OFFICIAL PROGRAM STANDARDS NOTICE (OPSN)

Issued: June 22, 2023

Programs: Heavy Duty Equipment Technician, Truck and Transport Mechanic, Transport

Trailer Technician, and Diesel Engine Mechanic

To: SkilledTradesBC Training Providers

Articulation Chair System Liaison Person

Youth Train in Trades School Districts

Subject: Updates to Heavy Mechanical Trades' Programs

OPSN No.: OPSN 2023 008

Effective Date: April 1, 2024

Summary: New Program Outlines and Program Profiles have been posted to the SkilledTradesBC

website for <u>Heavy Duty Equipment Technician</u>, <u>Truck and Transport Mechanic</u>, <u>Transport Trailer Technician</u>, and <u>Diesel Engine Mechanic</u>. Changes were made to program content, technical training duration, work-based training hours, and challenge

pathway requirements. The changes are effective April 1, 2024.

Details: Throughout 2021 and 2022, the Red Seal Occupational Standards (RSOS) for Heavy Duty

Equipment Technician, Truck and Transport Mechanic, and Transport Trailer

Technician have been reviewed and updated as part of the pan-Canadian

Harmonization Initiative. The provincial Program Outlines have been updated to reflect enhanced, and new content, with minor changes to the sequencing of training topics. To support BC's Common Core training model for the Heavy Mechanical Trades, **Diesel**

Engine Mechanic program content has also been updated.

Please note that BC is aligned to the harmonized <u>trade name</u>, <u>number of levels</u>, and <u>total training hours</u>. However, BC has not aligned to the harmonized sequence of training topics and will continue to deliver training as part of its Common Core model.

Changes to work-based training hours are as follows:

Trade	Current	New	Difference
Heavy Duty Equip. Tech.	6,360 hours	6,330 hours	A reduction of 30 hours
Truck & Transport Mech.	6,360 hours	6,330 hours	A reduction of 30 hours
Transport Trailer Tech.	3,000 hours	3,150 hours	An increase of 150 hours

Changes to technical training duration are as follows:

Trade	Level	Current	New	Difference
Heavy Duty Equip. Tech.	Level 4	120 hours (4 weeks)	150 hours (5 weeks)	An increase of 30 hours (1 week)
Truck & Transport Mech.	Level 4	120 hours (4 weeks)	150 hours (5 weeks)	An increase of 30 hours (1 week)
Transport Trailer Tech.	Level 2	120 hours (4 weeks)	150 hours (5 weeks)	An increase of 30 hours (1 week)

Changes to challenge pathway hours are as follows:

Trade	Current	New	Difference		
Heavy Duty Equip. Tech.	9,540 hours	9,495 hours	A reduction of 45 hours		
Truck & Transport Mech.	9,540 hours	9,495 hours	A reduction of 45 hours		
Transport Trailer Tech.	4,500 hours	4,725 hours	An increase of 225 hours		

Rationale: At the request of industry, the Canadian Council of Directors of Apprenticeship's (CCDA)

Harmonization Initiative was launched in the fall of 2013 and endorsed by the Forum of Labour Market Ministers (FLMM) in 2014. The goal of Harmonization is to substantively

align apprenticeship systems across Canada by making apprenticeship training

requirements more consistent in Red Seal trades.

For more SkilledTradesBC Program Standards information: programstandards@skilledtradesbc.ca

cc: SkilledTradesBC Staff



Key

Black Text = No change to level

HL = Harmonized Level

PHL = Post-Harmonized Level

Blue Text = Content moved to lower level = PHL←HL

Purple Text = Content moved to higher level = HL→PHL

Green Text = New content added

Summary - Competency Migration

The BC Occupational Analysis Chart (OAC) was aligned to the structure of the Red Seal Occupational Standard (RSOS). Therefore, <u>several competencies have been renamed and restructured</u>. This chart shows the finalized competency distribution for the Post-harmonized Heavy Mechanical Trades programs. It summarizes the major changes to the competencies. For details, see the charts below.

