

Auto I Objectives

Brakes

Remove and replace drums	
Replace brake shoes	
Measure and adjust pedal pushrod length and pedal height.	P-3
Check master cylinder for internal and external leaks and proper operation; determine needed repairs.	P-2
Rebuild master cylinder.	
Remove, bench bleed and replace master cylinder.	P-2
Diagnose poor stopping, pulling or dragging caused by problems in the hydraulic system; determine needed repairs.	P-1
Inspect flexible brake hoses for leaks, kinks, cracks, bulging or wear; tighten loose fittings and supports.	P-2
Inspect brake lines and fittings for leaks, dents, kinks, rust, cracks or wear; tighten loose fittings and supports.	P-2
Fabricate and install brake lines (double flare and ISO types); replace hoses, fittings and supports as needed.	
Select, handle, store and install brake fluids to proper level.	P-1
Inspect, test and replace metering, proportioning, pressure differential and combination valves.	P-2
Inspect, test, replace and adjust height sensing proportioning valve.	P-3
Inspect, test and replace components of brake warning light system.	P-2
Bleed (manual, pressure, vacuum or surge) brake system; flush hydraulic system.	P-1
Diagnose poor stopping, noise, pulling, grabbing, dragging or pedal pulsation problems; determine needed repairs.	P-1
Remove, clean (using proper safety procedures), inspect and measure brake drums; service or replace as needed.	P-1
Mount brake drum on lathe; machine braking surface.	P-2
Remove, clean and inspect brake shoes, springs, pins, clips, levers, adjusters/self adjusters, other related brake hardware and backing support plates; lubricate and reassemble.	P-2
Remove and reinstall wheel cylinders	P-2
Rebuild wheel cylinders	
Preadjust brake shoes and parking brake before installing brake drums or drum/hub assemblies and wheel bearings.	P-2
Reinstall wheel, torque lug nuts and make final checks and adjustments.	P-1
Adjust drum brakes.	
Determine the reusability of all parts of the brake system	
Diagnose wheel bearing noises, wheel shimmy and vibration problems; determine needed repairs	P-1
Remove, clean, inspect, repack and reinstall wheel bearings and replace seals; reinstall hub and adjust wheel bearings.	P-1
Replace wheel bearing and race.	P-1

Free parking brake cables	
Check parking brake cables and components for wear, rusting, binding and corrosion; clean, lubricate and replace as needed.	P-2
Check parking brake operation; adjust as needed.	P-1
Check operation of parking brake indicator light system.	P-2
Replace parking brake cables	
Diagnose poor stopping, noise, pulling, grabbing, dragging or pedal pulsation caused problems in disc brakes; determine needed repairs.	P-1
Remove caliper assembly from mountings; clean and inspect for leaks and damage to caliper housing.	P-2
Clean and inspect caliper mounting and slides for wear and damage.	P-2
Remove, clean and inspect pads and retaining hardware; determine needed service.	P-2
Disassemble and clean caliper assembly; inspect parts for wear, rust, scoring and damage; replace seal, boot, and damaged or worn parts.	P-2
Reassemble, lubricate and reinstall caliper pads and related hardware.	P-2
Clean, inspect and measure rotor with a dial indicator and a micrometer; follow manufacturer's recommendations in determining need to machine or replace.	P-1
Refinish rotor according to manufacturer's recommendations.	P-2
Adjust calipers with integrated parking brake system.	P-3
Fill master cylinder with recommended fluid and seat pads; inspect caliper for leaks.	P-1
Replace disc brake pads	
Measure disc brake rotor runout and parallelism	
Measure minimum thickness of the disc brake rotor	
Remove and replace rotor.	P-2
Bleed brakes manually	
Bleed brakes with a pressure bleeder	
Test pedal free travel with and without engine running; check power assist operation.	P-2
Check vacuum supply to a vacuum-type power booster.	P-2
Inspect the vacuum-type power booster unit for vacuum leaks; inspect the check valve for proper operation; repair or replace parts as needed.	P-2
Replace power brake booster.	
Check operation of brake stop light system; adjust and service as needed.	P-1
Road test and diagnose customer brake complaints	
Inspect, test and service anti-lock brake system hydraulic, electrical and mechanical components.	P-2
Diagnose poor stopping, wheel lock-up, abnormal pedal feel or pulsation and noise problems caused by the anti-lock brake system; determine needed repairs.	P-2
Observe anti-lock brake system warning light at startup; determine if further diagnosis is needed.	P-2
Diagnose anti-lock brake system electronic control and components using self-diagnosis and/or test equipment; determine needed repairs.	P-2
Depressurize high pressure components of the anti-lock brake system following manufacturer's safety procedures.	P-2

