

# CASCADE MACHINERY & ELECTRIC CO.

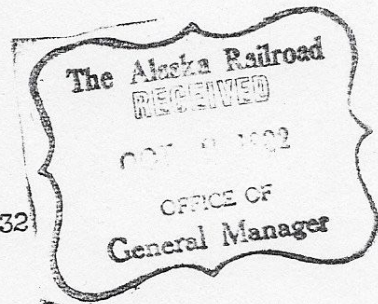
MACHINERY MERCHANTS AND ENGINEERS

63 HORTON STREET

SEATTLE  
WASHINGTON

PHONE MAIN 8400  
CABLE ADDRESS "CASMACHINE"  
ACME AND BENTLEY CODES

Sept. 27th, 1932



Alaska Railroad ~~Co.~~,  
Anchorage, Alaska.

ATTENTION GENERAL MANAGER

Gentlemen:--

We own and offer the entire plant of the Kennecott Copper Corporation at Latouche, Alaska, which we are now dismantling.

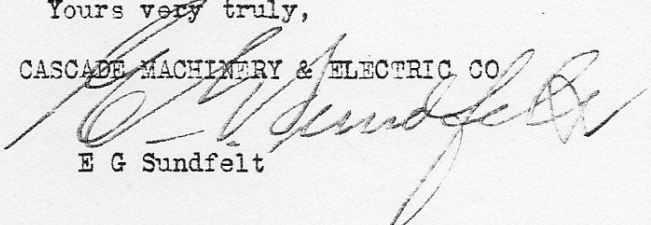
We have some very attractive bargains in boilers, turbines, diesels and general mining machinery at Latouche. Our Mr A L Renshaw is there in charge of dismantling operations.

Two or three of the boilers are in good usable condition and we had in mind if you required any of this apparatus that we can quote you some wonderful prices on hearing from you on the subject.

We are enclosing a self addressed stamped envelope and are looking forward to your comments with great interest.

Yours very truly,

CASCADE MACHINERY & ELECTRIC CO.

  
E G Sundfelt

EGS-W

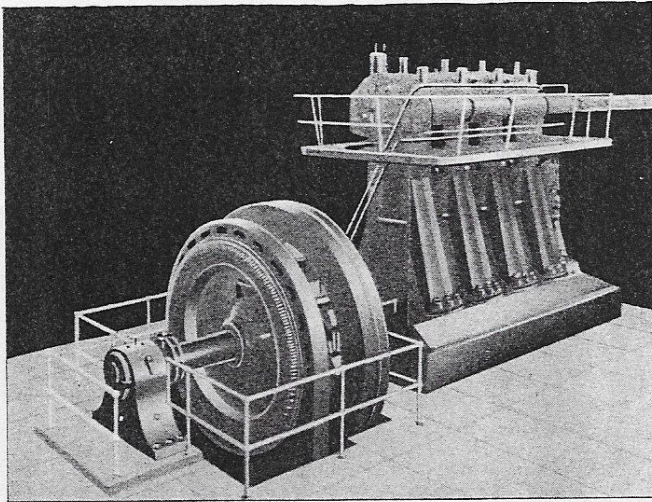
# CASCADE MACHINERY & ELECTRIC CO.

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63 HORTON STREET

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CABLE ADDRESS "CASMACHINE"  
ACME AND BENTLEY CODES



## NEW DIESEL PERFORMANCE AT A FRACTION OF THE NEW COST

We own and offer the following described full diesel engine generator units:

Three 500 B.H.P., conservatively rated, full diesel engines, manufactured by McIntosh & Seymour Corporation, engine serial Nos., 1603, 1604 and 1605.

These units were installed in the plant of the Kennecott Copper Corporation, Latouche. They have a splendid performance record and just before closing down they were, according to reports, performing as satisfactorily and efficiently as when installed.

They operate on the cheaper, heavy 16 Baume fuel oils as well as on the lighter diesel oils.

Factory specifications have a guarantee of fuel consumption at sea level, based on a heat value of not less than 18,500 B.T.U. per pound of fuel as follows:

Full Load .408 Lb. per brake horsepower hour  
¾ Load .420 Lb. per brake horsepower hour  
½ Load .463 Lb. per brake horsepower hour

The performance reported in the case of these engines was better than the guarantees even when using the heaviest fuel oil.

These engines are described as standard 4-cylinder, A-38 type direct connected to 3 phase, 60 cycle, 2300 volt, 350 K.W., 80% P.F., revolving field General Electric alternators, 164 R.P.M. and complete with exciters and switch-board panels.

Engines are 4-cylinder, 18 7/8" bore by 28 3/8" stroke.

A large amount of spare new and used replacement parts are available together with former operators and erection crews. Certified blue prints, instruction books and other pertinent information will be furnished with each unit.

Special price concession can be arranged if the entire plant is taken in a lot purchase proposition when bridge crane would be furnished.

### Features of Diesel Engine Operation

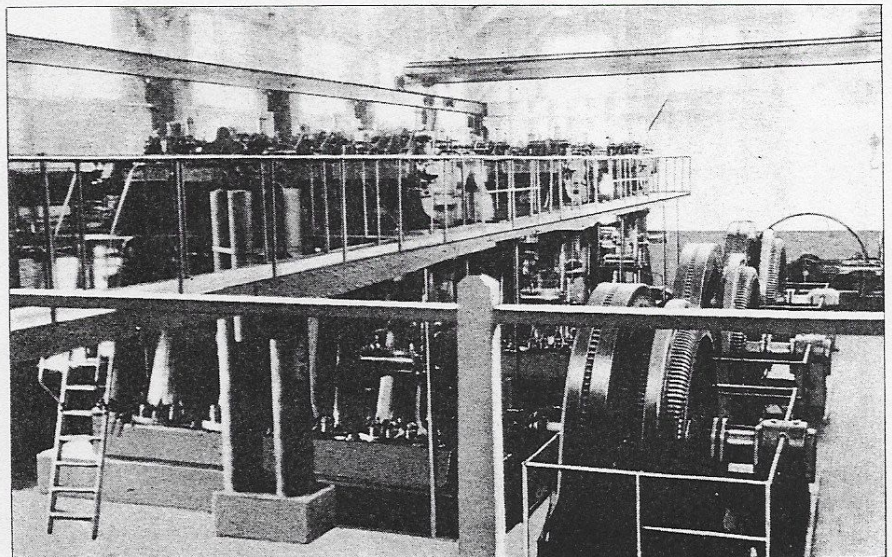
**Saving of Fuel**—Thermal efficiency of a steam plant is seldom over 13%. Thermal efficiency of a diesel plant is seldom less than 30%. Oil engine burns only 1/3 the amount of fuel used in a steam plant producing the same power.

**Saving in Labor**—In cleaning and repairing boilers, condensers, steam and water piping. Reduction in fire-room force by elimination of fireman and coal passers.

**Stand-by Losses Reduced**—When the oil engine stops, the fuel consumption stops.

### APPROXIMATE NET WEIGHT OF PARTS WEIGHING 500 POUNDS AND OVER OF TYPE 4-A-38 DIESEL ENGINE

Base	27,000	Turning Gear, Flywheel, Arrows and Bolts	659
Crank Shaft	12,000	Oil Tank and Purifier	765
Half Flywheel	20,000	Platforms	625
Half Flywheel	20,000	Piping, Hand Rails	2,256
Column No. 4	10,020	Cylinder Head	2,545
Column No. 1	9,865	Cylinder Head	2,545
Column No. 2	9,865	Cylinder Head	2,545
Column No. 3	9,865	Cylinder Head	2,650
Silencer	6,910	Two Con Rods	2,130
Air Compressor	2,190	Two Con Rods	2,130
Floor Plates and Stairs	1,281	Two Pistons	2,595
4 Exhaust Pipe Tees	2,185	Two Pistons	2,595
Governor Casing and Two Air Coolers	1,110	Cam Shaft	2,400
Outboard Bearings and Sole Plate	3,040	Governor Compressor, Con Rod	1,820
Outboard Bearings and Sole Plate	2,500	Fuel Pump, Generator Bolts	1,655
Extended Shaft	6,000	Air Receivers	3,738



SEND FOR BLUE PRINTS AND FULL PARTICULARS

# CASCADE MACHINERY & ELECTRIC CO.

PHONE:  
Main 8400

MACHINERY MERCHANTS AND ENGINEERS

SEATTLE, WASH., U. S. A.

ADDRESS:  
63 HORTON STREET

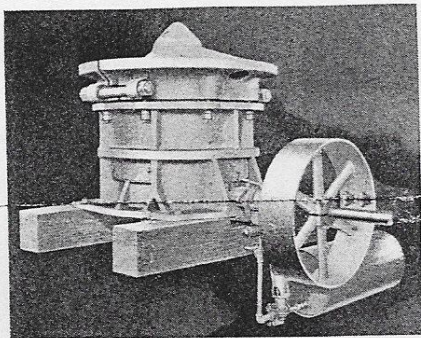
Cable Address "Casmachine"  
Acme and Bentley Codes

## MACHINERY and EQUIPMENT

Substantial savings on our large stocks of Electrical, Mining, Diesel, Pumping and Construction Equipment, together with Compressors, Cranes, Turbines, Hoisting Equipment, Sawmill and Woodworking Items, etc., etc.

Our stock is considerably augmented by addition of the entire Milling and Mining Machinery from the plant of Kennecott Copper Corporation at Latouche, which modern 2000-ton plant we own and offer at attractive prices. Subject to prior sale. If you do not see what you are interested in, let us have particulars as our stocks are constantly changing.

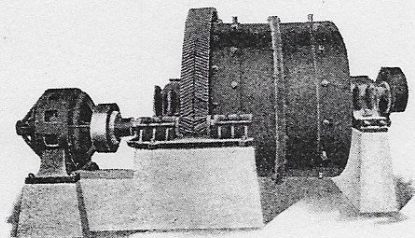
### GYRATORY PRIMARY BREAKER



1—No. 8C (16A or 8) Telsmith Primary Gyratory Breaker. Opening 18"x75". Crusher driven by 75 H.P. 3 phase, 60 cycle, 440 volt, motor, oil pump driven by ¼ H.P. motor. Weight approximately 50,000 lbs. This crusher set at 3 ½-4 inches has an approximate capacity of 80 to 130 tons per hour requiring 60 H.P. Price, F.O.B. dock, complete.....\$2,500.00 Without motor or spares.....1,500.00

Large amount parts, consisting of concaves, liners, bearings, oil pump, shafts, mantle, head, gears, etc.

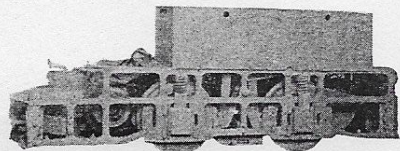
### BALL MILLS



4—Ball Mills, Marcy No. 86, complete with manganese liners, and assortment of spare liners, bearings, gears, scoops, etc. Each mill is direct geared to 225 H.P. motor, 3 phase, 60 cycle, 350 R.P.M. These No. 86 Mills each have a 24-hour capacity as follows, crushing medium hard rock with 2 ½" feed:  
200 tons—100 mesh. 600 tons—35 mesh.  
360 tons—65 mesh. 1000 tons—8 mesh.  
375 tons—48 mesh—1 ¼" feed.  
Usual ball charge 28,000 lbs.  
Approximate shipping weight, 95,000 lbs.  
Price, each, with motors and spares.....\$3,500.00

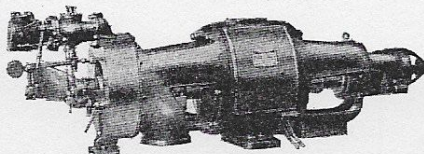
4—Classifiers for the above. Each.....\$300.00

### LOCOMOTIVES



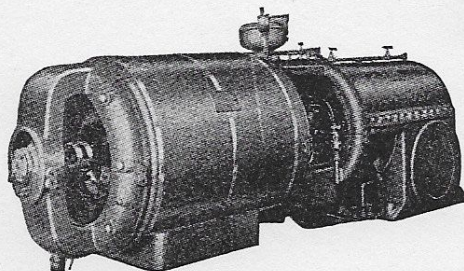
3—4 ½ ton Westinghouse heavy duty two motor 24" gauge storage battery Locomotives, equipped with 66 cells Edison Type A8 batteries. Price.....\$2,250.00  
Motor Generator Sets for same.....200.00  
(See last page for other Locomotives and Cars.)

### TURBINES AND TURBO-GENERATOR UNITS—in stock



1—125 K.V.A. modern General Electric unit, 3 phase, 60 cycles, 220/440/2300 volts, 3600 R.P.M., non-condensing. Complete with direct connected exciter and rheostat.

1—125 K.V.A. Kerr Turbine, Burke generator unit, 3 phase, 60 cycles, 220/440 volts, 3600 R.P.M., condensing. Complete with direct connected exciter, rheostat, jet condenser and pump.

