CANRIG
DRILLING TECHNOLOGY LTD.

PRODUCT BULLETIN
WRENCH NUMBER: WRENCH 014

PRODUCT: Torq-Matic Wrench **DATE:** 05/18/12

SUBJECT: **Wrench Lifting Procedure**

SERIAL NUMBERS: **All TM Wrenches with Pedestal Mount Arm Delivery Systems**

DISCUSSION: This document lists the sequential steps and instructions required for setting up the wrench in the shipping configuration and lifting the wrench. This bulletin is intended for use as a transport and shipping document only. Detailed instructions for rigging up and rigging down the wrench are included in the Installation section of the Instruction and Operations Manual. Any individuals performing this task must comply with all local codes and safety regulations.

RECOMMENDATION: Follow the procedures below to prepare and lift the wrench in a manner which will prevent injuries to personnel and damage to the wrench.

Note: Total WLL (Working Load Limit) = 10,000 lbs for TM-80 & TM-120

1. Perform a Job Safety Analysis.
2. At a minimum, visually inspect the equipment for the following prior to beginning any lifting operation.
    a. Ensure the wrench is in the stationary and upright position, with the torque assembly fully retracted.
    b. Verify bolt hole alignment in base (Figure 1). Rotate wrench to correct alignment prior to disconnecting hydraulic and electric power.
    c. Ensure the wrench has been thoroughly cleaned.
    d. Ensure all electrical and hydraulic power lines are disconnected and that connectors have been are plugged or capped.
    e. Look for signs of wear or damage that may constitute a hazard during lifting (use the JSA to determine corrective action).
    f. Replace missing fasteners and spot check installed fasteners for tightness.
    g. Look for signs of leaks and make the necessary corrections to prevent further leakage.
3. Follow steps 4 through 16 if the wrench is not configured for transport. If the wrench is already in the transport configuration (Figure 2), proceed to step 17.
4. Inventory the transport items and make up any shortages (Figures 4). Transport items include:
    a. Shipping Pins (DT50531 x 2).
    b. Linch Pins (M24-5003-010 x 2).
    c. Lifting Sling Set.

Wrench Model	Lifting Sling Set
TM-80, 110”	AY50680
TM-80 , 125”	AY50681
TM-120, 110”	AY50735
TM-120, 125”	AY50735

Lifting sling set includes: shackles (x4), hammer locks (x8), wire sling (x2 long, x2 short), chain link (x1), safety pins (x4), wire rope (x4 ft) & ferrules (x8) (Figure 3).

d. Shipping Skid.

Wrench Model	Shipping Skid
TM-80, 110”	112300010
TM-80 , 125”	112300009
TM-120, 110”	112300003
TM-120, 125”	112300003

e. 2” x 15’ Double J-Hook Ratchet Strap (M11179 x 1).
f. 1-8UNC x 2.75” Hex Head Capscrew (HH-0500NC-0200-GR8 x 1).
g. 1-8UNC Hex Nut (HN-0500NC-GR8 x 1)
h. Wooden blocks (as required).

IMPORTANT: Observe the inspection and rejection criteria for rigging hardware as per ASME B30.26 and ASME B30.9

