

3.1

Assembly Record

11 4 710 025



Assembly Record

Train assembly drw.: 837 015 529
Cross sectional drw. 837 017 492

Shop assembly ☐
Test bed assembly ☐
Site assembly ☐
Overhaul ☐
Overhaul No.:

REFERENT	<i>Snížek</i>	<i>24. 6. 05</i>
SCHVÁLIL	<i>[Signature]</i>	<i>24. 6. 05</i>
ČÍSLO VÝKRESU		
<i>RIK 80 - KOSAIR</i>		

16-03-2005
COTKOVSKÝ spol. s r.o.
Zelený pruh 1560/99
140 02 Praha 4
C225063545

ORIGINAL

B	Bächler M.	9.03.05	Bächler M.	9.03.05	19351	Page 16: Pre-rotation stage 1
Rev.	Name	Date	Checked	Date	Change No.	Comments
Bächler M.		14.01.2005	Bächler M.	16.02.2005	Bächler M.	16.02.2005
Issued		Date	Checked	Date	Approved	Date
Type/Size:	RIK 80-4					Doc-Class: SPE
Project No:	N.7100175			Doc Title:	ASSEMBLY RECORDS	
Project:	Kosair 2004			Doc No:	837016529	Rev.: A Page 1 of 22

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Component Specification



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Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection	Authorized Inspection	MANTURBO AG	MANTURBO AG
Erecting engineer:	Agency:	Quality assurance:	Prepared: Bächler M.
Signature:	Signature:	Signature:	Signature: Bächler M.
Date:	Date:	Date:	Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
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Calculation to Alignment Schematic

Vertical Axis Offset

Shaft	Bearing		Support		Speed min ⁻¹	Half Rotor Weight N	Shaft movement due to oil film mm	Total vertical shaft movement mm	Theo. differen- ce in shaft movement mm	Setting mm	Re mark
	Type	Dia. mm	Segment width mm	Average temp- erature increase in operation ΔT °C	Support height H mm						
Motor	Sleeve	280	-	-	800	41450	-	0.15	0.19	0.2 ±0.1	1)
Wheel	Cylindrical	225	140	Gear box 10° Support	290	12056	-	0.34	0.19	0.2 ±0.1	2)
Pinion	Offset	160	160	Gear box 10° Support	290	1100	-	0.28	0.64	0.6 ±0.1	2)
RIK 80-4	R4K 125	125	100	62° Pedestal	1090	13042	0.11	0.92			

Horizontal Axis Offset

Shaft	Rotation as seen from drive end	Shaft movement due to oil film, as seen from drive end		Theo. Diffe- rence in shaft movement mm	Setting mm	Remark
		Left mm	Right mm			
Motor	↻	-	0.0	0.12	0.1 ±0.1	1)
Wheel	↻	-	0.12	0.09	0.1 ±0.1	2)
Pinion	↻	-	0.09	0.09	0.1 ±0.1	2)
RIK 80-4	↻	0	0			

Additional Remarks

- 1) Total shaft movement according to alignment sheet of motor supplier
- 2) Total shaft movement according to alignment sheet of gear supplier
- 3) Total shaft movement according to alignment sheet of turbine supplier
- 4) Ambient temperature (assumed): 30°C

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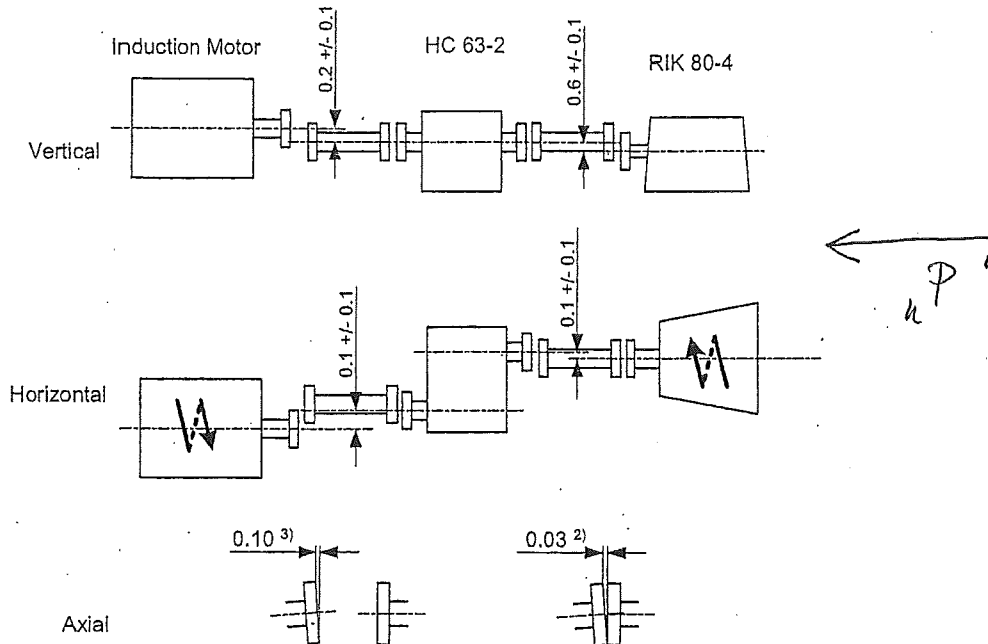
Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: Date:	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 14.01.05
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Alignment Schematic Sheet 1

Specified Axis Offset (mm) ¹⁾



¹⁾ Final alignment with process piping connected

²⁾ Solid coupling: Allowable in any phase (corresponds to 0.01 mm per 100 mm diameter)

³⁾ Flexible coupling: Allowable in any phase (corresponds to 0.02 mm per 100 mm diameter)

Actual Axis Offset (mm)

Radial
(Vertical &
Horizontal)

