

OCCUPATIONAL TOOLS AND EQUIPMENT LIST

Heavy Duty Equipment Technician
and
Truck and Transport Mechanic



Government of Newfoundland Labrador
Department of Education
Institutional & Industrial Education Division

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Preface

This document is based on the 2004 and 2007 editions of the National Occupational Analysis for the Heavy Duty Equipment Technician and Truck Transport Mechanic occupations respectively. It is intended as a companion to the March 2009 Plans of Training for the Heavy Duty Equipment Technician and Truck Transport Mechanic occupations. It identifies the necessary tools and equipment required by apprentices and training institutions for the completion of apprenticeships.

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We offer you a sincere thank you.

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Note:

The numbers suggested in the following Tools and Equipment List represent the required minimum. Please verify this list with your selected training institution.

Tools and Equipment List

Heavy Duty Equipment Technician and Truck and Transport Mechanic

SECTION A: TOOLS AND EQUIPMENT REQUIRED BY STUDENT			
Item	Units for Individual Students	Required for Entry (E) Advanced (A) Both (B)	Comments
General Tools			
Adjustable Wrench	1	B	
Chisels – Set	1	B	
Drifts – Set	1	B	
Feeler Gauge	1	B	
Files – Flat and Round	1	B	
Hacksaw	1	B	
Hammers – Small and Large Ballpeen	1	B	
Locking Pliers (i.e., Vice Grips)	1	B	
Measuring Tape, 16' Minimum	1	B	
Pliers	1	B	
Scraper	1	B	
Screwdriver Set	1	B	
Side Cutters	1	B	
Snips	1	B	
Socket Sets – $\frac{3}{8}$ " & $\frac{1}{2}$ " Drive	1	B	
Utility Knife	1	B	
Wire Splicer – Crimp Tool	1	B	
Wrench Set – Combination Metric and Standard	1	B	

Note: If identifying sets, please include specific information.

SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION

Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
GENERAL TOOLS				
Adjustable Wrench	3	5	B	
Air Chisel	1	15	B	
Air Compressor	1	15	B	
Alignment tool – Clutch – Set	1	15	A	
Analyzers – Gas	1	15	A	
Analyzers – Vibration	1	15	B	
Barriers - Welding	3	5	B	
Battery Charger	1	15	B	
Battery Post and Clamp Cleaner	1	15	B	
Bearing Heater	1	15	B	
Black Light	1	15	B	
Booster Cable	1	15	B	
Brake Drum Micrometer	1	15	B	
Breakout Box	1	15	A	
Butane Torch	3	5	B	
Calibrated Vessel – Container	1	15	B	
Calipers – Inside (various sizes)	3	5	B	
Calipers – Outside (various sizes)	3	5	B	
Charging Station – Optional	1	15		
Chemical Agitator	1	15	B	
Chisels – Air – set	1	15	B	

SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION

Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Chisels – Electric – set - optional	1	15		
Chisels – Hand – set	3	5	B	
Compressor Tool – Piston Ring	3	5	A	
Compressor Tool Valve Spring – mechanical and pneumatic	1 of each	15	A	
Computer Printer	1	15	B	
Computer Terminal	1	15	B	
Computer Equipment: on board computer testing	1	15	A	
Computer Equipment: portable diagnostic	1	15	A	
Coolant Recycling Unit	1	15	B	
Creeper	3	5	B	
Crimping Tool Set	1	15	B	
Cylinder Cart – Welding (complete set)	8	2	B	
Dies (set): NF & NC – metric	1 of each	15	B	
Drift (set)	3	5	B	
Drill: Air - $\frac{3}{8}$ "	1	15	B	
Drill: Press	1	15	B	
Drills: Hand – $\frac{3}{8}$ " & $\frac{1}{2}$ "	2 of each	8	B	
Drill Bit Sets: Twist – $\frac{3}{8}$ " & $\frac{1}{2}$ " – metric sizes	2 of each	8	B	
Electronic Temperature Reader	1	15	B	
Expanders: Ring	1	15	A	
Extension Cords	3	5	B	
Extensions – $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ " various lengths	3 of each	5	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Files (sets of various sizes)	3	5	B	
Fire Suppression Kit	1	15	A	
Flaring Tool	4	4	B	
Flaring Tool ISO	2	8	B	
Fuel Recovery and Storage System	1	15	B	
Funnels (various sizes)	2	8	B	
Glass Bead Machine	1	15	B	
Grease Gun	3	5	B	
Grinders – Hand	2	8	B	
Grinders – Bench	2	8	B	
Grinder – Valve	1	15	A	
Growler – Starter / Alternator	1	15	B	
Hacksaw	3	5	B	
Hammer – Ball Peen (2 size set)	3	5	B	
Hammer – Chipper	5	3	B	
Hammer – Dead Blow	2	8	B	
Hammer – Rubber	2	8	B	
Hammer – Sledge	2	8	B	
Hammer – Slide (kit)	2	8	B	
Hand Pump - Fuel	1	15	B	
Headlight Aimer (Truck and Transport only)	1	15	E	
Honing Equipment – Set	2	8	A	
Hot Air gun	2	8	B	
Hydraulic Hose Crimper	1	15	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Hydrometer	1	15	B	
Impact Wrench – Air: $\frac{1}{2}$ ", $\frac{3}{4}$ "	2 of each	8	B	
Knife (Utility)	3	5	B	
Letter & Number stamping Set	1	15	B	
Level Protractor	2	8	B	
Magnaflux Equipment (set)	1	15	B	
Magnetic Pickup Tool	1	15	B	
Magnifying Glass	1	15	B	
Mirror	1	15	B	
Oil Filter Crusher	1	15	B	
Oil Filter Wrenches	1	15	B	
Pittman Arm Remover	1	15	B	
Pliers – Insulated	3	5	B	
Pliers - Locking	4	4	B	
Pliers – Slip Joint	1	15	B	
Pliers – Snap Ring: Inside & Outside	1 of each	15	B	
Power Bars: $\frac{1}{2}$ " & $\frac{3}{4}$ "	2 of each	8	B	
Power Steering Pressure Tester	1	15	B	
Presses – Arbor	1	15	B	
Presses – Bushing (set)	1	15	B	
Presses – Drill (floor)	1	15	B	
Presses – Hydraulic	1	15	B	
Pry Bars (set)	1	15	B	
Pullers – Bearing (set)	1	15	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Pullers – Gear (set)	1	15	B	
Puller – H	1	15	B	
Pullers – Hydraulic (set)	1	15	B	
Pullers – Steering Components (set)	1	15	B	
Reamers (set)	1	15	B	
Recycling Unit – A/C	1	15	A	
Retrieval and Storage Equipment – A/C	1	15	A	
Ridge Reamer	2	8	A	
Sandblaster	1	15	B	
Sanders	2	8	B	
Saw – Chop	1	15	B	
Scraper	3	5	B	
Screw Drivers – Various Types and Sizes (sets)	3	5	B	
Seal Installation Kit	1	15	B	
Shears (set of 3)	1	15	B	
Side Cutters	3	5	B	
Simulator – Optional	1	15	B	
Snap Rings (kit)	1	15	B	
Snips	3	5	B	
Socket Sets: $\frac{1}{4}''$, $\frac{3}{8}''$, $\frac{1}{2}''$ SAE & Metric	3 of each	5	B	
Socket Set: $\frac{3}{4}''$ SAE	1	15	B	
Soldering Iron / Gun	2	8	B	
Spark Lighter	3	5	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Strobe Light	1	15	B	
Stud Extractor	3	5	B	
Taps (set): NF & NC - metric	1 of each	15	B	
Thread Files (set): SAE & Metric	1 of each	15	B	
Thread Inserts (kit)	1	15	B	
Tie Rod Removal Tool	1	15	B	
Tire Bar	2	8	B	
Tire Depth Gauge	2	8	B	
Tire Machine – Optional	1	15	B	
Torque Angle Tool	1	15	B	
Torque Multiplier	1	15	B	
Torque Stick (kit)	1	15	B	
Torque Wrenches: $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ "	2 of each	8	B	
TORX Socket Set (inside-outside)	1	15	B	
Timing Block (Set) (Truck Transport Mechanic Only)	1	15	B	
Tube Bender	1	15	B	
Tube Cutter	3	5	B	
Tubing/Line Wrenches (set): SAE & Metric	1 of each	15	B	
Universal Joint Service Tool (set)	1	15	E	
Utility Knife	3	5	B	
Vacuum Pump	1	15	A	
Welding Equipment: ARC & MIG	3 of each	5	A	
Wheel Alignment Bar (Trammell Gauge)	1	15	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Wire Connectors (kit)	1	15	B	
Wire Rope Splicing Clips (Kit)	1	15	B	
Wire Splicer Tool	3	5	B	
Wire Stripper	3	5	B	
Wrenches – Allen (set): SAE & Metric	2 of each	8	B	
Wrenches – Combination metric and standard, set	3	5	B	
Wrench – Pipe: Various Sizes	1	15	B	

