COMPONENTE | *Component*	O.S | *W.O*	MODELO | *Model*	PN	SN
FUEL CONTROL UNIT		DP-F2 Main Fuel Control Unit		

IDENTIFICAÇÃO | *IDENTIFICATION*

TÍTULO *TITLE* **FICHA PARA REGISTROS DE TESTE DA FUEL CONTROL UNIT** *FUEL CONTROL UNIT TEST SHEET*

PUBLICAÇÃO | *PUBLICATION*	REFERÊNCIA | *REFERENCE*	TLN	DATA | *DATE*
COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST	73-20-13	TLN02402	April 22,2022 Revision 14

CONJUNTO MAIOR | *MAIN PART*	
PN	SN

Teste Aplicável aos Part Numbers *Test Applicable to Part Numbers*			
3244769-2	3244769-3	3244769-4	3244769-5

TESTE DA UNIDADE DE CONTROLE DE COMBUSTÍVEL | *FUEL CONTROL UNIT TEST*

ITEM *Item*	PROCEDIMENTOS | TOLERÂNCIAS *Procedures | Serviceable limits*	Resultado *Result*	Data *Date*	Executante *Performed by*
A	Instale a MFCU na bancada de teste usando o adaptador estriado e adaptador de montagem, ou equivalente. *Assemble the MFCU to the test stand, using spline adapter and mounting adapter, or equivalent.*			
B	Remova o plug da porta e instale o acessório especial PN 2561527. Remova o plug e instale um adaptador padrão nas portas. *Remove plug from port and assemble PN 2561527 special fixture. Remove plug from port and install a standard adapter.*			
C	Remova o contra pino, porca e espaçador do eixo de aceleração. Instale o quadrante de aceleração na extremidade do eixo de aceleração e torqueie de 40-45 lb.in. *Remove cotter pin, nut, and spacer from throttle shaft. Assemble throttle quadrant on end of cam shaft and tighten to 40-45 lb.in.*			
D	Mantenha uma pressão Po de 30-50 psig na conexão de Po, exceto quando houver outra especificação. Mantenha a pressão P2 dentro de ± 10 psi do valor especificado em pressões abaixo de 200 pph e dentro de ± 25 psi em pressões mais altas, usando a válvula reguladora de contrapressão Pn. *Maintain a Po pressure of 30-50 psig on Po pressure gage, except where otherwise specified.* *Maintain P2 pressure within ± 10 psi of the value specified at pressures below 200 pph and within ± 25 psi at higher pressures, using Pn back pressure regulator valve.*			

TESTE DA UNIDADE DE CONTROLE DE COMBUSTÍVEL | *FUEL CONTROL UNIT TEST*

ITEM *Item*	PROCEDIMENTOS | TOLERÂNCIAS *Procedures | Serviceable limits*	Resultado *Result*	Data *Date*	Executante *Performed by*
E	Aumente a pressão do combustível (P1) e observe o início do fluxo de combustível. Durante o teste, ajuste e mantenha a (Po) a 40 ± 2 psig. *Increase fuel supply pressure (P1) and observe start of fuel flow. During this test, adjust and maintain (Po) at 40 ± 2 psig*			
F	Ajuste o parafuso de pressão diferencial P1-P2 para uma pressão de 30-47 in.Hg. Ajuste o orifício da *sleeve* da *metering valve* até a pressão diferencial P1-P2 e o fluxo de injeção estarem de acordo com os limites especificados. *Adjust P1-P2 pressure differential adjustment screw for a pressure of 30-47 in.Hg. Adjust metering valve sleeve assembly orifice until P1-P2 pressure differential and nozzle flow are within the limits specified.*			
G	Torqueie as porcas de 35-40 lb.in e 25-35 lb.in respectivamente. Registre todas as pressões diferenciais de P1-P2 e o fluxo de injeção e adicionalmente, a pressão Pc-Py no Ponto de Teste. *Torque nuts to 35-40 lb.in and 25-35 lb.in respectively. Record all P1-P2 differential pressures and nozzle flows and additionally, Pc-Py pressure at Test Point.*			

