

# EXHAUST SYSTEM

## ALL SERIES

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## DESCRIPTION AND OPERATION

### EXHAUST SYSTEM

All exhaust pipe connections to exhaust manifold are of the ball joint type to allow angular movement for alignment purposes. On all single exhaust systems, the rear end of the front exhaust pipe (crossover) assembly is also of the ball joint type. All other connections are of the slip joint type. No gaskets are used in the entire system (except L-6 Exhaust Manifold Gaskets).

The muffler is of the oval-shaped dynamic flow type having very low back pressure. The exhaust system is supported by free-hanging rubber mountings which permit free movement of the exhaust system but do not permit transfer of noise and vibration into the passenger compartment.

### MAJOR REPAIR

#### REMOVAL AND INSTALLATION OF EXHAUST SYSTEM PARTS

**NOTE:** *Exhaust System Sealer is to be applied to all slip joints before assembly.*

#### Removal and Installation of Muffler (All Series)

Check complete exhaust system and nearby body areas and trunk lid for broken, damaged, missing or

mispositioned parts, open seams, holes, loose connections, or other deterioration which could permit exhaust fumes to seep into the trunk or passenger compartment. Any damaged areas should be corrected immediately. To help insure continued integrity, exhaust system pipes and resonators rearward of the muffler must be replaced whenever a new muffler is installed.

1. Remove U-bolts and clamps from muffler inlet and outlet nipples.
2. Split muffler inlet nipple on opposite sides so that it is loose on inner pipe. Be careful not to damage inner pipe.
3. Disconnect front or intermediate exhaust pipe at forward end ball joint by removing bolts or nuts.
4. Pull exhaust pipe forward and twist to disengage from muffler. Lay exhaust pipe on floor.
5. Remove old muffler by pulling forward and twisting.
6. Subassemble exhaust pipe and new muffler on floor, tightening new U-bolt and nuts just snug so that muffler will move but will stay where moved.
7. Raise exhaust pipe-muffler subassembly into position and install new bolts or nuts at forward ball joint just snug.
8. Install new U-bolt and nuts at rear of muffler just snug.

9. Align muffler and exhaust pipe. See illustration that applies.

10. Tighten all bolts and nuts.

#### **Removal and Installation of Resonator (If Equipped)**

1. Remove tail pipe clamp bolt and spread clamp so that resonator-tail pipe assembly will slide through clamp.

2. Split resonator inlet nipple on opposite sides so that it is loose on rear exhaust pipe. Be careful not to damage exhaust pipe.

3. Slide old resonator to rear and then forward out of tail pipe clamp.

4. Install new hanger where necessary.

5. Install new resonator-tail pipe assembly.

6. Install new U-bolt and clamp. Install new tail pipe hanger bolt. Tighten all nuts so that resonator can be moved but will stay where moved.

7. Align resonator assembly. See illustration that applies.

8. Tighten all clamps.

#### **Removal and Installation of Front or Intermediate Exhaust Pipe**

1. Cut off exhaust pipe just forward of muffler nipple.

2. Remove U-bolt and clamp from forward muffler

nipple. Disconnect exhaust pipe at forward end ball joint by removing bolts or nuts.

