

# Service Bulletin

JUNE

1957

NO. 325

SOUTH BEND 27, INDIANA

## Studebaker and Packard Clipper

### STATION WAGON TAIL GATE RATTLE - STUDEBAKER and PACKARD CLIPPER MODELS

*Please record this article on the Service Bulletin reference page of your 1957 Studebaker and Packard Clipper Supplements.*

Rattles at the station wagon tail gates are often a result of the gate or gates being loose within the opening. This condition can be eliminated by installation of shims under the tail gate bumper blocks. The shim, Part No. 1314621 is 1/16" thick and a sufficient number of shims should be installed so that in a closed position, the tail gate contacts the bumpers. When installing the shims, distribute the shims at both sides as required to maintain the proper alignment of the gate within the opening.

In some instances, it may be necessary to cut out the center portion of the shim if there is interference between the edge of the shim and the bumper block retaining screws.

### STEERING GEAR LUBRICANT LEVEL - 57B, 57H, and 57L MODELS - WITH STANDARD STEERING

*Please record this article on the Service Bulletin reference page of your 1957 Studebaker and Packard Clipper Supplements.*

To properly check the lubricant level and to prevent overfilling of the unit, check the level by removing one of the lower top cover retaining screws. The oil level should be at the edge of the screw hole. Filling the unit to the level of the filler hole, although causing no harm to the unit, may result in a lubricant leak at the jacket immediately above the housing.

### VALVE SPRING RETAINERS - 55th and 56th SERIES PACKARD and 1956 STUDEBAKER GOLDEN HAWK ENGINES

*Please record this article on the Service*

## In this issue

### STUDEBAKER and PACKARD CLIPPER

	Page
Hard Starting With Hot Engine - 1957 Golden Hawk and Packard Clipper Models . . . . .	2
Rear Shock Absorber Noise - 1957 Studebaker and Packard Clipper Models . . . . .	4
Station Wagon Tail Gate Rattle - Studebaker and Packard Clipper Models . . . . .	1
Steering Gear Lubricant Level - 57B, 57H, and 57L Models . . . . .	1
Twin-Traction Rear Axle Assemblies - All Passenger Cars and Trucks . . . . .	3
Valve Spring Retainers - 55th and 56th Series Packard and 1956 Golden Hawk Models . . . . .	1

### STUDEBAKER

Bumper Bar Distortion - 1957 Studebaker Models . . . . .	4
Right Rear Fender Rumble - Scotsman Models . . . . .	4
Steering Wheel Shake - 57B and 57H Models . . . . .	4

### PACKARD CLIPPER

Erratic Action of Torsion-Level Suspension - 55th and 56th Series Packard Models . . . . .	5
Service Bulletin Correction - 1957 Packard Clipper Time Guide . . . . .	5
Time Allowance - Steering Post Bracket and Brace Installation - Packard Clipper Models . . . . .	5

### TRUCKS

Correction to Supplement - 3E Series Trucks . . . . .	5
New Location of Spare Tire - Models Equipped with Pickup Body . . . . .	5

*Bulletin reference page at the end of the Engine - Sky Power 352 section of your 1956 Studebaker Passenger Car Shop Manual and on the Notes page of your 1955-56 Packard Shop Manual.*

Valve Spring Retainer, Part No. 6492077 has been released for use on both intake and exhaust valves of all 55th and 56th Series Packard and 1956 Studebaker Golden Hawk engines. Valve

Spring Retainer, Part No. 440511 which was originally released has been cancelled and the Parts Depots will supply only the latest Part No. 6492077.

When service work requires the removal of valves, springs, or retainers, we suggest that you check the retainers and, if not of the latest type, that they be replaced. Service stock of stripped engine assemblies or cylinder head assemblies should also be checked and the retainers changed if necessary before the unit is put into service.

The type of retainer can be readily determined by means of the file test. The latest type, Part No. 6492077 has been hardened and cannot be filed.

### HARD STARTING WITH HOT ENGINE - 1957 GOLDEN HAWK and PACKARD CLIPPER MODELS

Please record this article on the Service Bulletin Reference page of your 1957 Studebaker and Packard Clipper Supplements.

On a complaint of hard starting or prolonged cranking to start a hot engine on models equipped with a supercharger, modifying the carburetor and air chamber cover as outlined below will provide considerable improvement.

