Plant #1 Equipment List

**Spiral Bevel Gear Cutting Equipment**
- Gleason #16 Spiral Bevel Hypoid Generator, 17” Max. O.D., 3 D.P., 3” Face, Serial No. 14014
- Gleason #16 Spiral Bevel Hypoid Generator, 17” Max. O.D., 3 D.P., 3” Face, Serial No. 13315
- Gleason #16 Spiral Bevel Hypoid Generator, 17” Max. O.D., 3 D.P., 3” Face, Serial No. 22709
- Gleason #106 Hypoid Generator, Serial No. 603513
- Gleason #7A Spiral Bevel Hypoid Generator, 8.5” Max. O.D., 2” Face, Serial No. 23992
- Gleason #7A Spiral Bevel Hypoid Generator, 8.5” Max. O.D., 2” Face, Serial No. 23281
- Gleason #7A Spiral Bevel Hypoid Generator, 8.5” Max. O.D., 2” Face, Serial No. 20292
- Gleason #7A Spiral Bevel Hypoid Generator, 8.5” Max. O.D., 2” Face, Serial No. 22321
- (4) Gleason #7A Spiral Bevel Hypoid Generator, 8.5” Max. O.D., 2” Face, Serial No. N/A
- Gleason #116 Spiral Bevel Hypoid Generator, 18” Max. P.D., 2 D.P., 2.75” Face, Serial No. 603711

**Straight Bevel Gear Cutting Equipment**
- Gleason #12 Straight Bevel Gear Generator, Double Cut, Serial No. 17137
- Gleason #12 Straight Bevel Gear Generator, Double Cut, Serial No. 17755
- Gleason #12 Straight Bevel Gear Generator, Finisher, Serial No. 18892
- Gleason #12B Straight Bevel Gear Generator, Double Cut, Serial No. 15769
- Gleason #14 Straight Bevel Gear Generator, S/N 27251

**Spiral and Straight Bevel Testing Equipment**
- Gleason #13 Universal Tester, Serial No. 14162
- Gleason #13 Universal Tester, Serial No. 16656
- Gleason #14 Tester/Lapper With Extended Bed, Serial No. 25957
- Gleason #6 Tester, 7.5” Max. O.D., Serial No. 156665
- (3) Gleason #6 Tester, 7.5” Max. O.D., Serial No. N/A

**Spiral and Straight Bevel Cutter Sharpeners**
- Gleason #12 Straight Bevel Cutter Sharpener, Serial No. 19537
- Gleason #12 Straight Bevel Cutter Sharpener, Serial No. 19542
Gleason #7 Spiral Bevel Cutter Sharpener, Serial No. 23006
Gleason #13A Spiral Bevel Cutter Sharpener, Serial No. 697408
Gleason #13A Spiral Bevel Cutter Sharpener, Serial No. 27503

**Gear Hobbing Equipment**
- Barber Colman #3 Gear Hobber, Serial No. 23, Capacity 6" O.D. Max.
- Barber Colman #3 Gear Hobber, Serial No. 1828, Capacity 6" O.D. Max.
- Barber Colman #3 Gear Hobber, Serial No. 1829, Capacity 6" O.D. Max.
- Barber Colman 16-16 Gear Hobber, Serial No. 2976, Capacity 16" O.D. Max.
- Barber Colman 16-16 Gear Hobber, Serial No. 3210, Capacity 16" O.D. Max.
- Barber Colman 16-16 Gear Hobber, Serial No. 3597, Capacity 16" O.D. Max.
- Barber Colman 16-16 Type A Gear Hobber, Serial No. 1348, 16" O.D. Max.
- Barber Colman 16-56 Gear Hobber, Serial No. 2905, Capacity 16" O.D. Max.
- Barber Colman 18-30 Gear Gasher, Serial No. 1125, Capacity 18" O.D. Max.
- Phauter P630, Serial No. 21386, 25" O.D. Max.
- Phauter P900, S/N 21796, 36" O.D. Max., Extended Column
- Lees-Bradner Hobormill, Model H-16, Serial No. H104, Capacity 16" O.D. Max. x 72" Cutting Length

**Gear Tooth Grinding Equipment**
- Niles, Model ZSTZ 630, S/N 40/21-26
- Csepel, Model FKA326-10, S/N 51112

**Gear Shaping Equipment**
- Fellows Gear Shaper, Model 6A, 16" O.D. Max., No Riser
- Fellows Gear Shaper, Model 645A3, 16" O.D. Max., Serial No. 20391, 2" Riser
- Fellows Gear Shaper, Model 61A, 16" O.D. Max., Serial No. 21482, 4" Riser
- Fellows Gear Shaper, Model 6Z2, Serial No. 20750, 27.5" O.D. Max. or 25" I.D. Max., 16" Bore, 4.5" Riser
- Fellows Gear Shaper, Model 36-6, Serial No. 32386, 40" O.D. Max or 36" I.D. Max., 24" Riser

**Worm Cutting Equipment**
- Lees-Bradner Thread Mill, Serial No. 6824, 14" O.D. Max. x 32" Length Max.
- Lees-Bradner Hobormill, Model H-16, Serial No. H104, Capacity 16" O.D. Max. x 72" Cutting Length

