

# Studebaker

# SERVICE BULLETIN

MAY

NO. 240



1950

## CRATE AUTOMATIC TRANSMISSION IN ORIGINAL CONTAINERS FOR SAFE RETURN TO FACTORY

Please record this article on page 50 of your Automatic Transmission Preliminary Shop Manual.

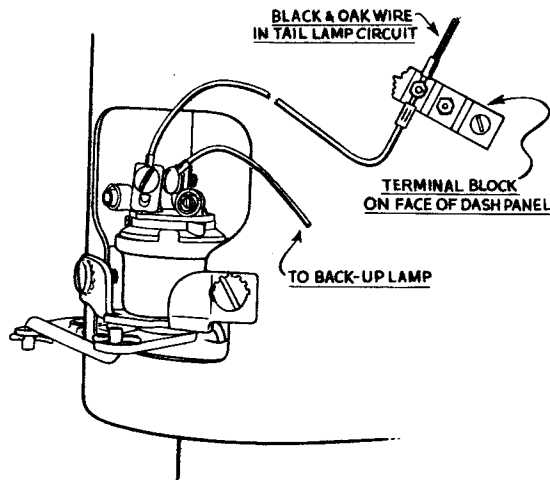
To insure the safe return of replaced Studebaker Automatic Drive units, either torque converter or transmission (or both), it is necessary that the shipping crates in which you received replacement units be used for packing.

Unprotected, uncrated units are vulnerable to expensive damage while in transit. Dealers must take precautions to package returned units properly to prevent expensive damage due to careless handling, etc. Failure to protect these units properly when returning them, will create an unnecessary and avoidable liability on the part of the returning dealer.

## BACK-UP LIGHTS FOR AUTOMATIC TRANSMISSIONS - 17A

Present back-up lights AC-1885 and AC-1886 are usable on Studebaker cars equipped with

## BACK UP LAMP WIRE HOOK UP FOR ALL 1950 STUDEBAKER CARS WITH *Automatic* TRANSMISSION



**NOTE**  
BRACKET and SWITCH FURNISHED WITH KIT SHOULD BE DISCARDED WHEN MAKING THIS INSTALLATION.

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automatic transmissions. It is necessary, however, to discard the switch as well as the switch mounting bracket contained in the package.

The standard equipment control switch located at the lower end of the steering column jacket on automatic transmission equipped cars has two extra terminals incorporated in the switch (see illustration). These are for the back-up lights. To install the back-up lights, attach the back-up lamp cable to one of the terminals and attach the junction block cable to the other terminal.

## TOWING INSTRUCTIONS FOR CARS EQUIPPED WITH AUTOMATIC TRANSMISSION

Below is a reprint of Passenger Car Service Letter No. 826 which may now be discarded from

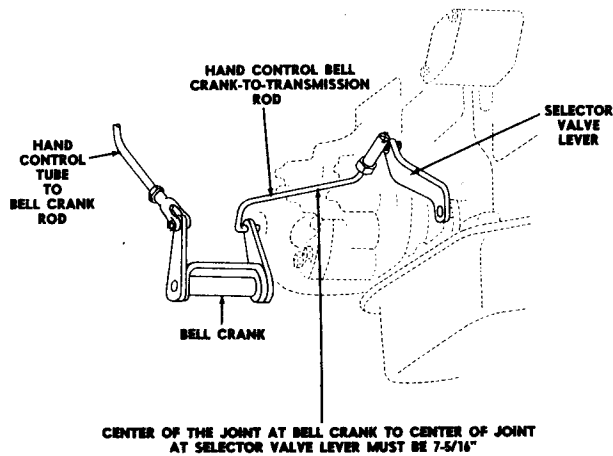
your files. Please make a notation of this article on p. 25 of the Automatic Transmission Preliminary Shop Manual.

The Studebaker Automatic Transmission Preliminary Shop Manual and the Owner's Guide placed in the glove compartment of cars equipped with the Studebaker Automatic Transmission, contain the following recommendation for towing:

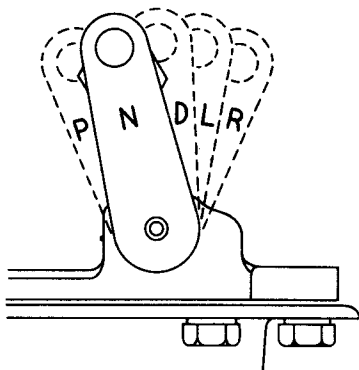
"TOWING should be done with the selector lever in the "N" (Neutral) position. Cars should not be towed in excess of 30 m.p.h."

