TurboCare®

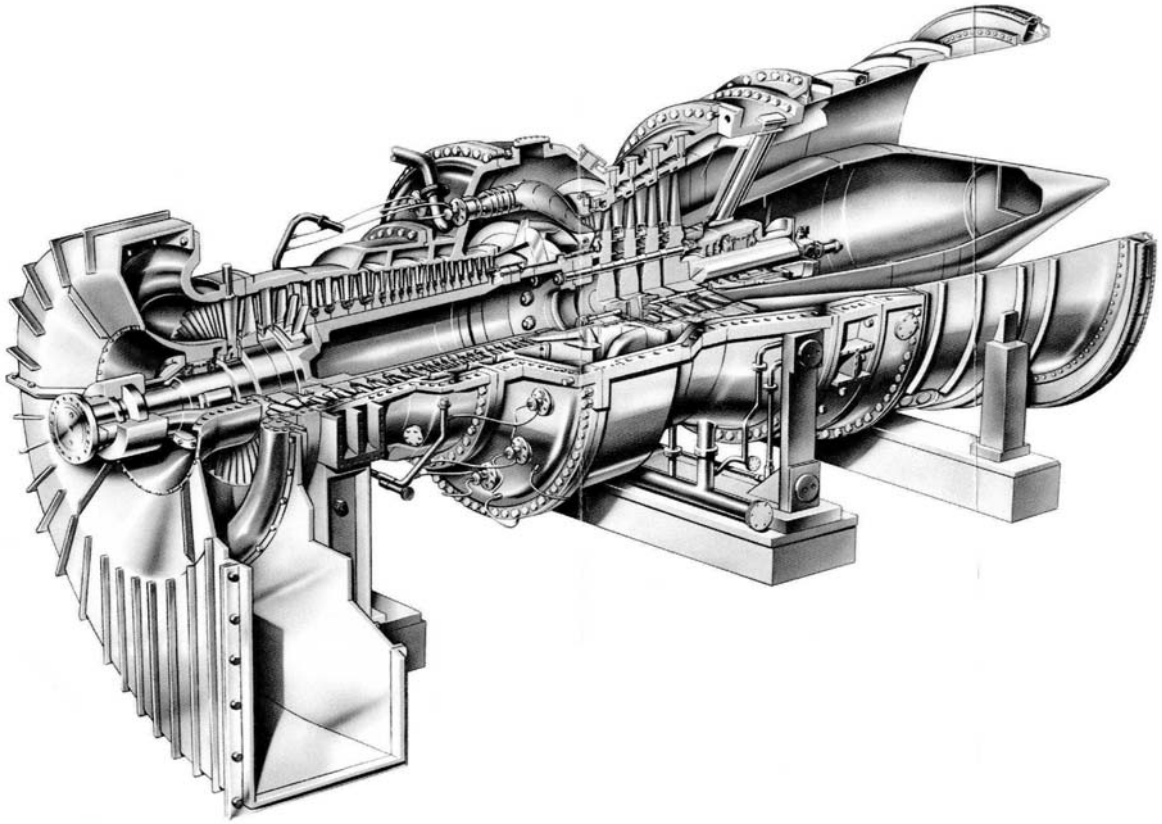
TG50D5 – Std

GT Serial Number - 358

I P S A

(EX GR. "E"- TURBIGO POWER PLANT)

Major Overhaul



TECHNICAL REPORT TR012-08

TORINO 03/09/2008

Issued by
Operations – Field Service

Document
I-TLE/TG50D5-358/TR012-08

Title: TG50D5 STD S/N: 358 GR. E – MAJOR OVERHAUL

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Approved by
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SUMMARY

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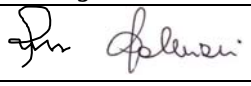
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

1.0 - FOREWORD

The gas turbine TG50D5 S/N 358, Unit GR "E" at Turbigo Power Plant, was definitively stopped on 03/05/2006. Major overhaul was started on 22/08/2007 and finished on 25/01/2008 in Porto Marghera (VE). All the activities have been done without removal the rotor, by TurboCare employees. The turbine was running on gas fuel, and at the time of the stoppage, it had cumulated the following running data:

BHG:	Firing hours on fuel gas base	23545
PHG:	Firing hours on gas peak load	6
BHO:	Firing hours on liquid fuel base	71
PHO	Firing hours on liquid peak load	16
NS:	Number of start	959
ET:	Number of emergency trip	95
LR	Number of load rejection	57
EH:	Equivalent hours	40113

2.0 COMPRESSOR INSPECTION

2.1 COMPRESSOR BODIES

All the Compressor Bodies and Air Inlet Casing upper part were removed and all the compressor diaphragms disassembled. The upper and lower part of the compressor bodies were found in good condition, only cleaning has been done. IGV system and blades, on AIR INLET CASING, was checked and found in good condition. Only lubrication with grease was required, done after assembly.

2.2 COMPRESSOR DIAPHRAGMS

All the diaphragms, after disassembly, have been cleaned by steam, and inspected according to the Field Inspection and Repair Guidelines F I 028/94e. Some of them were found with rubbing marks and air seal surface corrosion, slight dent and small limited area without coating on vane coated surface. The corrosion was removed by grinding and polishing, and all the diaphragms have been reassembled in the same position. See pages from 29 to 33, 46 and 47 for assembly clearances. Additionally to the FI prescriptions, on outer shroud tenon weld of the diaphragms, from the first to the fifth compressor stage ULTRASONIC TEST was performed . No indications have been found.

3.0 - COMBUSTION SYSTEM INSPECTION

All the components of the combustion system have been disassembled and sent to TurboCare factory for inspections and repair if any. Combustion System components ready to be reassembled, Transitions Pieces, Combustor Baskets, Cylinders, Cross-Flame Tubes etc, have been received in Marghera and consequently assembled. Assembly activities have been performed according to the procedures mentioned on the TG50D5 Instruction & Maintenance Manual. For assembly data and clearances, can you see pages from 49 to 55.

Note: The Dual Fuel Injectors have been put in preservation, and therefore they have not been reassembled. In place of the Injectors, temporarily steel blind flanges have been installed for turbine protection and preservation.

3.1 - ROTOR COOLING FLEXIBLE PIPES

The four flexible pipes, have been removed from the inside combustor body, cleaned by steam and inspected. A visual inspection, and dye penetrant test on welded joints have been carried out on the pipes. No indications or damaged have been found, and the components have been reassembled in the same positions.

3.2 - DIFFUSER COMPRESSOR BODY AND INTERMEDIATE SHAFT GUARD

The upper parts of the two pieces, have been removed from the inside combustor body, cleaned and inspected. The teen honeycomb seal segments assembled in the lower part of the intermediate shaft guard, were found damaged. The teen segments have been replaced with new ones. No other problems have been found on remain air seals. For assembling data see page 38.

4.0 - TURBINE INSPECTION

The Turbine Body upper part has been removed, thoroughly cleaned and visually inspected. No problems were reported.

4.1 - BLADE RINGS

The Blade Rings 1st, 2nd, 3rd and 4th stage upper and lower part have been removed, disassembled, cleaned and inspected. Spacer ring segments have been visually inspected reporting no particular problems. Only on the 1st and the 2nd stage spacer ring segments, have been found with a light corrosion. The corrosion has been eliminated through sandblast, and after the final inspection all the components have been reassembled. See pages from 74 to 81.

4.2 - 1st AND 2nd STAGE VANE SEGMENTS

The components have been removed from the blade ring and sent to TurboCare factory for inspections and repair. Two complete set of components ready to be reassembled, have been received in Marghera and consequently assembled. For the general information and assembling data of the components, you see pages from 56 to 57.

4.3 – 3rd STAGE VANE SEGMENTS

All the components have been removed, cleaned and inspected, according the prescriptions of the Field Inspection and Repair Guidelines F I 013/94e. During the inspection, some cracks have been found on vane segments assembled in positions 14, 15. The dimensions and the positions of the defects, are acceptable without repair, according to the Acceptance Limits mentioned in the F I 013/94e. All the components have been reassembled in the same position. For the general information and assembling data of the components, can you see pages from 56 to 59.

4.4 – 4th STAGE VANE SEGMENTS

All the components have been removed, cleaned and inspected, according the prescriptions of the Field Inspection and Repair Guidelines F I 013/94e. The whole set of the vane segments, has been sent to TurboCare factory for replacement of all air cooling tubes found damaged or with excessive wear on the extremity. After the replacement of the tubes damaged, all the components have been reassembled in the same position. For the general information and assembling data of the components, can you see pages from 56 to 57.

4.5 – TURBINE AIR LABYRINTH SEAL HOLDER

Turbine Air Labyrinth Seal Holder 2nd, 3rd and 4th stage have been removed from the blade ring and sent to TurboCare factory for inspections and repair. After repair, have been received at Marghera and reassembled. For assembling data see page 43.

5.0 GT ROTOR INSPECTION

Before removed turbine bodies upper part, first stage compressor blades and fourth stage turbine blades radial clearances have been checked out. After reassembly of the Inlet Casing and Diffuser Body, with the shaft pushed toward the exhaust, all the radial and axial clearances of the compressor and turbine rotor have been recorded. See pages from 25 to 42.

5.1 COMPRESSOR SHAFT - DISKS AND BLADES INSPECTION

The Compressor Shaft, Disks and Rotating Blades, have been cleaned by diesel oil and steam, and compressor blades inspected according to the Field Inspection and Repair Guidelines F I 014/94e. No problems have been found on the shaft and on the disks. Few and slight dents on the tip, have been found on some Rotating Blades from the 14th to 17th stage. All damaged Blades, have been field repaired according to specifications, as per FI above mentioned.

5.2 TURBINE ROTOR INSPECTION

5.2.1 - TURBINE ROTOR DISKS

The turbine rotor disks have been thoroughly cleaned and inspected. N.D.E. (dye penetrant) was performed on the disks surface and grooves. No indications have been detected on the four disks. The three Air Baffles installed between the turbine disks 1st and 2nd, 2nd and 3rd, 3rd and 4th stage, have been found excessively worn. According to Air Baffles Replacement Procedure FI 001-03e, three new set Air Baffle Plates have been field replaced between the Turbine Disks.

5.2.2 - TURBINE ROTATING BLADES

52.2.1 - 1ST STAGE BLADES

The 1st stage Turbine Rotating Blades have been removed from the disks and sent to TurboCare factory for inspections and repair. One complete set of components ready to be reassembled, have been received in Marghera and consequently assembled. The Lock Plates and Seal Pins have been cleaned by sandblast and inspected according to the Field Inspection and Repair Guidelines FI 007/85e. No defects were detected, and the total wear was found inside acceptable limits. All components have been reassembled. For the general information and assembling data, see pages 60 and 64.

5.2.2 - 2ND STAGE BLADES

The 2nd stage Turbine Rotating Blades have been removed from the disks and sent to TurboCare factory for inspections and repair. One complete set of components ready to be reassembled, have been received in Marghera and consequently assembled. The Lock Plates inlet and exhaust side, and Seal Pins have been cleaned by sandblast and inspected according to the Field Inspection and Repair Guidelines FI 007/85e. No defects were detected, and the total wear was found inside acceptable limits. All components have been reassembled. For the general information and assembling data, see pages 61 and 65.

5.2.2.2 - 3RD STAGE BLADES

The 3rd stage Turbine Rotating Blades, have been removed from the disks, cleaned by sandblast and inspected according to the Field Inspection and Repair Guidelines F I 014/94e. Dye penetrant test has been performed on the components, and on the Blades assembled in position 25, 59, 60, 63 have been found slightly damaged on the tip. Furthermore, on the Blade position 68, one crack has been detected. No indications were detected on the remaining Blades. According to the instructions as per FI above mentioned, the slightly damaged Blades have been field repaired, and reassembled in the same position. Defect on the 68 position Blade was out of acceptability limits, and the blade have been rejected and replaced with new one. For the general information and assembling data of the components, can you see pages 66 and 67. The Lock Plates inlet and exhaust side, and Seal Pins have been cleaned by sandblast and inspected according to the Field Inspection and Repair Guidelines FI 007/85e. On the Lock Plates exhaust side, the total wear on the Tab, was found out of acceptable limits. All the components have been replaced with new ones. For the general information and assembling data, see page 62.

5.2.2.3 - 4TH STAGE BLADES

The 4th stage Turbine Rotating Blades, have been removed from the disks, cleaned by sandblast and inspected according to the Field Inspection and Repair Guidelines F I 014/94e. Dye penetrant has been performed on the components and no indications or problems were detected. All the Blades have been reassembled in the same positions. For the general information and assembling data of the components, see page 69. The Lock Plates inlet and exhaust side, and Seal Pins have been cleaned by sandblast and inspected according to the Field Inspection and Repair Guidelines FI 007/85e. No defects were found on Lock Plates inlet side. All components have been reassembled. On the Lock Plates exhaust side, the total wear

on the Tab, was found out of acceptable limits. All the components have been replaced with new ones. For the general information and assembling data, see page 63.

6.0 - BEARINGS INSPECTION

6.1 - JOURNAL BEARING

Compressor and turbine side Bearings, have been removed, cleaned and inspected. N.D.T. (Ultrasonic Test and Dye Penetrant) were carried out on the Journal Bearing Pads surface and Oil Seal Ring. No indication or defects were detected on the Pads. The Oil Seal Ring on compressor side bearing, have been found with some zones of the Babbitt metal detachment. The Two Oil Seal Rings have been replaced with new one. Visual and dimensional checks were performed on Leveling Blocks e recorded. For the general information and assembling data, see pages from 16 to 18.

6.2 - THRUST BEARING

Both parts turbine and generator side have been removed, completely dismantled cleaned and inspected. Dimensional and N.D.T. (Ultrasonic Test and Dye Penetrant) were carried out on the Thrust Pad and found in good condition. No problems have been found on Leveling Link and Ring Pads Holder. All components have been reinstalled in the same positions. The two Oil Seal Rings left and right groove have been replaced. For the general information and assembling data, see pages from 19 to 24.

7. AIR & OIL SEALS INSPECTION

All air and oil seals assembled on Inlet Casing and Diffuser Body have been removed, cleaned and inspected. The seals on Inlet Casing have been found damaged and replaced with the new ones. No other problems have been found on remain seals on Diffuser Body.

8. DIFFUSER BODY AND EXHAUST MANIFOLD FRONT END

The upper parts of the Diffuser Body and Exhaust Manifold have been removed, cleaned and inspected according to the Field Inspection and Repair Guidelines FI 009/85e. Dye penetrant test has been performed on the Exhaust Diffuser Strut Shield and Exhaust Manifold Access Airfoil. Some cracks have been found and field repaired by welding, as per FI above mentioned.

9. CONCLUSION

All the maintenance activities on Gas Turbine have been performed according to the Field Inspection and Repair Guidelines applicable, and procedures and instructions mentioned on the TG50D5 Instruction & Maintenance Manual. After the completion of the major overhaul activities, the internal and external preservation process, required to protect against environmental attack during shipping and storage, have been performed.

Note: The check of the axial clearance on Thrust Bearing must be repeated after relocation of the Gas Turbine, with the GT supports fixed on the GT base plate and the base plate to the foundations.

12. LIST OF ATTACHMENTS FOR TG50D5 MAJOR OVERHAUL

YEAR:

POWER PLANT:	*I P S A (EX TURBIGO GR "E")*
UNIT S/N°:	*358*
DATE OF 1st. SYNCHRONISATION:	
CONSTRUCTION YEAR:	
DATE LAST C.I.:	*18/07/2003*
DATE LAST H.P.I.:	*11/12/2001*
DATE LAST M.O.:	*25/01/2008*
GAS FIRING HOURS AT BASE LOAD:	*23545*
GAS FIRING HOURS AT PEAK LOAD:	*6*
DISTILLATE FIRING HOURS AT BASE LOAD:	*71*
DISTILLATE FIRING HOURS AT PEAK LOAD:	*16*
TOTAL CUMULATED FIRING HOURS:	*23638*
TOTAL EQUIVALENT HOURS:	*40113*
TOTAL NUMBER OF STARTS:	*959*
TOTAL LOAD REJECTION:	*57*
TOTAL EMERGENCY TRIP:	*95*
TOTAL FIRING HOURS FROM LAST C.I.:	*20752*
TOTAL NUMBER OF STARTS FROM LAST C.I.:	*209*
TOTAL FIRING HOURS FROM LAST H.P.I.:	*15963*
TOTAL NUMBER OF STARTS FROM LAST H.P.I.:	*476*
TOTAL FIRING HOURS FROM LAST M.O.:	*0*
TOTAL NUMBER OF STARTS FROM LAST M.O.:	*0*

REPLACED PARTS LIST

GROUP	ITEM	DESCRIPTION	QT.Y	DWG
1A	46	Washer diam 10,5x17x2	12	4212T72001
1A	48	Elastic ring	12	41T0461018
1A	49	Special plug	6	4275T54001
1B	13	Split pin diam 4x32	8	41T0138032
1C	2	Oil seal ring	1	4213T35001
1C	3	Oil seal ring	1	4213T33001
1D	5	Oil seal ring	2	4213T66001
1E	1	Cylindrical pin 3 x 12	4	41T0206012
1E	2	Oil seal ring, right-side helix	1	4213T59001
1E	3	Screw M5 x 25	2	42T0604025
1E	5	Oil seal ring, left-side helix	1	4213T58001
3A	1	Cap nut 2½ - 8UN x 130	2	4214T18001
3A	2	Washer 2"	2	4214T20064
3A	3	Conical tie rod 2½ - 8UN x 460	1	4214T23001
3A	19	Cap nut 3 - 8N x 143	1	4214T25001
3A	20	Washer 3"	1	4214T20076
3A	21	Tie rod with bored hole 3 - 8N x 490	1	4214T24001
3A	22	Nut with bored hole M42	4	4214T00042
3A	23	Washer M42	4	4214T33001
3A	24	Taper pin diam. 44 x 350 x 130	4	4214T27001
3A	25	Nut 2" – 8UN x 111	8	4214T16001
3A	26	Washer 3"	8	4214T20048
3A	27	Tie rod 2 - 8N x 350	4	4214T17001
3A	38	Plug M30	1	4272T74001

GROUP	ITEM	DESCRIPTION	QT.Y	DWG
3A	48	Allen screw M24 x 58	1	4214T61001
3A	62	Plug M30	1	4272T74001
3C	19	Screw M12	72	4216T21001
3C	20	Safety plate	36	4216T22001
3C	21	Safety plate	36	4216T23001
3C	22	Nut M12 x 1,75	72	4214T43001
3D	3	Special screw M24 x 50	1	4212T55001
3D	4	Allen screw M24 x 70	2	41T0060570
3D	6	Self locking nut M10 X 1,5	48	4275T81001
3D	7	Allen screw M10 X 45	48	41T0054545
3D	25	Sealing sector	10	4215T37001
3D	26	Allen screw M10 X 14	10	42T0174514
5A	22	Taper pin diam 13x80	2	41T0011080
5A	32	Tie-rod M18X110	4	4214T81001
5A	33	Nut M18	8	4214T82018
5A	60	Allen screw 1 3/4-8N X 230	1	4212T10001
5A	61	Nut 1 3/4 - 8 UN - 2B	1	4212T17001
5A	62	Allen screw 1 1/2"- 8N X 220	1	4212T13001
5A	63	Nut 1/2 - 8UN	1	4212T11001
6	0 – 2	Exhaust manifold	2	4270T03001
6	0 – 1	Exhaust manifold	2	4270T03002
6	0 – 3	Exhaust manifold	1	4270T03003
6	0 - 1	Exhaust manifold	5	4272T22001
6	0 - 2	Exhaust manifold	2	4272T28001
6	2	Hexagonal-head bolt M16 x 70	15	42T0018570
6	3	Nut with bored hole M16	15	4214T02016
4A	56	Cap nut M52 x 3 x 120	4	4214T91001

GROUP	ITEM	DESCRIPTION	QT.Y	DWG
4A	57	Washer nitride hardened 2 1/4	6	4214T20057
4A	58	Allen screw M52 x 3 x 380	4	41T0256880
4B	14	Allen screw M20 x 60	1	41T0247560
4B	22	Countersunk head slotted screw M12	14	4288T02001
4D	1	Seal for Spacer ring sector 2nd stage	5 (2)	4229T89001
4D	40	Countersunk head slotted screw M12	4	4088T02001
4D	45	Countersunk head slotted screw M10	2	4088T07001
4D	29	Safety washer	8	4214T87001
4D	30	Screw M10	8	4277T58001
4D	31	Locking plate	8	4277T60001
4D	32	Alignment bushing	8	4277T56001
4F	29	Safety washer	8	4214T87001
4F	30	Special screw M 10	8	4277T57001
4F	31	Locking plate	4	4277T59001
4F	32	Alignment bushing	4	4277T56001
4G	29	Safety washer	8	4214T87001
4G	30	Special screw M 10	8	4277T57001
4G	31	Locking plate	4	4277T59001
4G	32	Alignment bushing	4	4277T56001
7D	4	Screw for plate 1st stage	4	4216T03001
7D	5	Washer	16	4216T05001
7D	7	Washer	16	4216T04001
7D	12	Screw for plate 1st, 2nd, 3rd, 4th stage	16	4216T01001
7D	17	Sealing pin for 2nd stage inlet side plate	28	4223T39001
7D	18	Washer	78	4216T06001
7D	19	Screw for plate	78	4216T00001
7D	20	Normal 3rd stage rotating blade	1	4215T78001

GROUP	ITEM	DESCRIPTION	QT.Y	DWG
7D	23	Sealing plate for 3rd stage blades - Inlet side	2 (1)	4223T44001
7D	25	Screw for plate 2nd, 3rd, 4th stage	12	4216T02001
7D	32	Sealing plate for 3rd stage blades - Exhaust side (interm.)	2	4223T46001
7D	33	Sealing plate for 4th stage blades - Exhaust side (interm.	2	4223T50001
7D	34	Sealing plate for 3rd stage blade - Exhaust side (last)	2	4223T47001
7D	35	Sealing plate for 4th stage blades - Exhaust side (last)	2	4223T51001
7D	36	Sealing plate for 3rd stage blades - Exhaust side (standard)	67	4223T45001
7D	37	Sealing plate for 4th stage blades - Exhaust side (standard)	64	4223T49001
16	2	Thermocouples for rotor cooling	2	4217T38001
20	27	Cap nut M52 x 3 x 120	8	4214T91001
20	28	Washer M52	10	4212T84052
20	29	Screw M52 x 3 x 260	8	41T0256260
20	30	Washer M48	3	4212T84148
20	31	Screw M48 x 3 x 256	3	4212T42001
20	32	Washer M48	3	4212T84048
20	33	Nut M48 x 3	3	4212T83148
20	40	Hexagonal-head bolt M42 x 3 x 240	10	42T0190240
20	42	Nut M42 x 3	10	4212T83142
20	43	Washer M42	6	4212T84142
20	51	Hexagonal-head bolt M16 x 80	11	42T0177580
20	52	Washer M16	11	4212T70001
20	53	Nut M16	15	4214T82016
20	54	Hexagonal-head bolt M16 x 35	4	42T0177535
20	55	Hexagonal-head bolt M16 x 75	10	42T0177575
20	56	Allen screw M12	6	4228T51018
20	57	Hexagonal-head bolt M16 x 65	32	42T0177565

JOURNAL BEARINGS

1. GENERALITY

The turbine is provided with two bearings, located on the compressor side and on the turbine side. The anomalies must be described according to bearing location.