3. Split stub end of exhaust pipe in muffler, being careful not to damage muffler nipple. Collapse stub end and remove.

4. Raise new exhaust pipe into position and install new bolts or nuts at forward ball joint just snug.

5. Install new U-bolt and clamp just snug.

6. Align exhaust pipe. See illustration that applies.

7. Tighten all bolts and nuts.

#### **Removal and Installation of Tail Pipe**

1. Raise car so that rear axle and frame are separated as far as possible.

2. Cut off tail pipe just rearward of muffler nipple.

3. Remove tail pipe clamp bolt and spread clamp. Remove old tail pipe.

4. Split stub end of tail pipe in muffler, being careful not to damage muffler nipple. Collapse stub end and remove.

5. Position new tail pipe over rear axle and into position.

6. Install new U-bolt and clamp. Install new tail pipe hanger clamp bolt. Tighten all nuts just snug.

7. Align tail pipe. See illustration that applies.

8. Tighten all nuts.

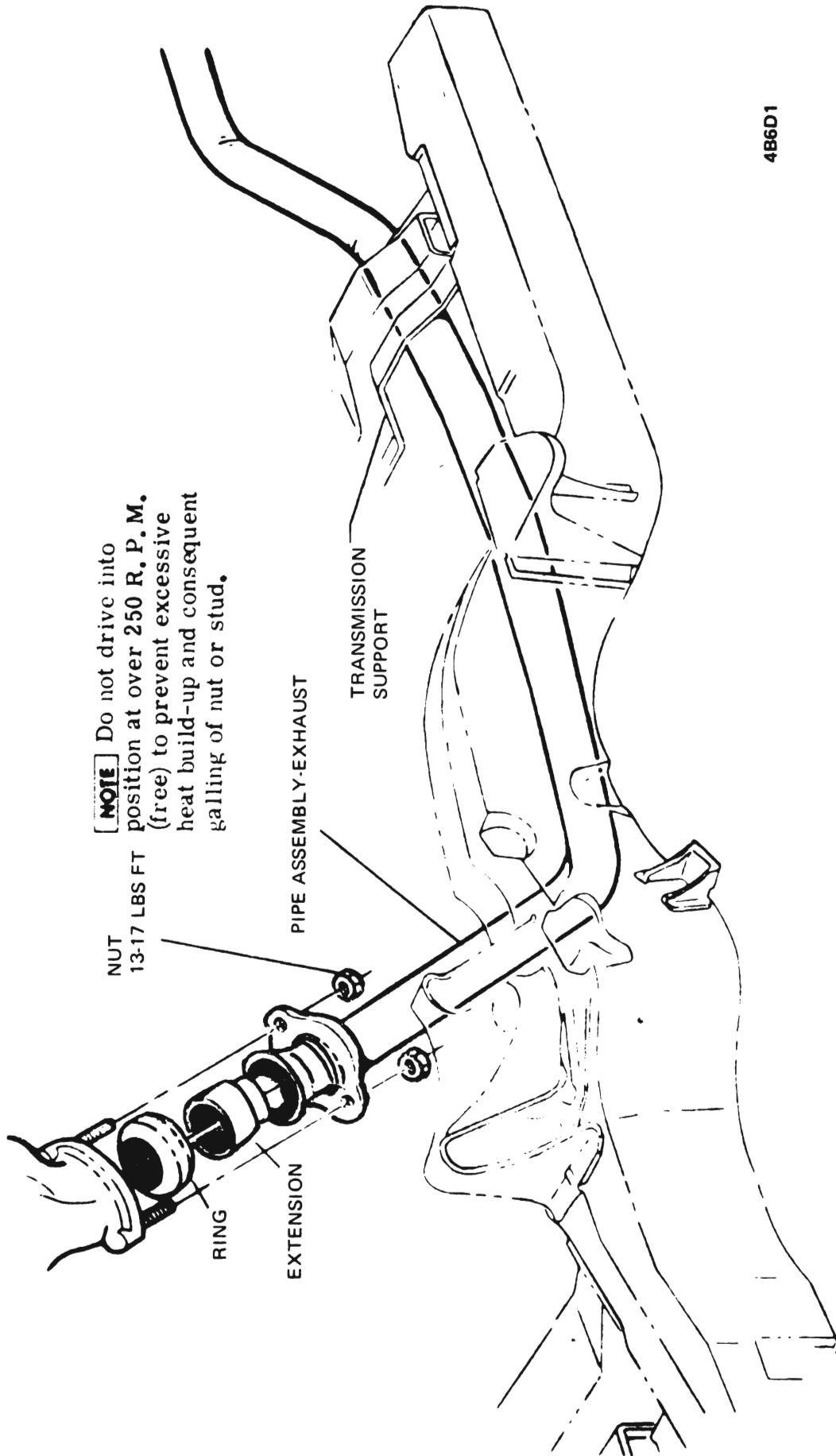


Figure 6D-1 "X" Series Exhaust Pipe (L-6 Only)

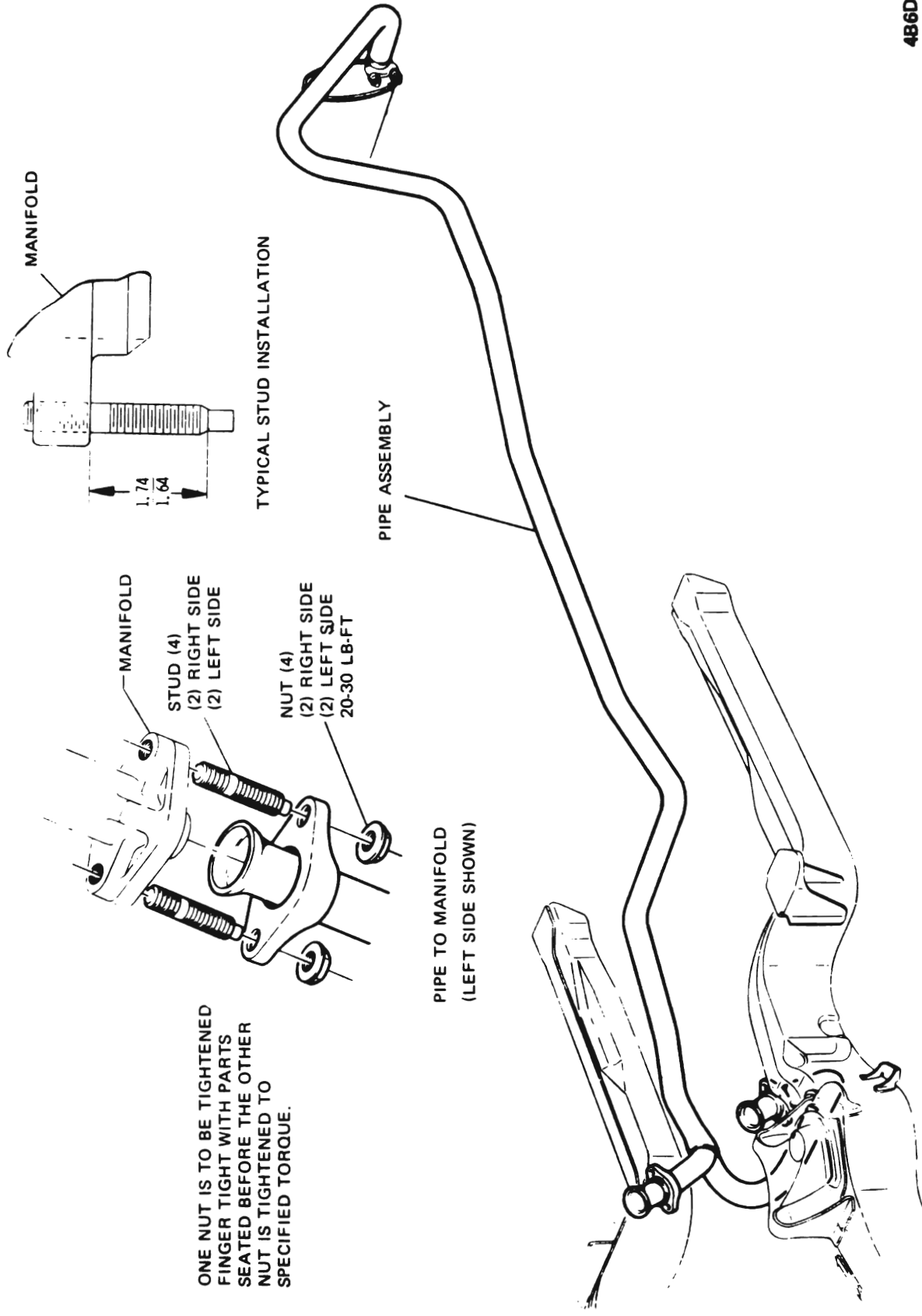


Figure 6D-2 "X" Series Exhaust Pipe (V-8 Only)

