

Service Report



RIVERSIDE

STX MAN B&W 6S60MC

YARD SUPERVISION OF MAIN ENGINE MAINTENANCE

Preliminary service report



Service Report



1. Product Details

Vessel/Plant :	RIVERSIDE	Doc. No. :	SSI-19-06007_SR
Location :	COSCO Nantong	Order No. :	788-19-6077
Customer :	THOME SHIP MANAGEMENT	IMO No. :	941264
Reported by :	KYEWON KIM	Yard/Hull No. :	SAMSUNG HI / H-1590
Order by :	Mr. Devinder	Date ordered :	18.06.2019
Internal order by :	Edward Ko	Date ordered :	18.06.2019
Work performed by :	KYEWON KIM	Date started :	19.07.2019
		Date completed :	19.07.2019
Attention :		Date reported :	22.07.2019

2. Service Items

Service Number	Work description				Engine/Installation type		
1	YARD SUPERVISION OF MAIN ENGINE MAINTENANCE				STX MAN B&W 6L60MC		
Engine Number	Serial number	Rotation	Configuration	RPM	KW(BHP)	Run hours	Date
1	SB6S60-8031	CW	MDME	720	3664KW		19.07.2019

3. Operating Media

Fuel oil (<input type="checkbox"/> Heavy Fuel Oil <input type="checkbox"/> Diesel Oil <input type="checkbox"/> Gas Oil <input type="checkbox"/> Gas)				Cooling water treatment	
Density 15°C :	[kg/l]	Sulphur :	[%]	Blend :	[%]
Viscosity 50°C :	[cSt]	LCV :	[kJ/kg]	PH/dH :	
CCAI :		Temp Engine in :	[°C]	Brand :	ASHLAND
Lubrication oil supplier				Cylinder oil (2-Storke)	
Brand :		Sample :		Brand :	
TBN (new oil) :		Syst. Vol. m ³ :	[m ³]	Consumption :	[g/kWh]

4. Engine Control System

Remote control system :		Monitoring system :	
Safety system :		Governor/Actuator :	
Engine interface :		Oil Mist Detector :	

5. Installation data Propulsion

Controls :		Gearbox :		
Type :		Speed :		Servo oil :
E – Motor :		Speed :		Run Hours :

*This service report consists of _____ page(s), including all separate sheets.

Operating values:	<input type="checkbox"/> YES <input type="checkbox"/> NO	Measurement sheets:	<input type="checkbox"/> YES <input type="checkbox"/> NO
Spare part List :	<input type="checkbox"/> YES <input type="checkbox"/> NO	Other sheets:	<input type="checkbox"/> YES <input type="checkbox"/> NO ()

Service Report



1. Summary

- As requested by THOME Ship management (L) Pte. Ltd. STX Service Singapore, service engineer attended the above-mentioned vessel at Dock-yard COSCO, Nantong, China. On 17th July ~ 17th August 2019 the purpose of the attendance was to carry out yard supervision of main engine maintenance.

2. Description of work

➤ Starting air distributor

- Starting air distributor was checked & overhauled.
 - Starting air distributor was overhauled, all units check & found satisfactory. Some wear down was observed on the liners & piston but same were within limits.
 - Piston valve position inspected by engine turning and found normal position.



Piston valve position check



Dismantled No.:1 piston valve condition (cleaned and normal)

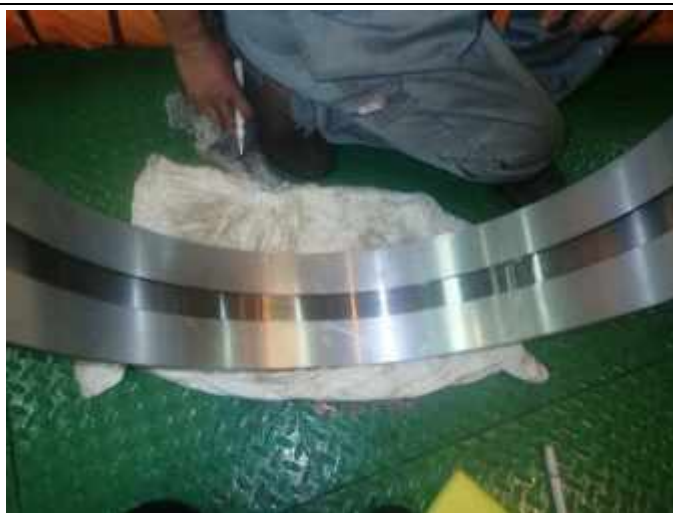
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➤ Main bearing/crosshead bearing/crank pin bearing

- Carried out open inspection of main bearing/crosshead bearing/crank pin bearing as under
 - No.:2 and 4 crank pin bearings
 - No.:2 main bearing
 - No.:2 crosshead bearing
 - Found all in acceptable condition.

