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OCCASION

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22553

PERROS

INDUSTRIALE



PROGRESS

THROUGH

ECOLOGY

UNIDO PROJECT NUMBER MP/IRA/94/403

**PHASING-OUT OF CFC-11 FOAM BLOWING AGENT TO
CYCLOPENTANE IN THE PRODUCTION OF REFRIGERATORS AT
THE BAHMAN MANUFACTURING Co.
TEHRAN, IRAN
AMENDMENT A TO CONTRACT NO. 95/060**

FINAL REPORT

**Report covering the installation and commissioning of the
replaced mixing heads and including the Safety Certificates**

INSTALLATION AND COMMISSIONING OF FOUR KM INJECTION HEAD IN REPLACEMENT OF PREVIOUS DESIGN AT BAHMAN

In this section we summarize all the actions we did to install four mixing heads in order to replace the previous mixing heads:

- The four KM mixing heads are successfully installed and now they are in operation.
- Starting from 19/07/2001 the plants have successfully started to produce according to the technical specifications foreseen in the contract
- During the modification, assembly, commissioning and final start-up of the plants, Perros has provided to give BAHMAN technicians all possible instruction

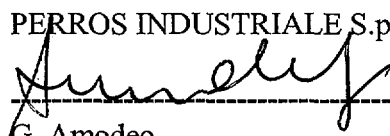
Here below the report signed by the representative of Bahman Manufacturing Co. with the Certificate of Final Acceptance (Safety Inspection Report)

PERROS INDUSTRIALE S.p.A.



A. Fogliaro
Sales Department

PERROS INDUSTRIALE S.p.A.



G. Amodeo
General Manager

CERTIFICATE OF FINAL ACCEPTANCE

SAFETY INSPECTION REPORT

Manufacturer:
BAHMAN MANUFACTURING CO.

Factory Location : Tehran , IRAN

Issue : 21 July 2001

Supply : 4 HEAD INJECTION KRAUSS MAFFEI

Perros reference : L07--H22

From 15/7/2001 to 21/7/2001 c/o BAHMAN our technicians Mr MARCO LORO have taken care for the commissioning of the following plants:

Num. 4 HEAD INJECTION TIPO KM WITH LUBRIFICATION SYSTEM

Starting from 19/7/2001 the plants have successfully started to produce according to the technical specifications foreseen in the contract.

During the modification, assembly, commissioning and final start-up of the plants, Perros has provided to give BAHMAN technicians all possible instructions.

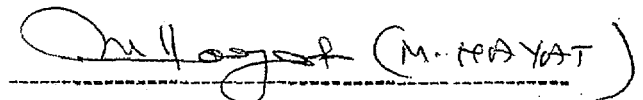
* Perros confirms its availability for supporting BAHMAN to solve the pending problems mentioned on the attached minutes of commissioning (see additional notes/remarks below).

PERROS INDUSTRIALE SPA

BAHMAN



Mr LORO MARCO



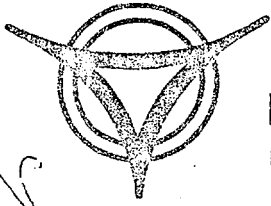
M. HAYAT

Date 21/07/2001

Notes/Remarks

* PLEASE ALSO SEE THE ATTACHED
MINUTES IN TWO PAGES DE: 21/07/01 *



BAHMAN
Manufacturing Company

Tel : (021)348091-8
Tlx : 223657 BAHM IR
Fax: (021) 340722

Dt: 21st July 2001

ACCEPTANCE REPORT FOR INSTALLATION

AND COMMISSIONING OF FOUR KRASSMAFEI

INJECTION HEADS IN REPLACEMENT OF PREVIOUS

DESIGN AT BAHMAN CO.

PERROS CO: MR. MARCUDORO

KARMADAN CO: MR. SAMET

BAHMAN CO: ENG. SHARIFI, ENG. GHORBANI,
ENG. AKHAVAN, ENG. BEHNAM, MR. RAVAN SHAD
ENG. ARAGHIZADEH. ENG. HAYAT.

1) THE FOUR HEADS HAVE BEEN SUCCESSFULLY
INSTALLED AND ARE IN OPERATION. IF
ANY POINTS ARISE LATER, BAHMAN WILL
INFORM PERROS ACCORDINGLY.

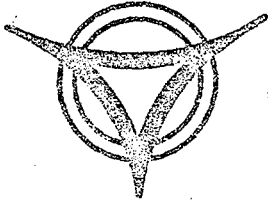
2) THERE ARE TWO SENSORS ON EACH HEAD.
ONE OF THESE SENSORS WHICH CONTROLS THE
RECYCLING AND POURING POSITION, COULD NOT
BE INSTALLED BECAUSE THERE IS NO PORT (SCHEDA)
AVAILABLE AT THE PLC. PERROS SHOULD
CLEAR THIS POSITION. BAHMAN CONSIDERS
THAT THIS SENSOR SHOULD ALSO BE INSTALLED
WITH NECESSARY SYSTEM MODIFICATION, AS
IT IS NECESSARY FOR PROPER OPERATION OF
HEADS.

Handwritten notes on the left margin:
m
Bahman
Akavan
Bahman
Coke
Omid
M. Sharifi
(M. HAYAT)

→ Respondent.

21/07/01

IN THE NAME OF GOD

**BAHMAN**

Manufacturing Company


Tel : (021) 348091-8

Tlx : 223657 BAHM IR

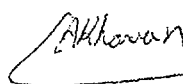
Fax: (021) 340722

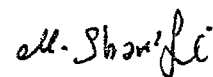
- 3) PREVENTIVE MAINTENANCE SCHEDULE, FOR HEADS, PROPER MAINTENANCE SHOULD ALSO BE PROVIDED BY PERROS.
- 4) PERROS SHOULD PROVIDE DRAWINGS, CATALOGUES, TECHNICAL DOCUMENTS RELATING TO THESE HEADS.
- 5) PERROS SHOULD PROVIDE, A LIST OF SPARE PARTS TO BAHMAN, FOR PROPER MAINTENANCE OF THESE HEADS.
- 6) THE MIXING HEAD PRESSURES ARE $100-120 \text{ KG/CM}^2$ FOR DOOR AND $130-150 \text{ KG/CM}^2$ FOR CABIN. THE CABIN INJECTION HEAD PRESSURE CANNOT BE LOWERED ON THE SYSTEM. PERROS SHOULD INVESTIGATE THE POSSIBILITY OF LOWERING THIS PRESSURE IN CABIN SYSTEM.
- 7) IN DOOR FOAM INJECTION, THE FOAM DOES NOT COME OUT IN A STEADY STREAM. THIS ALSO REQUIRES LOOKING INTO BY PERROS.



LORO MARCO


Samet/Koramaden


Akhavan


Akhavan


Mr. Shou'li


Mr. HAYATI



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