

EXHAUST SYSTEM PONTIAC

DESCRIPTION

The major units comprising the exhaust system on Pontiac models are: a welded Y type exhaust crossover pipe, exhaust pipe, muffler and muffler tail pipe. The tuning chambers in the muffler have been designed to provide maximum muffling performance.

The exhaust cross-over pipe attaches to both (right and left) bank exhaust manifolds. Connections to manifolds are of the ball type, thus eliminating need for gaskets. However, if a leak develops, an exhaust seal can be used at the connections.

A resonator is used on all exhaust systems. It is installed as shown in Figs. 8-15 through 8-17 and allows the use of mufflers with less back pressure and provides for optimum tuning characteristics of the exhaust system.

Muffler construction is of special material to accommodate the operating characteristics of each model to insure long life and quiet operation. All mufflers are crossflow design except those used with 428 engines which are in-line design. Station wagons with 428 engines use crossflow-type mufflers.

Exhaust pipes of all single exhaust systems are 2 1/4" diameter. Exhaust pipes of dual exhaust 400 engines (except station wagon) are 2" diameter. All 428 engines and station wagon models with dual exhaust use a 2 1/4" exhaust pipe. All dual exhaust

systems (except 428 HO engine) use a two piece left hand exhaust pipe.

Tailpipes of all single exhaust systems are 2 1/4" diameter except on station wagon models, and Catalina sedans and coupes with 3-speed manual transmission and 2 bbl carburetor which are 2" diameter. Tailpipes of all dual exhaust systems are 2" diameter except sedans and coupes with 428 engines, which are 2 1/4" diameter.

The exhaust system is supported by rubber mounted clamps which attach to the frame and keep the exhaust system in proper alignment.

The installation of these supports is very important. Improperly installed supports can cause annoying vibrations which are difficult to diagnose. Figs. 8-15 through 8-17 illustrate the correct location and installation of supports for all models.

SERVICE AND REPAIRS

SINGLE EXHAUST SYSTEM (Fig. 8-15)

