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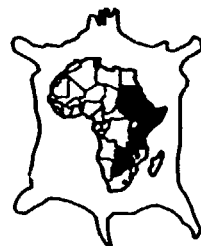
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REGIONAL AFRICA
REGIONAL AFRICA LEATHER AND FOOTWEAR INDUSTRY SCHEME

US/RAF/92/200/11-65

TECHNICAL REPORT (*)

ETHIOPIA

6 - 19 December 1994

Based on the work of

Marco Melotti
Shoe Machinery Mechanic/Engineer

Backstopping officers: **Aurelia Calabrò**
Agro-Based Industries Branch

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REPORT ON WORK PERFORMED AT ANBESSA SHOE FACTORY

INTRODUCTION

I, the undersigned Marco MELOTTI, came to Ethiopia by UNIDO basis to assess and solve general problems of the a.m. shoe factory.

I was in charge of making controls for good maintenance of machines for a general training and a correct work sequency within Anbessa Shoe Factory.

I had to brief the maintenance personnel and operators to have general view how to implement and ulitize the machines and re-arrange the sequence of work flow.

My working period being had from 6-12-94 to 19-12.94.

Since the factory's problems are many, I couldn't finish all what necessary to be done. Somehow, I maintained and adjusted plenty of various machines to use them with full capacity.

The technical personnel were seriously told about the importance of giving several machines under their responsability so that implementation and follow-up will be facilitated.

I can confirm that the technicians are not well trained; that is to say their technical knowledge is at the level of African Standard, therefore I would like to recommend that further training is needed for all mechanics and electricians mainly on hydraulics, pneumatics and electronics.

Most of them are unfamiliar with the new technology born computerized machines.

Marco Melotti

OBSERVATIONS

PREPARATION AND UPPER STITCHING SECTION

1. Very slow initial upper splitting work. Machine is very old and not precise on thicknesses.
2. Skiving machines are old but in good conditions and make a good skiving work.
3. Folding/stitching machines in good condition to execute the required operations.
4. Bad eyeletting machines functioning, as spare parts non suitable. The work is done with 2 operations : upper perforating and eyelet application.

CUTTING SECTION

1. Machines found in good working conditions.
It is advisable the cutting board are often substituted in order to avoid the cutting knives breakage.

SOLES/INSOLES SECTION

1. Correct work sequency.
Machines found in good working conditions, but they are very old and without any security devices for the worker who should be carefull to protect himself from injury.
Proper advise has been given to supervisor to eliminate the little defects on insole to get a better result on shoe lasting.

LASTING SECTION (CONVEYOR NO. 1 - LADIES/CHILDREN)

1. Advise has been given to modify the outside counter which was not suitable to the upper.
2. Bad front-side lasting; machines have to be substituted.
3. Sides lasting machine in good condition
4. Heel lasting without nails and shoe looses consistency.
5. Good daily production : 800-850 pair
6. On all conveyors the lasting section has to be much improved, this bcs of unexper'ence of workers or bcs of very old machines.

John J. Miller

RECOMMENDATIONS

1. At the moment all mechanics and electricians are responsible for the maintenance, but there is no one who is responsible for specific section.
2. They work in poor condition, without having enough tools and insufficient spare parts.
3. It must be given full responsibility to one mechanic and to one electrician for any section providing them with all necessary tools for maintenance and repairing machinery in their responsible section.
4. It is advisable for the factory to import the necessary spare parts and then to bring a shoe technology expert man for re-arranging the work flow and to upgrade the factory production.
5. Most of the machinery has to be changed since they are old.

THE ADJUSTMENT OF MECHANICS AND ELECTRICIAN SHOULD BE DONE AS FOLLOWS:

	RESPONSIBLE	TITLE	QUALIFICATION
1. SOLE/INSOLE/CUTTING SECTION			
One mechanic	Name	.....	.....
One electrician	Name	.....	.....
2. PREPARATION/STITCHING SECTION			
One mechanic	Name	.....	.....
One electrician	Name	.....	.....
3. LASTING SECTION I II III			
Three mechanics	Name	.....	.....
One electrician	Name	.....	.....

