INSPECTION REPORT

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

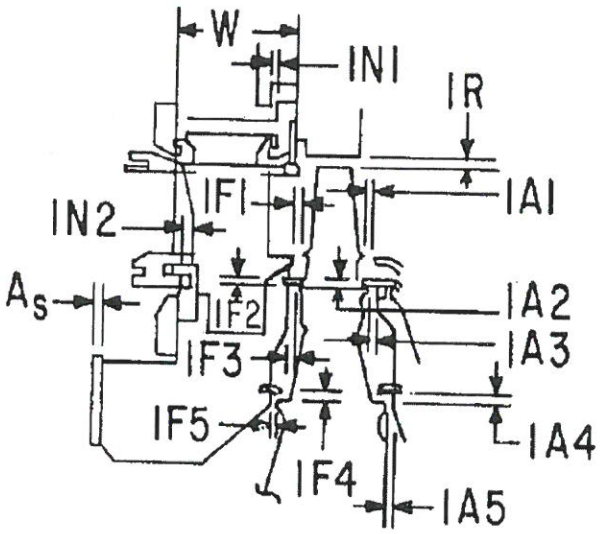
ISE/GT-FF 6022
FOR FIELD USE ONLY

GAS TURBINE MAINTENANCE

MS 5001 Turbine Rotor Clearances

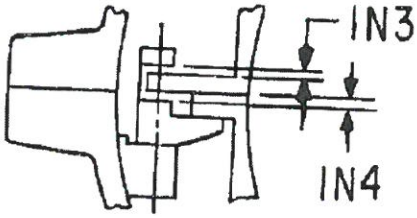
FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.10.29

SKETCHES ENCLOSED: ☐YES ☒NO PHOTOS ENCLOSED: ☐YES ☐NC



FIRST STAGE TURBINE

1. All axial clearances are to be measured with the rotors in contact with the loaded thrust faces.
2. All views with turbine flow.
3. Refer to clearance diagram for specified dimensions.



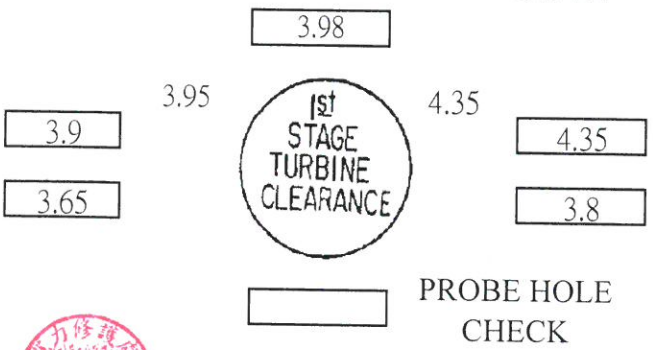
FIRST STAGE NOZZLE CLAMP

Unit : mm

1ST STAGE S/N	INITIAL		FINAL			INITIAL		FINAL	
	Left	Right	Left	Right		Left	Right	Left	Right
W	132.0	132.1			1F4	2.3	2.2		
1N1	1.5	1.3			1F5	6.9	6.9		
1N2		2.3			1A1	8.0	8.2		
1N3	0.45	0.2			1A2	5.2	4.8		
1N4	0.4	0.55			1A3	9.3	9.5		
R	3.65	3.8			1A4	5.2	5.0		
1F1	4.6	5.3			1A5	8.5	8.0		
1F2	2.6	2.6			AS	7.6	7.8		
1F3	4.7	4.6							

After all upper casings are bolted in place and the unit placed on its own supports, the first stage rotor tip clearances are to be measured and recorded below when probe holes exist.

Unit : mm



COMMENTS: Measurment 1N1 is somewhat high. We have to see upon the closing measurements of IR

105.10.31 陳信陽

(Continued on back of form)

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

Witnessed and approved 11/2/2016

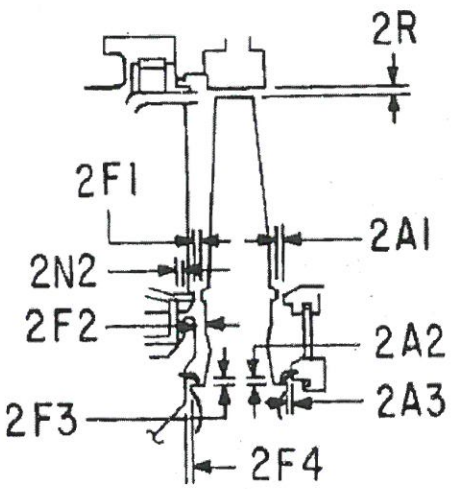
Juan Castellanos GE

ISE/GT-FF 6022
FOR FIELD USE ONLY

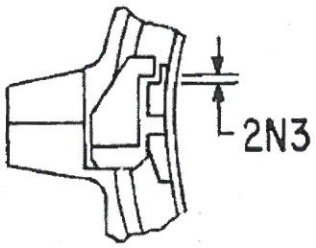
INSPECTION REPORT

GAS TURBINE MAINTENANCE — **MS 5001 Turbine Rotor Clearances**

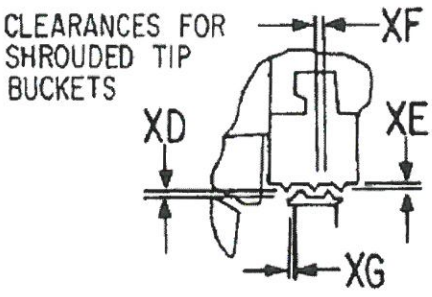
Dededo #1

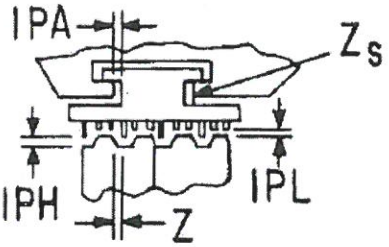


SECOND STAGE TURBINE



SECOND STAGE NOZZLE CLAMP





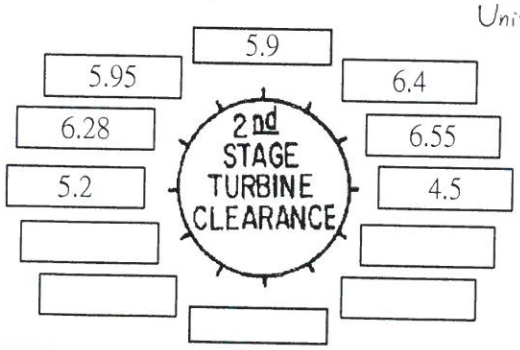
SECOND STAGE PACKING SEALS

Unit : mm

2ND STAGE S/N	INITIAL		FINAL			INITIAL		FINAL	
	Left	Right	Left	Right		Left	Right	Left	Right
2N2	NA	NA			≠X	9.3	10.3		
2N3	NA	NA			Zs	NA	NA		
2R	5.2	4.5			IPA	NA	NA		
2F1	10.6	11.1			IPH	4.5	4.6		
2F2	13.9	13.3			IPL	4.4	4.9		
2F3	3.25	3.5			XD	6.6	6.7		
2F4	11.6	11.2			XE	5.2	4.5		
2A1	9.1	10.5			XF	12.3	13.3		
2A2	6.8	7.0			XG	6.7	6.1		
2A3	12.9	12.9							

After all upper casings are bolted in place and the unit placed on its own supports, the second stage rotor tip clearances are to be measured using feeler gages and recorded below.

Unit : mm



COMMENTS: 2N2, 2N3, 2F2 & 2R - not applicable for this blades /PL

2F3, 2F4, 2A1 & 2A2 are out of tolerance, probably seals have some wear /PL

XF - is out of tolerance. Probably the measurement was not right /PL

NOTE: Assistance in obtaining the data to complete this form can be obtained from I&SE/I&SEID.

Witnessed + Revised 11/3/2016

Juan Castellanos GE

INSPECTION REPORT

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

ISE/GT-FF 6022
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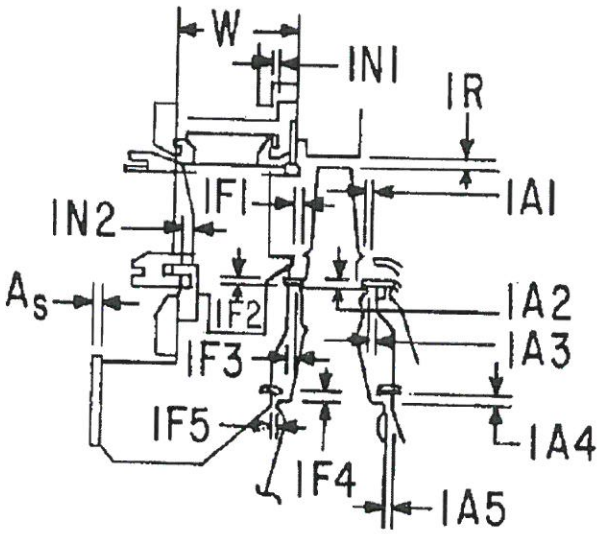
GAS TURBINE MAINTENANCE

MS 5001 Turbine Rotor Clearances

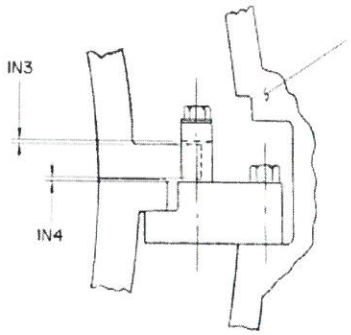
FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.11.15

SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NC



FIRST STAGE TURBINE

1. All axial clearances are to be measured with the rotors in contact with the loaded thrust faces.
2. All views with turbine flow.
3. Refer to clearance diagram for specified dimensions.



