



Mobile Heavy Equipment Mechanics, Except Engines

SOC Code 49-3042 • Projected Growth (2020) 0 %

Description

What Mobile Heavy Equipment Mechanics, Except Engines Do

Heavy vehicle and mobile equipment service technicians inspect, maintain, and repair vehicles and machinery used in construction, farming, rail transportation, and other industries.

Duties

- Read and understand operating manuals, blueprints, and drawings
- Perform scheduled maintenance, such as cleaning and lubricating parts
- Diagnose and identify malfunctions, using computerized tools and equipment
- Inspect, repair, and replace defective or worn parts, such as bearings, pistons, and gears
- Overhaul and test major components, such as engines, hydraulics, and electrical systems
- Disassemble and reassemble heavy equipment and components
- Travel to worksites to repair large equipment, such as cranes

Training Opportunities Linked to Those Jobs

(Degree Types and Colleges/Universities)

How to Become a Mobile Heavy Equipment Mechanics, Except Engines

Although a high school diploma is the typical education needed for entry, employers increasingly prefer to hire service technicians who have some postsecondary education. The majority of workers, however, still learn informally on the job.

Education and Training

High school or postsecondary courses in automobile repair, mathematics, and computers provide a strong foundation for a service technician's career.

Postsecondary programs and degrees in diesel technology or heavy equipment mechanics provide the most comprehensive training for new service technicians. Offered by vocational schools and community colleges, these programs cover the basics of diagnostic techniques, electronics, and other related subjects.

Most programs last 1 to 2 years and lead to certificates of completion. Other programs, which lead to associate's degrees, generally take 2 years to complete.

Education significantly reduces the amount of on-the-job training new service technicians need.

Entry-level workers with no formal background in heavy vehicle repair often receive a few months of on-the-job training before they begin doing routine service tasks and minor repairs. Trainees advance to more complex work as they show competence, and usually become fully qualified after 3 to 4 years of work.

Many employers send new technicians to training sessions conducted by equipment manufacturers. Training sessions may focus on particular components and technologies or types of equipment. Sessions generally last 1 week.

Certification

Some manufacturers offer certification in specific repair methods or equipment. Although not required, certification can demonstrate a mechanic's competence and usually brings higher pay.

Important Qualities

Dexterity. Many tasks, such as disassembling engine parts, connecting or attaching components, and using handtools, require a steady hand and good hand-eye coordination.

Mechanical skills. Service technicians must be familiar with engine components and systems and know how they interact with each other. They must often disassemble major parts for repairs and be able to reassemble them.

Physical strength. Service technicians must lift and move heavy equipment, tools, and parts without risking injury or fatigue.

Technical skills. Service technicians use sophisticated diagnostic equipment on engines, systems, and components. They must also be familiar with electronic control systems and the appropriate tools needed to fix and maintain them.

Troubleshooting skills. As heavy and mobile equipment become more complex, malfunctions become more difficult to identify. Service technicians must be able to find solutions to problems that are not immediately apparent.

Postsecondary Education

Texas Southmost College	South Texas College	Texas State Technical College	The University of Texas at Brownsville	The University of Texas - Pan American

Local Employers

B & B Svc	La Feria	Main Integrated Handling	Harlingen
Cameron County Public Works	Brownsville	Rio Grande Equipment CO	Harlingen
E & E Paving & Seal Coating	San Benito	Special Crane Svc	Brownsville

Career Options

(Specific Job Types)

- Mechanic
- Heavy Equipment Mechanic
- Field Service Technician
- Field Mechanic
- Equipment Technician
- Field Technician
- Mobile Heavy Equipment Mechanic
- Construction Equipment Mechanic
- Heavy Equipment Technician
- Diesel Mechanic