		BEARINGS	
		COMPR. SIDE	TURB. SIDE
1.1	Drawing	4278T07	4278T07
1.2	Running hours	23638	23638
1.3	Running hours from last inspection	0	0
1.4	Running malfunction recorded		
1.5	Previous anomalies recorded		
1.6	Abnormal temperatures recorded		

Form Ref. No.: ***D5TR0006***

JOURNAL BEARINGS INSPECTION

	BEARINGS COMP. SIDE	BEARINGS TURB. SIDE
2.1 No anomalies	X	X
2.2 Fretting		
2.3 Foreign object damages		
2.4 Overheating		
2.5 White metal melting		
2.6 Presence of water deposits		
2.7 White metal pitted		
2.8 White metal detachment		
2.9 White metal cracks		
2.10 Concact area regular / non regular		
2.11 Excessive wear		
2.12 Non destructive test carried out	X	X
2.13 White metal re-casting required		
2.14 Cleaning only required	X	X
2.15 Various		

FURTHER INFORMATION AT RE-STARTING

	BEARINGS COMP. SIDE	BEARINGS TURB. SIDE
3.1 WHITE METAL TEMPERATURE	NA	NA
3.2 VIBRATIONS	NA	NA

Note: U. T. - No indications have been detected on Pads surface

TurboCare Representative	*Signature*	*Report*	*Date*
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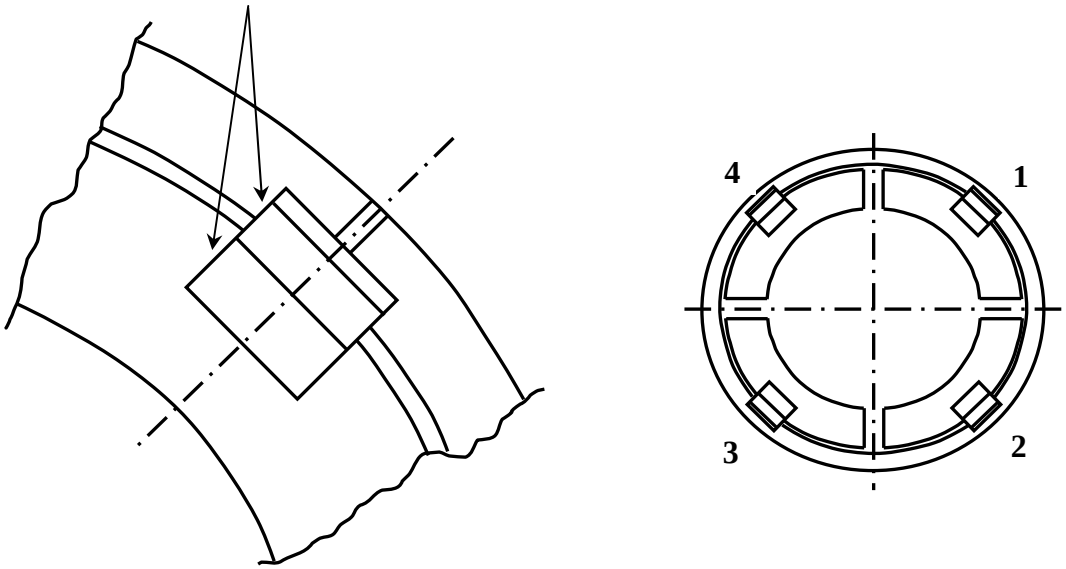
JOURNAL BEARINGS – LEVELLING BLOCKS

LEVELLING BLOCKS



LEVELLING BLOCKS CONDITIONS				
BLOCK POSITION	**1**	**2**	**3**	**4**
COMPRESSOR SIDE	38,02	37,98	37,98	38,03
TURBINE SIDE	37,98	37,98	37,98	37,98

Notes:

TurboCare Representative	*Signature*	*Report*	*Date*
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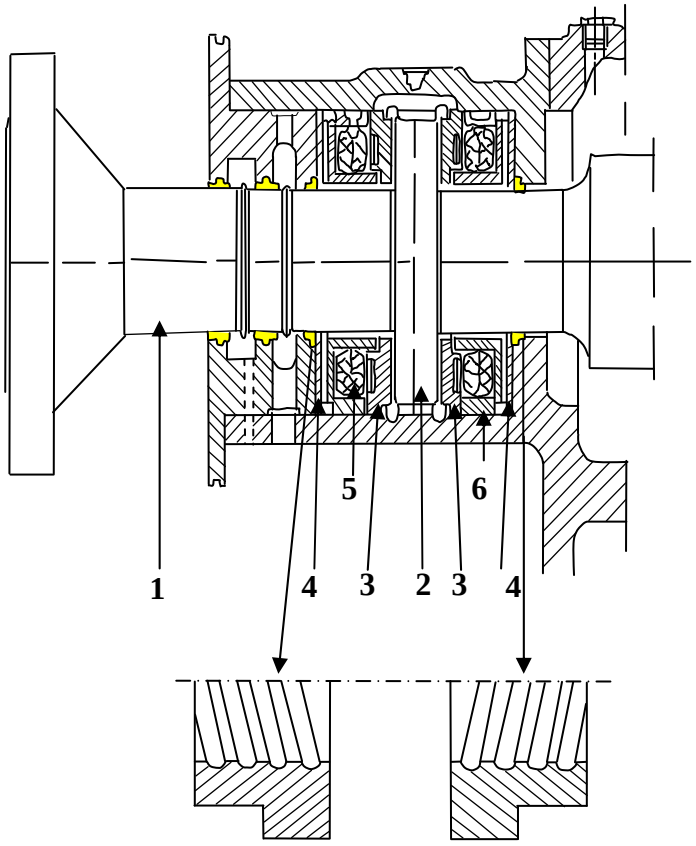
THRUST BEARING



NOMENCLATURE

1. Rotor shaft
2. Thrust collar
3. Thrust pads
4. Adjustable shims
5. Levelling plate
6. Ring pads holder

THRUST BEARING

1.0 GENERALITY

		GEN. SIDE	COMP. SIDE
1.1	Drawings:	4278T08	4278T08
1.2	Running hours:	23638	23638
1.3	Running hours from last inspection:		
1.4	Running malfunction recorded:		
1.5	Previous anomalies recorded:		
1.6	Abnormal temperatures recorded:		

2.0 PADS AND ADJUSTMENT SHIMS

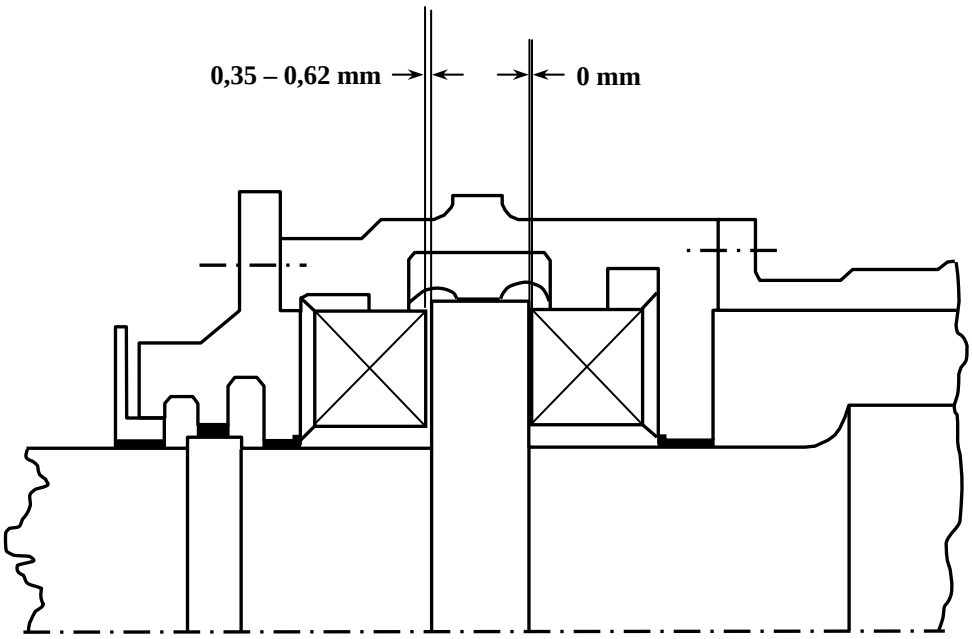
		GEN. SIDE	COMP. SIDE
2.1	No anomalies	X	X
2.2	Deposits / Others		
2.3	White metal fretting scratched / scored		
2.4	Overheating		
2.5	White metal melting		
2.6	White metal pitted		
2.7	Presence of water deposit		
2.8	White metal detachment / cracks		
2.9	White metal excessive wear		
2.10	Non destructive tests carried out	x	x
2.11	Adjustment shims replacement		

3.0 SEAL RINGS LEFT AND RIGHT GROOVE

		GEN. SIDE	COMP. SIDE
3.1	No anomalies		
3.2	Excessive wear	X	X
3.3	Foreign object damages		
3.4	Anti-rotation pin damage		
3.5	Coupling screws damage		
3.6	Discolouration due to seal fretting	X	X
3.7	Cleaning only required		

Notes: The two Oil Seal Rings have been rejected and replaced with the new ones.

THRUST BEARING – AXIAL CLEARANCE



1. Reading at disassembly: **0,50 mm**

2. Reading at reassembly: **0,50 mm**

Notes: **ADJUSTABLE SHIMS GENERATOR SIDE:** **13.00 mm.**
ADJUSTABLE SHIMS COMPRESSOR SIDE: **11.55 mm.**

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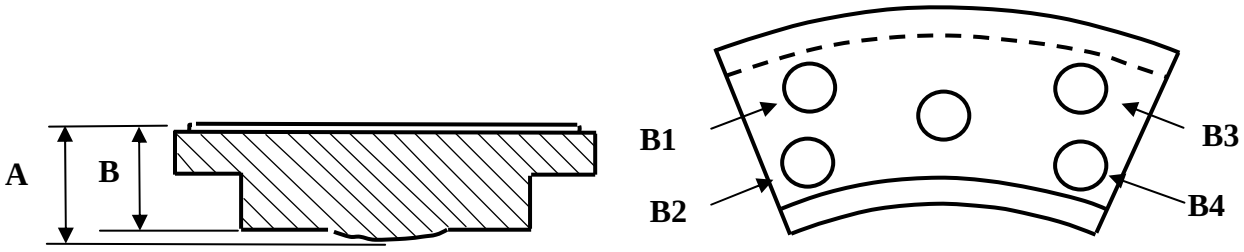
THRUST BEARING PADS

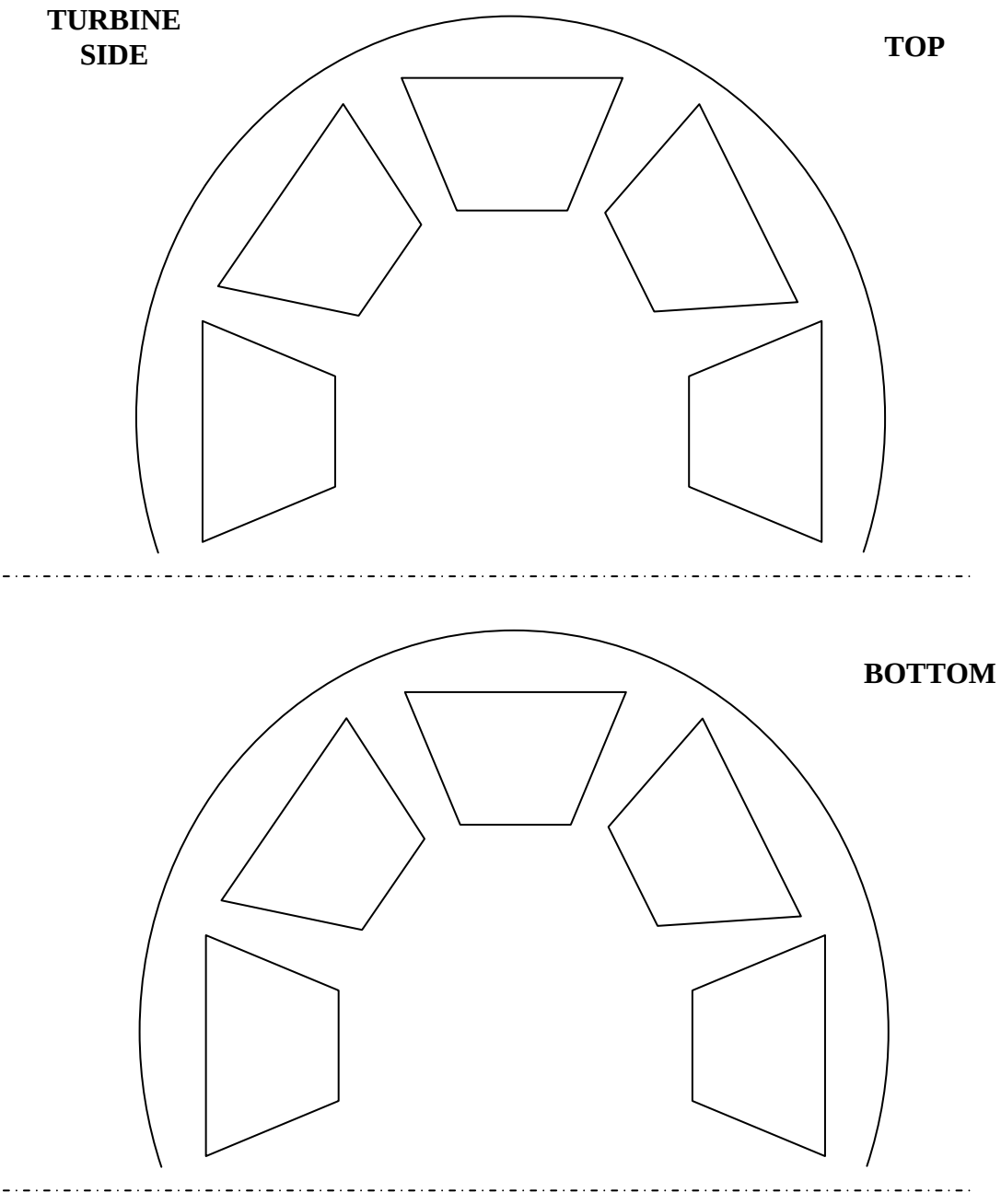


N°	GENERATOR SIDE					N°	TURBINE SIDE				
	A	B1	B2	B3	B4		A	B1	B2	B3	B4
1	40,00	36,59	36,60	36,59	36,60	1	39,92	36,65	36,65	36,65	36,65
2	39,94	36,63	36,57	36,60	36,57	2	40,00	36,69	36,69	36,68	36,68
3	40,04	36,56	36,57	36,56	36,57	3	40,00	36,63	36,63	36,63	36,63
4	40,00	36,60	36,57	36,57	36,58	4	40,02	36,64	36,64	36,64	36,63
5	40,00	36,59	36,60	36,60	36,60	5	40,10	36,69	36,68	36,68	36,67
6	40,12	36,62	36,62	36,63	36,62	6	40,02	36,70	36,70	36,69	36,69
7	40,10	36,57	36,57	36,58	36,57	7	40,04	36,73	36,73	36,73	36,73
8	40,10	36,68	36,67	36,68	36,68	8	40,04	36,69	36,69	36,69	36,69
9	40,10	36,61	36,58	36,60	36,58	9	40,18	36,68	36,68	36,68	36,68
10	39,94	36,59	36,59	36,59	36,58	10	40,00	36,65	36,63	36,66	36,64
Adjustment shim thickness = 13.0 mm.						**Adjustment shim thickness = 11.55mm.**					

Notes: The numbers of thrust bearings pads with thermocouple are 9 and 10 (turbine side).

The numbers of thrust bearings pads with thermocouple are 9 and 10 (generator side).

THRUST BEARING PADS TURBINE SIDE – ULTRASONIC INSPECTION



Notes: No indications have been detected on Pads surface

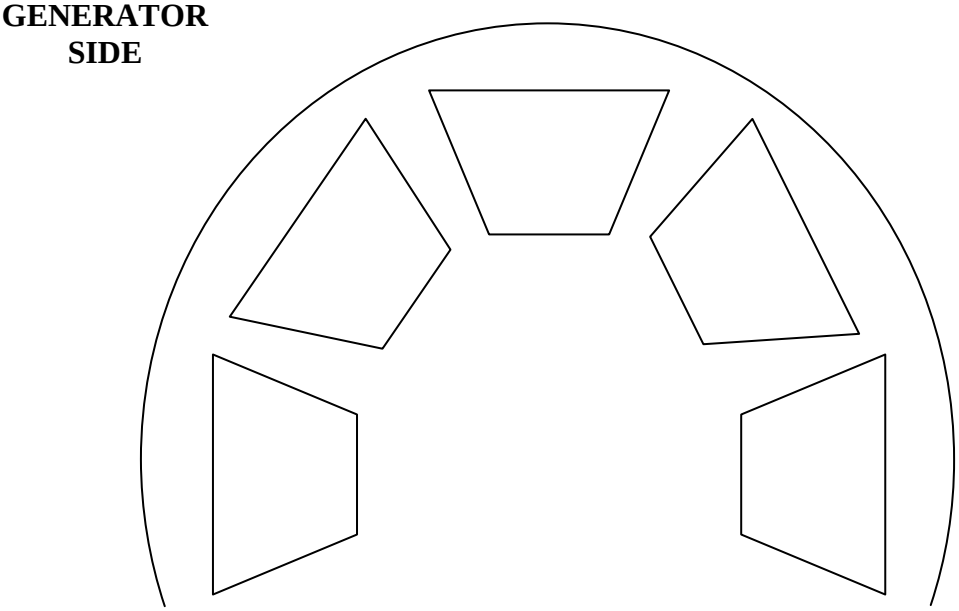
TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

Form Ref. No.: ***D5TR0014A***

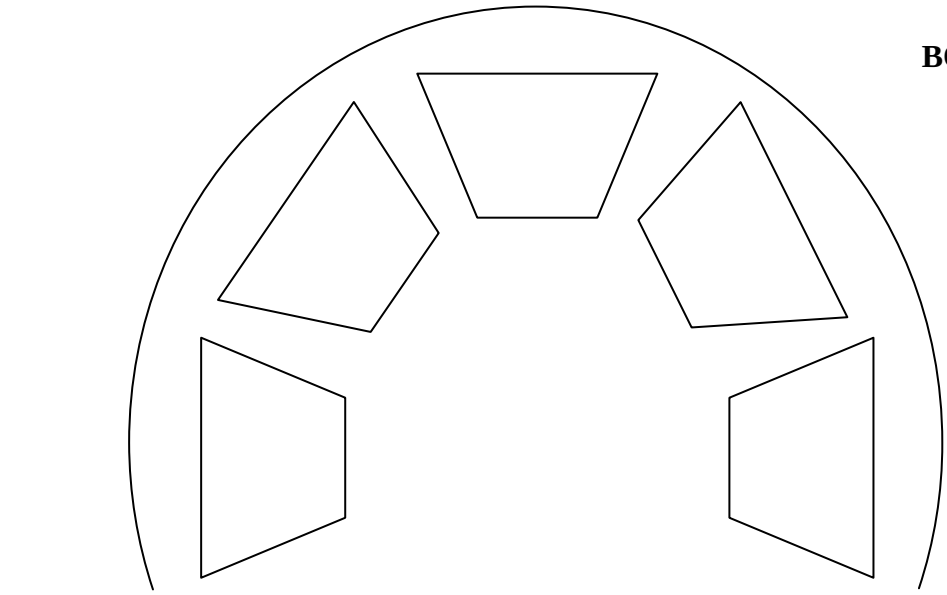
THRUST BEARING PADS GENERATOR SIDE – ULTRASONIC INSPECTION

GENERATOR SIDE

TOP



BOTTOM

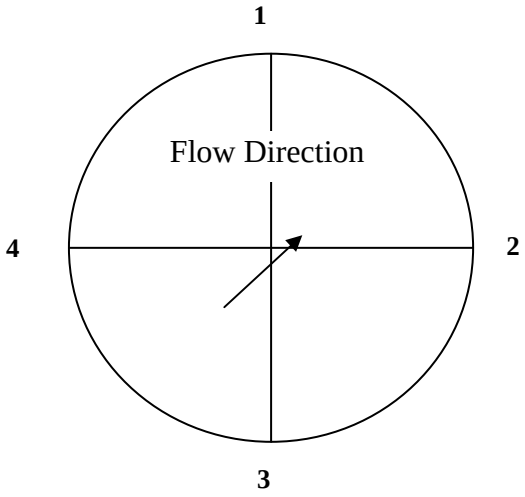


Notes: No indications have been detected on Pads surface

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

Form Ref. No.: ***D5TR0020***

1st STAGE COMPRESSOR AND 4th STAGE TURBINE BLADES CLEARANCES



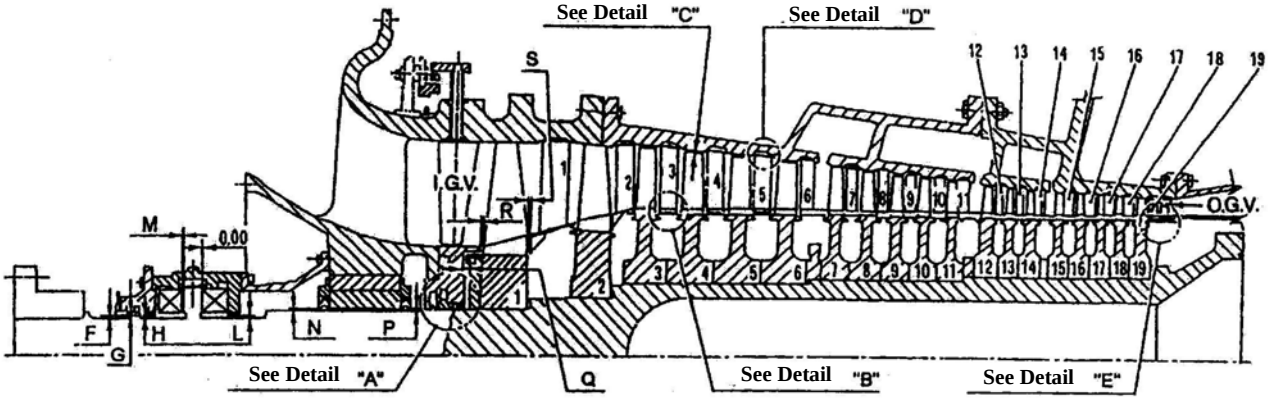
BEFORE DISASSEMBLY				
Measuring point / Stage	**1**	**2**	**3**	**4**
First stage compressor	2,20	2,90	1,90	2,60
Fourth stage turbine	8,60	7,75	8,50	5,10

AFTER REASSEMBLY				
Measuring point / Stage	**1**	**2**	**3**	**4**
First stage compressor	2,00	2,60	2,30	2,50
Fourth stage turbine	8,30	8,10	8,30	8,30

Notes: READINGS MUST BE TAKEN ON COMPRESSOR FIRST STAGE BLADES AND TURBINE FOURTH STAGE BLADES, BETWEEN BLADES TIP AND CASINGS. THE TURBINE MUST BE COMPLETELY ASSEMBLED; ONLY THE INLET AND THE EXHAUST DUCTS UPPER PARTS, CAN BE MISSING.

TurboCare Representative	***Signature***	***Report***	***Date***
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

COMPRESSOR ROTOR CLEARANCES - BEFORE OVERHAUL



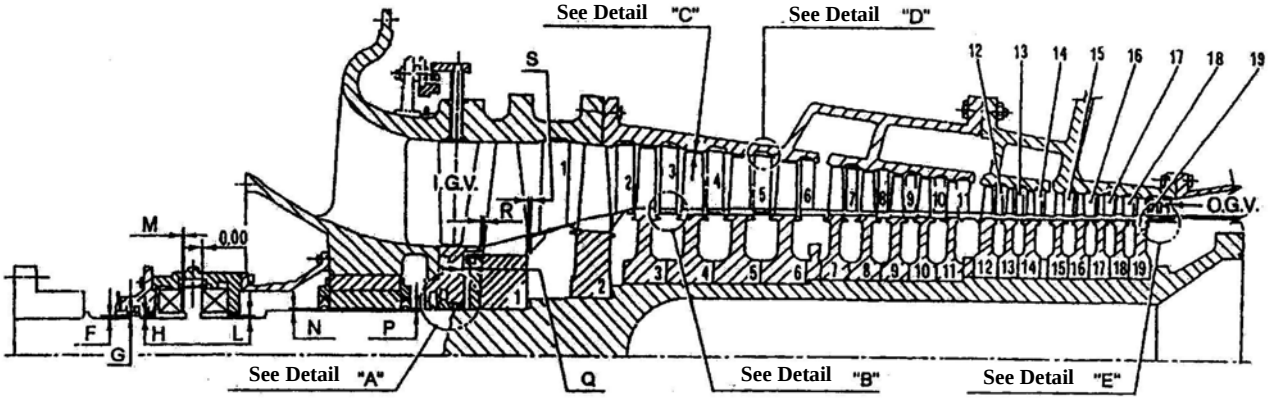
LEFT										
Position		**F**	**G**	**H**	**L**	**M**	**N**	**P**	**Q**	**R**	**S**
Readings		1,70	1,80	0,30	0,28	0,50	1,00	1,00	25,30	6,30	12,10
Permitted Clearances (diameter)	**Min.**	1,28	1,28	0,16	0,16	0,35	0,97	0,97	23,8	5,50	11,17
	Max	1,44	1,44	0,22	0,22	0,61	1,07	1,07	26,32	7,65	(Ref.)

RIGHT										
Position		**F**	**G**	**H**	**L**	**M**	**N**	**P**	**Q**	**R**	**S**
Readings		1,50	1,40	0,29	0,23	0,50	1,00	1,00	25,20	6,40	11,70
Permitted Clearances (diameter)	**Min.**	1,28	1,28	0,16	0,16	0,35	0,97	0,97	23,8	5,50	11,17
	Max	1,44	1,44	0,22	0,22	0,61	1,07	1,07	26,32	7,65	(Ref.)

Notes: Values different from those listed in the table, must be submitted to TurboCare for approval.
All the readings must be taken with the rotor pushed against the thrust bearing (exhaust side).

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

COMPRESSOR ROTOR CLEARANCES - AFTER OVERHAUL



LEFT										
Position		**F**	**G**	**H**	**L**	**M**	**N**	**P**	**Q**	**R**	**S**
Readings		1,30	1,30	0,15	0,15	0,50	1,00	1,00	25,30	6,30	11,80
Permitted Clearances	**Min.**	1,28	1,28	0,16	0,16	0,35	0,97	0,97	23,8	5,50	11,17
	Max	1,44	1,44	0,22	0,22	0,61	1,07	1,07	26,32	7,65	(Ref.)

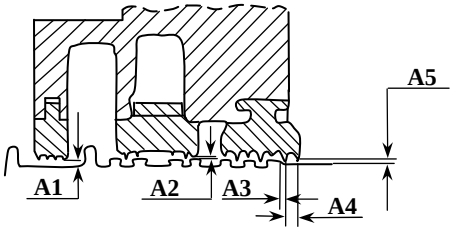
RIGHT										
Position		**F**	**G**	**H**	**L**	**M**	**N**	**P**	**Q**	**R**	**S**
Readings		1,30	1,30	0,15	0,16	0,50	1,00	1,00	25,10	6,40	11,60
Permitted Clearances	**Min.**	1,28	1,28	0,16	0,16	0,35	0,97	0,97	23,8	5,50	11,17
	Max	1,44	1,44	0,22	0,22	0,61	1,07	1,07	26,32	7,65	(Ref.)

Notes: Values different from those listed in the table, must be submitted to TurboCare for approval.
All the readings must be taken with the rotor pushed against the thrust bearing (exhaust side).