+	+1,08
0	+0,18
0	0

Axial

+	+0,01
+0,02	0
0	0

Indicator fixed on: driver side ☐

gear side ☐

gear side ☐

compressor side ☒

Dial gauge fixed on: driver side ☐

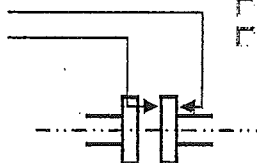
gear side ☐

gear side ☐

compressor side ☐

Rear face: ☐

Front face: ☐



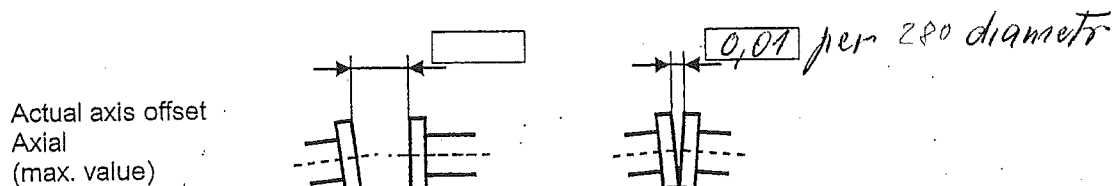
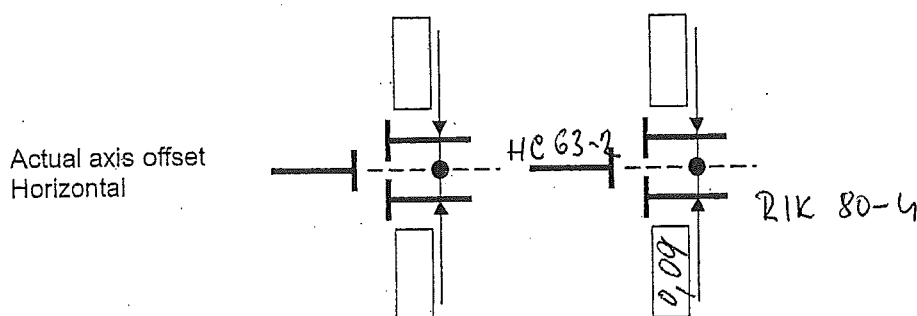
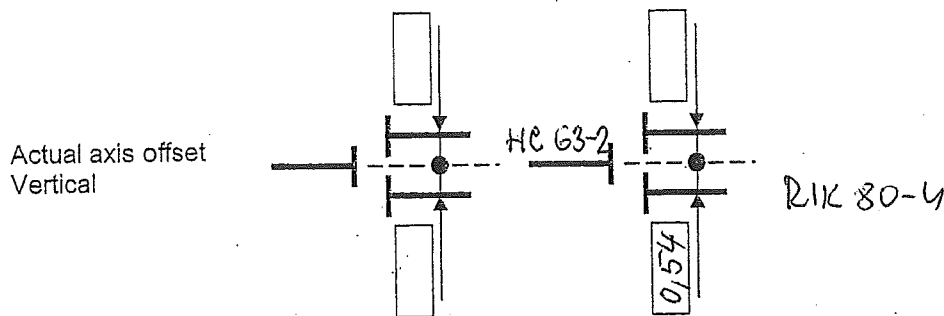
+ Measurements as seen from drive end

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection	Authorized Inspection	MANTURBO AG	MANTURBO AG
Erecting engineer:	Agency:	Quality assurance:	Prepared: Bächler M.
Signature:	Signature:	Signature: <i>[Signature]</i>	Signature: Bächler M.
Date:	Date:	Date: 3.8.05	Date: 14.01.05
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Component Specification



Alignment Schematic Sheet 2



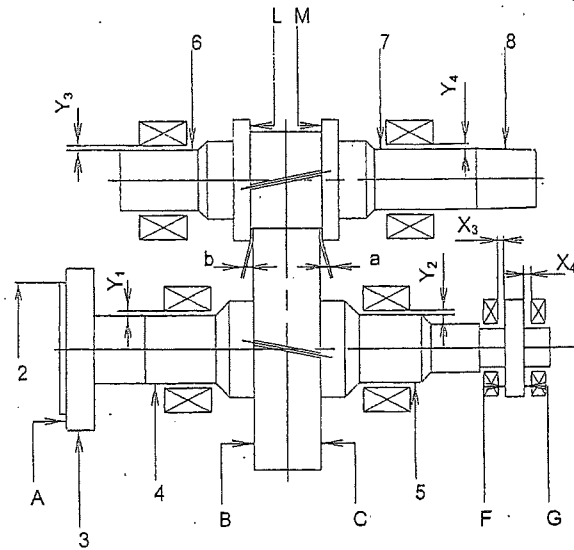
Remark

Specified values for alignment including tolerances are valid for the first set up. During normal, acceptable operating conditions, correction to alignment should only occur when the actual setting exceeds the specified values by more than ± 0.3 mm (vertical and horizontal) or by more than 50% (axial).

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Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG TBC Quality assurance: Signature: BE Date: 3.8.05	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 14.01.05
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Gearbox Clearances and Runout Sheet 1



Radial Runout [1/100mm]

		1	2	3	4	5	6	7	8	9	10	11	12
Uncoupled	Allowable		1.6		1.0	1.0	0.7	0.7	0.1				
	Actual												

Axial Runout [1/100mm]

		A	B	C	D	E	F	G	H	I	K	L	M
Uncoupled	Allowable	1.6					0.8	0.8				1.0	1.0
	Actual												

Thrust Collar Clearance			
Specified (mm)		Actual (mm)	
a	b	a	b
	0.15 – 0.25		

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: Date:	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 14.01.05
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Gearbox Clearances and Runout Sheet 2

Backlash

	Specified (mm)	Actual (mm)
	0.41 ÷ 0.61	

Journal Bearing Clearances

			Total Bearing clearance					
			Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆
Specified (mm)	vertical	min	0.27	0.27	0.24	0.24		
		max	0.32	0.32	0.283	0.283		
Actual (mm)	vertical							
Specified (mm)	horizontal	min	0.27	0.27	0.24	0.24		
		max	0.32	0.32	0.283	0.283		
Actual (mm)	horizontal							
Bearing diameter (mm)			225	225	160	160		
Type			Cylinder		Lemon offset			

Thrust Bearing Clearances

	Bearing clearance			
	X ₁	X ₂	X ₃	X ₄
Specified (mm)			0.3 ÷ 0.5	
Actual (mm)				
Type / Size				Tilting pad

Remark: ...

