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Additional Report S.S. "Luzon"

In addition to my former survey of S.S. "Luzon", I made a trial run on 27th inst., with said steamer and found as follows.

The steam was got up to 12 lbs and several times to 14½ lbs without the Boiler showing any extra weakness.

The machinery was in working order, and easily handled by the Engineer, but wanting repairs in brasses &c.
The crankshaft and mainbearings are in very bad condition- as formerly stated, and I therefore think the machinery unsuitable for sea service at present.

To repair this machinery, get new Crankshaft, Boilers &c would be very expensive and unsatisfactory, as far as the consumption of coal is concerned.

Having measured the capacity of the present Engine Room, and made other calculations, I still advise to take the present Machinery and Coal Bunker away, and fit the compound Engines- from Nagasaki;- estimating that the saving in fuel and gain in Cargo carrying Capacity on an average speed of 9 Knots, will amount comparatively to say twenty five thousand dollars a year.

I herewith attach some calculations of Cost and the probable Expenditure for comparing the results of the two Kinds of Machinery

Further

Further. supposing that the compound Machinery were fitted on board, which would cause the relaying of a part of the Main deck, I would propose to relay and renew the whole Main deck, between Cabin and Forecastle, to remove the most of the Officer's and other rooms on the Maindeck — and build a suitable Deck House for their accommo=dation and add a small cross coal bunker to the Engine room.

The Holds should be scraped and painted and lining put in first class order, Rigging, Sails and other gear overhauled. — all of which would amount to say ten thousand (10,000) dollars, but as a whole it would add nearly the double of that amount to the value of the Steamer, when completely finished and I would then estimate the value of the "Luzon" at from $120000 to $125.0000. dollars mexican. —

Frederick Kutz.
Marine Superintendant
Mitzubishi Steamship Co.

Tokio 29th August
1874.

Estimated Cost of Repairs by fitting new Compound Engines

Machinery complete with funnel, propellor, docking &c say $40000 oo

Carrying capacity say 835 tons
Speed 9 Knots
Time to finish 4 Months

Estimated Cost of Repairs to present Machinery

2 new Boilers		$18000
Funnel mounting & fitting		2000
New Crankshaft, Main bearings &c		4000
General Repairs to Engine		4000
Docking new propellor & sundries		4000
		$32000 oo

Carrying capacity say 700 tons
Speed " 10½ Knots
Time to finish at least 10 months

Comparative Estimate of coal consumed and Freights carried on a round voyage from Tokio to Osaka, and back to Tokio.
Making say 24 voyages in a year.

50 tons Karatz coal @	$5 oo	$275 oo
1470 tons of Cargo @	$3 oo	$4410 oo
or in a year		
Freight earned		$105840 oo
Coal consumed		6600 oo
Balance		$99240 oo

120 tons of Karatz Coal @	5 oo	$660 oo
1200 tons of Cargo @	3 oo	$3600 oo
or in a year		
Freight earned		$86400 oo
Coal Consumed		15840 oo
		$70560 oo

Allowing the Crews, stores provisions &c.
and other expenses to be about equal in both cases.

But 10 % more for Repairs to the compound Machinery must be deducted in this comparison leaving a balance in favor of the compound Machinery of say $25000 oo

Tokio 29th August 1874.

Frederick Kuby
Marine Superintendent
Mitzubishi Steam Ship Co.

Report.

S. S. "Luzon"

August 29th 1874