STUDEBAKER-PACKARD CORPORATION

Service Bulletin

JANUARY 1961 NO. 359

SOUTH BEND 27, INDIANA

Studebaker

BONDED LINING AND SHOE SETS FOR SERVICING 1954-1960 Passenger Cars

The 1961 model bonded lining and shoe sets are applicable to the 1954-1960 model passenger cars. Bonded Lining and Shoe Sets, Part Nos. 1552120 and 1552121, are applicable to all 1954 to 1961 6-cylinder models except taxicab and other special equipped models. Bonded Lining and Shoe Sets, Part Nos. 1552122 and 1552123, are applicable to all 1954 to 1961 8-cylinder models except taxicab and other special equipped models.

To assure braking uniformity, brake lining and shoes should be installed in complete sets only.

BRAKE DRUM ASSEMBLIES—Lark and Hawk Models

Several hub and drum assemblies have been returned to the factory by dealers with the complaint of being cracked. In nearly every instance, our inspection of the returned assemblies shows no evidence of a crack or fabrication defect.

The brake drum is of a two-piece construction as shown in Figure 1. The brake drum proper is of cast material, while the supporting web is stamped steel. The stamped steel web is locked into the drum by Keystone shaped tangs. The drum assembly is fabricated by casting the drum around the tangs and outer diameter of the steel supporting web.

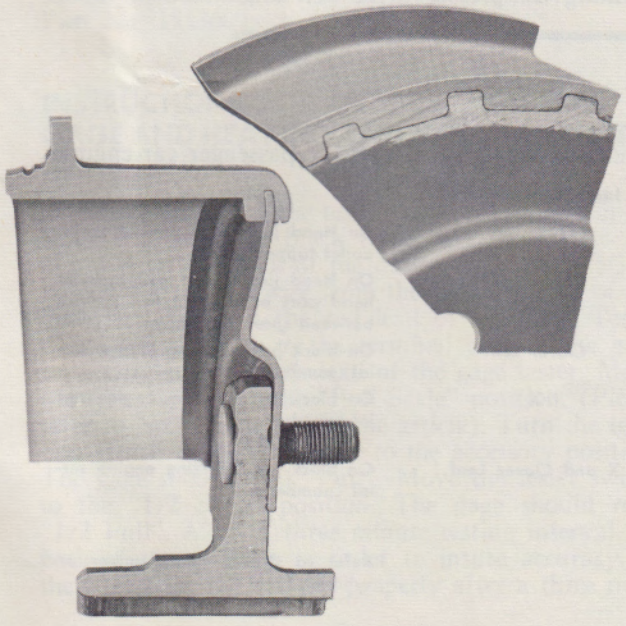


FIG. 1

In this type construction, there may be visible separations between the drum and the web which may appear to be cracks. This condition is normal and hub and drum assemblies should not be replaced for this reason alone. However, if inspection of the drum shows that the supporting web is actually loose in the drum, the hub and drum assembly should be replaced.

In this issue

BENDIX POWER STEERING OPERATION

Partial to complete loss of power assist, and a corresponding loss of self-recovery from a turn can be caused by an incorrectly adjusted control valve spool nut. This condition can usually be determined by the following checks:

(a) No noticeable power assist during highway driving.

(b) After cornering at slow speeds, it may be necessary to manually return the steering wheel to the straight-ahead position.

(c) While turning the steering wheel with the car at a standstill, there may be a noticeable breakthrough to power assist.

In making the adjustment, the control valve spool nut should be tightened until it bottoms on the centering spring spacer and then backed off 1/6 to 1/4 turn. Failure to back-off the spool nut the recommended amount will lock the control valve spool.

Loss of power steering assist in one direction, loss of recovery from a turn in one direction or the car may have a tendency to wander during straight-ahead driving may be caused by the pitman arm ball stud dust shield catching on the opening in the pitman arm ball stud housing sleeve. This may be due to the dust shield having the hole off-center, or due to improper assembly.

