

FAILURE ANALYSIS REPORT



CUSTOMER NAME	PT. PUTRA PERKASA ABADI	PHONE NO. / HP		
KOTA / BRANCH	SITE AMI, CENTRAL BORNEO		DATE	27-Aug-24
UNIT TYPE	COMP MODEL	BRAND	INSTALL DATE	PROBLEM DATE
AXOR HDT	AXOR 2528 CX EURO 4	MERCEDES-BENZ	24-Mar-24	27-Aug-24
UNIT CODE	MACHINE LOCATION		LIFETIME	HM / KM
DA25063	PPA-AMI			3985h/41172km

DETAIL PROBLEM

Driver menginformasikan bahwa unit can't star, setelah itu mekanik PPA melakukan pengecekan pada unit, pada saat pengecekan membuka head cover cylinder didapatkan bahwa rocker arm dan valve bridge sudah terlepas dari dudukannya. setelah itu PPA melaporkan ke SWI, Mekanik SWI kemudian melakukan pengecekan dan membongkar oilpan didapatkan tappet roller yang sudah patah.

PHOTO

DATA UNIT



Foto Unit

VIN

KM

SN Engine



Area Operational unit : Land Clearing naik & turun Extrem area Lampunut

ROOT CAUSE - ANALYSIS

NO	To Day	Trouble Dat	Unit Code	MODEL UNIT	Hours Meter	Description Problem	Action
1	1 Jul 2024	45474	DA25063	AXOR 2528 CX (E4)	3563	CANT START	CHECK LEVEL AIR BATTERY, ADD AIR BATTERY S L, TEST RUNNING, CHECK BATTERY CHARGING 28 V
2	2 Jul 2024	45475	DA25063	AXOR 2528 CX (E4)	3563	CANT START	CHECK VOLTAG 10.8, 11.2, REPLACE BATTERY 1PCS, JUMPER BATTERY, GT
3	9 Jul 2024	45482	DA25063	AXOR 2528 CX (E4)	3571	CANT START	JUMPER BATTERY, CHECK LUBRICANT ELECTROLYTE, CHECK VOLTAGE BATTERY (28.4 V)
4	9 Jul 2024	45482	DA25063	AXOR 2528 CX (E4)	3571	SCHEDULE GREASING	GREASING MANUAL ALL PIN, CHECK ALL LAMPS, CHECK & MAINTENANCE BATERAL, REPLACE BRACKET FOG LAMP RH, REPAIR GUARD ENGINE, REPLACE BATERAL 1 PCS, FINAL CHECK
5	23 Jul 2024	45496	DA25063	AXOR 2528 CX (E4)	3636	SCHEDULE GREASING	CHECK ALL OIL LEVEL, CLEANING FILTER A/C, REPLACE HIGH BEAM RH, REPLACE FOG LAMP LH, ADD ADBLUE 42L, GREASING UNIT, WASHING CABIN, GROUND TEST
6	24 Jul 2024	45497	DA25063	AXOR 2528 CX (E4)	3639	ROCK BETWEEN DUAL	REMOVE BOLDER TYRE POS 7.8 & 9.10
7	25 Jul 2024	45498	DA25063	AXOR 2528 CX (E4)	3661	ROCK BETWEEN DUAL	REMOVE BOLDER TYRE POS 5.6 & 7.8, FINAL CHECK
8	27 Jul 2024	45500	DA25063	AXOR 2528 CX (E4)	3680	RBD POS 5.6	REMOVE BOLDER, FINAL CHECK
9	28 Jul 2024	45501	DA25063	AXOR 2528 CX (E4)	3695	TYRE POS 6 LEAK	REPLACE TYRE POS 6, ADJUST PRESSURE TYRE POS 6, RETORQUE TYRE POS 5.6, FINAL CHECK
10	29 Jul 2024	45502	DA25063	AXOR 2528 CX (E4)	3722	TYRE POS 5 LEAK	REPLACE TYRE POS 5.4, ADJUST PRESSURE TYRE POS 5, RETORQUE TYRE POS 5.6, FINAL CHECK
