



Model: See affected models	Sep. 29, 2021
Serial #: N/A	
Product Bulletin # TDS-199 Rev 2	

Handler Lock Sensor Improvement

Canrig has discontinued the use of the current handler lock sensor assembly (AY10484-X) which is used on 1250AC and 1275AC top drives. The handler lock sensor has been replaced with a new handler lock sensor with a simplified design and improved securement.

Affected Models

Top drive models: 1250AC-681, 1275AC-681, 1250AC-865, 1275AC-865.

Replacement Information

Contact RIGLINE 24/7™ to order the new handler lock sensor assembly. Install the new sensor on the handler lock assembly following the procedure described below.

Table 1: Handler Lock Sensor Assembly Options

Old Handler Lock Sensor	New Handler Lock Sensor	Handler Lock Sensor Description	Sensor P/N	Bracket P/N
AY10484	AY24336	Handler Lock Sensor Assy, CENELEC	N11521	DT34906
AY10484-1	AY24336-1	Handler Lock Sensor Assy, NEC/CSA	N11522	

Original Handler Lock Assembly

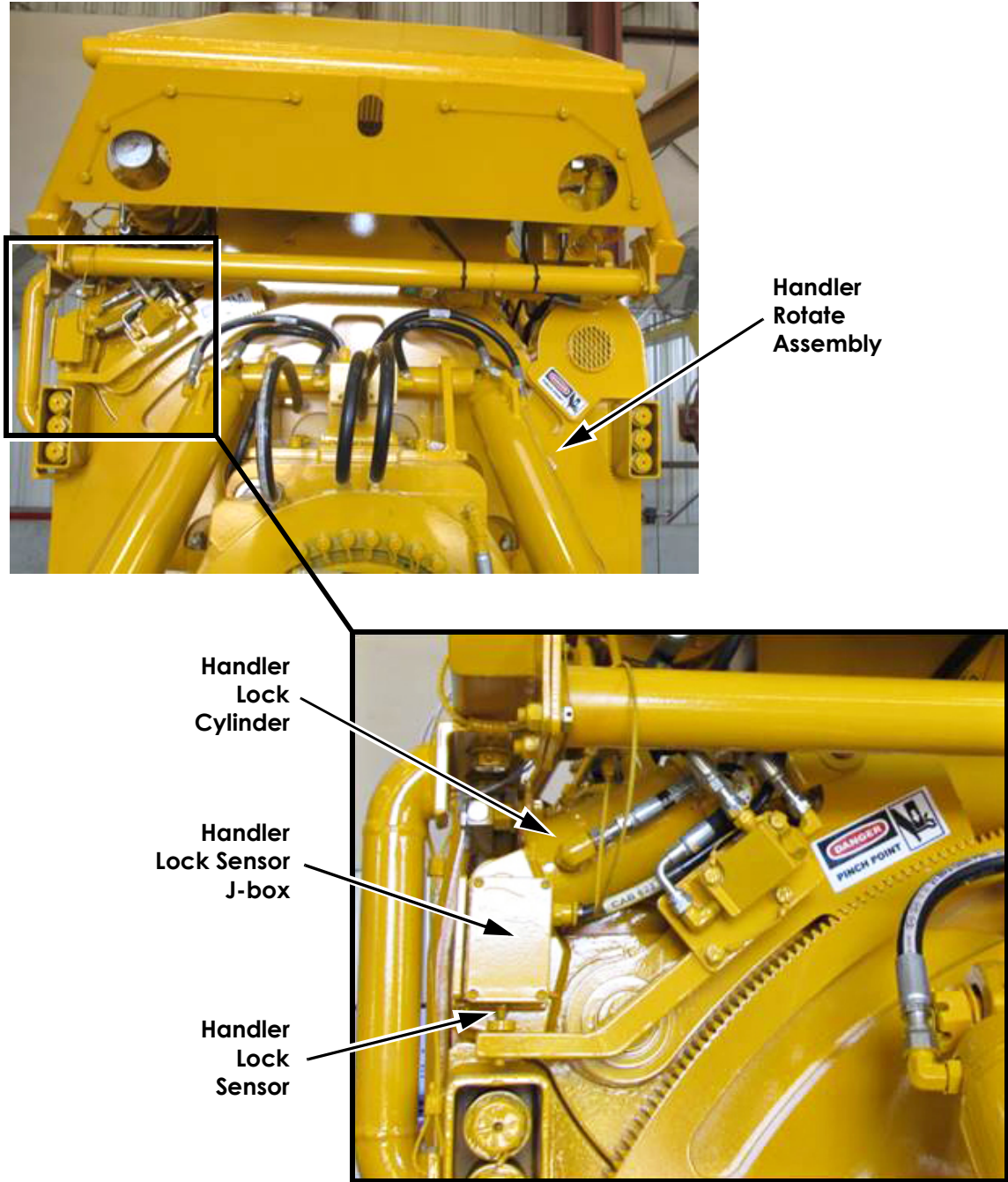


Figure 1: Original Handler Lock Sensor Assembly

Procedure

Follow steps below to remove existing handler lock sensor and install new handler lock sensor.

