

SECTION 5

EXHAUST SYSTEM

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S. 1 - GENERAL DESCRIPTION.

The exhaust system is comprised of a cast-iron exhaust manifold, downpipe, intermediate pipe and silencer.

Commencing at Chassis No. 50/0857 U.S.A. and 50/0929 other territories, an enlarged boot (see Section 'B') was incorporated into the body which necessitated a change to both the intermediate pipe and silencer.

Later models still, have been fitted (and still are being fitted) with a gas-flowed fabricated exhaust manifold which is quieter running than the earlier cast manifold.

S. 2. - EXHAUST MANIFOLD.

To Remove.

Cast Type

1. Remove either the 3 Allen screws or the 3 nuts from the downpipe flange joint. Remove the gasket if fitted.
2. Remove the 2 nuts securing each flange to the cylinder head (8 nuts in all). Pull the manifold off the studs and remove from the car.

Fabricated Type.

1. From below the car, support the engine on a suitable jack, then remove left-hand engine mounting.
2. Disconnect the 'Y' box joint of the manifolds with the intermediate pipe.
3. Remove the generator (see Section 'M').
4. Remove the 2 nuts securing each flange to the cylinder head (8 nuts in all). Pull the manifolds, which are in two parts, off the studs and out of the engine compartment, twisting to clear the brake servo unit(s). It may be found more expedient to remove the servo unit(s).

To Replace.

Replacement for both types of manifold is a reversal of the removal procedure except that NO gasket should be fitted at the joint between the cast manifold and its downpipe. Instead, use Holts 'Firegum' as the jointing material, and bolt up immediately.

Use new gaskets at the cylinder head joints when refitting manifolds.

