ISA-S 5.1 — KENNBUCHSTABEN / IDENTIFICATION LETTERS

MAN STANDARD = ◥

BEDEUTUNG DER BUCHSTABEN / MEANING OF IDENTIFICATION LETTERS

	1. BUCHSTABE / FIRST-LETTER		FOLGEBUCHSTABEN / SUCCEEDING-LETTERS		
	MESS- ODER EINGANGSGROESSE / MEASURED OR INITIATIVE VARIABLE	ERGAENZUNG / MODIFIER	ABLESUNG ODER PASSIVFUNKTION / READOUT OR PASSIVE FUNC.	AUSGABE-FUNKTION / OUTPUT FUNCTION	ERGAENZUNG / MODIFIER
A	ANALYSE / ANALYSIS		ALARM / ALARM		
B	BRENNER, VERBRENNUNG / BURNER, COMBUSTION				
C	LEITFAEHIGKEIT / CONDUCTIVITY			REGELUNG / CONTROL	
D	DICHTE / DENSITY	DIFFERENZ / DIFFERENTIAL			
E	SPANNUNG / VOLTAGE		FUEHLER / SENSOR		
F	DURCHFLUSSMENGE / FLOW RATE	VERHAELTNIS / RATIO			
G	POSITION / POSITION		SCHAUGLASS / FLOW GLAS		
H	HANDBETAETIGT / HAND OPERATED				HOCH / OFFEN / HIGH / OPEN
I	STROM / CURRENT		ANZEIGE / INDICATE		
J	LEISTUNG / POWER	ABFRAGE / SCAN			
K	ZEIT / ZEITPROGRAMM / TIME / TIME SCHEDULE	AENDERUNGSGRADIENT / TIME RATE OF CHANGE		LEITSTATION / CONTROL STATION	
L	NIVEAU / LEVEL		LAMPE / LIGHT		NIEDRIG / GESCHLOSSEN / LOW / CLOSED
M	FEUCHTIGKEIT / HUMIDITY	MOMENTAN / MOMENTARY			MITTEL- / ZWISCHENWERT / MIDDLE / INTERMEDIATE
N					
O			DROSSELBLENDE / ORIFICE / RESTRICTION		
P	DRUCK / VAKUUM / PRESSURE / VACUUM		MESSSTELLE / POINT CONNECTION		
Q	ANZAHL / QUANTITY	INTEGRAL / SUMME / INTEGRTE / TOTALIZE			
R			SCHREIBER / RECORD		
S	DREHZAHL / FREQUENZ / SPEED / FREQUENCY	SICHERHEIT / SAFETY		SCHALTER / SWITCH	
T	TEMPERATUR / TEMPERATURE			MESSUMFORMER / TRANSMITTER	
U	ZUSAMMENGESETZTE GROESSEN / MULTIVARIABLE		MEHRFACHFUNKTION / MULTIFUNCTION	MEHRFACHFUNKTION / MULTIFUNCTION	MEHRFACHFUNKTION / MULTIFUNCTION
V	VIBRATION / MECH. ANALYSE / VIBRATION / MECH. ANALYSIS			VENTIL / KLAPPE / VALVE	
W	MASSE / KRAFT / WEIGHT / FORCE		SACK / TASCHE / WELL		
X		X-ACHSE / X-AXIS			
Y	VORFALL / ZUSTAND / EVENT / STATE	Y-ACHSE / Y-AXIS		RELAIS / RECHNER / RELAY / COMPUTE	
Z		Z-ACHSE / Z-ACHXIS		ANTRIEB / DRIVE / ACTUATOR	

ISA-S 5.1 — INSTRUMENTE- UND LINIENSYMBOLE / INSTRUMENT- AND LINE SYMBOLS

MAN STANDARD = ◥

EINBAUORT / MOUNTING LOCATION		INSTRUMENTENLEITUNGSSYMBOLE / INSTRUMENT LINE SYMBOLS	
	OERTLICH MONTIERT / FIELD MOUNTED		INSTRUMENT IMPULSLEIT. / VERBIND. ZU PROZESS / INSTRUMENT SUPPLY / CONNECTION TO PROCESS
	MONTIERT AUF OERTLICHEM GESTELL / MOUNTED ON LOCAL RACK		PNEUMATISCHES SIGNAL / PNEUMATIC SIGNAL
	EINGEBAUT IM WARTENSCHRANK / MOUNTED ON MAIN CONTROL PANEL		ELEKTRISCHES SIGNAL / ELECTRIC SIGNAL
	EINGEBAUT IM OERTLICHEN SCHRANK / MOUNTED ON LOCAL PANEL		HYDRAULISCHES SIGNAL / HYDRAULIC SIGNAL
	DCS IM WARTENSCHRANK / DCS ON MAIN CONTROL PANEL		KAPILLAR LEITUNG / CAPILLARY TUBE
	SPS / MMI IM WARTENSCHRANK / PLC / MMI ON MAIN CONTROL PANEL		INTERNE SYSTEMVERBINDUNG / INTERNAL SYSTEM LINK
	TURBOLOG DSP IM WARTENSCHRANK / TURBOLOG DSP ON MAIN CONTROL PANEL		MECHANISCHE VERBINDUNG / MECHANICAL LINK
	TURBOLOG DSP IM OERTLICHEN SCHRANK / TURBOLOG DSP ON LOCAL PANEL		ELEKTRISCHE ROHRBEGLEITHEIZUNG / ELECTRICALLY TRACED
			ROHRLEITUNG MIT GEFAELLE / PIPE WITH SLOPE

ISA-S 5.1 / 5.5 — SYMBOLE / SYMBOLS

MAN STANDARD = ◥

	SCHIEBER / UNDEFINIERTE ARMATUR / GATE VALVE / UNDEFINED VALVE		IM NORMALBETRIEB OFFEN / DURING NORMAL OPERATION OPEN
	VENTIL / GLOBE VALVE		IM NORMALBETRIEB GESCHLOSSEN / DURING NORMAL OPERATION CLOSED
	DREHKEGEL- ODER KUGELVENTIL / ROTARY PLUG OR BALL VALVE		RUECKSCHLAGKLAPPE / RUECKSCHLAGVENTIL / NON-RETURN (CHECK) VALVE
	DREHKLAPPE / BUTTERFLY VALVE		RUECKSCHLAGKLAPPE / RUECKSCHLAGVENTIL MIT BOHRUNG / NON-RETURN (CHECK) VALVE WITH BORE
	NADELVENTIL / NEEDLE VALVE		SICHERHEITSVENTIL / SAFETY RELIEF VALVE
	MEMBRAN-ANTRIEB / DIAPHRAGM ACTUATOR		VENTURIROHR ODER DUESE / VENTURI TUBE OR FLOW NOZZLE
	KOLBEN-ANTRIEB / PISTON ACTUATOR	S	MAGNET-ANTRIEB / SOLENOID ACTUATOR
	FUNKTION BEI AUSFALL DER HILFSENERGIE: STELLGLIED OEFFNET / FUNCTION ON FAILURE OF AUXILARY ENERGY SUPPLY: CONTROL ELEMENT OPENS		FUNKTION BEI AUSFALL DER HILFSENERGIE: STELLGLIED BLEIBT IN MOMENTANSTELLUNG / FUNCTION ON FAILURE OF AUXILARY ENERGY SUPPLY: CONTROL ELEMENT RETAINS POSITION (LOCKED)
	FUNKTION BEI AUSFALL DER HILFSENERGIE: STELLGLIED SCHLIESST / FUNCTION ON FAILURE OF AUXILARY ENERGY SUPPLY: CONTROL ELEMENT CLOSES		FUNKTION BEI AUSFALL DER HILFSENERGIE: STELLGLIEDSTELLUNG UNBESTIMMT / FUNCTION ON FAILURE OF AUXILARY ENERGY SUPPLY: CONTROL ELEMENT POSITION INDETERMINATED
	WAERMETAUSCHER / KUEHLMEDIUM IN DEN ROHREN / HEAT EXCHANGER / COOLANT IN THE TUBES		WAERMETAUSCHER / KUEHLMEDIUM UM DIE ROHRE / HEAT EXCHANGER / COOLANT AROUND THE TUBES
	DRUCKBEHAELTER / PRESSURE VESSEL		DRUCKLOSER BEHAELTER / TANK WITHOUT INTERNAL PRESSURE
	FLUEGELRAD / VENTILATOR / IMPELLER / FAN	T	AUSSCHLEUSETOPF / DRAIN TRAP
M	MOTOR / MOTOR		BERSTSCHEIBE (PFEIL IN BRECHRICHTUNG) / RUPTURE DISC (ARROW IN BURSTING DIRECTION)

MAN TURBO STANDARD — KENNZAHLEN UND BUCHSTABEN / IDENTIFICATION FIGURES AND LETTERS

STEUERUNGEN / AUTOMATIC CONTROLS

1	SCHNELLABSCHALTUNG / TRIP	16	SPERRWASSER / SEAL WATER
2	SCHNELLOEFFNUNG AB- / UMBLASEVENTIL / QUICK OPENING BLOW-OFF / RECYCLE VALVE	17	KUEHLER-VENTILATOR / COOLER FAN
3	WELLENDREHVORRICHTUNG / BARRING GEAR	18	SPERROELPUMPE / SEAL OIL PUMP
4	OELPUMPE / OIL PUMP	19	UNDEFINIERTES / KOMPLEXES LOGIKSYSTEM / UNDEFINED / COMPLEX LOGIC SYSTEM
5	EINSCHALTVERRIGELUNGS-SYSTEM / START-UP INTERLOCKING SYSTEM	20	WASSER PUMPE / WATER PUMP
6	KONDENSATPUMPE / CONDENSATE PUMP	21	
7	NOTOEL- / KUEHLOELPUMPE / EMERGENCY OIL / COOLING OIL PUMP	22	
8	OELHEIZUNG / OIL HEATER	23	
9	LEITSCHAUFEL / VORROTATION / GUIDE VANE / INLET GUIDE VANES	24	
10	OELDUNST-VENTILATOR / OIL MIST FAN	25	
11	WELLENABHEBEPUMPE / JACKING OIL PUMP	26	
12	ANTRIEBSMOTOR STILLSTANDSHEIZUNG / DRIVING MOTOR SPACE HEATER	27	
13	SCHALLHAUBENLUEFTER / NOISE HOOD FAN	28	
14	LUFTFILTER / AIR FILTER	29	VERDICHTER-SCHNELLABSCHALTUNG & ABSCHALTUNG DES MAGNETFELDES DER WELLENABHEBUNG BEI NIEDRIGER DREHZAHL / SHUTDOWN COMPRESSOR & STOP SHAFT LEVITATION AT LOW SHAFT SPEED
15	ANTRIEBSMOTOR / DRIVING MOTOR		

