

**EQUIPMENT TEST LIST**  
**ALTERNATORS, GAS TURBINE ENGINE DRIVEN**  
**POWER SYSTEMS EQUIPMENT**

**1. GENERAL**

**1.01** This section provides an index and information access system to locate the standard tests applicable to equipment used in Pacific Company. Test classification and frequency of periodic routine are also provided.

**1.02** It is issued in lieu of the American Company section, which is NONSTANDARD for use in Pacific Company.

**1.03** This equipment test list (ETL) is presented in the format currently being used for this type of section. It is intended to provide better organization of the various tests.

**1.04** Routine test information is arranged in the following order from left to right:

- Section number

- Issue/addendum

- Test letter or paragraph number

- Test title

- Test class

- Frequency

- Last space — locally assigned job number

**1.05** Section 010-300-011 provides ETL instructions.

**1.06** Comments on this section should be submitted on Form E 3973-1PT according to instructions in Section 000-010-901PT.

**2. ALT, GAS TURB ENG**

**2.01** *KS-15992*

For All Units

155-202-301	(3/1)	3.08	TEST ALARMS AT LOCAL CONTROL PANEL	MW 3M	-----
		3.09	TEST ALARMS AT REMOTE CONTROL PANEL	MW 3M	-----
155-202-701	(3/1)	2.01	LUBRICATION — (E) ALTERNATING BEARINGS—FRONT AND REAR	MW	-----
		2.01	LUBRICATION — (D) GOVERNOR SPEED ADJUSTING MOTOR	TT	-----
		2.01	LUBRICATION — (A1) CHANGE LUBE OIL (# AS REQUIRED BY OIL ANALYSIS)	MW #	-----

**NOTICE**

Not for use or disclosure outside the  
Bell System except under written agreement

SECTION 155-001-015PT

155-202-701	(3/1)	2.01	LUBRICATION — (A) CHECK LUBE OIL (AND PRIOR TO EACH RUN)	MW 24H	-----
		2.08	(2.08.1) CHECK FUEL FILTER (AT END OF EACH RUN)	MW	-----
		2.08	(B) CHECK THERMOCOUPLES	TT	-----
		2.10	INSPECT TURBINE NOZZLES	SEE NOTE	-----
		2.13	(B1) REPLACE FILTER ELEMENT AND SCRAPER ASSY	MW 300H	-----
		2.13	(B) FUEL OIL STRAINER — REMOVE & CLEAN	MW 100H	-----
		2.13	(A) FUEL OIL STRAINER — CLEAN BY ROTATING HANDLE	MW 8H	-----
		2.15	INSPECT COMBUSTOR PARTS (CONCURRENT WITH 2.10)	SEE NOTE	-----
		2.16	INSPECT TURBINE NOZZLE VANES (CONCURRENT WITH 2.10)	SEE NOTE	-----
		2.18	(B) CLEAN EXHAUST AND COMBUSTOR CHAMBER (OR 50 ENGINE STARTS)	MW 100H	-----
		2.18	(A) DRAIN ACCUMULATOR TANK (AFTER EVERY 10 ENGINE STARTS)	MW	-----
		2.19	COMPRESSOR AIR INLET (OR 50 ENGINE STARTS)	MW 100H	-----
		2.21	REPLACE LUBE OIL FILTER (# PER OIL ANALYSIS)	MW #	-----
		2.22	CLEAN LUBE OIL COOLER FINS	TT	-----
		2.23	INSPECT FOR LEAKS & EXCESSIVE NOISE, VIBRATION	MW 12M	-----
		2.24	TEST OVERSPEED AUTOMATIC SHUTDOWN DEVICE	MW 12M	-----
		2.25	CHECK LUBE OIL PRESSURE SWITCH (OR 300H OPERATION)	MW 36M	-----
		2.26	CHECK LUBE OIL PRESSURE SWITCH (OR 300H OPERATION)	MW 36M	-----
		2.28	VOLTAGE REGULATION	MW 12M	-----
		2.30	(B) FREQUENCY MONITOR SWITCH	MW 12M	-----
		2.30	(A) CRANK CUTOFF SWITCH	MW 12M	-----
		2.31	CLEAN & INSPECT STARTER MOTOR & BRUSHES	MW 100H	-----
		2.35	ROUTINE RUN—30 MINUTES	MW 3M	-----
		2.35	ROUTINE RUN—30 MINUTES	MW M	-----