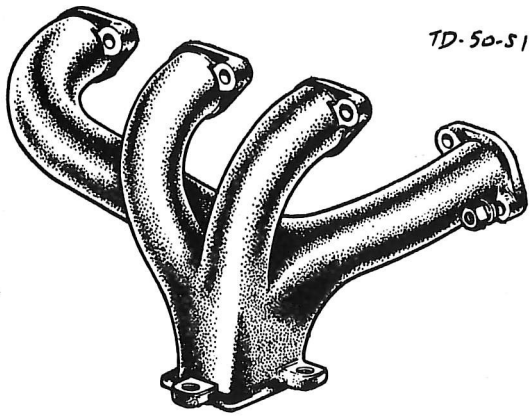


Fig. 1 CAST MANIFOLD

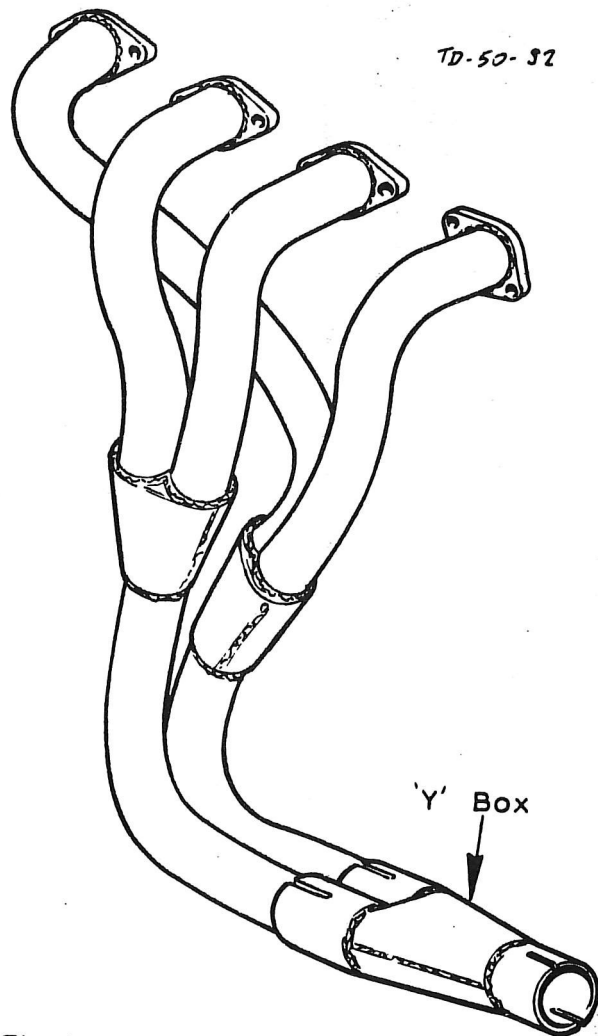


Fig. 2. FABRICATED MANIFOLD

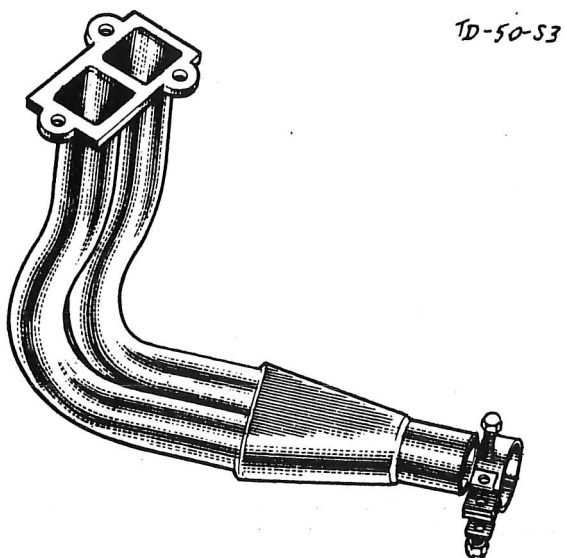


Fig. 3. DOWN PIPE

S. 3 - DOWNPIPE.

To Remove.

The downpipe, as a separate piece, is only fitted to engines with a cast manifold.

1. Remove the 3 Allen screws (or 3 nuts) from the downpipe to manifold flange joint. Remove and discard flange gasket.
2. From below the car, release clip securing downpipe to intermediate pipe and free downpipe from its location.

To Replace.

When replacing, which is a reversal of the removal procedure, use Holts 'Firegum' as the jointing material between manifold and downpipe flange.

S. 4 - INTERMEDIATE PIPE.

To Remove.

