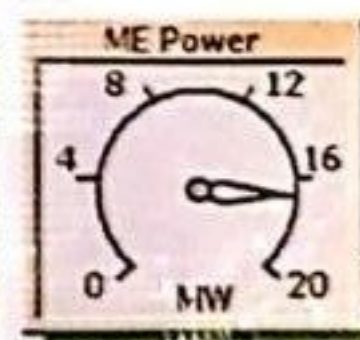
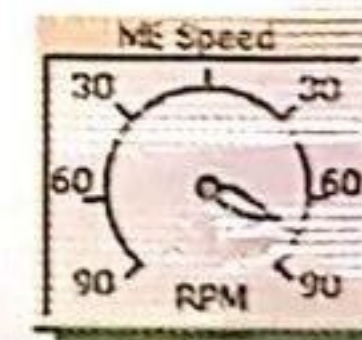
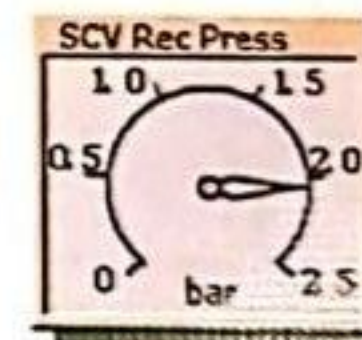
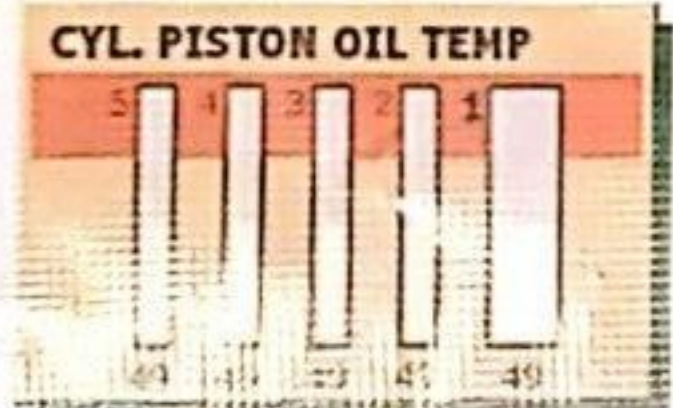
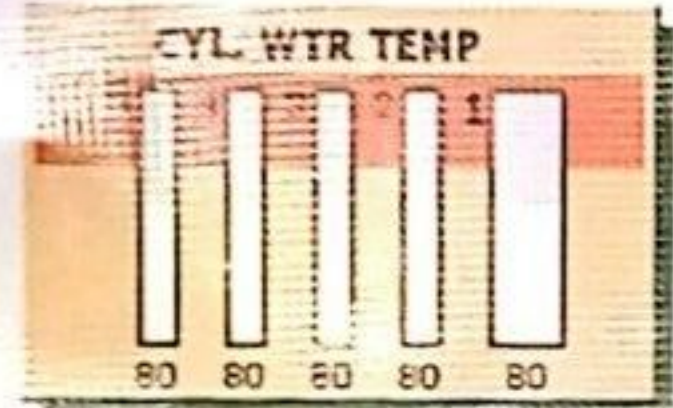
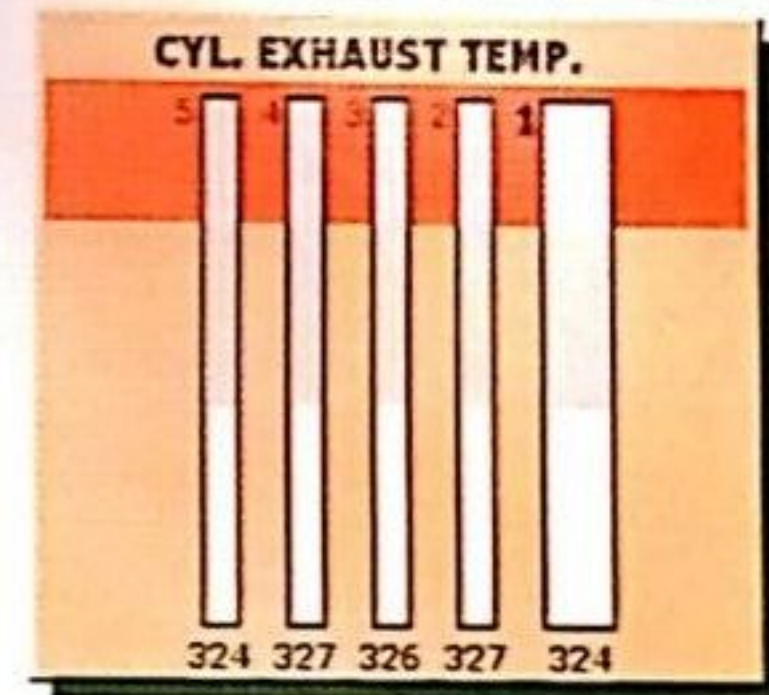
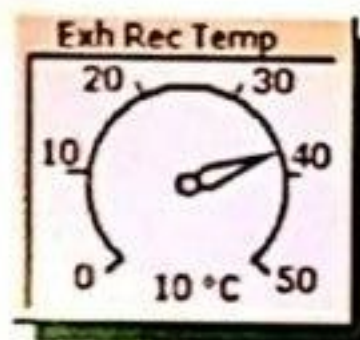
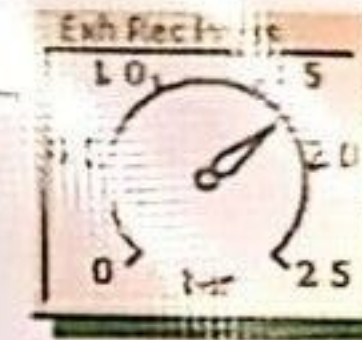
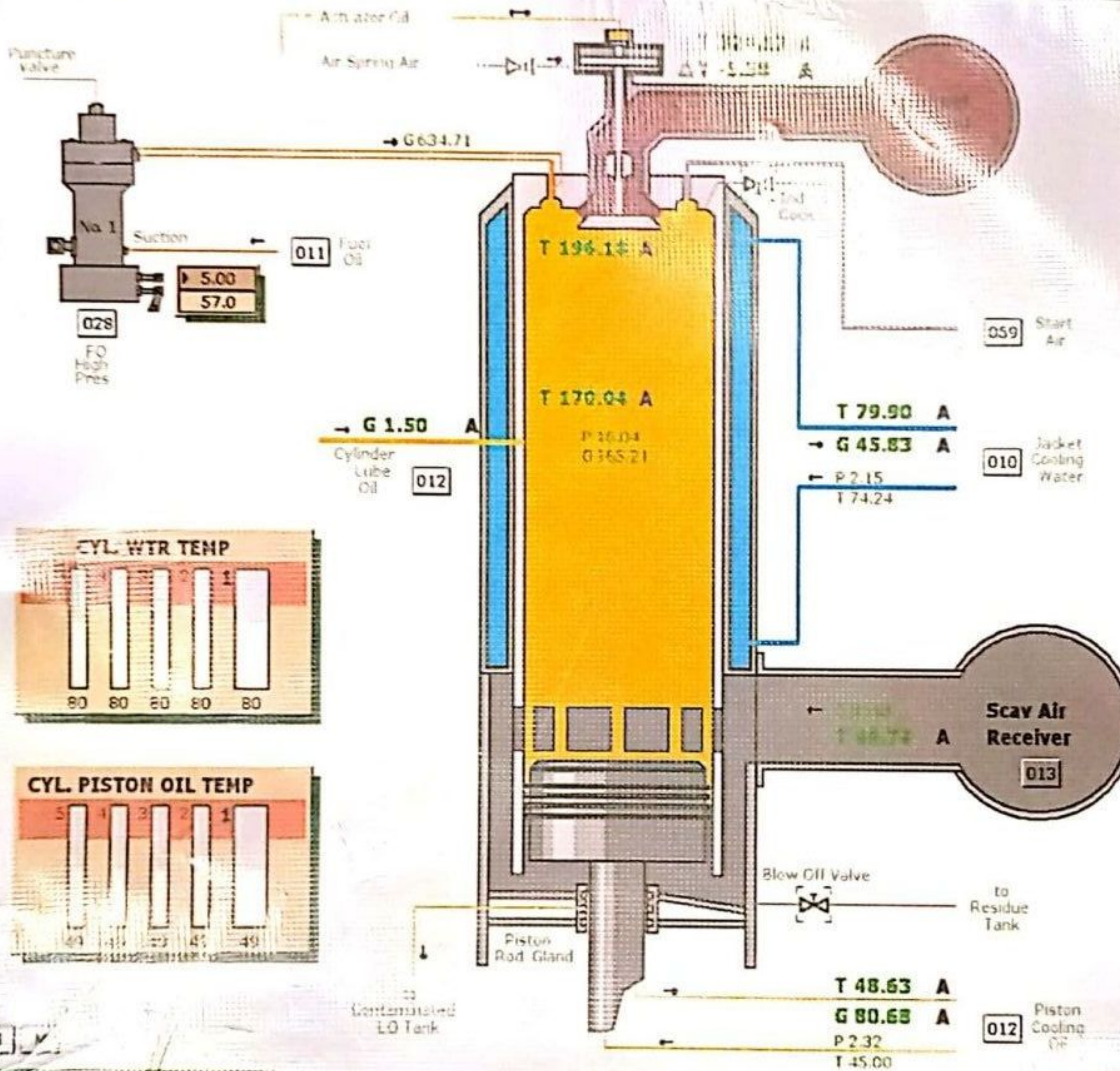


