

DAFTAR ISI

	Halaman
HALAMAN JUDUL	i
HALAMAN PERNYATAAN KEASLIAN	ii
HALAMAN PERSETUJUAN	iii
HALAMAN PENGESAHAN	iv
KATA PENGANTAR	v
HALAMAN PERNYATAAN PUBLIKASI KARYA ILMIAH	vi
ABSTRAK	vii
DAFTAR ISI	ix
DAFTAR TABEL	xii
DAFTAR GAMBAR	xiii
DAFTAR LAMPIRAN	xiv
BAB I	1
1.1 Latar Belakang	1
1.2 Perumusan Masalah	2
1.3 Manfaat dan Tujuan Penelitian	2
1.4 Batasan Masalah	2
1.5 Sistematika Penulisan	2
BAB II	4
2.1 Perawatan	4
2.2 Identifikasi Reliability Centered Maintenance (RCM)	5
2.3 Tujuan Reliability Centered Maintenance (RCM)	6
2.4 Manfaat Reliability Centered Maintenance (RCM)	6
2.5 Langkah Implementasi RCM	6
2.6 Funtional Block Diagram	7
2.7 Failure Effect and Mode Analysis (FMEA)	8
2.8 Logic Tree Analysis (LTA)	12
2.9 Task Selection	13
2.10 RCM Worksheet	13
2.11 TTR (Time To Repair) dan TTF (Time To Failure)	16

2.12	Distribusi Normal.....	16
2.13	Distribusi Log Normal.....	16
2.14	Distribusi Eksponensial.....	16
2.15	Distribusi Weibull.....	16
2.16	Mean Time To Failure (MTTF).....	16
2.17	Mean Time To Repair (MTTR).....	17
BAB III.....		18
3.1	Tempat dan Waktu Penelitian.....	18
3.2	Tahapan Penelitian.....	18
3.2.1	Identifikasi Masalah.....	18
3.2.2	Studi Pustaka.....	18
3.2.3	Tujuan Penelitian.....	18
3.2.4	Pengumpulan Data.....	18
3.2.5	Objek Penelitian.....	18
3.2.6	Functional Block Diagram (FBD).....	19
3.2.7	Failure Mode and Effects Analysis (FMEA).....	19
3.2.8	Logic Tree Analysis (LTA).....	19
3.2.9	Task Selection.....	19
3.2.10	Analisa RCM (Realibility Centered Maintenance).....	19
3.2.11	TTR dan TTF.....	19
3.2.12	Uji Distribusi.....	19
3.2.13	MTTF dan MTTR.....	19
3.2.14	Kesimpulan dan Saran.....	19
3.3	Kerangka Berfikir.....	19
BAB IV.....		21
4.1	Latar Belakang Perusahaan dan Produk yang dihasilkan.....	21
4.1.1	Latar Belakang Perusahaan.....	21
4.1.2	Produk yang Dihasilkan.....	23
4.2	Mesin Polish.....	23
4.3	Objek Penelitian.....	24
4.3.1	Komponen Sub-Sistem dan History Kerusakan Mesin Polish.....	24
4.4	Funtional Block Diagram.....	26

4.5	Failure Mode and Effect Analysis	27
4.5.1	Failure Mode	27
4.5.2	Cause Of Failure	28
4.5.3	Effect Of Failure	29
4.5.4	Nilai RPN (Risk Priority Number)	30
4.6	Logic Tree Analysis	33
4.7	Task Selection	36
4.8	RCM Decision Worksheet	39
4.9	TTF (Time To Failure) dan TTR (Time To Repair)	41
4.10	Pengujian Distribusi dan Parameter	42
4.11	Perhitungan Nilai Mean Time To Failure (MTTF) dan Nilai Mean Time To Repair (MTTR) Pada Komponen Mesin Polish	43
4.11.1	Tabung Bearing	43
4.11.2	V-belt	44
4.11.3	As Samping	44
4.11.4	As Tengah	45
4.12	Perhitungan Waktu Pemeriksaan Optimal Pada Komponen Mesin Polish	47
4.12.1	Tabung Bearing	47
4.12.2	V-belt	48
4.12.3	As Samping	49
4.12.4	As Tengah	51
BAB V	54
5.1	Kesimpulan	54
5.2	Saran	54
DAFTAR PUSTAKA	55

DAFTAR TABEL

Tabel 2. 1 Severity	9
Tabel 2. 2 Occurance	10
Tabel 2. 3 Detection.....	11
Tabel 4. 1 Komponen Sub-Sistem Mesin Polish.....	24
Tabel 4. 2 Nama Komponen mesin	26
Tabel 4. 3 Jenis Kegagalan.....	27
Tabel 4. 4 Penyebab Kegagalan	28
Tabel 4. 5 Akibat Kegagalan.....	29
Tabel 4. 6 RPN (Risk Priority Number)	31
Tabel 4. 7 FMEA	32
Tabel 4. 8 Logic Tree Analysis	35
Tabel 4. 9 Task Selection	38
Tabel 4. 10 RCM Worksheet Arm Mesin Polish.....	40
Tabel 4. 11 RCM Worksheet Table Polish Assembly	40
Tabel 4. 12 Data TTR dan TTF.....	41
Tabel 4. 13 Rekapitulasi Pengujian Pola Distribusi Interval kerusakan	42
Tabel 4. 14 Perhitungan Parameter MTTR Tabung Bearing	43
Tabel 4. 15 Perhitungan Parameter MTTR AS Samping.....	45
Tabel 4. 16 Perhitungan Parameter MTTR As Tengah	46
Tabel 4. 17 MTTF DAN MTTR.....	46
Tabel 4. 18 Interval Waktu.....	47
Tabel 4. 19 Penjadwalan Pemeriksaan Komponen Mesin Polish	53

DAFTAR GAMBAR

Gambar 2. 1 Skematik Pembagian Perawatan.....	5
Gambar 2. 2 Contoh Functional block diagram (Putra,2011)	8
Gambar 2. 3 Contoh lembar kerja FMEA (Putra, 2011).....	12
Gambar 2. 4 contoh penentuan kriteria konsekuensi (Moubray,2000).....	14
Gambar 2. 5 Penentuan kondisi Proactive task dan Default task (Moubray, 2000)	15
Gambar 2. 6 Contoh Decision Worksheet (Moubray, 2000)	15
Gambar 3. 1 Kerangka Berfikir	20
Gambar 4. 1 Struktur Organisasi PT. INDOMETAL SEDJATI ENT.LTD.....	22
Gambar 4. 2 Produk PT. INDOMETAL SEDJATI ENT.LTD.....	23
Gambar 4. 3 Mesin Polish	23
Gambar 4. 4 Function Block Diagram Mesin Polish.....	26
Gambar 4. 5 Struktur Pertanyaan Logic Tree Analys	34
Gambar 4. 6 Road To Map Pemilihan Tindakan Pemeliharaan	37

DAFTAR LAMPIRAN

<i>Easyfit.5.5 1 Tabung bearing</i>	57
Easyfit.5.5 2 V-belt	59
Easyfit.5.5 3 As samping	61
Easyfit.5.5 4 As tengah	63