11							
HISTORICAL BREAKDOWN UNIT							
NO	To Day	Trouble Dat	Unit Code	MODEL UNIT	Hours Meter	Description Problem	Action
1	1 Aug 2024	45505	DA25063	AXOR 2528 CX	3735	SERVICE 750	FERTY, CLEAN AIR CLEANER, CLEAN FILTER AC OUT CABIN, GREASING ALL PIN, CHECK ALL LAMP, RETORQUE CLAMP MUFFLER, ROLLING TYRE POS 1.2 & ADJUST PRESSURE, WASHING I
2	5 Aug 2024	45509	DA25063	AXOR 2528 CX	3766	BEARING FULLY AC	REPLACE BEARING PULLEY AC, MODIF SPACER PULLEY AC, ADJUST BELT AC, ADD ADBLUE 45L, REMOVE BOULDER POST 9/10, G/T
3	6 Aug 2024	45510	DA25063	AXOR 2528 CX	2770	AC HOT	ADD FREON, REPLACE V BELT AC GT,
4	9 Aug 2024	45513	DA25063	AXOR 2528 CX	3786	FUEL LEAK	CHECK VISUAL FUEL LEAK, REPLACE GLASS WATER SEPARATOR, BLEEDING FUEL SYSTEM, GROUND TEST, FINAL CHECK
5	19 Aug 2024	45523	DA25063	AXOR 2528 CX	3912	TYRE POS 6 LEAK	REPLACE TYRE POS 6, REMOVE TYRE POS 10, REMOVE BOLDER, INSTALL TYRE POS 10, RETORQUE NUT TYRE POS 5.6 & 9.10
6	20 Aug 2024	45524	DA25063	AXOR 2528 CX	3920	BRACKET TYRE LAMP	ADD ADBLUE 45 L, REPLACE BRACKET TYRE LAMP
7	25 Aug 2024	45529	DA25063	AXOR 2528 CX	3958	TYRE POS 7 (MATCH)	REPLACE TYRE POS 7.8, ADJUST PRESSURE, RETORQUE NUT
8	25 Aug 2024	45529	DA25063	AXOR 2528 CX	3967	RBD	REMOVE BOLDER POS 3.4
9	26 Aug 2024	45530	DA25063	AXOR 2528 CX	3981	AIRDRYER LEAKING	RE OILING AIRDRYER
10	27 Aug 2024	45531	DA25063	AXOR 2528 CX	3985	SERVICE 4000	CHECK FUEL LINE, CHECK SENSOR CRANKSHAFT, CHECK SENSOR CAMSHAFT, CHECK ELECTRICAL, CHECK CYLINDER HEAD, CHECK DALAMAN ENGINE
11	27 Aug 2024	45531	DA25063	AXOR 2528 CX	3985	SERVICE 4000	CHECK FUEL LINE, CHECK SENSOR CRANKSHAFT, CHECK SENSOR CAMSHAFT, CHECK ELECTRICAL, CHECK CYLINDER HEAD, CHECK DALAMAN ENGINE
12	27 Aug 2024	45531	DA25063	AXOR 2528 CX	3985	SERVICE 4000	AKUASI UNIT, MELEPAS HOSE PTO, MELEPAS PROPELLER SHAFT, MELEPAS AIR CLEANER, MELEPAS HOSE PTO, DRAIN OIL HIDRAULIK, MELEPAS CLUTCH BOOSTER, MELEPAS LEVER SHI
13	27 Aug 2024	45531	DA25063	AXOR 2528 CX	3985	SERVICE 4000	CHECK FUEL LINE, CHECK SENSOR CRANKSHAFT, CHECK SENSOR CAMSHAFT, CHECK ELECTRICAL, CHECK CYLINDER HEAD, CHECK DALAMAN ENGINE
14	27 Aug 2024	45531	DA25063	AXOR 2528 CX	3985	SERVICE 4000	CHECK FUEL LINE, CHECK SENSOR CRANKSHAFT, CHECK SENSOR CAMSHAFT, CHECK ELECTRICAL, CHECK CYLINDER HEAD, CHECK DALAMAN ENGINE

VIN MFJ400243NJ001273 Model series/model designation HDT
Order number License plate