1. Remove the carburetor air chamber cover and remove the carburetor from the engine.
2. Drill a  $7/64$ " hole into the vent passage at the location shown in Fig. 1. Then, drill two  $5/64$ " holes in the throttle body at the locations shown in Fig. 2. It is not necessary to disassemble the carburetor to drill the holes but care should be taken to prevent chips from entering the carburetor.
3. If the air chamber cover does not have a

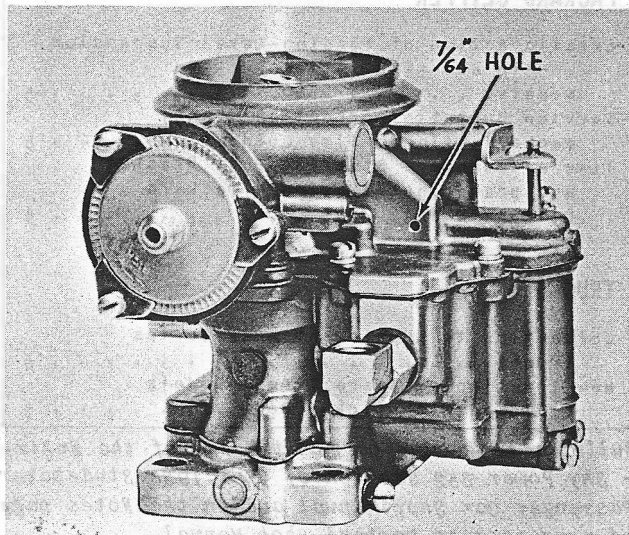
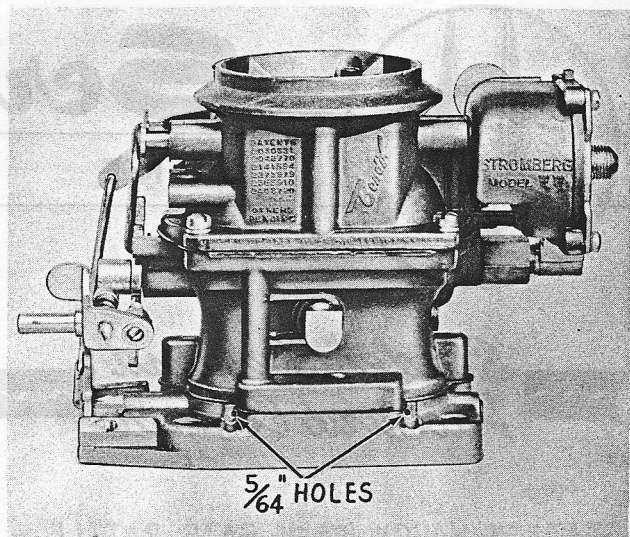


