ATRONA Material Testing Laboratories, Inc.
5023 Willow Creek Rd. Machesney Park Il 61115 . Phone (815) 229 - 8620 . FAX (815) 229 - 8610

Project # 206-293

TG Tools United Co.

Performance and Endurance Testing
Cutting Tools

Monday, October 23, 2006

ACLASS®
ISO/IEC 17025 Accredited Laboratory
Certificate Number AT-1119

Prepared for: TG Tools United Co.
1010 Cedar Ave.
St. Charles, IL 60174
Attn: Ms. Rainbow Wang
(800) 687-4122

By: Atif A. Odeh, Principal Metallurgical Engineer
Christopher Page, Sr. Engineering Technician
Steve McDaniel, Failure Analysis Engineer
Matt Strack, Metallurgical Lab Technician

Conclusions:

KIK HS Drill Bit,

1. Minor slippage or approximately 20% overall less slip when compared to Hitachi Black drill bit
2. Exceptional roundness, smoother path, and greater than 50% cleaner entry when compared to Hitachi Black drill bit
3. No burr remained on edges of holes when compared to Hitachi Black drill bit which contained significant amount of burrs

SAMPLE INFORMATION:

Drill Bits:

TG HSS – ¼" (KIK Point)
Hitachi Black Shield – ¼" (Split Point)
Hitachi Black Gold – 17/64" (Split Point)
DeWalt Brad Point – ¼" (Spur Point)

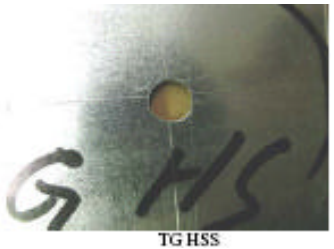
Test Methods and Procedures:

1. Thin Sheet Metal – Slippage
   Draws Squares formed by cross lines
   Back material – any wood
   Hand Power Tools – Drill straight down
   Starts pointing any cross
   Scale under wood – 25Lbs pressure, full power

Mechanical TEST DATA AND RESULTS:

Drill Bits: Roundness of Bore Test:

Test material: Stainless steel sheet 0.02" thickness.
Samples of TG HSS produced slightly elongated holes.
Samples of Hitachi Black Shield and Hitachi Black Gold caused severe deformation of the test material upon penetration.



TG HSS

Hitachi Black Shield


Hitachi Black Gold

Test Methods and Procedures: "continued"

5. Thicker Sheet Metal – Entry and Exit/Burr
   NO back material
   Drill Press – Drill straight down
   Scale under vise – 25Lbs pressure, 1500RPM

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Mechanical TEST DATA AND RESULTS: "Continued"

Drill Bits: Exit Hole Burr Test:

Test material: Stainless steel sheet 0.02" thickness.

The Hitachi Black Gold produced an elongated hole with moderate burring at the exit.
The Hitachi Black Shield produced a consistently round hole with significant burring at the exit.
The TG HSS produced a consistently round hole with minor burring at the exit.

Test Methods and Procedures: "continued"

8. Metal Block – Speed Compare
   NO back material
   Drill Press – Drill straight down
   Scale under vise – 125Lbs pressure 1500RPM

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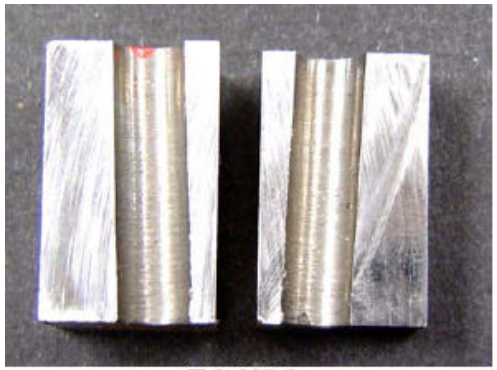
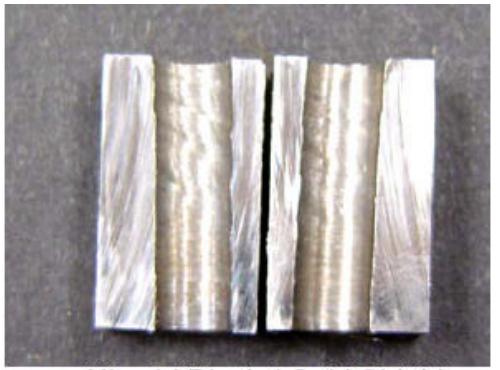
Mechanical TEST DATA AND RESULTS: "Continued"

Drill Bits: Consistent Through Hole Test – Steel Plate:

Test material: Low carbon steel plate 1" thickness.


TG HSS


Hitachi Black / Gold Shield

The TG HSS produced significantly smoother and more consistent through hole than the Hitachi Black Shield.

Test Methods and Procedures: "continued"

9. Metal Block – life
   NO back material
   Drill Press – Drill straight down
   Scale under vise – 125Lbs pressure 1500RPM

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Conclusions:

Based on all mechanical and metallurgical testing conducted in this study it is our opinion that TG tools tested in this project are superior in performance and endurance to the competitor's tools. Furthermore, TG samples exhibited more original conditions after testing than did the competitor's samples where burning and damage to the competitor's samples was more significant than the TG samples. This is significant to the tool life where metallurgical wear analysis prove TG tools to be in the order of and estimated two (2) times the life of the competitor's tools.