3.9 | Validating System Operation

Status Validation Checks

Item	Expected Result
ECU Status	Connected and operating normally
GNSS Status	Fixed RTK solution
Position Accuracy	Within expected limits
Inertial Sensors	Reporting valid data
Valve Outputs	Available and responding
Machine Configuration	Correct implement selected
Active Faults	None present

If any item fails, correct the issue before proceeding.

Manual Hydraulic Validation

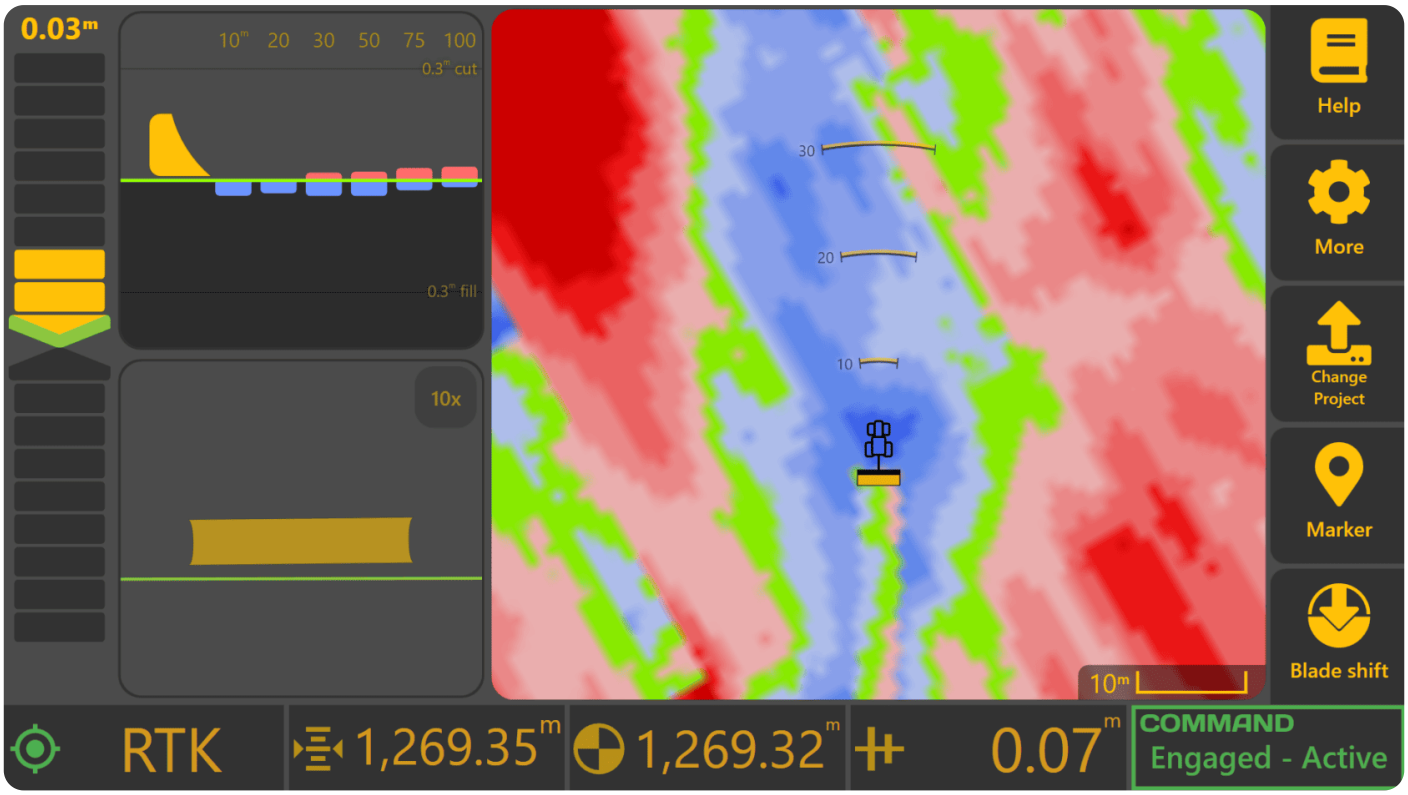
Verify manual hydraulic operation is as expected before engaging automatic control.

