

	REGISTRO <i>RECORD</i>	REVISÃO <i>REVISION</i> 01
CODIGO CODE IAS-RG-0223	FICHA DE SERVIÇOS <i>Service Sheet</i>	PÁGINA <i>PAGE</i> 1/4

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

IDENTIFICAÇÃO IDENTIFICATION	
TÍTULO <i>TITLE</i>	FICHA PARA REGISTROS DE TESTE DA FUEL CONTROL UNIT <i>FUEL CONTROL UNIT TEST SHEET</i>

PUBLICAÇÃO PUBLICATION	REFERÊNCIA REFERENCE	TLN	DATA DATE
COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST	73-20-08	TLN02349	June 23/2020 Revision 14
		CONJUNTO MAIOR MAIN PART	
		PN	SN

TESTE APLICÁVEL AOS PART NUMBERS TEST APPLICABLE TO PART NUMBERS	
3244723-3	3244723-4

TESTE DA UNIDADE DE CONTROLE DE COMBUSTÍVEL FUEL CONTROL UNIT TEST				
ITEM <i>Item</i>	PROCEDIMENTOS TOLERÂNCIAS <i>Procedures Serviceable limits</i>	Resultado <i>Result</i>	Data <i>Date</i>	Executante <i>Performed by</i>
A	Monte a FCU na bancada de teste, usando o adaptador estriado e o adaptador de montagem. <i>Assemble the Main Fuel Control Unit to the test stand, using spline adapter and mounting adapter, or equivalent.</i>			
B	Remova o plugue e instale o acessório especial de teste. Remova o plugue e instale um adaptador padrão nas portas. <i>Remove plug and assemble, special testing fixture. Remove plug and install a standard adapter into ports.</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 and pointer on the end of throttle 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 psig e dentro de ± 25 psig 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. Maintain P2 pressure within ± 10 psi of the value specified at pressures below 200 pph and within ± 25 psig at higher pressures, using Pn back pressure regulator valve.</i>			
E	Ajuste o parafuso de pressão diferencial P1-P2 para uma pressão de 30 - 42 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 - 42 in.Hg. Adjust metering valve sleeve assembly orifice until P1-P2 pressure differential and nozzle flow are within the limits specified.</i>			

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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
F	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, as pressões diferenciais de Pc-Px e Px-Py. <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-Px and Px-Py differential pressures.</i>			
G	Ajuste a porca até que o fluxo de injeção leia 9-13 pph. <i>Adjust nut until the nozzle flow reads 9-13 pph.</i>			
H	Se o fluxo do injetor não estiver de acordo com os limites especificados, troque o fluxo de ar Py. Torqueie o fluxo de ar Py de 9 – 11 lb.in. <i>If the nozzle flow is not within the specified limits, change Py air flow jet. Torque air flow jet to 9 – 11 lb.in.</i>			
I	Após ajustar o parafuso de ajuste da velocidade de marcha lenta, torqueie a porca de 20 – 25 lb.in. <i>After adjustment of idle speed adjustment screw, torque nut to 20 – 25 lb.in.</i>			

CALIBRAÇÃO E LIMITAÇÕES DO TESTE | CALIBRATION AND TEST LIMITATIONS

Calibration and Test Limitations For Units P/N 3244723-3 and 3244723-4											
TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph) Min.	NOZZLE FLOW (pph) Recorded	P1-P2 (in. Hg.)	P2 (psig)	MISCELLANEOUS	NOTES	NOTES
<u>Relief Valve Opening Check</u>											
SEQ.	1	4	2	3							1. Record relief valve opening pressure.
1.01	0	200/275	MAX.	120					P1-Po(psi) 1000 1050	1.	2. Record pressurizing valve opening pressure.
<u>Pressurizing Valve Opening Check</u>											
SEQ.	1		2	3							Set P1-P2 to between 30 and 42 inches Hg and record.
1.02	0	-	MAX.	120					P1-Po(psi) 55 68	2.	Record Pc-Py pressure. Max. 3.9 inches Hg.
<u>Metering Valve Orifice and Bypass Valve Differential Pressure Setting</u>											
SEQ.	2	3,6	1	4				5			Set max. metering valve stop.
*											
2.01	5800	1300	MAX.	40.0	223		233			3.	Hysteresis from Test Point 2.01.
*											
2.02	2900	660	28-30	40.0	91		94		Pn 35 psig 	3.	
*											
2.03	5800	1300	MAX.	90.0	498		528		760 Pc-Py 	3,4.	
*											
2.04	5800	1300	MAX.	120.0	663		705		950	3.	
2.05	5800	1300	MAX.	135.0	696		X		950	3.	
*											
2.06	5800	1300	MAX.	135.0	575		590		900	3,5.	
2.07	5800	1300	MAX.	40.0	-10		+10		170	3,6.	

