

Studebaker

# SERVICE BULLETIN

JANUARY

NO. 247



1951

## SERVICE DATA - H AND IOG MODELS

*This article is a reprint of parts of Passenger Car Service Letter No. 842 that may be of future use. Please discard Letter No. 842. Make a notation on the Service Bulletin reference pages at the end of the appropriate sections of your 1951 Shop Manual to this article.*

Your service personnel should familiarize themselves with the important service information and procedures involving 1951 model passenger cars outlined below. Where specific checks of certain cars are suggested, such checks and corrections where required, should be accomplished without undue delay.

### 1. PARKING BRAKE CABLE GUIDE - MODEL H AND IOG

On some early 1951 cars the parking brake cable guide may be loose as a result of the rivet swelling the hole in the guide. It is suggested that the guide be welded to the frame on those cars affected.

### 2. RADIO INSTALLATION - MODEL H

It is possible that, if the clip that holds the defroster left branch tube, vent cable, and Climatizer heat control tube to the firewall has loosened, considerable difficulty may be experienced in trying to place the radio set in position without causing interference with either the defroster tube or the electric windshield wiper links. Before installing the radio set, therefore, check these two clips and install new ones, if

necessary, to provide sufficient clearance for the radio set.

### 3. SPRING SHACKLE EYE - MODEL H AND IOG

A sound described as a "clunk" coming from the rear of the rear spring may be traced to the spring shackle eye having been reamed oversize. To correct this condition and eliminate the noise when encountered it is necessary to install a new bushing with knurled outer walls to insure firm seating. This bushing will be supplied on receipt of your request for a "special knurled spring bushing" to the General Service Department. Please give serial number of car on which it is to be installed.

### 4. LUBRICATION OF STEERING DRAG LINK FRONT GREASE FITTING - MODEL H AND IOG

Should you experience difficulty in lubricating the front grease fitting on the steering drag link, it is suggested that the lubrication man use a propeller shaft grease fitting on the pressure grease gun and lubricate this drag link fitting from above before the car is raised.

### 5. INTERFERENCE BETWEEN CLIMATIZER WATER HOSE AND OIL PRESSURE FLEXIBLE HOSE - MODEL IOG

On Champion models, the water hose for the Climatizer, leading from the rear of the cylinder head, may rub against the oil pressure flexible hose. It will be necessary to

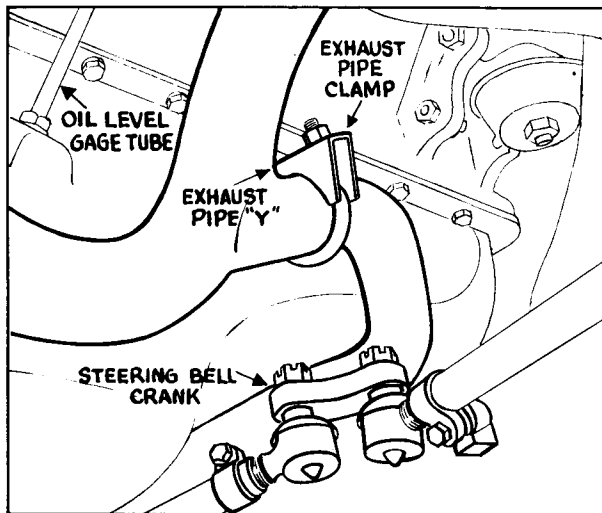
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turn the elbow that screws into the cylinder head toward the firewall until there is at least 3/4" clearance between the water hose and the oil pressure flexible hose.

6. **CLIMATIZER HOSE RIDING AGAINST EXHAUST PIPE - MODEL 10G** It is possible that the Climatizer hoses on some early production 1951 Champion cars were improperly connected; that is, the short hose was stretched tight and the longer hose was allowed to bend out to such an extent that it lay against the exhaust pipe. On those cars where this condition exists, it will be necessary to reinstall the Climatizer hoses correctly so that both hoses are free from interference but are not too tight to allow for engine movement relative to the body.



7. **EXHAUST PIPE CLAMP U-BOLT POSITION - MODEL H**

On early production 1951 Commander models, there is a possibility the exhaust pipe clamp U-bolt may have been improperly positioned. This exhaust pipe clamp U-bolt should be positioned so that the nuts are upward toward the engine block. This is important since the open end of this U-bolt, if pointing downward, may interfere with the steering bell crank.

