



EDG 101

8412140471 840910
PDR ADOCK 05000322
G PDR



LIQUID PENETRANT EXAMINATION REPORT

AF PISTONS

A. MATERIAL		TYPE <u>CS</u>	FABRICATED PROCESS: <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED	
CROSS SECTION THICKNESS		MAX — INCH	MIN — INCH	SURFACE CONDITION: <input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER

4. NDE PROCEDURE <u>6.1 + 6.2</u>	TEMP. / MAT'L. <u>TEMP. 73°F</u>	<u>367</u>	<u>Supp-1</u>
INSPECTION MATERIALS		DESIGNATION	BATCH NO.

1. PRE-CLEANER	<u>Magnaflux</u>	<u>SKC-NF/2C-7B</u>	<u>82D119</u>
2. PENETRANT		<u>SKL-HF/SK13</u>	<u>7D073</u>
3. EMULSIFIER AND/OR REMOVER		<u>SKC-NF/2C-7B</u>	<u>82D119</u>
4. DEVELOPER		<u>SKD-NF/2P-7B</u>	<u>83C042</u>
5. POST EXAMINATION CLEANER	<input checked="" type="checkbox"/>	<u>SKC-NF/2C-7B</u>	<u>82D119</u>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
 Examined machined area on 101 Diesel
Piston-SPARE

C. EVALUATION REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
1	<u>N/A</u>	<u>None</u>	<u>Accept (No relevant inds)</u>
2			
3			
4			

D. ACCEPTANCE CRITERIA	<u>Lilco NDE 6.2</u> <u>Para 4.2.2</u>	<u>E. Hassell / Asst. J. Pink</u> <u>11/4/83</u>
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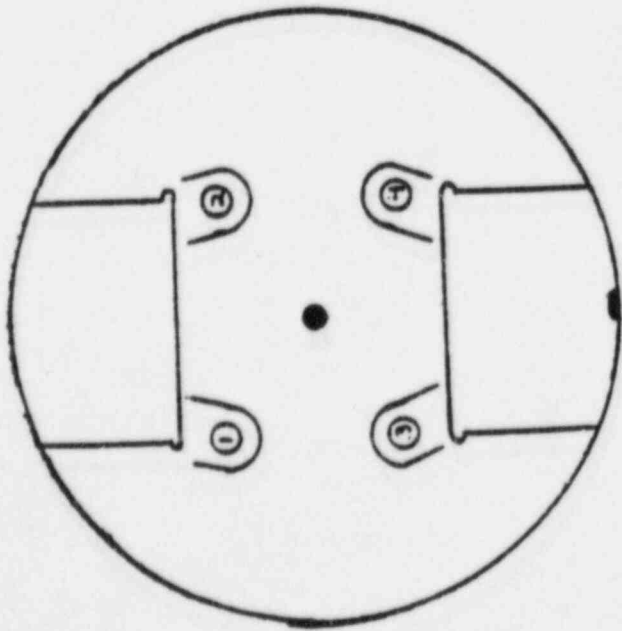
E. ATTEST	<u>Carl Hassell</u> RESPONSIBLE CERTIFIED PERSONNEL	<u>II</u> LEVEL	<u>11/4/83</u> DATE
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COMPONENT I.D. 101 Diesel
 SYSTEM
 PLANT/LOCATION
 Piston Skirt # SPARE 1R43* Emory Piston Gen
 SPS. / Tech Desk

LIQUID PENETRANT EXAMINATION REPORT

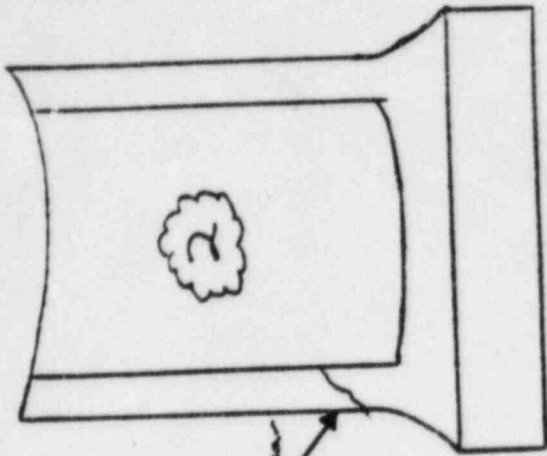
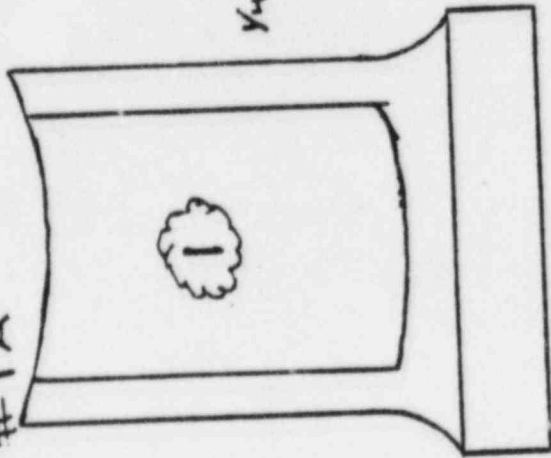
A. MATERIAL		TYPE C/S	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED	COMPONENT I.D. 101 Diesel Piston Skirt #1A
CROSS SECTION THICKNESS	MAX — INCH	MIN — INCH	GEOMETRY <input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD <input type="checkbox"/> OTHER: Piston Skirt	
B. NDE PROCEDURE No. 6.1 + 6.3		TEMP. 73°F	367 Due 4-22-84	SYSTEM 1R438 Emergency Diesel Case
INSPECTION MATERIALS		BRAND	DESIGNATION	
1. PRE-CLEANER			BATCH NO.	
2. PENETRANT	magnaflux	SKC-NF/2C-7B	82D119	
3. EMULSIFIER AND/OR REMOVER		SKL-NF/SKLS	7D073	
4. DEVELOPER		SKC-NF/2C-7B	82D119	
5. POST EXAMINATION CLEANER		SKD-NF/2P-9B	83C042	
SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY		Examined machined area on c. 4 101 Diesel around boss. Piston 1A		
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.		
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)	PLANT/LOCATION SNPS-1/Turbine Deck
Bolt Hole 1 See Sketch	N/A	None	Accept	
2	1/4" C.N.	linear	Reject (LDR Issued)	
3	N/A	None	Accept	
4	5/32	linear	Reject (LDR Issued)	
D. ACCEPTANCE CRITERIA	Like NDE 62 Para 4.2.2			ASST by J. P. O'S 11/4/73
E. ATTEST	Carl Hassell		II	11/4/73
	RESponsible Certified Personnel		LEVEL	DATE

Diesel #101 Piston #1A

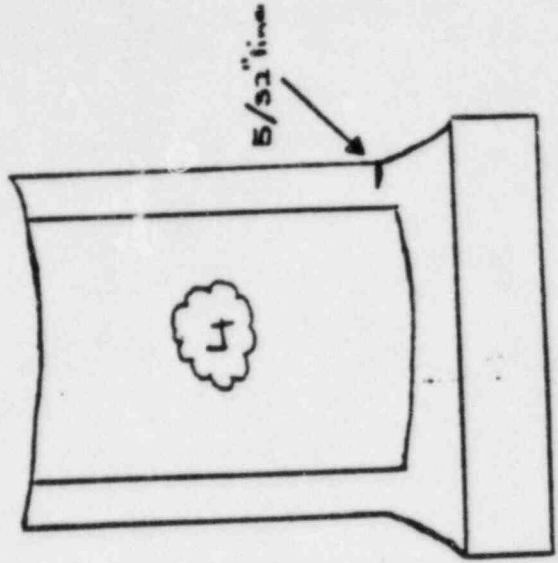
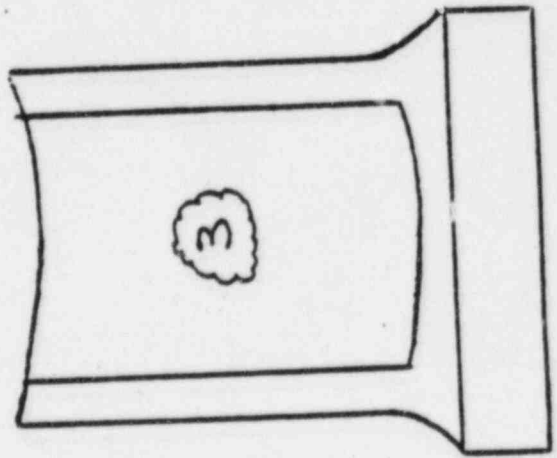


Notch Side

Overhead View



Side Views, looking out from inside



LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL	TYPE	FABRICATED PROCESS	
	GEOMETRY	<input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD <input checked="" type="checkbox"/> OTHER: <u>Piston</u>	<input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED
CROSS SECTION THICKNESS	MAX INCH	MIN INCH	SURFACE CONDITION
			<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER

B. I.D. PROCEDURE	SURF. / MAT'L.	TEMP.	DATE	VER./NO.
Inv. <u>61262</u>		<u>73°F</u>	<u>Dec 4-22-84</u>	<u>0.243-1153</u>

INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<u>Magnaflex</u>	<u>SKC-NF/3C-7B</u>	<u>82D119</u>
2. PENETRANT		<u>SKL-NF/SK19</u>	<u>7D073</u>
3. EMULSIFIER AND/OR REMOVER		<u>SKC-NF/3C-7B</u>	<u>82D119</u>
4. DEVELOPER		<u>SKD-NF/3P-9B</u>	<u>83C042</u>
5. POST EXAMINATION CLEANER		<u>SKC-NF/3C-7B</u>	<u>82D119</u>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
 Examined machined area on P.H. 101 Diesel
Piston-2A

C. EVALUATION
 REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

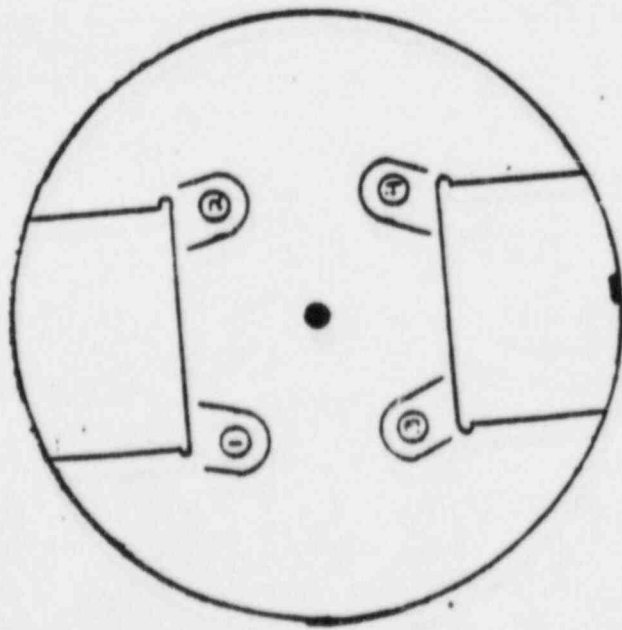
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<u>Bolt Hole</u> <u>1 See sketch</u>	<u>1/4</u>	<u>linear</u>	<u>Reject (LDR Issued)</u>
<u>2</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>
<u>3</u>	<u>1/8 3/16</u>	<u>linear</u>	<u>Reject (LDR Issued)</u>
<u>4</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>

D. ACCEPTANCE CRITERIA	<u>ASME NDE G2 Part 4.3.2</u> <u>II</u>	<u>E. Hassell / Sgt. J. Pink</u> <u>11/4/83</u>
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E. ATTEST	<u>Carl Hassell</u> RESPONSIBLE CERTIFIED PERSONNEL	<u>II</u> LEVEL	<u>11/4/83</u> DATE
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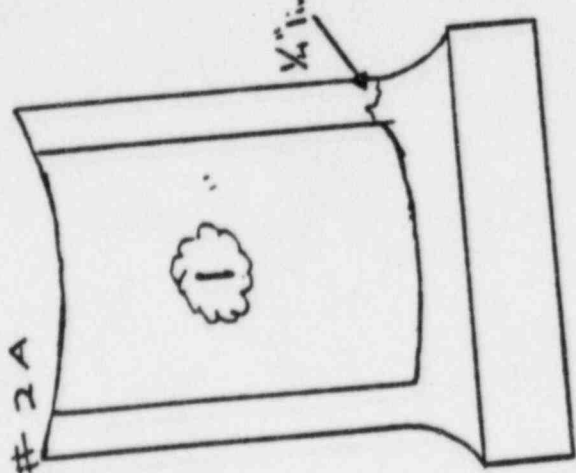
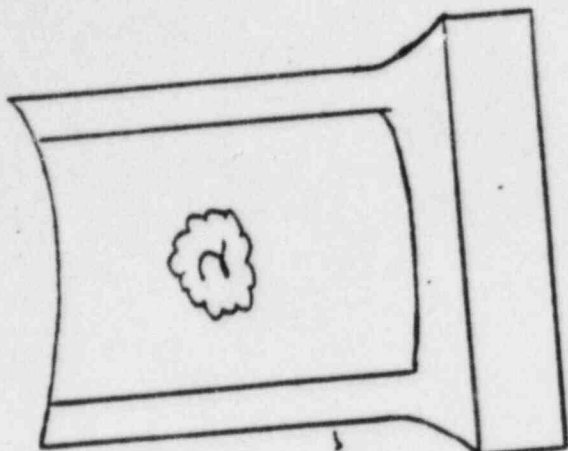
COMPONENT I.D. 101 Diesel
 SYSTEM
 101 Diesel
 SNPS-1/Turbine Deck
 Piston Skirt #2A
 101 Diesel
 101 Diesel

Diesel #101 Piston # 2A

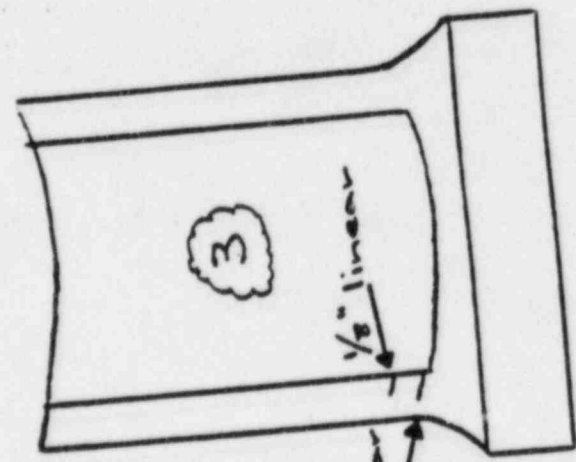
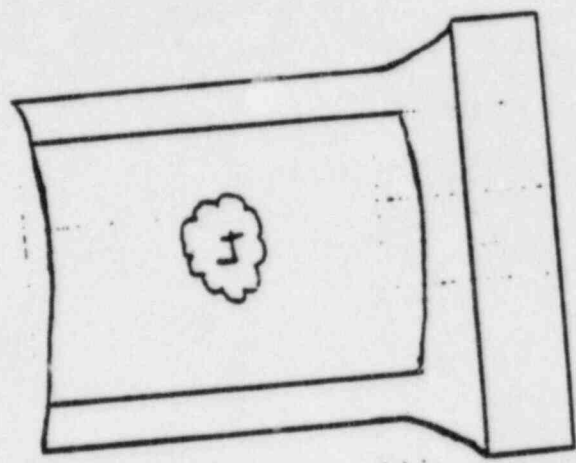


Notch Side

Overhead View



Side Views, looking out from inside



1/11/10

LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <u>C/S</u>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED
CROSS SECTION THICKNESS		MAX INCH	MIN INCH
		SURFACE CONDITION <input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER	

B. LPI PROCEDURE No. <u>51463</u>	TEMP. <u>73°F</u>	DATE <u>4-22-84</u>	TIME <u>3:07</u>
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INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<u>Magnaflox</u>	<u>SKC-NF/ZC-73</u>	<u>82D119</u>
2. PENETRANT		<u>SKL-HF/SKL3</u>	<u>7D073</u>
3. EMULSIFIER AND/OR REMOVER		<u>SKC-NF/ZC-73</u>	<u>82D119</u>
4. DEVELOPER		<u>SKD-NF/EP-98</u>	<u>83C042</u>
5. POST EXAMINATION CLEANER		<u>SKC-NF/ZC-73</u>	<u>82D119</u>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
 Examined machined area on 5th boss. 101 Diesel
Piston-3A

C. EVALUATION
 REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

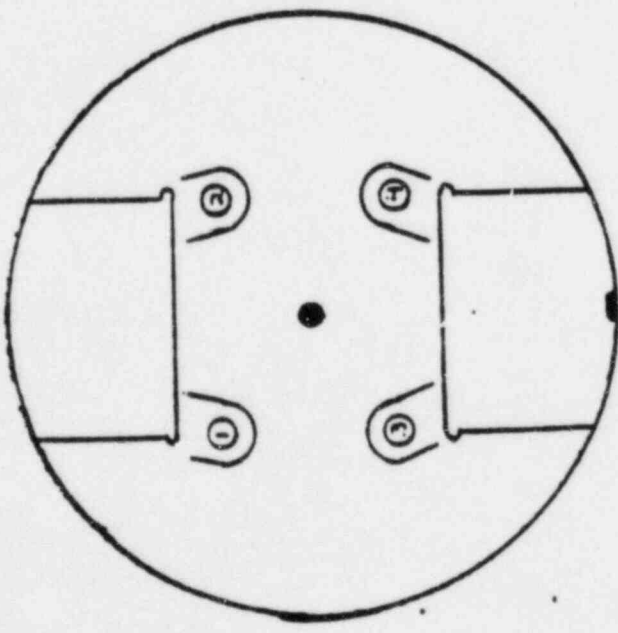
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
1 Bolt Hole <u>See Sketch</u>	<u>N/A</u>	<u>N/A</u>	<u>Accept</u>
2	<u>3/16</u>	<u>linear</u>	<u>Reject (LDR Issued)</u>
3	<u>N/A</u>	<u>N/A</u>	<u>Accept</u>
4	<u>N/A</u>	<u>N/A</u>	<u>Accept</u>

D. COMPLIANCE	Standard <u>Lilco NDEG 28m422</u>	Inspector <u>E. Hassel / Asst. J.P. Pink</u>
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E. ATTEST	<u>E. Hassel</u>	LEVEL <u>II</u>	DATE <u>11/4/83</u>
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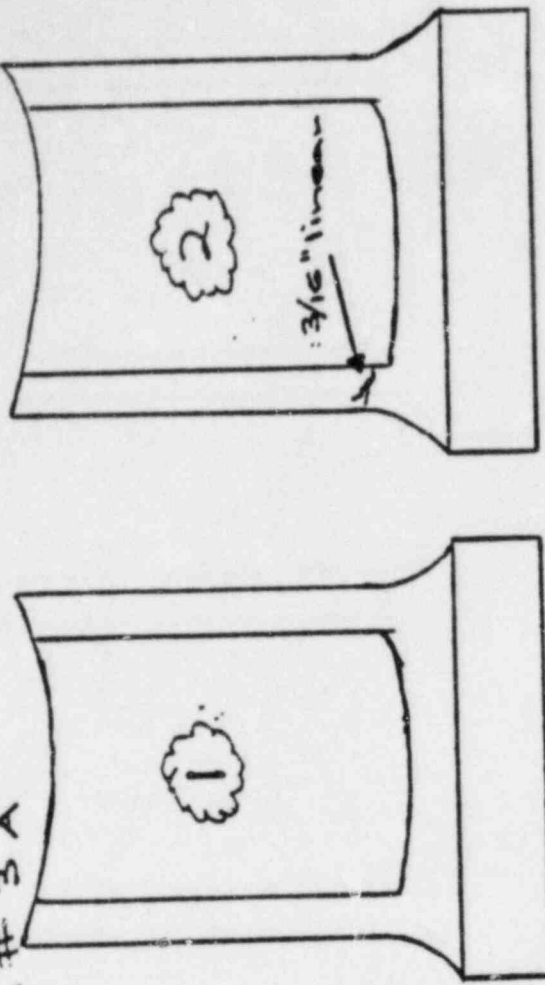
COMPONENT I.D. 101 Diesel
 SYSTEM
 101 Diesel
 Piston Skirt #3A
 5NPS-1/Turbine Deck

Diesel #101 Piston # 3A

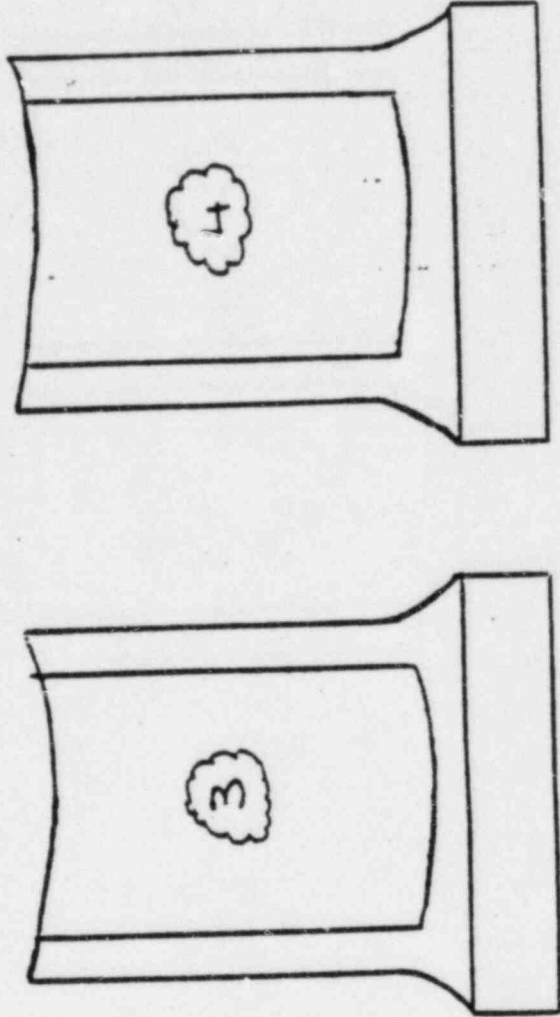


Match Side

Overhead View



Side Views, looking out from inside





LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <i>C/S</i>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED	
CROSS SECTION THICKNESS	MAX INCH	MIN INCH	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER

3. ID# PROCLAME No. *61+63* TEMP. *73°F* Due: *4/22/74* No. *243-1142*

INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<i>Magnaflux</i>	<i>SKG-NF/2CMB</i>	<i>83D119</i>
2. PENETRANT		<i>SKL-HE/SKLS</i>	<i>7D073</i>
3. EMULSIFIER AND/OR REMOVER		<i>SKG-NF/2C-7B</i>	<i>83D119</i>
4. DEVELOPER		<i>SKD-NF/2P9B</i>	<i>83C042</i>
5. POST EXAMINATION CLEANER		<i>SKG-NF/2C-7B</i>	<i>83D119</i>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
Examined machined area on 101 Diesel Piston-4A