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Calibration and Test Limitations For Units P/N 3244723-3 and 3244723-4											
TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph)		P1-P2 (in. Hg.)	P2 (psig)	MISCELLANEOUS	NOTES	NOTES
<u>Speed Bias Spring Setting</u>											
SEQ.	2,7	3,6	1	4				5			7. Record nozzle flow.
3.01	5800	1300	MAX.	70	X		X	440		7.	8. Set governor break throttle angle to between 89 and 91 degrees [gap between throttle stop (550, IPL Fig. 1) and unmachined surface of stop lever (495) must be 0.050 inch minimum (Ref. ASSEMBLY, Fig. 513)].
3.02	5215	1170	MAX.	70	-9		-13	370			
3.03	4000	900	MAX.	70	367		389	340			
<u>Governor Spring Setting</u>											
SEQ.	4	3,7	1	2,5				6			
*											
4.01	6360	1420		95	421		433	500		8.	9. Record nozzle flow difference (90 to 110 pph) from Test Point 4.01.
4.02	6510	1450		95	X		X	270	pph diff. Bleed Size	8,9, 10.	
4.03		1420		95	X		X	500		8,11.	10. Record air flow jet (115, IPL Fig. 1) size finally installed (size 58D to 62D).
<u>Idle Speed Stop Setting and Throttle Pick-up Angle</u>											
SEQ.	4	1,7	5	2,6				3,8			
5.01	3250	740	28-30	30.0	115		125		Pn 42 psig		11. Hysteresis from Test Point 4.01. Observe that speed is not more than -50 rpm of that at TP. 4.01 and record.
5.02	3250	740		30.0	X		X		pph Incr.	12.	12. Move throttle angle to between 31 and 35 degrees. Observe that maximum nozzle flow increase is not more than 4 pph from Test Point 5.01 and record. Record throttle angle.

Calibration and Test Limitations For Units P/N 3244723-3 and 3244723-4												
TEST POINT	SPEED (rpm)	FUEL SUPPLY (pph)	THROTTLE ANGLE (deg.)	Pc AIR SUPPLY (psia)	NOZZLE FLOW (pph)			P1-P2 (in. Hg.)	P2 (psig)	MISCELLANEOUS	NOTES	NOTES
<u>Low End Acceleration and Throttle Movement Effect</u>												
SEQ.	2	5	3	1					4,6			13. Move throttle angle to 30 degrees. Observe that maximum nozzle flow decrease is not more than 5 pph and record.
6.01	815	200	40	Ambient	85		X			Pn 25 psig		
6.02	1700	400	40	25.0	131		139			Pn 30 psig pph Decr.	13.	14. Record throttle angle.
<u>Maximum Idle Reset Stop Adjustment</u>												
SEQ.	1	3,5		2					4			15. Move throttle angle to 30 degrees. Observe that maximum nozzle flow increase is not more than 2 pph and record.
7.01	4380	990		70	262		274		210		14.	16. Record P1-P2 pressure.
<u>Cut-off Modulation and Cut-off Leakage</u>												
SEQ.	2	3,6	1	4					5,7			17. Observe P1 pressure does not exceed 250 psig and record.
8.01	2000	500	20	A.R.	160		170			Pn 60 psig pph Incr.	15,16.	18. P1 pressure to be equal to, or less than, P1 at Test Point 8.02. Record P1.
8.02	2000	500	8-10	A.R.	0		0.5 c.c./min.			P1 pressure	17.	19. Observe that throttle torque does not exceed 15 lb. in. maximum and record.
SEQ.	2	3,5	1	4								
8.03	2000	500	-5	A.R.						P1 pressure	18.	
8.04	2000	500	0-MAX-0	Ambient						Throttle Torque	19.	
8.05	2000	500	8-10	Ambient	0		20.0 c.c./min.			P1 pressure	17.	