You should check all 1951 Commanders thus far received to determine if this U-bolt is properly positioned. If it is not, loosen the nuts and move the U-bolt and the saddle until the correct position is reached as shown in the accompanying drawing. Then, retighten the nuts.

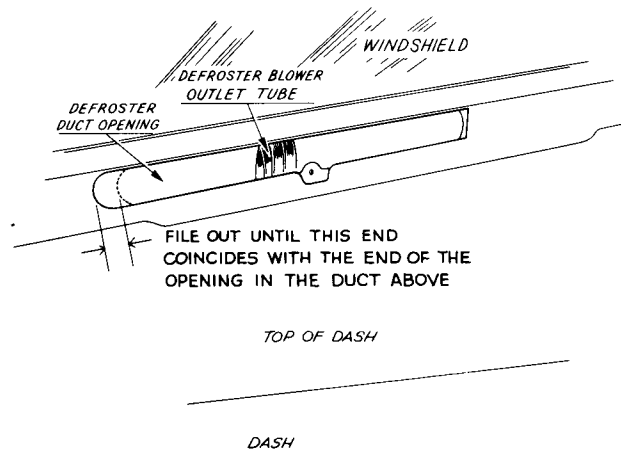
8. **CYLINDER HEAD SCREW PLAIN WASHER - MODEL H**

If the cylinder head cap screws are removed for any reason on Commander V-8 engines or if water loss is traceable to cylinder head screws, install a plain washer, Part No. 361-07, on each of the ten long cylinder head screws. These washers are available through your parts depot and are designed to eliminate possibility of water leakage at the long cylinder head cap screws.

**ENLARGING DEFROSTER  
DUCT OPENING - 9G, 17A**

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

Conditions of too narrow a pattern of frost or mist removal from the windshield by the defroster on 1950 models may be caused by an excess of metal on the air duct panel overlapping the outside edge of the defroster air duct (see illustration).



To make the defrosting path wider, it is necessary to remove this metal as outlined in the following procedure:

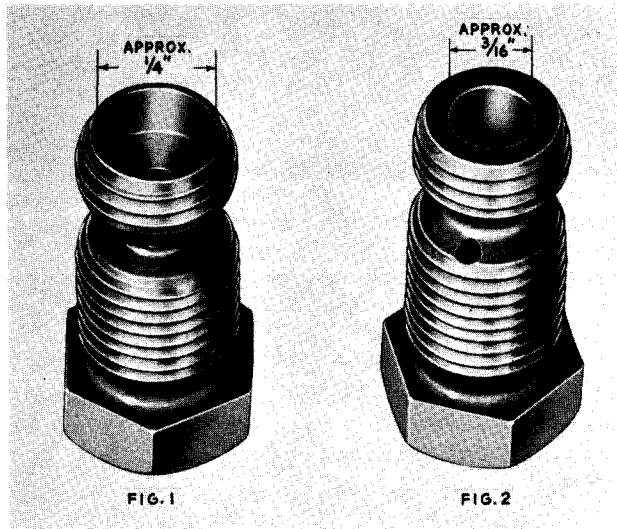
1. Disconnect battery.
2. Remove the rear view mirror (on cars with one-piece windshields) or remove the screw at the top center of the instrument panel (on cars with two-piece windshields).
3. Remove the steering column lower bracket and loosen the brace attached to the upper bracket bolts.
4. Loosen the hand brake bracket bolts.
5. Disconnect the speedometer cable at the speedometer.
6. Remove the attaching screws of the hood control, overdrive control (or automatic drive starter control), and heater control brackets.
7. Remove the four instrument panel mounting screws on each side of the instrument panel. The entire panel can now be pulled toward the rear of the car.
8. Remove the right and left lower glass channel retainers.
9. File the outer ends of the defroster duct opening as required to match the opening in the glass channel retainer (see illustration).
10. Reassemble all parts removed and check defroster operation.

The seven articles following are reprinted from Passenger Car Service Letter No. 845 which may now be discarded from your files.

### ROCKER ARM COVER NUTS TORQUE SPECIFICATIONS REVISED - COMMANDER (H) V-8 ENGINE

Please record this article on the Service Bulletin reference page at the end of the Engine section of your 1951 Shop Manual.