5. Insert the shipping pins on both sides of the wrench through the shipping pin holes in the main boom and jib boom (Figures 5 & 6).
6. Secure the shipping pin with the linch pins.
7. Match the appropriate sling length to the correct location (shorter slings to rear on main boom and longer slings to front on jib boom).
8. Install the four shackles through the lift holes identified by the lift point labels (Figure 5).
9. If the lifting sling set is pre-assembled, skip steps 10, 12, and 13.
10. Loop one end of the wire rope around the shackle prior to inserting the screw pin. Loop the other end of the wire rope around the coiled loop of the safety pin.
11. Install the safety pin through the hole in the screw pin (Figure 7).
12. Connect the shackles to the hammer locks attached to the sling.
13. Connect the hammer locks at the top ends of the two short slings to a common chain link. Connect the hammer locks at the top ends of two long slings to a common chain link. Connect the common chain links to the main chain link (Figure 3).
14. Using a crane or equivalent lifting apparatus rated for 10,000 lb minimum load, attach the main hook of the crane to the main chain link of the wrench sling set and hoist the wrench.
15. Orient the wrench with the shipping skid and carefully lower the wrench onto the skid.
16. Fasten the base of the wrench to the shipping skid with the caps crew and nut (Figure 8). Torque to 250 ft-lbs.
17. Insert the J-Hook of one end of the ratchet strap through the hole in the skid indicated in Figure 9. Loop the ratchet strap over the upper tong, travelling jeep frame, and opposite side of the upper tong (Figure 2). Insert the opposite end J-Hook into the opposite end skid hole and ratchet down the ratchet strap.
18. Brace the jeep assembly area with wooden blocks to prevent movement during shipping.
19. Using a crane or equivalent lifting apparatus rated for 10,000 lb minimum load, attach the main hook of the crane to the main chain link of the wrench sling set and hoist the wrench.
20. Carefully lower the wrench onto the shipping platform in the upright position.
21. Shipping company will secure wrench shipping skid to shipping platform.

IMPORTANT: Transport components should be stored in a secure location for future use after each installation.