Optional Features; SELECT NO MORE THAN ONE CATEGORY

SERIAL NUMBER BELOW 425201

155-202-701	(3/1)	2.11	REPLACE FUEL OIL FILTER SET SERIAL NO. 425200 AND BELOW	MW 300H	-----
-------------	-------	------	---------------------------------------------------------	---------	-------

Note: Intervals for sets:

- Serial Numbered — 425200 and below — 75 starts or 150H
- Serial Numbered — 425201 and above — 200 starts or 500H

155-202-701	(3/1)	2.14	OBSERVE FUEL CUP (OR AS REQUIRED)	TT	-----
		2.20	(A) INSPECT 6TH STAGE BLEED AID VALVE	TT	-----
		2.32	CLEAN OR REPLACE SPARK PLUGS	TT	-----

## SERIAL NUMBER ABOVE 425200

155-202-701	(3/1)	2.12	REPLACE FUEL OIL FILTER SETS ABOVE SERIAL NO. 425200	MW 300H	-----
		2.20	(B) INSPECT 6TH STAGE BLEED AIR VALUE (OR 200 ENGINE STARTS)	MW 500H	-----
		2.32	CLEAN OR REPLACE SPARK PLUGS	TT	-----

## Trouble Tests

155-202-701	(3/1)	2.08	2.08.1 (A) REPLACE MICRONIC FUEL FILTER	TT	-----
-------------	-------	------	--------------------------------------------	----	-------

## 2.02 KS-19896

## For All Units

155-205-301	(2/1)	3.05	TESTING OF ALARMS	MW 3M	-----
155-205-701	(3/2)	2.01	LUBRICATION - (F) ALTERNATOR BEARINGS	MW 500H	-----
		2.01	LUBRICATION - (D1-D2) CHECK LUBE OIL LEVEL (24H OPERATION)	MW 1M	-----
		2.01	LUBRICATION - (D3) DRAIN LUBE OIL TANK (# PER OIL ANALYSIS)	MW #	-----
		2.09	CHANGE FUEL OIL FILTER	MW 500H	-----
		2.10	LUBE OIL FILTER (# PER OIL ANALYSIS)	MW #	-----
		2.12	INSPECT FOR LEAKS, EXCESSIVE NOISE, VIBRATION	MW 12M	-----
		2.13	TEST MAGNETIC PICKUP AUTOMATIC SHUTDOWN DEVICES	TT	-----
		2.14	TEST LUBE OIL PRESSURE SWITCH	TT	-----
		2.15	TEST HIGH LUBE OIL TEMPERATURE SWITCH (OR EACH 500H ENGINE OPERATION)	TT	-----
		2.16	CLEAN ALTERNATOR	MW 12M	-----
		2.16	CHECK VOLTAGE REGULATION	MW 12M	-----
		2.18	CLEAN & INSPECT STARTER MOTOR	TT	-----
		2.20	CHECK FUEL SUPPLY	MW 1M	-----
		2.20	ROUTINE RUN-30 MINUTES	MW 3M	-----
		2.20	ROUTINE RUN-30 MINUTES	MW M	-----
		2.21	CHECK OPERATION OF TIMERS	MW 12M	-----
		2.21	CLEAN & INSPECT CONTROL EQUIPMENT	TT	-----