The torque specification for tightening



rocker arm cover nuts on V-8 engines has been revised to 18-30 inch pounds (0,207 to 0,23 kg./m.) with three retightening operations. The previous specification was 8-10 inch pounds (0,92 to 0,115 kg./m.) with three retightening operations.

### VALVE CLEARANCE SPECIFICATIONS REVISED - COMMANDER V-8 ENGINE

Please record this article on the Service Bulletin reference page at the end of the Engine section of your 1950 Shop Manual.

The following are revised valve clearance specifications for the Commander V-8 engine:

Engine hot: .012" - .014" (0,305 to 0,356 mm.) (intake and exhaust valves).

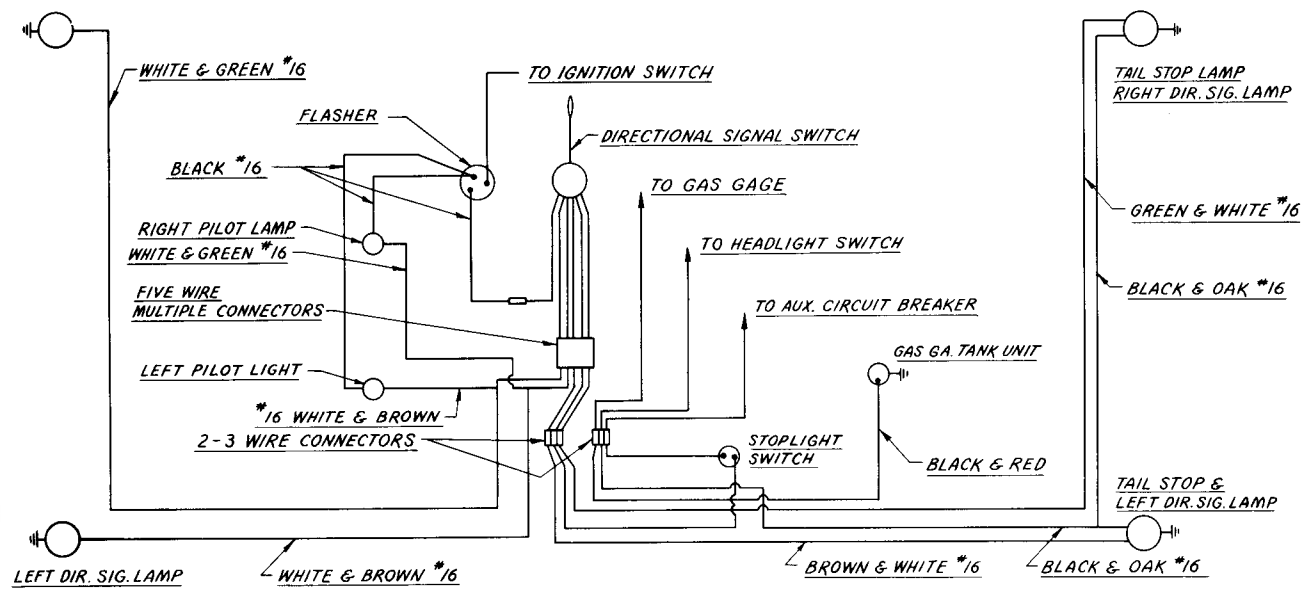
This adjustment is made with the engine running at idle speed and only after it has reached its normal operating temperature.

Engine cold: .014" - .016" (0,356 to 0,406 mm.) (intake and exhaust valves).

This adjustment is made with the engine not running and cold (room temperature - approximately 70° F. or 21° C.).

