

GUSTAF ERIKSON

Mariehamn 13th October 1954.

Specification for two new auxiliary aggregates for refrigerator ship.

M.S. "Korsö"

On board above mentioned refrigerator ship are auxiliary engines as follows:

On port side:

Albin engine G6D, 85 HP at 1500 v/min which is driving:  
A generator for 220 V D.C., 55 kW.

On starboard side:

Crossley engine BW 4/10, 60 HP at 1000 v/min,  
which is driving:

A generator for 220 V D.C., 25 kW.

A bilgepump Hamworthy Eng.Co. Ltd., pump nr 80964 with unknown capacity.

An air compressor of unknown fabrication but with 82 mm cylinderdiameter and 82 mm stroke.

We enclose a sketch over present arrangement for the part of the engine-room in question.

We wish to replace the above mentioned auxiliary engines with real reliable auxiliary engines intended for marine use, and which we desire to be constructed with revolutions as low as possible.

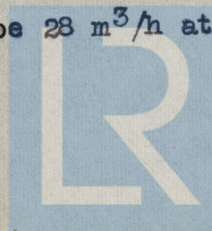
Bilge pump.

The starboard's aggregate ought to have, in the forward end, a bilge pump.

The pump may be of centrifugal or other type, but ought to be self priming.

The inlet flange has to be for 2 3/4" and place so that it in a suitable way can be connected to the valve chest showed in the sketch. The chest may be lowered or raised, but for the rest the position to be unchanged.

The capacity of the pump to be 28 m<sup>3</sup>/h at a head of 15m.



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Compressor.

One of the aggregate has to drive a compressor. The compressor has to deliver air with 25 atm pressure.

The now existing compressor has a displacement of  $26 \text{ m}^3/\text{hour}$ . We consider that too large and in our opinion is  $15 \text{ m}^3/\text{hour}$  free air sufficient. The capacity of the compressor may therefore be between 15 to  $20 \text{ m}^3/\text{hour}$ .

Generators.

Each aggregate to be provided with a compound wound generator for 220 V D.C.

Each generator to be able to deliver 45 kW continuously rated, although we in general intend to use not more than 40 kW.

One of the now existing shuntregulator's might be used. We kindly ask for a separate quotation for one shuntregulator.

Dieselengines.

Two dieselengines to be delivered, large enough, to drive above mentioned auxiliary engines continuously. Principally they have to be of same type. Dependent of how the auxiliary aggregates will be arranged the number of cylinders may be different.

The engine that drive starboard aggregate to be handled from port side and the engine for port side aggregate to be handled from starboard side.

Engines to be started with air. The air is obtained from now existing startingairbottles for 25 atm. Any new airbottles not to be delivered.

Each engine to be fitted with its own cooling waterpump. Engines intended to be cooled by sea water.

Alternatively, however, may prices for cooling by freshwater and cooling water cooler be given.

The engines are to be provided with usual standard equipment for marine engines, including speedgovernor, lub. oil cooler and filter. Separate prices are also to be given for silencer, because the existing ones probably might be used.

General.

As shown in the sketch the port side aggregate not to be longer than 3000 mm and starboard's aggregate not longer than ca 3300 mm. Because the aggregates are standing under sidedecks on which are refrigerating compressors and other auxiliary

3 m.  
3.3 m.

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engines, the hight including possibility to take out the pistons to be limited to 1600 mm.

As the sketch shows the breadth can be usual standard-breadth for this type of engines, and is not very important.

Now existing foundations can be removed and altered as necessary, but the upper surface of the foundations can not be lowered under surface of the floor plate, owing to the hull's shape.

It must be possible to pass between the work bench and the port side aggregate and also on the port side of the aggregate itself, owing to the necessity of handling the valves etc at the bilgepump in the corner.

The starboard aggregate to have a bilgepump in the forward end. The generator to be placed immediately thereafter, as we must have a possibility over the generator to reach the valves in the vicinity of the aft alrge coolingpump for refrigerating plant.

Between the dieselengine and the generator may the coupling be firm or flexible. The bilgepump and aircompressor to be driven by clutch or friction couplings.

We propose arrangement as follows counted from the fore-end.

Starboard aggregate:

Bilgepump, generator, diesel.

Port side aggregate:

Generator, diesel, compressor.

Alternatively the compressor may, however, be moved to the afterpart of starboard aggregate, but we suppose that the aggregate then will be to long.

Each aggregate to be mounted on common bedplate.

As above mentioned we desire lowest possible revolutions. The available place will be decisive.

We enclose a sketch showing the existing aggregates on their places in the engineroom.

All above mentioned engines to be built under supervision of Lloyd's Register of Shipping and to be delivered with Lloyd's certificates. The cost for them to be included in the price.

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0116 3/3