Fig. 1

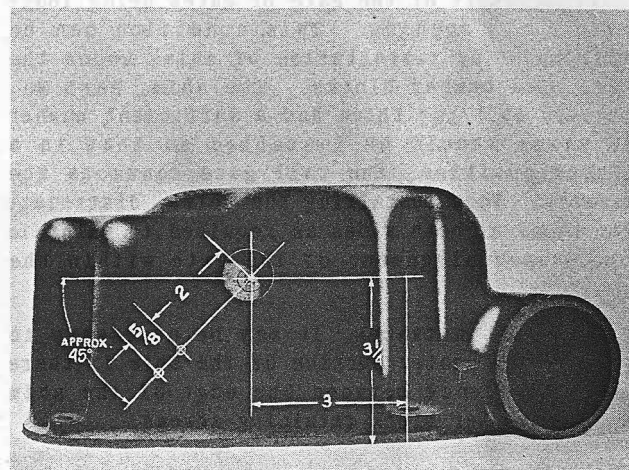


$5/64$  HOLES

K-360

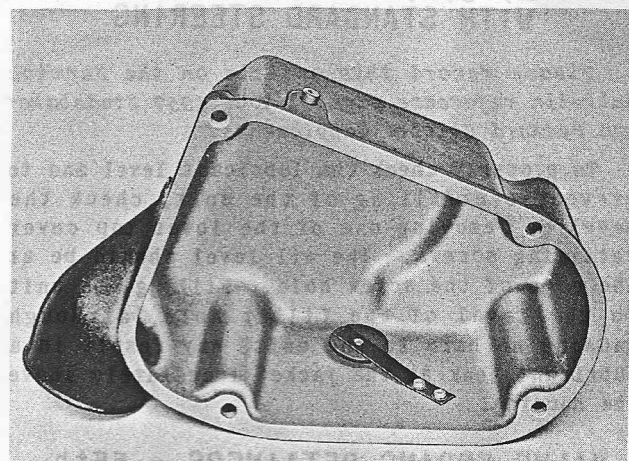
Fig. 2

vent valve (flapper valve) locate and drill a 1" hole and two  $5/32$ " holes in the air chamber cover at the locations shown in Fig. 3. Install the Air Chamber Vent Valve Assembly, Part No. 1542765 in the cover (see Fig. 4), placing two small flat washers be-



K-361

Fig. 3



K-362

Fig. 4

K-359

tween the spring and the cover and using two self-tapping screws, Part No. G453113. After the valve is installed, bend the spring as required to obtain an opening of 1/4" between the cover and the highest point at the outer edge of the valve.

4. Install the carburetor and the cover assembly. Carefully adjust the carburetor idle mixture to obtain a smooth idle with a hot engine running at approximately 575 rpm.

The time required to perform this modification is approximately 1.2 hours.

### TWIN-TRACTION REAR AXLE ASSEMBLIES - ALL PASSENGER CARS and TRUCKS

*Please record this article on the Service Bulletin reference page of your 1957 Studebaker and Packard Clipper Supplements and 3E Series Truck Supplement.*

A change has been made in the Twin-Traction differential; the cone-type clutches have been replaced by disc-type clutches. Fig. 5 illustrates the exploded view of the latest type.

The disassembly and reassembly procedure with the exception of the clutches is the same for both types. When reassembling the disc type, the lugs of the plates are placed in the notches provided in the housing. Note the relationship of the discs to the plates; the two friction discs are placed between the plates.

As you know, axle assemblies having the Twin-Traction differential are identified by a letter "T" stamped on a brass tag which is attached to one of the housing cover screws. The axle assembly having the latest type disc-type clutches has the letters "TD" stamped on this tag.

3E Series trucks produced on and after the following serial numbers have the disc-type clutches:

RATIO	SERIAL NUMBERS
3.73	E5-124101 E6-16084 E7-8689
4.09	E5-124276 E6-16188 E7-8841
4.27	E5-124386 E6-16281 E7-8958
4.89	E5-124590 E6-16396 E7-9103
4.55	Will be furnished as soon as available.

