

International Roughness Index

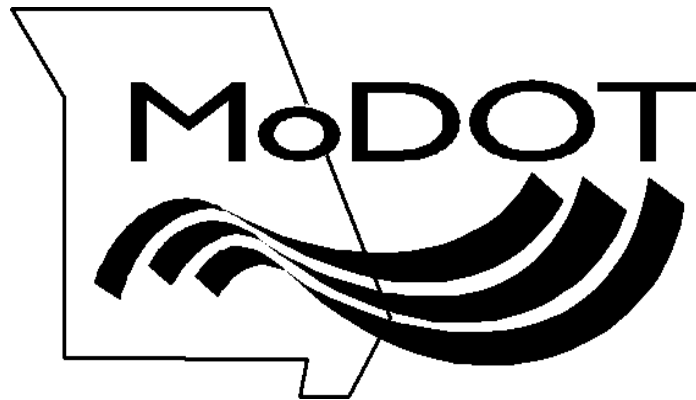
(IRI)

2025

Proficiency Pack

Name: _____

Employer: _____



AASHTO TM59: IRI Profiler Operator Qualification

PROFICIENCY CHECKLIST

Applicant _____

Employer _____

	Trial 1	Trial 2
<p>1. Explain: Is the machine certified by MoDOT? Setup with values on calibration certificate? Is the driver IRI certified?</p>		
<p>2. Explain: Items that should be checked prior to profiling.</p> <ul style="list-style-type: none"> • Vehicle fluid levels..... _____ • Headlights, signals, safety strobes/beacons, signage _____ • Profile path project readiness – dry run..... _____ • Warm up <ul style="list-style-type: none"> ○ Engine _____ ○ Transmission _____ ○ Tires _____ • Tire pressure _____ • Visually check sensors..... _____ • Static sensor check..... _____ 		
<p>3. Explain: Distance Measurement Instrument (DMI) verification procedure (Verbal)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Clean, dry, (damp ok) testing track. <input type="checkbox"/> Warm up host vehicle tires and operating system <input type="checkbox"/> Turn off filters <input type="checkbox"/> Set-up the computer for profiling the testing track <input type="checkbox"/> Line up with the cone, ready the trigger device <input type="checkbox"/> Navigate the inertial profiler over a measured test section of 528 ft. ± 0.1 ft. <input type="checkbox"/> Maintain the vehicle at a constant speed through out the test. <input type="checkbox"/> Save the profile in a file, transfer to a thumb drive, hand over to the Engineer to analyze <input type="checkbox"/> Is the result within 0.15% of the measured length? <input type="checkbox"/> If profiler does not meet the 0.15%, <u>make adjustments</u> and repeat the run. <p>NOTE: GPS-DMI must pass within 0.15% of the measured length.</p>	Pass Fail	Pass Fail

<p>4. Demonstrate: Laser Height verification procedure Block Test:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Placed a smooth base plate under the height sensors. Allow the system to measure this height. Zero out the sensors. <input type="checkbox"/> Centered a 0.25-inch block under the height sensors on top of the base plate and recorded height measurement. <input type="checkbox"/> Replaced the 0.25-inch block with the 0.50-inch block. Record height measurement. <input type="checkbox"/> Replaced 0.50-inch block with the 1.00-inch block. Recorded height measurement. <input type="checkbox"/> Replaced 1.00-inch block with the 2.00-inch block. Recorded height measurement. <input type="checkbox"/> Gauge block height measurement recorded in the calibration log. <input type="checkbox"/> For each gauge block, the absolute difference between the height measurement and the actual gauge block thickness is less than or equal to 0.01 inch. 		
<p>5. Demonstrate: Bounce Test</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vehicle parked on a level surface? <input type="checkbox"/> Performed after operating system has reached operational stability according to manufacture? <input type="checkbox"/> With the base plates in position simultaneously under both wheel path sensors, place the vehicle in an operating mode that simulates longitudinal movement and initiate profile data collection. (vehicle is in park) <input type="checkbox"/> Subjected the vehicle to a vertical displacement of approximately 1 to 2 in. for the time required to travel 528 ft. <input type="checkbox"/> Measured profiles saved and analyzed in ProVAL. <input type="checkbox"/> System showed a passing result? 		

Pass Pass
Fail Fail

Examiner: _____ Date: _____