

INSAT

PRIORITY

TERM Q-326

## COMPONENT TASK EVALUATION REPORT

1/3

20 MAR 20 1984

101 Pishin, Bunk

COMPONENT NO. 03-341A D.G. 101	TDI PART NO. 03-341A	INITIATOR <i>Kevin M. Felt</i> SIGNATURE	DATE 3-21-84	ORGANIZATION <input type="checkbox"/> ENGINEERING <input checked="" type="checkbox"/> QUALITY
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ADDITION DETAILS: ATTACHED INSPECTION REPORT (1 PAGES) GENERATED BY B. Hayes  
DATED 3-21-84 REPORTS UNSATISFACTORY INSPECTION RESULTS FOR THIS PART.

RECOMMENDATIONS: FORWARD TO DESIGN REVIEW FOR DISPOSITION.

*Attached IR is unsatisfactory  
See Sheet 2 for recommended disposition.*

REQUIRED COMPLETION DATE: 3-21-84

## ASSIGNMENT

POSITION ASSIGNED TO ENGINEERING <input type="checkbox"/> QUALITY	RESPONSIBLE CHAIRPERSON <u>R. Essner</u> SIGNATURE	DATE 3-21-84
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## DISPOSITION

DISPOSITION DETAILS: *Follow Procedure 1 OUTLINED ON PAGE 2*

DISPOSITION ASSIGNED TO ☒ ENGINEERING ☐ QUALITY ☐ NONE REQUIRED

APPLIED BY <u>K. Holan</u>	DATE 3-21-84	REVIEWED BY <u>K. Holan</u>	DATE 3-21-84	APPROVED BY <u>K. Holan</u>	DATE 3-21-84
		RESP. CHAIRPERSON		PROGRAM MANAGER	

## ACTION

ACTION ASSIGNED TO <u>C. Wells</u>	ACTION COMPLETED BY <u>K. Holan for C. Wells</u>	DATE 3-29-84
---------------------------------------	---	-----------------

CKS/GWR/RJN/EFM  
TER LOG

A1462

RECOMMENDED  
UNSAT TER DISPOSITION

TER # Q-326PAGE 2 OF 3

b Distribute for action as follows:

- 1) Design Review (G. Rogers) - Review as part of Design Review Task. Return to Quality Group a statement of acceptability (i.e., inspection information is sufficient for Design Review Group and no further inspections are required) or provide further detailed inspection/criteria, and add to Task Description "review information provided on TER Q-326", for each component affected.
- 2) SEO (J. Kammeyer) - distribute for information.
- 3) LSU/OQA - review for applicability and issue LDR as needed.
- 4) M. Schuster - obtain LDR number as issued for component files and closeout.

134463

QUALITY CONTROL  
IN INSPECTION REPORT

STONE & WEBSTER ENGINEERING CORPORATION

JOB NUMBER 11600.37	DATE 3-20-84
REFERENCE DOCUMENT(S)	
I.P. NO. <u>14</u> REV. <u>4</u> CHG <u>0</u>	
TER # <u>N/A</u>	
LILCO LP PROC. <u>N/A</u> REV. <u>N/A</u>	
DWG. NO. <u>N/A</u>	

SYSTEM(S) OR PART(S) NAME	LOCATION(S)
COMPONENT NAME:  <u>Pistons</u>	<u>DC-101</u>
COMPONENT NO. <u>03-341A</u>	

DWG. NO. OR P.O.	ITEM	QTY.	DESCRIPTION(S) AND INSPECTION REMARK(S)
	2	3	<p>A VISUAL INSPECTION OF THE SKIRT AND CROWN O.D. FOR SCUFFING, AND THE COMBUSTION BOWL IN CROWN FOR PITTING, WAS PERFORMED. THE FOLLOWING WAS NOTED:</p> <p>COMBUSTION BOWL - CYLS 5 AND 7 VERY SLIGHT SIGNS OF PITTING. CYLINDER 8 DISPLAYS A MORE SUBSTANTIAL AMOUNT OF PITTING.</p> <p>PISTON SKIRT - CYLINDERS 5, 7, AND 8 ALL DISPLAYED SIGNS OF SCUFFING</p>
<p>DATE NO. <u>N/A</u></p>			

11600.37

[

This inspection report is acceptable for design  
review.

Q-326

03-341A

K. L. C. Wells  
3/29/84

114465



102 Pistons Book 1

DEFICIENCY REPORT	FIELD <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	LDR RESPONSIBILITY <u>M. HERLIHY</u>	LDR NUMBER <u>2275</u>	
	APPOINTMENT <u>DESEL GEN</u>	SYSTEM DESIGNATOR <u>R43A</u>	MARK NO. <u>1A43 * EDS-101</u>	DATE <u>3/22/84</u> QCLASS <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III
CONTRACTOR <u>TDC</u>	P.O. <u>310552</u>	MATERIAL LOCATION <u>TB 63 ELEV</u>	REJECT TAG NO.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
RELATED <u>SHI-089</u>	DRAWING VIOLATED <u>NA</u>	PROCEDURE VIOLATED <u>NA</u>	CODE/STANDARD VIOLATED <u>NA</u>	

## ICN DETAILS

TER Q-326 (03-341A) REPORTS UNUSUAL CONDITIONS IN  
ONLS. THE CORROSION ZONES OF PISTONS & TANKS DURING  
NEW AMOUNTS OF PISTON. PISTON SKIRTS ON PISTONS & TANKS  
IS SCUFFED. QCIR ATTACHED.

(03-341A) 102

LTCR <u>A. R. Polans</u> 3.22.84	QCAE <u>A. R. Polans</u> 3/22/84
SIGNATURE	DATE

SIGLITY <input checked="" type="checkbox"/> LDR <input checked="" type="checkbox"/> QCAE	<u>A. R. Polans</u>	DATE <u>3.22.84</u>
SIGNATURE LEAD TOING.		
<input checked="" type="checkbox"/> ACCEPT USE <input type="checkbox"/> SCRAP	<input type="checkbox"/> REWORK <input type="checkbox"/> REPAIR	<input type="checkbox"/> MANUAL <input type="checkbox"/> PROCEDURE
		<input type="checkbox"/> FEAR <input type="checkbox"/> OTHER

## TICN DETAILS

IN ACCORDANCE WITH THE ATTACHED TOI  
AND THE ABOVE CONDITION IS ACCEPTABLE AS IS.  
CONDITION IS NOT DETRIMENTAL. COMPONENTS  
SHOULD BE CLEANED AND REINSTALLED.

