



TORQ Analysis of Motorboat Mechanics to Recreational Vehicle Service Technicians

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Motorboat Mechanics	49-3051.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Recreational Vehicle Service Technicians	49-3092.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS											
Grand TORQ:							94				
Ability TORQ			Skills TORQ			Knowledge TORQ					
Level			92	Level			96	Level			94
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Extent Flexibility	59	9	62	No Skills Upgrade Required!				No Knowledge Upgrades Required!			
Manual Dexterity	53	7	68								
Visual Color Discrimination	48	7	50								
Speech Recognition	44	5	59								
Information Ordering	51	5	56								
Speech Clarity	41	4	56								
Oral Expression	53	3	68								
Near Vision	53	3	68								
Static Strength	42	3	50								
Deductive Reasoning	50	2	59								
Written Comprehension	46	2	56								
LEVEL and IMPT (IMPORTANCE) refer to the Target Recreational Vehicle Service Technicians. GAP refers to level difference between Motorboat Mechanics and Recreational Vehicle Service Technicians.											

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Motorboat Mechanics	Recreational Vehicle Service Technicians	Importance
Oral Comprehension	55 	55 	72 

Oral Expression	50	53	68
Manual Dexterity	46	53	68
Near Vision	50	53	68
Problem Sensitivity	50	50	65
Finger Dexterity	50	50	65
Control Precision	53	53	65
Extent Flexibility	50	59	62
Deductive Reasoning	48	50	59
Inductive Reasoning	50	50	59
Arm-Hand Steadiness	48	44	59
Multilimb Coordination	55	46	59
Speech Recognition	39	44	59
Written Comprehension	44	46	56
Information Ordering	46	51	56
Speech Clarity	37	41	56
Visualization	48	48	50
Static Strength	39	42	50
Visual Color Discrimination	41	48	50
Depth Perception	44	37	50
Hearing Sensitivity	50	46	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Motorboat Mechanics	Recreational Vehicle Service Technicians	Importance
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Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Motorboat Mechanics	Recreational Vehicle Service Technicians	Importance
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Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Motorboat Mechanics	Recreational Vehicle Service Technicians	Description	Motorboat Mechanics	Recreational Vehicle Service Technicians
10+ years	10%	0%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	0%
6-8 years	11%	0%	Post-Masters Cert	0%	0%
4-6 years	12%	0%	Master's Degree	0%	0%
2-4 years	14%	34%	Post-Bachelor Cert	0%	0%
1-2 years	23%	34%	Bachelors	0%	0%
6-12 months	25%	17%	AA or Equiv	0%	4%
3-6 months	0%	4%	Some College	0%	0%
1-3 months	0%	0%	Post-Secondary Certificate	63%	39%
0-1 month	0%	0%	High School Diploma or GED	16%	52%
None	1%	8%			



NO HSD OR GED

19%



4%



Motorboat Mechanics	Recreational Vehicle Service Technicians
Most Common Educational/Training Requirement:	
Long-term on-the-job training	Long-term on-the-job training
Job Zone Comparison	
3 - Job Zone Three: Medium Preparation Needed	2 - Job Zone Two: Some Preparation Needed
Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.	Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.
Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.	These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.
Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.	Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

Tasks

Motorboat Mechanics	Recreational Vehicle Service Technicians
Core Tasks	Core Tasks
<p>Generalized Work Activities:</p> <ul style="list-style-type: none"> • Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles. • Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources. • Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events. • Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems. • Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects. 	<p>Generalized Work Activities:</p> <ul style="list-style-type: none"> • Updating and Using Relevant Knowledge - Keeping up-to-date technically and applying new knowledge to your job. • Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources. • Performing General Physical Activities - Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials. • Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things. • Operating Vehicles, Mechanized Devices, or Equipment - Running, maneuvering, navigating, or driving vehicles or mechanized equipment, such as forklifts, passenger vehicles, aircraft, or water craft.
Specific Tasks	Specific Tasks
<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> • Adjust carburetor mixtures, electrical point settings, and timing while motors are running in water-filled test tanks. • Adjust generators and replace faulty wiring, using hand tools and soldering irons. • Disassemble and inspect motors to locate defective parts, using mechanic's hand tools and gauges. • Document inspection and test results, and work performed or to be performed. 	<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> • Confer with customers, read work orders, and examine vehicles needing repair in order to determine the nature and extent of damage. • Connect electrical systems to outside power sources, and activate switches to test the operation of appliances and light fixtures. • Connect water hoses to inlet pipes of plumbing systems, and test operation of toilets and sinks. • Examine or test operation of parts or



- Idle motors and observe thermometers to determine the effectiveness of cooling systems.
- Inspect and repair or adjust propellers and propeller shafts.
- Mount motors to boats and operate boats at various speeds on waterways to conduct operational tests.
- Repair engine mechanical equipment such as power-tilts, bilge pumps, or power take-offs.
- Repair or rework parts, using machine tools such as lathes, mills, drills, and grinders.
- Replace parts such as gears, magneto points, piston rings, and spark plugs, and reassemble engines.
- Set starter locks, and align and repair steering or throttle controls, using gauges, screwdrivers, and wrenches.
- Start motors, and monitor performance for signs of malfunctioning such as smoke, excessive vibration, and misfiring.

Detailed Tasks

Detailed Work Activities:

- adhere to safety procedures
- adjust or set mechanical controls or components
- align or adjust clearances of mechanical components or parts
- align or adjust clearances of vehicle body parts or components
- analyze test information to determine equipment operating efficiency
- assemble, dismantle, or reassemble equipment or machinery
- conduct tests to locate mechanical system malfunction
- determine installation, service, or repair needed
- diagnose mechanical problems in machinery or equipment
- fabricate, assemble, or disassemble manufactured products by hand
- follow vehicle repair procedures
- inspect machinery or equipment to determine adjustments or repairs needed
- install or replace meters, regulators, or related measuring or control devices
- lubricate machinery, equipment, or parts
- maintain or repair ship/boat engine, machinery or equipment
- maintain or repair small engines
- maintain repair records
- move or fit heavy objects
- observe or listen to machinery or equipment operation to detect malfunctions
- operate hoist, winch, or hydraulic boom

systems that have been repaired to ensure completeness of repairs.

- Inspect recreational vehicles to diagnose problems, then perform necessary adjustment, repair, or overhaul.
- List parts needed, estimate costs, and plan work procedures, using parts lists, technical manuals, and diagrams.
- Locate and repair frayed wiring, broken connections, or incorrect wiring, using ohmmeters, soldering irons, tape, and hand tools.
- Open and close doors, windows, and drawers to test their operation, trimming edges to fit as necessary.
- Refinish wood surfaces on cabinets, doors, moldings, and floors, using power sanders, putty, spray equipment, brushes, paints, or varnishes.
- Remove damaged exterior panels, and repair and replace structural frame members.
- Repair leaks with caulking compound, or replace pipes, using pipe wrenches.
- Repair plumbing and propane gas lines, using caulking compounds and plastic or copper pipe.
- Reset hardware, using chisels, mallets, and screwdrivers.
- Seal open sides of modular units to prepare them for shipment, using polyethylene sheets, nails, and hammers.

Detailed Tasks

Detailed Work Activities:

- adhere to safety procedures
- adjust or set mechanical controls or components
- align or adjust clearances of vehicle body parts or components
- apply adhesives, caulking, sealants, or coatings
- assemble and install pipe sections, fittings, or plumbing fixtures
- assemble, dismantle, or reassemble equipment or machinery
- build or repair structures in construction, repair, or manufacturing setting
- conduct tests to locate mechanical system malfunction
- construct, erect, or repair wooden frameworks or structures
- cut, shape, fit, or join wood or other construction materials
- determine installation, service, or repair needed
- diagnose malfunctioning vehicle systems
- diagnose mechanical problems in machinery or equipment
- estimate time or cost for installation, repair,



- operate vehicle engine electrical system test equipment
- overhaul vehicle major operating units, such as engines or transmissions
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- read blueprints
- read specifications
- read technical drawings
- read vehicle manufacturer's specifications
- read work order, instructions, formulas, or processing charts
- repair or replace electrical wiring, circuits, fixtures, or equipment
- repair or replace malfunctioning or worn mechanical components
- service vehicle with water, fuel, or oil
- set up and operate variety of machine tools
- solder electrical or electronic connections or components
- test electrical/electronic wiring, equipment, systems or fixtures
- test mechanical products or equipment
- test operate vehicles before or after repair
- understand service or repair manuals
- understand technical operating, service or repair manuals
- use 2-cycle engine technology
- use basic plumbing techniques
- use electrical or electronic test devices or equipment
- use electronic calibration devices
- use engine diagnostic equipment
- use hand or power tools
- use knowledge of metric system
- use machine tools in installation, maintenance, or repair
- use precision measuring devices in mechanical repair work
- use soldering equipment
- use voltmeter, ammeter, or ohmmeter

- or construction projects
- fabricate, assemble, or disassemble manufactured products by hand
- finish or refinish floor, furniture, or related wood surfaces
- identify properties of metals for repair or fabrication activities
- inspect machinery or equipment to determine adjustments or repairs needed
- install carpet, linoleum, tile, or related material onto floors or walls
- install household appliances
- install prefabricated building components
- install siding or sheeting
- maintain repair records
- move or fit heavy objects
- obtain information from clients, customers, or patients
- paint walls or other structural surfaces
- perform safety inspections in construction or resource extraction setting
- plan or organize work
- prepare building surfaces for paint, finishes, wallpaper, or adhesives
- prime or paint vehicle or transportation equipment surfaces
- read blueprints
- read schematics
- read specifications
- read tape measure
- read technical drawings
- read vehicle manufacturer's specifications
- read work order, instructions, formulas, or processing charts
- repair or replace electrical wiring, circuits, fixtures, or equipment
- repair or replace gas, steam, sewer, or water piping or fixtures
- repair or replace malfunctioning or worn mechanical components
- repair prefabricated wooden building components
- solder electrical or electronic connections or components
- test electrical/electronic wiring, equipment, systems or fixtures
- test mechanical products or equipment
- understand service or repair manuals
- use acetylene welding/cutting torch
- use arc welding equipment
- use basic carpentry techniques
- use basic plumbing techniques
- use hand or power tools
- use hand or power woodworking tools
- use knowledge of metric system
- use knowledge of welding filler rod types



- use measuring devices in construction or extraction work
- use oral or written communication techniques
- use soldering equipment
- use spray paint equipment
- use voltmeter, ammeter, or ohmmeter
- weld together metal parts, components, or structures

