



Model: DW2000/3000	Apr. 6, 2018
Serial #: 002-109	
Product Bulletin # DW-011	

Upgrading the Drawworks Encoder Cover to a Water-Resistant Encoder Cover

Pressure washing the drawworks can cause encoder malfunction. CANRIG has developed an enclosed, water-resistant encoder cover designed to improve encoder protection against water ingress.

Field kits are now available for upgrade. Field Kits depend upon the type of motor on the drawworks. Refer to Table 1. Kits include two (2) encoder covers for the motor, and one (1) encoder cover for the drum.

Applicable Units

Field Kits are available for Drawworks units 002-109. Units 110 and 111 have already been upgraded. Future units will feature the new design. Kits contain 2 encoder enclosures for the motors, and one encoder enclosure for the drum. Regardless of whether the encoder enclosure is for a motor or for the drum, the assembly process is similar.

Table 1: Available Field Kits

Model	Description	GE Motor	HH Motor	Field Kit
2000 HP (Stacked)				
7.05:1 Gear Ratio	2 motor, stacked configuration, Johnson brakes	X		AY23765- Field Kit, Encoder Guards, GEB22, Drwks
8.51:1 Gear Ratio	2 motor, stacked configuration, Johnson brakes	X		AY23765- Field Kit, Encoder Guards, GEB22, Drwks
2000 HP NG				
7.05:1 Gear Ratio	2 motor, Disc, 2000 HP, 1 SP, 480 V	X		AY23765- Field Kit, Encoder Guards, GEB22, Drwks
8.51:1 Gear Ratio	2 motor, Disc, 2000 HP, 1 SP, 480 V	X		AY23765- Field Kit, Encoder Guards, GEB22, Drwks
3000 HP NG				
6.64:1 Gear Ratio	2 motor, Disc, 3000 HP, 1 SP, 600 V	X		AY23766- Field Kit, Encoder Guards, GEB28, Drwks
6.64:1 Gear Ratio	2 motor, Disc, 3000 HP, 1 SP, 600 V		X	AY23815- Field Kit, Encoder Guards, HTB33, Drwks
7.05:1 Gear Ratio	2 motor, Disc, 3000 HP, 1 SP, 600 V, Aux Brake		X	AY23815- Field Kit, Encoder Guards, HTB33, Drwks
8.51:1 Gear Ratio	2 motor, Disc, 3000 HP, 1 SP, 600V	X		AY23766- Field Kit, Encoder Guards, GEB28, Drwks



