COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 007

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Copper and copper alloys		
Material Type: CDA 101 - half hard (oxygen-free electronic)		
UNS Number: C10100	Coupon S/N: 003 (practice)	
Lot: HT E326	Hardness: RF 85	Machinability: 20
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: **AMS** 4700 **FED** QQ-B-575; QQ-C-502; QQ-C-576; QQ-W-343 **MIL SPEC** MIL-W-85; MIL-W-3318; MIL-B-18907 and MIL-W-23068		
Mill: Unknown - Purchased from Material Samples Company		

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: 007

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 - 1194MST
Marking Unit: 2 X 2 (4 cells)	Size Factor: 1
Marking Gap (mm): .500	Marking Force: 4
Vericode Size: .25" x .25"	Avg. Marking Depth: 0.00390"
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: IBM # 210 Ribbon
Inspection Verification: Stamp	Date 09-08-92

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: 7.0
Decoding results: AB12345 Decoding Successful (first try) . . . . . . Decoding Successful (multiple trys) . . . . . X Misread . . . . . . No Read			
Inspection Verification: Stamp		Date 09-08-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 007

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**			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 20%	Micrometer: 3	Air Pressure: 20	
Cutting Fluid: No			
Vericode Size: .25" x .25"		Depth of Marking: .00429"	
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: Black Lacquer	
Inspection Verification: Stamp		Date 12/03/92	
PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 12		Focus Setting: 0.5	
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 12/03/92	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 007

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** (CDA 101)	
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: 70 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 X No	Backfill Material: Alum Oxidizer
Inspection Verification: Stamp	Date: 03/05/93

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: * Adjustments to compensate for material color and pits Decoding Successful (first try) . . . . . . Decoding Successful (multiple trys) . . . . . X * Misread . . . . . . No Read			
Inspection Verification: Stamp		Date 03/05/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 007

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** (CDA 101)	
Marking Mode: Continuous Wave	Current Setting: LS190
Speed Setting: G0 50	Frequency setting: Q3000
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 X No	Backfill Material: Paint Marker
Inspection Verification: Stamp	Date 01/20/93

PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: 08001	
Aperture Setting: 8		Focus Setting: 0.3	
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 01/20/93

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 007A

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Copper and copper alloys		
Material Type: CDA 172 (beryllium copper)		
UNS Number: C17200	Coupon S/N: 004 (practice)	
Lot: HT J012	Hardness: RB 88/101	Machinability:
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: **AMS** 4530; 4532; 4650; 4651; 4625 and **MIL SPEC** MIL-C-21657		
Mill:		

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	
B. Computer Driven Dot Peen Backfilled for Contrast	X
C. Computer Driven Embroidery	
D. Computer Driven High Resolution Laser Etching	X
E. Computer Driven Machine Engraving	
F. Computer Driven Machine Engraving Backfilled for Contrast	X
G. Computer Driven Micro-sandblaster	X

Corrosion Protection Method Used: Coated with MIL-L-7870A general purpose lubricating oil.

DOT PEEN MARKING METHOD DATA SHEET

Report Number: 007A

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 - 1194MST
Marking Unit: 2 X 2 (4 cells)	Size Factor: 1
Marking Gap (mm): 1.50	Marking Force: 5
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: IBM # 210 Ribbon
Inspection Verification: Stamp (ANA 174)	Date 09-09-92

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 (lack of backfill caused retry) Decoding Successful (first try) . . . . . . Decoding Successful (multiple trys) . . . . . X Misread . . . . . . No Read			
Inspection Verification: Stamp (ANA 174)		Date 09-09-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 007A

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**			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 20%	Micrometer: 3	Air Pressure: 20	
Cutting Fluid: No			
Vericode Size: .25" x .25"		Depth of Marking: .00429"	
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: Black Lacquer	
Inspection Verification: Stamp		Date 12/03/92	
PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 12		Focus Setting: 0.5	
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 12/03/92	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 007A

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** (CDA 172)	
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: 80 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 X No	Backfill Material: Alum Oxidizer
Inspection Verification: Stamp	Date: 03/05/93

PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: 08001	
Aperture Setting: 12		Focus Setting: 0.25	
Control Unit: Pulnex CCU-84		Camera Distance: 3 1/16"	
Enhance: Off	Gamma: Off	Pedestal: Off	Gain: 7.5

Decoding results: * Problems with glare - covered with type

Decoding Successful (first try) . . . . . .
Decoding Successful (multiple trys) . . . . . X *
Misread . . . . . .
No Read . . . . . .