ABKUERZUNGEN / ABBREVIATIONS

A	AUSTRITT ZU ATMOSPHAERE (UNVERSCHLOSSEN) / OUTLET TO ATMOSPHERE (NOT CLOSED)	AS	INSTRUMENTLUFT ZUFUHR / INSTRUMENT AIR SUPPLY
C	KONDENSATAUSTRITT / CONDENSATE OUTLET	FC	BEI AUSFALL SCHLIESSEN / FAIL CLOSE
CO	REGELOEL ZULAUF / CONTROL OIL SUPPLY	FO	BEI AUSFALL OEFFNEN / FAIL OPEN
D	ENTLEERUNG / DRAIN	LC	ZU ABGESCHLOSSEN / LOCKED CLOSE
R	RUECKLAUF ZU RESERVOIR / RETURN TO RESERVOIR	LO	OFFEN ABGESCHLOSSEN / LOCKED OPEN
V	ENTLUEFTUNG / VENT	DCS	LEITSYSTEM / DISTRIBUTED CONTROL SYSTEM
RTD	WIDERSTANDS-TEMPERATUR-MESSELEMENT / RESISTANCE TEMPERATURE DETECTOR	MCC	NIEDERSPANNUNGSVERTEILER / MOTOR CONTROL CENTER
TC	THERMOELEMENT / THERMO COUPLE	PLC	SPEICHERPROGRAMMIERBARE STEUERUNG / PROGRAMMABLE LOGIC CONTROL

MAN TURBO STANDARD — SYMBOLE / SYMBOLS

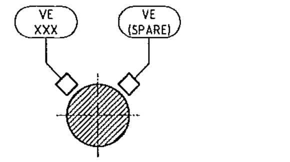
	PLATTEN-WAERMETAUSCHER / PLATE HEAT EXCHANGER		GETRIEBE (TYPISCH) / GEAR (TYPICAL)
	TROCKENGASDICHTUNG (TYPISCH) / DRY GAS SEAL (TYPICAL)		LABYRINTHDICHTUNG / LABYRINTH SEAL
	TRAGLAGER / JOURNAL BEARING		AXIALLAGER / THRUST BEARING
	MAGNET-TRAGLAGER / JOURNAL BEARING MAGNETIC		MAGNET-AXIALLAGER / THRUST BEARING MAGNETIC
	NOTLAUFLAGER / EMERGENCY BEARING		SCHWEBEKOERPER DURCHFLUSSMESSER (ROTAMETER) / VARIABLE AREA METER (ROTAMETER)
	STARRE KUPPLUNG / SOLID COUPLING		ELASTISCHE KUPPLUNG / FLEXIBLE COUPLING
	ROHRKRUEMMER MIT UMLENKSCHAUFELN / PIPE ELBOW WITH GUIDE VANES		DIFFUSOR VENTIL-AUSTRITTSSEITE / DIFFUSOR DOWNSTREAM OF VALVE
	AUSBLASE-SCHALLDAEMPFER / BLOW-OFF SILENCER		SCHALLDAEMPFER IN LEITUNG / INLINE SILENCER
	FLAMMENSPERRE / FLAME ARRESTER		DEHNUNGSAUSGLEICHER / BELLOWS COMPENSATOR
	WETTERSCHUTZGITTER / WEATHER LOUVRE		ANSAUG-LUFTFILTER (TYPISCH) / INTAKE AIR FILTER (TYPICAL)
	WASSERABSCHEIDER / WATER SEPARATOR		VERSTELLBARE LEITSCHAUFELN / VORROTATION / ADJUSTABLE STATOR BLADES / INLET GUIDE VANE
	EINFUELLSTUTZEN MIT FILTER / FILLER WITH FILTER		EINFUELLSTUTZEN / ENTLUEFTER MIT FILTER / FILLER / BREATHER WITH FILTER
	EINFUELLSTUTZEN / ENTLUEFTER / FILLER / BREATHER		ENTLUEFTUNG / VENT PIPE
	FILTER / FILTER		ANSAUGSIEB / SUCTION SCREEN
	OELDUNSTABSCHEIDER / OIL MIST SEPARATOR		GAS FILTER, KONISCHE AUSFUEHRUNG / GAS STRAINER, CONICAL DESIGN
	VENTILATOR / FAN		SCHMUTZFAENGER / STRAINER
	PUMPE MIT EINER DREHRICHTUNG / PUMP WITH ONE SENSE OF ROTATION		PUMPE MIT ZWEI DREHRICHTUNGEN / PUMP WITH TWO SENSES OF ROTATION
	MESSBLENDE / ORIFICE PLATE		BRILLENSTECKSCHEIBE / SPECTACLE BLIND
	BLASEN-DRUCKSPEICHER / BLADDER TYPE PRESSURE ACCUMULATOR		MEMBRANSEPARATOR / MEMBRANSEPARATOR
	GAS-DRUCKFLASCHE / GAS BOTTLE		STRAHLAPPARAT / EJECTOR
	NENNWEITENVERAENDERUNG / LINE SIZE CHANGE		ELEKTRISCHES HEIZELEMENT / ELECTRIC HEATER
	ISOLIERTE LEITUNG / INSULATED LINE		ISOLIERTE OBERFLAECHE / INSULATED SURFACE
	ERDUNG / EARTHING		EINSPRITZDUESE / INJECTION NOZZLE
01	ROHRLEITUNGS-ANSCHLUSSNUMMER / PIPE CONNECTION NUMBER	MAN TURBO / CUSTOMER	LIEFERGRENZE / LIMIT OF SUPPLY

REFERENCE DOCUMENTS

P&I DIAGRAM PROCESS AND WATER	0-837 016 878 p002
P&I DIAGRAM MECHANIC	0-837 016 878 p003
P&I DIAGRAM LUBE OIL SYSTEM	0-837 016 878 p004
GENERAL ARRANGEMENT	0-837 016 420
FOUNDATION PLAN	0-837 016 421
CLIENT PIPE CONNECTION LIST	4-837 016 422
INSTRUMENT LIST	4-837 017 127
SIGNAL LIST	4-837 017 128
ALARM & TRIP LIST	4-837 017 129
FUNCTION DIAGRAM	4-837 017 130

NOTES:

ALL VIBRATION PROBES ARE MOUNTED AS FOLLOWS:



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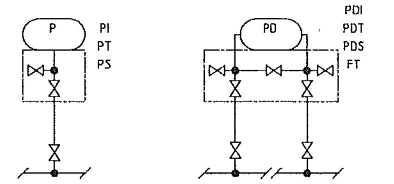

ALL PRESSURE INSTRUMENT LINES ARE EQUIPPED WITH ROOT VALVES AND MANIFOLDS AS SHOWN ABOVE. EXCEPTIONS ARE EXPLAINED BELOW

ALL DIFFERENTIAL PRESSURE INSTRUMENTS ARE EQUIPPED WITH A 3-WAY MANIFOLD AS SHOWN ABOVE EXCEPTIONS ARE EXPLAINED BELOW

FOR SAFETY REASONS THERE ARE NO ROOT VALVES NOR MANIFOLDS FOR SURGE-OR REVERSE FLOW PROTECTION AND TRIP INSTRUMENTATION

AIR LIQUIDE

N° D'AFFAIRE / JOB NUMBER	FMT / FMT	GROUPE / GROUP	N° / NBR	Rev / Rev
KOSICE 60-3023-01	A1	811	014.01	A

Index / Rev.	Änderung / Nature of Revision	Datum / Date	Bearb./Gepr. / Drawn/Checked
A	ADD CLIENT COMMENTS	10.12.04	WÄLTI / RESTELLI

CAD-Zeichnung / CAD-Drawing: AP

RIK 80-1+1+1+1

Abt. / Dept.: SC71

Verwendungsbereich / Field of application: KOSAIR 2004 N 710 0175

Benennung / Title: SYMBOLS AND ABBREVIATION

	Datum / Date	Name / Name
Bearb. / Drawn	15.10.04	P. WAELTI
Geprüft / Checked	15.10.04	R. CARAFA

MAN TURBO

Format / Size: A0 — Zeichnungs-Nr. / Drawing No.: 837 016 878 — Index / Rev.: A — Bl./Sheet: 001 / 004