C. EVALUATION REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<i>Bolt Hole</i>	<i>(2) (2)</i>		
<i>1. See sketch</i>	<i>1/6 1/4 1/4</i>	<i>linear</i>	<i>Reject (LDR Issued)</i>
<i>2</i>	<i>1/8</i>		
<i>3</i>	<i>3/16 7/16</i>		
<i>4</i>	<i>1/4</i>		

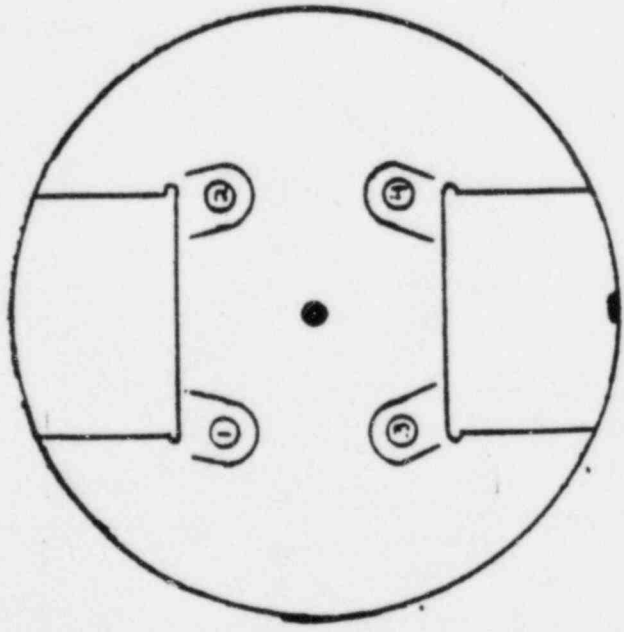
4. ACCEPTANCE CRITERIA *Lilco NDE 6.2 Pa-4.2.2* *E. Hassell / Ant. J. Pink* *II* *11/4/73*

E. ATTEST *Carl Hassell* RESPONSIBLE C. *II* LEVEL *11/4/73* DATE

COMPONENT I.D. 101 Diesel
 Piston Skirt #4A
 SYSTEM
 1R43 Emerg Piston Case
 SVPS-1/Turbine Pack
 PLANT/LOCATION

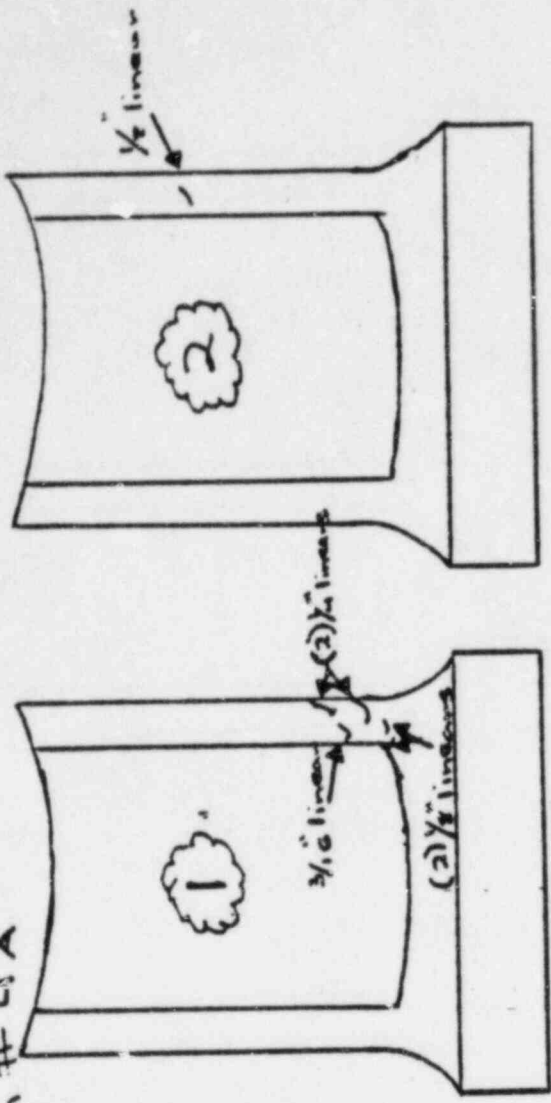
Diesel #101 Piston #4A

16, 1941

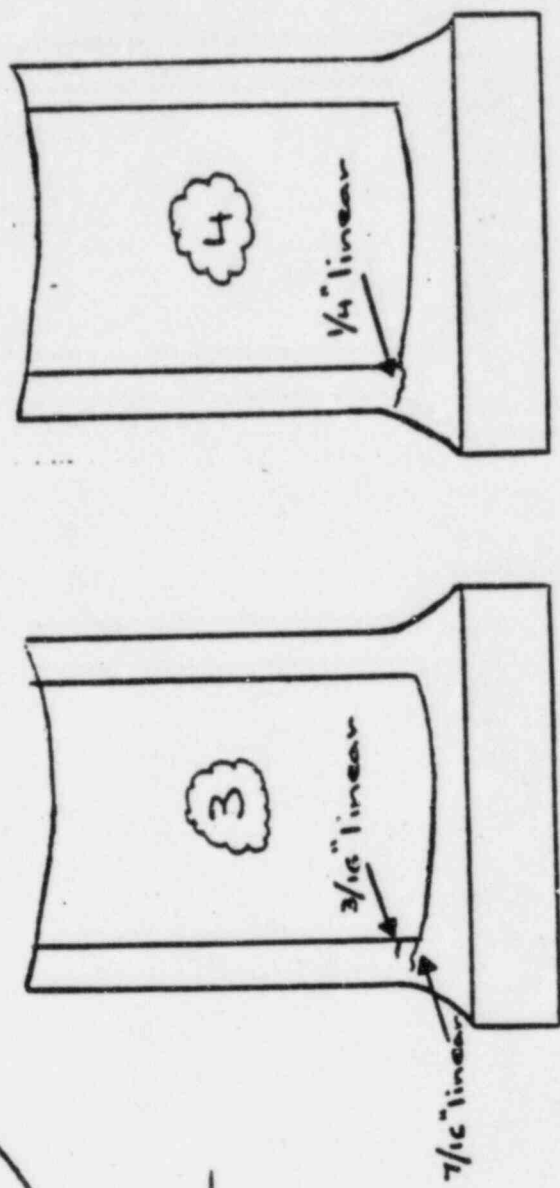


Notch Side

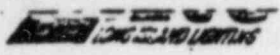
Overhead View



Side Views, looking out from inside



$7/16$ linear



LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <u>C/S</u>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED	
CROSS SECTION THICKNESS	MAX INCH	MIN INCH	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER
GEOMETRY		<input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD	<input checked="" type="checkbox"/> OTHER: <u>Piston</u>	

B. NDE PROCEDURE NO. <u>61062</u>	SURFACE / MAT'L. TEMP. <u>73°F</u>	DATE <u>4/22/74</u>	WORKING NO. <u>R43-042</u>
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INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<u>Magnaflux</u>	<u>SKC-NE/2C-7B</u>	<u>72D119</u>
2. PENETRANT		<u>SKL-HE/SKLS</u>	<u>7D073</u>
3. EMULSIFIER AND/OR REMOVER		<u>SKC-NE/2C-7B</u>	<u>82D119</u>
4. DEVELOPER		<u>SKD-NE/2P-9B</u>	<u>83C042</u>
5. POST EXAMINATION CLEANER		<u>SKC-NE/2C-7B</u>	<u>83D119</u>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
Examined machined area on C.M. 101 Diesel Piston-5A

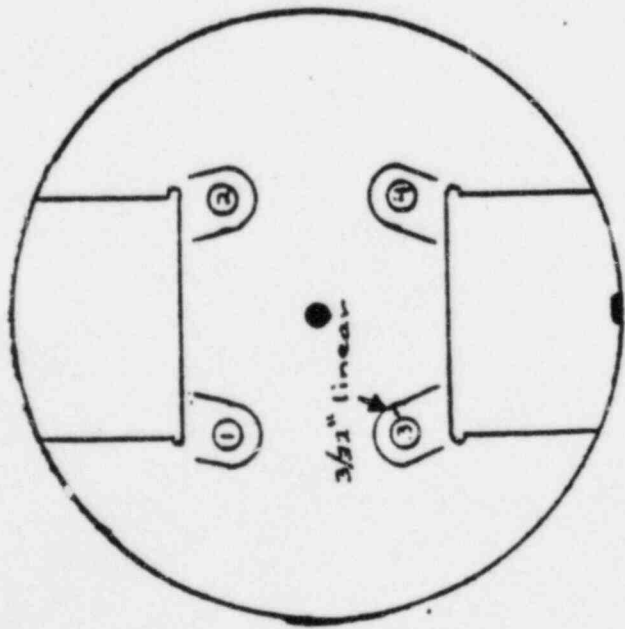
C. EVALUATION	REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.
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LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
1 <u>Bolt Hole</u> <u>See sketch</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>
2	<u>5/16</u>	<u>Linear</u>	<u>Reject (LDR Issued)</u>
3	<u>N/A</u>	<u>None</u>	<u>Accept</u>
4	<u>N/A</u>	<u>None</u>	<u>Accept</u>
D. AUTHORITY	Lilco NDE 6.2 Para 4.2.2		<u>E. Hassell / Asst. J. Pink</u> <u>11/4/73</u>

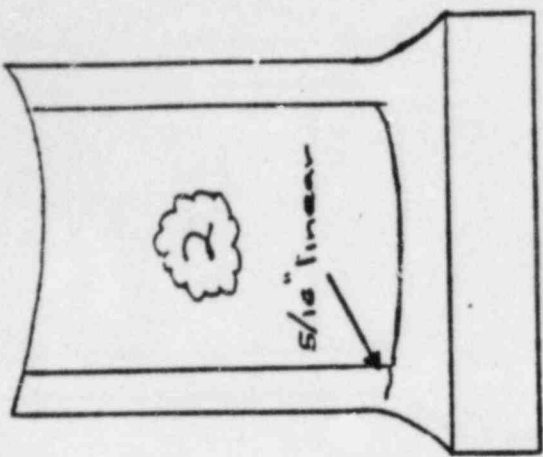
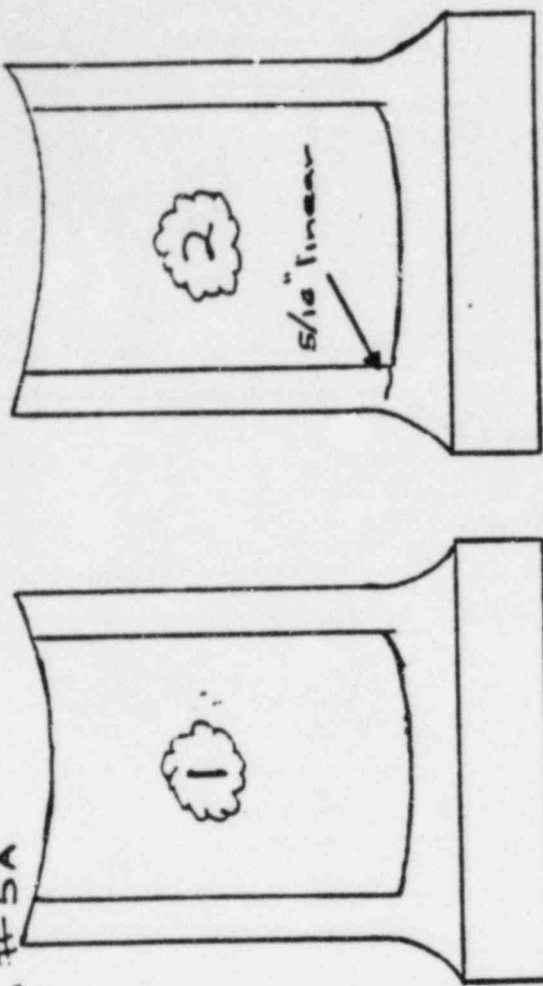
E. ATTEST	<u>Carl Hassell</u>	<u>II</u>	<u>11/4/82</u>
	RESPONSIBLE CERTIFIED PERSONNEL	LEVEL	DATE

P-33-11
 COMPONENT I.D. 101 Diesel
 SYSTEM
 IR43 + Emerg. Diesel Gen
 SWPS-1 Turb. Deck
 PLANT/LOCATION

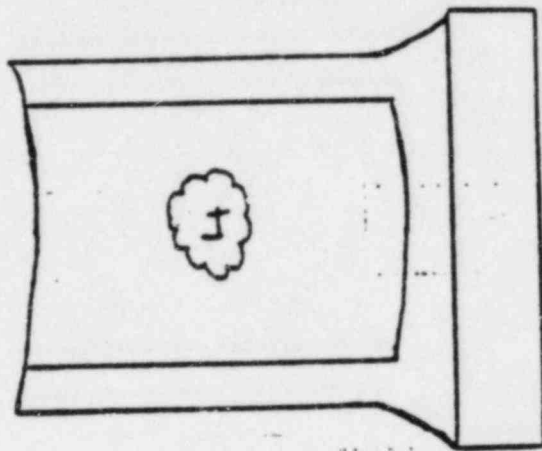
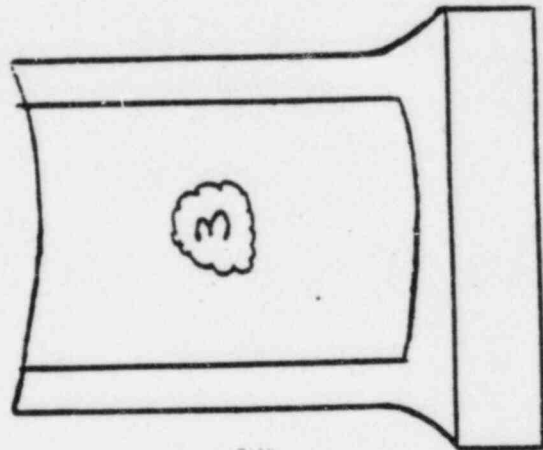
Diesel #101 Piston #5A



Overhead View



Side Views, looking out from inside





LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <u>C/S</u>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED
CROSS SECTION THICKNESS	MAX INCH	MIN INCH	SURFACE CONDITION <input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER
GEOMETRY		<input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD	<input checked="" type="checkbox"/> OTHER <u>Piston Skirt</u>

B. EDE PROCEDURE No. <u>6.1 + 6.2</u>	TEMP. <u>73°F</u>	DATE <u>4/22/74</u>	NO. <u>243-1142</u>
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INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<u>Magnaflux</u>	<u>SKC-NF/3C7B</u>	<u>82D119</u>
2. PENETRANT		<u>SKL-HF/SKLS</u>	<u>7D073</u>
3. EMULSIFIER AND/OR REMOVER		<u>SKC-NF/3C7B</u>	<u>82D119</u>
4. DEVELOPER		<u>SKD-NF/EP-4B</u>	<u>83C042</u>
5. POST EXAMINATION CLEANER		<u>SKC-NF/3C7B</u>	<u>82D119</u>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
 Examined machined area on C.4 around boss. 101 Diesel
Piston-GA

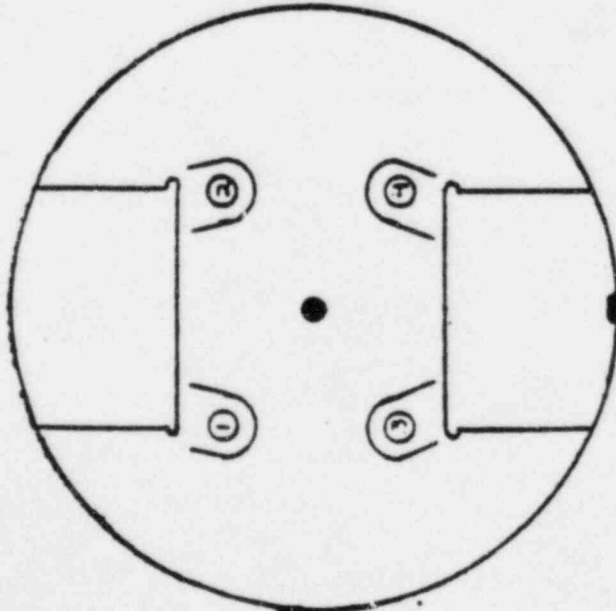
C. EVALUATION REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<u>Bolt Hole</u> <u>See Sketch</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>
<u>2</u>	<u>2 1/2, 1/2</u>	<u>Linear</u>	<u>Reject (LDR Issued)</u>
<u>3</u>	<u>1/2</u>		
<u>4</u>	<u>5/16 1/4</u>		
D. ACCEPTANCE CRITERIA	<u>Lilco NDE 6.2 Para 4.2.2</u>		<u>E. Hassell / Asst. J. Pink</u> <u>II 11/4/83</u>

E. ATTEST	<u>E. Hassell</u>	<u>II</u>	<u>11/4/83</u>
RESPONSIBLE CO:	ED PERSONNEL	LEVEL	DATE

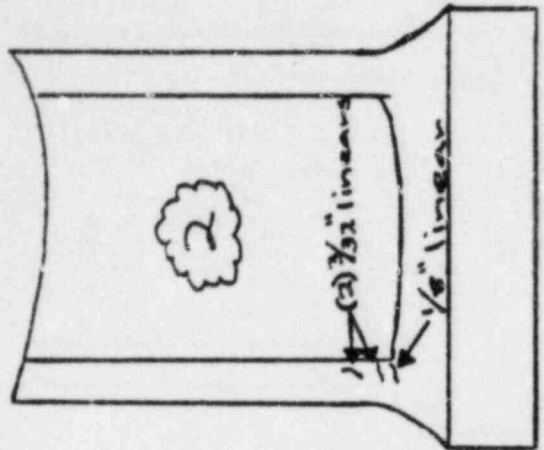
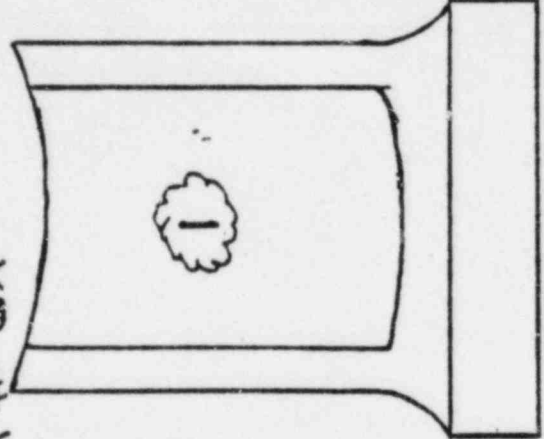
COMPONENT I.D. 101 Diesel
 SYSTEM 1R434 Emerg Dies Gen
 PLANT/LOCATION SVPS-1 Turb Peck.

Diesel #101 Piston # GA

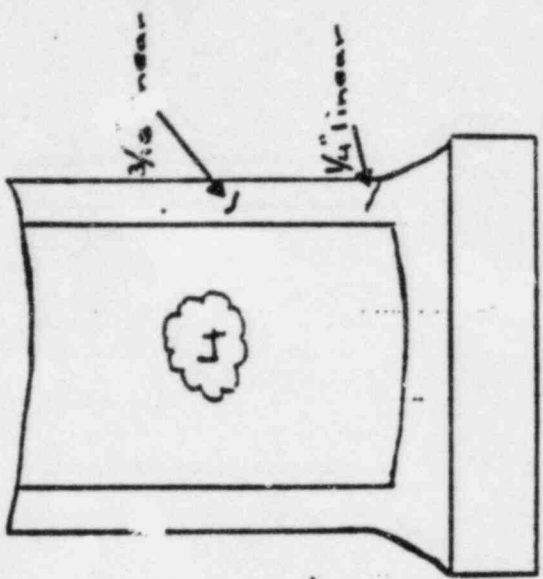
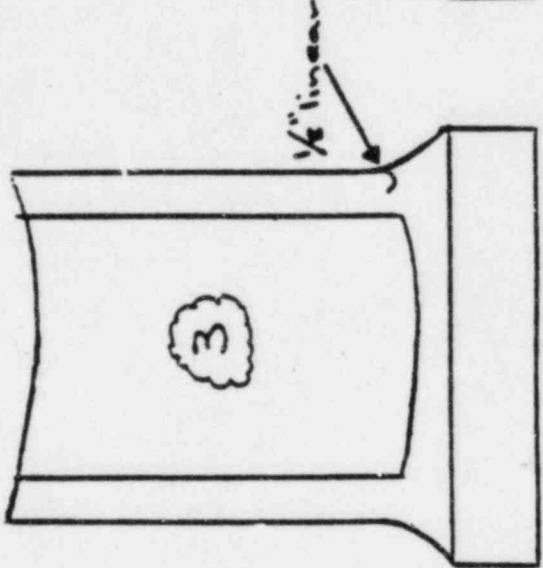


Notch Side

Overhead View



Side Views, looking out from inside





LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <i>C/S</i>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED	
CROSS SECTION THICKNESS	MAX INCH	MIN INCH	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER

B. SIDE PROCEDURE No. <i>6.1 + 6.2</i>	TEMP. <i>73°F</i>	DATE <i>Dec 4/22/74</i>	NO. <i>843-1142</i>
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INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<i>Magnaflux</i>	<i>SKC-NE/3C-7B</i>	<i>82D119</i>
2. PENETRANT		<i>SKL-NE/SKLS</i>	<i>7D073</i>
3. EMULSIFIER AND/OR REMOVER		<i>SKC-NE/3C-7B</i>	<i>82D119</i>
4. DEVELOPER		<i>SKD-NE/2P-9B</i>	<i>83C042</i>
5. POST EXAMINATION CLEANER		<i>SKC-NE/3C-7B</i>	<i>82D119</i>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
Examined machined area around boss. Piston - 7A

C. EVALUATION
 REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<i>Bolt Hole</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>1 sketch</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>2</i>	<i>1/16 5/32</i>	<i>Linear</i>	<i>Reject (LDR Issued)</i>
<i>3</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>4</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>

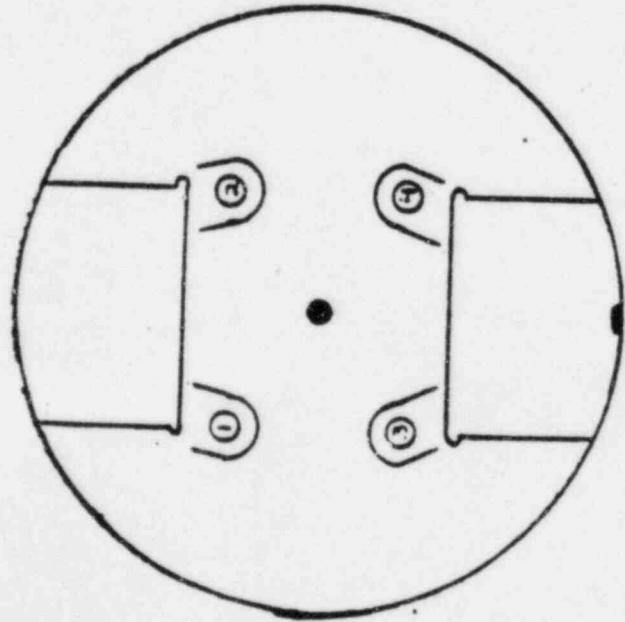
D. ACCEPTANCE CRITERIA	<i>Lilco NDEC.2</i> <i>Para 4.24</i>	<i>E. Hassell / Asst. J. Pink</i> <i>II</i>
------------------------	---	--

