**COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET**

Report Number: 001

| PART 1. **MATERIAL DESCRIPTION** | | |
|---|---|---|
| Material Family: Aluminum and aluminum alloys | | |
| Material Type: AL 1100 (wrought al alloy - non-heat treatable) | | |
| UNS Number: A91100 | Coupon S/N: 003 (practice) | |
| Lot: HT B071 | Hardness: RF 86 | Machinability: 85 |
| Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick | | |
| Cross Reference Specifications:<br>**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):<br>A. Computer Driven Dot Peen . . . . . X<br>B. Computer Driven Machine Engraving . . . . . X<br>C. Computer Driven Micro-sandblaster . . . . . X<br>D. Computer Driven High Resolution Laser . . . . . X<br>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: 001

| PART 1. **MARKING DEVICE DESCRIPTION** | |
|---|---|
| Manufacturer: Wetzel Tool Company, Division of Dapra Corp.<br>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): 0.50 | Marking Force: 3 |
| Vericode Size: .25" x .25" | Avg. Marking Depth: .00390" |
| Marking Location:<br>Check position of marking on material test coupon | [X] [ ] [ ] [ ]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: IBM # 210 Ribbon |
| Inspection Verification: Stamp | Date 09-03-92 |

| 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: 3-1/16" | |
| 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 09-03-92

# MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 001

| 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: 15 | |
| Cutting Fluid: No | | | |
| Vericode Size: .25" x .25" | | Depth of Marking: .00390" | |
| Marking Location:<br>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 12/02/92 | |
| 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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 12/02/92 | |

## MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 001

| 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** (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: 60 PSIG | Power Flow: Maximum |
| Vector Speed: 75 | Nozzle to work distance: .60 mm |
| Marking Location:<br>Check position of marking on material test coupon | [ ] [ ] [X] [ ]<br>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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 03/05/93 | |

**LASER ETCH MARKING METHOD DATA SHEET**

Report Number: 001

| 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** (AL 1100) | |
|---|---|
| Marking Mode: Continuous Wave | Current Setting: LS180 |
| Speed Setting: GO 50 | Frequency setting: Q5000 |
| Vericode Size: .25" x .25" | Depth of Marking: Surface Mark |
| Marking Location:<br>Check position of marking on material coupon | [ ] [ ] [ ] [X]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: Dry Erase Ink |
| Inspection Verification: Stamp | Date 01/14/93 |

| 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<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 01/14/93 | |

**COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET**

Report Number: 002

| PART 1. **MATERIAL DESCRIPTION** | | |
|---|---|---|
| Material Family: Aluminum and aluminum alloys | | |
| Material Type: AL 2024-T6 (wrought aluminum alloy) | | |
| UNS Number: A92024 | Coupon S/N: 003 (practice) | |
| Lot: HT E414 | Hardness: RB 73 | Machinability: C-D |
| Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick | | |
| Cross Reference Specifications:<br>**AMS** 4007; 4035; 4037; 4086; 4087; 4088; 4112; 4119; 4120; 4152; 4164; 4165; 4192; 4193; 7223 **FED** QQ-A-200/3; QQ-A-225/6; QQ-A-430; WW-T-700/3 **MIL SPEC** MIL-F-5509; MIL-R-5674; MIL-B-6812; MIL-T-15089; MIL-F-18280; MIL-T-50777 and MIL-A-81596 | | |
| Mill: Tull | | |

| 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):<br>A. Computer Driven Dot Peen . . . . . X<br>B. Computer Driven Machine Engraving . . . . . X<br>C. Computer Driven Micro-sandblaster . . . . . X<br>D. Computer Driven High Resolution Laser . . . . . X<br>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: 002

| PART 1. **MARKING DEVICE DESCRIPTION** | |
|---|---|
| Manufacturer: Wetzel Tool Company, Division of Dapra Corp.<br>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: 5 |
| Vericode Size: .25" x .25" | Avg. Marking Depth: 0.00409" |
| Marking Location:<br>Check position of marking on material test coupon | [X] [ ] [ ] [ ]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: IBM # 210 Ribbon |
| Inspection Verification: Stamp | Date 09-04-92 |

| 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 1/16" | |
| Enhance: Off | Gamma: Off | Pedestal: Off | Gain: 7.5 |
| Decoding results: AB12345<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 09-04-92 | |

# MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 002

| 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: 15 | |
| Cutting Fluid: No | | | |
| Vericode Size: .25" x .25" | | Depth of Marking: .00390" | |
| Marking Location:<br>Check position of marking on material test coupon | [ ] [X] [ ] [ ]<br>Pos 1 Pos 2 Pos 3 Pos 4 | | |
| Backfill: Yes X No | | Backfill Material: Black Lacquer | |
| Inspection Verification: Stamp | | Date 12/02/92 | |
| 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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 12/02/92 | |

# MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 002

| 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** (AL-2024-T6) | |
|---|---|
| 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: 60 PSIG | Power Flow: Maximum |
| Vector Speed: 75 | Nozzle to work distance: .60 mm |
| Marking Location:<br>Check position of marking on material test coupon | [ ] [ ] [X] [ ]<br>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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 03/05/93 | |

**LASER ETCH MARKING METHOD DATA SHEET**

Report Number: 002

| 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** (AL 2024) | |
|---|---|
| Marking Mode: Continuous Wave | Current Setting: LS180 |
| Speed Setting: GO 50 | Frequency setting: Q5000 |
| Vericode Size: .25" x .25" | Depth of Marking: Surface Mark |
| Marking Location:<br>Check position of marking on material coupon | [ ] [ ] [ ] [X]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: Dry Erase Ink |
| Inspection Verification: Stamp | Date 01/18/93 |

| 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<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 01/18/93 | |

**COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET**

Report Number: 003

| PART 1. **MATERIAL DESCRIPTION** | | |
|---|---|---|
| Material Family: Aluminum and aluminum alloys | | |
| Material Type: AL 2219 (aluminum/copper alloy) | | |
| UNS Number: A92219 | Coupon S/N: 003 (practice) | |
| Lot: HT E532 | Hardness: RB 82 | Machinability: B |
| Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick | | |
| Cross Reference Specifications:<br>**AMS** 4031; 4066; 4068; 4144; 4162; 4163; 4313 **FED** QQ-A-250/30 QQ-A-367; QQ-A-430 **MIL SPEC** MIL-A-22771; MIL-A-46118 and MIL-A-46808 | | |
| Mill: Martin Mar. Matl. | | |

| 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):<br>A. Computer Driven Dot Peen . . . . . X<br>B. Computer Driven Machine Engraving . . . . . X<br>C. Computer Driven Micro-sandblaster . . . . . X<br>D. Computer Driven High Resolution Laser . . . . . X<br>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: 003

| PART 1. **MARKING DEVICE DESCRIPTION** | |
|---|---|
| Manufacturer: Wetzel Tool Company, Division of Dapra Corp.<br>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: 5 |
| Vericode Size: .25" x .25" | Avg. Marking Depth: 0.00417" |
| Marking Location:<br>Check position of marking on material test coupon | [X] [ ] [ ] [ ]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: IBM # 210 Ribbon |
| Inspection Verification: Stamp | Date 09-04-92 |

| 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 1/16" | |
| Enhance: Off | Gamma: Off | Pedestal: Off | Gain: 7.5 |
| Decoding results: AB12345<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 09-04-92 | |

# MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 003

| 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: 21 |
| Cutting Fluid: No | | |
| Vericode Size: .25" x .25" | | Depth of Marking: .00390" |
| Marking Location:<br>Check position of marking on material test coupon | [ ] [X] [ ] [ ]<br>Pos 1 Pos 2 Pos 3 Pos 4 | |
| Backfill: Yes X No | | Backfill Material: Black Lacquer |
| Inspection Verification: Stamp | | Date 12/02/92 |

| 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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 12/02/92 | |

## MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 003

| 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** (AL-2219) | |
|---|---|
| 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: 60 PSIG | Power Flow: Maximum |
| Vector Speed: 75 | Nozzle to work distance: .60 mm |
| Marking Location:<br>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: 03/05/93 |

| 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:

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

Inspection Verification: Stamp Date 03/05/93

# LASER ETCH MARKING METHOD DATA SHEET

Report Number: 003

| 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** (AL 2219) | |
|---|---|
| Marking Mode: Continuous Wave | Current Setting: LS180 |
| Speed Setting: GO 50 | Frequency setting: Q5000 |
| Vericode Size: .25" x .25" | Depth of Marking: Surface Mark |
| Marking Location:<br>Check position of marking on material coupon | [ ] [ ] [ ] [X]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: Dry Erase Ink |
| Inspection Verification: Stamp | Date 01/18/93 |

| 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 01/18/93

**COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET**

Report Number: 004

| PART 1. **MATERIAL DESCRIPTION** | | |
|---|---|---|
| Material Family: Aluminum and aluminum alloys | | |
| Material Type: AL 6061-T6 (aluminum/silicon/magnesium alloy) | | |
| UNS Number: A96061 | Coupon S/N: 003 (practice) | |
| Lot: HT F606 | Hardness: RB 80 | Machinability: B |
| Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick | | |
| Cross Reference Specifications:<br>**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 | | |
| Mill: Prod Supply | | |

| 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):<br>A. Computer Driven Dot Peen . . . . . X<br>B. Computer Driven Machine Engraving . . . . . X<br>C. Computer Driven Micro-sandblaster . . . . . X<br>D. Computer Driven High Resolution Laser . . . . . X<br>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: 004

| PART 1. **MARKING DEVICE DESCRIPTION** | |
|---|---|
| Manufacturer: Wetzel Tool Company, Division of Dapra Corp.<br>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: 0.00397" |
| Marking Location:<br>Check position of marking on material test coupon | [X] [ ] [ ] [ ]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: IBM # 210 Ribbon |
| Inspection Verification: Stamp ANSI 174 | Date 09-04-92 |

| 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 1/16" | |
| Enhance: Off | Gamma: Off | Pedestal: Off | Gain: 7.5 |
| Decoding results: AB12345<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp ANSI 174 | | Date 09-04-92 | |

# MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 004

| 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:<br>Check position of marking on material test coupon | [ ] [X] [ ] [ ]<br>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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 12/03/92 | |

# MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 004

| 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** (AL-6061-T6) | |
|---|---|
| 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:<br>Check position of marking on material test coupon | [ ] [ ] [X] [ ]<br>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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 03/05/93 | |

# LASER ETCH MARKING METHOD DATA SHEET

Report Number: 004

| 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** (AL 6061) | |
|---|---|
| Marking Mode: Continuous Wave | Current Setting: LS180 |
| Speed Setting: G0 50 | Frequency setting: Q5000 |
| Vericode Size: .25" x .25" | Depth of Marking: Surface Mark |
| Marking Location:<br>Check position of marking on material coupon | [ ] [ ] [ ] [X]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: Paint Marker |
| Inspection Verification: Stamp | Date 01/19/93 |

| 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<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 01/19/93 | |

**COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET**

Report Number: 005

| PART 1. **MATERIAL DESCRIPTION** | | |
|---|---|---|
| Material Family: Aluminum and aluminum alloys | | |
| Material Type: AL 7075-T6 (aluminum/zinc alloy) | | |
| UNS Number: A97075 | Coupon S/N: 003 (practice) | |
| Lot: HT D148 | Hardness: RF 92 | Machinability: A |
| Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick | | |
| Cross Reference Specifications:<br><br>**AMS** 4044; 4045; 4078; 4122; 4123; 4124; 4126; 4131; 4141; 4147; 4154; 4166; 4167; 4168; 4169; 4174; 4186; 4187; 4310; 4311; 4049; 4139; 4323 **FED** QQ-A-200/11; QQ-A-200/15; QQ-A-225/9; QQ-A-250/13; QQ-A-250/24; QQ-A-367; QQ-A-430; WW-T-700/7 **MIL SPEC** MIL-F-5509; MIL-A-12545; MIL-F-18280 and MIL-A-22771 | | |
| Mill: Astro | | |

| 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):<br><br>A. Computer Driven Dot Peen . . . . . X<br>B. Computer Driven Machine Engraving . . . . . X<br>C. Computer Driven Micro-sandblaster . . . . . X<br>D. Computer Driven High Resolution Laser . . . . . X<br>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: 005

| PART 1. **MARKING DEVICE DESCRIPTION** | |
|---|---|
| Manufacturer: Wetzel Tool Company, Division of Dapra Corp.<br>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: 0.00407" |
| Marking Location:<br>Check position of marking on material test coupon | [X] [ ] [ ] [ ]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: IBM # 210 Ribbon |
| Inspection Verification: Stamp ANA 174 | Date 09-04-92 |

| 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 1/16" | |
| Enhance: Off | Gamma: Off | Pedestal: Off | Gain: 7.5 |
| Decoding results: AB12345<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp ANA 174 | | Date 09-04-92 | |

# MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 005

| 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:<br>Check position of marking on material test coupon | [ ] [X] [ ] [ ]<br>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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 12/03/92 | |

# MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 005

| 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** (AL-7075-T6) | |
|---|---|
| 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:<br>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: 03/05/93 |

| 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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 03/05/93 | |

# LASER ETCH MARKING METHOD DATA SHEET

Report Number: 005

| 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** (AL 7075) | |
|---|---|
| Marking Mode: Continuous Wave | Current Setting: LS180 |
| Speed Setting: G0 50 | Frequency setting: Q5000 |
| Vericode Size: .25" x .25" | Depth of Marking: Surface Mark |
| Marking Location:<br>Check position of marking on material coupon | [ ] [ ] [ ] [X]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: Paint Marker |
| Inspection Verification: Stamp | Date 01/19/93 |

| 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<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 01/19/93 | |

**COMPRESSED SYMBOLOGY MARKING PROGRAM DATA SHEET**

Report Number: 006

| PART 1. **MATERIAL DESCRIPTION** | | |
|---|---|---|
| Material Family: Aluminum and aluminum alloys | | |
| Material Type: AL 356.2 (aluminum foundry alloy, ingot) | | |
| UNS Number: A03562 | Coupon S/N: 003 (practice) | |
| Lot: HT G638 | Hardness: RF 55 | Machinability: |
| Coupon Size: 3/4-inch wide x 2-inch long x 1/8-inch thick | | |
| Cross Reference specification(s): FED QQ-A-371 | | |
| 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: 006

| PART 1. **MARKING DEVICE DESCRIPTION** | |
|---|---|
| Manufacturer: Wetzel Tool Company, Division of Dapra Corp.<br>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): .750 | Marking Force: 4 |
| Vericode Size: .25" x .25" | Avg. Marking Depth: 0.00409" |
| Marking Location:<br>Check position of marking on material test coupon | [X] [ ] [ ] [ ]<br>Pos 1 Pos 2 Pos 3 Pos 4 |
| Backfill: Yes X No | Backfill Material: IBM # 210 Ribbon |
| Inspection Verification: Stamp | Date 09-07-92 |

| 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 1/16" | |
| Enhance: Off | Gamma: Off | Pedestal: Off | Gain: 7.5 |
| Decoding results: AB12345<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 09-07-92 | |

# MACHINE ENGRAVING MARKING METHOD DATA SHEET

Report Number: 006

| 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:<br>Check position of marking on material test coupon | [ ] [X] [ ] [ ]<br>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:<br>Decoding Successful (first try) . . . . . X<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | |
| Inspection Verification: Stamp | Date 12/03/92 | |

# MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 006

| 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** (AL-356.2) | |
|---|---|
| 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:<br>Check position of marking on material test coupon | [ ] [ ] [X] [ ]<br>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: 0.50 | |
| Control Unit: Pulnex CCU-84 | | Camera Distance: 3 1/16" | |
| Enhance: Off | Gamma: Off | Pedestal: Off | Gain: 7.5 |
| Decoding results: * Pits in material<br>Decoding Successful (first try) . . . . . .<br>Decoding Successful (multiple trys) . . . . . X *<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 03/05/93 | |

# MICRO-SANDBLAST MARKING METHOD DATA SHEET

Report Number: 006

| 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** (AL-356.2) | |
|---|---|
| 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:<br>Check position of marking on material test coupon | [ ] [ ] [X] [ ]<br>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: 0.50 | |
| Control Unit: Pulnex CCU-84 | | Camera Distance: 3 1/16" | |
| Enhance: Off | Gamma: Off | Pedestal: Off | Gain: 7.5 |
| Decoding results: * Pits in material<br>Decoding Successful (first try) . . . . . .<br>Decoding Successful (multiple trys) . . . . . X *<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 03/05/93 | |

## LASER ETCH MARKING METHOD DATA SHEET

Report Number: 006

| 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** (AL 356.2) | |
|---|---|
| Marking Mode: Continuous Wave | Current Setting: LS180 |
| Speed Setting: G0 50 | Frequency setting: Q5000 |
| Vericode Size: .25" x .25" | Depth of Marking: Surface Mark |
| Marking Location:<br>Check position of marking on material coupon | [ ] Pos 1 [ ] Pos 2 [ ] Pos 3 [X] 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: 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<br>Decoding Successful (multiple trys) . . . . . .<br>Misread . . . . . .<br>No Read . . . . . | | | |
| Inspection Verification: Stamp | | Date 01/20/93 | |