**Rack Cutting Equipment**
- G & E Rack Milling Machine, Serial No. 13A24

**Misc. Gear Equipment**
- Hey No. 10 Gear Tooth Rounding & Chamfering Machine, Serial No. 2814-367
- Redin Gear Chamfering Machine, Serial No. 20-12
- Barber Colman 10-12 Hob Sharpener, S/N 603
- Barber Colman 6-5 Hob Sharpener, S/N 82
- Barber Colman 2-1/2-2 Hob Sharpener, S/N 3
Gleason #15 Cutter Trueing Device, S/N 605501

**Lathes**

Mazak CNC Lathe QTN-250-II w/barfeeder, Serial No. 213667, 3.062" Max. O.D. barfeeder
Mazak CNC Lathe QT-N-20, Serial No. 139270, 12" Max. O.D. x 24" Long
Mazak CNC Lathe Nexus 350-II, Serial No. 192345, 16.5" Max. O.D. x 60" Long, 27.5" Max. swing
Clausing 14 x 40 Engine Lathe, Serial No. F4/55256, 14" Max. O.D. x 40" Long Max.
TOS 14 x 40 Engine Lathe, 14" Max. O.D. x 40" Long Max.

**Milling Machines**

Mazak CNC Mill VTC-20B, Serial No. 137132, X=44" Y=20" Z=20", 57" x 20" table
Fadal CNC Vertical Machining Center with 4th Axis Table, Model VMC15, S/N 9709173
Enco 10 x 54 Heavy Duty Vertical Milling Machine

**Grinders**

Landis O.D. Grinder, 22 x 72 Type CH Plain, S/N 636\37
Karstens O.D. Grinder, Model #K11, Serial No. 8502706111, 14" O.D. x 28" Centers
Ribon O.D. Grinder, Model RUR-H500, 11" O.D. x 20" Centers
Heald I.D. Grinder, 42" Swing, 36" Stroke, Model #74, S/N 43376
Toyo I.D. Grinder, Model #T-122A, Serial No. 3362, 24" O.D. x 20" Travel
Bryant Universal I.D. Grinder, Serial No. Y-13405
Cincinnati Centerless Grinder, Model 220-8, Serial No. 350300073-0113, 3" Max. O.D.
Landis Angle Grinder, Model 6 R
Heald Rotary Surface Grinder, Serial No. 20970, 12" Max. O.D.
Okomoto Surface Grinder, Model ACC-12-24 ST, S/N 3023

**Misc. Shop Equipment**

Cossen Saw, Model C-320NC, Fully Automatic, 12.7" O.D. Max. or 16" Wide Max., Serial No. C-951334
DoAll Saw, Capacity 12" O.D. Max. or 16" Wide Max.
Colonial Horizontal Broaching Machine, 3 Ton, Model HAS-3-36, Serial No. 90255
Oil Gear Broaching Machine, Model XL-32, S/N 31880
Welder, Millermatic 250
Sunnen Honing Machine, Serial No. 86223
Dake Hydraulic Press, Model 50H, S/N 178483
Famco 15 Ton Arbor press, Model No. 6A
Delta (2) Head Gang Drill
Nova 1001 Vibratory Deburring Machine
Ex-Cell-O Center Lapping Machine, S/N 1740665
Techno Mark Multi 4-V2 Marking Machine, S/N 1211026
(2) Bench Grinders
(2) 10 H.P. Air Compressors Ingersoll Rand
Air Dryer, Wilkerson
Oxy/Acetylene Torch
Propane Torch
Transformer 220V Step Up to 440V

**Inspection Equipment**
CMM, Mitutoyo, Model BRT-M710, S/N BA000131
Lead Checker, ITW, Model #3912A-2C, Serial No. 3922
Involute Checker, ITW, Model 3424B-2C, serial No. 9832
Vari-Roll, Model D-4, Serial #VR-4353
ITW Gear Roller
Deltronic Optical Comparitor, Model #DH14-MPC, S/N A68111061
Hob Checker, Barber Colman, Model HSC, S/N 191
(2) Bench Centers
12 x 18 Granite Surface Plate
18 x 24 Granite Surface Plate
24 x 36 Granite Surface Plate
Mitutoyo Outside Micrometers, 0"-48"
Mitutoyo Depth Micrometer, 4"-12"
Mitutoyo Vernier Calipers, 0"-6"
Mitutoyo Vernier Calipers, 0"-8"
Mitutoyo Vernier Calipers, 0"-12"
Chinese Vernier Caliper, 0"-40"
Chinese Vernier Caliper, 0"-80"
Mitutoyo Internal Micrometer, 2"-8"
Mitutoyo Internal Micrometer, 8"-40"
Trimos Electric Height Gage 0"-21"
MG Height Gage
Mitutoyo Bore Gage, 0.7"-6"
Mitutoyo Bore Gage, 2"-6"
Mitutoyo Bore Gage, 6.5"-10"
Ringmaster Ring Gages, .25"-2"
Meyer Plug Gages, .1"-1"
Rockwell Hardness Tester, Chinese, Model HR-150A, Serial No. 1993-10-014
Dial Indicators
Mitutoyo Snap Gages
Mitutoyo Profilometer