E. ATTEST	<i>E. Hassell</i>	<i>II</i>	<i>11/4/83</i>
RESPONSIBLE PERSONNEL	LEVEL	DATE	

COMPONENT I.D. 101 Diesel
 Piston Skirt # 7A
 SYSTEM
 IR43+Emerg Dies. Gen.
 PLANT/LOCATION
 SUTS-1 Turb Trck

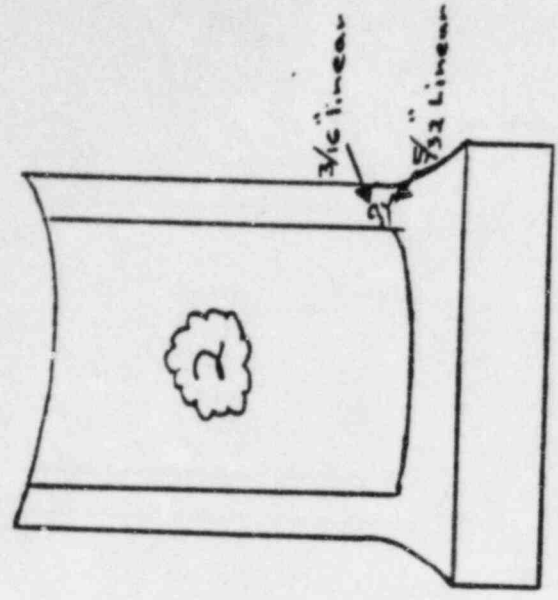
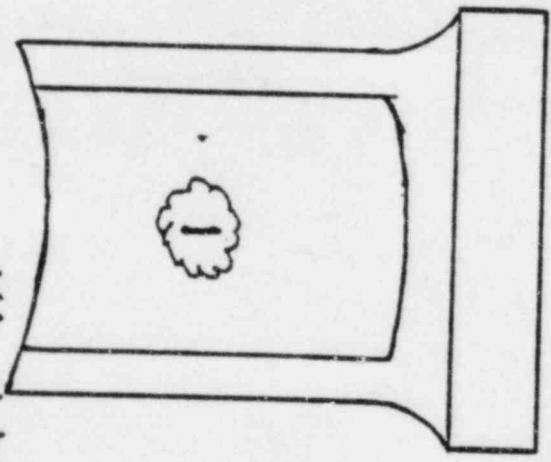
Diesel #101 Piston #7A

36,000:1

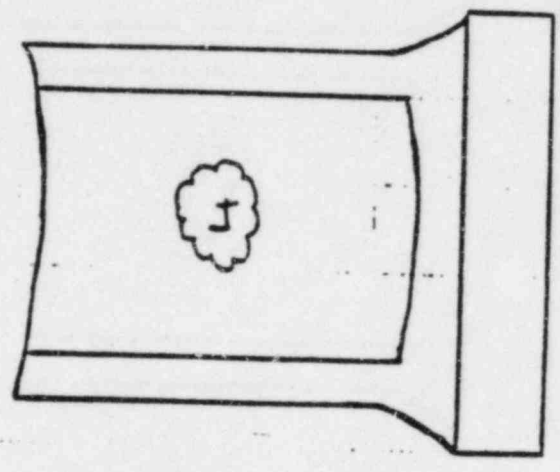
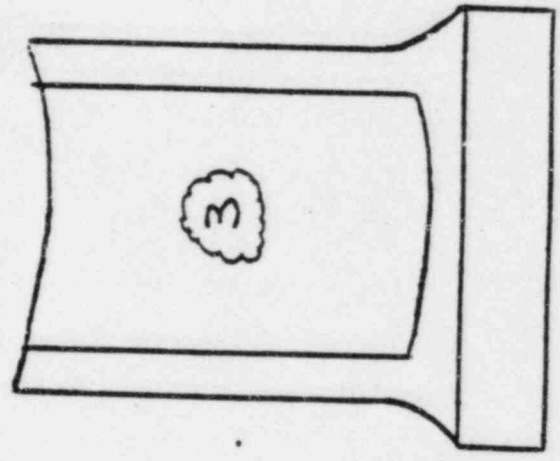


Notch Side

Overhead View



Side Views, looking out from inside



JMA

LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <u>C/S</u>	FABRICATED PROCESSES
			<input type="checkbox"/> FUELLED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED
		GEOMETRY	<input type="checkbox"/> PIPE <input type="checkbox"/> FLANGE <input type="checkbox"/> ROD <input checked="" type="checkbox"/> OTHER: <u>PISTON SKIRT</u>
CROSS SECTION THICKNESS	MAX <u>2" INCH</u>	MIN <u>2" INCH</u>	SURFACE CONDITION
			<input type="checkbox"/> MACHINED <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER

<u>6.2</u>	TEMP. <u>720</u>	MATE # <u>367</u>	SUFF # <u>1</u>
		<u>QC 4/22/84</u>	<u>R43-1142</u>

INSPECTION MATERIALS	BRAND	IDENTIFICATION	BATCH NO.
1. PRE-CLEANER	<u>MAGNAFLUX</u>	<u>SKC-NF/ZC-7B</u>	<u>900119</u>
2. PENETRANT	"	<u>SKL-HF/SKLS</u>	<u>71073</u>
3. EMULSIFIER AND/OR REMOVER	"	<u>SKC-NF/ZC-7B</u>	<u>820119</u>
4. DEVELOPER	"	<u>SKP-NF/ZP-9B</u>	<u>83C042</u>
5. POST EXAMINATION CLEANER	"	<u>SKC-NF/ZC-7B</u>	<u>820119</u>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY

PERFORMED L.P. INSPECTION IN ACCORDANCE WITH ATTACHED IOC # 34 AFTER GRINDING AND BUFFING ON PREVIOUSLY REJECTED AREA (SEE ATTACHED SKETCH)

C. EVALUATION

REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
1 <u>N/A</u>			
2 <u>BOLT HOLE #2</u>	<u>2-1/16"</u> <u>4-1/32"</u>	<u>6 ROUNDED INDICATIONS</u>	<u>ACCEPTABLE</u> <u>ROUNDED INDICATIONS MEET WITH ACCEPTANCE CRITERIA OF ENCE 6.2</u>
3 <u>N/A</u>			
4 <u>N/A</u>			
	<u>N/A 6.2</u>		<u>REVIEW PETROWSK</u> <u>11/5/83</u>

E. ATTEST

[Signature]
REVIEW TIME CERTIFIED PERSONNEL

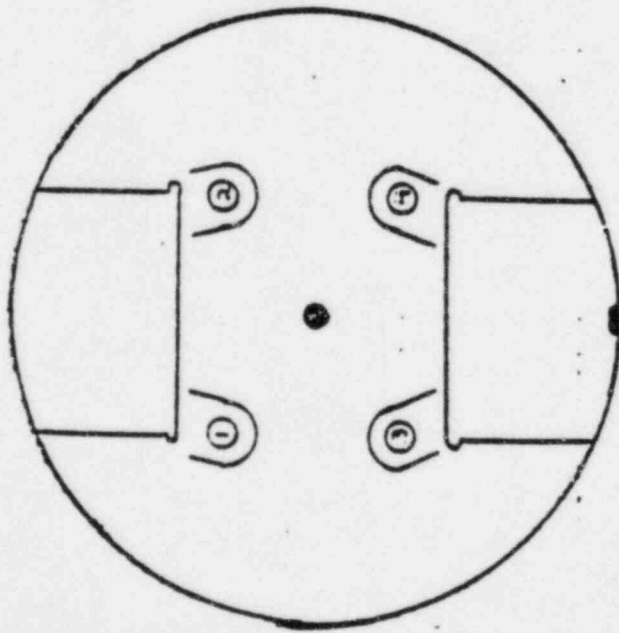
II
LEVEL 11/5/83
DATE

CONTRACT I.D. 101 VESEL
PISTON SKIRT #7A

SYSTEM
1R43K

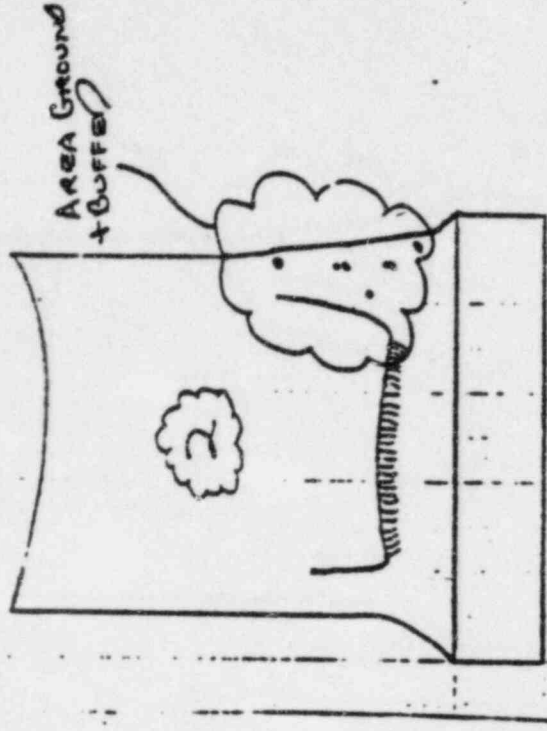
PLANT/LOCATION
SNR2/63 TURBINE Deck

Diesel # 101 Piston # 7A



Notch Side

Overhead View



Side View, looking out from inside

INTEROFFICE CORRESPONDENCE # 34

TO M. Herlitz	LOCATION	SUBJECT / REFERENCE / J.O. NO.
FROM J. C. Kammerer	LOCATION	EDG 101 Piston Skirt Inspection

MESSAGE: -

The purpose of this memo is to provide guidelines for NDE to be performed on the piston skirts for the 101 engine. Note, upon disassembly of the piston assemblies for inspection, break way torques will be recorded for piston crown to skirt hold down studs.

Piston inspection will be as follows:

1. OQA will perform a color contrast penetrant test. Reference attached FaAA memo.
2. FaAA will perform an informational focused field eddy current test to confirm any rejectable indications found during PT. Reference attached FaAA memo.
3. Based on the information provided by the FaAA inspection, SEO will determine whether or not indications can be removed by additional surface preparation and cleanup.
4. OQA should perform another inspection after completion of any additional surface preparation and cleanup to determine if indications still exist.

If you have any questions, please call me.

11/4/83
DATE

J. C. Kammerer
SIGNATURE

X404
TELEPHONE

REPLY:

CC MMH WDM
 Ed Y G Rogers
 P2H
 R Nyich
 P Martin

After review of indications documented on LDR #1811, the #7A piston indication (which appears to be casting related) will be explored as required. Final LP to be documented. Work to be supervised by M. Schuster.

4/5/83

J. C. Kammerer
SIGNATURE

DATE

SIGNATURE

TELEPHONE



LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <i>els</i>	FABRICATED PROCESS	<input type="checkbox"/> WELDED	<input checked="" type="checkbox"/> CAST	<input type="checkbox"/> WORMED
CROSS SECTION THICKNESS		MAX INCH	MIN INCH	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED	<input type="checkbox"/> GROUND
					<input type="checkbox"/> AS FABRICATED	<input type="checkbox"/> OTHER

COMPONENT I.D. 101 Diesel
 Piston Skirt # 8A

B. IDE PROCEDURE	NO. <i>G.1 + G.2</i>	TEMP. <i>73°F</i>	DATE <i>4/22/53</i>	NO. <i>367</i>	NO. <i>R43-1142</i>
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INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<i>Magnaflux</i>	<i>SKC-NF/2C7B</i>	<i>82D119</i>
2. PENETRANT		<i>SKL-HF/SKLS</i>	<i>7D073</i>
3. EMULSIFIER AND/OR REMOVER		<i>SKC-NF/2C7B</i>	<i>82D119</i>
4. DEVELOPER		<i>SKD-NF/2P-9B</i>	<i>83C042</i>
5. POST EXAMINATION CLEANER		<i>SKC-NF/2C-7B</i>	<i>82D119</i>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
 Examined machined area *on* boss. *101 Diesel*
Piston-8A

SYSTEM
 1R43K Engng. Dies. Grs.

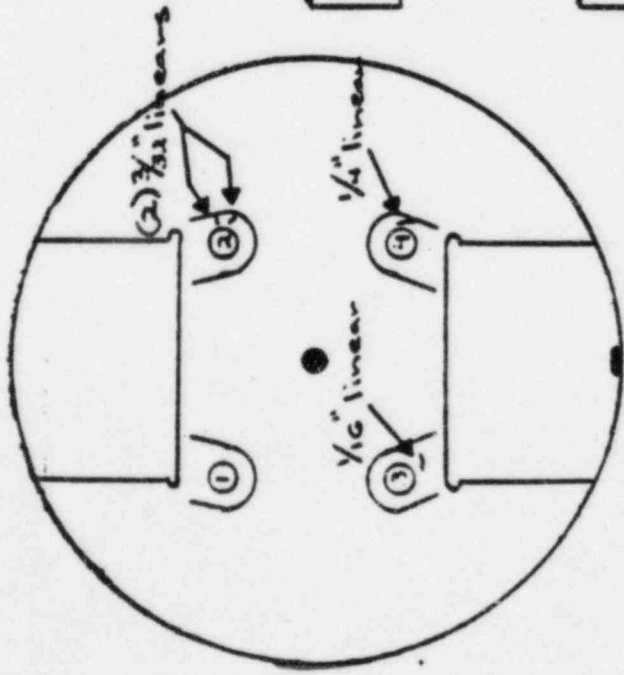
C. EVALUATION REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<i>Bolt Hole</i> <i>see sketch</i>	<i>3/16, 3/32</i>	<i>Linear</i>	<i>Reject (LDR Issued)</i>
<i>2</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>3</i>			
<i>4</i>			
D. ACCEPTANCE CRITERIA	<i>Lilco NDE G.2</i> <i>Para 4.2.2</i>		<i>EMH/Asst. J. Pink</i> <i>II</i> <i>11/4/53</i>

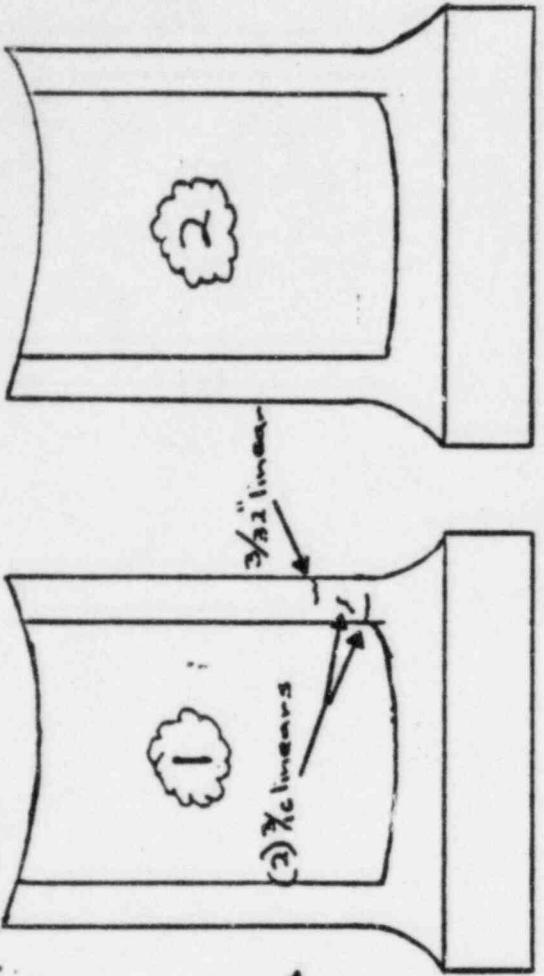
PLANT/LOCATION
 SVP5-1 Turb. Bldg.

E. ATTEST
Earl Hassell
 RESPONSIBLE C. *II* LEVEL *II* DATE *11/4/53*

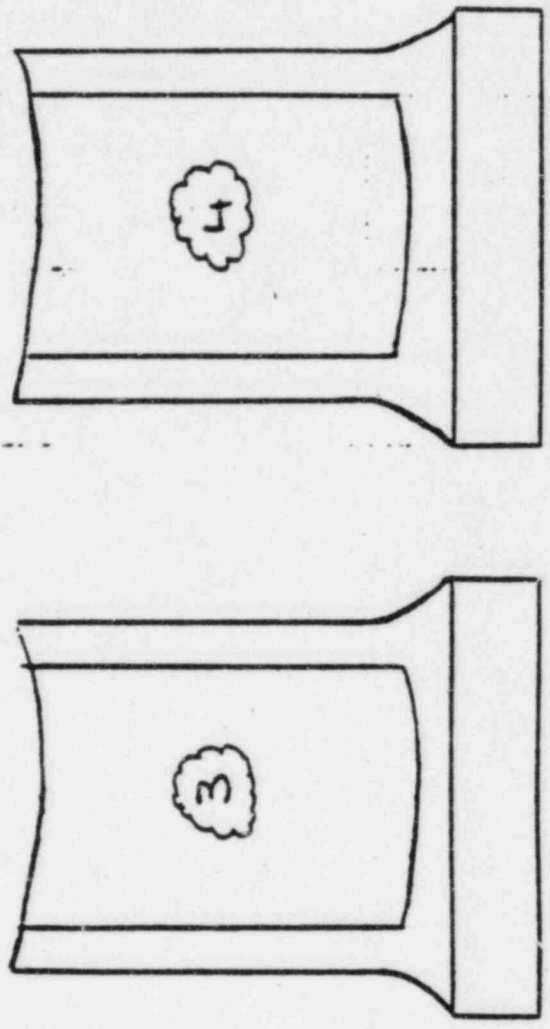
Diesel #101 Piston # 8A



Overhead View



Side Views, looking out from inside



EDG 102



LIQUID PENETRANT EXAMINATION REPORT

AF PISTONS

A. MATERIAL		TYPE	FABRICATED PROCESS		
		<i>C/S</i>	<input type="checkbox"/> WELDED	<input checked="" type="checkbox"/> CAST	<input type="checkbox"/> WORKED
CROSS SECTION THICKNESS		MAX	MIN	SURFACE CONDITION	
— INCH		— INCH	— INCH	<input checked="" type="checkbox"/> MACHISED	<input type="checkbox"/> GROUND
				<input type="checkbox"/> AS FABRICATED	<input type="checkbox"/> OTHER

B. SIDE IDENTIFICATION	TEMP.	DATE	NO.
No. <i>61 + 62</i>	<i>69° F</i>	<i>1/23/74</i>	<i>367</i>

INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<i>Magnaflux</i>	<i>SKC-NF/3C-7B</i>	<i>82J083</i>
2. PENETRANT		<i>SKL-NF/SKLS</i>	<i>7D073</i>
3. EMULSIFIER AND/OR REMOVER		<i>SKC-NF/3C-7B</i>	<i>82J083</i>
4. DEVELOPER		<i>SKD-NF</i>	<i>82D111</i>
5. POST EXAMINATION CLEANER		<i>SKC-NF/3C-7B</i>	<i>82J083</i>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
 Examined machined area on boss. *102 Diesel Piston #1B*

C. EVALUATION
 REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

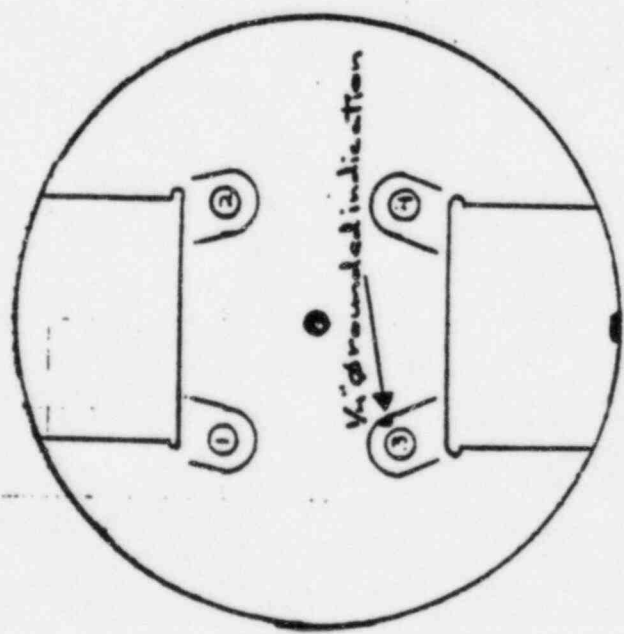
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<i>Bolt Hole</i> <i>1 See sketch</i>	<i>3/16"</i>	<i>Crack</i>	<i>Reject (LDR Issued)</i>
<i>2</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>3</i>	<i>1/4" Ø</i>	<i>Rounded</i>	<i>Reject (LDR Issued)</i>
<i>4</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>