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

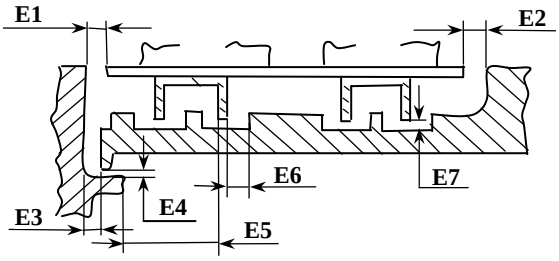
INLET CASING LABYRINTH SEALS - DETAIL "A"

1. Readings must be taken looking downstream, left and right side
2. Defects must be specified (i.e. inlet and outlet side looking downstream)
3. Values different from those listed in the table below must be submitted to TurboCare



CLEARANCES						Admitted clearances	SHAFT VISUAL INSPECTION
	Pos.	Before overhaul		After overhaul			
		Left	Right	Left	Right		
Detail "A"	A1	1,30	1,30	1,30	1,30	1,25 – 1,38	
	A2	1,60	1,60	1,60	1,60	1,55 – 1,78	
	A3	3,80	3,90	3,80	3,90	2,10 – 5,85	
	A4	5,30	5,40	5,30	5,40	2,55 – 6,05	
	A5	1,90	1,80	1,90	1,80	1,55 – 2,05	

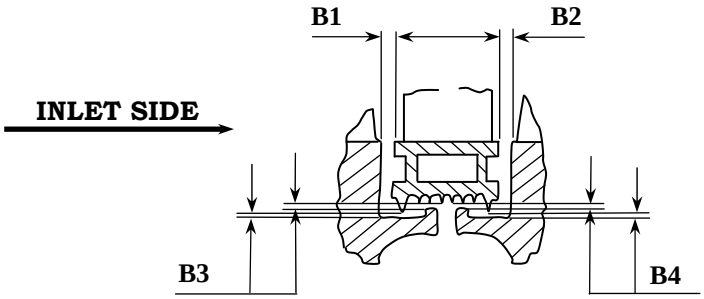
COMPRESSOR OGV LABYRINTH SEAL - DETAIL "E"



CLEARANCES						Admitted clearances	SHAFT VISUAL INSPECTION
	Pos.	Before overhaul		After overhaul			
		left	right	left	right		
Detail "E"	E1	6,70	6,40	6,90	6,30	6,15	
	E2	6,70	6,60	6,70	6,50	6,50	
	E3	10,20	10,10	10,20	10,00	10,90	
	E4	2,30	2,25	2,20	2,30	2,05 – 4,62	
	E5	n.a.	n.a.	n.a.	n.a.	10,20	
	E6	2,60	2,70	2,80	2,70	1,00 - 3,75	
	E7	2,10	2,20	2,20	2,30	1,60 – 2,70	

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

COMPRESSOR ROTOR CLEARANCES - DETAIL "B" - BEFORE OVERHAUL

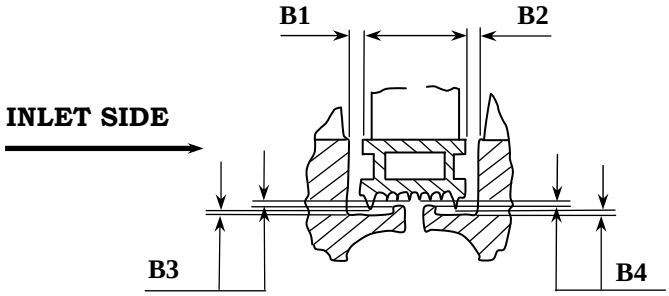


Sketches enclosed: yes no Photo enclosed: yes no

Stage	left				Right				Admitted values			
	B1	B2	B3	B4	B1	B2	B3	B4	B1	B2	B3	B4
S1	11,40	7,20	1,50	1,50	11,60	7,10	1,60	1,65	10,47 12,77	6,68 - 8,28	1,32 - 1,72	1,32 - 1,72
S2	7,40	6,10	1,00	1,00	7,00	7,00	1,30	1,30	5,55 - 7,96	6,46 - 8,06	1,32 - 1,72	1,32 - 1,72
S3	6,30	10,50	1,20	1,20	5,80	10,50	1,30	1,30	5,55 - 7,93	10,1-11,74	1,37 - 1,77	1,53 - 1,93
S4	8,80	7,90	1,10	1,10	8,40	8,40	1,60	1,60	8,5 - 10,93	7,14 - 8,74	1,38 - 1,78	1,51 - 1,91
S5	6,30	7,40	1,10	1,10	5,50	7,90	1,60	1,60	5,53 - 7,93	7,15 - 8,75	1,63 - 2,03	1,53 - 1,93
S6	6,80	6,80	1,00	1,00	6,20	7,30	1,70	1,70	5,53 - 7,93	7,16 - 8,76	1,62 - 2,02	1,54 - 1,94
S7	6,40	6,80	1,00	1,00	6,10	8,00	1,60	1,60	5,53 - 7,93	7,15 - 8,75	1,66 - 2,06	1,75 - 2,15
S8	6,40	8,00	0,90	0,90	5,80	9,40	1,60	1,60	5,53 - 7,93	8,32 - 9,92	1,70 - 2,10	1,73 - 2,13
S9	6,80	8,80	1,20	1,20	6,80	8,80	1,60	1,60	6,72 - 9,10	8,36 - 9,96	1,68 - 2,08	1,70 - 2,10
S10	7,50	7,00	1,20	1,20	7,00	7,90	1,60	1,60	6,7 - 9,08	7,19 - 8,79	1,90 - 2,30	1,90 - 2,30
S11	6,00	7,40	1,20	1,20	5,30	8,40	1,70	1,70	5,38 - 7,68	7,31 - 8,91	1,94 - 2,34	1,87 - 2,27
S12	6,70	7,80	1,30	1,30	6,40	7,90	1,70	1,70	5,47 - 7,87	8,5 - 10,11	1,90 - 2,30	1,90 - 2,30
S13	6,90	7,90	1,30	1,30	5,80	8,80	1,80	1,80	5,33 - 7,73	8,9 - 10,51	2,23 - 2,63	2,23 - 2,63
S14	6,50	8,00	1,30	1,30	6,40	8,40	1,80	1,80	5,34 - 7,74	9,2 - 10,65	2,21 - 2,61	2,23 - 2,63
S15	6,60	7,90	1,30	1,30	5,40	8,80	1,80	1,80	5,34 - 7,74	8,32 - 9,92	2,03 - 2,43	2,03 - 2,43
S16	6,50	9,20	1,30	1,30	5,70	9,90	2,00	2,00	5,33 - 7,73	10,3 - 11,9	2,03 - 2,43	2,03 - 2,43
S17	6,90	8,90	1,20	1,20	5,50	9,80	2,00	2,00	5,33 - 7,73	10,3 - 11,9	2,03 - 2,43	2,03 - 2,43
S18	7,60	8,80	1,20	1,20	7,00	9,50	1,90	1,90	5,33 - 7,73	10,3 - 11,9	2,03 - 2,43	2,03 - 2,43
S19	6,40	---	---	---	6,50	---	---	---	5,34 - 7,74	---	---	---

Notes: Values different from those listed in the table must be submitted toTurboCare for evaluation.

COMPRESSOR ROTOR CLEARANCES - DETAIL "B" - AFTER OVERHAUL



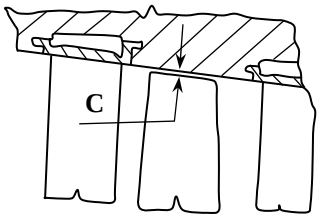
Sketches enclosed: yes no Photo enclosed: yes no

Stage	left				right				Admitted values			
	B1	B2	B3	B4	B1	B2	B3	B4	B1	B2	B3	B4
S1	11,20	7,40	1,40	1,40	11,30	7,30	1,50	1,50	10,47 12,77	6,68 - 8,28	1,32 - 1,72	1,32 - 1,72
S2	5,60	8,00	1,40	1,45	6,60	7,20	1,65	1,60	5,55 - 7,96	6,46 - 8,06	1,32 - 1,72	1,32 - 1,72
S3	7,60	10,40	1,45	1,45	6,50	10,60	1,70	1,80	5,55 - 7,93	10,1-11,74	1,37 - 1,77	1,53 - 1,93
S4	9,50	7,45	1,50	1,60	9,50	7,30	1,90	1,90	8,5 - 10,93	7,14 - 8,74	1,38 - 1,78	1,51 - 1,91
S5	5,80	7,30	1,70	1,80	5,80	7,40	1,70	1,70	5,53 - 7,93	7,15 - 8,75	1,63 - 2,03	1,53 - 1,93
S6	5,80	7,30	1,80	1,80	5,80	7,20	1,70	1,70	5,53 - 7,93	7,16 - 8,76	1,62 - 2,02	1,54 - 1,94
S7	6,30	7,80	1,70	1,90	6,20	7,45	1,70	1,80	5,53 - 7,93	7,15 - 8,75	1,66 - 2,06	1,75 - 2,15
S8	7,00	8,60	1,90	1,90	6,30	9,20	1,80	1,80	5,53 - 7,93	8,32 - 9,92	1,70 - 2,10	1,73 - 2,13
S9	7,00	8,60	1,85	1,80	7,20	8,50	1,80	1,80	6,72 - 9,10	8,36 - 9,96	1,68 - 2,08	1,70 - 2,10
S10	7,20	8,40	2,00	2,10	7,30	8,50	2,10	2,10	6,7 - 9,08	7,19 - 8,79	1,90 - 2,30	1,90 - 2,30
S11	6,30	7,40	2,20	2,10	6,40	7,50	2,20	1,95	5,38 - 7,68	7,31 - 8,91	1,94 - 2,34	1,87 - 2,27
S12	7,60	8,90	2,10	2,10	7,80	8,60	1,95	1,95	5,47 - 7,87	8,5 - 10,11	1,90 - 2,30	1,90 - 2,30
S13	7,20	9,10	2,30	2,30	6,65	9,00	2,45	2,40	5,33 - 7,73	8,9 - 10,51	2,23 - 2,63	2,23 - 2,63
S14	6,95	9,40	2,30	2,30	6,60	9,30	2,30	2,30	5,34 - 7,74	9,2 - 10,65	2,21 - 2,61	2,23 - 2,63
S15	7,25	8,60	2,20	2,10	5,60	8,50	2,10	2,10	5,34 - 7,74	8,32 - 9,92	2,03 - 2,43	2,03 - 2,43
S16	6,90	9,80	2,10	2,10	6,35	10,55	2,10	2,10	5,33 - 7,73	10,3 - 11,9	2,03 - 2,43	2,03 - 2,43
S17	7,20	10,20	2,30	2,25	6,40	9,80	2,20	2,30	5,33 - 7,73	10,3 - 11,9	2,03 - 2,43	2,03 - 2,43
S18	7,60	10,40	2,10	2,20	7,50	10,60	2,20	2,30	5,33 - 7,73	10,3 - 11,9	2,03 - 2,43	2,03 - 2,43
S19	6,50	---	---	---	6,60	---	---	---	5,34 - 7,74	---	---	---

Notes: Values different from those listed in the table must be submitted toTurboCare for evaluation.

TurboCare Representative	Signature	Report	Date
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

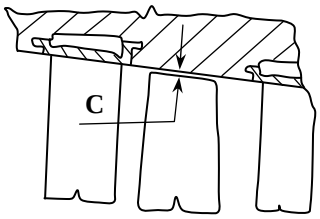
COMPRESSOR ROTOR CLEARANCES – DETAIL "C" – BEFORE OVERHAUL



Stage	Right		Left		Permitted Values	
	Horinz. CL	Upper CL	Horinz. CL	Upper CL	Horinz. CL	Upper CL
S1	2,90		2,50		**2,25 – 3,02**	**2,05**
S2	3,20		2,50		**2,46 – 3,22**	
S3	3,20		2,70		**2,62 – 3,38**	
S4	3,00		2,30		**2,62 – 3,38**	
S5	3,00		2,55		**2,62 – 3,38**	
S6	3,00		2,40		**2,62 – 3,38**	
S7	3,10		2,50		**2,89 – 3,65**	
S8	3,30		2,50		**2,89 – 3,65**	
S9	3,50		2,50		**2,89 – 3,65**	
S10	3,40		3,20		**3,39 – 4,15**	**2,90**
S11	3,40		3,40		**3,39 – 4,15**	
S12	3,50		2,55		**3,39 – 4,15**	
S13	3,40		3,20		**3,64 – 4,4**	
S14	3,50		3,50		**3,64 – 4,4**	
S15	3,50		3,40		**3,64 – 4,4**	
S16	3,40		2,55		**3,64 – 4,4**	
S17	3,40		2,80		**3,64 – 4,4**	
S18	3,50		3,20		**3,64 – 4,4**	
S19	3,40		2,55		**3,64 – 4,4**	**2,80**

Notes: Values different from those listed in the table must be submitted toTurboCare for evaluation.

COMPRESSOR ROTOR CLEARANCES – DETAIL "C" – AFTER OVERHAUL

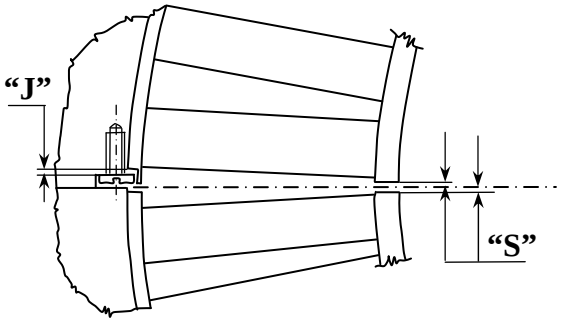


Stage	Right		Left		Permitted Values	
	Horinz. CL	Upper CL	Horinz. CL	Upper CL	Horinz. CL	Upper CL
S1	2,60	2,00	2,50	2,00	**2,25 – 3,02**	**2,05**
S2	2,70		2,60		**2,46 – 3,22**	
S3	2,85		2,60		**2,62 – 3,38**	
S4	2,80		2,70		**2,62 – 3,38**	
S5	2,70		2,80		**2,62 – 3,38**	
S6	2,90		2,70		**2,62 – 3,38**	
S7	3,10		3,20		**2,89 – 3,65**	
S8	2,90		3,20		**2,89 – 3,65**	
S9	3,30		3,40		**2,89 – 3,65**	
S10	3,80	2,80	3,70	2,80	**3,39 – 4,15**	**2,90**
S11	3,70		3,50		**3,39 – 4,15**	
S12	3,90		3,60		**3,39 – 4,15**	
S13	3,70		3,80		**3,64 – 4,4**	
S14	4,00		3,90		**3,64 – 4,4**	
S15	3,95		3,80		**3,64 – 4,4**	
S16	4,10		3,90		**3,64 – 4,4**	
S17	3,80		4,00		**3,64 – 4,4**	
S18	3,90		3,80		**3,64 – 4,4**	
S19	3,80	2,90	3,80	2,90	**3,64 – 4,4**	**2,80**

Notes: Values different from those listed in the table must be submitted toTurboCare for evaluation.

COMPRESSOR VANES / RETAINING SCREWS CLEARANCES

STAGE	"J"	"S"
1÷2	0,45 – 0,85	0,50 – 0,80
3÷18	1,05 – 1,45	1,50 – 1,80
19	1,95 – 2,35	2,00 – 2,30

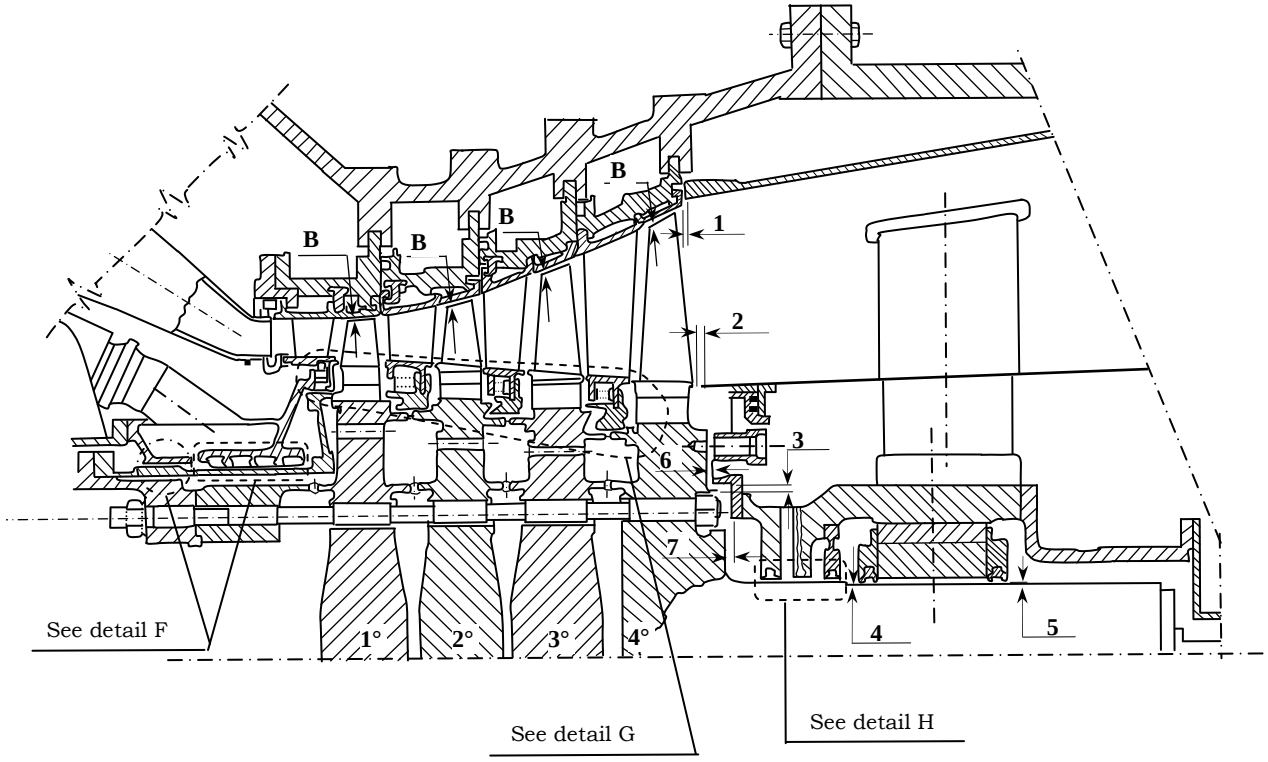


Stage	"S"		"J"	
	UPPER VANES	LOWER VANES	UPPER RETAINING SCREW	LOWER RETAINING SCREW
S1	0,60	0,70	0,60	0,70
S2	0,75	0,70	0,55	0,65
S3	1,60	1,70	1,20	1,30
S4	1,60	1,60	1,40	1,20
S5	1,70	1,80	1,30	1,20
S6	1,60	1,60	1,20	1,30
S7	1,60	1,55	1,30	1,35
S8	1,70	1,60	1,10	1,20
S9	1,80	1,70	1,20	1,40
S10	1,70	1,70	1,30	1,25
S11	1,55	1,60	1,40	1,30
S12	1,60	1,60	1,30	1,40
S13	1,65	1,70	1,35	1,20
S14	1,70	1,70	1,40	1,30
S15	1,60	1,60	1,40	1,30
S16	1,75	1,70	1,35	1,20
S17	1,50	1,60	1,30	1,40
S18	1,70	1,70	1,40	1,30
S19	2,20	2,10	2,10	2,20

Notes:

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE ROTOR CLEARANCES – RIGHT SIDE - BEFORE OVERHAUL



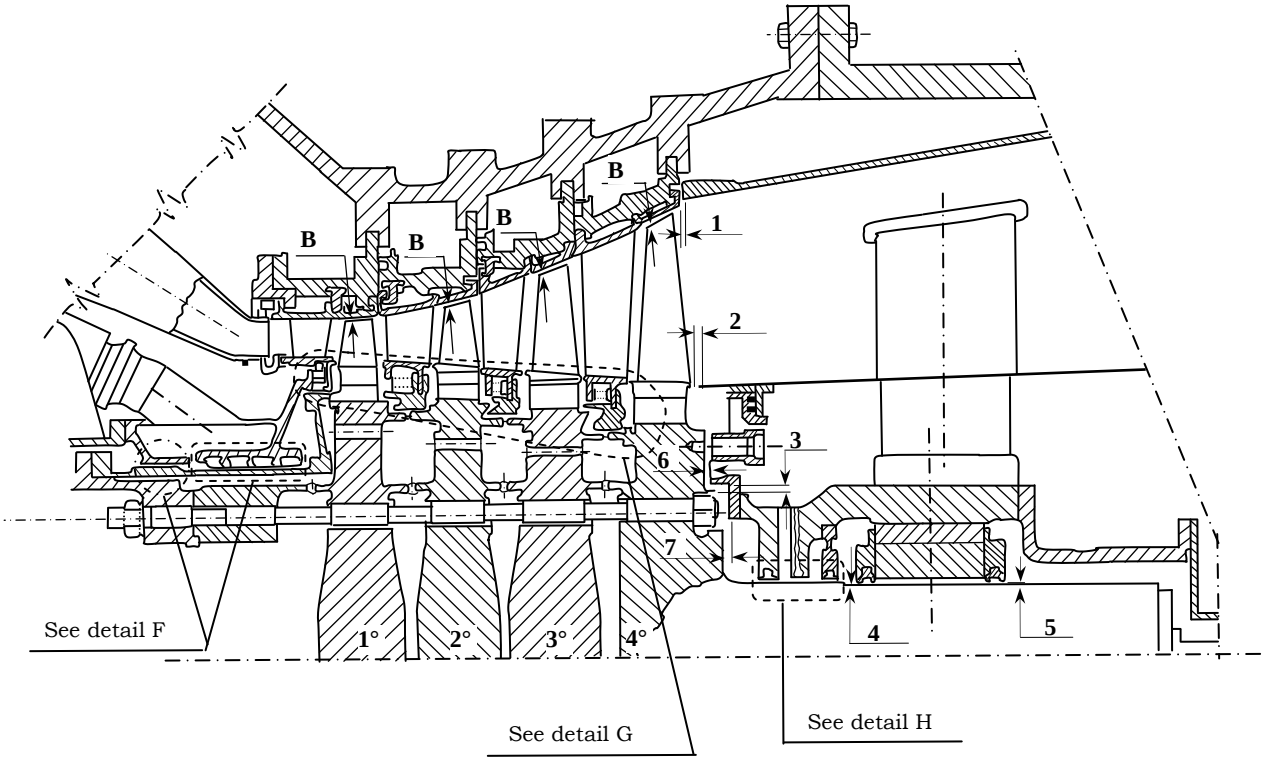
STAGE ("B" value)		1ST	2ND	3RD	4TH	POSITION		1	2	3	4	5	6	7
Horizontal centerline readings		3,00	4,20	6,20	7,75	Readings		11,5	26,7	6,9	1,0	1,0	26,1	23,8
Horizontal centerline permitted values	**Min**	**3,30**	**4,50**	**6,35**	**7,85**	**Permitted values (diameter)**	**Min**	**11,4**	**19,4**	**6,60**	**1,0**	**1,0**	**26,0**	**23,6**
	Max	**3,80**	**5,35**	**7,20**	**8,70**		**Max**	**12,8**	**27,1**	**7,0**	**1,1**	**1,1**	**ref**	**ref**
Upper centerline readings		5,70	6,10	7,90	8,60									
Upper centerline permitted values	**Min**	**3,40**	**5,05**	**7,30**	**7,90**									
	Max	**4,00**	**5,90**	**8,15**	**8,75**									
Lower centerline reading		3,60			8,50									
Lower centerline permitted values	**Min**	**3,20**			**7,80**									
	Max	**3,70**			**8,65**									

Notes:

Notes: All the clearances must be taken with rotor and blade rings pushed toward the exhaust side.
Values not complying with those listed in the table, must be submitted to TurboCare for evaluation.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE ROTOR CLEARANCES – RIGHT SIDE - AFTER OVERHAUL



STAGE ("B" value)		1ST	2ND	3RD	4TH
Horizontal centerline readings		3,40	4,80	6,70	8,10
Horizontal centerline permitted values	**Min**	**3,30**	**4,50**	**6,35**	**7,85**
	Max	**3,80**	**5,35**	**7,20**	**8,70**
Upper centerline readings		3,80	5,60	7,90	8,30
Upper centerline permitted values	**Min**	**3,40**	**5,05**	**7,30**	**7,90**
	Max	**4,00**	**5,90**	**8,15**	**8,75**
Lower centerline reading		3,40			8,30
Lower centerline permitted values	**Min**	**3,20**			**7,80**
	Max	**3,70**			**8,65**