## SECTION 155-001-015PT

## 2.03 KS-20460

## For All Units

155-207-701	(2/0)	2.01	LUBRICATION – (H) CHANGING OR ADDING LUBE OIL TO THE JFS (OR 200 START CYCLES)	MW 200H	-----
		2.01	LUBRICATION – (G2) SHUTTER LINKAGE LUBRICATION	MW 12M	-----
		2.01	LUBRICATION – (G1) FAN MOTOR BEARING LUBRICATION	MW 12M	-----
		2.01	LUBRICATION – (E) ALTERNATOR BEARING LUBRICATION	MW 24M	-----
		2.01	LUBRICATION – (A4) LUBRICATING SYSTEM PRIMED (IF SET HAS NOT RUN FOR 2W)	MW	-----
		2.01	LUBRICATION – (A3) CHANGE LUBE OIL (# PER OIL ANALYSIS)	MW #	-----
		2.01	LUBRICATION – (A1) CHECK LUBE OIL LEVEL (AND PRIOR TO RUN)	MW 24H	-----
		2.03	REMOVE AND CLEAN SCAVENGE OIL PUMP (DURING ENGINE OVERHAUL)	MW	-----
		2.12	INSPECT FUEL NOZZLES AND HOLDER	MW 48M	-----
		2.13	(B) REPLACE LOW-PRESSURE FUEL FILTER (ON NEXT SHUTDOWN AFTER WARNING LAMP LIGHTS)	MW	-----
		2.13	(A) HIGH-PRESSURE FUEL FILTER REMOVED AND CLEANED (EVERY OVERHAUL PERIOD)	MW	-----
		2.14	FUEL SEDIMENT STRAINER CLEANED	MW 150H	-----
		2.15	CHECK MANIFOLD DRAIN VALVE OPERATION	MW 12M	-----
		2.16	OPERATIONAL LEAKAGE CHECK FOR FUEL ENRICHMENT VALVE	MW 12M	-----
		2.20	BURNER DRAIN VALVES INSPECTION (AT TIME OF OVERHAUL OR MALFUNCTION)	TT	-----
		2.23	ENGINE OIL FILTER CLEANED	MW 500H	-----
		2.24	CHANGE LUBE OIL FILTER (# PER OIL ANALYSIS)	MW #	-----
		2.28	COMPRESSOR AIR BLEED FILTER CLEANED	MW 12M	-----
		2.28	SPEED SENSITIVE VALVE CHECKED	TT	-----
		2.29	CHECK VIBRATION SENSING SYSTEM	MW 12M	-----
		2.30	CHECK PICKUP	MW 12M	-----
		2.32	CHECK THERMOCOUPLE HARNESS	MW 12M	-----
		2.34	CIRCUIT BREAKER INSPECTION AND SERVICING	MW 48M	-----

*Note:* Routines numbered, 2.12, 2.34, 2.39, and 2.40 A & B should be performed by an authorized mechanic.

155-207-701	(2/0)	2.39	(C) REMOVE AND SEND JFS TO BE OVERHAULED (AT ALL MULTIPLES OF 2000 STARTS)	MW	-----
		2.39	(B) CHANGE OIL IN JFS (# PER OIL ANALYSIS)	MW #	-----
		2.39	(A) CHECK JFS FOR LEAKS, SECURITY OF MOUNTINGS, AND FRAYED LEADS	MW 12M	-----
		2.39	PRIME LUBRICATION SYSTEM	MW 2W	-----
		2.39	ROUTINE RUN—30 MIN WITH FULL LOAD	MW 3M	-----
		2.39	ROUTINE RUN—30 MIN W/O FULL LOAD	MW M	-----
		2.40	(B) CHECK FIRE EXTINGUISHING SYSTEM	MW 12M	-----
		2.40	(A) WEIGH CYLINDERS	MW 6M	-----

**Trouble Tests**

155-207-701	(2/0)	2.31	CHECK IGNITION EXCITER	TT	-----
-------------	-------	------	------------------------	----	-------