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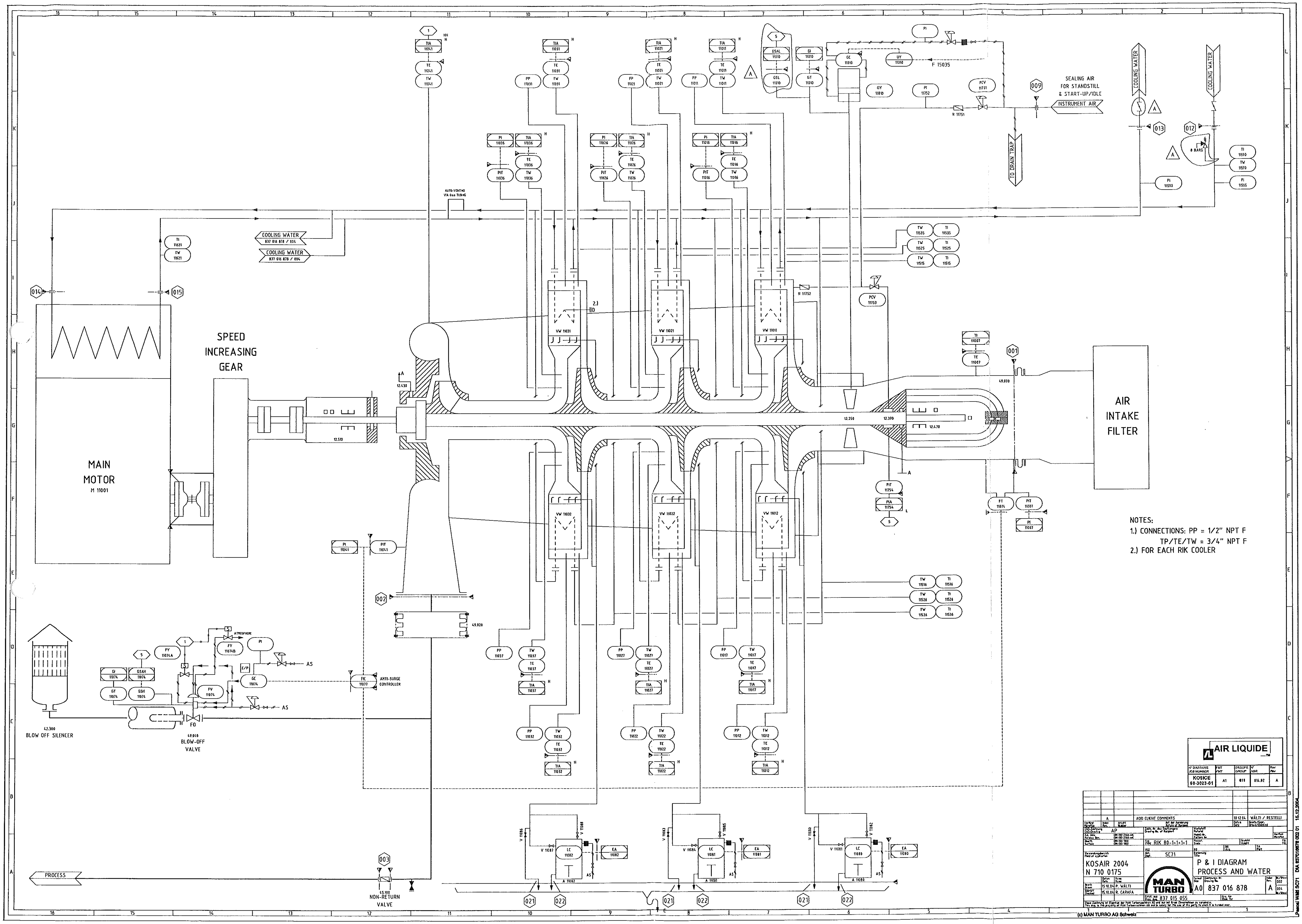
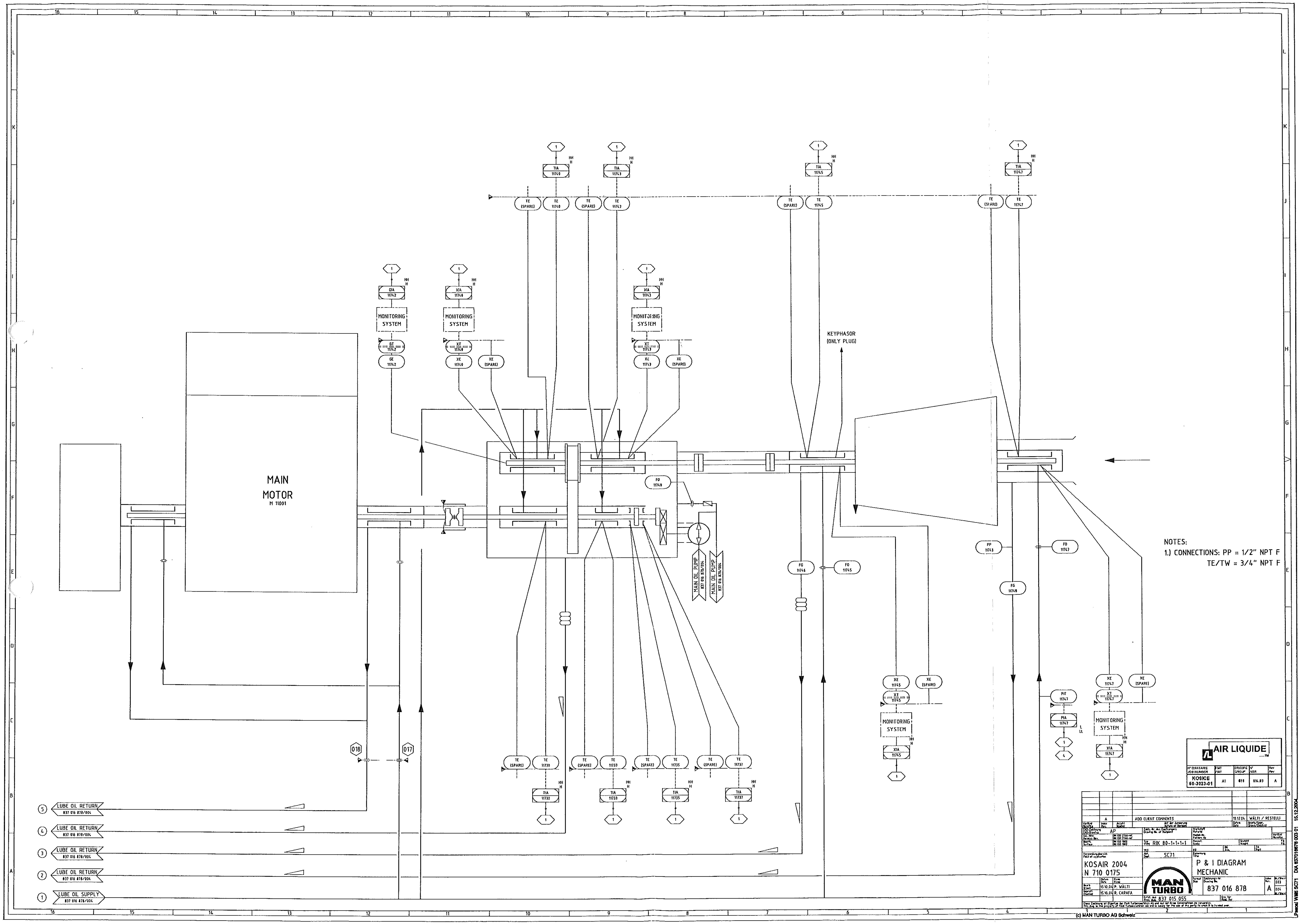
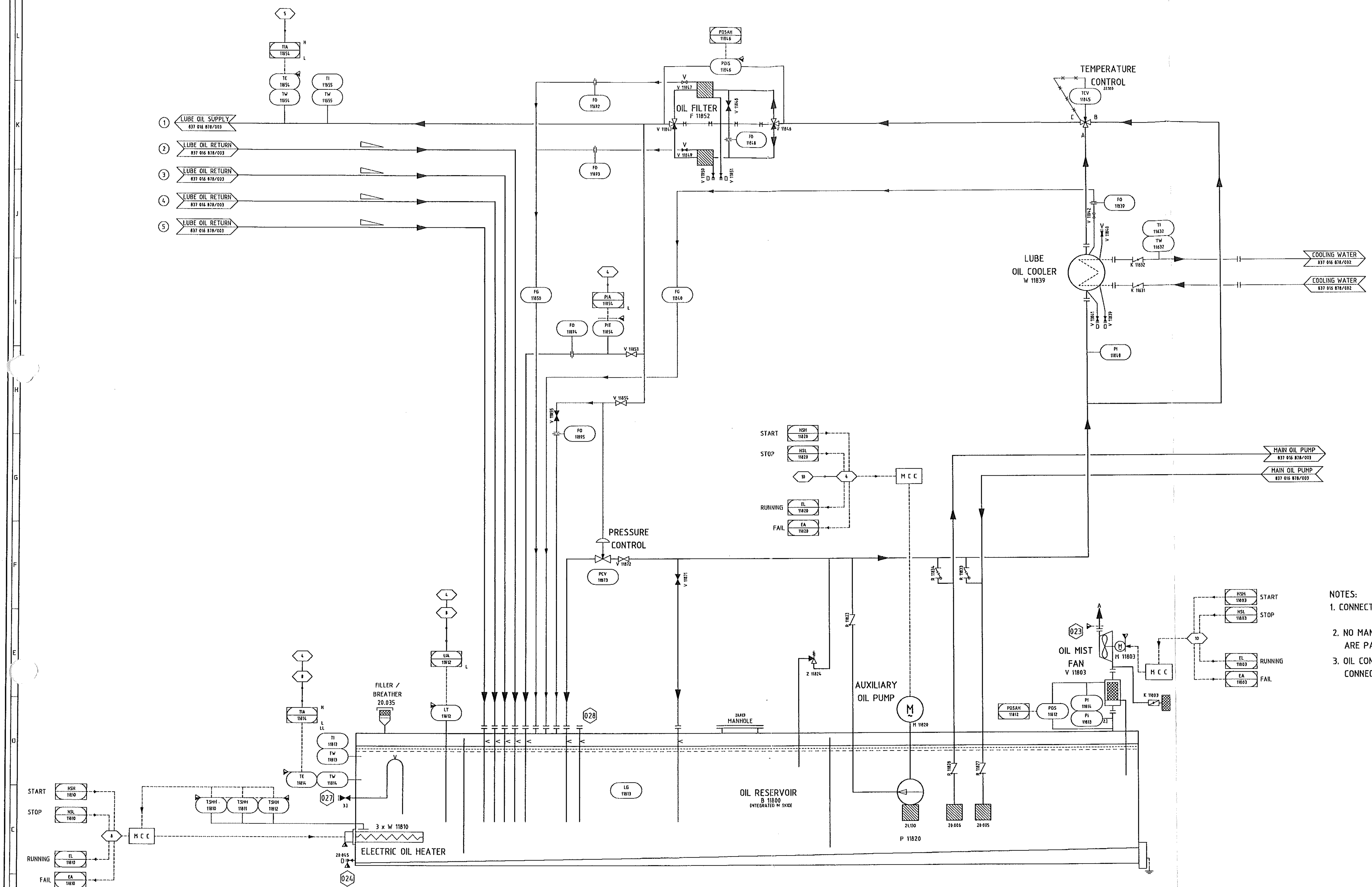
Pascal Wälti SC71 DIA 8370168878 001 01 15.12.2004



