

Installation / Ship Name

ALL CARGO SUSHEELA

Customer

Allcargo shipping co pte ltd

Location

PAX OCEAN SHIPYARD

Job Number

VLEJ 16- 11111

Work Description: OVERHAUL OF MAIN ENGINE (B&W 8L 32/40)

3. GENERAL WORK DONE (WORKSHOP)

Cylinder heads

Total 02nos

- Standard overhauling of cylinder heads
- Dismantle all attachments, such as valve spindle, air starting valve
- Send all cylinder head for chemical cleaning and decarbonising.
- Carry out cleaning and inspection for all dismantled components.
- Carry out DPI check on all cylinder heads, crack found on unit #5 inlet seat.
- Carry out hydro pressure testing on 16 units of cylinder head to **10 bars**. No leakage was found.
- Valve spindles and valve seats mating surfaces found with dented marks.
- Carried out extraction of valve seat and insert new seat with new o-ring.
- One inlet rotator spring found broken.
- Renewed spring and reassembled in good order.
- Carried out grinding of valve seats and valve spindles.
- Carried out lapping and blue check.
- Renewed valve guide O-rings.
- Reassembled all components in good order.

Additional work

- To open main #3 & #5 main bearing bottom shells for inspection, and reassemble in proper manner (bearing shells reused). Total 02nos
- To renew inlet valve seat on unit #5 cylinder head Total 01nos
- Overhauling of starting valves Total 02nos
- Machine grind inlet and exhaust valve seats Total 07nos
- Machine grind inlet and exhaust valve spindles Total 08nos
- Carry out chemical cleaning of cylinder head (#7) and pressure to 10 bar Total 01nos
(no overhaul done and cylinder head dismantle and off landed by ship crew).

NOTE:

- Total 02 cylinder heads were sent to ARK vision workshop as per owner instruction.
- Tappet clearance was taken by ship crew.
- #3 main journal found with deep scoring marks on surface, as per superintendent instruction carried out Hand polish and install back old bearing shell.

Approved by Service Engineer

[Signature]

VSL Superintendent / C/E

under observation
M. V. ALLCARGO SUSHILA
P. Sivas
14.5.16

VSL Stamp

CHIEF ENGINEER

Liability of Vitalink Marine Pte Ltd for any direct, indirect, unforeseen or consequential loss or damage however caused in connection with any service provided by Vitalink Marine Pte Ltd shall be limited to the amount of the fee paid for the service.



MERCANTILE MARITIME SOLUTIONS

Installation / Ship Name

ALL CARGO SUSHEELA

Customer

Allcargo shipping co pte ltd

Location

PAX OCEAN SHIPYARD

Job Number

VLEJ 16- 11111

AIR STARTING VALVE

Total 02nos

- Carried out dismantling of air starting valves.
- Carried out cleaning and inspection.
- Carried out lapping on spindle and seat.
- Renewed O-rings and seals.
- Reassemble all components in good order.

GENERAL WORK DONE (ONBOARD VESSEL)

- Carry out remove and refit of 02nos cylinder head, 02nos pistons.
- Lifted and transfer all components to workshop for overhaul.
- Carried out cleaning of fire rings and reused with new O-rings.
- Carried out decarbonisation of pistons.
- Check the clearances of ring grooves and calibration for big end bore.
- Carried out liner calibrations.

Main Bearing

- Dismantle housings and remove lower main bearings for cleaning, inspection and survey.
- Thereafter, refit units with old bearing shells in accordance with the maker's specification.

Total 02nos

DEFLECTION

- Took deflection after completion of works.

NOTE:

- All bearing shells reused. (as per superintendent instructions)
- All piston rings reused. (as per superintendent instructions)



Approved by Service Engineer

[Signature]

under observation
M. V. ALLCARGO SUSHILA
P. Biswas
14.5.16
CHIEF ENGINEER

VSL Superintendent / C/E

[Signature]

VSL Stamp

[Stamp]

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Customer

Allcargo shipping co pte ltd

Location

PAX OCEAN SHIPYARD

Job Number

VLEJ 16- 11111

MAIN ENGINE



- Received 02 units of cylinder heads.



- Cylinder heads after dismantling and before cleaning.



