

	REGISTRO RECORD	REVISÃO REVISION 0
CÓDIGO CODE IAS-RG-0223	FICHA DE SERVIÇOS Service Sheet	PÁGINA PAGE 1/17

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	73-20-71	TLN02391	January 2 nd , 2018 Temporary Revision 73-76
		CONJUNTO MAIOR MAIN PART	
		PN	SN

TESTE APLICÁVEL AOS PART NUMBERS TEST APPLICABLE TO PART NUMBERS
3244883-7

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	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. Instale o Quadrante de Aceleração na extremidade do eixo de aceleração e torqueie de 40-45 lb.in. <i>Remove plug and assemble, special testing fixture. Remove plug and install a standard adapter into ports. Assemble throttle quadrant and pointer on the end of throttle shaft and tighten to 40-45 lb.in.</i>			
C	Remova o contra pino, porca e espaçador do eixo de aceleração. <i>Remove cotter pin, nut, and spacer from throttle shaft.</i>			
D	Mantenha uma pressão Po dentro de ± 10 psi dos limites especificados, usando uma válvula de controle Po. Pn deve ser definido em 157 psig com o fluxo de combustível de 400 pph. Não a altere durante todo o teste. <i>Maintain Po pressure to within ± 10 psi of specified limits, using Po control valve. Pn to be set to 157 psig with nozzle flow of 400 pph. Do not alter for whole of test.</i>			
E	Ajuste o parafuso de pressão diferencial P1-P2 para uma pressão entre 26 – 42 in.Hg. Ajuste o orifício da <i>sleeve</i> da metering valve até a pressão diferencial P1-P2 e o fluxo de injeção estarem de acordo com os limites especificados.			

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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
	Adjust P1-P2 pressure differential adjustment screw between 26 - 42 in.Hg. Adjust metering valve sleeve assembly orifice until P1-P2 pressure differential and nozzle flow are within the limits specified.			
F	Torqueie as porcas para os valores especificados. Registre todas as pressões diferenciais de P1-P2 e fluxo de injeção e adicionalmente, a pressão de Pc-Px, Px-Py e P ₂ no Ponto de Teste. <i>Torque nuts to values specified. Record all P1-P2 differential pressure and nozzle flows and additionally, (Pc-Px)pressure, (Px-Py) pressure and (P₂) pressure at Test Point.</i>			
G	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 no valor especificado. Registre o fluxo de ar (Py) instalado. <i>If the nozzle flow is not within the specified limits, change Py air flow jet. Torque air flow jet to value specified. Record (Py) air flow jet size installed.</i>			
H	Após ajustar o parafuso de ajuste da velocidade de marcha lenta, torqueie a porca de 20 – 25 lb.in. <i>After resetting idle speed adjustment screw, torque nut to 20 – 25 lb.in.</i>			

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TESTE AETS 68471 | AETS 68471 TEST

TEST SPECIFICATION												Number AETS 68471		Rev. L																						
												Sheet 1 of 8																								
Orig By: G. Chan				Chk By: W.H. Foster				Project Leader: M. Taylor				MFG Approval: N/A																								
Date:				Test Stand No.:				Operator:				S/N:																								
Unit: Automatic Fuel Control								Model: PT6T-3D				P/N: 3244883																								
REL DATE	REV.	A	B	C	D	E	F	G	H	I	J	K	L																							
		25 Feb 93	22 Apr 93	25 May 93	18 Oct 93	23 Mar 94	26 Apr 94	18 May 94	19 Dec 94	31 Aug 95	29 Jan 96	17 Sep 96																								
														SHT	REV	STATUS	SHT	REV	SHT	REV	L	K	K	L	L	L	L	L								
														1	2	3	4	5	6	7	8	9	10	11	12											
														13	14	15	16	17	18	19	20	21	22	23	24											

A. See AEEI-68403 for location of adjustments and pressure taps.

B. (1) Install throttle quadrant fixture with a 4.0 lb load applied to throttle stop lever to hold lever against maximum throttle stop.

(2) Index throttle quadrant to 90° T.A. Torque throttle quadrant fixture to 40-45 in-lb.

C. Control rotation CW as viewed from control shaft end.

D. Po pressure must meet limits where given ± 10 psi. (Po need not be set when unit is calibrated with an aircraft pump).

