# Chelar Tool & Die, Inc.

# **Equipment List – December 2013**

# **VARIOUS CONVENTIONAL EQUIPMENT**

- 7 Bridgeport type vertical mills
- 3 Brown and Sharpe #2 Horizontal milling machines with power fast travel
- 1 Carlton radial arm drill press with a 19" column and an 8' arm
- 1 Carlton radial arm drill press with a 13" column and a 5' arm
- 2 Carlton radial arm drill presses with 11" columns and 4' arms
- 1 Carlton radial arm drill press with an 11" column and a 3' arm
- 2 Carlton radial arm drill presses with 9" columns and 4' arms
- 8 standard spindle drill presses with the largest capacity at 17"
- 1 G-18 Moore jig grinder with 18"x 11" travel and a 40,000-rpm head
- 1 <u>Brown and Sharpe</u> Micromaster surface grinder with a 12"x 36" chuck and 14" of vertical travel
- 1 <u>Brown and Sharpe</u> Micromaster surface grinder with a 12"x 24" chuck and 14"of vertical travel
- 1 <u>Brown and Sharpe</u> Micromaster surface grinder with a 8"x 24" chuck and 17-1/2" of vertical travel
- 1 <u>Brown and Sharpe</u> Micromaster surface grinder with a 8"x 24" chuck and 14"of vertical travel
- 1 <u>Brown and Sharpe</u> conventional hydraulic surface grinder with an 8"x 24" chuck and 14" of vertical travel
- 3 Okamoto surface grinder with a 6"x 12" chuck and 12" of vertical travel
- 1 Boyar-Schultz surface grinder with a 6" x 12" chuck and 12" of vertical travel
- 3 Boyar-Schultz profile grinders
- 3 belt grinders
- 5 filing machines
- 3 horizontal lathes with the largest capacity being 20" dia. x 8'
- 2 vertical contour sawing machines
- 2 horizontal metal cutting band saws
- 1 200-amp Hanson arc welder
- 1 MIG type-welding machine
- 1 TIG type-welding machine

#### **CAM DEPARTMENT**

• 6 <u>CAM</u> stations for CNC mill programming and wire type EDM programming.

# **NC EQUIPMENT**

- 1 OKK 1060 vertical machining center with travel 31.5" x 84.25" x 41.25"
- 1 <u>TOYODA FH 550 S</u> horizontal machining center with travel 29.5" x 31.5" x 33.4"
- 1 YCM NSV156 A vertical machining center with travel 62.2" x 25.6" x 24"
- 1 OKK HM 500 horizontal machining center with travel 24.8"x 24.4" x 28"
- 2 Bridgeport E-Z Trak mills 30" X-axis, 12" Y-axis, 4" Z-axis
- 1 <u>Bridgeport</u> E-Z path lathe 16" swing, 37" Z-axis, 2" dia. tube, 3 jaw, 4 jaw, & face plate
- 3 Okomoto surface grinder with a 16" x 32" chuck and 19" of vertical travel
- 1 Milltronics RH-19 Vertical Machining Center with travel of 32" x 19" x 22"
- 1 Makino V-56 Vertical Machining Center with travel of 36" x 22" x 18", 20,000 rpm HSK63-A high rigidity spindle for high accuracy and hard milling.
- 1 Okuma double column machining center with travel 50 X 78 X 157 with 90° head
- 1 Okuma MB-56 vertical machining center with travel 41 x 22 x 17, 15,000 RPM spindle
- CAT 40 big plus spindle for high accuracy and hard milling.
- 1 <u>Awea</u> SP3016 w/62.4 x 120.5 travel, 6000 RPM spindle, 60 tool changer, 90° head
- 1 YCM DCV3016 w/82.6 x 120.5 travel, 6000 RPM spindle, 60 tool changer, 90° head

#### **EDM**

- 1 Makino DUO 64 wire type EDM 15.74 x 16.5 x 25.6
- 1 Makino DUO 43 wire type EDM 17.70 x 11.80 x 12.60
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#### **PRODUCTION GRINDING**

- 1 Blanchard surface grinder 21-1/2" vertical height x 78" swing
- 1 Blanchard surface grinder 29" vertical height x 60" swing

• 1 Blanchard surface grinder 28" vertical height x 36" swing

#### STAMPING DEPARTMENT

- 1 <u>Brown & Boggs</u> 600 Ton Punch Press with a bolster area of 72" x 168" with a 24" max. shut height and 14" stroke, 53" window opening, 50" max. coil capacity, variable speed 20 40 SPM. Omnilink Electrical Controls, Hydraulic Clutch and Brake with selector controls. Equipped with a Rowe electronic roll feeder, 7 roll powered straightener with a 10,000# Capacity 60" O.D. x 18" I.D.
- 1 Verson 400 ton punch press with a pneumatic die cushion and a bolster area of 120" x 60" with 26.02 max. shut height and 14.06 minimum shut height 35" max. coil capacity 41" max. shut ht. without 15" upper riser variable speed 10 to 24 S.P.M. Equipped with a DiPro 1500 programmable limit switch, Link systems 1100 tonnage monitor, COE model CPRF436 servo-feed electronic roll feeder/ straightener, and a Dallas reel model DPR-6 with a 10,000# capacity 60" O.D. x 20" I.D.
- 1 <u>Brown & Boggs</u> 200 Ton punch press with a bolster area of 48" x 60" with a 23" maximum shut height and 13" minimum shut height 30" max. coil capacity variable speed 40 to 80 S.P.M. Equipped with a (plus PS-5000 series) programmable limit switch Toledo transducer, Press watch monitor, Dallas electronic roll feeder,7 roll powered straightener with a 8000# capacity 60"O.D. X 16" I.D.
- 1 <u>Dreis and Krump</u> press brake with 10' capacity
- 1 <u>Dreis and Krump</u> open back inclinable punch press with a 4" stroke, 33" x 28" bolster, and a 45 ton capacity.
- 1 Cincinnati shear #10, 6' wide x 10 ga. capacity, digital gauge

# SHIPPING AND RECEIVING DEPARTMENT

- 1 Toyota 3 ton forklift
- 1 Clark 8 ton forklift
- 1 Clark 5 ton utilitruc forklift truck
- 1 Genie boom man lift
- 6 EMH overhead cranes with a 10-ton capacity each
- 4 EMH overhead cranes with a 5-ton capacity each
- 1 open bed stake truck with a 20,000# load capacity
- 1 pickup truck with a 3,200# load capacity

#### QUALITY CONTROL

- 1 Brown and Sharpe Global Image Coordinate Measuring Machine with travel 35" x 47" x 31.5" with quick speeds 170"/sec. Acceleration. PCDMIS curves/surfaces DataPage SPC packages on Windows NT Pentium PC. Renishaw PH-10 motorized probe head. Renishaw SP-600 scanning probe system for scanning and touch trigger modes. High accuracy with 1.7 microns probe.
- 1 <u>Mitutoyo</u> Microval coordinate measuring machine with travels 15.7" x 15.7" x 15.7" operating in a temperature controlled environment for the highest level of precision and accuracy.
- 1 Brown and Sharpe micro-hite 600 measuring machine with 24" travel
- 1 <u>Faro Platinum Arm</u> This arm has 8' diameter travel 7 axis with .0012 accuracy. We can take this measuring on the road if needed. This unit is good for reverse engineering.

#### **DESIGN DEPARTMENT**

- 10 CAD stations utilizing VISI Advanced 3D Modeling Software.
- 1 <u>CAD</u> station with AutoFORM software, utilizes 3-D models to analyze stress, strain, and thinning due to the forming process during stamping processes.