D. APPROVALS	Lilco NDE 6.2	Inspector	Date
	Para 4.2.2	<i>E. Hassall</i>	<i>11/8/73</i>

E. ATTEST	Inspector	Date
	<i>Carl Hassall</i>	<i>11/8/73</i>

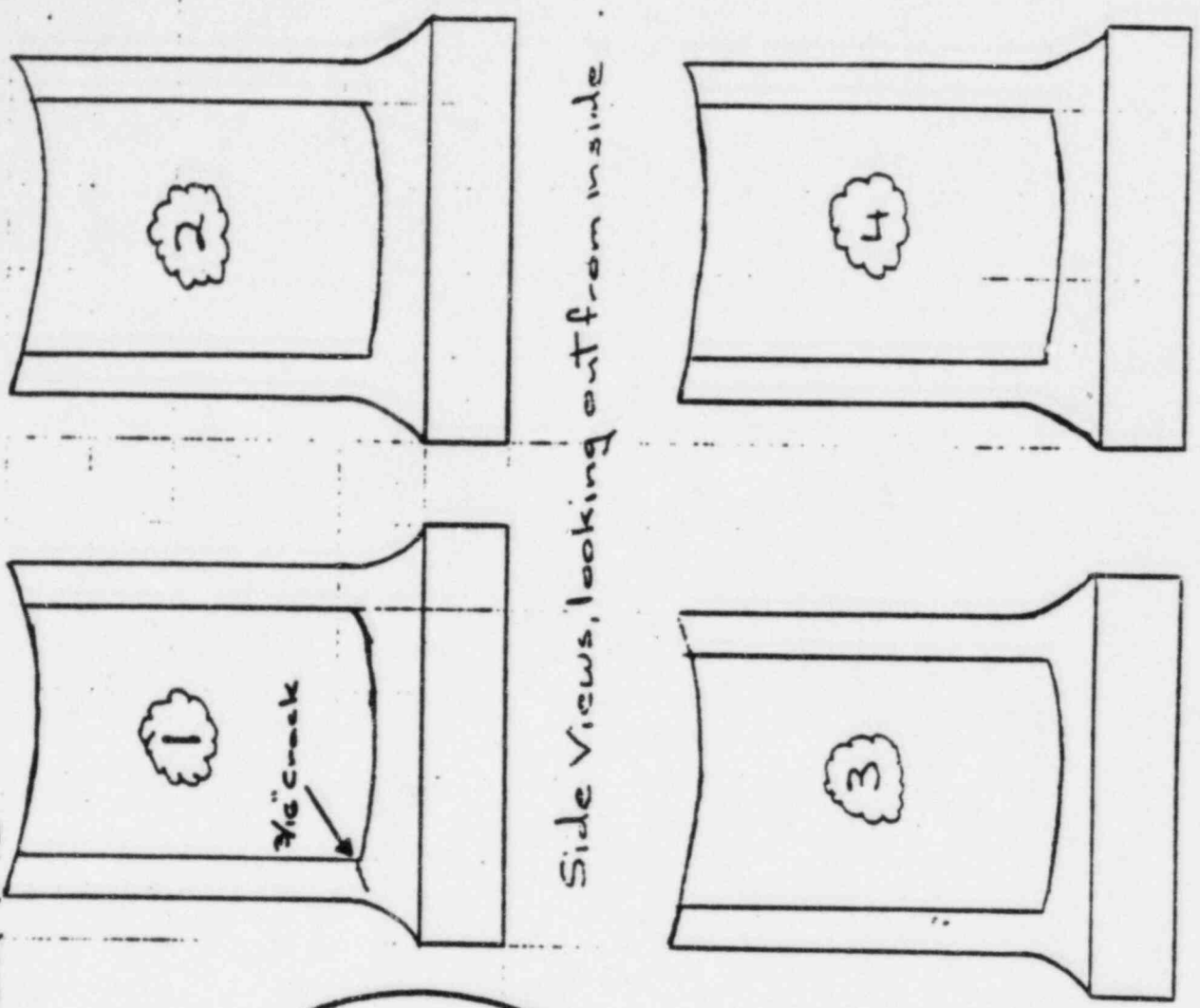
COMPONENT I.D.
 SYSTEM
 LOCATION
 1R43+EDG-102B
 5NPS-1/Turb. Deck E1.C3

Diesel #102 Piston #1B

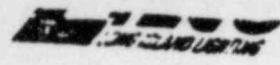


Notch 5:10

Overhead View



Side Views, looking out from inside



LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL

TYPE: C/S FABRICATED PROCESS: WELDED CAST WORKED

CROSS SECTION THICKNESS: _____ INCH

GEOMETRY: PIPE PLATE ROD OTHER: _____

SURFACE CONDITION: MACHINED GROUND AS FABRICATED OTHER

INSPECTION MATERIALS

1. PRE-CLEANER	BRAND	DESIGNATION	BATCH NO.
2. PENETRANT	<u>Magnaflux</u>	<u>SKC-NF/3C-7B</u>	<u>82J083</u>
3. EMULSIFIER AND/OR REMOVER		<u>SKL-NF/SKL6</u>	<u>7D073</u>
4. DEVELOPER		<u>SKC-NF/3C-7B</u>	<u>82J083</u>
5. POST EXAMINATION CLEANER		<u>SKD-NF</u>	<u>82D111</u>

TEMP. 69° F 367 Supp 2
Due 4/22/84 R43-1144

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY

Examined machined area on boss 102 Diesel Piston #2B

C. EVALUATION

REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<u>Boat Hole</u>			
<u>See sketch</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>
<u>2</u>	<u>1/4"</u>	<u>Crack</u>	<u>Reject (LDR Issued)</u>
<u>3</u>	<u>1/8"</u>	<u>Linear</u>	<u>Reject (LDR Issued)</u>
<u>4</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>
<u>Material</u>	<u>Lileo NDE G.2</u>		<u>E. Hassell</u>
	<u>Para 4.2.2</u>		<u>JE</u>

E. ATTEST

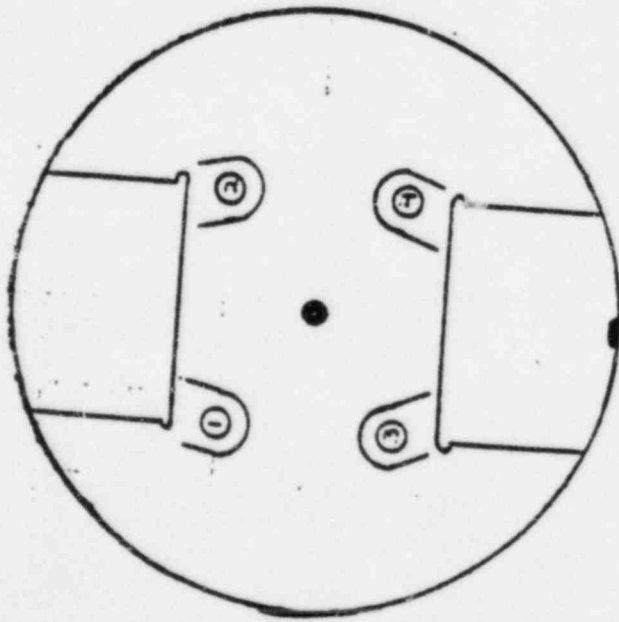
E. Hassell
 POSSIBLE CERTIFIED PERSONNEL JE 11/3/83
 LEVEL DATE

E. COMPONENT I.D.
 Piston Skirt # 2B
 SYSTEM
 1R43-06-102B

INFS-1/Insb Deck E1.631
 JOCAT

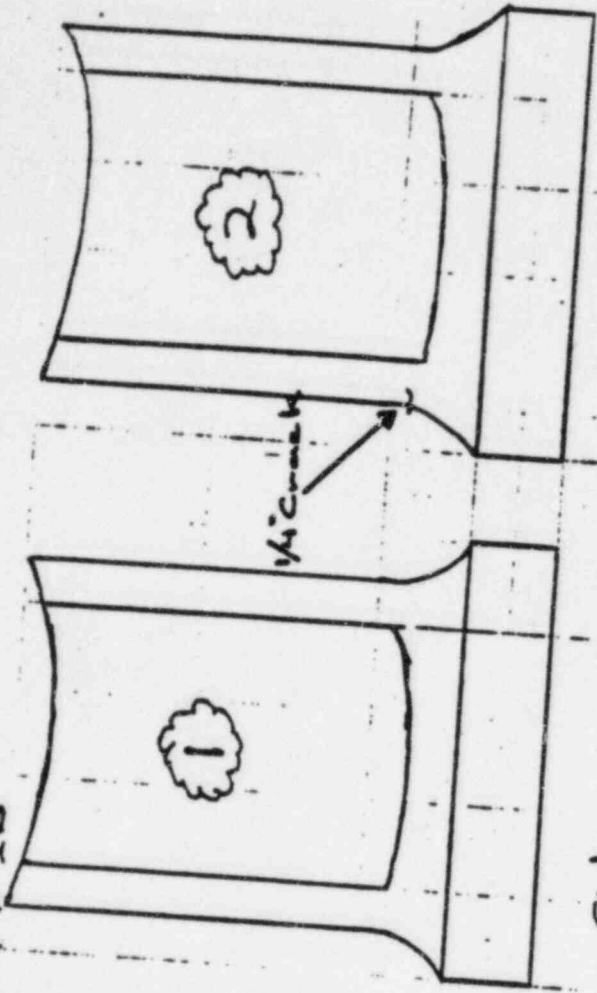
16 09 10

Diesel #102 Piston #2B



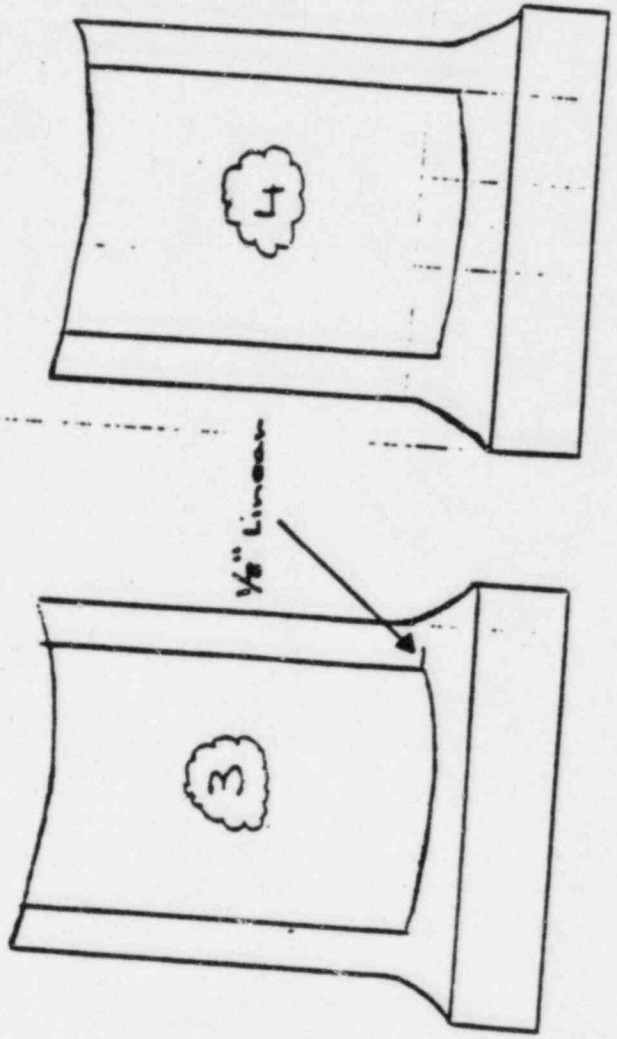
Match Side

Overhead View

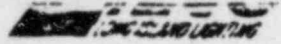


1/4" Crack

Side Views, looking out from inside



1/8" Linear



LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <u>C/S</u>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED	E COMPOSITE I.D. Piston Skirt #3B
CROSS SECTION THICKNESS		GEOMETRY <input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD <input checked="" type="checkbox"/> OTHER: <u>Piston Skirt</u>		
MAX	MIN	SURFACE CONDITION <input checked="" type="checkbox"/> MACHISED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER		
—	—			
4. JOB NUMBER <u>61962</u>		TEMP <u>69°F</u>	<u>367</u> Due <u>4/22/94</u>	<u>Supp 4</u> <u>R43-1144</u>
INSPECTION MATERIALS		BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER		<u>Magnaflux</u>	<u>SKC-NF/2C-7B</u>	<u>82J083</u>
2. PENETRANT			<u>SKL-HE/SKLS</u>	<u>7D073</u>
3. EMULSIFIER AND/OR REMOVER			<u>SKC-NF/2C-7B</u>	<u>82J083</u>
4. DEVELOPER			<u>SKD-NF</u>	<u>82D111</u>
5. POST EXAMINATION CLEANER			<u>SKC-NF/2C-7B</u>	<u>82J083</u>
SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY <u>Examined machined ^{area} on boss.</u>				
<u>102 Diesel Piston #3B</u>				
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.		
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)	
<u>Bolt Hole</u> <u>1 see sketch</u>	<u>1/4"</u>	<u>Crack</u>	<u>Reject (LDR Issued)</u>	
<u>2</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>	
<u>3</u>	<u>1/4" x 1/2"</u>	<u>Rounded</u>	<u>Reject (LDR Issued)</u>	
<u>4</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>	
D. APPROVALS		<u>Like NDEC-2</u> <u>Para 4.2.2</u>	<u>E. Hassell</u> <u>II</u> <u>4/13/93</u>	
E. ATTEST	<u>E. Hassell</u>		<u>II</u>	<u>4/13/93</u>
	POSSIBLE CERTIFIED PERSONNEL		LEVEL	DATE

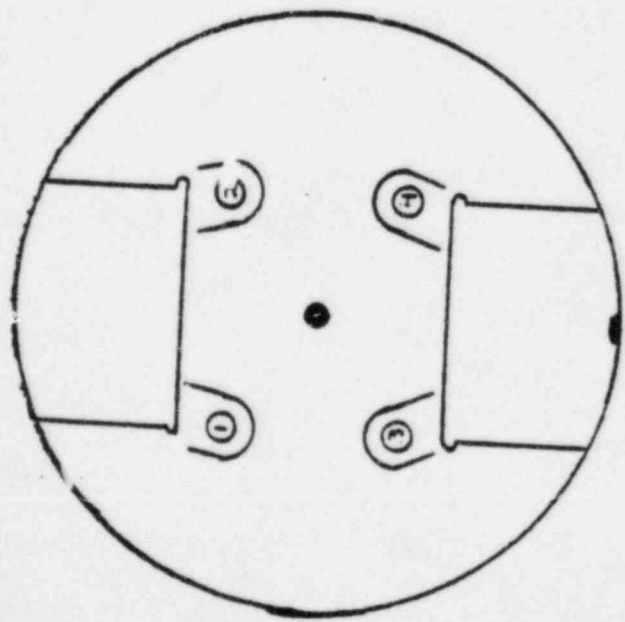
1R43AERS-103B

SVPs-1/Turb. Dh. 61962

SYSTEM

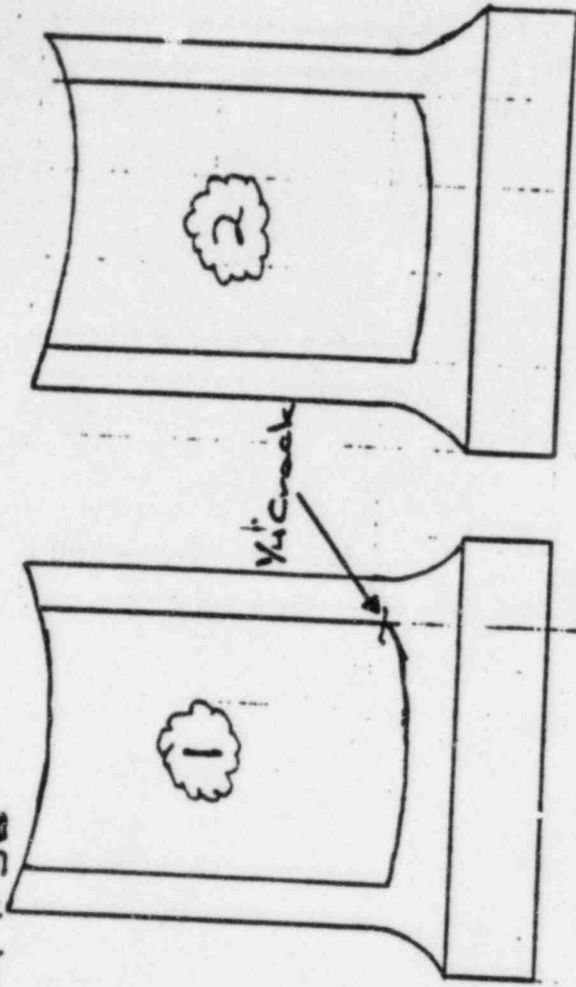
LOCATION

Diesel #102 Piston #3B

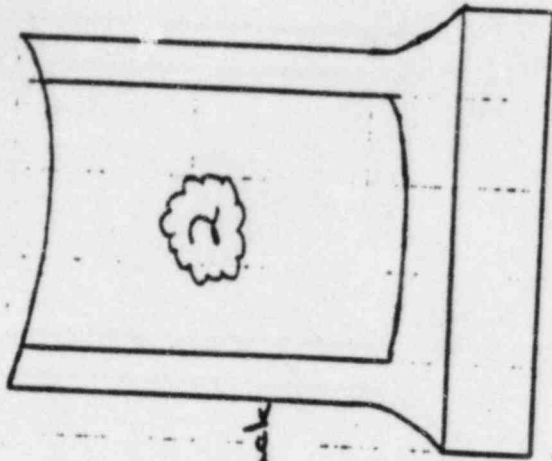


Notch side

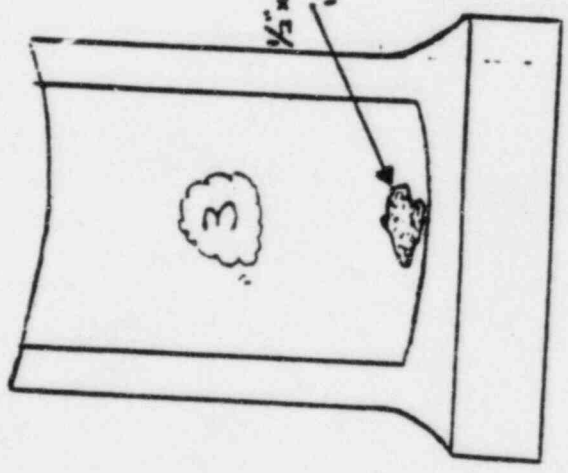
Overhead view



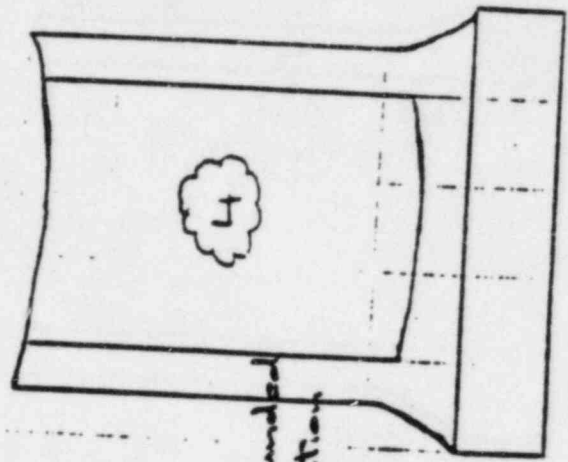
1/4 crack



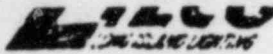
Side Views, looking out from inside



1/2 1/4 rounded indication



16 0 4 0

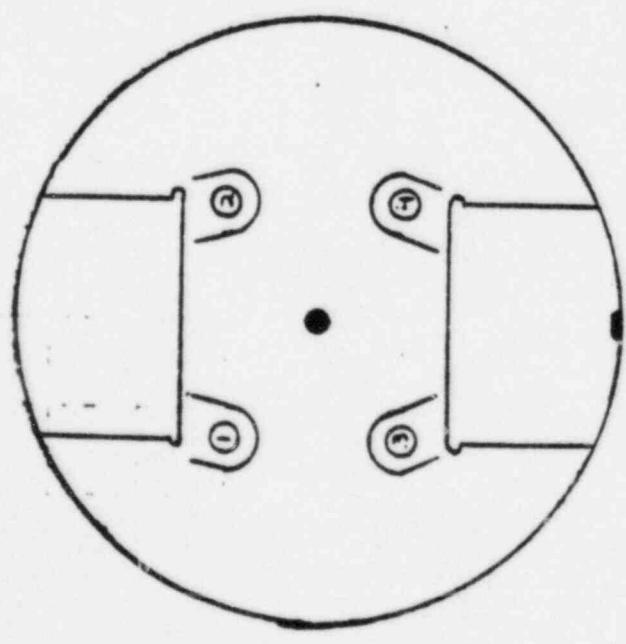


LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <i>c/s</i>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED	E. COMPONENT I.D. Piston Skirt #4B
CROSS SECTION THICKNESS		GEOMETRY <input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD <input checked="" type="checkbox"/> OTHER <i>Piston Skirt</i>		
MAX	MIN	SURFACE CONDITION <input checked="" type="checkbox"/> MACHISED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER		SYSTEM 1R43 NDEG-102B
— INCH	— INCH			
4. SIZE OF DEFECT <i>G1 + G2</i>		TEMP. <i>69°F</i>	<i>.367</i>	<i>Supp. 4</i>
INSPECTION MATERIALS		BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER		<i>Magnaflux</i>	<i>SKG-NF/EC-7B</i>	<i>82J083</i>
2. PENETRANT			<i>SKL-HF/SKLS</i>	<i>7D073</i>
3. EMULSIFIER AND/OR REMOVER			<i>SKG-NF/EC-7B</i>	<i>82J083</i>
4. DEVELOPER			<i>SKD-NF</i>	<i>82D111</i>
5. POST EXAMINATION CLEANER			<i>SKG-NF/EC-7B</i>	<i>82J083</i>
SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY <i>Examined machined on base. 102 Diesel Piston #4B</i>				
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.		
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)	
<i>Both Holes</i>				
<i>See sketch</i>	<i>3/16"</i>	<i>Crack</i>	<i>Reject (LDR Issued)</i>	
<i>2</i>	<i>9/16"</i>	<i>Crack</i>	<i>Reject (LDR Issued)</i>	
<i>3</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>	
<i>4</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>	
Lileo NDE G.2 Para 4.2.2		E. HASSELL II 11/3/53		
E. ATTEST		<i>Carl Hassell</i>	II	11/3/53
		POSSIBLE CERTIFIED PERSONNEL	LEVEL	DATE

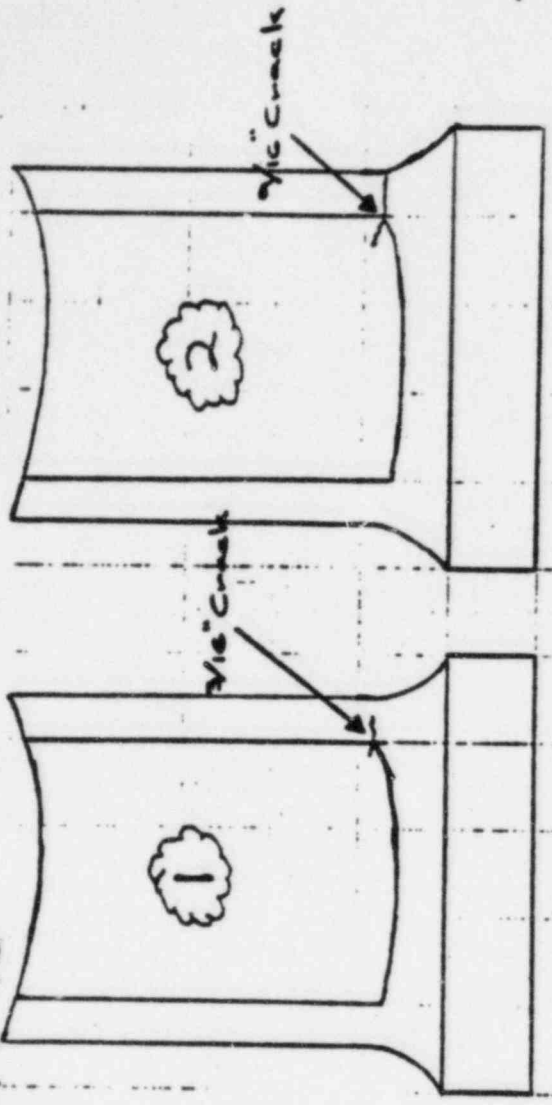
COMPONENT I.D. Piston Skirt #4B
 SYSTEM 1R43 NDEG-102B
 LOCATION SNPS-1/Top Dr E1.G3

