

Final Project Report

TITLE: IMPROVEMENT OF OVERALL EFFICIENCY OF WELDING LINE

MOHD RAHMAT BIN ABD JALIL 2004307310

Project Advisor:

PN. AZIANTI ISMAIL

FACULTY OF MECHANICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
(UiTM)

MAY 2009

"I declared that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitt in candidate of any degree."

Signature:

Date: !! / 05 / 09

Mohd Rahmat Bin Abd Jalil UiTM No.: 2004307310

ACKNOWLEDGEMENT

Alhamdulillah, I have been blessed in the ability and accessibility given to me in completing this thesis. I would like to express my sincere gratitude and appreciation neither to my supervisor, Puan Azianti Ismail, and also my co-supervisor, En Noor Zaidee Affendee Mohd Nor for their generous guidance, help, encouragement and patience in the duration of the thesis preparation until its completion. Also, thank you to my beloved mum and dad encouraging and support me to fulfill the thesis. To my beloved wife, Normah Binti Ahmad, she helped me figure out correct documentation for sources that did not fit the *Research Guide* examples. To my friend Suhaini, RSP Nathan (Frame welding line executive), Nur Shamsul (Frame welding line leader), Azmeer (Plant Facilities and Maintenance Group leader), En. Arman Abdullah (Manufacturing Manager) and everyone who involved and the extreme generosity they have shown me through their help and unconditional care for me. Thank you once again.

ABSTRACT

This project is about the improvement of overall efficiency of Toyota Boshoku UMW welding line 2 that focus on these four elements; Man, Method, Machine and Material. Two main problems have been highlighted which are high stock level of IMV seat frame and low actual working hours. More work have been covered in improving the current work standard, movements of worker, quality control, equipment and the welding process itself. Toyota Production System approach such as Set Part Supply (SPS), Just In Time (JIT), manpower flexible line (Shojinka) and production by tact time has been applied in this project. The benefit from this project is to reduce stock level and to improve actual working time thus will save space for other production projects and also will eliminate waste.

TABLE OF CONTENTS

	CONTENT	ΓS	PAGE
	PAGE TIT	LE	1
	ACKNOWLEDGEMENT ABSTRACT TABLE OF CONTENTS LIST OF TABLES LIST OF FIGURES		ii iii
			iv
			V111
			ix
	LIST OF G	RAPH	x
	LIST OF C	ALCULATION	х
CHAPTER I	INTRODUCTION		
	1.0 Back	ground	1
	1.1 Prob	lem Statement	3
	1.2 Scop	e of Work	3
	1.3 Signi	ficance of Project	4
	1.4 Proje	ct Methodology	5
CHAPTER II	LITERATI	J RE REVIEW	
CHAI IERH	DITERAL	ONE NEVIEW	
	2.0 Toyot	a Production System / Lean Production	6