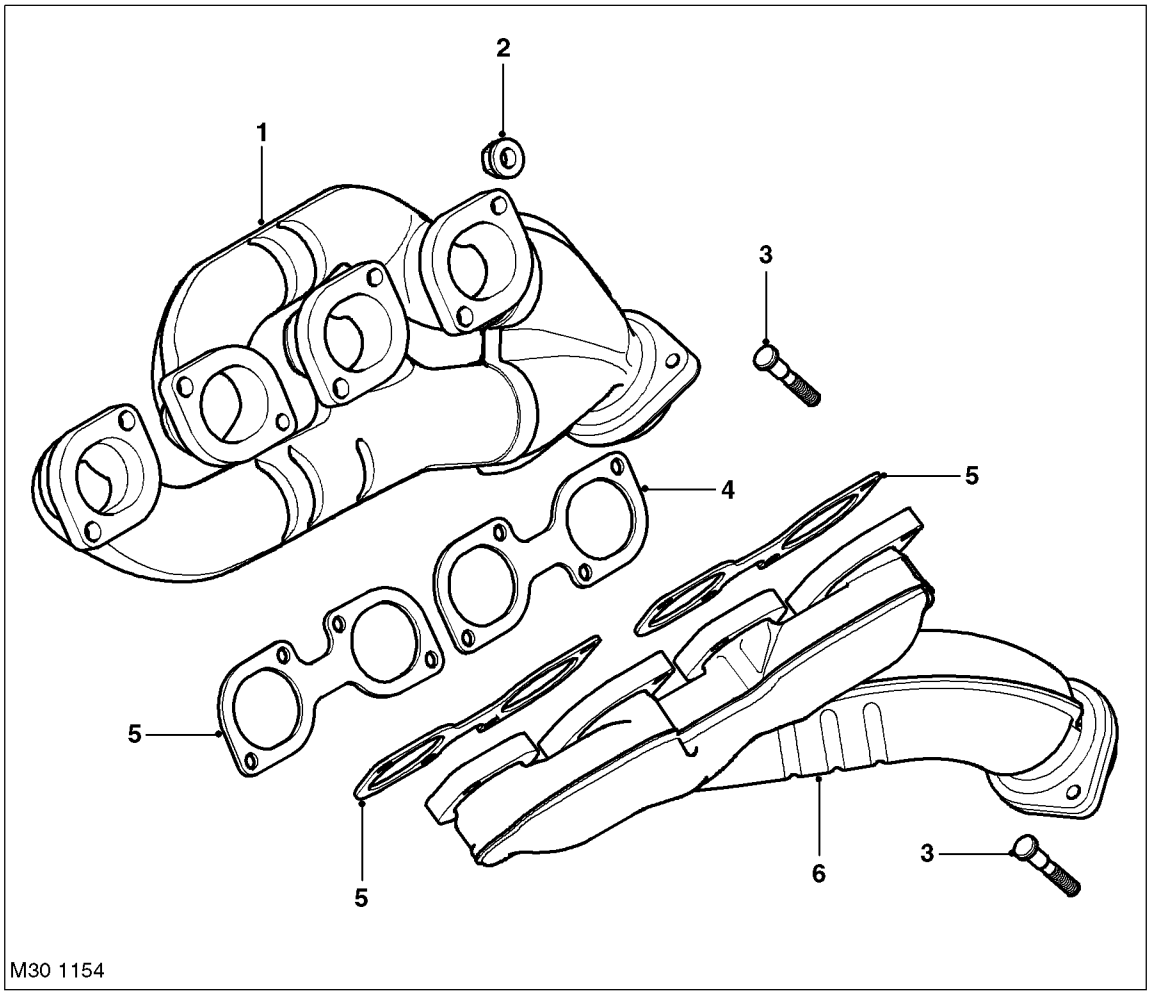
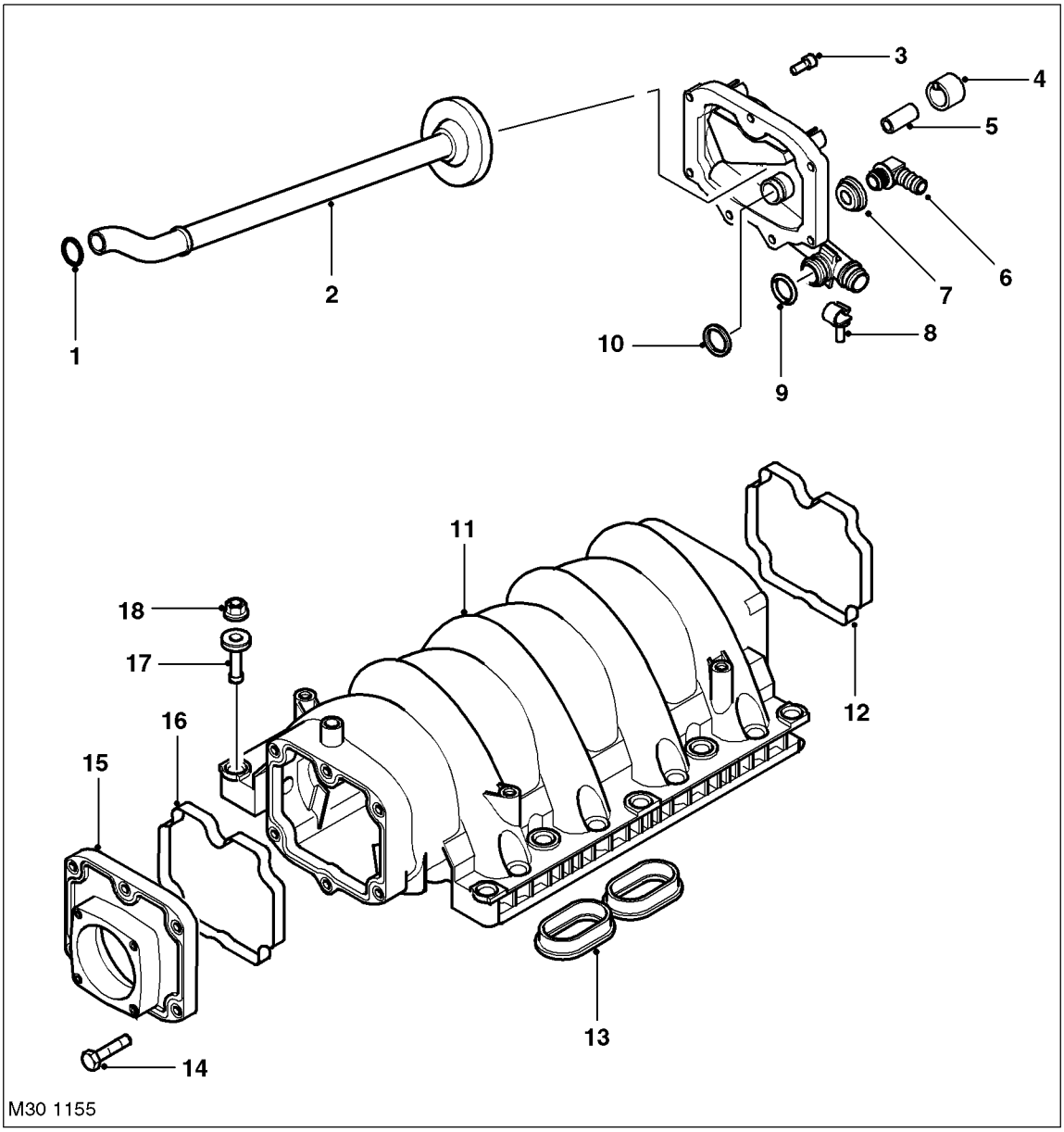
Exhaust Manifold Component Layout