Alau *Ch. M. S.*

**MACHINES TO BE SUBSTITUTED/PURCHASED FOR A BETTER WORK RESULT AND
FOR WORKER SECURITY**

SOLES/INSOLES SECTION

No. 1	shank bevelling machine	(to be purchased)
No. 1	tunit sole skiving machine	(to be purchased)
No. 2	arm cutting machines	(to be substituted)
No. 3	beam cutting machines	(to be substituted)
No. 1	box soles roughing machine	(to be purchased)
No. 1	set of moulds for roughing	(to be purchased)
No. 1	pair of insoles for children	(to be purchased)
No. 1	pair of ladies moulds, heel mm. 70	(to be purchased)
	Tough cardboard for shank	(to be purchased)
	Latex cement for shank and insole	(to be purchased)

UPPER/LININGS CUTTING SECTION

No. 5	aluminium plates for machine 999/4	(to be purchased)
	Resin and nylon cutting boards	(to be purchased)

UPPER PREPARATION AND STITCHING SECTION

No. 1	upper splitting machine	(to be substituted)
No. 1	eyeletting machine	(to be purchased)
No. 2	skiving machines	(to be purchased)
No. 1	automatic conveyer 20 mt.	(to be purchased)

LASTING SECTION

CONVEYOR NO. 1

No. 1	insoles fixing machine + trimmer	(to be purchased)
No. 2	tack lasting machines	(to be substituted)
No. 1	upper umidifier	(to be purchased)
No. 1	humidity and drying furnace	(to be substituted)
No. 1	heel seat pounding machine	(to be purchased)
No. 1	blower	(to be substituted)

CONVEYOR NO. 2

No. 1	insoles fixing machine + trimmer	(to be purchased)
No. 1	upper edge cementing machine	(to be substituted)
No. 1	beating machine	(to be purchased)
No. 1	heel seat pounding machine	(to be purchased)
No. 1	blower	(to be substituted)
No. 1	upper roughing machine	(to be purchased)
No. 2	brushing machines	(to be purchased)

Olavo Miller

CONVEYOR NO. 3

No. 1	Insoles fixing machine + trimmer	(to be purchased)
No. 1	tack lasting machine	(to be substituted)
No. 1	brushing machine	(to be purchased)
No. 1	upper roughing machine	(to be purchased)
No. 1	upper edge cementing machine	(to be purchased)
No. 1	neoprene cement waist lasting mc.	(to be purchased)
No. 1	blower	(to be purchased)
No. 1	beating machine (for lady)	(to be purchased)
No. 1	assembled shoe roughing machine	(to be substituted)
No. 1	humidity and drying furnace	(to be purchased)
No. 1	heel seat pounding machine	(to be purchased)
No. 1	soles cutting machine	(to be substituted)
No. 1	heels cutting machine	(to be substituted)
No. 2	brushing machines	(to be substituted)
No. 1	conveyor mt. 25	(to be substituted)
No. 1	air dryer	(to be purchased)

FINISHING SECTION

No. 2	heel seat cementing machine	(to be purchased)
No. 2	spraying cabinet	(to be substituted)
No. 1	heel seat marking machine	(to be substituted)

J. H. ...

LIST OF SPARE PARTS TO BE PURCHASED

For machine model 107/C78N

- Belt abrasive mm. 1340x80 pcs 160

For machine model 756

- part no. 12.368 (cylinder) pcs 1
 - part no. 12.178 (spring) pcs 10
 - part no. 7025.010.1 (microswitch) pcs 4

For machine model FAR 3

- FT - 21 Quarz resistance FQ/20 pcs 10
 - FP - 18 potentiometer pcs 3
 - FAR- 16 tension regulator pcs 2

For hot blower model 194/151

- Resistance 380V pcs 5
 - Catalogue in English pcs 1

For machine model 25/292

- Part no. 1.001.15 resistance pcs 3
 - Part no. 1.100.50 pcs 4
 - Part no. 4.286.91 thermoregulator pcs 4

For machine model 05/F2R

- 85397-05 heating element pcs 2
 - 85308-05 heating element pcs 2
 - heat sensor for outer pad pcs 2

For machine model K78

- Part no. 923075.2 heating element pcs 4
 - Part no. 73709.00 plate pcs 3
 - pincer spring pcs 15
 - Part no. 35166.00 guiding plate pcs 1
 - Part no. 35165.10 guiding plate pcs 1
 - Part no. 910032.0 millstone pcs 2
 - Part no. 35440.00 guiding square pcs 1
 - Part no. 72701.00 block pcs 1
 - Part no. 72702.00 block pcs 1
 - Part no. 910008.0 millstone pcs 2
 - Part no. 72703.00 millstone pcs 1
 - Part no. 35473.00 teflon bend pcs 3
 - Part no. 73024.20 rod pcs 2

Almas *Ch. Kelly*

For machine model 795/KRCT

- CPU relay (Coeroo6)	pcs	2
- Microswitch 83101	pcs	4
- matrix for man/lady	pcs	2
- spring 1230	pcs	2
- part no. 12431	pcs	2
- part no. 12494	pcs	2
- nail size 8 mm	kg.	70
- nail size 9 mm	kg.	30