Fill the anti-lock brake system's master cylinder with recommended fluid following manufacturer's procedures; inspect system for leaks.	P-2
Bleed the anti-lock brake system's front and rear hydraulic circuits following manufacturer's procedures.	P-2
Perform a fluid pressure (hydraulic boost) diagnosis on the high pressure anti-lock brake system; determine needed repairs.	P-2
Remove and install anti-lock system electrical/electronic/hydraulic components following manufacturer's procedures and specifications.	P-3
Service, test and adjust anti-lock brake system speed sensors following manufacturer's recommended procedures.	P-2
Diagnose anti-lock brake system braking problems caused by vehicle modifications (tire size, curb height, final drive ratio, etc.)	P-3

Front Suspension and Alignment

Disable supplemental restraint system in accordance with manufacturers procedures.	P-1
Diagnose steering column noises, looseness and binding problems (including tilt mechanisms); determine needed repairs.	P-3
Diagnose power non-rack and pinion steering gear binding, uneven turning effort, looseness, hard steering and fluid leakage problems; determine needed repairs.	P-3
Diagnose power rack and pinion steering gear vibration, looseness and hard steering problems; determine needed repairs.	P-2
Inspect and replace steering shaft universal joint(s), flexible coupling(s), collapsible column, lock cylinder mechanism, and steering wheel.	P-2
Inspect manual and power steering fluid levels and condition.	P-1
Flush, fill, and bleed power steering system.	P-2
Diagnose power steering fluid leakage; determine needed repairs.	P-2
Inspect, replace and adjust power steering pump belt.	P-2
Remove, inspect and replace power steering pump, pump mounts, pump seals and gaskets.	P-3
Remove, inspect and replace power steering pump pulley; check alignment.	P-3
Perform power steering system pressure test; determine needed repairs.	P-2
Inspect and replace power steering hoses and fittings.	P-2
Rebuild power steering pump.	
Lubricate steering boxes and linkages	
Replace steering gear assemblies	
Adjust manual or power non-rack and pinion worm bearing preload and sector lash	P-3
Remove and replace manual or power rack and pinion steering gear; inspect	

mounting bushings and brackets.	P-2
Disassemble, inspect, repair and reassemble rack and pinion steering gear.	P-3
Adjust manual or power rack and pinion steering gear.	P-3
Inspect and replace manual or power rack and pinion steering gear inner tie rod ends and bellows boots.	P-2
Repack and adjust front and rear wheel bearings	P-1
Diagnose wheel bearing wear	
Diagnose tire wear patterns; determine needed repairs.	P-1
Inspect tires; check and adjust air pressure.	P-1
Diagnose wheel/tire vibration, shimmy and noise problems; determine needed repairs.	P-2
Rotate tires according to manufacturer's recommendations.	P-1
Measure wheel, tire, axle and hub runout; determine needed repairs.	P-2
Diagnose pull (lead) problems; determine corrective actions.	P-2
Balance wheel and tire assembly (static and dynamic).	P-1
Dismount, inspect, repair and remount tire on wheel.	P-2
Reinstall wheel; torque lug nuts.	P-1
Lubricate suspension and steering system.	P-2
Diagnose short and long arm suspension system noises, body sway and uneven riding height problems; determine needed repairs.	P-2
Diagnose MacPherson strut suspension system noises, body sway and uneven riding height problems; determine needed repairs.	P-2
Remove, inspect and replace upper and lower control arms, bushings, shafts and rebound bumpers.	P-2
Remove, inspect, replace and adjust strut rods and bushings.	P-2
Remove, inspect and replace upper and lower ball joints on short and long arm suspension systems.	P-2
Remove, inspect and replace steering knuckle assemblies.	P-2
Remove, inspect and replace short and long arm suspension system coil springs and spring insulators.	P-2
Remove, inspect, replace and adjust suspension system torsion bars.	P-3
Remove, inspect and replace ball joints on MacPherson strut suspension systems.	P-2
Remove, inspect and replace MacPherson strut cartridge or assembly, strut coil spring, insulators and upper strut bearing mount.	P-1
Remove and replace components of a Type I suspension system	
Remove and replace components of a Type II suspension system	
Remove and replace components of a Torsion Bar suspension system	
Remove and replace components of a McPherson suspension system	
Perform prealignment checks to determine condition of parts in all front suspension systems	
Replace front springs in all types of suspensions	
Replace front wheel bearing and races	
Align all types of front suspensions	
Diagnose vehicle wander, drift, pull, hard steering, bump steer, memory steer, torque steer, and steering return problems; determine needed repairs.	P-1
Measure vehicle riding height; determine needed repairs.	P-2