Manufacturer: BHS Getriebe AG

Order No.: 517830

STZ Order No.: 724970

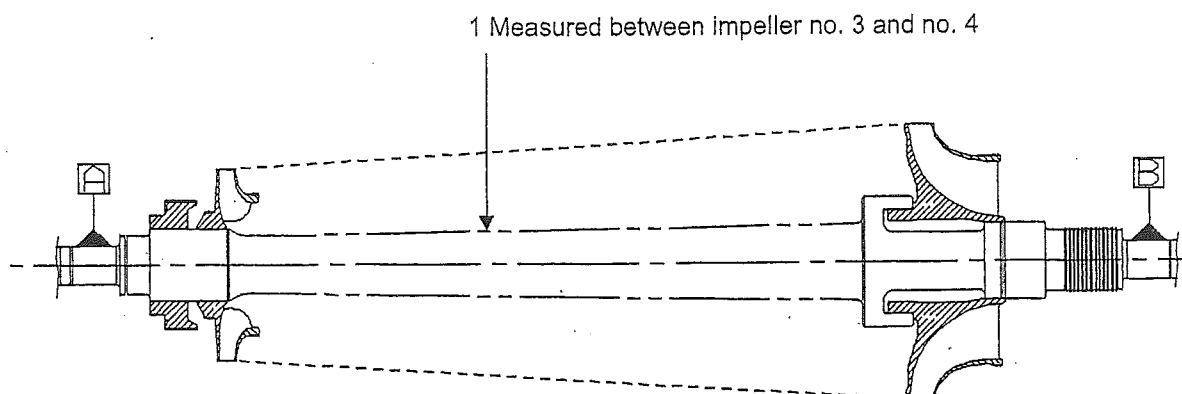
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Zelený pruh 1360/99
140 02 Praha 4
CZ25063545

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: Date:	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 14.01.05
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Project: Kosair 2004		Doc No: 837016529	Rev.: Page 7 of 22

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Rotor Radial Runout



Measuring points (1/100 mm)		Runout		
			1	
Allowable	uncoupled	↗	Max 4.0	AB
Actual	uncoupled	↗	1	AB

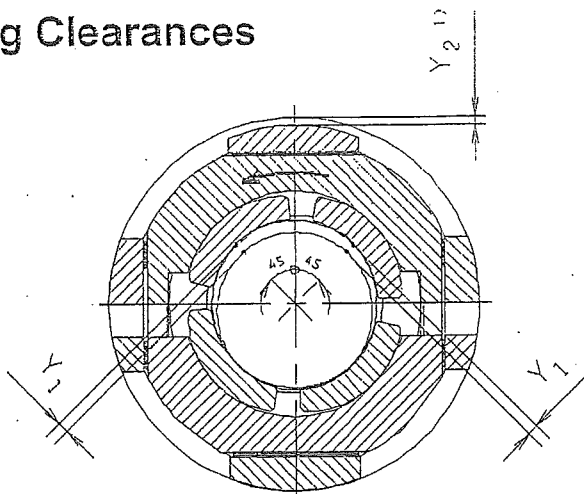
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Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: <i>[Signature]</i> Date: <i>3.8.05</i>	MANTURBO AG Prepared: Bächler M. Signature: Degirmenci H. Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
Project: Kosair 2004	Doc No: 837016529	Rev.:	Page 8 of 22

Component Specification

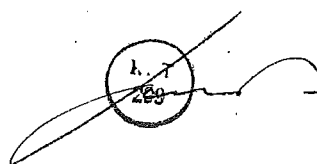


Tilting Pad Bearing Clearances



Measuring points				Discharge Side		Suction Side	
Bearing type				R4K 125/0.8/2.4E		R4K 125/0.8/2.4E	
Shaft diameter (mm)		Specified		125 h6 ⁰ _{-0.025}		125 h6 ⁰ _{-0.025}	
		Actual		124,995		124,995	
Specified		1/100 mm	Y ₁	min	18	18	
				max	25.5	25.5	
Actual			Y ₁		19 18		
Specified		1/100 mm	Y ₂	min	-5	-5	
				max	-10	-10	
Actual			Y ₂		-5 -7		
Oil orifice dia. at oil inlet flange		Specified		mm	8.5	8.5	
		Actual		mm			

¹⁾ no clearance, value Y₂ is negative



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Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG TQC Quality assurance: Signature:  Date: 3.8.05	MANTURBO AG Prepared: Bächler M. Signature: Degirmenci H. Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
Project: Kosair 2004	Doc No: 837016529	Rev.:	Page 9 of 22

Component Specification

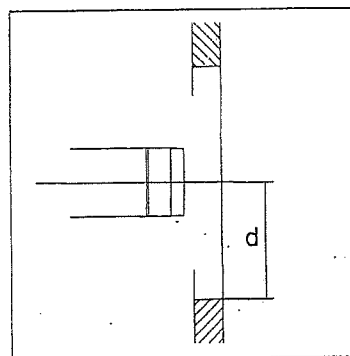
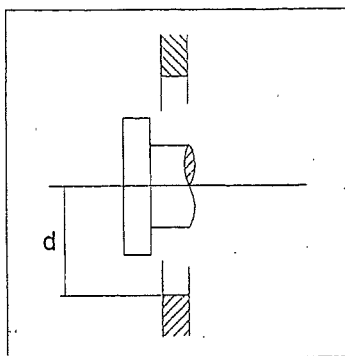