Stored fault codes

Control unit: MRSKR

Code	Text	Status
00530	Engine overspeed	0.00 h STORED

Name	Current values (first/last)	Unit
Status of fault code	Fault not current	
Priority	Unknown status	
Operating hours counter	0.00	h

09144	Unit pump cylinder 2: smooth idle control within limit	0.00 h STORED
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Name	Current values (first/last)	Unit
Status of fault code	Fault not current	
Priority	Unknown status	
Operating hours counter	0.00	h

01822	Boost air temperature exceeded	0.00 h STORED
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Name	Current values (first/last)	Unit
Status of fault code	Fault not current	
Priority	Unknown status	

Tuesday, August 27, 2024 14:00:51

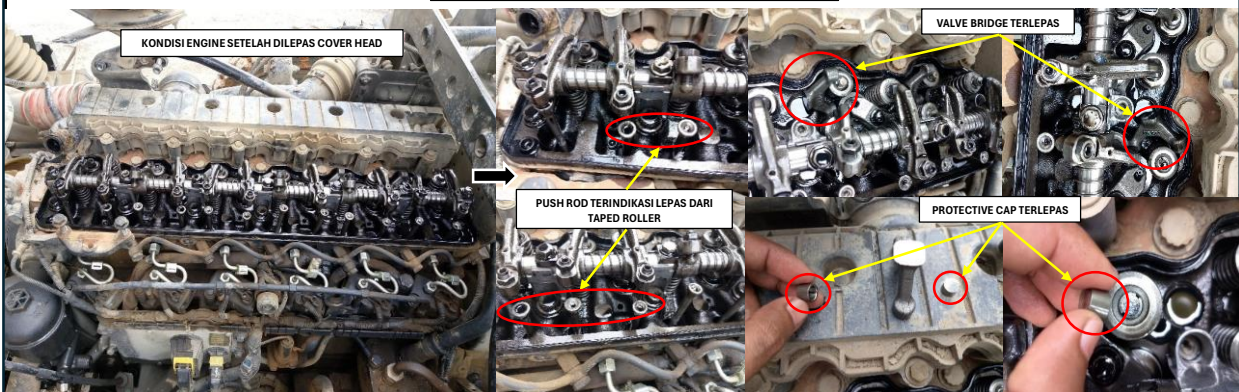
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Operating hours counter	0.00	h
00309	Crankshaft position sensor -//--	0.00 h STORED
Name	Current values (first/last)	Unit
Status of fault code	Fault not current	
Priority	Unknown status	
Operating hours counter	0.00	h

Filename: C:\TesterUpdate\Data\mmtactive\ DAS\bin\...trees\bharatbenz\m\mrdt2\lsgscreen-GFMRHDT_2.s
Cell co-ordinate: 5, 5