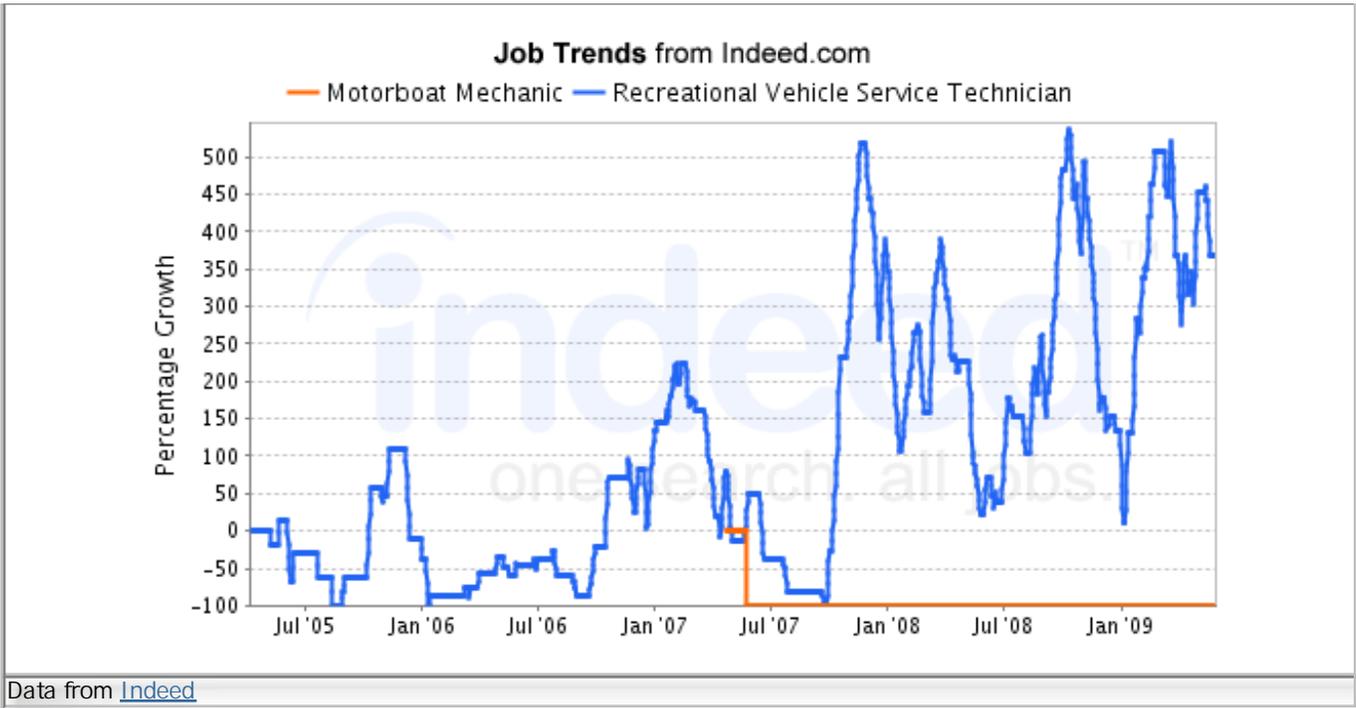
Labor Market Comparison

Maine Department of Labor.

Description	Motorboat Mechanics	Recreational Vehicle Service Technicians	Difference
Median Wage	\$ 34,980	\$ 29,640	\$(5,340)
10th Percentile Wage	\$ 24,940	\$ 22,130	\$(2,810)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 42,120	\$ 34,510	\$(7,610)
90th Percentile Wage	\$ 49,060	\$ 38,290	\$(10,770)
Mean Wage	\$ 35,530	\$ 29,710	\$(5,820)
Total Employment - 2509	240	70	-170
Employment Base - 2006	288	67	-221
Projected Employment - 2518	305	71	-234
Projected Job Growth - 2006-2518	5.9 %	6.0 %	0.1 %
Projected Annual Openings - 2006-2518	8	1	-7
Special	★		
Special Occupations:	★ Maine High Wage - In Demand		

National Job Posting Trends

Trend for Motorboat Mechanics and Recreational Vehicle Service Technicians



Programs

Related Programs

Building/Property Main. and Manager

Heavy Equipment Maintenance Technology/Technician. A program that prepares individuals to apply technical knowledge and skills in the field maintenance and repair of heavy equipment, and in the general maintenance and overhaul of such equipment. Includes instruction in inspection, maintenance, and repair of tracks, wheels, brakes, operating controls, pneumatic and hydraulic systems, electrical circuitry, engines and in techniques of welding and brazing.

Institution	Address	City	URL
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Washington County Community College	One College Drive	Calais	www.wccc.me.edu

Vehicle Maintenance and Repair Technologies, Other.

Vehicle Maintenance and Repair Technologies, Other. Any instructional program in vehicle and mobile equipment mechanics and repairers not listed above.

Institution	Address	City	URL
Landing School of Boat Building and Design	286 River Rd	Arundel	www.landingschool.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu



Northern Maine Community College

33 Edgemont
DrPresque
Islewww.nmcc.edu

Maine Statewide Promotion Opportunities for Motorboat Mechanics

O* NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
49-3051.00	Motorboat Mechanics	100	3	240	\$34,980.00	\$0.00	6%	8	★
49-3042.00	Mobile Heavy Equipment Mechanics, Except Engines	92	4	880	\$37,010.00	\$2,030.00	5%	22	★
47-2011.00	Boilermakers	90	4	60	\$39,260.00	\$4,280.00	12%	3	
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	90	3	440	\$49,450.00	\$14,470.00	-19%	15	
49-2093.00	Electrical and Electronics Installers and Repairers, Transportation Equipment	89	3	130	\$35,960.00	\$980.00	4%	4	
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	89	3	170	\$47,860.00	\$12,880.00	-9%	3	
49-9044.00	Millwrights	89	3	830	\$41,280.00	\$6,300.00	-12%	11	
51-4121.06	Welders, Cutters, and Welder Fitters	88	2	1,610	\$38,030.00	\$3,050.00	7%	49	★
53-6051.07	Transportation Vehicle, Equipment and Systems Inspectors, Except Aviation	88	3	60	\$42,890.00	\$7,910.00	5%	2	
47-5021.00	Earth Drillers, Except Oil and Gas	87	3	140	\$37,470.00	\$2,490.00	2%	4	
49-9041.00	Industrial Machinery Mechanics	87	3	990	\$39,370.00	\$4,390.00	7%	25	★



49-2098.00	Security and Fire Alarm Systems Installers	86		290	\$39,970.00	\$4,990.00	20%	10	★
51-4111.00	Tool and Die Makers	86	3	160	\$51,670.00	\$16,690.00	-11%	2	
49-9021.01	Heating and Air Conditioning Mechanics and Installers	86	3	1,750	\$36,950.00	\$1,970.00	8%	49	★
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$3,250.00	-26%	23	

Special Occupations: ★ Maine High Wage - In Demand

Top Industries for Recreational Vehicle Service Technicians

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Other motor vehicle dealers	441200	69.59%	9,741	11,854	21.69%
Automotive mechanical and electrical repair and maintenance	811110	4.13%	578	686	18.73%
Automobile dealers	441100	3.93%	550	623	13.44%
Self-employed workers, primary job	000601	3.55%	497	529	6.54%
Automotive body, paint, interior, and glass repair	811120	3.37%	471	550	16.76%
Motor vehicle body and trailer manufacturing	336200	2.82%	395	387	-2.15%
Other miscellaneous store retailers	453900	1.85%	259	278	7.20%
Automotive parts, accessories, and tire stores	441300	1.81%	253	247	-2.44%
Motor vehicle and motor vehicle parts and supplies merchant wholesalers	423100	1.78%	249	284	14.14%
Automotive equipment rental and leasing	532100	1.20%	168	191	13.46%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	0.92%	129	137	5.82%

Top Industries for Motorboat Mechanics

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Other motor vehicle dealers	441200	38.93%	9,389	12,582	34.01%
Self-employed workers, primary job	000601	19.75%	4,762	5,073	6.54%
Personal and household goods repair and maintenance	811400	12.93%	3,117	2,893	-7.19%



Ship and boat building	336600	2.94%	709	794	11.93%
Self-employed workers, secondary job	000602	2.89%	698	695	-0.45%
Support activities for water transportation	488300	1.37%	331	383	15.76%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	0.63%	151	160	5.82%
Consumer goods rental	532200	0.63%	153	166	8.77%
Miscellaneous durable goods merchant wholesalers	423900	0.61%	146	168	14.80%
Scenic and sightseeing transportation	487000	0.50%	121	156	29.38%
Inland water transportation	483200	0.40%	96	108	12.28%
Automotive mechanical and electrical repair and maintenance	811110	0.35%	84	100	18.73%
State government, excluding education and hospitals	929200	0.30%	73	72	-1.88%



TORQ Analysis of Motorboat Mechanics to Motorcycle Mechanics

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Motorboat Mechanics	49-3051.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Motorcycle Mechanics	49-3052.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS															
Grand TORQ:													93		
Ability TORQ				Skills TORQ				Knowledge TORQ							
Level				93	Level				94	Level					92
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add							
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt				
Hearing Sensitivity	57	7	68	No Skills Upgrade Required!				Personnel and Human Resources	31	5	83				
Manual Dexterity	51	5	72												
Selective Attention	48	6	50												
Auditory Attention	51	5	53												
Arm-Hand Steadiness	50	2	68												
Deductive Reasoning	50	2	65												
Speech Clarity	39	2	56												
Information Ordering	48	2	53												
Visualization	50	2	50												
Oral Expression	51	1	62												
LEVEL and IMPT (IMPORTANCE) refer to the Target Motorcycle Mechanics. GAP refers to level difference between Motorboat Mechanics and Motorcycle Mechanics.															

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Motorboat Mechanics	Motorcycle Mechanics	Importance
Manual Dexterity	46 	51 	72 
Problem Sensitivity	50 	46 	68 
Arm-Hand Steadiness	48 	50 	68 
Hearing Sensitivity	50 	57 	68 



Oral Comprehension	55	53	65
Deductive Reasoning	48	50	65
Inductive Reasoning	50	46	65
Near Vision	50	50	65
Oral Expression	50	51	62
Finger Dexterity	50	50	62
Control Precision	53	50	62
Multilimb Coordination	55	46	62
Speech Clarity	37	39	56
Information Ordering	46	48	53
Auditory Attention	46	51	53
Written Comprehension	44	42	50
Visualization	48	50	50
Selective Attention	42	48	50
Speech Recognition	39	39	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Motorboat Mechanics	Motorcycle Mechanics	Importance
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Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Motorboat Mechanics	Motorcycle Mechanics	Importance
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Personnel and Human Resources	26	31	83
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Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Motorboat Mechanics	Motorcycle Mechanics	Description	Motorboat Mechanics	Motorcycle Mechanics
10+ years	10%	0%	Doctoral	0%	0%
8-10 years	0%	6%	Professional Degree	0%	3%
6-8 years	11%	0%	Post-Masters Cert	0%	0%
4-6 years	12%	9%	Master's Degree	0%	0%
2-4 years	14%	9%	Post-Bachelor Cert	0%	0%
1-2 years	23%	53%	Bachelors	0%	0%
6-12 months	25%	18%	AA or Equiv	0%	0%
3-6 months	0%	0%	Some College	0%	26%
1-3 months	0%	1%	Post-Secondary Certificate	63%	26%
0-1 month	0%	0%	High School Diploma or GED	16%	43%
None	1%	0%	No HSD or GED	19%	0%

Motorboat Mechanics

Motorcycle Mechanics

Most Common Educational/Training Requirement:

Long-term on-the-job training

Long-term on-the-job training

Job Zone Comparison

3 - Job Zone Three: Medium Preparation Needed

3 - Job Zone Three: Medium Preparation Needed



<p>Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.</p>	<p>Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.</p>
<p>Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.</p>	<p>Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.</p>
<p>Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.</p>	<p>Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.</p>

Tasks

Motorboat Mechanics	Motorcycle Mechanics
Core Tasks	Core Tasks
<p>Generalized Work Activities:</p> <ul style="list-style-type: none"> • Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles. • Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources. • Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events. • Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems. • Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects. 	<p>Generalized Work Activities:</p> <ul style="list-style-type: none"> • Operating Vehicles, Mechanized Devices, or Equipment - Running, maneuvering, navigating, or driving vehicles or mechanized equipment, such as forklifts, passenger vehicles, aircraft, or water craft. • Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources. • Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles. • Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things. • Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
Specific Tasks	Specific Tasks
<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> • Adjust carburetor mixtures, electrical point settings, and timing while motors are running in water-filled test tanks. • Adjust generators and replace faulty wiring, using hand tools and soldering irons. • Disassemble and inspect motors to locate defective parts, using mechanic's hand tools and gauges. • Document inspection and test results, and work performed or to be performed. • Idle motors and observe thermometers to determine the effectiveness of cooling systems. • Inspect and repair or adjust propellers and propeller shafts. • Mount motors to boats and operate boats at various speeds on waterways to conduct operational tests. • Repair engine mechanical equipment such 	<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> • Connect test panels to engines and measure generator output, ignition timing, and other engine performance indicators. • Disassemble subassembly units and examine condition, movement or alignment of parts visually or using gauges. • Dismantle engines and repair or replace defective parts, such as magnetos, carburetors, and generators. • Hammer out dents and bends in frames, weld tears and breaks; then reassemble frames and reinstall engines. • Listen to engines, examine vehicle frames, and confer with customers in order to determine nature and extent of malfunction or damage. • Reassemble and test subassembly units. • Remove cylinder heads, grind valves, and scrape off carbon, and replace defective



repair engine mechanical equipment such as power-tilts, bilge pumps, or power take-offs.