Detail service report will be sent with measurement record



No.:2 crank pin bearing



No.:5 crank pin bearing



No.:2 main bearing



No.:2 crosshead bearing

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➤ Fuel injection pump overhauling

- Overhauling of all fuel injection pumps as under
 - Replaced all sealing rings of barrel/suction valve/puncture valves
 - Measured all plunger and barrel dimension
 - Replaced all plug screws.
 - Measured all fuel injection timing. (cam lead value)
 - All plunger and barrel were re-used due to lack of spare parts
 - Regarding shock absorber, replaced all sealing and wearing rings, but pistons couldn't be replaced due to lack of spare parts.
- Detail service report will be sent with measurement record



Dismantled plunger and barrels



Plunger condition

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Measured dimension



Maintained suction and puncture valves

➤ Fuel injection pump roller guide

- Open inspection of no.:2 and 4 roller guides was carried out as under
 - Penetration check was carried out and found no any cracks
 - Roller and bush clearance were measured and found all in good condition



Penetration test of roller guide



Measured clearance of roller guide

➤ Exhaust valve roller guide

- Open inspection of no.:2 and 4 roller guides was carried out as under
 - Penetration check was carried out and found no any cracks

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- Roller and bush clearance were measured and found all in good condition
- Oil piston rings of no.:2 and 4 pistons were replaced with new one.
- Diameter of oil cylinder was measured and found all in good condition.

Detail service report will be sent with measurement record



Penetration test of roller guide



Measured clearance of roller guide

➤ Piston maintenance in yard workshop

- Maintenance of no.:1 and 2 pistons were carried out as under.
 - Replaced D-ring and O-ring were replaced with new one.
 - Measured piston ring groove and dimension of piston rod and piston skirt
 - Pressure test was inspected by pressurized air.

Detail service report will be sent with measurement record

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Penetration test of roller guide



Measured clearance of roller guide

➤ Chain tightening of driving gear

- Chain tighter was re-tightened according to maker' guide and found all in normal condition as under
 - Before tightened stud length: 83.56 mm
 - After tightened stud length: 83.85 mmDetail service report will be sent with measurement record

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Stud length measured



Initial clearance setting

➤ Crank case inspection and bearing measurement

- Crankcase inspection was carried out as under
 - Measured all main bearing top clearances
 - Measured all crosshead top clearances
 - Measured all crank pin bearing bottom clearances
 - Visual inspection of crank case was carried out and found no any defects
 - Visual inspection of guide shoes was carried out and found all in acceptable conditionDetail service report will be sent with measurement record



Main bearing clearance measured



Crosshead bearing clearance measured

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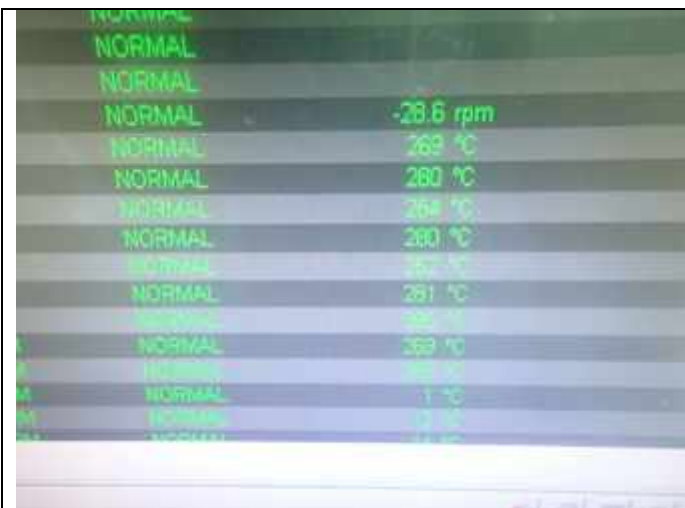
Crank pin bearing measured



Guide shoe inspection

➤ Engine trial

- Engine trial was carried out during vessel's transportation from shipyard to anchorage as under
 - Test starting of ahead/astern and found all in good order.
 - Engine condition of dead slow operation was checked and found all in normal parameter.
Detail service report will be sent with measurement record



Engine condition of astern operation