



EDG 101

8412140367 840910
PDR ADOCK 05000322
G PDR

NUCLEAR POWER STATION
STARTUP FORM 7.6

For Information Only

February 18, 1981
Revision 12

Shoreham Nuclear Station - Unit 1

REPAIR/REWORK REQUEST

1. Request: RD-1627 Initiated By: C.C. Fuller 2/16/84 System #: 1R73A
Test Engineer/Date

RD-15-81

Work performed under jurisdiction of: () Unico Construction (X) LILCO Startup

Work to be performed by: () Unico Construction (X) LILCO Startup

Quality Assurance function to be performed by: (X) QA () FCC () Work Supervisor

System or Subsystem Description: EDG 101

QA Category: I Completion Date Required: _____

Perform the following work: Emergency Diesel Generator 101 outage. Preliminary
for inspection tasks

Reason for Work: Diesel Generator Quality Revalidation

2. Work to be performed in accordance with the following applicable construction or maintenance procedure: SN1-089, SUB 5 and attached Guidelines

3. Notify W.C. Cook 3/6/84 prior to performing work.
Startup Engineer

4. Request Approved: mmmmmm 3/15/84 B. Lawson 3/15/84
Lead Startup Engineer / Date S&W Lead Advisory Eng./Date

5. This form must be signed and returned to the party requesting the work when the work is completed.

The above work has been completed. A work summary and necessary documentation is attached.

C.C. Fuller 4/6/84
Supervisor/Date

W.C. Cook 4/6/84
Field QC or Operational QA/Date

6. The following retest(s) are required and completed: EDG 101 Run-in (8.7" H₂O)

W.C. Cook 4/26/84 W.C. Cook 4/26/84
LILCO Operational QA Engineer/Date Startup Engineer/Date

DISTRIBUTION: Original to: Organization Performing Work: () Unico Construction
Superintendent (via Turnover Coordinator), or () LILCO
Startup.
Copies To: Organization Not Performing Work: () Unico Construction
Superintendent (via Turnover Coordinator), or () LILCO
Startup
Operational QA
Field QC

NOTED APR 28 1984
A06501

RER 1627

PISTON DISASSEMBLY/REASSEMBLY GUIDELINES

Piston No. 5

NOTE: This guideline provides piston disassembly/reassembly instructions following removal of the piston assembly from the engine.

A. DISASSEMBLY

1. Remove the four (4) crown to skirt nuts. Record breakaway torque on attached sheet.

B. REASSEMBLY

1. Verify the following inspections are complete and do not restrain reassembly.

Task description no. 03-341A

a. Release received

TE

Date

Remarks

LDI'S 2266-2255LDI'S 2266-2255 4-15-84

- b. Corrective action complete (N/A if not required).

TE

Date

2. Reassemble piston as follows.

- a. Place crown on skirt. Measure cold gap at point "X". (4 places only. See attached copy of portion of TD1 dwg. 03-341-7319). Should be .007/.011. Remove crown.

.009
Record Gap

MATE #

FEDAL GAGE

Cal. Due Date

TE

Date

OQA

Date

William Smith 3/25/84
Bernardo 3/25/84

PISTON DISASSEMBLY/REASSEMBLY GUIDELINES

Piston No. 7

NOTE: This guideline provides piston disassembly/reassembly instructions following removal of the piston assembly from the engine.

A. DISASSEMBLY

1. Remove the four (4) crown to skirt nuts. Record breakaway torque on attached sheet.

B. REASSEMBLY

1. Verify the following inspections are complete and do not restrict reassembly.

Task description no. 03-341A

- a. Release received

Remarks LOK'S 2266 2215LOK'S 2266 2215 AUGUST 21, 1984

- b. Corrective action complete (N/A if not required).

2. Reassemble piston as follows.

- a. Place crown on skirt. Measure gap and at point "X". .001 inch only. See attached copy of position of "X" for .001 inch. .001 inch. Should be .007/.011. Remove crown.

