

Studebaker

Red

# SERVICE BULLETIN

JULY

NO. 206



1948



The first piece in the new Service Mailing Campaign entitled "Is the Open Road Calling?" - has recently been mailed to dealers' lists.

This piece, together with the Visiting Owner posters you now have in your service departments, gives you added promotional material for increasing your labor sales during the summer months.

The mailing piece stresses Lubrication, Motor Tune Up, Wheel Alignment and Steering, and Brakes -- four items every summer vacationist should have checked

or serviced before setting out on a trip, whether for just a few days or several weeks.

Dealers should check their materials and parts stocks to be sure they have inventories of brake fluid, shock absorber fluid, pipe fittings, ignition cables, spark plugs, distributor points, condensers, and correct specification lubricants adequate to take care of all customers' needs and get them off to a good start so that their summer motoring will be safer, more pleasant, and more economical.

Two interesting features of the new mailing series are that each of the three mailing pieces carries the notation "Regardless of make -- you'll like our service!" and the back panel of each piece is devoted to a full-color reproduction of a current passenger car model. Thus by soliciting other make owners you not only boost interest in your service but also plant another sales boost for future new car sales.

NOTE.--The service mailing campaign material is similar to that supplied with Report Letter 47-A and samples are not being mailed.

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## WATER LEAKS IN DRIVER'S COMPARTMENT - ALL MODELS

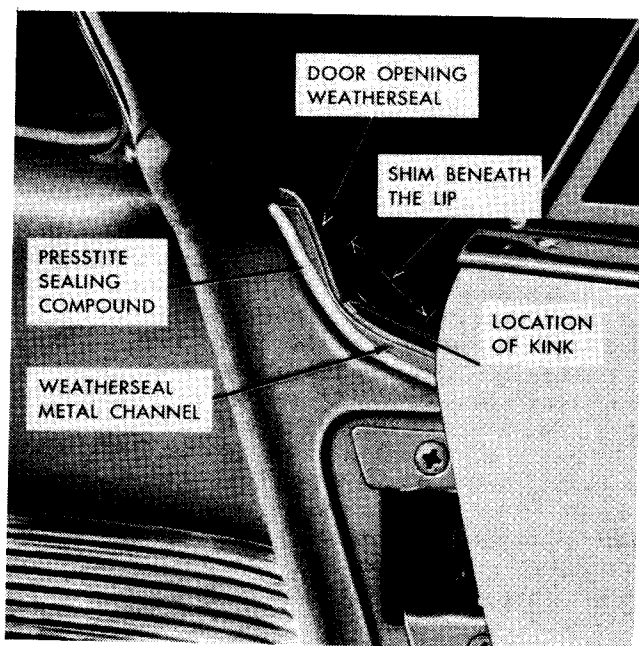
Please record on pages 18 and 18L of 1947 Shop Manual.

Below are listed possible locations of water leaks into the driver's compartment together with our recommendations for finding the source of the leak and method of eliminating it. For all these leaks (except the cowl side panel leak) we recommend the use of Presstite, a pliable sealing compound (Part No. S-645, available from Parts and Accessories Division, South Bend), which will retain its pliability over a long period of time. Sealers which harden soon after application are not suitable for sealing the leaks listed below for the hardened sealer will eventually chip loose and the leak will be reopened.

For other body leaks please refer to Service Bulletin No. 198.

### Door Opening Weatherstrip

**DESCRIPTION:** This leak is located just above the upper door hinge where the weatherstrip and channel curve to follow the vertical contour of the body at the belt line. Water may leak either over the rubber weatherstrip as a result of a kink in the rubber caused by the curvature, or between the metal weatherstrip channel and the body, work into the car, and run down the windlace. See illustration below.



**HOW TO FIND:** Spray water over the shroud; inspect door opening weatherstrip and windlace.

**HOW TO CORRECT:** If weatherstrip is kinked at the belt line, place a piece of round, 5/16" soft rubber weatherstrip, Part No. 1587XD six inches long under the lip of the door opening weatherstrip. This will eliminate the kink

and provide a positive seal between the door and the weatherstrip throughout contour at the belt line. If the water enters between the weatherstrip channel and the body, apply Presstite sealer along both sides of the channel across the gap in the channel and for four inches above and below.

