



## Transportation, Distribution & Logistics Skill Standards Checklist

Student Name	YA Student ID Number
YA Coordinator	YA Consortium
School District	High School Graduation Date

### Certification Areas Completed:

**Required Skills - For EACH Unit**

**Check ✓ completed areas (p. 4)**

- Core Skills
- Safety

**Logistics/Supply Chain Management (SCM) Pathway- 2 Units per Year (p. 5-9)**

- Planning & Purchasing Unit
- Inventory Management & Production Unit
- Storage & Warehousing Unit
- Distribution & Transportation Operations Unit

**Mobile Equipment Maintenance Pathway**

**Auto Collision- 2 Units per Year (p. 10-14)**

- Collision Repair Basics Unit – REQUIRED FIRST
- Non-structural Analysis & Repair Unit
- Painting & Refinishing Unit

- Damage Analysis & Electrical Repair Unit

**Auto Technician- 1 Unit per Year (p. 15-19)**

- General Auto Service Unit – REQUIRED FIRST
- Auto/Light Truck Systems Unit

**Diesel Technician- 1 or 2 year program as indicated on Unit Page 20-22**

- Diesel Technician Unit

### Level One Requirements:

*Students must complete ALL listed below*

**Check ✓ completed areas**

- Required Skills
- SEE Pathway for Unit Requirements
- Minimum of 2 semesters related instruction
- Minimum of 450 work hours

### Level Two Requirements:

*Students must complete ALL listed below*

**Check ✓ completed areas**

- Required Skills for EACH Pathway
- SEE Pathway for Unit Requirements
- Minimum of 4 semesters related instruction
- Minimum of 900 work hours

Total Hours Employed	Company Name	Telephone Number
		(   )
		(   )

## Required Skills

Required of ALL Transportation, Distribution & Logistics YA Students

Copy this page FOR EACH pathway to be completed

CORE SKILLS	Minimum rating of 2 for EACH Check Rating		
	1	2	3
1. Apply academic knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Apply career knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Apply Transportation, Distribution & Logistics industry knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Communicate effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Act professionally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Demonstrate customer service skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Cooperate with others in a team setting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Think critically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Exhibit regulatory & ethical responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Use resources wisely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Use basic technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAFETY	Minimum rating of 2 for EACH Check Rating		
	1	2	3
1. Follow personal safety requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Maintain a safe work environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Demonstrate professional role to be used in an emergency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Rating Scale:

3 = Exceeds entry level criteria | Requires minimal supervision | Consistently displays this behavior

2 = Meets entry level criteria | Requires some supervision | Often displays this behavior

1 = Needs improvement | Requires much assistance & supervision | Rarely displays behavior

### Additional Comments -

# Mobile Equipment Maintenance Pathway- Auto Technician

Level One (one year program) = General Auto Service Unit

Level Two (two year program) = General Auto Service Unit + 25 Additional Skills from the Auto/Light Truck Systems Unit (pages 17-19)

General Auto Service Unit – REQUIRED FIRST	Minimum rating of 2 for EACH Check Rating		
	1	2	3
1. Obtain & apply basic vehicle & servicing knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Operate tools & equipment safely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Maintain work area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Assist to process work order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Research information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Acquire parts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Assist to diagnose common concerns & determine action	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Engine</b>			
8. Perform engine oil & filter change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Replace fuel filter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Check, drain, recover, flush, refill cooling system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Assist to inspect engine assembly for leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Inspect, replace air filter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Retrieve, record, interpret diagnostic codes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Manual Drive Trains &amp; Axles</b>			
14. Check for leaks & fluid conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Check & adjust differential housing fluid level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Automatic Transmission &amp; Transaxle</b>			
16. Check fluid level in a transmission/transaxle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Inspect, replace, flush transmission fluid & filters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Brakes</b>			
18. Test brake fluid for contamination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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# Mobile Equipment Maintenance Pathway- Auto Technician

General Auto Service Unit – REQUIRED FIRST - <i>continued</i>	Minimum rating of 2 for EACH Check Rating		
	1	2	3
<b>Suspension &amp; Steering</b>			
19. Inspect power steering fluid level & condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Flush, fill, bleed power steering system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Inspect for power steering fluid leakage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Lubricate suspension & steering systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Inspect tire condition & adjust air pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Rotate tires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Electrical/Electronic</b>			
25. Verify, replace, refill wiper & washer operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Check brake lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Test, replace, aim lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Inspect, check, replace battery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Perform battery capacity test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Perform slow/fast battery charge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Perform battery state-of-charge test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Verify panel gauges & lights; reset maintenance indicators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Jump start a vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Heating &amp; A/C</b>			
34. Replace cabin filter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Inspect engine cooling & heater systems hoses, ducts, doors, filters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Additional Comments -**

