

Suspension and Steering

Grades 9-12

Refer to NATEF (National Automotive Technicians Education Foundation) standards, 2013.

SUSPENSION AND STEERING

For every task in Brakes, the following safety requirement must be strictly enforced:

Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

IV. SUSPENSION AND STEERING

A. General

1. Research applicable vehicle and service information, vehicle service history, service precautions, and technical service bulletins. P-1
2. Disable and enable supplemental restraint system (SRS). P-1

IV. SUSPENSION AND STEERING

B. Related Suspension and Steering Service

1. Inspect rack and pinion steering gear inner tie rod ends (sockets) and bellows boots. P-1
2. Determine proper power steering fluid type; inspect fluid level and condition. P-1
3. Flush, fill, and bleed power steering system. P-2
4. Inspect for power steering fluid leakage; determine necessary action. P-1
5. Remove, inspect, replace, and adjust power steering pump drive belt. P-1
6. Inspect and replace power steering hoses and fittings. P-2
7. Inspect pitman arm, relay (centerlink/intermediate) rod, idler arm and mountings, and steering linkage damper. P-1
8. Inspect tie rod ends (sockets), tie rod sleeves, and clamps. P-1
9. Inspect upper and lower control arms, bushings, and shafts. P-1

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| 10. Inspect and replace rebound and jounce bumpers. | P-1 |
| 11. Inspect track bar, strut rods/radius arms, and related mounts and bushings. | P-1 |
| 12. Inspect upper and lower ball joints (with or without wear indicators). | P-1 |
| 13. Inspect suspension system coil springs and spring insulators (silencers). | P-1 |
| 14. Inspect suspension system torsion bars and mounts. | P-1 |
| 15. Inspect and replace front stabilizer bar (sway bar) bushings, brackets, and links. | P-1 |
| 16. Inspect strut cartridge or assembly. | P-1 |
| 17. Inspect front strut bearing and mount. | P-1 |
| 18. Inspect rear suspension system lateral links/arms (track bars), control (trailing) arms. | P-1 |
| 19. Inspect rear suspension system leaf spring(s), spring insulators (silencers), shackles, brackets, bushings, center pins/bolts, and mounts. | P-1 |
| 20. Inspect, remove, and replace shock absorbers; inspect mounts and bushings. | P-1 |
| 21. Inspect electric power-assisted steering. | P-3 |
| 22. Identify hybrid vehicle power steering system electrical circuits and safety precautions. | P-2 |
| 23. Describe the function of the power steering pressure switch. | P-3 |

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IV. SUSPENSION AND STEERING

C. Wheel Alignment

1. Perform prealignment inspection and measure vehicle ride height; determine necessary action. P-1

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C. Wheels and Tires

1. Inspect the condition; identify tire wear patterns; check for correct size and application (load and speed ratings) and adjust air pressure; determine necessary action. P-1
2. Rotate tires according to manufacturer’s recommendations. P-1
3. Dismount, inspect, and remount tire on wheel; balance wheel and tire assembly (static and dynamic). P-1
4. Dismount, inspect and remount tire on wheel equipped with tire pressure monitoring system sensor. P-2
5. Inspect tire and wheel assembly for air loss; perform necessary action. P-1
6. Repair tire using internal patch. P-1
7. Identify and test tire pressure monitoring systems (indirect and direct) for operation; verify operation of instrument panel lamps. P-2
8. Demonstrate knowledge of steps required to remove and replace sensors in a tire pressure monitoring system. P-2

EE Total Tasks	
P-1	26
P-2	6
P-3	2
	34