00:00:21
Freeze

Picture
MD 21

ME Cylinder no. 1

Airway
Silence



Unit Conversion | Message Log | Malfunction Summary | Process Directory | Panel Directory | Process Overview | Back | Forward

ERS - MC90-V 3.0.0.0093 (02)

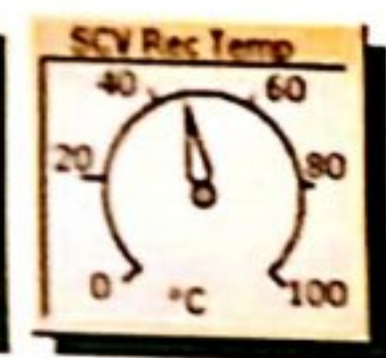
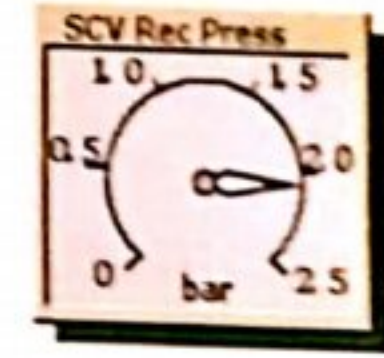
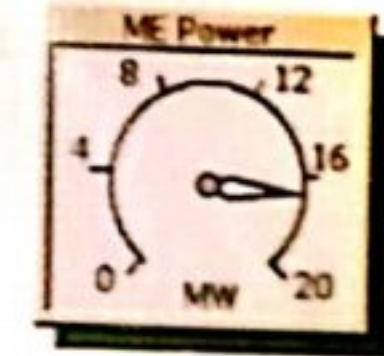
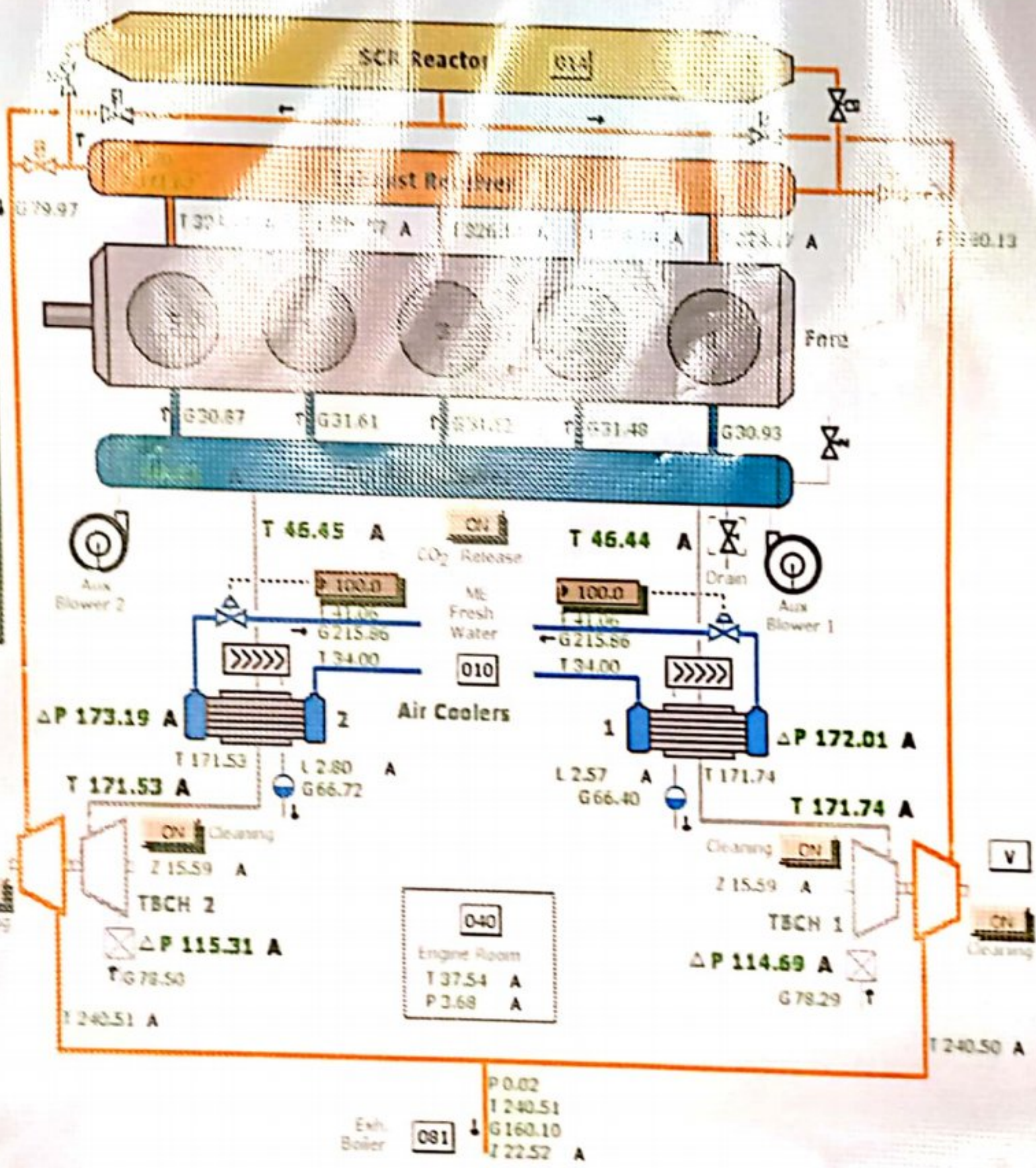
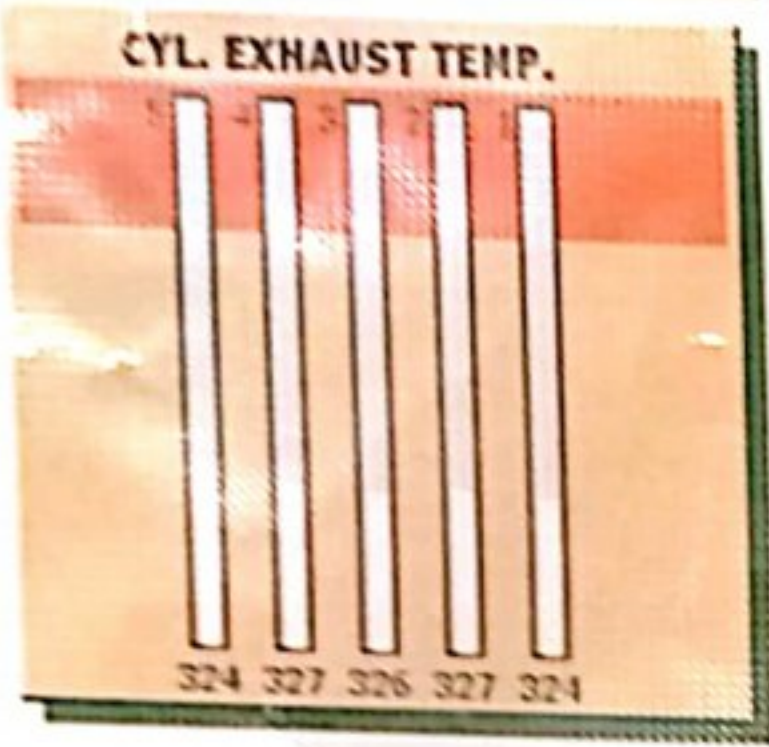
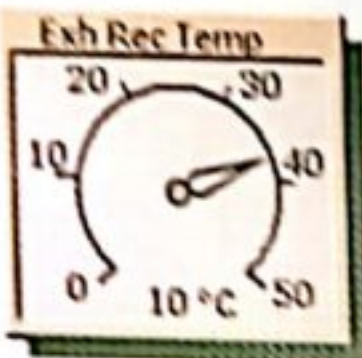
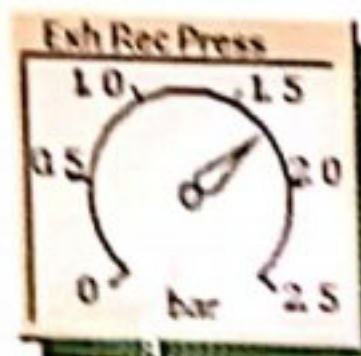
Picture MD 13

Picture MD 13

ME Turbocharger System

Alarms Silence

NORMAL CONDITION



ERS - MC90-V 3.0.0.0093 (01)

Buttons: Malfunction Summary, Process Directory, Panel Directory, Process Overview, E_Lock, Forward