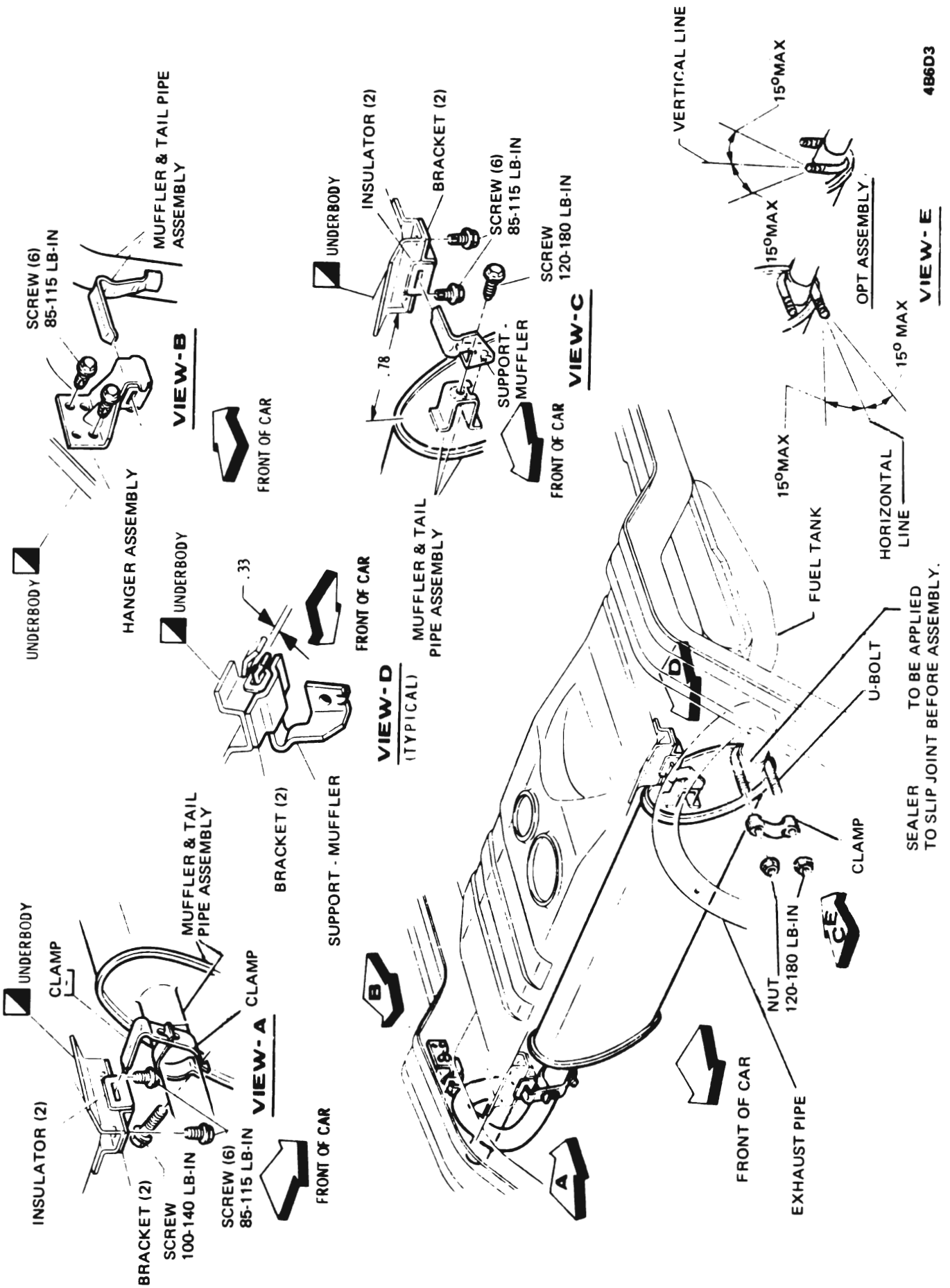
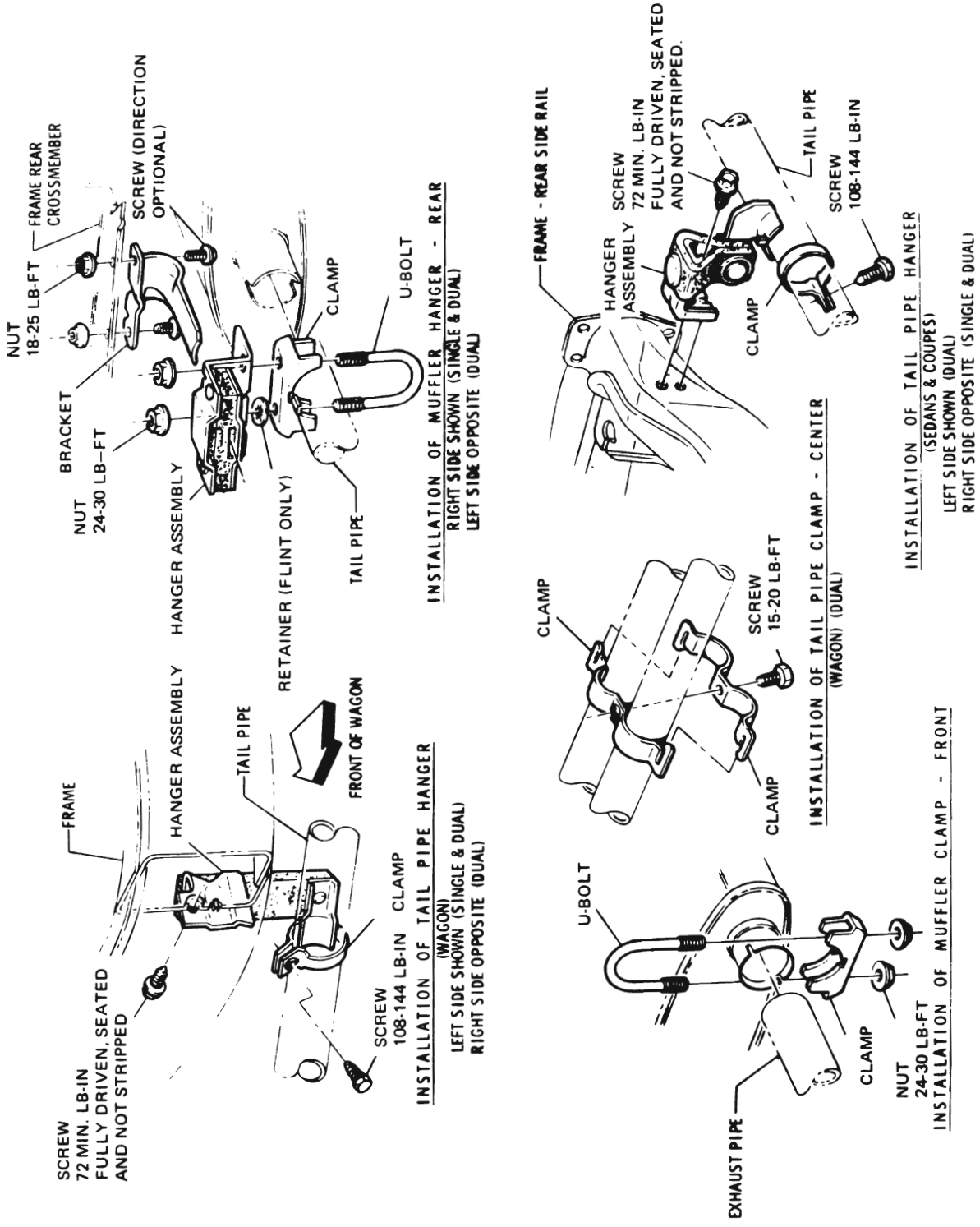