<u>A. R. Polans</u> 3/24/84		<u>B. J. Gagliardi</u> 3/24/84	
LDR LEAD TOING DATE		PROJECT ENGINEER DATE	
U.ENG. DATE	LILCO SITE QCAE DATE	REPAIR/REWORK REQUEST NO.	
EMPLST/DATE	INT COMPLETE	REWORK INSPECTION	
MONT. CUP/DATE		<input type="checkbox"/> SAT. <input type="checkbox"/> UNSAT.	
LILCO SITE QCAE DATE		REMARKS	
LILCO SITE QCAE DATE		REMARKS	

## COMPONENT TASK EVALUATION REPORT

DG 102 Pistons, Book 2

TER NO. Q-4

UNSAT

COMPONENT NO. 341 A	TDI PART NO. 03-341-04-AC	INITIATOR <i>[Signature]</i>	DATE 2/20/84	ORGANIZATION <input checked="" type="checkbox"/> ENGINEERING <input checked="" type="checkbox"/> QUALITY -RTF
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CONDITION DETAILS: ATTACHED INSPECTION REPORTS (4 PAGES) BY M. T. KERMIA/H. A. L. D. 2-11-84. WAS GENERATED AS INFORMATIONAL, AS NO ACCEPTANCE CRITERIA WAS PROVIDED PRIOR TO THE PERFORMANCE OF THE INSPECTION.

RECOMMENDATIONS: FORWARD TO DESIGN REVIEW FOR EVALUATION

REPAIRED COMPLETION DATE:

2/21/84

## ASSIGNMENT

ASSIGNMENT ASSIGNED TO ENGINEERING <input type="checkbox"/> QUALITY	RESPONSIBLE CHAIRPERSON <i>R. Fraser</i> SIGNATURE	DATE 2-21-84
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## DISPOSITION

DISPOSITION DETAILS: See attached sheet 2 of 6  
Attached IR. is UNSAT

DISPOSITION ASSIGNED TO		<input checked="" type="checkbox"/> ENGINEERING	<input checked="" type="checkbox"/> QUALITY	<input type="checkbox"/> NONE REQUIRED
APPLIED BY <i>R. Fraser</i>	DATE 2/22/84	REVIEWED BY <i>R. Fraser</i>	DATE 2/22/84	APPROVED BY <i>C. T. H. [Signature]</i>
		RESP. CHAIRPERSON	PROGRAM MANAGER	

## ACTION

ACTION ASSIGNED TO <i>Schuster, E. Youngling</i> <i>P. G. Rogers</i> <i>H. E. J. Koenig</i>	ACTION COMPLETED BY	DATE

C: CKS/GWR/RJN/EFM  
TER LOG

A14780

TER DISPOSITION

Distribute for action as follows:

- 1) Design Review (G. Rogers) - Review as part of site experience. Return to Quality Group a statement of acceptability (i.e., inspection information is sufficient for Design Review Group and no further inspections are required) or provide further detailed inspection/criteria, and add to Task Description "review information provided on TER \_\_\_\_\_", for each component affected.
- 2) SEO (J. Kammeyer) - distribute for information.
- 3) LSU/OCA - review for applicability and issue LDR as needed.
- 4) M. Schuster - obtain LDR number as issued for component files and closeout.

A1481

## STONE &amp; WEBSTER ENGINEERING CORPORATION

J W W

INSPECTION  
REPORT

JOB NUMBER

DATE

1160057

2-11-84

SYSTEM(S) OR  
PART(S) NAME

LOCATION(S)

REFERENCE  
DOCUMENT(S)Piston Skirt  
3 (03-341-04-A2)

DG. 102

SHI-089

I.P. 03-311-A  
-14 2/12/84

Visual Insp.

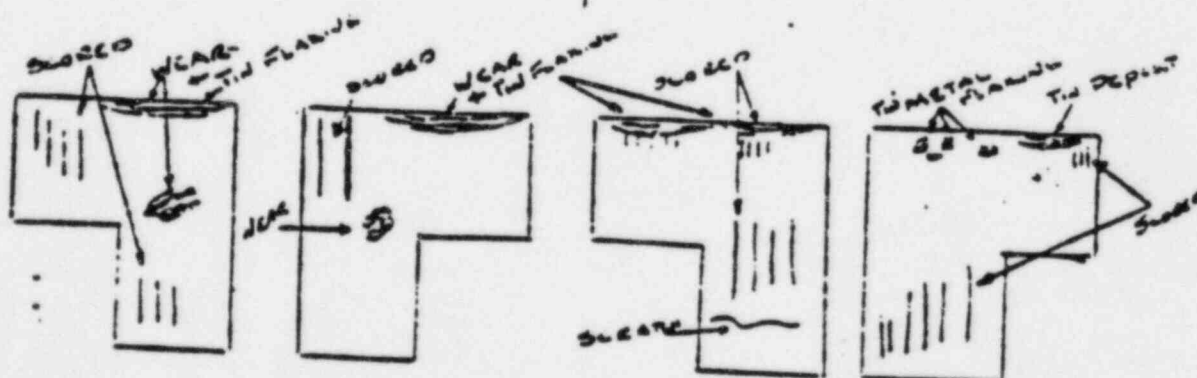
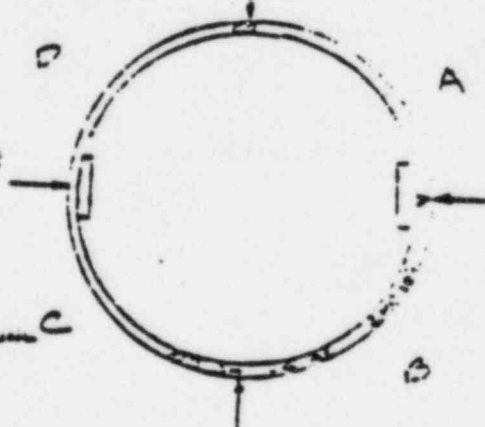
2801h

ITEM QTY

DESCRIPTION(S) AND INSPECTION REMARK(S)

PERFORMED VISUAL INSP. ON O.D. OF PISTON SKIRT AREA  
FOR ABOVE REF. PISTON BELOW FIND THE INSP. RESULTS.