CLEANING EQUIPMENT AND SUPPLIES

Cleaning Tank	1	15	B	
Pressure Washer	1	15	B	
Shop Cloths	As req'd		B	
Shop Vacuum	1	15	B	
Solvent Washer	1	15	B	
Wire Brush	3	5	B	

HOISTING, RIGGING, AND HOLDING EQUIPMENT

Axle Stands –Set of four	2	8	B	
Bottle/Axle Jack	4	4	B	
Chain Hoist	1	1	B	
Clamps (set) – Various Sizes	3	5	B	
Differential Stand	1	1	B	
Engine Crane	1	1	A	
Engine Repair Stand	2	8	A	
Hoist – Overhead	1	15	B	
Hydraulic Floor Jack	3	5	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Platform Steps	1	15	B	
Slings – Various sizes and Lengths	As req'd		B	
Stepladder	2	8	B	
Transmission jack	1	15	B	
Vices – Bench	5	3	B	
Wheel Dolly	1	15	B	

MEASURING TOOLS, GAUGES AND EQUIPMENT

Air Gauges – Pressure	2	8	B	
Ammeter	2	8	A	
Belt Tension Gauge	1	15	B	
Boost Gauge - Manometer	2	8	A	
Compression Gauge	2	8	A	
Depth Micrometer (set)	1	15	A	
Dial Indicator	2	8	B	
Dial Bore Gauge (set)	1	15	A	
Digital Multi-Meter (DVOM)	2	8	B	
Drill Gauge	1	15	B	
Feeler Gauge	3	5	B	
Hydraulic Pressure/Flow: Gauge/Meter	1	15	B	
Manifold Gauge (set)	1	15	A	
Mechanical Pressure Gauges (set)	1	15	B	
Micrometer – Inside	1	15	B	
Micrometer – Outside	3	5	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Non-Magnetic Feeler Gauges (set)	1	15	B	
Oil Pressure Gauges (set)	1	15	B	
Pull-Type Scale	2	8	B	
Screw Pitch Gauge	1	15	B	
Small Hole Gauges (set)	2	8	B	
Steel Rules	2	8	B	
Stethoscope	2	8	B	
Straight Edge	2	8	B	
Tachometer	1	15	B	
Tape measure, 16' minimum	3	5	B	
Telescoping Gauge	2	8	B	
Thermometer	1	15	B	
Timing Light	2	8	B	
Transmission Gauge (set)	1	15	A	
Vacuum Pump/Gauge	1	15	B	
Vernier	1	15	B	
Wire Gauge	1	15	B	

SPECIALIZED TOOLS, DIAGNOSTIC AND TEST EQUIPMENT

Antifreeze Tester	1	15	B	
Battery Load Tester	1	15	E	
Bleeding Equipment	1	15	E	
Brake Drum / Rotor Lathe	1	15	B	
Cooling System Pressure Tester	1	15	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Cylinder Leak Down Tester	1	15	A	
Electronic Leak Detector	1	15	B	
Fuel Quality Test Kit	1	15	B	
Injector Tester	1	15	A	
Starting and Charging System Testers	1 of each	15	B	
Test Light	2	8	B	
Valve Spring Tester	1	15	A	

SAFETY EQUIPMENT

Apron – Welding	5	3	B	
Dust Masks	As req'd		B	
Ear Muffs / Plugs	15	1	B	
Eye Wash Station	As per OH&S		B	
Face Shields	5	3	B	
Fire Extinguisher(s)	As per OH&S		B	
Fire proof Blanket(s)	As per OH&S		B	
Gloves – Work	15	1	B	
Gloves – Welding	15	1	B	
Goggles – Welding	15	1	B	
Personal Wear Items		1	B	
Safety Boots (pair)	15	1	B	
Safety Cage – Tire	1	15	B	
Safety Glasses	15	1	B	
Stretcher(s)	As per OH&S		B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Welding Helmets: ARC & MIG	15	1	A	

Note: If identifying sets, please include specific information.