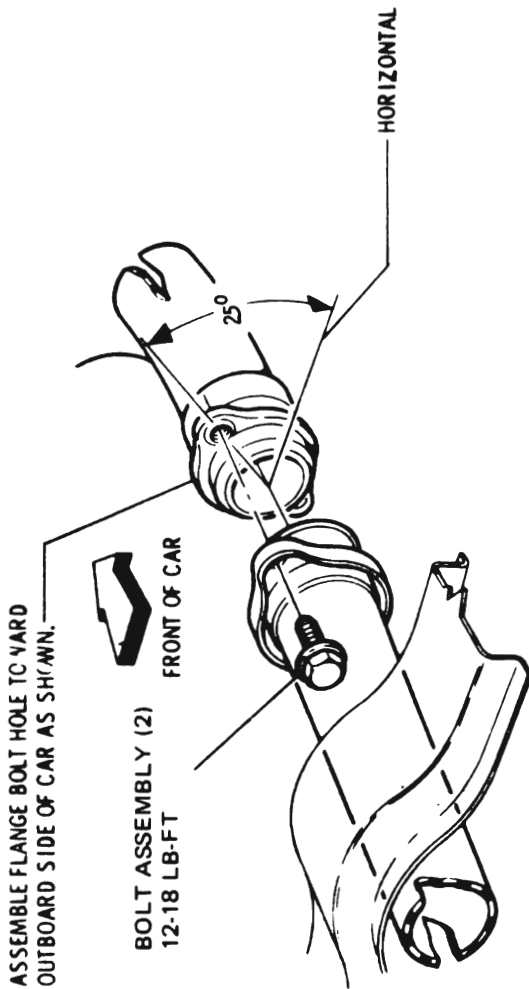
Figure 6D-3 "X" Series Muffler and Tailpipe Assembly (All)



THE COMPLETE SYSTEM MUST HANG FREE AND WITHOUT BIND ON ITS RUBBER HANGERS. SEALER TO BE APPLIED TO ALL SLIP JOINTS BEFORE ASSEMBLY.

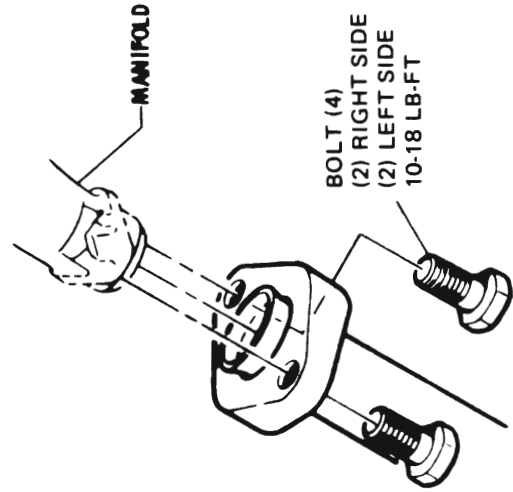
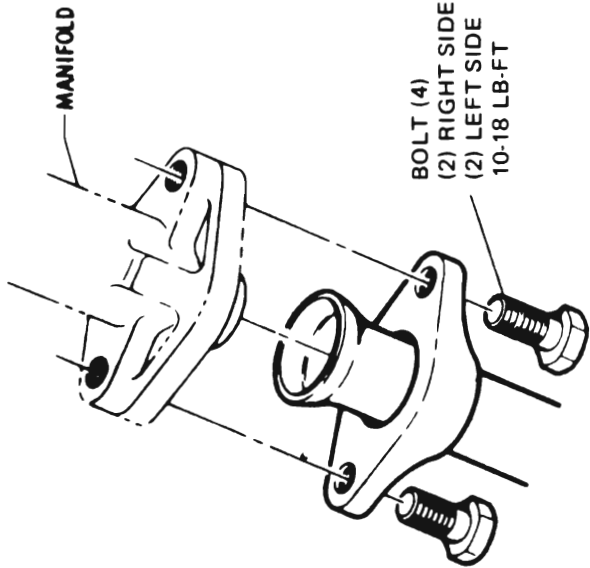
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Figure 6D-4 "A" Series Exhaust System Attaching Parts



INTERMEDIATE PIPE TO FRONT PIPE

SEALER TO BE APPLIED TO ALL SLIP JOINTS BEFORE ASSEMBLY.



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Figure 6D-5 A-B-C-E Series Exhaust Pipe to Manifold and Intermediate Pipe