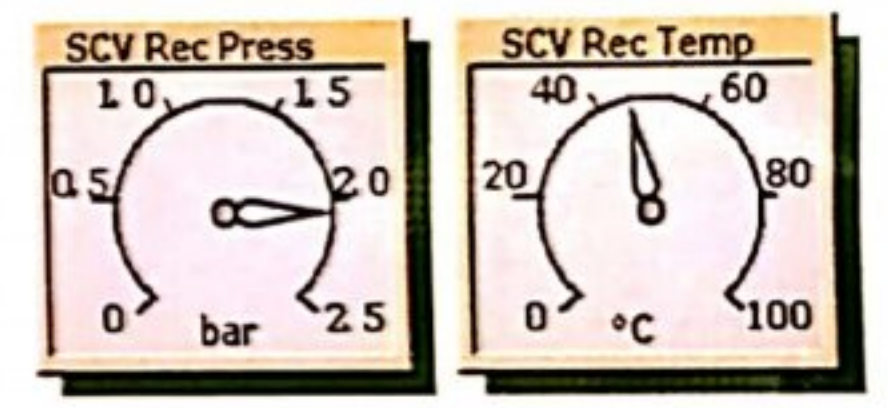
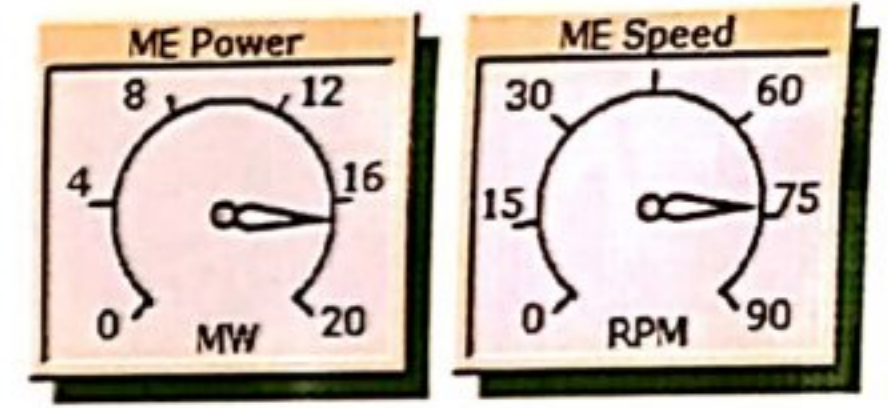
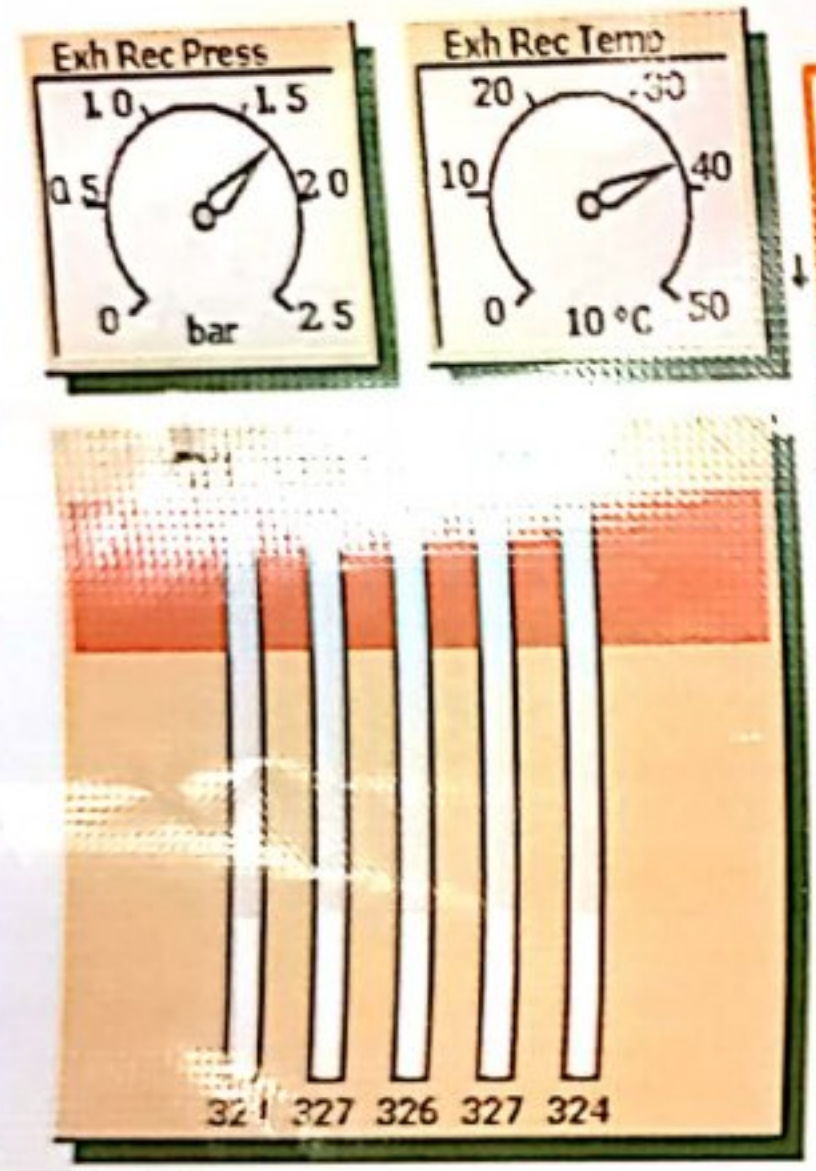
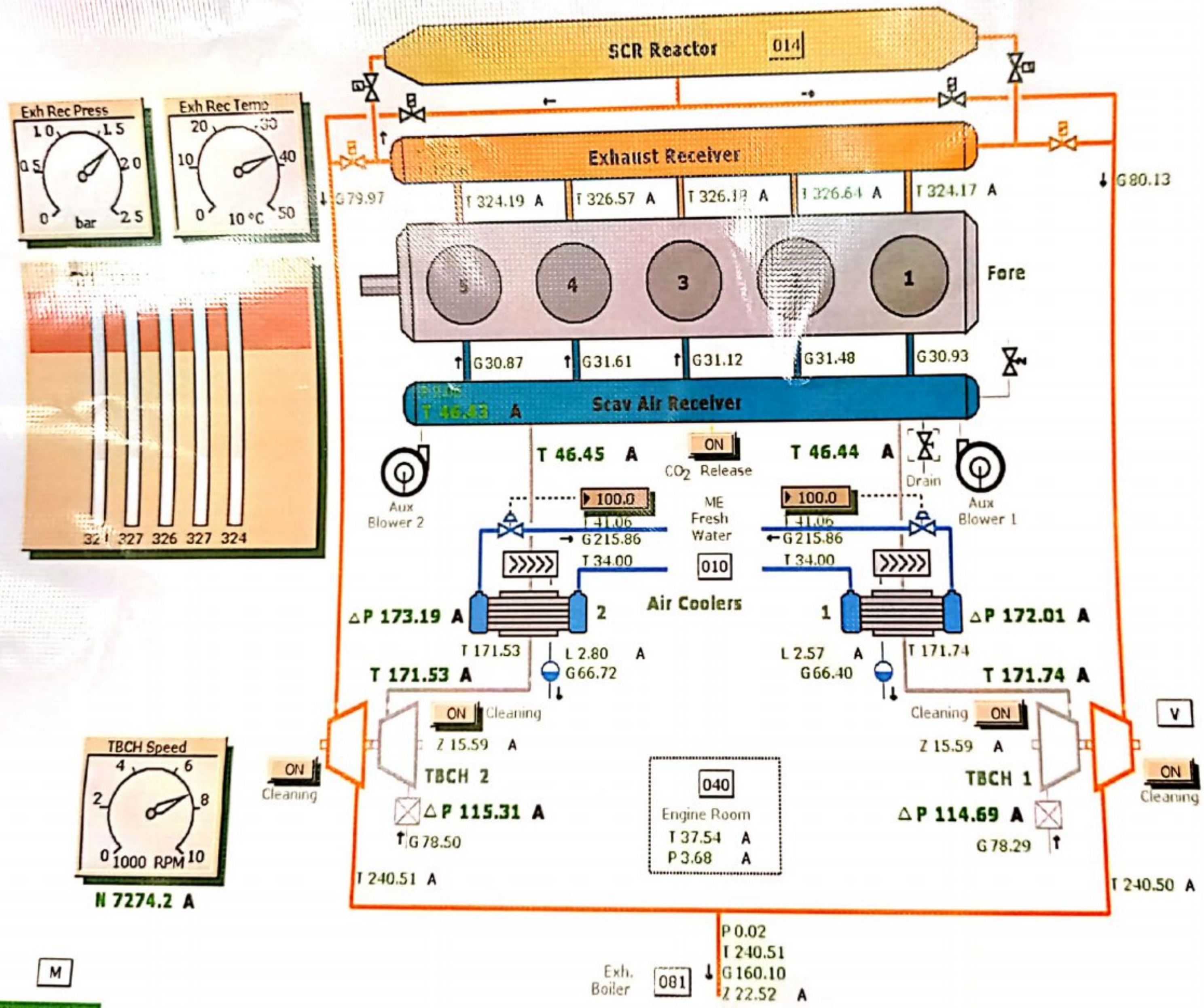
00:00:21
Freeze