Diesel #102 Piston #4B

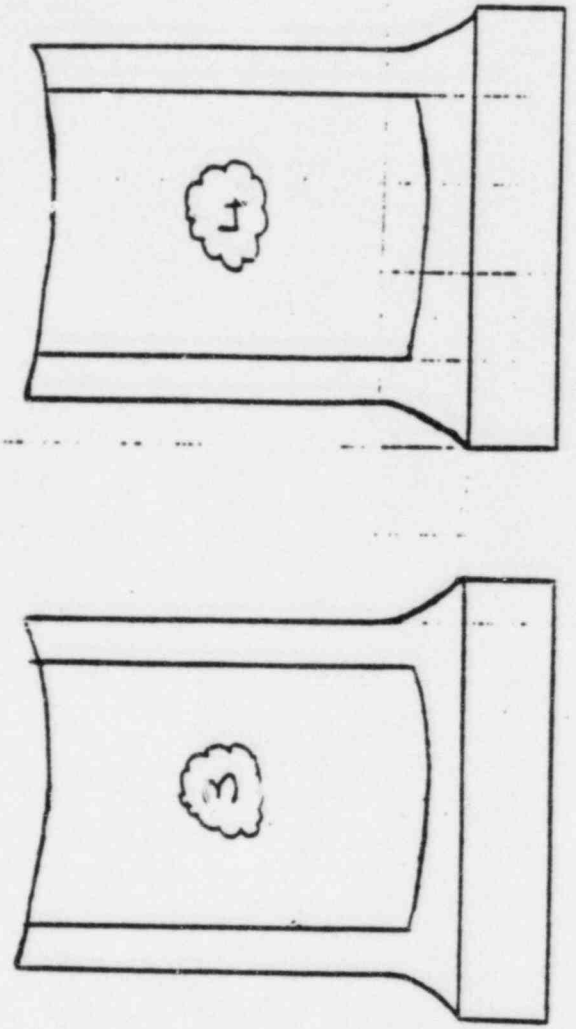


Notch Side

Overhead View



Side Views, looking out from inside



LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL

TYPE: c/s FABRICATED PROCESS: WELDED CAST WORKED

CROSS SECTION THICKNESS: MAX _____ MIN _____ INCH

GEOMETRY: PIPE PLATE ROD OTHER Piston Skirt

SURFACE CONDITION: MACHINED GROUND AS FABRICATED OTHER

B. INSPECTION MATERIALS

TEMP: 63°F BRAND: _____ DESIGNATION: 367 BATCH NO.: 842-1144

1. PRE-CLEANER			
2. PENETRANT	<u>Magnaflux</u>	<u>SKC-NF/EC-7B</u>	<u>82J083</u>
3. EMULSIFIER AND/OR REMOVER		<u>SKL-HF/SKL-7D073</u>	
4. DEVELOPER		<u>SKC-NF/EC-7B</u>	<u>82J083</u>
5. POST EXAMINATION CLEANER		<u>SKD-NF</u>	<u>82D111</u>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
 Examined machined area on boss. 102 Diesel Piston # 5B

C. EVALUATION REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
Bolt Hole <u>See Sketch</u>	<u>5/8"</u>	<u>Crack</u>	<u>Reject (LDR-Issued)</u>
2	<u>5/16"</u>		
3	<u>1/2"</u>		
4	<u>N/A</u>	<u>None</u>	<u>Accept</u>

E. ATTEST

Carl Hassell
 RESPONSIBLE CERTIFIED PERSONNEL

E. Hassell
 II LEVEL

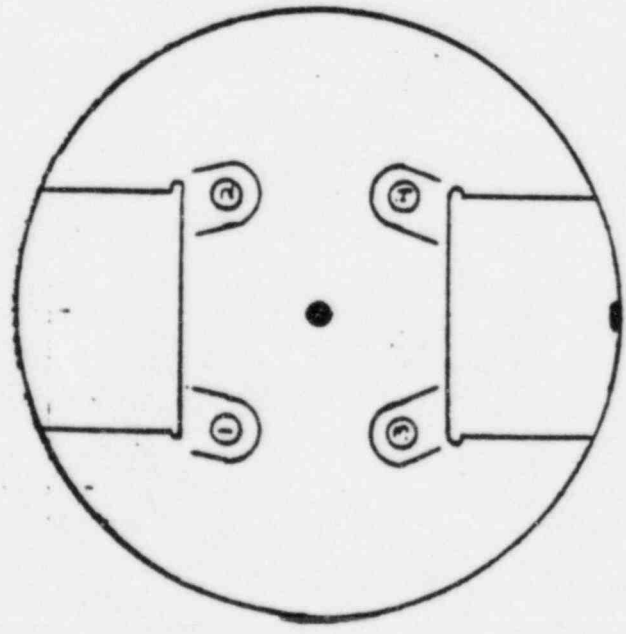
11/2/83
 DATE

COMPONENT I.D.
 Piston Skirt #5B
 SYSTEM
 1R43#EDG-107B

SUPS-1 Turb Dn. 51.53
 LOCATION

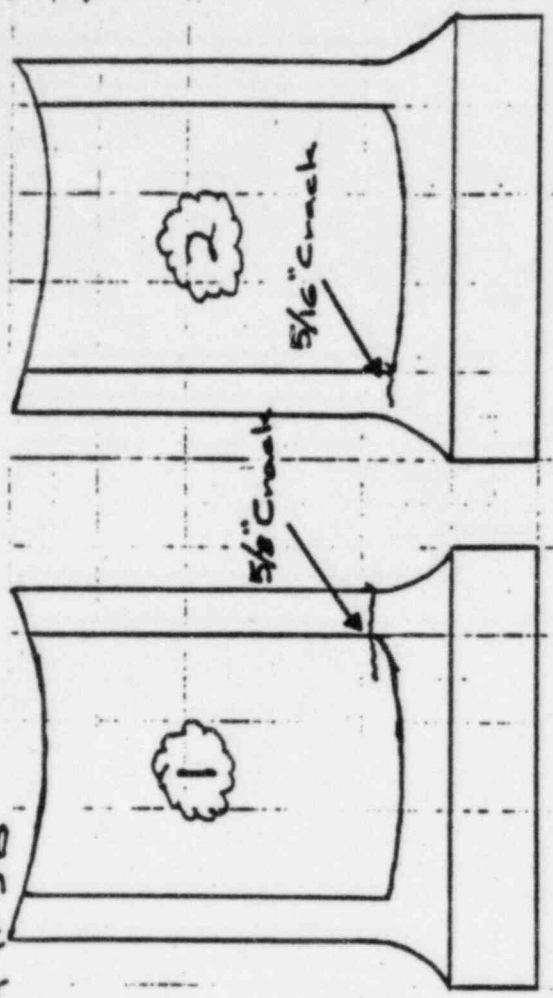
46 0940

Diesel #102 Piston #5B

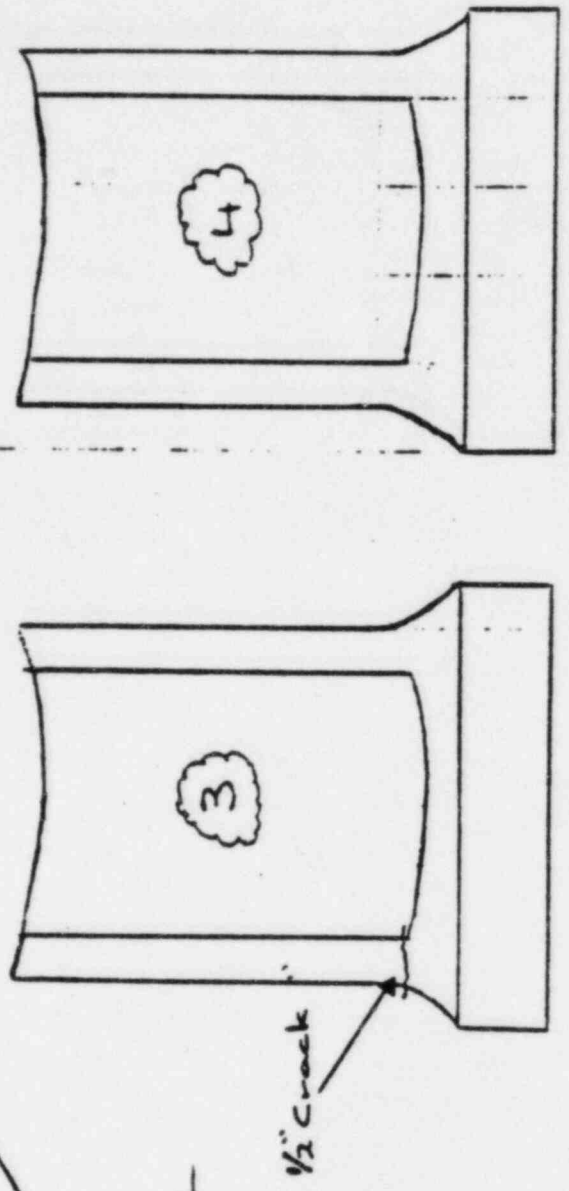


Notch Side

Overhead view



Side Views, looking out from inside



1/2 inch Crack

LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <i>C/S</i>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED
CROSS SECTION THICKNESS	MAX — INCH	MIN — INCH	SURFACE CONDITION <input checked="" type="checkbox"/> MACHISED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER
		GEOMETRY <input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD	<input checked="" type="checkbox"/> OTHER: <i>PISTON SKIRT</i>

B. NON FERROUS METALS <i>Al. 6.1TG.2</i>	TEMP. <i>69°F</i>	DESIGNATION <i>SKC-NF/2C7B</i>	BATCH NO. <i>82J0F3</i>
INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER			
2. PENETRANT	<i>Magnaflux</i>	<i>SKC-NF/2C7B</i>	<i>82J0F3</i>
3. EMULSIFIER AND/OR REMOVER		<i>SKL-HF/SKLS</i>	<i>TD073</i>
4. DEVELOPER		<i>SKC-NF/2C7B</i>	<i>82J0F3</i>
5. POST EXAMINATION CLEANER		<i>SKD-NF</i>	<i>82D111</i>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
 Examined machined area on boss. 102 Diesel Piston #62

C. EVALUATION REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

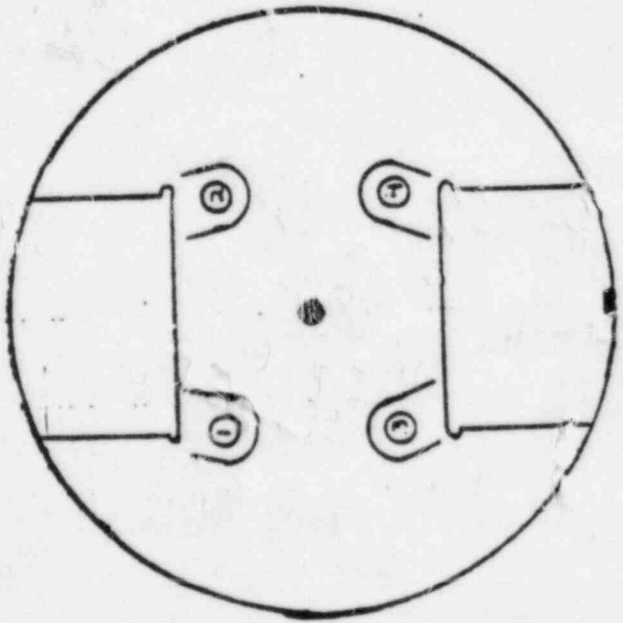
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
Bolt Hole 1 <i>See sketch</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
2	<i>5/16 + 5/8</i>	<i>Crack</i>	<i>Reject (LDR Issued)</i>
3	<i>7/8</i>	<i>Crack</i>	
4	<i>3/16</i>	<i>Crack</i>	
		<i>Linear</i>	
DRAWN BY <i>E. Hassell</i>	<i>Liles NDE 6.2</i>		
	<i>Para 4.2.3</i>		

E. ATTEST	<i>Carl Hassell</i>	LEVEL <i>ATI</i>	DATE <i>11/3/73</i>
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COMPONENT I.D. *Piston Skirt HCB*
 SYSTEM *1R3M EPG-102*
 ACTION *SWPS-1 Turb Pack 15131*

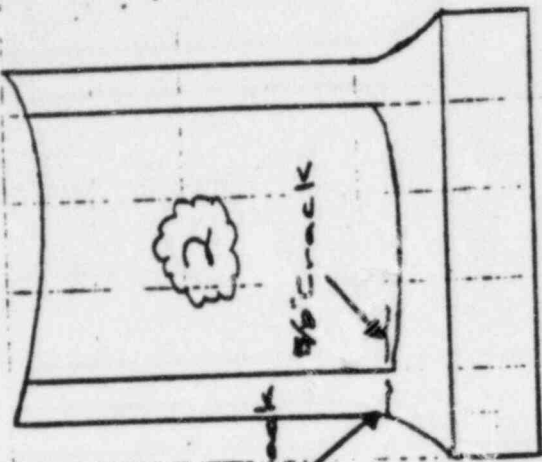
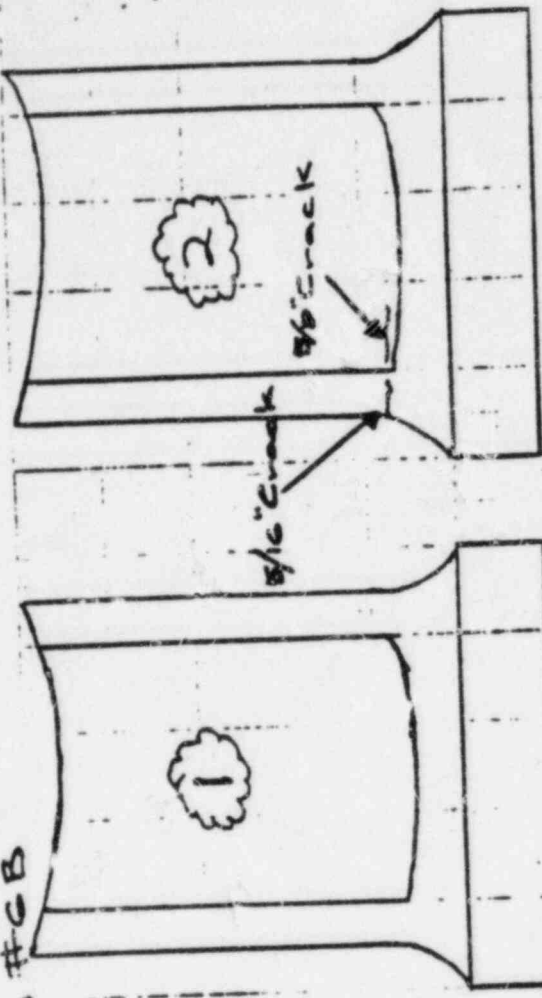
16 0940

Diesel #102 Piston #GB

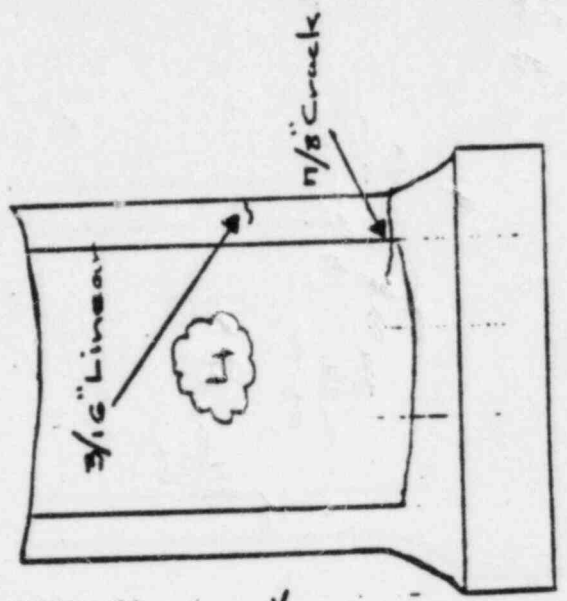
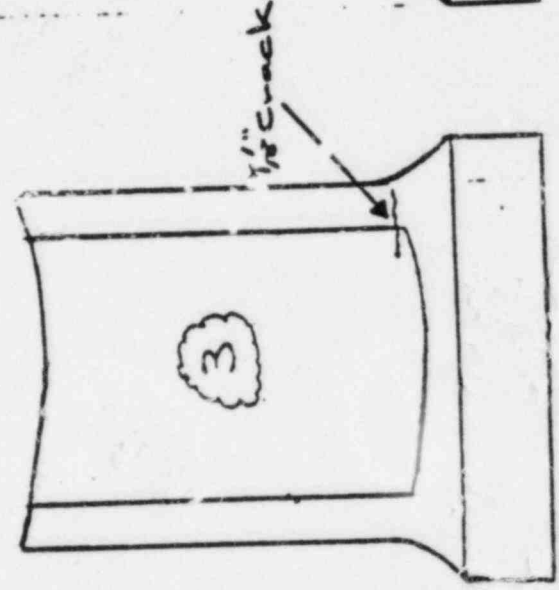


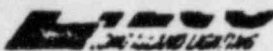
Notch Side

Overhead view



Side Views, looking out from inside





LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <u>C/S</u>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED
CROSS SECTION THICKNESS		MAX — INCH	MIN — INCH
GEOMETRY		<input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD	<input checked="" type="checkbox"/> OTHER: <u>Piston</u>
SURFACE CONDITION		<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND	<input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER

4. 61+62 MAT'L. .367 SUPP 2
 TEMP. 69°F Due 4/22/73 R43-1144

INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<u>Magnaflux</u>	<u>SKC-NF/EC-7B</u>	<u>82J083</u>
2. PENETRANT		<u>SKL-HF/SKLS</u>	<u>7D073</u>
3. EMULSIFIER AND/OR REMOVER		<u>SKC-NF/EC-7B</u>	<u>82J052</u>
4. DEVELOPER		<u>SKD-NF</u>	<u>82D111</u>
5. POST EXAMINATION CLEANER		<u>SKC-NF/EC-7B</u>	<u>82J82</u>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
Examined machined area on boss. 102 Diesel Piston # 7B

C. EVALUATION REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

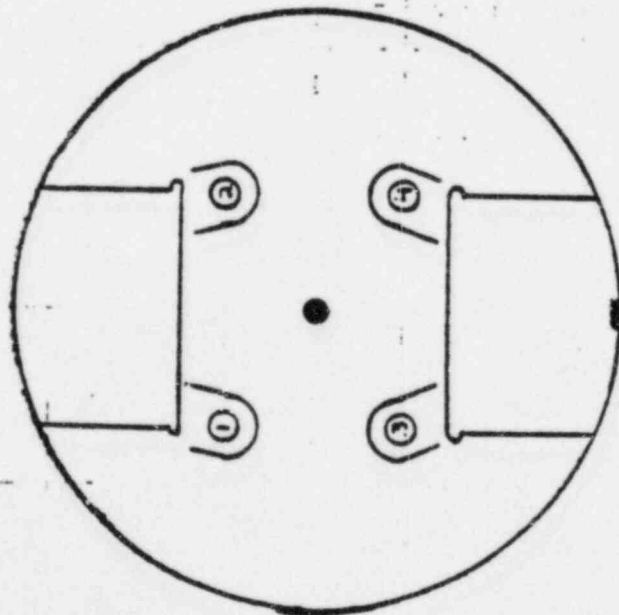
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<u>Bolt Hole</u> <u>1 see sketch</u>	<u>1/2</u>	<u>Crack</u>	<u>Reject (LDR Issued)</u>
<u>2</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>
<u>3</u>	<u>1</u>	<u>Crack</u>	<u>Reject (LDR Issued)</u>
<u>4</u>	<u>N/A</u>	<u>None</u>	<u>Accept</u>
DRAWN BY <u>Lilee MDE 62</u>	PERFORMED BY <u>Para 4.2.2</u>	EXAMINED BY <u>E. Hassall</u>	DATE <u>11/3/73</u>

E. ATTEST
E. Hassall
 RESPONSIBLE CERTIFIED PERSONNEL LEVEL II DATE 11/3/73

COMPONENT I.D. Piston Skirt # 7B
 SYSTEM 102 Diesel Piston # 7B
 LOCATION SUPP-1/Turb. Dr. El. 31