CALIBRAÇÃO E LIMITAÇÕES DO TESTE | *CALIBRATION AND TEST LIMITATIONS*

Calibration and Test Limitations For Units P/N 3244769-2 through 3244769-5

TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph) Min.	Recorded	Max.	P1-P2 (In.-Hg.)	Pn (Psig)	MISCELLANEOUS	NOTES
Relief Valve Opening Check											
SEQ.	1	4	2	3							
1.01	A.R.	200/275	MAX.	120						P1-Po(psi) 1000 [ ] 1050	1.
Pressurizing Valve Opening Check											
SEQ.	1	4	2	3							
1.02	A.R.	A.R.	MAX.	120						P1-Po(psi) 55 [ ] 68	2.
Metering Valve Orifice and Bypass Valve Differential Pressure Setting											
SEQ.	2	3,6	1	4					5		
* 2.01	5800	1300	MAX.	40.0	240	[ ]	250	[ ]	113		3.
* 2.02	2900	660	28-30	40.0	90	[ ]	93	[ ]	18		3.
									P2 (psig)		
* 2.03	5800	1300	MAX.	90.0	542	[ ]	562	[ ]	510	Pc-Py [ ]	3,4.
* 2.04	5800	1300	MAX.	120.0	714	[ ]	758	[ ]	860		
* 2.05	5800	1300	MAX.	135.0	749	[ ]	X	[ ]	860		
* 2.06	5800	1300	MAX.	135.0	703	[ ]	723	[ ]	815		5.

NOTES

1. Record relief valve opening pressure.
2. Record pressurizing valve opening pressure.
3. Set P1-P2 to between 30 and 47 inches Hg and record.
4. Record Pc-Py pressure. Max. 3.9 inches Hg.
5. Set maximum metering valve stop.

Calibration and Test Limitations For Units P/N 3244769-2 through 3244769-5

TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph) Min.	Recorded	Max.	P1-P2 (In.-Hg.)	Pn (Psig)	MISCELLANEOUS	NOTES
Metering Valve Orifice and Bypass Valve Differential Pressure Setting (Cont'd)											
SEQ.	2	3,6	1	4					5		
* 2.07	5800	1300	MAX.	40.0	-10		+10		113		6.
* 2.08	1700	400	MAX.	25	149		159		48		
Governor Spring Setting and Speed Reset Adjustment									P2 (psig)		
SEQ.	4	3,7	1	2,5					6		
* 3.01	6646	1575		95	492		504		420		7.
* 3.02	6796	1575		95	X		X		280	pph Diff. Bleed Size	8,9.
* 3.03		1575		95	X		X		420		10.
									Pn (psig)		
3.03A	6646	1575	30-35	95	X		225		100		10A.
									P2 (psig)		
SEQ.	4	2	1	3,6					5		
3.04	6540	1575	87	95	X		X		420		
3.05	6650	1575	87	95	X		X		420	pph Diff. -7 +7	11.

6. Hysteresis from Test Point 2.01.
7. Set governor break throttle angle at between 89 and 91 degrees. Gap between throttle stop lever assembly (6, IPL Fig. 3) and maximum throttle stop (19) must be 0.050 inch minimum (Ref. Fig. 507).
8. Record nozzle flow difference (100 to 130 pph) from Test Point 3.01.
9. Record Py air flow jet (10, IPL Fig. 2) size finally installed (Size 58D to 62D).
10. Hysteresis from Test Point 3.01.
10A. If minimum schedule cannot be met, select larger Py air flow jet (10, IPL Fig. 2) and recheck Test Points 3.01 to 3.03A.
11. Record nozzle flow difference (+ 7 pph) from Test Point 3.04.