Figure 1: Current Design, Motor Encoder

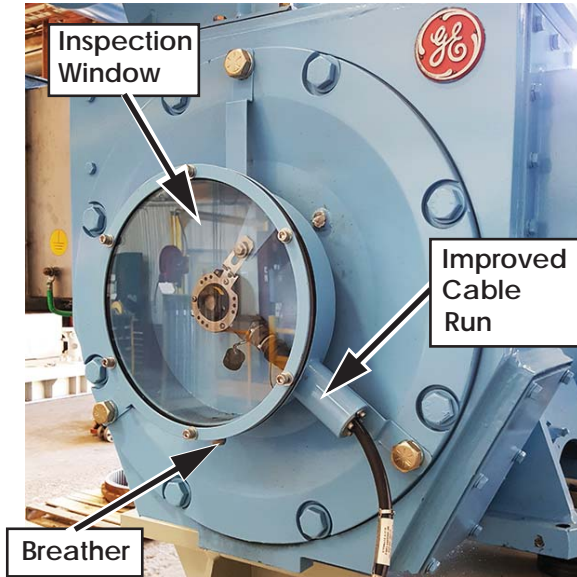


Figure 2: New Design, Motor Encoder



Figure 3: New Design, Motor Encoder



Figure 4: Current Design, Drum Encoder

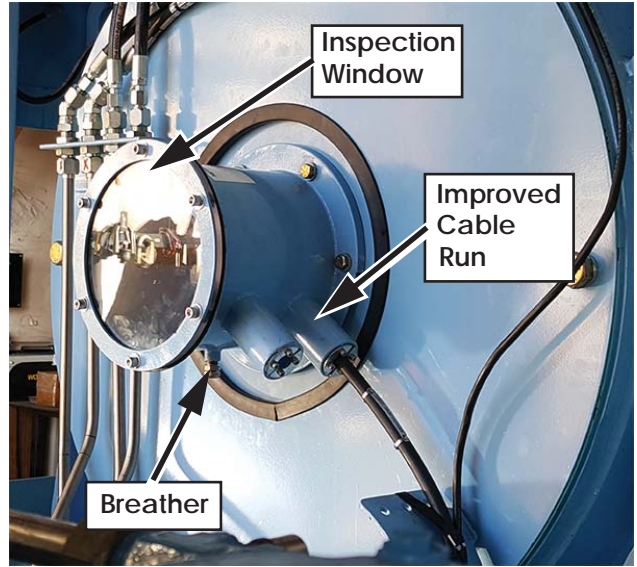


Figure 5: New Design, Drum Encoder

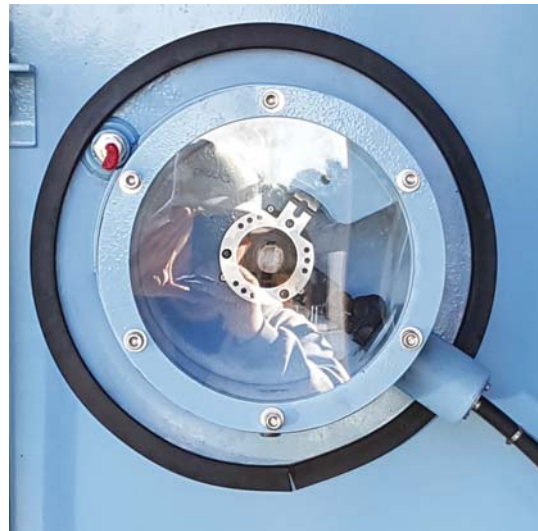


Figure 6: New Design, Drum Encoder

Procedure:

1. Lock Out/Tag Out (LOTO) all power sources supplying power to the drawworks.
2. Remove the cable attached to the motor encoder(s).
3. Remove the motor encoder(s).
4. Remove the encoder cover. Do not re-use fasteners.

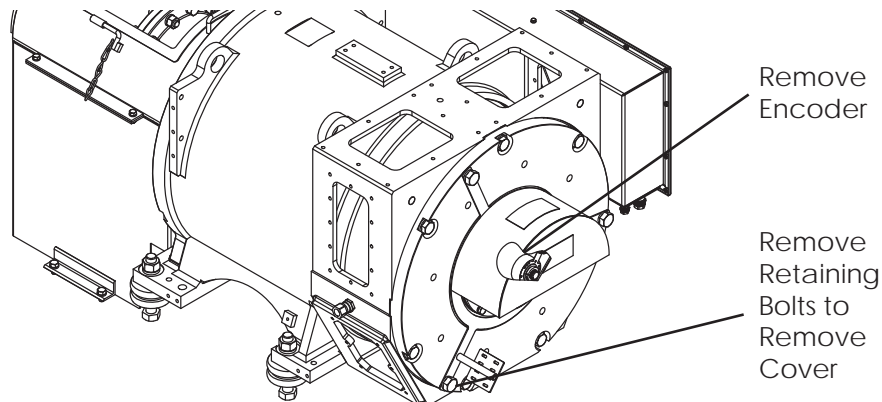


Figure 7: Remove the Existing Enclosure Cover

5. Position the encoder cover where the breather is located on the bottom. Attach the new encoder cover to the motor. Torque to 80 ft-lb for drum encoder cover, or torque to 680 ft-lb for motor encoder covers. *If the bolts do not align, refer to Table 1, "Available Field Kits," on page 1 and verify that the correct kit is being installed.*
6. Attach the encoder to the inside of the new encoder cover. If there is more than one encoder, ensure that the CANRIG encoder is located closest to the motor.
7. Run the cable through the Cable Run and attach to the encoder.

- Attach the inspection window to the encoder cover. Torque to 35 ft-lb.

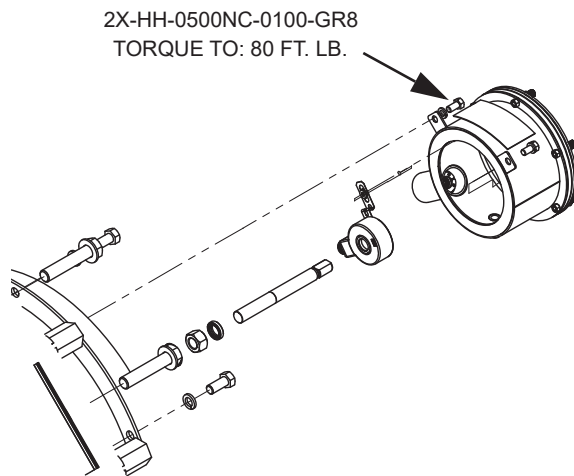


Figure 8: Drum Encoder Cover

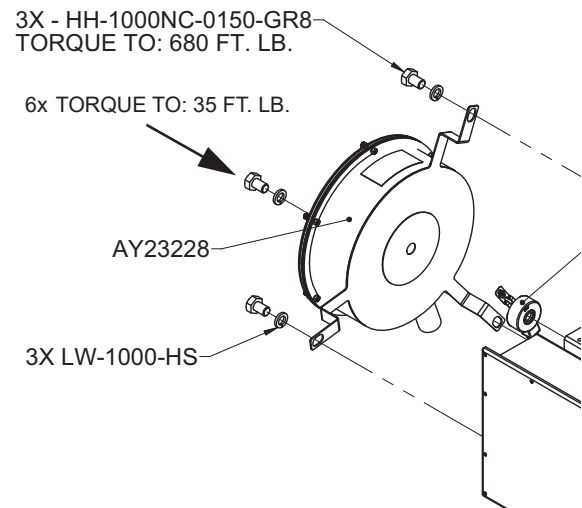


Figure 9: Motor Encoder Cover

- Remove LOTO.
- Have the driller move the drawworks and ensure that the encoder count progresses normally.