Picture
16:31 1.9

ME Turbocharger System

Alarms
Silence

NORMAL CONDITION



M
Freeze Simulation

ERS - MC90-V 3.0.0.0093 (01)



00:00:21
Freeze

Picture
MD 128

ME Load Diagram

Alarms
Silence

NORMAL CONDITION

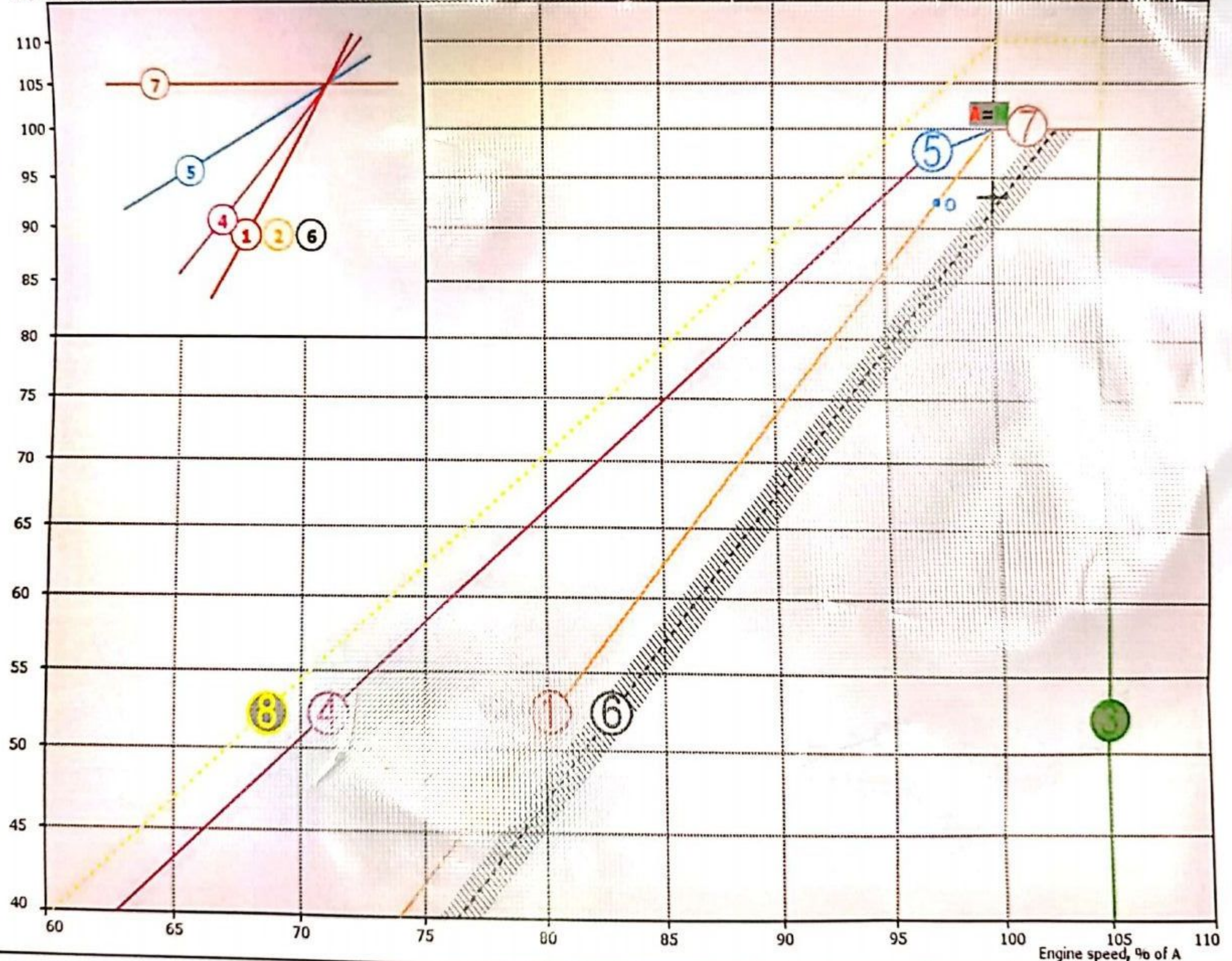
POINTS

- ▲ 100 % reference point
- Specified MCR
- Optimising point
- + ME Load point

LINES

- 1 Propeller curve through optimising point (i=3)
- 2 Propeller curve, fouled hull and heavy weather - heavy running (i=3)
- 3 Speed limit
- 4 Torque/speed limit (i=2)
- 5 Mean effective pressure limit (i=1)
- 6 Propeller curve, clean hull and calm weather - light running (i=3)
- 7 Power limit for continuous running (i=0)
- Overload limit Z A