- Repair or rework parts, using machine tools such as lathes, mills, drills, and grinders.
- Replace parts such as gears, magneto points, piston rings, and spark plugs, and reassemble engines.
- Set starter locks, and align and repair steering or throttle controls, using gauges, screwdrivers, and wrenches.
- Start motors, and monitor performance for signs of malfunctioning such as smoke, excessive vibration, and misfiring.

Detailed Tasks

Detailed Work Activities:

- adhere to safety procedures
- adjust or set mechanical controls or components
- align or adjust clearances of mechanical components or parts
- align or adjust clearances of vehicle body parts or components
- analyze test information to determine equipment operating efficiency
- assemble, dismantle, or reassemble equipment or machinery
- conduct tests to locate mechanical system malfunction
- determine installation, service, or repair needed
- diagnose mechanical problems in machinery or equipment
- fabricate, assemble, or disassemble manufactured products by hand
- follow vehicle repair procedures
- inspect machinery or equipment to determine adjustments or repairs needed
- install or replace meters, regulators, or related measuring or control devices
- lubricate machinery, equipment, or parts
- maintain or repair ship/boat engine, machinery or equipment
- maintain or repair small engines
- maintain repair records
- move or fit heavy objects
- observe or listen to machinery or equipment operation to detect malfunctions
- operate hoist, winch, or hydraulic boom
- operate vehicle engine electrical system test equipment
- overhaul vehicle major operating units, such as engines or transmissions
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- read blueprints
- read specifications

valves, pistons, cylinders and rings, using hand tools and power tools.

- Repair and adjust motorcycle subassemblies such as forks, transmissions, brakes, and drive chains, according to specifications.
- Repair or replace other parts, such as headlights, horns, handlebar controls, gasoline and oil tanks, starters, and mufflers.
- Replace defective parts, using hand tools, arbor presses, flexible power presses, or power tools.

Detailed Tasks

Detailed Work Activities:

- adhere to safety procedures
- adjust or set mechanical controls or components
- align or adjust clearances of mechanical components or parts
- align or adjust clearances of vehicle body parts or components
- assemble, dismantle, or reassemble equipment or machinery
- conduct tests to locate mechanical system malfunction
- determine installation, service, or repair needed
- diagnose malfunctioning vehicle systems
- diagnose mechanical problems in machinery or equipment
- estimate time or cost for installation, repair, or construction projects
- fabricate, assemble, or disassemble manufactured products by hand
- follow safe waste disposal procedures
- follow vehicle repair procedures
- identify properties of metals for repair or fabrication activities
- inspect machinery or equipment to determine adjustments or repairs needed
- maintain repair records
- maintain welding machines or equipment
- move or fit heavy objects
- observe or listen to machinery or equipment operation to detect malfunctions
- obtain information from clients, customers, or patients
- operate vehicle engine electrical system test equipment
- overhaul vehicle major operating units, such as engines or transmissions
- perform safety inspections in industrial, manufacturing or repair setting
- read schematics
- read specifications
- read technical drawings
- read vehicle manufacturer's specifications
- read work order, instructions, formulas, or



- read technical drawings
- read vehicle manufacturer's specifications
- read work order, instructions, formulas, or processing charts
- repair or replace electrical wiring, circuits, fixtures, or equipment
- repair or replace malfunctioning or worn mechanical components
- service vehicle with water, fuel, or oil
- set up and operate variety of machine tools
- solder electrical or electronic connections or components
- test electrical/electronic wiring, equipment, systems or fixtures
- test mechanical products or equipment
- test operate vehicles before or after repair
- understand service or repair manuals
- understand technical operating, service or repair manuals
- use 2-cycle engine technology
- use basic plumbing techniques
- use electrical or electronic test devices or equipment
- use electronic calibration devices
- use engine diagnostic equipment
- use hand or power tools
- use knowledge of metric system
- use machine tools in installation, maintenance, or repair
- use precision measuring devices in mechanical repair work
- use soldering equipment
- use voltmeter, ammeter, or ohmmeter

- processing charts
- repair or replace electrical wiring, circuits, fixtures, or equipment
- repair or replace malfunctioning or worn mechanical components
- repair vehicle body parts
- service vehicle with water, fuel, or oil
- set up and operate variety of machine tools
- solder vehicle components
- test mechanical products or equipment
- test operate vehicles before or after repair
- understand service or repair manuals
- understand technical operating, service or repair manuals
- use 2-cycle engine technology
- use acetylene welding/cutting torch
- use arc welding equipment
- use auto or vehicular body repair equipment
- use combination welding procedures
- use electrical or electronic test devices or equipment
- use electronic calibration devices
- use engine diagnostic equipment
- use hand or power tools
- use knowledge of metric system
- use knowledge of welding filler rod types
- use machine tools in installation, maintenance, or repair
- use oral or written communication techniques
- use pneumatic tools
- use precision measuring devices in mechanical repair work
- use voltmeter, ammeter, or ohmmeter
- weld together metal parts, components, or structures
- write vehicle damage repair estimates

Labor Market Comparison

Maine Department of Labor.

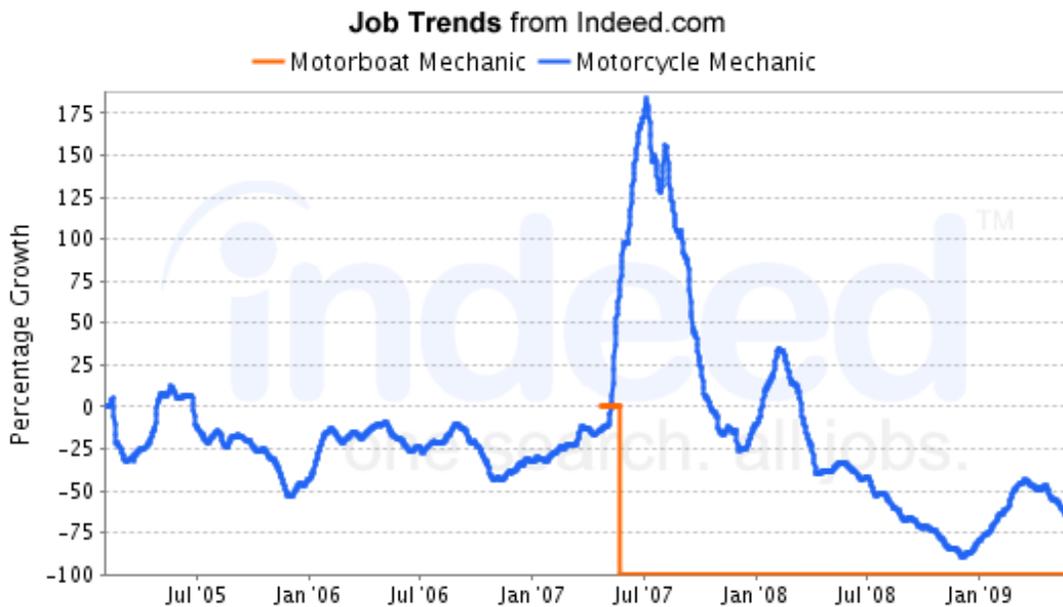
Description	Motorboat Mechanics	Motorcycle Mechanics	Difference
Median Wage	\$ 34,980	\$ 29,340	\$(5,640)
10th Percentile Wage	\$ 24,940	\$ 19,210	\$(5,730)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 42,120	\$ 35,850	\$(6,270)
90th Percentile Wage	\$ 49,060	\$ 47,870	\$(1,190)

Mean Wage	\$ 35,530	\$ 31,420	\$(4,110)
Total Employment - 2509	240	100	-140
Employment Base - 2006	288	114	-174
Projected Employment - 2518	305	117	-188
Projected Job Growth - 2006-2518	5.9 %	2.6 %	-3.3 %
Projected Annual Openings - 2006-2518	8	2	-6
Special	★		

Special Occupations: ★ Maine High Wage - In Demand

National Job Posting Trends

Trend for Motorboat Mechanics and Motorcycle Mechanics



Data from [Indeed](http://Indeed.com)

Programs

Related Programs

Motorcycle Mechanic and Repairer

Motorcycle Maintenance and Repair Technology/Technician. A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain motorcycles and other similar powered vehicles. Includes instruction in lubrication and cooling systems, electrical and ignition systems, carburetion, fuel systems and adjustments of moving parts.

No information on schools for the program

Maine Statewide Promotion Opportunities for Motorboat Mechanics



O* NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
49-3051.00	Motorboat Mechanics	100	3	240	\$34,980.00	\$0.00	6%	8	★
49-3042.00	Mobile Heavy Equipment Mechanics, Except Engines	92	4	880	\$37,010.00	\$2,030.00	5%	22	★
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	90	3	440	\$49,450.00	\$14,470.00	-19%	15	
47-2011.00	Boilermakers	90	4	60	\$39,260.00	\$4,280.00	12%	3	
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	89	3	170	\$47,860.00	\$12,880.00	-9%	3	
49-2093.00	Electrical and Electronics Installers and Repairers, Transportation Equipment	89	3	130	\$35,960.00	\$980.00	4%	4	
49-9044.00	Millwrights	89	3	830	\$41,280.00	\$6,300.00	-12%	11	
51-4121.06	Welders, Cutters, and Welder Fitters	88	2	1,610	\$38,030.00	\$3,050.00	7%	49	★
53-6051.07	Transportation Vehicle, Equipment and Systems Inspectors, Except Aviation	88	3	60	\$42,890.00	\$7,910.00	5%	2	
47-5021.00	Earth Drillers, Except Oil and Gas	87	3	140	\$37,470.00	\$2,490.00	2%	4	
49-9041.00	Industrial Machinery Mechanics	87	3	990	\$39,370.00	\$4,390.00	7%	25	★
49-2098.00	Security and Fire Alarm Systems Installers	86		290	\$39,970.00	\$4,990.00	20%	10	★
51-4111.00	Tool and Die Makers	86	3	160	\$51,670.00	\$16,690.00	-11%	2	



49-9021.01	Heating and Air Conditioning Mechanics and Installers	86	3	1,750	\$36,950.00	\$1,970.00	8%	49	★
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$3,250.00	-26%	23	

Special Occupations: ★ Maine High Wage - In Demand

Top Industries for Motorcycle Mechanics

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Other motor vehicle dealers	441200	68.12%	14,448	16,795	16.24%
Self-employed workers, primary job	000601	19.12%	4,055	4,321	6.54%
Personal and household goods repair and maintenance	811400	3.99%	846	785	-7.19%
Self-employed workers, secondary job	000602	2.80%	594	592	-0.45%
Automobile dealers	441100	1.15%	244	276	13.44%
Other transportation equipment manufacturing	336900	0.75%	159	159	0.42%
Motor vehicle and motor vehicle parts and supplies merchant wholesalers	423100	0.28%	58	67	14.14%