SPEED
INCREASING
GEAR
MAIN
MOTOR
M 11001
AIR
INTAKE
FILTER
COOLING WATER
837 016 878 / 004
COOLING WATER
837 016 878 / 004
SEALING AIR
FOR STANDSTILL
& START-UP/IDLE
INSTRUMENT AIR
TO DRAIN TRAP
COOLING WATER
COOLING WATER
8 BARG
AUTO-VENTING
VIA 6mm TUBING
F 15035
NOTES:
1.) CONNECTIONS: PP = 1/2" NPT F
TP/TE/TW = 3/4" NPT F
2.) FOR EACH RIK COOLER
42.300
BLOW OFF SILENCER
49.049
BLOW-OFF
VALVE
FO
ATMOSPHERE
ANTI-SURGE
CONTROLLER
AS
PROCESS
45.100
NON-RETURN
VALVE
AIR LIQUIDE
KOSICE
60-3023-01
ADD CLIENT COMMENTS
WÄLTI / PESTELLI
KOSAIR 2004
N 710 0175
P & I DIAGRAM
PROCESS AND WATER
MAN TURBO
837 016 878
P. WÄLTI
R. CARAFA
RIK 80-1-1-1-1
SC71
837 015 055
(c) MAN TURBO AG Schweiz


MAIN
MOTOR
M 11001
MONITORING SYSTEM
KEYPHASOR
(ONLY PLUG)
MAIN OIL PUMP
NOTES:
1.) CONNECTIONS: PP = 1/2" NPT F
TE/TW = 3/4" NPT F
LUBE OIL RETURN
LUBE OIL SUPPLY
837 016 878/004
AIR LIQUIDE
KOSICE
50-3023-01
ADD CLIENT COMMENTS
WÄLTI / RESTELLI
RIK 80-1+1+1+1
SC71
KOSAIR 2004
N 710 0175
P & I DIAGRAM
MECHANIC
MAN TURBO
837 016 878
15.10.04 P. WÄLTI
15.10.04 R. CARAFA
837 015 055
(c) MAN TURBO AG Schweiz
Pascal Wälti SC71 DIA 837016878 003 01 15.12.2004



NOTES:

1. CONNECTIONS: PP = 1/2" NPT F
   TE/TW = 3/4" NPT F
2. NO MANIFOLD PROVIDED,PRESSURE GAUGE ARE PART OF OIL MIST FAN
3. OIL CONDITIONER SUCTION CONNECTION (BLINDED)

AIR LIQUIDE

N° D'AFFAIRE / JOB NUMBER	FMT	GROUPE / GROUP	N° / NBR	Rev
KOSICE 60-3023-01	A1	611	014-04	A

Index	Date	Art der Änderung / Nature of Revision	Bearb./Gepr.
A	10.12.04	ADD CLIENT COMMENTS	WÄLTI / RESTELLI

CAD-Drawing: AP

Typ/Type: RIK 80-1+1+1+1

Abt./Dept.: SC71

Field of application: KOSAIR 2004 N 710 0175

	Date	Name
Drawn	15.10.04	P. WÄLTI
Checked	15.10.04	R. CARAFA

MAN TURBO

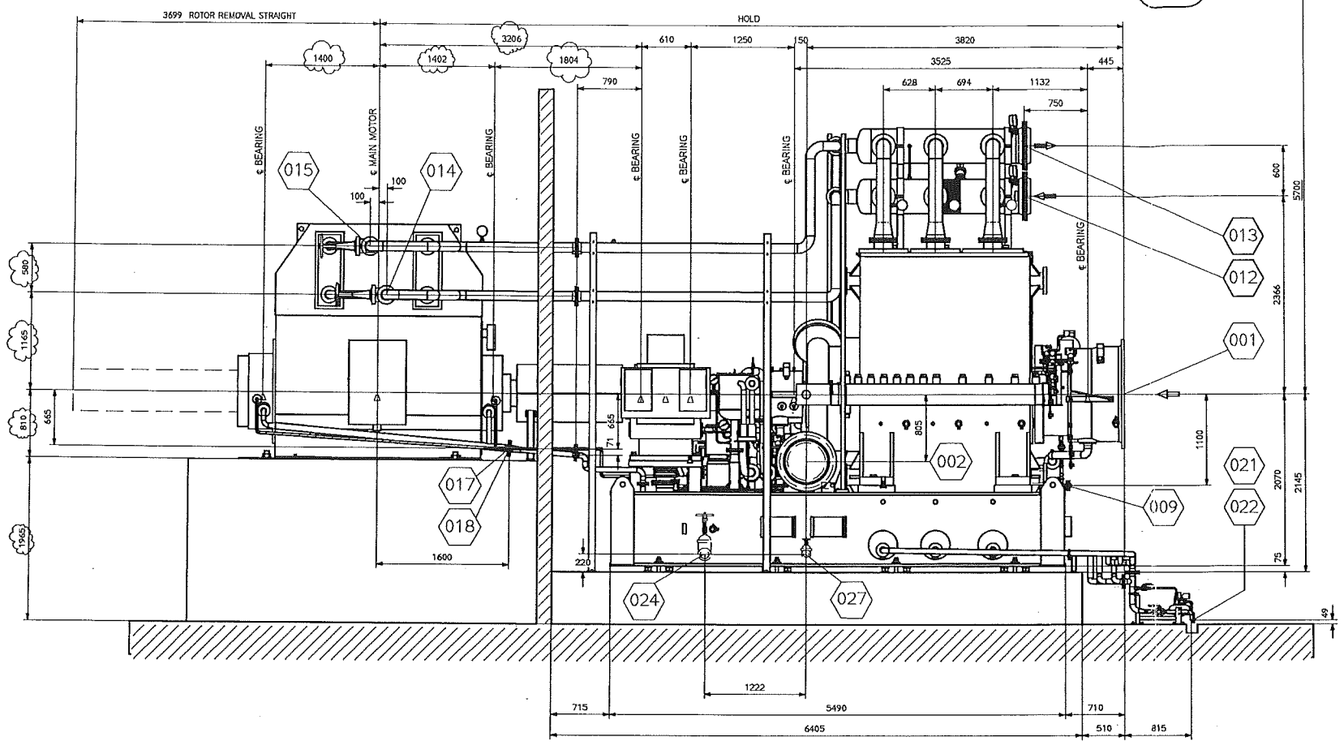
Title: P&I DIAGRAM LUBE OIL SYSTEM

Format/Size: A0 — Drawing No.: 837 016 878 — Index/Rev.: A — Bl./Sheet: 004 / 004