Approved by Service Engineer

[Signature]

M. V. ALLCARGO SUSHILA

VSL Superintendent / C/E

[Signature]

VSL Stamp

CHIEF ENGINEER

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Installation / Ship Name

ALL CARGO SUSHEELA

Customer

Allcargo shipping co pte ltd

Location

PAX OCEAN SHIPYARD

Job Number

VLEJ 16- 11111



- Components after cleaning.



- one spring found broken in inlet rotator, renewed with new spring.



- Carried out DPI check on valve spindles.



- Carried out DPI check on cylinder head combustion surface.

Approved by Service Engineer

[Signature]

VSL Superintendent / C/E

P. B. Sivas

VSL Stamp

14.5.16

CHIEF ENGINEER

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Installation / Ship Name

ALL CARGO SUSHEELA

Location

PAX OCEAN SHIPYARD

Customer

Allcargo shipping co pte ltd

Job Number

VLEJ 16- 11111



- Found crack on unit#5 inlet valve seat.



- Extract valve seat and insert new seat ring on unit #5 inlet (1pcs).
- Carried out grinding on 07 nos of seats and spindles.
- Carried out lapping for good contact surfaces.

Approved by Service Engineer

[Signature]

VSL Superintendent / C/E

[Signature]

VSL Stamp

[Stamp]

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Installation / Ship Name

ALL CARGO SUSHEELA

Customer

Allcargo shipping co pte ltd

Location

PAX OCEAN SHIPYARD

Job Number

VLEJ 16- 11111



- Carried out water pressure test at 10 bars.



- Carried out cleaning and renewed seals/o-rings.



- Carried out lapping on mating surfaces.

Approved by Service Engineer

[Signature]

M.V. ALLCARGO SUSHEELA

VSL Superintendent / C/E P. B. Sivas

VSL Stamp

14.5.16

CHIEF ENGINEER

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Installation / Ship Name

ALL CARGO SUSHEELA

Customer

Allcargo shipping co pte ltd

Location

PAX OCEAN SHIPYARD

Job Number

VLEJ 16- 11111

UNIT - #7



- Carried out dismantling of cylinder head and attachments.



- Components after cleaning.

Approved by Service Engineer

[Signature]

M. V. ALLCARGO SUSHILA

PBiswas
14.5.16

CHIEF ENGINEER

VSL Superintendent / C/E

[Signature]

VSL Stamp

[Stamp]

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Installation / Ship Name

ALL CARGO SUSHEELA

Customer

Allcargo shipping co pte ltd

Location

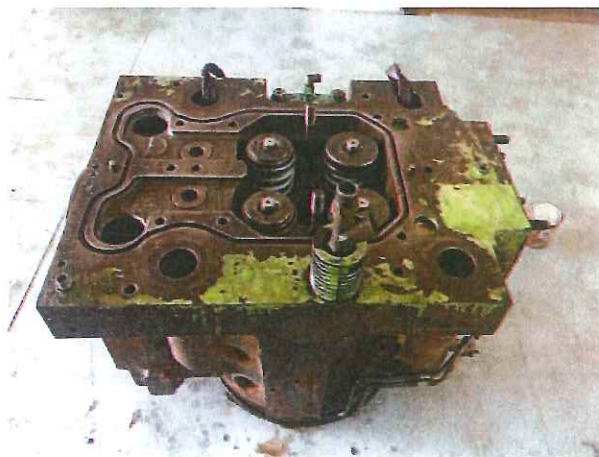
PAX OCEAN SHIPYARD

Job Number

VLEJ 16- 11111



- Carried out pressure test at 10 bars on owner off landed cylinder head, found no leaks.