.001 - .011, .002 - .011, .003 - .011, .004 - .009
Record Gap

.001 - .011
PIN

FIELD GAGE
NOTE:

Date

4/1/84
2/25/84

PISTON DISASSEMBLY/REASSEMBLY GUIDELINES

Piston No. 8

NOTE: This guideline provides piston disassembly/reassembly instructions following removal of the piston assembly from the engine.

A. DISASSEMBLY

1. Remove the four (4) crown to skirt nuts. Record breakaway torque on attached sheet.

B. REASSEMBLY

1. Verify the following inspections are complete and do not restrain reassembly.

Task description no. 03-341A

a. Release received

William Smith 3/25/84
TE Date

Remarks LDI'S 2266 & 2275

LDI'S 2266 & 2275 Accept As Is

b. Corrective action complete (N/A if not required).

William Smith 3/25/84
TE Date

2. Reassemble piston as follows.

- a. Place crown on skirt. Measure cold gap at point "X". (4 places only. See attached copy of portion of TDI dwg. 03-341-7319). Should be .007/.011. Remove crown.

1200 - .011, 0300 - .010, 0600 - .009, 0900 - .010
Record Gap

1200 = 1200 MIN

FAULTY 1.166E N/A
MATE # Cal. Due Date

William Smith 3/25/84
TE Date

Bennard 3/25/84
OQA Date

P-4-8

EDG 102

P-4-9

UNCONTROLLED
For Information OnlySHOREHAM 1
NUCLEAR POWER STATION
STARTUP FORM 7.6February 18, 1981
Revision 12

Shoreham Nuclear Station - Unit 1

REPAIR/REWORK REQUEST

1. Request: 144-1433 Initiated By: C. Fuller 2/6/84 System #: R43B
Test Engineer/Date

Work performed under jurisdiction of: () Unico Construction (X) LILCO Startup

Work to be performed by: () Unico Construction (X) LILCO Startup AT 2/6/84

Quality Assurance function to be performed by: (X) OQA () FQC () Work Supervisor

System or Subsystem Description: DIESEL GENERATOR 102QA Category: I Completion Date Required: 2/17/84Perform the following work: EMERGENCY DIESEL ENGINE 102 OUTAGE DISASSEMBLY
GUIDELINES FOR INSPECTION TASKSReason for Work: DIESEL GENERATOR QUALITY REVALUATION

2. Work to be performed in accordance with the following applicable construction or maintenance procedure: SUIT #5 AND ATTACHED GUIDELINES, SHI-89
TDI MANUAL (R43-12D)

3. Notify T. McCarthy 2/6/84 prior to performing work.
Startup Engineer

4. Request Approved: M. McCarthy 2/6/84 McPherson 2/6/84
Lead Startup Engineer / Date SCW Lead Advisory Eng./Date

5. This form must be signed and returned to the party requesting the work when the work is completed.

The above work has been completed. A work summary and necessary documentation is attached.

Al Pucka 3/2/84 McPherson 4/7/84
Supervisor/Date Field QC or Operational QA/Date

6. The following retest(s) are required and completed: EDG 102 RUN-IN
COMPLETED 2/11/84 8.7 R43-89

McPherson 4/7/84 McPherson 4/7/84
LILCO Operational QA Engineer/Date Startup Engineer/Date

DISTRIBUTION: Original to: Organization Performing Work: () Unico Construction
Superintendent (via Turnover Coordinator), or (X) LILCO
Startup.

Copies To: Organization Not Performing Work: () Unico Construction
Superintendent (via Turnover Coordinator), or (X) LILCO
Startup
Operational QA R. Purcell (X)
Field QC ISEG (X) S. H. (X) 3
OGAR (X)

NOTED APR 28 1984

RRR 1433

PISTON DISASSEMBLY/REASSEMBLY GUIDELINES

Piston No. 3

NOTE This guideline provides piston disassembly/reassembly instructions following removal of the piston assembly from the engine. Inspection requirements remain in steps VII, VIII and IX of the disassembly guidelines.