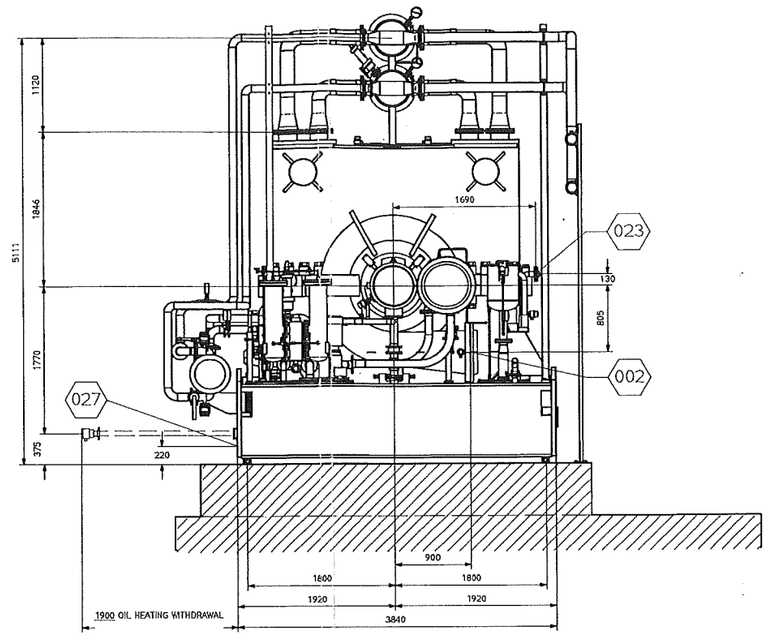
Prod. doc.: 837 015 055

Pascal Wälti SC71 DIA 837016878 004 01 15.12.2004

VIEW FROM A



SECTION B-B



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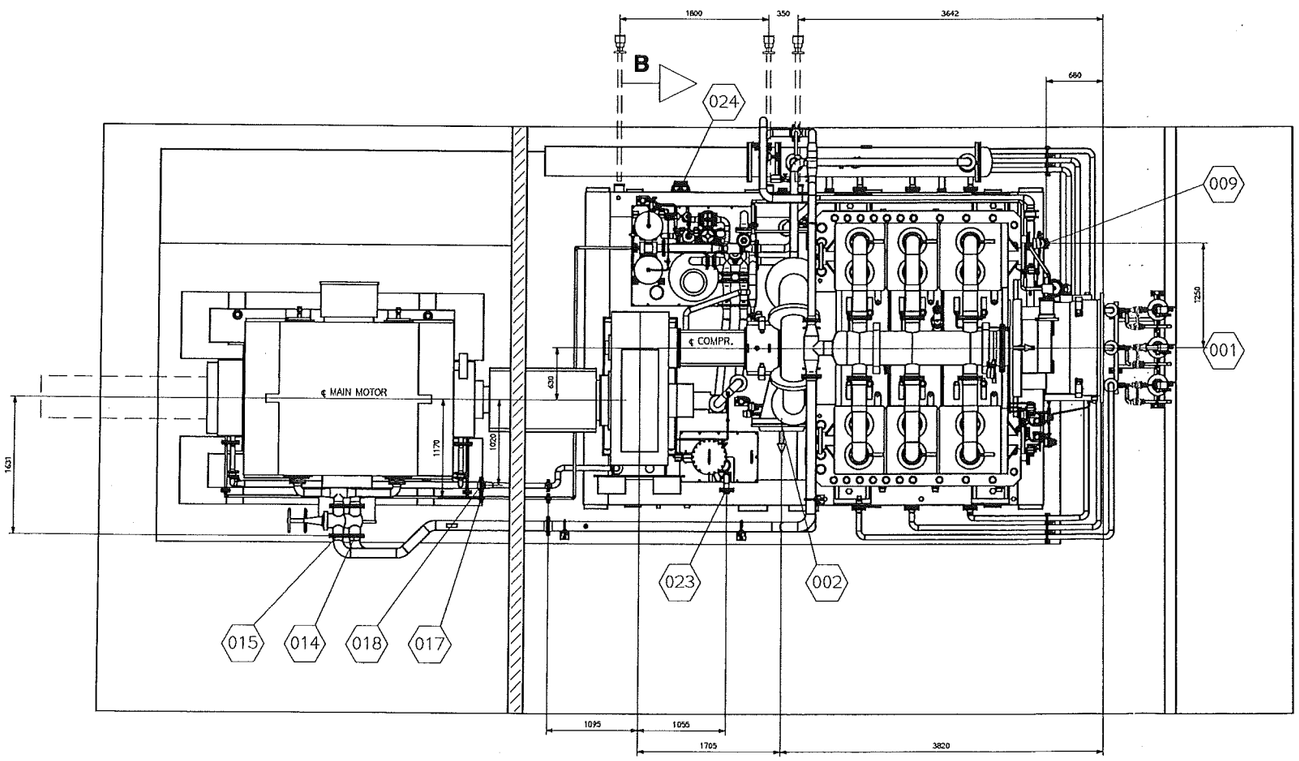

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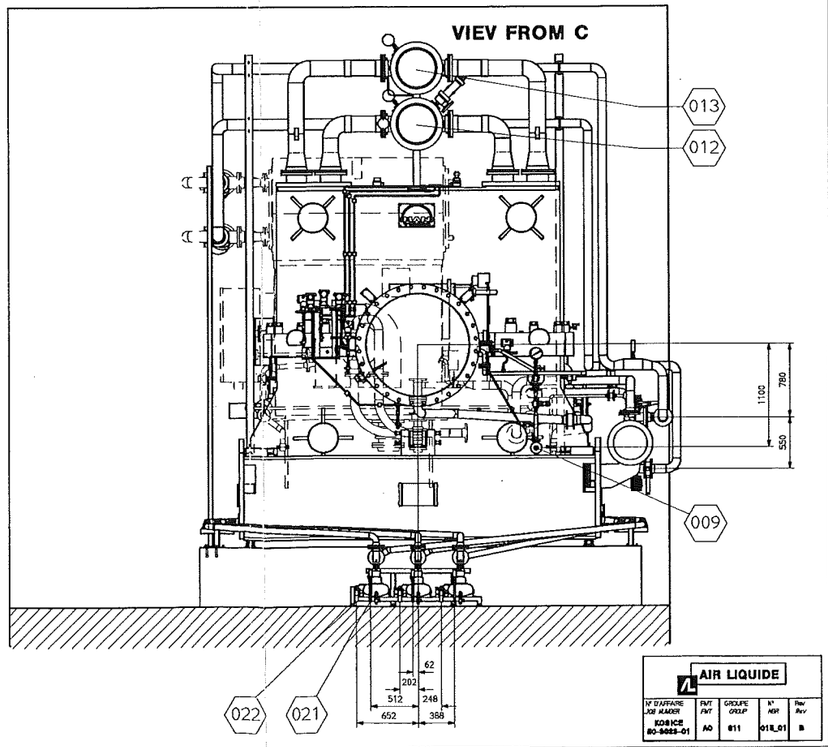


REFERENCE DRAWINGS

COMPRESSOR PLANT P&I DIAGRAM	0-837 016 878
CLIENT PIPE CONNECTION LIST	4-837 016 422
FOUNDATION PLAN & LOAD PLAN	0-837 016 421

General tolerances	Welding standards
-ISO 2768-m for mach. machining -ISO 13920-BF for welded constructions	-ISO 2553 for symbolic representation -ISO 5817 for quality levels

AIR LIQUIDE

N° D'AFFAIRE JOB NUMBER	FMT FMT	GROUPE GROUP	N° NBR	Rev Rev
828ICE 80-5055-01	A0	011	018_01	B

Index	Name	Date	Checked	Date	Mod.No.	Comments
B	R. CARAFA	29.02.2005	Corafa R.	08.03.2005	19317	ITVL
Original	R. CARAFA	20.09.2004	Selinger Ch.	28.09.2004	Selinger Ch.	28.09.2004
	Designed	Date	Checked	Date	Approved	Date

RIK 80 1+1+1+1 | Weight | Original scale 1:25

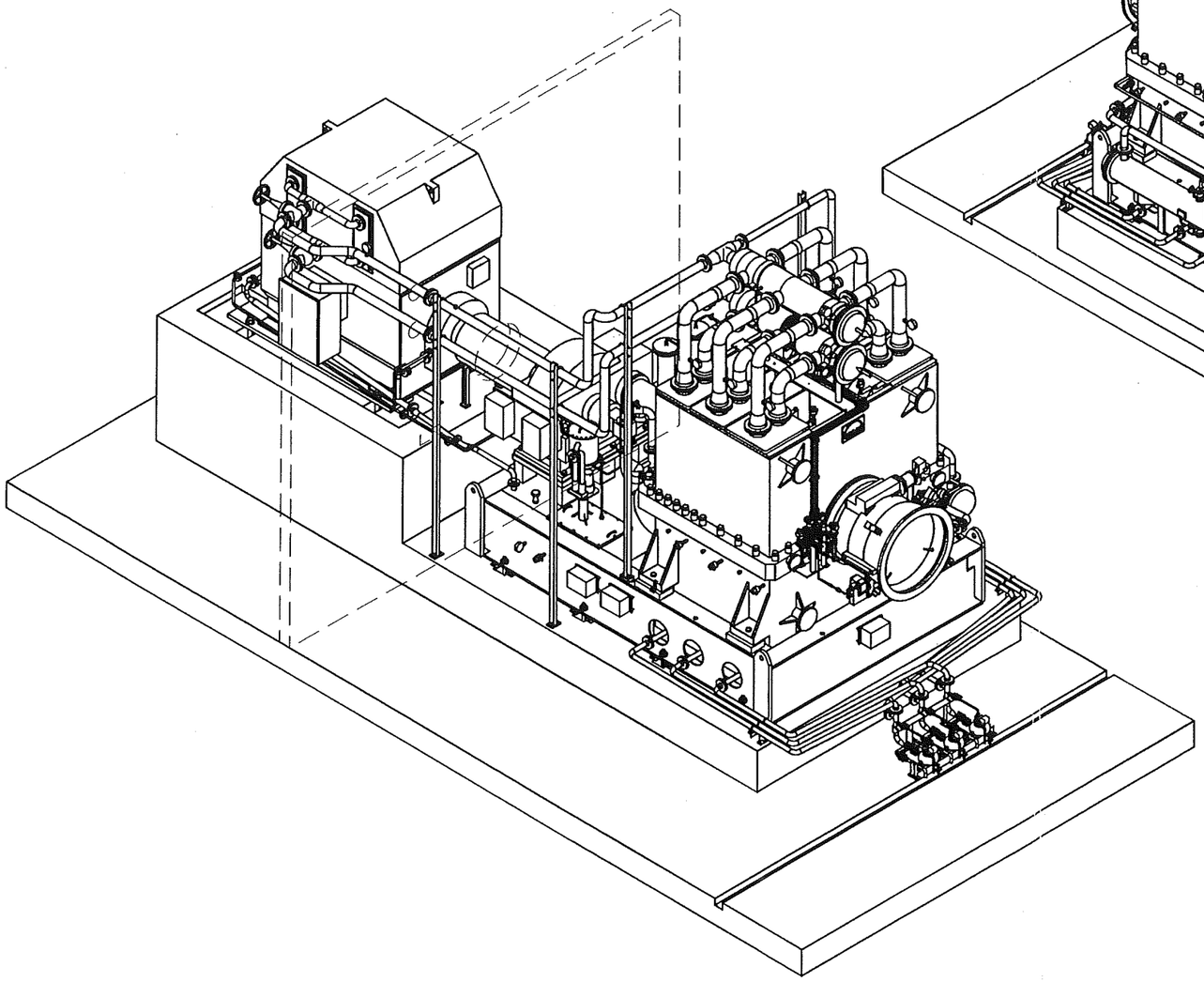
CAD:	PDMS
PROJ:	WAF
DRWG:	837016420
SHEE:	B001
USER:	ZUC R. CARAFA