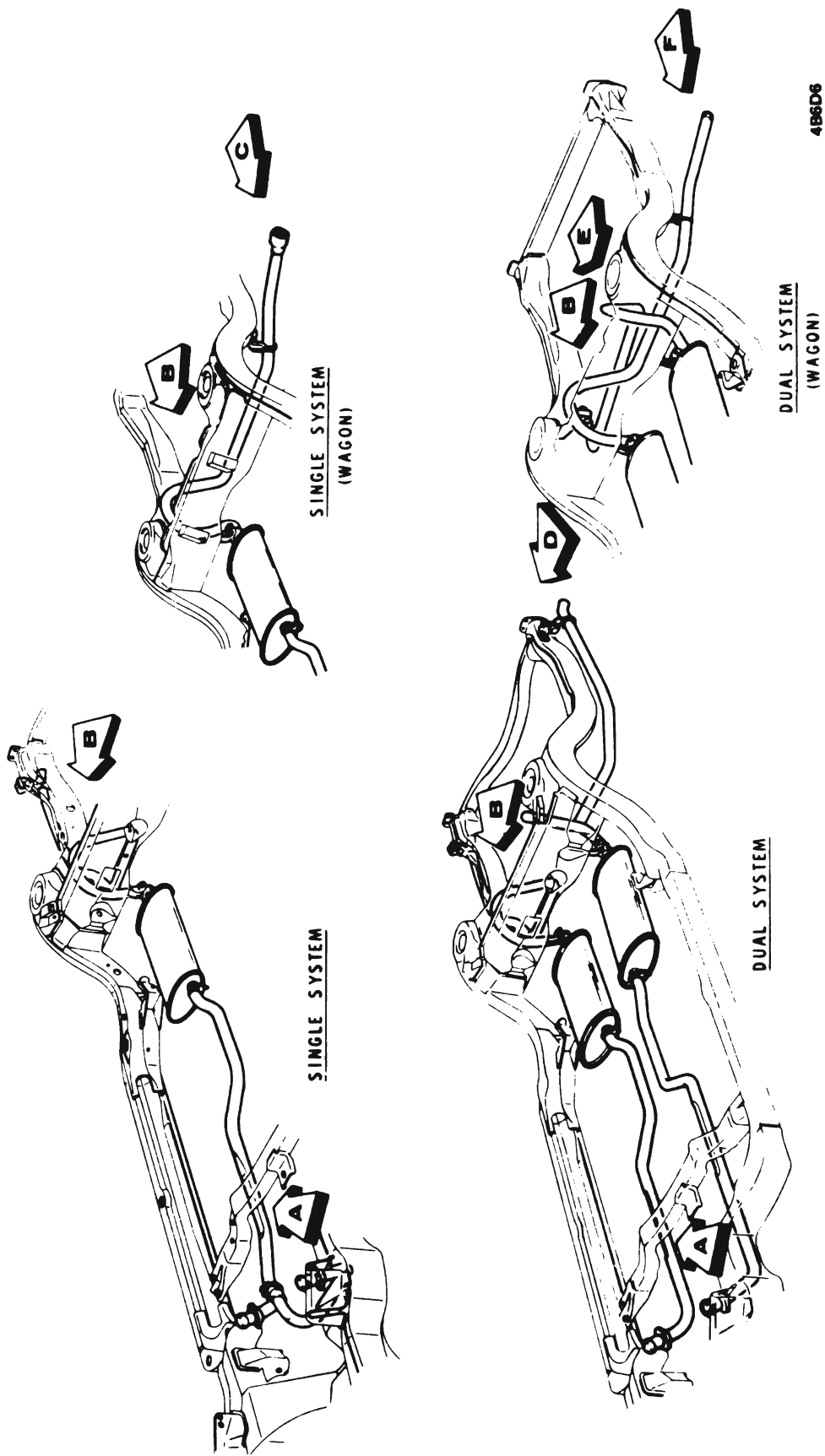
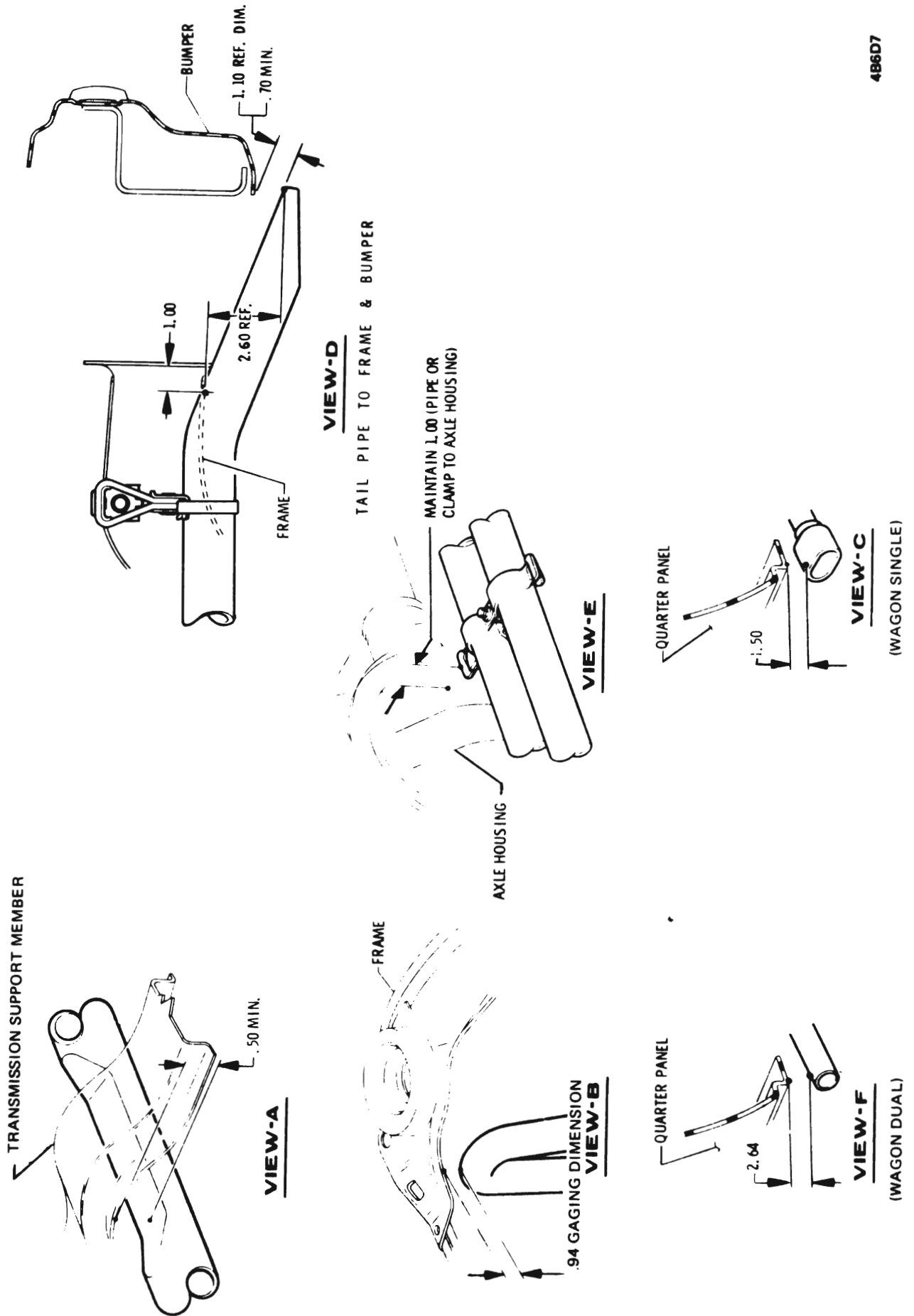


Figure 6D-6 "A" Series Exhaust System Clearance Requirements





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Figure 6D-7 "A" Series Exhaust System Clearance Requirements Continued