Inspection Verification: Stamp Date 03/05/93

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 007A

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** (CDA 172)	
Marking Mode: Continuous Wave	Current Setting: LS190
Speed Setting: G0 50	Frequency setting: Q3000
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 X No	Backfill Material: Paint Marker
Inspection Verification: Stamp (ANM 174)	Date 01/21/93

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 (ANM 174)		Date 01/21/93	

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 008

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Copper and copper alloys		
Material Type: CDA 630 (aluminum/bronze alloy)		
UNS Number: C63000	Coupon S/N: 003 (practice)	
Lot: HT H734	Hardness: RC 20	Machinability: 20
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: **AMS** 4620 **FED** QQ-C-450 and **MIL SPEC** MIL-B-16166		
Mill: Unknown - Purchased from Metal Samples Company		

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: 008

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 - 1194MST
Marking Unit: 2 X 2 (4 cells)	Size Factor: 1
Marking Gap (mm): 1.00	Marking Force: 6
Vericode Size: .25" x .25"	Avg. Marking Depth: 0.00397"
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: IBM # 210 Ribbon
Inspection Verification: Stamp	Date 09-09-92

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: 7.0
Decoding results: AB12345 Decoding Successful (first try) . . . . . X Decoding Successful (multiple trys) . . . . . . Misread . . . . . . No Read			
Inspection Verification: Stamp		Date 09-09-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 008

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**			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 50%	Feed Rate: 05%	
Dwell Time: 20%	Micrometer: 3	Air Pressure: 20	
Cutting Fluid: No			
Vericode Size: .25" x .25"		Depth of Marking: .00429"	
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: Black Lacquer	
Inspection Verification: Stamp		Date 12/04/92	
PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 12		Focus Setting: 0.5	
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 12/04/92	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 008

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** (CDA 630)	
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 X No	Backfill Material: Alum Oxidizer
Inspection Verification: Stamp	Date: 03/08/93

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 03/08/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 008

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** (CDA 630)	
Marking Mode: Continuous Wave	Current Setting: LS180
Speed Setting: G0 50	Frequency setting: Q3000
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 X No	Backfill Material: Paint Marker
Inspection Verification: Stamp	Date 01/22/93

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 01/22/93	

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 009

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Carbon and alloy steel		
Material Type: C1018 (Mild Low Carbon Steel)		
UNS Number: G10180	Coupon S/N: 003 (practice)	
Lot: HT F019	Hardness: RB 78	Machinability: 65
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: **AMS** 5069 **FED** QQ-S-698; QQ-W-461 and **MIL SPEC** MIL-S-11310		
Mill: Lapham Hickey		

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: 009

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 - 1194MST
Marking Unit: 2 X 2 (4 cells)	Size Factor: 1
Marking Gap (mm): 1.50	Marking Force: 5
Vericode Size: .25" x .25"	Avg. Marking Depth: 0.00405"
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: IBM # 210 Ribbon
Inspection Verification: Stamp ANM 174	Date 09-09-92

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 trys) . . . . . . Misread . . . . . . No Read			
Inspection Verification: Stamp ANM 174		Date 09-09-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 009

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**			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 20%	Micrometer: 3	Air Pressure: 20	
Cutting Fluid: No			
Vericode Size: .25" x .25"		Depth of Marking: .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: Black Lacquer	
Inspection Verification: Stamp		Date 12/04/92	
PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 12		Focus Setting: 0.5	
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 12/04/92	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 009

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** (C1018)	
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: 80 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: 03/08/93

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 03/08/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 009

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** (C1018)	
Marking Mode: Continuous Wave	Current Setting: LS160
Speed Setting: G0 50	Frequency setting: Q15000
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 (ANM 174)	Date 01/22/93

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 (ANM 174)		Date 01/22/93	

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 010

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Carbon and alloy steel		
Material Type: C1020 (Mild Low Carbon Steel)		
UNS Number: G10200	Coupon S/N: 003 (practice)	
Lot: HT F326	Hardness: RB 72	Machinability: 60
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: **AMS** 5032; 5045; 5046 **FED** QQ-S-698; QQ-W-461 **MIL SPEC** MIL-T-3520; MIL-S-7952; MIL-S-11310 and MIL-S-16788		
Mill: LTV Steel Flat Rolled and Bar Co., Cleveland, Ohio		

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: 010

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 - WTC-1194MST
Marking Unit: 2 X 2 (4 cells)	Size Factor: 1
Marking Gap (mm): 1.35	Marking Force: 5
Vericode Size: .25" x .25"	Avg. Marking Depth: .00401"
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: IBM # 210 Ribbon
Inspection Verification: Stamp	Date 09-09-92

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: 3-3/8"	
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		Date 09-09-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 010

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**			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 20%	Micrometer: 3	Air Pressure: 20	
Cutting Fluid: No			
Vericode Size: .25" x .25"		Depth of Marking: .00390"	
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		Date 12/07/92	
PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 12		Focus Setting: 0.5	
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 12/07/92	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 010

