

Major Project
Reference List

For

Michael W. Wedel

Charles Lowe Company (Yuba Gold Fields)	Design and manufacture of 450 ton per hour Gold Recovery Plant. Included on-site installation of all components, including Trommel, Mineral Jigs, Electrical, Pumps, Conveyors, etc.
Charles Lowe Company (Bucket Dredge Components)	Manufacture of numerous Bucket-Line Dredge components for numerous Gold, Platinum and Tin Dredges in North and South America and Indonesia including dredges for Alaska Gold, Nome, AK and Yuba Placer Gold, Marysville, CA.
Charles Lowe Company (Trommels and Components)	Design and manufacture of various Trommel units and Jigs for various Placer Gold recovery projects. Mainly for larger Placer operation in the Western US and Alaska. Designs included both cylindrical and conical designs. Consulted on trommel operation and efficiency. Supplied repair components.
Charles Lowe Company (Napias Creek Mining) (Leesberg, Idaho)	Design and manufacture of 250 ton per hour Skid-Mounted Gold Recovery Plant. Included on-site installation of components, including Trommel and Mineral Jigs.
Charles Lowe Company (Trommel Screen Plates)	Manufactured screen plates with tapered holes for various sand and gravel producers, including TXI, Gifford Hill, Jamison and others. Also supplied screen plates for other trommels manufacturers Bodinson, Standard and Mipeco.
Merced Irrigation District (Exchequer P/H)	On-site machining, line boring, Wicket Gate refurbishment, and bearing installation. Included shop machining of 15 ft. diameter Bottom Ring. Refurbished various components with self-lube bearing materials.
Seattle City Light (Boundary P/H)	Shop machining of 11 ton Hydro Head Cover and 9 ton Hydro Operating Ring. Installed new Wear Pads.
Southern California Edison (Mammoth Pool P/H – Unit 1)	Rebuilt Hydro T.S.O. (Turbine shut-Off) Valve Actuator and Piston. Made new bi-metal cylinder to replace cracked cylinder. (26" diameter x 48" long – 12 tons)
Pacific Gas and Electric (Potter Valley P/H – Unit 2)	On-site machining, line boring, Wicket Gate refurbishment and Self-Lube Bearing installation.
Southern California Edison (Mammoth Pool P/H – Unit 1)	Wicket Gate refurbishment, on-site machining of 12 ft. diameter Facing Plates, line boring of Wicket Gate bores, Self-Lube Bearing installation, metal spraying and repair of various components.

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Merced Irrigation District (Exchequer P/H)	In-place Hydro Francis Runner cavitation repair. Included all welding and grinding and repainting Wicket Gates. Draft Tube repairs and installation of new replacement wear rings. Various in-place machining projects. Work performed directly for owner and for American Hydro on various occasions.
East Bay Municipal Utility District (Pardee P/H – Units 1 & 2)	On-site Wicket Gate and cavitation weld-up and repair. All “confined space” welding and grinding.
Pacific Gas and Electric (Rock Creek P/H)	On-site machining, line boring, Wicket Gate refurbishment and bronze Bearing installation. Supplied and installed new Stainless Steel Facing Plates.
Fibreboard Corporation (Standard, CA)	Reverse engineered, manufactured, and installed 45 ton cylindrical Chip Dryer (12 ft. x 39 ft. long) for co-generation plant.
Seattle City Light (Diablo P/H)	Shop machining of 23 ton Generator Rotor / Shaft assembly. Shop machining of large Francis Runner and Shaft.
Pacific Gas and Electric (Moss Landing, CA)	Main circulating Pump repairs for large fossil fuel plant. Including shaft, propeller, housing, and self-lube bearings.
Southern California Edison (Big Creek # 1 – Unit 1)	In-place Journal Repairs on 130 ton Shaft for a 20” diameter x 64” long Spherical Bearing on a horizontal Pelton Turbine. Included the fitting of new babbitted bearings.
Fibreborad Corporation (Standard, CA)	In-place engineering and machining of a high speed bearing assembly for repair of a Saw Mill Band Saw. Included design and supplying of special shaft sleeves for bearing journals.
Southern California Edison (Big Creek # 2A – Unit 1) Included	Emergency repairs on a 165,000 lbs. shaft (32” diameter x 42 ft. long) double-hung horizontal Pelton Turbine. cutting off one water wheel for removal, machining for temporary repairs and installing repair parts. (approx. 35 ton Pelton Wheel)
Matson Navigation Company (S.F. Dry Dock)	Technical supervision for machining and installation of 42” diameter x 48” long Self-Lube Bearing for large Spade Rudder on SS Matsonia.
U.S. Coast Guard (Alameda, CA)	Supply and installation of Rudder and Stabilizer bushing for various sized Cutters.