## WIRING DIAGRAM - DIRECTIONAL SIGNALS - 1951 PASSENGER CARS

RIGHT DIR. SIG. LAMP



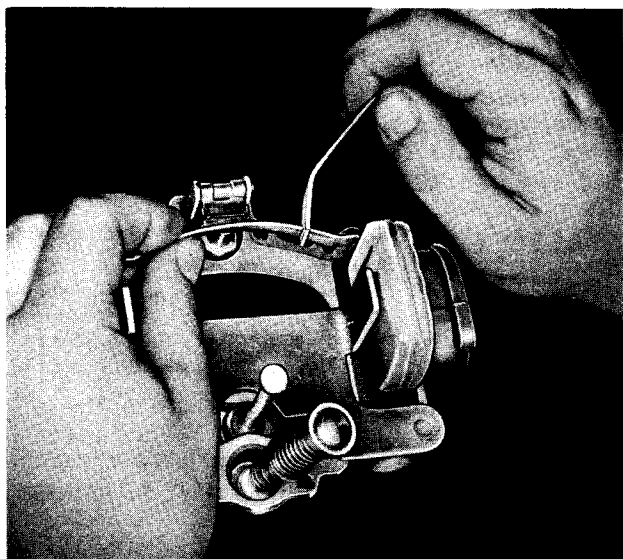


FIG. 1

### CARBURETOR FLOAT SETTING REVISED - COMMANDER (H) V-8 ENGINE

*Please record this article on the Service Bulletin reference page at the end of the Gasoline System section of your 1951 Shop Manual.*

A quick check of the float setting can be made without disassembling the carburetor. With the car on a level floor and with the engine idling at normal operating temperature, remove the fuel level plug from the right side of the carburetor float bowl. If the float setting is correct, the fuel level will be even with the lower edge of the hole. Obviously, if gasoline runs out the hole the float setting is high. Conversely, if the fuel level remains below the lower edge of the hole, the float setting is low.

The procedure for setting the float on the Stromberg Model AAQVB-26 carburetor used on Commander V-8 engines has been revised. To set the float level in this carburetor proceed as follows:

Place the Float Gage T-24971 on the cover gasket with the two lugs of the tool seating in the corresponding holes in the air horn. Using Tool KMO-269-S5, bend the float arms as necessary so that the floats are parallel to the vertical guides of the tool (see Fig. 1).

Then, check the setting of each float. Place a straight edge across the highest point of the floats and measure the height of the floats above the vertical guides of the tool (see Fig. 2). This measurement should be from  $3/32''$  to  $1/8''$  (2,38 to 3,18 mm.). Both floats must be at the same height. With Tool KMO-269-S5 bend the float arms as required to obtain the proper float setting.

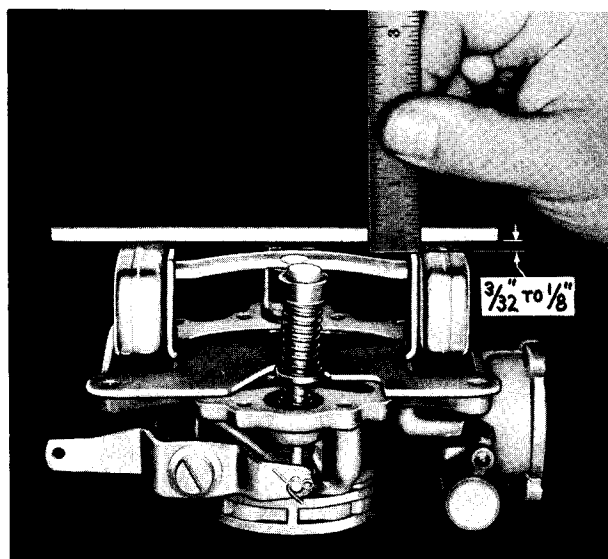


FIG. 2

### AUTOMATIC CHOKE SETTING FOR WINTER OPERATION - COMMANDER V-8 ENGINE

*Please record this article on the Service Bulletin reference page at the end of the Gasoline System section of your 1951 Shop Manual.*

To avoid the possibility of the Commander V-8 engine stalling during the warm-up period in temperatures below  $+40^{\circ}$  F. ( $4.4^{\circ}$  C.), the automatic choke setting should be readjusted as follows:

First, make sure that the engine idle speed is set at 550 rpm. Then, move the automatic choke setting one notch in the lean direction from the standard factory setting illustrated in Fig. 51, page 19, Gasoline System section, 1951 Passenger Car Shop Manual.

Obviously, the choke setting should not be changed from the standard factory setting on Commander V-8 engines, where the cars are not operated in temperatures below  $+40^{\circ}$  F. ( $4.4^{\circ}$  C.). However, where the choke setting has been changed in the lean direction for winter operation, it must be readjusted to the standard factory setting for summer operation (temperatures above  $+40^{\circ}$  F. or  $4.4^{\circ}$  C.).

