

DAFTAR PUSTAKA

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LAMPIRAN

Lampiran 1 Foto unit, *undercarriage assy*, dan komponen *undercarriage*









Lampiran 2 Hasil PPU PT. Mutiara tanjung lestari selama 3 bulan Maret, April, Mei, Bulan Maret 2023

REGISTER REPORT: [BIN/MTL/EX2005/C695150029/III/23](#)

Undercarriage Inspection Report

Unit Number:

EX2005

PT. United Tractors Tbk

Customer Name:

PT MUTIARA TANJUNG LESTARI

Inspection Date :

31 Mar 23

Model:

PC30-8MR

Serial No:

C69515

S.M.R.

4375

Work Operation

PIT C1E

Inspection By :

ARI RYADI

Applic:

Mining

Land condition

COAL

Work condition

DIGGING

Working Hour/Day

18

Comment & Remarks:

Lakukan pembersihan secara rutin untuk menghindari premature life time

Components	Nominal Mass, Rebuild Limit	Measurement		% worn		LH Replacement Plan on	RH Replacement Plan on	H&M Install		Date Install		Life Time LH	Life Time RH	BRAND PARTS	
		Left	Right	Left	Right			Left	Right	Left	Right			Left	Right
	773.0	774.2	774.2	110%	110%	4 May 24	31 Mar 23	0	0	0-Jan-00	0-Jan-00	4375	4375	Komatsu	Komatsu
	105.0	97.1	97.1	99%	99%	31 Mar 23	4 May 24	0	0	0-Jan-00	0-Jan-00	4375	4375	Komatsu	Komatsu
	10.4	4.7	4.7	114%	114%	31 Mar 23	4 May 24	0	0	0-Jan-00	0-Jan-00	4375	4375	Komatsu	Komatsu
	26.0	22.2	22.2	38%	38%	3 May 23	3 May 23	0	0	0-Jan-00	0-Jan-00	4375	4375	Komatsu	Komatsu
	23.0	17.6	18.1	77%	70%	9 Jun 23	9 Jun 23	0	0	0-Jan-00	0-Jan-00	0	4375	Komatsu	Komatsu
	16.0	22.0	19.4	14%	51%	20 Apr 23	20 Apr 23	0	0	0-Jan-00	0-Jan-00	4375	0	Komatsu	Komatsu
	19.0	21.8	21.8	47%	47%	20 Aug 23	13 Sep 23	0	0	0-Jan-00	0-Jan-00	4375	4375	NON	NON
	25.0	0.0	0.0	80%	97%	17 Mar 24	14 Nov 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	41.2	41.2	55%	55%	6 Jan 22	6 Jan 22	0	0	3-Mar-17	3-Mar-17	4375	4375	Komatsu	Komatsu	
	41.2	41.2	55%	55%	6 Jan 22	6 Jan 22	0	0	3-Mar-17	3-Mar-17	4375	4375	Komatsu	Komatsu	
	41.2	41.2	55%	55%	6 Jan 22	6 Jan 22	0	0	3-Mar-17	3-Mar-17	4375	4375	Komatsu	Komatsu	
	41.2	41.2	55%	55%	6 Jan 22	6 Jan 22	0	0	3-Mar-17	3-Mar-17	4375	4375	Komatsu	Komatsu	
	41.2	41.2	55%	55%	6 Jan 22	6 Jan 22	0	0	3-Mar-17	3-Mar-17	4375	4375	Komatsu	Komatsu	
	41.2	41.2	55%	55%	6 Jan 22	6 Jan 22	0	0	3-Mar-17	3-Mar-17	4375	4375	Komatsu	Komatsu	

Component	Wear Percentage
Shoe Plate	28%
Carrier Rollers	52%
Idlers	47%
Sprockets	88%
Track Rollers	55%

Inspection Was Performed : **MANUAL & ULTRASONIC**

Inspection By

[ARI RYADI](#)
PSU OFFICER

Approved by

PT UNITED TRACTORS

Approved by

PT MUTIARA TANJUNG LESTARI

[INDRA](#)
PARTS ANALYST

[Hendrik Edo W](#)
PARTS DEPT HEAD

PLANT PLANNER

KA BAG PLANT

Bulan April 2023

REGISTER REPORT: [BIN/MT/EX2005/C89616/008/III/23](#)