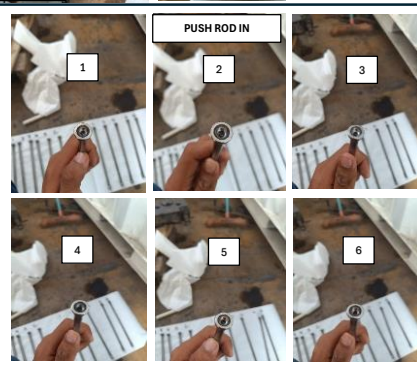
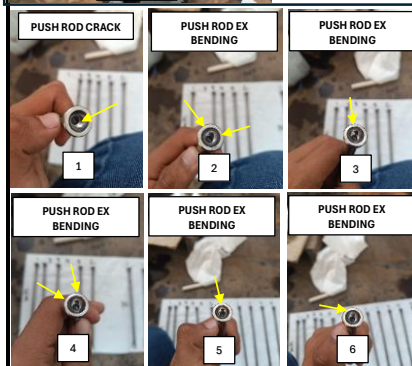
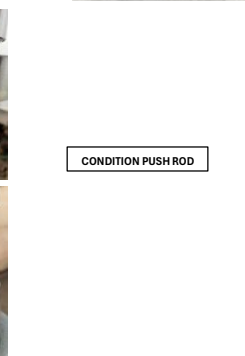
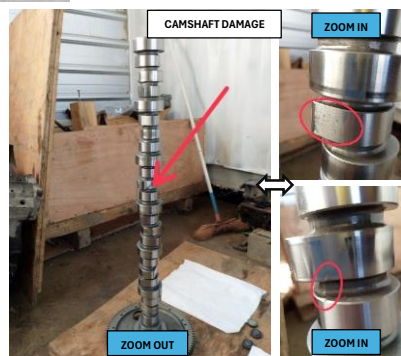
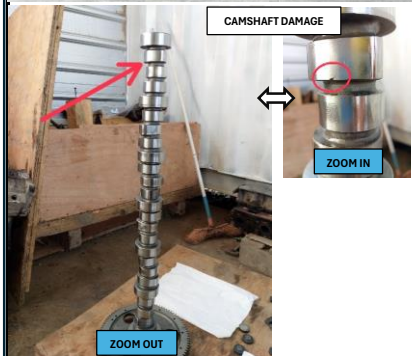
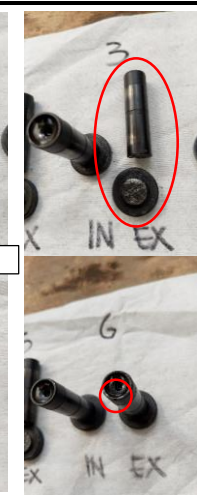
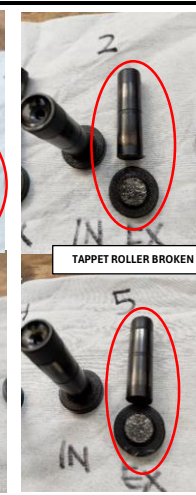
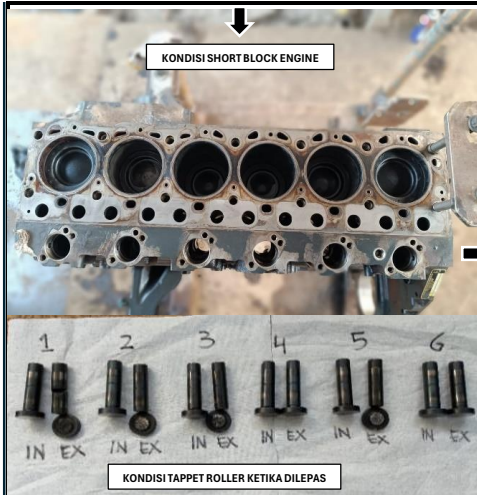
HISTORICAL UNIT PERNAH MENGALAMI "OVERSPEED/OVERRUNNING"

KONDISI HEAD CYLINDER KETIKA DILAKUKAN PENGECEKAN



INSPECTION AREA SHORT BLOCK ENGINE





ANALYSIS
Dari data yang dikumpulkan : unit can't start dikarenakan tappet roller yang patah dan berapa valve bridge yang tidak duduk diposisinya sehingga tidak bisa membuka valve dan tidak bisa terjadi pembakaran, setelah itu pengecekan pada xentry didapatkan juga data bahwa unit pernah mengalami overspeed, adanya indikasi overspeed/overrunning diperkuat dengan adanya temuan yang bisa dilihat dari kerusakan pada komponen seperti pada push rod yang bending, tappet roller broken, dan camshaft damage beberapa bagian. Terjadinya engine overspeed dapat terjadi dimana gear speed yang digunakan lebih rendah serta tidak disesuaikan dengan penggunaan engine brake, exhaust brake & brake sehingga menyebabkan putaran roda lebih tinggi dibandingkan dengan putaran Engine sehingga memutar Engine menyebabkan RPM Engine menjadi lebih tinggi dari standard (Overspeed)
STATUS WARRANTY
Dari hasil investigasi dimana unit pernah mengalami overspeed karena kesalahan operator bukan dari kesalahan product atau principle Mercedes Benz, maka status warranty REJECTED

STATUS ORDER SPAREPARTS
☐ WARRANTY ☒ NON WARRANTY

RECOMMENDED SPAREPARTS

DATA SPAREPARTS RECOMMENDED					
No	Part Number	Description			Qty
	Terlampir				

Created by  Didik Indriyanto Utomo Team Service	Checked by For  Prayoga Firdaus Warranty Officer	Validation by  Hanan FJ Technical Officer	Customer PT. PPA
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