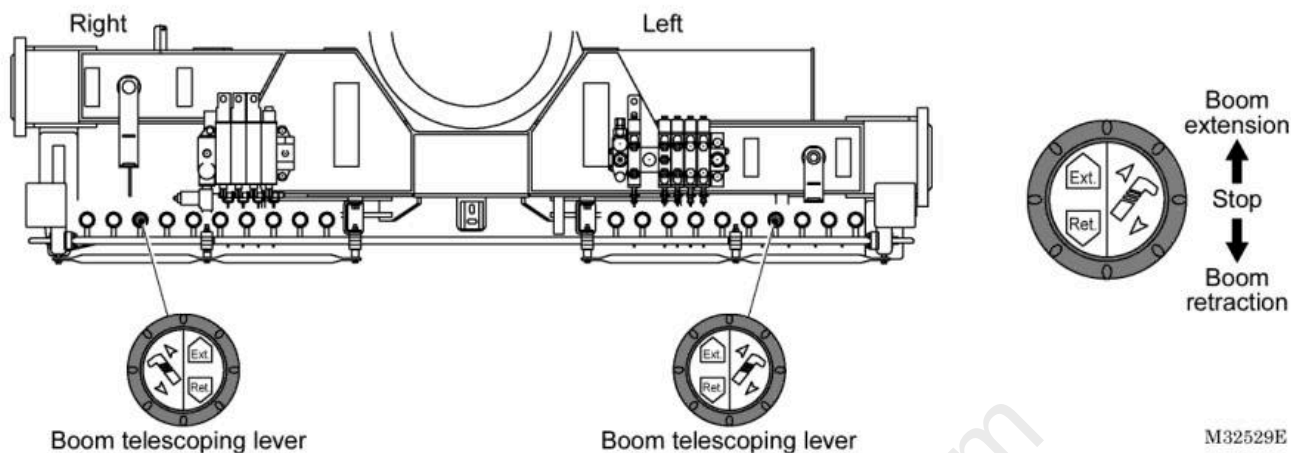
E		TM-1052														RATED LIFTING CAPACITIES (lbs.)									
		14.4ft. BOOM				23.9ft. BOOM				33.3ft. BOOM				42.8ft. BOOM				52.2ft. BOOM							
Load Radius (ft.)	Loaded Boom Angle	Outriggers Extended		Loaded Boom Angle	Outriggers Extended		Loaded Boom Angle	Outriggers Extended		Loaded Boom Angle	Outriggers Extended		Loaded Boom Angle	Outriggers Extended											
		Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.													
		Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.													
5	72	16000	8800	80	13200	8800																			
6	68	16000	8800	78	13200	8800	82	6600	6350																
8	58	13000	7850	73	13000	7850	79	6600	6350	82	6600														
10	47	10550	5700	68	10550	5700	75	6600	5700	80	6600	82	5700												
12	33	8900	4250	62	8900	4200	72	6600	4200	77	6600	80	5700												
16				50	6600	2550	64	6150	2550	72	5900	76	5700												
20				34	4750	1700	56	4750	1700	65	4300	71	4300												
25							44	3400	1100	57	3300	65	3250												
30							27	2450	600	48	2450	58	2450												
35										38	2050	51	2050												
40										22	1550	43	1550												
45												33	1300												
	1	7800	3500	1	3850	1250	1	2200	500	1	1450	1	950												
		(13.6ft.)			(23.1ft.)			(32.5ft.)			(42.0ft.)			(51.4ft.)											

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◆ To ensure safe operation, use the AMA and the angle meter together, as described later.

2-9 Telescoping the Boom

(1) Controls



(2) Extending/Retracting the Boom

⚠ WARNING

- ⚠ Lifting a load from the ground by telescoping the boom may cause the crane to overturn or to be damaged. Lift a load clear of the ground by hoisting up.
- ⚠ When the boom is extended, the load radius increases. Assure safety by checking the rated lifting capacity table and the AMA before extending the boom.
- ⚠ Do not push or pull the load by telescoping the boom. This practice can damage the crane and lead to an accident.

To extend or retract the boom, operate the boom telescoping lever.

(1) Extending the boom:

Move the boom telescoping lever to "Ext."

(2) Retracting the boom:

Move the boom telescoping lever to "Ret."

(3) Stop:

Return the boom telescoping lever to the neutral position.

◆ Even if the winch lever is not operated, the load is lowered by a boom retracting operation, and lifted by a boom extending operation. Always pay attention to the load position.

3-4 Gear Oil

CAUTION

 The speed reducers are very hot immediately after operation. Let the speed reducers cool down until they can be touched with your bare hand before performing maintenance work on them.

[NOTICE]

◆ Mixing different brands of gear oil together can change the properties of the gear oil and have an adverse effect on the machine.

When you add gear oil, be sure to use the same brand that is in the machine. If a different brand of oil must be used, remove all the remaining gear oil before adding the new one.

◆ Before removing the plugs, clean their surroundings to prevent dust from entering.

◆ Before attaching the plugs, clean them up as well as the plug thread hole. Apply seal tape over the plug.

(1) Maintenance Table

No.	Component and required operation		Number of points/Quantity	Check interval					
				1 week	100 hrs	300 hrs	600 hrs	1200 hrs	
					1 month	3 months	6 months	1 year	
1	Winch speed reducer	Check oil level	1 point				●		
		Replace oil	0.6 gal {2.3 L}			◎		●	
2	Swing speed reducer	Check oil level	1 point				●		
		Replace oil	0.3 gal {1.1 L}			◎		●	

◎: First replacement only

Greases

Component	Greases used in new cranes at shipment			Other	
	Manufacturer	Brand	Type	Manufacturer	Brand
Boom	TADANO Genuine	TNR	_____	_____	_____
Wire rope	Mobil	Mobilarma 798	_____	_____	_____
Other	Idemitsu	Daphne Eponex Grease SR No.2		Japan Energy	JOMO Lesonix Grease EP-2
				Nippon Oil	Epinoc Grease AP2
				Shell	Alvania EP Grease 2
				Esso	Lithtan EP2
				Mobil	Mobilux EP2

Full Version Available

Tadano TM-1000-1 Cargo Crane Operator Manual

Tadano TM-1000-1 cargo crane operator manual, 9 PDF files in English and Spanish covering safe operation, setup, daily checks and care.

VIEW THE FULL MANUAL

<https://machinecatalogic.com/tadano-tm-1000-1-cargo-crane-operator-manual/>

Book No: TM-1000-1-O1(U)-3E · File Pages: 525 · File Count: 9 · File Language: English, Spanish