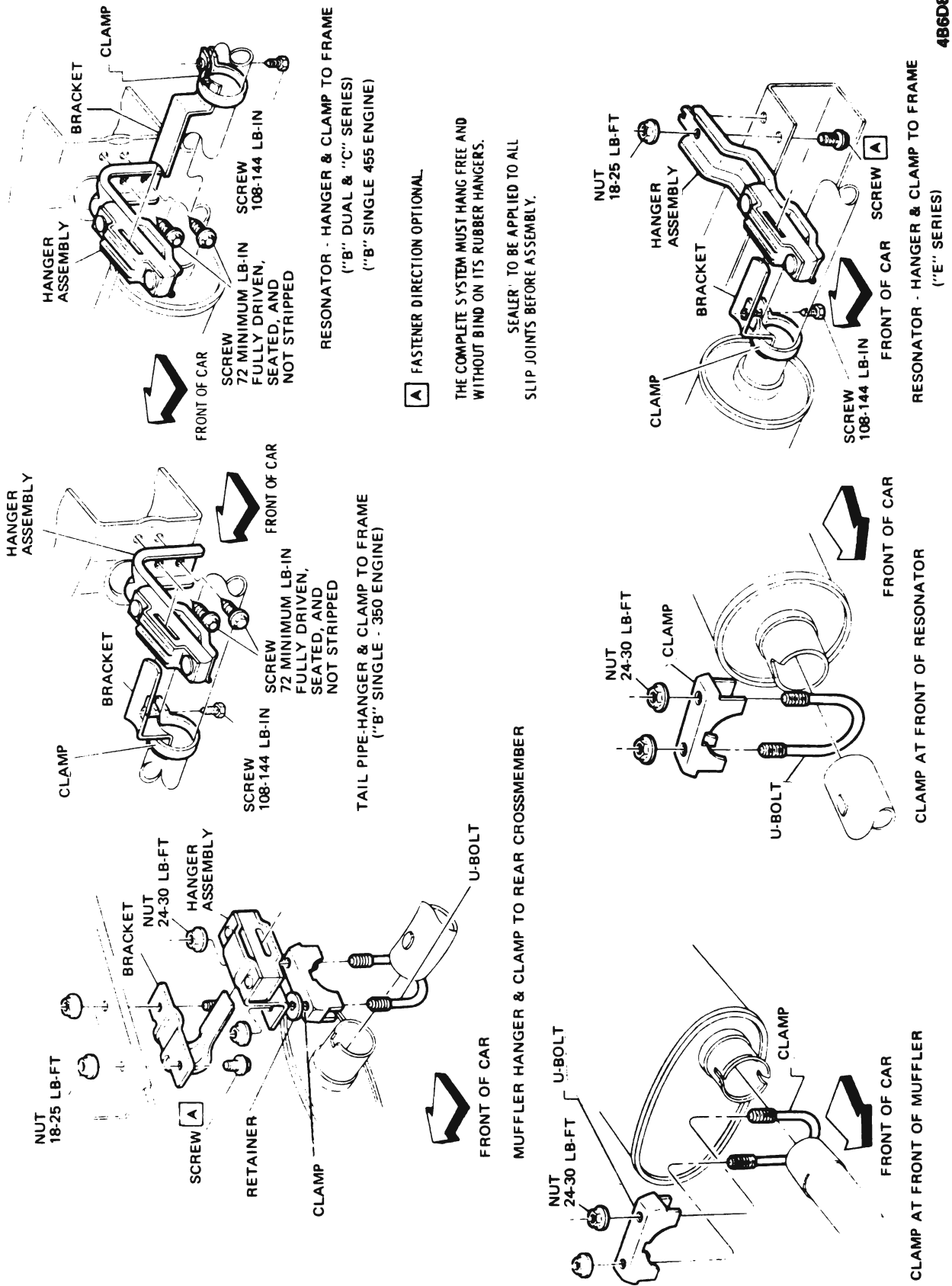


Figure 6D-8 B-C-E Series Exhaust System Attaching Parts (Sedans and Coupes)