- Refit all components in good order without overhauling

M. V. ALLCARGO SUSHILA

P. Biswas -
14.5.16



Approved by Service Engineer

[Signature]

VSL Superintendent / O/E

CHIEF ENGINEER

[Signature]

VSL Stamp

[Stamp]

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Installation / Ship Name

ALL CARGO SUSHEELA

Customer

Allcargo shipping co pte ltd

Location

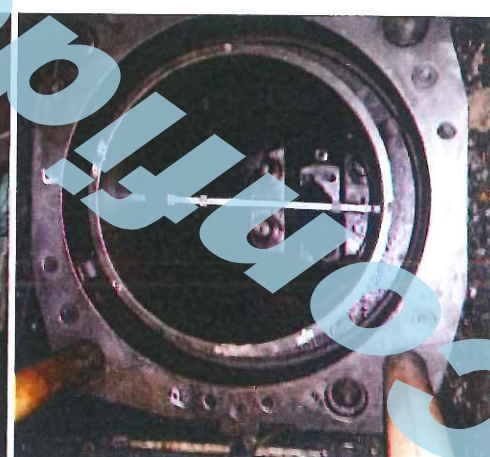
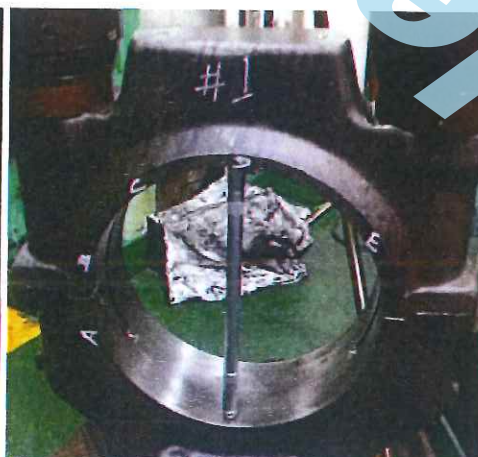
PAX OCEAN SHIPYARD

Job Number

VLEJ 16- 11111



- Carried out cleaning of piston.
- Check clearances of piston ring and ring groove.



- Carried out calibration of crank pin journal.
- Carried out calibration of big end bore.
- Carried out calibration of liners.



M. V. ALLCARGO SUSHILA

P. Biswas - 14.5.16.

Approved by Service Engineer

[Signature]

VSL Superintendent

CHIEF ENGINEER

VSL Stamp

[Signature]

[Signature]

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Installation / Ship Name

ALL CARGO SUSHEELA

Customer

Allcargo shipping co pte ltd

Location

PAX OCEAN SHIPYARD

Job Number

VLEJ 16- 11111



- Open main bearing #5 for inspection.
- Refit old bearing upon inspection.



- Open main bearing #3 for inspection,
- Main journal found with deep scoring marks.
- Carried out hand polish (as per superintendent instructions).
- Refit old bearing upon inspection.

➤ All works were carried out as per superintendent inspection and instructions.



M. V. ALLCARGO SUSHILA

14.5.16

CHIEF ENGINEER

Approved by Service Engineer

[Signature]

VSL Superintendent / C/E

[Signature]

VSL Stamp

[Stamp]

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MERCANTILE MARITIME SOLUTIONS PTE LTD

#14-12 International Plaza, 10 Anson Road
Singapore 079903
Tel: (+65) 6224-0020
E-mail: sales@mercantile.sg
Company Reg. No. 201419851N

SERVICE REPORT AND TIME SHEET

Customer	Allcargo Shipping Co Private Limited	Customer W/O No	
Location	PAX OCEAN SHIPYARD	Equipment & Brand	B&W
Vessel	All Cargo Susheela	Model & Serial No	8L32/40
Service Request			
Detail of Service	Overhauling of Main Engine Unit #1 & #5		

- * Cylinder heads remove, lift and transport to our workshop for standard overhauling.
- * Cylinder heads to be dismantled, chemically cleaned and pressure tested to 10 bar for leak.
- * All attachments dismantle for cleaning and inspection.
- * Combustion face to carry out dye-penetrant inspection for crack.
- * On completion, all items to be reassembled in order with owner's supplied gaskets and carry out hydrotesting to ensure no leak.
- * Piston assemblies to remove lift and transport to our workshop for standard overhauling
- * Pistons assemblies to be un-coupled and withdrawn, dismantled into individual components, decarbonised and cleaned for survey.
- * All parts including gudgeon pins to be calibrated and readings submitted.
- * Both big end bearing open for inspection and bearing reused.
- * On completion, pistons to be reassembled in order.