POST-H	POST-HARMONIZED LEVEL 1 (PHL1)		POST-HARMONIZED LEVEL 2 (PHL2)		ARMONIZED LEVEL 3 (PHL3)	POST-H	POST-HARMONIZED LEVEL 4 (PHL4)		
Line A	PERFORM OCCUPATIONAL SKILLS	Line A	PERFORM OCCUPATIONAL SKILLS	Line A	PERFORM OCCUPATIONAL SKILLS	Line A	PERFORM OCCUPATIONAL SKILLS		
Al	Use safe work practices								
A2	Implement hybrid and electric vehicle								
	(EV) safety protocols								
A3	Use hand tools, power tools, and shop								
	equipment								
A4	Use fasteners and fittings								
A5	Lift and support loads								
A6	Operate equipment								
A7	Use documentation and reference								
	materials								
A8	Service bearings and seals								
A9	Select and maintain lubricants								
A10	Use cutting and welding equipment								
A11	Describe diagnostic procedures								
Line B	SERVICE, DIAGNOSE, AND REPAIR	Line B	SERVICE, DIAGNOSE, AND REPAIR	Line B	SERVICE, DIAGNOSE, AND REPAIR	Line B	SERVICE, DIAGNOSE, AND REPAIR BRAKES		
	BRAKES		BRAKES		BRAKES				
B1	Service and repair hydraulic brakes and								
	parking brakes								
B2	Service and repair hydraulic power brakes								
	and ABS systems								
В3	Service and repair air brakes								



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						B4	Diagnose and repair advanced brake systems (TTM/TTT)		
Line C	SERVICE, DIAGNOSE, AND REPAIR HYDRAULICS	Line C	SERVICE, DIAGNOSE, AND REPAIR HYDRAULICS	Line C	SERVICE, DIAGNOSE, AND REPAIR HYDRAULICS	Line C	SERVICE, DIAGNOSE, AND REPAIR HYDRAULICS		
C1	Service hydraulic components								
						C2	Diagnose and repair advanced hydraulic systems		
Line D	SERVICE, DIAGNOSE, AND REPAIR ELECTRICAL AND ELECTRONIC SYSTEMS	Line D	SERVICE, DIAGNOSE, AND REPAIR ELECTRICAL AND ELECTRONIC SYSTEMS	Line D	SERVICE, DIAGNOSE, AND REPAIR ELECTRICAL AND ELECTRONIC SYSTEMS	Line D	SERVICE, DIAGNOSE, AND REPAIR ELECTRICAL AND ELECTRONIC SYSTEMS		
D1	Describe electricity								
D2	Use electrical testing instruments								
D3	Service, diagnose, and repair battery								
	systems								
D4	Service starting and charging systems								
D5	Service electrical circuits								
		D6	Diagnose and repair charging systems						
		D7	Diagnose and repair starting systems						
		D8	Diagnose and repair electrical and						
			electronic components and systems						
		D9	Diagnose and repair vehicle and equipment						
			management systems						
		D10	Service, diagnose, and repair electronic						
			ignition systems						
Line E	SERVICE, DIAGNOSE, AND REPAIR	Line E	SERVICE, DIAGNOSE, AND REPAIR	Line E	SERVICE, DIAGNOSE, AND REPAIR	Line E	SERVICE, DIAGNOSE, AND REPAIR		
	FRAMES, STEERING, AND SUSPENSION		FRAMES, STEERING, AND SUSPENSION		FRAMES, STEERING, AND SUSPENSION		FRAMES, STEERING, AND SUSPENSION		



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E1	Service, diagnose, and repair tires, wheels, and hubs								
E2	Service steering systems								
ЕЗ	Service, diagnose, and repair suspension systems								
E4	Service undercarriage systems								
E5	Service, diagnose, and repair frames								
						E6	Diagnose and repair wheeled equipment steering (HDET)		
						E7	Diagnose and repair track machine steering (HDET)		
						E8	Diagnose and repair undercarriage (HDET)		
						E9	Diagnose and repair truck steering systems (TTM/TTT)		
						E10	Align truck and trailer (TTM/TTT)		
Line F	SERVICE, DIAGNOSE, AND REPAIR TRAILERS	Line F	SERVICE, DIAGNOSE, AND REPAIR TRAILERS	Line F	SERVICE, DIAGNOSE, AND REPAIR TRAILERS	Line F	SERVICE, DIAGNOSE, AND REPAIR TRAILERS		
F1	Service, diagnose, and repair landing gear and trailer								
F2	accessories								
F3	Service, diagnose, and repair coupling systems								
F4	Service, diagnose, and repair trailer body components								
						F5	Diagnose and repair heating and refrigeration systems (TTM/TTT)		