For machine model 191

- needle screw (11-174086-15)	pcs	10
- hook (91-010161-05)	pcs	3
- tension spring (91-010023-05B)	pcs	6

For machine model 491-755/13

- needle screw (11-108093-15)	pcs	8
- hook complete (91-119742-91)	pcs	3

For machine model 474-755-11

- part no. 91-058-345-04x2.0b	pcs	3
- part no. 91-058-347-04x2.0b	pcs	3
- part no. 91-058-347-04x1.6b	pcs	3

For machine model 1244-944-01

- part no. 91-460-195-04x1.6b	pcs	3
- part no. 91-460-196-04x2.4b	pcs	3

For machine model Plastak

- ladies mould 34-35	pcs	2
36-37	pcs	4
38-39	pcs	2

For machine model FAS 7B

- puncher	pcs	1
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TYPE OF MOULDS NEEDED FOR SOLE INJECTION MACHINES SP/45

- French style 39-45 40x30x10mm. art.333	pcs	7
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Miano M. S. S.

SENIOR COUNTERPART STAFF

1. **MANAGER OF THE FACTORY**
Name : ATO MIFTAH SURUR
Prof. : B.A. DEGREE IN ACCOUNTING
Title : GENERAL MANAGER
Adress: ANBESSA SHOE FACTORY PO BOX 1641
2. **PRODUCTION DEPARTMENT MANAGER**
Name : ATO ALEMU MAMO
Prof. : SHOE TECHNOLOGY
Title : PRODUCTION MANAGER
3. **SECTIONS RESPONSIBLE PEOPLE**
 - a. **SOLES/INSOLES PREPARATION SECTION**
Foreman: GIRMA BEKELE
MELESE MAMO
 - b. **UPPER CUTTING SECTION**
Foreman: BEKELE DEGU
 - c. **STITCHING SECTION**
Foreman: KEBERE KINORE
BERHANU MELKA
 - d. **LASTING SECTION (CONVEYOR NO.1)**
Foreman: MEKONNEN ASFAW
10th grade - training in Italy

(CONVEYOR NO. 2)
Foreman: TAFESE G/MICHAEL
12th grade completed

(CONVEYOR 3)
Foreman: BELETE BEKELE
12th grade completed
SHERMOLO ARGAN
A/head of con. 3

Atanu Ch. Akbar

- e. FINISHING SECTION
Foreman: TSEGAYE REGITO
4. TECHNICAL DEPARTMENT
Name : ATO ALULA ANDARGIE
Title : TECHNICAL MANAGER
5. MECHANICAL SECTION
- a) SEWINET TADAGEW
GENERAL MECHANIC DIPLOMA
HEAD OF MECHANICAL SECTION
- b) BERHANU TAYE
GENERAL METAL WORK DIPLOMA
MAINTENANCE OFFICER
- c) ATNAFU HAILEMARIAM
GENERAL MECHANICS DIPLOMA
SHIFT LEADER (SUPERVISOR)
- d) TELAHUN NEGATU
GENERAL MECHANICS DIPLOMA
MECHANICAL INSPECTOR
- e) ZERIHUN GEBRE
AUTO MECHANIC DIPLOMA
MECHANIC
- f) EMEBIET ESHETE
JUNIOR MECHANIC DIPLOMA
MECHANIC
- g) ABAYNEH G/MARIAM
JUNIOR MECHANIC DIPLOMA
MECHANIC

Atanu Alula

6. ELECTRICAL SECTION

- a) DABESA ERENZO
N.P.C. 6 MONTHS COURSE CERTIFICATE
HEAD OF ELECTRICAL SECTION
- b) MULUGETA GASHAN
DIPLOMA IN ELECTRICITY
ELECTRICIAN
- c) TSEFAYE KEBEDE
DIPLOMA IN ELECTRICITY
SENIOR ELECTRICIAN
- d) BOGALE ALEMAYEHU
DIPLOMA IN ELECTRICITY
ELECTRICIAN
- e) TSEHAY MESFEN
DIPLOMA IN ELECTRICITY
ELECTRICIAN
- f) FIRKE ABEBE
DIPLOMA IN ELECTRICITY
JUNIOR ELECTRICIAN
- g) ADMASSU TEDLA
DIPLOMA IN ELECTRICITY
JUNIOR ELECTRICIAN

7. MODELIST
KASSA MENGISTU

8. PLANING AND CONTROL
- MULUYE TAMRAT
 - INDUSTRIA ENGINEERING

Mawo Chibbe