There may be instances where a car equipped with Studebaker Automatic Transmission has been in an accident and the selector lever linkage damaged to such an extent that the transmission cannot be placed in the Neutral range through movement of the selector lever.

In such event, the transmission may be placed in the Neutral range for towing by the following method:

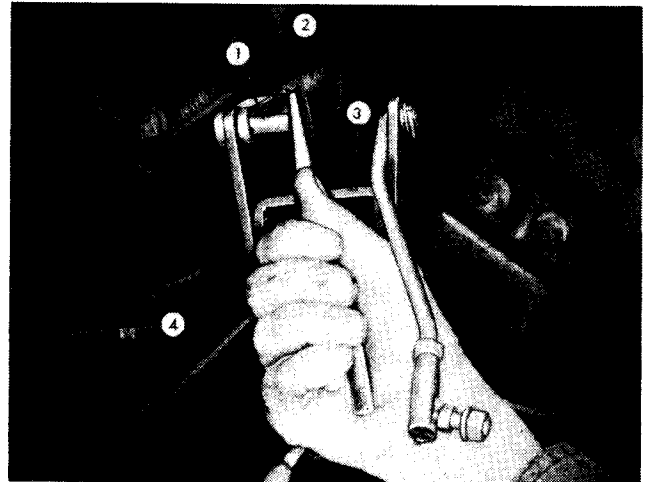


1. Remove the bell crank to transmission rod from the selector valve lever and the bell crank lever to which the rod is attached.
2. To place the transmission in the Neutral range, move the selector valve lever on the transmission as far forward as it will go. In this position the transmission is in the



Park range. Then move the selector valve lever back one detent. In this position the selector valve lever will be in direct line with the forward band adjusting screw located immediately behind it on the transmission. (See opposite.) With the selector

lever in this position the transmission is in Neutral range and the car may be towed indefinitely without damage to the transmission, provided towing is kept below 30 m.p.h. The detents used in the Studebaker Automatic Transmission are designed so that the transmission will stay in Neutral range without the use of a lock plate.



- |  |                     |
|--|---------------------|
| 1. Clevis pin                          | 3. Bell crank       |
| 2. Hand control tube-to-bell crank rod | 4. Pullback springs |

### AUTOMATIC TRANSMISSION PULLBACK SPRING - 17A

Please record this article on page 50 of your Automatic Transmission Preliminary Shop Manual.

As shown in the illustration above, there is only one pullback spring to be disconnected when removing the torque converter assembly.

The last line on page 43 of the Automatic Transmission Preliminary Shop Manual should read, therefore, "the pullback spring (4)."

### OIL LEAK AT FRONT END OF CRANKSHAFT - 9G; 17A

Please record this article on page 143 of your 1950 Passenger Car Shop Manual and on p. 107 of the 2R Series Trucks Shop Manual.

To correct a condition of oil leak at the front end of the engine crankshaft, the following precautions must be observed:

Remove the timing gear cover and inspect the crankshaft gear making sure it is properly in place on the crankshaft. The fan pulley hub face should be inspected for dents and scratches and smoothed down or replaced if necessary. The timing gear cover should be inspected for leaks at the weld between the felt oil washer retainer and the cover. In the event the weld shows a leak the timing gear cover, Part No.

518495 (Champions) or Part No. 191047 (Commander), should be replaced. When reassembling, the lock plate on the front of the vibration damper should be coated with Permatex or its equivalent and the cap screw (Champion) or nut (Commander) thoroughly tightened.

### FRONT SEAT ADJUSTER TIE BAR RATTLE - 9G; 17A

*Please record this article on page 40 of your 1950 Passenger Car Shop Manual.*

For 9G Champion and 17A Commander models which rattle at the front seat adjuster tie bar, a new anti-rattler spring with a thicker wall than that formerly used is now available through your parts depot.

The new anti-rattler spring is Part No. 292268 and can be installed in the place of the original spring. This spring entered production with Champion Serial No. G581189 and Commander Serial No. 4434636.

### DEFINITION OF TERMS - "Cylinder Block", "Fitted Block", "Stripped Engine Assembly"

Situations occasionally arise in which one of the descriptive terms of "cylinder block", "cylinder block fitted with pistons", or "stripped engine assembly" has been cause for confusion.

To prevent misunderstanding in the future these terms, as applied by us, are defined as follows:

#### 1. Cylinder Block

The main engine casting having valve guides and main bearing caps only.