NOTED;

- * All bearing shells reused. (As per superintendent instruction)
- * All piston rings reused. (As per superintendent instruction)

Recommendation

Material Supplied

Date	Shore to Site		Engr.	Tech.	Working Hour		Site to Shore		Remarks
	From	To			From	To	From	To	

Attended By

under observation
M. V. ALLCARGO SUSHILA
P. Biswas
14.5.16
CHIEF ENGINEER

Customers Signature and Stamp

Receive the above goods in good order and conditions:

[Signature]



MERCANTILE MARITIME SOLUTIONS PTE LTD



MERCANTILE MARITIME SOLUTIONS PTE LTD

#14-12 International Plaza, 10 Anson Road

Singapore 079903

Tel: (+65) 6224-0020

E-mail: sales@mercantile.sg

Company Reg. No. 201419851N

SERVICE REPORT AND TIME SHEET

Customer	Allcargo Shipping Co Private Limited	Customer W/O No	
Location	PAX OCEAN SHIPYARD	Equipment & Brand	B&W
Vessel	All Cargo Susheela	Model & Serial No	8L32/40
Service Request			
Detail of Service	Overhauling of Main Engine		

Additional work;

* To open #3 & #5 main bearing for inspection, rolling out the bottom shell and re-assemble in proper manner. (main bearing reused)	Total: 02 nos
* To renew all Inlet valve seat on and engine #5 cylinder head	Total: 01 nos
* Overhauling of starting valve	Total: 02 nos
* Machine grind all Inlet and exhaust valve seat	Total: 07 nos
* Machine grind all Inlet and exhaust valve spindle	Total: 08 nos
* Carry out chemical cleaning of cylinder head and pressure test to 10 bar (NO overhaul done and cylinder head was dismantle and off landed by ship crew)	Total: 01 nos
* Carry out deflection on main engine after overhauling	Total: 01 Time

NOTED;

- * Total 02 cylinder heads were send to ARC Vision workshop as per owner instruction
- * Tappet clearance was taken by ship crew
- * #3 main journal found with deep scaring on surface, instruction by superintendent to hand polish and install back old bearing shells

Recommendation

Material Supplied

Date	Shore to Site		Engr.	Tech.	Working Hour		Site to Shore		Remarks
	From	To			From	To	From	To	
Attended By									

under observation
M. V. ALLCARGO SUSHILA

P. Biswas

14.5.16

CHIEF ENGINEER

Customers Signature and Stamp

Receive the above goods in good order and conditions:

[Signature]



MERCANTILE MARITIME SOLUTIONS PTE LTD



MERCANTILE MARITIME SOLUTIONS PTE LTD

VESSEL NAME

ALL CARGO SUSHEELA

Date of Document: 5/12/2016

Date of Inspection:

Job No: VLEJ 16-11111

Document Title:

CONDITION REPORT
4 Stroke Engine Connecting Rod(s) Calibration Record

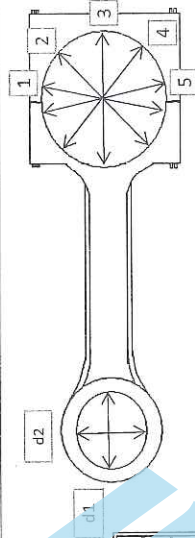
MAKER / MODEL : B&W 8L 32/40

Measurement Unit: mm

Others (Pls specify) :

☒ BEFORE

☐ AFTER



Bank :		Cylinder number									
		1	2	3	4	5	6	7	8	9	
Big end bearing bore (Deviation to be given in 1/100 mm)											
1	FWD	301.97				301.97					
	AFT	301.96				301.97					
2	FWD	301.97				301.96					
	AFT	301.97				301.97					
3	FWD	301.96				301.96					
	AFT	301.97				301.96					
4	FWD	301.97				301.97					
	AFT	301.96				301.96					
5	FWD	301.97				301.96					
	AFT	301.96				301.96					
deviation											
Manufact											
Remarks											
Small end bearing bush mounted (Deviation to be given in 1/100 mm)											
d1	FWD										
	AFT										
d2	FWD										
	AFT										

Big end bearing bore

Hydraulic pressure / Tightening Torque when tightening : kg

Nominal diameter (D) = mm

Maximum allowed Dia = mm

Gudgeon pin bearing bush mounted

Nominal diameter (D) = mm

Maximum allowed Dia = mm

QUALITY CONTROL

Name :

Name :

Name :