Remove Existing Handler Lock Sensor Assembly

1. Ensure handler lock is engaged and in the lock position before beginning.
2. Perform lock-out/tag-out procedures according to local regulations to isolate all forms of energy to the top drive.
3. Use appropriate precautions and processes to prevent falls and dropped objects.
4. Remove the lid of the sensor J-box to access sensor and cables.
5. Disconnect the sensor and remove the cabling from the J-box.
Note: Do not remove cabling from the top drive.
6. Locate two 1/2-13UNC x 1" hex head bolts as shown in Figure 2. Remove the bolts along with the handler lock sensor assembly.

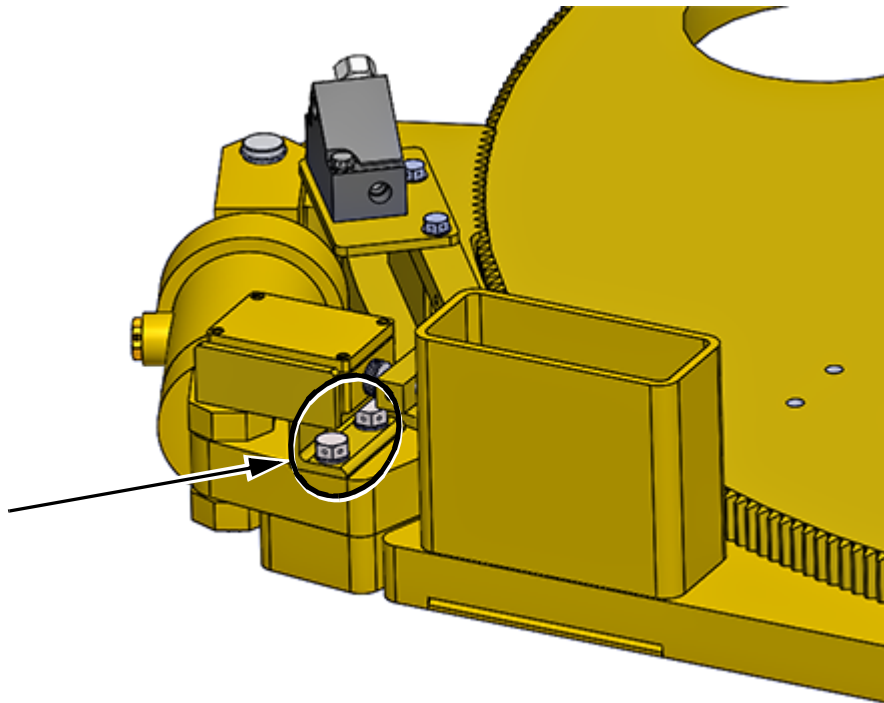


Figure 2: Old Handler Lock Sensor Removal

New Handler Lock Sensor Installation

1. Locate the new handler lock sensor bracket and hardware.
2. Install the handler lock sensor bracket with two 1/2-13UNC x 1" hex head bolts and two 1/2" Nord-Lock washers. See Figure 3.
3. Torque bolts to 99 ft-lbs per Canrig Engineering Specification ENG 725.