### Cowl Side Panel

**DESCRIPTION:** Water splashes on the rear of the front wheel house and may enter the lower section of seams of sheet metal which make up the cowl side panel. This water then accumulates until enough is present to splash up through the lower inspection hole just above the floor level and enter the driver's compartment behind the kick pad, dropping down to the floor and seeping under the floor mat.

**HOW TO FIND:** Remove the kick pads, floor mat and cardboard underliners on both sides of the driver's compartment. Spray water on the lower edges of the rear panels of both front wheel houses. Hold a light inside the cowl side panel through the upper inspection hole and look through the lower hole to see if any water enters.

**HOW TO CORRECT:** Pour liquid sealer, such as eyebrow sealer, into the cowl side panel through the inspection hole.

### Clutch Housing Inspection Cover

**DESCRIPTION:** Although this cover is sealed in production and covered with sound-deadening compound, it is possible that a leak might occur at points around the edges of the cover, permitting water to seep under the floor mat and liner.

**HOW TO FIND:** Remove the floor mat and liners. Spray water under the floor pan at the location of the clutch housing and inspect for entry of water around the edges of the clutch housing inspection cover.

**HOW TO CORRECT:** Use Presstite sealer and seal around the edges of the cover and around cover metal screws.

### Transmission Overdrive Governor Opening Cover

**DESCRIPTION:** This cover is placed on all bodies, whether overdrive equipped or not. It is located below and to the right of the clutch housing inspection cover. Leaks here will allow water to seep under the floor mat and liners.

**HOW TO FIND:** Lay back floor mat and liner from the right side of the floor. Spray water on the underside of the floor pan above the transmission and inspect inside the car for leakage.

**HOW TO CORRECT:** Seal around the edges of the cover and sheet metal screws with Presstite sealing compound.

### Transmission Inspection Cover

**DESCRIPTION:** This cover is just below the clutch housing inspection cover on top of the flat section of the drive line tunnel. Water entering between this cover and the floor pan will seep to the rear or to either side of the tunnel under the floor mat and cardboard liners.

**HOW TO FIND:** Remove floor mat and liners. Spray water under the floor pan against the underside of the cover. Inspect for entry of water into the car along the edges of the cover and at the cover screw holes.

**HOW TO CORRECT:** Apply Presstite sealer around the edges of the cover and around the screw heads.

### Brake Master Cylinder Hole Cover

**DESCRIPTION:** This cover is held down by two wire clip fasteners. Water may enter the fastener holes and seep under the floor mat and liners.

**HOW TO FIND:** Lay back floor mat and liner from left side of the floor pan. Spray water under the floor pan against the underside of the brake master cylinder hole cover. Inspect inside the car for entry of water around edges of the cover or through the fastener holes.

**HOW TO CORRECT:** Remove the cover and apply Presstite sealing compound around the top of the circumference of the inspection hole. Replace cover and fastening clips and put sealer over clips and clip holes.

### Brake Pedal Hole Cover

**DESCRIPTION:** This cover is held to the floor pan by three fastening clips. Water may enter the fastener holes and seep under the floor mat and liners.

**HOW TO FIND:** Lay back floor mat and liner from the left toe board. Spray water under the toe board at the location of the brake pedal hole. Inspect inside the car for water leaks at this location.

**HOW TO CORRECT:** Remove the brake pedal hole cover and apply Presstite sealer around the top of the hole. Replace the cover and fasteners and apply sealer over the fasteners and fastener holes.

### Hood Hinges

**DESCRIPTION:** Each hood hinge is bolted through four elongated holes in the body. In obtaining a good hood fit it is possible that the hinge plate may be moved so far forward or backward that portions of two of these holes are exposed, permitting water to run down from the windshield through the exposed holes and into the driver's compartment. It is also possible for water to leak between the hinge plate and body and find its way through the elongated holes into the driver's compartment.

**HOW TO FIND:** Spray water over one side of the windshield and then the other. Inspect the interior side of the firewall, toward the top, for water entry.

**HOW TO CORRECT:** Remove the hood hinge plate on the leaking side and coat the back of the plate with Presstite sealing compound. Install the plate and adjust the hood for good fit; then tighten hood hinge-to-body bolts. Coat the bolt heads and fill any exposed portions of the elongated adjustment holes with Presstite.