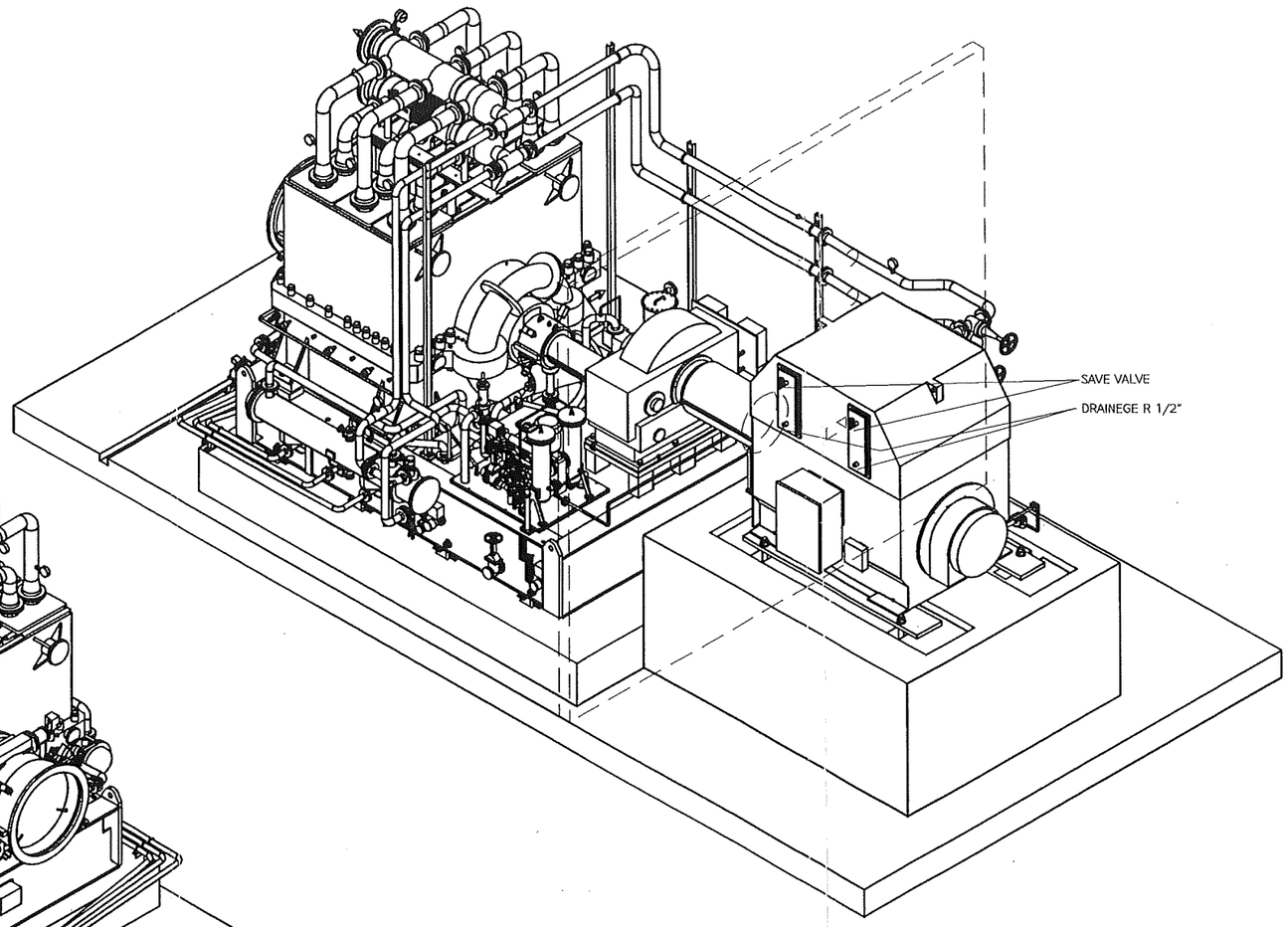
MAN — XDSAIR 2004 — N7100175

Designation: GENERAL ARRANGEMENT
MAIN AIR COMPRESS. V11001

Original drawing | Similar drawing: 837 013 569 | Replaced by | Substitute for

Lang. EN | 0-837016420 | Mod. B | Sub-Dwg. 001 of 002





General tolerances	Welding standards
-ISO 2768-m for mech. machining -ISO 13920-BE for welded constructions	-ISO 2553 for symbolic representation -ISO 5817 for quality levels

AIR LIQUIDE

N° D'AFFAIRE JOB NUMBER	FMT FMT	GROUPE GROUP	N° NBR	Rev Rev
KOSICE 60-3023-01	A0	611	015_02	B

Modific.	B	R. CARARFA	28.02.2005	Corafa R.	08.03.2005	19317	FINAL
Index		Name	Date	Checked	Date	Mod.No.	Comments
Original		R. CARAFA	20.09.2004	Selinger Ch.	28.09.2004	Selinger Ch.	28.09.2004
		Designed	Date	Checked	Date	Approved	Date

RIK 80 1+1+1+1 | Weight | Original scale 1:25

MAN

Designation
GENERAL ARRANGEMENT
MAIN AIR COMPRESS. V11001

Original drawing
Similar drawing 837 013 590
Replaced by
Substitute for

KOSAIR 2004
N7100175

Lang. EN | 1-837016420 | Mod. B | Sub-Doc. 002 of 002

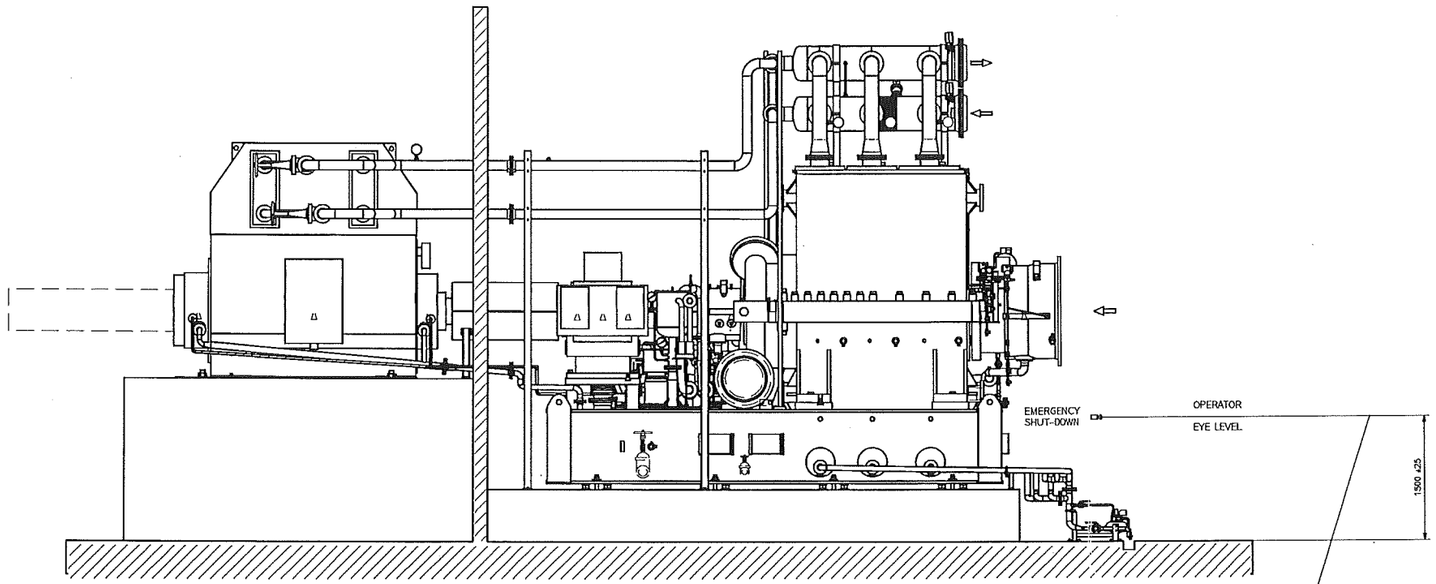
CAD:	PDMS
PROJ:	WAF
DRWG:	837016420
SHEE:	B002
USER:	ZUC R. CARAFA