VIEW AT IST. STA NOZZLE CLAMP ARRANGEMENT

	1ST STAGE S/N							
	INITIAL		FINAL			INITIAL		FINAL	
	Left	Right	Left	Right		Left	Right	Left	Right
W	132.0	132.1	133.8	134.0	1F4	2.3	2.2	2.4	2.3
1N1	1.5	1.3	3.6	5.3	1F5	6.9	6.9	7.5	7.3
1N2		2.3	5.0	3.2	1A1	8.0	8.2	7.0	8.5
1N3	0.45	0.2	0.38	0.10	1A2	5.2	4.8	4.4	4.75
1N4	0.4	0.55	0.35	0.70	1A3	9.3	9.5	8.3	9.5
R	3.65	3.8	3.85	4.32	1A4	5.2	5.0	4.55	4.85
1F1	4.6	5.3	5.7	5.3	1A5	8.5	8.0	9.8	10.8
1F2	2.6	2.6	2.8	2.8	AS	7.6	7.8	7.7	7.7
1F3	4.7	4.6	5.9	5.7					

After all upper casings are bolted in place and the unit placed on its own supports, the first stage rotor tip clearances are to be measured and recorded below when probe holes exist.

Unit: mm

2016.11.14

4.1

4.3 4.4

3.85 4.32

4.22 4.17

4.16

1st STAGE TURBINE CLEARANCE

PROBE HOLE CHECK

COMMENTS: -1N1 is very high compared to spec. Looks like the nozzle is different that the one on the clearance diagram

Witnessed & Revised by:

11/21/2016

Juan Castellanos GE

量測者：林宗賢、藍世臻、曾成彀

105.11.18 陳信陽

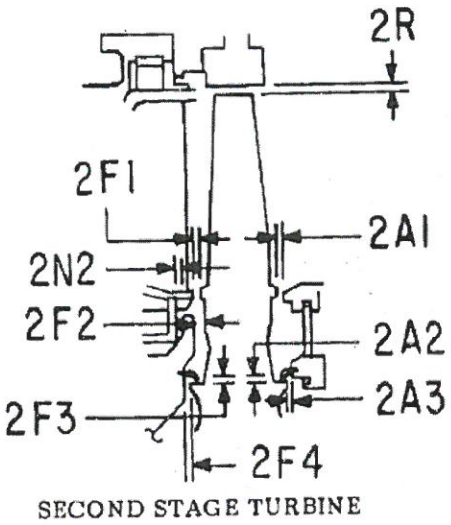
(Continued on back of form)

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

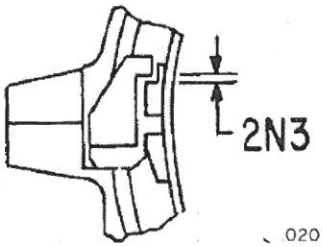
ISE/GT-FF 6022
FOR FIELD USE ONLY

INSPECTION REPORT

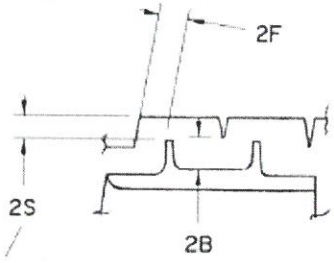
GAS TURBINE MAINTENANCE — **MS 5001 Turbine Rotor Clearances**

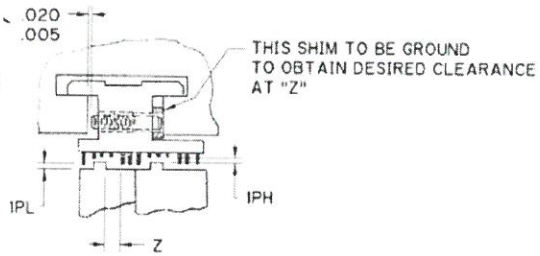


SECOND STAGE TURBINE



SECOND STAGE NOZZLE CLAMP



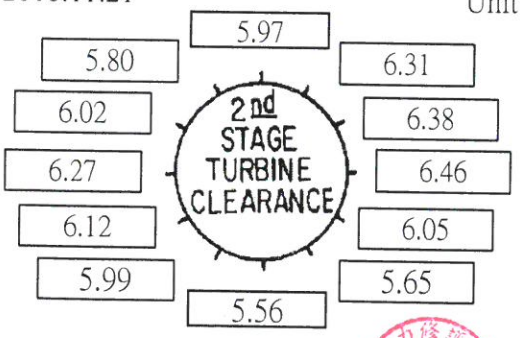


	2ND STAGE S/N								
	INITIAL		FINAL			INITIAL		FINAL	
	Left	Right	Left	Right		Left	Right	Left	Right
2N2	NA	NA	NA	NA	Z	9.8	10.3	9.2	9.6
2N3	NA	NA	NA	NA	Zs	NA	NA	NA	NA
2R	5.2	4.5	5.3	5.0	IPA	NA	NA	NA	NA
2F1	10.6	11.1	11.2	10.4	IPH	4.5	4.6	4.85	5.1
2F2	13.9	13.3	14.5	13.5	IPL	4.4	4.9	3.8	4.0
2F3	3.25	3.5	3.4	3.5	XD(2B)	6.6	6.7	6.8	6.7
2F4	11.6	11.2	12.4	11.2	XE(2S)	5.2	4.5	5.5	5.0
2A1	9.1	10.5	9.8	11.3	XF(2F)	12.3	13.3	6.2	5.8
2A2	6.8	7.0	6.7	6.9	XG	NA	NA	NA	NA
2A3	12.9	12.9	13.5	13.9					

After all upper casings are bolted in place and the unit placed on its own supports, the second stage rotor tip clearances are to be measured using feeler gages and recorded below.

2016.11.21

Unit: mm



COMMENTS: R is not applicable on this turbine
- Zs & IPA are not applicable on this turbine. The nozzle is of a different kind.
Witnessed & Approved
11/21/16
Juan Castellanos GE

105.11.21 陳信陽

量測者：林宗賢、藍世臻、曾成毅

NOTE: Assistance in obtaining the data to complete this form can be obtained from I&SE/I&SEID.

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INSPECTION REPORT

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GAS TURBINE MAINTENANCE

MS 5000 Series 1st-stage Nozzle & Support Ring (General Conditions and Ellipticity)

FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.11.9

SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NO

FIRST STAGE NOZZLE

COMPONENT S/N (on outer ring) _____ Nozzle Arrangement Dwg. N _____

Has this nozzle stage been replaced during the life of the gas turbine unit?

☐NO ☐YES - At _____ fired hours.

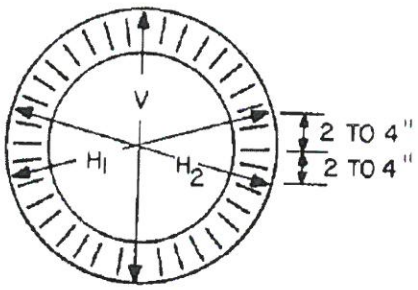
GENERAL SURFACE EFFECTS - Check (V) appropriate column.

	NONE	LIGHT	MED.	HEAVY	COMMENTS
DEPOSITS	V				
CORROSION	V				
EROSION	V				
NICKS & DENTS	V				

DEPOSITS/ CORROSION:

Laboratory Analysis of Deposit/Corrosion Material Attached to Report: ☐ YES ☐ NO

ELLIPTICITY:



Vertical dimension V = 1608.5 mm

Horizontal dimension H (Average of H_1 and H_2) = 1605.25 mm (H1:1605.00 ; H2:1605.50)

Ellipticity (difference between H and V) = 3.25 mm

Unit: mm

DISPOSITION OF NOZZLE:

☐ No repair or replacement necessary.

☐ Repaired. - NOTE: If nozzle repaired, specify weld rod used _____.
Repaired (On-site, Vendor or GE Service Shop).

☐ Replaced with new component.

COMMENTS: -Visual inspection & NDT is reported on the NDT reports (separate)
- The ellipticity is 0.71 mm higher. No major concern on this.

(Continued on back of form)

量測者:吳木榮、翁漢陽、陳信陽

105.11.9 陳信陽

ES-GAS-D7.A1.12 Rev. 1(9/78) GENERAL ELECTRIC

NOTE: Assistance in obtaining the data to complete this form can be obtained from I&SE/I&SEID.

Witnessed & Approved
11/10/2016
Juan Castellanos

ISE/GT-FF 6023
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INSPECTION REPORT

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GAS TURBINE MAINTENANCE

MS 5000 Series Compressor Rotor Clearances

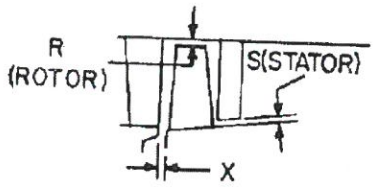
FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.10.29

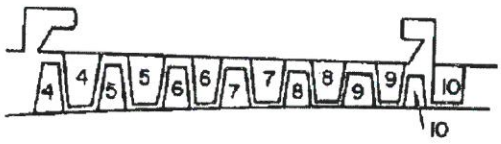
SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NO

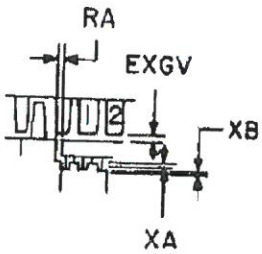
Opening Clearances ☐
Closing Clearances ☐

POSITION 1 WITH #1 BOLT HOLE OF COMP ROTOR AT LEFT

1. All axial clearances are to be measured with rotor in forward position against the loaded thrust face.
2. Refer to clearance diagram for specified dimensions.
3. Take readings with rotor positioned as follows:
   a. Position 1L with #1 bolt hole of comp. rotor at left horizontal joint.
   b. Position 1R with #1 bolt hole of comp. rotor at right horizontal joint.
4. After all upper casings are bolted in place and the unit placed on its own supports, the rotor tip clearances are to be measured and recorded at the right below. All views are with turbine flow.