1. Remove the four (4) crown to skirt nuts. Record breakaway torque on attached sheet.
2. Perform piston, piston rings, and piston pins Inspection Task Guidelines. (Steps VII, VIII and IX).

DGQRC

Date

3. Reassemble piston as follows.

- a. Place crown on skirt. Measure cold gap at point "X" (4 places only. See attached copy of portion of IDI dwg. 03-341-1319). Should be .007/.011. Remove crown.

SEE BELOW
Record Gap

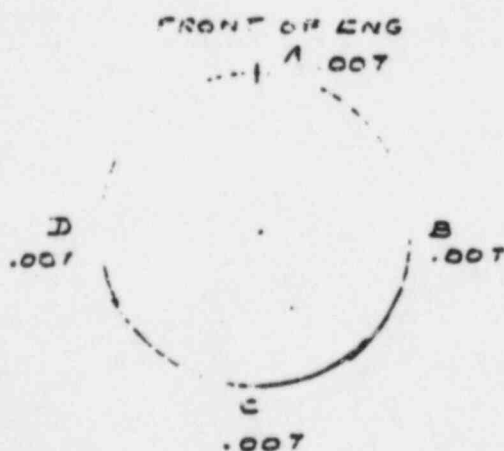
N/A 2-15-84 FEELER GUIDE
MATE 9 Cal. Due Date
MATE 1" MIKE 6-27-84
2-55-129

TE

Date

UQA

Date



PISTON DISASSEMBLY/REASSEMBLY GUIDELINES

Piston No. 6

NOTE: This guideline provides piston disassembly/reassembly instructions following removal of the piston assembly from the engine. Inspection requirements remain in steps VII, VIII and IX of the disassembly guidelines.

1. Remove the four (4) crown to skirt nuts. Record breakaway torque on attached sheet.
2. Perform piston, piston rings, and piston pins Inspection Task Guidelines. (Steps VII, VIII and IX).

DCRC

Date

3. Reassemble piston as follows.

- a. Place crown on skirt. Measure cold gap at point "X" (4 places only. See attached copy of portion of TDI dwg. 03-341-7319). Should be .007/.011. Remove crown.

SEE BELOW

Record Gap

FEELER GUAGE

MATE #

Cal. Due Date

1" MIKE

MATE # 2-53-129

CAL DUE 6-24-84

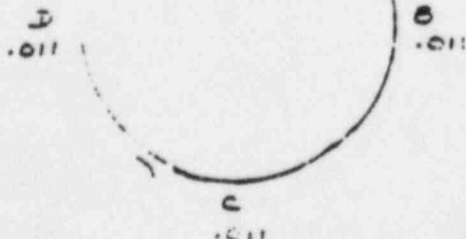
TE

OQA

2-16-84

FRONT OF ENG.

+ A .011



PISTON DISASSEMBLY/REASSEMBLY GUIDELINES

Piston No. 7

NOTE: This guideline provides piston disassembly/reassembly instructions following removal of the piston assembly from the engine. Inspection requirements remain in steps VII, VIII and IX of the disassembly guidelines.

1. Remove the four (4) crown to skirt nuts. Record breakaway torque on attached sheet.
2. Perform piston, piston rings and piston pins Inspection Task Guidelines. (Steps VII, VIII and IX).

DGQRC

Date

3. Reassemble piston as follows.

- a. Place crown on skirt. Measure cold gap at point "X" (4 places only. See attached copy of portion of TDI Eng. 03-341-7319). Should be .007/.011. Remove crown.