Check and adjust front and rear wheel camber; determine needed repairs.	P-2
Check and adjust caster; determine needed repairs.	P-2
Check and adjust front wheel toe; adjust as needed.	P-2
Center steering wheel.	P-2
Check toe-out-on-turns; determine needed repairs.	P-2
Check SAI and included angle; determine needed repairs.	P-2
Check and adjust rear wheel toe.	P-2
Check rear wheel thrust angle; determine needed repairs.	P-2
Check for front wheel setback; determine needed repairs.	P-2
Check front cradle (subframe) alignment; determine needed repairs.	P-3
Inspect and replace pitman arm, relay (centerlink/intermediate) rod, idler arm and mountings, and steering linkage damper.	P-3
Inspect, replace and adjust tie rod ends, tie rod sleeves and clamps	P-2
Diagnose, inspect, adjust or replace components of electrically-controlled steering systems	P-3
Diagnose, inspect, repair or replace components of variable-assist steering systems.	P-3
Remove and replace shock absorbers.	P-2
Diagnose, inspect, adjust, repair or replace components of electrically-controlled suspension systems.	P-3

Engine

Interpret and verify complaint; determine needed repairs.	P-1
Inspect engine assembly for fuel, oil, coolant, and other leaks; determine needed repairs.	P-2
Perform cylinder compression test; determine needed repairs	P-1
Perform tail pipe emission test	
Perform cylinder leakage tests; determine needed repairs	P-1
Check engine oil pressure with a master gauge; determine needed repairs	P-2
Perform cooling system tests (pressure, combustion leakage, and temperature); determine needed repairs.	P-1
Listen to engine noises: determine needed repairs	P-2
Diagnose the cause of excessive oil consumption, unusual engine exhaust color, odor, and sound; determine needed repairs	P-2
Perform engine vacuum tests; determine needed repairs	P-1
Perform cylinder power balance tests; determine needed repairs	P-1
Perform a visual inspection of engine condition	
Remove engine from both front wheel drive and rear wheel drive vehicle	P-3
Locate and use engine rebuilding specifications	
Remove cylinder head from engine; inspect cylinder head(s) for cracks; check gasket surfaces for warpage and leakage; check passage condition	P-2
Check cylinder head for warp	
Properly mark connecting rod and main bearing caps before disassembly	
Remove piston and rod assembly from block	

Remove ridge from cylinders	P-3
Inspect engine block for cracks, passage condition, core and gallery plug condition, and surface warpage; determine needed repairs.	P-3
Inspect internal and external threads; repair as needed	P-1
Inspect and measure piston, rings, rod, and cap	
Memorize engine rebuilding tolerances	
Remove harmonic balancer	
Inspect crankshaft for surface cracks and journal damage; check oil passage condition; measure journal wear; determine needed repairs.	P-3
Inspect and replace camshaft drives(including gear wear and backlash, sprocket and chain wear, overhead cam drive sprockets, drive belts, belt tension and tensioners)	P-2
Remove and inspect lifters for wear; replace as needed	P-2
Remove and inspect the camshaft for runout; measure journals and lobes for wear	P-3
Inspect and measure camshaft bearings for wear, damage, out-of-round, and alignment; determine needed repairs	P-3
Define the term “valve overlap”	
Check block deck warp	
Measure cylinder for taper, out of round, damage and wear; determine needed repairs	P-2
Deglaze and clean cylinder walls.	P-2
Remove and replace block plugs	
Inspect, measure, service or replace pistons.	P-2
Measure piston cam grind	
Measure connecting rod cap for out of round	
Measure piston to wall clearance	
Clean and inspect piston ring grooves	
Check for bent rod	
Identify piston and bearing wear patterns that indicate connecting rod alignment and main bearing bore problems; inspect rod alignment and bearing bore condition	P-3
Inspect and measure main and connecting rod bearings for damage, clearance, and end play; determine needed repairs (includes the proper selections of bearings)	P-2
Inspect and test valve springs for squareness, pressure, and free height comparison; replace as needed.	P-2
Inspect valve spring retainers, locks, and valve grooves.	P-2
Replace valve spring seals.	P-2
Clean and inspect valves	
Inspect valve guides for wear; check valve guide height and stem to guide clearance; recondition or replace as needed.	P-2
Inspect valves; resurface or replace	P-3
Inspect valve seats; resurface or replace	P-3
Check valve face-to-seat contact and valve seat concentricity (runout); service seats and valves as needed	P-3
Check valve spring assembled height and valve stem height; service valve	

