

Diesel Service Technicians and Mechanics

SOC: 49-3031 • Career Profile Report

■ Key Facts

\$60,640 Median Salary	319,900 Employment	+2.0% Growth Rate
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■ Requirements & Salary Range

Education: High school diploma

■ Automation Risk Assessment

Low Risk - 25.0% probability of being automated in the next 10-20 years.
This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■ Work-Life Balance

7.0/10 - Good work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.8/10	Investigative	7.4/10
Artistic	4.4/10	Social	5.6/10
Enterprising	4.6/10	Conventional	6.4/10

■ Top Skills Required

Customer-service skills, Detail oriented, Dexterity, Mechanical skills, Organizational skills, Physical strength, Troubleshooting skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Diesel Service Technicians and Mechanics inspect, maintain, and repair **diesel engines and related systems in trucks, buses, heavy equipment, and other vehicles**. They troubleshoot mechanical problems, perform preventive maintenance, and ensure vehicles operate efficiently. Their work is critical in transportation, construction, and industrial operations.

This career is well suited for individuals who enjoy hands-on mechanical work, problem-solving, and working with diesel technology.

What Do Diesel Service Technicians and Mechanics Do?

These professionals diagnose, repair, and maintain diesel engines and vehicle systems.

Common responsibilities include:

- Inspecting engines, transmissions, and mechanical systems for issues
- Performing maintenance such as oil changes, filter replacements, and fluid checks
- Diagnosing mechanical and electrical problems using diagnostic tools
- Repairing or replacing faulty components
- Testing vehicles to ensure proper operation
- Maintaining records of repairs, maintenance, and parts used
- Following safety and environmental regulations

Key Areas of Diesel Service and Maintenance

Technicians may specialize in specific systems or vehicle types:

- Engine and Transmission Repair: Maintaining and fixing diesel engines and gear systems
- Brake and Suspension Systems: Inspecting and repairing braking and suspension components
- Electrical and Diagnostic Systems: Troubleshooting wiring, sensors, and electronic controls
- Preventive Maintenance: Conducting routine service to avoid breakdowns
- Heavy Equipment and Commercial Vehicles: Specializing in trucks, buses, and construction machinery

Skills and Abilities Needed

Diesel technicians combine mechanical, technical, and problem-solving skills.

Core Professional Skills

Personal Qualities That Matter

Education and Career Pathway

This role typically requires technical training or vocational experience:

- High School Diploma or GED (minimum): Basic math, science, and mechanical knowledge
- Vocational or Technical Training: Programs in diesel technology, mechanics, or automotive repair
- On-the-Job Training: Gaining practical experience under supervision
- Certification (optional): Diesel Service Technicians may earn certifications such as ASE
- Continuous Learning: Staying updated on diesel technologies, tools, and regulations

Where Do Diesel Service Technicians and Mechanics Work?

They are employed in industries that use and maintain diesel-powered vehicles:

- Truck and Bus Repair Shops
- Construction and Heavy Equipment Companies
- Transportation and Logistics Firms
- Diesel Engine Manufacturing or Maintenance Facilities

- Independent Service Centers

Work environments include repair shops, service centers, construction sites, and outdoor locations.

Is This Career Difficult?

This career requires mechanical skill, technical knowledge, and physical stamina. Technicians must diagnose complex problems, perform precise repairs, and adhere to safety standards.

Who Should Consider This Career?

This career may be a strong fit if you:

- Enjoy hands-on mechanical work and problem-solving
- Have strong technical and diagnostic skills
- Can handle physically demanding tasks
- Are detail-oriented and safety-conscious
- Want a career maintaining and repairing diesel vehicles and equipment

How to Prepare Early

- Take courses in automotive technology, mechanics, or diesel systems
- Gain experience through vocational programs, workshops, or internships
- Develop mechanical aptitude, troubleshooting, and diagnostic skills
- Learn about safety, environmental standards, and repair procedures
- Stay informed on diesel engine technologies and industry trends

Diesel service technicians and mechanics maintain and repair diesel-powered vehicles, ensuring reliable and efficient operation across transportation, construction, and industrial applications.

*Generated by StartRight • Data from U.S. Bureau of Labor Statistics & O*NET*

Source: <https://www.bls.gov/ooh/installation-maintenance-and-repair/diesel-service-technicians-and-mechanics.htm>