

Studebaker

SERVICE BULLETIN

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COLD CLIMATE

Winterization Services

Drain and reverse flush cooling and car heating circulation system. Refill radiator with correct antifreeze solution. Be sure rust inhibitor is included in cooling system.

Check entire cooling and car heating system for leaks. Check Climatizer valve operation.

Drain and refill crankcase with good oil of correct grade. Change filter cartridge.

Drain and flush transmission, differential, and steering gear. Refill with recommended lubricant.

Check generator for proper output.

Test battery for specific gravity and for need of recharge or replacement. Add water if necessary, clean and tighten terminals and coat with petroleum jelly.

Check cylinder head gasket for leaks and tighten head bolts in correct sequence (use tension wrench).

Other Essential Operations

Examine all tires for cuts, breaks, or need of replacement, and criss-cross wheels and tires.

Lubricate and adjust front wheel bearings.

Check front and rear springs for free rebound or need of service.

Check front wheels for correct toe-in, caster, camber, and king pin inclination. Inspect all steering connections for wear.

Inspect and adjust brakes, if required.

Check condition of all lights and aim head lamps.

Waterproof ignition wires, coil, distributor cap, battery cables, and terminals. We recommend PiB.

Lubricate chassis.

Clear body drain holes.

HIGHLY DESIRABLE

Inspect and test car for additional services required to improve performance and appearance.

In this issue

. . . YOU WILL FIND LISTED ALL THE VARIOUS SERVICES, CHECKS, AND ADJUSTMENTS THAT SHOULD BE MADE TO PREPARE A CAR FOR WINTER OPERATION. IN ADDITION, THERE ARE SOME OTHER LISTS SHOWING WHAT CAN BE DONE TO IMPROVE CAR APPEARANCE AFTER SUMMER'S RAIN AND DUST, WHAT SHOP EQUIPMENT IS ESSENTIAL FOR THE DEALER TO PERFORM WINTER CONDITIONING ADEQUATELY, AND A SPECIAL LIST OF SAFETY SERVICES TO USE FOR CUSTOMERS WHO WANT NO MORE THAN THIS TYPE OF WINTER PREPARATION.

WARM CLIMATE

Seasonal Services

Drain and reverse flush cooling and car heating circulation systems. Refill radiator with ethylene glycol base antifreeze. Because alcohol base antifreeze evaporates quickly in warm climates, a permanent type of antifreeze is preferable. Be sure rust inhibitor is included.

Check entire cooling and car heating system for leaks. Check Climatizer valve operation.

Drain and refill crankcase with good oil of correct grade. Change filter cartridge.

Drain and flush transmission, differential, and steering gear. Refill with recommended lubricant.

Check generator for proper output.

Test battery for specific gravity and for need of recharge or replacement. Add water if necessary. Clean and tighten terminals and coat with petroleum jelly.

Check cylinder head gasket for leaks and tighten head bolts in correct sequence (use tension wrench).

Clean fuel pump bowl and reset carburetor adjustment, if necessary.

Other Essential Operations

Examine all tires for cuts, breaks, or need of replacement, and criss-cross wheels and tires.

Lubricate and adjust front wheel bearings.

Check front and rear springs for free rebound or need of service.

Check front wheels for correct toe-in, caster, camber, and king pin inclination. Inspect all steering connections for wear.

Inspect and adjust brakes, if required.

Check condition of all lights and aim head lamps.

Waterproof ignition wires, coils, distributor caps, battery cables, and terminals. We recommend PiB.

Lubricate chassis.

Clear body drain holes.

HIGHLY DESIRABLE

Inspect and test car for additional services required to improve performance and appearance.

ADDITIONAL MECHANICAL AND APPEARANCE SERVICES FOR ALL CLIMATES

These are the complete services that should be offered the customer providing the results of the car test and inspection prove that their need exists.

Cooling System Checks

It is very important that the cooling system be clean and free from corrosion and that no leaks exist. For quick warm-up and economical operation the thermostat should be operating properly. To have cold weather comfort, the Climatizer or heater must be in good operating condition. Don't forget to clean the Climatizer filter, if so equipped.

Check condition of water pump seal or packing.

Check thermostat operation for opening and closing at the proper temperature.

Check Climatizer or heater for proper operation.

Check condition and adjustment of fan belt.

Engine Performance

Valves

Check for uneven or low compression.

Remove carbon, if required.

Reface valves and valve seats, if required.

Check valve tappet adjustment.

Tighten manifold to cylinder block studs and check for leaks.

Ignition

Clean and test spark plugs and set to proper electrode gap.

Inspect high tension cables for leaks and deterioration.

Inspect condition of distributor points and adjust.

Check spark modifier operation and ignition timing.

Test coil and condenser.

Waterproof ignition wires, coil, and distributor cap. We recommend PiB.

Fuel System

Disassemble, clean, rebuild, and adjust carburetor. Replace all gaskets.

Clean and service carburetor air filter.

Check choke for free operation and proper adjustment.

Clean fuel pump sediment bowl and screen.

Check fuel pump pressure.

Inspect heat riser valve for free operation.

Set carburetor low speed adjustment.

Check and set engine idle speed.

Electrical Checks

With more battery drain due to greater use of lights and harder starting in the months ahead, the electrical system should be in the best possible condition.

Battery

Test battery specific gravity and need for recharge or replacement. Add water as required.