### Shroud Ventilator

**DESCRIPTION:** When the underbody is subjected to heavy splashing or under heavy down-pour of water over the hood, it is possible that some water may work around the shroud ventilator and leak into the driver's compartment along the two cap screws which hold the ventilator control bracket to the body.

**HOW TO FIND:** If possible, drive the car under conditions described above and inspect for leaks at the control bracket screws. If a driving test is not possible, liberally douse both ventilator areas with water, spray water up under the rear of the front fenders, and over the hood and inspect for leaks.

**HOW TO CORRECT:** Remove the two ventilator control bracket screws and coat the threads with Presstite sealing compound. Also coat the threads of the screw holes. Re-install the control bracket, washers, and screws.

### Right Shroud Ventilator Gasket

**DESCRIPTION:** Under conditions of heavy rain with the Climatizer in operation, it is possible that water may follow along the rubber gasket beneath the lower rear corner of the right shroud ventilator screen and find its way along openings in the seam of the gasket to the body and thus into the car.

**HOW TO FIND:** Spray water into the open right shroud ventilator (the inner door must be closed) and inspect along the bottom of the inner door for leaks.

**HOW TO CORRECT:** Remove the screen and lay Presstite sealer along the edges of the rubber gasket at the bottom of the ventilator opening between the flange and the body.

### MATERIALS REQUIRED FOR CORRECTION OF WATER, DUST, OR AIR LEAKS

*Please record on pages 18 and 18L of 1947 Shop Manual.*

In order to effect these corrections promptly and in accordance with factory recommendations dealers are urged to keep on hand at all times adequate stocks of the various materials required for this work.

All of the following materials are available through your parts depots.

Part No.	Part Name
1294XAW	Weatherstripping - 1/2" wide
1587XD	Weatherstripping - 5/16" - sponge rubber
1862X45	Weatherstripping for Top Header Fence
S-645	Presstite Sealing Compound
287532	Fender Flange Rubber Gasket
286256	Body Flange Rubber Gasket
289130	Rear Quarter Window Flaps (Convertible Models, black)
289131	Rear Quarter Window Flaps (Convertible Models, tan)
	Dolphin Eyebrow Sealer (specify color symbols given on page 4 of Service Bulletin No. 198)
	Sealzit

### SUMMARY OF WATER LEAK CORRECTION INFORMATION

Below is a list summarizing the water leaks and their corrections covered in earlier issues of the Service Bulletin together with the materials used:

Location of Leak	Service Bulletin		Materials and Part No.
	No.	Page	
<b>CLOSED BODIES</b>			
Top & Bottom of Doors	181	1	1/2" Weatherstrip - 1294XAW
	198	2	1/2" Weatherstrip - 1294XAW
Center Section of Door Opening	181	1	5/16" sponge rubber - 1587XD
	198	3	5/16" sponge rubber - 1587XD
Top of Center Pillar Post	181	2	Presstite - S-645
	198	3	Presstite - S-645
Door Trim Panel	198	3	Presstite - S-645
Drip Moulding	181	2	Dolphin Eyebrow Sealer
	198	4	Dolphin Eyebrow Sealer
Cowl Ventilator Ducts	181	2	Fender Flange Rubber Gasket - 287532
			Body Flange Rubber Gasket - 286256 Dolphin Eyebrow Sealer
Brake Pedal Opening	198	1	Presstite - S-645
	206	3	Presstite - S-645
Door Drains	198	1	Presstite - S-645

Location of Leak	Service Bulletin		Materials and Part No.
	No.	Page	
Opening under Right Floor Pan	198	2	Presstite - S-645
	206	2	Presstite - S-645
Ventilator Window Opening Weather-seal Screw Hole	198	3	Presstite - S-645
Shroud to Dash Panel Seam	198	5	Presstite - S-645
Hood Hinge Support Opening	198	5	Presstite - S-645
	206	3	Presstite - S-645
Windshield Rubber Weatherstrip	198	5	Velvet Black Dolphin Eyebrow Sealer or Sealzit
Rear Seat Compartment - 2-door sed.	198	6	Presstite - S-645
Luggage Compartment Lid Opening	198	6	Presstite - S-645
Luggage Compartment Top Corners	198	6	Presstite - S-645
Luggage Compartment Lid	198	7	Adjust lid fit
Luggage Compartment Lid Base Handle	198	7	Taper ends of bracket or tighten base stud nuts
Tool Compartment (early 6G, 14A only)	198	7	Presstite - S-645

