

## NO RTEC JOB SPECIFIC SKILLS COMPETENCY

**WARNING! This competency statement does not have SCANS indicators assigned and has not been approved by the NoRTEC. Please contact [Terrienne Brown](#) before utilizing this competency statement.**

### DIESEL MECHANIC

DOT: 625.281-010

#### CORE SKILL COMPETENCIES/INDICATORS:

1. Can analyze operation of diesel engines and components, such as blowers and compressors to determine performance using engineering specifications and test equipment.
2. Can align and connect engine to test equipment, such as generator and motor control panel.
3. Can connect oil, fuel and water lines to engine.
4. Can attach thermocouple wires to various parts of the engine.
5. Can record temperature readings of oil, water and bearings from pyrometer.
6. Can hold tachometer to turning shaft to determine engine revolutions per minute at various settings.
7. Can measure pressures on compressors and blowers.
8. Can replace defective parts and adjust settings on injection pumps, timing, fuel racks, and governor using dial indicator, micrometer, feeler gauges and hand tools.
9. Can use hand tools, precision measuring instruments and machine tools.
10. Can diagnose trouble and disassemble engines.
11. Can examine parts for defects and excessive wear.
12. Can weld and cut parts using arc-welding and flame cutting equipment.
13. Can plan work procedure using charts and technical manuals.
14. Can raise vehicles using hydraulic jack or hoist to gain access to mechanical units bolted to the underside of the vehicle.
15. Can remove units such as engines, transmissions or differential using wrenches or hoists.
16. Can disassemble units and inspect parts for wear, using micrometers, calipers and thickness gauges.
17. Can overhaul or replace carburetors, blowers, generators, distributors, starters and pumps.
18. Can rewire ignition system, lights and instrument panel.
19. Can relined and adjust brakes, align front end, repair or replace shock absorbers, and solder leaks in radiator.
20. Can replace and adjust headlights, and install and repair accessories such as heaters, mirrors and windshield wipers.
21. Can start engine of automotive vehicle and listen for sounds indicative of malfunctions.
22. Can drive vehicle, noting performance of parts, such as clutch, gears and brakes.
23. Can test motor timing, cylinder compression, fuel consumption, wheel alignment, and steering, using devices.