NOTE.--Another cause for the V-8 engine stalling during the warm-up period may be oil or condensation in the carburetor automatic choke housing. To check for this condition, remove the carburetor automatic choke housing cover. If oil or condensation is present, the thermostat spring, the vacuum piston and related parts, and the inside of the housing itself should be thoroughly cleaned to insure free and proper operation of the choke mechanism.

## NOISY MANIFOLD HEATER VALVE ASSEMBLIES - COMMANDER V-8 ENGINE

*Please record this article on the Service Bulletin reference page at the end of the Engine section of your 1951 Shop Manual.*

The manifold heater valve assembly for the Commander V-8 engine has been revised to eliminate the possibility of a noise or rattle developing in this assembly. The spring stop pin was moved 1/16" (1,58 mm.) closer to the valve shaft so as to squeeze the spring and thus prevent the noise or rattle.

Should you encounter this condition in any Commander V-8 engine, the noise or rattle may be removed in majority of cases by bending the spring stop pin 1/16" (1,58 mm.) closer to the valve shaft. Care must be exercised not to bend the pin any more than 1/16" (1,58 mm.). If, in any case, the bending of the spring stop pin in this manner does not eliminate the noise or rattle, or if it creates a bind in the valve operation, it will be necessary to install a new manifold heater valve assembly, Part No. 527392. When installing a new manifold heater valve assembly be sure to use new gaskets, Part No. 530263.

## INSTALLATION OF AUTOMATIC TRANSMISSION UNIT - ALL PASSENGER CARS

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

If the splines on the transmission shafts and the inner splines on the torque converter assembly have been properly aligned with the J4283 spline aligning fixture (outlined in the Preliminary Automatic Transmission Shop Manual), and if the step-by-step procedures outlined below are followed carefully, the transmission unit should slide into the torque converter easily. The transmission unit is properly in place when the front face of the transmission butts solidly against the rear face of the torque converter housing.

Occasionally, you may find that the transmission unit will slide into the torque converter easily up to a point within 1/8" to 1/4" (3,18 to 6,35 mm.) of its proper position (as described in the previous paragraph) but no farther. If this happens, rotate the companion flange on the rear of the transmission unit back and forth about 1/4" (6,35 mm.). By following this procedure, the transmission will generally move into place against the converter housing. If it doesn't, then you have not properly aligned the splines on the transmission shafts and the inner splines on the torque converter. In such a case, it will be necessary to realign the splines with the J4283 spline aligning fixture.

*Under no circumstances, should the transmission face and converter housing face be pulled together by the attaching bolts, nor should the complete engagement of the units be forced in any other manner. If the engagement is forced, you will damage the front pump assembly of the transmission and the converter splines as well, making the Automatic Drive inoperative. This will result in the need for replacement of both the transmission unit and torque converter unit at considerable cost to you.*

## STEERING GEAR MISALIGNMENT - MODELS 10G AND H

*Please record this article on the Service Bulletin reference page at the end of the Front Suspension and Steering section of your 1951 Shop Manual.*

If, when checking steering operation on 1951 model passenger cars with the front wheels off the floor, you encounter stiff steering or two high spots in the steering gear, these conditions may be the result of misalignment of the steering gear. This misalignment may be caused by either or both of the following conditions:

1. The steering gear housing-to-frame mounting bolts may have been over-tightened, resulting in a slight distortion of the frame side rail. Where this condition is found, it can be corrected by installing steering gear housing shims, Part Nos. 41X336 (1/32" - 0,794 mm. thick), 361-07 (1/16" - 1,58 mm. thick), or 369-07 (1/8" - 3,175 mm. thick), as may be required, between the steering gear housing and the frame side rail. The steering gear housing-to-frame mounting bolts should be retightened to 22-25 foot pounds (3,04 to 3,5 kg./m.) torque.
2. The steering gear mounting pivot hole in the frame side rail may be too low. To check for this condition, loosen the steering post bracket at the instrument board. The steering column should be in alignment with this bracket both vertically and horizontally. If it is not, it will be necessary to ream out the top or round pivot hole in the frame side rail to provide proper alignment and remove any bind in the steering column. The steering gear housing-to-frame mounting bolts should be retightened to 22-25 foot pounds (3,04 to 3,5 kg./m.) torque.

NOTE.--The above article applies to LHC (left hand control) cars only.