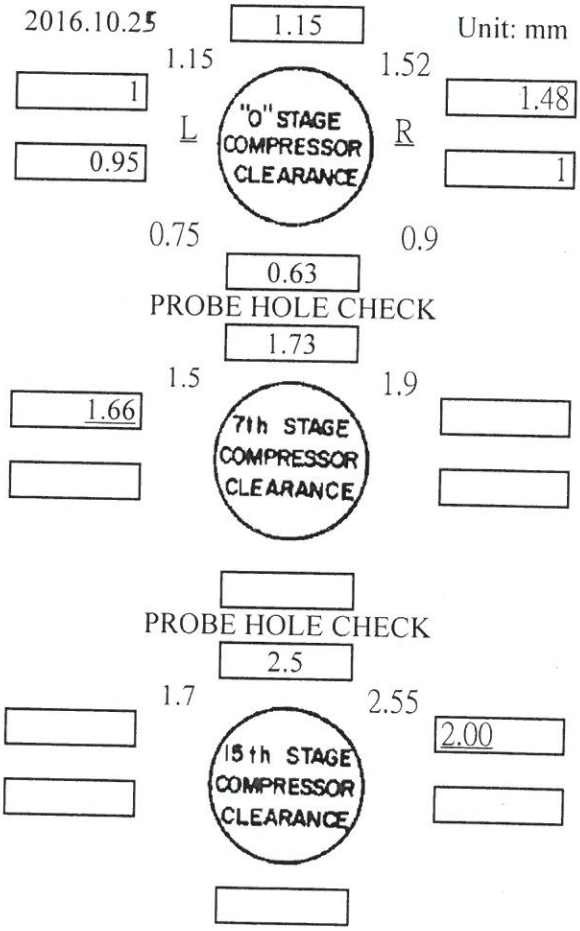




COMPRESSOR STUB SHAFT S/N
16TH STAGING WHEEL S/N

Stage	1L	1R	Stage	1L	1R
RO*	0.9	1.0	R11	0.9	1.0
SO*	1.2	1.2	S11	0.8	0.9
R1	0.95	0.95	R12	1.1	0.9
S1	1.2	1.35	S12	0.8	0.8
R2	0.95	1.25	R13	1.35	1.3
S2	0.95	1.25	S13	1.05	0.9
R3	0.8	1.1	R14	1.35	1.2
S3	1.05	1.4	S14	1.15	1.1
R4	0.7	0.85	R15	1.25	1.2
S4	0.75	0.9	S15	1.15	1.05
R5	0.9	1.05	R16	1.10	1.2
S5	0.8	1.0	S16	0.35	0.15
R6	0.9	1.25	EXGV1	0.35	0.2
S6	0.8	1.1	EXGV2	0.35	0.2
R7	1.0	1.25	X	4.3	4.2
S7	0.9	1.1	XA	1.25	1.4
R8	0.95	1.2	XB	1.2	1.4
S8	0.8	0.9	RA	11.7	11.6
R9	0.95	0.9			
S9	0.8	0.8			
R10	0.9	0.75			
S10	0.8	0.7			

2016.10.25 Unit: mm



*MS5001 N, P, & MS5002 B

ES-GAS-D7.A1.23 Rev. 1 (9/78) GENERAL ELECTRIC

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

27

Note: This measurements were taken without rotating the rotor.

11/2/2016
Juan Castellanos

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INSPECTION REPORT

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GAS TURBINE MAINTENANCE — **MS 5000 Series Compressor Rotor Clearances**

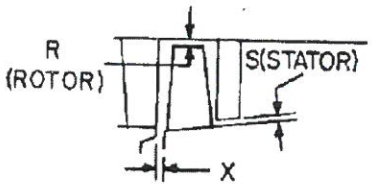
FSR NO. _____ TURBINE NO. 05620 Dededo #1 DATE 2016.11.1

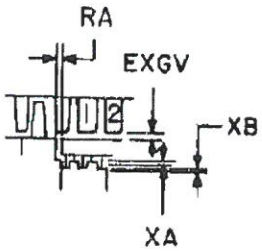
SKETCHES ENCLOSED: ☐YES ☒NO PHOTOS ENCLOSED: ☐YES ☒NO

Opening Clearances ☒ 1PL
Closing Clearances ☐

POSITION 1 WITH #1 BOLT HOLE OF COMP ROTOR AT LEFT

1. All axial clearances are to be measured with rotor in forward position against the loaded thrust face.
2. Refer to clearance diagram for specified dimensions.
3. Take readings with rotor positioned as follows:
   a. Position 1L with #1 bolt hole of comp. rotor at left horizontal joint.
   b. Position 1R with #1 bolt hole of comp. rotor at right horizontal joint.
4. After all upper casings are bolted in place and the unit placed on its own supports, the rotor tip clearances are to be measured and recorded at the right below. All views are with turbine flow.



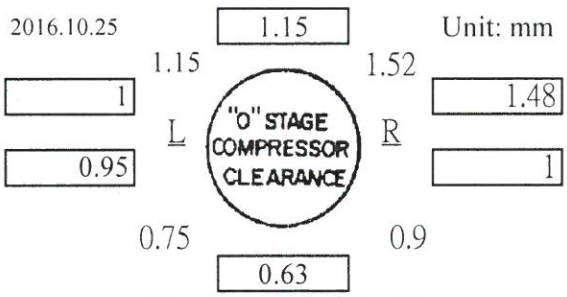


COMPRESSOR STUB SHAFT S/N
16TH STAGING WHEEL S/N

Stage	1L	1R	Stage	1L	1R
RO*	1.0	1.10	R11	1.0	1.0
SO*	1.0	1.25	S11	0.9	0.8
R1	0.9	1.20	R12	1.0	0.95
S1	1.25	1.45	S12	0.85	0.8
R2	0.8	1.25	R13	1.0	0.95
S2	1.0	1.40	S13	1.05	0.8
R3	1.0	1.25	R14	1.15	1.1
S3	1.10	1.6	S14	1.0	1.35
R4	0.8	0.9	R15	1.15	1.2
S4	0.8	0.95	S15	1.05	1.15
R5	0.85	1.0	R16	1.15	1.2
S5	0.9	1.0	S16	0.35	0.15
R6	0.95	1.25	EXGV1	0.35	0.2
S6	0.8	1.05	EXGV2	0.35	0.2
R7	0.95	1.30	X	4.3	4.2
S7	1.0	1.1	XA	1.25	1.4
R8	0.95	1.2	XB	1.2	1.4
S8	0.85	0.85	RA	11.7	11.6
R9	0.9	0.9			
S9	0.8	0.8			
R10	0.8	0.8			
S10	0.85	0.6			

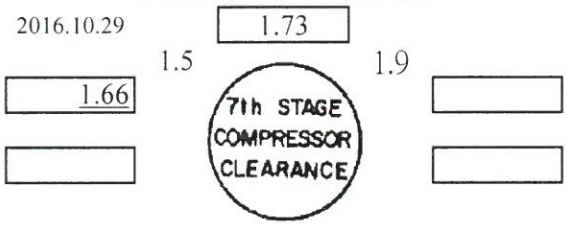
Unit: mm

2016.10.25



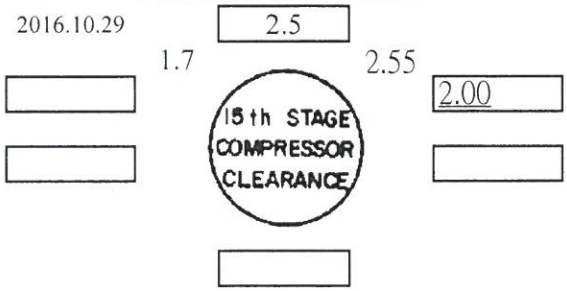
PROBE HOLE CHECK

2016.10.29



PROBE HOLE CHECK

2016.10.29



量測者：陳信陽、林宗賢
*MS5001 N, P, & MS5002 B

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

Witnessed and approved 11/3/2016
Juan Castellanos GE

ISE/GT-FF 6023
FOR FIELD USE ONLY

INSPECTION REPORT

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

GAS TURBINE MAINTENANCE — **MS 5000 Series Compressor Rotor Clearances**

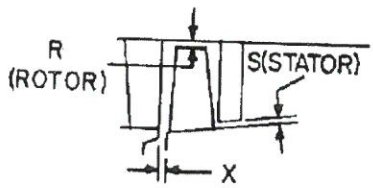
FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.11.14

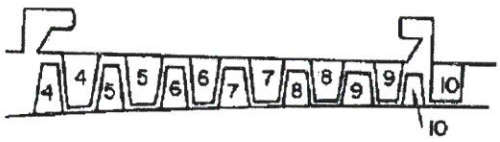
SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NO

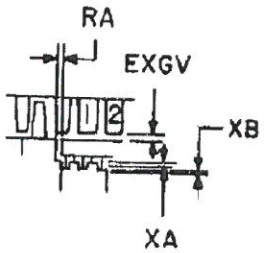
Opening Clearances ☐
Closing Clearances ☐

POSITION 1 WITH #1 BOLT HOLE OF COMP ROTOR AT LEFT

1. All axial clearances are to be measured with rotor in forward position against the loaded thrust face.
2. Refer to clearance diagram for specified dimensions.
3. Take readings with rotor positioned as follows:
   a. Position 1L with #1 bolt hole of comp. rotor at left horizontal joint.
   b. Position 1R with #1 bolt hole of comp. rotor at right horizontal joint.
4. After all upper casings are bolted in place and the unit placed on its own supports, the rotor tip clearances are to be measured and recorded at the right below. All views are with turbine flow.