### CONVERTIBLE BODIES

Rear Quarter Window Flaps	201	4	Sew in Flap - 289130 (black) 289131 (tan)
Top of Door Window	201	3	Adjust and align window or top or both
Rear Window	201	3	Velvet Black Dolphin Eyebrow Sealer
Top Header and Windshield Fence	201	3	Weatherstrip - 1862X45
Top Header at Front Side Rail Bracket	Pass.Car Service Letter No. 777		Presstite - S-645
Top Header Weather-seal	Pass.Car Service Letter No. 777		Presstite - S-645 and 5/16" sponge rubber - 1587XD

**REPAIR KITS FOR FUEL-VACUUM PUMP - 7G, 14A, 2R SERIES**

Please record on page 131 of 1947 Shop Manual.

Five repair kits for servicing the fuel-vacuum pump of 15A Commanders (and 7G Champions and 2R Series trucks so equipped) are available through your nearest parts depots as follows:

**PART NO. 524390 FUEL AND VACUUM PUMP REPAIR KIT consists of:**

Qty.	Part No.	Part Name
1	AC-5590544	Diaphragm and Rod, Fuel
1	AC-854003	Gasket, Bowl
1	AC-1289450	Gasket, Mounting
2	AC-855003	Valve, Fuel
2	AC-855136	Gasket, Dome and Valve Seat
2	AC-856270	Spring, Fuel Valve
1	AC-5590382	Diaphragm and Rod, Vacuum
1	AC-1523801	Gasket, Cover Plate
1	AC-1521476	Gasket, Cover Plate Screw
2	AC-1523106	Valve and Cage, Vacuum
2	AC-1521953	Gasket, Vacuum Valve
1	AC-1523124	Spring, Fuel Diaphragm
1	AC-5590533	Spring, Vacuum Diaphragm
1	AC-854009	Screw, Fuel
1	AC-1521906	Link, Rocker Arm Fuel
1	AC-1521907	Link, Right, Rocker Arm Vacuum
1	AC-1521908	Link, Left, Rocker Arm Vacuum
1	AC-1521909	Spacer, Link
2	AC-1523033	Spring, Rocker Arm
1	AC-1522023	Pin, Rocker Arm
1	AC-1521288	Washer, Rocker Arm Pin
1	AC-1523221	Bushing, Rocker Arm Pin

**PART NO. 524391 FUEL DIAPHRAGM KIT consists of:**

Qty.	Part No.	Part Name
1	AC-5590544	Diaphragm and Pull Rod
1	AC-854003	Gasket, Bowl
1	AC-1289450	Gasket, Mounting
2	AC-855003	Valve, Fuel
2	AC-855136	Gasket, Dome and Valve Seat
2	AC-856270	Spring, Fuel Valve

**PART NO. 524392 VACUUM DIAPHRAGM KIT consists of:**

Qty.	Part No.	Part Name
1	AC-5590382	Diaphragm and Pull Rod
1	AC-1523801	Gasket, Cover Plate
1	AC-1521476	Gasket, Cover Plate Screw
2	AC-1523106	Valve and Cage, Vacuum
2	AC-1521906	Gasket, Valve and Cage

**PART NO. 524393 BOWL KIT consists of:**

Qty.	Part No.	Part Name
1	AC-1522092	Bowl
1	AC-854003	Gasket, Bowl

**PART NO. 524395 BAIL AND SCREW KIT consists of:**

Qty.	Part No.	Part Name
1	AC-1522090	Bail and Screw, Assembly
1	AC-855763	Nut, Bail Screw
1	AC-854005	Seat, Bowl

**WINDSHIELD WIPER VACUUM BOOSTER EQUIPMENT**

Below is a reprint of Passenger Car Service Letter No. 771, February 10, 1948, which may now be discarded from your files. Please record on page 18 of 1947 Shop Manual.

The 1947 6G and 1948 7G Champion models were not equipped in production with a windshield wiper booster. On the 1947 6G models, the oil pump shaft was drilled so that if desired, an Oil Pump Windshield Wiper Vacuum Booster Kit AC-1422 could be installed.