Check for interference as follows:

The control valve and housing sleeve assembly should move slightly over the pitman arm ball stud in both directions without exposing the opening in the sleeve assembly while moving the front wheels sharply from one position to another.

When the dust shield-to-housing sleeve interference is encountered, replace the Dust Shield, Part No. 1545329, and the Dust Seal, Part No. 1543902.

CLUTCH RELEASE SHAFT—1961S Models

A new, longer clutch release shaft entered production on the 61S models with Engine No. S-185257, or approximate car Serial No. 61S-13563. At the same time that the new longer clutch release shaft entered production, the 1/4" Spacer, Part No. 1693451, was discontinued.

The use of the longer Release Shaft, Part No. 1553490, provides a positive clutch operating shaft-to-ball stud engagement without the use of the 1/4" spacer.

Dealer Service Letter No. S-1005, dated October 5, 1960, gave you information relative to the installation of the 1/4" spacer under the subject, "Clutch Operating Shaft-to-Flexible Support Bracket Engagement—Lark VI Models."

Whenever a new clutch release shaft is installed on 61S models, use Release Shaft, Part No. 535692, on models prior to Serial No. 61S-13563, and Release Shaft, Part No. 1553490, on and after Serial No. 61S-13563.

PARTS NUMBER CORRECTION—Spark Modifier

The part numbers for the spark modifier assemblies used on the 61V Lark model and the 61V Hawk model as listed in the current Parts Catalog are incorrect (they are reversed). The correct part number for the 61V Lark Spark Modifier is 1553389. The correct part number for the 61V Hawk Spark Modifier is 1553390.

PART NUMBER CORRECTION FOR CRANKSHAFT DRIVE PULLEY USED WITH AIR CONDITIONING—61V Lark and Hawk Models

The correct part number for the crankshaft drive pulley used with air conditioning on the 1961 V8 models is 1553596. The current Parts Catalog lists this pulley as Part No. 1552694.

The correct Crankshaft Pulley, Part No. 1553596, must be used in conjunction with one (1) Spacer, Part No. 533278, (.120" thick) and with one (1) Spacer, Part No. 1552738 (.180" thick). The use of this pulley and the two spacers will provide the proper air conditioning compressor drive belt alignment.

ENGINE IDENTIFICATION—1961S and V Models

The following chart will enable you to identify the various types of 1961 S and V passenger car engines.

Model	Type of Engine	Identification Mark	Location
61S	Heavy Duty	Clover Leaf	On Head just below heater water outlet tapped hole
61V	Heavy Duty	Clover Leaf	On Head just left of cast cylinder head part number on flat surface between spark plug holes.
61S & V	Heavy Duty	Clover Leaf	On block just suffixing engine serial number
61S	Low Compression 7.0 to 1 ratio (Special Export)	X	On block just suffixing engine serial number
61S	Low Compression 7.0 to 1 ratio plus Heavy Duty (Special Export)	X and Clover Leaf	On block just suffixing engine serial number
61V	Low Compression		Refer to Cast-in part number on cylinder head

OVERSIZE VALVE GUIDES—6-Cylinder OHV Engine

In Dealer Service Letter S-1005, we advised the field that outside diameter oversize valve guides would be available for the Lark VI OHV engine. This was done because it was thought at the time that it might be necessary to use some oversize valve guides in production. We have since been advised that oversize valve guides have not been used in production to this time and that all cylinder heads will continue to be built with standard valve guides.

ROCKER ARM COVER AND GROMMET ASSEMBLY—61V Models

New rocker arm covers and grommet assemblies, Part No. 1554092, are now being used on the 61V models. The new covers are somewhat deeper than the original covers, Part No. 1549230, and provide more operating clearance for the rocker arms.

Whenever you encounter a condition of interference between the rocker arms and the covers on the 61V models, you should replace the cover or covers with the new cover, Part No. 1554092. Do not use two (2) gaskets under the old cover to provide operating clearance.

You should continue to use Rocker Arm Cover, Part No. 1549230, on the 59-60 models.

