

CARGO MIXTE "FRANCE".LIST OF SPARE GEAREngine Frame, Main Bearings, Shafts.

- 4 Main Bearing Brasses (in 2 halves)
- 2 Cam Shaft Brasses
- 1 Crankshaft complete
- 8 Bolts for securing cylinders to frame (with nuts and pins)
- 4 " " " air pumps and compressor to frame (do.)
- 4 Studs securing framework and bedplate.

Cylinders, Covers, Pistons and Connecting Rods.

- 8 Bolts for connecting cylinders and covers (with nuts & pins)
- 1 Main Engine Piston
- 32 Piston Rings
- 8 Main Engine Piston Rings
- 4 Studs for connecting the two parts of pistons (with nuts and lock-nuts)
- 16 "Belville" ^{washers} ~~plugs~~ for pistons ^{bolts}.
- 4 Bottom-end brasses
- 4 Bottom-end bolts with nuts and pins.
- 2 Studs for connecting rod top ends
- 2 ~~Safety~~ ^{Escape} valves for main cylinders

Valves and Gear

- 2 Needle valves complete
- 2 Needle valves complete
- 2 Starting valves, 4 pins
- 8 Scavenge valves
- 8 Rollers for levers actuating scavenge {
- 8 Rollers for levers actuating scavenge { rods.

Scavenge Pumps

- 1 Scavenge pump piston-rod ^{nick} ring
- 1 connecting rod brass (2 halves)
- 2 bolts for large and small ends with nuts and pins
- 4 suction and delivery valves and seats.

Blast Compressor

- 7 Piston Rings (H.P.)
- 5 " " (M.P.)
- 3 " " (L.P.)
- 1 Connecting Rod Brass (2 halves)
- 2 Bolts for top and bottom ends of connecting rod with nuts and pins
- 2 M.P. valve boxes.
- 2 suction and delivery valve seats for H.P. and M.P.
- 3 Suction Valves M.P. 3 cottars
- 3 Suction and delivery valves for H.P. } forming 2
- 2 Suction valve guides M.P. and H.P. } valve boxes
- 2 Bolts for securing guides } complete.
- 4 Bolts for H.P. valve boxes
- 3 Head valves for M.P. box
- 2 Valves for L.P. compressors.

Oil Fuel Pumps

- 2 Suction and Discharge valves
- 2 glands and bushes
- 2 relief valves
- 1 Brass for guide shoe and piston gland

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- 2 Connecting Rod bolts with nuts and pins
- 1 suction and delivery valve

Water Pumps

- 4 Bottom end bolts with nuts and pins
- 2 Top " " " " " "
- 2 Piston rings
- 1 Gland and tightening ring
- 2 Suction valves
- 1 Guide
- 2 *Small Shafts*
- 2 delivery valves
- 1 guide
- 2 *Small Shafts*
- 1 Piston rod with washer, nut and pin.

Oil Pumps (Lubricating)

- 2 Bolts for top and bottom ends with nuts and pins
- 1 Gland and rings
- 2 Suction and delivery valves for piston oil pumps
- 2 Guides for above
- 4 Suction and delivery valves
- 1 Outlet valve for oil from filter
- 1 Valve for regulating pressure
- 15 plates for oil filters
- 1 Piston rod for oil pump with gland, nut and pin
- 1 Piston for lubricating oil pump
- 2 Suction and delivery valves for lubricating oil pumps

Distribution shaft and gear

- 5 Brasses (in 2 halves)
- 2 } Screws for regulating and fixing the position of cams
- 4 }

Shafting

- 1 screw shaft
- 2 Lower brasses for thrust bearing
- 2 Thrust shoes
- 4 Lubricating Siphon Pipes
- 2 Boxes for lubricating cups for thrust rings
- 1 ~~coupling~~ Coupling for screw and thrust shafts
- 1 Tightening nut
- 1 ~~Set of brasses~~ *nut* for screwshaft.
- 1 " " " " "
- 1 Propeller nut
- 2 Propeller covers (cone for nut)
- 2 Keys for propellers and coupling box
- 1 ~~flange~~ *flange* for screw shaft
- 2 Propellers
- 2 *Coupling bolts for screw shaft, coupling*

Piping - Air

- 1 Valve for box for charging automatically the blast air bottles
- 1 Automatic valve
- 1 Valve for starting air
- 1 Coil for cooling compressed air
- 1 Relief and safety valve for main compressor
- 1 " " " " auxiliary "
- 1 Complete Low Pressure Cooler

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Being filled on each set of Engines with

WHL 0196 (3/3)

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Piping - Oil Fuel

- 1 Perforated plate (holes 2 m/m or 1 m/m) for oil fuel filter
- 5 Pieces wire gauze
- 1 Perforated plate for aux. filter
- 5 Pieces wire gauze
- 1 Gauge tube for petrol tank

Water

- 1 Discharge valve for circulating water
- 2 strum boxes for water filter

Springs

- $\frac{1}{4}$ of number of springs fitted, with minimum of 1

Jointing Material

- A sufficient quantity of rubber and leather jointing and of copper sheets

Auxiliary Engine

- 2 Brasses for outer bearings
- 1 Brass for centre bearing
- 2 Brasses for top and bottom ends
- 3 Air escape and pulverising valves
- 6 Piston rings
- 2 Governor rods
- 2 Fuel injectors
- 3 Escape flanges
- 10 Vaporizers coils.
- 3 Escape Plugs
- 4 Keys (cottars) for escape valves
- Various springs, bolts and jointing

Auxiliary Compressor

- 1 Top end brass (2 halves)
- 1 Bottom end brass (2 halves)
- 2 L.P. rings
- 3 H.P. rings and
- 1 Stuffing box for compressor cylinder
- 1 Seat and guide for H.P. and L.P. suction and delivery valves
- 1 Suction valve for L.P. compressor with key and plug for

Auxiliary Compressor

- 1 Suction valve for H.P. compressor with key and ^{spring} plug
- 1 Head valve for H.P. " " " "
- 1 " " " L.P. " " " "
- 1 Spring for valves
- Various jointing

Auxiliary Engines

- ^{bell}
1 driving for the dynamo

General

- 1/10 of number of screws and bolts fitted
- 2 sets of spanners for all sizes of nuts