

# Service Bulletin

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SOUTH BEND 27, INDIANA



## VALVE BUZZ-FLIGHTOMATIC TRANSMISSION

Please record this article on the Service Bulletin reference page at the end of the Transmission section of your 1956 Studebaker Passenger Car Shop Manual and end of the Transmission-Warner Gear section of your 2E Series Trucks Shop Manual.

An abnormally loud and consistent valve buzz may be encountered in the automatic transmission, particularly in Park and Reverse ranges. In one such case of valve buzz, we found that the valve buzz was being caused by highly aerated oil.

Whenever abnormally severe valve buzz is encountered, the dipstick should be removed while the buzz is being experienced. Inspection of the oil on the dipstick will disclose if aeration is present. If the oil is heavily aerated, it is likely that there is a leak somewhere in the transmission. The most probable points of leakage are:

1. Sand holes or porosity in the transmission case.
2. Leakage between the pressure regulator valve assembly and the machined surface of the case. This can be due to nicks or other damage on either of the mating surfaces, also improper torquing of the cap screws.
3. Leakage between the front pump and the transmission case due to a damaged gasket or improper torquing of the cap screws.

Most frequent transmission valve buzz is caused by incorrect control pressures or sticking valves. However, when a check of the oil indicates much aeration then the possibility of a leak should be suspected. A little foam at the top of the oil is not necessarily abnormal during or immediately after operation

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of the transmission. The aerated condition referred to is one where virtually all of the oil on the dipstick will appear to be foamy.

## TRANSMISSION FRONT CASE BUSHING - FLIGHTOMATIC TRANSMISSION

Please record this article on the Service Bulletin Reference page at the end of the Transmission-Flightomatic section of your 1956 Studebaker Passenger Car Shop Manual and the Transmission-Warner Gear section of your 2E Series Trucks Shop Manual.

The Flightomatic Transmission Front Case Bushing, Part No. 1545274, is now available at

your Parts Depots. It will no longer be necessary to replace the transmission case assembly where only the front case bushing is the reason for replacement, rather the bushing must be replaced.

The Transmission Front Case Bushing is replaced as follows:

1. Disassemble the transmission by removing the rear housing, front pump, control valve and regulator valve assemblies, planetary gears, clutches and bands.
2. Place the Bushing Remover and Replacer, J-7180, (Supplied in the 1958 Studebaker-Packard Essential Service Tool Group) in the transmission case with the remover end of the tool in the bushing. Position the case and tool in an arbor press and press the bushing out of the case toward the front of the transmission.
3. Break the sharp edges of the bushing hole in the case. Install the transmission front pump assembly on the transmission case. Position a new transmission front case bushing on the replacer end of the tool, J-7180, with the open end of the bushing oil grooves toward the front of the transmission. Lubricate the outside of the bushing. Position the tool and bushing in the transmission case and press the bushing into place. The bushing must be pressed toward the front of the transmission.

### SERVICE TRANSMISSIONS - STANDARD AND OVERDRIVE - 1958 MODEL STUDEBAKER AND PACKARD

Replacement overdrive transmissions, supplied by the Parts and Accessories Division, for 1958 Model Studebaker and Packard will be equipped with the overdrive solenoid, overdrive governor, and all outer transmission shift levers. When an overdrive transmission is replaced, whether within the warranty period or on an exchange basis, the solenoid, governor, and outer transmission shift levers must be returned with the replaced transmission.

Replacement standard transmissions, supplied by the Parts and Accessories Division, for 1958 Model Studebaker Passenger Cars will be equipped with all the outer transmission shift levers. When a standard transmission is replaced, whether in the warranty period or on an exchange basis, the outer transmission shift levers must be returned with the replaced transmission.

To avoid damage to the solenoid, governor, and transmission shift levers, dealers must return the replaced transmission in the same

packing box in which the new transmission was received.

NOTE-Export dealers will return transmission only when requested to do so by the Export Division.

