

16 Point Inspection Instructions and Standards.

General Instructions.

Our complimentary inspection is designed to give the customer an overview of the obvious problems evident at the time of service. It is a visual hands off inspection. It is not intended to replace detailed inspections to determine the cause of specific problems or symptoms. Technicians are advised to only note items that are obvious and would be obvious to another technician or shop without disassembly or in depth inspection. If the technician sees something that indicates a possible problem, or indicates the very early signs of a pattern failure, he should recommend an inspection of that subsystem or ask the customer if there is a particular symptom that fits his observation.

Since some problems are very relative in nature we will use the following guidelines.

Before any specific repairs are recommended from the 16pt inspection the leak must meet the guidelines for a level 3 or higher leak. Level 1 and 2 leaks should not have a specific repair recommended but tech should simply note the observation and if the customer has a specific symptom or would like to pursue the potential early sign they can be advised accordingly.

Leaks should be categorized as follows:

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| Level 1 | Leak shows up as a film mixed with dust. No evidence at this time that it is hitting the ground. |
| Level 2 | Leak shows up as a moist film not covered with dust. Or in the case of coolant it may appear as a dry chalk looking track. There are no visible droplets at the time of the inspection. |
| Level 3 | Leak shows up as a moist film and there is at least one droplet visible at the time of inspection. Customer would most likely be seeing drops on garage or driveway floor. |
| Level 4 | Leak shows up as a visible drip during the time of inspection. Customer likely is seeing leaks on garage or driveway and may be adding fluid. This is a serious leak and should be taken care of immediately. |
| Level 5 | Leak shows up as a steady drip during the inspection. This is a severe leak and must be repaired before any other repair work is done at this shop. |

1. Tire Condition Look at all four tires. Look for uneven wear, at the center and outer edges.

Recommend alignment for severe uneven wear with greater than 2 mm tread differences. Recommend replacement of tires if tires are within one millimeter of the wear bars at any point across the tread.

Recommend rotation for minor wear of front tires on edges.

2. CV Axles/Boots.

U-Joints - Give universal joints both a visual and a physical check note excessive movement.

Recommend U-joint replacement with any noticeable movement.

CV Joints - Loose joints or cracked or cut boots should be noted.

Recommend replacement of axle

For any noticeable movement.

If boot is torn and openly exposed.

Obvious noise.

Recommend boot replacement

If boots have cracks in at 1mm or deeper.

3. Steering components. This category encompasses the pitman arm, idler arm, relay rod/drag link, tie rods and tie rod- ends, ball joints, control arms and strut rods. Abide by the original equipment manufacturer's recommendations.

Recommend prealignment inspection if you suspect a component may be out of specification but are unsure. There are situations where you may find what appears to be excessive play in a part. Be certain that it IS excessive, beyond specifications, before listing the condition as a "fail".

Recommend replacement Tie rod or ball joint or boot.

If grease boot missing or torn and if boot is not available separately, suggest replacement of tie rod end or ball joint.

Tie Rod Looseness (perceptible horizontal movement) Do not use pliers or pry bar to check ball and socket movement. Use only moderate hand pressure.

Ball joint wear exceeds manufacturer's specifications.

4. Struts/Shocks Inspect for visible fluid leaking jounce for excessive wear and check for tire cupping.

Recommend Replacement when

Leaking oil, enough for fluid to be running down the body

Recommend a suspension inspection to determine cause.

Tire cupping **NOTE:** Although shocks or struts may have contributed to tire cupping, an inspection is needed of the entire suspension system. If the shock or strut is found to be contributing to the tire cupping, require replacement.

5. Exhaust / Muffler – Give exhaust pipes and muffler a look while under the vehicle. You may want to use a rubber mallet on the, exhaust to pinpoint loose material in pipes, mufflers, resonators, catalytic converters, and rattling heat shields

Recommend replacement for

Body shell distorted, affecting performance or structural integrity

Corrosion hole (exhaust leaking)

Puncture (other than a drain hole)

Rattling or knocking noise from inside muffler

Seam open (exhaust leaking)

Suggest Replacement for:

Weak due to corrosion, but no leaks present

Outer wrap peeling (exhaust not leaking)

7. Brake friction material - Inspect pad thickness to determine whether or not brake work is imminent.

Recommend brake inspection if in doubt as to the useful life of brake components.
Recommend replacement of friction material for:

Friction material worn to, or below minimum specifications

Suggest replacement of friction material Worn close to minimum specifications

8. Brake / Clutch hydraulics

DOT 3, DOT 4, and DOT 5.1 brake fluids are clear or light amber in color.

Recommend replacement of any component with visible leaks.

Recommend flush of hydraulic fluid that is dark brown or black.

9. Transmission and fluid. Check automatic transmission fluid color and transmission for category 3 or higher leaks. (See Leak description.)

Recommend transmission flush for fluid that is dark brown or black.

Suggest transmission maintenance interval be checked for dark red fluid.

10. Drive belts. Check drive belts for cracks. Listen for noise.

Recommend drive belt replacement for:

Visible cracks.

Belts squealing that are adjusted properly.

Recommend belt adjustment for belt noise when belts don't appear cracked or glazed.

11. Coolant, Radiator, and Hoses. Visual inspection of coolant, coolant leaks, and hoses.

Recommend coolant flush when coolant is brown or rusty colored.

Recommend cooling system repair or inspection for leaks above category 3.

Recommend hose replacement for hoses swollen or leaking.

12. Battery / Cables. Visual inspection of battery, mounting hardware and cables.

Recommend battery service for visible corrosion, dirty or wet battery top.

Recommend battery mounting hardware for missing hardware.

Recommend starting and charging system test for:

Swollen battery case.

Low fluid level.

13. Wiper Blades. Use wipers and washers check for streaking.

Recommend replacement of blades for torn wiper blades.

Suggest replacement of blades for streaking blades

14. Headlight operation. Check operation of headlights both high and low beams.

Recommend replacement of headlamp bulb for:

Inoperative headlights.

May require an electrical system diagnosis.

Cracked lens.

15. Exterior lighting. Check operation of stop, tail, turn and marker lights.

Recommend replacement of bulb for inoperative light.

May require an electrical system diagnosis.

16. Other. Make note here of other obvious problems to be brought to the attention of the customer.

Mileage based maintenance recommendations. Use this portion to advise the customer of items that show no visible sign of needing service but have a specific maintenance interval.

Minor service recommend at 6 month 7,500 mile intervals

Intermediate service recommend at 1 yr 15,000 mile intervals.

Major Service recommend at 3 year or 30,000 mile intervals.

Valve adjustment recommend at manufacturers recommend intervals

We recommend at least every 30,000 on adjustable valves.

Transmission Service recommend at 3 year or 30,000 mile intervals.

Timing Belt recommend at manufacturers recommended intervals.

Suggest water pump, seals or other components known to have pattern failures but don't require. Final decision rests with customer.