#### 2. Cylinder Block Fitted with Pistons

The main engine casting having valve guides and main bearing caps plus properly fitted pistons, piston pins, and piston rings only.

#### 3. Stripped Engine

Consists of: cylinder block, pistons, rings, connecting rods, crankshaft, camshaft, all bearings, timing gears and cover, oil pump, oil pan, oil pan level gage, crankshaft fan pulley (on Champion), valves and valve springs, and covers.

### WASHERS ELIMINATE TRUNK LID DIMPLES - 9G; 17A

*Please record this article on page 40 of your 1950 Passenger Car Shop Manual.*

On 9G Champion and 17A Commander models it is possible that a dimple may appear in the

metal of the luggage compartment lid at the end of the lid latch assembly. This dimple can be eliminated by adding 1/16" flat washers as spacers between the latch assembly and the lid at the two outer latch assembly studs.

### SEAT BACK SHELF SQUEAK - 9G; 17A

*Please record this article on page 40 of your 1950 Passenger Car Shop Manual.*

A rubber silencer, Part No. 1891X entered production with 9G Champion Serial No. G-568941 and 17A Serial No. 4432362. This silencer prevents the squeak in the rear seat shelf.

To correct conditions of squeak on cars produced prior to the above serial numbers, install the silencer between the shelf and the strainer, bending the ends of the shelf downward about 1/8" (if necessary) to provide clearance. This will, of course, reduce the overall dimensions of the shelf approximately 1/4".

### CHROME HEADLAMP RIMS - 17A

Chrome headlamp rims on Commander models entered production with Serial No. 4427984. This was reported erroneously as Serial No. 4227984 in Service Bulletin No. 237, p. 2.

### WHY CLAIMS SETTLEMENTS BOG DOWN

Not infrequently a dealer's claim is disallowed or delayed, and correspondence must be entered into between the factory and dealer even though the facts of the case thoroughly justify granting of the claim.

We, at the factory, are as anxious as you of the dealership, to settle claims promptly. It is only good business all around, from factory to dealer to customer, to keep the claims process moving right along.

Each item of information requested on the B865 Claim Form and B866 Claim Parts Tag is necessary for home office clearance and judgment of the claim. When any such information is missing, it causes delay. Likewise, the handling of forms and parts must follow the routine prescribed on the reverse of the Sextuple copy of the B865 Claim Form, or delay or rejection of the claim may result.

There are many reasons why claims meet with undue delay or cannot be granted: Among the most frequent causes are:

1. The facts were not correctly or fully reported to the factory.
2. The parts involved were not returned to the proper destination.
3. The forms were sent to South Bend and the parts were sent to the branch office.

Below is a list of items which are frequently overlooked by those who make out claims forms and tags. Please study this list and be sure that the suggestions contained are followed.

**CLAIM TAG B866**

1. Attach properly filled out Claim Tag B866 to each individual part returned for credit. Needed to identify claimed part with Claim Form.
2. Fill in all data requested on B866 tag. Required for identification of part with specific item on Claim Form.
3. Package returned parts carefully. Careless packaging results in loss of tag, loss of parts, damage to parts, damage to other items in shipment.

**CLAIM FORM B865**

1. Send a Claim Form B865 to cover returned parts. It is impossible for us to grant credit on the strength of the parts alone; the information on the B865 form is also necessary. Conversely, whenever a B865 form is mailed, be sure the parts are shipped to the same destination, properly tagged.
2. Show number of the invoice on which the replaced parts were purchased.
3. Show date on which parts were replaced. Important for establishing duration of warranty period.
4. State concisely and clearly the reason parts were replaced. Do not state simply "bad" or "defective". Tell briefly what happened to indicate need to replace the part and lead you to believe such replacement warranted claims credit.
5. Mention any previous correspondence about the specific claim immediately after your reason for replacing parts.
6. Ship claim form and parts to same destination, either South Bend, Hamilton, or, in the case of warranty replacements, a branch depot. Do not send B865 Claim Form to one destination and the parts to another.

**RETURNED PARTS**

1. Return all the parts listed on the B865 Claim Form; not just a portion of them.
2. Return parts within 30 days of date of replacement. This helps maintain an even flow of parts through the routine.

3. Send out-of-warranty parts to South Bend or Hamilton only; do not send out-of-warranty parts to branch parts depots.
4. Prepay transportation on all parts returned.
5. Do not send new material to claims department; do not include new material returns in packages containing replaced items. New materials should be returned to the destination authorized viz., either branch parts depot or the Returned Materials Division at South Bend.
6. Whenever returning parts via Parcel Post, be sure to insure the package. This is the only way to protect against lost parts, since there is little likelihood of tracing uninsured Parcel Post shipments.