**2.04 KS-20542 L1-L4, L11, L12****For All Units**

155-206-301	(1/1)	3.05	TESTING OF ALARMS (AFTER EACH RUN)	MW	-----
155-206-701	(2/0)	2.01	(J) CHECK AND EMPTY COMBUSTOR DRAIN PAD	MW M	-----
		2.01	(E) LUBRICATE ALTERNATOR BEARINGS	MW 500H	-----
		2.01	(A&B) CHANGE LUBE OIL (# PER OIL ANALYSIS)	MW #	-----
		2.01	(A) CHECK LUBE OIL LEVEL (BEFORE EACH RUN AND EVERY 24H OPERATION)	MW M	-----
		2.09	FUEL OIL FILTER	MW 500H	-----
		2.10	CHANGE LUBE OIL FILTER (# PER OIL ANALYSIS)	MW #	-----
		2.12	INSPECT FOR LEAKS, EXCESSIVE NOISE, AND VIBRATION	MW 12M	-----
		2.14	TEST LUBE OIL PRESSURE SWITCH	TT	-----
		2.15	TEST HIGH LUBE OIL TEMPERATURE SWITCH	TT	-----
		2.16	CLEAN ALTERNATOR	MW 12M	-----
		2.16	CHECK VOLTAGE REGULATION	MW 12M	-----
		2.18	CLEAN AND INSPECT STARTER MOTOR AND BRUSHES	TT	-----
		2.20	CHECK FUEL SUPPLY	MW 1M	-----
		2.20	(B) ROUTINE RUN—30 MINUTES	MW 3M	-----
		2.20	(A) ROUTINE RUN—30 MINUTES	MW 1M	-----

SECTION 155-001-015PT

155-206-701	(2/0)	2.21	CHECK OPERATION OF TIMERS	TT	-----
		2.21	CLEAN AND INSPECT CONTROL EQUIPMENT	MW 12M	-----
155-206-301	(1/1)	3.02	NO LOAD RUN	MW M	-----
		3.03	FULL AND OFFICE LOAD RUN	MW 3M	-----
		3.04	FINAL CHECK AFTER EACH RUN	MW	-----

2.05 *KS-20542 L101, 102, 111, 112, AND SOLID STATE CONT CKT L115 & 116*

For All Units

155-206-702	(1/0)	2.01	LUBRICATION — (A) CHECK LUBE OIL (AND PRIOR TO EACH RUN)	MW 24H	-----
		2.01	LUBRICATION — (A1) CHANGE LUBE OIL (OR UNSATISFACTORY OIL ANALYSIS)	MW 500H	-----
		2.01	LUBRICATION — (D) LUBRICATE ALTERNATOR BEARINGS	MW 500H	-----
		2.01	LUBRICATION — (F) CHECK AND EMPTY COMBUSTOR DRAIN PAN	MW W	-----
		2.07	(A) CHECK EXHAUST TEMPERATURE	MW W	-----
		2.07	(B) CHECK THERMOCOUPLE ASSEMBLY (OR 50 STARTS)	MW 100H	-----
		2.08	FUEL MANIFOLD AND NOZZLE ASSY (OR 200 STARTS)	MW 1000H	-----
		2.09	FUEL SYSTEM FILTER ASSY ELEMENT REPLACEMENT (FUEL SYSTEM FAILURE ALARM ACTIVATION)	MW	-----
		2.10	LOW PRESSURE FUEL FILTER REPLACEMENT (FUEL FILTER DIFF PRESS GAUGE READS 8 TO 15 PSID)	MW	-----
		2.11	HIGH PRESSURE FUEL FILTER (CLEAN AND REPLACE WHEN LOW PRESSURE FILTER IS REPLACED)	MW	-----
		2.12	LUBE OIL FILTER REPLACEMENT	MW 500H	-----
		2.14	INSPECT FOR LEAKS	MW W	-----
		2.16	LUBE OIL PRESSURE SWITCH TEST (OR EVERY 3 YEARS)	MW 300H	-----
		2.17	HIGH LUBE OIL TEMP SWITCH TEST (OR EVERY 3 YEARS)	MW 300H	-----
		2.20	STARTER MOTOR BRUSH INSPECTION (OR 50 STARTS)	MW 100H	-----
		2.21	IGNITER (SPARK) PLUG INSPECTION (OR 200 STARTS)	MW 500H	-----
		2.22	LOCKWIRE INSPECTION	MW W	-----
		2.24	ROUTINE RUN — (A) NO LOAD	MW M	-----
		2.24	ROUTINE RUN — (B) FULL OR OFFICE LOAD	MW 3M	-----

