FITTING INSTRUCTIONS TR2/4 copper gasket 1.2mm

Partnumber: 016.368

These solid 1.2mm thick copper head gaskets are made to allow alteration to compression ratio where too much material has been removed from the head. These gaskets are suitable for all engines. Small variations in thickness will have minimal effect on compression ratio and negligible effect on performance.

Prepare your gasket before installation :

Try the gasket to suit the head and bore, paying particular attention to the area where the valves may occupy an area outside the bore. Drill any extra holes where there is water passage in both the head and the block.

The copper gasket can be cleaned with solvent and gently brushed with a pad to remove any old residue prior to and after annealing. Use the entire pad and the flat of your hand and brush the gasket on a flat hard and clean surface. This process flattens the gasket as well. DO NOT BEAD BLAST - it work hardens and distorts the metal.

NEVER HAMMER THE GASKET - IT WILL DESTROY IT.

If the gasket bends by accident it can be re-straightened - as long as it is not kinked. It may need to be annealed after straightening.

<u>Note</u>: Prior to applying any gasket sealant and final application confirm that all the holes line up properly. If the gasket has been customized, check it for good fit around all the head studs. The fit should be tight. It is best to remove all the studs and lay the gasket on the top of the block first then replace the studs. If there is a bit of a bind around any of the head stud holes just relieve that location a bit with a de-burring tool.

Annealing :

After the gasket has been worked to the proper size it is ready for use. It may be necessary to re-anneal the gasket if it has work hardened. Annealing is a heat treatment that softens copper. The gasket may work-harden somewhat if you have worked with it but it still should be soft enough for use. If in doubt follow the annealing procedure.

Since there is oxygen within the copper it can only be annealed (using flame heat) a few times before it becomes somewhat brittle. We don't recommend re-annealing more than three times.

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Oxy/acetylene torches may give too much heat.

If using this heat method, ensure an acetylene rich flame is used with the 'core' of the flame held well away from the work.

Heat the metal until it appears just dark red whilst in a dark location. More red or orange is not necessary.

Good to know, the correct temperature for annealing is 400°c, and conveniently this is the temperature Zinc melts at, should you have a piece to hand!

Let the gasket air cool. Once cool (in about five-ten minutes) brush with the pad on a flat hard surface to clean and flatten. A flaky post-annealing residue is normal after annealing - brush this off with the pad.

Install your gasket :

It is important to use a gasket sealant to install the head gasket.

IMPORTANT : the faces of the head and the block need to be flat, true and clean.

Apply welseal (order Part No 016.269) to both sides of the gasket in an even coat.

Ensure complete cover.

Slide the gasket into place, or better still, fit the studs after the gasket.

Grease the inside of the stud holes in the head, not the studs.

Fit the cylinder head and carefully pull down ensuring clearance of the head to the water pump housing and other obstructions, exhaust etc.

Torque in sequence to 60 lbft.

When satisfied with the installation, torque to final figure of 100-105 lbft. This figure is correct for TR2-4A steel heads.

If you are using an Aluminium head, follow the installation instructions supplied with the head and torque the head nuts to the figure specified.

Fit the remainder of the engine components, fill with fluids and fire up to test.

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