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Line G	SERVICE, DIAGNOSE, AND REPAIR HEATING, VENTILATION, AND AIR CONDITIONING	Line G	SERVICE, DIAGNOSE, AND REPAIR HEATING, VENTILATION, AND AIR CONDITIONING	Line G	SERVICE, DIAGNOSE, AND REPAIR HEATING, VENTILATION, AND AIR CONDITIONING	Line G	SERVICE, DIAGNOSE, AND REPAIR HEATING, VENTILATION, AND AIR CONDITIONING	
G1	Describe heating and air conditioning fundamentals							
						G2	Service, diagnose, and repair heating and air conditioning systems	
Line H	SERVICE, DIAGNOSE, AND REPAIR ENGINES AND SUPPORTING SYSTEMS	Line H	SERVICE, DIAGNOSE, AND REPAIR ENGINES AND SUPPORTING SYSTEMS	Line H	SERVICE, DIAGNOSE, AND REPAIR ENGINES AND SUPPORTING SYSTEMS	Line H	SERVICE, DIAGNOSE, AND REPAIR ENGINES AND SUPPORTING SYSTEMS	
		H1	Describe engine fundamentals					
		H2	Service engine support systems					
		НЗ	Diagnose and repair engine support systems					
		H4	Service diesel fuel supply systems					
		H5	Diagnose and repair diesel fuel supply systems					
		Н6	Describe alternative fuel systems					
		H7	Service, diagnose, and repair engines and components					
		Н8	Diagnose and repair mechanical fuel injection systems					
		Н9	Service, diagnose, and repair electronic diesel fuel systems					
		H10	Service, diagnose, and repair diesel emissions systems					
		H11	Service, diagnose, and repair engine retarder systems					
Line I	SERVICE, DIAGNOSE, AND REPAIR POWERTRAINS	Line I	SERVICE, DIAGNOSE, AND REPAIR POWERTRAINS	Line I	SERVICE, DIAGNOSE, AND REPAIR POWERTRAINS	Line I	SERVICE, DIAGNOSE, AND REPAIR POWERTRAINS	



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				I1	Describe power transfer systems			
				I2	Service, diagnose, and repair clutches			
				I3	Service, diagnose, and repair manual			
					transmissions			
				I4	Service, diagnose, and repair automated			
					transmissions			
				I5	Service, diagnose, and repair automatic			
					transmissions and torque converters			
				I6	Service, diagnose, and repair power shift			
					transmissions			
				I7	Service, diagnose, and repair drivelines			
				I8	Service, diagnose, and repair drive axles			
				I9	Service, diagnose, and repair final drives			
				I10	Service, diagnose, and repair drivetrain			
					retarders			
				I11	Service, diagnose, and repair winches			
				I12	Service, diagnose, and repair power take-			
					offs and transfer cases			
Line J	SERVICE, DIAGNOSE, AND REPAIR	Line J	SERVICE, DIAGNOSE, AND REPAIR	Line J	SERVICE, DIAGNOSE, AND REPAIR	Line J	SERVICE, DIAGNOSE, AND REPAIR	
	STRUCTURAL COMPONENTS AND		STRUCTURAL COMPONENTS AND		STRUCTURAL COMPONENTS AND		STRUCTURAL COMPONENTS AND	
	ACCESSORIES		ACCESSORIES		ACCESSORIES		ACCESSORIES	
J1	Describe protective structures							
J2	Service, diagnose, and repair cab							
	structures							
						Ј3	Service, diagnose, and repair sound suppression	
						T4	systems (HDET)	
						J4	Diagnose and repair attachments and	
							accessories (HDET)	