155-206-302	(1/0)	3.01	ROUTINE RUN — NO LOAD	MW M	-----
		3.01	ROUTINE RUN — FULL OR OFFICE LOAD	MW 3M	-----
		3.02	OPERATION OF EQUIPMENT ALARMS	MW 3M	-----
		3.03	NO LOAD TEST RUN	MW M	-----
		3.04	AUTO LOAD TEST	MW 3M	-----
		3.05	FINAL CHECKS AFTER EACH RUN	MW	-----
		3.06	ALARM TEST	MR W	-----

**Trouble Tests**

155-206-302	(1/0)	4.05	SYSTEM STATIC CHECK — FIG. 5	TT	-----
		4.05	CONSTANT PWR FAIL INDICATION — FIG. 6	TT	-----
		4.05	ENG. CRANKS OR STARTS W/O A START COMMAND — FIG. 7	TT	-----
		4.05	CONSTANT LOW OIL PRESSURE ALARM — FIG. 8	TT	-----
		4.05	CONSTANT HIGH OIL TEMP ALARM — FIG. 9	TT	-----
		4.05	FUEL SYSTEM MALFUNCTION — FIG. 10	TT	-----
		4.05	CONSTANT OVERCURRENT ALARM — FIG. 11	TT	-----
		4.05	NO RESPONSE TO TEST ALARM SWITCH — FIG. 12	TT	-----
		4.05	MAJOR ALARM, NO SHUTDOWN — FIG. 13	TT	-----

**2.06 KS-2126 L1-L4****For All Units**

155-209-301	(1/0)	3.02	NO LOAD RUN	MW M	-----
		3.03	FULL AND OFFICE LOAD RUN	MW 3M	-----
		3.04	FINAL CHECKS AFTER EACH RUN	MW	-----
		3.05	TESTING OF ALARM LAMPS BEFORE EACH RUN	MW	-----

**Trouble Tests**

155-209-301	(1/0)	4.04	TROUBLE TEST CHART	TT	-----
-------------	-------	------	--------------------	----	-------

**2.07 KS-21501 L1-L4, L7, L12, L13-L26****For All Units**

155-208-301	(1/0)	3.01	ROUTINE RUN — NO LOAD	MW M	-----
		3.01	ROUTINE RUN — FULL OR SERVICE LOAD	MW 3M	-----
		3.02	OPERATION OF EQUIPMENT ALARMS	MW 3M	-----