O.D. SURFACE  
SLIGHT WEARMARKS  
SMALL SCALLOPS & SCRATCHES  
AREAS ALONG WITH  
SURFACE TIPPING FLAKES



A

B

C

D

A14182

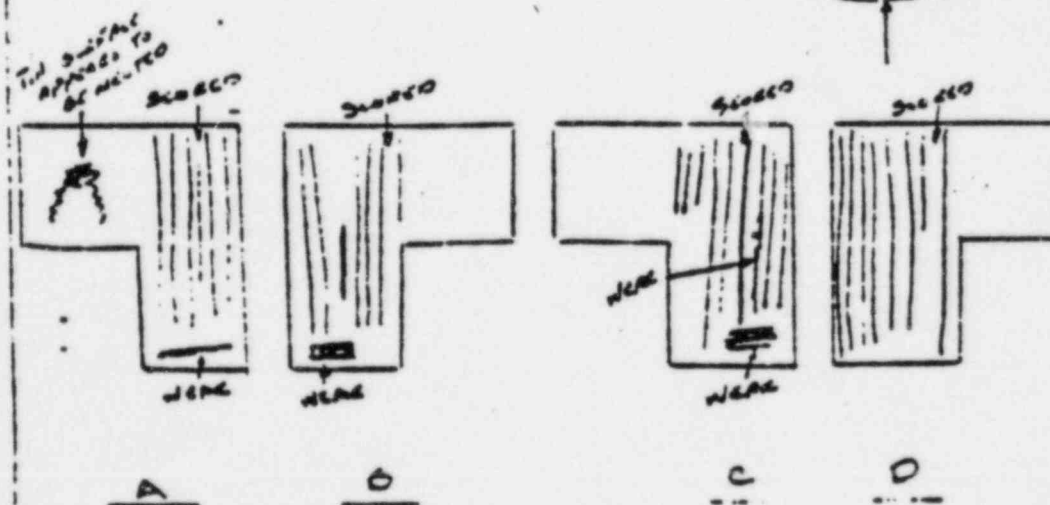
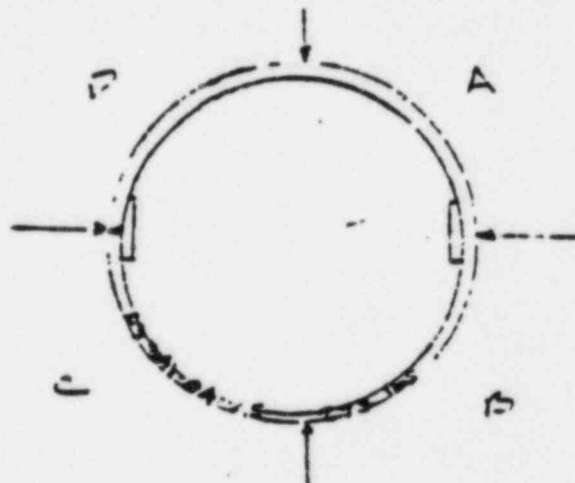
ITEM(S) OR PART(S) NAME	LOCATION(S)	REFERENCE DOCUMENT(S)
PISTON SKIRT (03-341-04-AL) VISUAL INSP.  273 lbs.	DL 102	OH1-089 I.P. - 03-341-04-AL -14 2/12/84

ITEM QTY	DESCRIPTION(S) AND INSPECTION REMARK(S)
	PERFORMED VISUAL INSP ON O.D. OF PISTON SKIRT AREA FOR ABOVE REF. PISTON. BELOW FIND THE INSP. RESULTS.

## O.D. SURFACE:

SLIGHT WEARMARKS, SHALLOW  
 SLEECED & BLEACHED AREAS.

THICKENED SURFACE WORN IN SPOTS





T. RUL REPORT		Job Number	Date
SYSTEM(S) OR PART(S) NAME	LOCATION(S)	REFERENCE DOCUMENT(S)	
PISTON SKIRTS #7 (03-341-04-AE) VISUAL INSP.  272: 100.	DG. 102	341-089 1P-03-341-A QNA -14 2/12/54	

ITEM QTY	DESCRIPTION(S) AND INSPECTION REMARK(S)
	<p>PERFORMED VISUAL INSP. ON O.D. OF PISTON SKIRT AREA. FOR ABOVE REF. PISTON. BELOW FIND THE INSP. RESULTS</p> <p>Bottom section. LENGTHWISE CONTAINS SHALLOW SCRAT ON THE O.D. (4" TO 15 1/2" LONG. HEAVIEST ON SIDES BETWEEN Wrist PIN HOLES, SOME SCUFFING ALSO EVID WITH MINOR METAL UPSET.</p>

A42184



# ROL REPORT

FILE NUMBER

11600.71

DATE

3/2/84

SYSTEM(S) OR  
PART(S) NAME

LOCATION(S)

REFERENCE  
DOCUMENT(S)

03-341 A  
PISTONS

DG-102

I.P. NO 14

ITEM	QTY	DESCRIPTION(S) AND INSPECTION REMARK(S)
3	1	<p>DURING OUR INSPECTION OF PISTONS NO. 5, 7, AND 8 IT WAS NOTED THAT THE CROWN ON NUMBER 6 PISTON WAS DROPPED ON THE FLOOR DURING DISASSEMBLY. A VISUAL INSPECTION WAS PERFORMED ON THE CROWN ONLY. A GOUGE WAS NOTED IN THE RADIUS NEXT TO A EYE BOLT HOLE <math>\frac{1}{2}</math>" LONG X <math>\frac{1}{8}</math>" WIDE X <math>\frac{1}{16}</math> DEEP.</p>

11600.71

PAGE

Transamerica  
Delaval



Transamerica Delaval Inc.  
Engine and Compressor Division  
350 85th Avenue  
P.O. Box 2181  
Oakland, California 94621

Date: 1 MARCH 1984 S-42  
To: JOHN KAMMEYER  
From: DON SCHMITZ  
Subject: EMERGENCY DIESEL GEN #102- SN 74011  
MECHANICAL WEAR ON VARIOUS COMPONENTS  
LDR- 2147, 2146, 2145, 2144, 2143

THE WEAR REPORTED ON SUBJECT LDR'S  
WAS INSPECTED BY MR. M. LOWERY  
OF DELAVALL ENGINEERING AND A DETERMINATION  
WAS MADE THAT THE WEAR WAS  
NORMAL AND COMPONENT SHOULD BE  
USED IN THE 'AS IS' CONDITION.

Donald L Schmitz

AL4456

Memo

## COMPONENT TASK EVALUATION REPORT

UNSAT

ATT #3

Pg 1/8

Q82  
ATT #3

EM/COMPONENT NO. 350C 3341A	TDI PART NO. 02-350-01-0A 03-341-04-AE	INITIATOR R. Fraser for S. Rothman SIGNATURE	DATE 2/28/84	ORGANIZ. <input type="checkbox"/> ENGINEERING <input checked="" type="checkbox"/> QUALITY
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CONDITION DETAILS: The attached I.R. by E. Kuhn and J. Dolan, dated 2/15/84 (pgs 2,3 attached) was transmitted as Information. It is an unsatisfactory Inspection Report (03-350C, DR-175) and 2/13/84 (pgs 4-7 attached) was transmitted as Information. It is an unsatisfactory Inspection Report (03-341A, DR-183). This TER supercedes DR-175, DR-183 in its entirety.

Forward to Design Group for evaluation and SEO-LSU for INFO.

REQUIRED COMPLETION DATE:

## ASSIGNMENT

POSITION ASSIGNED TO ENGINEERING <input checked="" type="checkbox"/> QUALITY	RESPONSIBLE CHAIRPERSON R. Fraser SIGNATURE	DATE 2-28-84
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## DISPOSITION

POSITION DETAILS: The attached I.R.s (referenced above) are unsatisfactory. See Sheet 2.