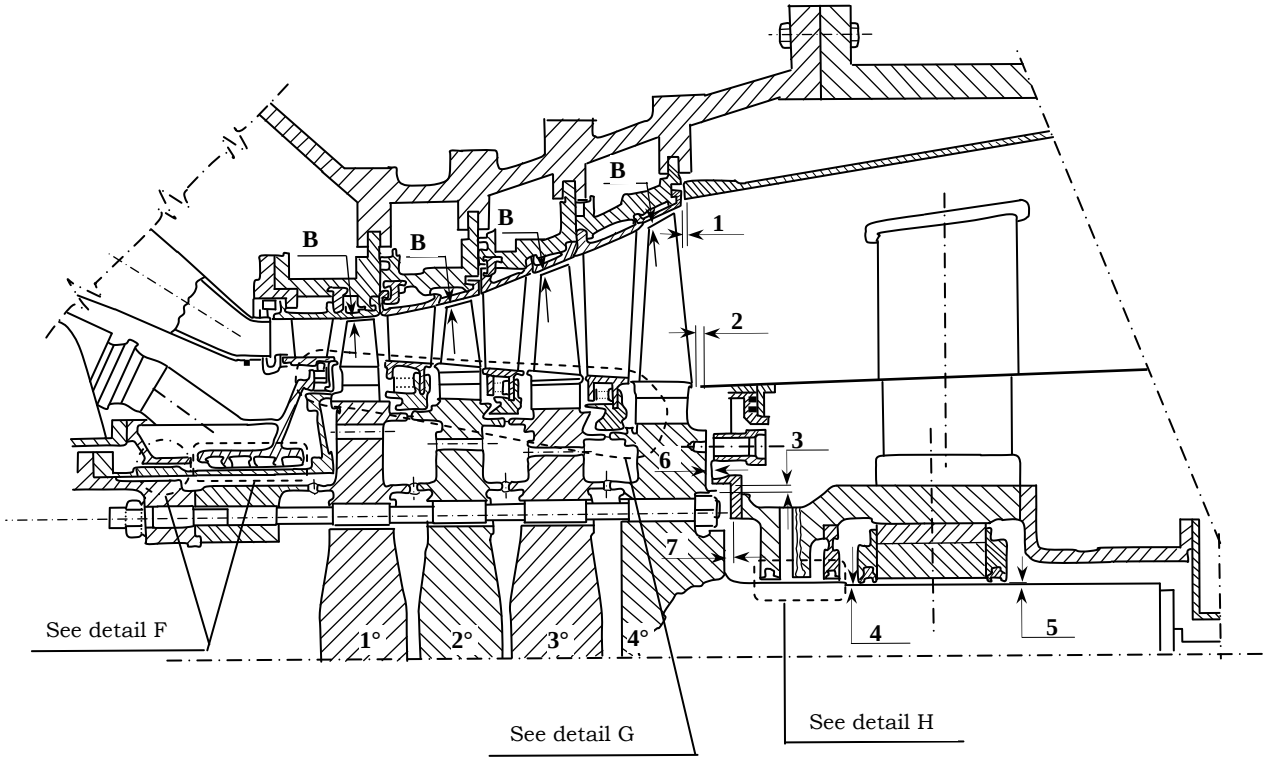
POSITION		1	2	3	4	5	6	7
Readings		11,6	26,8	6,8	1,0	1,0	26,4	23,7
Permitted values (diameter)	**Min**	**11,4**	**19,4**	**6,60**	**1,0**	**1,0**	**26,0**	**23,6**
	Max	**12,8**	**27,1**	**7,0**	**1,1**	**1,1**	**ref**	**ref**

Notes:

Notes: All the clearances must be taken with rotor and blade rings pushed toward the exhaust side.
Values not complying with those listed in the table, must be submitted toTurboCare for evaluation.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE ROTOR CLEARANCES – LEFT SIDE - BEFORE OVERHAUL



STAGE ("B" value)		1ST	2ND	3RD	4TH
Horizontal centerline readings		3,20	4,30	6,90	8,10
Horizontal centerline permitted values	**Min**	**3,30**	**4,50**	**6,35**	**7,85**
	Max	**3,80**	**5,35**	**7,20**	**8,70**
Upper centerline readings		3,70	5,80	7,80	8,20
Upper centerline permitted values	**Min**	**3,40**	**5,05**	**7,30**	**7,90**
	Max	**4,00**	**5,90**	**8,15**	**8,75**
Lower centerline reading		3,60			8,40
Lower centerline permitted values	**Min**	**3,20**			**7,80**
	Max	**3,70**			**8,65**

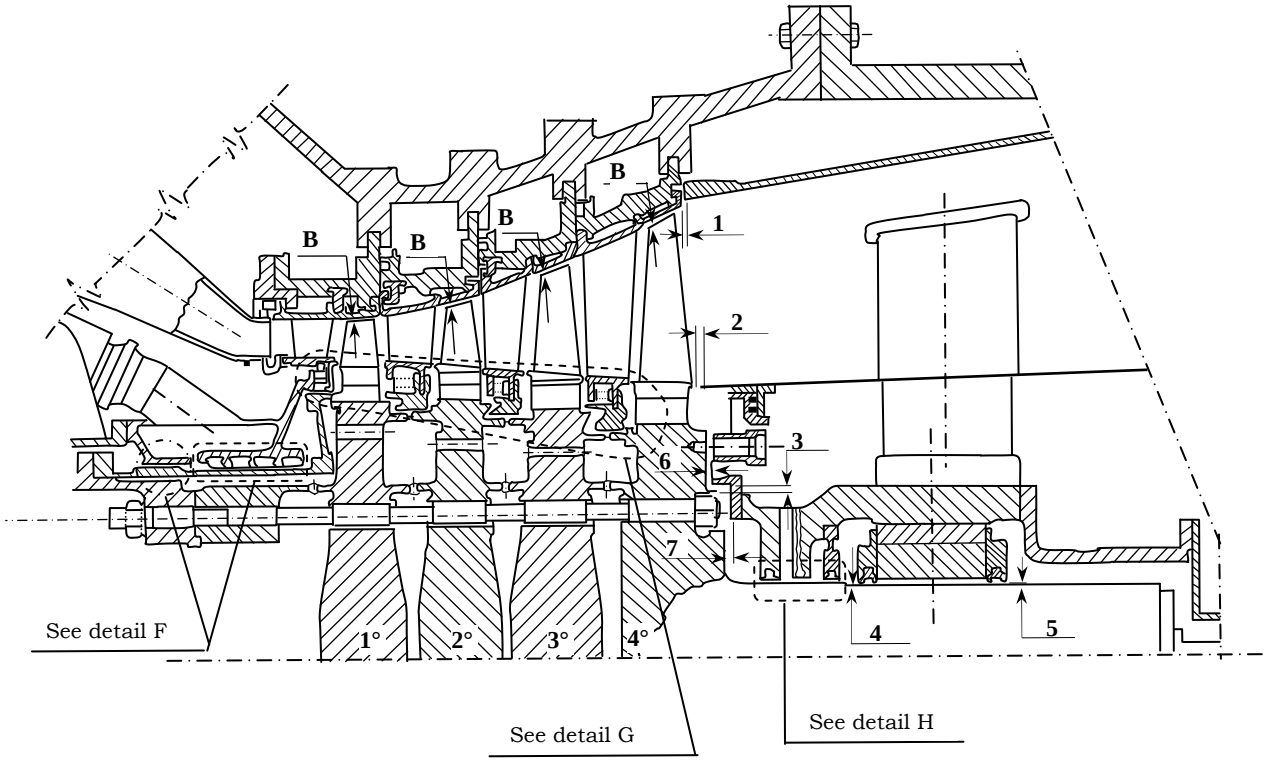
POSITION		1	2	3	4	5	6	7
Readings		11,6	23,5	6,8	1,0	1,0	26,3	23,7
Permitted values (diameter)	**Min**	**11,4**	**19,4**	**6,60**	**1,0**	**1,0**	**26,0**	**23,6**
	Max	**12,8**	**27,1**	**7,0**	**1,1**	**1,1**	**ref**	**ref**

Notes:

Notes: All the clearances must be taken with rotor and blade rings pushed toward the exhaust side.
Values not complying with those listed in the table must be submitted to TurboCare for evaluation.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE ROTOR CLEARANCES – LEFT SIDE - AFTER OVERHAUL



STAGE ("B" value)		1ST	2ND	3RD	4TH
Horizontal centerline readings		3,40	4,80	6,90	8,10
Horizontal centerline permitted values	**Min**	**3,30**	**4,50**	**6,35**	**7,85**
	Max	**3,80**	**5,35**	**7,20**	**8,70**
Upper centerline readings		3,80	5,60	7,90	8,30
Upper centerline permitted values	**Min**	**3,40**	**5,05**	**7,30**	**7,90**
	Max	**4,00**	**5,90**	**8,15**	**8,75**
Lower centerline reading		3,40			8,30
Lower centerline permitted values	**Min**	**3,20**			**7,80**
	Max	**3,70**			**8,65**

POSITION		1	2	3	4	5	6	7
		11,9	25,6	6,8	1,0	1,0	26,2	23,5
Permitted values (diameter)	**Min**	**11,4**	**19,4**	**6,60**	**1,0**	**1,0**	**26,0**	**23,6**
	Max	**12,8**	**27,1**	**7,0**	**1,1**	**1,1**	**ref**	**ref**

Notes:

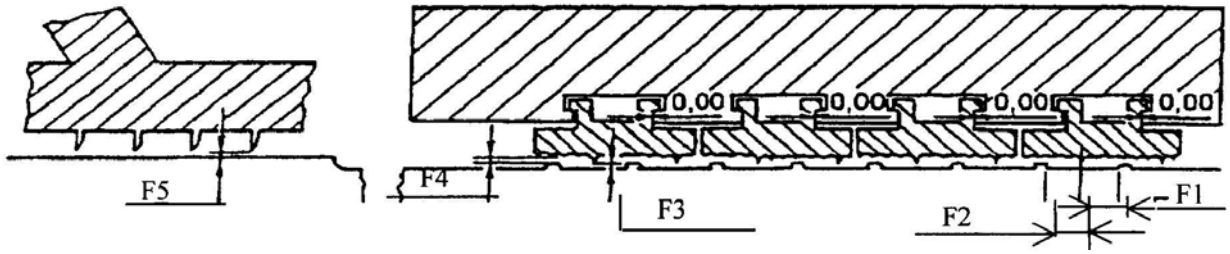
Notes: All the clearances must be taken with rotor and blade rings pushed toward the exhaust side.
Values not complying with those listed in the table must be submitted to TurboCare for evaluation.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

Form Ref. N°: *D5TR0026-D*

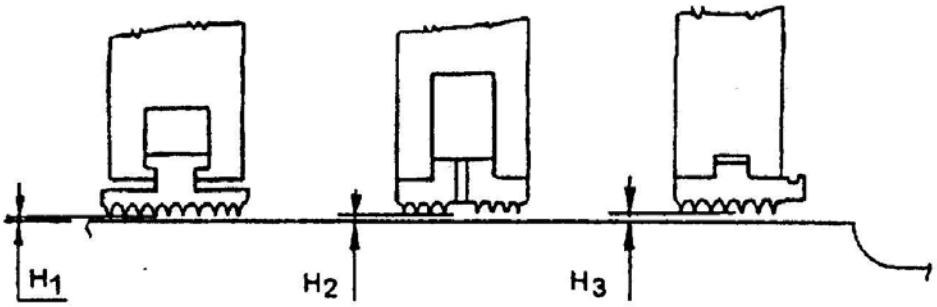
INTERMEDIATE SHAFT GUARD LABYRINTH SEALS - DETAIL "F"

1 Readings must be taken looking downstream, left and right side
2 Defects must be specified (i.e. inlet and outlet side looking downstream)
3 Values different from those indicated in the table must be submitted to TurboCare for approval.



CLEARANCES						Permitted clearances	SHAFT VISUAL INSPECTION
	Pos.	Before overhaul		After overhaul			
		left	right	left	Right		
DETAIL "F"	**F1**	15,00	15,20	15,10	15,20	12,95 – 18,90	
	F2	14,80	15,50	14,70	15,40	12,85 – 18,15	
	F3	3,00	3,10	3,00	3,10	2,95 – 3,95	
	F4	3,20	3,00	3,20	3,10	2,95 – 3,95	
	F5	3,90	4,00	4,00	4,10	3,80 – 4,35	

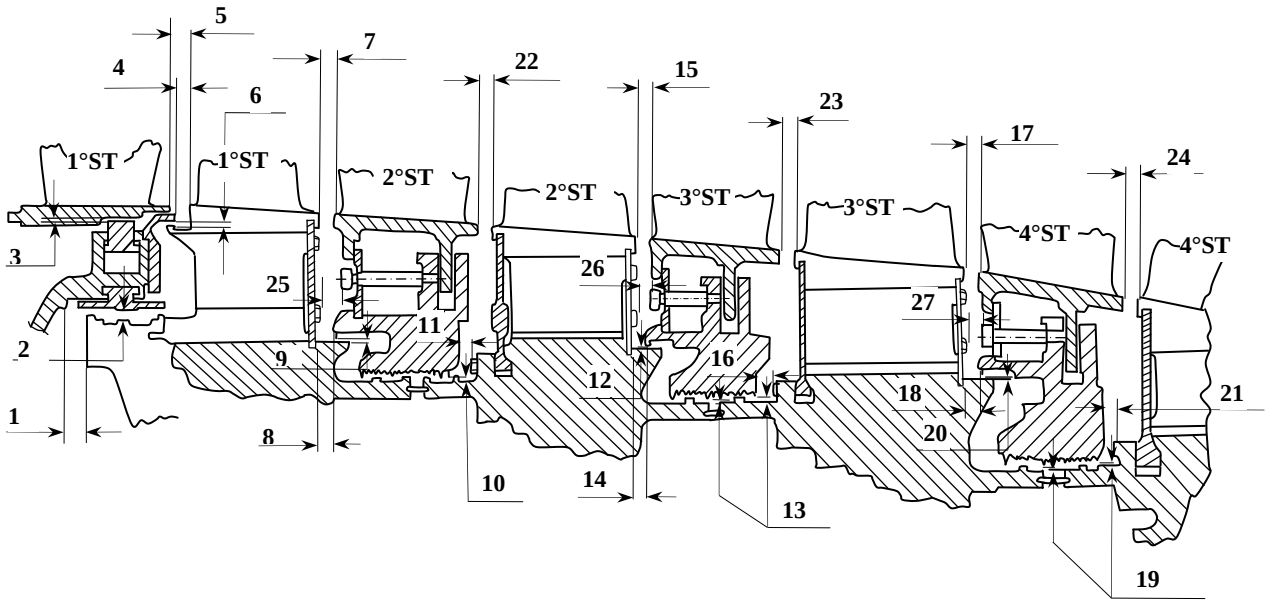
DIFFUSER BODY LABYRINTH SEALS -DETAIL"H"



CLEARANCES						Permitted clearances	SHAFT VISUAL INSPECTION
	Pos.	Before overhaul		After overhaul			
		left	Right	Left	right		
DETAIL "H"	**H1**	1,70	1,90	1,70	1,85	1,80 – 2,02	
	H2	1,40	1,35	1,45	1,35	1,35 – 1,51	
	H3	1,55	1,40	1,50	1,45	1,40 – 1,63	

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE ROTOR CLEARANCES – "DETAIL G" RIGHT SIDE - BEFORE OVERHAUL

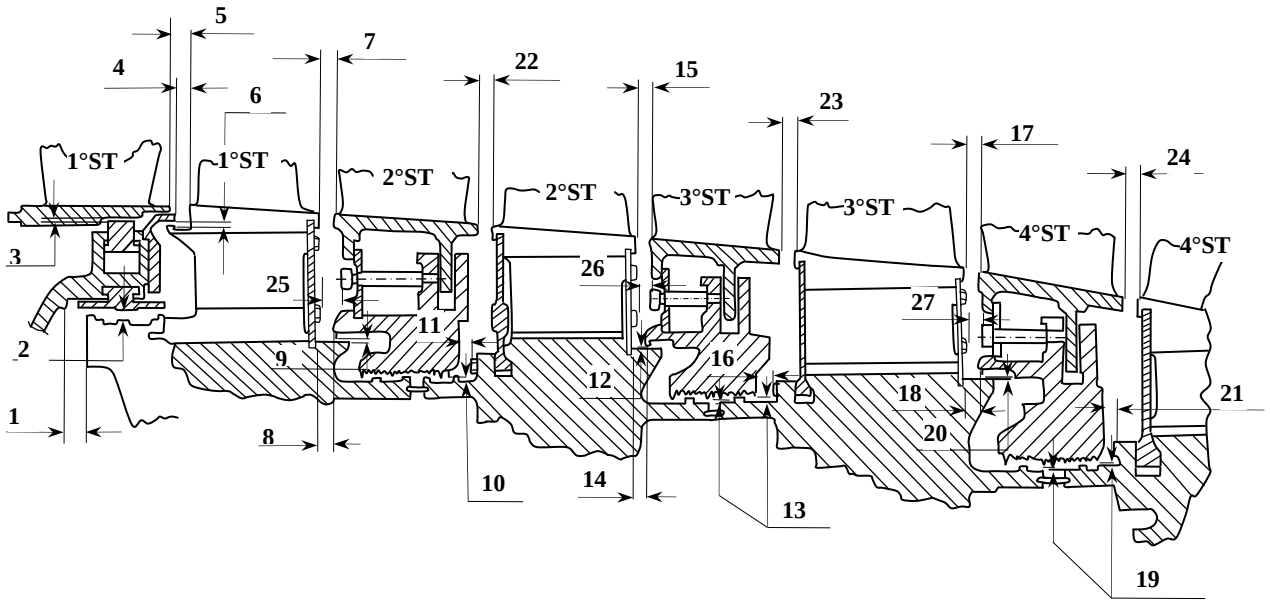


Location		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Readings		13,60	11,90	0,10	15,80	21,40	3,50	13,50	14,80	2,00	2,30	16,90	2,10	2,20	9,80
Permitted values	**Min**	**11,35**	**11,85**	**0,00**	**14,00**	**18,51**	**3,06**	**10,10**	**12,95**	**2,40**	**2,40**	**17,30**	**2,40**	**2,40**	**8,35**
	Max	**15,7**	**ref.**	**0,20**	**18,40**	**23,40**	**3,62**	**17,65**	**19,75**	**2,95**	**2,60**	**22,30**	**2,95**	**2,60**	**15,25**
Location		**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	
Readings		11,40	20,30	15,80	15,10	1,90	2,10	17,90	11,45	20,10	17,40	18,50	4,90	11,90	
Permitted values	**Min**	**7,85**	**19,65**	**10,50**	**8,75**	**2,40**	**2,40**	**19,50**	**14,82**	**20,30**	**20,55**	**14,30**	**5,30**	**9,00**	
	Max	**15,60**	**24,70**	**19,45**	**15,80**	**2,60**	**2,95**	**24,65**	**19,84**	**25,94**	**26,50**	**23,45**	**14,50**	**18,75**	

Notes: All the clearances must be taken with rotor and blade rings pushed toward the exhaust side.
Values not complying with those listed in the table must be submitted to Turbocare for evaluation.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE ROTOR CLEARANCES – "DETAIL G" RIGHT SIDE - AFTER OVERHAUL



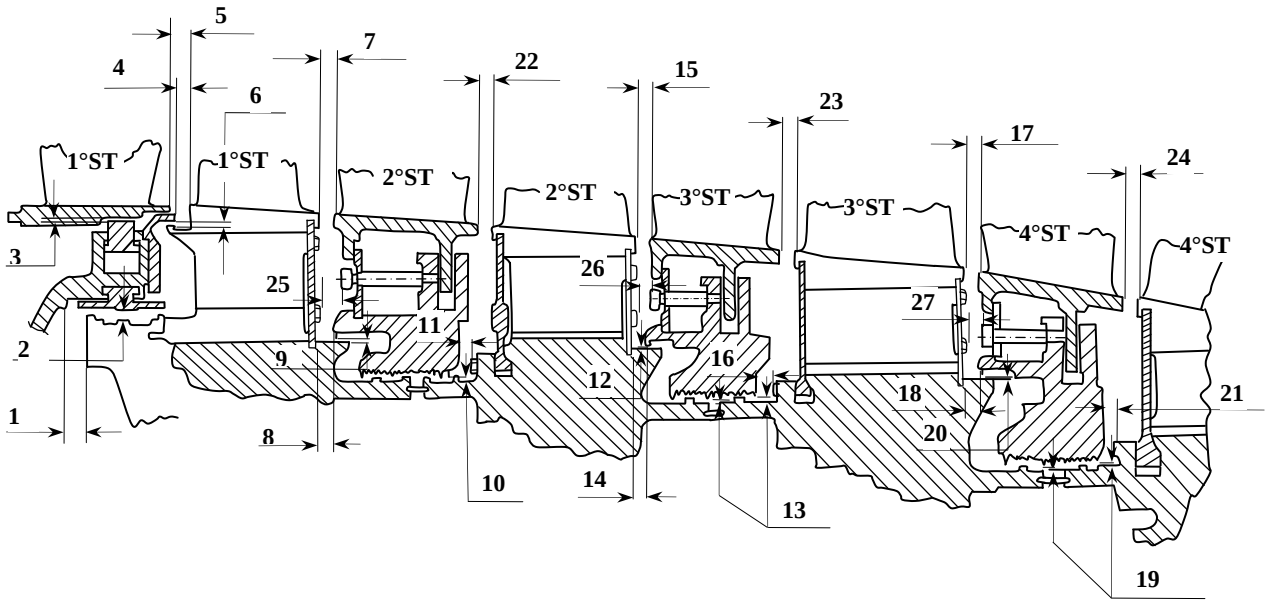
Location		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Readings		13,70	12,30	0,10	16,80	19,90	3,45	14,50	16,00	2,70	2,70	20,40	2,40	2,40	11,90
Permitted values	**Min**	**11,35**	**11,85**	**0,00**	**14,00**	**18,51**	**3,06**	**10,10**	**12,95**	**2,40**	**2,40**	**17,30**	**2,40**	**2,40**	**8,35**
	Max	**15,7**	**ref.**	**0,20**	**18,40**	**23,40**	**3,62**	**17,65**	**19,75**	**2,95**	**2,60**	**22,30**	**2,95**	**2,60**	**15,25**

Location		15	16	17	18	19	20	21	22	23	24	25	26	27	
Readings		12,80	21,00	16,30	15,30	2,60	2,70	19,50	14,50	21,00	20,60	15,90	9,60	10,40	
Permitted values	**Min**	**7,85**	**19,65**	**10,50**	**8,75**	**2,40**	**2,40**	**19,50**	**14,82**	**20,30**	**20,55**	**14,30**	**5,30**	**9,00**	
	Max	**15,60**	**24,70**	**19,45**	**15,80**	**2,60**	**2,95**	**24,65**	**19,84**	**25,94**	**26,50**	**23,45**	**14,50**	**18,75**	

Notes: All the clearances must be taken with rotor and blade rings pushed toward the exhaust side.
Values not complying with those listed in the table must be submitted to Turbocare for evaluation.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE ROTOR CLEARANCES – "DETAIL G" LEFT SIDE - BEFORE OVERHAUL

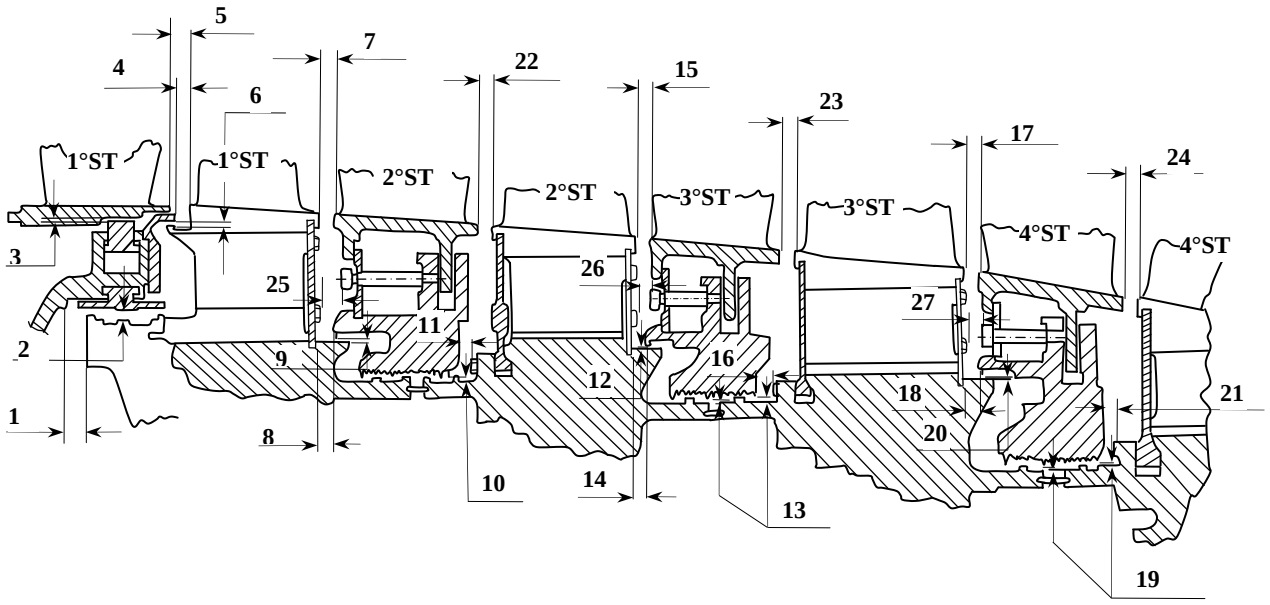


Location		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
Readings		10,50	11,20	0,40	14,60	18,60	3,60	10,90	14,80	2,75	2,50	17,40	2,30	2,50	9,40
Permitted values	**Min**	**11,35**	**11,85**	**0,00**	**14,00**	**18,51**	**3,06**	**10,10**	**12,95**	**2,40**	**2,40**	**17,30**	**2,40**	**2,40**	**8,35**
	Max	**15,7**	**ref.**	**0,20**	**18,40**	**23,40**	**3,62**	**17,65**	**19,75**	**2,95**	**2,60**	**22,30**	**2,95**	**2,60**	**15,25**
Location		**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	
Readings		11,30	23,70	16,80	13,40	2,20	2,40	18,70	14,90	22,45	22,80	13,70	8,60	15,40	
Permitted values	**Min**	**7,85**	**19,65**	**10,50**	**8,75**	**2,40**	**2,40**	**19,50**	**14,82**	**20,30**	**20,55**	**14,30**	**5,30**	**9,00**	
	Max	**15,60**	**24,70**	**19,45**	**15,80**	**2,60**	**2,95**	**24,65**	**19,84**	**25,94**	**26,50**	**23,45**	**14,50**	**18,75**	

Notes: All the clearances must be taken with rotor and blade rings pushed toward the exhaust side.
Values not complying with those listed in the table must be submitted to Turbocare for evaluation.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE ROTOR CLEARANCES – "DETAIL G" LEFT SIDE - AFTER OVERHAUL

