

***Drill Rod & Tool Steels, Inc.***  
***3700 North River Road***  
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***ANALYSIS REPORT***

***HIGH CARBON, HIGH CHROMIUM, COLD WORK TOOL STEEL.***

***AISI D-2***  
***ASTM A-681***  
***MIL. SPEC QQT-570a***

<b>CHEMICAL ANALYSIS:</b>	<b>LIMITS.</b>	
<b>C CARBON</b>	<b>1.40 TO</b>	<b>1.60%</b>
<b>Si SILICON</b>		<b>.50 MAX</b>
<b>Mn MANGANESE</b>		<b>.50 MAX</b>
<b>V VANADIUM</b>	<b>.15</b>	<b>1.10</b>
<b>Cr CHROMIUM</b>	<b>11.00</b>	<b>13.00</b>
<b>Mo MOLYBDENUM</b>	<b>.70</b>	<b>1.20</b>
<b>P PHOSPHORUS</b>		<b>.03 MAX</b>
<b>S SULPHUR</b>		<b>.03 MAX</b>

**QUENCHING MEDIUM: STILL AIR, ALSO OIL HARDENING**

**HARDNESS RANGE: 61 TO 63 Rc. When tempered @ 300 to 350°F.**

**HEAT TREATMENT: Typical.**

**HARDENING TEMPERATURE (STILL AIR) 1850 TO 1925° F.**

**TEMPERING TEMPERATURE 300 TO 1000°F.**

**ANNEALING TEMPERATURE 1600 TO 1650°F.**

**MATERIAL FURNISHED IN THE ANNEALED CONDITION: UNDER 255  
BRINELL**

**ALL MATERIAL IS DFARS COMPLIANT**

**MATERIAL MANUFACTURED IN THE U.S.A.**