Engine shaft power, % of A

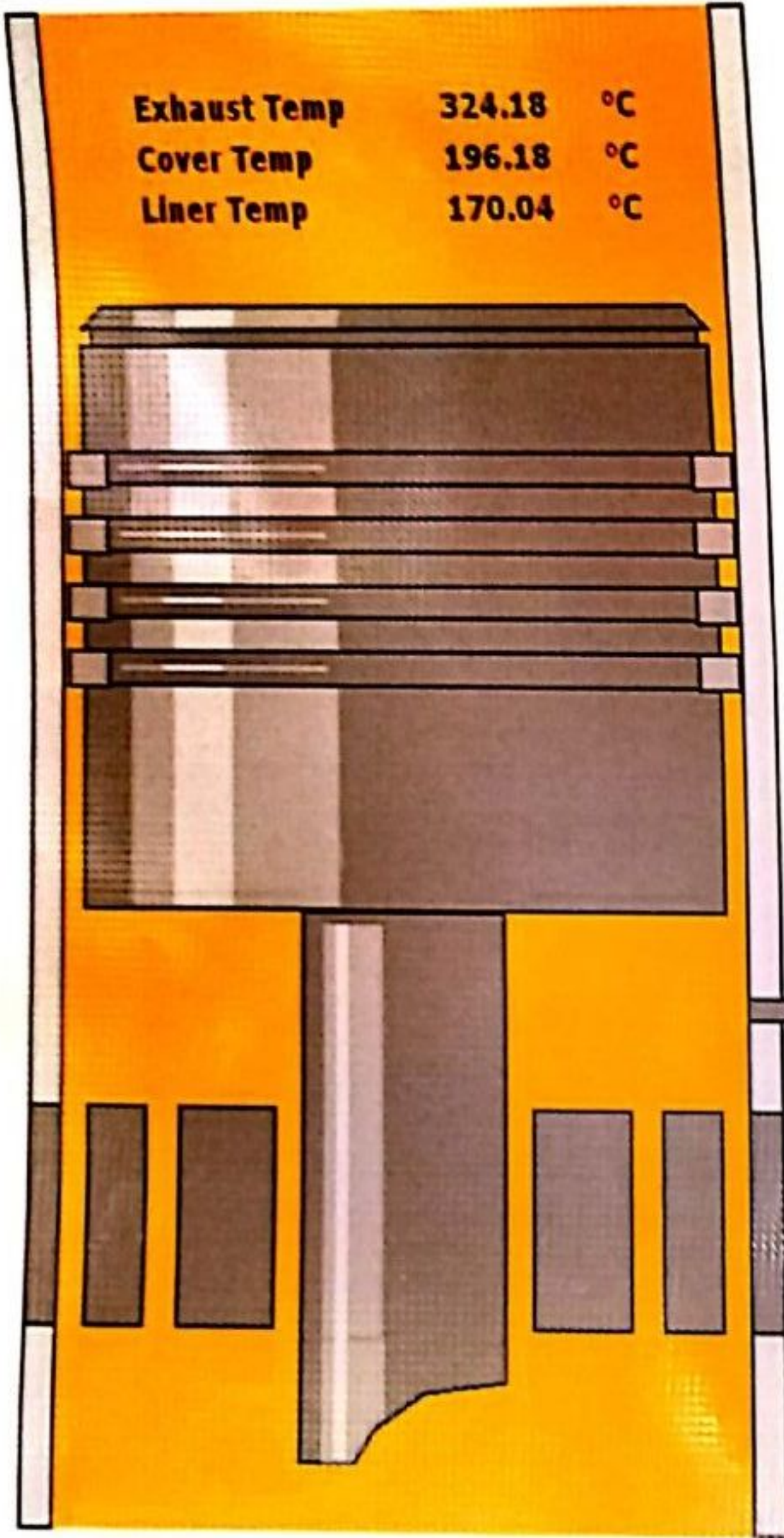




Exhaust Temp 324.18 °C
 Cover Temp 196.18 °C
 Liner Temp 170.04 °C

Cylinder Selection

- Z A
- 2 Z A
- 3 Z A
- 4 Z A
- 5 Z A



Proximity Sensor

RING SEALING



RING MOVEMENT



V

ERS - MC90-V 3.0.0.0093 (00)