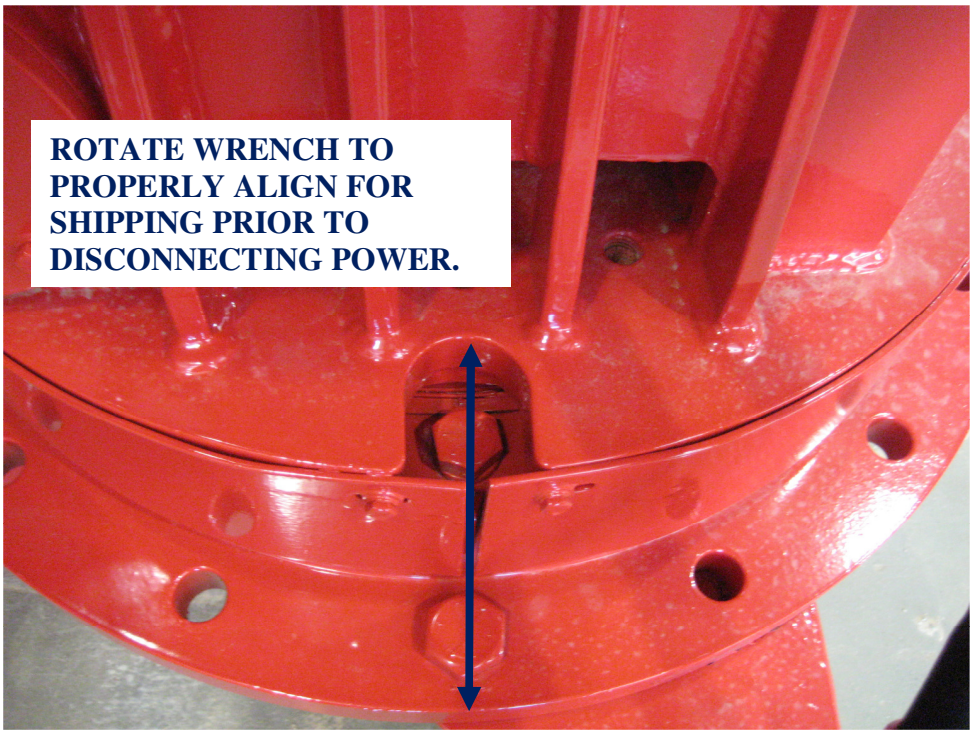

Figure 1

Figure 2

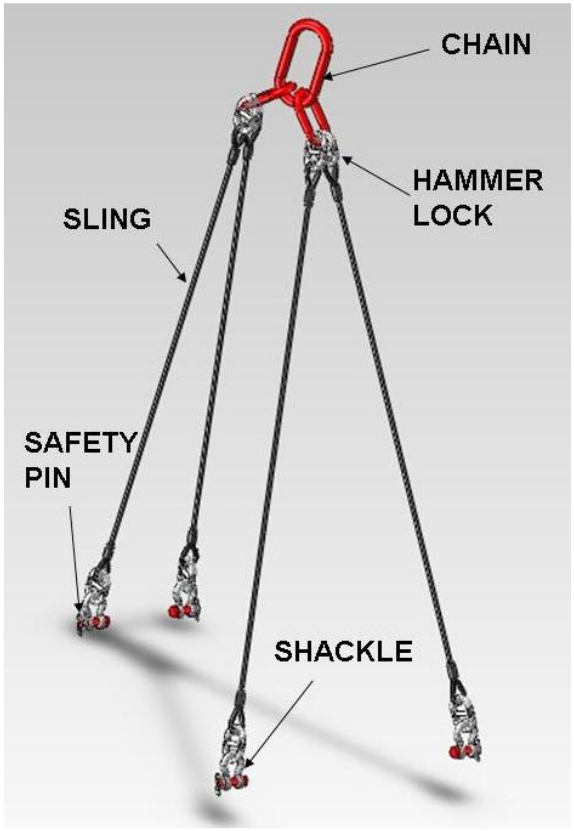

Figure 3

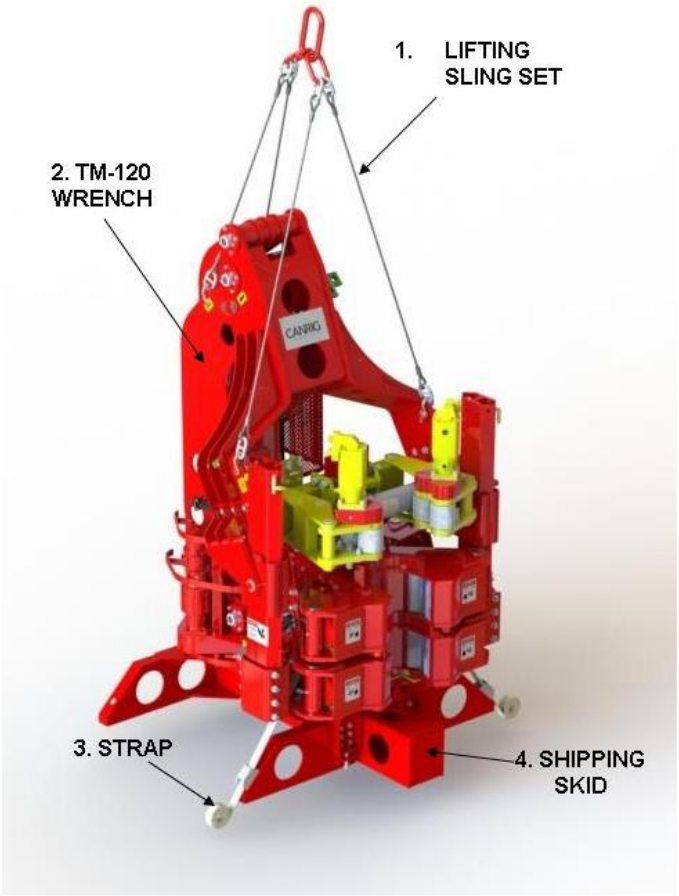

Figure 4