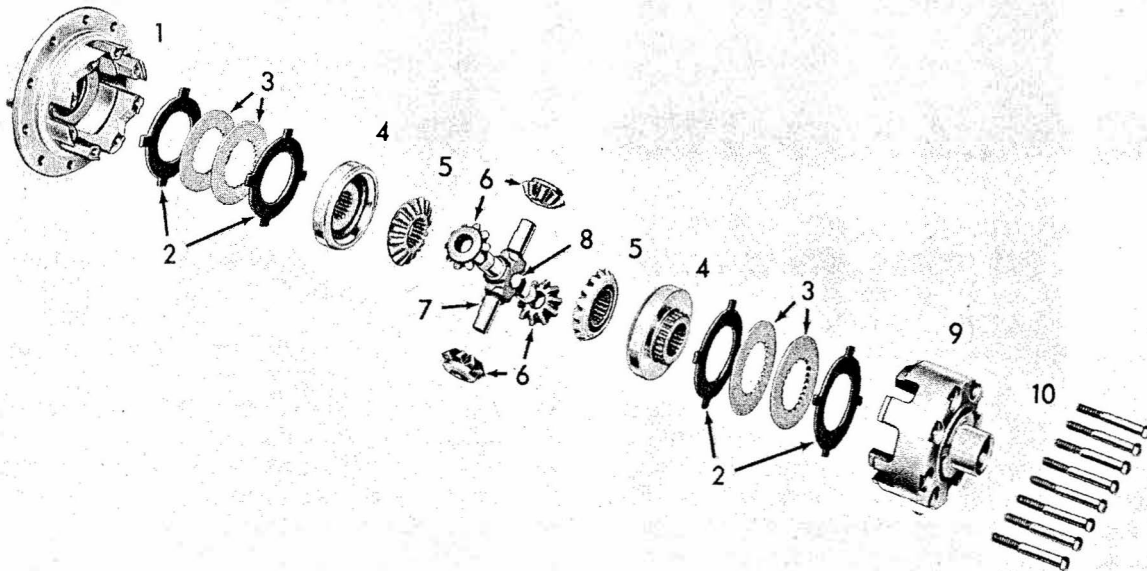


Fig. 5

- |                                |                    |                 |
|--------------------------------|--------------------|-----------------|
| 1. Case Half                   | 5. Bevel Side Gear | 8. Thrust Block |
| 2. Clutch Plates               | 6. Pinions         | 9. Case Half    |
| 3. Clutch Discs                | 7. Cross Pins      | 10. Case Screws |
| 4. Differential Side Gear Ring |                    |                 |

N-147

## REAR SHOCK ABSORBER NOISE - 1957 STUDEBAKER AND PACKARD CLIPPER MODELS

*Please record this article on the Service Bulletin reference page of your 1957 Studebaker and Packard Clipper Supplements.*

Low speed rear shock absorber noise or rattle can be corrected by the replacement of the mounting bushings and sleeves. They have been released for service under the following part numbers:

419932	Bushing
1544479	Bushing Sleeve - Lower
1544480	Bushing Sleeve - Upper

Although in some instances new bushings may not eliminate the condition completely, they will usually reduce the noise to an acceptable level.

To remove the bushings, remove the shock absorber and simply press out the old bushing and sleeve. To install, first, press in the new bushing and then the sleeve. At the lower mounting, make sure the shock absorber mounting eye is offset on the sleeve as shown in Fig. 6. Shock absorber with a gravel shield must be installed with the shield toward the front of the car. Therefore, this must be considered when installing the sleeve so that it is offset in the right direction to be properly positioned when installed.



Fig. 6

0-074



## STEERING WHEEL SHAKE - 57B and 57H SEDAN MODELS

*Please record this article on the Service Bulletin reference page of your 1957 Studebaker Supplement.*

If a condition of steering wheel shake is encountered in a 57B or 57H model, it can be corrected by the installation of additional brace rods and change in mounting of the steering column at the instrument board in the same manner as outlined for the Packard Clipper models in Service Bulletin No. 324.

The time required for the modification was not included in Bulletin No. 324. The operation

number assigned and the time allowance are:

S42 - Steering Post Bracket and Brace Rods Installation (includes aligning steering wheel to center of high spot and toe-in adjustment)	2.5 hours
---	-----------

Please note this operation in the Steering section of your 1957 Studebaker Time Guide.

## BUMPER BAR DISTORTION - 1957 STUDEBAKER MODELS

*Please record this article on the Service Bulletin reference page of your 1957 Studebaker Supplement.*

New type spacers, Part No. 311446X2 have been released for installation between the inner surface of the bumper face bar and the support brackets to prevent distortion of the bar when the attaching bolts are tightened. Distortion of the bar has in some cases caused cracking of the plating and resulted in rusting in the area around the attaching bolts.

Therefore, any time the bumper face bar is replaced, the new type spacers should be installed. Four spacers are used at the front bumper and three at the rear bumper.

The new type spacers eliminate the use of Spacer, Part No. 1541769 which was previously used.

## RIGHT REAR FENDER RUMBLE - SCOTSMAN MODELS

*Please record this article on the Service Bulletin reference page of your 1957 Studebaker Supplement.*

On complaints of the right rear fender oil-canning or rumbling on Scotsman models, install a brace between the fender and the wheel housing panel. This brace entered production with Serial No. G-1396759.

The brace is fastened to a weld bolt which is located above and slightly to the rear of the wheel. This bolt is part of the assembly in production and is used for the same purpose on other models. Therefore, it is necessary only to procure the brace and the attaching nut and washers. The part numbers are:

1320017-P - Brace	G120214 - Lock Washer
G446363 - Plain Washer	G120376 - Nut

To install the brace, slip the end with the elongated hole over the weld bolt, then, install

the nut and washers. Before tightening the nut, push the brace outward so that the end bears firmly against the fender. Then, tighten the nut securely.