Unit Conversion

Message Log

Malfunction Summary

Process

Panel

Process

Back

Forward

Freeze

MD 120

Cylinder Indication Pressure/Angle

Silence

Cyl 1

GENERAL

SPEED : 74.00 RPM
 INDEX : 56.49 %
 MIP : 15.94 BAR
 IKW : 3648 KW

COMBUSTION

TIGN : 3.04 DGR
 PMAX : 132.1 BAR
 TMAX : 10.75 DGR
 PCOMPR : 108.3 BAR

INJECTION

PINJO : 420.0 BAR
 PINJM : 717.8 BAR
 TINJO : -2.00 DGR
 LINJ : 15.25 DGR

Cyl 2

GENERAL

SPEED : 74.00 RPM
 INDEX : 56.49 %
 MIP : 15.95 BAR
 IKW : 3650 KW

COMBUSTION

TIGN : 3.04 DGR
 PMAX : 132.1 BAR
 TMAX : 10.75 DGR
 PCOMPR : 108.3 BAR

INJECTION

PINJO : 420.0 BAR
 PINJM : 717.8 BAR
 TINJO : -2.00 DGR
 LINJ : 15.25 DGR

Cyl 3

GENERAL

SPEED : 74.00 RPM
 INDEX : 56.49 %
 MIP : 15.94 BAR
 IKW : 3648 KW