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						J5	Diagnose and repair pneumatic systems		
							(HDET)		
Line K	SERVICE, DIAGNOSE, AND REPAIR	Line K	SERVICE, DIAGNOSE, AND REPAIR	Line K	SERVICE, DIAGNOSE, AND REPAIR	Line K	SERVICE, DIAGNOSE, AND REPAIR HYBRID		
	HYBRID AND ELECTRIC VEHICLES		HYBRID AND ELECTRIC VEHICLES (EV)		HYBRID AND ELECTRIC VEHICLES		AND ELECTRIC VEHICLES (EV)		
	(EV)				(EV)				
						K1	Service, diagnose, and repair hybrid vehicles		
							and hybrid equipment		
						K2	Service, diagnose, and repair electric vehicles		
							(EV)		
Line L	USE COMMUNICATION AND	Line L	USE COMMUNICATION AND	Line L	USE COMMUNICATION AND	Line L	USE COMMUNICATION AND MENTORING		
	MENTORING TECHNIQUES		MENTORING TECHNIQUES		MENTORING TECHNIQUES		TECHNIQUES		
L1	Use communication techniques								
						L2	Use mentoring techniques		



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Details – Competency Migration

This chart shows where content from the Harmonized program moved to in the Post-Harmonized program and includes details of content that was moved or split across levels.

COMMON CORE HARMONIZED LEVEL 1 (HL1) TO COMMON CORE POST-HARMONIZED LEVEL 1 (PHL1)

	HARMONIZED LEVEL 1 (HL1)		POST-HARMONIZED LEVEL 1 (PHL1)	MIGRATION	DETAILS
	Line A OCCUPATIONAL SKILLS		Line A PERFORM OCCUPATIONAL SKILLS		
A1	Use Safe Work Practices	A1	Use safe work practices	N/A	
		A2	Implement hybrid and electric vehicle (EV) safety protocols	New	New competency.
A4	Use Hand Tools, Power Tools, and Shop Equipment	A3	Use hand tools, power tools, and shop equipment	N/A	
A5	Use Fasteners and Fittings	A4	Use fasteners and fittings	N/A	
A6	Lift and Support Loads	A5	Lift and support loads	N/A	
A7	Operate Equipment	A6	Operate equipment	N/A	
A8	Use Shop Resources and Record Keeping Practices	A7	Use documentation and reference materials	N/A	
A9	Service Winch Wire Rope	A5	Lift and support loads	N/A	HL1 A9 was merged into PHL1 A5.
A10	Identify Lubricants	A9	Select and maintain lubricants	N/A	
A11	Service Bearings and Seals	A8	Service bearings and seals	N/A	
A13	Use Electronic Media	A7	Use documentation and reference materials	N/A	
A14	Use Cutting and Welding Equipment	A10	Use cutting and welding equipment	N/A	
A16	Describe Diagnostic Procedures	A11	Describe diagnostic procedures	N/A	
Line I	BRAKES	Line B	SERVICE, DIAGNOSE, AND REPAIR BRAKES		
B1	Service and Repair Hydraulic Brakes	B1	Service and repair hydraulic brakes and parking brakes	N/A	
B2	Service and Repair Hydraulic Power Brakes	B2	Service and repair hydraulic power brakes and ABS systems	N/A	
ВЗ	Service and Repair Air Brakes	В3	Service and repair air brakes	N/A	
Line (CHYDRAULICS	Line C	SERVICE, DIAGNOSE, AND REPAIR HYDRAULICS		



