

# Torque Indicator INSTRUCTIONS

**NOTES:** PARTS INCLUDED BUT NOT SHOWN:  
P001-0429, MACH. BOLT HEX. HD. 1/2-13UNC-2A X 1-1/2" LONG.  
CAD. PLT. STL. GRADE 5. 12 REQUIRED (6 FOR ATTACHING KELLY  
BAR ADAPTER & 6 FOR ATTACHING ANCHOR TOOLS).

## GENERAL INSTRUCTIONS

1. USE ONLY A.B. CHANCE SHEAR PINS, CAT. NO. C303-0045.
2. UNIT HAS HOLES FOR 20 SHEAR PINS. INITIALLY 10 UNPLUGGED HOLES SPACED SYMETRICALLY ABOUT THE HUB OF THE TORQUE INDICATOR ALLOW USE OF UP TO 10 SHEAR PINS (5000 FT. LBS.). WHEN GREATER TORQUE IS REQUIRED, REMOVE ADDITIONAL PLUGS SYMETRICALLY. DO NOT EXCEED 20 SHEAR PINS (10,000 FT. LBS.).

## OPERATING INSTRUCTIONS

1. INSTALL THE TORQUE INDICATOR BETWEEN THE APPROPRIATE FLANGED, CHANCE KELLY BAR ADAPTER AND THE CHANCE LOCKING DOG ASSEMBLY OR ANCHOR DRIVING TOOL.
2. INSTALL INDICATOR SO THAT THE PLATE WITH BUILT-IN NUT ASSEMBLY WILL BE TOWARD KELLY BAR. CHECK ALL OUTPUT STRING BOLTS PERIODICALLY TO ENSURE THEY REMAIN TIGHT. LOOSE BOLTS MAY FAIL AT OR BELOW THE ANCHOR'S TORQUE RATING OR CONTRIBUTE TO DAMAGE ELSEWHERE IN THE OUTPUT STRING. CHECK ALL PARTS PERIODICALLY FOR WEAR OR DAMAGE AND REPLACE WITH ORIGINAL EQUIPMENT AS NECESSARY.

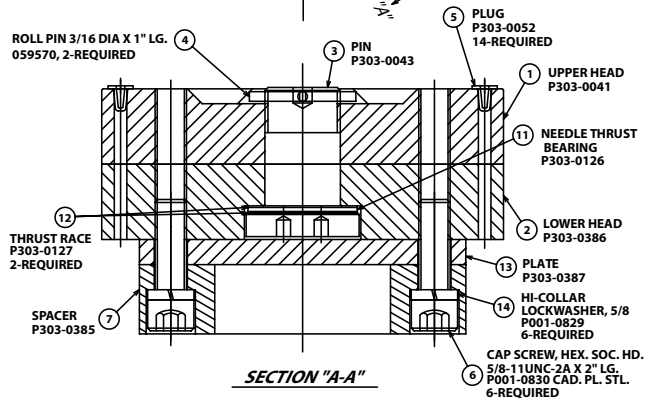
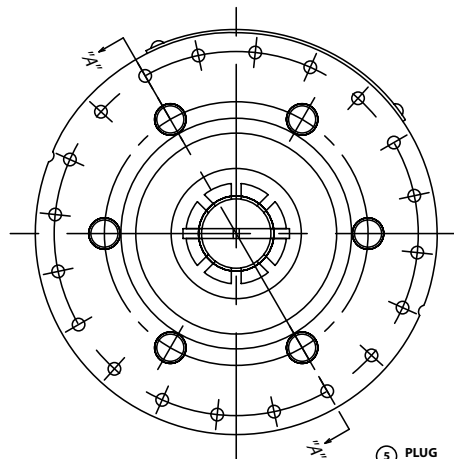
## WARNING

FAILURE TO MONITOR THE CONDITION OF ALL PARTS AND TAKE CORRECTIVE ACTION AS NECESSARY MAY LEAD TO FAILURE DURING USE RESULTING IN PERSONAL INJURY OR PROPERTY DAMAGE.

