Tightening torques	Nm
Self-locking nut on lateral support of clamp	7
Self-locking nut on exhaust manifold to exhaust flange	20–25

Removal and installation of exhaust system is not completely explained and attention is called only to particularly important items which must be observed during removal and installation or during partial renewal e. g. of resonance damper with plug connection.

Removal

1 If separation at plug connection is not possible, heat exhaust pipes. For safety reasons mount a shielding plate on vehicle between frame floor and exhaust pipes prior to heating the pipes.

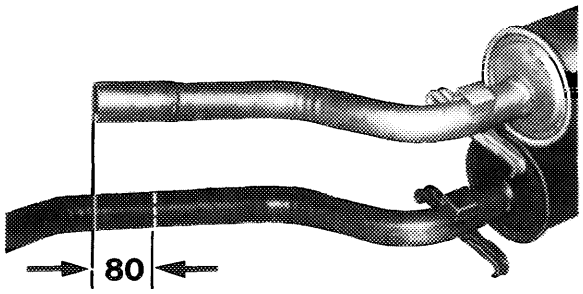
2 Check suspension members for re-use and renew, if required.

Installation

Renewal of resonance damper.

3 Place new resonance damper with plug connection exactly above removed components and trace pipe length of new resonance damper on removed system.

Separate pipe 80 minus 10 mm from marking (dashed line) in direction of resonance damper to make sure of a plug-in depth of 70–80 mm.

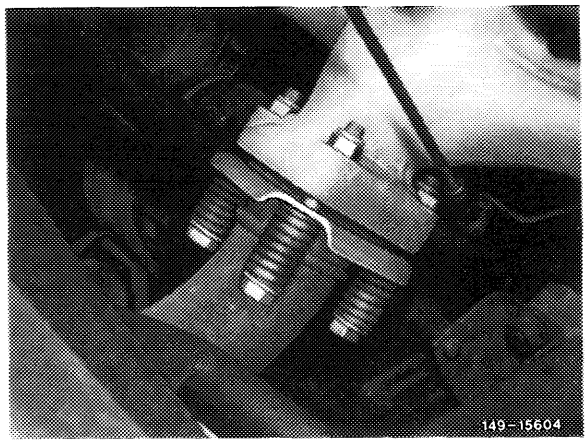


149-13368

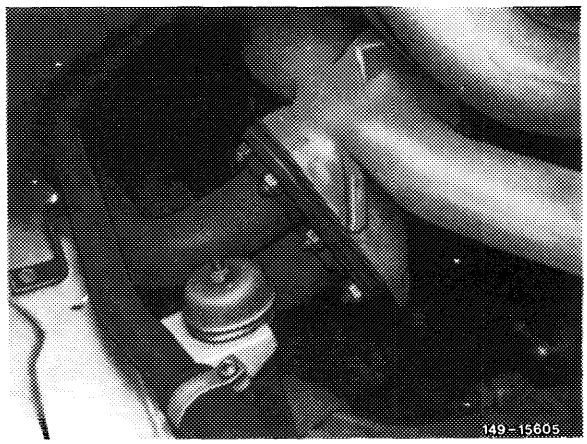
4 Always replace self-locking hex nuts.

Exhaust pipe – manifold connection on models 115.1 with engine 615 and 616.

Tighten spring uniformly until coils are in touch, then loosen again by 2–3 turns.

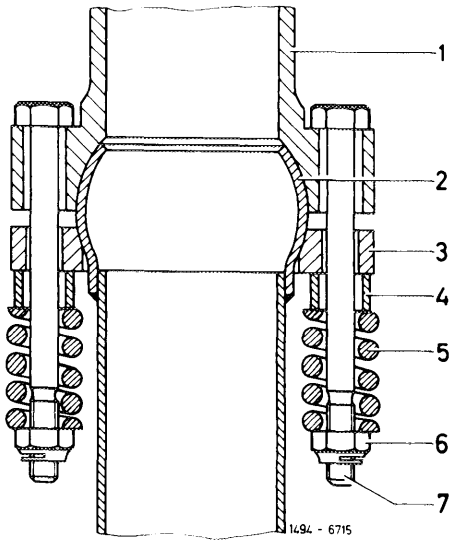


Exhaust pipe – manifold connection on model 115.114 with engine 617.