However, AC-1422 Kit cannot be installed on the 1948 7G Champion because the oil pump shaft on this model has not been drilled. The correct accessory installation for the 1948 7G model is the Combination Fuel Pump and Vacuum Windshield Wiper Booster Kit AC-1612, which can also be used on the 1947 6G model.

The 1948 15A Commander model is equipped in production with a combination fuel pump and vacuum windshield wiper booster. This type of booster cannot be used on the 1947 14A Commander because of insufficient clearance between fuel pump arm and the engine casting.

**BIND IN DOOR WINDOW LOWER RUN 6G, 7G, 14A, 15A, CLOSED BODIES**

Please record on page 18 of 1947 Shop Manual.

If the door window glass binds in the lower run as a result of the material's doubling up, the door window lower run should be replaced. A new type run is now available from your Studebaker parts depot under the following part numbers:

Part Number	Part Name	No. Per Car
		6G-7G;
		14A-15A 15A
		W F C Q Y
1863xA-16-7/8	Frnt. door glass frt. run	2 2 2 2 2
1863xA-16-7/8	Rr. door glass rr. run	2

To install, remove the door window glass from door (Service Operation Step and Time Guide Operation No. F-29, front, F-30, rear, or F-30-A, Land Cruiser), remove old lower run, and install new lower run according to procedure in Operation No. F-35.

# T TRUCK SERVICE Information



## TIRE REPLACEMENT ON NEW TYPE RIMS -- 2R15, 2R16, 2R17

Two new styles of wheel rims are used on the 2R15, 2R16, 2R17 model trucks. The RH-5<sup>0</sup> rim is used in the 2R16 and 2R17 model and the R-5<sup>0</sup> rim on the 2R15 model. Rims on the 2R5 model truck are the same type used on the M5 trucks and the rims used on the 2R10 model truck are the same type used on the M15A trucks.

In order to give dealers the latest information regarding mounting or removing tires from the new type rims, two circulars published by the Firestone Steel Products Co. are being mailed with this issue of the Service Bulletin.

Every mechanic should become familiar with these procedures. It is suggested that the information in the enclosed circulars be discussed at your next shop meeting.

## TIMKEN AXLE SERVICE PROCEDURES FOR SINGLE AND DOUBLE REDUCTION UNITS DESCRIBED

Two Timken Axle service bulletins are being mailed with this issue of the Service Bulletin. One bulletin covers the single-reduction drive unit (spiral bevel and hypoid types) used on 2R17 only and the other covers the two-speed double-reduction drive unit used on 2R16 and 2R17.

These bulletins contain detailed and thoroughly illustrated service information and procedures on the care and maintenance, operation, removal, disassembly, cleaning, inspection, repair, reassembly, and installation of the units. Lubrication of the units is given and there is a torque chart giving the torque limits of the various stud nuts and cap screws.

We suggest that these two Field Service Bulletins be kept with your 2R Series Preliminary Service Manual and that their contents be discussed at your next shop meeting.



## NEW FLOAT LEVEL GAGE ADDED TO CARBURETOR TOOL KIT

*Please record on page 131 of 1947 Shop Manual.*

A new float level gage, KMO-733 (Carter No. T-109-50), having both 5/64" and 7/64" measurements has been added to carburetor tool kits by Kent-Moore Organization. The kits, formerly J-505-SCT, are now renumbered J-505-SD to include the new gage, and are for carburetor service on all 1947 and 1948 Studebaker passenger cars and trucks.

Those dealers who have complete sets of J-505-SCT may augment them by adding one KMO-733 Combination Float Level Gage, which sells for 21 cents each, to each kit.

The 5/64" measurement of this tool is used in service of BB1-633-S Carter carburetors on 2R5, 2R10, and 2R15 model trucks and the 7/64" measurement is used in servicing the BB1-606-S Carter carburetors on 2R16 and 2R17 model trucks.

## STUDEBAKER KNOCKS-SOUND AVAILABLE AT PARTS DEPOTS

*Please record on page 18 of 1947 Shop Manual.*

Knocks-Sound is the factory approved undercoating compound for automobile bodies and fenders. It is designed to protect exposed parts from mud, moisture, chemicals, rust, and abrasion.