ENGINE REAR SUPPORT INSULATOR ASSEMBLY—61V Models With Standard or Overdrive Transmission

To assure smoother engine operation at low speeds, a new softer (50 durometer) rear engine insulator entered production on standard or overdrive transmission equipped 61V models with Engine Nos. V-522748 and P-77221.

If you encounter a condition of rough engine operation at low speeds on standard and overdrive equipped 61V models before the above engine numbers, you should install the new softer rear engine Insulator, Part No. 1553609.

INSTRUCTIONS FOR USING J-9200 GAS GAGE AND HEAT INDICATOR TESTING UNIT

Gas Gage

Before installing the testing unit, make certain the white wire with the black tracer is connected to the terminal on the back of the dash unit marked 'IGN'. Disconnect the red wire from the terminal post of the dash unit. Connect the red lead of the Gage Tester (Tool No. J-9200) to the terminal post of the gage unit. Ground the black lead of the gage tester. Move the tester switch to the "Full Scale" position. (Please refer to Note at the end of the article). Turn the ignition switch counterclockwise to the accessory position. The gage should read "Full". Move the tester switch to the "1/2 scale" position. The gage should read "1/2 Full". Allow a three minute testing interval for both of these checks in order to insure accuracy. If the gage does not register properly after a three minute interval, replace the unit. If the gage registers properly, disconnect the tester and connect the original wire to the gage. Then test the tank unit-to-dash unit wire.

To test the tank unit-to-dash unit wire, disconnect the wire from the tank unit. Connect the red lead of the gage tester to the wire and ground the black lead. Move the tester switch to the "Full Scale" position. Turn the ignition switch counterclockwise to the accessory position. The gage should read "Full". Move the tester switch to the "1/2 scale" position. The gage should read "1/2 Full". If the gage registers properly, the dash unit and the tank unit-to-dash unit wire is not at fault and the tank unit is faulty.

Heat Indicator Gage

Before installing the testing unit, make certain the white wire with black tracer is connected to the terminal on the back of the dash unit marked 'IGN'. Disconnect the orange wire from the terminal post of the heat gage. Connect the red lead of the gage tester to the terminal post of the gage unit. Then, use tester in the same manner as outlined for testing the gas gage.

NOTE—Due to a manufacturing error, the switch positions on the early production J-9200 Testing Units were incorrectly labeled. The Full Scale and the 1/2 Scale positions on the face of the gage were reversed.

The error was corrected in production. The corrected test units are identified with the number J-9200-01 and operate as indicated on the face of the unit. Figure 2 shows a J-9200-01 decal that can readily be applied to the J-9200 Test Unit. If your test unit is identified as a J-9200, notify the Technical Section, Parts & Service Division, and the correct decal will be sent to you at no charge.

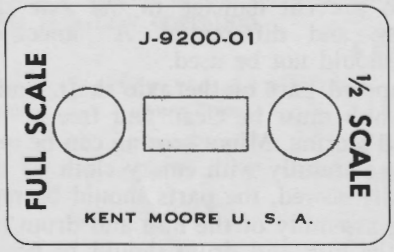


FIG. 2

CARBURETOR AIR CLEANER—Part No. 1549753

The Carburetor Air Cleaner, Part No. 1549753, was standard equipment on all 6-cylinder engines in 1960 and is currently standard on 1961S-Y1 and 6E5 model trucks. On this type filter, the felt "hiss-pad" on the underside of the top cover is retained by a three-fingered stamping. There have been instances where the felt pad drooped between the retaining fingers and restricted the flow of air and enriched the carburetor in varying degrees.

Whenever you are investigating a complaint of poor gas mileage or performance, be sure to check the "hiss-pad" in this type of air cleaner. Replace the top cover, Part No. 1545297, if drooping exists.

FAST IDLE ADJUSTMENT—WW6-123 Carb.

The fast idle adjustment on a Stromberg 2-barrel carburetor should be adjusted with a .025" wire gage between the throttle valve and the idle port side of the throttle body, rather than a .030" wire gage as outlined in the current Passenger Car Shop Manual.