The part numbers of the new service transmissions and the part numbers of transmissions they replace are:

Model 58G with 3:54, 4:10, 4:09 axle ratio  
For 1545423 (Std.) SUBSTITUTE 1544327  
For 1545425 (O.D.) SUBSTITUTE 1544329

Model 58G with 4:55, 4:56 axle ratio  
For 1545424 (Std.) SUBSTITUTE 1544328  
For 1545426 (O.D.) SUBSTITUTE 1544330

Model 58B, H, L except K7 and K9  
For 1545428 (O.D.) SUBSTITUTE 1544334

### USE OF FRONT PUMP STATOR SUPPORT AND BACKING PLATE - FLIGHTOMATIC TRANSMISSION

*Please record this article on the Service Bulletin Reference page at the end of the Transmission-Flightomatic section of your 1958 Studebaker Passenger Car Shop Manual and the Transmission-Warner Gear section of your 2E Series Trucks Shop Manual.*

A review of reports received in the Home Office indicates that front pump assemblies, Part No. 1540917 have been replaced where the converter thrust washer has cut the stator support. Inspection shows, in a great number of cases, only a Front Pump Stator Support and Backing Plate, Part No. 1540923, was required.

In cases where the converter thrust washer has cut the stator support, the front pump assembly should be disassembled and inspected and only the necessary parts of the assembly should be replaced.

### CARTER FOUR-BARREL CARBURETOR CHANGES - 58B, 58H, 58L MODELS

An improved Carter four-barrel carburetor is now in production. The new carburetor has a different float chamber vent and secondary stage throttle valves which are counterweighted. These valves open only when the air velocity is high enough to overcome the counterweight.

Carter model numbers and production starting engine serial numbers are as follows:

MODEL	DATE	ENGINE SERIAL NO.		CARTER NO.
58B	10-2-57	V-408892	} with auto. trans.	WCFB-2575S
58H	10-2-57	P-62513		
58L	Start of Production			
58B	11-1-57	V-411508	} with or without auto trans.	WCFB-2574S
58H	11-1-57	P-64382		
58L	Start of Production			

**HEAVY DUTY BRAKES - BONDED LINING - PASSENGER CARS WITH 10" AND 11" BRAKE DRUMS**

Brake shoe kits with heavy duty bonded lining are now released for service for 58G-Y1, 57 & 58-B-H-L, 56B-H, 56J, 16G-8, 6H and 5H, Models.

The kits are released for all models with 11" front and 10" rear brakes under part numbers as follows:

- 1546774 - Front Brake Shoe and Lining Kit
- 1546775 - Rear Brake Shoe and Lining Kit

Bonded lining started in production on the 58G-Y1 model only with Serial No. G-1419510.

The thicker, heavy duty lining, bonded to the brake shoes provides longer life. The new kits are recommended for service on cars in use as taxicabs, police cars, etc.

**STEERING KNUCKLE PIN (KING PIN) NUT - 1958 STUDEBAKER & PACKARD PASSENGER CAR**

Steering Knuckle Pin, Part No. 533762 Right and Part No. 533763 Left, are now made with only one hole for the cotter pin that locks the retaining nut. The recommended tightening procedure is as follows:

Tighten the nut to 100 ft. pounds, then continue to tighten the nut until the cotter pin hole is in alignment with slots in the retaining nut.

**STEERING KNUCKLE NEEDLE BEARINGS - 1958 MODEL STUDEBAKER AND PACKARD PASSENGER CAR**

The steering knuckle needle bearings used on 1958 Model Studebaker and Packard passenger cars are not held in their case on the ends. The rollers are flat on the end and the case is not crimped over their ends (see B in Fig. 1). Care must be taken during disassembly not to

allow the needle bearings to come out of the case.

The service bearings, Part No. 196859, have the case crimped to prevent the bearings from coming out of the case (see A in Fig. 1).

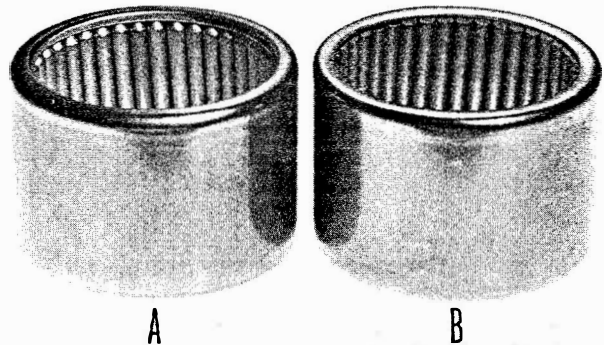


Fig. 1

**REAR AXLE LUBRICANT**

As a result of continued tests by our engineering department Studebaker-Packard Twin-Traction Lubricant is now used in all passenger car, and 1/2 and 3/4 ton truck rear axles in production. Factory service recommendations now are as follows:

