

**Competency Task List – Secondary Component**  
**Medium/Heavy Vehicle and Truck Technology/Technician CIP 47.0613**  
**High School Graduation Years 2020, 2021, 2022**

**100 Orientation and Safety**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
101	RESERVED		
102	Explain diesel occupations and certification programs.		
103	Identify truck classifications and configurations.		
104	Use service manuals and online service information.		
105	Follow safety procedures and safe equipment operation.		
106	RESERVED		
107	Follow EPA standards for cleaning and disposal of waste and fluids.		
108	Exhibit professional and personal standards and work habits and ethics in a diesel shop.		
109	Comply with OSHA regulations.		

**200 Tools and Fasteners/Hardware**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
201	Identify and use basic hand tools and power tools.		
202	Identify and use fasteners, fittings, and hardware.		
203	Drill and use threading tools and extractors.		
204	Identify and use fractional and precision measuring tools, both standard and metric.		
205	RESERVED		
206	Set up/Shut down, cut, and heat with an oxy-acetylene torch.		

### 300 Suspension and Steering Systems

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
301	Inspect and repair or replace steering linkage.		
302	Inspect and adjust basic wheel alignment and inspect tires.		
303	RESERVED		
304	Inspect and test/service a power steering system.		
305	Service wheel bearings and hubs according to TMC guidelines.		
306	Inspect and replace shock absorbers.		
307	Inspect and replace king pins.		
308	Inspect and replace leaf springs.		
309	Inspect and repair or replace air suspension components.		
310	Inspect and service wheel assemblies.		

### 400 Preventive Maintenance

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
401	Determine preventive maintenance intervals and procedures.		
402	Perform preventive maintenance inspection.		
403	RESERVED		

### 500 Brake System

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
501	Inspect and repair or replace hydraulic disc brake components.		
502	Inspect and repair or replace hydraulic drum brake components.		
503	Inspect and repair or replace S-cam drum brake components.		
505	RESERVED		

506	Inspect and replace or adjust air governors.		
507	Replace hydraulic brake lines and bleed brakes.		
508	Inspect and repair or replace air brake lines.		
509	Inspect and diagnose and replace air brake chambers.		
510	Inspect and diagnose and replace master cylinder and hydraulic system components.		
511	Diagnose and repair or replace ABS components.		
512	Inspect and repair or replace air brake valves.		
513	Inspect and repair or replace air dryers.		
514	Inspect and repair or replace air disc brake components.		
515	RESERVED		
516	RESERVED		
517	Inspect and replace and adjust slack adjusters.		

### 600 Diesel Engines

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
601	Explain diesel engine operation and identify parts.		
602	Remove, inspect, and install camshaft and valve train components.		
603	Remove, inspect, and install piston, connecting rod, and liner.		
604	Remove, inspect, and install crankshaft and bearings (mains and rods).		
605	Replace engine oil seal.		
606	Perform diesel tune-up (set overhead).		
607	Remove, inspect, and install cylinder head and gasket.		
608	Remove, inspect, and install oil pump.		
609	Remove, inspect, and install vibration dampener and flywheel.		

### 700 Air Intake and Exhaust Systems

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
701	Inspect and repair or replace air induction system components.		
702	Inspect and repair or replace exhaust system and components.		
703	Inspect and replace charge air coolers and after coolers.		
704	Inspect and repair or replace turbocharger.		

### 800 Cooling Systems

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
801	Inspect and replace belts and pulleys.		
802	Inspect and replace hoses and clamps.		
803	Test and replace thermostat.		
804	Drain, flush, refill, and bleed cooling system.		
805	Test anti-freeze and supplemental coolant additives.		
806	RESERVE		
807	Inspect and replace water pump.		
808	Test, inspect and repair fan drives.		
809	Inspect and pressure test cooling system components.		

### 900 Fuel System

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
901	Replace fuel filters and strainers.		
902	Inspect and replace fuel lines, tank, cap, and fittings.		
903	Prime and bleed fuel system.		
904	RESERVE		

905	Perform fuel supply and return system tests.		
906	Remove and install injector/nozzle.		

**1000 Electrical/Electronic System**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1001	Test and service battery.		
1002	Test, replace and adjust bulbs and lamps.		
1003	Diagnose and repair or replace electrical circuits and components.		
1004	Test starting system and replace component assemblies.		
1005	Test charging system output and replace component assemblies.		
1006	Analyze and interpret wiring diagrams.		
1007	Perform computer systems tests and analyze codes.		

**1100 Drive Line**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1101	Diagnose, replace, and adjust drive-line components.		
1102	Perform clutch/clutch brake maintenance and adjustment.		
1103	Remove and install clutch assembly.		
1104	Remove and install transmission.		

<sup>1</sup> Student Demonstrated Entry-Level Industry Proficiency as Indicated by (X)

Secondary CTE Instructor Signature \_\_\_\_\_ Date \_\_\_\_\_

Student Signature \_\_\_\_\_ Date \_\_\_\_\_