THIS TER SUPERCEDES TERs DR-175 & DR-183 IN THEIR ENTIRETY

POSITION ASSIGNED TO	<input checked="" type="checkbox"/> ENGINEERING	<input checked="" type="checkbox"/> QUALITY	<input type="checkbox"/> NONE REQUIRED
DEVELOPED BY E. Kuhn & J. Dolan DATE 2/28/84	REVIEWED BY R. Fraser DATE 2/28/84	APPROVED BY S. Rothman DATE 2/28/84	DAI 2/28/84
	RESP. CHAIRPERSON	PROGRAM MANAGER	

## ACTION

ACTION ASSIGNED TO Rogers, M. Schuster E. Youngling L. Kammeyer	ACTION COMPLETED BY [Signature]	DATE 03-06-84
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CKS/GWR/RJN/EFM  
TER LOG

VISUAL 5,7 & 8  
2/13/84

A11515

UNSAT TER DISPOSITIONQ-82  
2/8

Distribute for action as follows:

- 1) Design Review (G. Rogers) - Review as part of Design Review Task. Return to Quality Group a statement of acceptability (i.e., inspection information is sufficient for Design Review Group and no further inspections are required) or provide further detailed inspection/criteria, and add to Task Description "review information provided on TER Q-82", for each component affected.
- 2) SEO (J. Kammeyer) - distribute for information.
- 3) LSU/OQA - review for applicability and issue LDR as needed.
- 4) M. Schuster - obtain LDR number as issued for component files and closeout.

A10516

# QUALITY CONTROL INSPECTION REPORT

STONE &amp; WEBSTER ENGINEERING CORPORATION

082

JOB NUMBER

11600-37

DATE

2/13/84

SYSTEM(S) OR  
PART(S) NAME

LOCATION(S)

REFERENCE  
DOCUMENT(S)

PISTON CROWN

DG 102

DG INSD PLAN #14

COMPONENT 03-341A  
REV 0DWG. NO.  
OR P.O.

ITEM

QTY.

DESCRIPTION(S) AND INSPECTION REMARK(S)

3

3

Performed a visual inspection of the crown outside diameter and combustion bowl. All surfaces were found satisfactory. No signs of pitting or scuffing were noticed. Numbers 5, 7, and 8

A10517

QUALITY CONTROL INSPEC./ENG.

DATE

PAGE

J. L. O'Brien / A. K. O'Brien

2/13/84

1 of 1



Q-82  
03-3500  
03-341A

This inspection report is acceptable for design  
review

K. Loh for C. Wells  
Conversation 3/6/84

A10518



102 Pistons Book 1  
Q-83

## COMPONENT TASK EVALUATION REPORT

14

1/4

ATTR. #3

SYSTEM/COMPONENT NO. <i>Piston</i> <i>CB-341-A</i>	TDI PART NO. <i>1A-6522</i>	INITIATOR <i>R. Eraser</i> SIGNATURE	DATE <i>2/19/84</i>	ORGANIZATION <input type="checkbox"/> ENGINEERING <input checked="" type="checkbox"/> QUALITY
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## CONDITION DETAILS:

VISUAL INSPECTION PERFORMED ON PISTON SKIRTS  
INSPECTION REPORTS FOR SKIRT #5, 7, 8 ATTACHED.

## RECOMMENDATIONS:

SUBMIT FOR FAA REVIEW & ACTION AND SEO-LSU  
FOR INFO

REQUIRED COMPLETION DATE: *2/19/84*

## ASSIGNMENT

POSITION ASSIGNED TO <input type="checkbox"/> ENGINEERING <input checked="" type="checkbox"/> QUALITY	RESPONSIBLE CHAIRPERSON <i>R. Eraser</i> SIGNATURE	DATE <i>2-28-84</i>
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## DISPOSITION

DISPOSITION DETAILS: *Attached I.R. is unsatisfactory.*  
*See Sheet 2*

THIS TER SUPERCEDES TER # DR-183 IN ITS ENTIRETY

ACTION ASSIGNED TO		<input checked="" type="checkbox"/> ENGINEERING	<input checked="" type="checkbox"/> QUALITY	<input type="checkbox"/> NONE REQUIRED	
INITIATED BY <i>R. Eraser</i>	DATE <i>2/28/84</i>	REVIEWED BY <i>R. Eraser</i>	DATE <i>2/28/84</i>	APPROVED BY <i>John L. Chasman</i>	DATE <i>2/28/84</i>
		RESP. CHAIRPERSON		PROGRAM MANAGER	

## ACTION

ACTION ASSIGNED TO <i>John L. Chasman</i> <i>John L. Chasman</i> <i>CC: CKS/GNR/PJH/EFH</i>	ACTION COMPLETED BY <i>K. Adair for C Wells</i>	DATE <i>3/1/84</i>
--	--	-----------------------

CC: CKS/GNR/PJH/EFH  
TER LOG

DUPLICATE ISSUE OF  
IRS ON Q-41

A11522

G-8:  
2/4UNSAT TER DISPOSITION

Distribute for action as follows:

- 1) Design Review (G. Rogers) - Review as part of Design Review Task. Return to Quality Group a statement of acceptability (i.e., inspection information is sufficient for Design Review Group and no further inspections are required) or provide further detailed inspection/criteria, and add to Task Description "review information provided on TER Q-83", for each component affected.
- 2) SEO (J. Kammeyer) - distribute for information.
- 3) LSU/OQA - review for applicability and issue LDR as needed.
- 4) M. Schuster - obtain LDR number as issued for component files and closeout.

A40530

3/4

QUALITY CONTROL  
INSPECTION REPORT

STONE &amp; WEBSTER ENGINEERING CORPORATION

JOB NUMBER

DATE

2/11/54

SYSTEM(S) OR  
PART(S) NAME

LOCATION(S)

REFERENCE  
DOCUMENT(S)

PISTON SKIRTS  
#7 (03-341-04-AE)  
VISUAL INSP.

DL. 102.

341-089

IP-03-341-A QNA  
-14 2/12/54

278 lbs.

DWG. NO.  
OR P.O.

ITEM

QTY.

DESCRIPTION(S) AND INSPECTION REMARK(S)

PERFORMED VISUAL INSP. ON O.D. OF PISTON SKIRT  
AREA. FOR ABOVE REF. PISTON. BELOW FIND THE INSP.  
RESULTS.

BOTTOM SECTION - LENGTHWISE CONTAINS SHALLOW SCRATCHES  
ON THE O.D. (4" TO 15 1/2" LONG - HEAVIEST ON SIDES  
BETWEEN WEIST PIN HOLES, SOME SCUFFING ALSO EVIDENT  
WITH MINOR METAL UPSET.

A40534

QUALITY CONTROL ENGINEERING, INC.