**Undercarriage
Inspection Report**

Unit Number:
EX2005



PT. United Tractors Tbk

Customer Name:
**PT MUTIARA TANJUNG
LESTARI**

Inspection Date :
30 Apr 23

Model:
PC200-8HG

Serial No:
C89515

S.N.R:
23725

Wan Operator:
CPP SUARAN

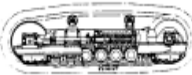
Inspector By :
ARI RIYADI

Applic:
Mining

Land condition:
COAL

Work condition:
DIGGING

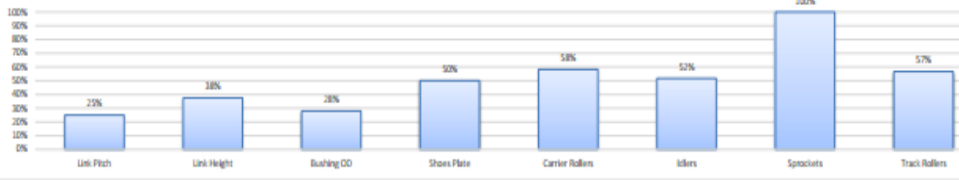
Working Hours/Day:
18



Comment & Summary:

Prepare LH sprocket wornout, Getalu jaga kebersihan Uc terutama Penumpukan Material Tanah Mengeras Di sekitar Carrier Roller Sehingga tidak Bertunggal Sebagaimana Mestinya

Components	Normal Meas- Rebuild Lmt	Measurement		% worn		LH Replacement Plan on	RH Replacement Plan on	HM Fristall		Date Fristall		Life Time		BRAND PARTS	
		Left	Right	Left	Right			Left	Right	Left	Right	Left	Right	Left	Right
	761,0	764,0	764,0	25%	25%	30 Apr 23	11 Mar 24	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	773,0														
	105,0	102,0	102,0	38%	38%	30 Apr 23	30 Jan 24	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	97,0														
	10,4	9,0	9,0	28%	28%	30 Apr 23	1 Mar 24	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	5,4														
	26,0	21,0	21,0	50%	50%	30 Apr 23	19 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	16,0														
	23,0	17,3	17,7	81%	76%	30 Apr 23	6 Sep 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	16,0														
	23,0	21,6	19,1	20%	56%	30 Apr 23	28 Mar 24	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	16,0														
	19,0	22,1	22,1	52%	52%	30 Apr 23	13 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	25,0														
	0,0	5,1	6,9	85%	115%	30 Apr 23	24 Agu 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	6,0														
	44,5	41,1	41,1	57%	57%	27 Nov 23	27 Nov 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
		41,1	41,1	57%	57%	27 Nov 23	27 Nov 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
		41,1	41,1	57%	57%	27 Nov 23	27 Nov 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
		41,1	41,1	57%	57%	27 Nov 23	27 Nov 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
		41,1	41,1	57%	57%	27 Nov 23	27 Nov 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
		41,1	41,1	57%	57%	27 Nov 23	27 Nov 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	38,5														



Component	Wear %
Link Pinch	25%
Link Height	38%
Bushing OD	28%
Shoes Plate	50%
Carrier Rollers	58%
Idlers	52%
Sprockets	100%
Track Rollers	57%

Inspection Was Preformed : **MANUAL & ULTRASONIC**

Inspection By

ARI RIYADI
PSU OFFICER

Aproved by
PT UNITED TRACTORS

Aproved by
PT MUTIARA TANJUNG LESTARI

INDRA
PARTS ANALYST

PARTS DEPT HEAD

PLANT PLANNER

KA BAG PLANT

44

Bulan Mei 2023

REGISTER REPORT: [BIN/MTL/EX2005/C69515/009/MW23](#)



