

LIST OF FIGURES

Figure 1.1 Waste Tire Rolls and EPDM Rubber Waste	2
Figure 1.2 Output of Machine Crusher (Granules)	3
Figure 1.3 Flowchart Crusher Machine Operation.....	4
Figure 2.1 Tire Structure	8
Figure 3.1 Conceptual Method.....	17
Figure 3.2 Systematics Problem Solving.....	19
Figure 4.1 Manually Filtering Granules	23
Figure 4.2 Crusher Machine PT. XYZ	24
Figure 4.3 Ergonomic Objective Tree	25
Figure 4.4 Performance Objective Tree	26
Figure 4.5 Suitability Objective Tree	26
Figure 4.6 Continuous Improvement Objective Tree.....	26
Figure 4.7 Black Box Design	27
Figure 4.8 Transparent Box	27
Figure 4.9 Design 1	35
Figure 4.10 Design 2	36
Figure 4.11 Dimension Tool.....	40
Figure 4.12 Filter	40
Figure 4.13 Electric motor.....	40
Figure 4.14 Located of Crusher Machine.....	41
Figure 4.15 Drive Pulley System.....	41
Figure 4.16 Iron Material.....	41
Figure 4.17 RULA Analysis.....	46
Figure 4.18 Stress Analysis of Base Machine	47
Figure 4.19 Stress Analysis of Sieve Separator.....	47
Figure 4.20 The Slop of Filter	42
Figure 4.21 Existing Electric Motor	43
Figure 4.22 Output of Small Granules	43
Figure 4.23 Replacement of the previous electric motor engine.....	44