Calibration and Test Limitations For Units P/N 3244769-2 through 3244769-5

TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph) Min.	Recorded	Max.	P1-P2 (In.-Hg.)	Pn (Psig)	MISCELLANEOUS	NOTES
Governor Spring Setting and Speed Reset Adjustment (Cont'd)											
3.06	6646	1575	MAX.	95	492		504		420		
3.07	6686	1575	MAX.	95	X		X		420	pph Diff. -5 +5	12.
Idle Speed Stop Setting and Throttle Pick-Up Angle									Pn (psig)		
SEQ.	4	1,7	5	2,6					3,8		
4.01	3881	880	28-30	39.0	141		153		70		
4.02	3881	880	32		36					pph Incr. Spring stripes	13.
Low End Acceleration and Throttle Movement Effect											
SEQ.	2	5	3	1					4,6		
5.01	815	200	40	Ambient	85		X		18		
5.02	1700	400	40	25.0	149		159		48	pph Decr.	14.
Maximum Idle Reset Stop Adjustment											
SEQ.	1	3,5		2					4		
6.01	4380	990		70	262		274		130		15.

12. Record nozzle flow difference (+ 5 pph) from Test Point 3.06.
13. Move throttle until nozzle flow increases. Check that nozzle flow increase is not more than 4 pph from Test Point 4.01 and record. Throttle angle should be between 32 and 36 degrees. Record throttle angle and spring stripes.
14. Move throttle angle to 30 degrees. Observe that maximum nozzle flow decrease is not more than 5 pph and record.
15. Record throttle angle.

Calibration and Test Limitations For Units P/N 3244769-2 through 3244769-5

TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph) Min.	Recorded	Max.	P1-P2 (In.-Hg.)	Pn (Psig)	MISCELLANEOUS	NOTES
Cut-off Modulation and Cut-off Leakage											
SEQ.	2	3,6	1	4					5,7		
7.01	2200	500	20	A.R.	160	[ ]	170		55	pph Incr. [ ]	16,17.
7.02	2200	500	8-10	A.R.	0	[ ]	0.5 cc/min.			P1 pressure [ ]	18.
7.03	2200	500	-5	A.R.						P1 pressure [ ]	19.
7.04	2200	500	0-MAX-0	Ambient						Throttle Torque [ ]	20.
7.05	2200	500	8-10	Ambient	0	[ ]	20.0 cc/min.			P1 pressure [ ]	18.
7.06	6646	1575	MAX.	135.0	0	[ ]	85			Min: 0.3750 in. [ ]	21.

NOTES

16. Move throttle angle to 30 degrees. Observe that maximum nozzle flow increase is not more than 2 pph and record.
17. Record P1-P2 pressure.
18. Observe P1 pressure does not exceed 250 psig and record.
19. P1 pressure to be equal to, or less than, P1 at Test Point 7.02. Record P1 pressure.
20. Observe that throttle torque does not exceed 15 lb. in. maximum and record.
21. Set condition lever to -5 degrees. Distance between centres of idle reset lever shaft and maximum idle reset link must be 0.375 inch minimum. Observe and record nozzle flow, which must be less than 85 pph.

Calibration and Test Limitations For Units P/N 3244769-2 through 3244769-5

TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph) Min.	Recorded	Max.	P1-P2 (In.-Hg)	Pn (psig)	MISCELLANEOUS	NOTES
Spill Valve Setting (for Units P/N 3244769-2 through -4)											
SEQ.	1	3	2	4							
8.01	1530	370	28-30	1.0	X	[ ]	X		32		22.
8.02	1530	370	28-30	1.0	82	[ ]	X		25		25.
8.03	2400	550	28-30	9.0	X	[ ]	X		60		22.
8.04	2400	550	28-30	9.0	X	[ ]	X		60	pph Diff 0 [ ] 1	22,23.
8.05	Check spill valve Pa port for leakage.									OK [ ] REJ.	24.
Spill Valve Setting (For Units P/N 3244679-5)											
SEQ.	1	3	2	4							
8.01	1530	370	28-30	1.0	X	[ ]	X		32		22.
8.02	1530	370	28-30	1.0	X	[ ]	X		32	pph Diff 0 [ ] 1	22,25.
8.05	Check spill valve Pa port for leakage.									OK [ ] REJ	24.

NOTES

22. Record nozzle flow.
23. Record difference in flow from Test Point 8.03.
24. Port may be wet but no measurable leakage permitted.
25. Record difference in flow from Test Point 8.01.

Observações *Remarks*	

Aprovação *Approval*	**Nome** *Name*	**Data** *Date*	**Assinatura** *Signature*