E. Set Pn at 157 PSIG with nozzle flow of 400 PPH. Do not alter valve for the whole of test.

F. Set test conditions (RPM, Supply, & Pc) in the sequence indicated by number 1, 2, 3, etc.

(1) When two numbers are listed, set and then trim test condition in the sequence indicated.

(2) Approach all speeds, total fuel supplies, and Pc settings from a lower value, except at hysteresis points.

G. Speed for Test Points indicated (#) (2.02, 3.01, 3.03, 4.01, 4.02, 6.06), is to be set to ± 2 RPM of specified value. All other points are to be set within ± 20 RPM of specified value.

H. Total fuel supply is to be set to ± 20 PPH of the specified value or within limits when shown. (Po need not be set when unit is calibrated with an aircraft pump).

I. Before calibration, check for external air leakage using M73/9. Slow bubbling is permitted at the joint of drive body and flow body, at the joint of drive body and air adaptor, at the torsion shaft cover and at the bellows and torsion shaft locknuts. No leakage is permitted at any other point. Pc = 100 PSIA. If leakage is considered excessive, measure Px-Py with Pc = 100 PSIA, RPM = 0, and T/A = MAX. Px to be measured at the bellows ratio lever cover.

Px - Py = ± 1.2 in. Hg. maximum

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						TEST SPECIFICATION			AETS 68471																																																	
									SHEET 2	SHEETS OF 8	REV. K																																															
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi																																																
						MIN	REC	MAX																																																		
K. All adjustments are to be properly torqued. Test point indicated (*) require special attention and are to be checked below following proper torquing. <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">1. Metering valve orifice torque</td> <td style="width: 10%;">35</td> <td style="width: 15%;"> </td> <td style="width: 35%;">40 in. lb.</td> </tr> <tr> <td>2. By-pass setting torque</td> <td>25</td> <td> </td> <td>35 in. lb.</td> </tr> <tr> <td>3. Min M/V stop (breakaway) torque</td> <td>4</td> <td> </td> <td>20 in. lb.</td> </tr> <tr> <td>4. Max. flow M/V stop torque</td> <td>20</td> <td> </td> <td>25 in. lb.</td> </tr> <tr> <td>5. Max. gov. eccentric torque</td> <td>7</td> <td> </td> <td>7.5 in. lb.</td> </tr> <tr> <td>6. Max. throttle stop torque</td> <td>20</td> <td> </td> <td>25 in. lb.</td> </tr> <tr> <td>7. Idle speed stop torque</td> <td>20</td> <td> </td> <td>25 in. lb.</td> </tr> <tr> <td>8. Flow body to drive body</td> <td>20</td> <td> </td> <td>25 in. lb.</td> </tr> <tr> <td>9. Air adapter to drive body in 5 in-lb increments</td> <td>25</td> <td> </td> <td>30 in. lb.</td> </tr> <tr> <td>10. Bleeds (Py, Pg)</td> <td>9</td> <td> </td> <td>11 in. lb.</td> </tr> <tr> <td>11. Air regulator adjust nut</td> <td>20</td> <td> </td> <td>25 in. lb.</td> </tr> <tr> <td>12. Air regulator to flow body</td> <td>10</td> <td> </td> <td>15 in. lb.</td> </tr> </table>											1. Metering valve orifice torque	35		40 in. lb.	2. By-pass setting torque	25		35 in. lb.	3. Min M/V stop (breakaway) torque	4		20 in. lb.	4. Max. flow M/V stop torque	20		25 in. lb.	5. Max. gov. eccentric torque	7		7.5 in. lb.	6. Max. throttle stop torque	20		25 in. lb.	7. Idle speed stop torque	20		25 in. lb.	8. Flow body to drive body	20		25 in. lb.	9. Air adapter to drive body in 5 in-lb increments	25		30 in. lb.	10. Bleeds (Py, Pg)	9		11 in. lb.	11. Air regulator adjust nut	20		25 in. lb.	12. Air regulator to flow body	10		15 in. lb.
1. Metering valve orifice torque	35		40 in. lb.																																																							
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CHECKED BY: _____																																																										