If the fast idle setting is adjusted using a .030" wire gage, there is a possibility that on some carburetors the throttle will be held slightly open and a low idle setting of 550 rpm. cannot be obtained. Adjusting the fast idle with a .025" wire gage will make it possible to obtain a low idle setting of 550 rpm.

REAR AXLE SHAFT SERVICING PROCEDURES—All Models

We have had some instances of damaged rear axle shafts, keyways, and hub and drums that are attributable to improper service procedures.

Investigation reveals two conditions that definitely contribute to the problem. These conditions are:

(a) Improperly positioned axle shaft-to-hub keys. If the key is located too far in the keyway, it will prevent the hub from properly seating against the axle shaft. This condition causes abnormal runout of the entire wheel, hub and drum assembly and subjects the key and keyway to abnormal load stresses.

(b) Improperly torqued hub and drum retaining nuts. Insufficiently torqued hub and drum retaining nuts do not exert enough pressure to provide constant and full engagement between the axle shaft taper and the hub, and subjects the key and keyway to abnormal load stresses.

The Servicing Procedures outlined below must be followed:

1) A proper type of hub and drum puller must be used to prevent damage to the axle shaft ends, threadss, and differential. A "knock-off" type puller should not be used.

2) The tapered part of the axle shaft, and the bore in the hub must be clean and free of oil, grease, dirt and scoring. Minor scoring can be removed by dressing carefully with emery cloth. If these areas are badly scored, the parts should be replaced.

3) During assembly of the hub and drum to the axle shaft, the hub and drum should be positioned on the shaft without the key. Then, the key should be pushed into the keyways so that it is flush with the outer face of the hub.

4) The rear hub and drum retaining nuts *must be torqued* to the first cotter pin hole beyond 170 ft. lbs., (do not exceed 240 ft. lbs.) at any time that the rear hub and drum is removed and reinstalled. For maximum security, the torque should be rechecked again after 1,000 to 1,500 miles of driving.

FRONT SEAT MOVEMENT—1961 Models

Excessive forward and rearward movement of the front seat while in the locked position may be due to the release wire being too short.

If this condition exists, disconnect the release wire from the track locking levers and check the seat movement. If the seat movement is reduced, the release wire is too short and should be replaced.

FRONT SEAT HEAVY DUTY SUPPORT AND COIL ASSEMBLY—Taxicabs

Beginning with the 1961 Y1 model Taxicabs, the driver's side of the front seat will be equipped with a Part No. 1340335 Support and Coil Assembly, as standard equipment.

Installation of the new Support and Coil Assembly can be made on prior Y1 models by using the following procedure.

INSTALLATION—DRIVER'S SIDE

1. Remove front seat assembly.
2. Remove seat back rear panel.
3. Loosen trim cover along lower front edge of seat frame by removing hog rings. Turn back upholstery-trim cover sufficiently to expose the tubular seat frame at the front lower edge of driver's seat.
4. Measure 2-5/8" to right of seat track bracket, along the tubular frame at the *rear* of the driver's seat, and scribe a mark.
5. Measure 3-3/4" to the right of this mark and scribe another mark on the tubular frame.
6. Again measure 3-3/4" to the right and scribe an additional mark.
7. Center punch at each of these 3 locations and drill 1/4" holes through the outer wall of the tubing, holding the drill on a horizontal plane. (See Fig. 3.)
8. Insert the three hooked wire ends of the "basket" in the holes, with coil springs facing under side of seat.
9. Move the basket into position so that the forward wire ends of the "basket" rest on top of tubular frame at front of seat.
10. In this position the angular wire ends will indicate locations to drill three 1/4" holes into which the wire ends will fit and lock the basket in position.
11. Secure the coil springs to the zig-zag seat elements with hog rings, adjusting for best position to attach.
12. Re-attach upholstery trim and install seat back rear panel.
13. Install seat assembly in car.