NOTE.--Export dealers are to submit warranty claims in accordance with Export Service Department Letter F-500 and Claim Form H-691.



**T**  
**TRUCK**  
**SERVICE**  
*Information*  
**STEERING REACH ROD - 2R**  
**SERIES (LHC)**

Please record this article on page 198 of your 2R Series Trucks Shop Manual.

Below is a list of parts and truck model adaptation of the steering reach rod and reach rod end assemblies for use in servicing 2R Series trucks.

The Part No. 679892 rod for 2R16A and 2R17A models is now adjustable, and the tube size is now 1 1/4" with a wall thickness of 3/16".

Adjustable rods are also available on order through your nearest parts depot for other models as follows:

| Part No. | Part Name                         | 2R5-2R10 | 2R6-2R11 | 2R14-2R15 | 2R16A-2R17A |
|----------|-----------------------------------|----------|----------|-----------|-------------|
| 679958   | Steering reach rod assembly - LHC | 1        |          |           |             |
| 679931   | Steering reach rod assembly - LHC |          | 1        |           |             |
| 679934   | Steering reach rod assembly - LHC |          |          | 1         |             |
| 679892   | Steering reach rod assembly - LHC |          |          |           | 1           |
| 513306   | Steering reach rod end assembly   | 1        | 1        | 1         |             |
| 679901   | Steering reach rod end assembly   |          |          |           | 1           |

## ONE PIECE PROPELLER SHAFT M5, M15A, 2R5, 2R10 AND 2R15 MODEL TRUCKS

Should a condition be encountered in which the propeller shaft on M5, M15A, 2R5, 2R10, and 2R15 has broken for any reason, there may be additional damage which is not readily discernible.

Therefore, it is important to check thoroughly the rear axle pinion shaft, transmission main shaft, clutch housing, and engine block before installing a new propeller shaft.

The following procedure is recommended:

1. Remove the rear axle pinion shaft universal joint flange and check the run-out of the pinion shaft with a dial indicator. Pinions having a splined end can be readily checked on top of the spline by using the large radius button found in the dial indicator net. If the companion flange is keyed onto the shaft, check the run-out with dial indicator by rotating the shaft and checking from one side of the key way around the shaft to the other side of key way.
2. The companion flange should be removed from the transmission and the main shaft should also be checked for run-out. If either the rear axle pinion shaft or transmission shaft run-out is over .005" they should be replaced.
3. Without special equipment it is difficult to accurately check the companion flange, so if the propeller shaft has broken, it is advisable to replace the flanges. On those universal joint flanges having keys, make certain the key is installed according to Service Bulletin No. 201, page 2.
4. Thoroughly clean and examine upper left portion of clutch housing and engine block for breakage. Weld or replace.
5. Check alignment of universal joints as outlined in Service Bulletin No. 201, page 2, or the 2R Series Trucks Shop Manual, page 141.
6. Install propeller shaft. Be sure universal joint bearings are correctly located in flange and tighten clips progressively.

## POWER TAKE-OFF INFORMATION FOR USE WITH WARNER T97 TRANSMIS- SION - 2R16A, 2R17A

Please record this article on page 221 of your 2R Series Trucks Shop Manual.

Power take-offs designed for use on 2R16A or 2R17A model trucks equipped with Warner T97 transmission and either band type or Tru-Stop parking brakes are listed in the accompanying tables.

## SERVICE EQUIPMENT

### UNITOG SERVICE UNIFORMS

Mailed with this issue of the Service Bulletin is a descriptive folder for Unitog Service Uniforms. Inserted in the back page of this folder is a self-mailer, stamped and addressed order blank. An interesting feature of this folder is that every other inside page contains a year's calendar for the year beginning April, 1950.

NOTE.--Export dealers may order from The Studebaker Export Corporation.

### RUGLYDE RUBBER LUBRICANT NOW AT PARTS DEPOTS

Mailed with this issue of the Service Bulletin is a folder describing the importance of using a suitable lubricant whenever installing tubes in tires and other rubber parts in tight-fitting places. Synthetic rubber is especially susceptible to tears and can be protected against this kind of damage only if a good liquid, non-damaging lubricant is used.

RUGLYDE meets the requirements and is already in constant use in many factories and tire specialty shops. RUGLYDE contains no castor oil, alcohol, or harmful soaps. It is equally effective on natural or synthetic rubber and its use as described in the enclosed folder will help materially to reduce tire failures caused by rim pinching or bruising during installation.