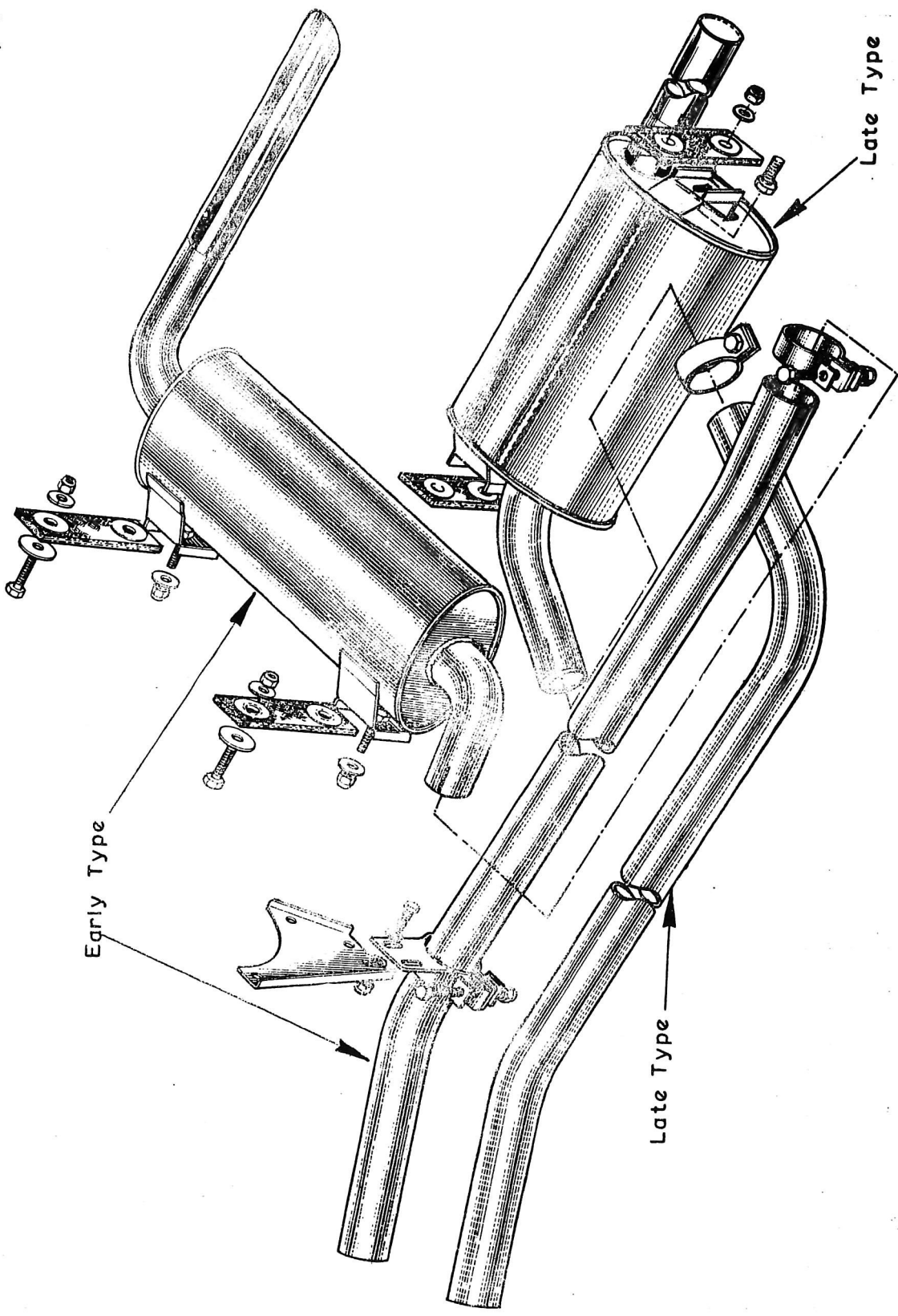
To remove the intermediate pipe it is first necessary to remove the silencer (Section 'S. 5), then proceed as follows:-

1. Disconnect the clip securing the intermediate pipe to the downpipe (with cast manifold), or to the 'Y' box (with fabricated manifold).
2. Release the support clip from the gearbox mounting bracket, then remove pipe.

To Replace.

1. Ensure correct pipe is fitted on replacement. Up to Chassis No. 50/0856 U.S.A., and 50/0928 other Territories use pipe (Part No. 50 S 003), and from Chassis No. 50/0857 U.S.A., 50/0929 other Territories use pipe (Part No. A50 S 003). Knock off support clip from discarded pipe and fit to new pipe. Note that 3 in. (7.6 mm.) must be cut from the front end of pipe A50 S 003 when used with fabricated manifold.
2. Secure forward end of pipe into its location, insert rear end of pipe into silencer. Mount silencer into its location (Section 'S.5').
3. Ensure adequate clearance throughout entire length of exhaust system, particularly in vicinity of brake pipes, then secure support clip to the gearbox mounting bracket, finally tightening all clips.

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INTERMEDIATE PIPES & SILENCERS

Fig. 4.

S.5. - THE SILENCER

To Remove

1. Release the clip securing the silencer to the intermediate pipe.
2. Remove the lower fixings securing the silencer to its insulators and pull out from its location.

To Replace

1. Ensure correct silencer is fitted on replacement. Both the silencer and the intermediate pipe were changed at the chassis numbers given in item '1' of Section 'S.4'.
2. Ascertain also that the insulators are in good condition before refitting silencer. The insulators were changed to accommodate the new silencer at the same chassis numbers mentioned in Section 'S.4'. See Service Parts List (Part No. 50 T 325B) for part numbers.
3. Insert forward end of silencer into the intermediate pipe, then secure silencer to its insulators. Ensure clearance between body and silencer, then tighten all fixings.

