

CHANCE® MECHANICAL DIAL TORQUE INDICATOR

C303-1340

OPERATING INSTRUCTIONS

The CHANCE® Dial Torque Indicator is designed for use in installation of CHANCE screw anchors in homogeneous (obstruction-free) soils. These instructions are intended to illustrate the proper use of the C303-1340 torque indicator. Anchor installation tools covered in these instructions should be used by competent personnel familiar with and following good work and safety practices. These instructions are not intended as a substitute for adequate training and experience in safe procedures for this type of equipment.

INSTALLATION

The torque indicator is installed between a CHANCE Kelly bar adapter and anchor drive tool or locking dog adapter, using the bolts and lockwashers provided with the torque indicator. Be sure to use the appropriate adapters and bolts for the maximum installation torque to be transmitted. All CHANCE screw anchor installation tools are torque rated; mounting bolts and bolt tightening torques for anchor installation torque ranges are shown below:

Max Torque (Ft.-Lbs.)	Bolt Circle Dia. (in.)	Bolts with lockwashers			
		Total Required	Size (in.)	SAE J429 Grade	T. Torque (lb-ft)
0 to 10,000	5 ¹ / ₄ " or 7 ⁵ / ₈ "	12	1 ¹ / ₂ "	5	75
10,000 to 20,000	Only 7 ⁵ / ₈ "	24	5 ⁷ / ₈ "	2	95

⚠ WARNING

Loose parts may be thrown at high speed.
Can cause property damage, serious injury or death.
Use installation tooling and mounting bolts with strength ratings higher than anchor installing torque.

Attach Kelly bar adapter to top and anchor drive tool or locking dog assembly to bottom of torque indicator as described above. Align the Kelly bar adapter with the Kelly bar so that the cross pin holes will match up and slide the Kelly bar adapter onto the Kelly bar. Secure in place with the bent arm pin and coil lock provided with the Kelly bar adapter.

⚠ WARNING

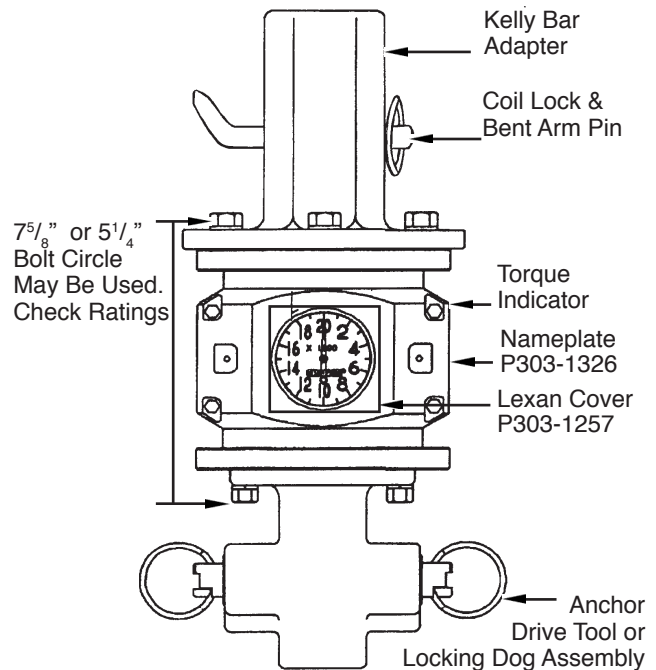
Loose parts may be thrown at high speed.
Can cause property damage, serious injury or death.
Use only the proper size CHANCE® bent arm pins and coil locks for cross-pin attachment of Kelly bar adapters to Kelly bars and anchors to drive tools.

These instructions do not claim to cover all details or variations in equipment, nor to provide for all possible conditions to be met with concerning installation, operation, or maintenance of this equipment. If further information is desired or if particular problems are encountered which are not sufficiently covered in this guide, contact A.B. Chance Company.

NOTE: Because Chance has a policy of continuous product improvement, it reserves the right to change design and specifications without notice.

USE

Follow standard installation procedures for the appropriate CHANCE screw anchor. Monitor torque indications during the whole installation to ensure anchor and tooling torque ratings are not exceeded. Readings may be taken "on the fly" or, if vibration causes too much needle fluctuation, rotation speed may be reduced to almost zero whenever readings are taken. To predict anchor capacity, use the average torque developed during the final stage of installation over a distance equal to three times the diameter of the largest helix on the anchor. Remain at a safe distance from the drive train whenever torque is being transmitted, even when taking readings.



⚠ WARNING

Loose parts may be thrown at high speed.
Can cause property damage, serious injury or death.
Stay away from drive train.



Relieve all loads (axial, torsional, and bending) on the drive train and check zero setting and bolt tightness after each anchor installation. To set zero, unscrew red plug (replacement part #P303-1328) in outer housing and turn internal adjustment screw clockwise to reduce reading or counterclockwise to increase reading. Replace plug.

⚠ WARNING

Loose parts may be thrown at high speed.
Can cause property damage, serious injury or death.
Monitor the condition of all parts in the drive train and repair or replace as necessary. Check all fasteners along the drive train periodically to ensure they remain tight and undamaged. Loose or damaged bolts may fail at or below rated torque or contribute to damage elsewhere in the drive train. Replacement bolts must be the same size, grade and length as the originals supplied by CHANCE.

Maintain alignment along the drive train. Digging equipment can impose high bending moments on the drive train if alignment is not maintained. This can damage or destroy drive train components.

⚠ WARNING

Loose parts may be thrown at high speed.
Can cause property damage, serious injury or death.
Do not allow bending moments in excess of 6000 lb-ft to develop in drive train.

Do not use in obstruction-laden soils (gravel, cobbles, rubble, etc). The high impact forces generated in such use can render the torque indicator inoperable.

⚠ CAUTION

Improper use can damage internal parts.
Can render the torque indicator inoperable and will void the warranty.
Do not use in obstruction-laden soil.

STORAGE

The CHANCE Dial Torque Indicator has a sealed case to prevent water penetration during ordinary exposure (ie, working in rain or snow). The seal will not protect it from long term exposure to the elements or from forced entry of water such as from immersion or highway transportation in the open. It must be stored and transported such that it is protected from water penetration of the case.

⚠ CAUTION

Moisture inside case can damage internal parts.
Can render the torque indicator inoperable and will void the warranty.
Protect from moisture penetration of case during storage and transportation.

90 day warranty. There are no internal field serviceable parts. Warranty is void if improper use, storage or transportation has occurred or if outer housing or any internal part removed. For repair or calibration check, call the CHANCE Tool Repair Center in Centralia, MO, (314) 682-8748.

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