



Testing Times

Issue 9

March 2000

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Braided Flexible Brake Lines

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Braided flexible brake lines.

Flexible brake lines covered with steel braiding are often thought of as a performance improvement because they are sometimes used on racing cars. The braiding can increase the hose strength, protect it from damage and reduce swell, making the brakes more responsive. Some people also fit them just because they look good.

However braided flexible brake hoses are not necessarily suitable or safe for normal road use. For safety, the Australian Design Rules (ADRs) require that flexible brake hoses pass a "Whip Test". This is a durability test that involves flexing the hose many thousands of times to simulate typical road use.



Because braided line is more rigid, it does not always pass this test. This might be fine for drag and track racing conditions where suspension movements are limited and the components are regularly checked and often replaced, particularly if the vehicle is involved in a crash. But it is not so good for road use where the brake hoses may not be inspected for many years.

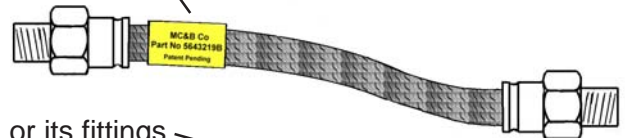
Braided flexible brake hose should only be accepted in a roadworthiness test if it meets one of the following:

- it was supplied as original equipment by the vehicle manufacturer; or
- it has the manufacturer's identification mark (ie trade mark, or trade name); or
- it is on a modified vehicle such as a rally car and covered by an engineer's report; or
- it is fitted to a pre1970 vehicle (these vehicles do not have to meet the ADRs).

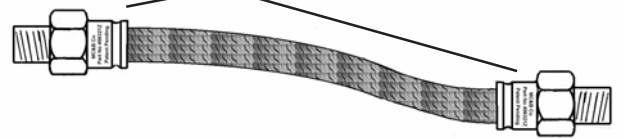
There does not appear to be any braided flexible brake lines supplied as original equipment on cars at the moment, although they are fitted as original equipment on a few motorcycles.

As it is hard to tell what is OK and what isn't, the ADRs and other industry standards require flexible brake hose to be permanently marked identifying its manufacturer. This is often done using a snug fitting sleeve placed over the hose before the end fittings are crimped on.

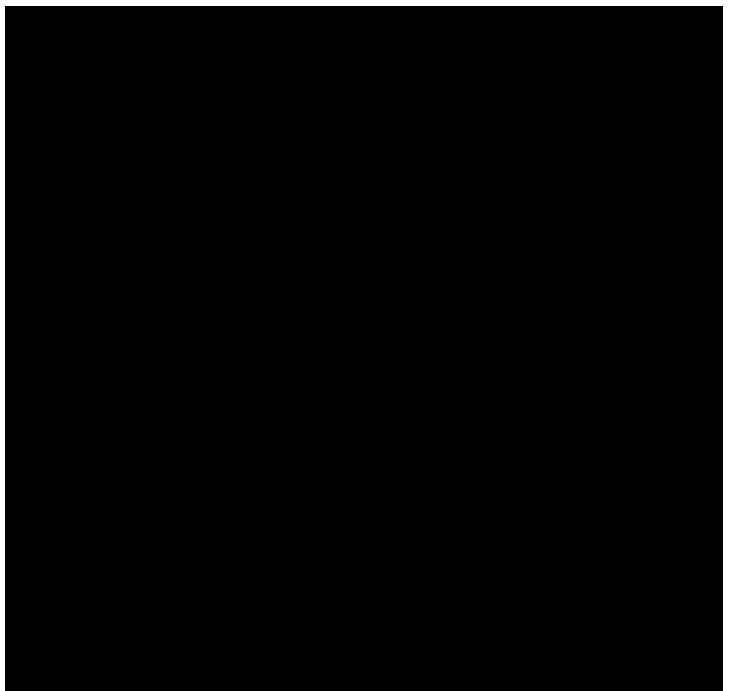
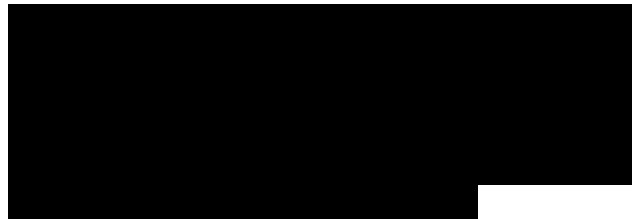
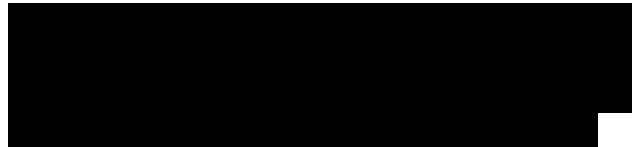
If a braided hose has clear identification marks on the hose



or its fittings



and it appears correctly fitted and has no signs of cracking near the ends, it should not be rejected.



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