# Mobile Equipment Maintenance Pathway- Auto Technician

Auto/Light Truck Systems Unit CHOOSE 25 Skills MINIMUM	Minimum rating of 2 for EACH Check Rating		
	1	2	3
<b>Engine Repair &amp; Performance (NATEF A1 &amp; A8)</b>			
1. Install engine covers using gaskets, seals, & sealers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Assist to remove & replace timing belt, verify camshaft timing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Perform cooling system pressure tests to identify leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Inspect, replace, adjust drive belts, tensioners, & pulleys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Remove, inspect, replace thermostat & gasket/seal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Inspect, remove, replace water pump	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Perform cylinder cranking & running compression tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Perform cylinder leakage tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Remove, replace spark plugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Inspect exhaust manifold, pipes, muffler, catalytic converter, resonator, & heat shields	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Remove, replace radiator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Automatic Transmission &amp; Transaxle (NATEF A2)</b>			
12. Inspect, replace external seals, gaskets, bushings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Inspect powertrain mounts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Manual Drive Trains &amp; Axles (NATEF A3)</b>			
14. Drain/refill differential or transfer case housings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Remove & replace drive axle shafts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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# Mobile Equipment Maintenance Pathway- Auto Technician

Auto/Light Truck Systems Unit – <i>continued</i> CHOOSE 25 Skills MINIMUM	Minimum rating of 2 for EACH Check Rating		
	1	2	3
<b>Suspension &amp; Steering (NATEF A4)</b>			
16. Assist to disable & enable supplemental restraint system (SRS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Assist to remove, inspect, replace, adjust power steering pump drive belt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Assist to remove, reinstall power steering pump	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Inspect, replace, adjust tie rod ends (sockets), tie rod sleeves, & clamps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Assist to inspect, remove, install upper &/or lower ball joints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Inspect, remove, install front stabilizer bar bushings, brackets, links	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Assist to inspect, remove, install strut cartridge or assembly, strut coil spring, insulators, & upper strut bearing mount	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Inspect rear suspension system leaf springs, bushings, center pins/bolts, & mounts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Perform pre-alignment inspection & measure vehicle ride height	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Dismount, inspect, balance, remount tire on wheel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Inspect tire for air loss; Repair tire using internal patch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Assist to test & calibrate pressure monitoring system for operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Brakes (NATEF A5)</b>			
28. Inspect brake lines, hoses, fittings for leaks, kinks, rust, cracks, bulging, wear, loose fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Select, handle, store, fill brake fluids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Bleed &/or flush brake system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Measure brake pedal height, travel, free play	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Check master cylinder for leaks & operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Remove, clean, inspect, measure brake drum diameter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Assist to remove, clean, inspect, lubricate, reassemble brake shoes, springs, pins, clips, levers, adjusters, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Remove, clean, inspect, caliper assembly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Clean, inspect caliper mounting & slides/pins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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# Mobile Equipment Maintenance Pathway- Auto Technician

Auto/Light Truck Systems Unit – <i>continued</i> CHOOSE 25 Skills MINIMUM	Minimum rating of 2 for EACH Check Rating		
	1	2	3
<b>Brakes (NATEF A5) - continued</b>			
37. Remove, inspect, replace pads & retaining hardware	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Lubricate, reinstall caliper, pads, & related hardware	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Clean, inspect, measure rotor, rotor thickness, variation, & lateral run-out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. Remove, reinstall rotor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Check brake pad wear indicator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. Remove, clean, inspect, repack, install wheel bearings, seals, hub	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. Check parking brake cables & components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. Check parking brake operation & indicator lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. Assist to replace wheel bearing & race	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Electrical &amp; Electronic Systems (NATEF A6)</b>			
46. Properly use a digital multimeter (DMM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. Use wiring diagrams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. Inspect, test fusible links, breakers, fuses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. Replace electrical connectors & terminal ends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. Perform starter current draw tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. Perform starter circuit voltage drop tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. Remove, install starter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. Remove, inspect, reinstall generator (alternator)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. Remove, reinstall door panel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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