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50-322 0L

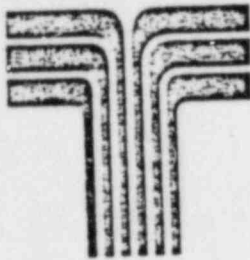
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# Transamerica Delaval

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH



## Instruction Manual

Model DSR-48 Diesel Engine  
Serial Nos. 74010-2604  
74011-2605  
74012-2606

LONG ISLAND LIGHTING COMPANY  
Shoreham Nuclear Power Station  
Unit No. 1

### NUCLEAR REGULATORY COMMISSION

Docket No. 50-322-0L Official Ex. No. 9  
In the matter of LILCO  
Staff \_\_\_\_\_ IDENTIFIED ✓  
Applicant \_\_\_\_\_ RECEIVED ✓  
Intervenor \_\_\_\_\_ REJECTED \_\_\_\_\_  
Cont'g Off'r \_\_\_\_\_ DATE 11-14-84  
Contractor \_\_\_\_\_ Witness Panel  
Other county  
Reporter WKB

Transamerica Delaval Inc.  
Engine and Compressor Division

8503280335 841114  
PDR ADCK 05000322  
G PDR

## APPENDIX II

## OPERATING PRESSURES AND TEMPERATURES

## PRESSURES

The following pressures should be present for starting:

Starting Air Supply	250 psi	.....	17.6 kg/sq cm
Starting Air Header	250 psi	.....	17.6 kg/sq cm

While running at rated speed, the operating pressures should be as follows:

	psi		in-hg		kg/sq cm
Lubricating Oil*	50 — 55	.....	101.8 — 112.0	.....	3.52 — 3.87
Lubricating Oil at Turbocharger Inlet	20 — 25	.....	40.7 — 50.9	.....	1.41 — 1.76
Jacket Water	10 — 30	.....	20.4 — 61.1	.....	0.70 — 2.11
Fuel Oil	20 — 30	.....	40.7 — 61.1	.....	1.41 — 2.11

## TEMPERATURES

While running under rated load, the outlet temperatures should be as follows:

Lubricating Oil out of Engine*	170° F — 180° F (76.6° C — 82.2° C)
Jacket Water out of Engine	170° F — 180° F (76.6° C — 82.2° C)

## EXHAUST TEMPERATURES.

The exhaust temperatures shown on the "Factory Test Results" page are the average for all cylinders during factory test under *local ambient conditions*. Temperatures in the field, therefore, may exceed this average temperature. Exhaust temperatures may be considered normal if within plus or minus 50° F of the average taken for all cylinders. Temperatures, high or low, exceeding this range should be investigated (see Section 7). The exhaust temperature limits for sustained operation is 150° F between any two cylinders and 1100° F maximum.

## FIRING PRESSURES.

Firing pressures may be considered normal if within plus or minus 75 psi of the average for all cylinders. High or low pressures exceeding this range should be investigated (see Section 7). The firing pressure limits for sustained operation is 200 psi between any two cylinders.

## NOTES.

Operating pressures and temperatures listed are established as a guide to proper operation. Except as noted for exhaust temperatures and firing pressures, they should be held to within plus or minus 10 percent. Sudden changes in readings require immediate investigation and correction.

When making adjustments as a result of a high or low cylinder exhaust temperature, or firing pressure, both temperature and pressure readings must be taken into account when determining the proper corrective action.

\*When using SAE 40 lubricating oil in engine.

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