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** (C1020)	
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: 80 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: 03/08/93

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 03/08/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 010

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** (C1020)	
Marking Mode: Continuous Wave	Current Setting: LS160
Speed Setting: G0 50	Frequency setting: Q20000
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 ANM 174	Date 01/22/93

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 ANM 174		Date 01/22/93	

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 011

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Carbon and alloy steel		
Material Type: C4130 (Cr-Mo case steel alloy)		
UNS Number: G41300	Coupon S/N: 003 (practice)	
Lot: HT F164	Hardness: RB 83	Machinability: 60
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: **AMS** 6348; 6350; 6351; 6360; 6361; 6362; 6370; 6371; 6373; 6374; 6528; 7496 **MIL SPEC** MIL-S-6758 and MIL-S-18729		
Mill: Sharon Steel		

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: 011

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 - 1194MST
Marking Unit: 2 X 2 (4 cells)	Size Factor: 1
Marking Gap (mm): 1.50	Marking Force: 5
Vericode Size: .25" x .25"	Avg. Marking Depth: 0.00397"
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	Date 09-09-92

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 (retry after height adjustment) Decoding Successful (first try) . . . . . X Decoding Successful (multiple tries) . . . . . . Misread . . . . . . No Read			
Inspection Verification: Stamp		Date 09-09-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 011

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**			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 20%	Micrometer: 3	Air Pressure: 20	
Cutting Fluid: No			
Vericode Size: .25" x .25"		Depth of Marking: .00390"	
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: Black Lacquer	
Inspection Verification: Stamp		Date 12/07/92	
PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 12		Focus Setting: 0.5	
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 12/07/92	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 011

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** (C4130)	
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: 80 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: 03/08/93

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 03/08/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 011

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** (C4130)	
Marking Mode: Continuous Wave	Current Setting: LS180
Speed Setting: G0 50	Frequency setting: Q25000
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 01/25/93

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 01/25/93

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 012

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Carbon and alloy steel		
Material Type: D6AC - normalized and tempered		
UNS Number: K24728	Coupon S/N: 003 (practice)	
Lot: HT H924	Hardness: RC 27	Machinability:
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: **AMS** 6431; 6432; 6438; 6439 and **MIL SPEC** MIL-S-8949		
Mill: Republic		

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: 012

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 - 1194MST
Marking Unit: 2 X 2 (4 cells)	Size Factor: 1
Marking Gap (mm): 1.50	Marking Force: 5
Vericode Size: .25" x .25"	Avg. Marking Depth: 0.00397"
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 ANSI 174	Date 09-10-92

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 (retry after height adjustment) Decoding Successful (first try) . . . . . X Decoding Successful (multiple tries) . . . . . . Misread . . . . . . No Read			
Inspection Verification: Stamp ANSI 174		Date 09-10-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 012

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** (D6AC)			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 30%	Micrometer: 3	Air Pressure: 20	
Cutting Fluid: No			
Vericode Size: .25" x .25"		Depth of Marking: .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: Black Lacquer	
Inspection Verification: Stamp		Date 12/07/92	
PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 12		Focus Setting: 0.5	
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 12/07/92	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 012

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** (D6AC)	
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: 03/08/93

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 03/08/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 012

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** (D6AC)	
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 01/25/93

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 01/25/93	

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 013

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Carbon and alloy steel		
Material Type: HP9-4-30 - normalized and tempered		
UNS Number: K91283	Coupon S/N: 003 (practice)	
Lot: HT G651	Hardness: RC 32	Machinability:
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: AMS 6524 and 6526		
Mill: LTV Steel		

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: 013

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 - 1194MST
Marking Unit: 2 X 2 (4 cells)	Size Factor: 1
Marking Gap (mm): 1.50	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 ANAB 174	Date 09-10-92

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 (retry after height adjustment) Decoding Successful (first try) . . . . . . Decoding Successful (multiple tries) . . . . . X Misread . . . . . . No Read			
Inspection Verification: Stamp ANAB 174		Date 09-10-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 013

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** (HP9-4-30)			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 30%	Micrometer: 3	Air Pressure: 20	
Cutting Fluid: No			
Vericode Size: .25" x .25"		Depth of Marking: .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: Black Lacquer	
Inspection Verification: Stamp		Date 12/08/92	
PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: Tamron 08001	
Aperture Setting: 12		Focus Setting: 0.5	
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 12/08/92	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 013

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** (HP9-4-30)	
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: 03/08/93

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 03/08/93

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 013

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** (HP9-4-30)	
Marking Mode: Continuous Wave	Current Setting: LS 170
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 01/25/93

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 01/25/93