

# Engine – Repair stud

## MORE CASING REPAIRS

I've come across this a load of times! And really it should be avoided especially when the engine was built by a dealer! Here you can see a casing cracked inside where the spigot goes at two of the studs! This casing wasn't so bad and the customer never noticed it, but Mark's little beedy eyes did as I'm always looking for problems when doing an engine. I can't knowingly rebuild a casing cracked and let it go out because it would just come back to smack me in the face.

So why does this happen?

Well there's a number of reasons, one we can avoid and two we can not.

- The Lambretta casing in this area is weak, it's bad design and limits us doing anything worth while. This is why I'm not a fan of a 250 where the casing need boring out, it just weakens an already weak area
- Indian casings of which this one is, are weak in the casting process in this area. I've two casings that's come in this year where they have cracked all over through the stud holes and into the mag flange. It doesn't matter how much you grind into the cracks they just keep going and you would end up at the rear hub bearing and still not cure them. One SIL casing can be fine the next will not and you can not tell upon assembly
- Hydro locking..... that's when a stud is screwed in with either too much oil, grease, crap or loctite under the stud. As the stud screws in it will try to compress the unwanted and will pop the casing! It will be a small crack or a big crack running the full length of the threads or a piece can be popped off.

So what should you do?

Personally I run a number one taper tap down the threads to clean them out and then I squirt high pressure degreaser into the threads to wash them out. Once dry on assembly I use grease on the SIDES of the thread if the casings threads are perfect and tight and I do the same with Loctite if the threads are a little sloppy. Obviously if a thread has gone, then I prefer to use a Timesert in this area over a helicoil and I definitely don't use a Tapex insert.

If the threads really gone like this one, I will grind out the threads and weld and repair the threads. And if you use the MB high tensile cylinder stud kit you won't have a problem.... we hope. With this one I took it upon my self to clean out the transfer feeds which were already tuned but not to my standard and I cleaned out the casing which had been ground for a long stroke crank. Job done another one to rebuild.





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