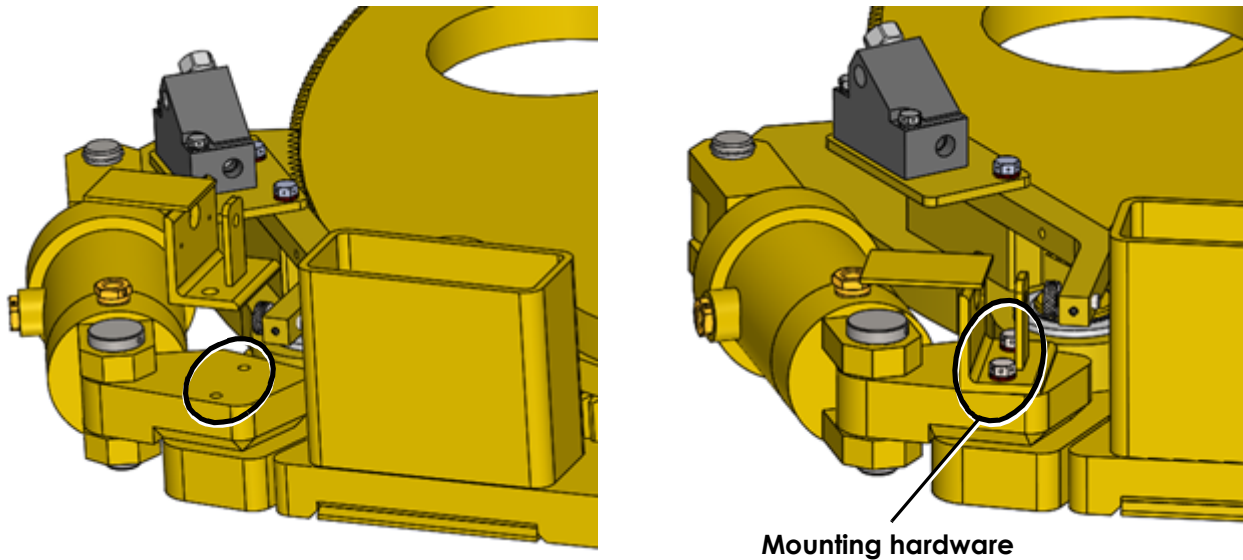


Figure 3: Mounting Bracket Installation

4. Safety wire bracket back to the handler lock cylinder using one of the 1/8" holes in the bracket and safety wire two hex head bolts together using 1/16" safety wire and ferrules.
5. Install sensor through the bracket holes and tighten the nuts on the sensor around the mounting plate as shown in Figure 4.

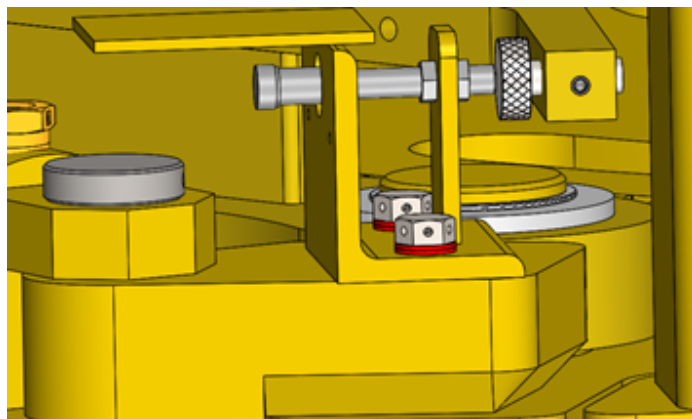


Figure 4: Sensor Installation

- Align sensor to sensor target. Adjust the sensor target to a minimum gap of 0.03" and a maximum gap of 0.048". Do not adjust the sensor. See Figure 5.

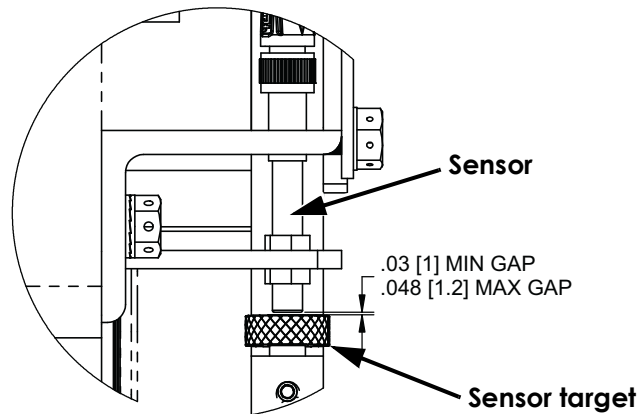


Figure 5: Sensor Alignment

- Attach and tighten sensor cable to the back of the sensor as shown in Figure 6.
- Install the unlocking safety clip (P/N: E19187-CLIP) around the sensor and sensor cable.

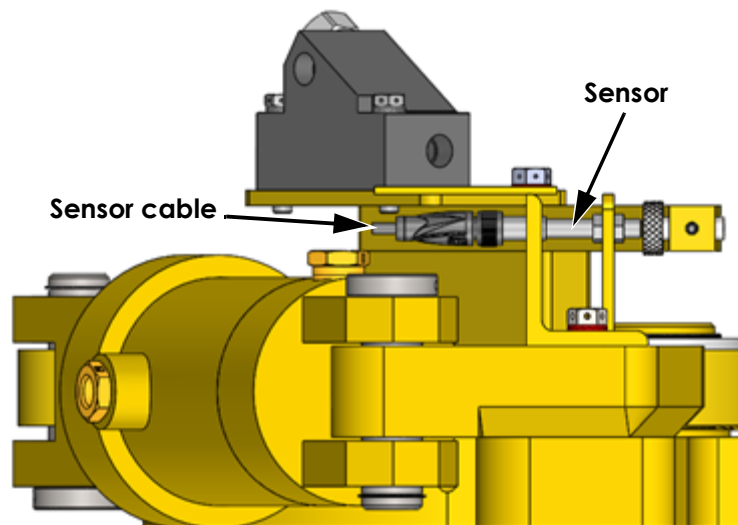


Figure 6: Sensor Cable Installation

- Route the new sensor cable through the top drive following the same route as the old sensor cable to the PLC J-box.
- Disconnect the old sensor cable from the J-box and remove it from the top drive.



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11. To connect the new sensor and cable, refer to Subsection 6E of the Top Drive Parts Manual. This section contains the schematics that show the correct wiring of the sensor. Contact RIGLINE 24/7™ if you need assistance.
12. Remove lock-out/tag-out and perform function test to ensure the sensor operates correctly.
13. Continue normal operations.