# A SYSTEMATIC SEQUENCE FOR PM INSPECTIONS

| TYPE  | OF | INSPECTION |  | UNDER THE HOOD |
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| A |  B |  C |   |  |
|  |  |  |  | **GASOLINE AND DIESEL** |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 1 | Fuel, oil, exhaust leaks - inspect |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 2 | Oil and fuel lines – inspect for kinks and wear |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 3 | Automatic transmission – inspect fluid level |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 4 | Radiator core, water pump, cylinder head, block, heater, hoses and connections – inspect for leaks |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 5 | Power steering pump reservoir – inspect fluid level and for leaks |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 6 | Belts – inspect condition and adjust tension if needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 7 |  Electrical connections and mounting bolts for starter, generator, alternator - inspect and tighten if needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 8 | Generator commutator and brushes - inspect |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 9 | Alternator – generator and regulator – test and adjust w/voltammeter |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 10 | Steering gear housing – inspect lubricant level |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 11 | Steering gear housing bolts - tighten |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 12 | Clutch and/or brake master cylinder – inspect fluid level |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 13 | Battery – remove cables, clean terminals, reinstall cables, coat with petroleum jelly – test voltage of each cell \_\_\_(POS)\_\_\_1\_\_\_2\_\_\_3\_\_\_4\_\_\_5\_\_\_6 (NEG) |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 14 | Battery – test cells specific gravity w/hydrometer |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 15 | Battery – examine level of each cell and add distilled water if needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 16 | Radiator – inspect coolant level and add water if required |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 17 | Radiator coolant – inspect for signs of oil or combustion leakage |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 18 | Cooling system – pressure test |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 19 | Engine oil – inspect level; change or add as needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 20 | Governor air cleaner - clean |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 21 | Air compressor – adjust, cut in\_\_\_#, cut out \_\_\_#; tighten mounting |
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|  |  |  |  | **GAS ONLY** |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 22 | Crankcase breather and oil filter cap air cleaner – clean and/or replace |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 23 | Fuel filter – clean or replace (always replace paper element) |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 24 | Fuel pump – test and record pressure. Pressure #\_\_\_\_ Vacuum #\_\_\_\_ |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 25 | Carburetor air cleaner – clean or replace |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 26 | Spark plugs – remove, inspect, clean or replace and gap; torque w/ new gaskets |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 27 | Distributor – inspect contacts for corrosion and cap for cracks. Inspect wiring condition and points; check for burning/cracking |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 28 | Cylinder compressions – test and record:Dry 1\_\_\_ 2\_\_\_ 3\_\_\_ 4\_\_\_ 5\_\_\_ 6\_\_\_ 7\_\_\_ 8\_\_\_Wet 1\_\_\_ 2\_\_\_ 3\_\_\_ 4\_\_\_ 5\_\_\_ 6\_\_\_ 7\_\_\_ 8\_\_\_ |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 29 | Manifolds – inspect for leaks, tighten nuts with engine at normal operating temperature |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 30 | Cylinder head bolts - torque |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 31 | Positive crankcase ventilator valve – remove, clean or replace |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 32 | Valves – run engine at proper idle, inspect overhead system and adjust valve lash if needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 33 | Valve cover gasket - replace |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 34 | Carburetor – adjust idle mixture and RPM |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 35 | Ignition iteming – set w/light |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 36 | Use tachometer and record top engine RPM |
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|  |  |  |  | **DIESEL ONLY** |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 37 | Radiator shutters – inspect to see that they are open before starting engine and close as air pressure builds up after starting engine |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 38 | Shutter –stat -lubricate |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 39 | With engine operating at proper temperature – tighten exhaust manifold and exhaust pipe flange nuts. Tighten air inlet system hose clamps. Inspect for leaks |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 40 | Air box drains and crankcase breather tubes, w/engine running, see that they are open |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 41 | Primary and/or secondary fuel filters – open petcock and drain water |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 42 | Fuel return line – disconnect at tank or other convenient place. Run engine at \_\_\_RMP. Fuel return should be appr. \_\_\_\_ qts./min. Observe fuel for appearance of air bubble or gasses. |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 43 | Primary fuel filter – clean. Secondary fuel filter – replace if needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 44 | Engine and oil cooler lines – inspect for leaks |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 45 | High pressure lines and clamps – inspect, tighten or replace |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 46 | Fuel jumper lines – tighten if required |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 47 | Valves – inspect for proper clearance |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 48  | Injector nozzles – inspect and clean as required; set pop pressure |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 49 | Injectors – check and adjust for proper height setting. Inspect overhead system and adjust rack  |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 50 | Air cleaners – clean and refill reservoir w/engine oil |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 51 | Emergency stop control – test w/engine off |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 52 | Throttle, accelerator, shut-off and choke controls – test operation |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 53 | No-load high speed setting – test and record \_\_\_\_\_ RPM; test idle speed setting and record \_\_\_\_RPM |
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|  |  |  |  | **WALK AROUND INSPECTION** |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 1 | Front sheet metal, paint and bumper – inspect for appearance/accident |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 2 | Front lights and directional signals – inspect |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 3 | Left front tire – inspect for cuts or unusual wear; torque wheel nuts |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 4 | Left side of cab – inspect for appearance and condition |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 5 | Left side door hinges and latch – lubricate, adjust if necessary. Window regulators and vents – test operation |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 6 | Fuel tank mountings – tighten if required |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 7 | Battery – examine box cover clamps. Inspect level of each cell |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 8 | Left side body and frame – inspect for appearance and condition |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 9 | Left rear tires – examine for cuts or signs of unusual wear; torque wheel and axle flange nuts |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 10 | Fifth