**REAR AXLE - Standard**

Use Studebaker-Packard Twin-Traction Lubricant or SAE No. 90 hypoid lubricant (multipurpose gear lubricant) for summer and winter. Do not mix various brands of hypoid lubricants. Use light engine oil for flushing. Do not use kerosene. Fill to level of the filler plug hole. Check level every 1,000 miles (1609 KM.). Drain, flush and fill every 10,000 miles (16,090 KM.).

During seasonal periods where temperatures of 10°F or below are commonly encountered, SAE No. 80 hypoid gear lubricant (multipurpose gear lubricant) may be used. However, this lubricant is not recommended for year-round use, or where an extended trip takes the vehicle from a cold area into warmer climates.

**REAR AXLE - TWIN TRACTION**

Use Studebaker-Packard Twin-Traction Lubricant. Use light engine oil for flushing. Do not use kerosene. Fill to level of the filler plug hole. Check level every 1,000 miles (1609 KM.). Drain, flush and fill every 10,000 miles (16,090 KM.).

Studebaker-Packard Twin-Traction lubricant is available at all Parts Depots in quart sizes identified as SP-50136 or in 120# kegs identified as SP-50137.

**PROPELLER SHAFT DIAMETER - 58H-K  
- 58L-K MODELS**

To provide additional clearance under the floor, the diameter of the propeller shaft for 58H-K Golden Hawk and 58L-K Packard-Hawk has been reduced from 3-1/2" diameter to 3-1/4" diameter.

The 3-1/4" diameter shaft and joints, Part No. 1544461, entered production with car serials:

58H-K7 Serial 6105076  
58L-K9 Serial 1181

The 3-1/4" shaft assembly, Part No. 1544461 is interchangeable with the 3-1/2" shaft assembly Part No. 1544459. Only the 3-1/4" Shaft Assembly, Part No. 1544461 will be available for service when present stock of Part No. 1544459 is exhausted.

**STABILIZER BAR DAMAGE - IMPROPER  
HOOK-UP AT HI-SPEED AUTO WASH  
STATIONS - 1958 PASSENGER CAR  
MODELS**

It has been brought to our attention that the operators of auto wash stations have been hooking a tow chain or hook to the front stabilizer bar link on 1958 model Studebaker and Packard cars. This results in bending of the link and pulling the bar out of the outer rubber bushing.

The best point of attachment is on the lower support arm near the inner shaft as shown in Fig. 2.

Unsatisfactory points for attaching the tow chain are:

1. Stabilizer bar or link because of reasons outlined above.
2. Rearward end of bar. Danger of entering hook into radiator core.
3. Retaining bracket on 58L models. This bracket is designed for vertical loads and is only

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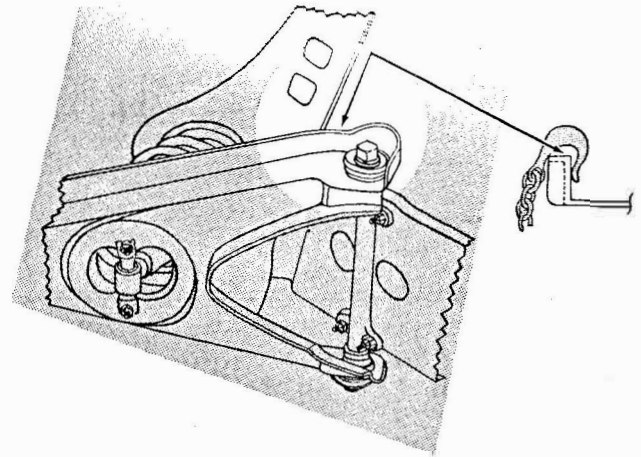


Fig. 2

held by one bolt. Pulling on this bracket could distort the bracket or turn it out of proper alignment.