Clean and tighten terminals and coat with petroleum jelly.

Waterproof cables and terminals. We recommend PiB.

Generator

Check generator output.

Inspect generator brushes.

Inspect armature, if required.

Check field coils, if required.

Check voltage regulator for proper operation.

Starter

Check starter switch and cables.

Inspect starter brushes.

Inspect starter armature and bearings, if required.

Check starter field coils, if required.

Check Bendix drive.

VEHICLE LIFE

Clutch

Check clutch operation for slippage, chatter, or grab.

Check clutch pedal adjustment for correct free travel.

Transmission

Check transmission for proper operation in all forward and reverse speeds. Check overdrive operation.

Check transmission shift rods for proper adjustment.

Check overdrive control for proper adjustment.

Inspect transmission for leaks.

Drain, flush, and refill transmission with oil of proper quality and grade for seasonal temperatures expected.

Rear Axle

Inspect for leaks at wheels, pinion shaft, and rear axle housing.

Check rear axle shaft bearing adjustment.

Drain, flush, and refill differential with hypoid lubricant of the proper quality and grade for seasonal temperatures expected.

Springs

Check spring shackles for excessive wear.

Tighten spring U-bolts.

Repack springs with recommended lubricant, if necessary.

Shock Absorbers

Fill service type shock absorbers with recommended fluid.

Check shock absorber operation.

Check shock absorber adjustment.

Check shock absorber links.

Tighten shock absorber to frame bolts.

Exhaust System

Inspect exhaust pipe, muffler, and muffler outlet pipe for leaks.

Tighten exhaust pipe to manifold bolts and exhaust system hangers and brackets.

See that manifold heater valve operates freely.

Lubrication

Lubricate chassis according to manufacturer's recommendations -- including doors, hinges, locks, etc. Refer to lubrication chart.

Check universal joints and lubricate.

Lubricate rear axle shaft outer bearings, if required.

Drain and refill engine crankcase with good oil of correct grade.

Change filter cartridge.

Body

Adjust door striker plates.

Eliminate window rattles.

Tighten body bolts, bumper bolts, and wheel bolts.

Check windshield wiper for proper operation.

Check operation of hood lock.

Check operation of door, package compartment, and luggage compartment locks.

SAFETY SERVICES

Winter months with slippery driving conditions and more hours of darkness make it very important that the following checks and, where necessary, corrections be made.

Tires

Check tire pressure.

Inspect tires for cuts, breaks, and need of recapping or replacement.

Criss-cross tires to place those with most remaining miles where greatest wear occurs.

Steering

Balance front wheels (static and dynamic).

Lubricate and adjust front wheel bearings.

Check front and rear springs for free rebound and need of service.

Inspect steering gear connections for looseness.

Adjust steering gear to eliminate excessive backlash.

Check front wheel toe-in, caster, camber and king pin inclinations.

Lights

Check all light circuit wires for loose connections or damaged insulation.

Check all lights for proper operation.

Adjust head lamps.

Brakes

Inspect brakes for indication of leaks at pipes, fittings, wheel cylinders, and master cylinder.

Check condition of brake lining and brakes for proper adjustment.

Check brake pedal for correct free travel.

Check fluid level in brake master cylinder.

Check parking brake adjustment.

Check hill holder for proper adjustment (if so equipped).

ESSENTIAL SERVICE EQUIPMENT

Proper equipment is essential for satisfactory customer service.

This equipment should be in good operating condition and, particularly if exposed to customer view, clean and attractively painted.

Cooling System Flushing Equipment

Trouble-free performance depends largely on having a clean, rust-free cooling system. Sediment and scale, resulting from oxidation, require reverse flushing for effective removal.

Steering Alignment Equipment

Long life of tires, ease of handling, and safety of customer and his passengers depend on efficient and balanced steering apparatus. Alignment equipment is essential in satisfactorily aligning entire front end and steering.

Headlight Service Equipment

Greater customer satisfaction and safety will result from correct use of essential headlight service equipment.

Brake Service Equipment

Correctly adjusted and smoothly operating brakes, resulting from correct use of proper

equipment, add considerably to customer safety and enjoyment.

Engine Tune-up Equipment

Greater economy and peak performance will result from the use of modern tune-up equipment.

Electrical Service Equipment

For longer battery life and better operation of electrical units, checks should be made with proper testing equipment.

Engine Reconditioning Equipment

For effective operation, proper reconditioning of engine with adequate equipment is essential.

Gear Flushing Equipment

Gear cases should be thoroughly flushed with proper equipment as Hypoid lubricants must not be mixed.

Lubrication Equipment

Proper lubrication equipment is essential for a thorough lubrication job, which will result in longer vehicle life.

Body Shop Equipment

For a good appearance reconditioning job in the minimum of time, proper equipment is essential.

APPEARANCE CONDITIONING

Everyone likes to drive a clean, good looking automobile. Sell the customer these appearance services and keep him proud of his car. Plastel, the long duration, color-matched protective polish material is highly recommended.

Sheet Metal

Remove all dings from fenders and body panels. Refinish as required.

Plated Parts

Clean all chrome or silver-plated parts and coat with paste-type auto body wax.

Finish

Wash, clean, and polish entire car.

Upholstery

Inspect cushion springs, upholstery, and floor mats for need of repair.

Clean upholstery and floor mats.