

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

September 22, 2021

Attachment 1 –No. 1 Engine (P36058C) Propeller Governor Test Report

POWERPLANTS

CEN20LA215

AS RECEIVED

WOODWARD, Inc.
Rockford, Illinois
CAGE 66503

TSP-1674
Page 14
Rev. AD

TEST REPORT for 8210-115 and 8210-263

☐ Woodward I/N: 8210-115

☒ Woodward I/N: 8210-263

Woodward Sales Order No. 3751848

S/N 2477271

Oil Inlet Temp. 140 +/- 5 deg. F

Customer P/N: 897410-7, -9

Customer P/N: 897410-11, -16

Customer P.O. No. N/A

Technician Math Jaffer

Oil Inlet Pressure: 95 +/- 10 PSIG

Customer Spec. PSC 897410

Customer Spec. PSC 897410

Date 07/28/2021

PT	Section No.	DESCRIPTION	SPEED RPM		OIL PRESSURE PSIG		OIL FLOW QPM	
			REQUIRED	ACTUAL	REQUIRED	ACTUAL	REQUIRED	ACTUAL
1	3.1	Check Valve	0	0	15 Max.	9	Start Flow	Start Flow
2	3.2	Relief Valve	3400 +/- 15	3400	485 +/- 15	480	0	0
3	3.2.1	Back Pressure	3400 +/- 15	3400	545 Max.	525	0	0
4	3.3	Maximum Speed	3754 +/- 10	3795	150 +/- 5	150	Use Bleed Orifice	
5	3.4	Minimum Speed	3604 +/- 10	3556	150 +/- 5	150		
6	3.5	Control Lever at Max. 84 +/- 5 deg.		95	PT4 to PT5 10 +/- 2 deg.	(71) 24		
7	3.6	Overspeed(Check/Sec. 3.6)	4017 +/- 40	3868	150 +/- 5	150		
8	3.7	Increase Speed to Obtain		3747	350 +/- 5	350		
9	3.7	Increase Speed to Obtain		3841	50 +/- 5	50		
10	3.7	Pressure Gain = PT 9 - PT 8	60 +/- 20	94				
11	3.8	Decrease Speed to Obtain		3744	350 +/- 5	350		
12	3.8	Speed Hysteresis = PT 8 - PT 11	-15 to +40	3				
13	3.9	Pump Capacity	3400 +/- 15	3400	150 +/- 20	150	10.9 QPM Min.	14.2
14	3.10	Internal Leak	As Required	3830	150 +/- 5	150	New 2.0 QPM Max. N/A Repair 2.4 QPM Max. 1.0	
15	3.11	Magnetic Pickup Voltage	3700 +/- 10	3700	4.5 volts +/- 0.5 Peak to Peak		4.3	Volts
16			375 +/- 10	375	0.4 volts Peak-to-Peak Min.		.8	Volts
17		Frequency	3700 +/- 10	3700	925 +/- 3 Counter Reading		925	Hz
18	3.12	Electrical Speed Change	3.12.1	3580	3.12.3	3422	3.12.4, 50 +/- 5 RPM	42
19		Electrical Hang-up	3.12.3	3422	3.12.6	3422	3.12.7, 25 RPM Max.	0
20	3.13	External Leakage	3000 +/- 50	3000	100 +/- 10	100	0	0
21	3.14	Total Leak	0	0	200 +/- 10		0.5 QPM Max.	.2
22	3.15	Return Spring Check	0		High to Low Speed Stop, Unassisted		Check for Pass ☒	