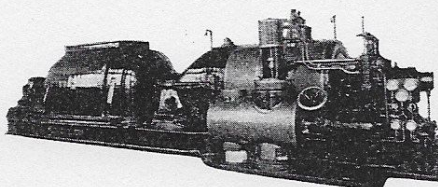


1—200 K.W. General Electric, 2300/440 volt 3600 R.P.M. non-condensing or condensing.  
1—300 K.W. Allis Chalmers, 3 phase, 60 cycle, 440 volts, condensing.  
1—500 K.W. Allis Chalmers, 2300/440 volt, 3600 R.P.M. condensing.  
1—500 K.W. General Electric 3600 R.P.M., 3 phase, 60 cycle, 480 or 2300 volt General Electric Curtis Turbo Generator unit.

### SPECIAL BARGAIN

2—500 K.W. Westinghouse, 3 phase, 60 cycle, 2300 volt, 3600 R.P.M., condensing, turbo generator units with surface condensers and auxiliaries, motor generator exciter sets and panels.

1—1000 K.W. Allis Chalmers, 3 phase, 60 cycle, 480 or 2300 volt, 3600 R.P.M., 150 lbs., steam, condensing with low level jet condenser and auxiliaries.



### SPECIAL

1—1600 K.W. Allis Chalmers, 3 phase, 60 cycle, 440 or 2200 volts, condensing turbo unit, splendid condition with low level jet condenser and auxiliaries.

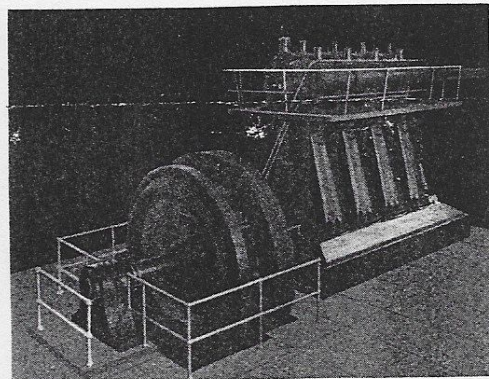
For Further Turbine Bargains, See Page 5

### DEPENDABLE DIESEL EQUIPMENT

For power plant or standby service, the Diesel Engine has positive merit.

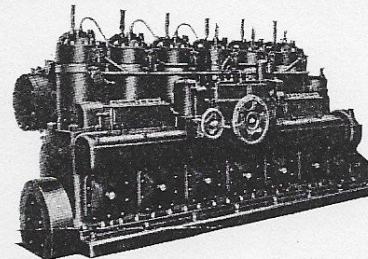
We offer a complete service with skilled engineers, competent testing facilities and quick deliveries.

If good, dependable Diesel equipment at about 50% of new cost or less interests you, give us your calls.



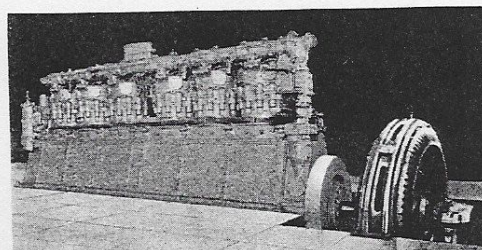
### We Own and Offer in Fine Condition

3—500 H.P. McIntosh & Seymour Diesel Engines, direct connected to 350 K.W., 3 phase, 60 cycle, 2300 volts (or can reconnect). General Electric A.C. Generators complete with parts and spares. These Diesels are high economy units at bargain prices. \$10,000.00 each F.O.B. cars or boat, Seattle, or \$26,000.00 for the entire plant, including many spare parts and auxiliaries, also six panel switch-board, regulator, bridge crane, etc.



1—150 H.P. Fairbanks-Morse, 2 cycle Diesel.  
1—180 H.P. Fairbanks-Morse, 2 cycle Diesel, direct reversing, marine or stationary in stock.

### IN STOCK—GUARANTEED CONDITION



3—Busch-Sulzer Full Diesel Engines, 300/400 H.P., 300/360 R.P.M., for stationary or marine Diesel electric service.

Six cylinder, 4 cycle, approximate weight without generator, 37,000 lbs. Spare new parts available.

Can furnish these tested engines belted for general purpose or direct connected to generators or pumps.

Price, \$6,500.00 each, with starting auxiliaries.

Price, \$9,000.00 each, with direct connected generator.

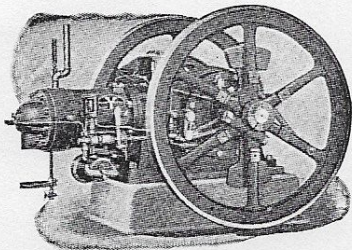
(See next page for other Diesel items).

WRITE, PHONE OR WIRE FOR SPECIFICATIONS!

# CASCADE MACHINERY & ELECTRIC CO.

## DIESEL UNITS—Continued

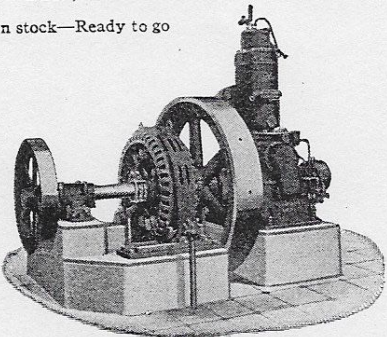
Tested and Guaranteed



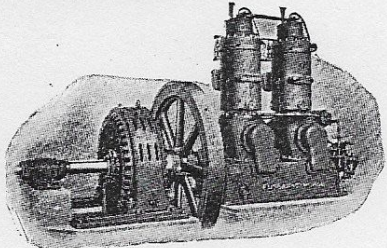
- 1—20 H.P. Fairbanks Morse Type Y Engine, belted, 350 R.P.M., complete.....\$600.00
- 1—15 H.P. Fairbanks Morse Type Y, belted, 400 R.P.M., complete.....\$475.00
- 1—25 H.P. Type Y Fairbanks Morse horizontal Diesel Engine, 325 R.P.M., complete, belted, F. O. B. cars.....\$750.00

- 1—40 H.P. Type Y Fairbanks Morse with direct connected to 3 phase generator. (Full Diesel). F. O. B. Seattle.....\$2,100.00

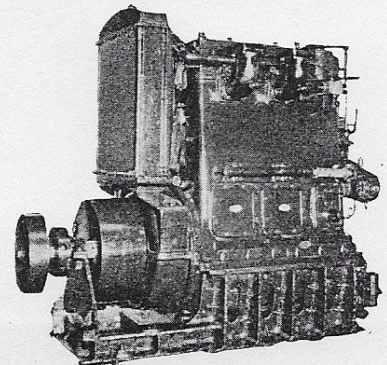
In stock—Ready to go



- 1—50 H.P., 257 R.P.M. Fairbanks Morse Diesel Type Engine, direct connected to alternator, with parts complete, F. O. B. cars.
- 1—Ditto, direct connected to D.C. generator.
- 1—Ditto engines, belted, complete.



- 1—75 H.P. Fairbanks-Morse, Type Y, 300 R.P.M., Diesel type engine, in stock, belted complete with auxiliaries, tested and guaranteed.
  - F. O. B. cars.....\$2,200.00
  - 1—100 H.P. ditto.....2,800.00
- The above engines can be furnished with belted or direct connected generators or "V" belt type of drive.



ACTUAL PHOTOGRAPH

We own and offer subject to prior sale, 2 Fulton-Foos Full Diesel Engines, 2 cylinder, 8 1/2"x11", four cycle units.

## DIESEL UNITS—Continued

These are light weight, highly versatile modern Diesel units for stationary or portable service.

Rated as follows:

- 50 H. P. at 500 R. P. M.
- 60 H. P. at 600 R. P. M.
- 40 H. P. at 400 R. P. M.

Solid injection, forced feed lubrication. Completely enclosed units. No external moving parts. Each cylinder equipped with air starting valve. High fuel economy.

Prices can be quoted on these engines direct connected or belted to generators either A. C. or D. C., also pumps, air compressors, etc., etc.

Prices F. O. B. Seattle, overhauled and tested. Complete with starting auxiliaries.....\$1,500.00

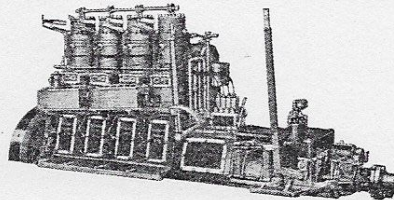
- 1—200 H.P. Type Y Fairbanks Morse Diesel Type Engine, 257 R.P.M., direct connected to 150 K.W., 3 phase, 60 cycle, 220, 440 or 2200 volt A.C. generator and rheostat, also starting equipment.

Above engine direct connected to a 150 K.W., direct current, 125-250 volt generator and parts.

- 1—150 H.P., Type Y, with direct connected A.C. generator.

- 1—180 H.P. Fairbanks Morse Type 35-B2, six cylinder, modern marine type full Diesel Engine with reversing gear.

- 1—100 H.P. Fairbanks Morse Type C.O. marine Diesel unit.....\$2,200.00



- 1—150 H.P. Fairbanks Morse, Type CO, 6 cylinder, direct reversing, 340 R.P.M. Diesel engine for stationary belted service with starting auxiliaries.....\$3,200.00

With tail shaft, bearings and propeller as marine engine.....\$3,500.00

- 1—36 H.P., 450 R.P.M., Viking, marine, 3 cylinder, with reversing gear and clutch, stationary or marine with air starting equipment.....\$900.00

- 1—80 H.P., 2 cylinder, heavy duty, Gulowsen Grei Marine Diesel engine, with reverse gear, shaft and propeller.....\$1,500.00

### BARGAIN

- 1—150 H.P. New Pacific Full Diesel, 3 cylinder, 327 R.P.M., direct connected to 3 phase, 60 cycle, 440 volt generator and auxiliaries. F. O. B. cars.....\$4,000.00

Several 400 H.P., six cylinder Busch-Sulzer full Diesel Engines, arranged for Diesel electric drive if desired.

Also have listed several 300/400 H.P. standard marine full Diesels and 750/960 H.P. McIntosh & Seymour units.

### MARINE DIESEL ENGINE BARGAINS

- 2—500 H.P. each, McIntosh & Seymour, 170/200 R.P.M. (right and left hand) with parts. Each.....\$5,000.00
- Investigate.

### Brand New Pacific Workshop Diesel Bargains

- 1—3000 H.P. Marine—Apply.
  - 2—400 H.P. Stationary—225 R.P.M.
  - 2—150 H.P. Stationary—325 R.P.M.
- Can quote these with A.C. or D.C. Generators, if desired.

- 1—360 H.P. Fairbanks Morse Type Y, Style VA Engine and Generator.

- 1—300 H.P. ditto, belted, style VA.

- 1—300 H.P. ditto, style V, belted.

Also can quote various Diesels, belted or direct connected from 100 to 1000 H.P. in Fairbanks, Busch Sulzer, McIntosh & Seymour, Nordberg, Werkspoor, Worthington and other makes.

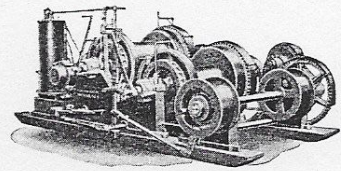
### GOLD DREDGE EQUIPMENT

We can offer several gold dredges, among which are:

- 2—Only, 7 cu. ft. Yuba electrically driven dredges, for sale at bargain prices.

Give Us Your Inquiries.

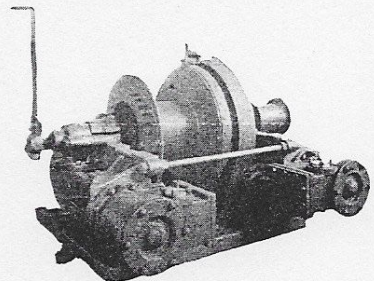
## HOISTS



- 2—50 H.P. American Double Drum Hoists with or without swinging gear and complete, wired up with reversing drum controller and grids, 3 phase, 60 cycle, 220 or 440 volt motors. Each, F. O. B. Seattle.....\$800.00

- 1—Double Drum 2 speed Washington Iron Works 100 H.P. Hoist, splendid condition. This unit fine for Slackline or Dragline Service.

Can be quoted with motor or gas engine drive.