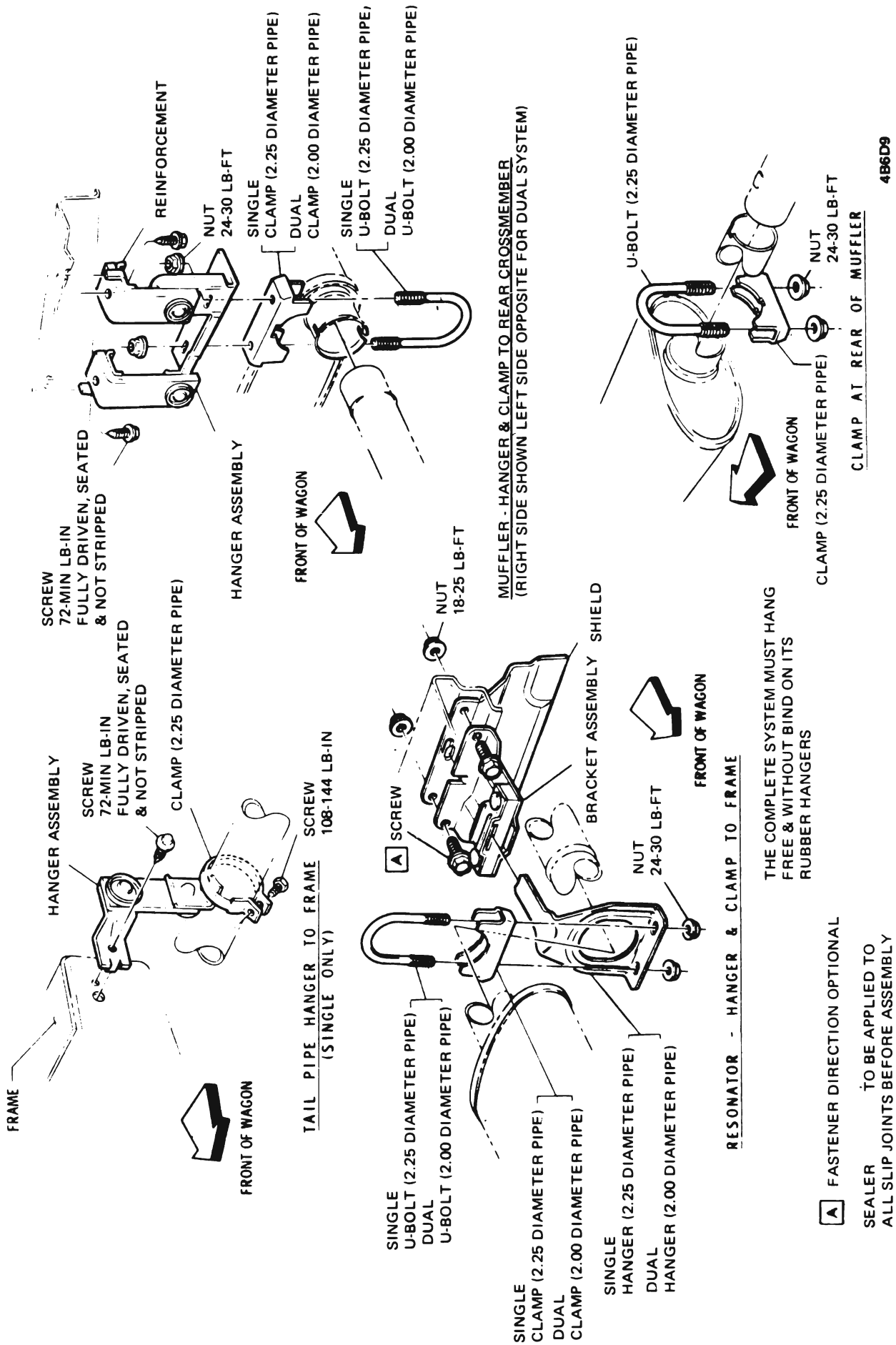


Figure 6D-9 "B" Series Exhaust System Attaching Parts (Wagons)

