

COPY.

# Lloyd's Register of Shipping.



Port Halifax, Nova Scotia,

January 3rd, 1941.

This is to Certify that

H.W.R. MARKS,

the undersigned Surveyor to this Society did at the request of the Owners' representative, attend on board the steel single screw steamship "EMPIRE ENGINEER", 5345 tons gross register, of London, for the purpose of ascertaining the nature and extent of damage stated to have been sustained on September 27th, 1940, and subsequently, while on a voyage from Hartlepool to Baltimore via Grangemouth and Methil, in ballast.

For further particulars see log books.

On October 8th, 1940, and subsequently, made examination, the vessel then lying at anchor in Halifax Harbour, Nova Scotia, and later at Halifax Shipyard.

FOUND:- Main Engine:-

Crankshaft fractured abaft After web of L.P. section, and forward journal bent. Connecting rod and all bearings disturbed.

H.P., I.P., and L.P. top and bottom ends damaged.

All main bearings damaged, one casting being broken.

Main shafting from Forward end to tail shaft coupling out of line.

RECOMMENDATIONS:-

Removal of section, crankpin and journals, boring of webs and fitting of new crankpin, and journal at After end. Remetalling of same, and boring to suit pins and journals. Remetalling of same and boring to suit respective pins and journals. Lining of shaft throughout, and adjustment of thrust shoes.

This Certificate is issued upon the terms of the Rules and Regulations of the Society, which provide that:-

"While the Committees of the Society use their best endeavours to ensure that the functions of the Society are properly executed, it is to be understood that neither the Society nor any Member of any of its Committees is under any circumstances to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication of the Society, or for any error of judgment, default or negligence of any of its Committees or any Member thereof, or the Surveyors, or other Officers or Agents of the Society."



# EMPIRE ENGINEER".

## FOUND:-

All eccentric straps except L.P.  
Astern badly worn or damaged.  
I.P. gland broken, and studs  
damaged.  
Cylinder clearances at fault.

H.P. crankshaft section pin and  
Journals loose in webs.

I.P. crankshaft section apparently  
disturbed at webs. (Possibly due to  
racing excessively).

## Auxiliaries:-

Port Weir's pump:- Unsatisfactory  
for feed purposes.

Filter tank:- leaking badly.

Stbd. Weir's pump:- Shuttle valve  
and chest worn beyond repair, water  
gland and studs stripped, cover  
damaged.

Ballast pump:- Overboard discharge  
valve defective.

General service pump:- Deck deliv-  
ery valve at fault.

Ash winch:- Worn badly, and in need  
of overhaul.

Evaporator:- Several pipes damaged;-  
and plant unsatisfactory.

Ash ejector:- Discharge pipe badly  
worn.

Air pump:- Overflow pipe defective.

Dynamo Engine:- Main bearings, top  
and bottom ends badly worn, oil  
pump defective, one crankcase door  
broken.

Fan Engine:- Piston valve and chest  
badly worn, piston rings defective.

Circulating engine:- Piston valve,  
and chest badly worn.

Feed Heater cover leaking badly.

Telemotor Gear:- Stuffing box and  
ram on Port side of transmitter de-  
fective.

Windlass:- Port wild-cat on Port  
side fractured, and shaft badly  
worn in way of same.

## RECOMMENDATIONS:-

Remetalling of all ex-  
cept L.P. - Astern strap.  
Fitting of new studs and  
gland supplied by ship.  
Checking and adjusting  
of same.

Renewal of pin and jour-  
nals to suit web after re-  
boring.

Removal of shaft section  
for further examination  
and testing. (In order).

General overhaul; fitting  
new rings both ends, new  
bucket rod, and cover.

Repairing of same.

Renewal of valve and chest,  
also studs and water gland,  
and repair of water-end  
cover.

Repairing of same.

Renewal of valve.

General overhaul of same.

General overhaul of  
evaporator and renewal of  
pipes.

Renewal of pipe.

Renewal of pipe with al-  
teration of shape.

Overhaul of engine, oil  
pump, bearings, and renew  
door.

Boring of chest and renew-  
al of valve and piston  
rings.

Boring of chest and renewal  
of valve.

New rings to supply and fit.

Retapping of stuffing box  
and adjustment of ram and  
gland.

Renewal of wild-cat and  
fitting of same to present  
shaft, after building up  
of same.

The above recommendations were carried out satisfactorily,  
and the Main engine and auxiliaries run for four hours deck-trial,  
as well as for three hours sea trial, and all found satisfactory.

Surveyor to Lloyd's Register of Shipping.



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The above recommendations were carried out satisfactorily.