3. CHECK FREEDOM OF UNIT BY ROTATING BOTTOM PLATE WITH RESPECT TO TOP PLATE.
4. THE EDGE OF EACH PLATE HAS INDENTED MARKS ACCENTED WITH PAINTED LINES. ROTATE PLATE TO BRING THESE INDEX MARKS INTO ALIGNMENT WITH EACH OTHER. ALIGN RED INDEX MARK WITH RED AND ALIGN YELLOW INDEX MARK WITH YELLOW. THESE MARKS MUST BE ALIGNED BEFORE EACH LOADING FOR PROPER OPERATION.
5. DETERMINE THE MINIMUM TORQUE VALUE NEEDED FOR THE ANCHOR INSTALLATION.
6. LOAD THE UNIT WITH THE CORRECT NUMBER OF PINS FOR THE TORQUE VALUE WANTED. PLACE APPROXIMATELY EQUAL NUMBER OF PINS IN OPPOSING SECTORS OF TORQUE INDICATOR.
7. INSTALL ANCHOR UNTIL PINS SHEAR. RELOAD UNIT WITH THE ORIGINAL NUMBER OF PINS PLUS TWO (NOT TO EXCEED MAXIMUM TORQUE RECOMMENDATION FOR ANCHOR) AND DRIVE ANCHOR AT LEAST 2 ADDITIONAL FEET INTO SOIL. ALSO DRIVE THE ANCHOR SO THAT THE END IS APPROXIMATELY THE CORRECT DISTANCE OUT OF THE GROUND.
8. RELOAD THE UNIT WITH ORIGINAL NUMBER OF PINS. IF ANCHOR IS STILL IN THE SAME TYPE OF SOIL OR BETTER, THE PINS WILL SHEAR AND ANCHOR IS INSTALLED TO THE MINIMUM TORQUE VALUE REQUIRED.
9. IF PINS DO NOT SHEAR, ADD EXTENSION TO ANCHOR AND CONTINUE DRIVING.

NOTE: Hubbell has a policy of continuous product improvement. We reserve the right to change design and specifications without notice.

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## MAINTENANCE INSTRUCTIONS

1. AT REGULAR INTERVALS THE UNIT SHOULD BE COMPLETELY DISASSEMBLED AND THE SHEAR HOLES CHECKED FOR WEAR. DISASSEMBLY IS ACCOMPLISHED BY THE FOLLOWING STEPS:
  - A) REMOVE KELLY BAR ADAPTER AND ANCHOR DRIVING TOOL.
  - B) REMOVE SPACER (7) AND PLATE (13) BY UNSCREWING CAP SCREWS (6)
  - C) ALIGN ROLL PIN (4) WITH ROLL PIN SLOT IN UPPER HEAD AND REMOVE ROLL PIN.
  - D) ROTATE PIN (3) COUNTERCLOCKWISE WITH AN APPROPRIATE TOOL (SPANNER WRENCH OR EQUIVALENT) UNTIL IT DISENGAGES FROM UPPER HEAD (1)
  - E) IT SHOULD NOW BE POSSIBLE TO SEPARATE UPPER HEAD (1) FROM LOWER HEAD (2) AND TO REMOVE PIN (3), NEEDLE THRUST BEARING (11) AND THRUST RACES (12) FROM LOWER HEAD (2).
2. THOROUGHLY CLEAN ALL SURFACES AND CAREFULLY EXAMINE THE SHEAR HOLES IN UPPER HEAD (1) AND LOWER HEAD (2) FOR DULLNESS. WHEN DULLING OF THE HOLES HAS OCCURRED PLUG WORN HOLES AND USE PREVIOUSLY UNUSED HOLES. WHEN ALL HOLES HAVE BECOME DULL THE MATING SURFACES OF THE UPPER AND LOWER HEADS CAN BE GROUND TO RESHARPEN.
3. BEFORE REASSEMBLY APPLY A LIGHT COAT OF GREASE TO ALL INTERNAL MATING SURFACES ON THE UPPER AND LOWER HEADS AND PIN. REINSTALL ITEMS (3), (11) & (12) IN THE UPPER AND LOWER HEAD AND TURN PIN CLOCKWISE UNTIL HEADS ARE IN FIRM CONTACT. TURN THE PIN COUNTERCLOCKWISE TO THE CLOSEST ROLL PIN SLOT AND REINSTALL ROLL PIN (4). UPPER AND LOWER HEADS MUST ROTATE FREELY BY HAND. REINSTALL PLATE (13) AND SPACER (7) ON THE LOWER HEAD (2) WITH CAP SCREWS (6). ATTACH KELLY BAR ADAPTER AND ANCHOR DRIVING TOOL.



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