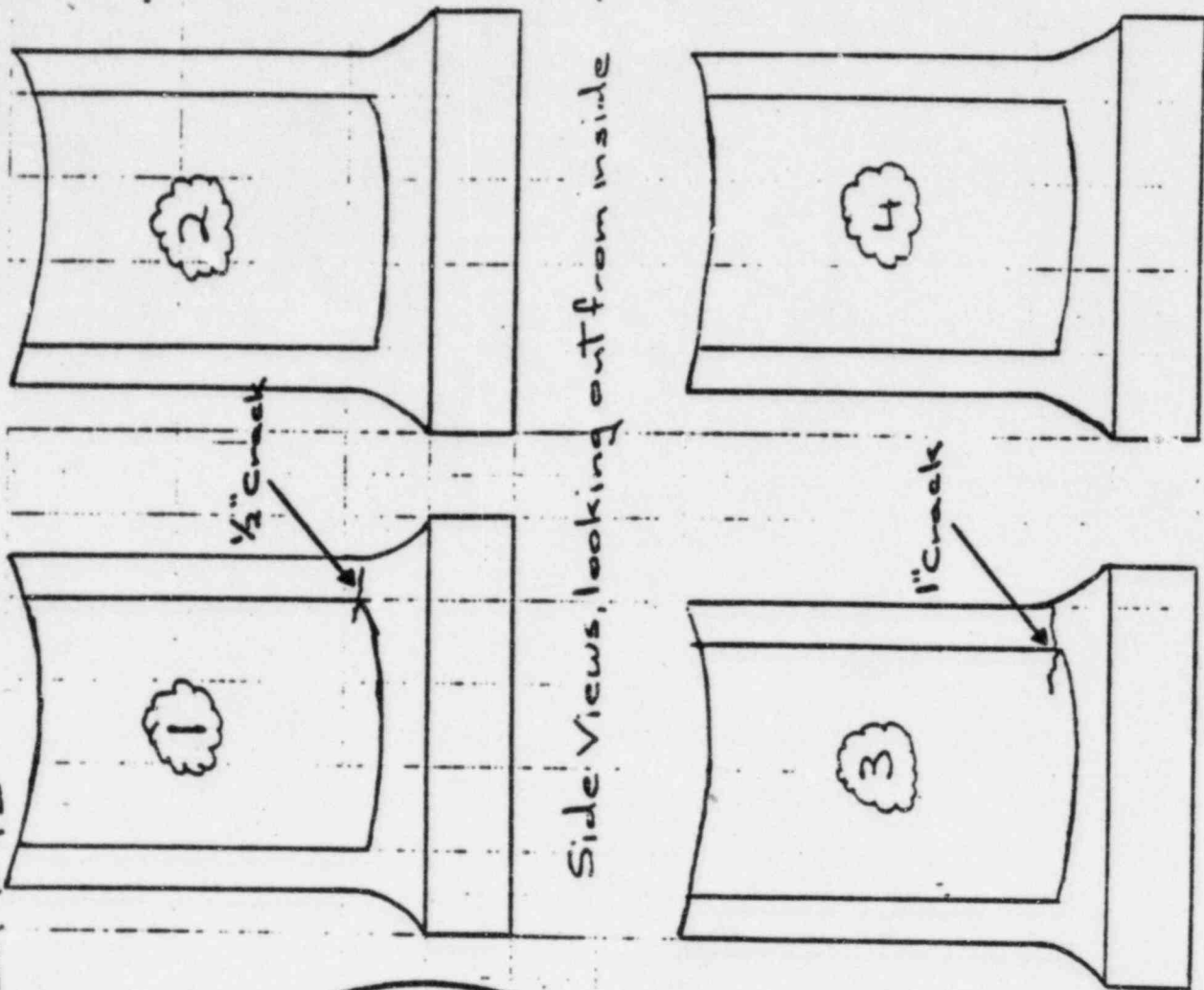
46 07 10

Diesel #102 Piston #7B



Notch Side

Overhead View



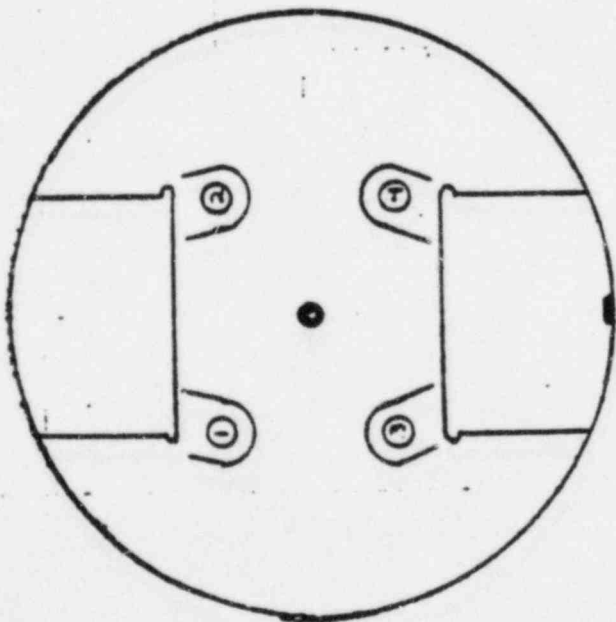
Side Views, looking out from inside

LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE	FABRICATED PROCESS	
		<i>c/s</i>	<input type="checkbox"/> WELDED	<input checked="" type="checkbox"/> CAST
CROSS SECTION THICKNESS		MAX	MIN	SURFACE CONDITION
		INCH	INCH	<input checked="" type="checkbox"/> MACHINED
				<input type="checkbox"/> AS FABRICATED
				<input type="checkbox"/> GROUND
				<input type="checkbox"/> OTHER
4. NDE TECHNIQUE		TEMP		BATCH NO.
No. <i>61 + 62</i>		<i>69°F</i>		<i>367</i>
INSPECTION MATERIALS		BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER		<i>Magnaflox</i>	<i>SKC-NF/2C-7B</i>	<i>82J082</i>
2. PENETRANT			<i>SKL-HF/SKLS</i>	<i>7DC43</i>
3. EMULSIFIER AND/OR REMOVER			<i>SKC-NF/2C-7B</i>	<i>82J083</i>
4. DEVELOPER			<i>SKD-NF</i>	<i>82D111</i>
5. POST EXAMINATION CLEANER			<i>SKC-NF/2C-7B</i>	<i>82J083</i>
SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY <i>Examined machined area on boss. 102 Diesel Piston #85</i>				
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.		
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)	
<i>Bolt Hole</i>	<i>1/8</i>	<i>Linear</i>	<i>Reject (LDR Issued)</i>	
<i>See sketch</i>	<i>3/16</i>	<i>crack</i>		
<i>2</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>	
<i>3</i>				
<i>4</i>				
D. INSPECTOR		E. ATTEST		
<i>Lileo NDE 62</i>		<i>E. Hassell</i>		
<i>Para 4.2.2</i>		<i>IP</i>		
		<i>11/2/83</i>		
E. ATTEST		CONSULE CERTIFIED PERSONNEL	LEVEL	DATE
<i>Earl Hassell</i>			<i>IP</i>	<i>11/2/83</i>

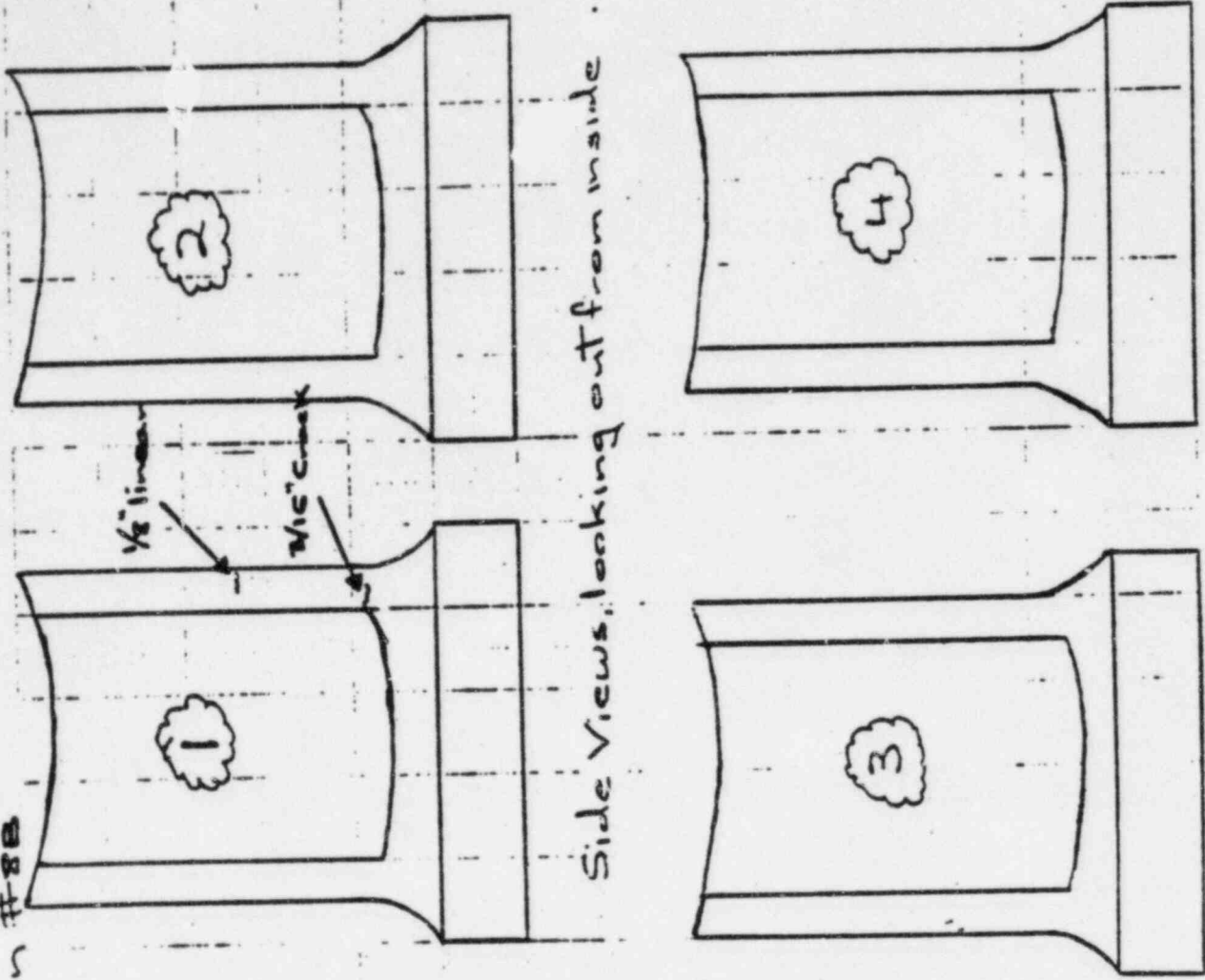
SYSTEM
 COMPONENT I.D.
 Piston Skirt #85
 102 Diesel Piston #85
 PLANT/LOCATION
 SUPS-1/Turb Diesel 63

Diesel #102 Piston #88



Notch side

Overhead view



Side Views, looking out from inside

[

EDG 103

AF PISTONS

A. MATERIAL		TYPE <i>d/s</i>	FABRICATED FRAGILE	<input type="checkbox"/> WELDED	<input checked="" type="checkbox"/> CAST	<input type="checkbox"/> FORGED
CROSS SECTION THICKNESS		MAX INCH	MIN INCH	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED	<input type="checkbox"/> GROUND
					<input type="checkbox"/> AS FABRICATED	<input type="checkbox"/> OTHER
<i>61462</i>		TEMP <i>69°F</i>	<i>367</i>	<i>Sup 2</i>	<i>R-3-1143</i>	
INSPECTION MATERIALS		BRAND	DESIGNATION	DATE		
1. PRE-CLEANER		<i>magnaflux</i>	<i>SKC-NF/267B</i>	<i>821033</i>		
2. PENETRANT			<i>SKL-HP/3KLS</i>	<i>7DC72</i>		
3. EMULSIFIER AND/OR REMOVER			<i>SKC-NF/267B</i>	<i>821033</i>		
4. DEVELOPER			<i>SKD-NF</i>	<i>82D111</i>		
5. POST EXAMINATION CLEANER			<i>SKC-NF/267B</i>	<i>821033</i>		
SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY <i>Examined machined area around boss</i>						
103 Dies <u>Piston #2C</u>						

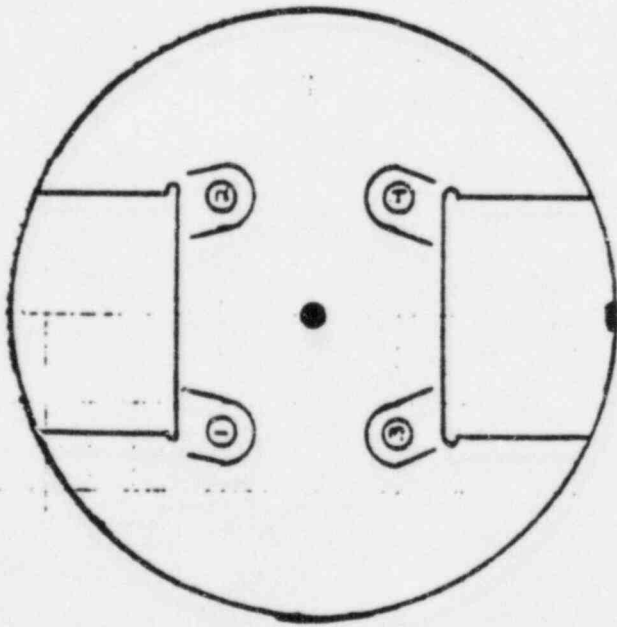
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED, USE OTHER SIDE.				
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)			
<i>Bolt Hole</i>	<i>(3) 3/32, 1/16</i>		<i>Reject (LDR Issued)</i>			
<i>See Sketch</i>	<i>1/2, 3/16, 1/4</i>	<i>linear</i>				
	<i>3/8</i>	<i>crack</i>				
<i>2</i>	<i>1/4, 3/16</i>	<i>rounded</i>				
	<i>5/32</i>	<i>linear</i>				
<i>3</i>	<i>3/8</i>	<i>crack</i>				
	<i>1/2</i>	<i>linear</i>				
<i>4</i>	<i>3/32, 5/16</i>	<i>cracks</i>				
		<i>Like NDE G 2</i>	<i>E. Hassell / Asst. J. Crumley</i>			
		<i>Para 4.2.2</i>	<i>SPink</i>			
			<i>11/9/53</i>			

E. ATTEST *Carl Hassell* II 11/9/53

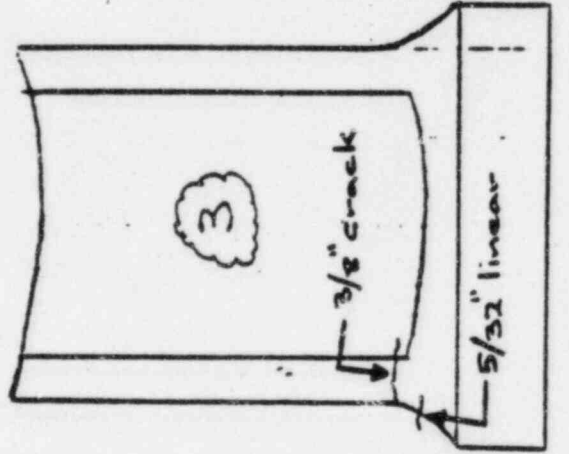
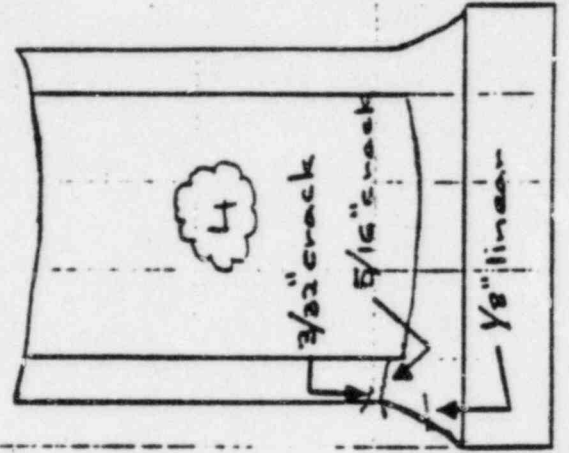
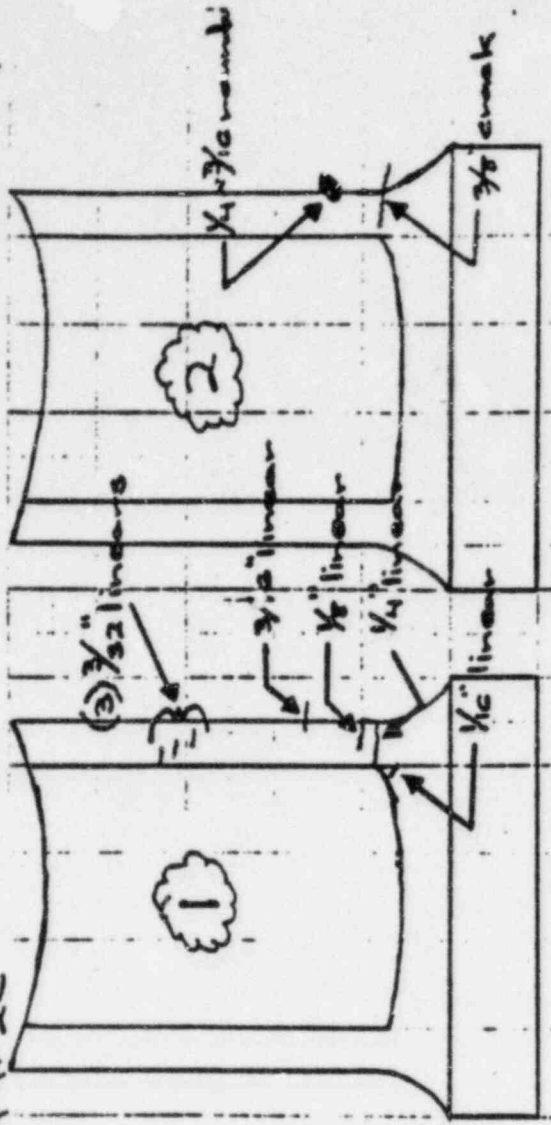
PISTON SKETCH #2C
 RTR3-EPG-103
 V-16
 P109
 SURF. Inspect Pk 416

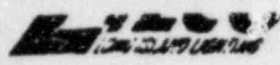
46 C910

Diesel #103 Piston #2C



Overhead View





LIQUID PENETRANT EXAMINATION REPORT

A: MATERIAL		TYPE <i>c/s</i>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED
CROSS SECTION THICKNESS		MAX INCH	MIN INCH
		SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER

5. SPECIFICATION <i>6.1 + 6.2</i>	MAT'L. TEMP. <i>69°F</i>	<i>367</i>	Supp. 2 <i>R43-1143</i>
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INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<i>Magnaflux</i>	<i>SKC-NF/267B</i>	<i>32J083</i>
2. PENETRANT		<i>SKL-HP/267B</i>	<i>7D073</i>
3. EMULSIFIER AND/OR REMOVER		<i>SKC-NF/267B</i>	<i>22J083</i>
4. DEVELOPER		<i>SKD-NF</i>	<i>22D111</i>
5. POST EXAMINATION CLEANER		<i>SKC-NF/267B</i>	<i>22J083</i>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY
Examined machined area around boss *103 Pieces*
Piston #1C

C. EVALUATION
 REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

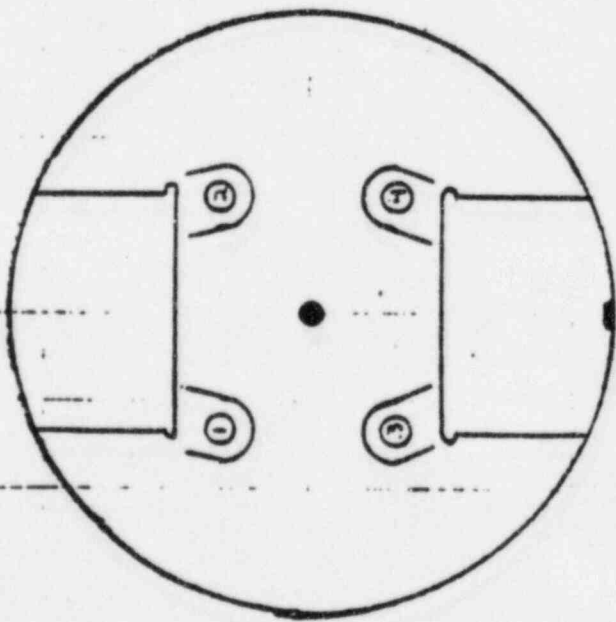
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<i>Bolt Hole</i> <i>See Sketch</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>2</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>3</i>	<i>3/16</i>	<i>Linear</i>	<i>Reject (LDR Issued)</i>
<i>4</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
Drawn by <i>Likonde G.2</i>		Inspected by <i>E. Hassell</i>	Asst. I. C. Inspected by <i>E. Pink</i>
Date <i>Para 4.2.2</i>		Level <i>II</i>	Date <i>11/9/83</i>

E. ATTEST
Carl Hassell
 POSSIBLE CERTIFIED PERSONNEL II LEVEL 11/9/83 DATE

PISTON SKIRT #1C
 COMPONENT I.D.
 SYSTEM
 IR43EDG-103
 PLANT
 ACTION
 SWPS-1/Temp Dr E/107

16 0940

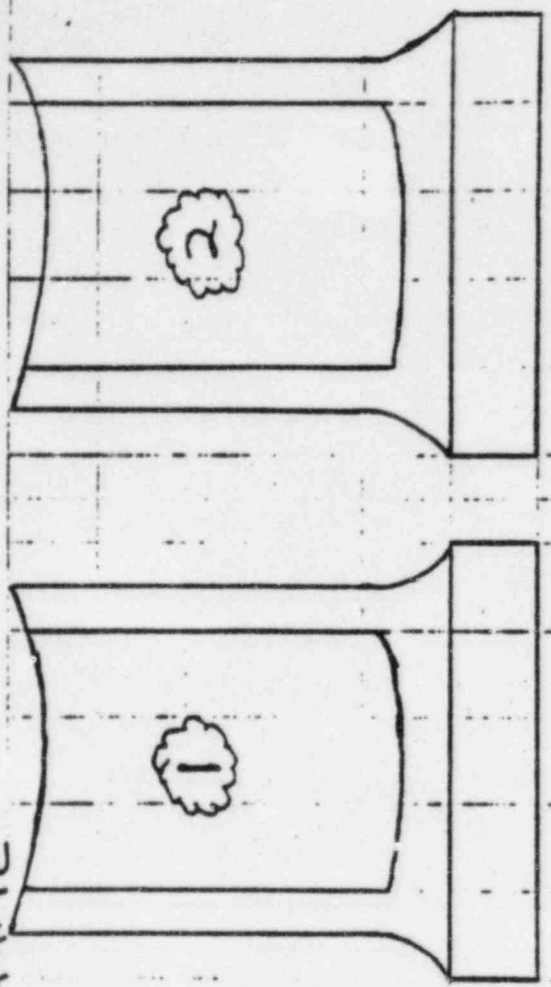
Diesel #103 Piston #1C



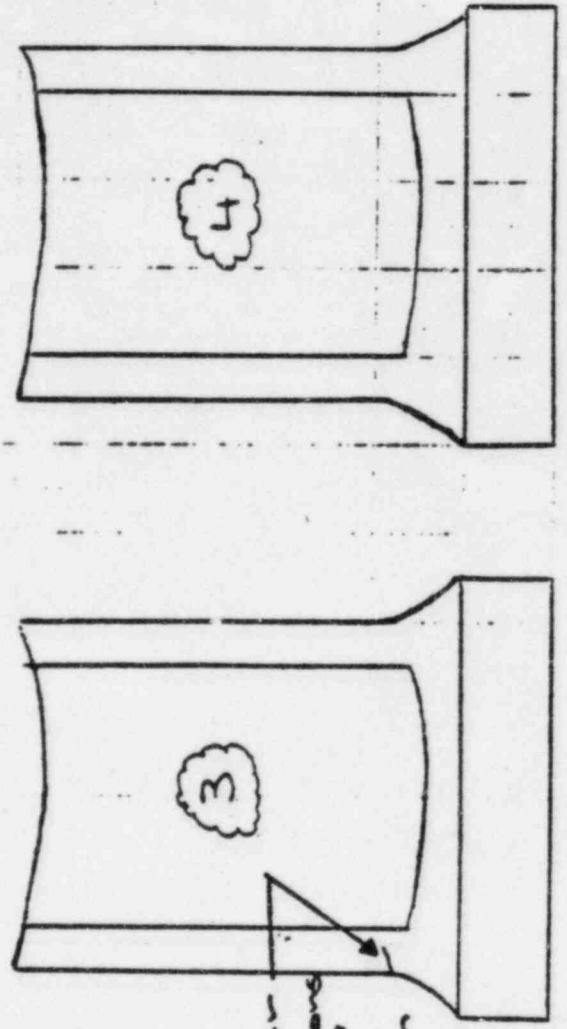
Notch Side

Overhead view

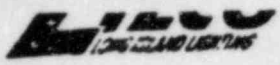
$\frac{9}{16}$ " Linear
 Note: Started as 2 indications
 that bled into one "distinct"
 linear indication after 5 min
 dwell time.