## SECTION 155-001-015PT

155-208-301	(1/0)	3.03	NO LOAD TEST RUN	MW	M	-----
		3.04	AUTO LOAD TEST	MW	3M	-----
		3.05	FINAL CHECKS AFTER EACH RUN	MW		-----
		3.06	ALARM TEST	MR	W	-----
155-208-701	(1/0)	2.01	LUBRICATION - (A) CHECK LUBE OIL OIL (PRIOR TO EACH RUN AND AFTER 24 HRS OF CONTS OPERATION)	MW		-----
		2.01	LUBRICATION - (A1) CHANGE LUBE OIL (OR UNSATISFACTORY OIL ANALYSIS)	MW	500H	-----
		2.01	LUBRICATION - (D) LUBRICATE ALTERNATOR BEARINGS	MW	3200H	-----
		2.08	(A) CHECK EXHAUST TEMPERATURE	MW	W	-----
		2.08	(B) CHECK THERMOCOUPLE ASSEMBLY (OR 50 STARTS)	MW	100H	-----
		2.09	FUEL MANIFOLD AND NOZZLE ASSY (OR 200 STARTS)	MW	1000H	-----
		2.10	FUEL SYSTEM FILTER ASSY ELEMENT REPLACEMENT (FUEL SYSTEM FAILURE ALARM ACTIVATION)	MW		-----
		2.11	LOW PRESSURE FUEL FILTER REPLACEMENT (ALONG WITH HIGH PRESSURE FUEL FILTER REPLACEMENT)	MW		-----
		2.12	HIGH PRESSURE FUEL FILTER REPLACEMENT (FUEL FILTER DIFF PRESS EXCEEDS 35 PSID)	MW		-----
		2.13	(A) CLEAN FUEL STRAINER (PRIOR TO EACH RUN OR AFTER 8 HRS CONTS OPERATION)	MW		-----
		2.13	(B) DRAIN SEDIMENT (AR)	MW		-----
		2.13	(C1) CLEAN STRAINER ELEMENT (OR 50 STARTS)	MW	100H	-----
		2.13	(C2) REPLACE FILTER ELEMENTS AND SCRAPER ASSY (OR 3 YEARS)	MW	300H	-----
		2.14	INSPECT COMBUSTOR PARTS (CONCURRENTLY WITH THE INSPECTION OF FUEL NOZZLES AND MANIFOLD) (OR 200 STARTS)	MW	1000H	-----
		2.15	INSPECT TURBINE NOZZLES (CONCURRENTLY WITH THE INSPECTION OF COMBUSTOR PARTS) (OR 200 STARTS)	MW	1000H	-----
		2.16	INSPECT EXHAUST SYSTEM	MW	W	-----
		2.17	PURGE ENGINE FUEL DRAIN SYSTEM (AFTER 10 ENGINE SHUTDOWNS)	MW		-----
		2.18	CHECK COMPRESSOR AIR INLET (OR 50 STARTS)	MW	100H	-----
		2.19	CHECK 6TH STAGE BLEED AIR VALVE (OR 200 STARTS)	MW	500H	-----

155-208-701 (1/0)	2.20	REPLACE LUBE OIL FILTER (OR 50 STARTS)	MW 100H	-----
	2.21	CLEAN OIL COOLING SYSTEM FINS (OR AS REQUIRED)	MW 100H	-----
	2.22	CHECK FOR LEAKS	MW W	-----
	2.24	CHECK LUBE OIL PRESSURE SWITCH (OR EVERY 3 YEARS)	MW 300H	-----
	2.25	CHECK HIGH LUBE OIL TEMPERATURE SWITCH (OR EVERY 3 YEARS)	MW 300H	-----
	2.29	INSPECT STARTER MOTOR BRUSHES (OR 50 STARTS)	MW 100H	-----
	2.30	INSPECT IGNITER (SPARK) PLUG (OR 200 STARTS)	MW 500H	-----
	2.33	ROUTINE RUN - (A) NO LOAD	MW M	-----
	2.33	ROUTINE RUN - (B) FULL OR OFFICE LOAD	MW 3M	-----

**Trouble Tests**

155-208-301 (1/0)	4.02	DC VOLTMETER VRFN OF SIGNAL, LAMPS, AND RELAYS - TABLE E	TT	-----
	4.05	STARTING MALFUNCTIONS (A-G)	TT	-----
	4.05	OPERATING MALFUNCTIONS (H-K)	TT	-----
	4.05	SHUTDOWN MALFUNCTIONS (L-S)	TT	-----