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				TEST SPECIFICATION		AETS 68471					
						SHEET 3 OF 8		SHEETS 8		REV. K	
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi	
						MIN	REC	MAX			
<u>METERING VALVE ORIFICE AND BY-PASS HEAD (P1-P2) "HG) SETTING</u>											
A) Test point 1.01 thru 1.03 are interrelated and should be recorded after all three (3) adjustments have been made.											
B) At T.P. 1.03, if P1-P2 is higher than 33 and lower than 41 in. Hg, remove by-pass valve cover and install spacer P/N 3240905. If P1-P2 is higher than 41 in. Hg, install P/N 3240905-1 thicker spacer.											
C) Torque the by-pass valve retaining screws to 22-24 in.-lb. in increments of 5 in.-lb and re-calibrate T.P. 1.01 to 1.03. After 20 minutes minimum, re-torque to 22-24 in.-lb and re-verify T.P. 1.01 to 1.03.											
*	2	3-6	1		4				5		
1.01	6800	1600	MAX		40.0	275		285		300	
Adjust head and orifice, P1 - P2 = 26 - 46 in. Hg.						Pn		PSIG			
*											
1.02	2900	720	30-32		40.0	76		79		80	
Set minimum M/V stop after removing Py line.											
*											
1.03	6800	1600	MAX		90.0	618		642		175	
Retrim head and re-adjust 1.01 - 1.02 if out of limits.											
Px - Py							1.2 in. Hg. max.		Pn		PSIG
As per note (B), check appropriate box.											
No spacer											
P/N 3240905 spacer											
P/N 3240905-1 spacer											
*											
1.04	6800	1600	MAX		125.0	712		728		140	
Set maximum M/V stop.											
1.05	6800	1600	MAX		40.0	-10		+10		300	
Hysteresis of T.P. 1.01.											

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				TEST SPECIFICATION			AETS 68471			REV L
							SHEET		SHEETS	
							4	OF 8		
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi
						MIN	REC	MAX		
<u>(By-Pass Adjustment Check)</u>										
After by-pass valve adjustment has been completed (T.P. 1.01 thru 1.05) and the detent cup has been locked in position.										
A) At T.P. 1.06 set the same conditions as T.P. 1.01. Record flow..										
B) At T.P. 1.07 rotate the detent cup 3 clicks CW, and record the flow. The nozzle flow must increase by 3 PPH min. from T.P. 1.06.										
C) At T.P. 1.08 rotate the detent cup an additional 3 clicks CW, and record the flow. The nozzle flow must increase by 3 PPH min. from T.P. 1.07.										
D) At T.P. 1.09 adjust the detent cup to the original position. Record the flow.										
E) At T.P. 1.10 rotate the detent cup - 3 clicks CCW, and record the flow. The nozzle flow must decrease by 3 PPH min. from T.P. 1.09.										
F) At T.P. 1.11 rotate the detent cup an additional 3 clicks CCW, and record the flow. The nozzle flow must decrease by 3 PPH min. from T.P. 1.10.										
G) At T.P. 1.12 adjust the detent cup to the original position. Record the flow.										
1.06	6800	1600	MAX		40.0	275		285		
1.07	3 Clicks CW. Record flow.					X		X		
	Nozzle flow must be more than T.P. 1.06					+3		X		
1.08	3 Additional clicks CW from T.P. 1.07. Record flow					X		X		
	Nozzle flow must be more than T.P. 1.07					+3		X		
1.09	6800	1600	MAX		40.0	275		285		
	Adjust dedent to original position and record flow.									
1.10	3 Clicks CCW. Record flow.					X		X		
	Nozzle flow must be less than T.P. 1.09					-3		X		
1.11	3 Additional clicks CCW from T.P. 1.10. Record flow					X		X		
	Nozzle flow must be less than T.P. 1.10					-3		X		
1.12	6800	1600	MAX		40.0	275		285		