COMBUSTION

TIGN : 3.04 DGR
 PMAX : 132.1 BAR
 TMAX : 10.75 DGR
 PCOMPR : 108.3 BAR

INJECTION

PINJO : 420.0 BAR
 PINJM : 717.8 BAR
 TINJO : -2.00 DGR
 LINJ : 15.25 DGR

BarA / BarA

3000 / 150

2400 / 120

1800 / 90

1200 / 60

600 / 30

-120

-80

-40

0

40

80

INDICATE <Cyl. 1 - 5>

12	13
13	14
14	15
15	16

SELECT CURVE

Cyl 1	12
Cyl 2	13
Cyl 3	13
Cyl 4	14
Cyl 5	15

SELECT CURVE

Cyl 1	12
Cyl 2	12
Cyl 3	13
Cyl 4	14
Cyl 5	15

SELECT CURVE

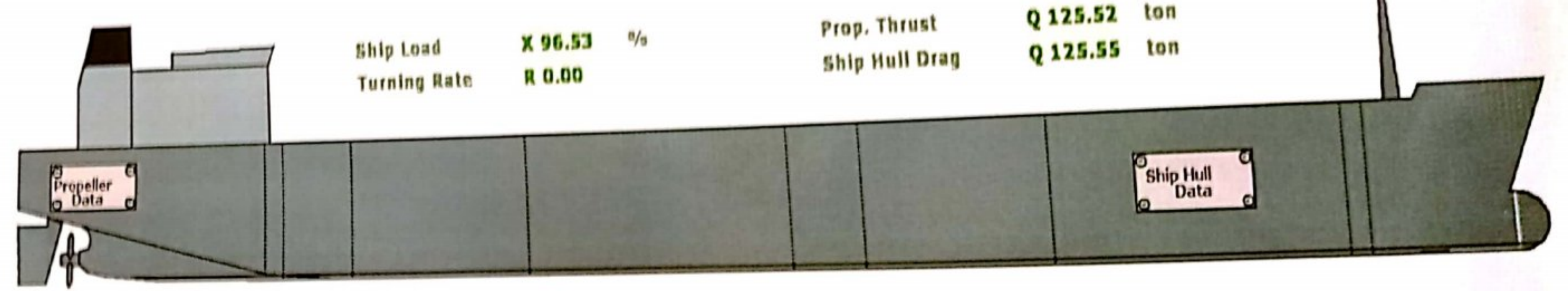
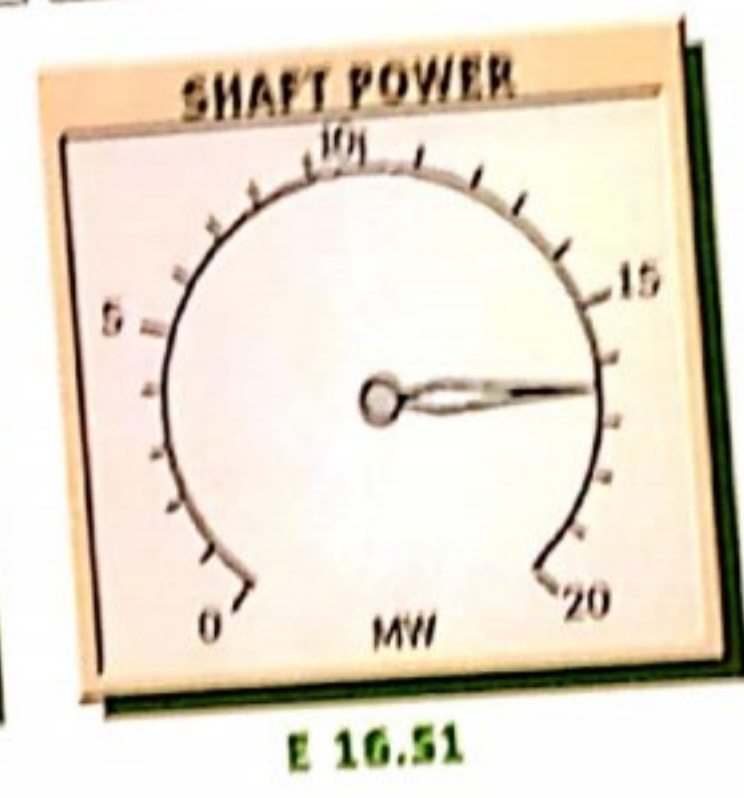
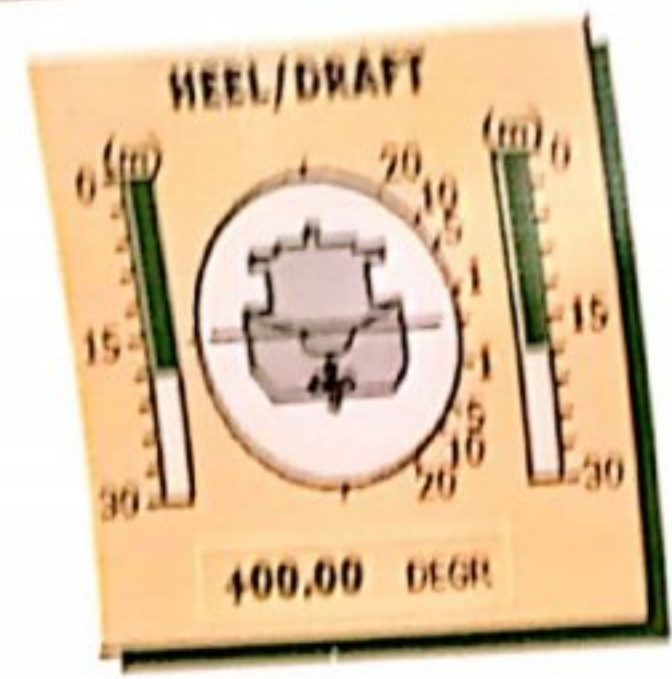
Cyl 1	12
Cyl 2	12
Cyl 3	13
Cyl 4	14
Cyl 5	15



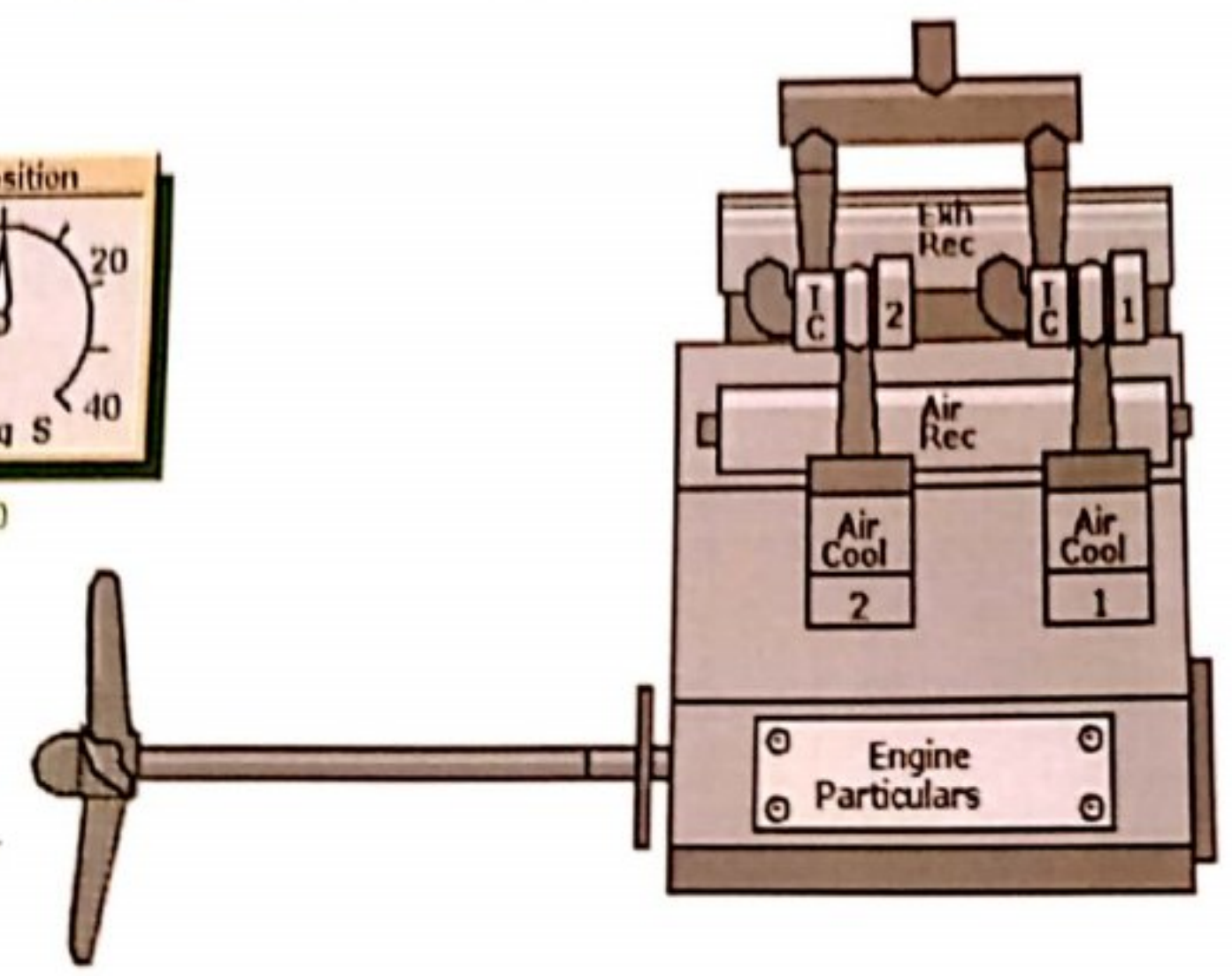
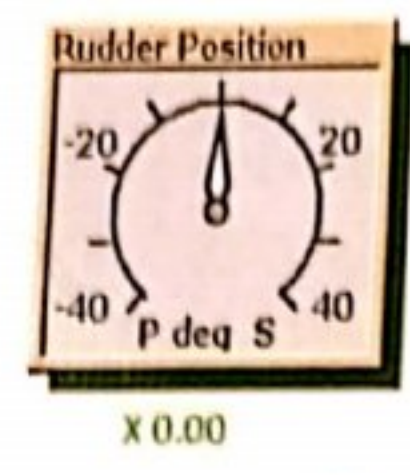
00:01:37
Freeze
Picture MD 56

