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REF: Wheels, Brakes & Tires

Caliper / Master Cylinder Repair

Bore Damage

If you need to go to a larger bore size due to bore damage or pitting, there is a way to repair old bores. ¹⁾ Especially on hard to find, expensive or antique masters, this is an alternative.

You can buy bushings that are either spot on or require very little machine work.

Basically, you turn it a couple of thousandths bigger than the bore.

The bore, if pitted badly can be dressed with a brake hone but a baby smooth finish is not required.

The master is baked to around 350-400°F and the bushing is frozen to aid in assembly.

You can use high temp thread lock as a lube to install the bushing and when it sets up, it prevents back leaks.

To stabilize the bushing, run a dowel rod tightly in the bore and use a live center to align with the jaws.

The wood can be drilled out but a little oil soak or grease will aid removal.

Then, standard repair kits will work inside the new bushing.





Flare Fitting Seat Repair

Flared Fitting Gasket

A flare fitting gasket is used to prevent leaks from temperature fluctuations and vibration that can loosen flared tube fittings.

It installs over the flared “cone” of a flared fitting / tubing and provides a seal between the mating flared connections.

Flare fitting gaskets are available in both 37° and 45° angles, various materials, various tube sizes and from various manufacturers and suppliers.

These are not actually designed to repair damaged flare seats but have been used for that application on motorcycles as well as cars and trucks.

It is also not meant to refurbish a leaky or damaged flared tubing end.

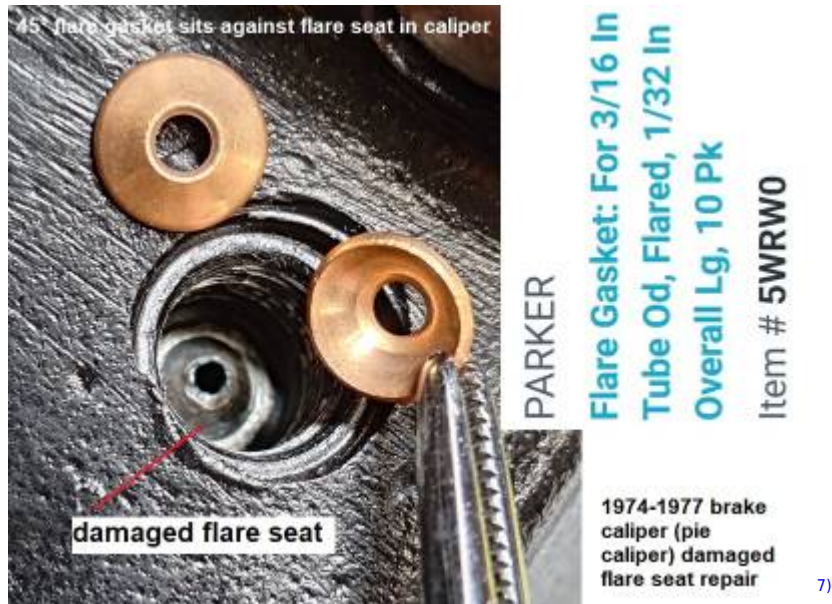
With brake lines having double flares, it is better to cut off the damaged or stressed flared tubing end and re-flare the tube.

In general, you should match your gasket material to your fitting material. But, if you have a brass fitting, you can use a copper gasket. Gaskets without a coating are best for fittings that are exposed to harsh chemicals, such as antifreeze, which can dissolve the threadlocker coating. Threadlocker-coated gaskets offer a more secure hold than uncoated gaskets, so they’re best for areas with high vibration. ⁵⁾

A Parker brass 45° flared fitting gasket is basically an uncoated flared brass washer. Suitable for use in air, water, and oil applications.

The 1974-1977 pie caliper below has a damaged flare seat that was repaired using a 3/16” flare gasket. So if the flared seat is damaged and leaking and before trashing the caliper, there's a chance it can be sealed using one of these. ⁶⁾

Just drop it down (big end) over the existing flare and install the flared tubing and threaded nut as usual.



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<https://www.mcmaster.com/products/flared-tube-fitting-gaskets/>

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