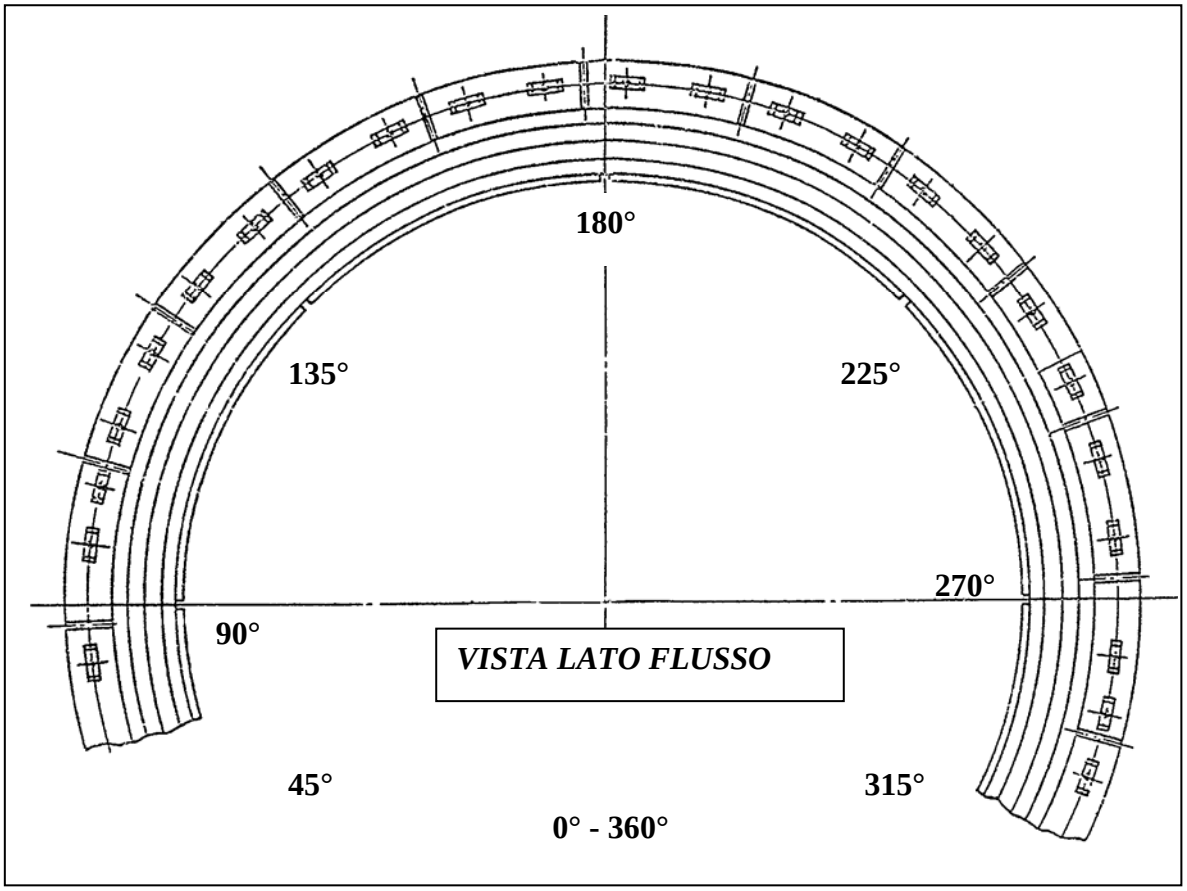


Location		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Readings		12,40	11,90	0,10	15,60	20,10	3,40	14,50	16,00	2,70	2,50	20,60	2,90	2,50	12,40
Permitted values	**Min**	**11,35**	**11,85**	**0,00**	**14,00**	**18,51**	**3,06**	**10,10**	**12,95**	**2,40**	**2,40**	**17,30**	**2,40**	**2,40**	**8,35**
	Max	**15,7**	**ref.**	**0,20**	**18,40**	**23,40**	**3,62**	**17,65**	**19,75**	**2,95**	**2,60**	**22,30**	**2,95**	**2,60**	**15,25**
Location		**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	
Readings		13,20	21,30	16,50	15,50	2,40	2,80	19,60	14,90	21,00	20,70	15,70	8,60	10,90	
Permitted values	**Min**	**7,85**	**19,65**	**10,50**	**8,75**	**2,40**	**2,40**	**19,50**	**14,82**	**20,30**	**20,55**	**14,30**	**5,30**	**9,00**	
	Max	**15,60**	**24,70**	**19,45**	**15,80**	**2,60**	**2,95**	**24,65**	**19,84**	**25,94**	**26,50**	**23,45**	**14,50**	**18,75**	

Notes: All the clearances must be taken with rotor and blade rings pushed toward the exhaust side.
Values not complying with those listed in the table must be submitted to Turbocare for evaluation.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

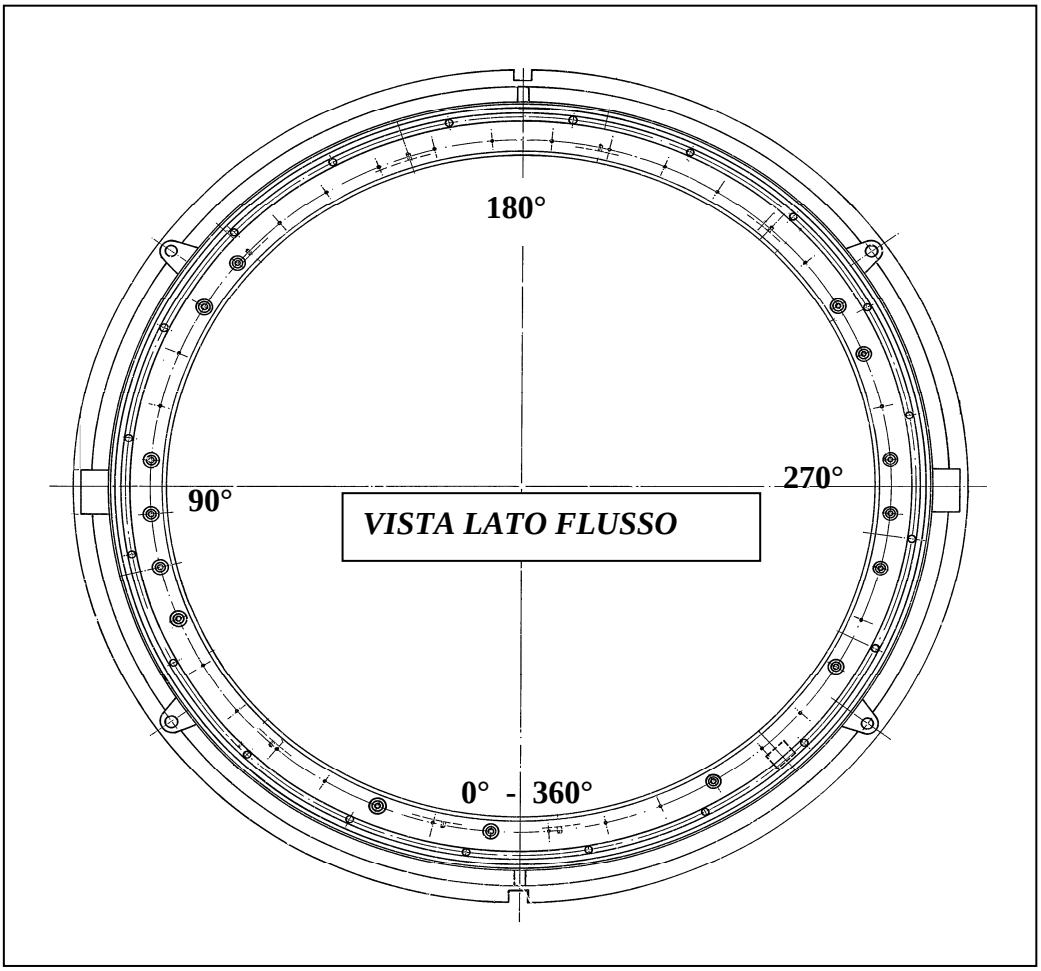
2nd, 3rd & 4 th STAGE AIR SEAL RING CENTERING



ANGLE POS. STAGE	0° 360°	45°	90°	135°	180°	225°	270°	315°
2nd STAGE	- 0,05		- 0,40		0,00		- 0,45	
3rd STAGE	- 0,08		- 0,65		0,00		- 0,58	
4th STAGE	- 0,06		- 0,35		0,00		- 0,32	

NOTES:

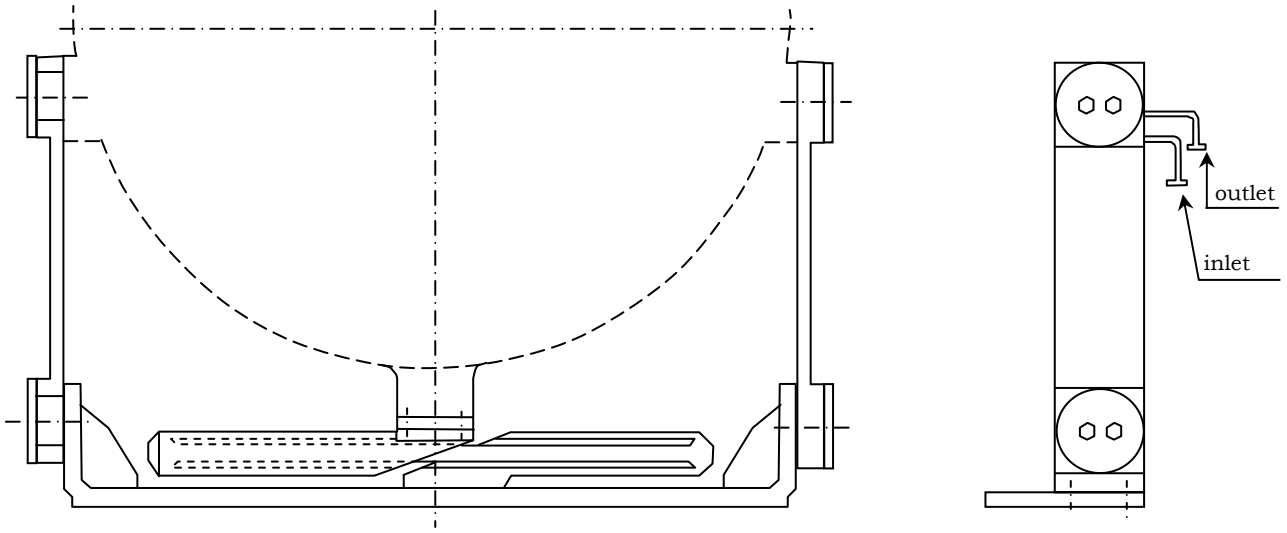
BLADE RING CENTERING - with blade tip used only one blade



ANGLE POS. / STAGE	0° - 360°	90°	180°	270°
1st STAGE	3,40	3,50	3,80	3,40
2nd STAGE		4,90	5,60	4,80
3rd STAGE		6,60	7,90	6,70
4th STAGE	8,30	8,40	8,30	8,10

NOTES:

TURBINE SUPPORTS – INSPECTION



1.1 Bushes clearances check:

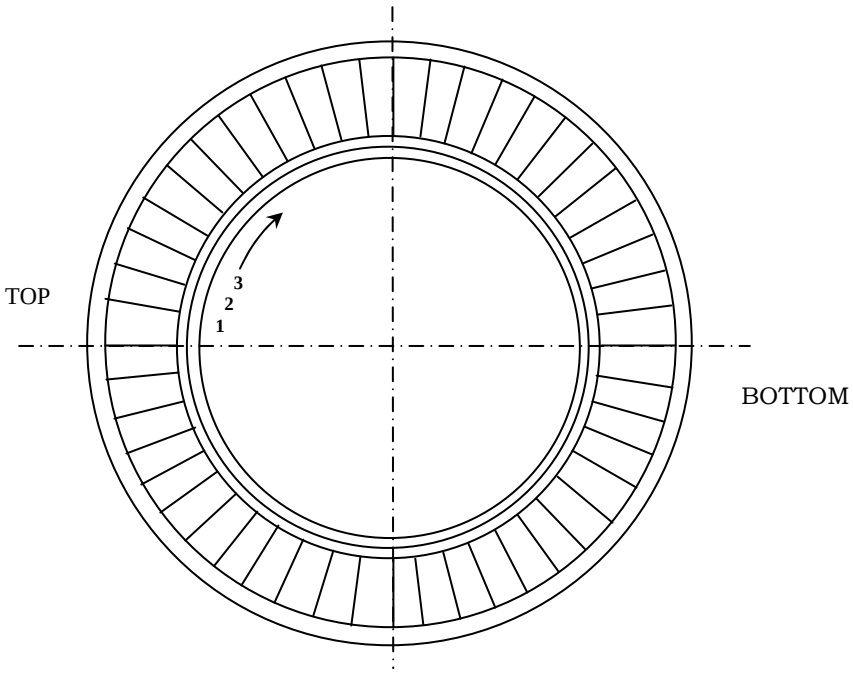
1.2 Check for seizure:

1.3 Bushes cleaning / greasing:

1.4 Torsional bar check:

Notes:

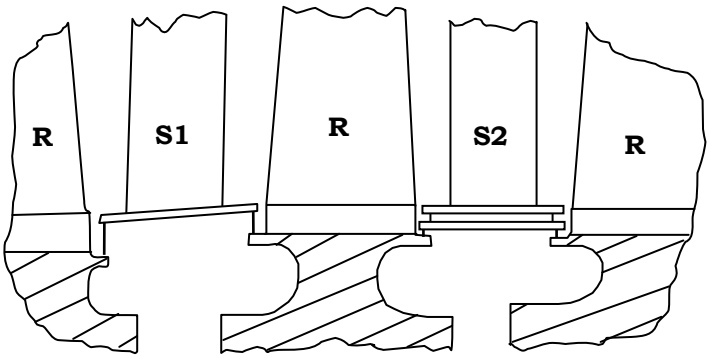
COMPRESSOR VANES – DEFECTS AND REPAIRS



Stage No.	Serial N°	Position (vane n°)	Defect description	Repair description
1		TOP		
2		TOP	Slight dent	
3		TOP	Slight dent	
4		TOP	Slight dent	
5		TOP		
6		TOP		
7		TOP		
8		TOP		
9		TOP		
10		TOP		
11		TOP		
12		TOP		
13		TOP	Rubbing mark and air seal corrosion	Grinding and polishing
14		TOP	Rubbing mark and air seal corrosion	Grinding and polishing
15		TOP	Rubbing mark and air seal corrosion	Grinding and polishing
16		TOP	Rubbing mark and air seal corrosion	Grinding and polishing

17		TOP	Rubbing mark and air seal corrosion	Grinding and polishing
18		TOP		
19		TOP		
1		BOTTOM		
2		BOTTOM	Slight dent	
3		BOTTOM	Slight dent	
4		BOTTOM	Slight dent	
5		BOTTOM		
6		BOTTOM		
7		BOTTOM		
8		BOTTOM		
9		BOTTOM		
10		BOTTOM		
11		BOTTOM		
12		BOTTOM		
13		BOTTOM	Rubbing mark and air seal corrosion	Grinding and polishing
14		BOTTOM	Rubbing mark and air seal corrosion	Grinding and polishing
15		BOTTOM	Rubbing mark and air seal corrosion	Grinding and polishing
16		BOTTOM	Rubbing mark and air seal corrosion	Grinding and polishing
17		BOTTOM	Rubbing mark and air seal corrosion	Grinding and polishing
18		BOTTOM		
19		BOTTOM		

COMPRESSOR SEALS AND DISCS – VISUAL INSPECTION



CONDITION

M = material loss
W = worn
CR = cracked
D = no anomalies

ACTIONS

N = to be replaced with a new seal
R = repairable
RN = no action required
CR = only cleaning required

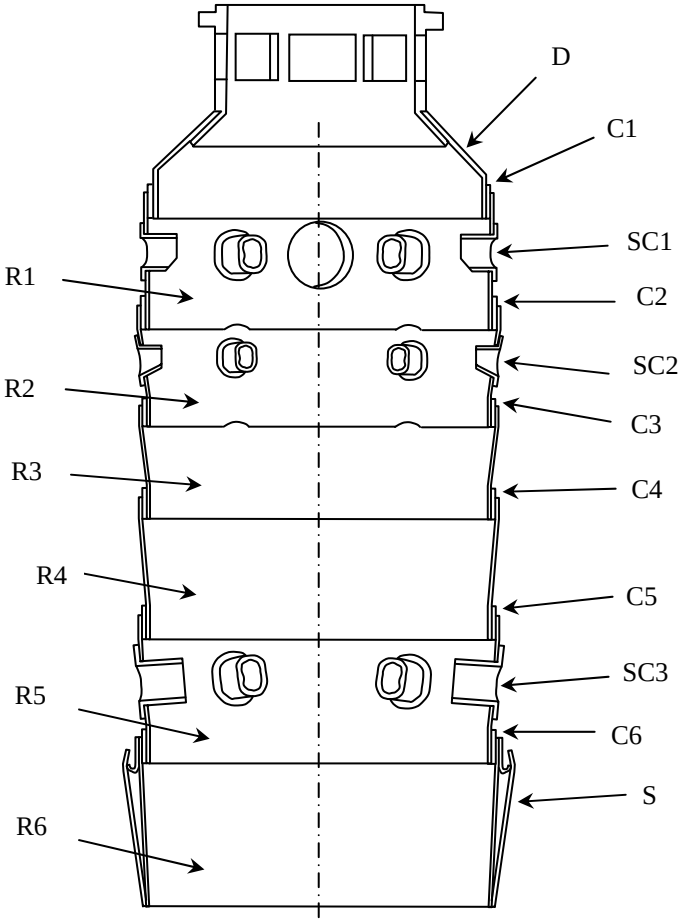
ROW	SEALS VISUAL INSPECTION		DISCS VISUAL INSPECTION	
	CONDITIONS	ACTIONS	CONDITIONS	ACTIONS
1	D	CR	D	CR
2	D	CR	D	CR
3	D	CR	D	CR
4	D	CR	D	CR
5	D	CR	D	CR
6	D	CR	D	CR
7	D	CR	D	CR
8	D	CR	D	CR
9	D	CR	D	CR
10	D	CR	D	CR
11	D	CR	D	CR
12	D	CR	D	CR
13	D	CR	D	CR
14	D	CR	D	CR
15	D	CR	D	CR
16	D	CR	D	CR
17	D	CR	D	CR
18	D	CR	D	CR
19	D	CR	D	CR

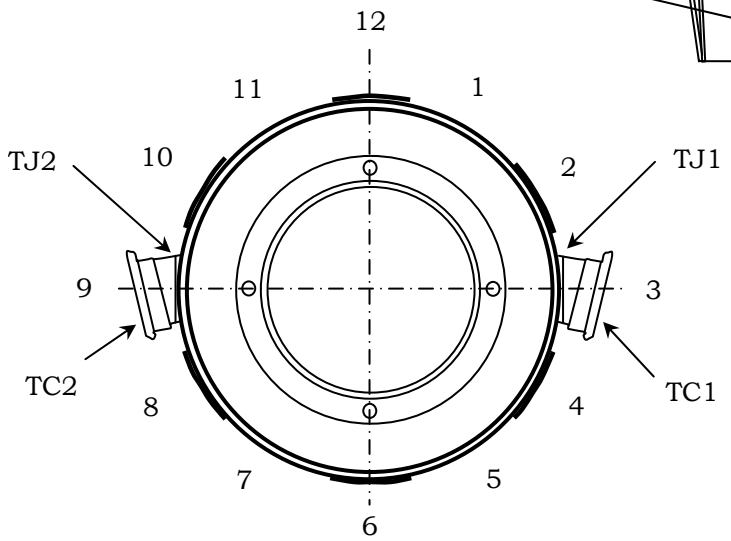
STANDARD COMBUSTOR BASKET – IDENTIFICATION OF COMPONENTS

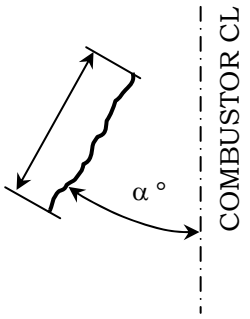
Enclosed sketches: yes no

Enclosed photos: yes no

NOMENCLATURE	CODE
Corrugated ring	C
Ring	R
Dome	D
Spring	S
Cross flame tube connection	TC
Cross flame tube junction	TJ
Air scoop	SC







COMBUSTOR BASKET – ASSEMBLY

BASKETS			FROM THE FIRST INSTALLATION			FROM THE LAST INSPECTION			COMING FROM		
POS	S/N	DRAWING	DATE	STARTS NO.	FIRING HRS.	DATE	STARTS NO.	FIRING HRS	GR	STARTS NO.	FIRING HRS.
1	ILL039558	STD 4219T92				03/09/08	0	0			
2	ILT129685	STD 4219T92				03/09/08	0	0			
3	ILL129161	STD 4219T92				03/09/08	0	0			
4	ILL129172	STD 4219T92				03/09/08	0	0			
5	ILL039569	STD 4219T92				03/09/08	0	0			
6	ILL039562	STD 4219T92				03/09/08	0	0			
7	ILT119680	STD 4219T92				03/09/08	0	0			
8	ILL119513 5	4219T94				03/09/08	0	0			
9	ILL059599	4219T94				03/09/08	0	0			
10	ILT019711 1	STD 4219T92				03/09/08	0	0			
11	ILT000310	STD 4219T92				03/09/08	0	0			
12	091K014M	STD 4219T92				03/09/08	0	0			
13	ILT119671	STD 4219T92				03/09/08	0	0			
14	ILL119512 8	STD 4219T92				03/09/08	0	0			
15	ILL059587	STD 4219T92				03/09/08	0	0			
16	ILL039557	STD 4219T92				03/09/08	0	0			
17	ILL119513 6	4219T93				03/09/08	0	0			
18	ILL129162	4219T93				03/09/08	0	0			

Notes:

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

Form Ref. N°: *D5TR0045-A*

TRANSITION PIECES – AT REASSEMBLY

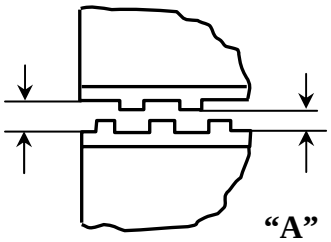
TRANSITION PIECES			FROM THE FIRST INSTALLATION			FROM THE LAST INSPECTION			COMING FROM		
POS	S/N	DRAWING	DATE	STARTS NO.	FIRING HRS.	DATE	STARTS NO.	FIRING HRS	GR.	STARTS NO.	FIRING HRS.
1	059	4220T99				03/09/08	0	0			
2	498	4220T99				03/09/08	0	0			
3	060	4220T99				03/09/08	0	0			
4	071	4220T99				03/09/08	0	0			
5	055	4220T99				03/09/08	0	0			
6	064	4220T99				03/09/08	0	0			
7	063	4220T99				03/09/08	0	0			
8	057	4220T99				03/09/08	0	0			
9	494	4220T99				03/09/08	0	0			
10	502	4220T99				03/09/08	0	0			
11	058	4220T99				03/09/08	0	0			
12	070	4220T99				03/09/08	0	0			
13	499	4220T99				03/09/08	0	0			
14	062	4220T99				03/09/08	0	0			
15	015GRE	4220T99				03/09/08	0	0			
16	ILT021251	4220T99				03/09/08	0	0			
17	ILT030338	4220T99				03/09/08	0	0			
18	ILT021259	4220T99				03/09/08	0	0			

Notes:

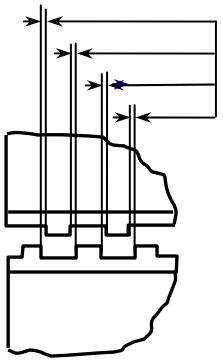
TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TRANSITION PIECE LATERAL SEALS – CLEARANCES

"A" 6 – 10 mm.



"A" 6 – 10 mm

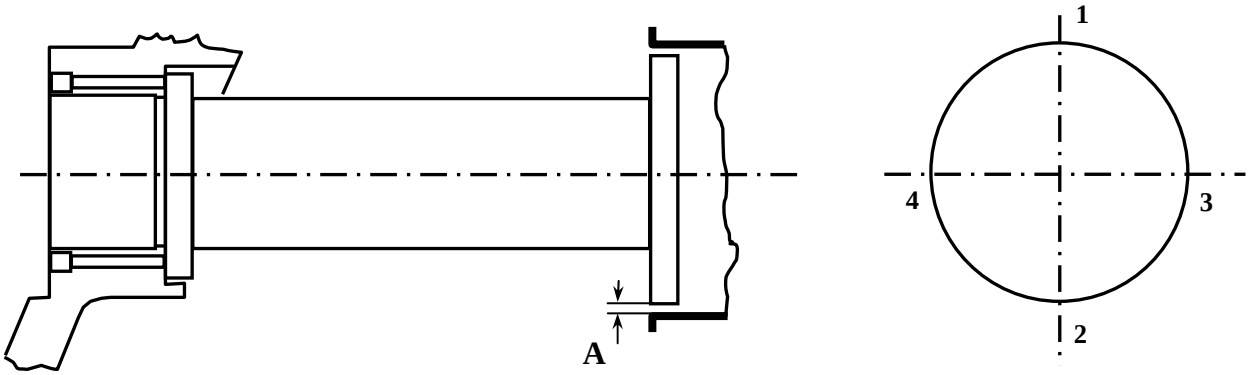


"B" 1,5 – 5,5 mm.