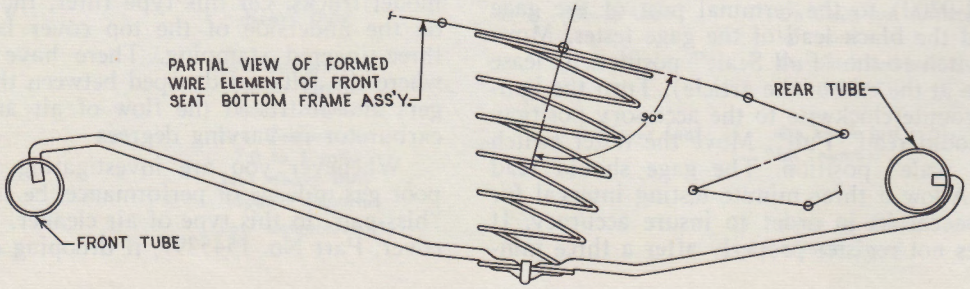


FIG. 3

BACK WINDOW UPPER REVEAL MOULDING—1961 Lark Models

The back window upper reveal moulding on approximately the first 2,000 1961 Lark Sedan models consisted of 3 pieces(Right Half, Center Clip, Left Half). These 3 pieces are not available for service.

If it is necessary to replace any one of the three upper mouldings, remove all 3 pieces and replace them with the one-piece reveal moulding, Part No. 1339631.

EXTERNAL HOOD LOCK CONTROL—61S-Y1 Model

Beginning with Serial No. 61S-7623, an external hood lock control entered production on Y1 (Taxicab) models. The parts involved are as follows:

Qty.	Part No.	Part Name
1	1339645	Hood Lock Assembly
1	1547360	Hood Lock Assembly Operating Handle
2	G155089	Screw
2	G121801	Internal Lock Washer
1	1339642	Hood Lock Assembly Operating Handle Base Plate
1	G120375	Hood Lock Assembly Operating Handle Nut

This arrangement can be readily installed on prior production taxicabs. In addition to the above parts, modify the grille as required to accept the change in the handle location. (See Fig. 4).

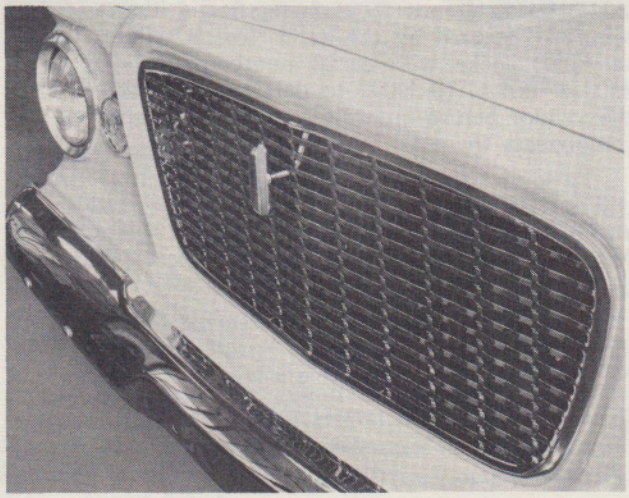


FIG. 4

FRESH AIR CONTROLS—1961 Models

Left Hand Fresh Air Control

Cold air will enter the car if the left hand fresh air duct valve is not competely closed. If the left hand air duct control knob is pushed in lightly to the first noticeable stop, the valve may not be completely closed.

To obtain full closing of the air duct valve, the control knob should be firmly pushed inward until a slight snap is felt.

Control of Warm Air Flow From Climatizer Distribution Duct

Incorrect positioning of the right hand air duct control conduit at the distribution duct retaining bracket can position the control valve beyond the 'wide open' position. The control valve in this position will tend to deflect the warmed air downward toward the passenger side and reduce the flow to the driver's side. This creates an unbalanced heat flow from the distribution duct.

To correct this condition, position the end of the right hand air duct control conduit flush with the retaining bracket on the distribution duct.

CHANGES TO 1957-61 TIME GUIDE

Please make the changes to the passenger car (white) section as indicated below.