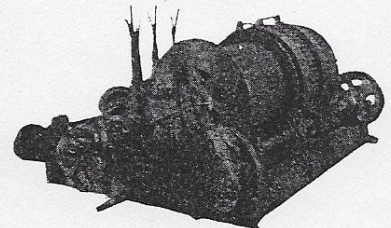


- 1—8"x8" Hyde Air or Steam Hoist, 14"x14" Drum with friction, F.O.B. Seattle. Each.....\$250.00

- 1—8 1/4"x10" Flory Air or Steam Hoist, 27"x30" Drum, F.O.B. Seattle.....\$250.00

- 1—6"x8" Union Air or Steam Hoist, 12"x16" Drum with friction, F.O.B. Seattle. Each.....\$175.00

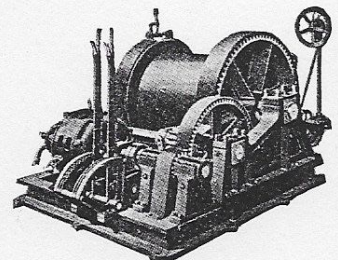
## HOIST



ACTUAL PHOTOGRAPH

- 1—Flory 7"x10" Air or Steam Hoist, 24"x24" Drum with friction and banked lever control, and auxiliary friction drum, F. O. B. Seattle. Each.....\$300.00

- 2—Single Drum Willamette 300 H.P. Hoists for straight lifts or incline work, will handle 65,000 lbs. on 50% grade at 400' per minute, with motors and control. Each.....\$3,400.00

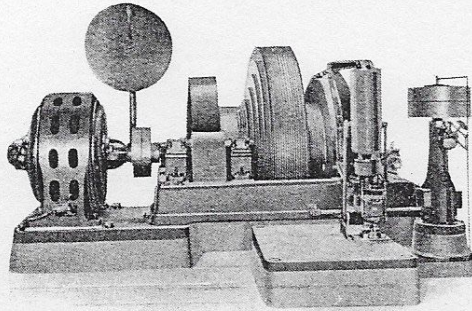


- 1—Single Drum Willamette Hoist, 34" Drum diameter by 30" face. Rope speed 400 to 600 ft. per min., will hold 3500 ft. of 1" line. Practically unused, without motor (100 H. P.).....\$950.00

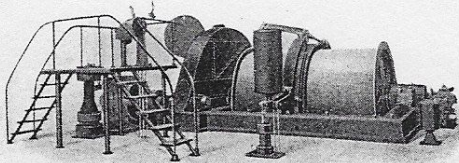
Can quote with motor from 50 to 150 H.P.

HOISTS—Continued

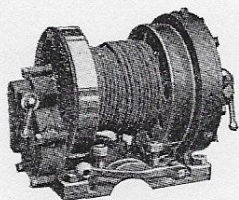
- 1—Lidgerwood, 2 drum, 66x42, 10,000 lbs., 450 ft. per min. Solenoid and post brakes, depth indicator, equipped with 150 H.P., 2300 volt slip ring motor and control.
- 1—Lidgerwood, single drum, 72x60, 10,000 lbs., 1,000 ft. per min. Solenoid and post brakes, depth indicator, equipped with 150 H.P., 2300 volt, slip ring motor and control.
- 2—300 H.P. Ottumwa Modern Single Drum Electric Mine Hoists.



- 1—300 H.P. Ottumwa Cylindro-Conical Drum Hoist (see cut above). Unexcelled for skip service from 500 to 1200 ft. shafts. Special with motor and control, 3 phase, 60 cycle, 2300 volts..... \$4,000.00
- 1—Double Drum Mine Hoist, each drum 7 ft. diameter, grooved for 1 1/4" rope, made to handle 25,000 lbs., 1,000 F.P.M., 56° shaft, 800 H.P. motor.
- 1—2,000 H.P. Nordberg Electric Double Drum Hoist, 49,000 lbs., 2,250 F.P.M.

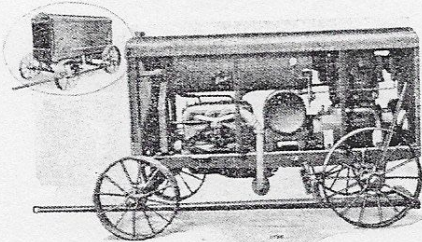


- 1—600 H.P. Nordberg Electric Double Drum Hoist, 24,000 lbs., 1,650 F.P.M.
  - 1—Steam or Air Nordberg Double Drum Hoist, 30,000 lbs., 2,500 F.P.M.
  - 1—Nordberg Electric Single Drum, 225 H.P., 7,000 lbs., 800 F.P.M.
  - 1—Ottumwa, 350 H.P. Electric Single Drum.
  - 1—Union, 400 H.P. Electric Double Drum, 14,000 lbs., 1,000 F.P.M.
- Numerous other larger and smaller hoists listed.  
Send us your wants.

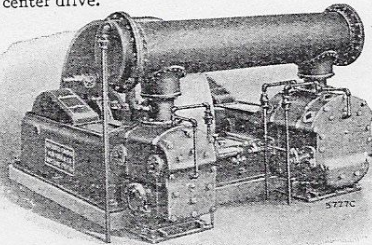


- 16—Little Tugger Hoists, Ingersoll-Rand Co. Each.....\$100.00
- 1—Chicago Pneumatic Tool Air Hoist..... 100.00
- 3—Superleadville Air Hoists, each..... 100.00

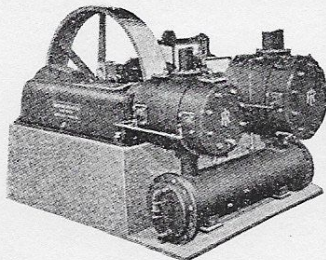
COMPRESSORS



- 1—Imperial Type 14 portable gasoline driven Compressor unit, 210 ft., 100 lbs.....\$1,000.00 Seattle
- 1—Sullivan 500/600 cu. ft. 100 lb. 14"x8 1/2"x10" angle compound WJ3 with unloader and short center drive.



- 1—1192 cu. ft. 100 lb. Ingersoll-Rand X.B. 2, short belt drive Compressor, 22"x13"x16" with unloader, idler, belt and 200 H.P. 3-phase motor and starter. Price.....\$2,000.00



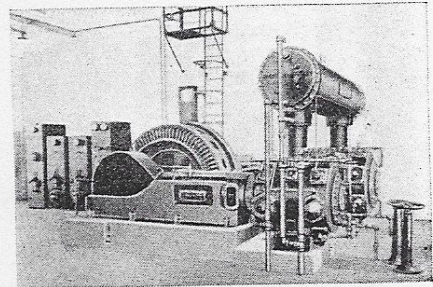
- 1—330 ft., 210 R.P.M., 2-stage Ingersoll-Rand XB, 100 lbs., 12x7x12, belted compressor with idler and inter-cooler, splendid condition, F. O. B. Seattle.....\$600.00  
Can furnish above compressor with diesel, motor or water wheel drive.
- 2—267 cu. ft. 100 lb. Chicago Pneumatic Type NSO 12"x8 1/2"x12" tandem Diesel compressor units.
- 1—14"x12" Ingersoll-Rand ER 1 528 ft. 100 lb. belted.....\$1,050.00
- 2—12"x10" ditto, 350 ft., each..... 750.00
- 1—12"x10" Chicago-Pneumatic 350 ft.....\$600.00

SCHRAMM AIR COMPRESSORS

Modern Lightweight Units, in all sizes.  
Note following new prices for quick delivery:  
120 cu. ft., 800 R.P.M., weight 750 lbs.....\$400.00  
180 cu. ft., 780 R.P.M., weight 900 lbs..... 590.00  
240 c' ft., 800 R.P.M., weight 1570 lbs..... 800.00  
Vertical, pressure lubricated, enclosed machines for the most severe service.

COMPRESSORS—Continued

- 1—600 cu. ft. Worthington 2 stage 100 lb. compressor, belted.....\$1,350.00
- 1—600 cu. ft. Ingersoll-Rand XB2, 2 stage 100 lb. belted compressor.....\$1,200.00
- 2—2678 cu. ft. 100 lb. PRE, Ingersoll-Rand, 2 stage direct connected 3 phase, 2300 volt motors.
- 1—3000 cu. ft. Nagie 32"x19"x22" 100 lb. with motor direct connected.

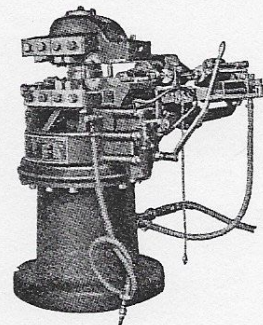


- 1—1,730 cu. ft. 100 lb. Chicago Pneumatic Air Compressor, Type OCE, 2 stage, plate valve, size 23"x13"x16", 225 R.P.M. with direct connected 295 H.P., 3 phase, 60 cycle, 2300 volt, Type ATI General Electric self-starting Synchronous motor, complete with exciter, starting panels and a stock of spare parts. This modern splendid unit was overhauled shortly before closing down.
- 1—Vertical 54"x12' Receiver, for above unit with manhole. All for.....\$3,200.00

CONVEYOR EQUIPMENT

- 30—Return Idler Rolls, 30". Each.....\$3.00
- 8—Guide Rolls. Each.....\$2.00
- 105—16x7 Conveyor Buckets AA (new). Each.....\$1.00
- 14—16x7 Conveyor Buckets AA (used). Each...\$ .75
- 118—10x6 Conveyor Buckets AA (used). Each...\$ .50
- 34—Head and Tail Pulleys and reduction units for conveyors and elevators.

SHARPENERS



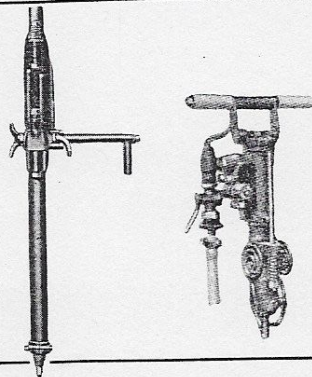
- 1—No. 50 Ingersoll-Rand Drill Sharpener with complete set dies and dollies also spare parts.....\$800.00
- 1—No. 5 Ingersoll-Rand Drill Sharpener with set dies and dollies also spare parts.....\$500.00
- 1—Denver Oil Forge low pressure type.....\$ 75.00

AIR TOOLS

- 23—Ingersoll-Rand CC-11 Stoppers, each.....\$50.00
- 5—Ingersoll-Rand CCW-11 Wet Stoppers, each 110.00
- 20—Ingersoll-Rand BCRW 430 Wet Jackhammers, each.....\$60.00
- 15—Ingersoll-Rand BCR 430 Jackhammers, ea...\$50.00
- 10—Ingersoll-Rand No. 248 Drifters, each.....\$75.00
- 3—DDR 13 Jackhammers, each.....\$60.00
- 28—Ingersoll-Rand "Bull Moose" Jackhammers, each.....\$35.00
- 3—Chipping Hammers.

We have an immense stock of repair parts for the above types of tools.

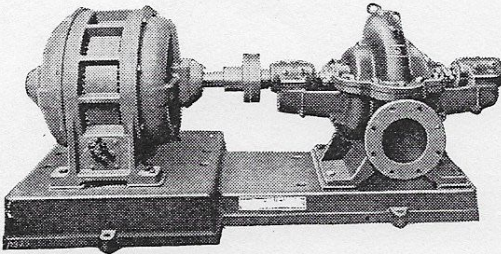
- Also columns and mountings.  
(See Air Hoists under "Hoists")  
In addition to the above drills we have
- 1—Denver Turbo Drifter.....\$75.00
- 1—Denver Clipper Jackhammer.....\$70.00



PUMPS · POWER · ENGINEERING

The largest stock of reconditioned pumping equipment on the coast. We offer a complete service, engineering, erection and power application. Complete modern units ready for emergencies. Substantial savings backed by a service of real merit.

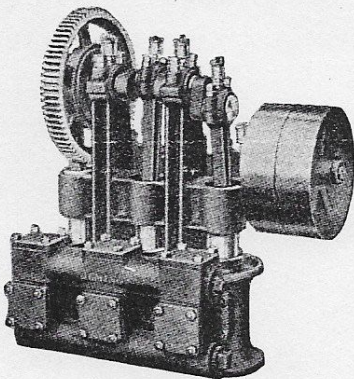
We buy, sell and rent all types of equipment.



- 1-2" Gould, Belted.  
45 G.P.M. 25 ft. head, 1150 R.P.M.  
100 G.P.M. 70 ft. head, 2000 R.P.M.
- 2-2" Worthington 2-stage Hotwell Condensate Pumps with 5 H.P. 1800 R.P.M. Motor.
- 1-2" Krogh.  
100 G.P.M. 70 ft. head, 1750 R.P.M.  
125 G.P.M. 60 ft. head, 1750 R.P.M.
- 1-2" Krogh No. 7.  
100 G.P.M. 40 ft. head, 1750 R.P.M.  
125 G.P.M. 30 ft. head, 1750 R.P.M.
- 1-2" Fairbanks Morse.
- 2-2" Allis Chalmers,  
200 G.P.M. 200 ft. head, 3450 R.P.M.  
100 G.P.M. 45 ft. head, 1750 R.P.M.
- 1-2 1/2" DeLaval, H. S.  
250 G.P.M. 90 ft. head, 1750 R.P.M.
- 2-2 1/2" DeLaval, H. S.  
250 G.P.M. 100 ft. head, 1750 R.P.M.  
200 G.P.M. 40 ft. head, 1150 R.P.M.
- 1-3" Krogh, 2-stage.  
300 G.P.M. 325 ft. head, 1750 R.P.M.  
300 G.P.M. 160 ft. head, 1150 R.P.M.
- 2-3" DeLaval, H. S.  
300 G.P.M. 65 ft. head, 1750 R.P.M.  
450 G.P.M. 50 ft. head, 1750 R.P.M.
- 2-4"x3" Cameron, 3-stage, H. S.  
300 G.P.M. 475 ft. head.  
400 G.P.M. 450 ft. head.
- 2-4" DeLaval, H. S.  
450 G.P.M. 140 ft. head, 1750 R.P.M.  
800 G.P.M. 120 ft. head, 1750 R.P.M.
- 1-4" DeLaval, H. S.  
700 G.P.M. 150 ft. head, 1750 R.P.M.  
500 G.P.M. 160 ft. head, 1750 R.P.M.