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Gifford-Hill and Company
(New Braunfels, TX)

Designed and manufactured two 1,750 tons per hour Trommel / Scrubbers (9 ft. diameter x 65.5 ft. long) for new Sand and Gravel plant. Included 400 HP motors / gearboxes, all mechanical components, fabricating, machining, and on-site installation adjustments.

Merced Irrigation District
(McSwain P/H)

In-place cavitation repair of a Kaplan Runner and Draft Tube. Included repairs, welding, grinding, and applying cavitation coating.

Pacific Gas and Electric
(Belden P/H)

Manufacture and install of specialized bracing for a Hydro Turbine Operating Ring. Included special in-place machining around the existing 35" turbine shaft.

Southern California Edison
(Big Creek # 8)

In-place machining of Wicket Gate bores, installation of new stainless steel Facing Plates, and manufacture and installation of new bronze backed Self-Lube Bearings.

Southern California Edison
(Big Creek – 2A – Unit 1)

Turn-key repairs on a double-hung Pelton Turbine. Included all initial disassembly, both electrical and mechanical. Cutting off both Water Wheel flanges with under water torches, machining both shaft ends to accommodate new 7,500 lbs. couplings. Installing the new couplings and modified Water Wheels, 32" diameter x 85" long Spherical Bearing repair, installation of new Generator Rotor Fan assemblies and reassembly of total unit. Included shop machining and manufacturing of various components.

U.S.B.R. – Gracon
(Folsom Dam P/H)

In-place machining of Hydro Turbine Seal Rings, Francis Runner Cavitation weld repair. Including the refurbishment of various components

Pacific Gas and Electric
(Wise P/H)

Weld up Hydro Turbine case and fits and re-machine areas in-place to bring back to original specifications. Installed new Seal Rings.

General Electric Company
(P.G. & E. – Stanislaus P/H)

Disassembly and reassembly of a Vertical Hydro Pelton Wheel plant. Removed and reinstalled all Generator Poles, generator brakes, piping, bearings, and related equipment. Responsible for all heavy lifts (300+ tons) and mechanical components.

Southern California Edison
(Mammoth Pool P/H – Unit 1)

In-place machining of damaged Hydro Head Cover. Machined plant for installation of repair parts and machined for proper clearances after part were installed. Repaired cavitation damage on T.S.O. bypass valve.

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- International Maritime Resources** (Windjammer Cruises – in Trinidad and Martinique) Designed, implemented, and oversight of machining and installation of Stern Tube retrofit. Changed from oil lubed propeller shaft bearing to water lubed bearings. Included propeller shaft repairs. Two vessels
- Pacific Gas and Electric** (Potter Valley P/H – Unit 1) Turn-key refurbishment of small horizontal Francis Turbine. Includes all disassembly, new Facing Plates, Seal Rings, Runner and Shaft repairs, Case Repairs, re-assembly and start-up.
- Truckee Meadows W/A** (Verdi P/H & Fleish P/H) Two projects that included Thrust Bearing adjustment and Field Machining of Packing Area to refurbish the Seal area.
- Southern California Edison** (Big Creek – 2A – Unit 2) In-place machining of generator shaft bearing journals. Scope included fabrication of temporary bearings and lubrication oil system, disassembly é reassembly of the bearings, machining and grinding journal to new diameter
- Smith Creek – EWEB** (Smith Creek Units 1 & 2) Turn-key project to disassemble and reassemble two units simultaneously, install new Pelton Runners, upgrade the Turbine Housings with Baffle modifications, modify the Needle Tips, install new Needle Seats, refurbish the Babbitt Bearings, Penstock modifications, Remove both Rotors for Generator cleaning and repairs. Included Vibration Analysis and Start-up Testing.
- General Electric – P.G.& E.** (Drum P/H – Unit 4) Generator disassembly and reassembly to install refurbished Field Poles, unstacking and restacking of the iron and new Windings. Included realignment of Stator and Stator foundation repairs.
- Hanson Aggregates - Servtex** (New Braunfels, TX) Redesigned and manufactured 2000 tons per hour Trommel and associated components. Included 500 HP motor-gear reducer, sprockets, trunnion bases and installation oversight and alignment.
- Martin Marietta Materials** (Medina Plant, TX) Designed and manufactured two (tandem) 1,850 tons per hour Trommel/Scrubbers and associated components. Included 600 HP motor-gear reducer assembly, sprockets, trunnion bases, feed chutes, spray pipes and guards. Includes installation oversight and alignment.