Ship Propulsion

Alarms
Silence
NORMAL CONDITION



Ship Load X 96.53 %
Turning Rate R 0.00
Prop. Thrust Q 125.52 ton
Ship Hull Drag Q 125.55 ton



ME Speed N 74.00 rpm
ME Fuel Link X 56.80 %
ME Shaft Torque Q 2163.3 kNm
ME Fuel Consumption G 3.16 ton/h
ME Spec Fuel Oil Cons. G 184.54 g/kWh
ME NOx Content Z 15.04 g/kWh

M
Propeller Pitch X 0.90

V

ERS - MC90-V 3.0.0.00:3 (00)

Unit	Message	Malfunction	Process	Panel	Process
------	---------	-------------	---------	-------	---------



00:00:21

Picture MD 122

Weak Spring Diagram

Alarms Silence

NORMAL CONDITION



GENERAL

SPEED	: 74.00	RPM
INDEX	: 56.49	%
MIP	: 15.94	BAR
IKW	: 36.48	KW
SCAV. P	: 2.04	BAR
EXH. P	: 1.68	BAR

COMBUSTION

TIGN	: 3.04	DGR
PMAX	: 132.1	BAR
TMAX	: 10.75	DGR
PCOMPR	: 108.3	BAR

GENERAL

SPEED	: 0.00	RPM
INDEX	: 0.00	%
MIP	: 0.00	BAR
IKW	: 0.00	KW
SCAV. P	: 0.00	BAR
EXH. P	: 0.00	BAR

COMBUSTION

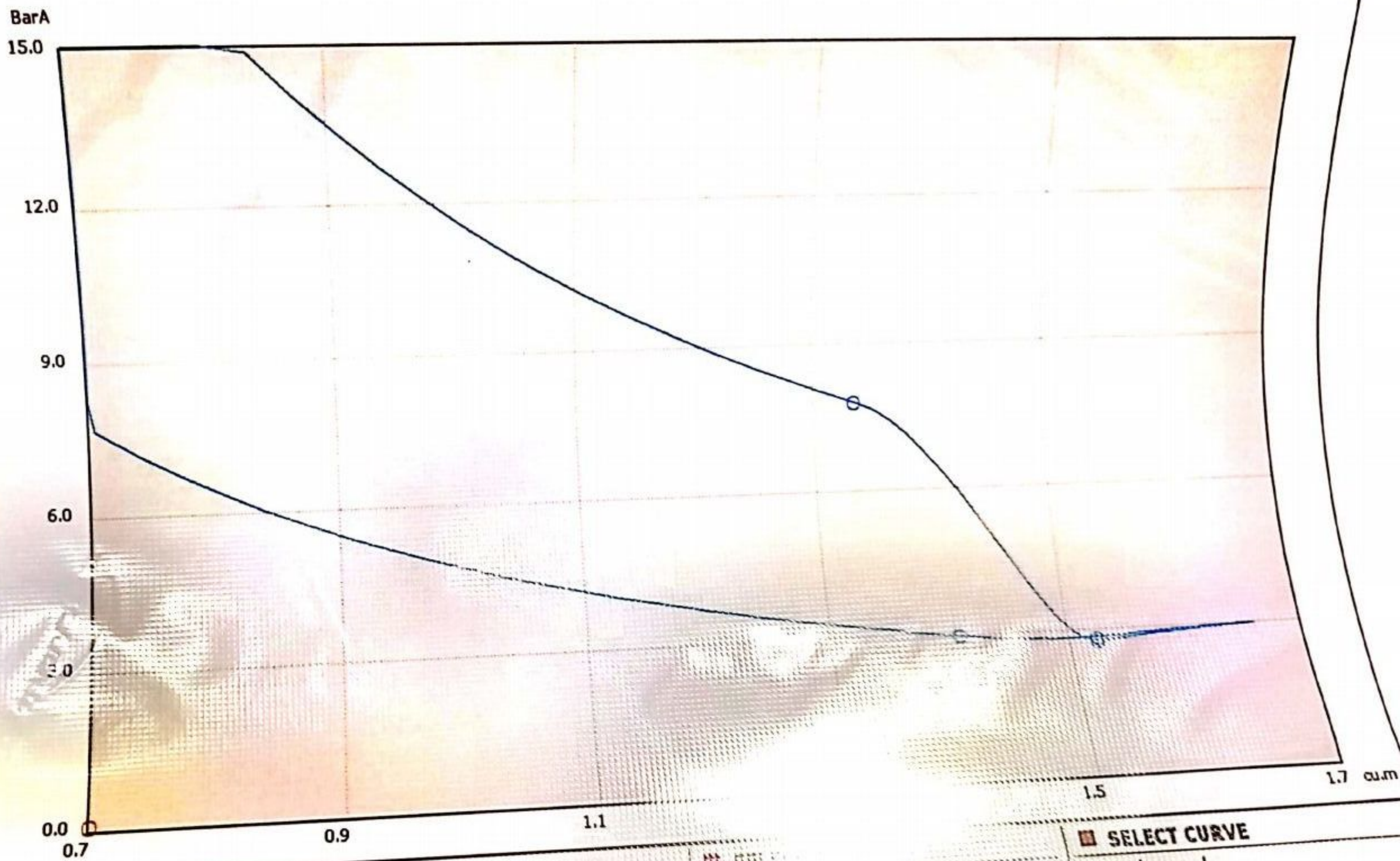
TIGN	: 0.00	DGR
PMAX	: 0.00	BAR
TMAX	: 0.00	DGR
PCOMPR	: 0.00	BAR

GENERAL

SPEED	: 0.00	RPM
INDEX	: 0.00	%
MIP	: 0.00	BAR
IKW	: 0.00	KW
SCAV. P	: 0.00	BAR
EXH. P	: 0.00	BAR

COMBUSTION

TIGN	: 0.00	DGR
PMAX	: 0.00	BAR
TMAX	: 0.00	DGR



INDICATE (Cyl. 1 - 5)

11	
12	
13	
14	

SELECT CURVE

Cyl1	11
Cyl2	12
Cyl3	13
Cyl4	14

SELECT CURVE

Cyl1	11
Cyl2	12
Cyl3	13
Cyl4	14
Cyl5	15