R Group—Page 2

Operation R45—Climatizer Water Valve Control Assembly. R & R or Install New

Time should be 0.5 hour instead of 0.3 hour.

F Group—Page 8

Operation F230—Seat (Rear) Back Board (Model D-P only). R & R or Install New.

Time should be 1.5 hours instead of 1.0 hour. Also, add the following note: (C) On regal models, add 0.1 hour.

Operation F240—Seat (Rear) Back Board Mat (Model D-P only). R & R or Install New.

Time should be 1.3 hours instead of 0.8 hour. Also, add the following note: (A) For regal models, add 0.1 hour.

Please make a note of the following operation on page 12 of the F Group in the passenger car (white) section. This is a new operation.

		6 Cyl.	8 Cyl.
F436—Windlace Complete. Install New.	W, F, Y, P, and D Front Door	1.3	1.3
	Rear Door	1.5	1.5
	C, K	2.5	2.5

Packard

PACKARD ELECTRIC WINDOW LIFT MOTOR KITS—1955-56 Models

There are a few Packard Electric Window Lift Motor Kits which have been packaged incorrectly. The part numbers shown for the right and left sides are correct but the unit in the package may be for the side opposite than that indicated by the part number. The "RH" and "LH" letters which are cast into the housing of the unit are for manufacturers reference only. However, during the packaging operation, the letters were misinterpreted as indicating right and left side installation and were packaged accordingly.

The Kits, Part No. 1552468 Motor Kit and Part No. 1552470 Motor and Transmission Kit, are listed for the right hand side. Check the cast letters on the transmission housing end of the motor; they should be "LH". If it is marked "RH", the assembly should be installed on the left hand side of the car. Kits, Part Nos. 1552469 and 1552471, are listed for the left side and should be marked "RH". If the motor assemblies are marked "LH", install them on the right hand side of the car.

You should continue to place orders for these motor kits for the side required, as listed under the present part numbers in Service Bulletin No. 356.

Studebaker and Packard

ULTRAMATIC HIGH RANGE CLUTCH HOUSING —Part Nos. 458950 and 6484046—1955-56 Packard and 56J Golden Hawk

To insure against interference between the welds on the back of the high range clutch housing and the ribs on the front pump when installing a new housing, check the clearances prior to installation as follows:

Place the correct thrust washer, or thrust bearing combination on the front pump hub for the model involved and install the clutch housing on the pump hub. With a feeler gauge, check the clearance of the three welds to the pump ribs, Fig. 5, by rotating the housing. The clearance should not be less than .050" minimum for any of the welds. If any of the welds have a clearance less than the minimum stated, grind off the high spots only of the weld or welds involved. Remove only the necessary amount of weld required to produce a minimum clearance at the welds.

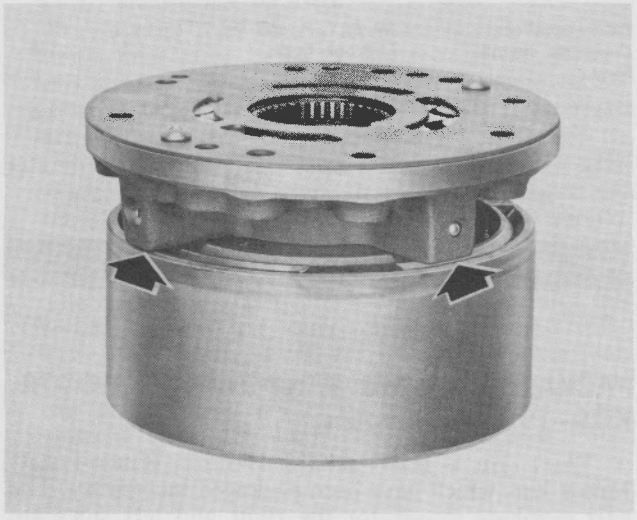


FIG. 5

Contact of high weld points on the clutch housing of the pump rib produces a clicking noise when engine torque is applied in low or reverse.

High range clutch housing identification information was furnished in Service Bulletin No. 346.

