

Vertical Differential Jig

by Tom Endy

Several people have asked me about the vertical bench jig seen in some of my articles that I use for differential overhaul. The clamping section is made from 3&1/2" steel pipe cut in half. Each half is welded to angle iron measuring 3" by 4". Each of the two halves is attached to a swivel bench vice by a single bolt to allow it to position correctly. The laminated board the vice is attached to is 2" thick, 11" wide and 45" long. There is a steel plate screwed to the bottom of the board. The board is held vertical by a wood bench vice attached to the work bench. The vice was purchased at a swap meet for about \$40.



In order to evenly clamp the laminated vertical board in the wood vice a piece of the laminated board is inserted into the vice on the right side.



A rear axle assembly with a Mitchell stub shaft is seen clamped in the vertical jig.



The laminated board has a steel plate screwed to the bottom to prevent the bottom from being worn away each time the jig is removed and dragged from the wood bench vice.



The vice can be swiveled to place an axle housing in a horizontal position for inspection and further cleaning of the inside.



The two angle iron sections are screwed to the top of the vice where holes have been drilled.