

MAKING A WHITE METAL BEARING

Over many years a lot has been written about how to make a white metal bearing. What is shown below was how I made my bearings for three of my engines. It is based on a process was shown to me when I was an apprentice in the late fifties and early sixties. An elderly fitter that worked on overhauling engines at my Dad's engineering works in Sydney, made many white metal bearings of all shapes and sizes. All were nearly one offs, so an easy method was required to produce the shapes required. He used jarrah hard wood which was turned up in an old flat pulley, flat bed lathe. After turning up the outside shape, you will need to dimple one half of the mould for the bearing locator to position it in the mating engine part to stop rotating. Then clamped all together and with the addition of a dowel smaller than the bore required, poured the molten white metal into the mould. There was no burning of the timber. If required, the moulds could be used several times and still produce a good casting.

The hand drawn sketches are not to any scale but are to show you how to go about making your own bearings without much fuss!!!! You will of course need to turn the castings in a lathe after cooling, to the finished size required. The finished turned bearing can be split in half using a 1mm cut-off disc in your angle grinder to scribed lines. Drill the oil or grease hole and with a wide cut-off disc, cut the runners. No need to use a half round runner chisel.

Keep in mind that you will need to have all OD's about 3mm over size and the ID about 3mm undersize in the mould. This extra metal is required for turning allowances.

To melt the white metal, all I used was a small aluminium saucepan and heated it over a portable camping single burner stove with extra 5 mm round bars to sit the saucepan on. It all worked well with no fuss.

The metal is available in various grades for example Number 9 for engines under 1000 RPM
White metal can be purchased from

SA Building Supplies

12 Lloyd Street

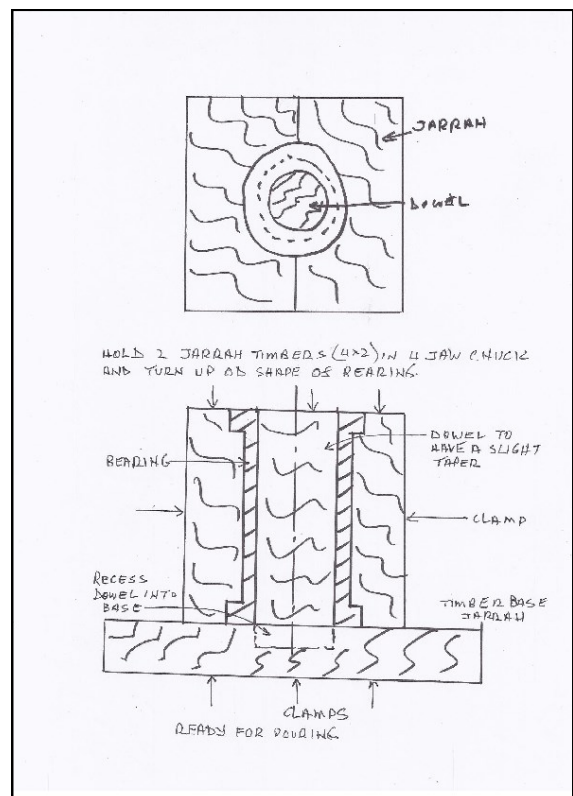
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