Salary Ranges

Wages for **Mobile Heavy Equipment Mechanics, Except Engines**

Location	Pay Period	2012				
		10%	25%	Median	75%	90%
United States	Hourly	\$14.94	\$17.93	\$22.14	\$26.85	\$31.71
	Yearly	\$31,100	\$37,300	\$46,100	\$55,800	\$66,000
Texas	Hourly	\$13.94	\$16.74	\$20.61	\$24.31	\$28.17
	Yearly	\$29,000	\$34,800	\$42,900	\$50,600	\$58,600
Brownsville-Harlingen, TX MSA	Hourly	\$9.69	\$10.83	\$14.92	\$22.72	\$29.59
	Yearly	\$20,200	\$22,500	\$31,000	\$47,300	\$61,500

Professional Associations linked to the Careers

For more details about job openings for heavy vehicle and mobile equipment service technicians and mechanics, consult local heavy and mobile equipment dealers and distributors, construction contractors, and government agencies. Local offices of the state employment service may also have information on job openings and training programs.

For general information about careers and training programs, visit

[Associated Equipment Distributors](#)

[National Automotive Technicians Education Foundation](#)

[National Institute for Automotive Service Excellence](#)

Sources

The information provided in this document was collected from the following sources:

- Occupational Outlook Handbook (<http://www.bls.gov/ooh/>)
- O*NET OnLine (<http://www.onetonline.org/>)
- Texas CARES (<http://www.texascaresonline.com/>)
- CareerOneStop (<http://www.careeronestop.org/>)



Course Overview: Focuses on careers in the planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water, and related professional and technical support services.

Mobile Heavy Equipment Mechanics, Except Engines

Career Goal (O*NET Code): (49-3042) - Heavy vehicle and mobile equipment service technicians inspect, maintain, and repair vehicles and machinery used in construction, farming, rail transportation, and other industries.

Student Name: _____

Grade: _____

School: _____

SUGGESTED COURSEWORK

EXTENDED LEARNING EXPERIENCES

Middle School	8th	HS Courses:	Exploring Careers		Curricular Experiences: Business Professionals of America Future Business Leaders of America SkillsUSA Technology Student Association	Extracurricular Experiences: Language Immersion Programs School Newspaper Student Government UIL Academic Competitions Yearbook
	9th	Core Courses*:	English I Algebra I or Geometry Biology	World Geography Foreign Language I Physical Education		
10th		Career-Related Electives:	Principles of Transportation, Distribution and Logistics		COLLEGE CREDIT OPPORTUNITIES -- High School	Students should take Advanced Placement (AP), International Baccalaureate (IB), dual credit, Advanced Technical Credit (ATC), or locally articulated credit courses, if possible. List those courses that count for college credit on your campus.
	11th	Core Courses:	English II Geometry or Algebra II Chemistry	World History Foreign Language II Elective		
12th		Career-Related Electives:	Energy, Power and Transportation Systems or Aircraft Technology		Career Options:	
	12th	Core Courses:	English III Algebra II Physics/Principles of Technology	United States History Foreign Language III** Professional Communications or Speech		<ul style="list-style-type: none"> • Mechanic • Heavy Equipment Mechanic • Field Service Technician • Field Mechanic • Construction Equipment Mechanic • Equipment Technician • Field Technician • Mobile Heavy Equipment Mechanic • Heavy Equipment Technician • Diesel Mechanic
12th		Career-Related Electives:	Transportation Systems Management or Logistics, Planning and Management Systems or Advanced Aircraft Technology		Texas Southmost College South Texas College Texas State Technical College	
	12th	Core Courses:	English IV AP Calculus 4th Science	Government/Economics Fine Arts Elective		University of Texas at Brownville University of Texas - Pan American
12th		Career-Related Electives:	Advanced Aircraft Technology or Advanced Electronics or Practicum in Transportation, Distribution and Logistics			

*Students must meet local & state graduation requirements. ** Required coursework for Distinguished Graduation Plan (In addition to other measures). *** Based on campus availability. Students may select other elective courses for personal enrichment purposes.

This plan of study serves as a guide, along with other career planning materials, for pursuing a career path and is based on the most recent information as of 2012. All plans meet high school graduation requirements as well as college entrance requirements.