1. Raise and lower the implement using manual controls.
2. Confirm smooth movement.
3. Confirm correct movement direction.
4. Confirm full travel can be achieved.
5. Verify no unexpected hydraulic behaviour occurs.

Expected Result:

- Implement responds immediately.
- Movement direction matches commanded direction (Up/Down/Left/Right).
- No instability or oscillation is present.

Automatic Control Engagement Validation



Verify Automatic Control can engage and operate correctly:

1. Position the machine in a safe operating area.
2. Load a valid design surface.
3. Satisfy all engagement requirements.
4. Engage Automatic Control.

Expected Result:

- Automatic Control engages successfully.
- No engagement warnings are generated.
- Control outputs become active.

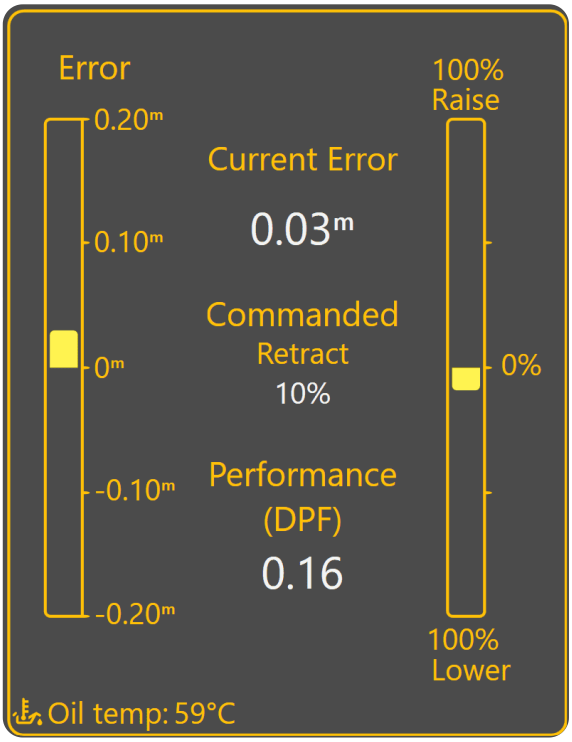
Automatic Control Response Validation

Verify control outputs produce the expected machine response when Automatic Control is active.

1. Engage Automatic Control on the previously loaded design surface.
2. Observe implement movement.

Expected Result:

- Implement moves toward the design surface.
- Movement direction is correct.
- Correction occurs without hesitation.
- No excessive overshoot occurs.



Grade Tracking Validation

Operate the machine under normal working conditions. Navigate to **More** > **COMMAND Settings** > **Tuning**.

Observe:

- Current Error
- Commanded Output %
- Dynamic Performance Factor (DPF)

Expected Result:

- Current Error remains stable and controlled.
- Commanded Output % changes smoothly.
- DPF remains low and consistent.
- Automatic Control maintains the design surface without oscillation.

Commissioning Acceptance Checklist

Validation Item	Pass
ECU communicating successfully	☐
GNSS selected and stable with RTK Fix	☐
X-Slope sensor angle values updating correctly	☐
Hydraulic outputs verified	☐
Cylinder calibration completed	☐
Automatic Control engages correctly	☐
Control direction verified	☐
Tracking Sensitivity tuned	☐
Grade tracking validated	☐
Automatic Control performance acceptable	☐
No active faults present	☐

> Once all validation checks have been completed successfully and Automatic Control performance has been verified, the machine is ready for operator training and production use.

Dealer installation and commissioning is now complete. Continue to **Section 4 | Operator Quick Start** for guidance on day-to-day operation of **Level COMMAND**.