Rotor Centering – Bearing Pedestal

☐ Inlet side
☐ Outlet side
☐ Suction side
☒ Discharge side

☐ Inlet side
☐ Outlet side
☒ Suction side
☐ Discharge side

As seen from drive end



1) Front surface of bearing pedestal

Actual size in 1/100 mm
(only for reference)

d	0 $\frac{T}{+4}$ +2	T
---	---------------------	---

Measuring Instrument

DISPLAY INDICATOR

T Measurements as seen from drive end

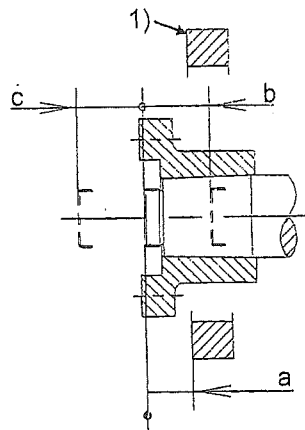
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Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: <i>TOC</i> Signature: <i>[Signature]</i> Date: 30.05	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 09.03.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
Project: Kosair 2004	Doc No: 837016529	Rev.:	Page 10 of 22

Component Specification



Rotor Position at Cold Erection



Rotor Distance – Bearing Pedestal Face

Measuring points (mm)		Suction side	Discharge side
Theoretical reference value	a		90.1
Actual reference value	a		90,1

Possible Axial Displacement of Rotor

Measuring Points (mm)		Suction side	Discharge side
Theoretical reference value	b		Max. 6.0
Actual reference value	b		6,59
Theoretical reference value	c		Max. 13.5
Actual reference value	c		12,46

Possible displacement limited by:

- | | |
|--|--|
| ☐ Stepped labyrinths | ☒ Impeller – stator parts |
| ☐ Emergency thrust bearing | ☐ Gland – balance piston |
| ☐ Mechanical seal | ☐ Thrust bearing removed |
| ☐ Blades | ☒ Segment rings of balance piston and diaphragms removed |
| ☒ Negative Clearance | |

¹⁾ Front face of bearing pedestal.

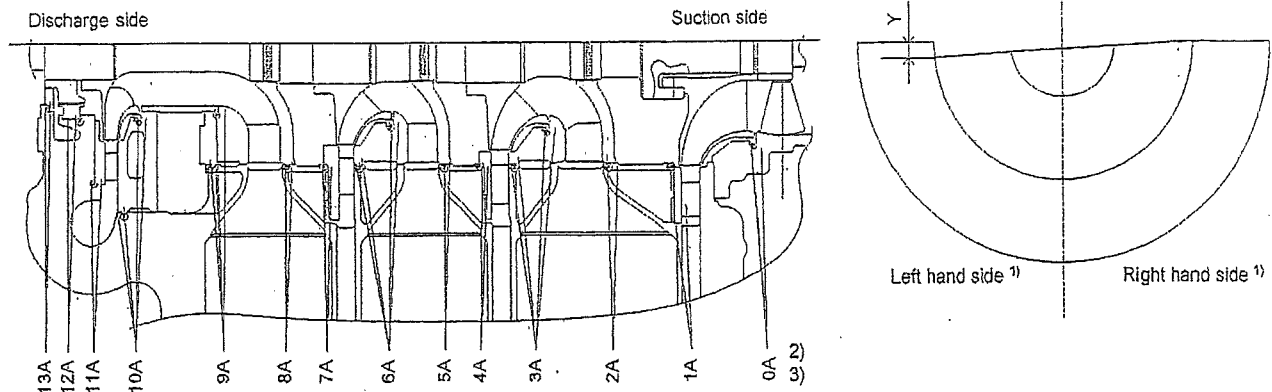
16-03-2005
Zelený pruh 1500/80
140 02 Praha 4
CZ2506545

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection	Authorized Inspection	MANTURBO AG	MANTURBO AG
Erecting engineer:	Agency:	Quality assurance: 70C	Prepared: Bächler M.
Signature:	Signature:	Signature: 3.2.05	Signature: Bächler M.
Date:	Date:	Date:	Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
Project: Kosair 2004	Doc No: 837016529	Rev.: A	Page 11 of 22

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Split line clearance



Part name	Marking	3)	Upper part		Lower part		Total clearance upper and lower part [1/100 mm] 4)	
			Left side	Right side	Left side	Right side	Actual	Specified
Labyrinth insert	0		/	/	/	/		40 ÷ 80
Diffuser	1		-12	-12	-1	-1		3 ÷ 30
Return chanel	2		-9	-9	-5	-5		3 ÷ 30
Labyrinth insert	3		-6	-6	+5	+5		40 ÷ 80
Chanel wall	3/1		/	/	/	/		3 ÷ 30
Diffuser	4		-4	-4	+2	+2		3 ÷ 30
Return chanel	5		-17	-17	+11	+11		3 ÷ 30
Labyrinth insert	6		-5	-5	+4	+4		40 ÷ 80
Chanel wall	6/1		/	/	/	/		3 ÷ 30
Diffuser	7		-35	-35	+9	+9		3 ÷ 30
Return chanel	8		-2	-2	-4	-4		3 ÷ 30
Intermediat wall	9		+3	+3	-5	-5		3 ÷ 20
Chanel wall	9/1		/	/	/	/		3 ÷ 30
Labyrinth insert	10		+12	+12	-19	-19		40 ÷ 80
Chanel wall	10/1		/	/	/	/		3 ÷ 30
Diffuser	11		+1	+1	-7	-7		3 ÷ 30
Balance drum liner	12		-3	-3	-9	-9		40 ÷ 80
Labyrinth insert	13		/	/	/	/		3 ÷ 20

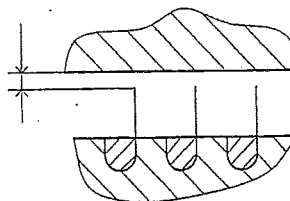
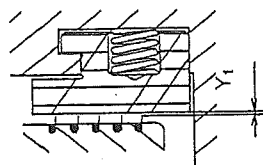
- 1) Seen from suction side
- 2) Marking from suction to discharge side
- 3) A = 1. machine, B = 2. machine
- 4) Measured to the direct counterpart

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection: Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG TBC Quality assurance: Signature: <i>[Signature]</i> Date: <i>20.05</i>	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 14.01.05
Project No: N.7100175		Doc. Title: ASSEMBLY RECORDS	
Project: Kosair 2004		Doc No: 837016529	Rev.: A Page 12 of 21

