

## Diesel Hydraulics Technology Equipment/Tool List

Jeff Butterfield, Instructor  
njbutter@nmcc.edu

Approximate Cost = \$1500-\$4000



The following tools are required for lab assignments throughout the two-year program.

You may wish to purchase your tools once you are here through vendors visiting the campus the first week of school. You may, however, buy your tools from wherever you choose. Tools will be needed no later than the third week of classes.

You will need a computer that meets recommendations on page three.

1. Allen Wrench Set Standard - .050 to 5/8"
2. Allen Wrench Set Metric – 2mm to 19mm
3. Chisel Set 5/16 Cape 3/8 5/8 3/4 Cold
4. Wrench Set Comb. Box/Open 5/16 to 1 ¼
5. Multimeter Auto Ranging CAT III 1000 volt
6. Electrical Pliers (Crimper/Stripper)
7. Safety Glasses with Side Panels (OSHA App)
8. Hammers – 16, 48oz ball peen
9. Brass Hammer 32oz or soft faced
10. Inspection Mirror
11. Magnetic Pick-up Tool
12. 12' Steel Measuring Tape, Mechanic's Steel
13. Pliers – 6" Slip Joint
  - Needle Nose
  - Diagonal Cutters Side Cutters
  - 8" Vice Grip
  - Set of Snap Ring Pliers Internal & External
14. Punches –
  - Aligning 1/4 - 5/8
  - 10" Brass
  - Center Punch
15. Gasket Scraper 1" Wide or Larger
16. Screwdrivers – Assorted Blade tips and Philips tip
17. Torx set – T15, T20, T25, T30, T35, T40, T45, T50
18. Socket Set – ¼" Drive
  - 3/16" to 9/16" Shallow 12 point
  - 3/16" to 9/16" Deep
  - 4mm to 14mm Shallow 12 point
  - Extensions – 2", 4", 6", 8" Long
  - Ratchet Handle
  - Universal Joint
19. 3/8 Drive Socket set
  - 1/4" to 15/16" Shallow 12 point
  - 1/4" to 15/16" Deep 6 point

- 8mm to 19mm Shallow 12 point
  - 8mm to 19mm 6 point
  - Breaker Bar
  - Ratchet Handle
20. ½ Drive Socket Set
- 3/8 to 1 ¼” Shallow 12 point
  - 3/8 to 1 ¼” Deep 6 point
  - 10mm to 28mm Shallow 12 point
  - 10mm to 28mm Deep 6 point
  - Universal Joint
  - Extensions 4”, 6”, 8” 12”
  - 3/8 and 1/2 Socket Sets may be Chrome or Impact
21. 3/8 in Drive torque wrench 20-100 ft. lb.
22. ½ in Drive torque wrench 50-250 ft. lb.
23. Tire Depth Gauge, Air Pressure Gauge (Truck Type)
24. Rubber tipped air blow gun
25. Roll head Pry Bar Set Small & Medium
26. Feller Gauge Set 005mm to 070mm
27. Wire Brush
28. Oil Filter Strip Type
29. 6” & 10” Adjustable Wrenches
30. Tool Box with Lock (Maximum 50” toolbox)

**THE FOLLOWING ARE RECOMMENDED BUT NOT REQUIRED**

1. Antifreeze Tester (Refractometer)
2. Tubing Cutter Framing Set
3. 7-Way Trailer Cord Tester or Test Light
4. Piston Ring Expander
5. Shop Coat or Overalls
6. ½ Drive, 1 5/16 and 1 ½ Shallow Sockets
7. Hearing Protection

**NMCC NOR ITS INSTRUCTORS ARE RESPONSIBLE FOR  
LOST TOOLS AND EQUIPMENT**

Assorted air tools or battery-operated tools can be purchased at the discretion of the student. Please note that these tools should have identifying marks to distinguish whose tools are who's.

## Laptop Computer Minimum System Requirements:

Estimated costs of the laptop computer will range from \$500-\$1,000 depending on the model and features preferred by the student.

### *Software:*

- Licensed Windows 10 or 11 operating system
- Microsoft Office 365 or 2019 Professional (Word, Excel, Access, & PowerPoint)
  - Available for free download through Office 365 account (Matriculating students only)
- Licensed and up-to-date antivirus

### *Hardware:*

<b>Minimum Requirements</b>	<b>Recommended Requirements</b>
Intel i3, Ryzen3 processor or faster	Intel i7 8 <sup>th</sup> Generation processor or faster
4GB or RAM	8GB or RAM
256GB Hard Drive	500GB SSD
Wireless networking	Wireless networking
Battery with at least 1.5 hours of runtime	Battery with at least 3.0+ hours of runtime
Web Camera, Mic, and Speakers (Video Conferencing)	Web Camera, Mic, and Speakers (Video Conferencing)

### *Optional:*

- Wireless Mouse
- USB Flash Drive (for moving files)
- DVD Drive

## **We do not recommend:**

- **Chrome books**
- **Mac or iPads**
- **Windows S mode laptops**