Top Industries for Motorboat Mechanics

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Other motor vehicle dealers	441200	38.93%	9,389	12,582	34.01%
Self-employed workers, primary job	000601	19.75%	4,762	5,073	6.54%
Personal and household goods repair and maintenance	811400	12.93%	3,117	2,893	-7.19%
Ship and boat building	336600	2.94%	709	794	11.93%
Self-employed workers, secondary job	000602	2.89%	698	695	-0.45%
Support activities for water transportation	488300	1.37%	331	383	15.76%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	0.63%	151	160	5.82%
Consumer goods rental	532200	0.63%	153	166	8.77%
Miscellaneous durable goods merchant wholesalers	423900	0.61%	146	168	14.80%
Scenic and sightseeing transportation	487000	0.50%	121	156	29.38%

Inland water transportation	483200	0.40%	96	108	12.28%
Automotive mechanical and electrical repair and maintenance	811110	0.35%	84	100	18.73%
State government, excluding education and hospitals	929200	0.30%	73	72	-1.88%



TORQ Analysis of Motorboat Mechanics to Mobile Heavy Equipment Mechanics, Except Engines

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Motorboat Mechanics	49-3051.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Mobile Heavy Equipment Mechanics, Except Engines	49-3042.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS					
Grand TORQ:					92
Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	89	Level	91	Level	97

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Imp	Skill	Level	Gap	Imp	Knowledge	Level	Gap	Imp
Information Ordering	62	16	78	Operation Monitoring	83	19	82	Production and Processing	45	11	69
Selective Attention	59	17	72	Operation and Control	74	12	71	Mechanical	85	2	89
Auditory Attention	66	20	56	Troubleshooting	95	5	77				
Visualization	62	14	72	Installation	87	4	70				
Written Comprehension	57	13	62	Complex Problem Solving	58	2	73				
Static Strength	50	11	53								
Manual Dexterity	53	7	78								
Extent Flexibility	59	9	56								
Reaction Time	48	9	50								
Depth Perception	50	6	62								
Oral Expression	57	7	53								
Speech Clarity	44	7	53								
Deductive Reasoning	53	5	65								
Control Precision	57	4	72								
Oral Comprehension	60	5	56								
Flexibility of Closure	51	5	50								



Multilimb Coordination	57	2	75
Near Vision	51	1	78

LEVEL and IMPT (IMPORTANCE) refer to the Target Mobile Heavy Equipment Mechanics, Except Engines. GAP refers to level difference between Motorboat Mechanics and Mobile Heavy Equipment Mechanics, Except Engines.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Motorboat Mechanics	Mobile Heavy Equipment Mechanics, Except Engines	Importance
Problem Sensitivity	50	50	78
Information Ordering	46	62	78
Manual Dexterity	46	53	78
Near Vision	50	51	78
Multilimb Coordination	55	57	75
Visualization	48	62	72
Selective Attention	42	59	72
Control Precision	53	57	72
Arm-Hand Steadiness	48	46	68
Deductive Reasoning	48	53	65
Written Comprehension	44	57	62
Depth Perception	44	50	62
Inductive Reasoning	50	48	59
Finger Dexterity	50	44	59
Oral Comprehension	55	60	56
Extent Flexibility	50	59	56
Auditory Attention	46	66	56
Oral Expression	50	57	53
Static Strength	39	50	53
Trunk Strength	42	39	53
Speech Clarity	37	44	53
Flexibility of Closure	46	51	50
Reaction Time	39	48	50
Speech Recognition	39	39	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Motorboat Mechanics	Mobile Heavy Equipment Mechanics, Except Engines	Importance
Operation Monitoring	64	83	82
Troubleshooting	90	95	77



Complex Problem Solving	56	58	73
Operation and Control	62	74	71
Installation	83	87	70
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Motorboat Mechanics	Mobile Heavy Equipment Mechanics, Except Engines	Importance
Mechanical	83	85	89
Production and Processing	34	45	69

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Motorboat Mechanics	Mobile Heavy Equipment Mechanics, Except Engines	Description	Motorboat Mechanics	Mobile Heavy Equipment Mechanics, Except Engines
10+ years	10%	20%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	0%
6-8 years	11%	5%	Post-Masters Cert	0%	0%
4-6 years	12%	22%	Master's Degree	0%	0%
2-4 years	14%	23%	Post-Bachelor Cert	0%	0%
1-2 years	23%	6%	Bachelors	0%	0%
6-12 months	25%	0%	AA or Equiv	0%	2%
3-6 months	0%	0%	Some College	0%	2%
1-3 months	0%	0%	Post-Secondary Certificate	63%	65%
0-1 month	0%	0%	High School Diploma or GED	16%	29%
None	1%	21%	No HSD or GED	19%	0%
Motorboat Mechanics			Mobile Heavy Equipment Mechanics, Except Engines		
Most Common Educational/Training Requirement:					
Long-term on-the-job training			Postsecondary vocational award		
Job Zone Comparison					
3 - Job Zone Three: Medium Preparation Needed			4 - Job Zone Four: Considerable Preparation Needed		
<p>Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.</p> <p>Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.</p> <p>Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.</p>			<p>A minimum of two to four years of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.</p> <p>Most of these occupations require a four - year bachelor's degree, but some do not.</p> <p>Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.</p>		

Tasks	
Motorboat Mechanics	Mobile Heavy Equipment Mechanics, Except Engines



Core Tasks

Generalized Work Activities:

- Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Specific Tasks

Occupation Specific Tasks:

- Adjust carburetor mixtures, electrical point settings, and timing while motors are running in water-filled test tanks.
- Adjust generators and replace faulty wiring, using hand tools and soldering irons.
- Disassemble and inspect motors to locate defective parts, using mechanic's hand tools and gauges.
- Document inspection and test results, and work performed or to be performed.
- Idle motors and observe thermometers to determine the effectiveness of cooling systems.
- Inspect and repair or adjust propellers and propeller shafts.
- Mount motors to boats and operate boats at various speeds on waterways to conduct operational tests.
- Repair engine mechanical equipment such as power-tilts, bilge pumps, or power take-offs.
- Repair or rework parts, using machine tools such as lathes, mills, drills, and grinders.
- Replace parts such as gears, magneto points, piston rings, and spark plugs, and reassemble engines.
- Set starter locks, and align and repair steering or throttle controls, using gauges, screwdrivers, and wrenches.
- Start motors, and monitor performance for signs of malfunctioning such as smoke, excessive vibration, and misfiring.

Detailed Tasks

Core Tasks

Generalized Work Activities:

- Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
- Operating Vehicles, Mechanized Devices, or Equipment - Running, maneuvering, navigating, or driving vehicles or mechanized equipment, such as forklifts, passenger vehicles, aircraft, or water craft.
- Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.
- Updating and Using Relevant Knowledge - Keeping up-to-date technically and applying new knowledge to your job.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Specific Tasks

Occupation Specific Tasks:

- Adjust and maintain industrial machinery, using control and regulating devices.
- Adjust, maintain, and repair or replace subassemblies, such as transmissions and crawler heads, using hand tools, jacks, and cranes.
- Assemble gear systems, and align frames and gears.
- Clean parts by spraying them with grease solvent or immersing them in tanks of solvent.
- Clean, lubricate, and perform other routine maintenance work on equipment and vehicles.
- Diagnose faults or malfunctions to determine required repairs, using engine diagnostic equipment such as computerized test equipment and calibration devices.
- Direct workers who are assembling or disassembling equipment or cleaning parts.
- Dismantle and reassemble heavy equipment using hoists and hand tools.
- Examine parts for damage or excessive wear, using micrometers and gauges.
- Fabricate needed parts or items from sheet metal.
- Fit bearings to adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment.
- Operate and inspect machines or heavy equipment to diagnose defects.
- Overhaul and test machines or equipment to ensure operating efficiency.
- Read and understand operating manuals,



Detailed Work Activities:

- adhere to safety procedures
- adjust or set mechanical controls or components
- align or adjust clearances of mechanical components or parts
- align or adjust clearances of vehicle body parts or components
- analyze test information to determine equipment operating efficiency
- assemble, dismantle, or reassemble equipment or machinery
- conduct tests to locate mechanical system malfunction
- determine installation, service, or repair needed
- diagnose mechanical problems in machinery or equipment
- fabricate, assemble, or disassemble manufactured products by hand
- follow vehicle repair procedures
- inspect machinery or equipment to determine adjustments or repairs needed
- install or replace meters, regulators, or related measuring or control devices
- lubricate machinery, equipment, or parts
- maintain or repair ship/boat engine, machinery or equipment
- maintain or repair small engines
- maintain repair records
- move or fit heavy objects
- observe or listen to machinery or equipment operation to detect malfunctions
- operate hoist, winch, or hydraulic boom
- operate vehicle engine electrical system test equipment
- overhaul vehicle major operating units, such as engines or transmissions
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- read blueprints
- read specifications
- read technical drawings
- read vehicle manufacturer's specifications
- read work order, instructions, formulas, or processing charts
- repair or replace electrical wiring, circuits, fixtures, or equipment
- repair or replace malfunctioning or worn mechanical components
- service vehicle with water, fuel, or oil
- set up and operate variety of machine tools
- solder electrical or electronic connections or components
- test electrical/electronic wiring, equipment, systems or fixtures

blueprints, and technical drawings.

- Repair and replace damaged or worn parts.
- Schedule maintenance for industrial machines and equipment, and keep equipment service records.
- Test mechanical products and equipment after repair or assembly to ensure proper performance and compliance with manufacturers' specifications.
- Weld or solder broken parts and structural members, using electric or gas welders and soldering tools.

Detailed Tasks

Detailed Work Activities:

- adhere to safety procedures
- adjust or set mechanical controls or components
- align or adjust clearances of mechanical components or parts
- align or adjust clearances of vehicle body parts or components
- align vehicle frame
- apply cleaning solvents
- assemble gear systems
- assemble, dismantle, or reassemble equipment or machinery
- burn (cut), trim, or scarf metal objects
- conduct tests to locate mechanical system malfunction
- determine installation, service, or repair needed
- develop maintenance schedules
- diagnose malfunctioning vehicle systems
- diagnose mechanical problems in machinery or equipment
- direct and coordinate activities of workers or staff
- examine vehicle to detect malfunctions, damage, or maintenance needed
- fabricate sheet metal parts or items
- fabricate, assemble, or disassemble manufactured products by hand
- follow safe waste disposal procedures
- follow vehicle repair procedures
- identify base metals for welding
- inspect machinery or equipment to determine adjustments or repairs needed
- lubricate machinery, equipment, or parts
- maintain or repair industrial or related equipment/machinery
- maintain repair records
- maintain welding machines or equipment
- move or fit heavy objects
- operate crane in construction, manufacturing or repair setting
- operate hoist, winch, or hydraulic boom



- test mechanical products or equipment
- test operate vehicles before or after repair
- understand service or repair manuals
- understand technical operating, service or repair manuals
- use 2-cycle engine technology
- use basic plumbing techniques
- use electrical or electronic test devices or equipment
- use electronic calibration devices
- use engine diagnostic equipment
- use hand or power tools
- use knowledge of metric system
- use machine tools in installation, maintenance, or repair
- use precision measuring devices in mechanical repair work
- use soldering equipment
- use voltmeter, ammeter, or ohmmeter