EXHAUST MANIFOLD CROSSOVER PIPE— REMOVE AND REPLACE

1. Disconnect cross-over pipe at right and left manifold.

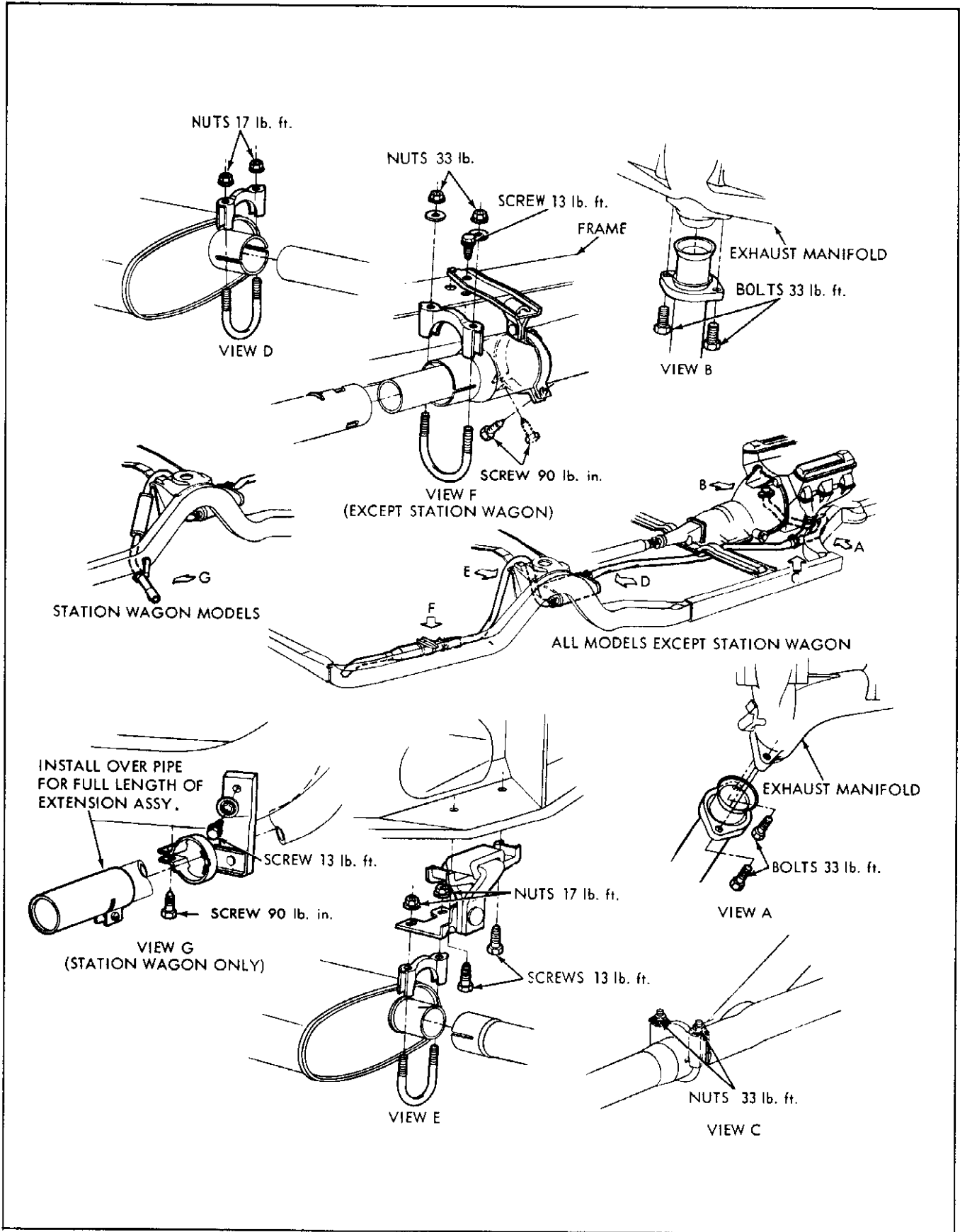


Fig. 8-15 Pontiac Single Exhaust System

2. Loosen cross-over pipe to exhaust pipe U-bolt clamp.

3. Loosen tail pipe front bracket clamp (behind muffler).

4. Loosen tail pipe or resonator assembly rear bracket clamp.

5. Move exhaust pipe, muffler and tail pipe rearwards.

6. Disconnect cross-over pipe from exhaust pipe and remove cross-over pipe assembly.

7. Install cross-over pipe by reversing above procedure. Tighten one (1) bolt finger tight with parts seated before tightening other bolt.

NOTE: No gaskets are used between cross-over pipe and manifolds. Tighten cross-over pipe to manifold bolts 30 lb. ft. torque. Tighten exhaust pipe to cross-over pipe clamp bolts to 30 lb. ft. torque.

EXHAUST PIPE—REMOVE AND REPLACE

1. Loosen cross-over pipe to exhaust pipe U-bolt clamp.

2. Loosen exhaust pipe to muffler front U-bolt clamp.

3. Loosen tail pipe front bracket clamp (behind muffler).

4. Loosen tail pipe or resonator assembly rear bracket clamp.

5. Move exhaust pipe, muffler and tail pipe rearwards.

6. Remove exhaust pipe from cross-over pipe and muffler.

7. To install, reverse above procedure. Coat inside diameter of exhaust pipe with sealer before installing on cross-over pipe. Coat inside diameter of muffler opening with sealer before installing exhaust pipe. Tighten exhaust pipe to cross-over pipe clamp bolts 30 lb. ft. torque. Tighten muffler to exhaust pipe clamp bolts 14 lb. ft. torque.

MUFFLER—REMOVE AND REPLACE

1. Loosen U-bolt clamp at front of muffler.

2. Loosen tail pipe front bracket clamp (behind muffler).

3. Loosen tail pipe or resonator assembly rear bracket clamp.

4. Move exhaust pipe, muffler and tail pipe rearwards.

5. Remove muffler.

6. Replace muffler by reversing steps. Coat muf-

fler openings with sealer before installing muffler over exhaust pipe and tail pipe. Tighten exhaust pipe to muffler front U-bolt clamp 14 lb. ft. torque. Tighten tail pipe front bracket clamp (behind muffler) 14 lb. ft. torque.

TAIL PIPE—REMOVE AND REPLACE

1. Jack rear of car up to allow clearance between frame and rear axle housing.

2. Loosen tail pipe front bracket clamp (behind muffler).

3. Loosen tail pipe or resonator assembly rear bracket clamp.

4. Remove tail pipe.

5. Replace tail pipe by reversing above procedure.

NOTE: Coat outside diameter of rear muffler opening with sealer before installing tail pipe. Tighten tail pipe front bracket clamp bolts 14 lb. ft. torque. Tighten tail pipe rear bracket screw 14 lb. ft. torque.

RESONATOR—REMOVE AND REPLACE

1. Loosen resonator assembly to tail pipe clamp.

2. Loosen resonator assembly rear bracket clamp.

3. Remove resonator assembly.

4. Replace resonator assembly by reversing removal procedure. Tighten resonator to tail pipe clamp to 30 lb. ft. torque. Tighten resonator to frame bracket 8 lb. ft. torque.

