

Studebaker

# SERVICE BULLETIN

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## *Signs of* **SPRING...** *and Good* **SERVICE!**

The persistent campaigns waged by the automotive industry and its allied counterparts in the oil and rubber industries every springtime have pretty well educated the motoring public to the need of a seasonal "going over" and "house cleaning" of the family car.

But many a motorist does not *remember* to have this important work done. They are too busy with day-to-day matters that keep them on the go. *They must be reminded* it is time to have their cars prepared for warm weather use.

Neglect can always lead to failure of some vital component -- usually just when it is most inconvenient to the driver and his passengers. The service customer who has his car made ready for spring and summer driving will not be likely to have his vacation spoiled in this manner. And he will appreciate - by becoming a loyal service customer - your interest in his car.

So get busy -- tell your friends, neighbors, and customers that spring service time is here. Get your service department in condition to receive them, to serve them promptly, courteously, and completely. Have all necessary parts, supplies, and materials on hand. Give your service equipment a good check over.

Then promote spring service -- by mail, by newspaper and radio, by telephone, by personal selling.

GOOD SERVICE CREATES CUSTOMER GOOD WILL

## LOOK FOR SLUDGE DEPOSITS

Most cars have been driven slower during the winter months, for shorter distances, and at lower engine temperatures than during the rest of the year.

This means that sludge deposits have probably accumulated in the crankcase and possibly throughout the engine oiling system.

After talking with the owner about his winter driving habits it can be determined whether sludge accumulation may be present. It probably is.

Explain the importance of sludge removal and secure the owner's permission to drain the crankcase. By running a finger around the

vicinity of the oil drain hole in the crankcase, sludge, if present, can be proven and visibly demonstrated.

The owner should then be advised and when his consent is given, clean the internal parts of the engine thoroughly with a power engine flusher and strong solvent such as Kelite, Stanapurge, or Cisco *without running the engine*. If power flushing equipment is not available, it will be necessary to remove the oil pan, clean it carefully and thoroughly, and at the same time clean the Floto and all other accessible internal parts of the engine.

For a more comprehensive article regarding the formation, effects, and removal of sludge deposits, see Service Bulletin No. 231, p. 2.

## PARTS AND MATERIALS NEEDED

Certain supplies, parts, and equipment are essential for satisfactory spring conditioning of passenger cars and trucks.

The items which are usually most in demand are listed below. If you are short any of these items, order them at once so you will not run out when the demand for seasonal service occurs.

### I--Cooling System

Radiator and Climatizer Hose and Clamps  
Studebaker Cooling System Cleaner --  
AC-1479 or AC-1465  
Studebaker Rust Inhibitor -- AC-1480  
Studebaker Radiator Seal -- AC-1475  
Thermostats and Housing Gaskets  
Fan Belts  
Water Manifolds  
Water Jacket Cover Gaskets  
Water Pump Repair Kits  
Gasket Cement -- AC-1476

### II-Engine

Automatic Choke Repair Parts  
Carburetor Repair Kits and Gaskets  
Fram Filters and Cartridges  
Head, Manifold, and Valve Cover Gaskets  
Fuel pump Repair Kits  
Oil Pan Gaskets  
Oil Strainers  
Mufflers, Tail Pipes  
Gasket Paste - S-266 or S-435

### III--Electrical

Battery and Ignition Cables  
Distributor Caps and Rotors

Distributor Condensors  
Distributor Point Sets  
Fuses and Circuit Breakers  
"Pib" Liquid Insulation -- AC-1337 and  
AC-1338  
Spark Plugs - AC-88  
Spark Plug Weatherproofing Kit -- AC-2080  
Lamp Bulbs  
Generator and Starter Brushes  
Starter and Lighting Switches  
Bendix Drive and Parts

### IV--Brakes

Brake Cylinder Kits  
Brake Hose and Fittings  
Brake Fluid -- AC-1381, AC-496, AC-497 or  
AC-498  
Brake Lining Kits and Rivets  
Brake Oil Seals  
Brake Cable Lubricant -- AC-145  
"Lubri-plate" Lubricant - S-50

### Supplies

Dripless Penetrating Oil -- AC-1477, AC-1812,  
AC-418 or AC-419  
Tar and Road Oil Remover -- AC-1467  
Shock Absorber Fluid -- AC-1435, AC-1436,  
AC-1437 -- Houde  
Spring Packing Grease -- S-639  
Summer Lubricants and Oils  
Wheel Bearing Lubricant  
Powdered Graphite  
Stick Lubricant -- Door Ease -- AC-173 or  
AC-375  
Windshield Wiper Blades and Arms  
Windshield Wiper Tubing (rubber)  
Parts Cleaner  
Black Rubber Dressing - AC-1484  
Weatherstrip Cement - AC-1898

Plastel Sparkle Spray -- AC-1854  
 Polish and Cleaners -- AC-1468, AC-1470-2-4-  
 etc.  
 Hypoid Rear Axle Lubricant -- S-154  
 Fabric Cleaner -- AC-1481 or AC-1482  
 Chrome Cleaner -- AC-1464

## EQUIPMENT REQUIREMENTS

Your spring service campaign should be backed up by equipment designed to perform certain functions accurately and quickly. Here is a list of some equipment which will be in constant use during the spring conditioning program. Keep it in top-notch working order, painted, and cleaned up to let customers see that it is ready for action.

