

**Head Studs for DB4, DB5, DB6 & DBS
(Re-designed)**

At JMB Services we pride ourselves on pursuing correct engineering processes, which is a comparative reason for re-designing the 6 cylinder head stud, mainly to locate and lock at the stud bottom in line with the later V8 stud.

In a 6 cylinder engine over time, removing, re-fitting and torquing the head with a standard top thread locking stud, we have found the threads deform and stretch allowing the stud to screw further into the block, making the protruding stud lengths inconsistent. Add in the many variables of head, nut and washer thicknesses this could leave too little thread for the domed head nut to fully engage. A nut without the correct amount of engagement in this situation is a potential weak link and liable to fail.

Our revised studs are made from EN24 steel with rolled UNC & UNF threads and heat treated to 'V' condition, as were our previous studs made over many years. Now by having bottom locking studs all lengths will be equal, therefore correct nut engagement can be maintained on all the studs. We have also increased the overall length slightly to give more thread engagement with the standard head nuts.

As all blocks appear different, a simple drilling operation may be required to set the location depth, this we feel is possible using a hand drill with some type of depth setting device. We are making special drill bits with built-in depth stops and only bottom cutting to protect the block threads from damage, these will be made available from us on loan or outright purchase.

When these new studs are assembled with our new longer chrome dome head nuts and thicker washers, it is possible to maintain the correct nut engagement which would be 1.1/2 x diameter.

Bearing in mind the infinite variations of head thickness, due to re-machining the cylinder head face, the head nut faces, the use of different thickness washers, we would suggest a dummy assembly of one stud. This would determine the length of thread above the washer, which should be approximately 1/16" less than the depth of thread available in a dome nut, as in Figures 1 & 2.

After completing this simple but important check, you will probably find the block needs deepening, this is where our special tool will drill each hole to the same depth, allowing each stud to protrude the same amount. When drilling to depth, L5 in Figure 2 should be constant throughout all stud holes.

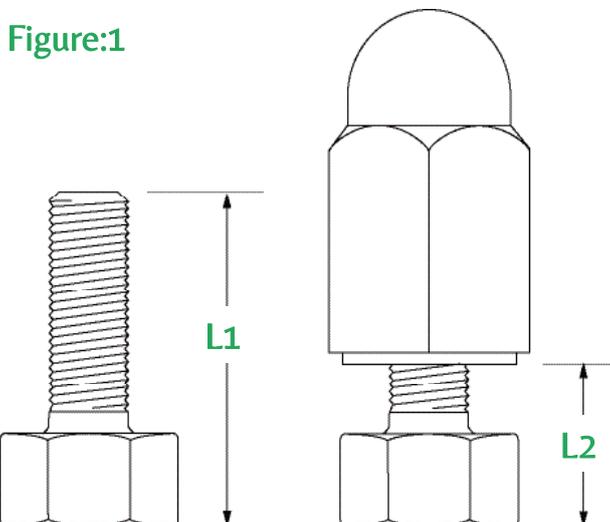


Figure 1
L1:
 Measure a dummy bolt for overall length,
L2:
 Screw dome nut fully on and measure the bolt left protruding from the nut.
 $L1 \text{ minus } L2 = L3$
 total length of nut thread.

Figure 2
 $L4$ must be 1/16" less than $L3$ in Figure 1 and $L5$ constant