**Tooling**
Over 1400 hobs - Diametral Pitch, Module, Circular Pitch, Stub, Worm
Sprocket, Serration, Involute and Parallel Spline

Over 200 Shaper Cutters

Numerous Cutter Bodies & Blades

**Material**
We try to keep the following material on hand up to 12" outside diameter
1018
4140
Lifting Capacity
5,000# Komatsu Forklift, Serial #554565A
500# Free Standing Jib Crane, Contrix
1,000# Free Standing Jib Crane, Dayton
1,000# Free Standing Jib Crane, Handling Systems
2,000# Winch Crane, Thern
Plant #2 Equipment List

**CNC Turning Equipment**
Mazak Nexus 250M w/Live Tooling, Serial No. 174491
Mazak QT-250, S/N 147639

**Manual Turning Equipment**
Cincinnati Lathe 12 x 40, Serial No. HT-202G

**Manual Milling Equipment**
Bridgeport Mill, Serial No. J-185584

**Gear Hobbing Equipment**
Barber-Coleman B.C. 16-16 Multicycle, Serial No. 3582.8
Barber-Coleman B.C. 16-16, Serial No. 4287R
Barber-Coleman B.C. 6-10
Phauter CNC

**Gear Shaping Equipment**
Fellows 7A

**Worm Cutting Equipment**
Lees-Bradner Thread Mill 12 x 40
Lees-Bradner Thread Mill, Serial No. LT-278, 14” O.D. Max. x 32” Length Max.

**Straight Bevel Gear Equipment**
Gleason #12 Straight Bevel Generator, 14” Max. O.D., 3 D.P., 2.5” Face, Serial No. 21999
Gleason #12 Straight Bevel Generator, 14” Max. O.D., 3 D.P., 2.5” Face, Serial No. 16899
Gleason #12 Straight Bevel Generator, 14” Max. O.D., 3 D.P., 2.5” Face, Serial No. 18451
Gleason #14 Straight Bevel Coniflex Generator, 24” Max. O.D., 2.5 D.P., 3” Face, Serial No. 23667
Gleason #14 Straight Bevel Coniflex Generator, 24” Max. O.D., 2.5 D.P., 3” Face, Serial No. 24787
(2) Gleason #104 Straight Bevel Generator, 9” Max. O.D., 3 D.P., 1.375” Face

**Spiral Bevel Gear Equipment**
Gleason #116 Spiral Bevel Hypoid Generator, 18” Max. O.D., 3 D.P., 3” Face, Serial No. 619816
Gleason #116 Spiral Bevel Hypoid Generator, 18” Max. O.D., 3 D.P., 3” Face, Serial No. 641314
Gleason #7A Spiral Bevel Hypoid Generator, 6” Max. O.D., 5 D.P., 2” Face, Serial No. 20980
Gleason #7A Spiral Bevel Hypoid Generator, 6” Max. O.D., 5 D.P., 2” Face, Serial No. 17359
Gleason #7A Spiral Bevel Hypoid Generator, 6” Max. O.D., 5 D.P., 2” Face
Gleason #16 Spiral Bevel Hypoid Generator, 17” Max. O.D., 3 D.P., 3” Face, Serial No. 12852
Gleason #16 Spiral Bevel Hypoid Generator, 17” Max. O.D., 3 D.P., 3” Face, Serial No. 12921
Gleason #16 Spiral Bevel Hypoid Generator, 17” Max. O.D., 3 D.P., 3” Face, Serial No. 23755
Bevel Testing Equipment
Gleason #13 Tester, Serial No. 14157
Gleason #13 Tester, Serial No. 16649
Gleason #6 Angular Tester, Serial No. 19004
Gleason #6 Angular Tester

Misc. Bevel Equipment
Gleason #7 Straight Bevel Sharpener, Serial No. 14897
Gleason #7 Straight Bevel Sharpener
Gleason #13A Spiral Bevel Sharpener, Serial No. 610112
Gleason #4 Spiral Bevel Sharpener, Serial No. 18620

Inspection Equipment
Brown & Sharpe “Validator” Coordinate Measuring Machine w/ABERLINK Software
Wilson Rockwell Hardness Tester, Model 3JR, Serial No. 3JR-5901
J & L Optical Comparitor, Serial No. B-45054
J. Parkinson & Son Shipley Tester
Mitutoyo Mics

Misc. Shop Equipment
DoAll Saw C260A, 10” Max. O.D., Serial No. 459-98431
Sunnen Hone, Serial No. 52124
Norton Universal I.D./O.D. Grinder
Single Spindle Drill Press – 2.0” #3MT - #RF-401VS
Morrison Key Seater, Serial No. K55823
Trinco Dry Blaster
Arfa Drill Press, Serial No. 331012
Boyer Schultz Surface Grinder

Lifting Capacity
Clark Forklift, 5000#, Serial No. C365L-0305-9464FB