COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 032

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Coated, plated or special conditioned metals		
Material Type: Anodized (.0002 deep) AL 1100-H14		
UNS Number: A91100	Coupon S/N: 003 (practice)	
Lot: HT H478	Hardness: RF 86	Machinability:
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: **AMS** 4001; 4003; 4062; 4102; 4180 **FED** QQ-A-225/1; QQ-A-250/1; QQ-A-430; QQ-A-1876; WW-T-700/1 **MIL SPEC** MIL-W-85; MIL-R-5674; MIL-W-6712; MIL-A-12545; MIL-E-15597; MIL-S24149/5; MIL-C-26094; MIL-A-52174 and MIL-A-52177		
Mill: Williams and 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: 032

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): 0.100	Marking Force: 4
Vericode Size: .25" x .25"	Avg. Marking Depth: 0.00401"
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: Dry erase ink
Inspection Verification: Stamp AMM 7/14	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 AMM 7/14		Date 09-16-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 032

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** (Anodized AL-1100)			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 35%	Micrometer: 3	Air Pressure: 15	
Cutting Fluid: None			
Vericode Size: .25" x .25"		Depth of Marking: .0039"	
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 174		Date 03/01/93	
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 174		Date: 03/01/93	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 032

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** (Anodized AL-1100)	
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	[ ] Pos 1 [ ] Pos 2 [X] Pos 3 [ ] Pos 4
Backfill: Yes X No	Backfill Material: Alum. Oxidizer
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: 032

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** (Anodized AL1100 - silver color)	
Marking Mode: Continuous Wave	Current Setting: LS-190
Speed Setting: G0 50	Frequency setting: Q25,000
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: Multiple		Focus Setting: Multiple	
Control Unit: Pulnex CCU-84		Camera Distance: 3-1/16 inch	
Enhance: N/A	Gamma: N/A	Pedestal: N/A	Gain: 7.5

Decoding Successful (first try) . . . . . .
Decoding Successful (multiple trys) . . . . . .
Misread . . . . . .
No Read . . . . . X *
* Surface finish to rough for decoding

Inspection Verification: Stamp	Date 02/11/93

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 033

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Coated, plated or special conditioned metals		
Material Type: Painted (.0006"-.0009) AL 6061-T6		
UNS Number: A96061	Coupon S/N: 003 (practice)	
Lot: Unknown	Hardness: RB 80	Machinability:
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: Metal - **AMS** 4009; 4025; 4026; 4027; 4079; 4080; 4081; 4082; 4083; 4113; 4115; 4116; 4117; 4127; 4128; 4146; 4150; 4160; 4161; 4172; 4173; 4248; 4312 **FED** QQ-A-200/8; QQ-A-200/16; QQ-A-225/8; QQ-A-250/11; QQ-A-367; QQ-A-430; WW-T-700/6 **MIL SPEC** MIL-W-85; MIL-F-3922; MIL-T-7081; MIL-T-10794; MIL-A-12545; MIL-G-18014; MIL-G-18015; MIL-F-18280; MIL-A-22771; MIL-W-23351; MIL-P-25995; and MIL-F-39000 Paint - **FED** A-A-665 and TT-P-1757		
Mill: Paint - LBH Industries, Metal - MSFC Scrap Material		

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 . . . . . N/A B. Computer Driven Machine Engraving . . . . . N/A C. Computer Driven Micro-sandblaster . . . . . X D. Computer Driven High Resolution Laser . . . . . X E. Computer Driven Embroidery . . . . . N/A	
Corrosion Protection Method Used: None	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 033

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** (Painted Al 6061 - Flat Black)	
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: 100 PSIG	Power Flow: Maximum
Vector Speed: 50	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: N/A
Inspection Verification: Stamp	Date: 04/15/93

PART 3. **DECODING OPERATIONS**			
Camera: Pulnex model TM-745		Lens: 08001	
Aperture Setting: 16		Focus Setting: 1.00	
Control Unit: Pulnex CCU-84		Camera Distance: 3 1/16"	
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 04/15/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 033

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 2.1	

PART 2. **MARKING OPERATIONS** (Painted Al 6061 - Flat Black)	
Marking Mode: Continuous Wave	Current Setting: LS-150
Speed Setting: G0 50	Frequency setting: Q5,000
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: 1.00	
Control Unit: Pulnex CCU-84		Camera Distance: 3-1/16 inch	
Enhance: N/A	Gamma: N/A	Pedestal: N/A	Gain: 7.5
Decoding Results: AB12345 Decoding Successful (first try) . . . . . X Decoding Successful (multiple trys) . . . . . . Misread . . . . . . No Read			
Inspection Verification: Stamp		Date 02/11/93	