and spring assemblies as needed.	P-3
Check cam shaft end play	
Inspect pushrods, rocker arms, rocker arm pivots and shafts for wear, bending, cracks, looseness, and blocked oil passages (orifices); repair or replace.	P-2
Check main and connecting rod oil operating clearance	
Check crankshaft endplay	
Install engine oil seals	
Set and check valve timing; verify timing according to manufacturer's specifications and procedure	P-2
Inspect, measure and install rings using ring expander.	P-2
Check ring end gap	
Check ring side clearance	
Install pistons in cylinders	
Torque all engine fasteners	
Reassemble engine components using correct gaskets and sealants.	P-2
Inspect auxiliary (balance, intermediate, idler, counterbalance or silencer) shaft; inspect shaft and support bearings for damage and wear; determine needed repairs	P-3
Inspect, repair or replace crankshaft vibration damper (harmonic balancer).	
P-3	
Inspect oil pump gears or rotors, housing, pressure relief devices and pump drive; repair as needed.	P-3
Inspect flywheel or flexplate and ring gear for cracks and wear; measure runout; determine needed repairs.	P-3
Inspect, remove, and replace crankshaft pilot bearing or bushing (as applicable)	P-2
Install distributor to proper position	
Install cylinder heads and gaskets; tighten according to manufacturer's specifications and procedures	P-2
Adjust valves (both solid and hydraulic)	P-1
Wire distributor and set ignition timing	
Inspect and replace pans, covers, gaskets, and seals	P-3
Inspect, replace and adjust drive belts and pulleys	P-1
Inspect and replace engine cooling and heater system hoses	P-2
Inspect, test, and replace thermostat and housing	P-2
Inspect coolant; drain, flush, and refill cooling system with recommended coolant and bleed air as required.	P-2
Inspect, test, remove, and replace water pump	P-2
Inspect and test radiator, pressure cap, and coolant recovery system; remove and replace radiator	P-2
Clean, inspect, and test fans (electrical or mechanical), fan clutch, fan shroud, and air dams.	P-2
Inspect and test electrical fan control system and circuits	P-2
Inspect auxiliary oil coolers; replace as needed.	P-3
Inspect, test, and replace oil temperature, pressure switches and sensors	P-2
Perform oil and filter change	P-1
Explain how to properly break in a new engine	

Set carburetor	
Install engine in vehicle (both front and rear-wheel drive)	P-3
Prime engine lubrication system.	P-1
Start and adjust new engine	
Inspect fluid levels and oil pressure	

Transmissions

Interpret and verify driver's complaint; verify proper engine operation; determine needed repairs.	P-1
Diagnose clutch noise, binding, slippage, pulsation and chatter problems; determine needed repairs.	P-1
Inspect and replace clutch pressure plate assembly and clutch disc.	P-2
Inspect , adjust or replace release (throwout) bearing, lever and pivot.	P-2
Inspect, remove or replace crankshaft pilot bearing or bushing (as applicable).	P-2
Inspect, repair and service or replace flywheel and ring gear.	P-2
Inspect engine block, clutch (bell) housing and transmission case mating surfaces; determine needed repairs.	P-3
Measure flywheel-to-block runout and crankshaft end play; determine needed repairs.	P-3
Measure clutch housing bore-to-crankshaft runout and face squareness; determine needed repairs.	P-3
Inspect adjust or replace clutch pedal linkage, cables, automatic adjuster mechanisms, brackets, bushings, pivots and springs.	P-1
Inspect, adjust, repair or replace hydraulic clutch slave and master cylinders, lines and hoses.	P-1
Bleed hydraulic components	
Diagnose transmission noise, hard shifting, jumping out of gear and fluid leakage problems; determine needed repairs.	P-1
Remove and replace a standard transmission (front and rear wheel drive)	P-2
Disassemble, clean and reassemble transmission components.	P-2
Inspect, adjust and reinstall transmission shift cover, forks, grommets, levers, shafts, sleeves, detent mechanisms, interlocks, and springs.	P-2
Inspect and reinstall input (clutch) shaft and bearings.	P-2
Inspect and reinstall main shaft, gears, thrust washers, bearings and retainers.	P-2
Inspect and reinstall synchronizer hub, sleeve, keys (inserts), springs and blocking rings.	P-2
Inspect and reinstall counter (cluster) gear, shaft, bearings, thrust washers, and retainers; check end play; adjust as needed.	P-2
Inspect and reinstall reverse idler gear, shaft, bearings, thrust washers and retainers; check end play; adjust as needed.	P-2
Inspect lubrication devices (oil pump and slingers).	P-3
Remove and replace transaxle final drive.	P-3
Disassemble and clean transaxle final drive.	P-3
Inspect, adjust and reinstall transaxle shift cover, forks, levers, grommets, shafts, sleeves, detent mechanism, interlocks and springs.	P-2

