Forged EN40B Cranks

Forged EN40B steel nitrided cranks are considered the ultimate in specification, even over the 'billet' type. This is mainly because the grain pattern of a forging follows the shape of the webs and bearings where as the billet type is machined across the grain. We hold stocks of all the forged type cranks which have superior oil distribution galleries. All are machined to fit 1300 non-'S' center main except C-STR932 which is 'S':

1. a.  81.33mm stroke EN40B, nitrided, 1.625" 'S' big end journal.
   For 'S' block. ............................................. C-STR932
   b.  76mm stroke EN40B, nitrided, 1.625" 'S' big end journal.
   For 1300cc block. ...................................... C-STR932
   c.  84mm stroke EN40B, nitrided, 1.625" 'S' big end journal.
   For 1300cc block. ...................................... C-STR932
   d.  86mm stroke EN40B, nitrided, 1.625" 'S' big end journal.
   For 1300cc block. ...................................... C-STR932
   e.  81.33mm stroke EN40B, nitrided, for 1300cc block with 1300cc big end journal diameter = 1.7497" standard. .................. C-STR932
   f.  81.33mm stroke EN40B, nitrided, for 1300cc block with 'S' big end journal diameter = 1.625" standard ......................... C-STR932
   g.  Same as C-STR932 but without primary gear circlip groove for special applications ............................................... C-STR933

Future forged EN40B crankshafts will be mass center balanced and benefit from latest technology in having leading edge chamfering on the crank webs, which helps reduce whip and resistance at high rpm giving smoother running and balancing properties. (as shown above)

Crankshafts for the short stroke 'S' are available to order only, and are cut from a steel billet as the forgings are no longer available.

1071cc 'S' steel billet crank, stroke length 68.26mm ... C-STR932
970cc 'S' steel billet crank, stroke length 61.91mm .... C-STR932

End & Main Bearings

4. Our main range of bearings was Vandervell but owing to poor supply, varying tolerances and imperfections all the leading engine builders and Mini Spares have reverted to the superior ACL bearings which are steel backed lead indium copper race quality.
   * Please state oversizes when ordering bearings.
   a. Big ends 850/998/1100 and Cooper 'S', 1.625" diameter, available in std/10/20/30/40. ................................. AEB572
   b. Big ends 1275cc 1.749" diameter, available in std/10/20/30/40 .... AEB91306
   c. Mains 1300cc and all 'S', available in std/10/20/30/40. ................................. AEM9120
   d. Mains 1300cc A-plus, available in std/10/20 only, with center locating tab. .................................................. AEM91886
   e. Mains 998/1100cc, available in std/10/20/30/40 ............. AEM3314
   f. Mains 998 A-plus, available in std AE material only in std/10/20 only, with center locating tab. .......................... AEM3427

Cam Keys Offset & Standard

To aid accurate timing when using non adjustable timing gear systems, there is a range of proper CNC machined offset cam keys available. These come in 1° increments up to 9°. One tooth round on the gear represents 13° of cam timing, so if you are more than 9° out move the cam gear one tooth in the required direction and use the keys the other way round as they are bi-directional. They are available individually.

5. Standard camshaft key. Always replace when fitting a new camshaft ... WKN505
6. Offset camshaft key, represents 1° offset. Change the number to order the required key, (ie. for 3°, WKN3 OSET). Available from 1° to 9° ..................................... WKN1 OSET
7. Crankshaft timing gear key ...... 6KB36
8. 360° Protractor for timing camshaft. .............................................. C-AJP337

Thrust Washers

When refitting crankshafts, thrust washers should always be checked and replaced. Available in standard and plus 3 thou only in an engine set of 4.

2. a for 1275 standard ............. AEW1236
   b for 1275 at 3 thou oversize. ........................................ AEW1236-003
3. a for 998 standard size, .......... AEW1222
   b for 998 at 3 thou oversize. ........................................ AEW1222-003

As many as possible of our engine parts are supplied by Federal Mogul one of the worlds largest suppliers of automotive components, who purchased Vandervell, Glacier, Payen and AE Hepolite. All of these old names are synonymous with the BMC/LEYLAND A series engine and we have carried on the tradition.

MPZ Engine Build Lubes

10. MPZ Cam Lube. As above but converted into a non-melting gel type grease. These features protect cam lobe, lifters and valve train components from scuffing and wear during initial start-up. Also useful for Mini oil pumps to stop drain back on start up. (1 fl oz) ................................. KCLUBE