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HARMONIZED LEVEL 1 (HL1)		POST-HARMONIZED LEVEL 1 (PHL1)	MIGRATION	DETAILS
C1 Describe Hydraulic Systems	C1	Service hydraulic components	N/A	HL1 C1 and C2 were merged into PHL1
C2 Service Hydraulic Components				C1.
Line D ELECTRICAL	Line I SYST	D SERVICE, DIAGNOSE, AND REPAIR ELECTRICAL AND ELECTRONIC EMS		
D1 Describe Electricity	D1	Describe electricity	N/A	
D2 Use Electrical Testing Instruments	D2	Use electrical testing instruments	N/A	
D3 Service and Diagnose Batteries	D3	Service, diagnose, and repair battery systems	N/A	
D4 Service Charging Systems	D4	Service starting and charging systems	N/A	HL1 D4 and D6 were merged into PHL1
D6 Service Starting Systems				D4.
D8 Service Electrical Circuits	D5	Service electrical circuits	N/A	
Line E FRAMES, STEERING AND SUSPENSION		SERVICE, DIAGNOSE, AND REPAIR FRAMES, STEERING, AND ENSION		
E1 Service and Diagnose Tires, Wheels, and Hubs	E1	Service, diagnose, and repair tires, wheels, and hubs	N/A	
E2 Service Steering Systems	E2	Service steering systems	N/A	
E4 Service, Diagnose and Repair Suspension Systems	ЕЗ	Service, diagnose, and repair suspension systems	N/A	
	E4	Service undercarriage systems	New	New competency.
E6 Diagnose and Repair Frames	E5	Service, diagnose, and repair frames	N/A	
Line F TRAILER	Line F	SERVICE, DIAGNOSE, AND REPAIR TRAILERS		
F1 Service Landing Gear and Trailer Accessories	F1	Service, diagnose, and repair landing gear and trailer accessories	N/A	
F2 Service and Repair Coupling Systems	F2	Service, diagnose, and repair coupling systems	N/A	
F3 Service, Diagnose and Repair Trailer Body Components	F3	Service, diagnose, and repair trailer body components	N/A	
F4 Service, Diagnose and Repair Heating and Refrigeration Systems	F4	Service heating and refrigeration systems	N/A	
Line G HEATING, VENTILATION, AND AIR CONDITIONING		G SERVICE, DIAGNOSE, AND REPAIR HEATING, VENTILATION, AND AIR DITIONING		
G1 Describe Heating and Air Conditioning Fundamentals	G1	Describe heating and air conditioning fundamentals	N/A	



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	HARMONIZED LEVEL 1 (HL1)		POST-HARMONIZED LEVEL 1 (PHL1)	MIGRATION	DETAILS
G2	Diagnose and Repair Heating and Air Conditioning Systems			PHL1 → PHL4	Moved to HDET and TTM/TTT level 4.
Line J	Structural Components and Accessories		SERVICE, DIAGNOSE, AND REPAIR STRUCTURAL COMPONENTS AND SSORIES		
J1	Identify Protective Structures	J1	Describe protective structures	N/A	
J2	Service Cab Structures	J2	Service, diagnose, and repair cab structures	PHL1 ← HL4	Competency content expanded to cover content moved from TTM/TTT PHL4.
		Line L	USE COMMUNICATION AND MENTORING TECHNIQUES		
		L1	Use communication techniques	New	New competency.



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COMMON CORE HARMONIZED LEVEL 2 (HL2) TO COMMON CORE POST-HARMONIZED LEVEL 2 (PHL2)