A catalogue insert sheet describing and listing prices of Knocks-Sound has already been mailed to you by the Studebaker Parts and Accessories Division.

Knocks-Sound is available from your nearest depot in standard 53 gallon drums.

## Application of Knocks-Sound

Complete data concerning the application of Knocks-Sound is furnished dealers with the initial purchase of material. Dealers are urged to review the articles in *Service Bulletin No. 185, page 1, and Service Bulletin No. 188, page 1, which discuss the use and application of undercoating materials. The precautions in those articles apply also to Knocks-Sound.* Note, however, that Studebaker Knocks-Sound is now the recommended product for this purpose.

NOTE.--Be sure to reopen body drain holes after undercoating the car to prevent rusting of the inside of the body parts.

Below are listed several makes and models of undercoating pumps, and other equipment suitable for use in the application of Studebaker Knocks-Sound.

### Undercoating Pumps

Gray Company, Inc., Minneapolis 13, Minnesota, offer Model 225554 (less spray head), Model 225575 (with spray head). They also have a Model 225415 hand truck especially designed for transporting the 55-gallon drums of undercoating material.

The DeVilbiss Company, Toledo 1, Ohio, offer Model QBD-609 and QBD-611 pumps (air operated with spray head), and Models QMD-611 and QMD-612 (pressure feed tank with spray head).

Aro Equipment Corp., Bryan, Ohio, have the Aro 2803 drum cover type pump. Lincoln Engineering Company, St. Louis, Missouri, offers Model 1317 transfer pump, manually operated, for transferring material from storage containers to their pump in the complete set Model 492.

### Spray Gun Equipment

Black Manufacturing Company, 1416-1428 W. Baltimore St., Baltimore 23, Md., offer the "Muff" gun in either Model B-2500A (3/4" fluid connection and 3/8" air connection) or the Model B-2500L (1/2" fluid connection and 1/4" air connection) for either pump or pressure tank use.

Beach Air Brush Company, Harrison, New Jersey, offer the Model BC Series 14 spray gun with any desired connection sizes and threads.

Lincoln Engineering Company, St. Louis, Missouri, offer Model 492, a complete unit including pump, connections, and spray gun.

Alemite, Division of Stewart-Warner Corporation, Chicago 14, Illinois, offers complete

unit known as Versatal including pump, spray gun, merchandiser-type cabinetry or individual components as required. See catalogue insert sent with Service Bulletin No. 193.

### Steam Cleaners

Before any car can be properly undercoated, all surfaces that are to receive the coating must be absolutely free of foreign matter. It is best, therefore, if undercoating is to be sold in any expected volume, for the dealer to have adequate cleaning apparatus available in the service department.

The following cleaners are among satisfactory cleaning equipment: Hartman Corporation of America, 6417 Manchester Avenue, St. Louis 10, Missouri offer the trade a chemical cleaner.

Homestead Valve Manufacturing Company of Coraopolis, Pennsylvania, offer the Hy-Pressure Jenny, Model JO, catalogue insert for which was mailed with Service Bulletin No. 177.

### Air Requirements

In general, pumps handling Knocks-Sound will require from four to six cubic feet of air per minute continuously and the spray gun will need another fifteen to twenty-five cubic feet per minute continuously. This is a total for undercoating alone of from 19 to 31 cubic feet of air per minute which must be available continuously. A margin of 10 cubic feet per minute should be allowed over and above all combined air uses in the shop. It is important, therefore, when considering installation of an undercoating stall in the service department, that the total air requirements including operation of the undercoating equipment be studied and the capacity of the dealer's air compressor be determined. Location of the undercoating in relation to the compressor and tank is important since air volume diminishes in relation to distance through which the compressed air must flow to spray gun, pump, lift, or other outlets.