SERVICE ENGINEER

M. V. ALLCARGO SUSHILA

SHIPYARD / OWNER REPRESENTATIVE

M. V. ALLCARGO SUSHILA

VSL STAMP

MERCANTILE MARITIME SOLUTIONS PTE LTD

CHIEF ENGINEER

CHIEF ENGINEER



MERCANTILE MARITIME SOLUTIONS PTE LTD

VESSEL: M

5/12/2016

Date of Document:

Date of Inspection:

Job No:

VLEJ 16-11111

ALL CARGO SUSHEELA

Document Title: **CONDITION REPORT**

Piston Ring Calibration Record

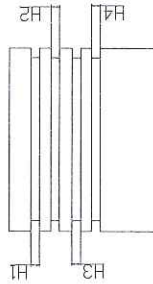
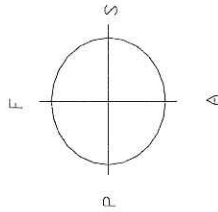
MAKER / MODEL: **B&W 8L 32/40**

Measurement Unit: mm Others (Pls specify) : _____

☒ BEFORE ☐ AFTER

H1-mm & H2-mm - Wear limit

H4-mm - Wear Limit



Pos	Unit # P1			Unit # P2			Unit # P3			Unit # P4			Unit # P5		
	F	A	P	F	A	P	F	A	P	F	A	P	F	A	P
H1	0.40	0.40	0.40	0.40									0.45	0.45	0.45
H2	0.25	0.25	0.25	0.25									0.20	0.20	0.20
H3	0.19	0.18	0.19	0.19									0.18	0.18	0.19
H4	0.10	0.10	0.10	0.10									0.10	0.10	0.10

Pos	Unit # P6			Unit # P7			Unit # P8			Unit # 9			Unit #		
	F	A	P	F	A	P	F	A	P	F	A	P	F	A	P
H1															
H2															
H3															
H4															

Remarks (if any):

EME QUALITY CONTROL

EME SERVICE ENGINEER

SHIPYARD / OWNER REPRESENTATIVE

M. V. ALLCARGO SUSHILA

Name:

[Signature]

Name:


[Signature]

Name:

[Signature]

CHIEF ENGINEER

VSL STAMP



MERCANTILE MARITIME SOLUTIONS PTE LTD

VESSEL NAME

ALL CARGO SUSHEELA

Date of Document: 12-May-16

Date of Inspection:

Job No: VLEJ 16-11111

CONDITION REPORT

4 Stroke Engine Cylinder Liner (s) Calibration Record

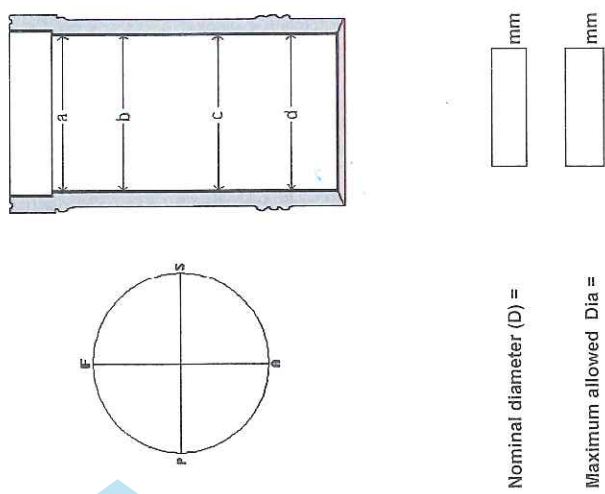
MAKER / MODEL : B&W 8L 32/40

Measurement Unit: mm

Others (Pls specify) :

☒ BEFORE
 ☐ AFTER

Bank :		Cylinder number								
		1	2	3	4	5	6	7	8	9
Liners bore (Deviation to be given in 1/100 mm)										
1	FWD	320.28								
	AFT	320.29								
2	FWD	320.26								
	AFT	320.27								
3	FWD	320.25								
	AFT	320.22								
4	FWD	320.18								
	AFT	320.15								
5	FWD	320.17								
	AFT	320.15								
Max. deviation										
Manufact.										
Remarks										





EME QUALITY CONTROL

EME SERVICE ENGINEER

Name :