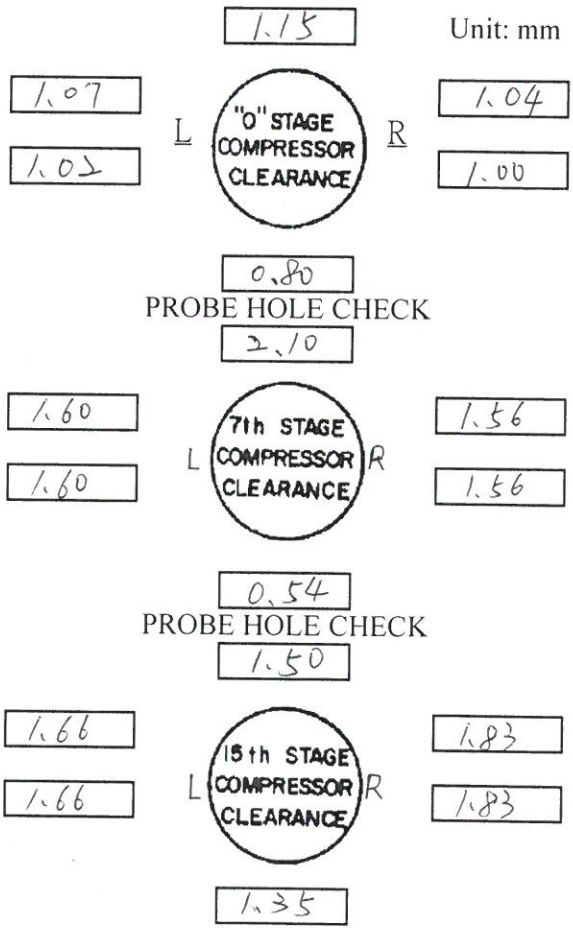




COMPRESSOR STUB SHAFT S/N
16TH STAGING WHEEL S/N

Stage	1L	1R	Stage	1L	1R
RO*	0.95	0.90	R11	1.1	0.9
SO*	1.15	1.20	S11	0.8	0.85
R1	0.95	1.05	R12	1.1	0.9
S1	1.15	1.35	S12	0.9	0.85
R2	0.95	1.20	R13	0.95	0.95
S2	1.25	1.25	S13	0.85	0.95
R3	1.0	1.10	R14	1.25	1.15
S3	0.90	1.25	S14	1.0	1.25
R4	1.0	1.0	R15	1.25	1.2
S4	0.85	0.9	S15	1.15	1.15
R5	0.85	0.95	R16	1.1	1.2
S5	0.8	1.10	S16	0.35	0.15
R6	1.0	1.20	EXGV1	0.3	0.2
S6	0.9	1.0	EXGV2	0.38	0.25
R7	0.95	1.2	X	4.0	4.1
S7	1.0	1.0	XA	1.1	1.4
R8	1.0	1.2	XB	1.05	1.4
S8	0.8	0.85	RA	12.1	11.9
R9	0.95	0.95			
S9	0.8	0.7			
R10	0.9	0.85			
S10	0.75	0.7			

Unit: mm



量測者：陳信陽、林宗賢、藍世臻
*MS5001 N, P, & MS5002 B

105.11.14 陳信陽

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

Comments: R11 to R16 are a little too tight but there is no evidence of heavy rubbing.

Witnessed + Reviewed 11/15/2016 Juan Castellanos GE

INSPECTION REPORT

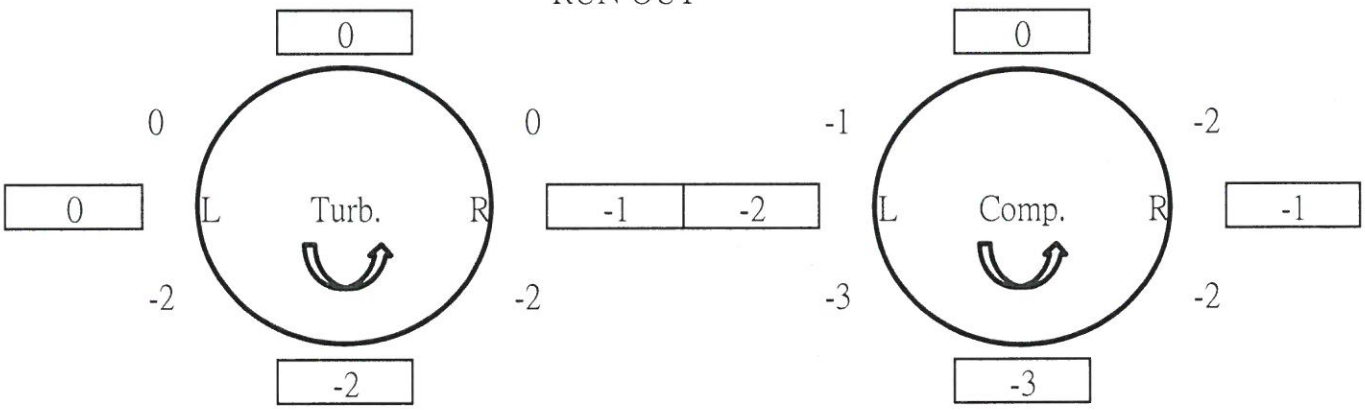
GAS TURBINE MAINTENANCE MS 5001 RUN OUT

FSR NO. TURBINE NO. 05620 (Dededo # 1) DATE: 2016.11.1

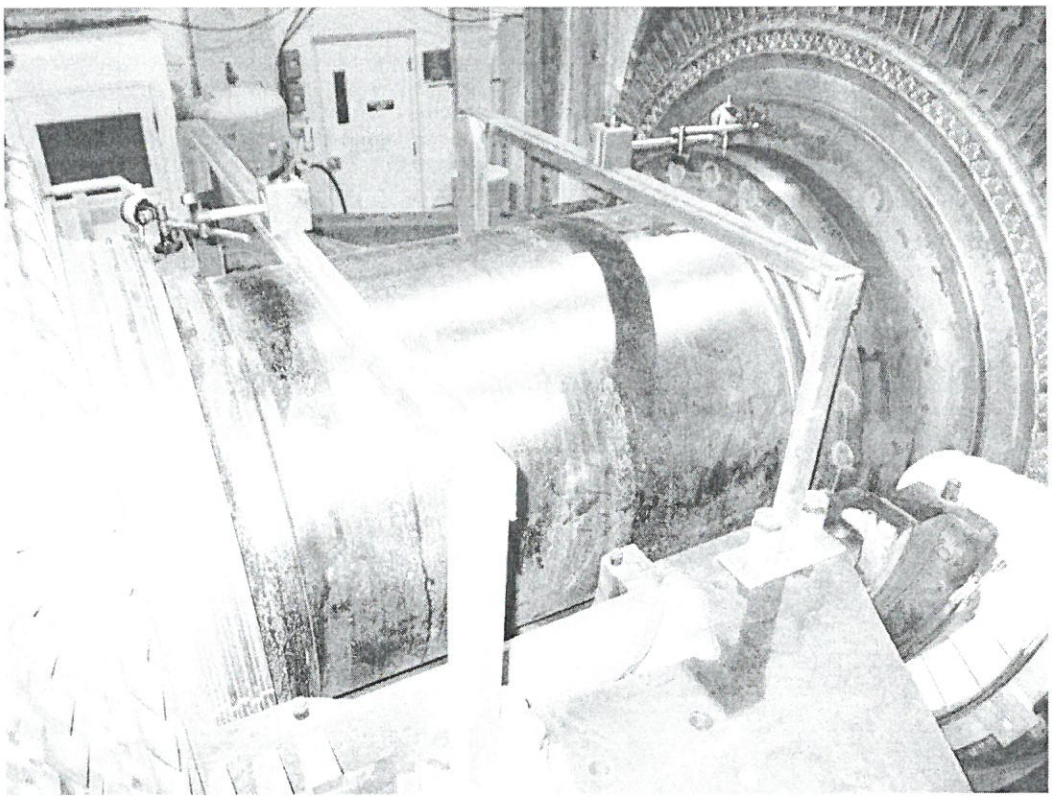
Unit: 1/100 mm

Angle	0	45	90	135	180	225	270	315	360
Turb.	0	0	0	-2	-2	-2	-1	0	0
Comp.	0	-1	-2	-3	-3	-2	-1	-2	0

RUN OUT



Comp.



Turb.