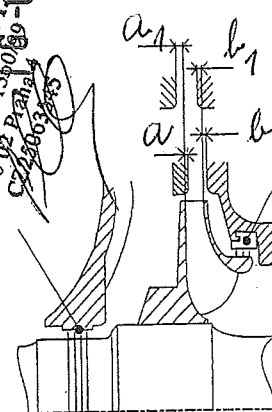
Component Specification



Impeller Clearances at Cold Assembly Sheet 1



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Stage				1	2	3	4
Specified	mm	a	min	-6.55	-4.9	-4.58	-3.94
			max	8.75	7.1	6.78	6.14
		b	min	-8.75	-7.1	-6.78	-6.14
			max	6.55	4.9	4.58	3.94
	1/100 mm	Y ₁	-20 ÷ 20 + -20 ÷ 20	-20 ÷ 20 + -20 ÷ 20	-20 ÷ 20 + -20 ÷ 20	-20 ÷ 20 + -20 ÷ 20	
		Y ₂	90 ÷ 115 80 ÷ 105 + 80 ÷ 105 70 ÷ 95	90 ÷ 115 80 ÷ 105 + 80 ÷ 105 70 ÷ 95	90 ÷ 115 80 ÷ 105 + 80 ÷ 105 70 ÷ 95		
		Y ₃					
		Y ₄					
	Actual	mm	a	0,5	0,6	0,5	0,7
			b ₁	0,2	1,0	0,5	0
		1/100 mm	Y ₁	-60 + -50	-25 + -30	-30 + -30	-20 + -20
			Y ₂	85 85 + 85 70	85 85 + 90 70	85 85 + 90 70	
Y ₃							
Y ₄							

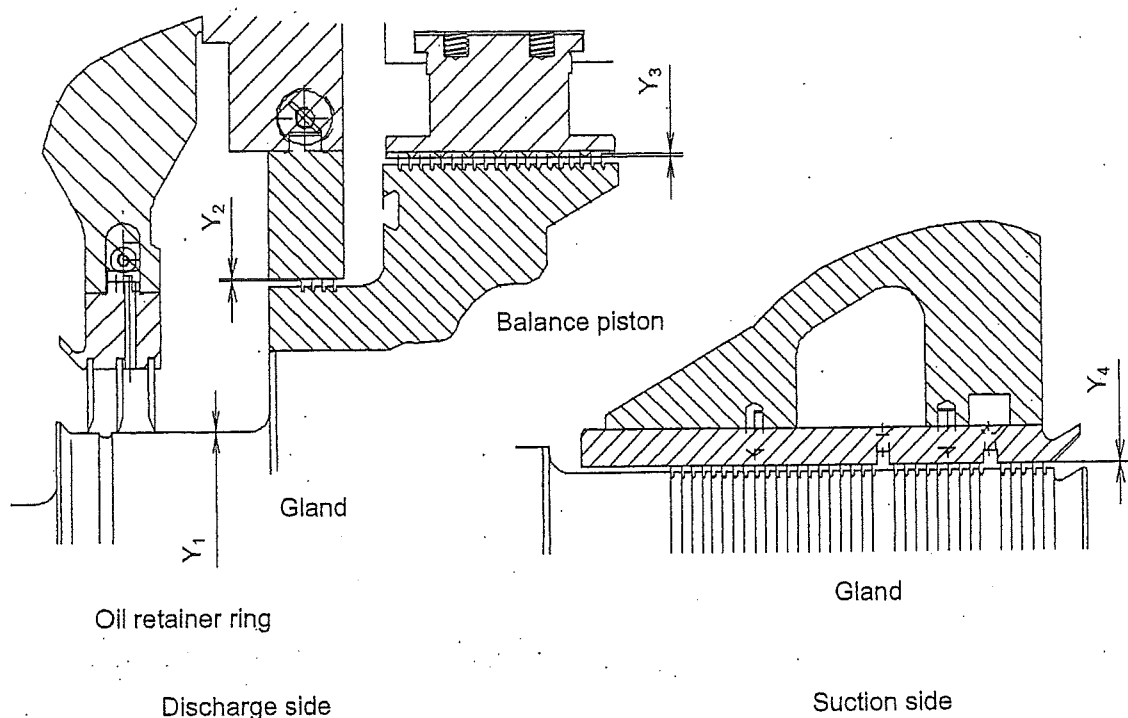
+ Measurements as seen from drive end

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: <i>[Signature]</i> Date: 30.05	MANTURBO AG Prepared: Bächler M. Signature: Degirmenci H Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
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Component Specification



Labyrinth, Glands and Balance Piston Clearances at Cold Assembly



Measuring point	Specified 1/100 mm	Actual 1/100 mm
Y ₁	15 ÷ 30 10 ÷ 25 + 10 ÷ 25 5 ÷ 20	10 10 10
Y ₂	15 ÷ 40 10 ÷ 35 + 10 ÷ 35 5 ÷ 30	25 20 25
Y ₃	-5 ÷ 10 + -5 ÷ 10	-20 + -15
Y ₄	15 ÷ 40 10 ÷ 35 + 10 ÷ 35 5 ÷ 30	15 15 15

+ Measurements as seen from drive end

Accepted by Engineering Dept.
MAN Turbomaschinen AG Schweiz

Signed

+ : Positive clearance
- : Negative clearance

0,25 ÷ 0,27 FREE OF COLOUR

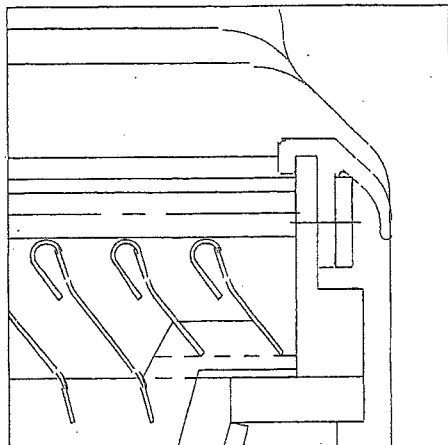
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Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: TQC Date: 3.8.05	MANTURBO AG Prepared: Bächler M. Signature: Degirmenci H Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
Project: Kosair 2004	Doc No: 837016529	Rev.:	Page 14 of 22

