

	REGISTRO RECORD	REVISÃO REVISION 01
CÓDIGO CODE IAS-RG-0223	FICHA DE SERVIÇOS SERVICE SHEET	PÁGINA PAGE 1/4

COMPONENTE Component	O.S W.O	MODELO Model	PN	SN
FUEL CONTROL UNIT		DP-F2 Main Fuel Control Unit	3244769-1	

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 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. <i>Assemble the MFCU to the test stand, using spline adapter and mounting adapter, or equivalent.</i>			
B	Remova o plug da porta e instale o acessório especial PN 2561527. Remova o plug e instale um adaptador padrão nas portas. <i>Remove plug from port and assemble PN 2561527 special fixture. Remove plug from port and install a standard adapter.</i>			
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. <i>Remove cotter pin, nut, and spacer from throttle shaft. Assemble throttle quadrant on end of cam shaft and tighten to 40-45 lb.in.</i>			
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. <i>Maintain a Po pressure of 30-50 psig on Po pressure gage, except where otherwise specified.</i> <i>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.</i>			
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. <i>Increase fuel supply pressure (P1) and observe start of fuel flow. During this test, adjust and maintain (Po) at 40 ± 2 psig</i>			

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ITEM	PROCEDIMENTOS TOLERÂNCIAS	Resultado	Data	Executante
Item	Procedures Serviceable limits	Result	Date	Performed by
F	Ajuste o parafuso de pressão diferencial P1-P2 para uma pressão de 30-47 in.Hg. Ajuste o orifício da <i>sleeve</i> da <i>metering valve</i> até a pressão diferencial P1-P2 e o fluxo de injeção estarem de acordo com os limites especificados. <i>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.</i>			
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. <i>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.</i>			

CALIBRAÇÃO E LIMITAÇÕES DO TESTE | CALIBRATION AND TEST LIMITATIONS

Calibration and Test Limitations For Units P/N 3244769-1												
TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph)		P1-P2 (in. Hg)	Pn (Psig)	MISCELLANEOUS	NOTES	NOTES	
					Min.	Recorded	Max.					
<u>Relief Valve Opening Check</u>												1. Record relief valve opening pressure.
SEQ.	1	4	2	3								
1.01	AR	200/275	MAX.	120					P1-Po (psi) 1000 1050	1.	2. Record pressurizing valve opening pressure.	
<u>Pressurizing Valve Opening Check</u>												3. Set P1-P2 to between 30 and 47 inches Hg and record.
SEQ.	1	4	2	3								
1.02	AR	AR	MAX.	120					P1-Po (psi) 55 68	2.	4. Record Pc-Py pressure. Max. 3.9 inches Hg.	
<u>Metering Valve Orifice and Bypass Valve Differential Pressure Setting</u>												5. Set maximum metering valve stop.
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.		

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Calibration and Test Limitations For Units P/N 3244769-1											
TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph)		P1-P2 (in. Hg.)	Pn (psig)	MISCELLANEOUS	NOTES	NOTES
					Min.	Recorded Max.					
<u>Metering Valve Orifice and Bypass Valve Differential Pressure Setting (Cont'd)</u>											
SEQ.	2	3,6	1	4				5			
* 2.07	5800	1300	MAX.	40.0	-10		+10	113		6	6. Hysteresis from TP. 2.01.
* 2.08	1700	400	MAX.	25	149		159	48			7. Set governor break throttle angle at 89 top 91 degrees. Gap between throttle stop lever assembly (6, IPL Fig. 3) and max. throttle stop (19) must be 0.050 inch minimum (Ref. Fig. 507).
<u>Governor Spring Setting and Speed Reset Adjustment</u>											
SEQ.	4	3,7	1	2,5				P2 (psig)			
* 3.01	6646	1575		95	492		504	420		7	8. Record nozzle flow difference (100 to 130 pph) from TP. 3.01.
* 3.02	6796	1575		95	X		X	280	pph Diff. Bleed Size	8,9	
* 3.03		1575		95	X		X	420		10	9. Record air flow jet (10, IPL Fig. 2) size finally installed (Size 58 to 62).
SEQ.	4	2	1	3,6				5			
3.04	6540	1575	87	95	X		X	420			10. Hysteresis from TP. 3.01.
3.05	6650	1575	87	95	X		X	420	pph Diff. -7	11	11. Record nozzle flow difference (+ 7 pph) from TP. 3.04).
3.06	6646	1575	MAX.	95	492		504	420			
3.07	6686	1575	MAX.	95	X		X	420	pph Diff. -5	12	12. Record nozzle flow difference (+ 5 pph) from TP. 3.06.

Calibration and Test Limitations For Units P/N 3244769-1											
TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph)		P1-P2 (in. Hg.)	Pn (psig)	MISCELLANEOUS	NOTES	NOTES
					Min.	Recorded Max.					
<u>Idle Speed Stop Setting and Throttle Pick-Up Angle</u>											
SEQ.	4	1,7	5	2,6				3,8			
4.01	3881	880	28-30	39.0	141		153	70			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.
4.02	3881	880							pph Incr.	13	
<u>Low End Acceleration and Throttle Movement Effect</u>											
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	14. Move throttle angle to 30 degrees. Observe that maximum nozzle flow decrease is not more than 5 pph and record.
<u>Maximum Idle Reset Stop Adjustment</u>											
SEQ.	1	3,5		2				4			
6.01	4380	990		70	262		274	130		15	15. Record throttle angle.
<u>Cut-off Modulation and Cut-off Leakage</u>											
SEQ.	2	3,6	1	4				5,7			
7.01	2200	500	20	A.R.	160		170	55	pph Incr.	16,17	16. Move throttle angle to 30 degrees. Observe that maximum nozzle flow increase is not more than 2 pph and record.
7.02	2200	500	8-10	A.R.	0		0.5 cc/min.		Pl pressure	18	17. Record P1-P2 pressure.
											18. Observe Pl pressure does not exceed 250 psig and record.

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TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph)			P1-P2 (In.-Hg)	Pn (Psig)	MISCELLANEOUS	NOTES	NOTES		
					Min.	Recorded	Max.							
<u>Cut-off Modulation and Cut-off Leakage (Cont'd)</u>														
SEQ.	2	3,5	1	4										
7.03	2200	500	-5	A.R.					P1 Pressure		19.	19. P1 pressure to be equal to, or less than, P1 at Test Point 7.02. Record P1. 20. Observe that throttle torque does not exceed 15 lb.-in. maximum and record. 21. Record nozzle flow. 22. Record difference in flow from Test Point 8.03. 23. Port may be wet but no measurable leakage permitted.		
7.04	2200	500	0-MAX-0	Ambient					Throttle Torque		20.			
7.05	2200	500	8-10	Ambient	0		20.0 cc/mm	P1 pressure		18.				
<u>Spill Valve Setting</u>														
SEQ	1	3	2	4										
8.01	1530	370	28-30	1.0	X		X				21.			
8.02	1530	370	28-30	1.0	82		86				21.			
8.03	2400	550	28-30	9.0	X		X				21.			
8.04	2400	550	28-30	9.0	X		X							
											pph Diff			
											0		1	21, 22.
8.05	Check spill valve Pa port for leakage.								OK		REJ	23.		

Observações Remarks	

Aprovação Approval	Nome Name	Data Date	Assinatura Signature
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