SEE BELOW
Record Gap

FEELER GUAGE
MATE # Cal. Due Date

1" MIKE

MATE # 2-53-129

CAL. DUE 6-29-84

TE

Date

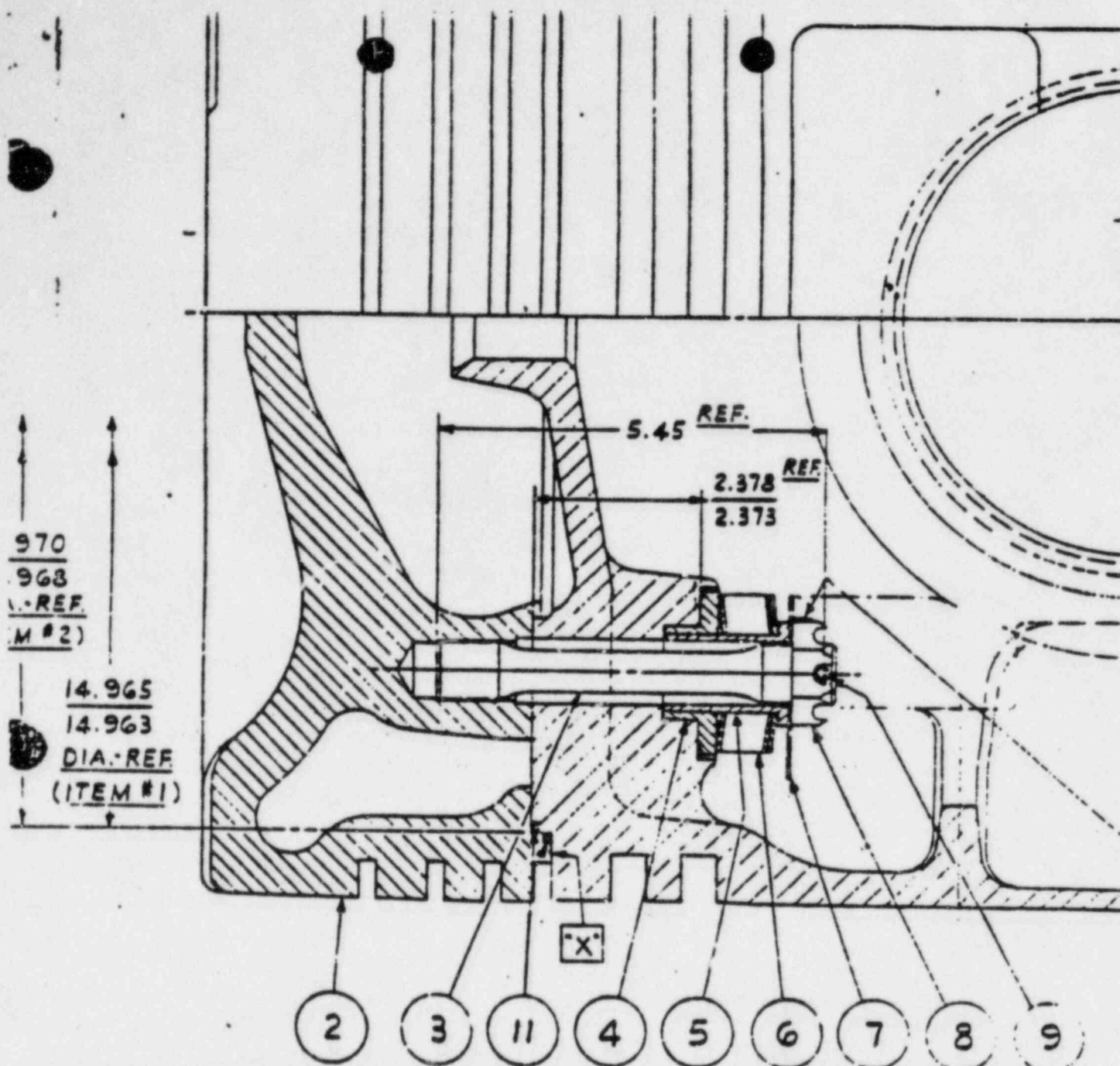
QA

Date

FRONT OF ENG.

1 A .008

D
.008B
.008C
.008



DO NOT SCALE DRAWING

Transamerica Delaval

Transamerica Delaval Inc.
Engine and Compressor Division
Oakland, California 94621

NOV 9 1983

PISTON ASSEMBLY-TWO FC.
(R/RV-4 ENGINES)

AND HARDNESS
M. ABOVE

APP *J. P. ...* OWN *J. P. ...*
SCALE 1/2

03-341-7319

7-4-15

EDG 103

WORTHAM 1
Nuclear Power Station
Startup Form 7.6

T.E.