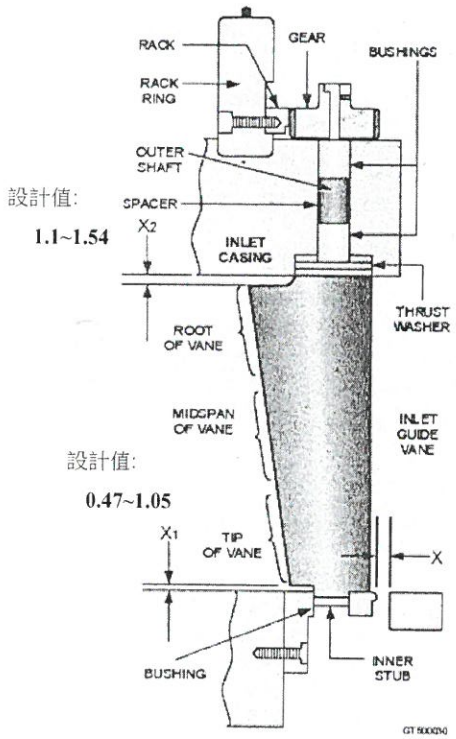
Run out is good. Witnessed & revised 11/1/2016

Juan Castellanos

105.11.1 陳信陽

I.G.V.葉片間隙

檢修日期:**2016.11.4**　　氣渦輪機序號:**05620 (Dededo #1)**　　單位:**mm**



位置	R	L
X		

	X1	X2	齒隙		X1	X2	齒隙
1	1.2	1.0	0.1	33	1.7	0.7	0.45
2	1.3	0.9	0.15	34	1.75	0.75	0.58
3	1.2	0.95	0.15	35	1.7	0.8	0.5
4	1.3	1.0	0.12	36	1.65	0.8	0.52
5	1.5	1.0	0.1	37	1.6	0.75	0.43
6	1.3	1.0	0.14	38	1.65	0.7	0.43
7	1.3	1.0	0.1	39	1.7	0.75	0.54
8	1.0	1.05	0.16	40	1.8	0.65	0.62
9	1.3	1.05	0.18	41	1.65	0.7	0.57
10	1.3	1.05	0.11	42	1.65	0.8	0.6
11	1.0	1.05	0.1	43	1.7	0.8	0.5
12	1.3	1.1	0.12	44	1.65	0.85	0.55
13	1.3	1.0	0.1	45	1.6	0.7	0.69
14	1.1	1.1	0.19	46	1.6	0.8	0.62
15	1.3	1.0	0.19	47	1.6	0.8	0.45
16	1.35	1.05	0.2	48	1.6	0.9	0.54
17	1.0	1.0	0.22	49	1.65	0.7	0.65
18	1.65	1.05	0.1	50	1.7	0.86	0.63
19	1.1	1.3	0.22	51	1.7	0.7	0.7
20	1.2	1.0	0.2	52	1.7	0.75	0.55
21	1.35	1.0	0.26	53	1.8	0.75	0.65
22	1.35	1.0	0.2	54	1.7	0.75	0.48
23	1.0	1.2	0.3	55	1.65	0.75	0.65
24	1.25	1.05	0.35	56	1.75	0.7	0.6
25	1.65	1.0	0.26	57	1.6	0.75	0.47
26	1.55	1.05	0.16	58	1.7	0.7	0.57
27	1.5	1.1	0.18	59	1.7	0.75	0.53
28	1.5	1.0	0.35	60	1.6	0.75	0.6
29	1.3	1.1	0.29	61	1.7	0.75	0.5
30	1.4	1.1	0.34	62	1.7	0.8	0.4
31	1.3	1.1	0.15	63	1.65	0.8	0.51
32	1.1	1.1	0.16	64	1.7	0.8	0.53

註:齒隙設計值 ~<0.76mm　■表小於設計值■表大於設計值

檢修確認 105.11.4 陳信陽

量具編號：FP-2190(量錶)、FP-1871(外徑分厘卡)、厚薄規　量測者：翁漢陽、劉俊呈

Note: X1 is bigger than spec and X2 is shorter. The thrust washer should be adjusted when the IGV blades are dissasembled. No concern to run it like that at the moment.

Witnessed & approved　表格：QT-MW1-039-F25　版次：0

11/8/2016
Juan Castellanos GE

INSPECTION REPORT

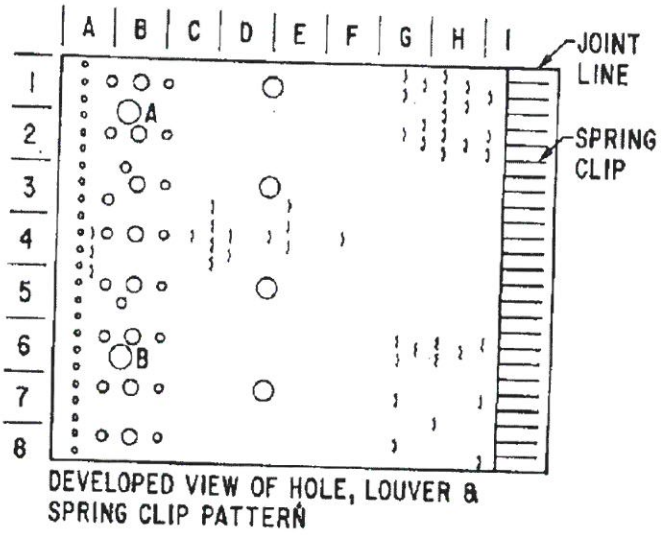
ISE/GT-FF 6003
FOR FIELD USE

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

GAS TURBINE MAINTENANCE — **Combustion System (Liner)**

FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.11.2

SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NO



DEVELOPED VIEW OF HOLE, LOUVER & SPRING CLIP PATTERN

PART NUMBER OUT* _____

PART NUMBER IN* _____

*Note: If Part (Drawing) Number IN (installed) is different than Part (Drawing) Number OUT (removed) , check with G. T. C. S. D.

DEFECT CODES:

BU- Burned	LO - Louvers open
CO - Corroded	LC - Louvers closed
CR- Cracked	BR- Broken
BK- Buckled	BT- Bent
H -Hot Spots	M - Missing
	W - Worn

DISPOSITION CODES:

N - No repairs or replacement necessary
R - Repaired (on site, vendor, or GE Service Shop)
RN - Replaced with new component

Chamber No.	Serial Number		Liner Defects (Code and Location for cracks, also indicate if hole to hole, louver to louver or louver to hole)	X-Fire Tube Collar Defect (Code and Location)
	Out	In		
1	G11058L	A12180 7996		
2	G10193L	A16432 13678		
3	G11097L	A16477 13716		
4	G10228L	m00527 12549		
5	G10213L	A16486 13677		
6	G10215L	A12428 8548		
7	G10202L	A16443 13724		
8	G10192L	A7131 B4		
9	G10205L	A7135 B9		
10	G11100L	A16544 14209		
11	NA	NA		
12	NA	NA		

105. 11. 2 陳信陽

(Continued on Back of Form)

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

INSPECTION REPORT

ISE/GT-FF 6005
FOR FIELD USE ONLY

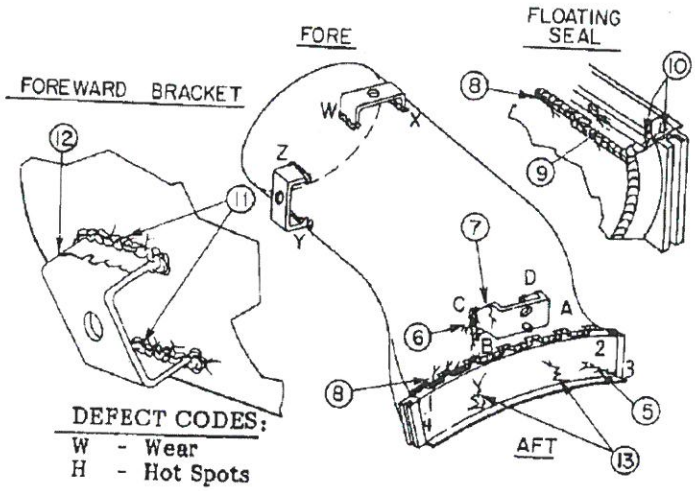
NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

GAS TURBINE MAINTENANCE

MS 5000 Series Transition Piece

FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.11.15

SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NO



DEFECT CODES:
W - Wear
H - Hot Spots

DISPOSITION CODES:
N - No Repair or replacement necessary
R - Repaired (On-site, Vendor or GE Service Shop)
RN - Replaced w/new component

CRACK LOCATION CODES:

A ,B, C ,D-Positions on aft brackets.
W ,X, Y, Z-Positions on forward brackets.
1, 2, 3, 4-Positions on aft corners.
5-Casting corner cracks.
6-Aft bracket weld cracks.
7-Aft bracket body cracks.
8-Seal retainer weld cracks .
9-Seal retainer pin hole cracks (Floating seal only).
10-End cover (ear) weld cracks(Floating Seal only).
11-Forward bracket weld cracks.
12-Forward bracket breaking.
13-Transition piece rupture.

PART NUMBER OUT* _____

PART NUMBER In* _____

*Note: If Part Number IN is different than Part Number OUT, Check with G.T.C.S.D.

Chmbr. No.	Serial Out	Serial In	Cracks (State Location & Length)
1	E1875L	SP12472-1-211	
2	E1883L	SP12472-1-212	
3	E1849L	SP12472-1-213	
4	E1880L	SP12472-1-214	
5	E1865L	SP12472-1-215	
6	E1844L	SP12472-1-216	
7	E1866L	SP12472-1-217	
8	E1873L	SP12472-1-218	
9	E1869L	SP12472-1-219	
10	E1872L	SP12472-1-220	
11	NA	NA	
12	NA	NA	

105.11.15 陳信陽

(Continued on Back of Form)

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

INSPECTION REPORT

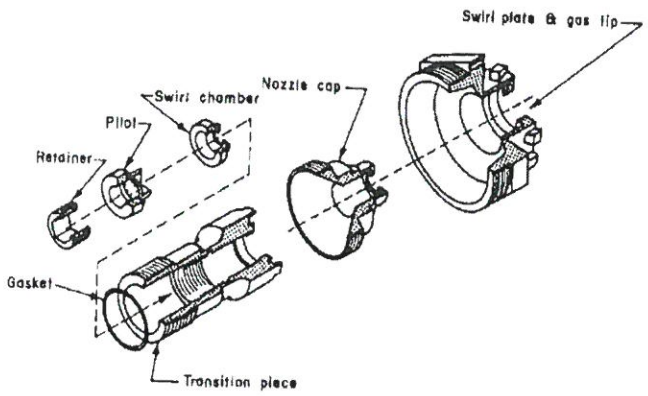
ISE/GT-FF 6001
FOR FIELD USE

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

GAS TURBINE MAINTENANCE **Fuel Nozzle**

FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.11.10

SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NO



NOZZLE TYPE:

☐ Mechanical Atomizing
■ Air Atomizing
☐ Gas
■ Distillate only
☐ Gas/Dist
☐ Gas/Dist/Residual

Vendor Ou _____

Vendor in _____

Part Number:
*Out _____
*In _____
*Note: If Part Number In is different than Part Number Out, Check with G.T.C.S.D.