VIEW FROM A

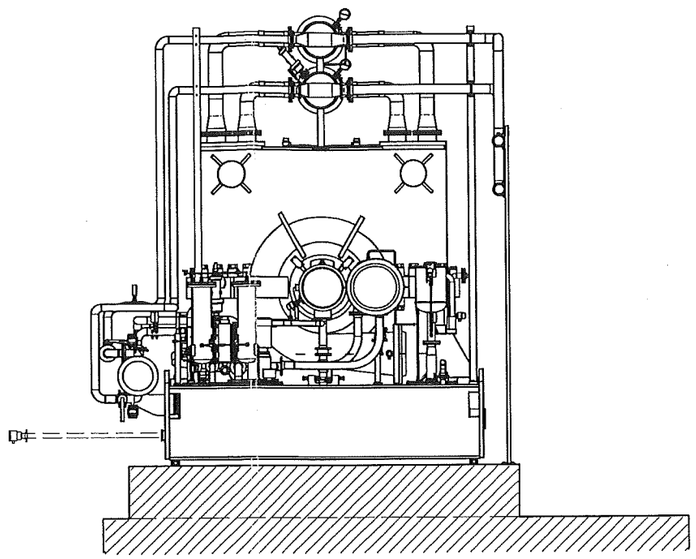
MAIN MOTOR

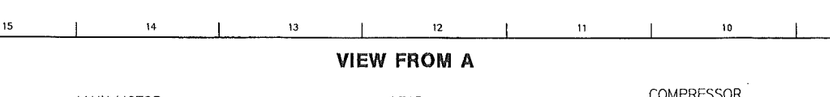
GEAR

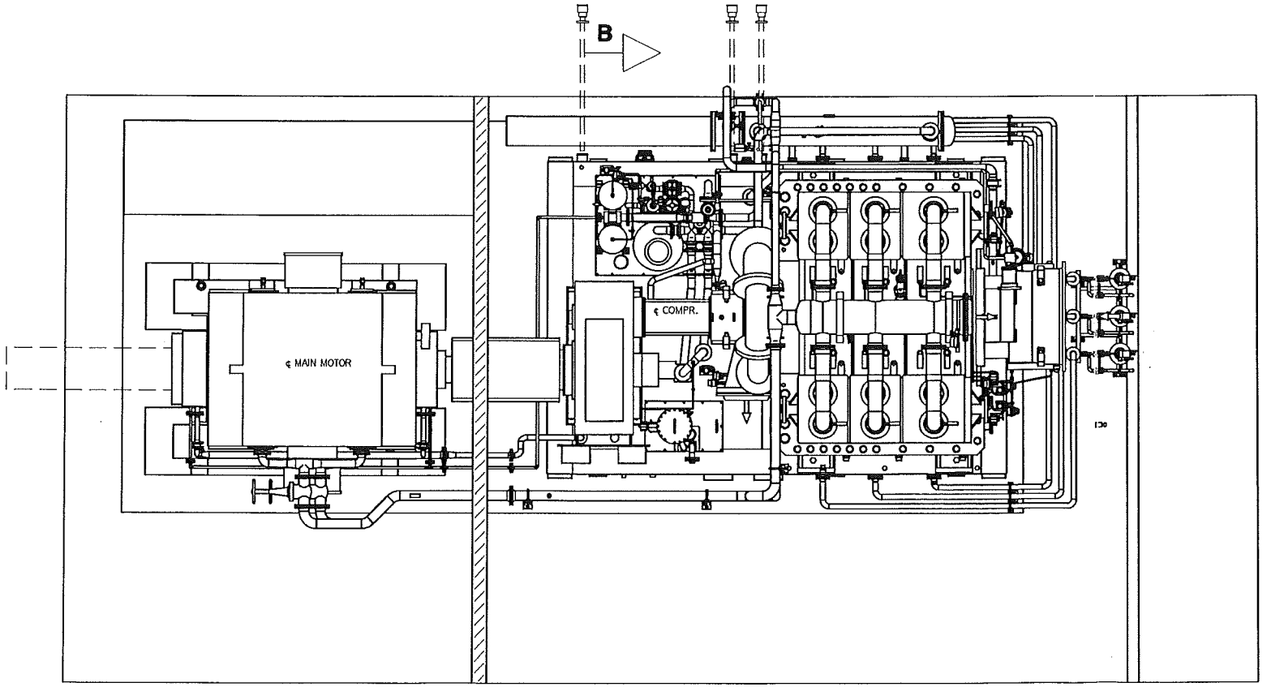
COMPRESSOR
RIK 80-4



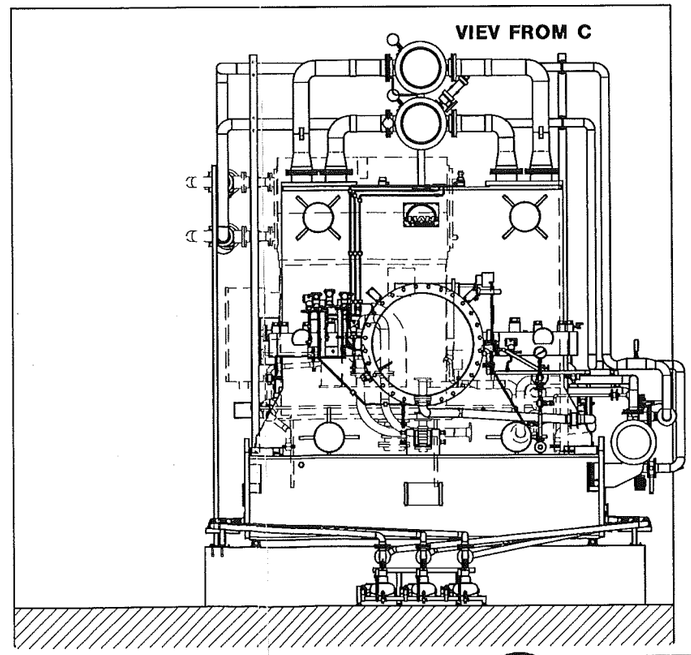
SECTION B-B







VIEV FROM C



REFERENCE DRAWINGS

COMPRESSOR PLANT P&I DIAGRAM	0-837 016 878
GENERAL ARRANGEMENT	0-837 016 420
FOUNDATION PLAN & LOAD PLAN	0-837 016 421

AIR LIQUIDE

N° D'AFFAIRE JOB MAKER	FMT FMT	GROUPE GROUP	N° AFF	Rev Rev
KOSICE 80-5028-01	A0	611		

Index	Name	Date	Checked	Date	Mod.No.	Comments
	R. CANFA	17.05.2004	Corata R.	17.05.2005	Corata R.	17.05.2005
	Designed	Date	Checked	Date	Approved	Date

RIK 80 1+1+1+1 — Weight — Original scale 1:25

Designation: SAFETY ARRANGEMENT
MAIN AIR COMPRESS. V11001

Original drawing
Similar drawing
Replaced by
Substitute to

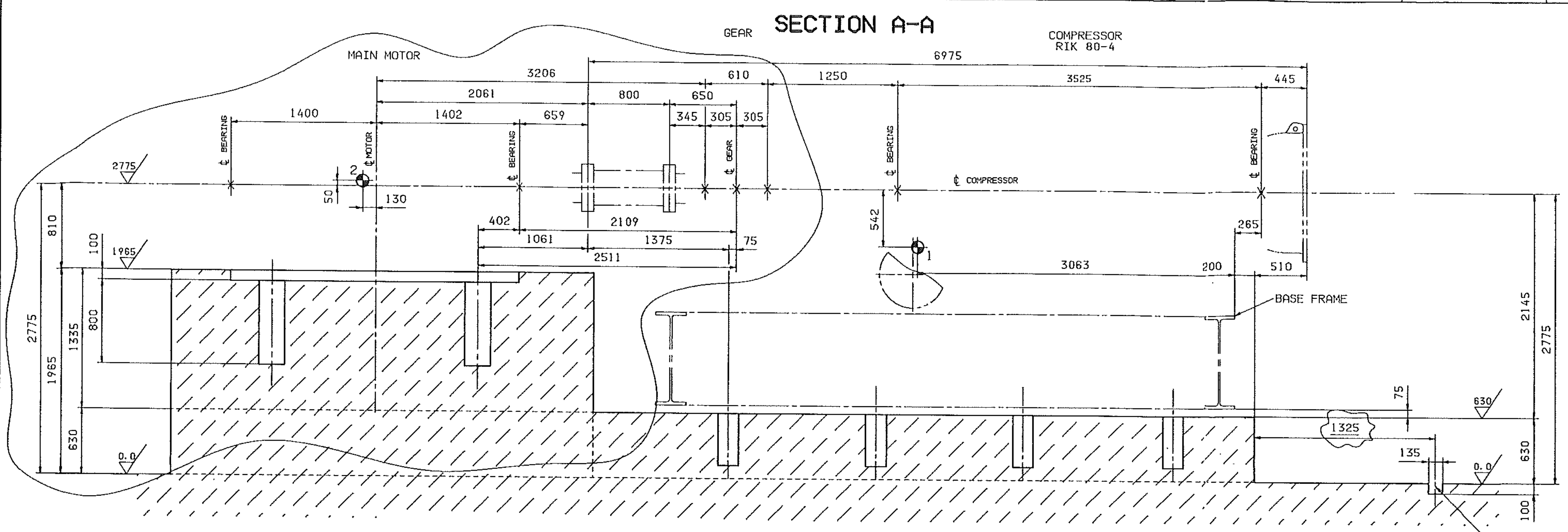
CAD: PDMS
PROJ: WAF
DRWG: 837021159
SHEE: B001
USER: ZUC R. CANFA