POWER PUMPS

Geared or belted



- 3-3"x5" Fairbanks Morse Typhoon, 15 G.P.M., 80 lb.
- 2-5"x5" Fairbanks Morse Typhoon, 40 G.P.M., 80 lb.
- 2-4"x6" Fairbanks Morse Duplex, 75 G.P.M., 150 lb.
- 1-3 1/2"x6" Fairbanks Morse Duplex, 56 G.P.M., 200 lb.
- 1-5"x6" Fairbanks Morse Duplex, 119 G.P.M., 90 lb.
- 1-3"x4" Fairbanks Morse Triplex, 32 G.P.M., 200 lb.
- 2-5"x5" Rumsey Simplex, 40 G.P.M., 80 lb.
- 1-6"x10" Fairbanks Duplex D.A., 175 G.P.M., 100 lb.
- 1-3"x4" Fairbanks Morse Duplex, 35 G.P.M., 150 lb.
- 1-2 3/4"x8" Deming High Pressure Triplex, 30 G.P.M., 750 lb.
- 2-Triplex, Goulds, 6"x8" 130 G.P.M., 325 ft. head.
- 1-Triplex, Goulds, 5"x8" 125 G.P.M., 460 ft. head.
- 2-Triplex, 7"x10" 200 G.P.M., 460 ft. head.
- 2-Triplex, 3"x4" 30 G.P.M., 230 ft. head.
- 1-Triplex, 15"x16" Gould.

- 1-5" Worthington, H. S.  
800 G.P.M. 65 ft. head, 1750 R.P.M.  
600 G.P.M. 35 ft. head, 1150 R.P.M.
- 1-5" Manistee Roturbo.  
400 G.P.M. 235 ft. head, 2000 R.P.M.  
600 G.P.M. 160 ft. head, 2000 R.P.M.
- 1-5" Byron Jackson, 2-stage, H. S.  
1100 G.P.M. 500 ft. head, 1750 R.P.M.  
1500 G.P.M. 390 ft. head, 1750 R.P.M.
- 1-5" Fairbanks Morse, H. S.  
1000 G.P.M. 550 ft. head, 1750 R.P.M.
- 2-6" Byron Jackson Vertical Sinkers.  
800 G.P.M. 30 ft. head.  
1000 G.P.M. 20 ft. head.  
(10 H.P. 220/440 volt Motors).
- 1-6" Goulds, Fig. 3300, 2-stage, H. S.  
1000 G.P.M. 525 ft. head, 1750 R.P.M.  
1000 G.P.M. 200 ft. head, 1150 R.P.M.
- 2-6" DeLaval, H. S.  
1400 G.P.M. 180 ft. head, 1750 R.P.M.  
1800 G.P.M. 140 ft. head, 1750 R.P.M.
- 5-6" Krogh.  
1000 G.P.M. 100 ft. head, 1750 R.P.M.  
1000 G.P.M. 45 ft. head, 1150 R.P.M.
- 1-6" Worthington.  
1000 G.P.M. 100 ft. head, 1150 R.P.M.  
1000 G.P.M. 48 ft. head, 850 R.P.M.
- 4-6" Cameron, H. S.  
850 G.P.M. 226 ft. head, 1750 R.P.M.  
1200 G.P.M. 120 ft. head, 1750 R.P.M.
- 2-6" Buffalo High Pressure H. S. Bronze fitted units,  
4-stage, with 300 H.P. Motors, each 1100 G.P.M.,  
800 ft. head.
- 1-6" American, H. S.  
1000 G.P.M. 231 ft. head, 1750 R.P.M.  
1000 G.P.M. 90 ft. head, 1150 R.P.M.
- 1-6" Fairbanks Morse, H. S.  
1000 G.P.M. 180 ft. head, 1750 R.P.M.  
1500 G.P.M. 150 ft. head, 1750 R.P.M.  
1000 G.P.M. 70 ft. head, 1150 R.P.M.
- 1-6" Gould.  
1000 G.P.M. 75 ft. head, 600 R.P.M.  
1200 G.P.M. 65 ft. head, 600 R.P.M.
- 1-6" Gould, Fig. 3014, 3-stage, H. S.  
1000 G.P.M. 260 ft. head, 1750 R.P.M.  
800 G.P.M. 90 ft. head, 1150 R.P.M.
- 1-8" DeLaval, H. S.  
2000 G.P.M. 40 ft. head, 1750 R.P.M.

- 1-Duplex Fire Pump, Underwriters, 16"x9"x  
12", 750 G.P.M.
- 1-1000 G.P.M. ditto.

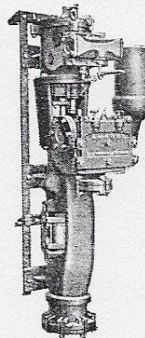
- 1-8"x16"x10" Vacuum Pump, Steam Driven.
- 2-20"x12" Vacuum Pump, Motor Driven.

STEAM PUMPS

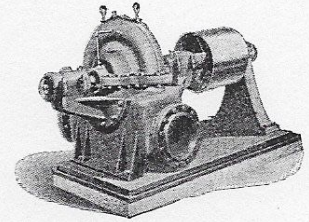
- 4 1/2"x2 1/4"x4".
- 6"x4"x6".
- 10"x6"x10".
- 2-7 1/2"x4 1/2"x10".
- 10"x2"x12".
- 8 1/2"x1 1/2"x10".
- 1-7"x7"x10" Fairbanks Morse.
- 1-6"x5 1/4"x6" Dow.
- 1-4 1/2"x2 1/4"x4" Worthington.
- 1-10"x6"x10" Fairbanks Morse.
- 2-7 1/2"x5"x10".

And others.

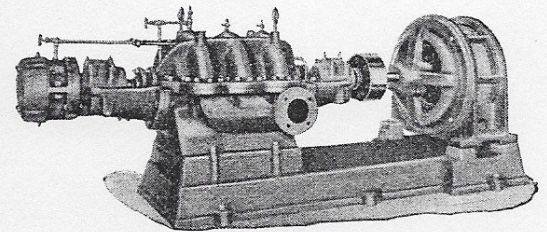
SINKERS



- 1-No. 9 Cameron.  
Steam or air sinking pump.  
206 G.P.M. 460 ft. head.
- 1-No. 7 Cameron.
- 1-3 1/2"x12" Stillwater.



- 1-8" American.  
2000 G.P.M. 60 ft. head.  
2500 G.P.M. 50 ft. head.
- 1-10" DeLaval, H. S.  
3500 G.P.M. 160 ft. head, 1750 R.P.M.  
2000 G.P.M. 75 ft. head, 1150 R.P.M.
- 1-10" D'Olier, H. S.  
2400 G.P.M. 225 ft. head, 1150 R.P.M.  
3500 G.P.M. 500 ft. head, 1750 R.P.M.
- 1-10" Byron Jackson, H. S.  
3000 G.P.M. 70 ft. head, 1150 R.P.M.  
2000 G.P.M. 50 ft. head, 860 R.P.M.
- 1-10" Platt.  
3000 G.P.M. 140 ft. head, 1750 R.P.M.  
2250 G.P.M. 125 ft. head, 1150 R.P.M.
- 1-10" Allis Chalmers, H. S.  
3250 G.P.M. 130 ft. head, 1750 R.P.M.  
3000 G.P.M. 50 ft. head, 1150 R.P.M.
- 1-10" Byron Jackson, H. S.  
3600 G.P.M. 200 ft. head, 1750 R.P.M.  
4200 G.P.M. 180 ft. head, 1750 R.P.M.  
3600 G.P.M. 125 ft. head, 1150 R.P.M.
- 1-10" Providence, 2-stage, H. S.  
3000 G.P.M. 430 ft. head, 1750 R.P.M.  
2000 G.P.M. 190 ft. head, 1150 R.P.M.
- 1-10" Byron Jackson Sinker Pump,  
50 H.P. Motor.  
3000 G.P.M. 50 ft. head, 1150 R.P.M.  
3500 G.P.M. 40 ft. head, 1150 R.P.M.
- 1-10" Cameron.  
3000 G.P.M. 65 ft. head, 1150 R.P.M.  
4000 G.P.M. 45 ft. head, 1150 R.P.M.
- 2-10" Jeansville, H. S.  
3000 G.P.M. 750 ft. head, 1750 R.P.M.  
4000 G.P.M. 700 ft. head, 1750 R.P.M.  
2600 G.P.M. 300 ft. head, 1200 R.P.M.
- 1-10" Steam Engine Driven Circulating.  
3000 G.P.M. 25 ft. head, 300 R.P.M.
- 1-10" Byron Jackson, H. S.  
3600 G.P.M. 540 ft. head, 1750 R.P.M.
- 2-18" DeLaval, H. S.  
10,000 G.P.M. 55 ft. head 720 R.P.M.
- 1-14" Wheeler, H. S.  
6000 G.P.M. 40 ft. head.
- 1-14" Byron Jackson Vertical, Motor Driven.  
4200 G.P.M. 60 ft. head, 1150 R.P.M.
- 1-16" Byron Jackson, Vertical, Motor Driven.  
8200 G.P.M. 44 ft. head, 1150 R.P.M.  
7300 G.P.M. 60 ft. head, 1150 R.P.M.
- 1-20" Byron Jackson.  
11,500 G.P.M. 11 ft. head, 720 R.P.M.
- 1-24" Platt.  
15,000 G.P.M. 10 ft. head, 375 R.P.M.
- 2-36" Byron-Jackson low head pumps.

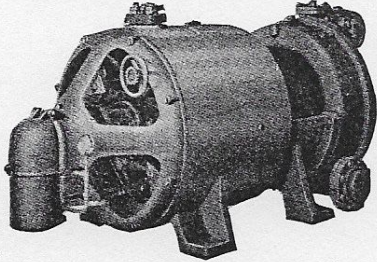


- 1-Boiler Feed Pump in stock, Cameron 3-  
stage 320 G.P.M., 3000 R.P.M., 225-lb.  
pressure, with Turbine. Special, \$700.00.

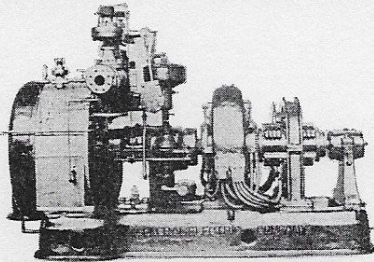
# CASCADE MACHINERY & ELECTRIC CO.

## TURBINES AND TURBO GENERATORS IN STOCK—Also See First Page

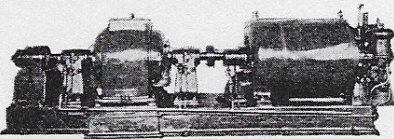
- 1—5 K.W. DeLaval, 110 volt, D.C., turbo unit, \$150.00
- 1—7½ K.W. Diehl-Terry, 125 volts, D.C. non-condensing turbo unit, 3200 R.P.M. Price. . . . \$200.00
- 1—10 K.W. General Electric, 110/220 volts, D.C. turbo unit, 4000 R.P.M. Late type, small and compact. Price. . . . \$250.00
- 2—15 K.W. Terry, G.E. 3600 R.P.M. Turbo Units. 110 volts, Each. . . . \$450.00
- 2—25 K.W. General Electric, 125 volts, D.C. turbo units, 3600 R.P.M., non-condensing. Each, with rheostats. . . . \$500.00



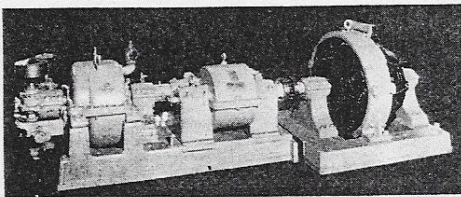
- 1—25 K.W. Allis Chalmers, 125 volts, D.C. turbo unit, 2400 R.P.M. This is a 5 stage turbine, exceptionally economical on steam consumption. Complete with rheostat. . . . \$500.00
- 1—50 K.W. General Electric D.C. Generator, 250 volts, 3000 R.P.M., direct connected to Kerr economy non-condensing steam turbine. Price. . . . \$600.00
- 1—50 K.V.A. Kerr non-condensing unit, 3 phase, 60 cycles, 220/440 volts, 3600 R.P.M., with direct connected exciter and rheostats. Price. . . . \$900.00



- 1—125 K.W. General Electric D.C. turbo unit, 110/220 volts, 3 wire. Excellent condition throughout, with rheostat. Price. . . . \$1,000.00
- 1—125 K.V.A. Kerr Turbine, Burke generator unit, 3 phase, 60 cycles, 220/440 volts, 3600 R.P.M., condensing. Complete with direct connected exciter, rheostat, jet condenser and pump.