### TIME ALLOWANCE - STEERING POST BRACKET AND BRACE ROD INSTALLATION - PACKARD CLIPPER MODELS

*Please record this article in the Steering section of your 1957 Packard Clipper Time Guide.*

In Service Bulletin No. 324 (May) we issued instructions for installation of the steering post bracket and brace rods to correct a condition of steering wheel shake in the 57L models. The following operation number and time allowance have been established for this installation:

S42 - Steering Post Bracket and Brace Rods Installation (includes aligning steering wheel to center of high spot and toe-in adjustment) 2.5 hours

### ERRATIC ACTION OF TORSION-LEVEL SUSPENSION - 55th and 56th PACKARD MODELS

*Please record this article in the Suspension and Steering section of your 1955-56 Packard Service Manual.*

Because the control switch is responsible for the action of the Torsion-Level system, it is natural to assume that any erratic action of the system is caused by a faulty control switch. However, it can also be a result of loose bushing retaining nuts at the upper and lower support arm inner bracket assemblies.

The action may be normal when the car is driven on a relatively smooth road. But, over a rough road, after a severe brake application or quick release of the accelerator, it will move up or down to the limit of its travel and will not return to level or will take considerable time to return. It may also "hunt" in seeking the level so that it continues to override the normal level position.

To correct the condition, first set the Torsion-Level system at normal height; without passengers and not more than normal load in the trunk. Then, tighten the nut at each end of the inner bracket of the upper and lower support arms at both sides to make certain that the inner sleeve of each bushing is bottomed and locked securely.

It is also advisable to check the Compensator

Assembly retaining nuts to make sure they are properly torqued. Torque to specifications outlined in the 1955-56 Packard Service Manual, Page 18, Fig. 53 of the Suspension and Steering section.

### SERVICE BULLETIN CORRECTION

In Service Bulletin #323 (April) under Time Allowance Changes - 1957 Packard Clipper Time Guide, the time for Operation R100 - Radiator Core, R & R or install new was stated incorrectly. The time should be 0.9 hours instead of 1.9 hours as printed.



### CORRECTION TO SUPPLEMENT - 3E SERIES TRUCKS

On page 23 in Figure 31 of the 3E Series Trucks Supplement the 2nd and 3rd speed synchronizer sleeve (Item 24) is shown in the wrong position. In its correct position, the shoulder at the inner diameter of the sleeve would be toward the main drive pinion or front of the transmission.

Please make a note to this effect on the illustration.

### NEW SPARE TIRE LOCATION - MODELS WITH PICKUP BODY

Recently a new location for the spare tire was released as a factory installed option for trucks equipped with a pickup body. At the optional location, the tire is mounted at the front wall of the body (see Fig. 7). This can very readily be adapted to prior models for owners desiring this "in the box" location.

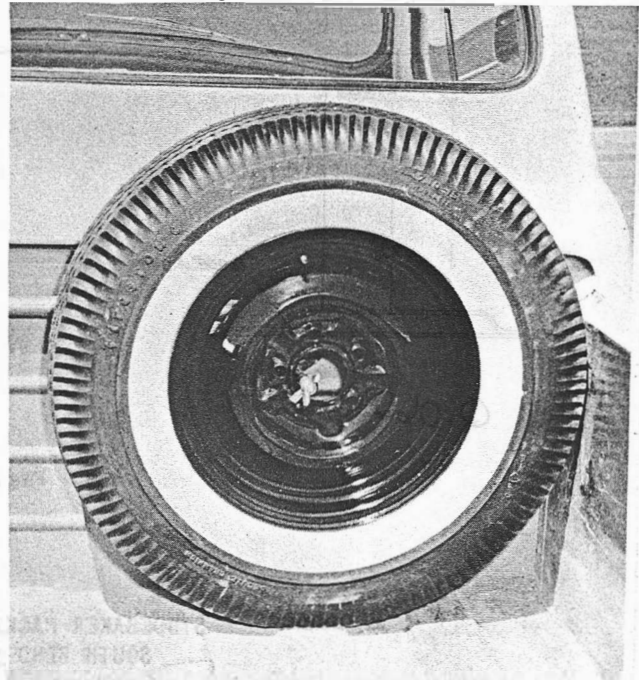


Fig. 7

Q-061



The parts required are as follows:

- 293805 - Hold-down Bolt
- 293807 - Hold-down Lug
- 41X557G - Plain Washer
- G144235 - Wing Nut
- 1654669 - Hold-down Bolt Reinforcement Plate
- G180075 - Reinforcement Plate Bolt - 2 Req'd.
- G120376 - Reinforcement Plate Bolt Nut - 2 Req'd.
- G120638 - Reinforcement Plate Bolt Lock Washer - 2 Req'd.
- 1654668 - Spare Tire Rest Bracket
- G144811 - Rest Bracket Screw (#10) - 2 Req'd.