DISPOSITION CODES:
N - No repair or replacement necessary.
R - Repaired/cleaned (On-site, Vendor or GE Service Shop).
RN - Replaced with new component.

EROSION & DEPOSIT CONDITION CODES:
No Erosion - N - No Deposits
Slight Erosion - S - Slight Deposits
Heavy Erosion - H - Heavy Deposits

Chamber No.	Serial Number		Nozzle Cap		Transition Piece Erosion	Body Leakage		Disposition	Replacement Recommended (Check v if yes)
	Out	In	Deposits	Erosion		Yes	No		
1	1	1	S , V	N			V	R	
2	2	2	S , V	N			V	R	
3	3	3	S , V	N			V	R	
4	4	4	S , V	N			V	R	
5	5	5	S , V	N		V		RN(Gasket), no leakage	
6	6	6	S , V	N			V	R	
7	7	7	S , V	N			V	R	
8	8	8	S , V	N		V		RN(Gasket), no leakage	
9	9	9	S , V	N		V		RN(Gasket), no leakage	
10	10	10	S , V	N			V	R	
11	NA	NA							
12	NA	NA							

105.11.23 陳信陽

COMMENTS: _____

ES-GAS-D7 .A1.1 Rev. 1(9/78) GENERAL ELECTRIC

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

Witnessed & Approved
11/21/16
Juan Castellanos GE

ISE/GT-FF 6009
FOR FIELD USE ONLY

INSPECTION REPORT

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

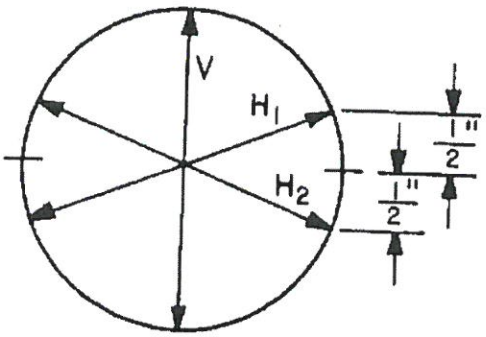
GAS TURBINE MAINTENANCE — **Sleeve Journal Bearings**

FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.11.12

SKETCHES ENCLOSED: ☐YES ■NO PHOTOS ENCLOSED: ☐YES ■NO

(NOTE: SEE ADDITIONAL INSTRUCTIONS ON BACK OF FORM)

DIMENSIONAL CHECKS



1. Measure horizontal (H_1 & H_2) and vertical(V) dimensions of bearing shell inner diameter at both the forward and the aft ends. Bearing halves must be clamped together for measurement.
2. Measure thrust bearing clearance dimension by jacking rotor axially and monitoring axial movement with dial indicator. Dial indicator to be mounted on the bearing housing containing the thrust bearing.

CONDITION CODES:

Using the figures on the back of this form for reference, indicate **by number** the babbitt conditions observed . If more than one number is used, keep damage and zones in respective order.

DISPOSITION CODES:

N - No repair or replacement necessary
R - Repaired (On-site, Vendor or GE Service Shop
RN - Replaced with new component

JOURNAL BEARINGS NOTE: Use Form ISE/GT FF 6044 for Tilting-Pad Journal Bearings Unit: mm

LINER NO.	1		2		3		4		5	
PART NO.										
MEASURFMENTS	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT
H_1 (203.97~204.03)	203.95	203.98	203.92	203.97						
H_2 (203.97~204.03)	203.95	203.95	203.96	203.96						
V (203.57~203.61)	203.63	203.64	203.66	203.63						
CONDITION	CODE	ZONE	CODE	ZONE	CODE	ZONE	CODE	ZONE	CODE	ZONE
A. BURNISH										
B. CRACKS										
C. BABBITT LOSS										
D. BABBITT SMEAR										
DISPOSITION										

JOURNAL NO.	1		2		3		4		5	
MEASURFMENTS	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT	FWD	AFT
H	203.22	203.22	203.18	203.18						
V	203.22	203.21	203.18	203.18						
CONDITION	(CHECK V IF CONDITION IS OBSERVED)									
SCORED										
PITTED										
DISPOSITION										

THRUST BEARINGS See Form ISE/GT-FF6029

COMMENTS: - Visual Inspection reported on NDT report
- Clearances are good

量測者:李鶴濂、林宗賢、曾成毅

105.11.12 陳信陽

ES-GAS-D7.A1.9 Rev. 1(9/78) GENERAL ELECTRIC

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

Witnessed & Revised
11/12/2016
Juan Castellanos GE

ISE/GT-FF 6010
FOR FIELD USE ONLY

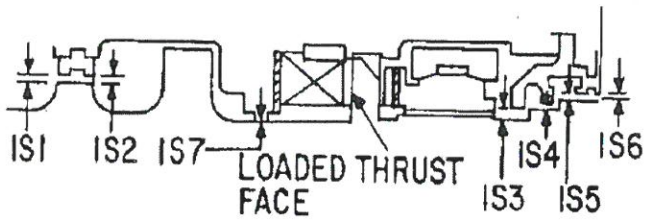
INSPECTION REPORT

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

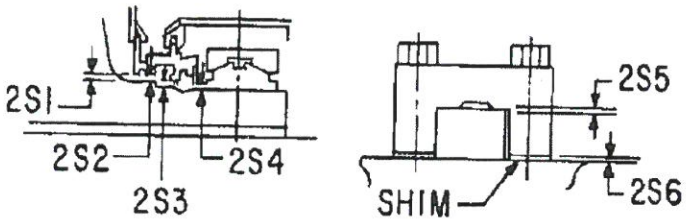
GAS TURBINE MAINTENANCE **MS 5001 Seals**

FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.10.31

SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NO



No. 1 BEARING AREA



(VIEW AT #2 BEARING STRAP)

No. 2 BEARING AREA

CONDITION CODE:

M - Missing Metal
W - Worn
CR - Cracked

Unit: mm

DISPOSITION CODES:

N - No repairs or replacement necessary
R - Repaired /cleaned (On-site, or GE Service Shop).
RN - Replaced with new component

	CLEARANCES		VISUAL INSPECTION		COMMENTS
	Left	Right	Condition	Disposition	
1S1	0.35	0.38	ok, W	N	
1S2	0.37	0.38	ok, W	N	clearance is a little open
1S3	0.35	0.3	ok, W	N	
1S4	0.3	0.3	ok, W	N	
1S5	0.3	0.3	ok, W	N	
1S6	0.3	0.3	ok, W	N	
1S7	0.35	0.25	ok, W	N	needs replacement next outage
2S1	0.2	0.25	ok, W	N	
2S2	0.23	0.25	ok, W	N	
2S3	0.18	0.25	ok, W	N	
2S4	0.18	0.3	ok, W	N	
2S5	0	0	ok	N	
2S6	0	0	ok	N	Shim thickness not measured

ADDITIONAL COMMENTS

105.10.31 陳信陽

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

Witnessed & Revised 11/8/2016

Juan Castellanos, GE

ISE/GT-FF 6010
FOR FIELD USE ONLY

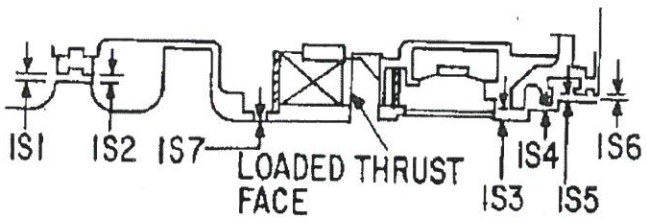
INSPECTION REPORT

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

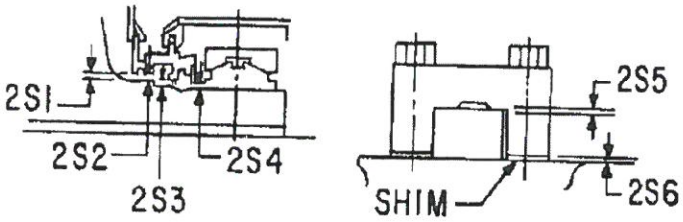
GAS TURBINE MAINTENANCE **MS 5001 Seals**

FSR NO. _____ TURBINE NO. 05620 (Dededo #1) DATE 2016.11.18

SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NO



No. 1 BEARING AREA



(VIEW AT #2 BEARING STRAP)

No. 2 BEARING AREA

CONDITION CODE:

M - Missing Metal
W - Worn
CR - Cracked

Unit: mm

DISPOSITION CODES:

N - No repairs or replacement necessary
R - Repaired /cleaned (On-site, or GE Service Shop).
RN - Replaced with new component

	CLEARANCES		VISUAL INSPECTION		COMMENTS
	Left	Right	Condition	Disposition	
1S1	0.35	0.40	high clearance	N	Final. Replace on next outage. fpe
1S2	0.37	0.37	high clearance	N	Final. Replace on next outage. fpe
1S3	0.33	0.30		N	Final
1S4	0.35	0.33		N	Final
1S5	0.33	0.33		N	Final
1S6	0.35	0.35		N	Final
1S7	0.25	0.20	high clearance	N	Final Replace on next outage. fpe
2S1	0.25	0.20		N	Final
2S2	0.27	0.23		N	Final
2S3	0.27	0.18		N	Final
2S4	0.27	0.18		N	Final
2S5	0	0		N	Final
2S6	0	0			Final

ADDITIONAL COMMENTS

105.11.18 陳信陽

NOTE: Assistance in obtaining the data to complete this form cen be obtained from I&SE/I&SEID.