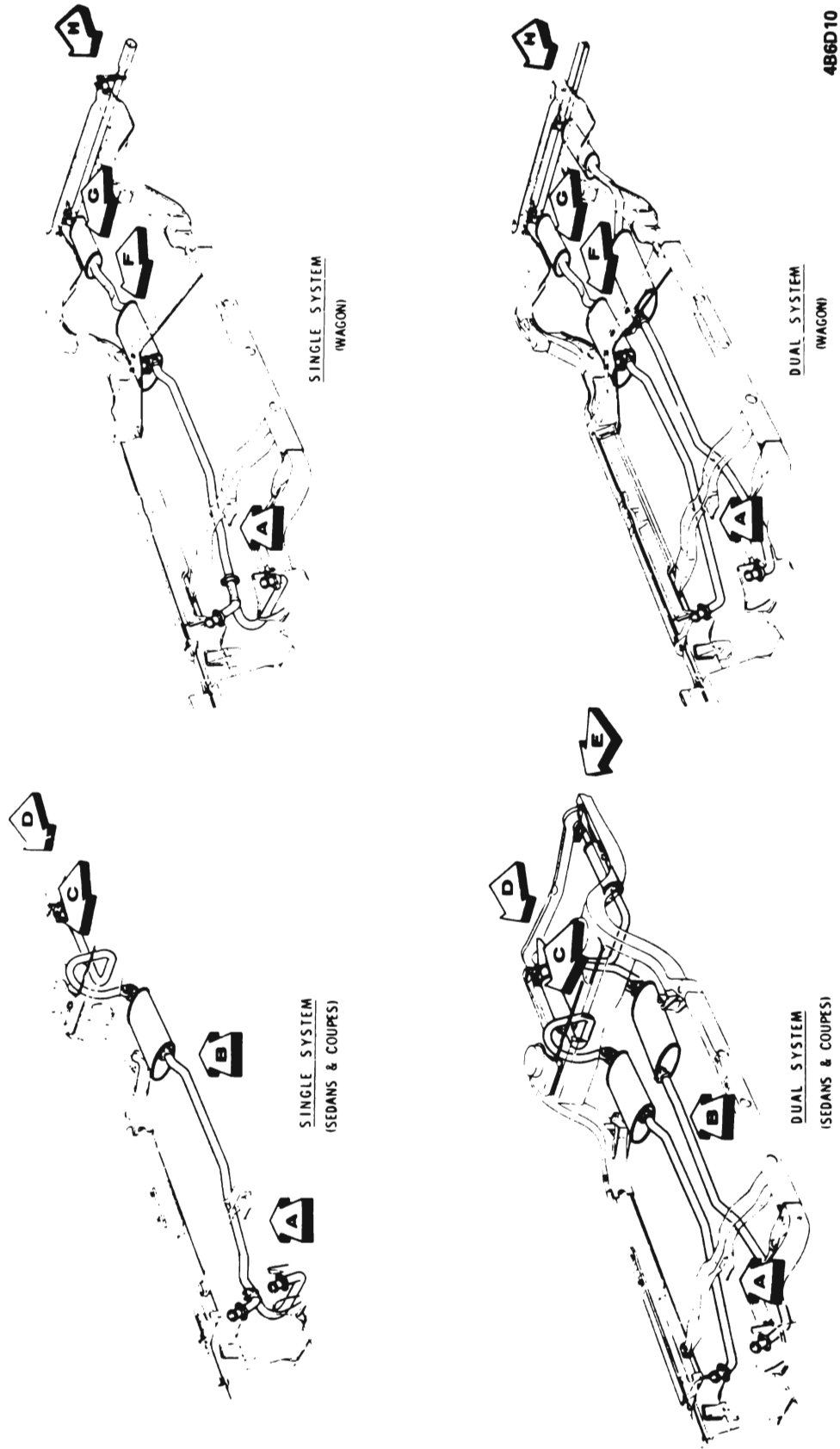


Figure 6D-10 B-C-E Series Exhaust System Clearance Requirements

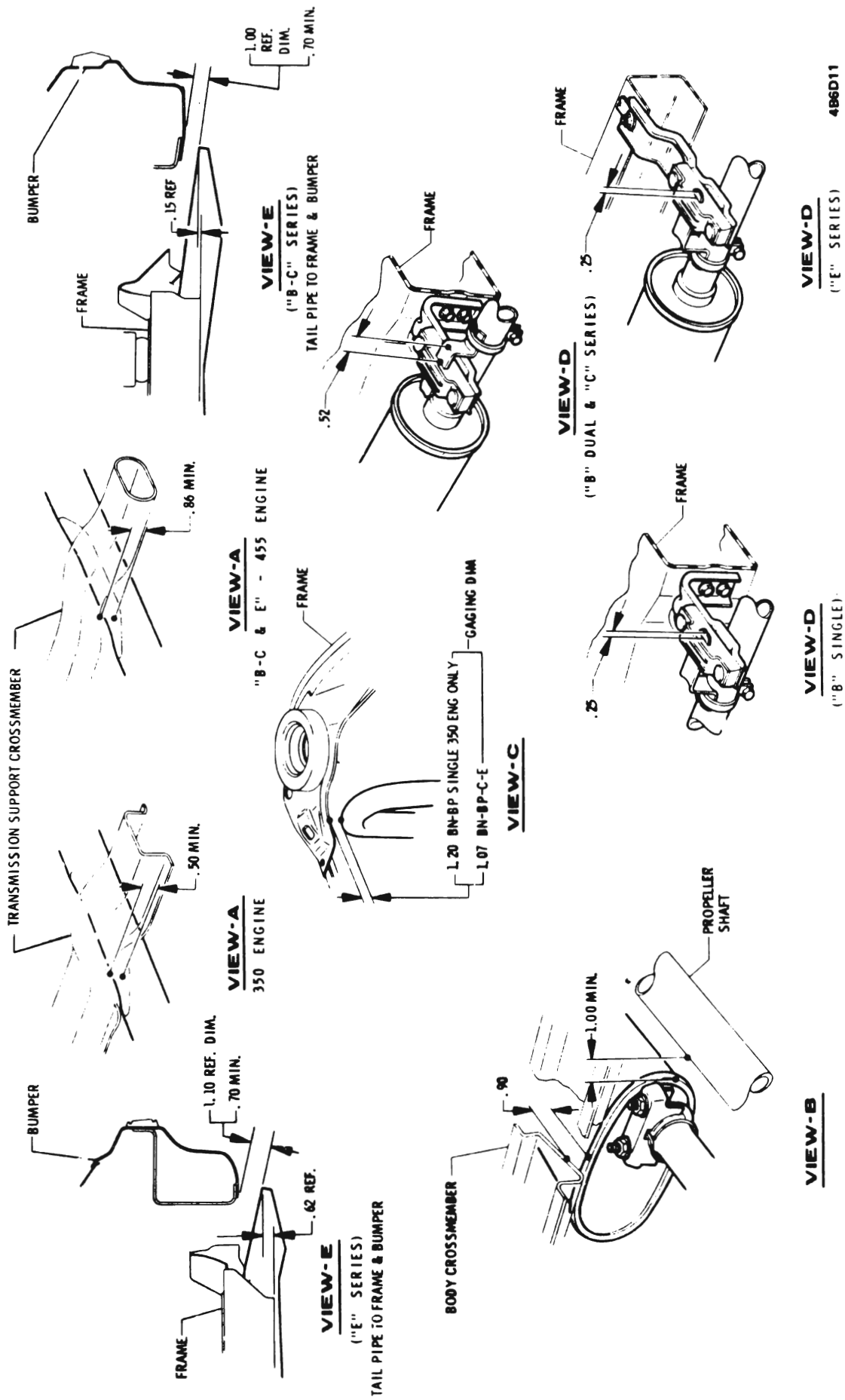
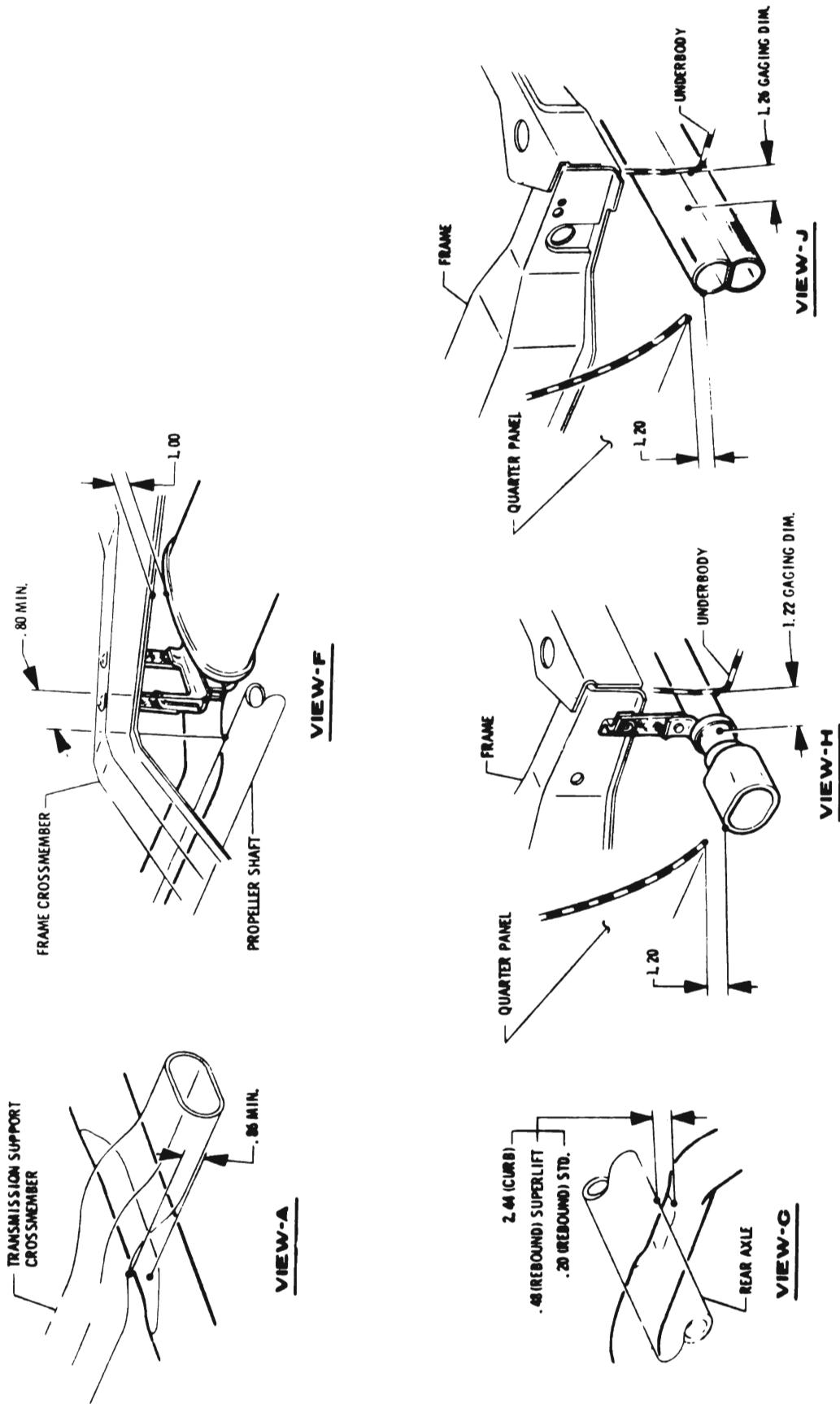


Figure 6D-11 B-C-E Series Exhaust System Clearance Requirements Continued (Coupes and Sedans)



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Figure 6D-12 "B" Series Exhaust System Clearance Requirements Continued (Wagons)