

NO RTEC JOB SPECIFIC SKILLS COMPETENCY

DYNAMOMETER TESTER, ENGINE (Engine Tester)

DOT CODE: 806-281.010 SVP 6

Job Description: Tests completed motor vehicle engines prior to mounting in chassis, using conventional or computerized dynamometer, and adjusts and repairs engines to ensure performance conforms to specifications. *Physical Demands*-Medium lifting, carrying or moving (up to 50 lbs; *General Educational Development*-R4 M3 L3; *Aptitudes*-Average verbal, numerical, spatial, form perception, motor coordination, finger dexterity, and manual dexterity.

CORE SKILL COMPETENCIES/INDICATORS:

1. Can correctly identify several types of early and late model transmissions by different electrical components and different linkage. (S, T)
2. Can demonstrate basic knowledge of standards used to determine transmission drive ability. (R, IN, S, T)
3. Can demonstrate basic knowledge of complex transmission hydraulic systems. (R, IN, S, T)
4. Can demonstrate basic knowledge of proper shifts to determine transmission drive ability. (R, IN, S, T)
5. Can demonstrate basic knowledge of different bolt patterns used during transmission set up and mounting. (R, IN, S, T)
6. Can demonstrate ability to install appropriate torque converter during transmission set up and mounting. (R, S, T)
7. Can demonstrate proper technique used to change adapter plates during transmission set up and mounting. (R, S, T)
8. Can demonstrate proper mounting procedure used during transmission set up. (R, S, T)
9. Can demonstrate proper technique used to install drive line during transmission set up and mounting. (R, S, T)
10. Can demonstrate proper technique used to install input and output lines during transmission set up and mounting. (R, S, T)
11. Can demonstrate ability to properly fill transmission with fluid during transmission set up and mounting. (R, S, T)
12. Can correctly read and interpret gauges on dynamometer for non-electrical units to determine transmission drive ability. (R, IN, S, T)
13. Can demonstrate proper technique used to mount transmission electrical test equipment. (R, S, T)
14. Can demonstrate ability to use transmission electrical test equipment appropriately. (R, IN, S, T)
15. Can demonstrate ability to correctly interpret results from transmission electrical test equipment. (R, IN, S, T)
16. Can demonstrate ability to manipulate test computers to determine a transmission's performance. (R, IN, S, T)
17. Can demonstrate ability to use test computer to simulate an automobile's computer system. (R, IN, S, T)
18. Can demonstrate ability to determine location and cause of malfunctions in engine operation by listening to, and correctly assessing irregular internal noises, such as piston slap, knocks, taps, and gear noises. (IN, S, T)
19. Can demonstrate proper techniques used to adjust carburetors, set clearances between tappets and valves, and regulate timing. (R, IN, S, T)

20. **Can demonstrate ability to repair or replace carburetors, spark plugs, and fuel pumps, as needed. (R, S, T)**
21. **Can demonstrate ability to prepare appropriate reports on repairs involving engine disassembly. (IN, S)**
22. **Can demonstrate ability to understand and maintain all shop safety procedures and requirements, including all state and federal regulations. (IN)**
23. **Can demonstrate familiarity with industry-specific tools and equipment, including basic and specialized hand tools. (R, T)**
24. **Can demonstrate ability to effectively and appropriately communicate with co-workers, supervisors, and customers. (I)**