DUAL EXHAUST SYSTEM (Figs. 8-16 and 8-17)

EXHAUST PIPES—REMOVE AND REPLACE

1. Disconnect exhaust pipe from manifold, loosen front muffler clamp and slide exhaust pipe forward and remove.

2. To install, reverse above procedures.

NOTE: Coat inside diameter of front muffler opening with sealer before inserting exhaust pipe.

MUFFLER—REMOVE AND REPLACE

Follow same procedure used for single exhaust system.

TAIL PIPE—REMOVE AND REPLACE

Follow same procedure used for single exhaust system.

RESONATOR—REMOVE AND REPLACE

Follow same procedure used for single exhaust system.

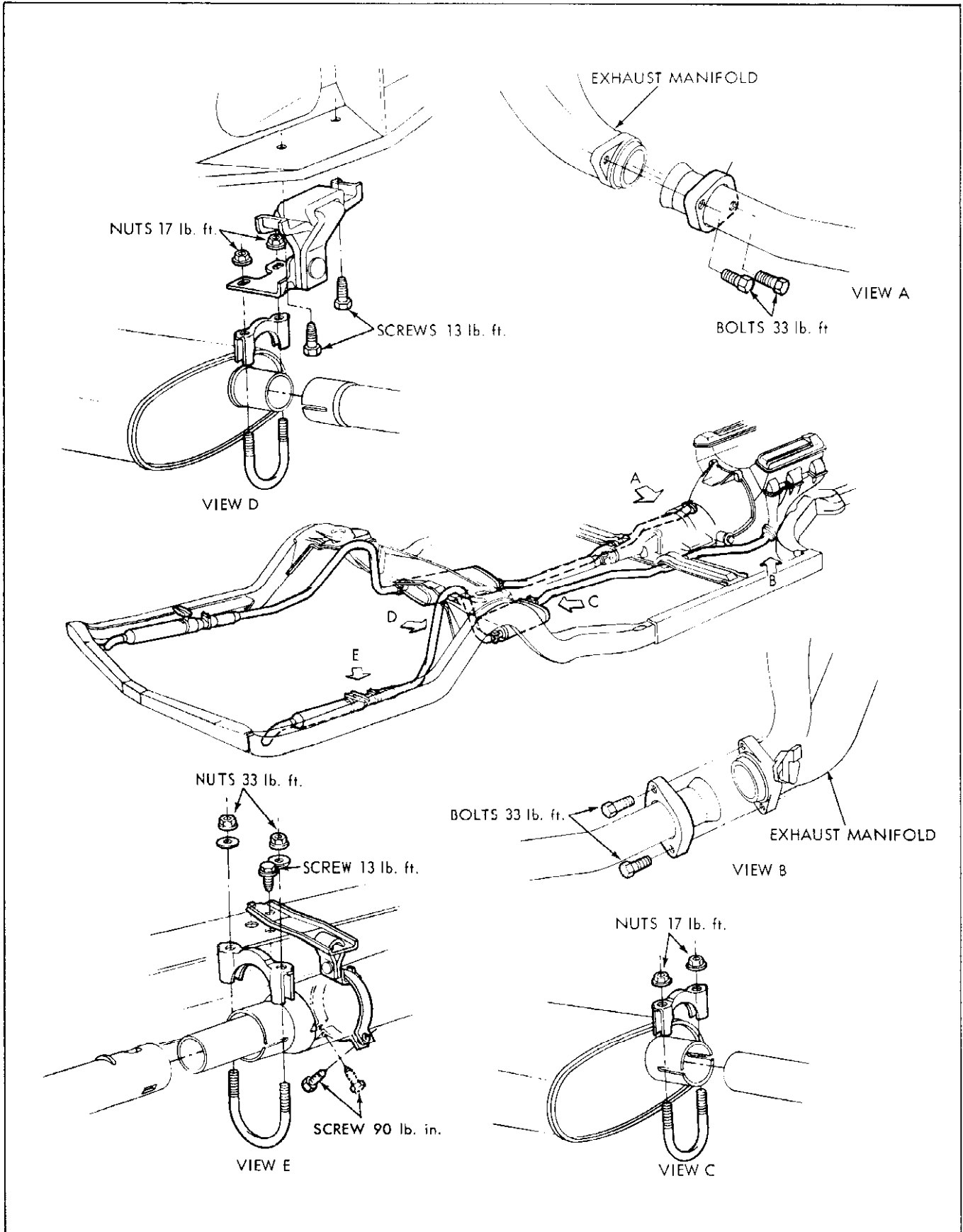


Fig. 8-17 Pontiac Dual Exhaust System - 428 - "376" Engine