Dealers should make sure that all auto laundries or Hi-Speed Auto Wash Stations in the area are informed of the proper points for attaching the tow chain or hook to avoid damage to the stabilizer bar.

**ENGINE CUTTING-OUT ON LEFT TURN -  
COMMANDER AND PRESIDENT CARS WITH  
STROMBERG CARBURETOR WW6-117,  
117A, or 117B.**

Under certain conditions the engine may die on a sharp left turn.

This can be corrected by using the air horn gasket and baffle used on the supercharged carburetors.

When the engine is hot, gasoline foam may be ejected from the bowl vent tube into the air stream. This is caused by the float dropping on a left turn and allowing gasoline to enter the float chamber under temperatures at which the gasoline is boiling.

The Air Horn Gasket, Part No. 1543362, has been designed so that the vent hole is not in line with the bowl vent tube, also a Baffle, Part No. 1543363, has been released to be installed in the bowl chamber between the float and float needle valve. This baffle restricts the surge of gasoline from one end of the bowl to the other.

The carburetor model is changed from 6-117B to 6-117C.

### DOOR LATCH REMOTE CONTROL BINDING AFTER ARM REST INSTALLATION - 1958 SCOTSMAN

Occasionally you may encounter binding of the door latch remote control or experience difficulty in locking front doors on 1958 Model Scotsman 4-door sedans after the installation of arm rests. When you find these conditions they can be corrected as follows:

1. Remove the inside door handle and regulator handle. Remove the arm rest and trim panel.
2. Remove the remote control retaining screws and disconnect the remote control wire from the remote control. Remove the control assembly.
3. Relocate the remote control wire hole  $5/32$ " toward the rear of the remote control (see Fig. 3).

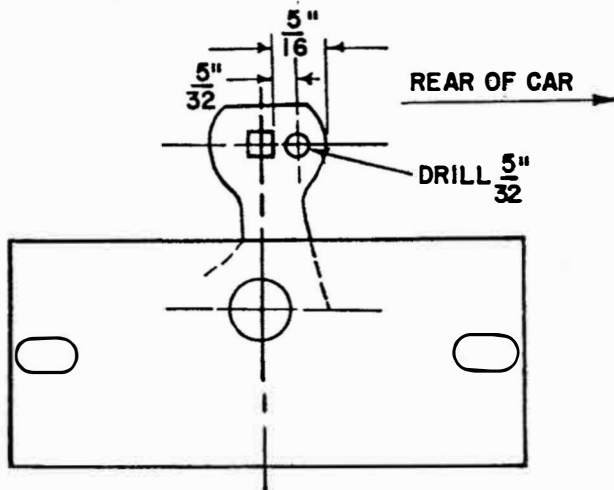


Fig. 3

4. Connect the remote control wire to the remote control and install the control and retaining screws. Adjust as required.
5. Position the remote control wire in the guide clip and test the remote control and the inside door lock push rod for proper operation.
6. Install trim panel, arm rest, and door and regulator handles.

### DUAL HEADLAMP RIM LOOSE - 1958 Model Studebaker Passenger Car

To prevent the dual headlamp rims from coming loose, the following changes have been made in production.

The die cast nibs that were used to rivet the hook in place are being eliminated and self-tapping screws used.

The self-tapping screws can be installed as follows:

The nibs can be cut or filed off. Using the hook as a template, locate and drill the two holes, and drill with a #31 drill (.120) and then install two G-166574 (#6-32 x  $5/16$ " Type D Screws.) See Fig. 4 showing the screws installed.

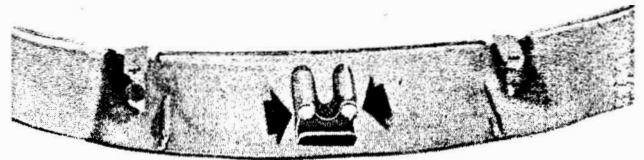


Fig. 4

The first 1958 model Studebaker passenger cars equipped with dual headlamps used screw, Part No. 2081 x 11 to fasten the headlamp rim facing to the headlamp housing. It has been found that it is easy to strip the threads on this screw, allowing the housing and facing to become loose, and in some cases, to fall off. To eliminate this condition a new screw, Part No. 1526x59 is now being used.