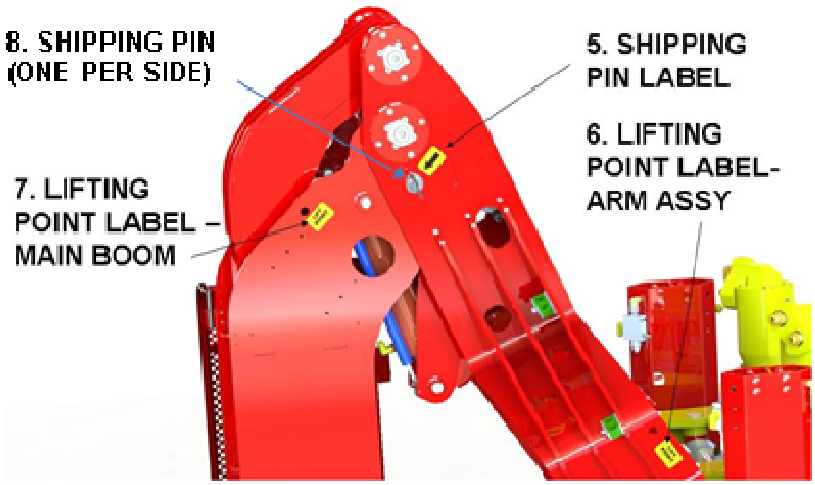

Figure 5

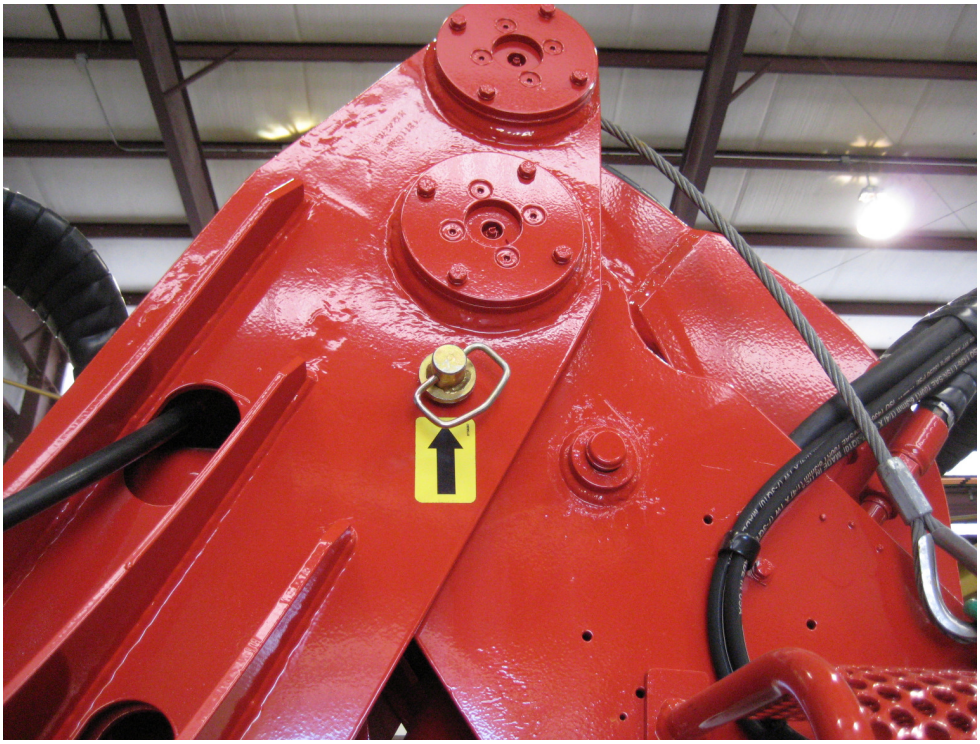

Figure 6

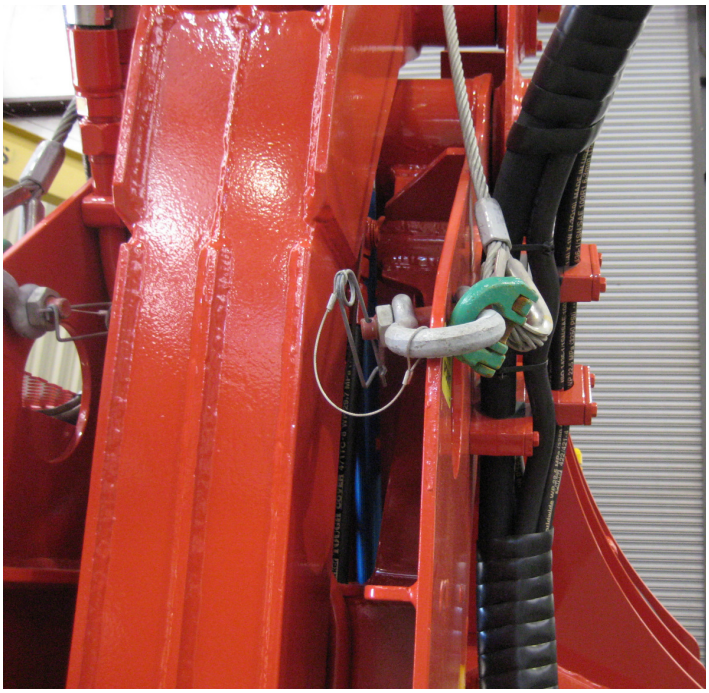

Figure 7

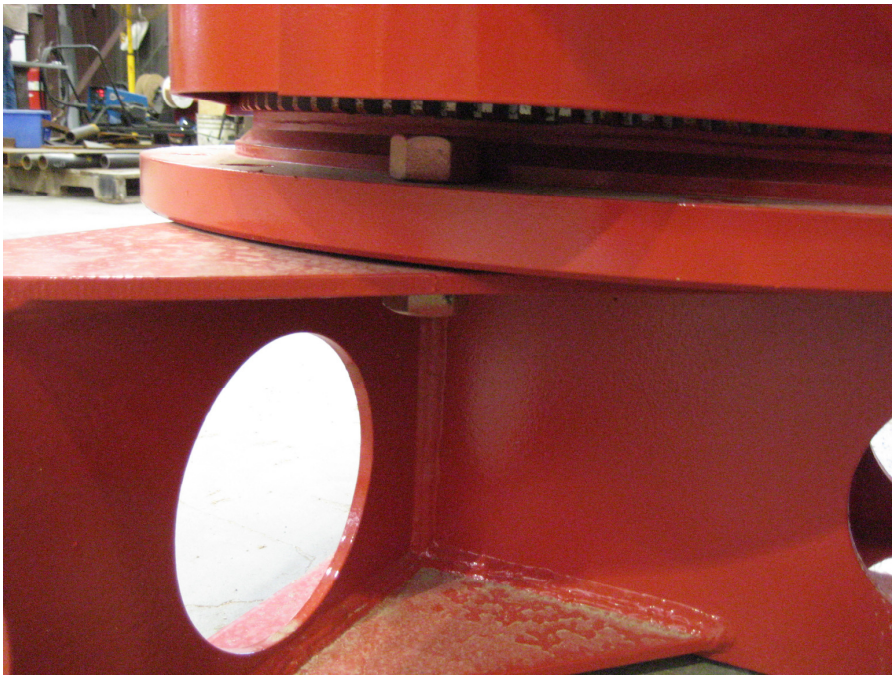

Figure 8