wheel mountings – tighten if required |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 11 | Rear of vehicle – inspect for appearance and condition |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 12 | Cab sheet metal – inspect for appearance and condition |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 13 | Right rear tires – examine for cuts or signs of unusual wear; torque wheel and axle flange nuts |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 14 | Right side body and frame – inspect for appearance and condition |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 15 | Right side door hinges and latch – lubricate, adjust if necessary. Window regulators and vents – test operation |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 16 | Right front tire – inspect for cuts or unusual wear; torque wheel nuts |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 17 | Front ball joints – inspect on both wheels and excessive looseness |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 18 | Front kingpins and bearings – inspect on both wheels for looseness |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 19 | Front brake linings, anchors, locks, wheel cylinders and drums – inspect, blow out drums and shoes. Lubricate shoe anchors and cams – wedge type brakes, clean and lubricate actuating components |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 20 | Front wheel bearings – clean repack and adjust for both front wheels, Replace grease retainer. |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 21 | Rear brake linings, anchors, locks, wheel cylinders and drums – inspect, blow out drums and shoes. Lubricate shoe anchors and cams – wedge type brakes, clean and lubricate actuating components |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 22 | Wedge-type brake system – remove brake drums, clean and lubricate adjusting components |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 23 | Rear wheel bearings – clean, repack and adjust. Replace g |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 24  | Front wheel caster and camber – inspect to see that it is within specifications |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 25 | Toe-in – adjust as required |  |
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|  |  |  |  | **UNDER VEHICLE** |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 1 |  Chassis – lubricate according to lub chart |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 2 | Front tires – examine for cuts or unusual wear |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 3 | Front springs – inspect for shackle looseness and wear. Inspect leaves for breakage and misalignment |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 4 | Pitman and steering arms, drag link and tie rod - inspect |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 5 | Power steering cylinder – inspect for leaks |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 6 | Propeller shaft – inspect, including all brackets, flanges, hangers and center bearings |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 7 | Rear springs – inspect for loose or worn shackles, broken/misaligned parts |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 8 | Engine oil – replace oil, filter element and gasket at change period |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 9 | Engine pan gasket, front and rear crankshaft seals - inspect |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 10 | Engine mounts – inspect for deterioration or looseness |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 11 | Clutch controls – examine for any abnormal condition. Inspect clearance, adjust as needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 12 | Front U-bolts – tighten to specifications |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 13 | Transmission – inspect for leaks. Inspect the lubricant level. |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 14 | Automatic transmission cooler lines – inspect for leakage |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 15 | Automatic transmission linkage – adjust if needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 16 | Transmission support and strut rod – adjust if required |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 17 | Driveline-type parking brake – inspect lining condition and adjust |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 18 | Auxiliary or transfer case – inspect for leaks; check breather; tighten rear bearing retainer bolts |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 19 | Transmission: auxiliary or transfer case linkage pivot points - lubricate |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 20 | Center bearing, brackets, U-joints and flanges – tighten as needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 21 | Rear axle – inspect lubricant level, add if required. Clean breather |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 22 | Rear axle differential housing – inspect for lubricant leakage and pinion bearings for looseness; check that axle breather is free of dirt |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 23 | Rear tires – examine for cuts and unusual wear |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 24 | Rear axle carrier housing and pinion cage bolts - tighten |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 25 | Rear U-bolts – tighten to specs |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 26 | Air brake valve clevis pin - lubricate |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 27 | Brake hose, lines, valves, chambers, etc. – inspect for leaks; examine cross shaft, cables, linkage for abnormal wear |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 28 | Air tanks - drain |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 29 | Frame and cross-members - examine |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 30 | Exhaust pipe, muffler, tailpipe and hanger brackets - inspect |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 31 | Cab hold-down-bolt insulators – inspect, tighten bolts as needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 32 | Body mounts – tighten if required |
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|  |  |  |  | **CAB/DRIVER ITEMS** |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 1 | Cab interior – inspect for appearance and condition |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 2 | Seat adjustment – operate. Inspect seat cushions |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 3 | Window regulators and wing vents - operate |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 4 | Mirrors – inspect for cracks, discoloration and tightness |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 5 | All lights, horn and dash instruments - test |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 6 | Wipers – inspect for correct operation and wear. Adjust, repair or replace as necessary |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 7 | Washers - operate |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 8 | Radio; heater and directional signals - operate |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 9 | Steering wheel – inspect steering gear play |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 10 | Service brake pedal – test for action and reserve |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 11 | Parking brake – test for action and reserve |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 12 | Transmission lever – shift through all gear positions |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 13 | Clutch pedal – test for action and adequate free play |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 14 | Fire extinguisher – inspect for leakage and secure mounting |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 15 | Fire extinguisher – refill or recharge if needed |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 16 | Tools – check that those regularly assigned are in the vehicle |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 17 | Engine emergency stop – test with engine off |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 18 | Throttle and accelerator controls – test for binding |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 19 | Choke – test for binding |
| \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | 20 | Seat belts – securely anchored and in good condition |