Inspect and reinstall output shaft gears, thrust washers, bearings and retainers.	P-2
Measure end play or preload (shim or spacer selection procedure) on transaxle shafts; adjust as needed.	P-2
Inspect transaxle case, mating surfaces, bores, bushings and vents.	P-2
Diagnose transaxle differential assembly noise and vibration problems; determine needed repairs.	P-3
Remove, inspect, measure, adjust and reinstall transaxle differential pinion gears, shaft, side gears, side bearings, thrust washers and case assembly.	P-2
Inspect, adjust and replace transmission shift linkages, brackets, bushings, cables pivots, and levers.	P-2
Inspect and replace transmission gaskets, seals, and sealants; inspect surfaces.	P-2
Inspect, replace, and align power train mounts.	P-3
Replace speedometer cables, drive gears, and housings	
Check transmission fluid levels	
Diagnose unusual fluid usage, level, and condition problems; determine needed repairs.	P-1
Inspect and replace transmission external seals and gaskets	P-3
Remove and replace automatic transmission (front and rear wheel drive)	
Remove and replace transmission filter and gaskets	
Pressure test automatic transmission; determine needed repairs	P-1
Perform stall tests; determine needed repairs	P-2
Perform lock-up converter system tests; determine needed repairs	P-2
Diagnose electronic, mechanical, and vacuum control systems; determine needed repairs.	P-2
Diagnose noise and vibration problems; determine needed repairs.	P-3
Inspect, adjust or replace manual shift valve and throttle linkages or cables and check gear select indicator (as applicable)	P-1
Service transmission; perform visual inspection; replace fluid and filters	P-1
Adjust automatic transmission bands and linkages	
Remove and replace automatic transmission external seals	
Disassemble, clean and inspect transmission/transaxle.	P-1
Assemble transmission/transaxle.	P-1
Inspect, adjust or replace (as applicable) vacuum modulator, inspect and repair or replace lines and hoses.	P-3
Inspect, repair and replace governor assembly.	P-3
Inspect, leak test, flush and replace cooler, lines and fittings.	P-1
Inspect extension housing; replace bushing and seals	P-3
Inspect and replace speedometer drive gear, driven gear, vehicle speed sensor and retainers	P-3
Inspect, measure, clean and replace valve body (includes surfaces and bores springs, valves, sleeves, retainers, brackets, check balls, screens, spacers, and gaskets); check\adjust valve body bolt torque.	P-2
Inspect servo bore, piston seals, pin, spring and retainers; repair or replace as needed.	P-3
Inspect accumulator bore, piston, seals, spring and retainer; repair or replace as needed.	P-3

Inspect, test, adjust, repair or replace transmission related electrical and electronic components (includes computers, solenoids, sensors, relays, switches, and harnesses).	P-2
Inspect and replace parking pawl, shaft, spring and retainer	P-3
Remove and reinstall transmission and torque converter (rear wheel drive).	
P-2	
Remove and reinstall transaxle and torque converter assembly.	P-2
Inspect converter flex plate, attaching parts, pilot, pump drive and seal areas.	P-2
Measure torque converter end play and check for interference; check stator clutch.	P-2
Inspect, measure and replace oil pump housings, shafts, vanes, rotors, gears, valves, seals, and bushings.	P-3
Check torque converter and transmission cooling system for contamination.	P-1
Check end play or preload; determine needed service.	P-2
Inspect, measure and replace thrust washers and bearings.	P-2
Inspect oil delivery seal rings, ring grooves and sealing surface areas.	P-2
Inspect bushings; replace as needed.	P-2
Inspect and measure planetary gear assembly (includes sun, ring gear, thrust washers, planetary gears and carrier assembly); replace as needed.	P-2
Inspect cases, bores, passages, bushings, vents, and mating surfaces; replace as needed.	P-2
Inspect transaxle drive, link chains, sprockets, gears, bearings and bushings; replace as needed.	P-2
Inspect, measure, repair, adjust or replace transaxle final drive components.	P-2
Inspect clutch drum, piston, check-balls, springs, retainers, seals and friction and pressure plates; replace as needed.	P-2
Measure clutch pack clearance; adjust as needed.	P-1
Air test operation of clutch and servo assemblies.	P-1
Inspect roller and sprag clutch races, rollers, sprags, springs, cages and retainers; replace as needed.	P-2
Inspect bands and drums; replace as needed.	P-3
Check automatic transmission fluid level	

