PATENT SPECIFICATION 1,181,579

DRAWINGS ATTACHED.

Inventor:—DENNIS SIDNEY GILLIBRAND.

1,181,579

Date of Application (No. 31547/67) and filing Complete Specification: 8 July, 1967.

Complete Specification Published: 18 Feb., 1970.

Index at acceptance:—F2 P(1A18A, 1A35, 1B1, 1B5D, 1B8); F1 B(2A9C, 2Y1, 2Y15).

International Classification:—F 16 l 9/14.

COMPLETE SPECIFICATION.

Exhaust pipes.

We, FORD MOTOR COMPANY LIMITED, of 88 Regent Street, London, W.1, a British Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to exhaust pipes fitted to the internal combustion engines of motor vehicles.

The purpose of the present invention is to reduce the noise emitted by an exhaust pipe.

According to the present invention an exhaust pipe has asbestos tape wrapped around it and ceramic skin covering the tape.

How the invention may be carried out will now be described with reference to the accompanying drawing the single figure of which shows a portion of an exhaust pipe incorporating the invention.

An exhaust pipe 1 has asbestos tape 2 wrapped helically around it along its entire length. The pipe 1 is approximately 3 inches in outer diameter and the tape 2 is two inches wide and $\frac{1}{8}$ inch thick.

The asbestos tape 2 is covered by a ceramic skin 3 which in turn is covered by aluminium paint 4.

The method of sound insulating the exhaust pipe 1 will now be described.

The asbestos tape 2 is first helically wound around the length of the pipe 1 and is held in place by wire at intervals along the length of the pipe.

A coat of ceramic cement is then applied to the asbestos tape 2 and either allowed to dry over a period of twenty-four hours or is oven dried. A second and a third coat of ceramic cement are then applied and each dried or allowed to dry in turn.

[*Price* 5*s.* 0*d.*]

The ceramic skin so formed is then covered with aluminium paint.

The ceramic skin can withstand a temperature of up to 1,000°C and the insulation of asbestos tape, ceramic skin and aluminium paint serves to reduce the sound emitted by the exhaust pipe.

WHAT WE CLAIM IS:—

1. An exhaust pipe which has asbestos tape wrapped around it and a ceramic skin covering the tape.

2. An exhaust pipe as claimed in claim 1 in which the ceramic skin is covered with aluminium paint.

3. An exhaust pipe as claimed in claim 1 or claim 2 in which the ceramic skin comprises a ceramic cement.

4. An exhaust pipe as claimed in any previous claim in which the asbestos tape is wrapped helically around the full length of the exhaust pipe.

5. A method of sound insulating an exhaust pipe comprising the steps of:

(a) wrapping asbestos tape around the exhause pipe; and

(b) coating the asbestos tape with a ceramic cement.

6. A method as claimed in claim 5 in which more than one coat of ceramic cement is applied and dried in turn.

7. A method as claimed in claim 6 in which each coat of ceramic cement is dried by heating it.

8. A method as claimed in any of claims 5 to 7 in which the asbestos tape is helically wound around the full length of the tube.

9. A method as claimed in any one of claims 5 to 8 in which the ceramic cement is finally covered with aluminium paint.

10. An exhaust pipe sound insulated by

the method as claimed in any one of claims 5 to 9.

11. An exhaust pipe as described with reference to and as shown in the accompanying drawing.

12. The method of sound insulating an exhaust pipe as described with reference to the accompanying drawing.

13. A motor vehicle having an internal combustion engine fitted with an exhaust pipe as claimed in any one of claims 1 to 4, 10 or 11.

M. C. DOBBS,
Chartered Patent Agent.

Printed for Her Majesty's Stationery Office by Burgess & Son (Abingdon), Ltd.—1970.
Published at The Patent Office, 25 Southampton Buildings, London, W.C.2,
from which copies may be obtained.

1181579 COMPLETE SPECIFICATION
1 SHEET This drawing is a reproduction of the Original on a reduced scale