TRANSITION	AT DISASSEMBLY			AT RE -ASSEMBLY	
	PRESENCE OF CRACKS ON LATERAL SEALS	VALUE "A"	VALUE "B"	VALUE "A"	VALUE "B"
1 – 2				8,00	2,5
2 – 3				8,00	3,10
3 – 4				8,50	2,80
4 – 5				6,10	4,20
5 – 6				7,00	3,50
6 – 7				6,00	2,90
7 – 8				7,00	3,20
8 – 9				6,80	3,80
9 – 10				6,80	3,70
10 – 11				7,00	3,00
11 – 12				7,00	4,10
12 – 13				6,00	3,90
13 – 14				7,00	3,40
14 – 15				7,00	4,30
15 – 16				7,00	4,50
16 – 17				6,50	3,90
17 – 18				6,00	2,80
18 – 1				7,00	2,90

Notes:

TRANSITION PIECES – ALIGNMENT CHECK

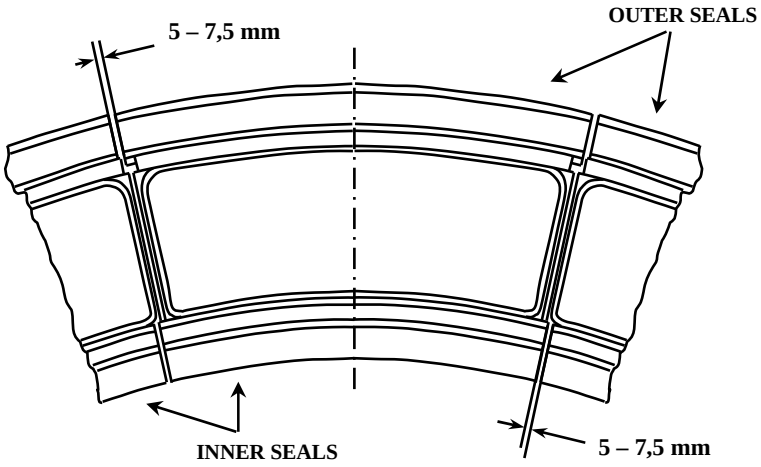


NUMBERING IS REFERRED TO TURBINE CENTERLINE (i.e.: position 2 is always toward the internal support)

POSITION	GAP READING "A"				DIFFERENCE		NOTES
	A1	A2	A3	A4	A1-A2	A3-A4	
1	3,90	3,60	3,80	3,80	0,30	0,00	
2	3,10	3,30	4,00	4,20	0,20	0,20	
3	3,40	3,50	4,70	4,60	0,10	0,10	
4	4,50	4,20	4,50	4,30	0,30	0,20	
5	3,80	3,70	3,60	4,10	0,10	0,50	
6	3,50	3,30	4,50	4,40	0,20	0,10	
7	3,20	3,40	4,10	3,60	0,20	0,50	
8	4,00	3,70	4,00	4,00	0,30	0,00	
9	3,40	3,20	4,10	3,70	0,20	0,40	
10	3,30	3,30	4,30	4,10	0,00	0,20	
11	3,50	3,70	3,40	3,60	0,20	0,20	
12	3,30	3,40	3,50	3,30	0,10	0,20	
13	3,60	3,60	3,40	3,70	0,00	0,30	
14	3,60	3,90	3,90	4,00	0,30	0,10	
15	4,70	4,30	4,60	4,90	0,40	0,30	
16	2,80	3,10	4,50	4,30	0,30	0,20	
17	3,50	3,80	3,80	3,90	0,30	0,10	
18	3,40	3,40	4,20	4,70	0,00	0,50	

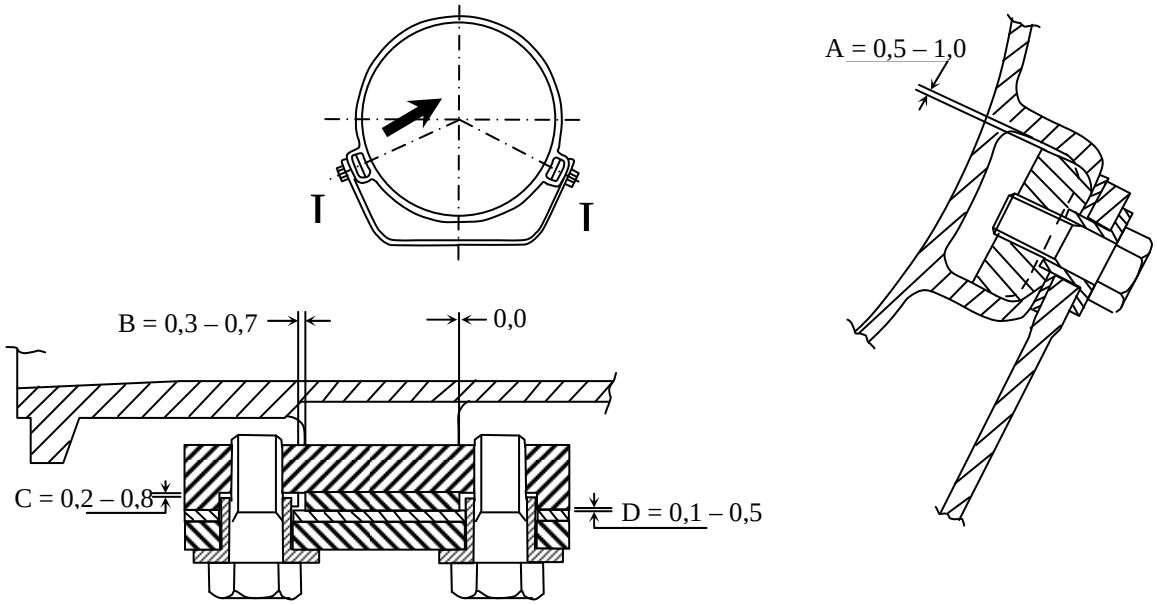
Form Ref. N°: *D5TR0050*

TRANSITION PIECES – INNER AND OUTER SEALS CLEARANCES



TRANSITION PIECE	OUTER SEALS CLEARANCE	INNER SEAL CLEARANCE	NOTES
1 - 2	5,50	6,70	
2 – 3	6,50	7,10	
3 – 4	6,40	6,30	
4 – 5	5,60	6,00	
5 – 6	6,30	7,40	
6 – 7	6,80	7,20	
7 – 8	6,40	7,00	
8 – 9	7,10	6,60	
9 – 10	6,30	6,10	
10 – 11	6,50	5,90	
11 - 12	6,00	6,80	
12 – 13	7,00	7,20	
13 – 14	7,10	6,00	
14 – 15	6,50	7,30	
15 – 16	6,60	6,50	
16 – 17	7,00	5,60	
17 – 18	6,50	6,00	
18 – 1	7,00	6,20	

TRANSITION PIECES – "C" SUPPORTS ASSEMBLY CLEARANCES



POS N°	Clearance A		Clearance B		Clearance C		Clearance D		POS. N°	Clearance A		Clearance B		Clearance C		Clearance D	
	I	II	I	II	I	II	I	II		I	II	I	II	I	II	I	II
1	0,60	0,80	0,40	0,60	0,30	0,50	0,20	0,40	**10**	0,70	1,00	0,60	0,40	0,40	0,50	0,25	0,30
2	0,50	0,50	0,50	0,35	0,50	0,45	0,15	0,15	**11**	0,80	0,60	0,40	0,55	0,35	0,60	0,50	0,50
3	0,70	0,60	0,50	0,40	0,70	0,50	0,10	0,10	**12**	0,50	0,50	0,65	0,60	0,70	0,35	0,40	0,40
4	0,60	0,50	0,60	0,50	0,60	0,45	0,30	0,25	**13**	0,50	0,70	0,45	0,60	0,65	0,40	0,20	0,10
5	0,60	0,70	0,45	0,60	0,40	0,50	0,10	0,10	**14**	0,50	0,50	0,70	0,40	0,60	0,30	0,20	0,15
6	0,60	0,80	0,40	0,50	0,60	0,70	0,40	0,40	**15**	0,60	0,70	0,60	0,45	0,55	0,50	0,35	0,20
7	0,90	1,00	0,35	0,55	0,50	0,40	0,10	0,25	**16**	0,80	0,60	0,40	0,50	0,45	0,60	0,10	0,10
8	0,80	0,50	0,60	0,50	0,65	0,30	0,55	0,60	**17**	0,70	0,65	0,55	0,60	0,60	0,40	0,20	0,10
9	0,70	0,80	0,55	0,70	0,45	0,60	0,15	0,15	**18**	0,60	0,70	0,35	0,65	0,40	0,70	0,15	0,10

Notes:

TURBINE VANES – CLEARANCES

1ST STAGE				2ND STAGE		3RD STAGE		4TH STAGE	
POS.	GAP (mm.)	POS.	GAP (mm.)	POS.	GAP (mm.)	POS.	GAP (mm.)	POS.	GAP (mm.)
1-2	2,10	31-32	2,10	1-2	5,20	1-2	4,60	1-2	5,40
2-3	1,90	32-33	2,25	2-3	6,30	2-3	4,90	2-3	5,80
3-4	2,40	33-34	2,40	3-4	5,40	3-4	5,10	3-4	5,30
4-5	2,30	34-35	2,60	4-5	6,10	4-5	4,55	4-5	5,60
5-6	2,20	35-36	2,55	5-6	5,90	5-6	5,20	5-6	5,40
6-7	2,45	36-37	2,30	6-7	5,80	6-7	5,00	6-7	6,00
7-8	1,80	37-38	1,90	7-8	5,10	7-8	5,30	7-8	5,10
8-9	2,00	38-39	2,45	8-9	5,25	8-9	4,70	8-9	5,90
9-10	2,60	39-40	2,20	9-10	6,10	9-10	4,85	9-10	5,70
10-11	2,50	40-41	2,40	10-11	5,40	10-11	5,20	10-11	5,65
11-12	2,60	4142	2,60	11-12	5,70	11-12	4,40	11-12	5,30
12-13	2,55	42-43	2,45	12-13	6,30	12-13	4,65	12-13	5,45
13-14	2,40	43-44	2,50	13-14	5,80	13-14	5,40	13-14	5,60
14-15	2,35	44-45	2,40	14-15	5,65	14-15	5,25	14-15	5,70
15-16	2,10	45-46	2,10	15-16	5,90	15-16	4,70	15-16	5,65
16-17	2,25	46-47	2,20	16-17	5,35	16-17	5,10	16-1	5,40
17-18	2,40	47-48	2,20	17-18	5,60	17-18	5,20		
18-19	2,60	48-49	2,30	18-19	5,75	18-1	4,90		
19-20	2,55	49-50	2,45	19-20	6,10				
20-21	2,30	50-51	2,60	20-1	5,70				
21-22	1,90	51-52	2,50						
22-23	2,45	52-53	2,25						
23-24	2,70	53-54	2,10						
24-25	2,45	54-55	2,65						
25-26	2,30	55-56	2,30						
26-27	2,20	56-57	2,40						
27-28	2,50	57-58	2,60						
28-29	2,45	58-58	1,90						
29-30	2,60	59-60	2,40						
30-31	2,55	60-1	2,00						

Notes:

TURBINE VANES – SERIAL NUMBERS

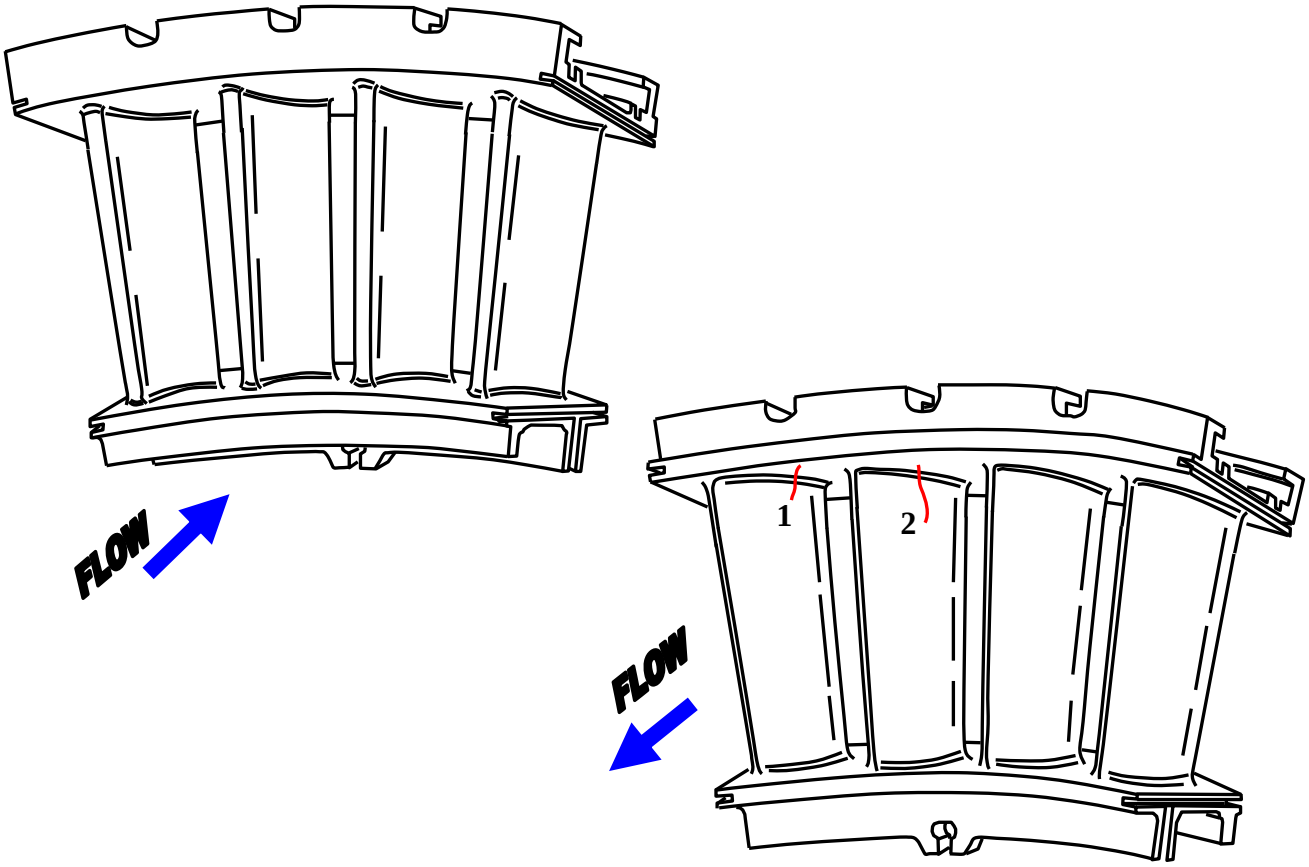
DISASSEMBLY ☐ **ASSEMBLY** ■

1ST STAGE				2ND STAGE		3RD STAGE		4TH STAGE	
POS.	S/N	POS.	S/N	POS.	S/N	POS.	S/N	POS.	S/N
1	039950027	31	946UB1860	1	U2T699	1	U3K582	1	U4T401
2	U39680020	32	946UB1876	2	U2T709	2	U3K589	2	U4T393
3	U45280113	33	946UB1875	3	U2T694	3	U3K593	3	U4T410
4	U40650047	34	946UB1839	4	U2T687	4	U3K588	4	U4T402
5	946UB1869	35	946UB1833	5	U2T695	5	U3K579	5	U4T409
6	946UB1845	36	946UB1830	6	U2T702	6	U3K580	6	U4T398
7	946UB1862	37	946UB1826	7	U2T712	7	U3K590	7	U4T408
8	946UB1874	38	U39630025	8	U2T700	8	U3K585	8	U4T406
9	U1K3220	39	946UB1861	9	U2T705	9	U3K594	9	U4T407
10	946UB1829	40	946UB1857	10	U2T706	10	U3K591	10	U4T403
11	946UB1850	41	946UB1849	11	U2T710	11	U3K584	11	U4T397
12	946UB1847	42	946UB1855	12	U2T698	12	U3K583	12	U4T417
13	946UB1866	43	946UB1858	13	U2T689	13	U3K595	13	U4T413
14	946UB1843	44	946UB1870	14	U2T692	14	U3K592	14	U4T405
15	U1K2637	45	946UB1846	15	U2T688	15	U3K578	15	U4T414
16	946UB1872	46	946UB1878	16	U2T701	16	U3K581	16	U4T404
17	946UB1859	47	946UB1838	17	U2T714	17	U3K586		
18	946UB1840	48	946UB1823	18	U2T697	18	U3K596		
19	946UB1880	49	946UB1864	19	U2T693				
20	946UB1825	50	946UB1852	20	U2T703				
21	946UB1856	51	U4159-0076						
22	946UB1834	52	946UB1837						
23	946UB1873	53	946UB1822						
24	946UB1836	54	946UB1841						
25	946UB1867	55	946UB1868						
26	946UB1844	56	946UB1848						
27	946UB1853	57	946UB1831						
28	946UB1865	58	946UB1828						
29	946UB1871	59	946UB1879						
30	U40690051	60	946UB1832						

Form Ref. N°: ***D5TR0065***

TURBINE 3RD STAGE VANES - INSPECTION

S/N:	DWG:	POSITION :	FIRING HRS :	STARTS NO.:	TESTED:
U3K592	4282T81	14	40113	1019	PT ☐ VT ■

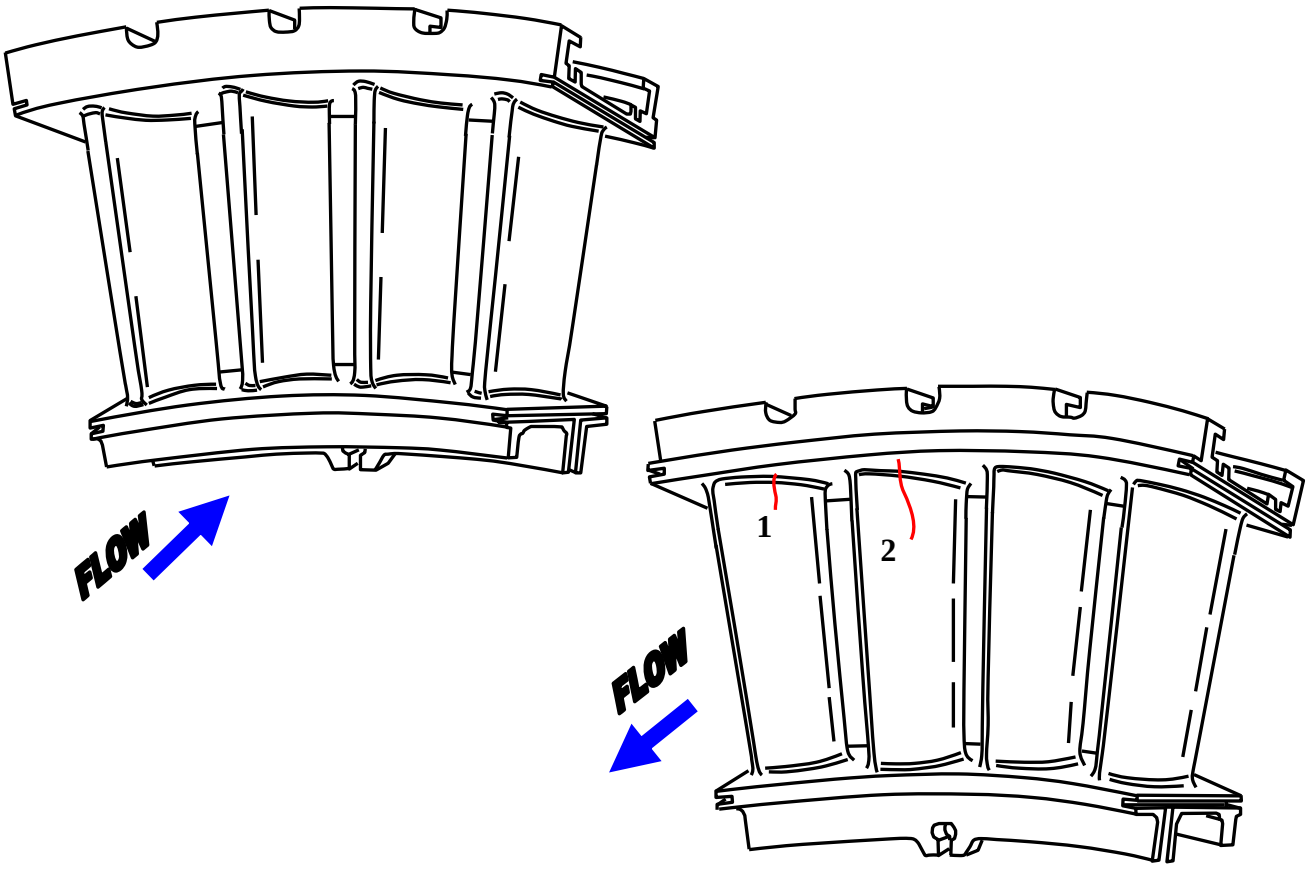


Position	Damage description	Position	Damage description
1	CRACK L = 30 mm	10	
2	CRACK L= 62 mm	11	
3		12	
4		13	
5		14	
6		15	
7		16	
8			
9			

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 3RD STAGE VANES - INSPECTION

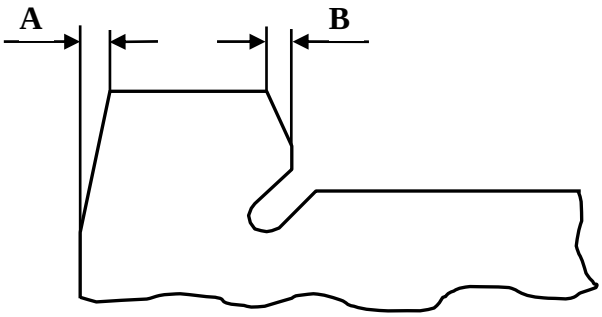
S/N:	DWG:	POSITION :	FIRING HRS :	STARTS NO.:	TESTED:
U3K578	4282T81	15	40113	1019	PT ☐ VT ■



Position	Damage description	Position	Damage description
1	CRACK L = 30 mm	10	
2	CRACK L= 110 mm	11	
3		12	
4		13	
5		14	
6		15	
7		16	
8			
9			

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 1ST STAGE BLADES – SEALING PLATES INSPECTION



MAX. ADMITTED VALUE

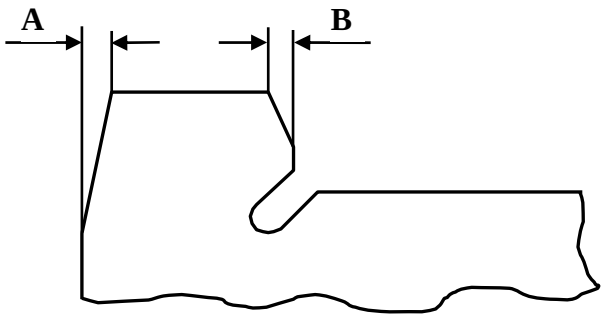
A + B = 3 mm

N°	A	A + B	N°	A	A + B	N°	A	A + B	N°	A	A + B
1		1.0	**29**		1.0	**57**		1.0	**85**		1.0
2		1.0	**30**		1.0	**58**		1.0	**86**		1.0
3		1.0	**31**		1.0	**59**		1.0	**87**		1.0
4		1.0	**32**		1.0	**60**		1.0	**88**		1.0
5		1.0	**33**		1.0	**61**		1.0	**89**		1.0
6		1.0	**34**		1.0	**62**		1.0	**90**		1.0
7		1.0	**35**		1.0	**63**		1.0	**91**		1.0
8		1.0	**36**		1.0	**64**		1.0	**92**		1.0
9		1.0	**37**		1.0	**65**		1.0	**93**		1.0
10		1.0	**38**		1.0	**66**		1.0	**94**		1.0
11		1.0	**39**		1.0	**67**		1.0	**95**		1.0
12		1.0	**40**		1.0	**68**		1.0	**96**		1.0
13		1.0	**41**		1.0	**69**		1.0	**97**		1.0
14		1.0	**42**		1.0	**70**		1.0	**98**		1.0
15		1.0	**43**		1.0	**71**		1.0	**99**		1.0
16		1.0	**44**		1.0	**72**		1.0	**100**		1.0
17		1.0	**45**		1.0	**73**		1.0	**101**		1.0
18		1.0	**46**		1.0	**74**		1.0	**102**		1.0
19		1.0	**47**		1.0	**75**		1.0	**103**		1.0
20		1.0	**48**		1.0	**76**		1.0			
21		1.0	**49**		1.0	**77**		1.0			
22		1.0	**50**		1.0	**78**		1.0			
23		1.0	**51**		1.0	**79**		1.0			
24		1.0	**52**		1.0	**80**		1.0			
25		1.0	**53**		1.0	**81**		1.0			
26		1.0	**54**		1.0	**82**		1.0			
27		1.0	**55**		1.0	**83**		1.0			
28		1.0	**56**		1.0	**84**		1.0			

Notes: **All sealing plates have been reassembled. Max wear measured about 1.0 mm**

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 2ND STAGE BLADES – SEALING PLATES INSPECTION



MAX. ADMITTED VALUE

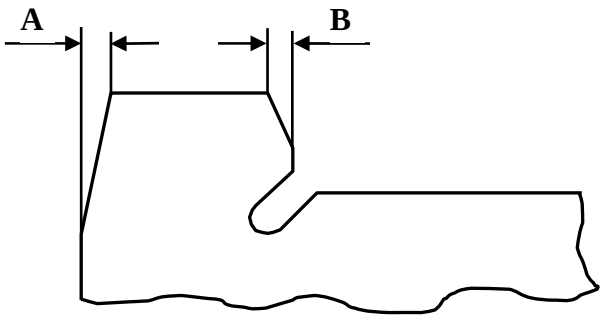
A + B = 3 mm

N°	A	A + B	N°	A	A + B	N°	A	A + B	N°	A	A + B
1		1.0	**29**		1.0	**57**		1.0	**85**	1.0	
2		1.0	**30**		1.0	**58**		1.0	**86**	1.0	
3		1.0	**31**		1.0	**59**		1.0	**87**	1.0	
4		1.0	**32**		1.0	**60**		1.0	**88**	1.0	
5		1.0	**33**		1.0	**61**		1.0	**89**	1.0	
6		1.0	**34**		1.0	**62**		1.0	**90**	1.0	
7		1.0	**35**		1.0	**63**		1.0	**91**	1.0	
8		1.0	**36**		1.0	**64**		1.0	**92**	1.0	
9		1.0	**37**		1.0	**65**		1.0	**93**	1.0	
10		1.0	**38**		1.0	**66**		1.0			
11		1.0	**39**		1.0	**67**		1.0			
12		1.0	**40**		1.0	**68**		1.0			
13		1.0	**41**		1.0	**69**		1.0			
14		1.0	**42**		1.0	**70**		1.0			
15		1.0	**43**		1.0	**71**		1.0			
16		1.0	**44**		1.0	**72**		1.0			
17		1.0	**45**		1.0	**73**		1.0			
18		1.0	**46**		1.0	**74**		1.0			
19		1.0	**47**		1.0	**75**		1.0			
20		1.0	**48**		1.0	**76**		1.0			
21		1.0	**49**		1.0	**77**		1.0			
22		1.0	**50**		1.0	**78**		1.0			
23		1.0	**51**		1.0	**79**		1.0			
24		1.0	**52**		1.0	**80**		1.0			
25		1.0	**53**		1.0	**81**		1.0			
26		1.0	**54**		1.0	**82**		1.0			
27		1.0	**55**		1.0	**83**		1.0			
28		1.0	**56**		1.0	**84**		1.0			

Notes: All sealing plates have been reassembled. Max wear measured about 1.0 mm

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 3RD STAGE BLADES – SEALING PLATES INSPECTION



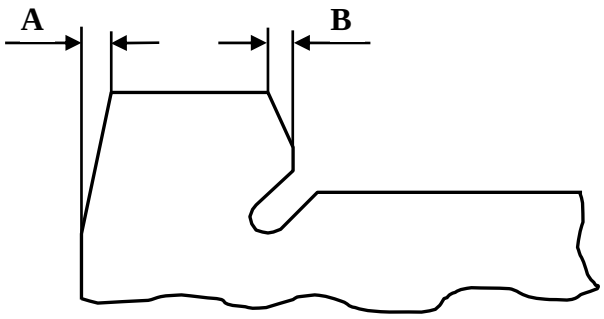
MAX. ADMITTED VALUE

A + B = 3 mm

N°	A	A + B	N°	A	A + B	N°	A	A + B
1		4.0	**26**		4.0	**51**		4.0
2		4.0	**27**		4.0	**52**		4.0
3		4.0	**28**		4.0	**53**		4.0
4		4.0	**29**		4.0	**54**		4.0
5		4.0	**30**		4.0	**55**		4.0
6		4.0	**31**		4.0	**56**		4.0
7		4.0	**32**		4.0	**57**		4.0
8		4.0	**33**		4.0	**58**		4.0
9		4.0	**34**		4.0	**59**		4.0
10		4.0	**35**		4.0	**60**		4.0
11		4.0	**36**		4.0	**61**		4.0
12		4.0	**37**		4.0	**62**		4.0
13		4.0	**38**		4.0	**63**		4.0
14		4.0	**39**		4.0	**64**		4.0
15		4.0	**40**		4.0	**65**		4.0
16		4.0	**41**		4.0	**66**		4.0
17		4.0	**42**		4.0	**67**		4.0
18		4.0	**43**		4.0	**68**		4.0
19		4.0	**44**		4.0	**69**		4.0
20		4.0	**45**		4.0	**70**		4.0
21		4.0	**46**		4.0	**71**		4.0
22		4.0	**47**		4.0			
23		4.0	**48**		4.0			
24		4.0	**49**		4.0			
25		4.0	**50**		4.0			

Notes: **All sealing plates have been replaced with new ones**.