Component Specification

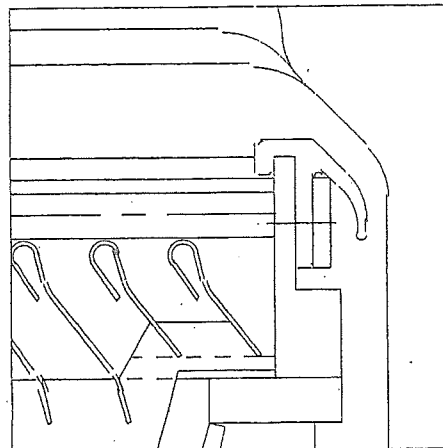


Cooler Seal

Visual Inspection



Correct fitting sealing strip



Incorrect fitting sealing strip

Cooler Stage (As seen from driven end)	Left side		Right side	
	Correct fit	Incorrect fit*	Correct fit	Incorrect fit*
Stage 1				
Stage 2				
Stage 3				

*In case of incorrect fitting seal inform the engineering department

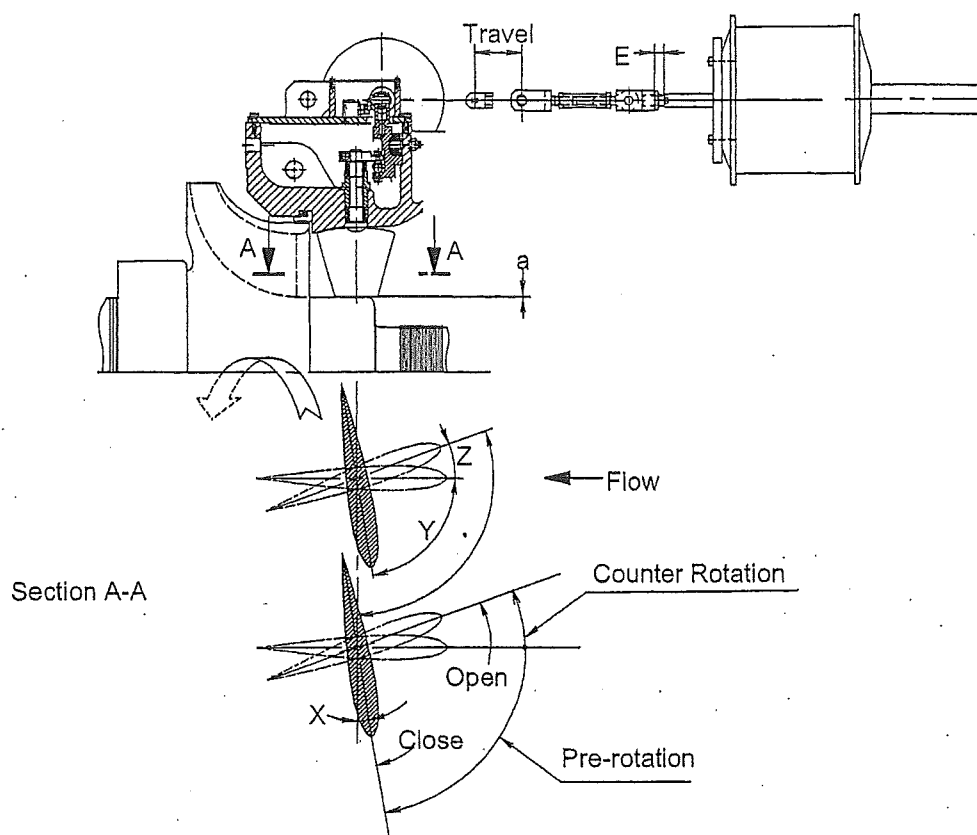
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CZ 25063545

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: Date:	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 14.01.05
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Component Specification



Pre-rotation Stage 1



		Specified value	Actual value
Blade angles (degree)			
Closed	X	$9^\circ \pm 1^\circ$	9°
Prerotation	Y	$81^\circ \pm 1^\circ$	82°
Counter rotation	Z	$21^\circ \pm 1^\circ$	20°
Blade clearance (mm)	a	18.5	19
		Reference value	Actual value
Adjusting size (mm)	E	16.0	15.5
Travel (mm)		106.0	106

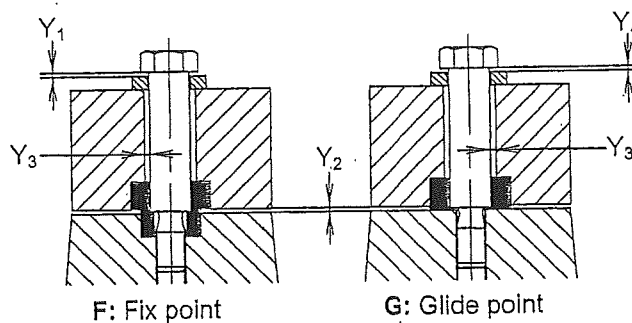
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Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: <i>TAC</i> Date: <i>30.01</i>	MANTURBO AG Prepared: Bächler M. Signature: Degirmenci H. Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
Project: Kosair 2004	Doc No: 837016529	Rev.: B	Page 16 of 22

Component Specification



Holding Down Bolts: Centering and Vertical Clearances



Specified Clearances (mm)

	Y ₁	Y ₂	Y ₃	Y ₄
min	0.2		2.0	0.2
max	0.3	2.0		0.3

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Actual Clearances (mm)