Side Views, looking out from inside



Overhead view



LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL	TYPE	FABRICATED PROCESS		
	<i>c/s</i>	<input type="checkbox"/> WELDED	<input checked="" type="checkbox"/> CAST	<input type="checkbox"/> WORKED
CROSS SECTION THICKNESS	MAX	MIN	SURFACE CONDITION	OTHER
— INCH	— INCH	— INCH	<input checked="" type="checkbox"/> MACHINED	<input type="checkbox"/> GROUND
			<input type="checkbox"/> AS FABRICATED	<input type="checkbox"/> OTHER

NO. <i>G.1 + G.2</i>	MAT'L.	TEMP.	367	Supp. 2
		<i>62°F</i>	<i>Due 4/22/84</i>	<i>R43-1143</i>

INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<i>Magnaflux</i>	<i>SKC-NF/2C7B</i>	<i>82J083</i>
2. PENETRANT		<i>SKL-HP/SL3</i>	<i>7D073</i>
3. EMULSIFIER AND/OR REMOVER		<i>SKC-NF/2C7B</i>	<i>82J083</i>
4. DEVELOPER		<i>SKD-NF</i>	<i>82D111</i>
5. POST EXAMINATION CLEANER		<i>SKC-NF/2C7B</i>	<i>82J083</i>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY

Examined machined area around boss

103 Pieces

Piston #1C

C. EVALUATION

REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<i>Bolt Hole</i>			
<i>See sketch</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>2</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>3</i>	<i>3/16</i>	<i>Linear</i>	<i>Reject (LDR Issued)</i>
<i>4</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
W.A. ...	<i>Like NDE G.2</i>		
	<i>Para 4.2.2</i>		

E. ATTEST

E. Hassell

PERSONNEL CERTIFIED PERSONNEL

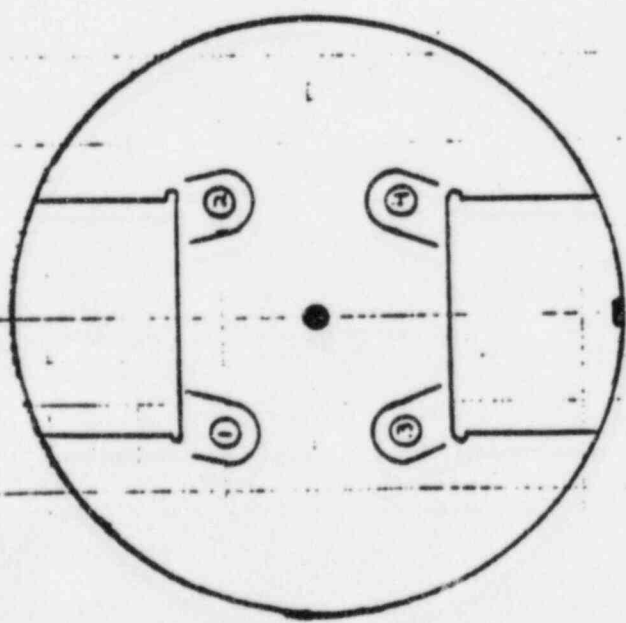
LEVEL *II*

DATE *11/9/83*

E. COMPONENT I.D.
 Piston Skirt #1C
 SYSTEM
 1R43EPG-103
 PLAN. ACTION
 SPS-1/Temp Dr. E. G.

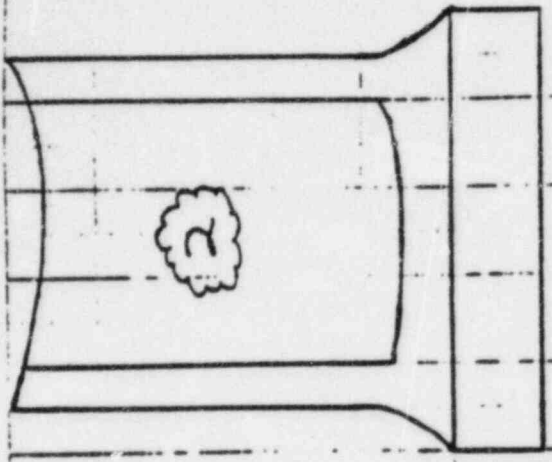
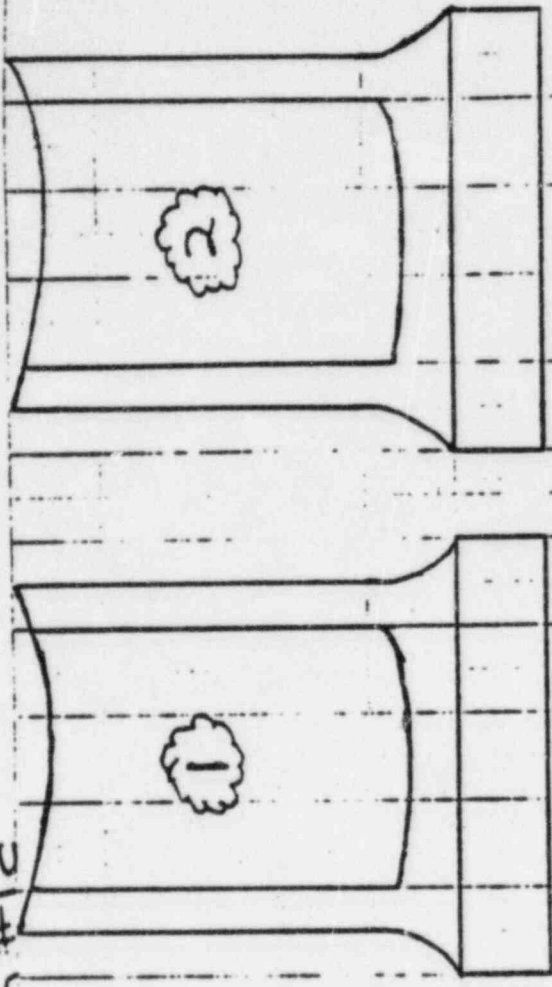
46 0940

Diesel #103 Piston #1C

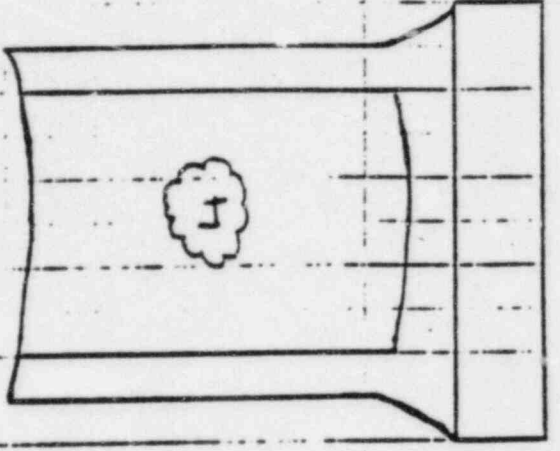
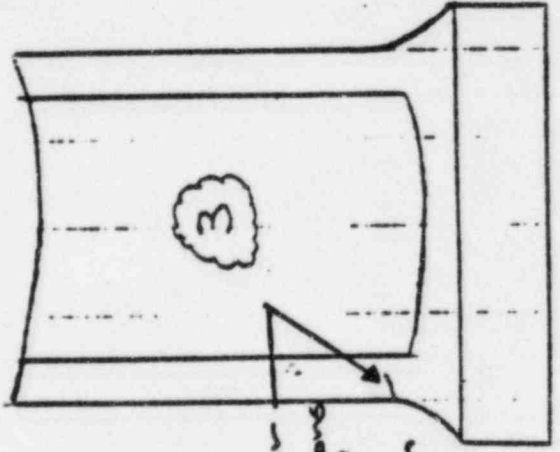


Notch Side

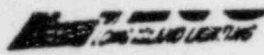
Overhead View



Side Views, looking out from inside



9/16" Linear
 Note: Started as 2 indications that bled into one "distinct" linear indication after 5 min dwell time.



LIQUID PENETRANT EXAMINATION REPORT

A. MATERIAL		TYPE <i>c/s</i>	FABRICATED PROCESS		
		GEOMETRY	<input type="checkbox"/> WELDED	<input checked="" type="checkbox"/> CAST	<input type="checkbox"/> WORKED
CROSS SECTION THICKNESS	MAX	MIN	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED	<input type="checkbox"/> GROUND
	INCH			<input type="checkbox"/> AS FABRICATED	<input type="checkbox"/> OTHER

Q. IDENTIFICATION	TEMP. <i>67°F</i>	DATE <i>4/23/84</i>	Supp. 2 <i>R43-1143</i>
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INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<i>Magnaflux</i>	<i>SKG-NF/367B</i>	<i>82T083</i>
2. PENETRANT		<i>SKL-HP/367B</i>	<i>7D073</i>
3. EMULSIFIER AND/OR REMOVER		<i>SKG-NF/367B</i>	<i>82T083</i>
4. DEVELOPER		<i>SKD-NF</i>	<i>82D111</i>
5. POST EXAMINATION CLEANER		<i>SKG-NF/367B</i>	<i>82T083</i>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY

Examined machined area around boss

*103 Pieces
Piston #1C*

C. EVALUATION

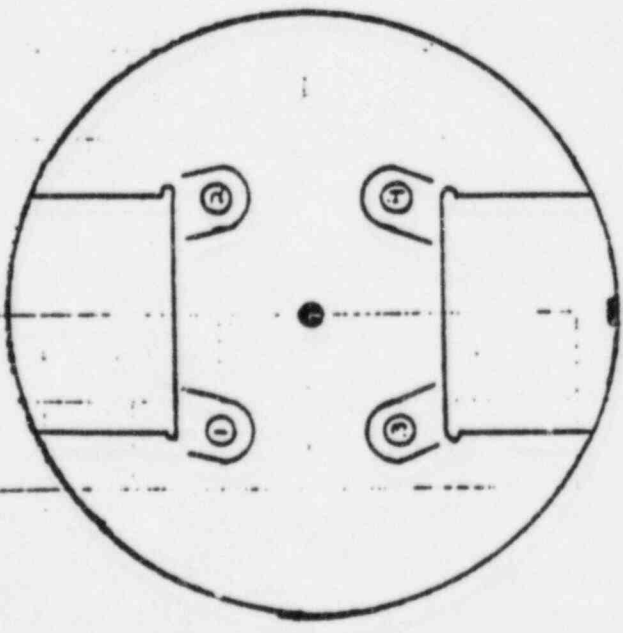
REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<i>Bolt Hole</i>			
<i>1 See sketch</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>2</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>3</i>	<i>3/16</i>	<i>Linear</i>	<i>Reject (LDR Issued)</i>
<i>4</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
Like NDE G.2		Operator <i>E. Hassell</i> / Asst. <i>J. Cooney</i>	
Para 4.2.2		Date <i>11/9/83</i>	

E. ATTEST	<i>E. Hassell</i>	LEVEL <i>II</i>	DATE <i>11/9/83</i>
	POSSIBLE CERTIFIED PERSONNEL	LEVEL	DATE

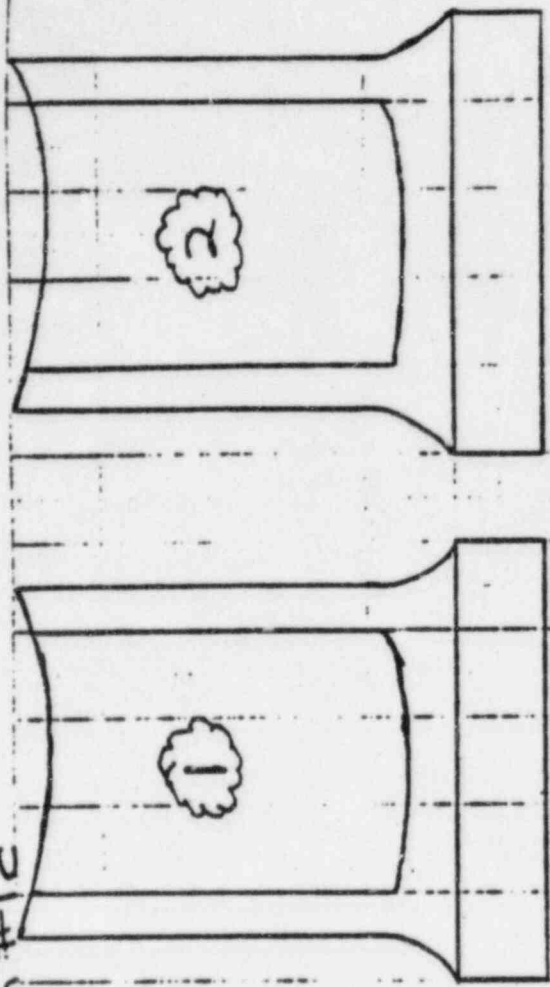
CHINA I.D.
 SYSTEM
 PLAN. ACTION
 Piston Skirt #1C
 IR43EDG-103
 SWP5-1/Asst. Dr. E. G.

Diesel #103 Piston #1C

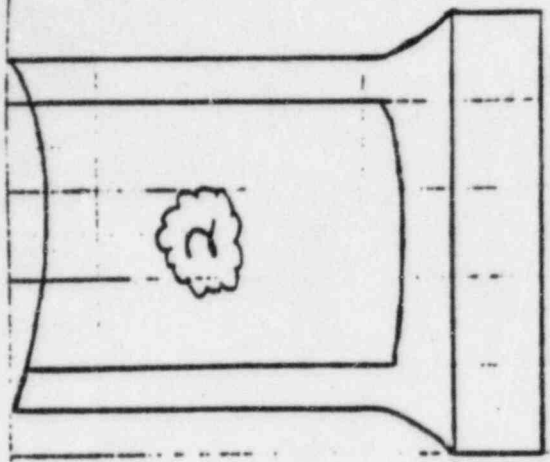


Overhead View

3/16" Linear
 Note: Started as 2 indications that bled into one "distinct" linear indication after 5 min dwell time.

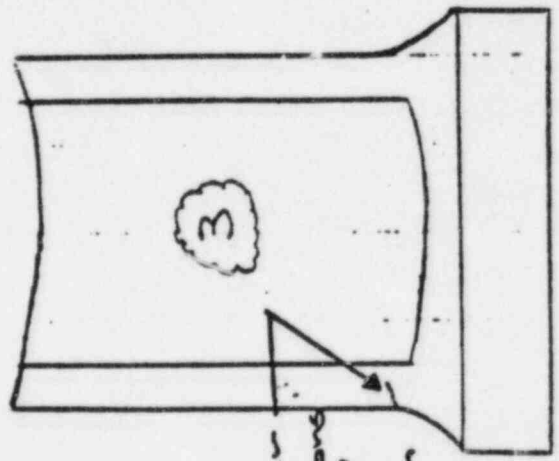


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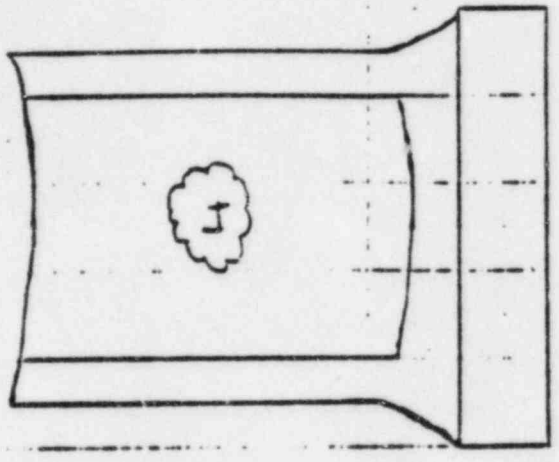


2

Side Views, looking out from inside



3



4

A. MATERIAL		TYPE C/S		FABRICATED FINISH		<input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> FURNACE	
CROSS SECTION THICKNESS		MAX	MIN	SURFACE CONDITION		<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER	
G1+C2				307		Supp 2	
INSPECTION MATERIALS		BRAND	DESTINATION	DATE			
1. PRE-CLEANER		Magnaflux	SKC-NF/267B	82J083			
2. PENETRANT			SKL-NP/267B	7DC73			
3. EMULSIFIER AND/OR REMOVER			SKC-NF/267B	82J083			
4. DEVELOPER			SKD-NF	82D11			
5. POST EXAMINATION CLEANER			SKC-NF/267B	82J083			
SKETCH OR OTHER DETAILS: USE OTHER SIDE IF NECESSARY Examined machined area around boss 103 Pieces Piston #3C							
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED, USE OTHER SIDE.					
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT IF NECESSARY)				
Bolt Hole							
1 See sketch	N/A	None	Accept				
2	5/32	linear	Reject (LDR Issued)				
	1/8	linear					
3	3/16, 1/4	Crack	Reject (LDR Issued)				
4	N/A	None	Accept				
	Like NDE G 2		E. H. Howell / Asst. Inspector 11/9/93				
	Page 7.2.2		II				
E. ATTEST	E. H. Howell		II		11/1/93		

Piston Skirt #3C
IR33EDG-103

SWP-1/Inst D K 616

COMPOSITE 1.0

FORM

1.1

FORM

A. MATERIAL		TYPE <i>c/s</i>	<input type="checkbox"/> FABRICATED <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> FORGED
CROSS SECTION THICKNESS		MAX _____ INCH MIN _____ INCH	SURFACE CONDITION <input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER
GEOMETRY <input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD <input checked="" type="checkbox"/> OTHER		PART NO. <i>367</i> QUANTITY <i>Supp 2</i> DATE <i>Dec 4/23/24</i> BATCH NO. <i>R-3-1143</i>	
INSPECTION MATERIALS		BRAND	DENOMINATION
1. PRE-CLEANER		<i>Magnaflux</i>	<i>SKC-NF/2C7B 32J033</i>
2. PENETRANT			<i>SKL-HP/3K12 7DC72</i>
3. EMULSIFIER AND/OR REMOVER			<i>SKC-NF/2C7B 32J033</i>
4. DEVELOPER			<i>SKD-NF 22D111</i>
5. POST EXAMINATION CLEANER			<i>SKC-NF/2C7B 32J033</i>
SKETCH OR OTHER DETAILS: USE OTHER SIDE IF NECESSARY <i>Examined machined area around boss</i>			
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL DATA IS REQUIRED, USE OTHER SIDE.	
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND CORRECT IF NECESSARY)
<i>Bolt Hole</i>			
<i>1 See sketch</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>
<i>2</i>	<i>3/32, 3/16</i>	<i>linear</i>	<i>Reject (LPR Issued)</i>
<i>3</i>	<i>1/4</i>	<i>linear</i>	
<i>4</i>	<i>7/16</i>	<i>Crack</i>	
	<i>Like NDE C2</i>		<i>E. Hassell / Asst. J. Crum</i>
	<i>Process 4.2.2</i>		<i>11/9/23</i>
E. ATTEST	<i>E. Hassell</i>		<i>11/9/23</i>

Piston Skirt # 4C

IR33EDG-102

SNP3-1/1 Inch P. E1C3

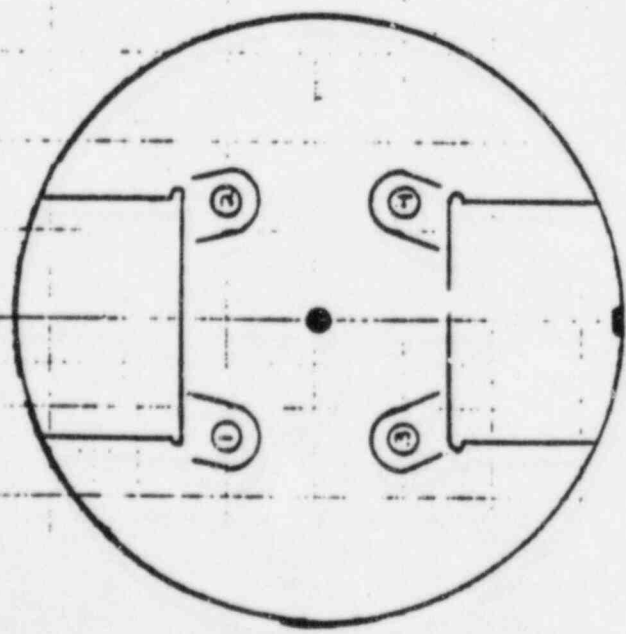
CONTRACT I.D.