TURBINE 4TH STAGE BLADES – SEALING PLATES INSPECTION



MAX. ADMITTED VALUE

A + B = 3 mm

N°	A	A + B	N°	A	A + B	N°	A	A + B
1		4	**26**		4	**51**		4
2		4	**27**		4	**52**		4
3		4	**28**		4	**53**		4
4		4	**29**		4	**54**		4
5		4	**30**		4	**55**		4
6		4	**31**		4	**56**		4
7		4	**32**		4	**57**		4
8		4	**33**		4	**58**		4
9		4	**34**		4	**59**		4
10		4	**35**		4	**60**		4
11		4	**36**		4	**61**		4
12		4	**37**		4	**62**		4
13		4	**38**		4	**63**		4
14		4	**39**		4	**64**		4
15		4	**40**		4	**65**		4
16		4	**41**		4	**66**		4
17		4	**42**		4	**67**		4
18		4	**43**		4	**68**		4
19		4	**44**		4			
20		4	**45**		4			
21		4	**46**		4			
22		4	**47**		4			
23		4	**48**		4			
24		4	**49**		4			
25		4	**50**		4			

Notes: All sealing plates have been replaced with new ones.

TURBINE 1ST STAGE BLADES – GENERAL INFORMATION

DRAWING N°: 4227T80 - 4227T84

BLADES MATERIAL:

ASSEMBLY

Pos.	moment weight	serial number	Pos.	moment weight	serial number	Pos.	moment weight	serial number	Pos.	moment weight	serial number
1	5689	K07302	**29**	5727	K07346	**57**	5715	K07171	**85**	5690	K07268
2	5733	K07517	**30**	5703	K07208	**58**	5706	K07238	**86**	5715	K07435
3	5704	K07297	**31**	5700	K07255	**59**	5712	K07250	**87**	5672	K07257
4	5705	K07282	**32**	5725	K07389	**60**	5726	K07499	**88**	5686	K07408
5	5697	K07256	**33**	5707	K07360	**61**	5711	K07450	**89**	5733	K07494
6	5714	K07202	**34**	5719	K07379	**62**	5718	K07340	**90**	5738	K07399
7	5689	K07279	**35**	5693	K07263	**63**	5734	K07315	**91**	5719	K07354
8	5711	K07430	**36**	5725	K07515	**64**	5708	K07258	**92**	5705	K07262
9	5735	K07432	**37**	5720	K07513	**65**	5727	K07505	**93**	5719	K07504
10	5723	K07229	**38**	5711	K07243	**66**	5711	K07409	**94**	5701	K07248
11	5712	K07213	**39**	5721	K07394	**67**	5707	K07249	**95**	5722	K07363
12	5706	K07500	**40**	5696	K07295	**68**	5723	K07320	**96**	5711	K07458
13	5695	K07272	**41**	5709	K07167A	**69**	5718	K07348	**97**	5729	K07419
14	5732	K07503	**42**	5706	K07237	**70**	5708	K07299	**98**	5727	K07226
15	5719	K07193	**43**	5702	K07428	**71**	5698	K07270	**99**	5701	K07424
16	5713	K07177	**44**	5740	K07502	**72**	5742	K07188	**100**	5712	K07283
17	5704	K07197	**45**	5702	K07484	**73**	5734	K07342	**101**	5719	K07416
18	5716	K07244	**46**	5708	K07390	**74**	5708	K07395	**102**	5764	K0100115
19	5699	K07239	**47**	5720	K07325	**75**	5709	K07305	**103**	5701	K07440
20	5704	K07326	**48**	5685	K07298	**76**	5747	K07497			
21	5722	K07441	**49**	5703	K07167	**77**	5725	K07251			
22	5710	K07516	**50**	5710	K07264	**78**	5700	K07274			
23	5717	K07335	**51**	5733	K07356	**79**	5705	K07493			
24	5712	K07240	**52**	5711	K07405	**80**	5694	K07277			
25	5706	K07387	**53**	5702	K07267	**81**	5696	K07423			
26	5711	K07403	**54**	5698	K07203	**82**	5714	K07415			
27	5756	K07496	**55**	5712	K07223	**83**	5717	K07187			
28	5719	K07422	**56**	5714	K07380	**84**	5708	K07216			

Notes: The Moment weight is expressed in Kgm.

TURBINE 2ND STAGE BLADES – GENERAL INFORMATION

DRAWING N°: 4227T81 - 4227T86

BLADES MATERIAL:

ASSEMBLY

Pos.	moment weight	serial number	Pos.	moment weight	serial number	Pos.	moment weight	serial number	Pos.	moment weight	serial number
1	1535	900U2412	**29**	1511	900U2459	**57**	1427	900U2441	**85**	1521	900U2369
2	1474	900U2442	**30**	1484	900U2425	**58**	1529	900U2373	**86**	1494	900U2402
3	1501	900U2388	**31**	1542	900U2380	**59**	1526	900U2413	**87**	1522	900U2382
4	1498	900U2403	**32**	1522	900U2431	**60**	1516	900U2419	**88**	1462	900U2423
5	1577	900U2958	**33**	1509	900U2422	**61**	1511	900U2427	**89**	1520	900U2440
6	1514	900U2366	**34**	1515	900U2371	**62**	1505	900U2454	**90**	1492	900U2460
7	1512	900U2445	**35**	1536	900U2391	**63**	1511	900U2452	**91**	1500	900U2401
8	1516	900U2372	**36**	1513	900U2420	**64**	1516	900U2381	**92**	1493	900U2426
9	1508	900U2444	**37**	1518	900U2367	**65**	1519	900U2443	**93**	1508	900U2435
10	1496	900U2383	**38**	1512	900U2421	**66**	1511	900U2429			
11	1528	900U2394	**39**	1503	900U2400	**67**	1528	900U2415			
12	1483	900U2384	**40**	1502	900U2416	**68**	1498	900U2424			
13	1518	900U2397	**41**	1484	900U2390	**69**	1503	900U2461			
14	1518	900U2399	**42**	1486	900U2411	**70**	1508	900U2395			
15	1533	900U2450	**43**	1510	900U2417	**71**	1507	900U2414			
16	1500	900U2410	**44**	1527	900U2418	**72**	1521	900U2386			
17	1499	900U2456	**45**	1489	900U2408	**73**	1496	900U2432			
18	1500	900U2457	**46**	1534	900U2439	**74**	1515	900U2446			
19	1523	900U2437	**47**	1513	900U2428	**75**	1521	900U2404			
20	1495	900U2392	**48**	1500	900U2453	**76**	1491	900U2398			
21	1503	900U2448	**49**	1494	900U2447	**77**	1494	900U2374			
22	1502	900U2458	**50**	1515	900U2370	**78**	1525	900U2396			
23	1536	900U2451	**51**	1499	900U2368	**79**	1528	900U2455			
24	1514	900U2438	**52**	1524	900U2385	**80**	1520	900U2379			
25	1524	900U2405	**53**	1527	900U2375	**81**	1521	900U2449			
26	1499	900U2406	**54**	1540	900U2407	**82**	1512	900U2389			
27	1507	900U2393	**55**	1520	900U2365	**83**	1517	900U2430			
28	1496	900U2377	**56**	1506	900U2378	**84**	1526	900U2409			

Notes: The Moment weight is expressed in Kgm.

TURBINE 3RD STAGE BLADES – GENERAL INFORMATION

DRAWING N°: 4277T26 - 4227T82

BLADES MATERIAL:

DISASSEMBLY

Pos.	moment weight	serial number	Pos.	moment weight	serial number	Pos.	moment weight	serial number
1		900T3269	**26**		900T3281	**51**		900T3264
2		900T3286	**27**		900T3228	**52**		900T3233
3		900T3293	**28**		900T3258	**53**		900T3266
4		900T3232	**29**		900T3260	**54**		900T3271
5		900T3239	**30**		900T3290	**55**		900T3288
6		900T3272	**31**		900T3276	**56**		900T3238
7		900T3244	**32**		900T3267	**57**		900T3311
8		900T3303	**33**		900T3308	**58**		900T3242
9		900T3251	**34**		900T3241	**59**		900T3289
10		900T3236	**35**		900T3229	**60**		900T3106
11		900T3302	**36**		900T3249	**61**		900T3307
12		900T3282	**37**		900T3247	**62**		900T3262
13		900T3296	**38**		900T3246	**63**		900T3268
14		900T3256	**39**		900T3259	**64**		900T3300
15		900T3285	**40**		900T3500	**65**		900T3270
16		900T3243	**41**		900T3295	**66**		900T3235
17		900T3257	**42**		900T3273	**67**		900T3245
18		900T3299	**43**		900T3287	**68**		900T3352
19		900T3291	**44**		900T3261	**69**		900T3301
20		900T3283	**45**		900T3274	**70**		900T3277
21		900T3294	**46**		900T3234	**71**		900T3240
22		900T3375	**47**		900T3275			
23		900T3252	**48**		900T3304			
24		900T3263	**49**		900T3298			
25		900T3306	**50**		900T3284			

Notes: The Moment weight is expressed in Kgm.

TURBINE 3RD STAGE BLADES – GENERAL INFORMATION

DRAWING N°: 4277T26 - 4227T82

BLADES MATERIAL:

ASSEMBLY

Pos.	moment weight	serial number	Pos.	moment weight	serial number	Pos.	moment weight	serial number
1		900T3269	**26**		900T3281	**51**		900T3264
2		900T3286	**27**		900T3228	**52**		900T3233
3		900T3293	**28**		900T3258	**53**		900T3266
4		900T3232	**29**		900T3260	**54**		900T3271
5		900T3239	**30**		900T3290	**55**		900T3288
6		900T3272	**31**		900T3276	**56**		900T3238
7		900T3244	**32**		900T3267	**57**		900T3311
8		900T3303	**33**		900T3308	**58**		900T3242
9		900T3251	**34**		900T3241	**59**		900T3289
10		900T3236	**35**		900T3229	**60**		900T3106
11		900T3302	**36**		900T3249	**61**		900T3307
12		900T3282	**37**		900T3247	**62**		900T3262
13		900T3296	**38**		900T3246	**63**		900T3268
14		900T3256	**39**		900T3259	**64**		900T3300
15		900T3285	**40**		900T3500	**65**		900T3270
16		900T3243	**41**		900T3295	**66**		900T3235
17		900T3257	**42**		900T3273	**67**		900T3245
18		900T3299	**43**		900T3287	**68**		*K07126
19		900T3291	**44**		900T3261	**69**		900T3301
20		900T3283	**45**		900T3274	**70**		900T3277
21		900T3294	**46**		900T3234	**71**		900T3240
22		900T3375	**47**		900T3275			
23		900T3252	**48**		900T3304			
24		900T3263	**49**		900T3298			
25		900T3306	**50**		900T3284			

Notes: The Moment weight is expressed in Kgm.

***The blade in position number 68 (S/N: 900T3352) has been replaced with blade S/N: K07126.**

TURBINE 4TH STAGE BLADES – GENERAL INFORMATION

DRAWING N°: 4217T25 – 4275T94

BLADES MATERIAL:

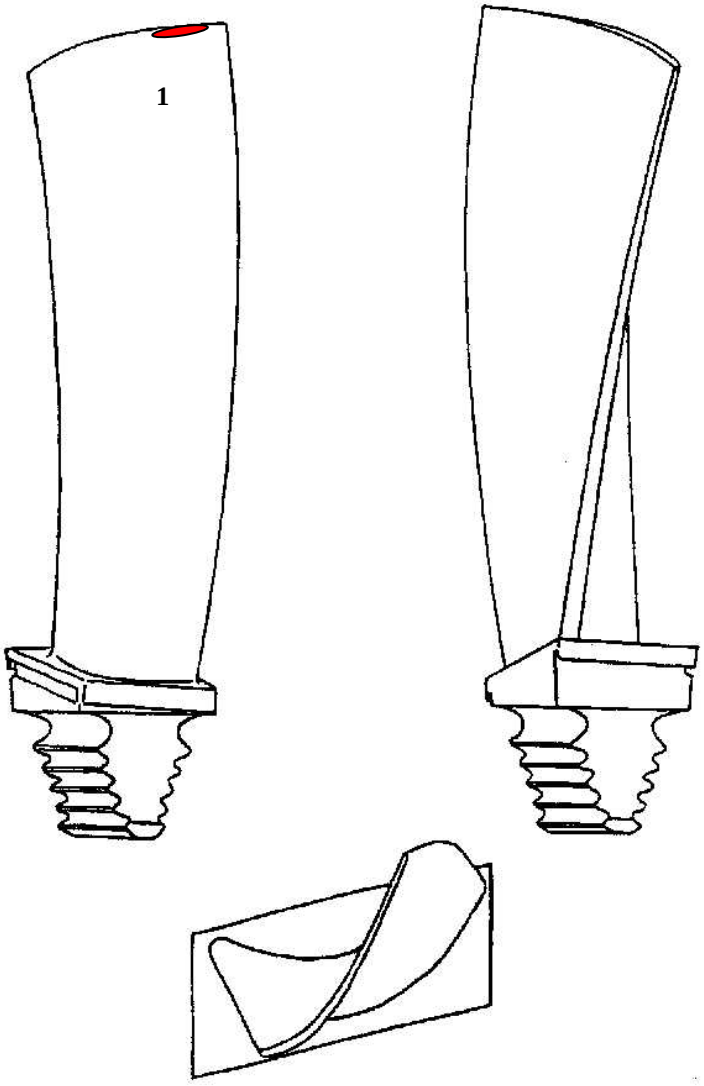
ASSEMBLY

Pos.	moment weight	serial number	Pos.	moment Weight	serial number	Pos.	moment weight	serial number
1		900UA4231	**26**		900UA4257	**51**		900UA4239
2		900UA4232	**27**		900UA4248	**52**		900UA4228
3		900UA4246	**28**		900UA4256	**53**		900UA4242
4		900UA4223	**29**		900UA4290	**54**		900UA4255
5		900UA4277	**30**		900UA4259	**55**		900UA4285
6		900UA4278	**31**		900UA4263	**56**		900UA4224
7		900UA4225	**32**		900UA4261	**57**		900UA4271
8		900UA4237	**33**		900UA4250	**58**		900UA4268
9		900UA4289	**34**		900UA4279	**59**		900UA4273
10		900UA4262	**35**		900UA4222	**60**		900UA4234
11		900UA4241	**36**		900UA4270	**61**		900UA4284
12		900UA4240	**37**		900UA4226	**62**		900UA4258
13		900UA4280	**38**		900UA4249	**63**		900UA4233
14		900UA4236	**39**		900UA4230	**64**		900UA4272
15		900UA4220	**40**		900UA4288	**65**		900UA4266
16		900UA4275	**41**		900UA4265	**66**		900UA4252
17		900UA4235	**42**		900UA4229	**67**		900UA4281
18		900UA4287	**43**		900UA4227	**68**		900UA4282
19		900UA4286	**44**		900UA4243			
20		900UA4274	**45**		900UA4254			
21		900UA4245	**46**		900UA4253			
22		900UA4267	**47**		900UA4260			
23		900UA4264	**48**		900UA4238			
24		900UA4283	**49**		900UA4221			
25		900UA4251	**50**		900UA4247			

Notes: The Moment weight is expressed in Kgm.

TURBINE 3RD STAGE BLADES - INSPECTION

S/N:	DWG:	POSITION	MOM. WEIGHT	FIRING HRS	STARTS NO
900T3306	4277T26	25		23638	959

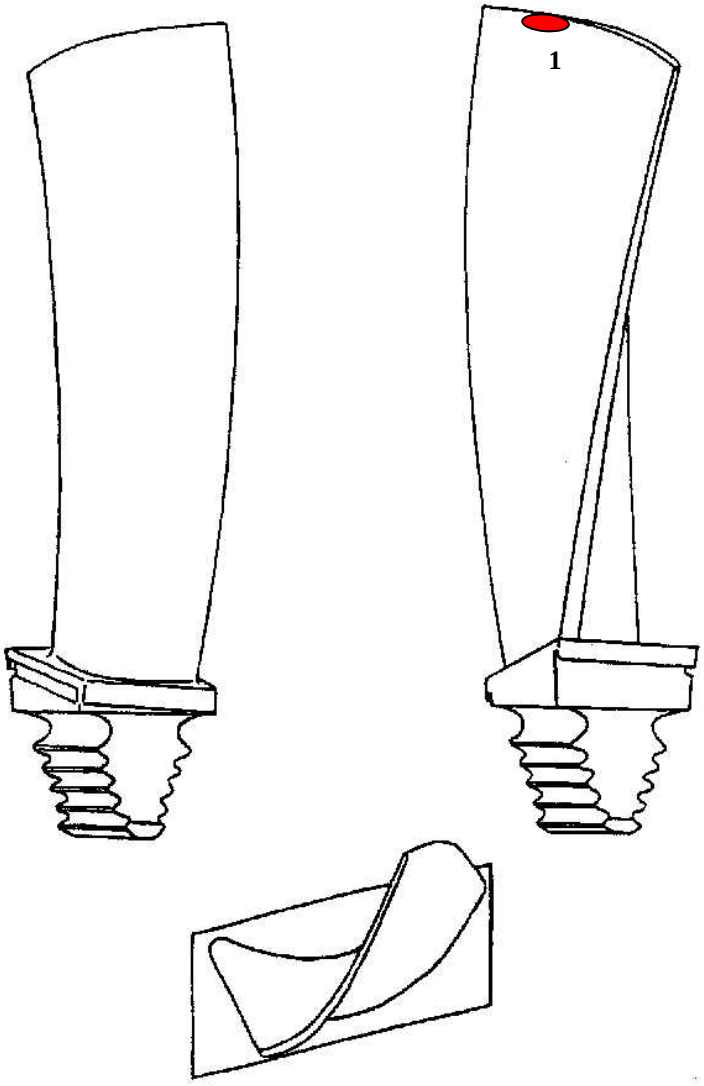


Position	Damage description	Position	Damage description
1	Dim. 10 x 3 mm	8	
2		9	
3		10	
4		11	
5		12	
6		13	
7		14	

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 3RD STAGE BLADES – INSPECTION

S/N:	DWG:	POSITION	MOM. WEIGHT	FIRING HRS	STARTS NO
900T3289	4277T26	59		23638	959

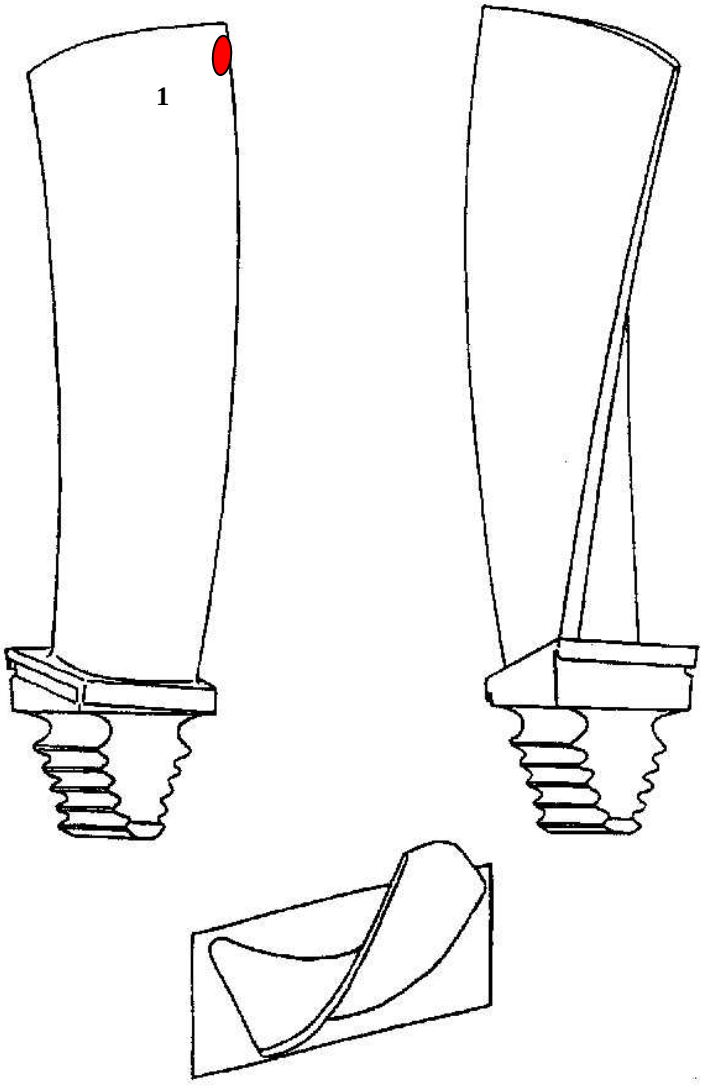


Position	Damage description	Position	Damage description
1	Dim. 8 x 6 mm	8	
2		9	
3		10	
4		11	
5		12	
6		13	
7		14	

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 3RD STAGE BLADES - INSPECTION