- operate pneumatic test equipment
- operate sheet metal fabrication machines
- operate vehicle engine electrical system test equipment
- overhaul industrial or construction machinery or equipment
- overhaul vehicle major operating units, such as engines or transmissions
- perform safety inspections in industrial, manufacturing or repair setting
- read blueprints
- read schematics
- read technical drawings
- read work order, instructions, formulas, or processing charts
- repair or replace malfunctioning or worn mechanical components
- service vehicle with water, fuel, or oil
- set up and operate variety of machine tools
- solder metal parts or components together
- solder vehicle components
- test mechanical products or equipment
- test operate vehicles before or after repair
- understand service or repair manuals
- understand technical operating, service or repair manuals
- use acetylene welding/cutting torch
- use arc welding equipment
- use combination welding procedures
- use control or regulating devices to adjust or maintain industrial machinery
- use electrical or electronic test devices or equipment
- use electronic calibration devices
- use engine diagnostic equipment
- use gas welding equipment
- use hand or power tools
- use knowledge of metric system
- use knowledge of welding filler rod types
- use machine tools in installation, maintenance, or repair
- use measuring devices in repairing industrial or heavy equipment
- use precision measuring devices in mechanical repair work
- use soldering equipment
- use vehicle repair tools or safety equipment
- use voltmeter, ammeter, or ohmmeter
- weld together metal parts, components, or structures

Tools - Examples

- Dual action pliers
- Adjustable monkey wrenches



- Air compressors
- Ammeters
- Exhaust emission analyzers
- AWMs
- Battery chargers
- Handheld battery testers
- Cutting torches
- Bolt cutters
- Boring bars
- Offset box wrenches
- Hose clamps
- Dial calipers
- Circuit testers
- Clamp-on multimeters
- Cold chisels
- Combination wrenches
- Desktop computers
- Cutting pliers
- Electronic engine analyzers
- Dynamometers
- Protective ear devices
- End nippers
- Jack stands
- Feeler gauges
- Files
- Brazing equipment
- Dial gauges
- Safety goggles
- Grease guns
- Ball peen hammers
- Solvent sprayers
- Hard hats



- Protective clothing
- Heat guns
- Allen wrenches
- Hoists
- Jacks
- Lathes
- Leak detection equipment
- Hydraulic lifts
- Lineman's pliers
- Leak detectors
- Channel lock pliers
- Long nose pliers
- Magnetic pickup tools
- Inspection mirrors
- Rubber mallets
- Metal inert gas MG welders
- On board computers
- Micrometers
- Multimeters
- Needlenose pliers
- Nut drivers
- Ohmmeters
- Oscilloscopes
- Paint sprayers
- Personal computers
- Pipe wrenches
- Pitch gauges
- Plasma welding equipment
- Impact air wrenches
- Hand held diagnostic computers
- Power drills
- Grinding machines



- Power sanders
- Power saws
- Cordless screwdrivers
- Pressure gauges
- Pry bars
- Brass drifts
- Putty knives
- Ratchets
- Razor knives
- Respirators
- Snap ring pliers
- Riveting equipment
- Rulers
- Hard-toed shoes
- Hacksaws
- Screw extractors
- Phillips head screwdrivers
- Groove joint/water pump pliers
- Socket sets
- Sockets
- Brake bleeder wrenches
- Wire strippers
- Tachometers
- Tape measures
- Snips
- Torx screwdrivers
- Tungsten inert gas TIG welding equipment
- Two way radios
- Utility knives
- Voltmeters
- Arc welders
- Welding hoods



- Wheel alignment gauges
- Wire brushes
- Wire cutters
- Crimping pliers
- Drill presses

Labor Market Comparison

Maine Department of Labor.

Description	Motorboat Mechanics	Mobile Heavy Equipment Mechanics, Except Engines	Difference
Median Wage	\$ 34,980	\$ 37,010	\$ 2,030
10th Percentile Wage	\$ 24,940	\$ 26,380	\$ 1,440
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 42,120	\$ 44,370	\$ 2,250
90th Percentile Wage	\$ 49,060	\$ 52,650	\$ 3,590
Mean Wage	\$ 35,530	\$ 38,030	\$ 2,500
Total Employment - 2509	240	880	640
Employment Base - 2006	288	886	598
Projected Employment - 2518	305	933	628
Projected Job Growth - 2006-2518	5.9 %	5.3 %	-0.6 %
Projected Annual Openings - 2006-2518	8	22	14
Special	★	★	

Special Occupations: ★ Maine High Wage - In Demand

National Job Posting Trends

Trend for Motorboat Mechanics and Mobile Heavy Equipment Mechanics, Except Engines



Programs			
Related Programs			
Agricultural Mechanics and Equipment/Machine Technology			
<p>Agricultural Mechanics and Equipment/Machine Technology. A program that prepares individuals to maintain and repair specialized farm, ranch, and agribusiness power equipment and vehicles. Includes instruction in the principles of diesel, combustion, electrical, steam, hydraulic, and mechanical systems and their application to the maintenance of terrestrial and airborne crop spraying equipment; tractors and hauling equipment; planting and harvesting equipment; cutting equipment; power sources and systems for silos; irrigation and pumping equipment; dairy, feeding and, shearing operations; and processing systems.</p> <p>No information on schools for the program</p>			
Heavy Equipment Main. and Repairer			
<p>Heavy Equipment Maintenance Technology/Technician. A program that prepares individuals to apply technical knowledge and skills in the field maintenance and repair of heavy equipment, and in the general maintenance and overhaul of such equipment. Includes instruction in inspection, maintenance, and repair of tracks, wheels, brakes, operating controls, pneumatic and hydraulic systems, electrical circuitry, engines and in techniques of welding and brazing.</p>			
Institution	Address	City	URL
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Washington County Community College	One College Drive	Calais	www.wccc.me.edu

Maine Statewide Promotion Opportunities for Motorboat Mechanics									
O*NET Code	Title	Grand TORO	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special



49-3051.00	Motorboat Mechanics	100	3	240	\$34,980.00	\$0.00	6%	8	★
49-3042.00	Mobile Heavy Equipment Mechanics, Except Engines	92	4	880	\$37,010.00	\$2,030.00	5%	22	★
47-2011.00	Boilermakers	90	4	60	\$39,260.00	\$4,280.00	12%	3	
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	90	3	440	\$49,450.00	\$14,470.00	-19%	15	
49-2093.00	Electrical and Electronics Installers and Repairers, Transportation Equipment	89	3	130	\$35,960.00	\$980.00	4%	4	
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	89	3	170	\$47,860.00	\$12,880.00	-9%	3	
49-9044.00	Millwrights	89	3	830	\$41,280.00	\$6,300.00	-12%	11	
51-4121.06	Welders, Cutters, and Welder Fitters	88	2	1,610	\$38,030.00	\$3,050.00	7%	49	★
53-6051.07	Transportation Vehicle, Equipment and Systems Inspectors, Except Aviation	88	3	60	\$42,890.00	\$7,910.00	5%	2	
47-5021.00	Earth Drillers, Except Oil and Gas	87	3	140	\$37,470.00	\$2,490.00	2%	4	
49-9041.00	Industrial Machinery Mechanics	87	3	990	\$39,370.00	\$4,390.00	7%	25	★
49-2098.00	Security and Fire Alarm Systems Installers	86		290	\$39,970.00	\$4,990.00	20%	10	★
51-4111.00	Tool and Die Makers	86	3	160	\$51,670.00	\$16,690.00	-11%	2	
49-9021.01	Heating and Air Conditioning Mechanics and Installers	86	3	1,750	\$36,950.00	\$1,970.00	8%	49	★



51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$3,250.00	-26%	23
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Special Occupations: ★ Maine High Wage - In Demand

Top Industries for Mobile Heavy Equipment Mechanics, Except Engines

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Federal government, excluding postal service	919999	7.28%	9,503	8,984	-5.47%
Other specialty trade contractors	238900	6.94%	9,064	10,018	10.52%
Local government, excluding education and hospitals	939300	6.28%	8,199	9,210	12.34%
Commercial and industrial machinery and equipment rental and leasing	532400	5.73%	7,487	9,148	22.19%
Highway, street, and bridge construction	237300	4.91%	6,404	6,895	7.66%
Self-employed workers, primary job	000601	4.77%	6,229	6,636	6.54%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	3.92%	5,112	5,409	5.82%
Metal ore mining	212200	2.04%	2,658	3,403	28.00%
State government, excluding education and hospitals	929200	2.01%	2,618	2,569	-1.87%
Nonmetallic mineral mining and quarrying	212300	1.95%	2,549	2,736	7.32%
Coal mining	212100	1.74%	2,268	2,291	0.99%
Support activities for mining	213100	1.55%	2,028	1,908	-5.93%
Other heavy and civil engineering construction	237900	1.48%	1,934	2,077	7.41%
Animal production; primary job	112000	1.40%	1,829	1,622	-11.34%
Nonresidential building construction	236200	1.26%	1,639	1,837	12.05%

Top Industries for Motorboat Mechanics

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Other motor vehicle dealers	441200	38.93%	9,389	12,582	34.01%
Self-employed workers, primary job	000601	19.75%	4,762	5,073	6.54%
Personal and household goods repair and maintenance	811400	12.93%	3,117	2,893	-7.19%
Ship and boat building	336600	2.94%	709	794	11.93%
Self-employed workers, secondary job	000602	2.89%	698	695	-0.45%
Support activities for water transportation	488300	1.37%	331	383	15.76%



Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	0.63%	151	160	5.82%
Consumer goods rental	532200	0.63%	153	166	8.77%
Miscellaneous durable goods merchant wholesalers	423900	0.61%	146	168	14.80%
Scenic and sightseeing transportation	487000	0.50%	121	156	29.38%
Inland water transportation	483200	0.40%	96	108	12.28%
Automotive mechanical and electrical repair and maintenance	811110	0.35%	84	100	18.73%
State government, excluding education and hospitals	929200	0.30%	73	72	-1.88%



TORQ Analysis of Motorboat Mechanics to Farm Equipment Mechanics

ANALYSIS INPUT					
Transfer	Title	O* NET	Filters		
From Title:	Motorboat Mechanics	49-3051.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Farm Equipment Mechanics	49-3041.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS	
Grand TORQ:	92

Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	89	Level	91	Level	96

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Response Orientation	48	20	53	Operation Monitoring	60	6	69	No Knowledge Upgrades Required!			
Reaction Time	50	11	68								
Static Strength	48	9	59								
Visual Color Discrimination	50	9	50								
Trunk Strength	50	8	56								
Selective Attention	50	8	53								
Extent Flexibility	57	7	56								
Manual Dexterity	50	4	78								
Control Precision	57	4	75								
Finger Dexterity	53	3	72								
Visualization	51	3	62								
Hearing Sensitivity	53	3	59								
Arm-Hand Steadiness	50	2	78								
Speech Recognition	42	3	50								
Near Vision	51	1	62								

LEVEL and IMPT (IMPORTANCE) refer to the Target Farm Equipment Mechanics. GAP refers to level difference between Motorboat Mechanics and Farm Equipment Mechanics.



ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Motorboat Mechanics	Farm Equipment Mechanics	Importance
Arm-Hand Steadiness	48	50	78
Manual Dexterity	46	50	78
Control Precision	53	57	75
Multilimb Coordination	55	55	75
Finger Dexterity	50	53	72
Reaction Time	39	50	68
Problem Sensitivity	50	44	62
Inductive Reasoning	50	48	62
Visualization	48	51	62
Near Vision	50	51	62
Oral Expression	50	48	59
Deductive Reasoning	48	44	59
Static Strength	39	48	59
Hearing Sensitivity	50	53	59
Oral Comprehension	55	48	56
Information Ordering	46	44	56
Trunk Strength	42	50	56
Extent Flexibility	50	57	56
Depth Perception	44	42	56
Flexibility of Closure	46	44	53
Selective Attention	42	50	53
Response Orientation	28	48	53
Category Flexibility	41	41	50
Visual Color Discrimination	41	50	50
Auditory Attention	46	44	50
Speech Recognition	39	42	50
Speech Clarity	37	37	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Motorboat Mechanics	Farm Equipment Mechanics	Importance
Operation Monitoring	54	60	69

Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Motorboat Mechanics	Farm Equipment Mechanics	Importance
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Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Motorboat Mechanics	Farm Equipment Mechanics	Description	Motorboat Mechanics	Farm Equipment Mechanics
10+ years	10%	0%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	0%
6-8 years	11%	0%	Post-Masters Cert	0%	0%
4-6 years	12%	1%	Master's Degree	0%	0%
2-4 years	14%	14%	Post-Bachelor Cert	0%	0%
1-2 years	23%	38%	Bachelors	0%	0%
6-12 months	25%	12%	AA or Equiv	0%	5%
3-6 months	0%	10%	Some College	0%	19%
1-3 months	0%	0%	Post-Secondary Certificate	63%	18%
0-1 month	0%	10%	High School Diploma or GED	16%	56%
None	1%	11%	No HSD or GED	19%	0%

Motorboat Mechanics

Farm Equipment Mechanics

Most Common Educational/Training Requirement:

Long-term on-the-job training

Postsecondary vocational award

Job Zone Comparison

3 - Job Zone Three: Medium Preparation Needed

3 - Job Zone Three: Medium Preparation Needed

Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.

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Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.

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Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

Tasks

Motorboat Mechanics

Farm Equipment Mechanics

Core Tasks

Core Tasks

Generalized Work Activities:

Generalized Work Activities:

- Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.

- Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.



- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Specific Tasks

Occupation Specific Tasks:

- Adjust carburetor mixtures, electrical point settings, and timing while motors are running in water-filled test tanks.
- Adjust generators and replace faulty wiring, using hand tools and soldering irons.
- Disassemble and inspect motors to locate defective parts, using mechanic's hand tools and gauges.
- Document inspection and test results, and work performed or to be performed.
- Idle motors and observe thermometers to determine the effectiveness of cooling systems.
- Inspect and repair or adjust propellers and propeller shafts.
- Mount motors to boats and operate boats at various speeds on waterways to conduct operational tests.
- Repair engine mechanical equipment such as power-tilts, bilge pumps, or power take-offs.
- Repair or rework parts, using machine tools such as lathes, mills, drills, and grinders.
- Replace parts such as gears, magneto points, piston rings, and spark plugs, and reassemble engines.
- Set starter locks, and align and repair steering or throttle controls, using gauges, screwdrivers, and wrenches.
- Start motors, and monitor performance for signs of malfunctioning such as smoke, excessive vibration, and misfiring.

Detailed Tasks

Detailed Work Activities:

- adhere to safety procedures
- adjust or set mechanical controls or components
- align or adjust clearances of mechanical components or parts
- align or adjust clearances of vehicle body parts or components
- analyze test information to determine equipment operating efficiency
- assemble, dismantle, or reassemble equipment or machinery
- conduct tests to locate mechanical system malfunction
- determine installation, service, or repair

- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.

Specific Tasks

Occupation Specific Tasks:

- Calculate bills according to record of repairs made, labor time, and parts used.
- Clean and lubricate parts.
- Dismantle defective machines for repair, using hand tools.
- Drive trucks to haul tools and equipment for on-site repair of large machinery.
- Examine and listen to equipment, read inspection reports, and confer with customers to locate and diagnose malfunctions.
- Fabricate new metal parts, using drill presses, engine lathes, and other machine tools.
- Install and repair agricultural irrigation, plumbing, and sprinkler systems.
- Maintain, repair, and overhaul farm machinery and vehicles, such as tractors, harvesters, and irrigation systems.
- Reassemble machines and equipment following repair; test operation; and make adjustments as necessary.
- Record details of repairs made and parts used.
- Repair bent or torn sheet metal.
- Repair or replace defective parts, using hand tools, milling and woodworking machines, lathes, welding equipment, grinders, or saws.
- Test and replace electrical components and wiring, using test meters, soldering equipment, and hand tools.
- Tune or overhaul engines.

Detailed Tasks

Detailed Work Activities:

- adhere to safety procedures
- adjust or set mechanical controls or components
- align or adjust clearances of vehicle body parts or components
- assemble and install pipe sections, fittings, or plumbing fixtures
- assemble, dismantle, or reassemble equipment or machinery
- conduct tests to locate mechanical system malfunction
- determine installation, service, or repair



needed

- diagnose mechanical problems in machinery or equipment
- fabricate, assemble, or disassemble manufactured products by hand
- follow vehicle repair procedures
- inspect machinery or equipment to determine adjustments or repairs needed
- install or replace meters, regulators, or related measuring or control devices
- lubricate machinery, equipment, or parts
- maintain or repair ship/boat engine, machinery or equipment
- maintain or repair small engines
- maintain repair records
- move or fit heavy objects
- observe or listen to machinery or equipment operation to detect malfunctions
- operate hoist, winch, or hydraulic boom
- operate vehicle engine electrical system test equipment
- overhaul vehicle major operating units, such as engines or transmissions
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- read blueprints
- read specifications
- read technical drawings
- read vehicle manufacturer's specifications
- read work order, instructions, formulas, or processing charts
- repair or replace electrical wiring, circuits, fixtures, or equipment
- repair or replace malfunctioning or worn mechanical components
- service vehicle with water, fuel, or oil
- set up and operate variety of machine tools
- solder electrical or electronic connections or components
- test electrical/electronic wiring, equipment, systems or fixtures
- test mechanical products or equipment
- test operate vehicles before or after repair
- understand service or repair manuals
- understand technical operating, service or repair manuals
- use 2-cycle engine technology
- use basic plumbing techniques
- use electrical or electronic test devices or equipment
- use electronic calibration devices
- use engine diagnostic equipment
- use hand or power tools
- use knowledge of metric system
- use machine tools in installation, maintenance, or repair

needed

- diagnose malfunctioning vehicle systems
- diagnose mechanical problems in machinery or equipment
- drive automobile, van, or light truck
- examine vehicle to detect malfunctions, damage, or maintenance needed
- fabricate, assemble, or disassemble manufactured products by hand
- follow vehicle repair procedures
- identify base metals for welding
- inspect machinery or equipment to determine adjustments or repairs needed
- lubricate machinery, equipment, or parts
- maintain or repair cargo or passenger vehicle
- maintain or repair farm vehicles, machinery, or mechanical implements
- maintain or repair small engines
- maintain repair records
- maintain welding machines or equipment
- move or fit heavy objects
- observe or listen to machinery or equipment operation to detect malfunctions
- operate crane in construction, manufacturing or repair setting
- operate tractor with accessories or attachments
- operate vehicle engine electrical system test equipment
- operate woodworking equipment/machinery
- overhaul vehicle major operating units, such as engines or transmissions
- perform safety inspections in industrial, manufacturing or repair setting
- read blueprints
- read schematics
- read work order, instructions, formulas, or processing charts
- repair or replace electrical wiring, circuits, fixtures, or equipment
- repair or replace malfunctioning or worn mechanical components
- repair sheet metal products
- service vehicle with water, fuel, or oil
- set up and operate variety of machine tools
- test electrical/electronic wiring, equipment, systems or fixtures
- test mechanical products or equipment
- test operate vehicles before or after repair
- understand service or repair manuals
- understand technical operating, service or repair manuals
- use acetylene welding/cutting torch
- use arc welding equipment
- use basic plumbing techniques



- maintenance, or repair
- use precision measuring devices in mechanical repair work
 - use soldering equipment
 - use voltmeter, ammeter, or ohmmeter

- use combination welding procedures
- use electrical or electronic test devices or equipment
- use engine diagnostic equipment
- use hand or power tools
- use knowledge of metric system
- use knowledge of welding filler rod types
- use machine tools in installation, maintenance, or repair
- use precision measuring devices in mechanical repair work
- use soldering equipment
- use voltmeter, ammeter, or ohmmeter
- weld together metal parts, components, or structures

Labor Market Comparison

Maine Department of Labor.

Description	Motorboat Mechanics	Farm Equipment Mechanics	Difference
Median Wage	\$ 34,980	\$ 28,580	\$(6,400)
10th Percentile Wage	\$ 24,940	\$ 20,190	\$(4,750)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 42,120	\$ 34,540	\$(7,580)
90th Percentile Wage	\$ 49,060	\$ 39,190	\$(9,870)
Mean Wage	\$ 35,530	\$ 28,880	\$(6,650)
Total Employment - 2509	240	80	-160
Employment Base - 2006	288	85	-203
Projected Employment - 2518	305	77	-228
Projected Job Growth - 2006-2518	5.9 %	-9.4 %	-15.3 %
Projected Annual Openings - 2006-2518	8	2	-6
Special	★		

Special Occupations: ★ Maine High Wage - In Demand

National Job Posting Trends

Trend for Motorboat Mechanics and Farm Equipment Mechanics



Programs

Related Programs

Agricultural Mechanics and Equipment/Machine Technology

Agricultural Mechanics and Equipment/Machine Technology. A program that prepares individuals to maintain and repair specialized farm, ranch, and agribusiness power equipment and vehicles. Includes instruction in the principles of diesel, combustion, electrical, steam, hydraulic, and mechanical systems and their application to the maintenance of terrestrial and airborne crop spraying equipment; tractors and hauling equipment; planting and harvesting equipment; cutting equipment; power sources and systems for silos; irrigation and pumping equipment; dairy, feeding and, shearing operations; and processing systems.

No information on schools for the program

Agricultural Mechanization, General

Agricultural Mechanization, General. A program that generally prepares individuals to sell, select, and service agricultural or agribusiness technical equipment and facilities, including computers, specialized software, power units, machinery, equipment structures, and utilities. Includes instruction in agricultural power systems; planning and selecting materials for the construction of support facilities; mechanical practices associated with irrigation and water conservation; erosion control; and agricultural data processing systems.

No information on schools for the program

Agricultural Mechanization, Other

Agricultural Mechanization, Other. Any instructional program in agricultural mechanization not listed above.

No information on schools for the program

Agricultural Power Machinery Operator

Agricultural Power Machinery Operation. A program that prepares individuals to operate specialized farm, ranch, and agribusiness power equipment of a stationary, mobile, and/or hand-operated nature. Includes instruction in operating specialized equipment such as terrestrial and airborne crop spraying equipment; tractors and hauling equipment; planting and harvesting equipment; cutting equipment; power sources and systems for silos, irrigation, pumping, and applications such as dairy, feeding and, shearing operations; processing equipment; and applicable electrical, mechanical, and safety principles.

