

REPORT ON **AUXILIARY INTERNAL COMBUSTION RECIPROCATING ENGINES**

FOR CONSIDERATION BY THE COMMITTEE OF LLOYD'S REGISTER OF SHIPPING

Ship's Name
(or contract No.)

"AMUR"

Port Yokohama

Gross tons

Date of
completing rpt.

20-3-65

Rpt. No. 6004

Place of survey, if different from above

Yokohama

No. of visits
in shops

36

First date

15-5-64

Last date 20-2-65

Ship built by

Hakodate Shipyard, Hakodate

Hakodate Dock Co., Ltd.

Yard No. A 356

Aux. engines
made by

Mitsubishi Heavy Industries Ltd.,

Yokohama Shipyard & Engine Works,

Eng. No. D13019

D13021

When Feb. 1965

Fee

¥185,250.-

Expenses -

Description (including
type name)4SC, SA, trunk piston, supercharged by exhaust gas
turbo charger with air cooler

No. of sets

2

Yokohama M.A.N. G5V 24/30AL type generator engine

No. of cylinders, each engine

5

No. of exhaust gas driven blowers/
superchargers, each engine

1

Dia. of cylinders

240mm

Is welded construction
used for

Bedplate?

No

Stroke

300mm

Entablature?

No

2 or 4 stroke cycle

4

Total internal volume of
crankcase, if 20 cu.ft. or over1.59m³

Approved service B.H.P., each engine

650 (metric)

Crankcase explosion
relief devices

No.

3

Corresponding R.P.M.

750

Total area

259.5cm²

Corresponding M.I.P.

14.0kg/cm²Are flame guards or traps fitted to
relief devices?

Yes

Maximum cyl. pressure

90 kg/cm²

Cooling medium for

Cylinders

Fresh water

Fuel

Diesel oil

Pistons

None

Fuel valves

If cylinders in Vee / Angle of Vee
or other special / No. of crank-
formation, state / shafts, each engine

No. of attached pumps

F.W. COOLING

1

S.W. COOLING

none

LUB. OIL

one

Is engine of opposed piston type?

No

How is engine started?

Compressed air

SHAFTING

Is a damper or detuner fitted?

No

Type

Dia. of journals

190mm

Breadth at mid-throw

268mm

Webs

Axial thickness

88mm

If shown, radial thickness
around eyeholes

No. of main bearings

6

Nominal shrinkage allowance
if dowel pins are not fitted

Are bearings of ball or roller type?

No

Flywheel

Diameter

1100mm

Distance between inner edges of
bearings in way of cranks

302mm

Weight

1500kg

Is crankshaft built, semi-built or solid?

Solid

Are balance weights fitted?

Yes

Material of crankshaft

Forged steel

Total weight of balance weights

290 kg

Minimum approved
tensile strength55 kg/mm²

Radius of gyration

202mm

Dia. of crankpins

190mm

Dia. of flywheel shaft

Note:—The particulars in this report are to be given as fully and as clearly as possible. Where the answer is "NO" or "NONE" say so. Ticks and other signs of doubtful meaning are not to be used. Wording not applicable to be cancelled.

Has each engine been tested in the shop?	Yes	Was it tested with driven machinery attached?	Yes
How long at full power?	2 hrs	Was the governing tested and found satisfactory?	Yes
DATE OF APPROVAL OF TORSIONAL VIBRATION CHARACTERISTICS (If 150 B.H.P. or over)		Kobe	17-4-65 616 ✓

PARTICULARS OF DRIVEN MACHINERY

2-A.C.Generators 240KVA 400 Volt 346 Amp.
2-D.C.Generators 195KW 200 Volt 975 Amp.
1-Air compressor 1400m3/h 8kg/cm2

PORT & No. OF CERTIFICATES FOR STARTING AIR RECEIVERS

Hakodate Nos. HAR 16 & 17

ELECTRIC GENERATORS (Copies of certificates to be forwarded)

If 100 kW or over	Port	Kobe	If less than 100 kW, have makers' certificates been supplied? -
	No. of cert.		

DECLARATION TO BE SIGNED BY ENGINE BUILDERS

To the best of our knowledge this machinery has been soundly constructed in conformity with the Rules, Regulations and requirements of Lloyd's Register of Shipping, and the foregoing particulars of auxiliary sets are correct.

(date) 22-6-1965

MITSUBISHI HEAVY INDUSTRIES, LTD.
YOKOHAMA SHIPYARD & ENGINE WORKS
(signature)

DATES OF APPROVAL OF PLANS Crankshaft Kobe 8-8-64

IDENTIFICATION MARKS ON SHAFTING

D13019	D13021
LLOYD'S YKA	LLOYD'S YKA
No.Y-23611	No.Y-23440
KN 25-6-64	TN 19-6-64
RT 18-12-64	RT 18-12-64

A previous similar case was for (name or contract No.) Yard No.A355 of Hakodate Dock Co., Ltd., Hakodate Shipyard

Engine No. D13017, D13018 Rpt. No. 5965

The machinery reported above has been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters. The materials and workmanship are good, the spare gear required by the Rules has been supplied and the machinery is eligible, in my opinion, to be fitted in a classed ship.

R. Taneda
Surveyor to Lloyd's Register of Shipping

DECLARATION TO BE COMPLETED AND SIGNED BY THE SURVEYOR AT THE PORT OF INSTALLATION

The above machinery has been fitted in "AMUR"

at Hakodate

in a proper manner and found satisfactory

when tested on (date) 27th & 28th April 1965 under full working conditions.

H. Terashima
Surveyor to Lloyd's Register of Shipping

Date of Committee

FRIDAY - 1 OCT 1965

Minute

See Rpt. 1.

Note.—Where existing machinery is submitted for classification, the circumstances are to be explained as fully as possible, and the recommendation should be suitably amended.