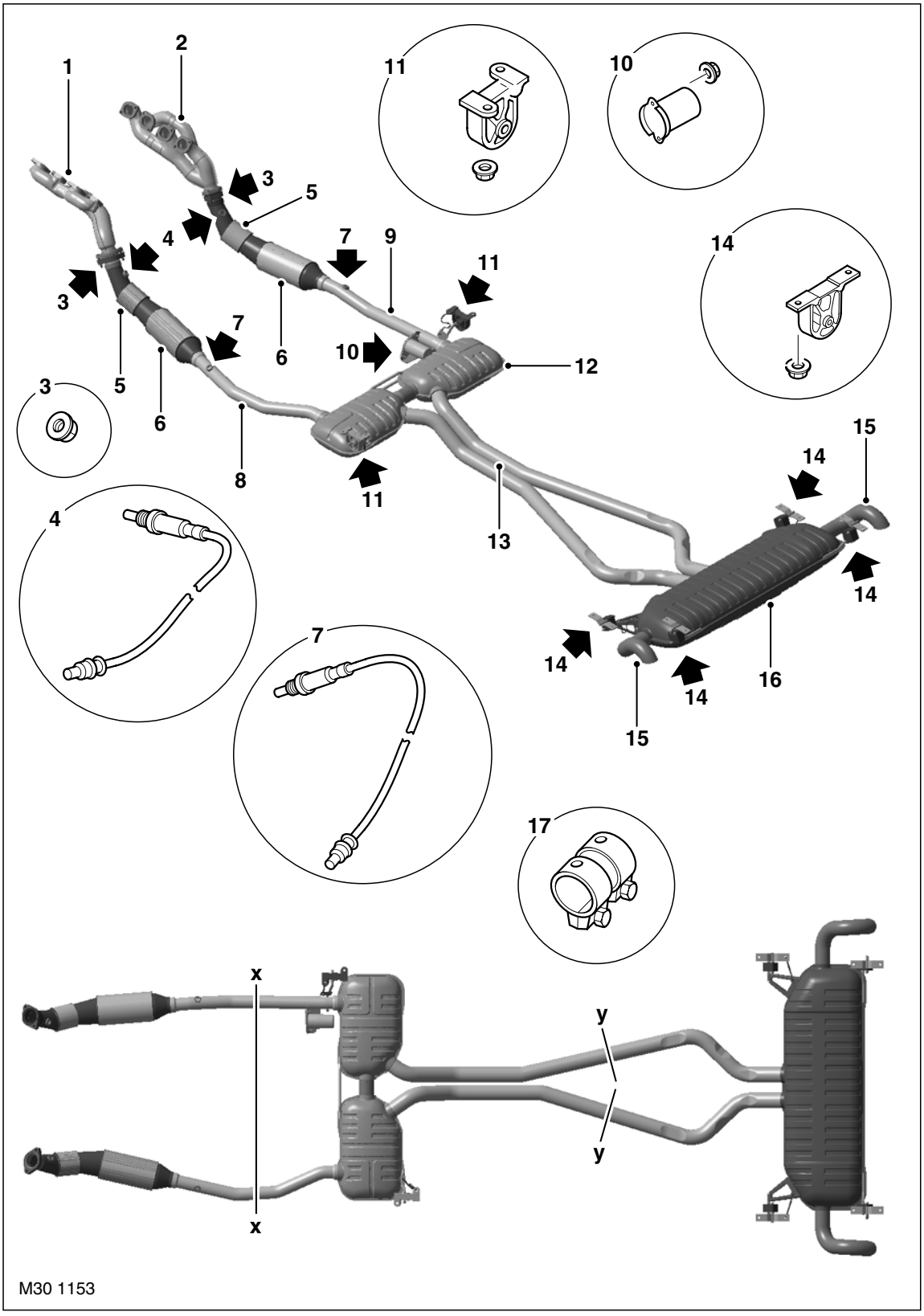
1 Exhaust Manifold – Cylinders 1 – 4
2 Nut – (16 off)
3 Stud – Manifold to Exhaust Pipe — (4 off)
4 Gasket – cylinders 3 – 4
5 Gasket – cylinders 1 – 2, 5 – 6 and 7 – 8
6 Exhaust Manifold – Cylinders 5 – 8