M. V. ALLCARGO SOLUTIONS


SHIPYARD / OWNER REPRESENTATIVE *P. S. Sivas*

14.5.16

CHIEF ENGINEER

Name :

VSL STAMP



MERCANTILE MARITIME SOLUTIONS PTE LTD

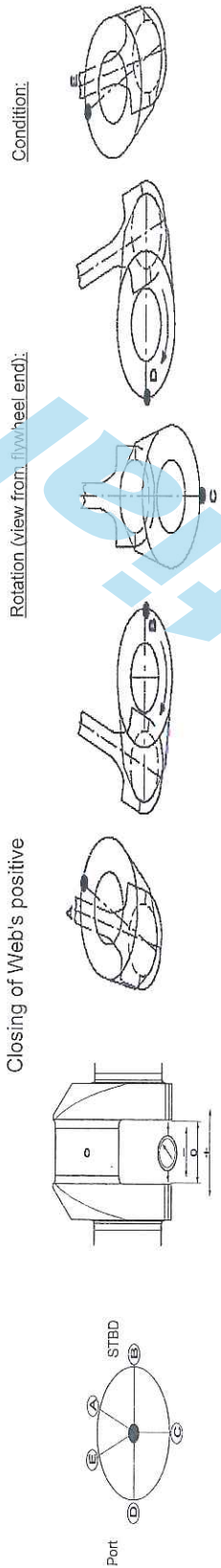
VESSEL NAME
ALL CARGO SUSHEELA

Date of Document:
5/12/2016

Document Title:
CONDITION REPORT
Crankshaft Deflection Record
MAKER / MODEL: B&W 8L 32/40

Date of Inspection:
VLEJ 16-1111

Measurement Unit: 0.01mm
Others (Pls specify) :



Blank	CYL #1	CYL #2	CYL #3	CYL #4	CYL #5	CYL #6	CYL #7	CYL #8	CYL #9	CYL #10
A (S B)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
B (STBD side)	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00		
C (T.D.C)	-0.01	-0.02	0.00	0.01	0.01	-0.01	0.00	0.00		
D (Port side)	0.00	-0.02	0.02	0.00	0.00	0.01	-0.01	0.01		
E (P B)	0.00	-0.01	0.03	0.01	0.00	0.00	0.00	0.00		
F=(E+A) / 2										
(C-F)	-0.01	-0.015	0	0.01	0.01	-0.01	0	0		
(B-D)	0	0.01	-0.02	0	0	-0.01	0.01	-0.01		
Remarks										

Remarks (if any):



EME QUALITY CONTROL

Name:

Name:

EME SERVICE ENGINEER

SHIPYARD / OWNER REPRESENTATIVE

VSL STAMP

M.V. ALL CARGO SUSHILA
P. Bigwas
14.5.16
CHIEF ENGINEER



MERCANTILE MARITIME SOLUTIONS PTE LTD

VESSEL NAME

Date of Document: 12-05-16

ALL CARGO SUSHEELA

Date of Inspection:

Job No: VLEJ 16-11111

Document Title: CONDITION REPORT

Crankpin(s) Calibration Record

MAKER / MODEL: B&W 8L 32/40

Measurement Unit: mm

Others (Pls specify):



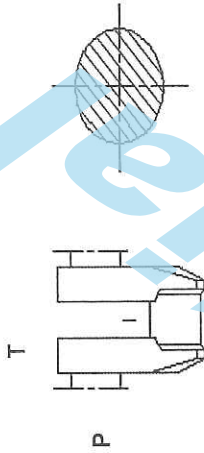
BEFORE

☐

AFTER

Max wear limit

mm



	Unit #1		Unit #2		Unit #3		Unit #4		Unit #5		Unit #6	
	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT
T/B	289.96	289.97							289.97	289.97		
P/S	289.96	289.97							289.97	289.96		

	Unit #7		Unit #8		Unit #9		Unit #10		Unit #11		Unit #12	
	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT
T/B												
P/S												

Remarks (if any):



SERVICE ENGINEER

SHIPYARD / OWNER REPRESENTATIVE

VSL STAMP

Name

Name :

Name :

M.V. ALLCARGO SUSHILA

P. Bigawa
14.5.16

CHIEF ENGINEER