Radiator Flushing Equipment  
 Steering Alignment Equipment  
 Brake Service Equipment  
 Engine Tune-up Equipment  
 Electrical Service Equipment  
 Headlight Service Equipment and Aiming Chart  
 Valve Reconditioning Equipment  
 Gear Flushing Equipment

## RECOMMENDED SERVICES

These are the minimum of services which we consider necessary to prepare a car for warm weather driving. They should be given all cars.

Drain and reverse flush cooling system.  
 Check thermostat and heat indicator operation.  
 Check condition of radiator hose and fan belt.  
 Refill cooling system and install Rust Inhibitor.  
 Clean oil pan and inside of engine crankcase using approved flushing method.  
 Refill crankcase with spring weight engine oil.  
 Install new engine oil filter cartridge if not recently changed.  
 Check service and parking brakes for need of adjustment or other service.  
 Check wheel alignment (camber, caster, toe-in, king pin inclination) and visually inspect condition of all steering connections.  
 Tighten cylinder head and manifold bolts to correct tension.  
 Chassis and body lubrication, unless performed within the last 1000 miles, including any seasonal or mileage lubrication requirements.  
 Check all essential lights, replace burned out bulbs and aim head lamps.

## MAJOR SPRING SEASON CONDITIONING

General body and chassis tightening, safety inspection, lubrication, and other miscellaneous adjustments are listed under the heading of major spring conditioning. These services fulfill a semi-annual need and are most often required when the car has been continuously used under the strain of severe winter driving. We should warn, however, against selling any of these suggested operations or combinations which appear under the various headings, unless it is first determined that need for the work actually exists. These needs are determined by inquiry of owner, examination of car, or road testing.

### Safety Inspection

Inspect and adjust service and parking brakes.

Check condition of exhaust, muffler, and tail pipe.

Check master cylinder fluid level.

Check wheel alignment (camber, caster, toe-in, king pin inclination) and visually inspect condition of all steering connections.

Adjust steering gear.

Check condition of all lamps and aim (align) headlamps. Report burned out lamps with convenient G.E. snap-on check card.

Test horn and all lights.

Examine all tires, check tread depth and rotate tires and wheel assemblies according to tire wear. Inflate to proper pressure. Report condition of tires to owner.

Test windshield wiper and washer operation and report. Note condition of wiper blades.

Check Climatizer, hose, blower, and valve setting.

### Engine Performance

Clean spark plugs and adjust gap.

Check cylinder compression.

Clean and adjust ignition points.

Check operation of spark modifier and ignition timing. Set octane selector for type of fuel used, on cars so equipped.

Adjust valve tappets.

Remove, disassemble, clean, and adjust carburetor.

Service air filter.

Clean gasoline lines and screens.

Tighten manifold bolts and nuts to proper tension.

Tighten cylinder head bolts to proper tension. On overhead valve models, readjust tappet clearance.

Free up manifold heater valve or report if it is necessary to remove and clean shaft.

NOTE.--If an excessive spark knock is evident after spring conditioning the engine, remove cylinder head and examine for carbon.

**Lubrication**

Clean oil pan and inside of crankcase using approved flushing method.

Remove valve cover plates and clean valve chambers.

If car is equipped with oil filter, change filter cartridge if not recently changed.

Flush transmission and change lubricant. Flush rear axle and change lubricant.

Disassemble and repack universal joint bearings (when not equipped with lubrication fittings).

Lubricate chassis and body completely.

Clean, repack, and adjust front wheel bearings.

Clean and repack rear axle shaft bearings. Lubricate springs.

**Cooling System**

Drain, reverse flush, and refill cooling system. Install rust inhibitor.

Check thermostat and heat indicator operation and report.

Adjust fan belt. Report on condition. Check alignment and condition of pulleys.

Inspect all hose connections. Report on condition.

Tighten all hose clamps.

**Electrical Service**

Examine, clean, and tighten all electrical connections.

Test and fill battery. Adjust hold-down bolts.

Clean generator commutator.

Check generator charging rate with instruments. Report results to owner.

Clean starter motor commutator.

Check starter motor operation. Report results to owner.

Replace burned out bulbs.

**General Tightening**

Tighten all chassis bolts and nuts.

Tighten wheel bolts.

Tighten bumper bolts.

Tighten door hinges.

Examine and lubricate all door locks and hinges.

Examine window regulators and report necessary repairs.

Tighten shock absorbers.

**Miscellaneous Inspection and Adjustments**

When performing a spring check-up, don't overlook the following inspections and adjustments. They are all important and attention now is insurance against future trouble

Check gearshift rod adjustment.

Check overdrive control adjustment.

Check and adjust clutch pedal travel.

Check and adjust hood lock and control.

Fill and adjust shock absorbers.

## APPEARANCE CONDITIONING

Remind your customers that not only is pride of ownership increased in a properly washed and Plas-Tel treated car, but that the need for future paint reconditioning is actually lessened.

Studebaker's exclusive Plas-Tel "Sparkle Spray" treatment (AC-1854) contains high, brilliant, non-smear plastics mixed with basic coloring to match all Studebaker models and hundreds of other cars, too. The final Plas-Tel coat, after color mixing, is sprayed on to the car to give it a lasting beauty and worthwhile protective coat.

When your customers ask to have their cars *cleaned up* and *tuned up* this spring, be sure to advise them about Plas-Tel's excellent *shine up* qualities.