DATE

PAGE

4/4

QUALITY CONTROL  
INSPECTION REPORT

STONE &amp; WEBSTER ENGINEERING CORPORATION

JOB NUMBER

11600.37

DATE

2-11-84

REFERENCE  
DOCUMENT(S)SYSTEM(S) OR  
PART(S) NAMEPISTON SKIRT  
#B (03-341-04-AE)  
VISUAL INSP.

LOCATION(S)

DG 102

SHI-089

I.P. - 03-341-A  
-14 2/12/84

273 lbs.

DESCRIPTION(S) AND INSPECTION REMARK(S)

DWG. NO.  
OR P.O.

ITEM

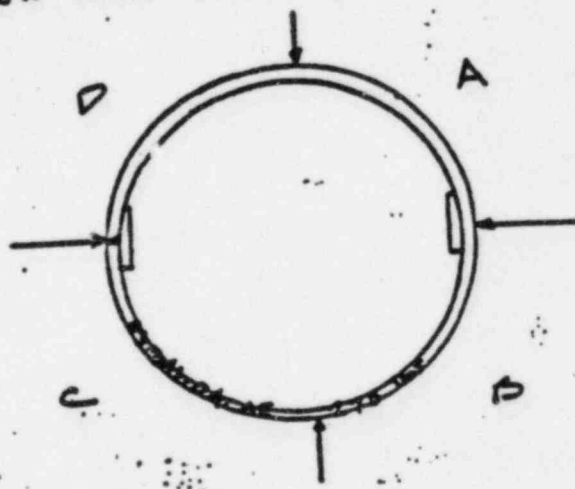
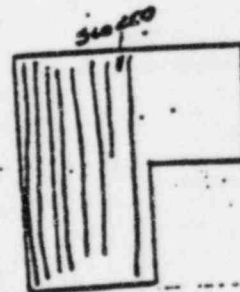
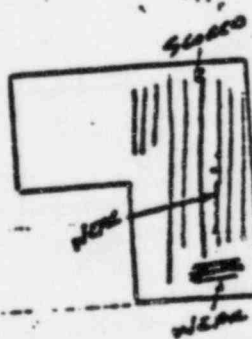
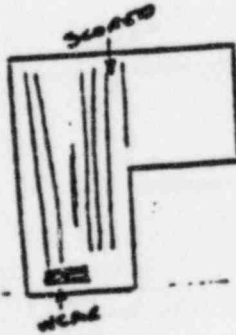
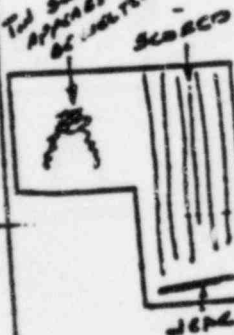
QTY.

PERFORMED VISUAL INSP. ON O.O. OF PISTON SKIRT AREA:  
FOR ABOVE REF. PISTON. BELOW FIND THE INSP. RESULTS.

O.O. SURFACE:

SLIGHT WEARMARKS, SHALLOW  
SCORED & SCRATCHED AREAS.

TURNED SURFACE WORN IN SPOTS.

THE SURFACE  
APPEARS TO  
BE UNIFORM

No More Information is required for  
Design Review K. Solon for C. Wells  
Conversation 3/1

A10533



INFO

## COMPONENT TASK EVALUATION REPORT

QAE 30-25

Q-109  
1/3

STEM/COMPONENT NO. 3-341 A	TDI PART NO. 1A-6522	INITIATOR B. H. L. J.	DATE 3-6-84	ORGANIZATION <input type="checkbox"/> ENGINEERING <input type="checkbox"/> QUALITY
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ADDITION DETAILS: ATTACHED INSPECTION REPORT (1 PAGES) BY  
DATED 2-13-84 WAS GENERATED AS INFORMATIONAL, AS NO ACCEPTANCE  
2. FURTHER WAS PROVIDED PRIOR TO THE PERFORMANCE OF THE INSPEC-  
ON.

COMMENDATIONS: FORWARD TO DESIGN REVIEW FOR EVALUATION

Attached IR is informational only.  
See Sheet 2 for recommended disposition.

REQUIRED COMPLETION DATE:

3-7-84

ASSIGNMENT		
POSITION ASSIGNED TO ENGINEERING <input type="checkbox"/> QUALITY	RESPONSIBLE CHAIRPERSON R. Fraser	DATE 3-7-84

DISPOSITION	
DISPOSITION DETAILS: FOLLOW PROCEDURE 1 OUTLINED ON PAGE 2	

DISPOSITION ASSIGNED TO		<input checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> QUALITY	<input type="checkbox"/> NONE REQUIRED
APPLIED BY Kenny A. L.	DATE 3-7-84	REVIEWED BY Kenny A. L.	DATE 3-7-84	APPROVED BY J. L. L. for C. K. L.
		RESP. CHAIRPERSON	PROGRAM MANAGER	

ACTION		
ACTION ASSIGNED TO C. Wells	ACTION COMPLETED BY C. Wells	DATE 03-09-84
Info: K. L. L.		

C: CKS/GWR/RJN/EFM  
TER LOG

VISUAL 5, 7, 8

2/13/84

A11519

DUPLICATE ISSUE OF  
IR'S ON Q-82  
CHANGED FROM INFO Q109  
TO UNSAT ON Q82



Q-109  
2/3

RECOMMENDED  
INFORMATION TER DISPOSITION

Distribution for action as follows:

- 1) Design Review (G. Rogers) - Review as part of Design Review Task. Return to Quality Group a statement of acceptability (i.e., inspection information is sufficient for Design Review Group and no further inspections are required) or provide further detailed inspection/criteria, and add to Task Description "review information provided on TER Q-109", for each component affected.
- 2) SEO (J. Kammeyer) - distribute for information.

A10520

3/3

QUALITY CONTROL SECTION REPORT		JOB NUMBER	DATE
STONE & WEBSTER ENGINEERING CORPORATION		11600-37	2/13/84
SYSTEM(S) OR PART(S) NAME	LOCATION(S)	REFERENCE DOCUMENT(S)	
PISTON CROWN COMPONENT 03-341A REV 0	OG 102	OG Insp Plan #14	

WG. NO. OR P.O.	ITEM	QTY.	DESCRIPTION(S) AND INSPECTION	REMARK(S)
	3	3	Performed a visual inspection of the crown outside diameter and combustion bowl. All surfaces were found satisfactory. No signs of pitting or scuffing were noticed. NUMBERS 5, 7, AND 9	