### CLUTCH ASSEMBLY - 8-1/2" DIA. - 58G MODELS

First production 58G models with conventional transmission used a 9-1/8" diameter clutch. Effective with Engine No. 1242635, 58G Models with conventional transmission will use an 8-1/2" diameter clutch.

58G models with overdrive transmission used the 8-1/2" dia. clutch from the start of production.

### CARBURETOR ICING - - - SCOTSMAN MODELS

*Please note this article in Service Bulletin No. 326 covering the Scotsman Models.*

During the winter months on days of relative high humidity, an icing condition may occur at the carburetor throttle valve. When this occurs the engine has a tendency to die when operated at carburetor idle position.

This condition can be minimized by a careful and proper adjustment of the engine idle speed. To adjust the idle speed, connect a tachometer to the engine and set the engine idle speed to

525-550 rpm by turning the idle speed adjustment screw located on the carburetor linkage.



### SPARK PLUG CABLES - 1958 PACKARD MODELS

Resistance type spark plug cables are used on all 1958 Packards. This type cable reduces radio noise due to ignition interference. The resistance type cables are identified by the letters "TVRS" stamped on the cables.

The TVRS spark plug cables have nylon cords impregnated with graphite as the electrical conductor. They are designed to provide a predetermined amount of resistance for a given length, which is the radio noise reducing factor.

The following is important from a service standpoint:

1. The insulation must not be cracked or penetrated in any manner.

2. Do not use a conventional spark plug cable as a service replacement.
3. Do not attempt to replace terminals.



### ELECTRIC SHIFT ASSEMBLY - 2 SPEED REAR AXLE

*Please record this article on the Service Bulletin reference page at the end of the Rear Axle section of your 2E Series Trucks Shop Manual.*

In the past when the rear axle shift control automatic switch contact pin wore out or broke off (see illustration 1009-32 page 311, 2E Series Parts Catalog) it was necessary to purchase the complete drive screw assembly, Part No. 1687361.

To reduce the cost of this type of repair the rear axle shift control automatic switch contact pin is now available as a separate part. It can be ordered through your regular parts depot under Part No. 1690375.

## BORG PRODUCTS DIVISION

The George W. Borg Corporation

### AUTHORIZED SERVICE STATIONS

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##### ILLINOIS -- Chicago

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3017 Irving Park Road

International Speedometer and Clock Service  
878 N. LaSalle Street

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431 Minnesota Avenue

##### MICHIGAN -- Detroit

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10300 Whittier Avenue

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Empire Clock Co.  
1016 Marquette Avenue

##### -- St. Paul

Empire Clock Co.  
93 East Fifth Street

##### MISSOURI -- St. Louis

Jack Harrison's Speedometer Service  
2833 Olive Street

#### WISCONSIN -- Delavan

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##### -- Milwaukee

Schreiber Clock Service  
1612 W. Center Street

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Tick of Time  
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##### TEXAS -- Dallas

Long's Automobile Clock Service  
2304 Cedar Springs Avenue

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1720 Yale Street

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110 Elm Street

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Specialty Sales and Service  
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724 Seigle Avenue

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George McNutt Service  
813 Market Street

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MARYLAND -- Baltimore  
Baltimore Auto Clock Co.  
1933 St. Paul Street

MASSACHUSETTS -- Boston  
Boston Speedometer Service Co.  
116-120 Brighton Avenue

NEW YORK -- Bronx  
Automotive Clock Repair Co.  
814 Southern Boulevard

-- Brooklyn  
Lapina and Monaco  
616 Classon Avenue

-- Buffalo  
Hopple's  
1339 Jefferson Avenue

OHIO -- Cincinnati  
Abinger-Keller Clock Shop  
3962 Montgomery Road

-- Cleveland Heights  
Cleve-Hio Instrument Service Co.  
2190 Lee Road

PENNSYLVANIA -- Philadelphia  
Auto Clock Service  
Div. Precision Instrument Service  
106-08 South 7th Street

-- Youngwood  
Stewart's Auto Clock Service  
110 South Third Street

WASHINGTON, D. C.  
Auto Clock Shop  
1105 21st Street, N. W.

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1512 N. 7th Avenue

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-- Los Angeles  
Graf's Automobile Clock Co.  
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