

BHJ Products, Inc.

Parts List & Instructions

Product Name: **Cylinder Head Fixture**
BHJ Part#: **CHF-2**

Page 1 of 2

Kit Contents:

2x Adjustable Setup Standards	2x Strap Clamps
2x Cast Iron Stands	2x Spherical Washer Sets
2x Crossbars (1 Notched, 1 Plain)	4x 3/8-16 x 1.250" Socket Head Cap Screws



Description

BHJ's Cylinder Head Fixture ensures accurate, repeatable positioning of any cylinder head from an established reference point, which is necessary to properly perform many cylinder head machining operations.

The fixture utilizes massive cast iron end supports, which are slotted to accommodate the T-slot spacing of all common surfacing and milling machine centers for accurate alignment. The infinite pivot point provides 360-degree rollover capability and accepts 4 cylinder, V-6 and V-8 heads up to 23-1/2" in length. Straight-6, V-10 and V-12 heads can be accommodated with the addition of the "XL" Step-Up Kit. These custom length XL bars are available on a special-order basis.

Overall dimensions of the BHJ Cylinder Head Fixture in its standard configuration (no cylinder head installed) are 33.5" long, 15" wide, 9.25" high and shipping weight is 85 lbs.

Setup Procedure

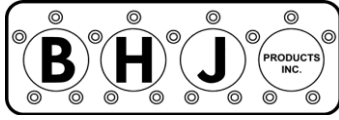
NOTE: End supports are keyed for installation of customer's table keys.

Set the end supports on the machine table and rotate the rollover brackets on each stand so the tapped holes are facing upward. Install the crossbars with the bolts supplied. The crossbar with the notched cutout installs on the clamp handle side of the fixture with the notch facing inboard. The other crossbar installs on the opposite side of the rollover bracket. The selection of attachment holes will vary with the type of head to be mounted.

The cylinder head is attached to the crossbars by the rocker arm attachment bolts. A special provision is supplied for mounting early Small Block Chevrolet heads with pressed in studs. The mounting clamps have a deep counterbore due to the short length of these studs. Always use the spherical washer sets in order to compensate for the angle of the mounting bolts. Attachment bolts are left to the customer's discretion due to the large variation of cylinder head combinations that will be encountered.

Once the cylinder head has been attached to the rails, it can be precisely set through the use of the set-up standards and leveling adjustment screws.

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Page 2 of 2

End to end leveling is accomplished by slightly loosening the Allen bolt that clamps the crossbar bracket to the end support shaft (protractor end) then adjusting the bracket up or down using the socket head set-screws in the bracket. After leveling, re-tighten the clamp bolt.

Set-up of the head to ensure the deck, intake and exhaust surfaces will be cut precisely parallel to the dowel pins is accomplished as follows:

1. Rotate the head so that the deck surface is vertical.
2. Slip pins into the locating dowel holes.
3. Adjust one of the set-up standards so that the head rests on it when the mounting bolts are slightly loosened.
4. Adjust the second set-up standard to the same length as the first.
5. Loosen the mounting bolts so that both ends of the head are supported by the set-up standards. Re-tighten the mounting bolts.
6. Rotate the head and check the deck surface for level.
7. Firmly tighten the lock handles.

The deck surface can now be cut level or angle milled.

After finishing the deck surface, set the protractor indicator to zero.

Loosen the lock handles, rotate the head to the desired intake surface angle, tighten the lock handles and cut the intake surface. The same procedure is used to machine the exhaust surface.

The protractor pointer is engraved with a 1/4-degree Vernier that can be used if desired.

Call BHJ at (510) 797-6780 with any questions regarding the part, setup, or operation.