Calibrating Dual Quadratures



Overview

Some rigs use both coil tubing and drill pipe to drill a well, each of which requires different means of tracking depth. The rig crew can switch between the two methods simply by flipping a switch. By calibrating dual quadratures, it is no longer necessary to change the depth calibration every time the drilling method is changed.



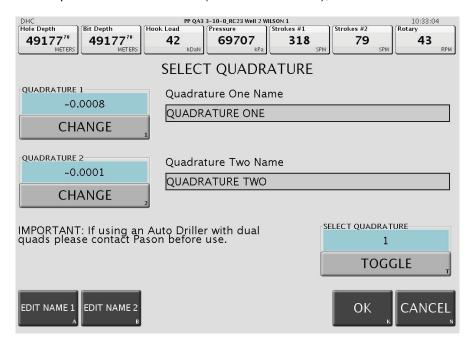
Note:

Before you can calibrate dual quadratures, a Pason Field Technician must first enable the functionality. This is done by toggling the DUAL QUADRATURE box on the PASON OPTIONS SETUP screen to ENABLED (on the RMPC, select SETUP then PASON).

Calibrating Dual Quadratures

Follow the steps below to calibrate dual quadratures;

- 1. From the main EDR screen on the DHC, select MENU, SETUP, then CALIBRATE.
- 2. Enter the password (255.3158) and select OK.
- 3. From the CALIBRATION MENU, select QUADRATURE.
- 4. If dual quadratures are enabled (see the note above), the SELECT QUADRATURE screen opens.



Note:

If using an AutoDriller with dual quadratures, please contact Pason at 1-877-255-3158 before using them.

- 5. Give your quadrature a relevant name by selecting EDIT NAME # (1 or 2 accordingly).
- Enter a name that describes your quadrature (e.g., Coil Tubing). Select ENTER when you are done. The new name will display on the SELECT QUADRATURE screen.

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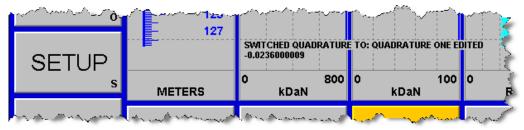
- 7. Set the depth per quad tick. Press the CHANGE button in the QUADRATURE # (1 or 2 accordingly) box. Enter the desired quadrature and select OK. The new quadrature will display in the QUADRATURE # (1 or 2 accordingly) box. Select OK to exit the screen.
- 8. After reading the warning screen, confirm your change by selecting YES.
- From the CALIBRATION MENU (MENU, SETUP, then CALIBRATE), select HOOK LOAD.
- 10. Read the onscreen instructions on the EASY HOOK LOAD CAL: STEP 1 screen and then select OK.
- 11. Enter your low hook load and select OK.
- 12. Read the onscreen instructions on the EASY HOOK LOAD CAL: STEP 2 screen and then select OK.
- 13. Enter your high hook load and select OK.
- 14. Navigate to the **SELECT QUADRATURE** screen, see steps1–3, and toggle to **QUADRATURE 2**. Repeat steps 5 –13 for quadrature 2.

Note:

After you've completed calibrating both quadratures, you can toggle between quadratures and the system will automatically recalibrate both the hook load and depth quadrature.

When you need to switch between each drilling method, select the **TOGGLE** button in the **SELECT QUADRATURE** box (located in the lower right corner of the **SELECT QUADRATURE** screen). Choose from 1 or 2 and press **OK**.

Once you have switched to the alternate quadrature, the EDR displays a memo on the main screen. A memo is also displayed when an EASY HOOK LOAD CALIBRATION is performed.



Note:

If the hook load or depth sensor is recalibrated at any point, the new hook load or depth quadrature will be used for whichever quad is active (1 or 2).

If your depth aid mode is set to **AUTO** and your system is reporting in or out of slips erroneously, check that your **HOOK THRESH** is set appropriately.

This feature is applicable to EDR version 3.1.2 and above.