

## NO RTEC JOB SPECIFIC SKILLS COMPETENCY

### AUTOMOTIVE MECHANIC

DOT: 620.261-010 / O\*NET-SOC: 49-3023.01 SVP 7

**Job Description:** Diagnose, adjust, repair, or overhaul automotive vehicles. *Physical demands* -Active w/heavy lifting, carrying or moving (up to 100 lbs); *General Educational Development* - R4 M3 L3; *Aptitudes* - Above Average Spatial and Manual Dexterity - Average General Learning Ability, Verbal, Form Perception, Motor Coordination, and Finger Dexterity.

*Note: ASE Master Automotive Technician Certification <<http://www.asecert.org/>> requires successfully passing exams in the following eight competency areas: Engine Repair; Automatic Transmission/Transaxle; Manual Drive Train and Axles; Suspension and Steering; Brakes ; Electrical/Electronic Systems; Heating and Air Conditioning; Engine Performance. NoRTEC has available upon request a ASE Certified Master Mechanic competency statement.*

### CORE SKILL COMPETENCIES/INDICATORS:

- i. Can demonstrate thorough understanding of the principles of automotive technology and service. (R, IN, S, T).
- ii. Can demonstrate familiarity with industry-specific hand tools, power tools, machine tools, and precision measuring instruments. (Identify) (R, IN, S, T)
- iii. Can demonstrate familiarity with computerized testing equipment used to pinpoint and analyze malfunctions in electrical systems and engines. (R, IN, S, T)
- iv. Can demonstrate ability to work with electronic diagnostic equipment. (R, IN, S, T)
- v. Can demonstrate ability to read, interpret, and comprehend service manuals, including computer-based technical reference materials. (R, IN)
- vi. Can demonstrate ability to read and comprehend job orders. (R, IN)
- vii. Can demonstrate ability to plan work procedure using charts, diagrams, and technical manuals. (R, IN, S)
- viii. Can demonstrate ability to examine vehicles, effectively discuss extent of damage or malfunction with customers, and estimate costs. (IN, I)
- ix. Can demonstrate proper techniques used to repair and overhaul defective automotive units such as engines, transmissions, or differentials. (R, S, T)
- x. Can demonstrate proper techniques used to repair or replace parts, such as pistons, rods, gears, valves, and bearings. (R, S, T)
- xi. Can demonstrate ability to overhaul or replace carburetors, blowers, generators, starters, pumps, distributors, transmissions, clutches, and rear ends. (R, S, T)
- xii. Can demonstrate proper techniques used to repair manual and automatic transmissions. (R, S, T)
- xiii. Can demonstrate proper techniques used to repair, reline, replace, and adjust brakes. (R, S, T)
- xiv. Can demonstrate proper techniques used to rewire ignition system, lights, and instrument panel. (R, S, T)
- xv. Can demonstrate proper techniques used to repair or replace shock absorbers. (R, S, T)
- xvi. Can demonstrate proper techniques used to install and repair accessories, such as radios, mirrors, and windshield wipers. (R, S, T)
- xvii. Can demonstrate proper techniques used to repair air-conditioning or heating systems. (R, S, T)
- xviii. Can demonstrate proper techniques used to repair radiator leaks. (R, S, T)
- xix. Can demonstrate proper techniques used to replace and adjust headlights. (R, S, T)
- xx. Can demonstrate proper techniques used to align suspension systems. (R, S, T)
- xxi. Can demonstrate proper techniques used to rebuild parts, such as crankshafts and cylinder blocks. (R, S, T)

- xxii. **Can demonstrate proper techniques used to repair wheels, axles, and steering mechanisms. (R, S, T)**
- xxiii. **Can demonstrate ability to change oil, check batteries, repair tires and tubes, and lubricate equipment and machinery. (R, S, T)**
- xxiv. **Can demonstrate ability to observe and listen to operating equipment and conduct appropriate tests to ensure that repairs have corrected the problems and were properly made. (R, IN, S, T)**
- xxv. **Can demonstrate working knowledge of personal and environmental safety practices associated with clothing, eye protection, hand tools, power equipment and handling, storage and disposal of chemicals in accordance with local, state, and federal safety and environmental regulations. (R, IN, S, T)**
- xxvi. **Can demonstrate ability to safely raise vehicles in preparation of service, using hydraulic and/or electric jacks, floor jacks, jack stands, lifts or similar equipment. (R, S, T)**
- xxvii. **Can demonstrate ability to accurately record and maintain repair/service history for customer records. (IN, S)**
- xxviii. **Can demonstrate ability to maintain shop in neat, clean order. (R)**