## Skagit Valley College – Diesel Power Technology

**Note:** It is suggested that you do not purchase any tools until you have participated in the annual tool fair on the second day of class in September. This is where you will find the best deals and prices.

## **Tool List - Required Items**

- Safety glasses, 2 pairs
- Hearing protection, muffler or ear plug type
- DMM (digital multi-meter). Minimum functions to include DC voltage, amperage, and resistance measuring scales, preferably auto ranging. Include spare fuses.
- Set of jumper wires with alligator clips for electrical troubleshooting
- 12-volt test light, not self-powered
- 1/4" drive socket set, standard depth with sockets up to 1/2". Include ratchet, breaker bar, and extensions
- 1/4" drive socket set, standard depth, up to 13MM
- 3/8" drive sockets, 6 or 12 pt., standard depth, 3/8 to 3/4"
- 3/8" drive sockets, 6 or 12 pt., standard depth, 10 to 19MM
- 3/8" drive ratchet, breaker bar, and extensions (number and lengths optional), universal joint
- 1/2" drive sockets, 6 or 12 pt., standard depth, 7/16 to 1-1/8"
- 1/2" drive sockets, 6 or 12 pt., standard depth, 12 to 30 MM
- 1/2" drive ratchet, breaker bar, and extensions (number and lengths optional), universal joint
- 3/8" drive sockets, 6 or 12 pt, deep, 3/8 to 3/4"
- 1/2" drive sockets, 6 or 12 pt., deep, 7/16 to 1-1/8"
- 3/8" drive torque wrench, approx. 100-600 inch-pounds ? 1/2" drive torque wrench, approx. 50-250 foot-pounds
- Adapter, ¾" male to ½" female, for adjusting wheel bearings
- Combination wrenches, 3/8 to 1-1/8"
- Combination wrenches, 10 to 24 MM
- Adjustable wrenches (e.g. Crescent), optional sizes (6 to 24"), must have at least one 12"
- Assorted screwdrivers, both flat and phillips tips, student choice
- Torx<sup>TM</sup> drivers
- Gasket scraper, hand powered
- Battery service tools (post scrapers, pliers, and pullers)
- Assorted pliers, minimum of one slip jaw and one side cutters

- Needle nose pliers
- Locking pliers (e.g. Vise-Grips<sup>TM</sup>), minimum of two standard sizes
- Assortment of snap ring pliers, for both internal and external snap rings
- "Horseshoe" lock ring pliers (Mac # TP16 or equivalent) for use in transmissions
- Minimum 20' tape measure, English/Metric preferred
- Hacksaw with blades
- Flashlight
- Telescoping mirror
- Telescoping magnet
- Feeler gauges to approximately .035", minimum of two flat sets; also prefer one "go, nogo" set and one 45-degree set
- Ball peen hammers, 8 to 32 oz., student choice
- Punch and chisel set; including tapered, pin, and cold chisels; assorted sizes
- Set of round and flat files
- Set of heel or pry bars (tapered tip)
- English and Metric thread pitch gauges
- 0-6" dial or digital calipers with depth attachment
- 0-1" travel dial indicator with magnetic base
- Hex wrenches, assorted standard and metric sizes, either fold up or ratchet drive type
- Wire strippers and crimping tools
- Remote start switch
- Air blowgun
- Tool storage unit of sufficient capacity to hold all tools above

## **Tool List – Recommended Items**

- Mechanic's gloves
- Amp clamp for measuring large current values (1000 amps max). May be incorporated into the DMM
- 3/4" drive socket set, with sockets from 15/16 to 2". Include ratchet or breaker bar and extensions
- Flare nut wrenches to 3/4" and 17MM metric
- Crowsfoot wrenches, both standard (to 1") and flare nut (to 3/4") ? Dead blow hammer(s), soft face, minimum 16 oz.
- Prybars, rolling head on one end, tapered tip on the other
- Standard "flat" prybars
- 0-6" outside micrometers

- Inside mikes to 6" capacity
- 3/8" drive air ratchet
- 3/8" drive impact gun with sockets to 15/16"
- 1/2" drive impact gun with sockets to 1-5/16"
- Stud extractors
- Mechanical fingers
- O-ring picks
- Socket drive adaptors (e.g. 1/2 to 3/4, 3/8 to 1/2, etc.)
- Angle head open-end wrenches for hydraulic work

(Revised 09/09/2016)