5 Exhaust pipe – manifold connection of 1st version on models 123.1 (except model 123.183 and 190).

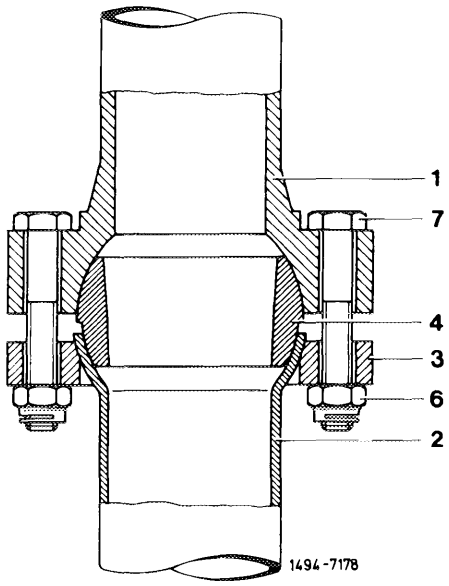
Tighten spring (5) uniformly until coils are in touch, then loosen again by 2–3 turns.



1 Exhaust manifold with inside ball
2 Exhaust pipe with ball
3 Flange
4 Spacer
5 Spring
6 Self-locking hex nut
7 Hex bolt

6 Exhaust pipe – manifold connection of 2nd version on models 123.1 (except model 123.183 and 190).

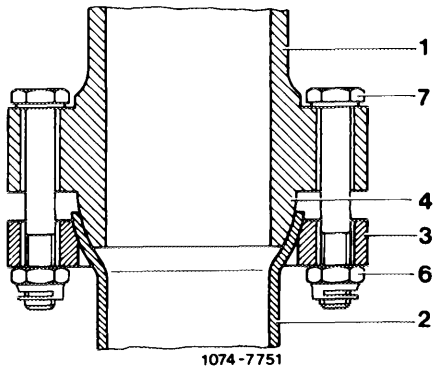
Tighten flange connection to exhaust manifold only when the complete system is hung up in rubber rings. Pay attention to correct seat of ball connection (4). Tightening torque of hex bolts 20–25 Nm.



1 Exhaust manifold with inner ball
2 Exhaust pipe with tulip
3 Flange
4 Ball connection (separate)
6 Self-locking hex nut
7 Hex bolt

7 Exhaust pipe – manifold connection of 3rd version on models 123.1.

Tighten flange connection to exhaust manifold only when the complete system is hung up in rubber rings. Tightening torque of hex bolts 20–25 Nm.



1 Exhaust manifold with outer ball
2 Exhaust pipe with tulip
3 Flange
4 Ball connection tightly connected to exhaust manifold
6 Self-locking hex nut
7 Hex bolt

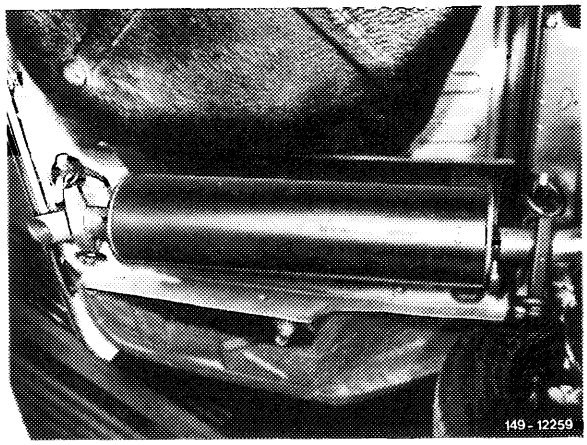
Note

As a result of a reduced spare parts stock, no exhaust manifolds with **inner ball** will be available any longer after stocks are used up. In the event of repairs, i. e. when changing an exhaust manifold with inner ball against one with outer ball, observe the following:

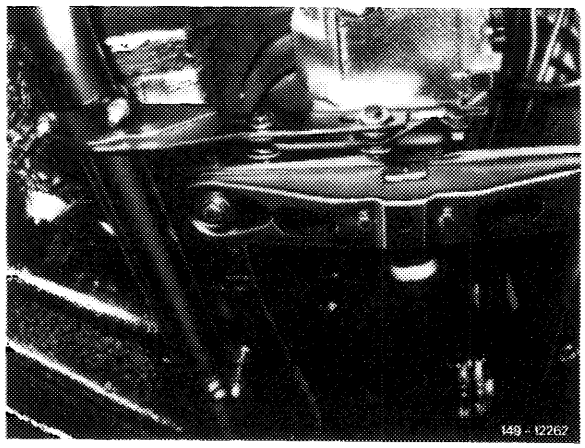
1. Exhaust pipes with ball connection (1st version) should also be replaced.

