PETERSON TOOL COMPANY
The Cutting Edge of Perfection

CASE STUDY:
Design Assistance
Hilite Design Engineering Group

TESTIMONIAL

As a manufacturing engineer for Hilite Industries of Carrollton, TX I was asked to formulate a manufacturing plan to produce approximately 1.5 million wheel cylinder pistons for an aluminum wheel cylinder for Delphi Corp. We were to produce the pistons on a 1" Six Spindle Wickman Screw machine.

The design as blueprinted required three .060 dia. holes drilled at a 45-degree angle 120 degrees apart for fluid passage. This proved to be most impractical, as it would require a secondary operation and $60K plus of additional capital equipment plus labor to perform the added operation.

I suggested to the Hilite Design Engineering Group that if I could be allowed to mill three flats on the O.D of the piston with an area equal to the three .060 dia, holes I could drop the piston off the screw machine in one operation. This would eliminate the need for the secondary operation and the added labor capital equipment cost.

This proposal was presented to Delphi and they were most receptive to the proposal.

I approached David Baird from the Peterson Tool Company and inquired if they could help me in designing the required threelobed cutting tool that would produce the three flats on the piston.

Within two weeks Peterson Tool had designed a tool that would cut the three flats on the piston per the drawing proposed to Delphi.

Delphi quickly approved the proposal and we were approved for production.

As a result of Peterson Tool Company's design expertise and tooling support, Hilite International was able to produce more than 4+ million pistons at a substantial cost savings.

For tool design and technical support I recommend Peterson for the most complex/precision of operations.

W. Glyeen Coffey
Manufacturing Engineer (Ret)
Hilite International, Carrollton, TX

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