Differentials, Driveshafts and Axles

Diagnose noise and vibration problems; determine needed repairs.	P-2
Diagnose fluid leakage problems; determine needed repairs.	
P-2	
Remove, inspect and replace coil springs and spring insulators.	P-2
Remove, inspect and replace transverse links, control arms, bushings and mounts.	P-2
Remove, inspect and replace leaf springs, leaf spring insulators, shackles, brackets and mounts.	P-3

Remove, inspect and replace MacPherson strut cartridge or assembly, strut coil spring and insulators.	P-2
Remove and replace an axle housing	
Diagnose rear axle shafts, bearings and seals for noise, vibration and fluid leakage problems; determine needed repairs.	P-2
Inspect and replace rear axle shaft wheel studs.	P-3
Remove and replace rear axle shafts.	P-2
Inspect and replace rear axle shaft seals, bearings and retainers.	P-2
Measure rear axle flange runout and shaft end play; determine needed repairs.	P-2
Remove and replace ring and pinion gears	
Set up differential assembly (conventional and transaxle)	
Disassemble, inspect, measure and adjust or replace differential pinion gears, shaft, side gears, side bearings, thrust washers and case.	P-2
Reassemble and reinstall differential case assembly; measure runout; determine needed repairs.	P-2
Inspect and replace companion flange and pinion seal; measure companion flange runout.	P-2
Remove and inspect drive pinion gear, spacers, sleeves and bearings.	P-2
Measure and adjust drive pinion depth.	P-2
Measure and adjust drive pinion bearing preload.	P-2
Torque pinion yoke	
Check for proper fluid level	
Inspect ring gear and measure runout; determine needed repairs.	P-2
Measure and adjust side bearing preload and ring and pinion total backlash and backlash variation on a differential carrier assembly (threaded cup and shim type)	P-2
Check ring and pinion tooth contact patterns; adjust as needed.	P-2
Check preload	
Diagnose noise, slippage and chatter problems on a limited slip differential; determine needed repairs.	P-3
Inspect and reinstall clutch components on a limited slip differential.	P-3
Measure rotating torque on a limited slip differential; determine needed repairs.	P-2
Inspect and flush differential housing; refill with correct lubricant.	P-3
Remove and replace drive shaft	
Remove and replace U-joints	
Lubricate U-joints	
Diagnose constant-velocity (CV) joint noise and vibration problems; determine needed repairs.	P-2
Diagnose universal joint noise and vibration problem; determine needed repairs.	P-2
Diagnose front wheel drive bearing noise and vibration problems; determine needed repairs.	P-2
Inspect, service, and replace shafts, yokes, boots, and universal/CV joints.	P-2
Remove and replace constant velocity joints	
Inspect, service and replace a shaft center support bearing	P-2
Check and correct shaft balance; measure shaft runout; measure and adjust driveline angles.	P-3
Diagnose noise, vibration and unusual steering problems on 4WD/AWD;	

determine needed repairs.	P-2
Inspect , adjust and repair shifting controls (mechanical, electrical, and vacuum), bushings, mounts, levers and brackets on 4WD/AWD.	P-2
Remove and reinstall transfer case.	P-3
Disassemble, service and reassemble transfer case and components.	P-3
Inspect, service and replace front-wheel bearings and locking hubs.	P-2
Check 4WD/AWD drive assembly seals and vents; check lubricant level.	P-2
Inspect a viscous coupling assembly.	P-3
Perform operational inspections of drive lines	
Perform road test inspections of differentials	

Safety and Shop Management

Demonstrate precision tool measuring
 Demonstrate gauge reading
 Demonstrate shop safety practices
 Identify and select fasteners
 Maintain tools
 Demonstrate proper use of tools
 Demonstrate use of shop manuals
 Demonstrate use of fire extinguisher
 Lift vehicle properly on hoist
 Support vehicle on jack stands
 Demonstrate proper spelling of trade terms