UC-1 Sovereign Engine Viability Protocol – Field Sheet FINAL

■■ FINAL FIELD TEST PROTOCOL – “SOVEREIGN QUICKSTART METHOD”

■ STEP 1: Free Spin + Compression Check (No Tools)
- Turn the crankshaft by hand or pull cord.
- Feel for consistent compression pulses.
- You can also remove the spark plug to verify compression manually.
- If loose with no resistance: likely no compression (rebuild needed).

■ STEP 2: Spark Verification
- Remove spark plug and reconnect the plug wire.
- Hold the plug thread to the engine block.
- Crank the engine and look for a blue spark at the electrode.

■ STEP 3: Coil Output Test (Voltmeter Method)
- Set voltmeter to millivolts (mV).
- Attach one lead to the spark plug cap (metal contact).
- Attach the other lead to any grounded metal on the engine head.
- Spin the crank manually and check for mV readings.
- A voltage pulse confirms coil and flywheel magnet interaction.

■ STEP 4: Rotor Shaft Load Test (Optional)
- Tie a lightweight rotor (fan, pulley).
- Spin by hand and listen/feel:
  Smooth = good bearings. Grinding = failure.

■ CRITICAL NOTE ON OIL:
- There MUST be some form of oil inside the crankcase before testing or spinning.
- Even if not for full operation, oil is necessary for internal protection.
- Any oil (motor oil, vegetable oil, etc.) will suffice temporarily.
- No oil = risk of internal damage.

■ FIELD NOTE:
- These tests can be done solo. Verified by live sovereign field use.
- No fuel or starter needed—just rotation and tool access.

SUMMARY CHECKLIST:
- Spins freely
- Has spark
- Voltage output
- Holds compression
- Contains internal oil
=> ■ GREENLIGHT FOR SOVEREIGN INTEGRATION