TRUCKS

FRONT SPRING ASSEMBLIES—1961 6E Series ½ and ¾ Ton Models

In the beginning of 1961 truck production the front spring assembly for the 6E5 and 6E10 Heavy Duty and the 6E7 and 6E12 standard spring, Part No. 1693387, was supplied by two vendors. One used the letter 'M' for identification, the other a Keystone symbol. The identification mark is located on the short leaf adjacent to the spring center bolt. (See Fig. 6.)

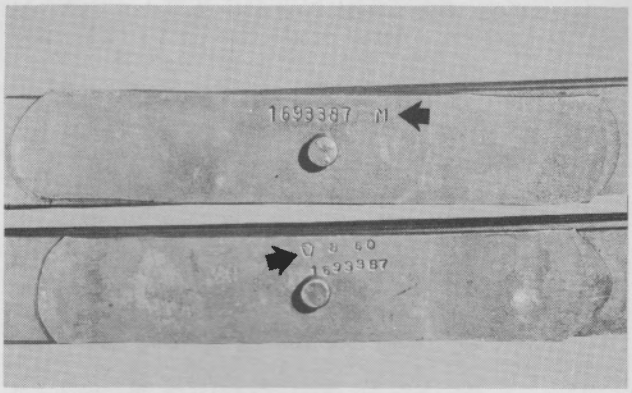


FIG. 6

The spring with the Keystone symbol has a considerable difference in carrying height than the assembly identified by the letter 'M'. It will be necessary on trucks with serial numbers prior to 6E5-130412 and 6E10-39031 to determine the identity of the vendor before ordering a spring assembly or the components thereof.

To service the Front Spring, Part No. 1693387, on trucks with serial numbers prior to those listed above and having the Keystone symbol, order Front Spring Assembly, Part No. 682829, or its respective leaves as listed in the Parts Catalog.

To service the front springs bearing the letter 'M' identification mark, order the Spring Assembly, Part No. 1693387, or its respective leaves as follows:

Leaf No. 1—Part No. 1693864
Leaf No. 2—Part No. 1693865
Leaf No. 3—Part No. 1693866
Leaf No. 4—Part No. 1693867

To service Front Spring Assembly, Part No. 1693388, with the Keystone symbol, order Spring Assembly, Part No. 682830, or its respective leaves as listed in the Parts Catalog.

DOME LIGHT—½ and ¾ Ton Trucks—T Cab

The dome light entered production as standard equipment on the T type cab with the following serial numbers:

E5-130259 E7-14285 E10-39017 E12-4753

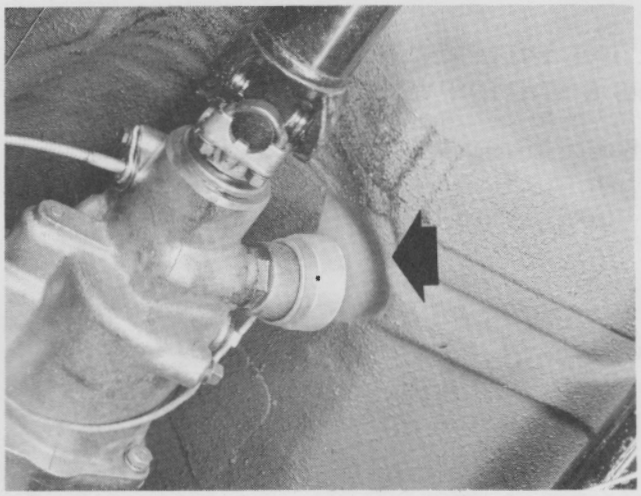
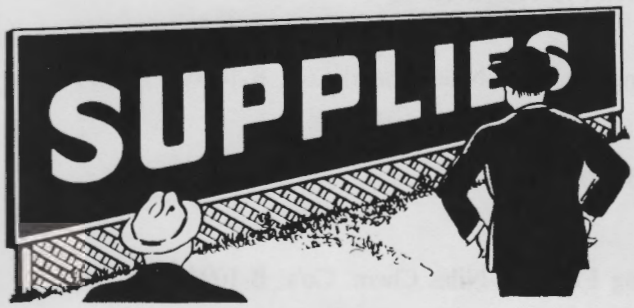