CSPS

FION

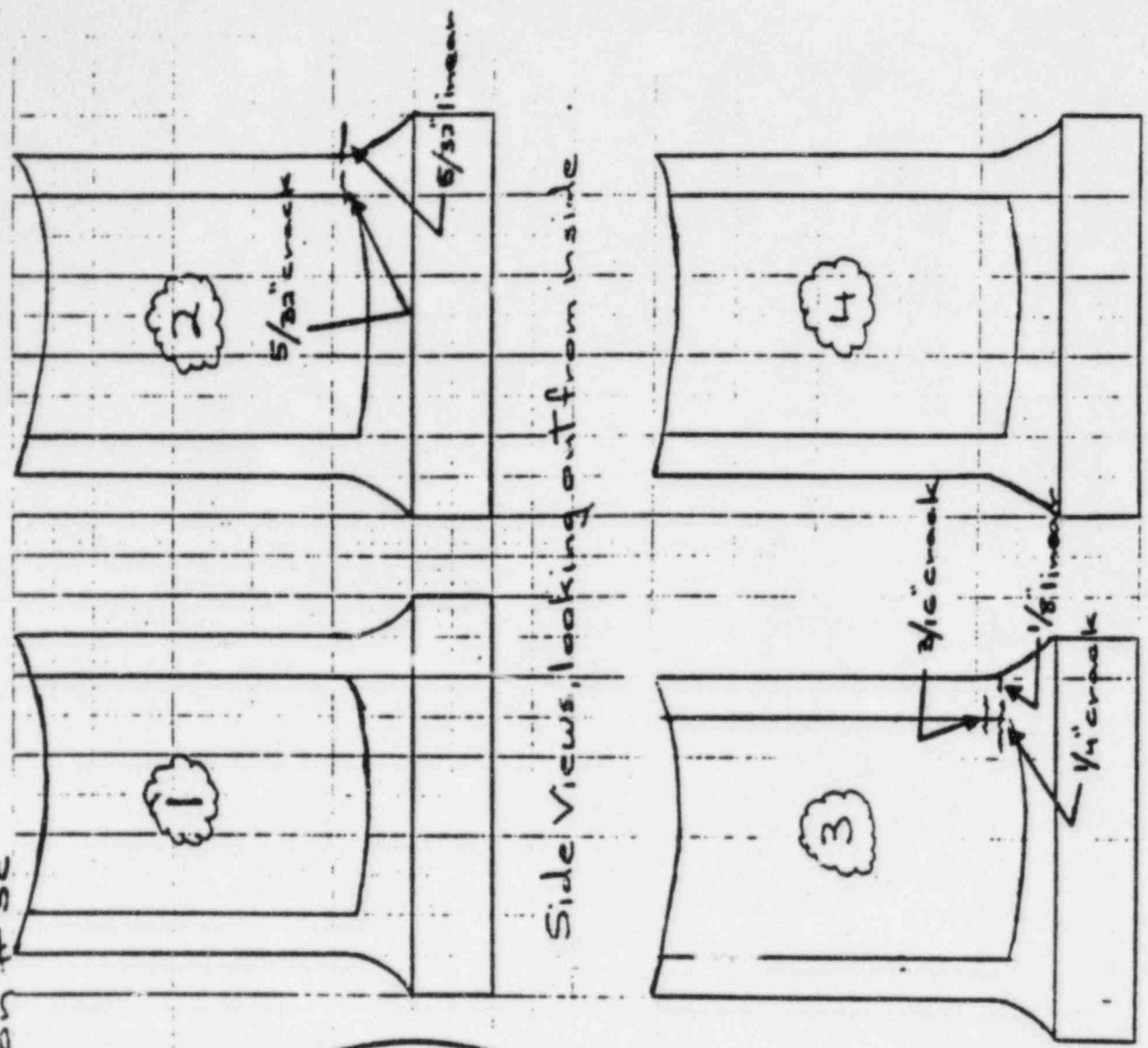
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Diesel #108 Piston #3c



NOTE: Side

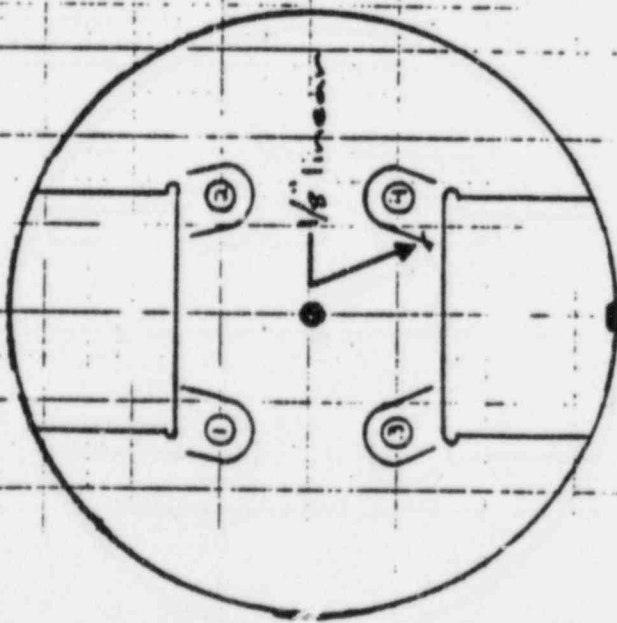
Overhead View



Side Views, looking out from inside

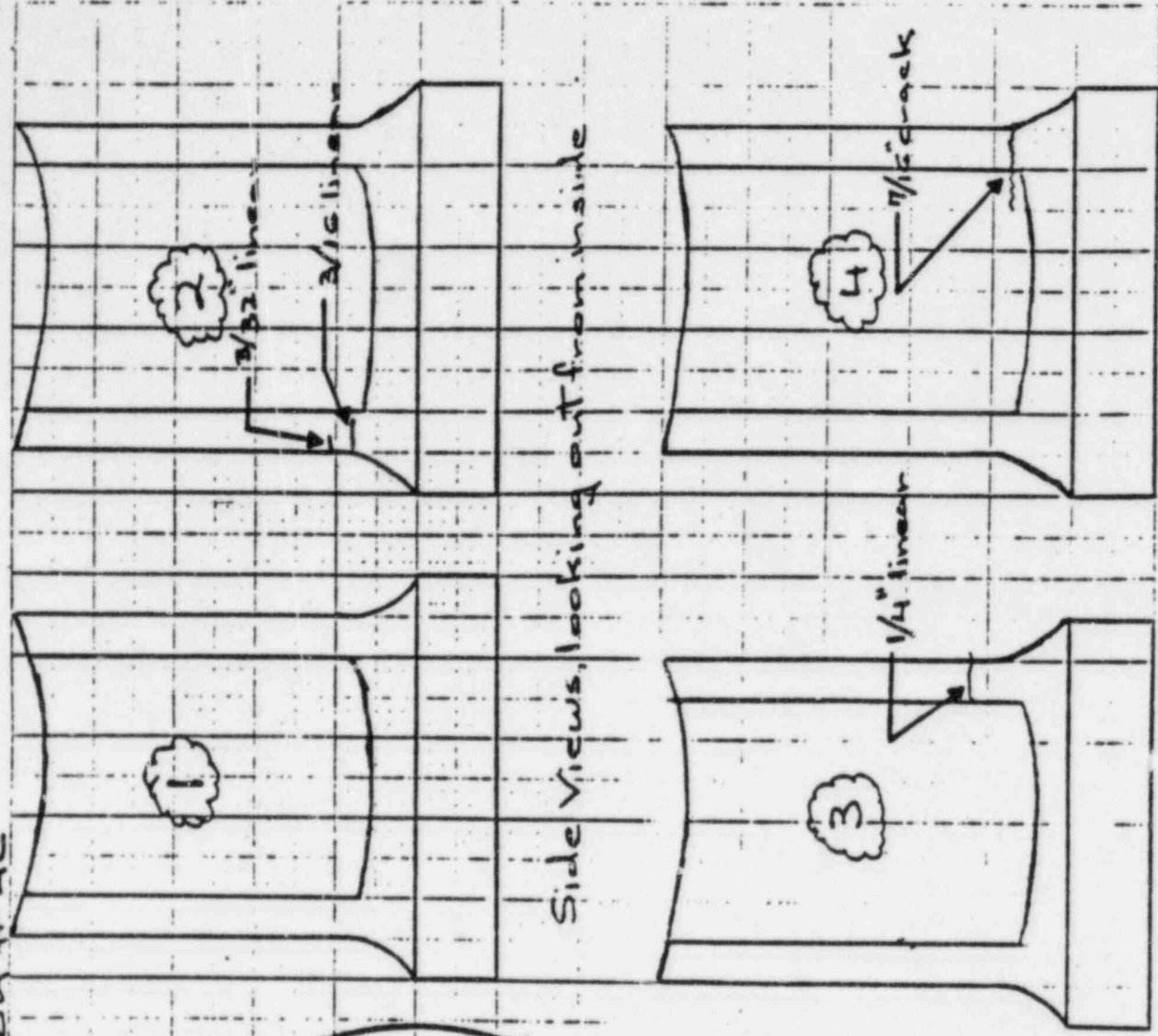
46 U740

Diesel #103 Piston #4C



Notch Side

Overhead View



Side Views, looking out from inside

A. MATERIAL		TYPE <i>C/S</i>	FABRICATED FINISHED	<input type="checkbox"/> WELDED	<input checked="" type="checkbox"/> CAST	<input type="checkbox"/> FORGED
CROSS SECTION THICKNESS		MAX — INCH	MIN — INCH	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED	<input type="checkbox"/> GROUND
					<input type="checkbox"/> AS FABRICATED	<input type="checkbox"/> OTHER
<i>G1+C2</i>		<i>327</i>	<i>Supp 2</i>			
INSPECTION MATERIALS		BRAND	DESTINATION	BATCH NO.		
1. PRE-CLEANER		<i>Magnaflux</i>	<i>SKG-NF/267B</i>	<i>82J083</i>		
2. PENETRANT			<i>SKL-NF/267B</i>	<i>7DC72</i>		
3. EMULSIFIER AND/OR REMOVER			<i>SKC-NF/267B</i>	<i>82J083</i>		
4. DEVELOPER			<i>SKD-NF</i>	<i>82D11</i>		
5. POST EXAMINATION CLEANER			<i>SKC-NF/267B</i>	<i>82J083</i>		
SKETCH OR OTHER DETAILS: USE OTHER SIDE IF NECESSARY				<i>103 Disc 1</i>		
<i>Examined machined area around boss</i>				<i>Piston #5C</i>		
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.				
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT IF NECESSARY)			
<i>Bolt Hole</i>						
<i>1 See sketch</i>	<i>1/8, 1/4</i>	<i>Cracks</i>	<i>Reject (LDR Issued)</i>			
<i>2</i>	<i>1/16</i>	<i>linear</i>				
	<i>5/16</i>	<i>Cracks</i>	<i>Reject (LDR Issued)</i>			
<i>3</i>	<i>N/A</i>	<i>None</i>	<i>Accept</i>			
<i>4</i>	<i>3/16, 1/4</i>	<i>Cracks</i>	<i>Reject (LDR Issued)</i>			
	<i>Like NDE C2</i>					
	<i>Para 3.2.2</i>					
E. ATTENT	<i>Carl Howell</i>		<i>H</i>	<i>11/1/03</i>		

Piston SKIT # 5C

IR33EDG-103

SNP-1/Hub D-4103

CORP-001-100

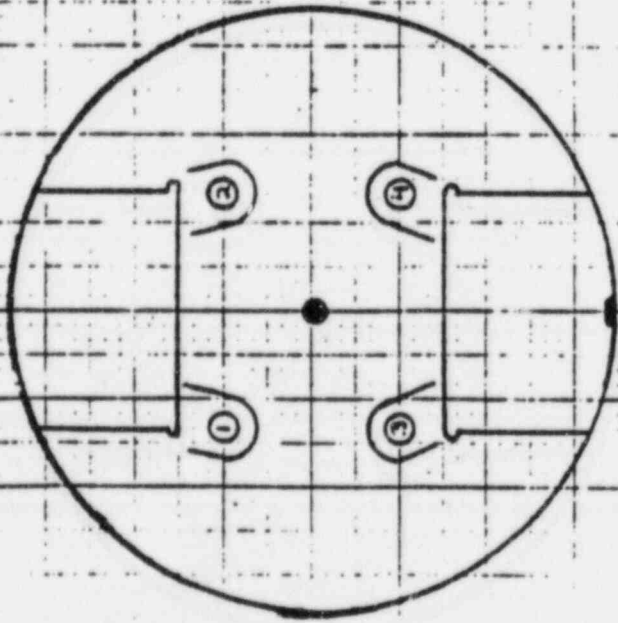
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VAC

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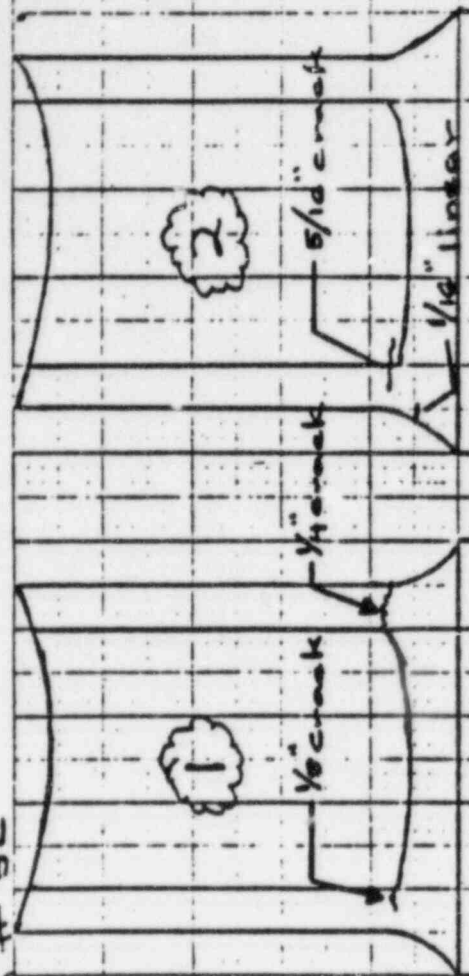
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Diesel #103 Piston # 5C



Notch side

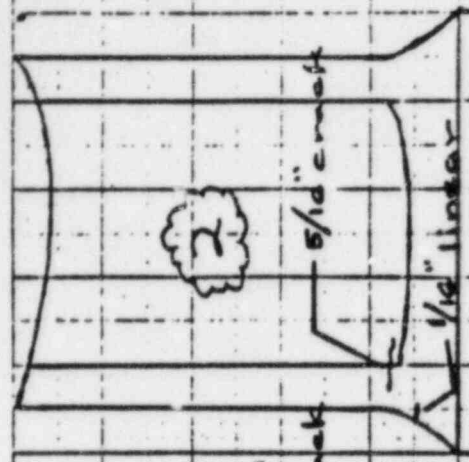
Overhead view



1

1/8" crack

1/8" crack

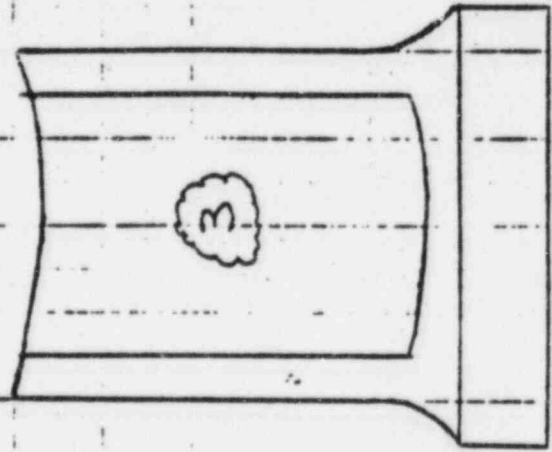


2

5/16" crack

1/16" linear

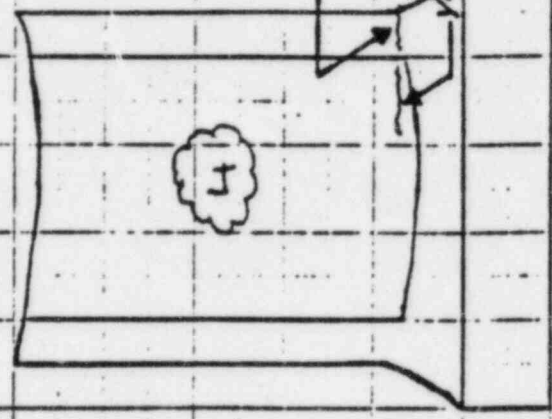
Side Views, looking out from inside



3

3/16" crack

1/8" crack



4

A. MATERIAL		TYPE <i>c/s</i>	FABRICATED FINISH	<input type="checkbox"/> WELDED	<input checked="" type="checkbox"/> CAST	<input type="checkbox"/> FORGED
CROSS SECTION THICKNESSES		MAX — INCH	MIN — INCH	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED	<input type="checkbox"/> GROUND
					<input type="checkbox"/> AS FABRICATED	<input type="checkbox"/> OTHER
<i>G1 + G2</i>		<i>367</i>	<i>367</i>	<i>367</i>	<i>367</i>	<i>367</i>
INSPECTION MATERIALS		BRAND	DENOMINATION	BATCH NO.		
1. PRE-CLEANER		<i>magnaflox</i>	<i>SKG-NF/267B</i>	<i>32J083</i>		
2. PENETRANT			<i>SKL-NF/267B</i>	<i>1DC72</i>		
3. EMULSIFIER AND/OR REMOVER			<i>SKG-NF/267B</i>	<i>32J083</i>		
4. DEVELOPER			<i>SKD-NF</i>	<i>32D11</i>		
5. POST EXAMINATION CLEANER			<i>SKG-NF/267B</i>	<i>32J083</i>		
SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY <i>Examined machined area around boss</i>						
1037 Disc 1 <u>Piston #GC</u>						
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL DATA IS REQUIRED, USE OTHER SIDE.				
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENTS IF NECESSARY)			
<i>Bolt Hole</i>	<i>1/8, 3/16</i>	<i>linear</i>	<i>Reject (LDR Issued)</i>			
<i>See Sketch</i>	<i>3/8</i>	<i>crack</i>				
<i>2</i>	<i>3/32</i>	<i>linear</i>				
<i>3</i>	<i>3/8</i>	<i>crack</i>	<i>Accept</i>			
<i>4</i>	<i>N/A</i>	<i>None</i>				
		<i>like NDE G2</i>	<i>E. Itasca/Asst. J. C. ...</i> <i>Pass 7-22</i> <i>11/9/03</i>			
E. ATTEST		<i>Carl Itasca</i>				

PISTON SKETCH # GC
 IR33EDG-103
 SVPS-1/Asst. Dr. EIC

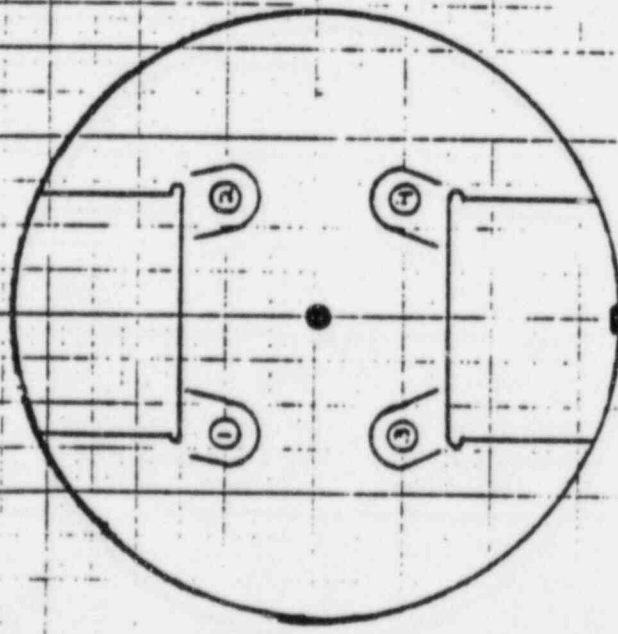
COMPOSITE 1.0

DISPENSE

1.01
1103

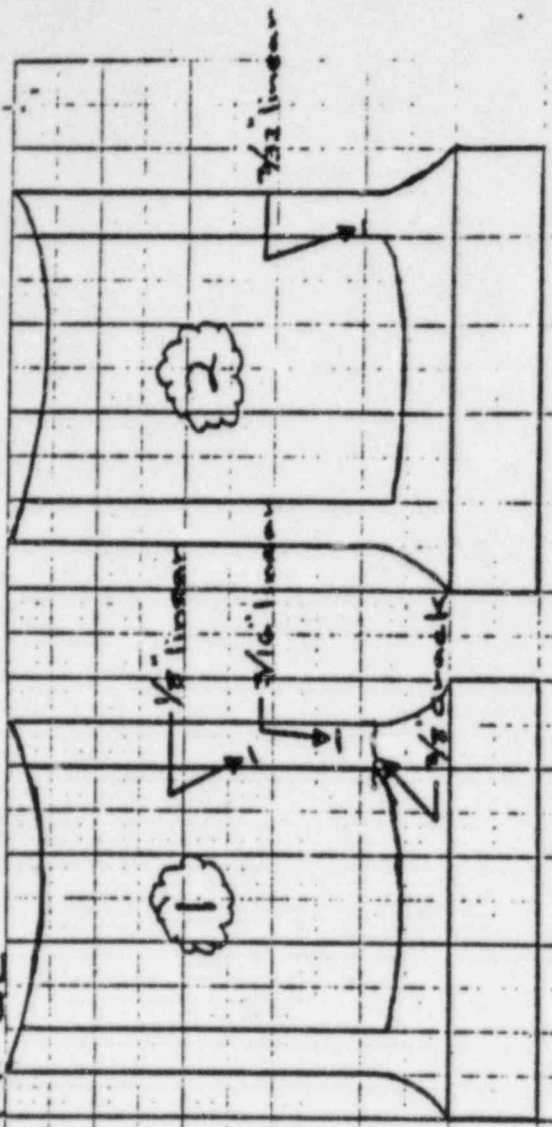
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Diesel #103 Piston # 6c

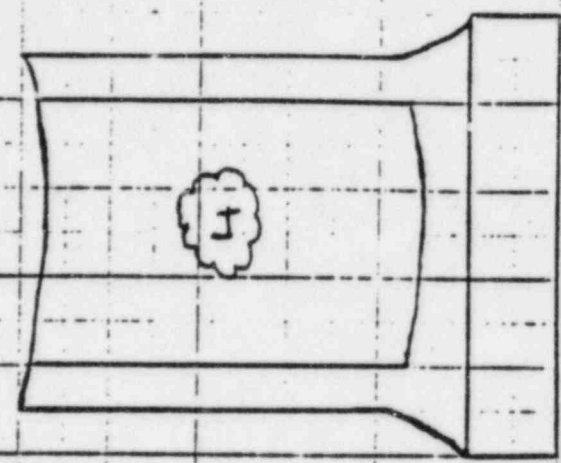
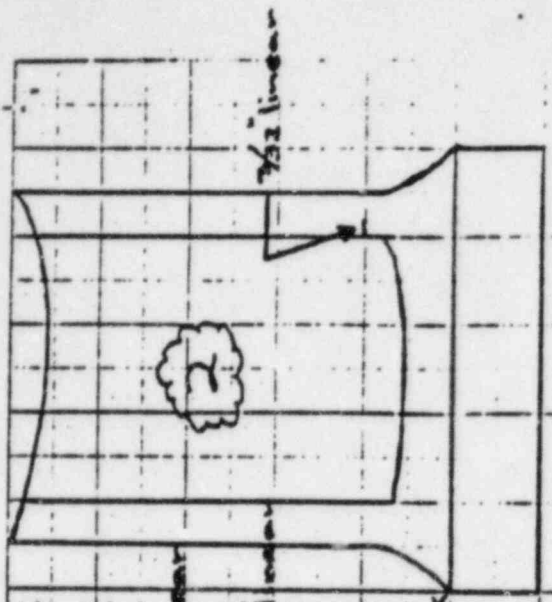
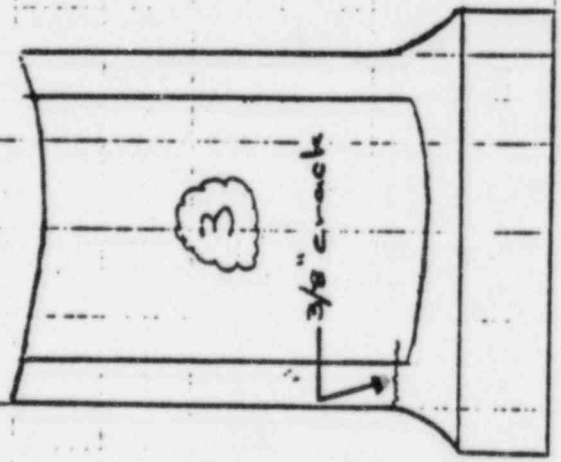


Notch Side

Overhead View

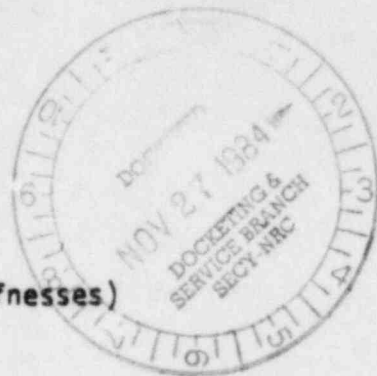


Side Views, looking out from inside



MINIMUM AND MAXIMUM STRESSES IN AE PISTON SKIRT FOR VARIOUS PEAK FIRING PRESSURES FOR ISOTHERMAL AND STEADY-STATE OPERATING CONDITIONS

(initial gap equals 0.007 inch, uses "nominal" stiffnesses)



peak firing pressure, psig	isothermal		steady-state	
	σ_{min} ksi	σ_{max} ksi	σ_{min} ksi	σ_{max} ksi
1670	-59.7	1.77	-42.7	7.74
2000	-69.4	1.77	-52.3	7.74
2200	-75.1	1.77	-58.1	7.74