February 18, 1981
Revision 12

UNCONTROLLED Wortham Nuclear Station - Unit 1
For Information Only

REPAIR/WORK REQUEST

1. Request: 242-1562 Initiated By: M. Tucker 2/2/84 System #: 1A73C
Test Engineer/Data

Work performed under jurisdiction of: () Unico Construction ☒ LILCO Startup

Work to be performed by: () Unico Construction ☒ LILCO Startup () Catalytic

Quality Assurance function to be performed by: ☒ QA () QC () Work Supervisor

System or Subsystem Description: EDG 103

AT 3/3/84

QA Category: I Completion Date Required: _____

Perform the following work: Emergency Diesel Generator 103 Outage
Disassembly for Inspection Test

Reason for Work: Diesel Generator Quality Reevaluation

2. Work to be performed in accordance with the following applicable construction or maintenance procedure: SAI-089 STEPS AND ATTACHED DOCUMENTS

3. Notify M. DeSautel 2/2/84 prior to performing work.
Startup Engineer

4. Request Approved: mmmmmm 3/2/84 William W. McIntyre 3/2/84
Lead Startup Engineer / Date SCW Lead Advisory Eng./Date

5. This form must be signed and returned to the party requesting the work when the work is completed.

The above work has been completed. A work summary and necessary documentation is attached.

CC Fuller 2/22/84
Supervisor/Date

AWA 5-2-84
Field QC or Operational QA/Date

6. The following retest(s) are required and completed: EDG 103 Re-test

@ 7/6

W. J. H. 5/2/84 Anthony McIntyre 4/25/84
LILCO Operational QA Engineer/Date Startup Engineer/Date

DISTRIBUTION: Original to: Organization Performing Work: () Unico Construction
Superintendent (via Turnover Coordinator), or () LILCO
Startup.

Copies To: Organization Not Performing Work: () Unico Construction
Superintendent (via Turnover Coordinator), or () LILCO
Startup
Operational QA
Field QC

NOTED MAY 4 1984

A10934

SHOREHAM 1 NUCLEAR POWER STATION

UNCONTROLLED
For Information Only

CD 103

September 4, 1979
REVISION 10

UP FORM 7.6

PAGE 2 R43 1562

REWORK SUPERVISOR WORK SUMMARY

BRIEF DESCRIPTION OF WORK: Took the following Cold Gap Readings at 4 places on Pistons #5, #7, #8, #9 step 2 for piston Assembly/Reassembly.
Guidelines:

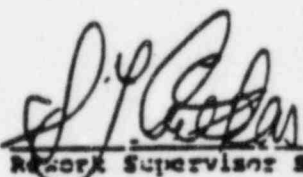
		Skirt placed on crown Guide pin being used looking into piston roots area			
		200	300	600	900
Piston #5		.009	.009	.009	.009
#7		.009	.009	.008	.008
#8		.010	.009	.009	.009

COMPONENTS REPLACED (IF APPLICABLE):

009 - P. Kaplan 3/17/84
Step 2.3 crown and skirt pilot readings recording
T.O. and A.D. respectively and documented

5.1. CALIBRATED TOOLS UTILIZED:

ADDITIONAL COMMENTS:

 3/17/84
Rework Supervisor Signature/Date

A11014

PISTON DISASSEMBLY/REASSEMBLY GUIDELINES

Piston No. 5

NOTE: This guideline provides piston disassembly/reassembly instructions following removal of the piston assembly from the engine.

A. DISASSEMBLY

1. Remove the four (4) crown to skirt nuts. Record breakaway torque on attached sheet.

B. REASSEMBLY

1. Verify the following inspections are complete and do not restrain reassembly.

Task description no. 03-341A

- a. Release received

ALP HUSON 3/15/04
TE Date

Remarks LAR 2198 outstanding - substantiated acceptable 3/15/04

- b. Corrective action complete (N/A if not required).