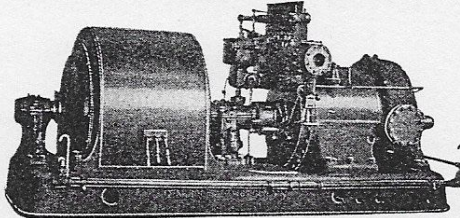


- 1—200 K.W. General Electric, 150 lb., non-condensing turbine with direct connected exciter, 3600 R.P.M.
- 1—200 K.W. General Electric, 125 lb., condensing turbine with direct connected exciter and surface or jet condenser.
- 2—200 K.W. DeLaval and Westinghouse, high efficiency geared turbo units, 6000/900 R.P.M. with direct connected Allis Chalmers, 3 Phase, 60 cycle, 220/440/2200 or 6600 volt generators with exciters and rheostats, non-condensing, each. . . . \$2,000.00
- With condensers, condensing, each. . . . 2,500.00



- 2—300 K.W., 250 volt, 3 wire, D.C. DeLaval & Westinghouse, high economy, geared turbines with Westinghouse and Crocker Wheeler, compound interpole generators, 125 to 200 lbs. pressure, non-condensing, each. . . . \$1,600.00
- Condensing, each. . . . 2,000.00

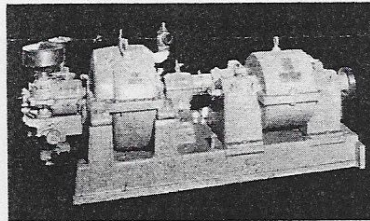
## TURBINES AND TURBO GENERATORS, Cont'd



- 1—500 K.W. General Electric, 3600 R.P.M., 3 phase, 60 cycle, 480 or 2300 volt General Electric Curtis Turbo Generator unit.

### TURBINES ONLY

- 10 H.P., 3600 R.P.M.
- 28 H.P., 3600 R.P.M.
- 37 H.P., 2000 R.P.M.
- 50 H.P., 3600 R.P.M.
- 70 H.P., 1800 R.P.M.
- 85 H.P., 3000 R.P.M.
- 100 H.P., 1100 R.P.M.
- 430 H.P., 2000 R.P.M.
- 450 H.P., 900 R.P.M. (See cut)



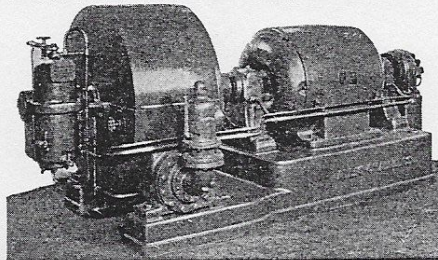
690 H.P., 1800 R.P.M.

## TURBINE UNITS

Available subject to prior sale

We can quote turbine equipments from 50 to 10,000 Kilowatt on straight sale basis or guaranteed installed running basis, in condensing, non-condensing, mixed pressure or bleeder types.

- 1—200 K.W. West. mixed pressure, 2300 volt.
- 1—500 K.W. G. E. mixed pressure, 2300 volt jet condenser.
- 1—750 K.W. Allis mixed pressure, 480 volt jet condenser.
- 3—750 K.W. General Electric mixed pressure, 2300 volt with jet condenser.
- 1—800 K.W. mixed pressure, 480 volt surface condenser.
- 1—1500 K.W. West. mixed pressure with jet condenser.
- 1—2000 K.W. General Electric mixed pressure with direct connected exciter and jet condenser.
- 1—200 K.W. Allis Chalmers 150 lb. steam non-condensing, with direct connected exciter.
- 1—300 K.W. Allis, 2300 volt surface condenser.
- 1—500 K.W. Allis Chalmers with jet condenser, 150 lbs.
- 2—500 K.W. General Electric, 2300 volt jet condenser.
- 1—600 K.W. General Electric surface condenser.
- 2—750 K.W. Allis with surface condenser.
- 2—1000 K.W. Allis Chalmers, 2300 volt surface condensers.
- 1—1250 K.W. Allis Chalmers jet condenser.
- 1—1500 K.W. G.E. 150 lbs. steam, surface condenser.



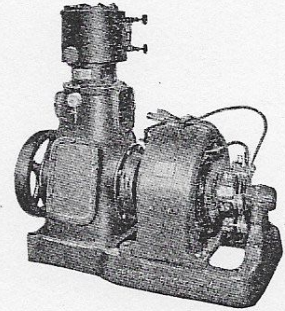
- 1—2000 K.W. Allis 150 lbs. steam with jet condenser.
- 2—2500 K.W. G.E. 150/250 lbs., 6600 or 440 volt.
- 2—3500 K.W. G.E. 2300 volt, 150 lbs., surface condenser.
- 1—5000 K.W. G.E. with surface condenser, 200 lbs.
- 1—7500 K.V.A. West. 200 lbs., jet condenser.
- 1—10,000 K.W. Allis Chalmers, 250 lbs. steam with surface condenser, 6600 volts.

## OPERATORS AND INSTALLATION MEN

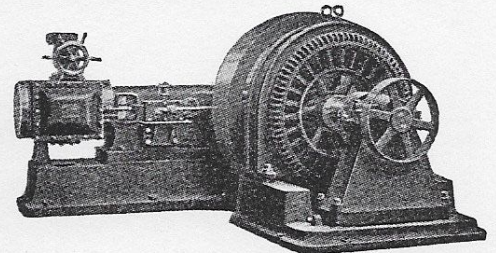
Do you require Diesel, electrical, turbine or water-wheel operators? We will be glad to put you in touch with capable men without cost.

## ENGINES AND GENERATORS

- 1—8½ K.W. General Electric, 125 volt D.C. generator with vertical automatic steam engine. . . . \$200.00
- 1—22½ K.W. Allis Chalmers, 120 volt generator, direct connected to 6"x6" American Blower, vertical twin steam engine, fine condition. . . . \$600.00



- 1—45 K.W. 110/220 volt General Electric generator, direct connected to vertical automatic General Electric engine. . . . \$850.00
- 1—50 K.W. Sturtevant, 10"x12", horizontal, automatic steam engine, direct connected to a 50 K.W. 115 volt, D.C., 275 R.P.M., compound wound generator, fine condition, with rheostat. . . . \$600.00
- 1—75 K.W. General Electric 115/230 volt, 3 wire, generator, direct connected to 15"x14" Erie City tandem steam engine. . . . \$900.00
- 1—75 K.W. Western Electric 125/250 volt, 3 wire, D.C. generator, direct connected to 16"x16" Ball horizontal, tandem, steam engine. . . . \$900.00
- 1—75 K.V.A. General Electric, 3 phase, 60 cycle, 440/220 volt, A.C. generator, direct connected to Ideal tandem steam engine. . . . \$1,200.00



- 1—125 K.W. Western Electric 125/250 volt, 3 wire, D.C. generator, direct connected to Ball horizontal tandem steam engine. . . . \$1,200.00
- 1—600 K.W. General Electric, 3 phase, 60 cycle, 2300 or 440 volt A.C. generator, direct connected to McEuen horizontal steam engine, fine condition. . . . \$3,500.00

Also miscellaneous automatic Corliss and Unaflow units in various sizes. Give us your inquiries.

## STEAM ENGINES

- 1—16"x16" Erie Ball belted automatic steam engine, approximately 170 H.P. at 250 R.P.M. Condition like new. F.O.B. Seattle. . . . \$300.00
- 1—15"x14" Erie City horizontal automatic steam engine, fine condition. . . . \$400.00

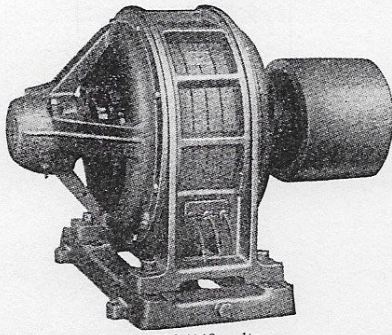
## STEAM FITTINGS

- Strainers, up to 14".
- Steam Separators.
- Atmospheric Relief Valves.
- Flyball Governors.
- Expansion Joints up to 36".
- Cast Iron Fittings, Ells, Tees.
- Wyes, Crosses, and special pieces up to 42". Give us your calls.
- Large stock Gate & Globe Valves.

## ROTARY CONVERTERS

- 1—150 K.W. General Electric 1200 R.P.M., 3 phase 2300 to 250 volts D.C.
  - 1—200 K.W. General Electric 2300-250 volts.
  - 2—200 K.W. Westinghouse 2300-550 volts.
  - 1—300 K.W. Westinghouse 44000/550 volts.
  - 1—300 K.W. Allis, 1200 R.P.M., 3 phase, 2300 to 250 volts D.C.
  - 1—500 K.W. General Electric 3 phase, 2300 to 550 volts D.C.
  - 1—1500 K.W. 600 volt Modern Unit.
- And other sizes.

MOTORS



- 3 phase, 60 cycle, 220/440 volts.  
Also 2300 volts, where designated.
- 1/4, 1/2, 3/4, 1200, 1800, 3600 R.P.M.
  - 1 H.P. 1800-1200 R.P.M. General Electric.
  - 1 H.P. 900 R.P.M. Cleveland.
  - 2 H.P. 1800 R.P.M. General Electric.
  - 2 H.P. 1200 R.P.M. General Electric.
  - 2 H.P. 720 R.P.M. Howell.
  - 2-3 H.P. 1800 R.P.M. Westinghouse.
  - 3 H.P. 1800 R.P.M. Northern, slip ring.
  - 3 H.P. 1200 R.P.M. General Electric.
  - 3 H.P. 900 R.P.M. General Electric.
  - 4-5 H.P. 1800 R.P.M. Westinghouse-G.E.-Allis.
  - 5 H.P. 1200 R.P.M. G. E.-Westinghouse.
  - 2-5 H.P. 900 R.P.M. General Electric.
  - 5 H.P. 900 R.P.M. Westinghouse.
  - 5 H.P. 1800 R.P.M. General Electric, vertical.
  - 5 H.P. 720 R.P.M. Fairbanks Morse.
  - 5 H.P. 600 R.P.M. Westinghouse.
  - 7 1/2 H.P. 1800 R.P.M. Allis Chalmers.
  - 5-7 1/2 H.P. 1200 R.P.M. Westinghouse-G.E.
  - 2-7 1/2 H.P. 1800 R.P.M. General Electric.
  - 7 1/2 H.P. 900 R.P.M. Westinghouse.
  - 7 1/2 H.P. 1800 R.P.M. General Electric, slip ring.
  - 10 H.P. 1800 R.P.M. Fairbanks Morse.
  - 2-10 H.P. 1200 R.P.M. General Electric.
  - 4-10 H.P. 1200 R.P.M. Westinghouse.
  - 3-10 H.P. 900 R.P.M. Westinghouse.
  - 10 H.P. 720 R.P.M. General Electric.
  - 45-10 H.P. 600 R.P.M. Allis-G.E.-West., vertical.
  - 10 H.P. 3600 R.P.M. Wagner.
  - 15 H.P. 1800 R.P.M. General Electric.
  - 3-15 H.P. 1200 R.P.M. Westinghouse.
  - 2-15 H.P. 1200 R.P.M. General Electric.
  - 2-15 H.P. 900 R.P.M. Westinghouse, slip ring.
  - 2-15 H.P. 1200 R.P.M. Allis Chalmers.
  - 3-15 H.P. 900 R.P.M. Westinghouse.
  - 15 H.P. 3600 R.P.M. U.S.
  - 20 H.P. 1800 R.P.M. Fairbanks Morse.
  - 20 H.P. 1800 R.P.M. Wagner.
  - 20 H.P. 1800 R.P.M. Westinghouse.
  - 20 H.P. 1200 R.P.M. General Electric, 2200 volt.
  - 20 H.P. 1200 R.P.M. Westinghouse.
  - 2-20 H.P. 1200 R.P.M. General Electric.
  - 20 H.P. 1800 R.P.M. Westinghouse, vertical.
  - 20 H.P. 1200 R.P.M. Fairbanks Morse, slip ring.
  - 20 H.P. 1200 R.P.M. General Electric slip ring.
  - 20 H.P. 900 R.P.M. Westinghouse, slip ring.
  - 22 H.P. 720 R.P.M. General Electric, slip ring.
  - 4-25 H.P. 1200 R.P.M. Fairbanks Morse.
  - 25 H.P. 1800 R.P.M. Westinghouse, 2200 volt.
  - 2-25 H.P. 1200 R.P.M. General Electric.
  - 25 H.P. 900 R.P.M. General Electric.
  - 30 H.P. 1800 R.P.M. Westinghouse, 2200 volt.
  - 30 H.P. 3600 R.P.M. Allis Chalmers.
  - 30 H.P. 1200 R.P.M. General Electric, slip ring.
  - 30 H.P. 1200 R.P.M. Westinghouse.
  - 35 H.P. 900 R.P.M. General Electric slip ring, 2200 volt.
  - 3-30 H.P. 1200 R.P.M. Fairbanks Morse.
  - 35 H.P. 600 R.P.M. General Electric.
  - 40 H.P. 1200 R.P.M. Allis Chalmers.
  - 3-40 H.P. 900 R.P.M. Westinghouse.
  - 2-50 H.P. 1800 R.P.M. General Electric.
  - 2-50 H.P. 900 R.P.M. Westinghouse.
  - 50 H.P. 900 R.P.M. General Electric, slip ring.
  - 4-50 H.P. 600 R.P.M. General Electric.
  - 50 H.P. 600 R.P.M. General Electric, slip ring.
  - 50 H.P. 1200 R.P.M. Fairbanks Morse.
  - 50 H.P. 720 R.P.M. Westinghouse, slip ring.
  - 60 H.P. 1800 R.P.M. General Electric.
  - 65 H.P. 900 R.P.M. Allis Chalmers.
  - 4-75 H.P. 1800 R.P.M. General Electric.
  - 75 H.P. 1800 R.P.M. Westinghouse, 2200 volt.
  - 75 H.P. 1800 R.P.M. General Electric, 2200 volt.
  - 75 H.P. 900 R.P.M. Westinghouse, slip ring.
  - 75 H.P. 720 R.P.M. Westinghouse.
  - 75 H.P. 1200 R.P.M. Fairbanks Morse.
  - 75 H.P. 1200 R.P.M. General Electric, slip ring.
  - 75 H.P. 1800 R.P.M. Allis Chalmers.
  - 75 H.P. 1200 R.P.M. Allis Chalmers, 2200 volt.
  - 3-75 H.P. 600 R.P.M. Westinghouse, slip ring.
  - 2-100 H.P. 1800 R.P.M. Allis Chalmers.
  - 2-100 H.P. 1800 R.P.M. General Electric.
  - 100 H.P. 720 R.P.M. Westinghouse, slip ring, 2200 volt.
  - 100 H.P. 1800 R.P.M. General Electric, 2200 volt.
  - 100 H.P. 1200 R.P.M. General Electric.
  - 100 H.P. 900 R.P.M. General Electric.

