



DATE: 14-Nov-06

- SUBJECT:** Handler Lock Sensor (350 ton and 500 ton units with the pin style lock)
- SERIAL NUMBERS:** 014-024, 028-029, 031, 032, 033, 037, 038, 040, 043-046, 051-054, 057-061, 063, 065, 067-070, 072-075, 077-079, 081, 082, 084-091, 093-095, 098-102, 104, 105, 107-110, 112-115, 117-120, 122, 125, 128, 129, 134, 140, 149, 150, 154, 155, 157, 158, 161, 164, 165, 167, 168, 172, 174, 176, 180, 183-185, 188, 191, 196, 198, 201, 202, 204, 207, 215-217, 219, 222-224, 227, 236, 241, 244, 245, 269, 296, 303, 305, 307, 309, 314, 319, 323, 329, 337, 339, 342, 343
- DISCUSSION:** This product bulletin addresses the potential that the Handler Lock Sensor for the above mentioned Top Drives may indicate a false positive; i.e. that the sensor indicates the lock is engaged when, in fact, it is not. Although Canrig is not aware of any occurrence of a false positive in field operations, the configuration does present such a risk. As currently configured, the Handler Lock Sensor senses the presence of a target when the handler is unlocked and the absence of a target when the handler is locked.
- RECOMMENDATION:** In order to ensure that the sensor does not create a false positive, Canrig has developed a self-checking routine that should be added to the control software, which checks proper installation of the sensor every time the lock mechanism is unlocked or locked. To protect against the risk of a false positive, your PLC software should be upgraded.

This upgrade can be done in four simple steps:

1. Contact CANRIG Field Service and request a program update. Please include the serial number of your Top Drive.
2. CANRIG Field Service department will verify the PLC program and add the appropriate self-check routine to the program.
3. For Top Drives equipped with Remote Access, the new software can be downloaded from our office. Otherwise, proceed to step 4.
4. The new software will be written to an EEPROM (a small memory chip that can be installed on the Process of the PLC, residing inside the Control Interface Panel.
5. The EEPROM with the upgraded Software will be sent to the person requesting the program upgrade.
6. The EEPROM can be installed by a local electrician or by a CANRIG Service Technician (please coordinate installation with the appropriate CANRIG Field Service coordinator).

Top Drives with S/N 033, 040, 054, 063, 068, 078, 079, 086, 090, 094, 095, 099, 101, 110, 113, 117, 119, 120, 128 and all S/N after have an **Advanced Diagnostic System (ADS)**. CANRIG has created a program upgrade, which will provide a simple explanation (e.g. "**Handler Sensor Fault: Check handler lock sensor and mounting**") on the ADS screen, should the handler lock sensor fail. This upgrade can be done in these four simple steps:

1. Contact CANRIG Field Service and request this optional program update. Please include the serial number of your Top Drive.
2. CANRIG Field Service department will verify the PLC program and add the appropriate self-check error message to the ADS program. The new software will be written to a PCMCA card (a small plug in card that can be installed on the ADS screen, after opening the enclosure).
3. The PCMCA card with the upgraded Software will be sent to the person requesting the program upgrade.
4. The PCMCA can be installed by a local electrician or by a CANRIG Service

Technician (please coordinate installation with the appropriate CANRIG Field Service coordinator).

Remember that proper inspection, maintenance, service and operation is imperative to the peak performance of any equipment, including Top Drives. When in doubt, do not hesitate to contact CANRIG and ask questions.

INFORMATION:

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