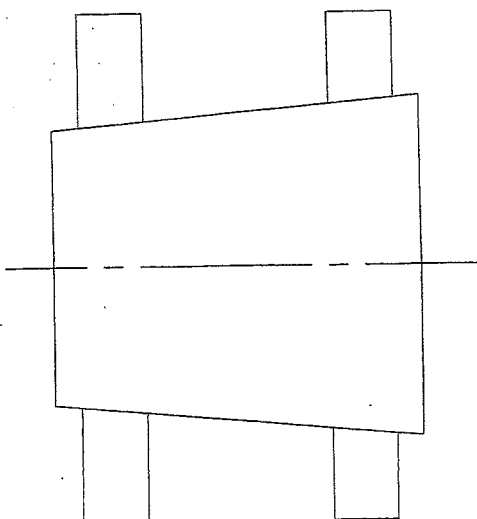


Suction Side
Discharge Side



Fix Point	
Y ₁	
Y ₂	
Y ₃	
Y ₄	

Y ₁	
Y ₂	
Y ₃	
Y ₄	



Glide Point	
Y ₁	
Y ₂	
Y ₃	
Y ₄	

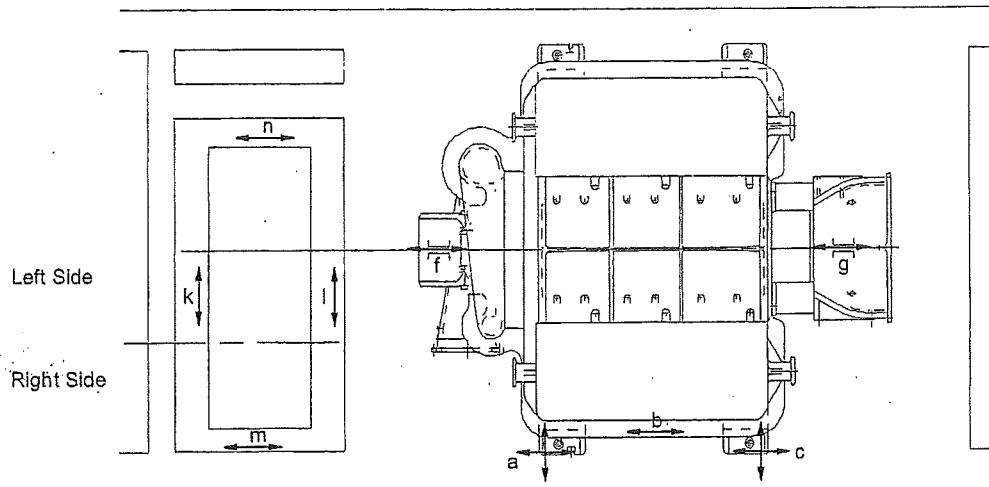
Y ₁	
Y ₂	
Y ₃	
Y ₄	

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: Date:	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 14.01.05
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Component Specification



Check with Spirit Level



As seen from drive end (mm/m)		Casing								Rotor		
		a		b	c		d		e		f	G
		Longi- tudinal	Trans- versal	Longi- tudinal	Longi- tudinal	Trans- versal	Longi- tudinal	Trans- versal	Longi- tudinal	Trans- versal	Longitudinal	
Side	L											
	R											
		Bearing pedestal				Gear casing				Base frame		
		i		j		k	l	m	n			
		Longi- tudinal	Trans- versal	Longi- tudinal	Trans- versal	Transversal		Longitudinal				
Side	L											
	R											

Indicate direction by arrow (rising in direction of arrow)

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection	Authorized Inspection	MANTURBO AG	MANTURBO AG
Erecting engineer:	Agency:	Quality assurance:	Prepared: Bächler M.
Signature:	Signature:	Signature:	Signature: Bächler M.
Date:	Date:	Date:	Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
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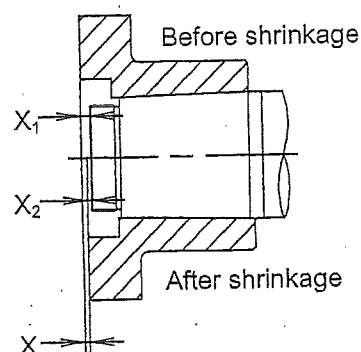
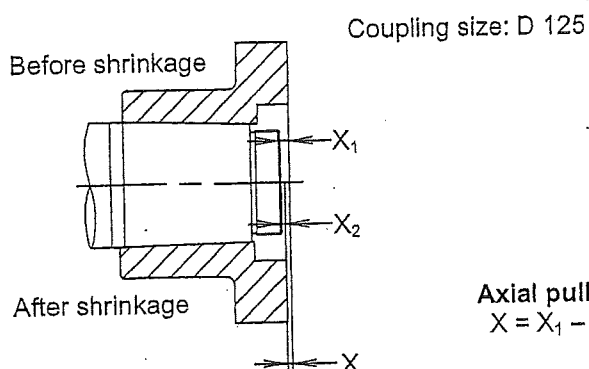
Component Specification



Hydraulic Fitted Coupling with Shaft End Nut

	Fitted on
Motor	
Turbine	
Gear	HC63-2
Compressor	
Expander	
Rotor No.	

	Fitted on
Motor	
Turbine	
Gear	
Compressor	RIK 80-4
Expander	
Rotor No.	



Reference value (mm)	X ₁	7.25	7.25
	X ₂	1 ± 0.3	1 ± 0.3
Specified value (mm)	X	6.25 ± 0.1	6.25 ± 0.1
Actual value (mm)	X ₁	7,7	7,9
	X ₂	1,35	1,55
	X	6,35	6,35



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Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: <i>[Signature]</i> Date: 30.05	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
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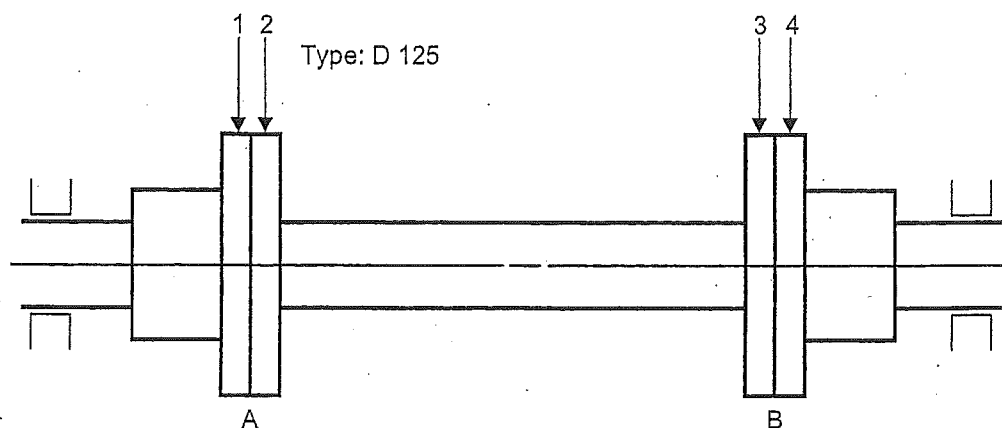
Component Specification



Solid Coupling Radial Runout

	Type
Motor	
Turbine	
Gear	HC 63-2
Compressor	
Expander	
Rotor No.	

