



**COGSDILL TOOL**

*products, inc.*

# APPLICATION *news*

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## Shefcut® Holds Consistent Size and Finish on Wrist Pin Bores

**Single-blade, guide-padded Shefcut® tools eliminate honing and costly cleaning operation**

A MANUFACTURER OF TRUCK ENGINES, looking for ways to reduce production costs for pistons, wanted to improve their manufacturing processes for wrist pin bores. Their established procedure was a boring operation followed by honing on a machine with four stations. At each station .001 inch (.025mm) was honed out. Honing was followed by a cleaning operation, with the required extra part handling. These secondary operations were expensive and time-consuming.

Cogsdill recommended a Shefcut® reamer to replace the honing operation. The customer was concerned about holding size and finish, and challenged Cogsdill to demonstrate the capabilities of the tool. The tolerance achieved was within the  $\pm .0001$  inch (.0025mm) specification, and the 7 R<sub>a</sub> finish was slightly better than required.

The customer was impressed with the results, but concerned about tool life. The bore size was unchanged after a run of 3000 parts. The inspector stated, "I have never seen truer or rounder bores!"

A machining cell was set up to turn and bore the pistons. The honing operation and the subsequent cleaning process have been eliminated, for cost savings of 35% over the previous process. This satisfied customer is now planning to apply Shefcut to ten to twenty different wrist pin bore sizes.

***Refer to machining data and tool and part drawing on reverse side***