HARMONIZED LEVEL 2 (HL2)		POST	T-HARMONIZED LEVEL 2 (PHL2)	MIGRATION	DETAILS
Line D Electrical		Line D SERVICE, DIAGNOSE, AND REPAIR ELECTRICAL AND ELECTRONIC SYSTEMS			
D5	Diagnose and Repair Charging Systems	D6	Diagnose and repair charging systems	N/A	
D7	Diagnose and Repair Starting Systems	D7	Diagnose and repair starting systems	N/A	
D9	Diagnose and Repair Electrical Components and Systems	D8	Diagnose and repair electrical and electronic components and systems	N/A	
D10	Diagnose and Repair Electronic Components and Systems	D8	Diagnose and repair electrical and electronic components and systems	N/A	
D11	Diagnose and Repair Vehicle Management Systems	D9	Diagnose and repair vehicle and equipment management systems	N/A	
		D10	Service, diagnose, and repair electronic ignition systems	New	New competency.
Line H ENGINES AND SUPPORTING SYSTEMS		Line	Line H SERVICE, DIAGNOSE, AND REPAIR ENGINES AND SUPPORTING SYSTEMS		
H1	Describe Engine Fundamentals	H1	Describe engine fundamentals	N/A	
НЗ	Diagnose and Repair Engine Support Systems	H2	Service engine support systems	N/A	HL2 H3 split into PHL2 H2 and H3.
		НЗ	Diagnose and repair engine support systems	-	
Н5	Diagnose and Repair Diesel Supply Systems	H4	Service diesel fuel supply systems	N/A	HL2 H5 split into PHL2 H4 and H5.
		Н5	Diagnose and repair diesel fuel supply systems	-	
H7	Describe Alternative Fuel Systems	Н6	Describe alternative fuel systems	N/A	
Н8	Diagnose Engines and Components	H7	Service, diagnose, and repair engines and components	N/A	HL2 H8 and H10 were merged into
H10	Remove Engines and Components				PHL2 H7.
H11	Describe Diesel Fuel Injection Fundamentals	H4	Service diesel fuel supply systems	N/A	HL2 H11 was merged into PHL2 H4
H12	Diagnose and Repair Mechanical Fuel Injection Systems	Н8	Diagnose and repair mechanical fuel injection systems	N/A	
H13	Diagnose and Repair Electronic Diesel Fuel Systems	Н9	Service, diagnose, and repair electronic diesel fuel systems	N/A	
H14	Diagnose and Repair Diesel Emissions Systems	H10	Service, diagnose, and repair diesel emissions systems	N/A	
H15	Diagnose and Repair Engine Brakes	H11	Service, diagnose, and repair engine retarder systems	N/A	



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COMMON CORE HARMONIZED LEVEL 3 (HL3) TO COMMON CORE POST-HARMONIZED LEVEL 3 (PHL3)

HARMONIZED LEVEL 3 (HL3)		POST-HARMONIZED LEVEL 3 (PHL3)		MIGRATION	DETAILS
Line I POWERTRAINS		Line I SERVICE, DIAGNOSE, AND REPAIR POWERTRAINS			
I1	Describe Power Transfer Systems	I1	Describe power transfer systems	N/A	
I3	Diagnose and Repair Clutches	I2	Service, diagnose, and repair clutches	N/A	
I5	Diagnose and Repair Manual Transmissions	I3	Service, diagnose, and repair manual transmissions	N/A	
I6	Diagnose and Repair Automated Systems	I4	Service, diagnose, and repair automated transmissions	N/A	
I9	Diagnose and Repair Automatic Transmissions and Torque	I5	Service, diagnose, and repair automatic transmissions and torque converters	N/A	
	Converters				
I10	Diagnose and Repair Power Shift Transmissions	I6	Service, diagnose, and repair power shift transmissions	N/A	
I12	Diagnose and Repair Drivelines	I7	Service, diagnose, and repair drivelines	N/A	
I14	Diagnose and Repair Drive Axles	I8	Service, diagnose, and repair drive axles	N/A	
I16	Diagnose and Repair Final Drives	I9	Service, diagnose, and repair final drives	N/A	
I17	Diagnose and Repair Driveline Retarders	I10	Service, diagnose, and repair drivetrain retarders	N/A	
I18	Diagnose and Repair Winches	I11	Service, diagnose, and repair winches	N/A	
I19	Diagnose and Repair Power Take-offs and Transfer Cases	I12	Service, diagnose, and repair power take-offs and transfer cases	N/A	



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HDET HARMONIZED LEVEL 4 (HDET HL4) TO HDET POST-HARMONIZED LEVEL 4 (HDET PHL4)