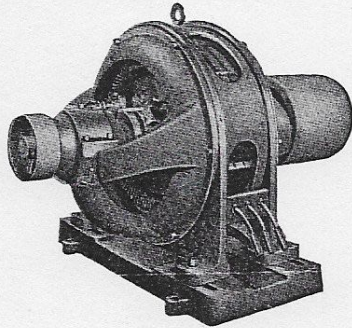
MOTORS—Continued

- 125 H.P. 1200 R.P.M. General Electric.
  - 150 H.P. 1800 R.P.M. Fairbanks Morse.
  - 150 H.P. 514 R.P.M. Westinghouse, 2200 volt, slip ring.
  - 200 H.P. 1800 R.P.M. General Electric.
  - 2-200 H.P. 600 R.P.M. General Electric, 2200 volt.
  - 200 H.P. 600 R.P.M. General Electric.
  - 200 H.P. 600 R.P.M. General Electric, slip ring.
  - 250 H.P. 1200 R.P.M. Wagner.
  - 4-225 H.P. 360 R.P.M. General Electric, slip ring.
  - 300 H.P. 1800 R.P.M. General Electric, 2200 volt
  - 2-300 H.P. 1800 R.P.M. General Electric.
  - 1-300 H.P. 1800 R.P.M. Westinghouse, slip ring, and a number of others.
- MOTORS, 2 phase, single phase and 550 volt.  
We have a well proportioned stock, in all sizes. Give us your calls.

D. C. MOTORS

- 1/2 H.P. 115 volt 1750 R.P.M. Westinghouse.
- 1 1/2 H.P. 230 volt 1650 R.P.M. General Electric.
- 1 H.P. 110 volt 375/1500 R.P.M. Electro Dynamic.
- 1 H.P. 110 volt 650 R.P.M. Fairbanks Morse.
- 2 H.P. 230 volt 1750 R.P.M. Northern.
- 2 H.P. 230 volt 900/1800 R.P.M. Burke.
- 2 1/2 H.P. 230 volt 1700 R.P.M. Westinghouse.
- 3 H.P. 230 volt 1700 R.P.M. General Electric.
- 3 H.P. 230 volt 1750 R.P.M. Robbins & Myers.
- 3 H.P. 110 volt, 750 R.P.M. Reliable.
- 3 1/2 H.P. 125 volt 600 R.P.M. Western Electric.
- 3 H.P. 110 volt 1700 R.P.M. General Electric.
- 5 H.P. 110 volt 1800 R.P.M. Crocker Wheeler.
- 5 H.P. 230 volt 1700 R.P.M. General Electric.
- 5 H.P. 230 volt 900 R.P.M. Westinghouse.
- 7 1/2 H.P. 230 volt 1525 R.P.M. General Electric.
- 7 1/2 H.P. 115 volt 850 R.P.M. General Electric and Westinghouse.
- 7 1/2 H.P. 115 volt 1750 R.P.M. Allis Chalmers.
- 10 H.P. 120 volt 850 R.P.M. Westinghouse.
- 10 H.P. 230 volt 1525 R.P.M. General Electric.
- 10 H.P. 220 volt 675/1350 R.P.M. Northern.
- 10 H.P. 500 volt 850 R.P.M. Westinghouse.
- 15 H.P. 125 volt 750 R.P.M. Sprague.
- 15 H.P. 500 volt 500 R.P.M. General Electric, Series.
- 20 H.P. 115 volt 700 R.P.M. Fairbanks Morse.
- 25 H.P. 220 volt 600 R.P.M. General Electric.
- 25 H.P. 110 volt 720 R.P.M. Crocker Wheeler.
- 25 H.P. 230 volt 470/1400 R.P.M. Crocker Wheeler.
- 30 H.P. 125 volt 1000 R.P.M. Westinghouse.
- 40 H.P. 220 volt 935 R.P.M. Westinghouse.
- 40 H.P. 230 volt 1500 R.P.M. Diehl.
- 60 H.P. 110 volt 300 R.P.M. Northern.
- 150 H.P. 230 volt 600 R.P.M. General Electric, and others.

A. C. GENERATORS



- 15 K.V.A. 1200 R.P.M. Fairbanks Morse, 2300 volt.
- 30 K.V.A. 1200 R.P.M. Fairbanks Morse, 2300/440 volt.
- 30 K.V.A. 1200 R.P.M. Westinghouse, 2300/440 volt.
- 37 1/2 K.V.A. 1200 R.P.M. Westinghouse, 2300/440 volt.
- 40 K.V.A. 257 R.P.M. Fairbanks Morse, 2300 volt.
- 50 K.V.A. 1200 R.P.M. Western Electric, 440/220 volt.
- 2-75 K.V.A. 257 R.P.M. Fairbanks Morse, 2300/440 volt.
- 187 K.V.A. 900 R.P.M. Westinghouse, 2400/440 volt.
- 3-350 K.V.A. 164 R.P.M. General Electric, 2300 volt.
- 750 K.V.A. 360 R.P.M. Allis 6600/2300/440 volt. and others.

D. C. GENERATORS

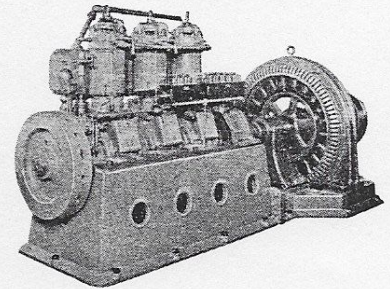
- 1 K.W. 125 volt 900 R.P.M. Fairbanks Morse
- 1 K.W. 125 volt 1150 R.P.M. General Electric.
- 1 1/2 K.W. 125 volt 1150 R.P.M. General Electric.
- 1 1/2 K.W. 125 volt 1750 R.P.M. Eck.
- 1 1/2 K.W. 125 volt 1400 R.P.M. General Electric.
- 2 K.W. 125 volt 1500 R.P.M. General Electric.
- 2 1/2 K.W. 125 volt 2100 R.P.M. Westinghouse.
- 3 K.W. 125 volt 1750 R.P.M. Northern.
- 3 1/2 K.W. 125 volt 1500 R.P.M. Westinghouse.
- 3 1/2 K.W. 125 volt 1400 R.P.M. Fairbanks Morse

D. C. GENERATORS—Continued

- 2-3 K.W. 125 volt 2300 R.P.M. General Electric.
- 5 K.W. 125 volt 1950 R.P.M. Fairbanks Morse.
- 5 K.W. 125 volt 1150 R.P.M. Westinghouse.
- 7 1/2 K.W. 125 volt 1150 R.P.M. General Electric.
- 10 K.W. 125 volt 1200 R.P.M. Westinghouse.
- 10 K.W. 230 volt 1750 R.P.M. General Electric.
- 15 K.W. 125 volt 725 R.P.M. Westinghouse.
- 15 K.W. 125 volt 925 R.P.M. General Electric.
- 20 K.W. 125 volt 750 R.P.M. Fairbanks Morse.
- 3-16 K.W. 125 volt 1750 R.P.M. Westinghouse.
- 25 K.W. 125 volt 1200 R.P.M. Westinghouse.
- 30 K.W. 125 volt 310 R.P.M. General Electric.
- 35 K.W. 230 volt 1750 R.P.M. Diehl.
- 40 K.W. 110 volt 350 R.P.M. General Electric.
- 50 K.W. 125 volt 1150 R.P.M. Allis Chalmers.
- 60 K.W. 125 volt 450 R.P.M. General Electric.
- 75 K.W. 125/250 volt 250 R.P.M. Western Electric.
- 150 K.W. 125/250 volt 225 R.P.M. Western Electric.
- 100 K.W. 250 volt 650 R.P.M. Crocker Wheeler.
- 150 K.W. 250 volt 900 R.P.M. General Electric. and many others.

MOTOR GENERATORS

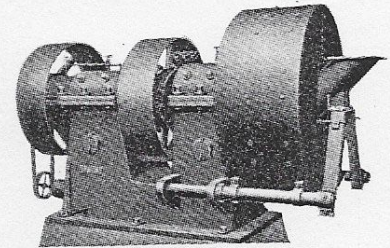
- 2-1 1/2 K.W. 125 volt D.C. Westinghouse 220/440 volts A.C.
- 5 K.W. 125 volt D.C. General Electric 220/440 volt A.C.
- 2 K.W. 225 volt D.C. Westinghouse 220/440 volt A.C.
- 3-16 K.W. 125 volt D.C. Westinghouse 2200/440 volt A.C.
- 30 K.W. 125 volt D.C. Westinghouse 2200/440 volt A.C.
- 50 K.W. 125 volt D.C. Allis Chalmers 2200/440 volt A.C.
- 1-50 K.W. 110 volt D.C. Allis Chalmers Generator with 75 H.P., 3 phase, 440/2200 volt motor.
- 1-50 K.W. General Electric 250 volt Generator, with 440 volt motor.
- 1-75 K.W. 115 volt D.C. Generator, with 440 volt motor.
- 1-100 K.W. 250 volt General Electric D.C. Generator, with 150 H.P. 440/2200 volt motor.
- 1-150 K.W. 230 volt D.C. General Electric Synchronous 2200/440 volt unit.
- 1-300 K.W. 230 volt D.C. 2200/440 volt A.C. Synchronous unit. and others.



Natural Gas and Gasoline Engines and Generator Units

Give us your calls for equipment of this kind. Large savings on heavy duty dependable apparatus from 10 K. W. up to 1000 K. W.

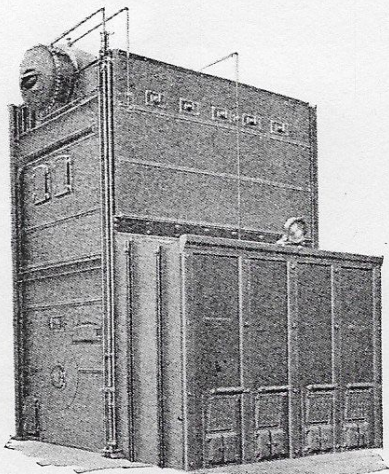
SYMONS DISC CRUSHERS



- 2-48" Symons Horizontal Disc Crushers, weight each unit, 39,000 lbs. Capacity:
- Size of Ring 1-45 to 60 tons per hour.
- Size of Ring 2-80 to 100 tons per hour.
- These production crushers will handle feed up to 6 1/2". Each crusher is driven by a 75 H.P. motor.
- An immense amount of spare parts are available.
- Price, each, F.O.B. dock, with motor, control and spares.....\$2,100.00

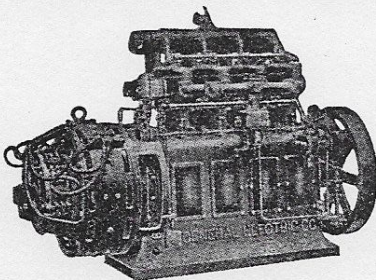


**Boiler Opportunity**  
(See cut below)



- 4—305 H.P. Erie City, vertical, Watertube Boilers. Equipped with No. 2 Best Oil Burners and Foster Superheaters and fittings. Designed for 175 lbs. steam and 100 degrees superheat. Each, F.O.B. Seattle, with fittings. Each ..... **\$2,500.00**  
These boilers were used at 150 lbs. pressure. Furnace is designed to use either oil or coal. Dutch oven effect can be arranged for hogged fuel use, blue prints now being available.
- 5—460 H.P. Babcock & Wilcox Cross Drum, straight tube, marine or stationary, 4600 sq. ft., boilers in splendid condition. Arranged for coal burning but can be easily adapted for oil and also hogged fuel with Dutch oven effect. Each boiler complete with pop, main steam and feed and check valves. Also two blow-offs, gauge mountings, and two sets gauge cocks. Hartford inspection allowing 238½ lbs. Each..... **\$2,600.00**
- 2—250 H.P. Watertube Marine Boilers, practically new, with Dutch oven settings at present, 200 lb. pressure, immediate delivery. Each..... **\$2,000.00**
- 3—300 H.P. 150 lb. Code boilers, 96" x 18' Economic type with superheaters—Firebox Boilers. Each, F. O. B. Seattle ..... **\$3,500**
- 2—B. & W. 300 H. P. Code Watertube Boilers, Sterling. Each..... **\$2,800**
- 3—72" x 18' Return Tubular Quadruple Riveted 150 lbs. Boilers. Each..... **\$1,400**  
An inspection will interest you for your power plant extension, standby service, or marine application, whether for mill, mine or boat service. Some of the leading mills and industrials are now installing several of these boilers.  
Also several other boiler bargains, including 1—650 H.P. 160 lb. Scotch Marine Boiler, and Horizontal Return Tubular Boilers.