Witnessed & Revised
11/18/2016
Juan Castellanos GE

g **INSPECTION REPORT**
Gas Turbine Maintenance

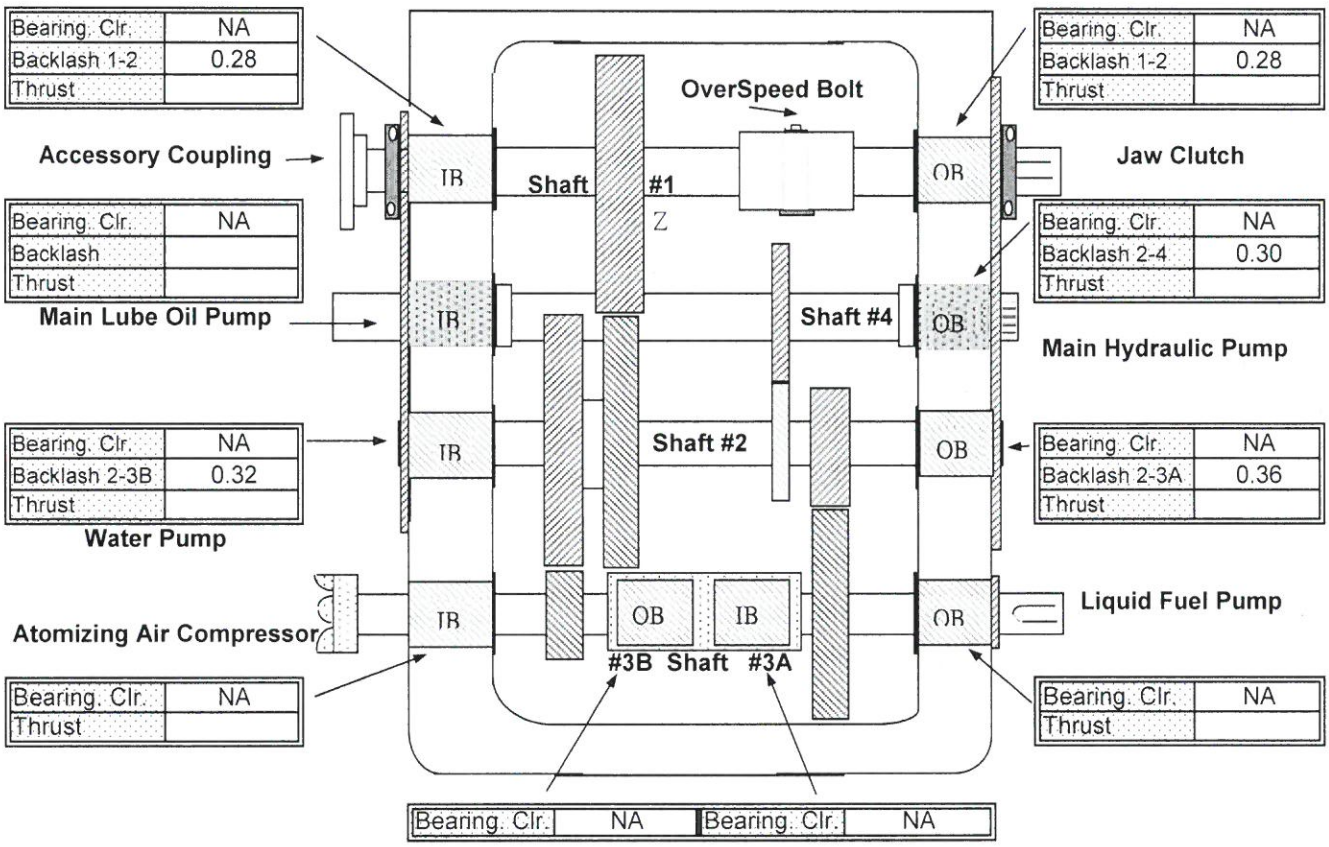
Accessory Gear

(FOR FIELD USE ONLY) Notice: Any alterations to this form must be approved by the Mgr. Tech Prog. PGSD, and the Mgr. MPS, PSD, PGCSD.

Date 2016.11.3 Turbine S/N 05620 Dededo #1 Prepared by 李鶴濂、林宗賢
FSR # _____ Sketches Enclosed? _____ Photos Enclosed? on NDT report

Accessory Gear Model _____ Accessory Gear S/N _____

Unit: mm



Comments:	

- Backlash is good. Spec is 0.13 to 0.40 mm
- Thrust or brg. clearance could not be obtained

量測者:李鶴濂、林宗賢 複查者: 105.11.3 陳信陽 GE TA: Witnessed & Approved 11/8/2016 Juan Castellanos, GE

"ES-GAS-D7Thib.A34Gas2 PGS/GT- FF-6000a

INSPECTION REPORT

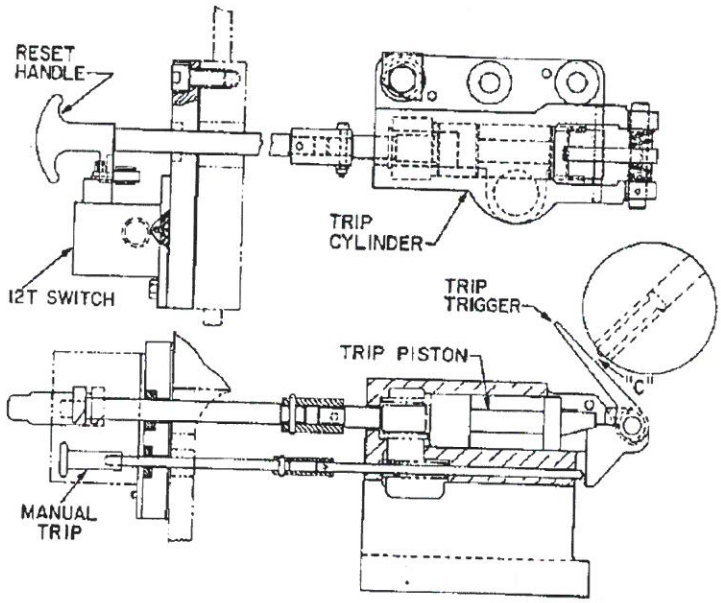
ISE/GT-FF 6028
FOR FIELD USE ONLY

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

GAS TURBINE MAINTENANCE — **Overspeed Bolt and Trip Assembly**

FSR NO. _____ TURBINE NO. 05620(Dededo #1) DATE 2016.11.3

SKETCHES ENCLOSED: ☐YES ☐NO PHOTOS ENCLOSED: ☐YES ☐NO



CONDITION CODE:
- M - Missing Metal
- W - Worn
- CR - Cracked
- N - Normal
- J - Jammed
- BR - Broken
- AJ - Adjustment Required

DISPOSITION:
- N - No repair or replacement necessary.
- R - Repaired.
- RN - Replaced with new component.
- RR - Recommend replace/repair at next outage (explain reason)

		HP	LP
MANUAL STATIC TRIP TEST	Piston Stroke: •••••• NORMAL	☐	☐
	STICKY	☐	

OPERATIONAL CHECK

		HP	LP
Overspeed Test	1st	_____	_____
	2nd	_____	_____
	3rd	_____	_____
Previous Test Date		_____	_____

VISUAL INSPECTION

	CONDITION		DISPOSITION	
	HP	LP	HP	LP
Trip Trigger	N		N	
Trip Piston	N		N	
Trip Cylinder	N		N	
12 T Switch	N		N	

TRIP TRIGGER CLEARANCE "C": 1.5mm

COMMENTS: _____

量測者:林宗賢

105.11.3 陳信陽

NOTE: Assistance in obtaining the data to complete this form can be obtained from I&SE/I&SEID.

ISE/GT-FF 6006
FOR FIELD USE ONLY

INSPECTION REPORT

NOTICE · Any alterations to this form must be approved by the Manager, Program Support Engineering, I&SE and the Manager, Technical Information and Procedures, G.T M.D.

GAS TU

Coupling Alignment

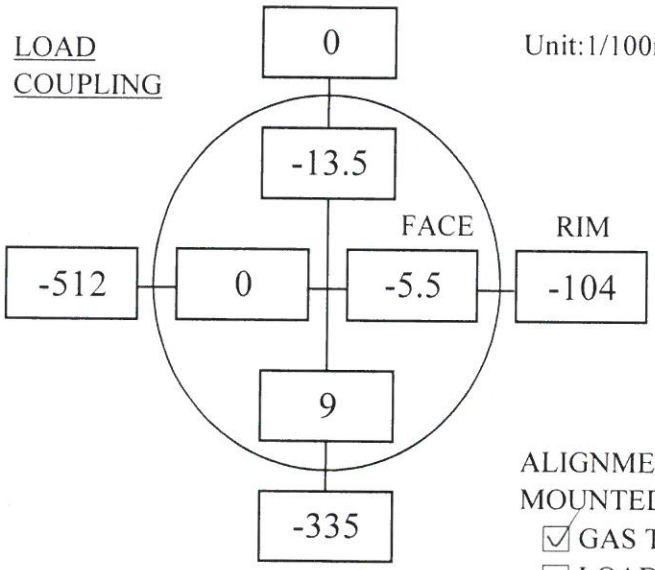
FSR NO. _____ TURBINE NO. 05620 (Dededo # 1) DATE 2016.11.1

1. Checks to be made facing in direction of turbine flow.
2. Reference all "face" readings to 12" diameter.
3. "Rim" readings should reflect indicator riding at coupling O. D. or on male rabbet; if indicator rides on female rabbet, the sign conventions must be changed .

