

# Evinrude E-TEC Mid-RPM Bog Diagnostic Checklist

## Step 1 — Basics

- ■ Check fuel sample from VST/filter (look for water, phase separation, debris)
- ■ Inspect spark plugs (correct NGK type, proper gap, no fouling)
- ■ Inspect wiring harness for chafing, loose grounds, or corroded connectors

## Step 2 — Quick Rule-Outs

- ■ Squeeze primer bulb during bog — improvement = upstream fuel restriction
- ■ Measure fuel pressure (VST outlet) — verify correct PSI at idle, mid, WOT
- ■ Inspect all fuel fittings & clamps for air leaks

## Step 3 — ECU & Sensor Checks

- ■ Connect Evinrude Diagnostics software
- ■ Check live data: TPS smooth voltage increase with throttle; MAP reading changes predictably
- ■ Check coolant temp sensor reading matches actual engine temp
- ■ Pull historical fault codes
- ■ Run injector balance test via software (listen for weak or non-firing injectors)

## Step 4 — Mechanical & Airflow

- ■ Inspect reed valves for chips, cracks, or carbon buildup
- ■ Perform compression test — all cylinders within 10% of each other
- ■ Check for exhaust carbon buildup or tuner blockage

## Step 5 — Injector Service

- ■ Remove injectors and bench test flow/spray pattern
- ■ Ultrasonically clean injectors, replace filters & seals
- ■ Re-flow test to confirm performance before reinstalling

## Step 6 — Rare / Final Checks

- ■ Inspect flywheel key and verify ignition timing
- ■ Verify EMM firmware version — update if not current

### Notes:

- Bog only under load in water: usually fuel delivery or injector spray quality.
- Bog on hose too: suspect ignition, sensor data, or ECU mapping.