### BRADY AUTOMATIC COOLING SYSTEM CLEANER

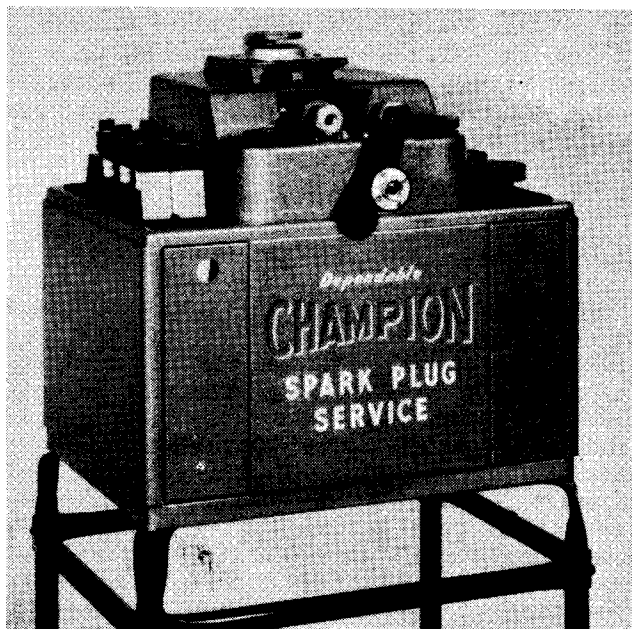
A copy of the folder describing the No. B-200 and No. C-300 Brady Automatic Cooling System cleaning equipment is being mailed with this issue of the Service Bulletin.

Cooling system cleaning and flushing equipment is valuable in aiding mechanics to perform such work more efficiently and under controlled conditions. This equipment when properly displayed is an aid in selling seasonal changeovers each autumn and spring.

Maintaining the cooling system in good operating condition the year 'round is more important than many realize, for its neglect can lead to serious consequences. Dealers equipped with modern cleaning and flushing equipment are in a preferred position, therefore, to be of real service to their customers.

### CHAMPION SERIES 500 SPARKING COMPARATOR BOOSTS PLUG SALES, SERVICE

The Parts and Accessories Division is now offering Studebaker dealers the new Champion Series 500 Sparking Comparator which will help merchandise spark plugs as well as providing dealers with an attractive, efficient spark plug cleaner.



The Comparator is a complete testing, cleaning, and comparing unit housed in a strong, neat steel cabinet. There is storage space for gaskets and adapters and the work surfaces are rubber covered. A steel stand is available for floor or portable installation.

The Comparator test is so built into the machine that a customer's spark plugs can be individually compared with a new plug, the customer being able to compare visually on a dial the intensity of the two sparks. The results of this test alone are usually sufficient to sell new spark plugs to any customer whose old plugs show up poorly in the test.

Cleaning of spark plugs is accomplished in three seconds by the use of individual abrasive

and air blast valves which clean and dust in one operation. Dust tight, flexible adapters make it possible to clean any size spark plug. Among other features the Series 500 Comparator has a built-in water trap and a single air connection, either permanent or portable.

Because of its dual ability to test and clean spark plugs, guess-work is eliminated and customers can be assured of having efficient spark plugs at all times.

The Comparator, Part No. S-643, sells for \$49 f.o.b. Montclair, New Jersey. The steel stand, Part No. S-644, is priced at \$8 f.o.b. Montclair, New Jersey. Dealers are urged to send their orders or inquiries to the attention of Mr. K. B. Harlow, Parts and Accessories Division, South Bend. Prices quoted are subject to change without notice.

*NOTE.--Export dealers may order from The Studebaker Export Corporation. Part No. S-643 is for operation with 110 volt current but can be supplied for 220 volt current at a slight increase in cost.*

### JOHN BEAN'S VISUALINER WHEEL ALIGNING EQUIPMENT

Mailed with this issue of the Service Bulletin is a descriptive folder of the John Bean Manufacturing Company's new wheel aligning equipment, called Visualiner. This equipment is designed to give quick accurate checks for camber, caster, toe-in, toe-out-on-turns, and king pin inclination for Planar, knee action, or axle-type suspensions.

Visualiner is operated on the principle of light projected against screens which are easily seen by the mechanic and customer. Projecting the gage readings in this fashion enlarges them between seven and eight times. Thus the mechanic is aided in securing an accurate 1/8" adjustment at the rod thru the enlargement of the measurement on the screen to approximately one inch.

Another advantage to this type of apparatus is that all readings which are projected on the screens may be kept there indefinitely, eliminating the need for the mechanic to make notations on a piece of paper of each reading taken. It has definite customer merchandising value because not only does the mechanic observe the progress of correction as it is being made but the customer can do likewise.

Visualiner equipment is available in a number of styles and sizes to fit nearly any space limitation.