A14521

QUALITY CONTROL / INSP. / ENG.	DATE	PAGE
CL. AND / AKL	2/13/84	1 of 1

Q-109  
03-341A

This inspection Report is satisfactory  
for design Review

*[Signature]*

A14522

MHS 03-341A

1 <b>LILCO</b> <b>DEFICIENCY REPORT</b>		<input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OTHER	LDR RESPONSIBILITY M. Herlihy LSU	LDR NUMBER 2147 <del>1047</del>
2	SYSTEM/COMPONENT Emer. Diesel Gen.	SYSTEM DESIGNATOR 1R43B	MARK NO. 1R43*ENG-02	DATE 2/29/84
3	MFG./CONTRACTOR TDI	P.O. 310552	MATERIAL LOCATION EDG-102 Rooms	Q CLASS <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III
4	SPEC. VIOLATED SHI-039	DRAWING VIOLATED N/A	PROCEDURE VIOLATED N/A	REJECT TAG NO. CODE/STANDARD VIOLATED N/A
5 CONDITION DETAILS The enclosed DGQRG TER#Q-41 dated 2/22/84 identifying discrepancies on pistons #5, #7, & #8 for Diesel Generator #102 requires resolutions.				
6	ORIGINATOR M. Herlihy	DATE 2/29/84	SIGNATURE M. Herlihy	DATE 2/29/84
7	RESPONSIBILITY <input type="checkbox"/> LSU <input checked="" type="checkbox"/> S & W ENG.	SIGNATURE/LEAD SU ENG. M. Herlihy	DATE 2/29/84	FSAR <input checked="" type="checkbox"/> OTHER SEE BELOW FOR
8	ACTION <input checked="" type="checkbox"/> ACCEPT AS IS <input type="checkbox"/> SCRAP	<input type="checkbox"/> REWORK <input type="checkbox"/> REPAIR	<input type="checkbox"/> MANUAL <input type="checkbox"/> PROCEDURE	
9 DISPOSITION DETAILS THE CONDITIONS IDENTIFIED IN THE ATTACHMENTS ARE ACCEPTABLE AS IS. CONDITIONS HAVE BEEN EVALUATED AND ARE NOT TO BE NORMALLY WEARY NOT CONSIDERED A UNSATISFACTORY CONDITION. REFERENCE: THE ATTACHED TDI MEMO. * NOTE - THE CONDITION DESCRIBED FOR THE #6 PISTON WAS ADDRESSED ON LDR-2081				
10	APPROVALS S & W LEAD ENG./LSU TEST DATE/DATE 3/1/84	PROJECT ENGINEER E. J. L. Jr.	DATE 3/1/84	
11	LILCO SU ENG. ENG. COMPLETE/DATE	LILCO SITE OGA ARR COMPLETE	REPAIR/REWORK REQUEST NO.	REWORK INSPECTION <input type="checkbox"/> SAT. <input type="checkbox"/> UNSAT.
12	CONST. SUPT./DATE	LILCO SU/DATE	LILCO SITE OGA/DATE	REMARKS A. 1. 178
13	LDR CLOSED LILCO SITE OGA/DATE	NEW LDR REPORT NO. ISSUED		

Transamerica  
Delaval



Transamerica Delaval Inc.  
Engine and Compressor Division  
550 85th Avenue  
P.O. Box 2181  
Oakland, California 94621

Date: 1 MARCH 1984 S-V2  
To: JOHN KAMMEYER  
From: DON SCHMITZ  
Subject: EMERGENCY DIEZEL GEN #102- SN 7401  
MECHANICAL WEAR ON VARIOUS COMPONENTS  
LOR- 2147, 2146, 2145, 2144, 2143

THE WEAR REPORTED ON SUBJECT LOR'S  
WAS INSPECTED BY MR. M. LOWREY  
OF DELAVALL ENGINEERING AND A DETERMINATION  
WAS MADE THAT THE WEAR WAS  
NORMAL AND COMPONENT SHOULD BE  
USED IN THE 'AS IS' CONDITION.

Donald L Schmitz

114156

Memo



TER # Q-159

1/3

## COMPONENT TASK EVALUATION REPORT

ITEM/COMPONENT NO. <u>03-341A</u> <u>DG-103</u>	TDI PART NO. <u>1A-5522</u>	INITIATOR <u>Kenneth J. Fitch</u> SIGNATURE	DATE <u>3-12-84</u>	ORGANIZATION <input type="checkbox"/> ENGINEERING <input checked="" type="checkbox"/> QUALITY
---	--------------------------------	---	------------------------	---

CONDITION DETAILS: Attached Inspection Report (1 page) by B Hayes dated 3-12-84 was generated as informational, no acceptance criteria was provided prior to the performance of the inspection.

RECOMMENDATIONS: Forward to Design Review for evaluation.  
Attached IR is unsatisfactory.  
See Sheet 2 for recommended action.

REQUIRED COMPLETION DATE: 3-12-84

## ASSIGNMENT

POSITION ASSIGNED TO ENGINEERING <input type="checkbox"/> QUALITY	RESPONSIBLE CHAIRPERSON <u>R. F. Green</u> SIGNATURE	DATE <u>3-12-84</u>
--	--	------------------------

## DISPOSITION

DISPOSITION DETAILS:

DISPOSITION ASSIGNED TO		<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> QUALITY	<input type="checkbox"/> NONE REQUIRED
APPLIED BY	DATE	REVIEWED BY	DATE	APPROVED BY
		RESP. CHAIRPERSON		PROGRAM MANAGER

## ACTION

ACTION ASSIGNED TO	ACTION COMPLETED BY	DATE

CC: CKS/GWR/RJN/EFM  
TER LOC

ATTACHMENT TO LDR 2198

PAGE 2 OF 5

A15121



RECOMMENDED  
UNSAT TER DISPOSITION

P-32-29  
Q-159  
2/3

Distribute for action as follows:

- 1) Design Review (G. Rogers) - Review as part of Design Review Task. Return to Quality Group a statement of acceptability (i.e., inspection information is sufficient for Design Review Group and no further inspections are required) or provide further detailed inspection/criteria, and add to Task Description "review information provided on TER Q-159", for each component affected.
- 2) SEO (J. Kammeyer) - distribute for information.
- 3) LSU/OQA - review for applicability and issue LDR as needed.
- 4) W. Scouster - obtain LDR number as issued for component files and closeout.