## STEERING GEAR - 10G CHAMPION

*Please record this article on the Service Bulletin reference page of the Front Suspension and Steering System Section of the 1951 Shop Manual.*

Between Serial No. G1015126 and 1017090 the

Commander-type steering gear (Part No. 530729) was temporarily used in production of Champion models at South Bend. This change of steering gear does not apply to cars produced at the Los Angeles or Hamilton plants or cars produced for export at South Bend.

Service, adjustment, and parts for the Commander-type gear used on domestic Champion models will be the same as for the steering gear used on 1951 Commander (H) models.

### STROMBERG CARBURETOR EXCHANGE DISCONTINUED

*Please record this article on page 193 of your 1950 Shop Manual, and on the Service Bulletin Reference page of the Gasoline section of your 1951 Shop Manual.*

As announced in the Parts Department letter to Dealers, No. 106, of December 12, 1950, the exchange plan on Stromberg carburetors is being discontinued.

Dealers are advised, therefore, that no credit will be allowed for returned carburetors under the old exchange plan on any parts received at our Claims Division after March 1, 1951.

### REAR AXLE RATIO 4.55-1 ON COMMANDER (H MODEL)

*Please record this article on the Service Bulletin Reference page at the end of the Rear Axle section of your 1951 Shop Manual.*

The rear axle gear ratio of the Commander V-8 (H) models has been changed from 4.56-1 to 4.55-1. The new rear axle is Part No. 531153. The new part number for the 4.55-1 bevel drive gear-and-pinion assembly is Part No. 531156.

These numbers should be used when ordering a rear axle or rear axle bevel drive gear-and-pinion assembly for the Model H Commander V-8. Parts depots will carry only the latest parts for use in 1951 Commander models.

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## TRUCK SERVICE ITEMS

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### ADDITIONAL INFORMATION RADIOS FOR 2R SERIES TRUCKS

*Please record this article on page 73 of your 2R Series Trucks Shop Manual.*

In our article "Radios for 2R Series Trucks" on page 5 of Service Bulletin No. 245 we stated that 1951 passenger car model radios would be used in 2R Series Trucks.

There is now available an adaptation kit, Part No. AC-2115, for use in making the installation of the AC-2111, 2112, and 2113 sets in 1951 model 2R Series Trucks. This kit is required since the new radios have the control panel below the lower edge of the truck instrument panel.

### TRANSMISSION REMOTE CONTROL LOWERED ON 3-SPEED 2R SERIES TRUCKS

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

Effective with truck Serial Nos. R5-68089, R6-1550, R10-28528, and R11-1516, the shift lever knob has been lowered one inch to facilitate use of reverse or second gear ratios on all 2R5, 2R6, 2R10, and 2R11 model trucks.

There is no change in part number of the transmission remote control shaft assemblies which are, for your information, Part No. 676796 (LHC) and Part No. 678778 (RHC). Parts depots will carry only the latest type pending depletion of stocks of the original type.

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## SERVICE EQUIPMENT

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### THOR PORTABLE POWER TOOLS

Mailed with this issue of the Service Bulletin is a catalog insert folder describing the Thor line of portable power tools of special interest to the automotive service man.

These tools cover all the needs of valve refacers and seat grinders, general purpose drills of 1/4", 5/16", 3/8", and 1/2" drive. Also available are two impact wrenches of various capacities; one wrench is electrically driven, the other pneumatically driven.

Thor has a line of sanders and polishers in both 7" standard duty and heavy duty and 9" standard and heavy duty. The folder also describes briefly the Thor pneumatic fender hammer and two sizes of electric bench grinders.

Thor equipment can be ordered through your local jobber.

