

SERVICE REPORT

Name of Ship: MV CMA CGM J MADISON Date: 25th Jul-3rd Aug, 2025

Port/Shipyard: SHEKOU & NINGBO PORT

Servcies: LIFEBOAT ENGINE REPAIR

Preface:

In accordance with the order/requirement of CMA CGM GROUP, we arranged one team with tools to carry out repairing the two lifeboat engines.

Particulars of the ship:

LOA=366M Breadth: 48M Draft: 10.6M IMO No.: 9780897



Working Content:

Dismantle one engine in the lifeboat and take another engine away to Gacy workshop to repair including:

- 1 Testing the engine in the lifeboat and find the problem onboard.(then offland to workshop to repair.
- 2 Take away the original engine to workshop.
- 3 Removing the two engine and check.
- 4 Replacing the two engine necessary parts.
- 5 Testing the two enigne after we finish repair and replace parts.
- 6 Back to vessel to install the original enigne and test.
- 7 Providing parts for one engine in QINGDAO porPt_aige 1/14

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Action Part One: Testing the engine in th lifeboat

- 1 Testing the engine in th lifeboat
- 2 We infer the problem was the incorrect firing order and broken of the valves.
- 3 Dismantle the engine and offland to our workshop.



Testing the engine.



check the engine.



Dismantle the engine.



Lift out the engine and offland.

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Action Part Two: The two engines arrive at our workshop to be repaired and replaced spare parts.

- Tips
- Original engine as No.1 engine,another as No.2 in the report.
- 1
- Remove the two engines and check.
- 2
- Replace the necessary parts.
- 3
- Test the two engines.

NO.1

		
The two engines arrived at our workshop.		No.1 crankshaft oil seal leak oil.
		
Remove the No.1 cylinder head.		Remove the oil pipe.



Drain the No.1 oil.



Remove the No.1 oil filter.



The No.1 oil pan has too much waste oil.



Mark the crankshaft connecting rod.



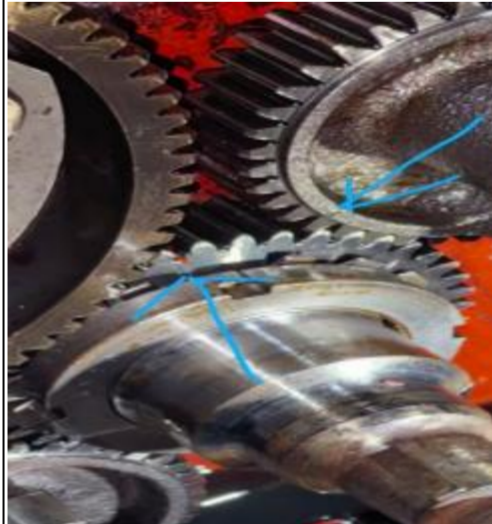
The connecting rod and crankshaft have abrasion.



Check the piston and measure the clearance.



The piston ring clearance is excessive and no tension.



The "timing" has skewing two gears.



Clean the oil pan.



Refit the oil pan.

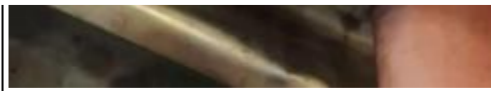


Clean the old gaskets		Tight the crankshaft bearing torsion.
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The old and new bearing by comparison.		cleaned the piston.
		
Replace the piston ring.		Replace the piston ring.
		



Clean the cylinder inside.



Replace the oil filter



Replace the low-pressure fuel pump.



No. 1 test
video.m p4

Test the No.1 engine.(video)

No.2



Cleaning the crankcase.



Cleaning the spare parts.





Rust remove the cylinder liner



Replace the piston ring.



Replace the connecting rod.



Remove the liner o-ring.



Clean the crankcase.



Replace the crankshaft bearings.





Install the crankshaft.



Replace the crankcase gasket.



Install the crankcase before cover.



Install the flywheel timing pointer.



Install the crankcase before cover gearing.



Coating the sealant for liner.





Install the connecting rod.



Install the piston.



Fixed the crankshaft connecting rod bolts.



Install the aft crankcase gasket and gearing.



Lubricate the before crankcase connecting plate.



Install the bolts for the balance block.





Install the before cover connecting plate.



Install the aft crankcase cover.



Install the oil pan.



Install the cylinder head air valve.



Install the flywheel disc.



Adjust the air valve clearance.



	
Install the cavaera.	Replace the fuel filter.

	 No.2 test vid eo. m p4
Replace the coupling.	Test the No.2 engine.(video)

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Action Part Three: The two engines back to vessel, install the original enigne and test.

- 1 Installing the No.1 engine.
- 2 Testing the No.1 engine.

	
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Install the No.1 engine.



Wiring the No.1 engine.



Add the antifreeze.



Install the exhaust pipe.

Conclusion and Recommendation:

- 1 The two engine all repaired completely, and all in good condition.
- 2 All repairs and replacement were checked and supervised by superintendent.
- 3 The problems for the two engine:
No.1 The "timing" was wrong"(gear skewing);Air valve excessive clearance;Piston ring excessive clearance tension.
No.2 Air valve excessive clearance;crankshaft and connecting rod bearing abrasion;Piston ring excessive clearance and no tension.Crankshaft abrasion; Liner o-ring broken;Connecting rod with its press bloc were mismatch.High-pressure oil pump broken.

Report by: Cason

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