Inlet Manifold Component Layout



1 Gasket
2 Vent Pipe
3 Cover bolt
4 Supporting ring
5 Cap
6 Connector
7 Plug
8 Clip
9 O-ring Seal
10 Gasket
11 Manifold intake assembly
12 Gasket
13 Gasket
14 Bolt
15 Front Cover
16 Gasket
17 Compression limiter
18 Intake manifold nuts

Exhaust System Component Layout



X = Forward cut point; Y = Rear cut point

1. Left manifold
2. Right manifold
3. Exhaust flange nuts
4. Pre-catalyst Heated Oxygen Sensor (HO2S)
5. Pre-catalyst
6. Main catalyst
7. Main Catalyst Heated Oxygen Sensor (HO2S)
8. Left front pipe
9. Right front pipe
10. Mass Damper
11. Mounting bracket (2 off)
12. Front silencer assembly
13. Rear pipe
14. Mounting bracket (4 off)
15. Tailpipe
16. Rear silencer assembly
17. Repair sleeve

Description

General
The inlet manifold on the V8 engine is located on the top of the engine, between the cylinders.

The two exhaust manifolds, one for each bank of four cylinders, directs the engine combustion gases from the cylinders to the exhaust system.

The exhaust system consists of two identical systems, sharing a common rear silencer assembly, connected to each exhaust manifold. Two catalytic converters are located in each of the front pipes from it's respective manifold and a silencer is installed midway along the system.

Inlet Manifold
The inlet manifold is a light weight, one piece plastic moulding. The manifold is acoustically decoupled from the cylinder heads to reduce noise and vibrations.

The throttle plate has two wedges screwed directly to it, these provide a curved zone for smoother throttle response during idle, off-idle transition.

The combined output of the mixing plate ensures that the intake air is evenly distributed among all the cylinders, which can improve idle quality.

Exhaust Manifold
Two handed, double skinned stainless steel sheet metal manifolds are used on the V8 engine. Each manifold has four ports which merge into one flanged outlet positioned centrally on the manifold.

Each manifold is secured to its cylinder head using eight studs with nuts and sealed with two gaskets. The flanged outlet on each manifold provides the attachment for the exhaust system.

NOTE: The exhaust manifold gasket for cylinders 3–4 is not interchangeable with the gaskets for cylinders 1–2, 5–6 or 7–8.

Exhaust System
The stainless steel exhaust system is supplied as a one-piece assembly.

It consists of two stub pipes and pre-catalytic converter HO2S, two intermediate catalytic converters, two main catalytic converters and down pipes, each with a post catalytic converter HO2S, two intermediate silencer assemblies and pipes joining the single rear silencer assembly. Internally the rear silencer assembly is divided into two independent silencers, each with its own tailpipe. The tail pipes are bent downwards and not normally visible.

☞ **ENGINE MANAGEMENT SYSTEM – V8, DESCRIPTION AND OPERATION, Bosch ME 7.2 Engine Management System.**

The exhaust system is attached to the underside of the body with five rubber mountings and a mass damper. The mass damper is fitted forward of the right intermediate silencer.

Although supplied as a one-piece assembly, in service, sections of the system can be replaced individually. Service joints, identified by indentations on the pipes, show where the exhaust pipes can be cut to accommodate replacement sections.

After the replacement sections are positioned the system integrity is restored by sealing the service joints with one piece sleeves. For more information, refer to the Service Procedures Workshop manual.