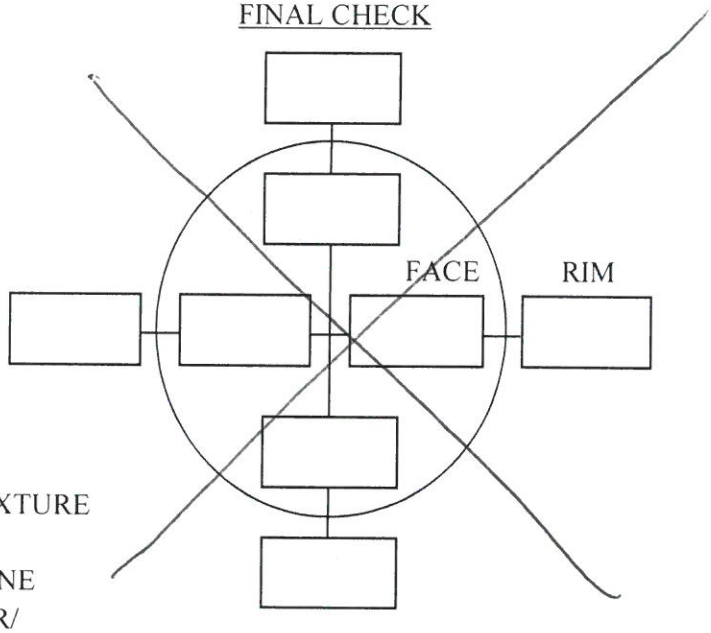
INITIAL CHECK Date: 2016.11.1

LOAD COUPLING

Unit:1/100mm



FINAL CHECK

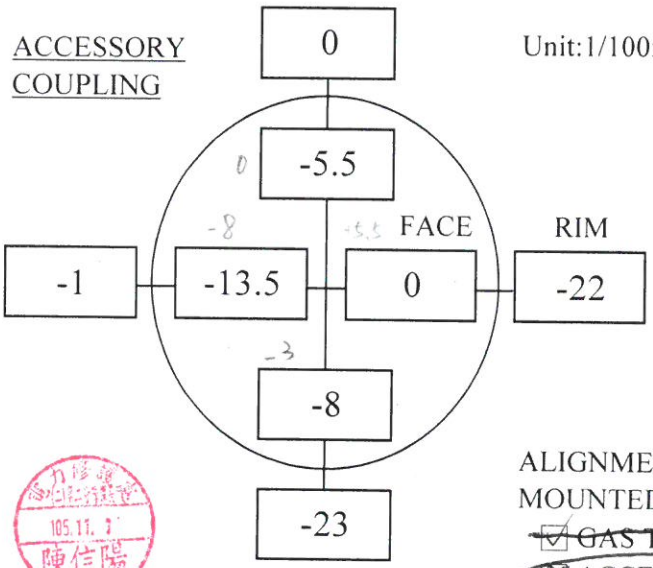


ALIGNMENT FIXTURE MOUNTED ON:
- ☑ GAS TURBINE
- ☐ LOAD GEAR/ DRIVEN EQUIPMENT

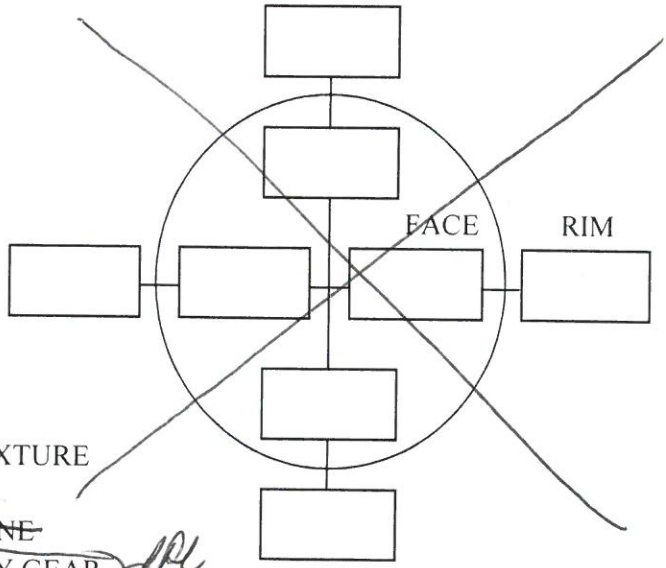
INITIAL CHECK Date:2016.11.1

ACCESSORY COUPLING

Unit:1/100mm



FINAL CHECK



ALIGNMENT FIXTURE MOUNTED ON:
- ~~☑ GAS TURBINE~~
- ☒ ACCESSORY GEAR

105.11.7 陳信陽

量測者:李鶴濂、林宗賢、曾成毅

COMMENTS: Alignment is a little off on both load + accs.

NOTE: Assistance in obtaining the data to complete this form can be obtained from I&SE/I&SEID.

Witnessed + revised 11/2/2016

Juan Castellanos

台灣電力公司

電力修護處　　工　號：IE533205658

焊接工作查證表(水、火力電廠)　檔案編號：

1.機組：Dededo # 1 機	2.焊接工件名稱：燃燒外筒內襯修補	3.圖面/版次：
4.■首次 □修補 □重做	5.文件編號：	6.管徑/規格：
7.母材編號：　P.No.1　對 P.No. 1		8.焊道編號：
9.焊接程序編號：		
10.焊接方法：□SMAW ☑TIG □其他	11.接頭設計：□對接 □套焊 □填角焊 □其他	
12.非破壞檢測執行：□VT ☑PT □MT □RT □UT		
上列各項均已填寫無誤 焊接查證人員/日期：陳信陽 11/2		
13.焊接人員姓名及代號：林掌明 RM015		
14.裸線焊條型式/批號：705-2	15.被覆式焊條型式/批號：	

16.自動檢查項目	NA	是	否	焊接人員/日期	查證人員/日期
(A)焊口清潔？		✓		林掌明 11/2	陳信陽 11/2
(B)焊口磨修？		✓			
(C)焊口定位？					
(D)焊口點焊？					
(E)管內清潔？					
17.沖淨氣體使用？					
18.預熱溫度 ℃/°F					
19.層間溫度 ℃/°F					
20.焊道施焊完成？		✓		林掌明 11/2	陳信陽 11/2

21.非破壞檢測結果	NA	ACC	REJ	查證人員 / 日期
目視檢測(VT)				
液滲檢測(PT)		✓		11/2
磁粒檢測(MT)				
射線檢測(RT)				
超音波檢測(UT)				

上列各項均已依規定執行完畢

焊接人員/日期：林掌明 11/2　　焊接查證人員/日期：陳信陽 11/2

備註：

表格：AM-W2-005-F2 版次：5

台灣電力公司

電力修護處　　工　號：IE533220555658

焊接工作查證表(水、火力電廠)　檔案編號：

1.機組：Dededo #1 機	2.焊接工件名稱：管件法蘭面	3.圖面/版次：
4.■首次 □修補 □重做	5.文件編號：	6.管徑/規格：
7.母材編號：　P.No. P1　對 P.No. P1		8.焊道編號：
9.焊接程序編號：		
10.焊接方法：□SMAW □TIG □其他	11.接頭設計：☑對接 ☑套焊 □填角焊 □其他	
12.非破壞檢測執行：☑VT □PT □MT □RT □UT		
上列各項均已填寫無誤 焊接查證人員/日期：陳信陽 11/7		
13.焊接人員姓名及代號：林掌明 RM015		
14.裸線焊條型式/批號：70S2	15.被覆式焊條型式/批號：7018	

16.自動檢查項目	NA	是	否	焊接人員/日期	查證人員/日期
(A)焊口清潔？		✓		林掌明 11/7	陳信陽 11/7
(B)焊口磨修？		✓			
(C)焊口定位？		✓			
(D)焊口點焊？		✓			
(E)管內清潔？		✓			
17.沖淨氣體使用？					
18.預熱溫度　℃/°F					
19.層間溫度　℃/°F					
20.焊道施焊完成？		✓		林掌明 11/7	陳信陽 11/7

21.非破壞檢測結果	NA	ACC	REJ	查證人員 / 日期
目視檢測(VT)		✓		
液滲檢測(PT)				
磁粒檢測(MT)				
射線檢測(RT)				
超音波檢測(UT)				

上列各項均已依規定執行完畢

焊接人員/日期：林掌明 11/7　　焊接查證人員/日期：陳信陽 11/7

備註：

電 力 修 護 處 量 具 清 單

作業地點/機組：Dededo 發電廠 / GT#1,#2 工號： IE53322055658			
工具名稱	編號	使用範圍	校驗有效日期
扭力板手	F00327	300~800 N-M	106.3.31
扭力板手	F02472	60-300 Nm	106.4.1
電子式游標卡尺	F02297	0~150mm	106.3.22
游標卡尺	FP0277	0~150mm	106.5.24
游標卡尺	F01396	0~300mm	106.5.20
外徑分厘卡	FP1871	0~25mm	106.3.17
外徑分厘卡(共 12 只)	F02288	0~300mm	106.4.17
外徑分厘卡	F01589	300~400mm	106.3.17
內徑分厘卡	F01711	50~1500mm	106.5.24
量表	FP1675	0~10mm	106.4.12
量表	FP2188	0~10mm	106.4.12
量表	FP2190	0~10mm	106.4.21
量表	FP2328	0~10mm	106.5.19
量表	FP2319	0~5mm	106.5.19
量表	FP2320	0~5mm	106.5.19
量表	FP2321	0~5mm	106.5.19
厚薄規			NA
斜度規		0.2~5mm	NA
斜度規		0.2~15mm	NA
斜度規		15~30mm	NA