Drill the front wall of the pickup body at the locations indicated in Fig. 8. Install the reinforcement plate and install the hold-down bolt in the lower set of holes. Drill two holes for the rest bracket retaining screws at the locations shown in Fig. 8 and install the bracket.

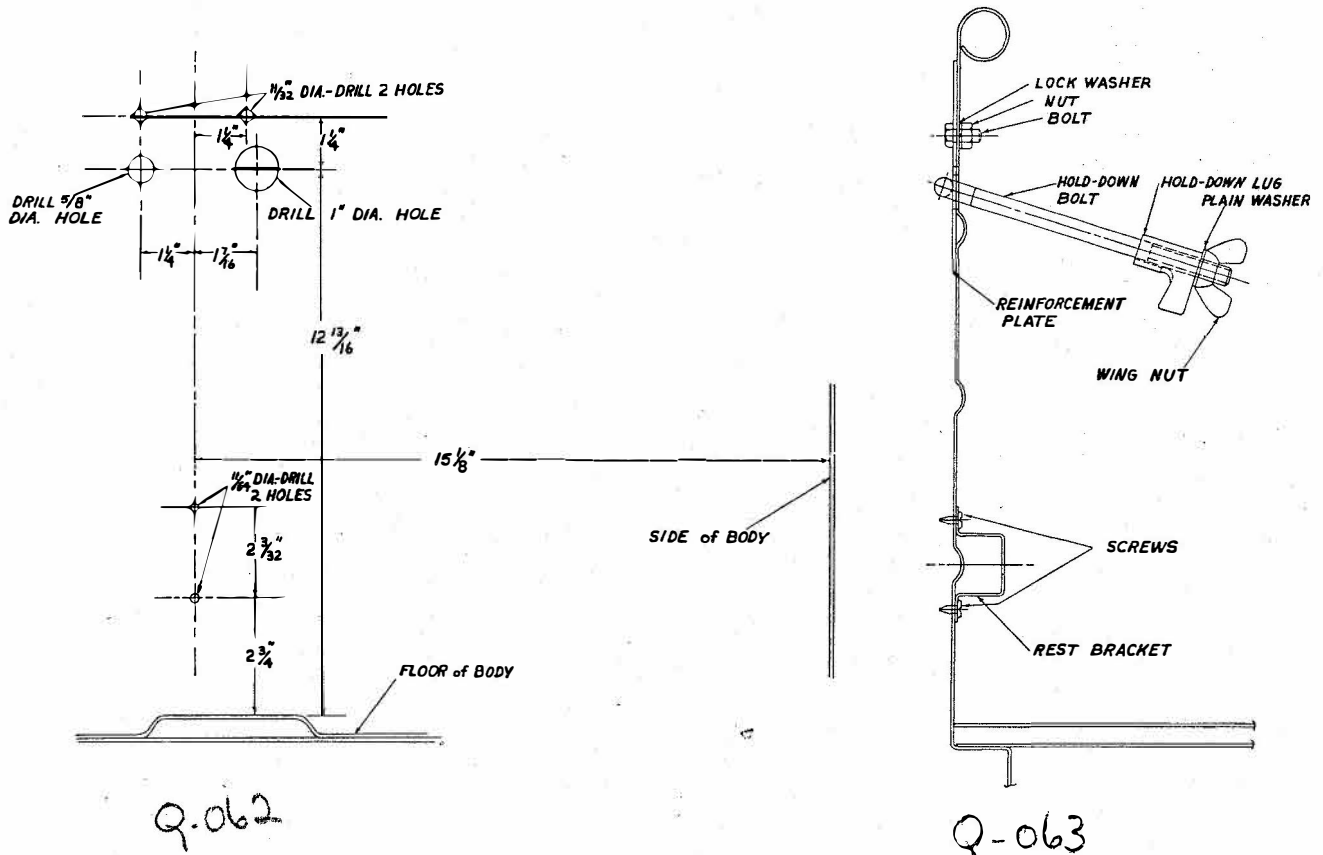


Fig. 8

STUDEBAKER-PACKARD CORPORATION  
SOUTH BEND 27, INDIANA