	Type
Motor	
Turbine	
Gear	
Compressor	RIK 80-4
Expander	
Rotor No.	



Measuring points (1/100 mm)	1	2	3	4
Specified value coupled side A + B		2	2	
Actual value coupled side A + B				
For information				
Actual value coupled side A				
Actual value coupled side B				

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection	Authorized Inspection	MANTURBO AG	MANTURBO AG
Erecting engineer:	Agency:	Quality assurance:	Prepared: Bächler M.
Signature:	Signature:	Signature:	Signature: Bächler M.
Date:	Date:	Date:	Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
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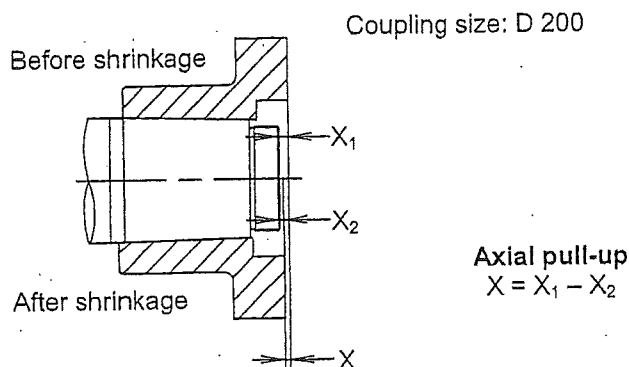
Component Specification



Hydraulic Fitted Coupling with Shaft End Nut

	Fitted on
Motor	X
Turbine	
Gear	
Compressor	
Expander	
Rotor No.	

	Fitted on
Motor	
Turbine	
Gear	
Compressor	
Expander	
Rotor No.	



Reference value (mm)	X ₁	12.0
	X ₂	2 ± 0.3
Specified value (mm)	X	10.0 ± 0.1
Actual value (mm)	X ₁	
	X ₂	
	X	

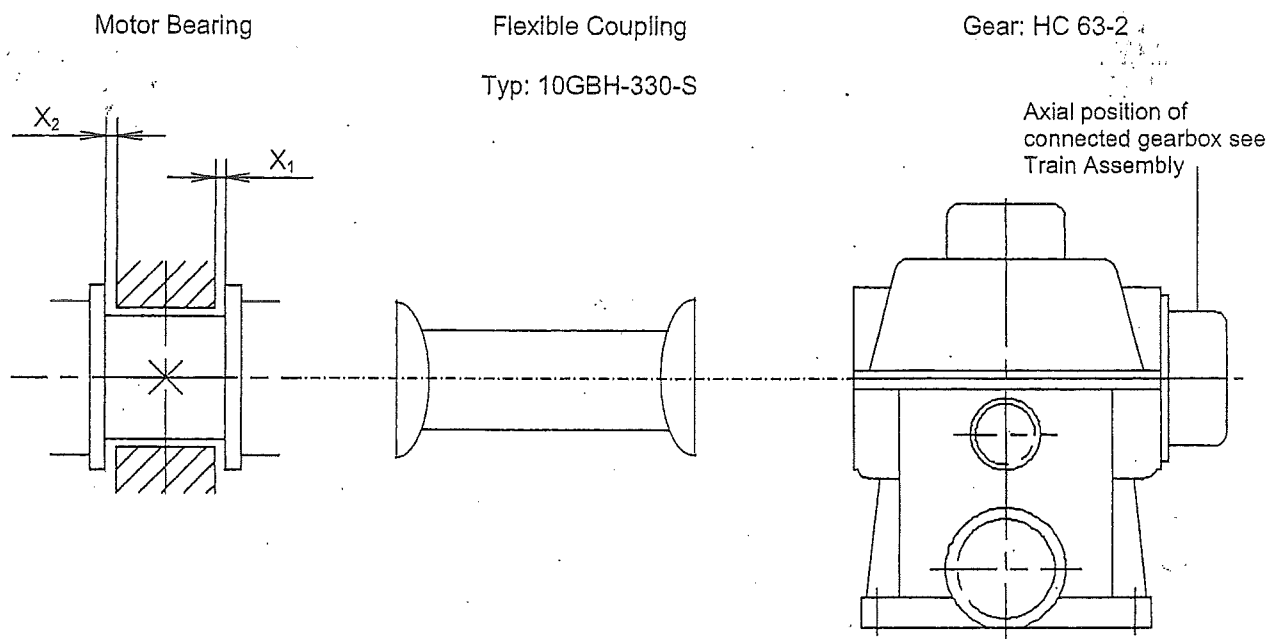
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Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
Inspection Erecting engineer: Signature: Date:	Authorized Inspection Agency: Signature: Date:	MANTURBO AG Quality assurance: Signature: Date:	MANTURBO AG Prepared: Bächler M. Signature: Bächler M. Date: 14.01.05
Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
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Component Specification



Axial Position of the Motor Shaft



Measuring points	X ₁	X ₂
Specified (mm)	4.0	2.0
Actual (mm)		

Type of Machine: RIK 80-4	Machine No.:	Rotor No.:	Cartridge No.:
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Project No: N.7100175	Doc Title: ASSEMBLY RECORDS		
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