

MB Services – Stepped stud repairs

STEPPED ENGINE CASING REPAIRS WITH STEPPED STUDS

I prefer repairing engine casings with stepped studs if I can – it doesn't mean inserts are rubbish, it means there's a stronger more reliable way to repair a thread.

The reasoning is – with an insert you have a thread on the outside of the insert and you have a thread on the inside – two threads which can pull or vibrate out in use. With a stepped stud you have one thread that locks in the casing and the original thread size is used keeping it standard.

With our stepped studs we use coarse threads, coarse threads in aluminium are much stronger through more surface area on the threads compared to fine threads used in Timeserts.

MB make special stepped studs in various sizes and lengths to repair all Lambretta threads in a casing that uses a stud.

- Long cylinder studs 10 – 8mm
- Mag housing studs 7/6mm, 8/6mm
- Crankcase side studs 7/6mm, 8/6mm
- Crankcase side tailpipe studs 7/6mm, 8/6mm
- Crankcase side swan neck studs 10/8mm, 12/8mm
- Endplate 8/7mm, 10/7mm

As with inserts

- Drill out the hole to the correct size and length
- Tap out to the correct size
- Tap to the correct depth, depends on stud length
- Double nut the stud
- Screw in place until it locks
- If the larger thread in the casing is sticking out tap a bit further, try not to make the larger stud drop too far in the casing
- Keep fitting the stud and tap again until the larger threads sit flush to the casing face

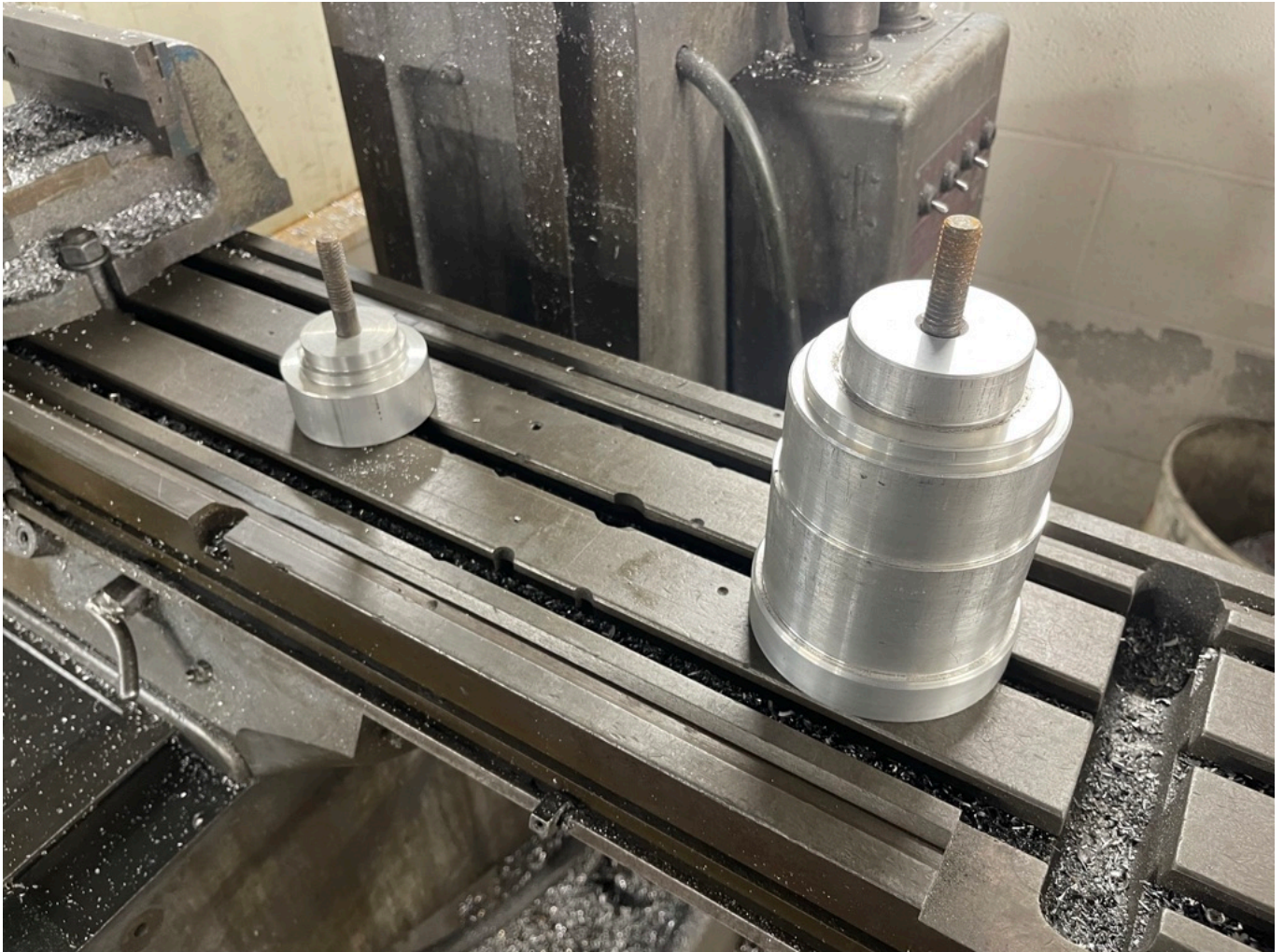
Once ready remove, loctite the casing threads and a bit on the stud, screw in and lock in place.