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 034

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Coated, plated or special conditioned metals		
Material Type: NI plated (electroless) C1018 - cold rolled		
UNS Number: G10180	Coupon S/N: 003 (practice)	
Lot: HT H820	Hardness: RB 80	Machinability:
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: Plating - **AMS** 2404 and **MIL SPEC** MIL-C-26075 Metal - **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: 034

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): 1.500	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 (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: 034

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** (Ni Plated C1018)			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 30%	Micrometer: 3	Air Pressure: 15	
Cutting Fluid: None			
Vericode Size: .25" x .25"		Depth of Marking: .0039"	
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 03/01/93	
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		Date: 03/01/93	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 034

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** (Nickle plated 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: N/A
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: * Surface roughness exceeds spec. limit Decoding Successful (first try) . . . . . . Decoding Successful (multiple tries) . . . . . X * Misread . . . . . . No Read			
Inspection Verification: Stamp		Date 03/11/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 034

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 2.1	

PART 2. **MARKING OPERATIONS** (Nickel Plated C1018)	
Marking Mode: Continuous Wave	Current Setting: LS-180
Speed Setting: G0 50	Frequency setting: Q5,000
Vericode Size: .25" x .25"	Depth of Marking: Surface Mark
Marking Location: Check position of marking on material coupon	[ ] Pos 1 [ ] Pos 2 [ ] Pos 3 [X] 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 inch	
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	

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 035

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Coated, plated or special conditioned metals		
Material Type: CR plated C1018 - cold rolled		
UNS Number: G10180	Coupon S/N: 003 (practice)	
Lot: HT H820	Hardness: RB 80	Machinability:
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: Plating - **FED** QQ-C-320 and **MIL SPEC** MIL-C-81562 Metal - **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: 035

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): 1.500	Marking Force: 5
Vericode Size: .25" x .25"	Avg. Marking Depth: 0.00394"
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 09-16-92

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		Date 09-16-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 035

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** (Cr Plated C1018)			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 30%	Micrometer: 3	Air Pressure: 15	
Cutting Fluid: None			
Vericode Size: .25" x .25"		Depth of Marking: .0042"	
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 03/02/93	
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		Date: 03/02/93	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 035

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** (Chrome plated 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: N/A
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: * Surface roughness exceeds spec. limit Decoding Successful (first try) . . . . . . Decoding Successful (multiple tries) . . . . . X * Misread . . . . . . No Read			
Inspection Verification: Stamp		Date 03/11/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 035

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 2.1	

PART 2. **MARKING OPERATIONS** (Chrome Plated C1018)	
Marking Mode: Continuous Wave	Current Setting: LS-180
Speed Setting: G0 50	Frequency setting: Q5,000
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 inch	
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	

COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET

Report Number: 036

PART 1. **MATERIAL DESCRIPTION**		
Material Family: Coated, plated or special conditioned metals		
Material Type: AG plated C1018 - cold rolled		
UNS Number: G10180	Coupon S/N: 003 (practice)	
Lot: HT H820	Hardness: RB 77	Machinability:
Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick		
Cross Reference Specifications: Plating - **AMS** 2411 and **FED QQ-S-**365 Metal - **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: 036

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): 1.500	Marking Force: 5
Vericode Size: .25" x .25"	Avg. Marking Depth: 0.00401"
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: Dry erase ink
Inspection Verification: Stamp	Date 09-17-92

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		Date 09-17-92	

MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 036

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** (Ag Plated C1018)			
Spindle Type: Rotary		Cutter Type: Micro-Carbite	
Cutter Size: .005"	Speed: 40%	Feed Rate: 05%	
Dwell Time: 30%	Micrometer: 3	Air Pressure: 15	
Cutting Fluid: None			
Vericode Size: .25" x .25"		Depth of Marking: .0038"	
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 03/02/93	
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		Date: 03/02/93	

MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 036

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** (Silver plated 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 X No	Backfill Material: Alum. Oxidizer
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: * Surface roughness exceeds spec. limit Decoding Successful (first try) . . . . . . Decoding Successful (multiple tries) . . . . . . Misread . . . . . . No Read . . . . . X *			
Inspection Verification: Stamp		Date 03/11/93	

LASER ETCH MARKING METHOD DATA SHEET

Report Number: 036

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 2.1	

PART 2. **MARKING OPERATIONS** (Silver Plated C1018)	
Marking Mode: Continuous Wave	Current Setting: LS-200
Speed Setting: G0 50	Frequency setting: Q5,000
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 inch	
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	