No information on schools for the program



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Special Occupations: ★ Maine High Wage - In Demand

Top Industries for Farm Equipment Mechanics

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Farm and garden machinery and equipment merchant wholesalers	423820	69.50%	21,316	22,608	6.06%
Self-employed workers, primary job	000601	5.32%	1,633	1,310	-19.75%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	4.44%	1,363	1,118	-17.94%
Lawn and garden equipment and supplies stores	444200	3.05%	936	792	-15.35%
Wholesale electronic markets and agents and brokers	425100	1.56%	480	512	6.76%
Animal production; primary job	112000	1.56%	480	400	-16.58%
Miscellaneous nondurable goods merchant wholesalers	424900	1.26%	386	394	2.29%
Agriculture, construction, and mining machinery manufacturing	333100	0.70%	213	187	-12.16%
Local government, excluding education and hospitals	939300	0.66%	202	214	5.69%
Crop production; primary job	111000	0.54%	164	103	-37.63%
Landscaping services	561730	0.51%	157	171	8.93%
Warehousing and storage	493100	0.43%	133	167	25.67%
Colleges, universities, and professional schools, public and private	611300	0.35%	109	114	5.26%
Fruit and vegetable preserving and specialty food manufacturing	311400	0.28%	86	73	-14.69%
Self-employed workers, secondary job	000602	0.25%	75	71	-6.33%

Top Industries for Motorboat Mechanics

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
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State government, excluding education and hospitals	929200	0.30%	73	72	-1.88%



TORQ Analysis of Motorboat Mechanics to Electric Motor, Power Tool, and Related Repairers

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Motorboat Mechanics	49-3051.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Electric Motor, Power Tool, and Related Repairers	49-2092.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS											
Grand TORQ:								92			
Ability TORQ			Skills TORQ				Knowledge TORQ				
Level			87	Level			93	Level			
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Speed of Closure	41	18	53	Equipment Selection	67	6	82	No Knowledge Upgrades Required!			
Visual Color Discrimination	53	12	59								
Finger Dexterity	59	9	75								
Manual Dexterity	55	9	68								
Selective Attention	51	9	56								
Reaction Time	48	9	56								
Auditory Attention	53	7	50								
Depth Perception	50	6	53								
Far Vision	42	5	53								
Rate Control	37	5	50								
Written Comprehension	48	4	50								
Category Flexibility	44	3	50								
Information Ordering	48	2	62								
Arm-Hand Steadiness	50	2	62								
Visualization	50	2	59								
Control Precision	55	2	53								
Near Vision	51	1	62								
LEVEL and IMPT (IMPORTANCE) refer to the Target Electric Motor, Power Tool, and Related Repairers. GAP refers to level difference between Motorboat Mechanics and Electric Motor, Power Tool, and Related Repairers.											

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Motorboat Mechanics	Electric Motor, Power Tool, and Related Repairs	Importance
Finger Dexterity	50	59	75
Manual Dexterity	46	55	68
Problem Sensitivity	50	42	65
Information Ordering	46	48	62
Arm-Hand Steadiness	48	50	62
Near Vision	50	51	62
Inductive Reasoning	50	44	59
Visualization	48	50	59
Visual Color Discrimination	41	53	59
Deductive Reasoning	48	46	56
Selective Attention	42	51	56
Reaction Time	39	48	56
Hearing Sensitivity	50	48	56
Speed of Closure	23	41	53
Control Precision	53	55	53
Far Vision	37	42	53
Depth Perception	44	50	53
Oral Comprehension	55	50	50
Written Comprehension	44	48	50
Oral Expression	50	44	50
Category Flexibility	41	44	50
Flexibility of Closure	46	39	50
Multilimb Coordination	55	41	50
Rate Control	32	37	50
Auditory Attention	46	53	50
Speech Recognition	39	37	50
Speech Clarity	37	35	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Motorboat Mechanics	Electric Motor, Power Tool, and Related Repairs	Importance
Equipment Selection	61	67	82

Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Motorboat Mechanics	Electric Motor, Power Tool, and Related Repairs	Importance
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Experience & Education Comparison

Related Work Experience Comparison				Required Education Level Comparison		
Description	Motorboat Mechanics	Electric Motor, Power Tool, and Related Repairers	Description	Motorboat Mechanics	Electric Motor, Power Tool, and Related Repairers	
10+ years	10%	0%	Doctoral	0%	0%	
8-10 years	0%	0%	Professional Degree	0%	0%	
6-8 years	11%	0%	Post-Masters Cert	0%	0%	
4-6 years	12%	21%	Master's Degree	0%	0%	
2-4 years	14%	28%	Post-Bachelor Cert	0%	0%	
1-2 years	23%	16%	Bachelors	0%	0%	
6-12 months	25%	9%	AA or Equiv	0%	6%	
3-6 months	0%	0%	Some College	0%	0%	
1-3 months	0%	2%	Post-Secondary Certificate	63%	39%	
0-1 month	0%	2%	High School Diploma or GED	16%	43%	
None	1%	18%	No HSD or GED	19%	10%	

Motorboat Mechanics

Electric Motor, Power Tool, and Related Repairers

Most Common Educational/Training Requirement:

Long-term on-the-job training

Postsecondary vocational award

Job Zone Comparison

3 - Job Zone Three: Medium Preparation Needed

Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.

Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.

Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

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Tasks

Motorboat Mechanics

Electric Motor, Power Tool, and Related Repairers

Core Tasks

Core Tasks

Generalized Work Activities:

- Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in

Generalized Work Activities:

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circumstances or events.

- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Specific Tasks

Occupation Specific Tasks:

- Adjust carburetor mixtures, electrical point settings, and timing while motors are running in water-filled test tanks.
- Adjust generators and replace faulty wiring, using hand tools and soldering irons.
- Disassemble and inspect motors to locate defective parts, using mechanic's hand tools and gauges.
- Document inspection and test results, and work performed or to be performed.
- Idle motors and observe thermometers to determine the effectiveness of cooling systems.
- Inspect and repair or adjust propellers and propeller shafts.
- Mount motors to boats and operate boats at various speeds on waterways to conduct operational tests.
- Repair engine mechanical equipment such as power-tilts, bilge pumps, or power take-offs.
- Repair or rework parts, using machine tools such as lathes, mills, drills, and grinders.
- Replace parts such as gears, magneto points, piston rings, and spark plugs, and reassemble engines.
- Set starter locks, and align and repair steering or throttle controls, using gauges, screwdrivers, and wrenches.
- Start motors, and monitor performance for signs of malfunctioning such as smoke, excessive vibration, and misfiring.

Detailed Tasks

Detailed Work Activities:

- adhere to safety procedures
- adjust or set mechanical controls or components
- align or adjust clearances of mechanical components or parts
- align or adjust clearances of vehicle body parts or components
- analyze test information to determine equipment operating efficiency
- assemble, dismantle, or reassemble equipment or machinery
- conduct tests to locate mechanical system malfunction

principles.

- Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Specific Tasks

Occupation Specific Tasks:

- Add water or acid to battery cell solutions to obtain specified concentrations.
- Adjust working parts, such as fan belts, contacts, and springs, using hand tools and gauges.
- Assemble electrical parts such as alternators, generators, starting devices, and switches, following schematic drawings and using hand, machine, and power tools.
- Bolt porcelain insulators to wood parts in order to assemble hot stools.
- Clean cells, cell assemblies, glassware, leads, electrical connections, and battery poles, using scrapers, steam, water, emery cloths, power grinders, or acid.
- Clean, rinse, and dry transformer cases, using boiling water, scrapers, solvents, hoses, and cloths.
- Cut and form insulation, and insert insulation into armature, rotor, or stator slots.
- Disassemble defective equipment so that repairs can be made, using hand tools.
- Drain and filter transformer oil and refill transformers with oil until coils are submerged.
- Hammer out dents and twists in tools and equipment.
- Inspect and test equipment in order to locate damage or worn parts and diagnose malfunctions, or read work orders or schematic drawings to determine required repairs.
- Inspect batteries for structural defects such as dented cans, damaged carbon rods and terminals, and defective seals.
- Inspect electrical connections, wiring, relays, charging resistance boxes, and storage batteries, following wiring diagrams.
- Lift units or parts such as motors or generators, using cranes or chain hoists, or signal crane operators to lift heavy parts or subassemblies.
- Lubricate moving parts.
- Maintain stocks of parts.
- Measure velocity, horsepower, revolutions per minute (rpm), amperage, circuitry, and voltage of units or parts to diagnose problems, using ammeters, voltmeters, wattmeters, and other testing devices.



- determine installation, service, or repair needed
- diagnose mechanical problems in machinery or equipment
- fabricate, assemble, or disassemble manufactured products by hand
- follow vehicle repair procedures
- inspect machinery or equipment to determine adjustments or repairs needed
- install or replace meters, regulators, or related measuring or control devices
- lubricate machinery, equipment, or parts
- maintain or repair ship/boat engine, machinery or equipment
- maintain or repair small engines
- maintain repair records
- move or fit heavy objects
- observe or listen to machinery or equipment operation to detect malfunctions
- operate hoist, winch, or hydraulic boom
- operate vehicle engine electrical system test equipment
- overhaul vehicle major operating units, such as engines or transmissions
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- read blueprints
- read specifications
- read technical drawings
- read vehicle manufacturer's specifications
- read work order, instructions, formulas, or processing charts
- repair or replace electrical wiring, circuits, fixtures, or equipment
- repair or replace malfunctioning or worn mechanical components
- service vehicle with water, fuel, or oil
- set up and operate variety of machine tools
- solder electrical or electronic connections or components
- test electrical/electronic wiring, equipment, systems or fixtures
- test mechanical products or equipment
- test operate vehicles before or after repair
- understand service or repair manuals
- understand technical operating, service or repair manuals
- use 2-cycle engine technology
- use basic plumbing techniques
- use electrical or electronic test devices or equipment
- use electronic calibration devices
- use engine diagnostic equipment
- use hand or power tools

- Position and level battery cells, anodes, or cathodes, using hoists or leveling jacks, or signal other workers to perform positioning and leveling.
- Pour compounds into transformer-case terminal openings in order to seal out moisture.
- Read service guides to find information needed to perform repairs.
- Reassemble repaired electric motors to specified requirements and ratings, using hand tools and electrical meters.
- Record repairs required, parts used, and labor time.
- Reface, ream, and polish commutators and machine parts to specified tolerances, using machine tools.
- Remove and replace defective parts such as coil leads, carbon brushes, and wires, using soldering equipment.
- Repair and operate battery-charging equipment.
- Repair and rebuild defective mechanical parts in electric motors, generators, and related equipment, using hand tools and power tools.
- Rewind coils on cores in slots, or make replacement coils, using coil-winding machines.
- Rewire electrical systems, and repair or replace electrical accessories.
- Scrape and clean units or parts, using cleaning solvents and equipment such as buffing wheels.
- Seal joints with putty, mortar, and asbestos, using putty extruders and knives.
- Set machinery for proper performance, using computers.
- Sharpen tools such as saws, picks, shovels, screwdrivers, and scoops, either manually or by using bench grinders and emery wheels.
- Solder, wrap, and coat wires to ensure proper insulation.
- Steam-clean polishing and buffing wheels to remove abrasives and bonding materials, and spray, brush, or recoat surfaces as necessary.
- Test battery charges, and replace or recharge batteries as necessary.
- Test conditions, fluid levels, and specific gravities of electrolyte cells, using voltmeters, hydrometers, and thermometers.
- Test equipment for overheating, using speed gauges and thermometers.
- Verify and adjust alignments and dimensions of parts, using gauges and tracing lathes.
- Weld, braze, or solder electrical connections.