HARMONIZED LEVEL 4 (HL4)	POST-HARMONIZED LEVEL 4 (PHL4)		DETAILS
Line C HYDRAULICS	Line C SERVICE, DIAGNOSE, AND REPAIR HYDRAULICS		
C3 Diagnose and Repair Advanced Hydraulic Systems	C2 Diagnose and repair advanced hydraulic systems	N/A	
Line D ELECTRICAL	Line K SERVICE, DIAGNOSE, AND REPAIR HYBRID AND ELECTRIC VEHICLES (EV)		
D13 Service, Diagnose and Repair Electric Drive Systems	K1 Service, diagnose, and repair hybrid vehicles and hybrid equipment	New	HDET HL4 D13 content was
	K2 Service, diagnose, and repair electric vehicles (EV)	1	expanded into HDET/TTM/TTT
			PHL4 K1 and K2.
Line E FRAMES, STEERING, AND SUSPENSION	Line E SERVICE, DIAGNOSE, AND REPAIR FRAMES, STEERING, AND SUSPENSION		
E8 Diagnose and Repair Wheeled Equipment Steering	E6 Diagnose and repair wheeled equipment steering	N/A	
E9 Diagnose and Repair Track Machine Steering	E7 Diagnose and repair track machine steering	N/A	
E10 Diagnose and Repair Undercarriage	E8 Diagnose and repair undercarriage	N/A	
Line J STRUCTURAL COMPONENTS AND ACCESSORIES	Line J SERVICE, DIAGNOSE, AND REPAIR STRUCTURAL COMPONENTS AND		
	ACCESSORIES		
	J3 Service, diagnose, and repair sound suppression systems	New	New content.
J4 Diagnose and Repair Working Attachments	J4 Diagnose and repair attachments and accessories	N/A	
J5 Diagnose and Repair Pneumatic Systems	J5 Diagnose and repair pneumatic systems	N/A	
	Line G SERVICE, DIAGNOSE, AND REPAIR HEATING, VENTILATION, AND AIR		
	CONDITIONING		
	G2 Service, diagnose, and repair heating and air conditioning systems	HL1 → PHL4	Moved from level 1.
	Line L USE COMMUNICATION AND MENTORING TECHNIQUES		
	L2 Use mentoring techniques	New	New competency.



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Purple Text = Content moved to higher level = HL→PHL

PHL = Post-Harmonized Level Green Text = New content added

TTM HARMONIZED LEVEL 4 (TTM HL4) TO TTM POST-HARMONIZED LEVEL 4 (TTM PHL4)

AND

TTT HARMONIZED LEVEL 2 (TTT HL2) TO TTT POST-HARMONIZED LEVEL 2 (TTT PHL2)

HARMONIZED LEVEL 4 (HL4)	POST-HARMONIZED LEVEL 4 (PHL4)	MIGRATION	DETAILS
Line B BRAKES	LINE B SERVICE, DIAGNOSE, AND REPAIR BRAKES		
B4 Diagnose and Repair Advanced Brake Systems	B4 Diagnose and repair advanced brake systems	N/A	
Line C HYDRAULICS	Line C SERVICE, DIAGNOSE, AND REPAIR HYDRAULICS		
C3 Diagnose and Repair Advanced Hydraulic Systems	C2 Diagnose and repair advanced hydraulic systems	N/A	
Line D ELECTRICAL	Line K SERVICE, DIAGNOSE, AND REPAIR HYBRID AND ELECTRIC VEHICLES (EV)		
D12 Service, Diagnose and Repair Hybrid Systems	K1 Service, diagnose, and repair hybrid vehicles and hybrid equipment	N/A	TTM/TTT HL4 D12 content was
	K2 Service, diagnose, and repair electric vehicles (EV)		expanded into HDET/TTM/TTT
			PHL4 K1 and K2.
Line E FRAMES, STEERING, AND SUSPENSION	Line E SERVICE, DIAGNOSE, AND REPAIR FRAMES, STEERING, AND SUSPENSION		
E3 Diagnose and Repair Truck Hydraulic Assisted Steering Systems	E9 Diagnose and repair truck steering systems	N/A	
E7 Align Vehicle	E10 Align truck and trailer	N/A	
Line J STRUCTURAL COMPONENTS AND ACCESSORIES			
J3 Repair Advanced Cab and Body Structures		PHL1 ← HL4	Competency content moved to PHL1.
	Line F SERVICE, DIAGNOSE, AND REPAIR TRAILERS		
	F5 Diagnose and repair heating and refrigeration systems	New	New competency.
	Line G SERVICE, DIAGNOSE, AND REPAIR HEATING, VENTILATION, AND AIR		
	CONDITIONING		
	G2 Service, diagnose, and repair heating and air conditioning systems	HL1 → PHL4	Moved from level 1.
	Line L USE COMMUNICATION AND MENTORING TECHNIQUES		
	L2 Use mentoring techniques	New	New competency.