



## Wheel Loader Frames: Opening Drill®

The customer is drilling wheel loader frames made from A36 structural steel using a MAG Giddings & Lewis horizontal boring mill operating at 125 HP with 400 PSI through-tool coolant.

The customer needed a better way to complete this application. They asked for a solution to decrease cycle time and increase tool life.

The **Opening Drill®** completed the process with only one tool versus the two tools previously needed. The solution also eliminated lost time due to multiple tool changes, saving the customer both time and money.



<b>Product:</b> Opening Drill® <b>Objective:</b> (1) Decrease cycle time (2) Increase tool life <b>Industry:</b> Heavy equipment <b>Part:</b> Wheel loader frames <b>Material:</b> A36 structural steel <b>Hole Ø:</b> 4.17" <b>Hole Depth:</b> 4.33"	Measure	Competitor Bores	Opening Drill®
	RPM	458	732
	Feed Rate	0.006 IPR	0.005 IPR
	Penetration Rate	2.75 IPM	3.66 IPM
	Cycle Time	3 min 8 sec	1 min 11 sec
	Tool Life	4 parts	9 parts



125% tool life increase

The Opening Drill® provided:

- ✓ Decreased cycle time
- ✓ Increased tool life