Undercarriage
Inspection Report

Unit Number:
EX2005



PT. United Tractors Tbk

Customer Name:
**PT MUTIARA TANJUNG
LESTARI**

Inspection Date :
31 Mei 23

Model:
PC200-8H8

Serial No:
C69515

S.M.C:
23725

Work Order:
CPP SUARAN

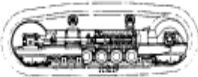
Inspection By :
ARI RIYADI

Applic:
Mining

Land condition:
COAL

Work condition:
DIGGING

Working Hour/Day:
18



Comment & Remarks :
Prepare LH sprocket wornout, Selalu jaga kebersihan Uc terutama Penumpukan Material Tanah Mengeras Di sekitar Camter Roller Sehingga tidak Berfungsi Sebagaimana Mestinya

Components	Nominal Meas- Rebuild Limit	Measurement		% worn		LH Relocement Plan on	RH Relocement Plan on	HM Fnstall		Date Fnstall		Life Time LH	Life Time RH	BRAND PARTS	
		Left	Right	Left	Right			Left	Right	Left	Right			Left	Right
 Sprocket	781,0	768,0	767,0	58%	50%	31 Mei 23	22 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	773,0														
 Roller	105,0	101,0	101,0	50%	50%	31 Mei 23	19 Jan 24	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	97,0														
 Bushing	18,4	8,5	8,5	38%	38%	31 Mei 23	28 Feb 24	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	5,4														
 Shims Right	26,0	20,0	20,0	60%	60%	31 Mei 23	17 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	16,0														
 Camter Roller LH	23,0	17,0	17,3	86%	81%	31 Mei 23	22 Sep 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	16,0														
 Camter Roller RH	23,0	21,2	18,7	26%	61%	31 Mei 23	9 Apr 24	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	16,0														
 Idler	19,0	23,0	23,0	67%	67%	31 Mei 23	24 Nov 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	25,0														
 Track Roller	0,0	5,9	1,5	98%	25%	31 Mei 23	11 Agu 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu
	6,0														
 Track	40,9	40,9	60%	60%	17 Dec 23	17 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu	
	41,1	40,9	57%	60%	17 Dec 23	17 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu	
	41,3	40,9	53%	60%	8 Jan 24	17 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu	
	41,5	40,9	50%	60%	19 Jan 24	17 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu	
	41,7	40,9	47%	60%	30 Jan 24	17 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu	
	41,9	40,9	43%	60%	10 Feb 24	17 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu	
	42,1	40,9	40%	60%	21 Feb 24	17 Dec 23	0	0	0-Jan-00	0-Jan-00	0	0	Komatsu	Komatsu	
	38,5														



Component	Wear %
Link Pitch	54%
Link Height	50%
Bushing OD	38%
Shims Plate	60%
Camter Rollers	64%
Idlers	67%
Sprockets	67%
Track Rollers	55%

Inspection Was Performed : **MANUAL & ULTRASONIC**

Inspection By

[ARI RIYADI](#)
P2U OFFICER

Aproved by
PT UNITED TRACTORS

Aproved by
PT MUTIARA TANJUNG LESTARI

[NIDBA](#)
PARTS ANALYST

PARTS DEPT HEAD

PLANT PLANNER

KA BAG PLANT

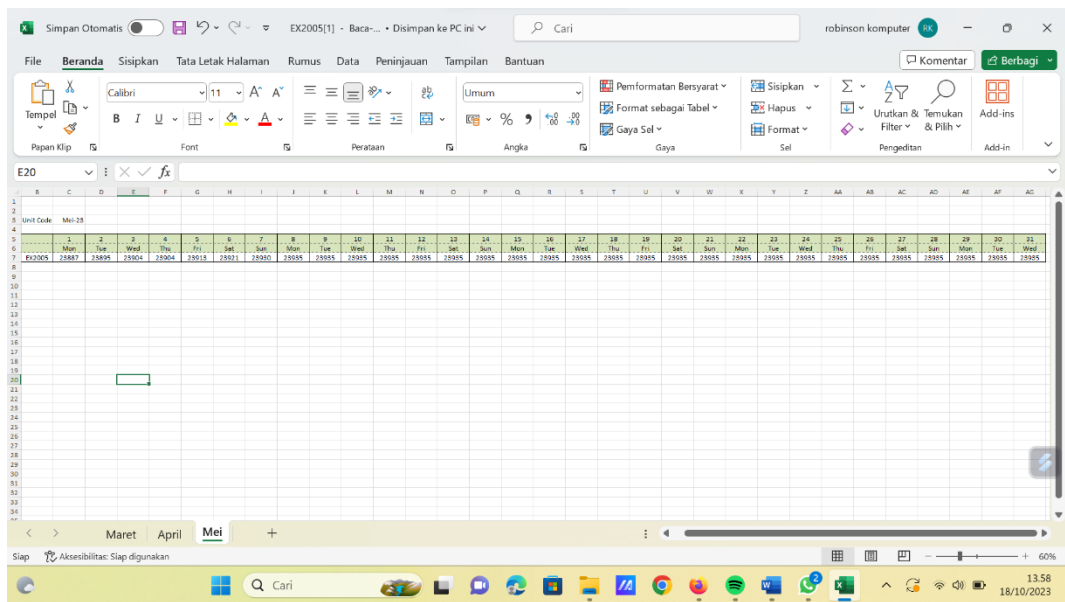
Lampiran 3 Hm unit PC 2005 bulan Maret, April, Mei
Hm unit PC 2005 bulan Maret