ATTACHMENT TO LDR 2198

PAGE 3 OF 5

A15422

## STONE &amp; WEBSTER ENGINEERING CORPORATION

Q-159 3/3

QUALITY CONTROL  
INSPECTION REPORTJOB NUMBER  
11600.37DATE  
3-12-99

SYSTEM(S) OR PART(S) NAME	LOCATION(S)	REFERENCE DOCUMENT(S)
COMPONENT NAME: <u>PISTON</u>	DG- <u>103</u>	I.P. NO. <u>   </u> REV. <u>3</u> CHG <u>0</u>
COMPONENT NO. <u>03-3414</u>		TER # <u>   </u>
		LILCO LP PROC. <u>   </u> REV. <u>   </u>
		DWG. NO. <u>   </u>

ATTACHMENT TO LOR 2198  
PAGE 4 OF 5

Q. NO. S. NO.	ITEM	QTY	DESCRIPTION(S) AND INSPECTION REMARK(S)
2	2		<p>A VISUAL WAS PERFORMED ON THE CROWN AND SKIRT OF CYLINDER 5 FOR SCUFFING AND THE SKIRT WAS FOUND FOR FITTING THE FOLLOWING WAS NOTED:</p> <p>CYLINDER 5 - SCUFFING ON INTAKE AND EXHAUST SIDE OF SKIRT - ONE SIDE WHEN SKIRT WAS TURNED OTHER NOTED - BY SHINY AREA. CROWN OLD HAS VARIED AMOUNTS OF PITTING AND THE COMBUSTION BOWL IS VERY SLIGHT IN PITTING.</p> <p>CYLINDER 7 - SKIRT AND CROWN OLD APPEAR SATISFACTORY BUT COMBUSTION BOWL HAS VERY SLIGHT PITTING.</p> <p>CYLINDER 8 - SCUFFING APPEARS ON INTAKE AND EXHAUST SIDE OF SKIRT, CROWN SOME MINOR SCUFFING. COMBUSTION BOWL SHOWS THREE SPAC SCRATCH MARKS RANGING FROM 1/8" TO 3/16"</p>
MSTE NO. <u>   </u>			

Reviewed [Signature] 3/12/99  
 QUALITY CONTROL INSPECTION/ENG. [Signature] DATE 3-12-99 PAGE 5

1	<b>LILCO</b> <b>DEFICIENCY REPORT</b>		<input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OTHER	LDR RESPONSIBILITY <u>M. Herlihy</u> LSU	LDR NUMBER <u>2198</u> <del>1098</del> 103 outage
2	SYSTEM/COMPONENT <u>Emerg. Diesel Gen.</u>	SYSTEM DESIGNATOR <u>1R43C</u>	MARK NO. <u>1R43 * EXG. 103</u>	DATE <u>3/12/84</u>	QCLASS <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III
3	MPG/CONTRACTOR <u>TDI</u>	P.O. <u>310552</u>	MATERIAL LOCATION <u>TA elev 63'</u>	REJECT TAG NO <u>ALLA</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
4	SPEC. VIOLATED <u>541-089</u>	DRAWING VIOLATED <u>N/A</u>	PROCEDURE VIOLATED <u>N/A</u>	CODE/STANDARD VIOLATED <u>N/A</u>	
5	CONDITION DETAILS TER Q-159 (03-341A) reports unsatisfactory conditions. QCIR for #5, 7 & 8 pistons identifies scuffing of piston skirts, pitting on piston crowns and burning combustion bowl and scratch marks on #8 piston combustion bowl. Evaluation of these conditions is required.				
6	ORIGINATOR <u>BA Benti</u> SIGNATURE/DATE		DATE <u>3/12/84</u>	QOAE <u>E. Gagliardi for A. Gagliardi</u> SIGNATURE/DATE <u>3-12-84</u>	
7	RESPONSIBILITY <input type="checkbox"/> LSU <input checked="" type="checkbox"/> S & W ENG. <u>BA Benti</u> SIGNATURE/LEAD SU ENG.			DATE <u>3/12/84</u>	
8	ACTION <input checked="" type="checkbox"/> ACCEPT AS IS <input type="checkbox"/> SCRAP <input type="checkbox"/> REWORK <input type="checkbox"/> REPAIR <input type="checkbox"/> MANUAL <input type="checkbox"/> PROCEDURE <input type="checkbox"/> FSAR <input type="checkbox"/> OTHER				
9	DISPOSITION DETAILS THE ABOVE CONDITIONS DESCRIBED FOR PISTONS #5, 7, & 8 ARE ACCEPTABLE AS IS PER ATTACHED TDI MEMO. PISTON COMPONENTS TO BE CLEANED BEFORE REASSEMBLY IN ACCORDANCE WITH TDI MANUAL VOL I.				
10	APPROVALS <u>William J. Bean</u> S & W LEAD ENG./LSU TEST ENG./DATE <u>3/17/84</u>		<u>R. Gagliardi for J. Gagliardi</u> PROJECT ENGINEER DATE <u>3/17/84</u>		
11	<u>BA Benti</u> LILCO SU ENG. DATE <u>3/17/84</u>	<u>BA Benti</u> LILCO SITE OGA DATE <u>3/20/84</u>	REPAIR/REWORK REQUEST NO. <u>N/A R43-1571</u>		
12	ENG. COMPLETE/DATE <u>SEO</u> <u>3/17/84</u>	RRR COMPLETE <u>N/A</u>	REWORK INSPECTION <input checked="" type="checkbox"/> SAT. <input type="checkbox"/> UNSAT. <u>5/12/84</u> LILCO SITE OGA/DATE		
13	LDR CLOSED <u>5/14/84</u> LILCO SITE OGA/DATE	NEW LDR REPORT NO. ISSUED <u>N/A</u>	REMARKS <u>N/A</u>		

**Transamerica  
Delaval**



Transamerica Delaval Inc.  
Engine and Compressor Division  
550 85th Avenue  
P.O. Box 2161  
Oakland, California 94621

ATTACHMENT TO  
LDR 2198

Date: March 17, 1984 PAGE 5 OF 5  
To: John Kanneyer  
From: Robert Johnston  
Subject: Diesel Generators, T111 5/11 74010/12  
74012 Piston Assemblies

Reference: LDR 2198

Referenced LDR reports unsatisfactory conditions found during inspection of numbers 5, 7 and 8 piston assemblies due to scuffing, pitting and scratches. The number 5 piston has scuffing evident in the tin plating on the piston skirt in the normal thrust surfaces. The condition is attributed to the excessive wear found in that cylinder and reported in LDR 2198. No overheating is evident on the piston skirt and sufficient tin plate remains to provide an adequate break-in to a new liner. Scuffing to a lesser degree is also noted on the number 8 skirt and is not an unusual condition to occur during break-in. Pitting reported in the combustion bowls and circumference of the 5, 7 and 8 piston crowns was found to be very minor and an acceptable condition for a steel casting. Scratches in the combustion bowl of number 8 piston crown are attributed to handling and are not detrimental to the crown. Recommended Disposition: Clean components and return to service.

*[Signature]*

**Memo**

A15124

TER # Q-500

8/13

## COMPONENT TASK EVALUATION REPORT

DG 103 R.

SYSTEM/COMPONENT NO. <i>Pistons -</i> <b>03-341</b>	TDI PART NO. <b>1A-6522</b>	INITIATOR <i>J. Hess</i> SIGNATURE	DATE <b>5/1/84</b>	ORGANIZATION <input type="checkbox"/> ENGINEERING <input checked="" type="checkbox"/> QUALITY
---	--------------------------------	--	-----------------------	---

CONDITION DETAILS: ATTACHED INSPECTION REPORT ( / PAGES) GENERATED BY J. Hess  
DATED 4/30/84 IS CONSIDERED INFORMATIONAL AS NO ACCEPTANCE CRITERIA WAS  
PROVIDED PRIOR TO THE PERFORMANCE OF THE INSPECTION.