2. Exhaust pipes with tulip connection (2nd version) can still be used if the ball connection is removed.

8 Mount resonance dampers in such a manner that the holding clamps of the resonance damper are approx. 10 mm in front of holder on frame floor, so that the correct installation position is assured when the exhaust system is elongated.

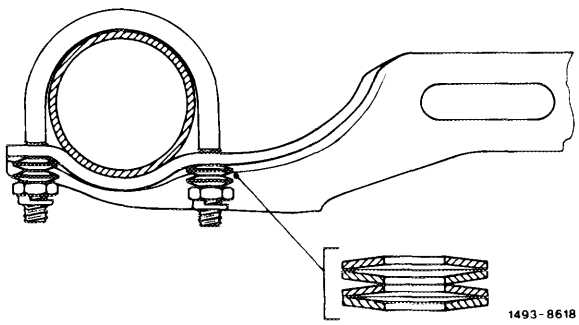


9 Mount lateral support on gearbox free of tension.

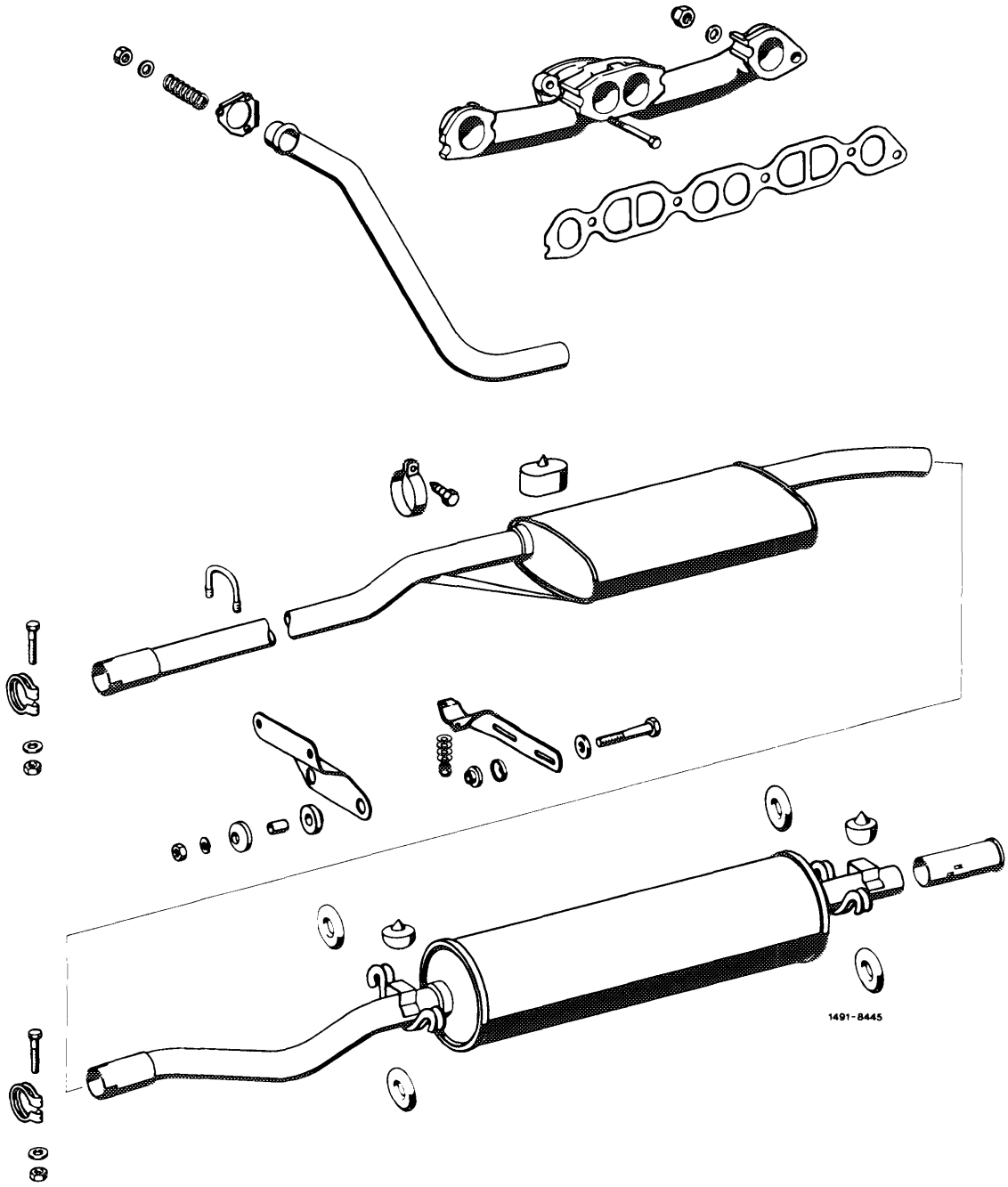


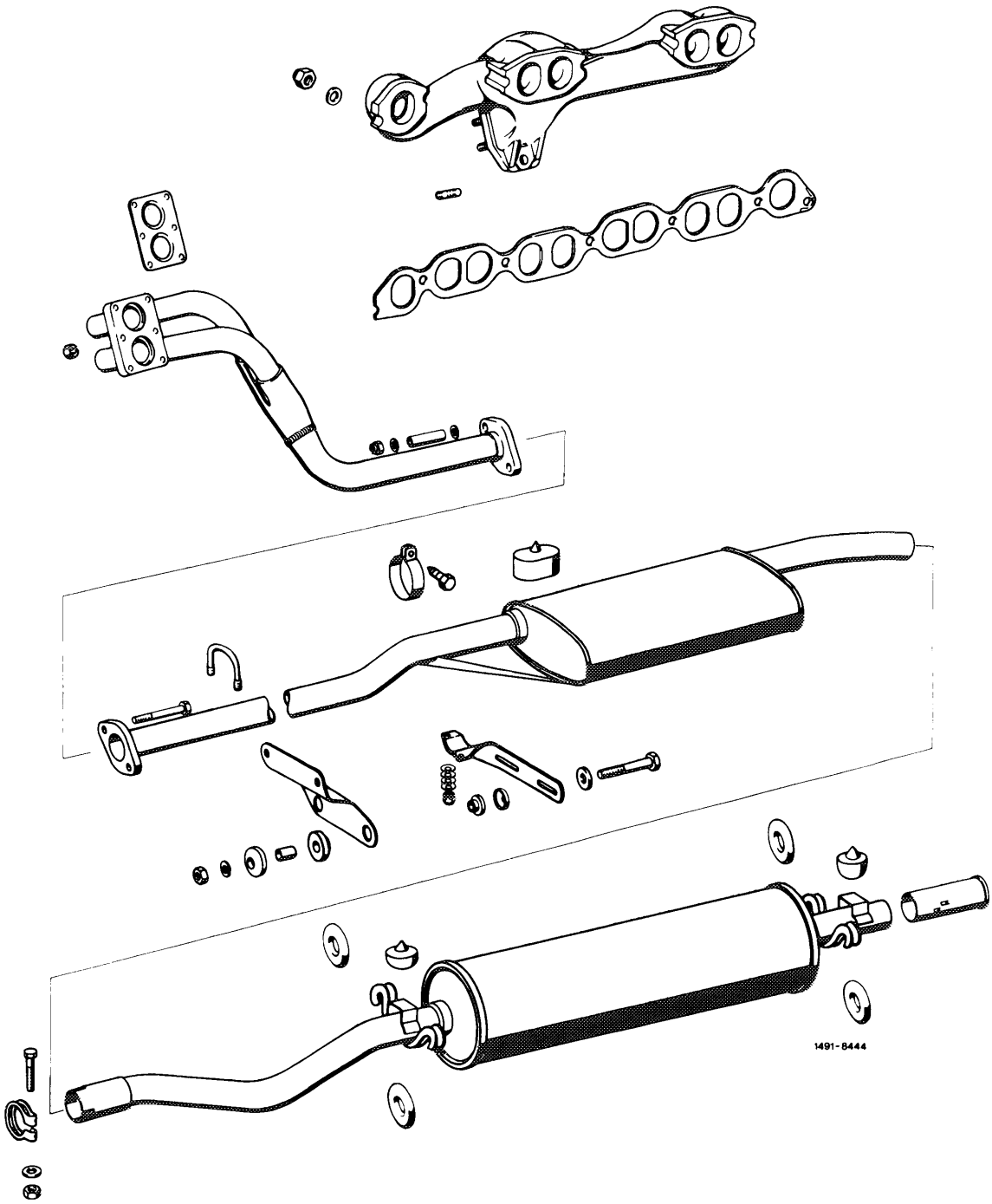
10 Mount clamp with 4 cap springs each in front of self-locking hex nuts and tighten to 7 Nm.

