COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 031

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Tool Steel		
Material Type: M42 (High Speed Tool Steel)		
UNS Number: T11342	Coupon S/N: 003 (practice)	
Lot: HT F301	Hardness: RC 23	Machinability: 25
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specification(s): No **AMS, FED** or **MIL SPEC's** identified - **AISI** M-42 and **ASTM** A600		
Mill: Crucible		

PART 2. **MARKING OPERATIONS**	
Marking Specification(s): MIL-STD-130 and MA0104-301	
Cleaning Procedure: MA0110-303	
Symbol Type: Vericode	Symbol Size: 0.300-inch square
Number of Characters: 7	Number of Data Cells: 11
Information Encoded into Symbol: AB12345	
Marking Method (Check appropriate block and attach completed data sheets): A. Computer Driven Dot Peen . . . . . X B. Computer Driven Machine Engraving . . . . . X C. Computer Driven Micro-sandblaster . . . . . X D. Computer Driven High Resolution Laser . . . . . X E. Computer Driven Embroidery . . . . . N/A	
Corrosion Protection Method Used: Coated with MIL-L-7870A general purpose lubricating oil.	

DOT PEEN MARKING METHOD DATA SHEET

Report Number: 031

PART 1. **MARKING DEVICE DESCRIPTION**	
Manufacturer: Wetzel Tool Company, Division of Dapra Corp. 66 Granby Street, Bloomfield, CT 06002	
Name: Mark 5 Multidot Peen Marking System	
Model Number: 119RMK5	Serial Number: 11940212
Computer: IBM PS/2 Model 30 with Hard Drive	
Software: Vericode Symbol Generation (V-Gen) Revision 1	

PART 2. **MARKING OPERATIONS**	
Nose Piece: Std - 11941020	Stylus: Standard - 11940212
Marking Unit: 2 X 2 (4 cells)	Size Factor: 1
Marking Gap (mm): 1.000	Marking Force: 6
Vericode Size: .25" x .25"	Avg. Marking Depth: 0.00409"
Marking Location: Check position of marking on material test coupon	[X] [ ] [ ] [ ] Pos 1 Pos 2 Pos 3 Pos 4
Backfill: Yes X No	Backfill Material: Dry erase ink
Inspection Verification: Stamp (ANM 174)	Date 09-16-92

PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 16		Focus Setting: 1	
Control Unit: Pulnex CCU-84		Camera Distance: 3-1/8"	
Enhance: Off	Gamma: Off	Pedestal: Off	Gain: 7.5
Decoding results: AB12345 Decoding Successful (first try) . . . . . X Decoding Successful (multiple tries) . . . . . . Misread . . . . . . No Read			
Inspection Verification: Stamp (ANM 174)		Date 09-16-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 031

PART 1. **MARKING DEVICE DESCRIPTION**			
Manufacturer: Newing-Hall, Inc., 2019 Monroe Street, Toledo, Ohio 43624 (419) 255-8805 or (800) 521-2615			
Name: Computer Controlled Engraving System			
Model Number: NH-300 NPC		Serial Number: 1056902	
Computer: IBM PS/2 Model 70 - 386			
Software: Vericode Symbol Generation (V-Gen) Revision 1			
PART 2. **MARKING OPERATIONS** (M42 - Tool Steel)			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 30%	Micrometer: 3	Air Pressure: 25	
Cutting Fluid: Tapfree, mfg'd by Winfield Brooks Co., Inc.			
Vericode Size: .25" x .25"		Depth of Marking: .0044"	
Marking Location: Check position of marking on material test coupon	[ ] Pos 1 [X] Pos 2 [ ] Pos 3 [ ] Pos 4		
Backfill: Yes X No		Backfill Material: Black Lacquer	
Inspection Verification: Stamp (ANCI)		Date 02/24/93	
PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 12		Focus Setting: 0.50	
Control Unit: Pulnex CCU-84		Camera Distance: 3-1/16"	
Enhance: Off	Gamma: Off	Pedestal: Off	Gain: 7.5
Decoding results: Decoding Successful (first try) . . . . . X Decoding Successful (multiple trys) . . . . . . Misread . . . . . . No Read			
Inspection Verification: Stamp (ANCI)		Date: 02/24/93	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 031

PART 1. **MARKING DEVICE DESCRIPTION**	
Manufacturer: Comco, Inc., 2151 North Lincoln Street, Burbank, CA 91504 (818) 841-5500	
Name: Micro Abrasive Profiler	
Model Number: PR1101-3	Serial Number: 030
Computer: PC/AT Computer with Comco Bus and VGA Monitor	
Software: Vericode Symbol Generation (V-Gen) Revision 2.1	

PART 2. **MARKING OPERATIONS** (M42)	
Tank Orifice Size: MB1020-4 (0.018-inch diameter)	
Nozzle Type: Rectangular	Nozzle Size: MB1500-26 (Orange)
Abrasive: Aluminum Oxide	Abrasive size: 25 Microns
Air Pressure: 90 PSIG	Power Flow: Maximum
Vector Speed: 75	Nozzle to work distance: .60 mm
Marking Location: Check position of marking on material test coupon	[ ] [ ] [X] [ ] Pos 1 Pos 2 Pos 3 Pos 4
Backfill: Yes No X	Backfill Material:
Inspection Verification: Stamp	Date: 03/11/93

PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: 08001	
Aperture Setting: 12		Focus Setting: 0.30	
Control Unit: Pulnex CCU-84		Camera Distance: 3 1/16"	
Enhance: Off	Gamma: Off	Pedestal: Off	Gain: 7.5
Decoding results: Decoding Successful (first try) . . . . . X Decoding Successful (multiple trys) . . . . . . Misread . . . . . . No Read			
Inspection Verification: Stamp		Date 03/11/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 031

PART 1. **MARKING DEVICE DESCRIPTION**	
Manufacturer: AB Lasers, 4 Craig Road, Action, Massachusetts 01720 (508) 635-9100	
Name: Landmark Laser Marking System	
Model Number: LBI-6000	Serial Number: 6000858
Computer: Motorola 68000 (VME) 32 bit Micro-processer	
Software: Vericode Symbol Generation (V-Gen) Revision 1	

PART 2. **MARKING OPERATIONS** (M42)	
Marking Mode: Continuous Wave	Current Setting: LS-180
Speed Setting: G0 50	Frequency setting: Q30,000
Vericode Size: .25" x .25"	Depth of Marking: Surface Mark
Marking Location: Check position of marking on material coupon	[ ] [ ] [ ] [X] Pos 1 Pos 2 Pos 3 Pos 4
Backfill: Yes No X	Backfill Material: N/A
Inspection Verification: Stamp	Date 02/11/93

PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: 08001	
Aperture Setting: 16		Focus Setting: 1.0	
Control Unit: Pulnex CCU-84		Camera Distance: 3-1/16"	
Enhance: N/A	Gamma: N/A	Pedestal: N/A	Gain: 7.5
Decoding Successful (first try) . . . . . X Decoding Successful (multiple trys) . . . . . . Misread . . . . . . No Read			
Inspection Verification: Stamp		Date 02/11/93	