Detailed Tasks



- use knowledge of metric system
- use machine tools in installation, maintenance, or repair
- use precision measuring devices in mechanical repair work
- use soldering equipment
- use voltmeter, ammeter, or ohmmeter

Detailed Work Activities:

- apply cleaning solvents
- assemble gear systems
- clean equipment or machinery
- determine installation, service, or repair needed
- distinguish colors
- fabricate, assemble, or disassemble manufactured products by hand
- inspect machinery or equipment to determine adjustments or repairs needed
- inspect transformer for defects
- install or replace meters, regulators, or related measuring or control devices
- install/connect electrical equipment to power circuit
- lubricate machinery, equipment, or parts
- maintain inventory of supplies
- maintain or repair industrial or related equipment/machinery
- maintain or repair work tools or equipment
- maintain production or work records
- move or fit heavy objects
- operate coil winding machines
- operate hoist, winch, or hydraulic boom
- operate lathes
- perform safety inspections in industrial, manufacturing or repair setting
- read blueprints
- read schematics
- read technical drawings
- read work order, instructions, formulas, or processing charts
- repair electrical transformers
- repair or replace electrical wiring, circuits, fixtures, or equipment
- service batteries or transformers with specified fluids
- sharpen metal objects
- signal directions or warnings to coworkers
- solder electrical or electronic connections or components
- solder metal parts or components together
- test electrical/electronic wiring, equipment, systems or fixtures
- test mechanical products or equipment
- understand service or repair manuals
- understand technical operating, service or repair manuals
- use electrical or electronic test devices or equipment
- use hand or power tools
- use high voltage apparatus
- use measuring devices in repairing industrial or heavy equipment



- use pneumatic tools
- use precision measuring devices in mechanical repair work
- use soldering equipment
- use voltmeter, ammeter, or ohmmeter

Labor Market Comparison

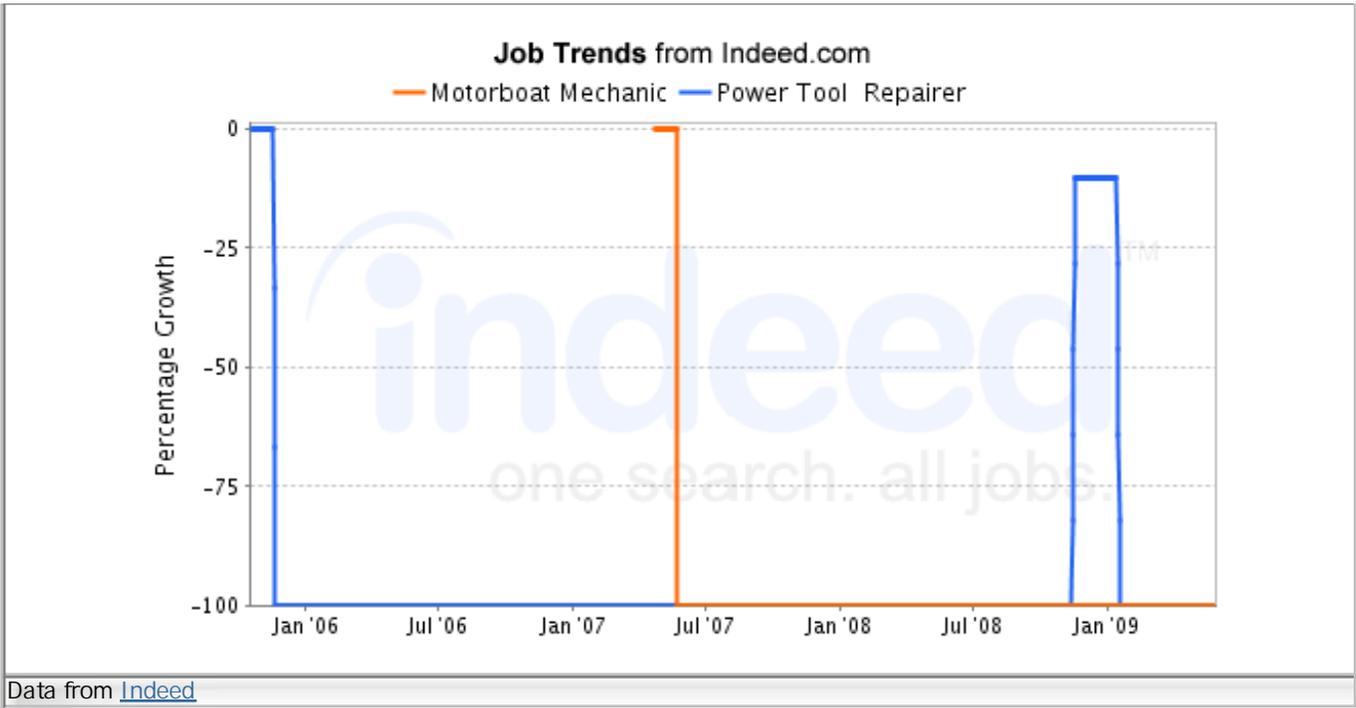
Maine Department of Labor.

Description	Motorboat Mechanics	Electric Motor, Power Tool, and Related Repairers	Difference
Median Wage	\$ 34,980	\$ 31,210	\$(3,770)
10th Percentile Wage	\$ 24,940	\$ 21,230	\$(3,710)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 42,120	\$ 39,540	\$(2,580)
90th Percentile Wage	\$ 49,060	\$ 46,250	\$(2,810)
Mean Wage	\$ 35,530	\$ 32,930	\$(2,600)
Total Employment - 2509	240	170	-70
Employment Base - 2006	288	153	-135
Projected Employment - 2518	305	135	-170
Projected Job Growth - 2006-2518	5.9 %	-11.8 %	-17.7 %
Projected Annual Openings - 2006-2518	8	6	-2
Special	★		

Special Occupations: ★ Maine High Wage - In Demand

National Job Posting Trends

Trend for Motorboat Mechanics and Electric Motor, Power Tool, and Related Repairers



Programs			
Related Programs			
Electrical and Electronics Equipment Installer and			
<p>Electrical/Electronics Equipment Installation and Repair, General. A program that generally prepares individuals to apply technical knowledge and skills to operate, maintain, and repair electrical and electronic equipment. Includes instruction in electrical circuitry, simple gearing, linkages and lubrication of machines and appliances, and the use of testing equipment.</p> <p>No information on schools for the program</p>			
Electrical and Electronics Equipment Installer and			
<p>Electrical/Electronics Maintenance and Repair Technology, Other. Any instructional program in electrical and electronics equipment installation and repair not listed above.</p> <p>No information on schools for the program</p>			
Electrician			
<p>Electrician. A program that prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair electric apparatus and systems such as residential, commercial, and industrial electric-power wiring; and DC and AC motors, controls, and electrical distribution panels. Includes instruction in the principles of electronics and electrical systems, wiring, power transmission, safety, industrial and household appliances, job estimation, electrical testing and inspection, and applicable codes and standards.</p>			
Institution	Address	City	URL
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Wasington County Community College	One College Drive	Calais	www.wccc.me.edu
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu



Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu
Southern Maine Community College	2 Fort Road	South Portland	www.smccME.edu
Major Appliance Installer and Repairer			
Appliance Installation and Repair Technology/Technician. A program that prepares individuals to apply technical knowledge and skills to repair, install, and service major gas, electric, and microwave consumer appliances such as stoves, refrigerators, dryers, water heaters, washers, dishwashers, and commercial units such as ice makers and coffee makers.			
No information on schools for the program			
Miscellaneous Mechanics and Repairers, Other			
Precision Systems Maintenance and Repair Technologies, Other. Any instructional program in miscellaneous mechanics and repairers not listed above.			
No information on schools for the program			

Maine Statewide Promotion Opportunities for Motorboat Mechanics

O*NET Code	Title	Grand TORO	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
49-3051.00	Motorboat Mechanics	100	3	240	\$34,980.00	\$0.00	6%	8	★
49-3042.00	Mobile Heavy Equipment Mechanics, Except Engines	92	4	880	\$37,010.00	\$2,030.00	5%	22	★
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	90	3	440	\$49,450.00	\$14,470.00	-19%	15	
47-2011.00	Boilermakers	90	4	60	\$39,260.00	\$4,280.00	12%	3	
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	89	3	170	\$47,860.00	\$12,880.00	-9%	3	
49-2093.00	Electrical and Electronics Installers and Repairers, Transportation Equipment	89	3	130	\$35,960.00	\$980.00	4%	4	
49-9044.00	Millwrights	89	3	830	\$41,280.00	\$6,300.00	-12%	11	
51-4121.06	Welders, Cutters, and Welder Fitters	88	2	1,610	\$38,030.00	\$3,050.00	7%	49	★



53-6051.07	Transportation Vehicle, Equipment and Systems Inspectors, Except Aviation	88	3	60	\$42,890.00	\$7,910.00	5%	2	
47-5021.00	Earth Drillers, Except Oil and Gas	87	3	140	\$37,470.00	\$2,490.00	2%	4	
49-9041.00	Industrial Machinery Mechanics	87	3	990	\$39,370.00	\$4,390.00	7%	25	★
49-2098.00	Security and Fire Alarm Systems Installers	86		290	\$39,970.00	\$4,990.00	20%	10	★
51-4111.00	Tool and Die Makers	86	3	160	\$51,670.00	\$16,690.00	-11%	2	
49-9021.01	Heating and Air Conditioning Mechanics and Installers	86	3	1,750	\$36,950.00	\$1,970.00	8%	49	★
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$3,250.00	-26%	23	

Special Occupations: ★ Maine High Wage - In Demand

Top Industries for Electric Motor, Power Tool, and Related Repairers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	27.62%	7,037	6,702	-4.76%
Self-employed workers, primary job	000601	8.55%	2,178	2,088	-4.12%
Electrical and electronic goods merchant wholesalers	423600	7.99%	2,035	2,159	6.11%
Self-employed workers, secondary job	000602	3.96%	1,008	903	-10.40%
Building material and supplies dealers	444100	3.90%	994	1,143	15.01%
Electronic and precision equipment repair and maintenance	811200	2.84%	724	592	-18.20%
Automotive mechanical and electrical repair and maintenance	811110	2.78%	709	758	6.86%
Electrical contractors	238210	2.78%	709	669	-5.63%
Electrical equipment manufacturing	335300	1.74%	444	340	-23.53%



Hardware, and plumbing and heating equipment and supplies merchant wholesalers	423700	1.69%	430	439	2.17%
Converted paper product manufacturing	322200	1.48%	377	285	-24.47%
Personal and household goods repair and maintenance	811400	1.45%	369	308	-16.47%
Professional and commercial equipment and supplies merchant wholesalers	423400	1.29%	329	345	4.91%
Motor vehicle and motor vehicle parts and supplies merchant wholesalers	423100	1.23%	314	323	2.73%
Local government, excluding education and hospitals	939300	1.08%	275	278	1.10%

Top Industries for Motorboat Mechanics

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Other motor vehicle dealers	441200	38.93%	9,389	12,582	34.01%
Self-employed workers, primary job	000601	19.75%	4,762	5,073	6.54%
Personal and household goods repair and maintenance	811400	12.93%	3,117	2,893	-7.19%
Ship and boat building	336600	2.94%	709	794	11.93%
Self-employed workers, secondary job	000602	2.89%	698	695	-0.45%
Support activities for water transportation	488300	1.37%	331	383	15.76%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	0.63%	151	160	5.82%
Consumer goods rental	532200	0.63%	153	166	8.77%
Miscellaneous durable goods merchant wholesalers	423900	0.61%	146	168	14.80%
Scenic and sightseeing transportation	487000	0.50%	121	156	29.38%
Inland water transportation	483200	0.40%	96	108	12.28%
Automotive mechanical and electrical repair and maintenance	811110	0.35%	84	100	18.73%
State government, excluding education and hospitals	929200	0.30%	73	72	-1.88%

Industry & Occupational Data Sources

TORQ Results: The TORQ Scores is based upon an proprietary algorithm applied against Knowledge, Skills and Ability levels and importance derived from O*NET 12.

ASK Analysis, Experience & Education Levels and Tasks: O*Net 12

Labor Market Comparisons Occupational Projections data from Maine Department of Labor

National Posting Trends Indeed.com

Labor Pool & Promotions Opportunities: Occupational Projections data from Maine Department of Labor

Top Industries: Occupational Employment Statistics program (U.S. Bureau of Labor Statistics)