**GAS ENGINE GENERATOR UNIT**



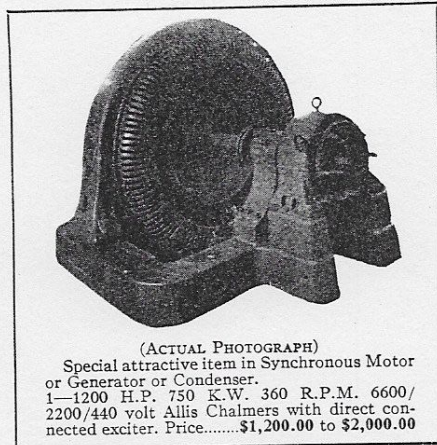
- 1—25 K.W. General Electric 110-220 Volt D.C. Generator direct connected to a 4 cylinder 560 R. P. M. G. E. heavy duty 43/56 H. P. Gasoline Engine F.O.B. Seattle..... **\$950.00**

**Wood Splitter**

- 1—Appleton Horizontal Wood Splitter, brand new, never used, will handle any length wood up to 24" (can be extended for longer lengths). Will split 15 cords an hour with an experienced operator. A 10 H.P. motor is recommended for greatest production; however, 5 H.P. will handle the machine satisfactorily. The splitter only requires 3 H.P. when in operation. We can offer this exceptional piece of equipment for about one-sixth new price. F. O. B. Seattle..... **\$200.00**

**SYNCHRONOUS MOTORS and CONDENSERS**

For Mechanical Drives and Power Factor Correction



(ACTUAL PHOTOGRAPH)  
Special attractive item in Synchronous Motor or Generator or Condenser.  
1—1200 H.P. 750 K.W. 360 R.P.M. 6600/2200/440 volt Allis Chalmers with direct connected exciter. Price..... **\$1,200.00 to \$2,000.00**

We can save you considerable money on your power factor correction equipment. Let our engineers help you with your problems whether it involves a 10 K. V. A. or 3000 K. V. A. We can quote for quick delivery, subject to prior sale:

- 1—20 H. P. Fairbanks Morse, 220/440 volt, 1200 R. P. M.
- 1—30 H. P., 440/220 volts, 1200 R. P. M.
- 2—40 H. P., General Electric, 1200 R. P. M., 220/440 volt.
- 2—50 H. P., General Electric, 1200 R. P. M., 220/440 volt.
- 1—50 H. P., General Electric, 440 or 2200 volt, 257 R. P. M., 3 phase, 60 cycle.
- 1—75 H. P., General Electric, 440 or 2200 volt, 1200 R. P. M., 3 phase, 60 cycle.
- 1—100 H. P., 440/2200 volt, 900 R. P. M.
- 1—100 H. P., 440/2200 Volt 257 R. P. M.
- 1—100 H. P., General Electric, 440 or 2200 volt, 1200 R. P. M., 3 phase, 60 cycle.
- 1—200 H. P., 440/2200 volt, 900 R. P. M.
- 1—200 H. P., 440 or 2200 volt, 200 R. P. M.
- 1—300 H. P., 600 R. P. M.
- 1—1000 H. P., 720 R. P. M., G. E..... **\$1,600.00**

**MISCELLANEOUS**

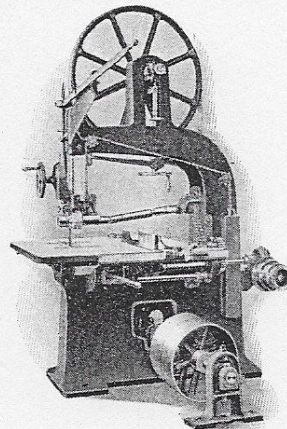
- 2—Sampson Laboratory Crushers..... **\$ 60.00**
- 1—Hoskens Assay Furnace, 110 volts..... **35.00**
- 1—Worthington Sample Grinder..... **90.00**
- 18—Telephones, magneto type. Each..... **12.00**
- 10—Immersion Heaters. Each..... **7.00**
- 10—Ore Gate Operating Cylinders. Each..... **20.00**
- 6—Granberg Oil Meters. 1". Each..... **15.00**
- 41—Janney Flotation Cells with Motors and spare parts, complete. Each..... **175.00**
- 1—4x30 American Rotary Dryer.
- 2—30x12 Dorr Thickeners.
- 1—Waterweigher, 30,000 lbs. per hour.
- 1—32 ft. Span 8 ton Hand Operated Crane..... **400.00**
- 3—31 cu. ft. Self Dumping Ore Skips.
- 2—11'-6"x10' Oliver filters.
- 1—Robbins Automatic Geared Reversing Tripper with 24" belt conveyor arrangement and 10 H. P. 3 phase 60 cycle 440 volt motor.
- 3—3 ft. x 6 ft. Trommels with spare parts.
- 1—Small Aerial Tram.
- Miscellaneous—Ore Storage Bins, Gates, Concentrate Bins, etc.
- 3—Only, 31 cu. ft. self-dumping vertical ore, skips with loading and dumping devices.
- Miscellaneous Laboratory Equipment.
- 1—5 ton Travelling Bridge Crane with geared trolley
- 1—12 ton ditto.
- 1—10 ton Traveling Bridge Crane, 49' centers.
- Miscellaneous Connorsville Pressure Blowers.
- Miscellaneous Bristol Recording Gauges.
- 3—Feed Water Heaters.
- 40 tons, 35 lb. Rail @ \$20.00 per ton.
- 1—10x4 Blake Crusher.
- 1 Set Steel Rolls to roll plate 25 ft. long 7/8" thickness.
- 1—Roll 24"x25' long.
- 2—Roll 18"x25' long.

Arranged for motor drive.

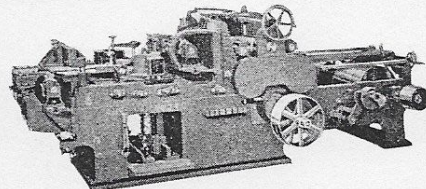
**WOOD WORKING BARGAINS**

Overhauled and in first class condition Subject to prior sale

- 1—48" American Columbia Sander..... **\$ 900.00**
- 1—31" No. 431 Yates Sander..... **1,400.00**
- 1—40" American Bevel Band Saw, Fig. 506 .. **150.00**



- 1—42" Jones Superior Band Saw..... **185.00**
- 1—54" Mershon Resaw..... **800.00**
- 1—No. 94 Yates 15x6 Planer..... **600.00**
- 1—No. 77A American 15x6 Planer and Matcher..... **4,000.00**



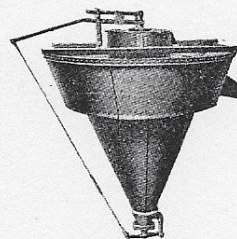
- 1—No. 77A American 15x6 Planer and Matcher..... **3,500.00**
- 1—No. 20 Yates Hol, Chisel Mortiser..... **800.00**
- 1—No. 34C American Moulder, 12"..... **1,600.00**
- 1—54" Mershon Twin Vertical Resaw (Babbitt Bearing)..... **1,050.00**
- 1—54" Mershon Twin Vertical Resaw (Ball Bearing)..... **1,150.00**

**FUSE BARGAINS**

All sizes 250 and 600 volt renewable and non-renewable, new stock at a fraction of regular prices.

**CHAIN BLOCKS**

- 2—10 ton Yale Triplex. Each..... **\$170.00**
- 3—5 ton Yale Triplex. Each..... **100.00**
- 5—3 ton Yale Triplex. Each..... **60.00**
- 3—3 ton Yale Duplex. Each..... **60.00**
- 4—2 ton Yale Triplex. Each..... **45.00**
- 5—1½ ton Yale Triplex. Each..... **35.00**
- 2—1 ton Yale Triplex. Each..... **25.00**



**ALLEN SAND CONE**

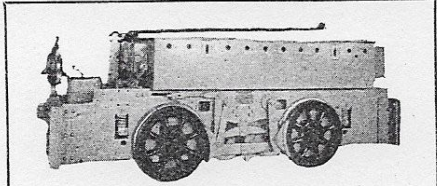
- 1—No. 40-2 Allen Sand Cone..... **\$200.00**

**Miscellaneous Marine Equipment**

- 1—Capstan 6x8 Hyde.
- 2—15 H.P. Cunningham Winches.
- 3500 ft. 2¼" Stud Link AB Chain.
- 3500 ft. 1¾" Stud Link AB Chain.
- 3500 ft. 1½" Stud Link AB Chain.

**LOCOMOTIVES**  
(See first page)

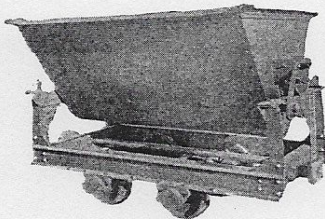
- 3—4½ ton Westinghouse heavy duty two motor 36" gauge storage battery Locomotives, equipped with Edison Type A8 batteries. Price, each.....\$2,300.00
- 2—4½ ton Westinghouse heavy duty two motor 30" gauge storage battery Locomotives, equipped with Edison Type A8 batteries. Price, each.....\$2,300.00



ACTUAL PHOTOGRAPH

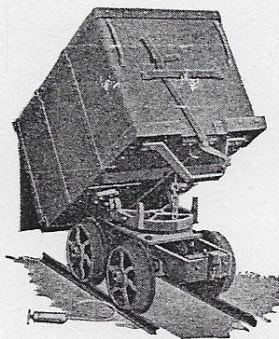
- 2—Splendid 6 ton General Electric combination battery and trolley Locomotives, 36" gauge. Price each.....\$2,450.00
- 7—20 ton G.E. Trolley and Reel Locomotives, 36" gauge. Each.....\$2,600.00
- 2—10 ton G.E. Trolley and Reel Locomotives, 36" gauge. Each.....\$2,300.00
- 2—8 ton Atlas Battery Locomotives, 36" gauge. Each.....\$2,750.00
- 1—9 ton Baldwin Gasoline Locomotive, 36" gauge. Each.....\$2,250.00
- 1—7 ton Baldwin Gasoline Locomotive, 36" gauge. Each.....\$2,000.00
- 2—4 ton Jeffrey Battery Locomotives, 24" gauge. Each.....\$3,000.00
- 4—5½ ton G.E. 24" gauge Locomotives Battery types. Each.....\$3,200.00

**ORE CARS**



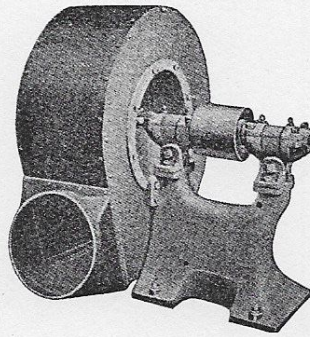
ACTUAL PHOTOGRAPH

- 13—24" gauge 1 ton Rocker dump cars. Price, each.....\$70.00



- 12—1 ton 24" gauge Mattison Type end dump cars. Price, each.....\$60.00
- 40—20 cu. ft. 18" gauge Union Iron Works end dump cars. Price, each.....\$65.00
- 9—3 ton 24" gauge Granby type cars. Price, each.....\$130.00
- 17—3 ton 24" gauge Granby trucks. Price, each.....\$60.00
- 9—4 ton 24" gauge Granby trucks. Price, each.....\$70.00
- 12—36" gauge coal cars, wood bodies, iron strapped each.....\$20.00