N/A
TE Date

2. Reassemble piston as follows.

- a. Place crown on skirt. Measure cold gap at point "X". (4 places only. See attached copy of portion of TDI dwg. 03-341-7319). Should be .007/.011. Remove crown.

see attached summary sheet

Record Gap

Feeler Gauge used

NOTE #

Cal. Due Date

TE

ALP HUSON 3/15/04
Date

OQA

Date

P-4-19

243-1862

PISTON DISASSEMBLY/REASSEMBLY GUIDELINES

Piston No. 7

NOTE: This guideline provides piston disassembly/reassembly instructions following removal of the piston assembly from the engine.

A. DISASSEMBLY

1. Remove the four (4) crown to skirt nuts. Record breakaway torque on attached sheet.

B. REASSEMBLY

1. Verify the following inspections are complete and do not restrain reassembly.

Task description no. 03-341A

a. Release received

Alphus 3/15/04
TE Date

Remarks LOK 2198 outstanding - inspection acceptable
as-is on 3/15/04

- b. Corrective action complete (N/A if not required).

N/A
TE Date

2. Reassemble piston as follows.

- a. Place crown on skirt. Measure cold gap at point "X". (4 places only. See attached copy of portion of TDI dwg. 03-341-7319). Should be .007/.011. Remove crown.

See Attached work summary sheet
Record Gap

Feeler Gage used
M&TE # Cal. Due Date

Def. Gibson 3/17/04
TE Date
Ben. Gibson 3/21/04
OQA Date

P-4-20

K45-1562

PISTON DISASSEMBLY/REASSEMBLY GUIDELINES

Piston No. 8

NOTE: This guideline provides piston disassembly/reassembly instructions following removal of the piston assembly from the engine.

A. DISASSEMBLY

1. Remove the four (4) crown to skirt nuts. Record breakaway torque on attached sheet.

B. REASSEMBLY

1. Verify the following inspections are complete and do not restrain reassembly.

Task description no. 03-341A

a. Release received

ALL WORK 3/15/64
TE _____ Date

Remarks LOR 2198 outstanding - duplicate sent to file
and on 3/15/64

b. Corrective action complete (N/A if not required).

N/A
TE _____ Date

2. Reassemble piston as follows.

- a. Place crown on skirt. Measure cold gap at point "X". (4 places only. See attached copy of portion of TDI dwg. 03-341-7319). Should be .007/.011. Remove crown.

See Attached Disk Summary sheet
Record Gap

Feeler Gage used
M&TE _____ Cal. Due Date

J. J. [Signature] 3/17/64
TE _____ Date
Paul [Signature] 3/17/64
OQA _____ Date

FOREHAM I
NUCLEAR POWER STATION
STARTUP FORM 7.6

C 304 103

September 4, 1979
REVISION 1.0

PAGE 2 R43 1562

REPORT SUPERVISOR WORK SUMMARY

BRIEF DESCRIPTION OF WORK: Took the following Cold Gap Readings at 4 places on Pistons #5, #7, #8 step 2 for piston Disassembly/Reassembly Guidelines:

	Gasket placed on crown Guide pins being used looking into piston subs from			
	1200	300	600	900
Piston #5	.009	.009	.009	.009
#7	.009	.009	.008	.008
#8	.010	.009	.009	.009

INFORMATION REPLACED (IF APPLICABLE):