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

**SPEEDOMETER PINION CHART FOR MODEL 2R5, 2R6, 2R10, 2R11 WARNER T-90-B TRANSMISSION WITH OVERDRIVE**

REAR AXLE RATIO	TIRE SIZE	9.00-13	7.10-15	6.00-16	6.00-16	6.50-16	7.00-16	7.50-16	8.25-16
	NO. OF PLY	4 PLY	4 PLY	4 PLY	6 PLY	6 PLY	6 PLY	8 PLY	10 PLY
		S.S.-S.T.	P.T.	P.T.	P.T.	P.T.	P.T.	T.T.	T.T.
4.55 & 4.56	PINION STUDE.*	677744	677744	677744	677744	677744			
	% ERROR	0.8+	3.4+	3.8+	3.2+	0.9+			
4.82	PINION STUDE.*		677745	677745	677745	677745			
	% ERROR		1.8+	2.0+	2.7+	0.2+			
4.89	PINION STUDE.*		677745	677745	677745	677745			
	% ERROR		3.05+	3.6+	4.15+	1.8+			
4.857	PINION STUDE.*			677745		677745	677744	677744	
	% ERROR			3.0+		1.1+	4.2+	0.6-	
5.571	PINION STUDE.*			677745		678239	677746	677745	677744
	% ERROR			2.15+		1.2+	3.5+	5.7+	5.0+

**TIRE DATA**

TIRE SIZE	NO. OF PLY	REV. PER MILE	TYPE
9.00-13	4	720	S.S.-S.T.
7.10-15	4	739	P.T.
6.00-16	4	742	P.T.
6.00-16	6	746	P.T.
6.50-16	6	728	P.T.
7.00-16	6	698	P.T.
7.50-16	8	664	T.T.
8.25-16	10	613	T.T.

P.T. - PASSENGER CAR TYPE  
 T.T. - TRUCK TYPE  
 S.S.-S.T. - SPECIAL SERVICE,  
 SANDY TERRAIN

**TRANS. DRIVE GEAR**

STUDE.*	STEWART WARNER*	NO. OF TEETH
678975		4

**SPEEDOMETER PINION**

STUDE.*	STEWART WARNER*	NO. OF TEETH
677744	448227	13
677745	448228	14
677746	448229	15
678239	448231	16

**SPEEDOMETER PINION CHART FOR MODEL 2R5, 2R6, 2R10, 2R11 WARNER T-90-B TRANSMISSION WITHOUT OVERDRIVE**

REAR AXLE RATIO	TIRE SIZE	9.00-13	7.10-15	6.00-16	6.00-16	6.50-16	7.00-16	7.50-16	8.25-16
	NO. OF PLY	4 PLY	4 PLY	4 PLY	6 PLY	6 PLY	6 PLY	8 PLY	10 PLY
		S.S.-S.T.	P.T.	P.T.	P.T.	P.T.	P.T.	T.T.	T.T.
4.55 & 4.56	PINION STUDE.*	677744	677744	677744	677744	677744			
	% ERROR	0.8+	3.4+	3.8+	3.2+	0.9+			
4.82	PINION STUDE.*		677745	677745	677745	677745			
	% ERROR		1.8+	2.0+	2.7+	0.2+			
4.857	PINION STUDE.*					677745	677744	677744	
	% ERROR					1.1+	4.2+	0.6-	
4.89	PINION STUDE.*		677745	677745	677745	677745			
	% ERROR		3.05+	3.6+	4.15+	1.8+			
5.571	PINION STUDE.*					678239	677746	677745	677744
	% ERROR					1.2+	3.5+	5.7+	5.0+

**SPEEDOMETER PINION**

STUDE.*	STEWART WARNER*	NO. OF TEETH
520087	448129	15
520088	448130	16
520089	448131	17
520090	448132	18

**TRANS. DRIVE GEAR**

STUDE.*	STEWART WARNER*	NO. OF TEETH
520083	447084	5

**TRANS. DRIVE GEAR**

STUDE.*	STEWART WARNER*	NO. OF TEETH
677743	EX.18853-L	4

**SPEEDOMETER PINION CHART FOR MODEL 2R5 & 2R6 WARNER T90B TRANSMISSION WITHOUT OVERDRIVE**

REAR AXLE RATIO	TIRE SIZE	9.00-13	6.00-16	6.00-16	6.50-16	7.00-16	7.50-16	8.25-16	7.10-15
	NO. OF PLY	4 & 6 PLY	4 PLY	6 PLY	6 PLY	6 PLY	8 PLY	10 PLY	4 PLY
		S.S.-S.T.	P.T.	P.T.	P.T.	P.T.	T.T.	T.T.	P.T.
4.09	PINION STUDE.*	520087	520087	520087	520087				520087
	% ERROR	1.7-	1.1+	1.9+	0.95-				0.9+

WITH

SPEEDOMETER PINION & ADAPTOR CHART FOR MODELS  
WARNER T9, T9A & T97 TRANSMISSION (FOUR SPEED)

USE PINION SLEEVE STUDE. NO. 630743

& PINION EXTENSION SHAFT

STUDE. NO. 675974 WHEN ADAPTORS ARE

REQUIRED (WITH TRANS. BAND BRAKES), 2R16, 2R17, 2R18

WARNER T9 TRANS.