FIG. 7

REMOVAL OF OVERDRIVE GOVERNOR— Models 6E5, 6E7, 6E10 and 6E12

In some instances the overdrive governor may interfere with the floor pan when attempting to remove the governor from the transmission. In such cases a ready remedy to the problem is to take a caulking iron and relieve the floor pan in the area adjacent to the governor. Figure 7 shows the area to be relieved. A similar correction is being made in production beginning with Serial Nos. 6E5-130484, 6E7-14460, 6E10-39034 and 6E12-4758.



VESTAL SEALER NO. 5

Vestal Sealer No. 5, manufactured by Vestal Laboratories Incorporated, is a floor sealer ideally suited to provide clean, attractive floors in your showroom and service department.

When properly applied and maintained, it will materially reduce and in most cases eliminate the penetration of oils and greases, even cutting oils. Only routine maintenance is required. The increasingly severe and time-consuming methods often used in an effort to maintain the appearance of these floors are completely unnecessary after they are treated with Vestal Sealer No. 5.

The attached Product Data Brochure describes Vestal Sealer No. 5 and covers its applications and maintenance. For further information, contact any Vestal Sales Office or your Zone Parts and Service Manager.

ADD-A-TRAY CONTROL SYSTEMS

The attached brochure and sample cards illustrate and describe three important service and Parts control systems offered by Barry Cleveland Corporation.

Low cost installation kits shown on the convenient order form make it possible to establish a Parts Inventory Control System, Owner's Accessory and Service Prospect System, and a Wholesale Customer Parts Sales Control System with a very minimum investment. The unique Add-A-Tray feature permits easy expansion of these systems as required by increased volume.

We suggest you study the brochure and sample cards to see how you can use Add-A-Tray to your advantage. Place your order direct with Barry Cleveland Corporation on the enclosed order form.

EXPORT DEALERS – For Prices and ordering information Contact Export Service.

PAINT FORMULATIONS FOR THE INTERIOR COLORS FOR THE 1961 MODEL CARS & STATION WAGONS

No. 1134—BFG—Hemlock Green Gloss Baking Enamel—Niles Chem. Co's. B-1091

33.33%	Chrome Green	
33.33%	Iron Blue	50.0%—Alkyd Resin
33.34%	Iron Oxide Yellow	
100.00%		

No. 1137—BFJ—Agate Gray Gloss Baking Enamel—Niles Chem. Co's. B-1093

100.00%	Rutile Titanox Tinted	
50.00%	Alkyd Resin	

No. 1130—BFC—Norse Blue Gloss Baking Enamel—Niles Chem. Co's. B-1092

50.00%	Titanox Rutile	
50.00%	Iron Blue Tinted	50.00% Alkyd Resin

No. 1126—BEY—Fawn Beige Gloss Baking Enamel—Niles Chem Co's. B-1100

100.00%	Titanox Rutile Tinted	50.00% Alkyd Resin

No. 1127—BEZ—Seal Brown Gloss Baking Enamel—Niles Chem. Co's. B-1090

95.00%	Iron Black	
5.00%	Red Iron Oxide Tinted	50.00% Alkyd Resin
100.00%		

No. 1129—BFB—Erin Green Gloss Baking Enamel—Niles Chem. Co's. B-1094

42.83%	Titanox Rutile	
42.83%	Chrome Green	
11.45%	Iron Oxide	
2.29%	Carbon Black	50.00% Alkyd Resin
.60%	Iron Blue	
100.00%		

No. 1131—BFD—Sea Cloud Blue Gloss Baking Enamel—Niles Chem. Co's. B-1095

90.00%	Titanox Rutile	
10.00%	Iron Blue Tinted	50.00% Alkyd Resin
100.00%		

STUDEBAKER-PACKARD CORPORATION
South Bend 27, Indiana

Printed in U.S.A.