11 Run engine and check exhaust system for leaks.



Exhaust manifold with complete exhaust system
model 115.1 (except 115.114)

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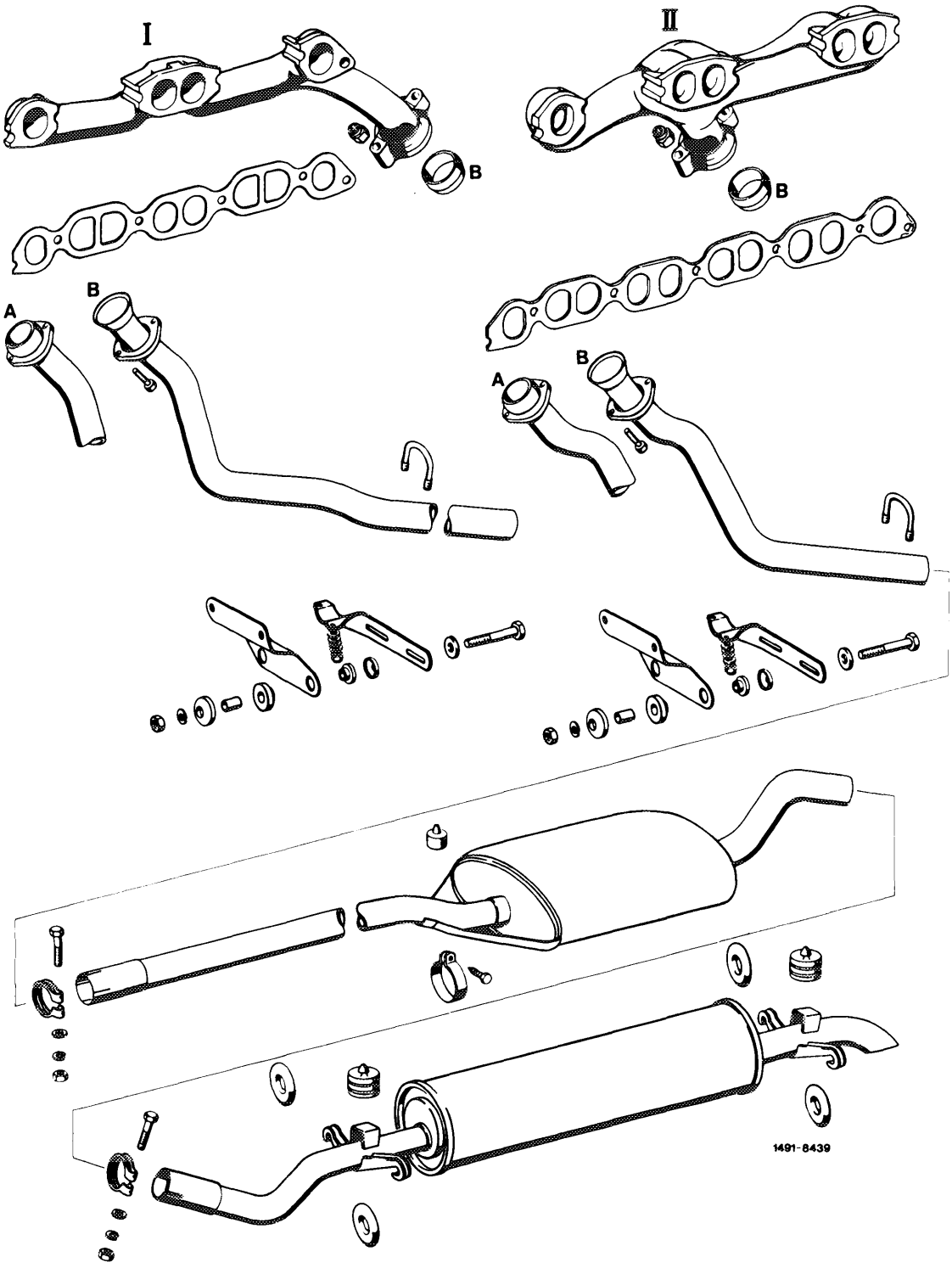

I For vehicles with engine 615 and 616
II For vehicles with engine 617
A 1st version – pipe with outer ball and exhaust manifold with inner ball connection
B 2nd and 3rd version – pipe with tulip and exhaust manifold with inner ball and ball connection or exhaust manifold with outer ball connection