

OCCUPATIONAL TOOLS AND EQUIPMENT LIST

Heavy Duty Equipment Technician and Truck and Transport Mechanic



Government of Newfoundland and Labrador
Department of Education and Early Childhood Development
Apprenticeship and Trades Certification Division

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Preface

This document is intended as a companion to the March 2019 Plans of Training and the 2019 Atlantic Apprenticeship Curriculum Standards (AACS) for the Heavy Duty Equipment Technician and Truck and Transport Mechanic occupations. It identifies the necessary tools and equipment required by apprentices and training institutions for the completion of apprenticeship training.

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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	
Ratchet and Socket Sets – $\frac{3}{8}$ " & $\frac{1}{2}$ " Drive	1	B	

SECTION A: TOOLS AND EQUIPMENT REQUIRED BY STUDENT			
Item	Units for Individual Students	Required for Entry (E) Advanced (A) Both (B)	Comments
Utility Knife	1	B	
Wire Splicer – Crimp Tool	1	B	
Wrench Set – Combination Metric and Standard	1	B	
Tool Box	1	B	
Digital Multimeter	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 Compressor	1	15	B	
Alignment tool – Clutch – Set	1	15	A	
Analyzers – Gas	1	15	A	
Barriers - Welding	3	5	B	Optional
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	E	
Breakout Box	1	15	B	
Butane Torch	3	5	B	
Calibrated Vessel – Container	1	15	B	
Calipers – Inside (various sizes) - set	1	15	B	
Calipers – Outside (various sizes) - set	3	5	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
Charging Station	1	15	B	
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	B	
Computer Equipment: portable diagnostic	1	15	B	
Coolant Recycling Unit	1	15	B	Optional
Creeper	3	5	B	
Crimping Tool Set	1	15	E	
Cylinder Cart – Welding (complete set)	8	2	E	
Dies (set): NF & NC – metric	1 of each	15	B	
Drift (set)	3	5	B	
Drill, Air - $\frac{3}{8}$ "	1	15	E	
Drill, Press	1	15	E	
Drills, Electric – $\frac{3}{8}$ " & $\frac{1}{2}$ "	2 of each	8	E	

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
Drill Bit Sets: Twist – $\frac{3}{8}''$ & $\frac{1}{2}''$ – metric sizes	2 of each	8	B	
Infrared Temperature Reader	1	15	B	
Expanders: Ring	1	15	A	
Extension Cord, Heavy Duty, 3 Prong	2	8	B	
Extensions – $\frac{3}{8}''$, $\frac{1}{2}''$, $\frac{3}{4}''$ various lengths	3 of each	5	B	
Files (sets of various sizes)	3	5	B	
Flaring Tool	4	4	E	
Flaring Tool ISO	2	8	E	
Funnels (various sizes) - set	2	8	B	
Glass Bead Machine	1	15	B	
Grease Gun	3	5	B	
Grinders – Hand	2	8	E	
Grinders – Bench (with wire wheel)	2	8	B	
Growler – Starter / Alternator	1	15	A	
Hacksaw	3	5	B	
Hammer – Ball Peen (2 size set)	3	5	B	
Hammer – Chipper	5	3	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
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	1	15	A	
Hydraulic Hose Crimper	1	15	E	
Hydrometer – Coolant, Electrolyte, DEF Refractometer	1 of each	15	B	
Impact Wrench – Air: $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ "	2 of each	8	B	
Letter & Number stamping Set	1	15	E	
Level Protractor	2	8	B	
Magnaflux Equipment (set)	1	15	A	
Magnetic Pickup Tool	1	15	B	
Magnifying Glass	1	15	B	
Mirror	1	15	B	
Oil Filter Wrenches	1	15	B	
Pittman Arm Remover	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
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	
Presses – Arbor	1	15	B	
Presses – Drill (floor)	1	15	E	
Presses – Hydraulic	1	15	B	
Pry Bars (set)	1	15	B	
Pullers – Bearing (set)	1	15	B	
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	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Saw – Chop	1	15	E	
Scraper	3	5	B	
Screw Drivers – Various Types and Sizes (sets)	3	5	B	
Seal Installation Kit	1	15	B	
Side Cutters	3	5	B	
Snap Rings (kit)	1	15	B	
Snips	3	5	B	
Socket Sets: Deep and Shallow Chrome and Impact 1/4", 3/8", 1/2" SAE & Metric	3 of each	5	B	
Socket Set: Chrome and Impact, 3/4" SAE	3 of each	5	B	
Soldering Iron / Gun	2	8	B	
Spark Lighter	3	5	E	
Strobe Light (Timing 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	
Tire Bar Set	2	8	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Tire Depth Gauge	2	8	B	
Tire Machine – Optional	1	15	B	
Torque Angle Tool	1	15	B	
Torque Multiplier	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	E	
Tube Cutter	3	5	E	
Tubing/Line Wrenches (set): SAE & Metric	1 of each	15	B	
Universal Joint Service Tool (set)	1	15	E	
Utility Knife	3	5	B	
Welding Equipment: ARC & MIG	3 of each	5	E	
Wheel Alignment Bar (Trammell Gauge)	1	15	A	
Wire Connectors (kit)	1	15	B	
Wire Rope Splicing Clips (Kit)	1	15	B	
Wire Splicer Tool	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
Wire Stripper	3	5	B	
Wrenches – Allen (set): Metric and SAE	2 of each	8	B	
Wrenches – Combination metric and SAE (set)	3 of each	5	B	
Wrench – Pipe: (Set) Various Sizes	1	15	B	
CLEANING EQUIPMENT AND SUPPLIES				
Cleaning Tank	1	15	B	
Pressure Washer	1	15	B	
Shop Cloths	As required		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	A	
Engine Crane	1	1	A	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Engine Repair Stand	2	8	A	
Hoist – Overhead	1	15	B	
Hydraulic Floor Jack	3	5	B	
Platform Steps	1	15	B	
Slings – Various sizes and Lengths	As required		B	
Stepladder	2	8	B	
Transmission jack	1	15	A	
Vices – Bench	5	3	B	
Wheel Dolly	1	15	B	

MEASURING TOOLS, GAUGES AND EQUIPMENT

Air Gauges – Pressure	2	8	B	
Ammeter	2	8	B	
Belt Tension Gauge	1	15	B	
Boost Gauge - Manometer	2	8	B	
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)	5	3	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Drill Gauge	1	15	B	
Feeler Gauge	4	4	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	
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	A	
Straight Edge	2	8	B	
Tachometer, Infrared	1	15	B	
Tape measure, 16' minimum	4	4	B	
Telescoping Gauge	2	8	B	

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Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Thermometer	1	15	B	
Timing Light	2	8	E	Spark Ignition
Vacuum Pump/Gauge	1	15	B	A/C Brake Bleeding
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	E	
Cooling System Pressure Tester	1	15	B	
Cylinder Leak Down Tester	1	15	A	
Electronic Leak Detector	1	15	B	For A/C
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	

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
SAFETY EQUIPMENT				
Apron – Welding	5	3	E	
Dust Masks		As required	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	8	2	B	
Goggles – Welding	8	2	B	
Personal Wear Items	As required	1	B	
Safety Boots (pair)	15	1	B	
Safety Cage – Tire	1	15	E	
Safety Glasses	15	1	B	
Stretcher(s)		As per OH&S	B	
Welding Helmets: ARC & MIG	15	1	E	

Note: If identifying sets, please include specific information.