S.6. - SILENCER HEAT SHIELDS

Silencer heat shields are fitted to all current production cars and are recommended as an extra to all existing cars, to prevent the contents of the boot (trunk) from becoming contaminated by heat owing to the close proximity of the silencer to the underside of the body

To fit the shields, the following procedure should be adopted.

Longitudinal type

1. Remove the boot floor and the spare wheel. Remove and discard the felt from the silencer recess. The discarding of the felt is recommended as this will aid heat dissipation.
2. Scribe a mark on the underside of the boot floor to correspond with each end of the silencer. Disconnect the front and rear silencer fixings and lower the exhaust system until sufficient working clearance is obtained. Position blocks to support the system.
3. Position the heat shield (Part No. A050 S 0160) into the silencer recess (see Fig.5) so that it covers the scribe marks on the floor. The R/H edge of the heat shield should protrude below the boot floor by approximately .5 in. (12.7 mm.).
4. Mark the silencer recess (boot floor underside) using the holes, one at each corner of the shield, as a template. Drill a .25 in. (6.35 mm.) clearance hole at each mark.

5. The heat shield should now be bolted into the silencer recess; the assembly sequence of the fixings being: setscrew (Part No. XUFS 0416), washer (Part No. A04W 1606), heat shield, spacer (Part No. A050 S 0162), boot floor, washer (Part No. A04W 0904) and nut (Part No. YUFN 040F).
6. Refit the silencer to its fixings and ensure a MINIMUM clearance of .25 in. (6.35 mm.).
7. Finally, replace the spare wheel and boot floor.