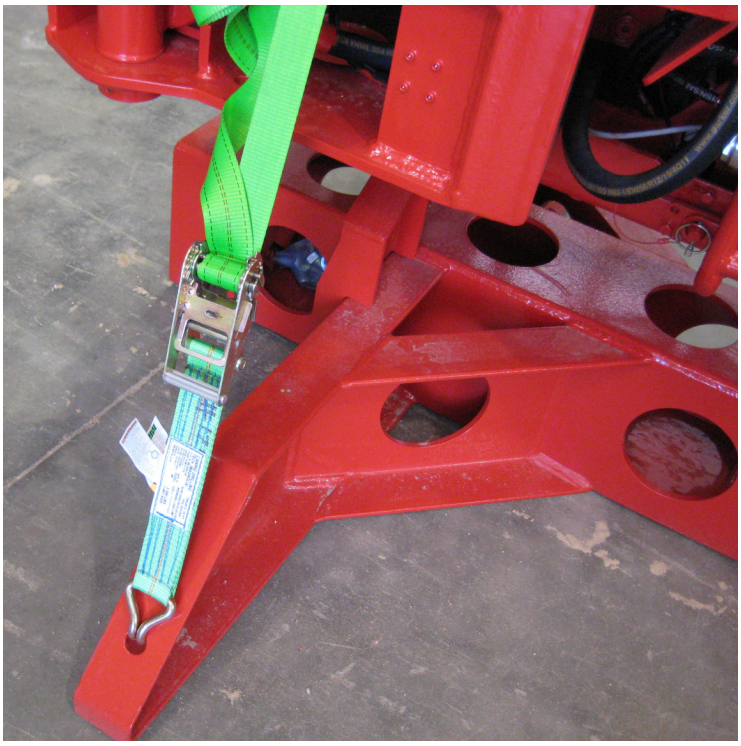

Figure 9

INFORMATION: *For a complete list of all bulletins go to* ***www.canrig.com***

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