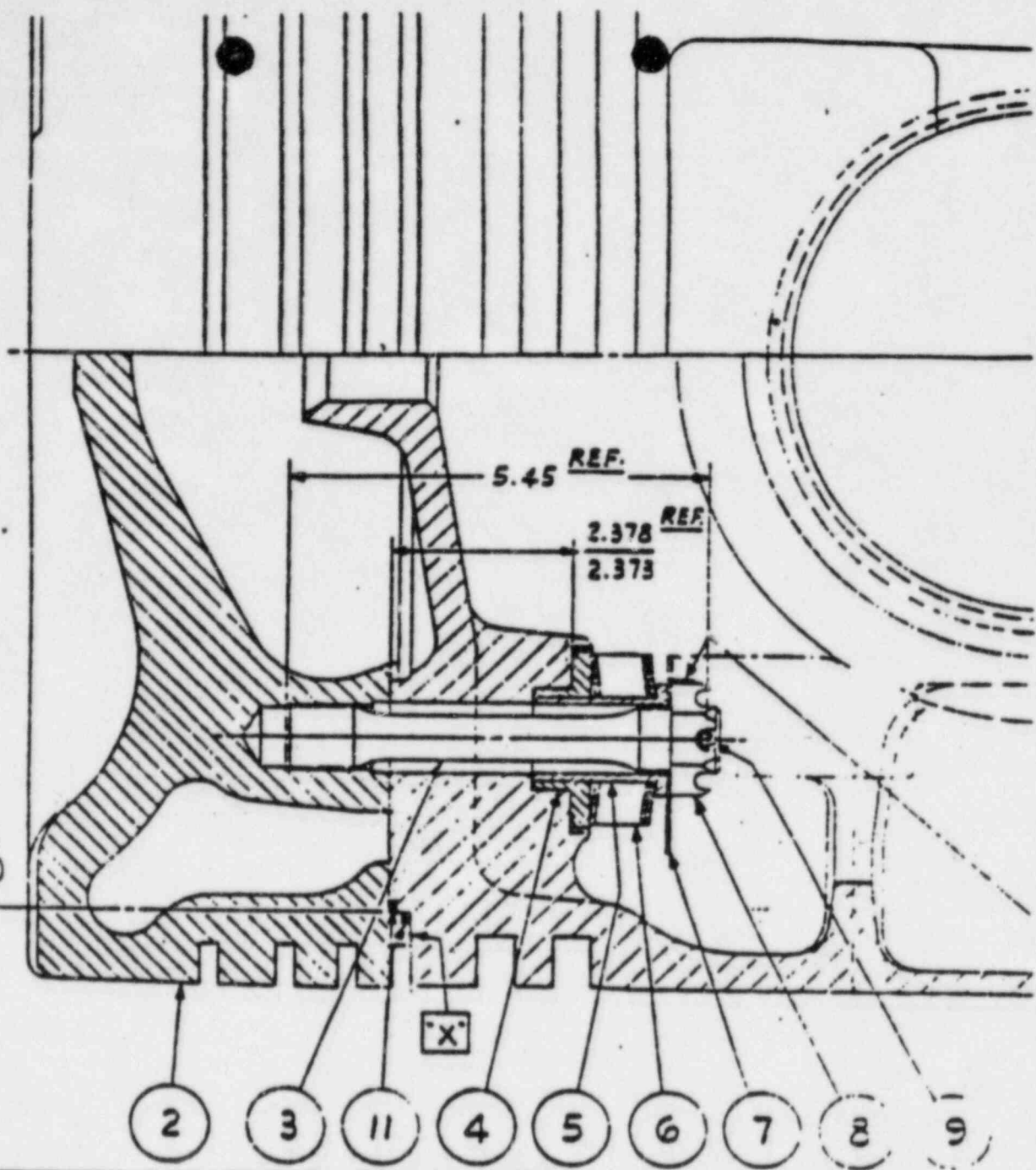
Step 2 B crown and skirt slot readings. Temperature
I.D. and O.D. respectively and documented

2. CALIBRATED TOOLS UTILIZED:ADDITIONAL COMMENTS:

[Signature] 3/17/74
Report Supervisor Signature/Date

370
368
-REF
(#2)

14.965
14.963
DIA-REF
(ITEM #1)



DO NOT SCALE DRAWING.

Transamerica
Delaval

Transamerica Delaval Inc.
Engine and Compressor Division
Oakland, California 94621

NOV 9 1983

PISTON ASSEMBLY-TWO PC.
(F/RV-4 ENGINES)

AND HARDNESS
1. ABOVE

APP J R	OWN
SCALE 1/2	CNC

03-341-7319