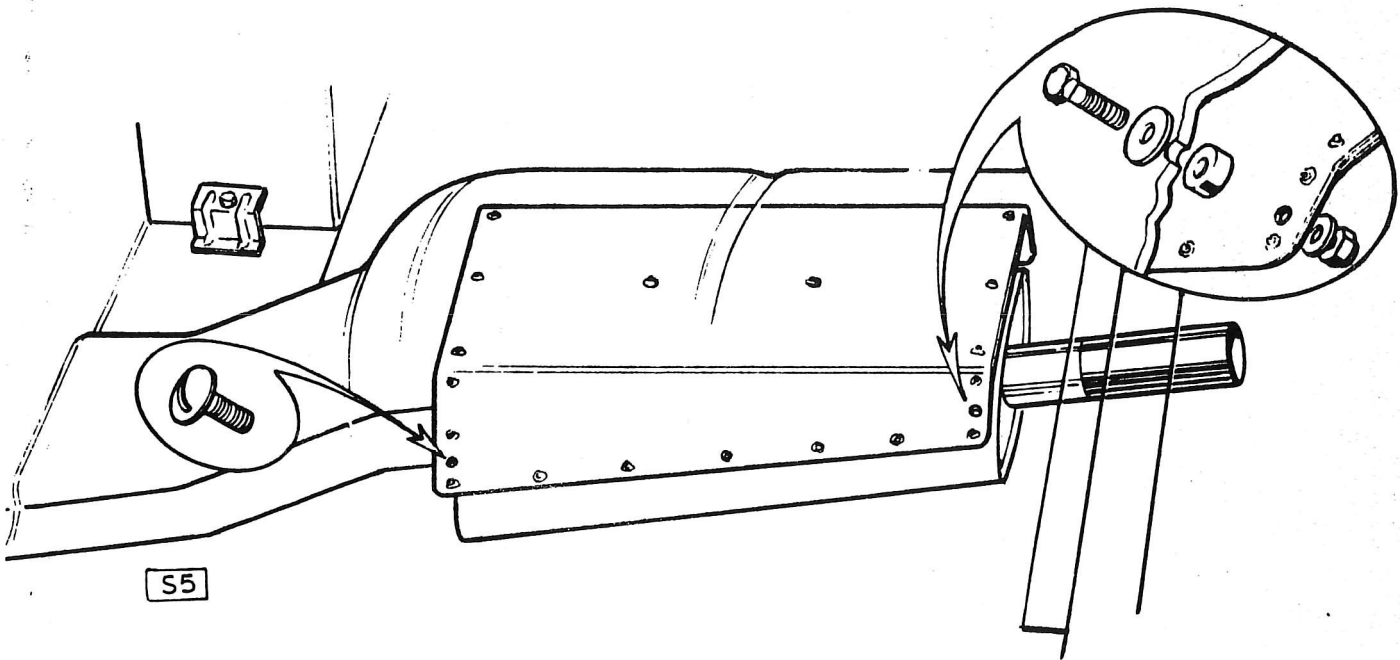


Fig. 5. VIEW OF LONGITUDINAL SHIELD THROUGH FLOOR

#### Transverse type

1. Remove the boot (trunk) floor and spare wheel. Remove and discard the felt from the silencer recess. It is recommended that the felt be discarded as this will aid heat dissipation.
2. Scribe a mark on the underside of the boot floor to correspond with each end of the silencer. Disconnect the two suspension straps from the front side of the silencer and lower exhaust system until sufficient working clearance is obtained. Place blocks beneath the system to act as supports.
3. Position the heat shield (Part No. A050 S 0161) into the silencer recess so that the silencer suspension straps pass through the cut-outs in the heat shield (see Fig. 6) and cover the marks scribed on the underside of the boot floor.
4. )
5. ) Read as given under 'Longitudinal type'.
6. )



7. Finally, replace the spare wheel and boot floor.

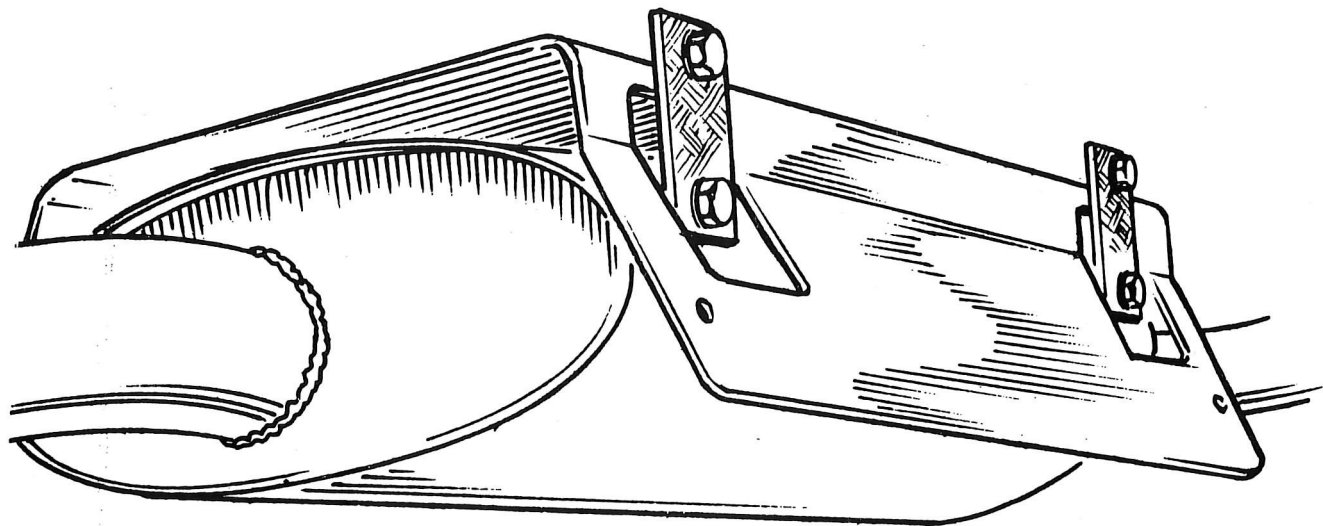


Fig. 6. VIEW OF TRANSVERSE SHIELD IN POSITION