SPEEDOMETER PINION

STUDE. *	STEMART NO. OF WARNER* TEETH
665106	106.323
664522	106.324
664524	106.325
664521	106.326
665108	106.327
665109	106.328

USE PINION SLEEVE STUDE.

NO. 678848 & PINION EXTEN

SION SHAFT STUDE. NO. 678847

WHEN ADAPTORS ARE REQUIRED

(WITH TRANS. BAND BRAKES)

-2R16, 2R17, 2R18, 2R19, 2R14

WARNER T9A & T97 TRANS.

STUDE. #	STEMART NO. OF WARNER* TEETH
636131	90105

SPEEDOMETER ADAPTOR

STUDE. #	STEMART WARNER RATIO
1 675975	666-F-8215
2 675976	666-F-8653
3 675977	666-F-8974
4 675978	666-F-9615
5 675979	666-F-104
6 675980	666-F-1143
7 675981	666-F-1213
8 675982	666-F-1250
9 675983	666-F-1284
10 675984	666-F-1393
11 675985	666-F-144

USE PINION SLEEVE

STUDE. NO. 664523

WHEN EXTENSION IS

NOT REQUIRED

TIRE DATA

TIRE SIZE	NO. OF PLY	TIRE SIZE	NO. OF PLY	REV. PER MILE
7.00-17	6	7.00-17	6	642
7.50-17	6	6.50-20	6	606
32 X 6	8	7.00-20	8	587
32 X 6	10	7.50-20	10	564
34 X 7	10	7.50-20	10	564
36 X 8	12	8.25-20	10	547
38 X 9	14	10.00-20	10	520
12.00-20	14	11.00-20	12	491
12.00-20	14	12.00-20	14	473

REAR AXLE RATIO	9.00-13	6.00-16	6.00-16	7.00-16	6.00-16	6.50-16	7.00-16	7.50-16	8.25-16	9.00-16	11.00-16	11.00-16	12.00-16	12.00-16	11.00-15
4.09	4.09	3.8+	3.8+	3.8+	3.8+	3.8+	3.8+	3.8+	3.8+	3.8+	3.8+	3.8+	3.8+	3.8+	4 PLY
4.55	4.55	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4 PLY
4.56	4.56	4.95+	4.95+	4.95+	4.95+	4.95+	4.95+	4.95+	4.95+	4.95+	4.95+	4.95+	4.95+	4.95+	4 PLY
4.82	4.82	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4 PLY
4.857	4.857	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4 PLY
5.71	5.71	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4 PLY
4.89	4.89	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4.05+	4 PLY
REAR AXLE RATIO	7.00-17	6.50-20	7.00-20	7.00-20	7.50-20	7.50-20	8.25-20	8.25-20	9.00-20	10.00-20	11.00-20	11.00-20	12.00-20	12.00-20	11.00-15
5.14	5.14	3.0+	3.0+	3.0+	3.0+	3.0+	3.0+	3.0+	3.0+	3.0+	3.0+	3.0+	3.0+	3.0+	4 PLY
5.66	5.66	3.7+	3.7+	3.7+	3.7+	3.7+	3.7+	3.7+	3.7+	3.7+	3.7+	3.7+	3.7+	3.7+	4 PLY
6.13	6.13	4.3+	4.3+	4.3+	4.3+	4.3+	4.3+	4.3+	4.3+	4.3+	4.3+	4.3+	4.3+	4.3+	4 PLY
6.6	6.6	5.4+	5.4+	5.4+	5.4+	5.4+	5.4+	5.4+	5.4+	5.4+	5.4+	5.4+	5.4+	5.4+	4 PLY
6.6	6.6	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	4 PLY
6.6	6.6	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	4 PLY
6.6	6.6	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	4 PLY
6.8	6.8	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	4 PLY
5.83	5.83	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	4 PLY
6.2	6.2	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	6.0+	4 PLY