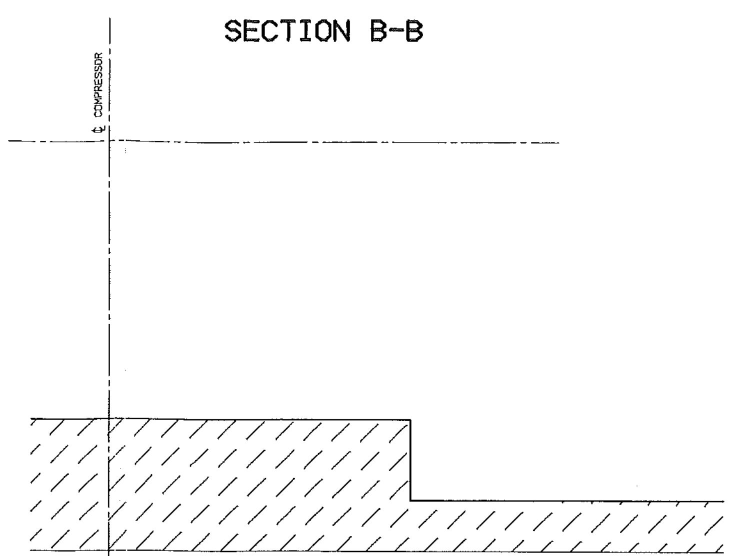
KOSAIR 2004
N7100175

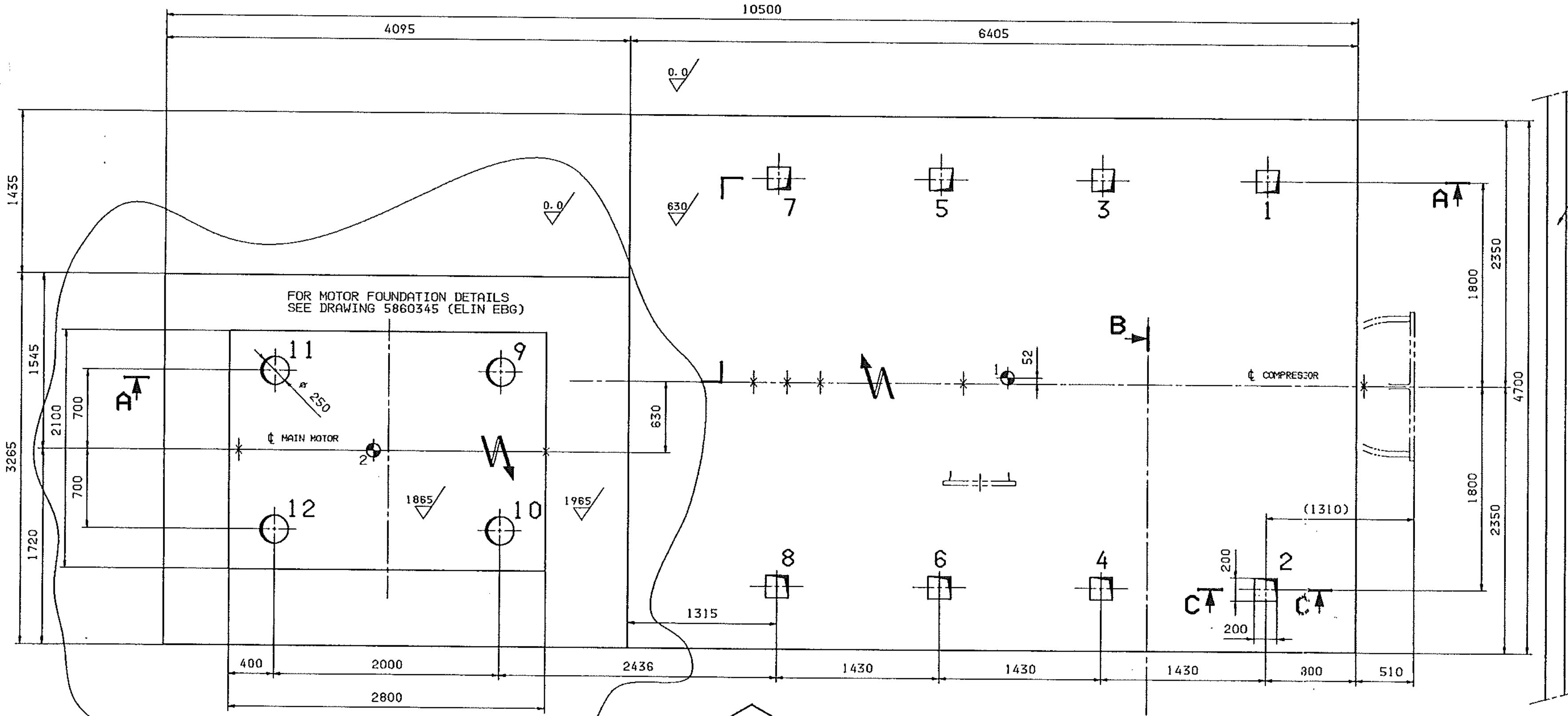
Lang: EN 0-837021159 — Mod. — Sub-Doc. 001 of 001

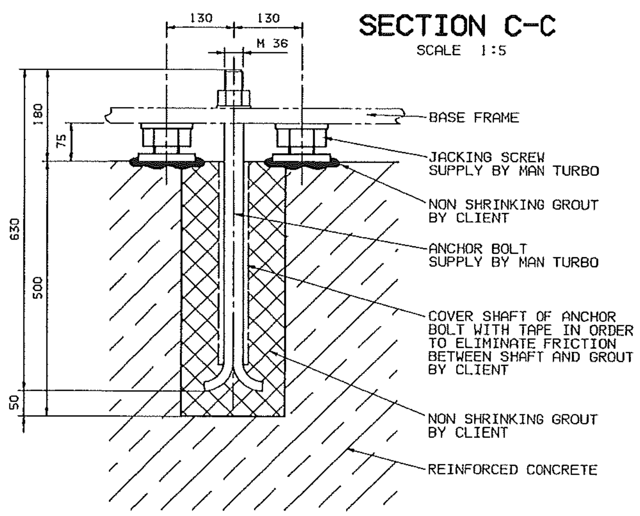
General tolerances
-ISO 2768-m
for mech. machining
-ISO 13920-BE
for welded constructions

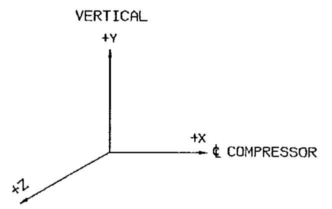
Welding standards
-ISO 2553
for symbolic representation
-ISO 5817
for quality levels

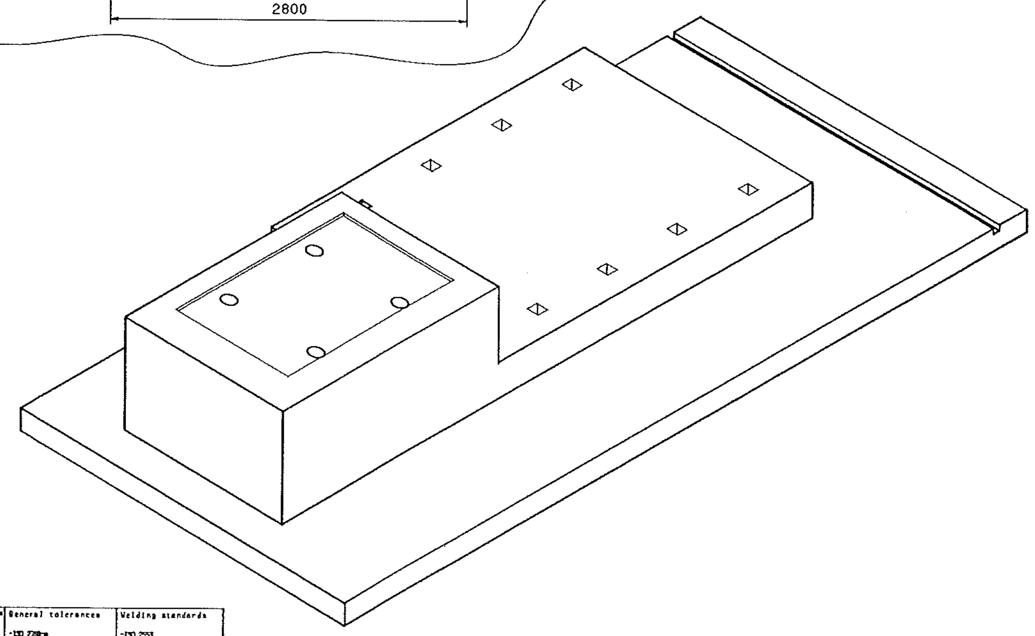












LOAD DATA

	UNIT	MAIN MOTOR	GEAR	COMPRESSOR
TYP		HKM 180 E 04	HC 63-2	RIK 80-4
TOTAL WEIGHT (INCLUDING ROTOR)	KN	196.2	65	495
ROTOR WEIGHT	KN	54.0	22.6 / 2.2	24.6
BASE FRAME WEIGHT	KN	-	91	
RATED POWER (100%)	KW	8600	8600	7085
RATED SPEED (100%)	RPM	1492	1492 / 7264	7264
RATED TORQUE	KNM	55.04	55.04 / 9.31	9.31

LOADS

ANCHOR BOLT		STATIC LOAD DUE TO MACHINE WEIGHT IN Y-DIRECTION (IN KN)	LOAD DUE TO NORMAL POWER TRANSMISSION IN Y-DIRECTION (IN KN)	VALUE K DUE TO UNBALANCE IN Y/Z-DIRECTION (HIGH ROTOR UNBALANCE ETC.) ACC. TO DIN 4024 (ISSUE 1988) (IN KN)	LOAD DUE TO SHORT CIRCUIT IN Y-DIRECTION ACC. TO. DIN 4024 (ISSUE 1988) (IN KN)
GEAR/COMPRESSOR SKID	1	-94.8	-3.8	±11.42	-
	2	-94.8	+3.8	±11.42	-
	3	-94.8	-3.8	±11.42	-
	4	-94.8	+3.8	±11.42	-
	5	-94.8	-3.8	±11.42	-
	6	-94.8	+3.8	±11.42	-
	7	-94.8	-3.8	±11.42	-
	8	-94.8	+3.8	±11.42	-
MAIN MOTOR	9	-49.05	-19.66	±0.61	±196.78
	10	-49.05	+19.66	±0.61	±196.78
	11	-49.05	-19.66	±0.61	±196.78
	12	-49.05	+19.66	±0.61	±196.78

FORCE

1 KG X 9.81 MS^{-2} = 9.81 $KGMS^{-2}$ = 9.81 N

ACCELARATION DUE TO GRAVITY 9.81 MS^{-2}

1 N = 10.2 X 10^{-2} KP

1 N = 10.2 X 10^{-2} KGF = KILOGRAM FORCE

1 KN = 1000 N

NOTE

TOTAL WEIGHT OF GEAR/COMPRESSOR SKID 758 KN (INCLUDING OIL AND COOLING WATER, EXCLUDING PROCESS PIPING)

TOTAL WEIGHT OF GEAR/COMPRESSOR SKID 675.2 KN (EXCLUDING OIL, COOLING WATER AND PROCESS PIPING)

THE DESIGN OF THE FOUNDATION WITH REGARD TO STRENGTH, REINFORCEMENT IS IN THE CUSTOMER RESPONSIBILITY

⌖[1] CENTER OF GRAVITY OF GEAR/COMPRESSOR SKID

⌖[2] CENTER OF GRAVITY OF MAIN MOTOR

REFERENCE DRAWINGS

GENERAL ARRANGEMENT	0-837 016 420
OUTLINE OF MAIN MOTOR	5860345 (ELIN EBG)
ALLOWABLE FORCES AND MOMENTS ON CASING NOZZLE	4-837 016 530

AIR LIQUIDE

N° D'AFFAIRE / JOB NUMBER	PVT	GROUPE / GROUP	N° / NBR	Rev
KOSICE 50-3023-01	A0	611	131	A

MAIN AIR COMPRESSOR V11001

Index	Name	Date	Checked	Date	Mod-No.	Comments
A	Carafa R.	01.02.2005	Seifinger Ch.	01.02.2005	18149	FINAL

Designed	Date	Checked	Date	Approved	Date
Naf J.	28.09.2004	Weiß P.	28.09.2004	Weiß P.	28.09.2004

RIK 80 |+|+|+| — Weight — Original scale 1/20 (1:5)

MAN TURBO

Designation: FOUNDATION PLAN AND LOAD PLAN

Original drawing —
Similar drawing 837013235
Replaced by —
Substitute for —

KOSAIR 2004
N. 7100175

Lang. EN — 0-837 016 421 — Mod. A — Sheet 001

CAD

General tolerances — Welding standards