

Diesel Engine Mechanic

CERTIFICATE OF QUALIFICATION EXAM BREAKDOWN

The following table shows the number of questions per General Area of Competency (GAC) and Competency on the *Diesel Engine Mechanic Certificate of Qualification Exam*.

Number of questions on each exam: 100

Certificate of Qualification GAC/Competency	#
A. OCCUPATIONAL SKILLS	10
A1. Use Safe Work Practices	1
A4. Use Hand Tools, Power Tools, and Shop Equipment	0
A5. Use Fasteners and Fittings	1
A6. Lift and Support Loads	1
A7. Operate Equipment	1
A8. Use Shop Resources and Record Keeping Practices	1
A9. Service Winch Wire Rope	1
A10. Identify Lubricants	1
A11. Service Bearings and Seals	1
A13. Use Electronic Media	0
A14. Use Cutting and Welding Equipment	2
A16. Describe Diagnostic Procedures	0
B. BRAKES	11
B1. Service and Repair Hydraulic Brakes	3
B2. Service and Repair Hydraulic Power Brakes	3
B3. Service and Repair Air Brakes	5
C. HYDRAULICS	7
C1. Describe Hydraulic Systems	3
C2. Service Hydraulic Components	4
D. ELECTRICAL	21
D1. Describe Electricity	3
D2. Use Electrical Testing Instruments	2
D3. Service and Diagnose Batteries	3
D4. Service Charging Systems	2
D5. Diagnose and Repair Charging Systems	2
D6. Service Starting Systems	3

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January 1, 2023

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D7. Diagnose and Repair Starting Systems	2
D8. Service Electrical Circuits	2
D9. Diagnose and Repair Electrical Components and Systems	0
D10. Diagnose and Repair Electronic Components and Systems	1
D11. Diagnose and Repair Vehicle Management Systems	1
E. FRAMES, STEERING AND SUSPENSION	8
E1. Service and Diagnose Tires, Wheels, and Hubs	2
E2. Service Steering Systems	3
E4. Service, Diagnose and Repair Suspension Systems	2
E6. Diagnose and Repair Frames	1
F. TRAILER	3
F1. Service Landing Gear and Trailer Accessories	1
F2. Service and Repair Coupling Systems	1
F3. Service, Diagnose and Repair Trailer Body Components	1
F4. Service, Diagnose and Repair Heating and Refrigeration Systems	0
G. HEATING, VENTILATION AND AIR CONDITIONING	4
G1. Describe Heating and Air Conditioning Fundamentals	2
G2. Diagnose and Repair Heating and Air Conditioning Systems	2
H. ENGINES AND SUPPORTING SYSTEMS	34
H1. Describe Engine Fundamentals	1
H3. Diagnose and Repair Engine Support Systems	3
H5. Diagnose and Repair Diesel Supply Systems	1
H7. Describe Alternative Fuel Systems	1
H8. Diagnose Engines and Components	1
H10. Repair Engines and Components	11
H11. Describe Diesel Fuel Injection Fundamentals	1
H12. Diagnose and Repair Mechanical Fuel Injection Systems	2
H13. Diagnose and Repair Electronic Diesel Fuel Systems	9
H14. Diagnose and Repair Diesel Emissions Systems	3
H15. Diagnose and Repair Engine Brakes	1
J. STRUCTURAL COMPONENTS AND ACCESSORIES	2
J1. Identify Protective Structures	1
J2. Service Cab Structures	1
Total:	100