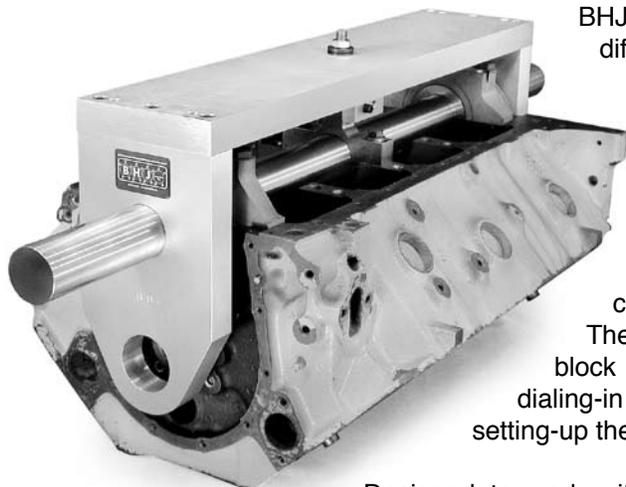


Cam Tunnel Alignment Fixture (CTA-1)



BHJ's Cam Tunnel Alignment blueprinting fixture solves the difficulties associated with setting-up blocks for cam tunnel align-boring, while adding a level of accuracy not before available on a conventional align boring machine.

Many shops have the necessary equipment to perform the cam tunnel align-boring operation. In most cases, zeroing on the existing cam bores sets the cam tunnel alignment relative to the front and rear cam bores only and does not correct the critical relationship between the cam and crankshaft.

The Line Boring Fixture aligns itself in the proper location on the block and the Fixture is then dialed-in on the machine, instead of dialing-in from the block. Machinists reportedly spend up to an entire day setting-up the block in "true" position and achieve only marginal results.

Designed to work with all align-boring machines, the Fixture corrects improper factory geometry, eliminates guesswork and reduces set-up time. The Fixture enables accurate set-up for boring the cam tunnel to ensure parallelism to the main bearing bores, correct cam-crank center-to-center distance and the correct vertical plane in relation to the mains, thus correcting any skew or twist in the block.

The Cam Tunnel Alignment Fixture is supplied complete for one engine family and contains one Tie Plate, one pair of engine-family specific End Plates, one Dial Indicator Mandrel, one pair of Alignment Sleeves specific to the machine's boring bar (specify boring bar size when ordering), an Adjusting Yoke and Hardware Kit.



Step-Up kits may be purchased to upgrade to different engine families and are supplied with one pair of End Plates. Also available is the Small Block Chevy Distributor Alignment Fixture, which indexes the cam tunnel honing location to the blueprint-correct distributor gear "sweet spot".

Use of the Cam Tunnel Alignment Fixture requires BHJ's 2" Precision Support Bar and Main Bearing Bore Adapter Rings, which are sold separately and shown below.

2" Precision Support Bars (BAR)

BHJ's 2" Precision Support Bar is the heart of the set-up for all BHJ Blueprinting Fixtures. Use of this 38-pound, specially-turned, ground and polished precision Shafting provides the rigidity necessary for this critical zero datum starting point.



Specially-machined versions of the 2" Precision Support Bar are available when the ends must be re-sized in order to fit equipment applications that originally came with support bars of less than 2" diameter at their ends. Examples include models by Berco, DCM, Kansas Instruments, as well as some Kwik-Way, Peterson and Storm Vulcan equipment. Due to design changes and production variations among machines, the following dimensions must be provided when ordering Special Support Bars: Over-all Length of Bar, Diameter of each end of Bar and Length of turned diameter on each end of Bar.



Main Bearing Bore Adapter Rings (AR)



BHJ's Main Bearing Bore Adapter Rings are used to mount BHJ's 2" Precision Support Bar in an engine block. The combination of the Support Bar with these Adapter Rings is required for use of all BHJ engine block Blueprinting Fixtures. The Adapter Rings mount in the front and rear mains and precisely center the 2" Bar to the main bearing bores, once the main caps are torqued to spec. Rings are application-specific and are available for all engines. Most popular sizes are kept in stock for immediate delivery and special O.D.s are available by request.