S/N:	DWG:	POSITION	MOM. WEIGHT	FIRING HRS	STARTS NO
900T3106	4277T26	60		23638	959

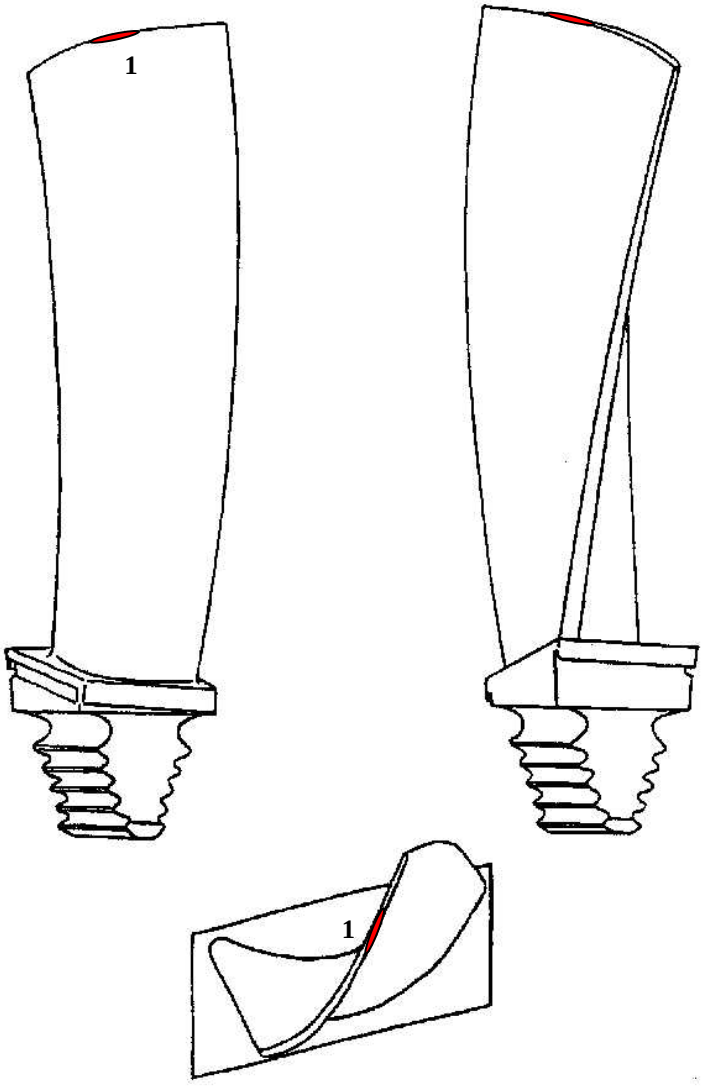


Position	Damage description	Position	Damage description
1	Dim. 9 x 4 mm	8	
2		9	
3		10	
4		11	
5		12	
6		13	
7		14	

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 3RD STAGE BLADES - INSPECTION

S/N:	DWG:	POSITION	MOM. WEIGHT	FIRING HRS	STARTS NO
900T3268	4277T26	63		23638	959

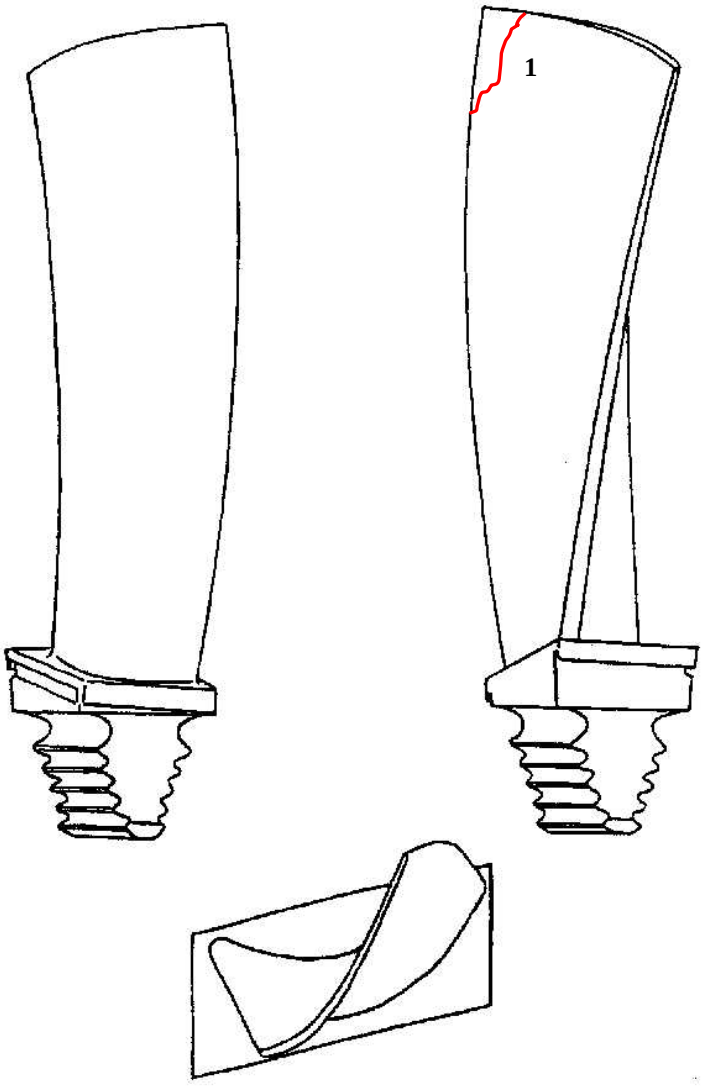


Position	Damage description	Position	Damage description
1	L=20 mm	8	
2		9	
3		10	
4		11	
5		12	
6		13	
7		14	

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 3RD STAGE BLADES - INSPECTION

S/N:	DWG:	POSITION	MOM. WEIGHT	FIRING HRS	STARTS NO
900T3352	4277T26	68		23638	959

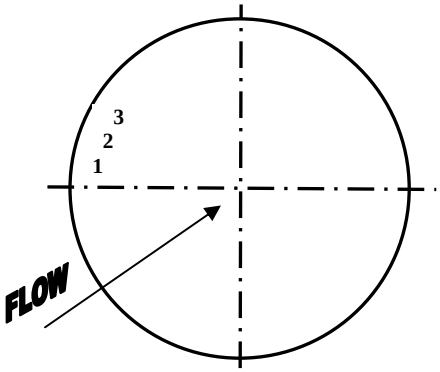


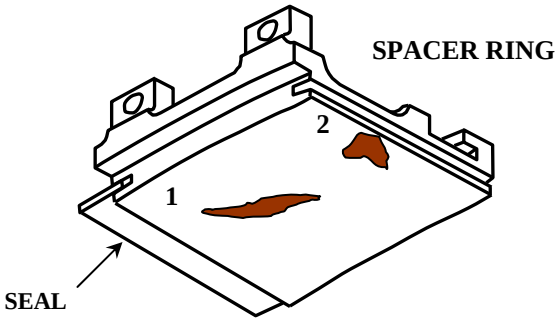
Position	Damage description	Position	Damage description
1	L= 35 mm	8	
2		9	
3		10	
4		11	
5		12	
6		13	
7		14	

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

Form Ref. No.: *D5TR0085*

TURBINE 1ST STAGE VANE HOLDER – SPACERS AND SEALS





CONDITIONS:

I = Deposits
B = Burned
F = Fretted
C = Cracked
CS= Corrosion

ACTIONS:

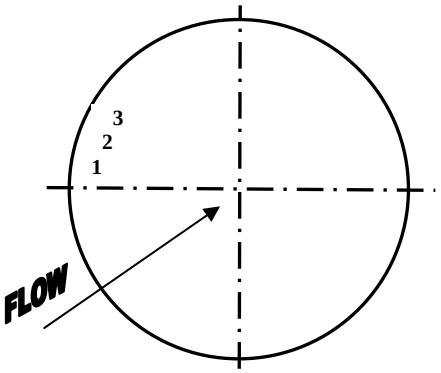
N = No action required
R = Repaired/Cleaned
RN = Replaced by a new one

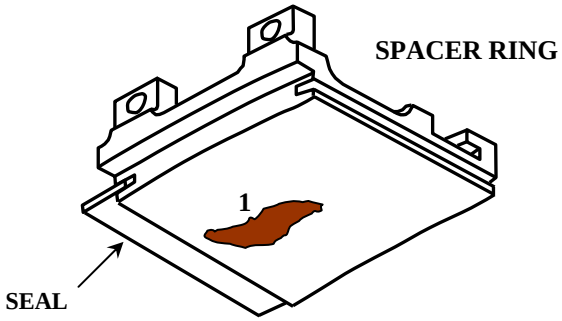
Pos n°	Segment		Seal between segments		Pos n°	Segment		Seal between segments		Pos n°	Segment		Seal between segments	
	Cond.	Action	Cond.	Action		Cond.	Action	Cond.	Action		Cond.	Action	Cond.	Action
1	CS	R			**21**	CS	R			**41**	CS	R		
2	CS	R			**22**	CS	R			**42**	CS	R		
3	CS	R			**23**	CS	R			**43**	CS	R		
4	CS	R			**24**	CS	R			**44**	CS	R		
5	CS	R			**25**	CS	R			**45**	CS	R		
6	CS	R			**26**	CS	R			**46**	CS	R		
7	CS	R			**27**	CS	R			**47**	CS	R		
8	CS	R			**28**	CS	R			**48**	CS	R		
9	CS	R			**29**	CS	R			**49**	CS	R		
10	CS	R			**30**	CS	R			**50**	CS	R		
11	CS	R			**31**	CS	R			**51**	CS	R		
12	CS	R			**32**	CS	R			**52**	CS	R		
13	CS	R			**33**	CS	R			**53**	CS	R		
14	CS	R			**34**	CS	R			**54**	CS	R		
15	CS	R			**35**	CS	R			**55**	CS	R		
16	CS	R			**36**	CS	R			**56**	CS	R		
17	CS	R			**37**	CS	R			**57**	CS	R		
18	CS	R			**38**	CS	R			**58**	CS	R		
19	CS	R			**39**	CS	R			**59**	CS	R		
20	CS	R			**40**	CS	R			**60**	CS	R		

Notes: Light corrosion and deposits eliminated through sandblast. All the seals have been found in good conditions.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 2ND STAGE VANE HOLDER – SPACERS AND SEALS





CONDITIONS:

I = Deposits
B = Burned
F = Fretted
C = Cracked
CS= Corrosion

ACTIONS:

N = No action required
R = Repaired/Cleaned
RN = Replaced by a new one

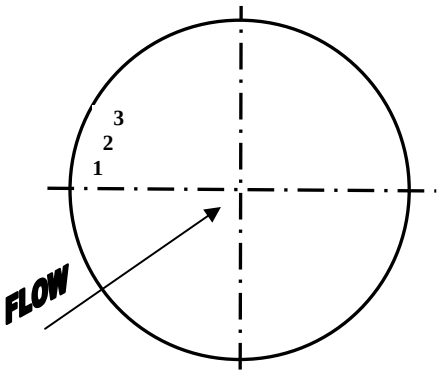
Pos n°	Segment		Seal between segments		Pos n°	Segment		Seal between segments		Pos n°	Segment		Seal between segments	
	Cond.	Action	Cond.	Action		Cond.	Action	Cond.	Action		Cond.	Action	Cond.	Action
1	CS	R			**21**	CS	R			**41**	CS	R		
2	CS	R			**22**	CS	R			**42**	CS	R		
3	CS	R			**23**	CS	R			**43**	CS	R		
4	CS	R			**24**	CS	R			**44**	CS	R		
5	CS	R			**25**	CS	R			**45**	CS	R		
6	CS	R			**26**	CS	R			**46**	CS	R		
7	CS	R			**27**	CS	R			**47**	CS	R		
8	CS	R			**28**	CS	R			**48**	CS	R		
9	CS	R			**29**	CS	R			**49**	CS	R		
10	CS	R			**30**	CS	R			**50**	CS	R		
11	CS	R			**31**	CS	R			**51**	CS	R		
12	CS	R			**32**	CS	R			**52**	CS	R		
13	CS	R			**33**	CS	R			**53**	CS	R		
14	CS	R			**34**	CS	R			**54**	CS	R		
15	CS	R			**35**	CS	R			**55**	CS	R		
16	CS	R			**36**	CS	R			**56**	CS	R		
17	CS	R			**37**	CS	R			**57**	CS	R		
18	CS	R			**38**	CS	R			**58**	CS	R		
19	CS	R			**39**	CS	R			**59**	CS	R		
20	CS	R			**40**	CS	R			**60**	CS	R		

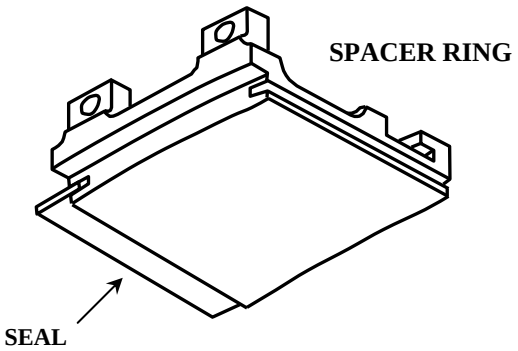
Notes: Light corrosion and deposits eliminated through sandblast. All the seals have been found in good conditions.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

Form Ref. No.: ***D5TR0085-B***

TURBINE 3RD STAGE VANE HOLDER – SPACERS AND SEALS





CONDITIONS:

I = Deposits
B = Burned
F = Fretted
C = Cracked

ACTIONS:

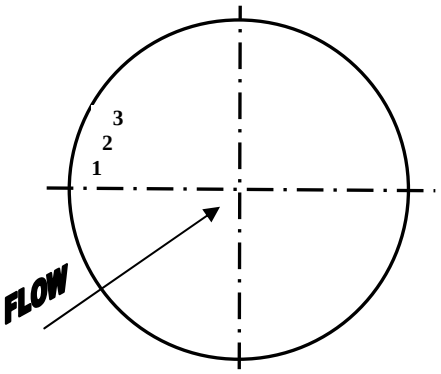
N = No action required
R = Repaired/Cleaned
RN = Replaced by a new one

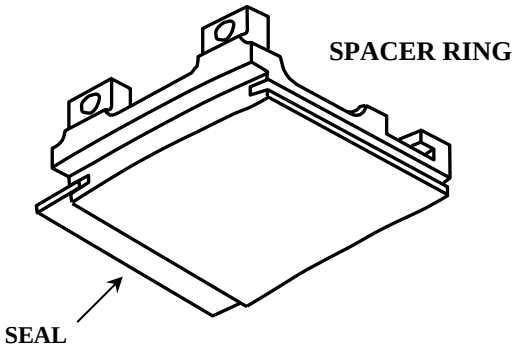
Pos n°	Segment		Seal between segments		Pos n°	Segment		Seal between segments		Pos n°	Segment		Seal between segments	
	Cond.	Action	Cond.	Action		Cond.	Action	Cond.	Action		Cond.	Action	Cond.	Action
1	I	R			**13**	I	R			**25**	I	R		
2	I	R			**14**	I	R			**26**	I	R		
3	I	R			**15**	I	R			**27**	I	R		
4	I	R			**16**	I	R			**28**	I	R		
5	I	R			**17**	I	R			**29**	I	R		
6	I	R			**18**	I	R			**30**	I	R		
7	I	R			**19**	I	R			**31**	I	R		
8	I	R			**20**	I	R			**32**	I	R		
9	I	R			**21**	I	R			**33**	I	R		
10	I	R			**22**	I	R			**34**	I	R		
11	I	R			**23**	I	R			**35**	I	R		
12	I	R			**24**	I	R			**36**	I	R		

Notes: All the spacers and seals have been found in good conditions.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

TURBINE 4TH STAGE VANE HOLDER – SPACERS AND SEALS





CONDITIONS:

I = Deposits
B = Burned
F = Fretted
C = Cracked

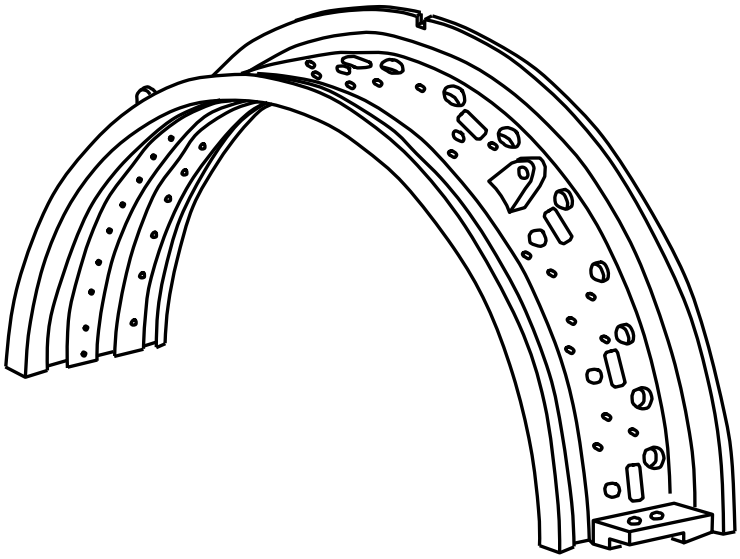
ACTIONS:

N = No action required
R = Repaired/Cleaned
RN = Replaced by a new one

Pos n°	Segment		Seal between segments		Pos n°	Segment		Seal between segments		Pos n°	Segment		Seal between segments	
	Cond.	Action	Cond.	Action		Cond.	Action	Cond.	Action		Cond.	Action	Cond.	Action
1	I	R			**13**	I	R			**25**	I	R		
2	I	R			**14**	I	R			**26**	I	R		
3	I	R			**15**	I	R			**27**	I	R		
4	I	R			**16**	I	R			**28**	I	R		
5	I	R			**17**	I	R			**29**	I	R		
6	I	R			**18**	I	R			**30**	I	R		
7	I	R			**19**	I	R			**31**	I	R		
8	I	R			**20**	I	R			**32**	I	R		
9	I	R			**21**	I	R			**33**	I	R		
10	I	R			**22**	I	R			**34**	I	R		
11	I	R			**23**	I	R			**35**	I	R		
12	I	R			**24**	I	R			**36**	I	R		

Notes: All the spacers and seals have been found in good conditions.

TURBINE 1ST STAGE VANE HOLDER (BLADE RING) – GENERAL INFORMATION



1.1 Component dismantling: **Row Vanes, Spacer Ring Segments**

1.2 Deposits removal: **Yes**

1.3 Blending

1.4 Threaded holes re-taping: **Yes**

1.5 Components check: **Yes, Visual test**

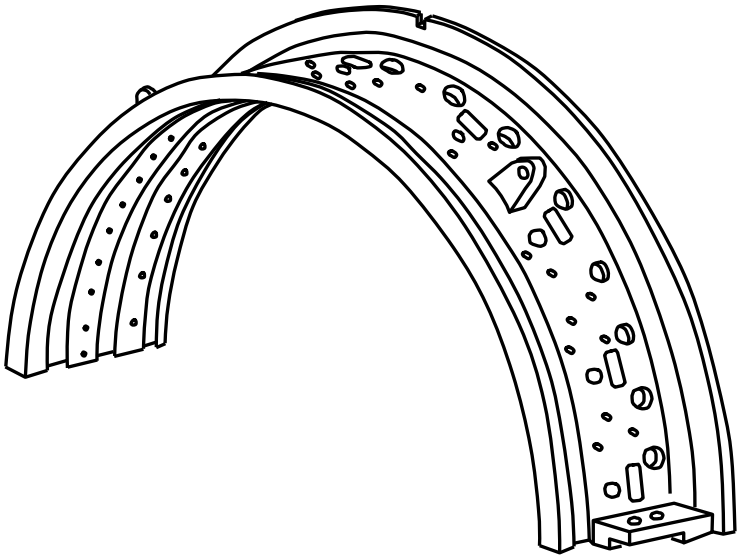
1.6 Washing with solvent: **NO- Cleaned With Washing Machine**

1.7 Component repairing: **NO**

1.8 Preservation: **NO**

Notes:

TURBINE 2ND STAGE VANE HOLDER (BLADE RING) – GENERAL INFORMATION



1.1 Component dismantling: **Row Vanes, Spacer Ring Segments**

1.2 Deposits removal: **Yes**

1.3 Blending

1.4 Threaded holes re-taping: **Yes**

1.5 Components check: **Yes, Visual test**

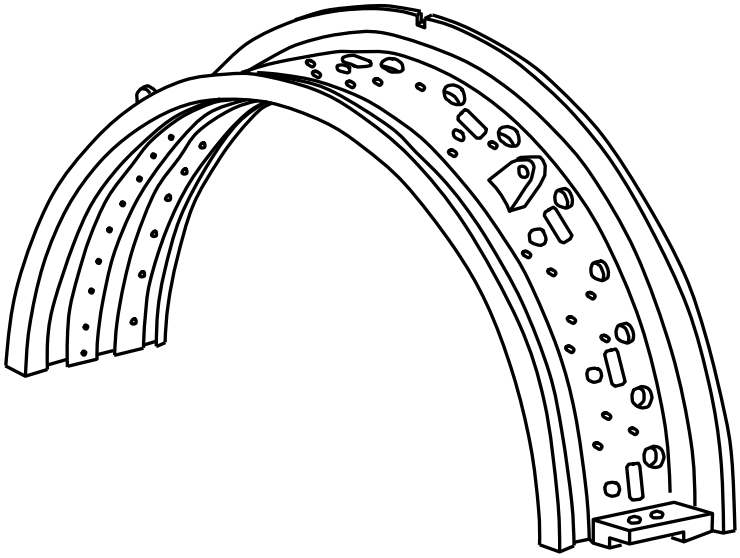
1.6 Washing with solvent: **NO- Cleaned With Washing Machine**

1.7 Component repairing: **NO**

1.8 Preservation: **NO**

Notes:

TURBINE 3RD STAGE VANE HOLDER (BLADE RING) – GENERAL INFORMATION



1.9 Component dismantling: **Row Vanes**

1.10 Deposits removal: **Yes**

1.11 Blending

1.12 Threaded holes re-taping: **Yes**

1.13 Components check: **Yes, Visual test**

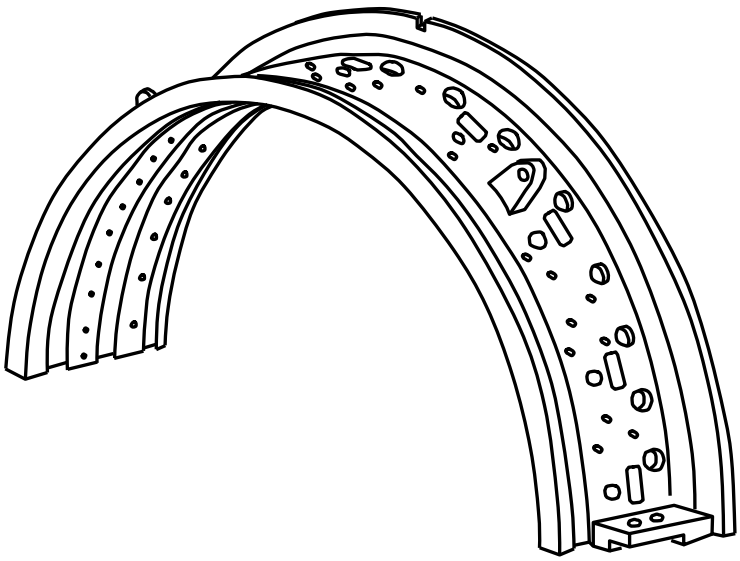
1.14 Washing with solvent: **NO- Cleaned With Washing Machine**

1.15 Component repairing: **NO**

1.16 Preservation: **NO**

Notes:

TURBINE 4TH STAGE VANE HOLDER (BLADE RING) – GENERAL INFORMATION



1.17 Component dismantling: **Row Vanes**

1.18 Deposits removal: **Yes**

1.19 Blending

1.20 Threaded holes re-taping: **Yes**

1.21 Components check: **Yes, Visual test**

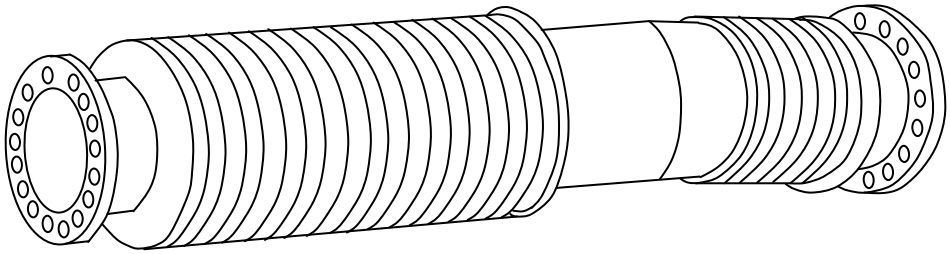
1.22 Washing with solvent: **NO- Cleaned With Washing Machine**

1.23 Component repairing: **NO**

1.24 Preservation: **NO**

Notes:

ROTOR COOLING FLEXIBLE PIPES – INSPECTION



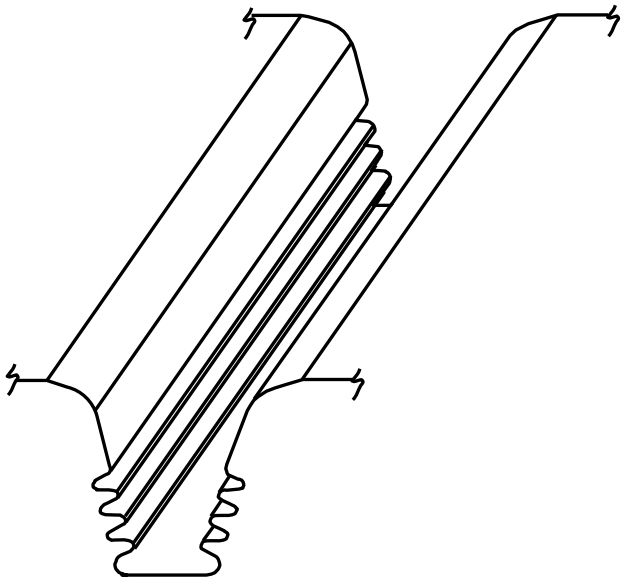
TUBE N°	PENETRANT TEST ON WELDED JOINTS	VISUAL CHECK	DAMAGE DESCRIPTION	REPAIRED	REPLACED
1	**OK**	**OK**			
2	**OK**	**OK**			
3	**OK**	**OK**			
4	**OK**	**OK**			

NOTES: All the rotor cooling flexible pipes have been found in good conditions.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008

Form Ref. No.: ***D5TR0096***

TURBINE DISKS – INSPECTION



TEST CARRIED OUT	PENETRANT TEST P T	VISUAL CHECK V T	*MAGNETIC TEST* *M T*
1ST STAGE	OK	OK	
2ND STAGE	OK	OK	
3RD STAGE	OK	OK	
4TH STAGE	OK	OK	

NOTES: No indications have been detected on disks surfaces and grooves.

TurboCare Representative	*Signature*	*Report*	*Date*
M. PANETTA/V. PALMIERI		I-TLE/TG50D5-358/TR012-08	03/09/2008