The screenshot shows the Microsoft Excel application window. The title bar indicates the file is 'EX2005[1] - Baca...' and it is saved to the PC. The ribbon is set to 'Beranda' (Home). The calendar for March 2005 is visible, starting from Sunday, March 1st, and ending on Saturday, March 26th. The calendar is displayed in a grid format with days of the week and dates. The status bar at the bottom shows the date 18/10/2023 and the time 13:57.

Hm unit PC 2005 bulan April

The screenshot shows the Microsoft Excel application window. The title bar indicates the file is 'EX2005[1] - Baca...' and it is saved to the PC. The ribbon is set to 'Beranda' (Home). The calendar for April 2005 is visible, starting from Sunday, April 1st, and ending on Saturday, April 23rd. The calendar is displayed in a grid format with days of the week and dates. The status bar at the bottom shows the date 18/10/2023 and the time 13:56.

Hm unit PC 2005 bulan Mei



POLITEKNIK SINAR MAS
BERAU COAL

BIODATA PENULIS



Akhmad Fauzan Azhim, dilahirkan di Maros, 30 Januari 2002. Penulis merupakan anak pertama dari dua bersaudara. Penulis telah menempuh pendidikan formal di SDN 013 Tanjung Redeb, SMPN 034 Tanjung Redeb, dan SMAN 07 Berau. Penulis meneruskan pendidikan di Program Studi Perawatan Mesin pada tahun 2020 dan terdaftar dengan NIM 20303007. Dalam masa perkuliahannya, penulis aktif di berbagai bidang non akademik. Pada tahun 2022, penulis melaksanakan kegiatan KPI (Kuliah Praktik Industri) di PT Mutiara Tanjung Lestasri selama 3 bulan. Lalu pada tahun 2023 penulis menjalankan kegiatan Prakerin (Praktik Kerja Industri) selama 4 bulan di CV Hevy Equipment Service. Pada akhir tahun perkuliahan, penulis menyusun tugas akhir dengan judul “ANALISIS PENYEBAB KERUSAKAN KOMPONEN UNDERCARRIAGE PADA UNIT KOMATSU PC 200-8 MENGGUNAKAN METODE FAILURE MODE and EFFECT ANALYSIS (FMEA) ”. Untuk keperluan penelitian, penulis dapat dihubungi melalui e-mail: akhmadfauzan2630102@gmail.com.

**POLITEKNIK SINAR MAS
BERAU COAL**



SURAT KETERANGAN

Saya yang bertandatangan di bawah ini:

Nama Lengkap : Hasamadin.

Jabatan : Dept Head.

Departemen : Plant Maintenance

Perusahaan : PT MTL

Menerangkan bahwa:

Nama Lengkap : AKHMAD FAUZAN AZHIM

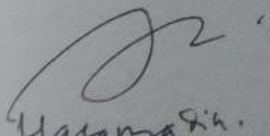
NIM : 20303007

Program Studi : perawatan mesin

Yang bersangkutan telah diizinkan melakukan penelitian di perusahaan/instansi kami guna penyusunan Tugas Akhir dan penelitian tersebut dapat dipublikasikan dalam *repository* perguruan tinggi/jurnal ilmiah.

Demikian surat keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

Berau, 30-10-2023


(Hasamadin.)