**BLOWERS**

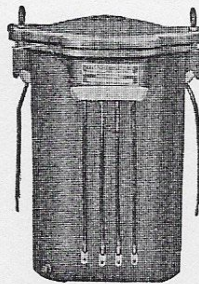


- 1—12" outlet Strococo .....\$30.00
- 2—No. 35 American Blowers, 9" outlet, belted. Price, each.....\$30.00
- 1—12"x15" outlet National Blower, belted. Pr.....\$40.00
- 1—No. 5 Buffalo Blower, 10" outlet, belted. Pr.....\$35.00
- 3—72" Western Blowers, silent chain drive to 20 H.P. motors. Price, each.....\$300.00

**Also positive Blowers for flotation, etc.**

- 1—9"x11" outlet National Blower, direct connected to 10 H.P. motor. Price.....\$95.00

**TRANSFORMERS—60-Cycle**



- 2—1 K.V.A. 2200/110-220 Westinghouse.
- 3—1½ K.V.A. 2200/110 volt Wagner dry type.
- 1—2 K.V.A. 2200/110-220 volt Westinghouse.
- 2—2½ K.V.A. 6600/110-220 volt Stanley
- 2—3 K.V.A. 2200/110-220 volt General Electric.
- 1—1½ K.V.A. 2080/110 volt General Electric.
- 1—5 K.V.A. 440/110-220 General Electric.
- 2—5 K.V.A. 2200/110-220 volt General Electric.
- 1—10 K.V.A. 2200/110-220 volt Westinghouse.
- 3—10 K.V.A. 2200/110-220 Moloney.
- 1—10 K.V.A. 440/110-220 General Electric.
- 1—15 K.V.A. 2200/110-220 volt Westinghouse.
- 3—20 K.V.A. 2200/220-440 volt Westinghouse.
- 1—20 K.V.A. 2200/110-220-440 volt General Electric.
- 3—25 K.V.A. 2200/440-220 Westinghouse.
- 1—25 K.V.A. 2200/110-220-440 volt Allis Chalmers.
- 2—25 K.V.A. 13,200/110-220 volt Westinghouse.
- 1—50 K.V.A. 6600/2300 volt General Electric.
- 2—50 K.V.A. 6000/2200 volt Pittsburg.
- 1—75 K.V.A. 2200/440-220 volt Westinghouse.
- 1—75 K.V.A. 2200/440-220 volt General Electric.
- 1—100 K.V.A. 2300/460-230 volt Allis Chalmers.
- 3—200 K.V.A. 2200/220-440 General Electric.
- 5—250 K.V.A. 2200/440 volt General Electric.
- 1—400 K.V.A. 30,000/2300 volt G. E. 25 cycle. and many others.

**SWITCHBOARDS, INSTRUMENTS, COMPENSATORS, CONTROLLERS, GRIDS**

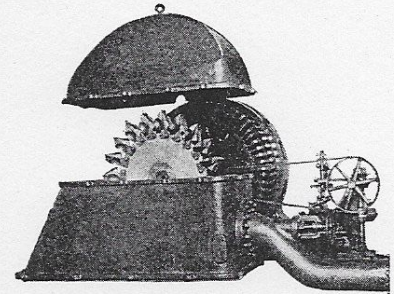
All sizes and types of modern equipment in stock. Give us your calls.

**MOTOR PULLEYS**

All sizes up to 52" diameter

**WATER WHEEL UNITS**

A splendid list of direct connected modern vertical and horizontal Hydro-Electric Units which can be had at a fraction of their original cost! Investigate!



Note the following random items:

- 2—1600 H.P. new Worthington, 1400 K.V.A., vertical, late type, 2300 V., 30' to 40' head.
- 1—4500 K.W., 130' head, 6600 V.
- 1—3400 H.P., vertical, 115' head, 300 R.P.M.
- 2—1200 H.P. Pelton, new, 290' head, horizontal.
- 3—1000 K.V.A., 113' head, Leffel, horizontal, 2300 V.
- 1—1000 H.P., 87" Pelton, horizontal, 6600 V, 2400' head.
- 1—625 H.P., 24' head, vertical, 2300 V.
- 1—600 H.P., Frances-Pelton, 280' head.
- 1—187 K.W., 105' head, Pelton-Frances Unit, horizontal, 6600 V.
- 1—300 H.P., Leffel, 20' head, 2300 V., vertical.
- 1—450 K.W., Pelton, horizontal, 288' head.
- 2—400 K.W., Pelton, horizontal, 800' head, 13,200 V.
- 1—520 H.P., vertical, 22' head, 2300 V.
- 1—312 K.W., vertical, S. M. Smith, 28' head.
- 1—300 K.W., vertical, 2300 volt, 40' head.
- 1—450 H.P., Leffel, vertical, 27' head, 2300 V.
- 2—40" Pelton Double Nozzle.
- 1—300 K.V.A., 13' head, Leffel, 230 V. unit.
- 2—225 K.V.A., 75' head, Davis horizontal units, 2300 V.
- 2—350 H.P., 18' head, S. Morgan Smith, horizontal.
- 1—400 K.W., 900' head, Pelton unit.
- 1—490 H.P., 28' head, Leffel vertical.
- 1—325 H.P., 230' head, Pelton wheel.
- 1—375 H.P., 80' head, Allis Chalmers turbine.
- 1—60 H.P., 50' head, Pelton Quintex.
- 1—24" Pelton Water Motor.
- 1—20" Pelton, 43 H.P. 400' head.
- 2—48" Pelton Wheels.
- 1—73 H.P., 50' head, Christiana vertical turbine.
- 1—24 H.P., 60' head, Christiana horizontal turbine. and many others.

**INSTRUMENT TRANSFORMERS**

- 2—3000/5 G. E. Type E 18, each.....\$24.00
  - 2—1500/5 G. & B., each.....18.00
  - 1—1200/5 Condit Thru type, each.....16.00
  - 2—1000/5 G. E. Type W 5, each.....15.00
  - 8—1000/5 G. E. Type E 18, each.....15.00
  - 1—600/5 Westinghouse, each.....14.00
  - 8—500/5 G. E. Type W 2, each.....14.00
  - 4—400/5 G. E. Type W 2, each.....12.00
  - 9—400/5 G. E. Type S, Form K, each.....12.00
  - 2—300/5 Westinghouse, each.....11.00
  - 6—300/5 Wagner thru type, each.....11.00
  - 2—250/5 Wagner thru type, each.....8.00
  - 8—200/5 Wagner, each.....8.00
  - 3—150/5 Wagner, each.....8.00
- A full range of smaller sizes in stock.
- 44—2200/110 volt Westinghouse 200 VA Style, 673258C, each.....10.00
  - 6—2200/110 volt Sangamo, Type HP, each.....12.00
  - 4—440/110 volt Westinghouse, 200 VA, Style 303912, each.....15.00
  - 24—2200/110 volt G. E. 200 VA, Type E12, each.....12.00
  - 10—2200/110 volt G. E. 50 VA, Type E11, each.....11.00
  - 2—2200/110 volt G. E. 50 VA, Form K2, each.....11.00
  - 2—2200/110 volt G. E. 200 VA, Type P, Form E 2, each.....10.00
  - 5—1100-2200/110 volt 200 VA, Type P, Form A, each.....12.00

**WATT HOUR METERS**

- 1—25 Amp. 110 volt Westinghouse RO Watt-hour Meter.....7.00
- 3—5 Amp. 110 volt Polyphase Thomson, Type DS4, each.....25.00
- 1—5 Amp. 240 volt Polyphase Thomson, Type DS4, each.....16.00
- 3—150 Amp. 220 volt Polyphase G. E., each.....15.00
- 45—5 Amp. 110 volt 2-wire G. E. and Westinghouse, each.....3.25

# CASCADE MACHINERY & ELECTRIC CO.

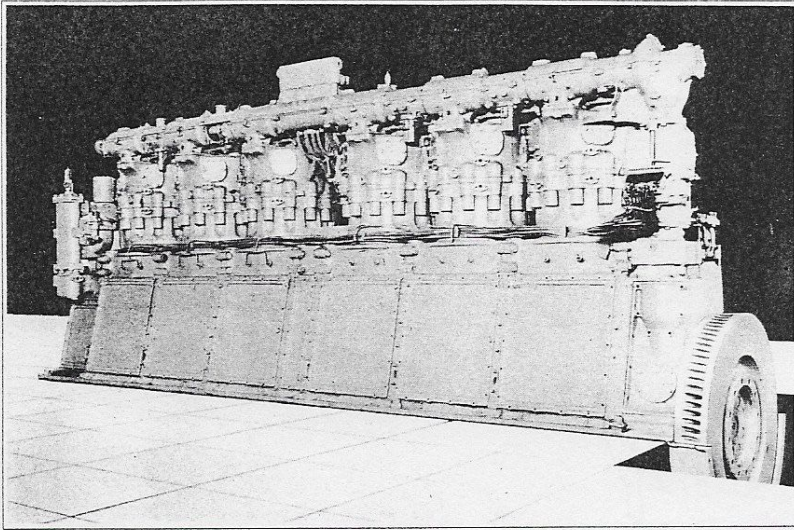
MACHINERY MERCHANTS AND ENGINEERS

PHONE MAIN 8400  
CABLE ADDRESS "CASMACHINE"  
ACME AND BENTLEY CODES

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SEATTLE  
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## BUSCH-SULZER 250 / 400 H.P. FULL DIESEL ENGINES



Stationary or Marine (Diesel Electric) Heavy Duty Service,  
Non-Reversing.

Rated:

Manufacturer's Maximum safe rating 525 H.P. at 420  
RPM on intermittent service.

6 Cylinders; 14 $\frac{1}{4}$ " bore by 14 $\frac{1}{2}$ " stroke.

4 cycle, air injection.

Right or Left hand, as desired.

Overall dimensions; length 18'6", width 4'6", height 10'6".

Weight; approximately 38,000 pounds.

The 6-MA-85 Engine is of modern type, conservatively  
light weight, moderately high speed and embodies  
features of proven design, including built-in air com-  
pressor, lubricating oil pump, overhead camshaft, fully  
enclosed, counter balanced crankshaft of Chrome-  
Vanadium steel 7 $\frac{1}{8}$ " diameter in bearings.

The crankshaft bearings are bedded in the base, which  
is of solid bronze and designed to prevent fracture.

This engine is compact, unusually accessible, simple, self-  
lubricated, quiet and economical in operation.

### NEW PARTS and SERVICE

We carry a large stock of parts ready for shipment on short notice.

Each Engine is completely dismantled and reconditioned and is subjected  
to an exacting running test under load.

Foundation and erection blue prints, installation and operating instructions,  
part lists, etc., furnished with each installation.

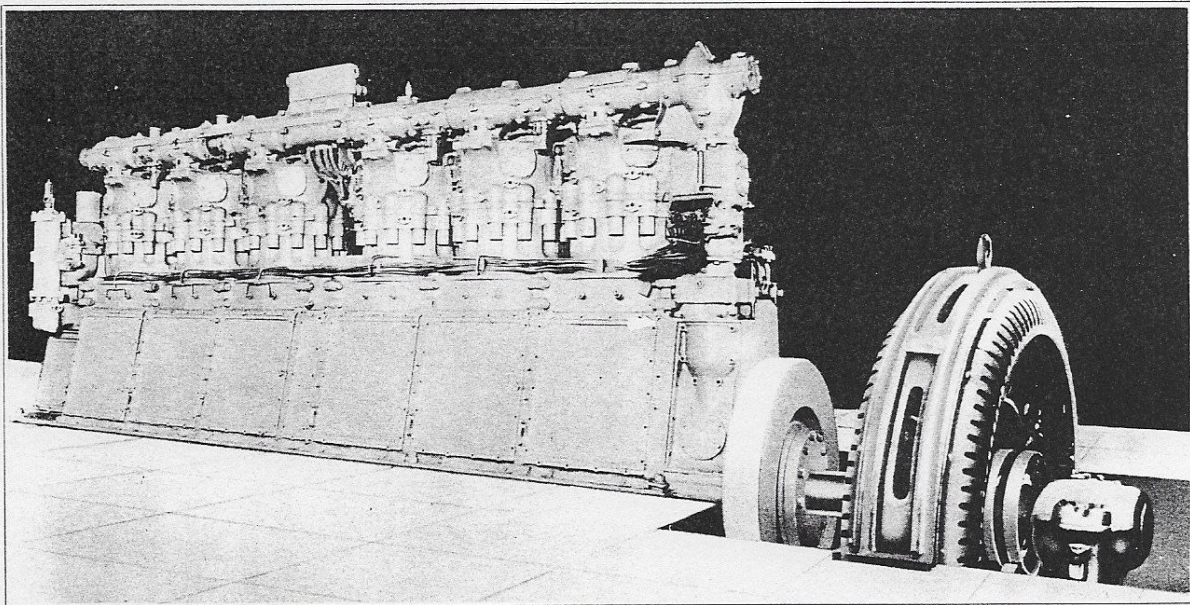
Our Field Staff, where desired, may supervise erection, advise as to care in

operation, and is at all times available.

All work is done by experienced Diesel Engine personnel under expert  
supervision.

Each Unit is Fully Guaranteed.

These Engines have been used in very exacting service, on intermittent  
duty only.



Cascade Machinery & Electric Co., 63 Horton Street, Seattle, Wash.