RECOMMENDATIONS: FORWARD TO DESIGN REVIEW FOR EVALUATION AND ALSO TO SEO AND LSU  
FOR INFORMATION ONLY. Attached IR is unsatisfactory - see pg 2  
for recommended disposition.

REQUIRED COMPLETION DATE:

## ASSIGNMENT

 POSITION ASSIGNED TO  
ENGINEERING ☐ QUALITY

 RESPONSIBLE CHAIRPERSON  
*J. Hess*  
SIGNATURE

 DATE  
**5/15/84**

## DISPOSITION

DISPOSITION DETAILS:

DISPOSITION ASSIGNED TO ☐ ENGINEERING ☐ QUALITY ☐ NONE REQUIRED

SUPPLIED BY	DATE	REVIEWED BY	DATE	APPROVED BY	DATE
		RESP. CHAIRPERSON		PROGRAM MANAGER	

## ACTION

ACTION ASSIGNED TO	ACTION COMPLETED BY	DATE

 CC: CKS/GWR/RJN/EFM  
SER LOG

A15790



...COMML  
UNCLASSIFIED DISPOSITION

TER # Q-500PAGE 2 OF 3

Distribute for action as follows:

- 1) Design Review (G. Rogers) - Review as part of Design Review Task. Return to Quality Group's statement of acceptability (i.e., inspection information is sufficient for Design Review Group and no further inspections are required) or provide further detailed inspection/criteria, and add to Task Description "review information provided on TER Q-500", for each component affected.
- 2) CEO (J. Kummeyer) - distribute for information.
- 3) LSU/OQA - review for applicability and issue LDR as needed.
- 4) W. Schuster - obtain LDR number as issued for component files and closeout.

A15731

STONE &amp; WEBSTER ENGINEERING CORPORATION

Pg 3/3 Q-500

QUALITY CONTROL  
INSPECTION REPORTJOB NUMBER  
11600.37DATE  
4/30/84SYSTEM(S) OR  
PART(S) NAME

LOCATION(S)

REFERENCE  
DOCUMENT(S)

COMPONENT NAME:

DG- 103

I.P. NO. REV. CHG

Pistons  
1 thru 8

TER #

LILCO LP PROC. REV.

COMPONENT NO. 03-341

DWG. NO.

DWG NO  
3430

ITEM QTY

DESCRIPTION(S) AND INSPECTION REMARK(S)

DURING VISUAL INSPECTION OF THE ASSEMBLED  
PISTONS 1 THROUGH 8 FROM ENGINE 103, THE  
FOLLOWING HAS BEEN OBSERVED

CARBON CAKING HAS BEEN FOUND ALONG THE  
OUTSIDE EDGE OF THE CROWN AND DOWN ALONG THE  
TOP RING TYPICAL ON ALL PISTONS. THE #6 PISTON  
HAD A BIT HEAVIER CARBON CRUSTING AND THE TOP  
RING WAS BOUND AT ABOUT 2 O'CLOCK LOOKING  
DOWN FROM THE TOP WITH THE NOTCH AT 6 O'CLOCK.  
ON THE #2 PISTON THE TOP RING WAS WEARING  
OFF CENTER TO THE TOP EDGE OF THE RING.

NO UNUSUAL SKUFFING OR SCRATCHING WAS  
OBSERVED ON THE OUTBOARD PORTIONS OF THE  
PISTON AND PISTON SKIRTS.

PHOTOGRAPHIC DOCUMENTATION TAKEN ALL PISTONS

DATE NO. N/A

NOTED APR 30 1984


REVIEWED BY

E. B. Hurling

QUALITY CONTROL INSPECTION

DATE 4/30/84

PAGE

 <b>DEFICIENCY REPORT</b>		<input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OTHER	LDR RESPONSIBILITY <u>M. Hurlbly</u> LSU	LDR NUMBER 2407	
2	SYSTEM/COMPONENT <u>Exhaust Valve</u>	SYSTEM DESIGNATOR <u>1843</u>	MARK NO. <u>2434806 107</u>	DATE <u>5/16/84</u>	Q CLASS <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III
3	MFG./CONTRACTOR <u>TDE</u>	F.O. <u>710552</u>	MATERIAL LOCATION <u>TB W' 1st floor area</u>	REJECT TAG NO. <u>N/A</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
4	SPEC VIOLATED <u>SHI-057</u>	DRAWING VIOLATED <u>N/A</u>	PROCEDURE VIOLATED <u>N/A</u>	CODE/STANDARD VIOLATED	
5	CONDITION DETAILS <u>TER # Q-500 (03-341A) Reports unsat conditions. Attached QCIR for pistons 1-8 reports various conditions requiring evaluation</u>				
6	ORIGINATOR <u>M. Hurlbly</u> <u>5/16/84</u> SIGNATURE DATE		QCIR <u>[Signature]</u> <u>5/16/84</u> SIGNATURE DATE		
7	RESPONSIBILITY <input checked="" type="checkbox"/> LSU <input type="checkbox"/> S & W ENG.		DATE <u>5/21/84</u>		
8	ACTION <input type="checkbox"/> ACCEPT AS IS <input checked="" type="checkbox"/> REWORK <input type="checkbox"/> MANUAL <input type="checkbox"/> PSAR <input type="checkbox"/> SCRAP <input type="checkbox"/> REPAIR <input type="checkbox"/> PROCEDURE <input type="checkbox"/> OTHER				
9	DISPOSITION DETAILS <u>ALL PISTON ASSEMBLIES WILL BE CLEANED TO REMOVE CARBON DEPOSITS PRIOR TO REASSEMBLY. UPON REASSEMBLY OF ALL PISTON ASSEMBLIES, ALL RING SETS WILL BE REPLACED WITH NEW MUSKEGON RING SETS.</u>				
10	APPROVALS <u>[Signature]</u> <u>5/23/84</u> S & W LEAD ENG./LSU TEST ENG./DATE		<u>[Signature]</u> <u>5/23/84</u> PROJECT ENGINEER DATE		
11	<u>[Signature]</u> <u>5/24/84</u> LILCO SQ ENG. DATE		<u>[Signature]</u> <u>6/5/84</u> LILCO SITE OGA DATE		
12	ENG. COMPLETE/DATE <u>N/A</u>	RRR COMPLETE <u>N/A</u>	REWORK INSPECTION <input checked="" type="checkbox"/> SAT. <input type="checkbox"/> UNSAT. <u>R. Catano 7-9-84</u> LILCO SITE OGA/DATE		
13	LDR CLOSED <u>[Signature]</u> <u>7/1/84</u> LILCO SITE OGA/DATE	NEW LDR REPORT NO. <u>18</u> ISSUED <u>N/A</u>		REMARKS A10757	