RUGLYDE is now available to Studebaker Dealers as announced and priced in the recent Parts and Accessories division flash. Order direct from your nearest Studebaker Parts depot.

For specific requirements of special gaskets or adapters in the installation of take-off units, please refer to the last column of the table, headed "Remarks".

For similar information regarding the specifications of power take-off units for use in 2R16 and 2R17 model trucks equipped with the Warner T9 transmission, see Service Bulletin No. 216, p. 5.

Power take-off equipment can be procured through local dealers and representatives. Studebaker parts depots do not carry this equipment.

## POWER TAKE-OFF DATA - 2R16A - 2R17A MODELS

Using Warner T97 Transmission with Band Brake or Tru-Stop Brake

| Manufacturer   | P.T.O.<br>Make and Model           | Spacer            | Ratio or<br>Type of P.T.O.     | Direction<br>of Rotation | Remarks   |
|--|------------------------------------|-------------------|--------------------------------|--------------------------|---|
| Anthony Company  | 1846163                            | None              | 508 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | No Adapter  |
| Braden Winch Company   | SF 7B                              | 7A062             | 380 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | Adapter 33H3  |
|  | SF 7B                              | 7A062             | 380 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | No Adapter  |
|  | TF 7                               | 7A062             | 593 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | Adapter 33H3  |
| Chelsea Prod. Inc.   | 14M2R or 14M2Rn                    | 7A062             | 680 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | No Adapter  |
|  | Model 1BD or 1BDN                  | 7A062             | 510 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | No Adapter  |
|  | Model 18D                          | 7A062             | 680 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | No Adapter  |
| Hercules Steel Prod. Co.<br>(Same as Chelsea - Above)          |                                    |                   |                                |                          |   |
| Marion Metal Prod. Co.   | Chelsea 14M2R<br>(Disc Brake Only) | .062              | 680 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | No adapter<br>Two Gaskets                             |
|  | Chelsea 1BD<br>(Drum Brake Only)   | .062              | 510 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                |   |
| Perfection Body Co.  | 8170                               | None              | 508 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | No Adapter  |
| St. Paul Hydraulic<br>Hoist Company                            | 769-2                              | None              | 508 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | None  |
|  | 770-2                              | None              | 676 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | None  |
|  | 30-3                               | None              | 676 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | None  |
| Spicer Manufacturing   | Model GF 7<br>Assy. - 002149       | None              | 619 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | No Adapter  |
|  | Model GF 7<br>Assy. - 002149       | 23-P-2            | 619 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | Use Adapter<br>5068X                                  |
|  | Model HF 7<br>Assy. - 002151       | 23-P-2            | 1017 Rev. to<br>1000 Eng. Rev. | Eng. Rot.                | Use Adapter<br>5068X                                  |
|  | Model RF 7<br>Assy. - 001576       | 23-P-6            | 720 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | No Adapter  |
|  | Model RF 7<br>Assy. - 001576       | 23-P-1            | 720 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | Use Adapter<br>4323X                                  |
|  | Model XF 7<br>Assy. - 001560       | 23-P-24           | 889 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | No Adapter  |
|  | Model XF 7<br>Assy. - 001560       | 23-P-2            | 889 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | Use Adapter<br>5068X                                  |
|  | Model XF 7<br>Assy. - 001560       | 23-P-2            | 889 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | Use Adapter<br>5068X                                  |
| Tulsa Winch<br><br>(Uses Spicer<br>P.T.O.'s)                   | Spicer RF 7                        | Spicer<br>23-P-6  | 720 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | No Adapter  |
|  | Spicer XF 7                        | Spicer<br>23-P-24 | 889 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | No Adapter  |
|  | Spicer XF 7                        | Spicer<br>23-P-2  | 889 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | Use Adapter<br>5068X                                  |
| H. S. Watson Co.<br><br>(Uses Spicer<br>P.T.O.'s and Adapters) | Kit 3G7½-351<br>Spicer "G"         | Spicer<br>23-P-2  | 620 Rev. to<br>1000 Eng. Rev.  | Eng. Rot.                | 5068X Adapter<br>Five 1/32 Gaskets<br>One 1/64 Gasket |
|  | Kit 3G7½-92                        | None              | 620 Rev. to<br>1000 Eng. Rev.  | Opp.Eng.Rot.             | No Adapter<br>Two 1/32 Gaskets                        |