Threads in a casing can just pull out, most original threads in a Lambretta casing are not very deep but there are still threads left in the casing, you can use longer studs to help out without the extra tapping work.

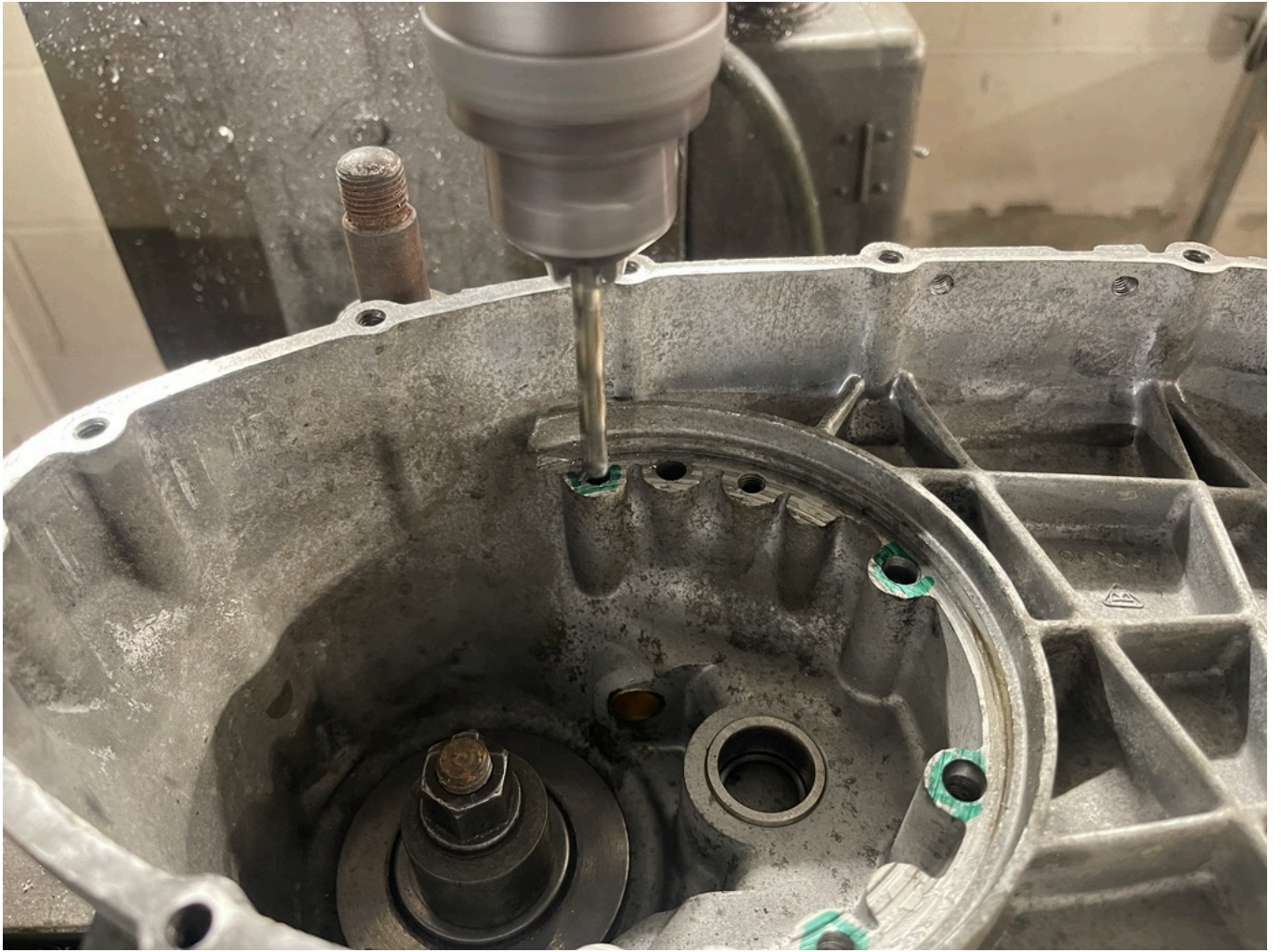
MB make longer threaded studs. Sometimes the threads look fine, fit a standard stud and tighten it and the alloy pulls out. In this case you can tap to the next over sized sometimes. If you do second over sized stud or try a longer stud.

For instance a crankcase side uses 6mm, next on a stepped stud is 7/6mm, if this doesn't cut new metal then we offer the same but 8/6mm. Obviously we are limited to what outer sizes we can offer based on the thickness of the casing. If theres no way a 8/6mm stud will do the job then it's a welding job.

One of the most common repairs to a Lambretta casing is the end plate, here is an example of fitting a stepped stud to an endplate.



We mount engine casings on 2 special jigs mounting in the important bearing faces so the casings faces are true



Once bolted in the jigs, centralise the drill and drill to the correct depth of the stud used



Once drilled you can tap true, we do this on the mill, you can do this your self if you're carful to keep the tapped hole 90 degrees to the casing



Even if the threads are not perfectly cut on the outer edge, our deeper studs lock onto new perfect metal lower down



This shows our longer end plate studs giving nearly twice as much threads as standard, never have a problem again



Double nut the stud, to screw in, check where it stops, tap a bit deeper until the larger thread is flush with the casing



A perfectly fitted stud and loctited in to stop it coming out

Any questions ask mark@mbscooters.co.uk