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				TEST SPECIFICATION		AETS 68471				
						SHEET 5 OF 8		REV. L		
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi
						MIN	REC	MAX		
<u>ENRICHMENT SPRING SETTING</u>										
2.01	2-7 6800	3-6 1600	1 MAX		4 70.0	X		X		5 220
Record nozzle flow.										
# 2.02	6606	1500	MAX		70.0	-12		-16		200
Adjust enrichment spring to obtain -12 to -16 pph less than 2.01. To verify setting, approach enrichment speed from 6,000 rpm.										
2.03	5800	1350	MAX		70.0	441		458		160
Px bleed size						51		56		
If not in limits, select Px bleed per parts list. (Higher no. bleed reduces flow). If bleed has been changed, recheck test points 1.01 to 1.04, and 2.01 to 2.03.										
<u>MAX. GOVERNOR SPRING SETTING</u>										
A) Adjust eccentric shaft to meet flow limits. B) If unable to set with eccentric, maximum T.A. may be varied within T.A. limits. C) If unable to set with per "A" or "B", maintain eccentric on scribe line and determine amount of RPM off. D) Split control and adjust gov. spring as required. (CW adj. of governor spring delays break, approximately 1 flat on adj. nut per 50 RPM). E) At T.P. 3.02, adjust speed until nozzle flow is as shown. Approach from lower speed. F) At T.P. 3.03, adjust speed until 150 RPM greater than recorded at T.P. 3.02. If nozzle flow is not in limits, select Py bleed per parts list (higher number bleed to decrease flow). G) If bleed size change is required, re-check T.P. 3.01 and reset if necessary. H) At T.P. 3.04 decrease speed from T.P. 3.03 until nozzle flow as shown is reached. Record speed. Speed to be less than that recorded at T.P. 3.02 by 50 RPM max.										

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				TEST SPECIFICATION			AETS 68471			
							SHEET 6	SHEETS OF 8	REV. L	
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi
						MIN	REC	MAX		
#*	4	3-7	1		2-6					5
3.01	7047	1650			100.0	625		655		180
Set governor break T.A. at 89 - 91°.										
3.02		1650	"		"		625			180
Record speed.										
#*										
3.03		1650	"		"	398		438		260
Flow to be within limits shown. BLEED SIZE 56 66										
3.04		1650	"		"		625			180
X X Hysteresis 50 RPM max. of T.P. 3.02										
<u>IDLE SPEED STOP SETTING AND PICK-UP ANGLE</u>										
A) At T.P. 4.02, increase T.A. until 4 pph max. fuel flow from 4.01 is observed. (T.A. where flow starts to increase is pick-up angle).										
B) If throttle angle is out of limits, replace governor spring.										
1) Use a higher numbered spring if angle is too low.										
2) Use a lower numbered spring if angle is too high.										
3) Adjust spring tension to same load as set on spring removed.										
4) Re-set governor break at T.P. 3.01 and re-run T.P. 3.02 to 3.04.										
5) Re-set idle stop screw at T.P. 4.01.										
# *	3	1-7	4		2-5					6
4.01	3300	800	28-30		30.0	110		123		90
Set idle stop screw (CW adj. to increase flow). Decrease and re-set speed after adjustment.										
# *										
4.02	3300	800			30.0					90
Pick-up < 30° 34° Spring stripe										

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TEST SPECIFICATION						AETS-68471			REV. L	
						SHEET 7	OF 8	SHEETS		
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi
						MIN	REC	MAX		
LOW END OF ACCELERATION CURVE AND THROTTLE MOVEMENT EFFECT										
At T.P. 5.02, after recording nozzle flow, move T.A. to 30°, observe nozzle flow change and record.										
5.01	2 815	4 200	3 40		1 LOCAL	60		X		5 30
5.02	2100	670	40		25.0	145		167		50
Move T.A. to 30°							5 PPH maximum decrease.			
GOVERNOR RESET CHECK										
A) At T.P. 6.01 and 6.02, remove Pg bleed from control. Place calibrated 2529539-67X bleed fixture at the end of a pipe connected to the Pg port. Connect a manometer to a tee in this pipe.										
B) At T.P. 6.03 to 6.05, replace Pg bleed in control. Connect a 1/4" needle valve downstream of the calibrated 2529539-67X bleed fixture referred to in "A" above. Connect the low pressure side of the manometer to a tee between the bleed fixture and the valve. The pressure at this point is designated Ps. The speed at T.P. 6.03 must be gradually increased above 7,000 RPM until required flow is obtained. Maintain this speed setting within ± 2 RPM for T.P. 6.04 and 6.05. Pg - Ps at T.P. 6.04 and 6.05 is to be approached from lower Pg - Ps value only.										
C) If unable to meet T.P. 6.04, replace reset spring.										
1) Use shorter spring (unmarked) to decrease Pg - Ps.										
2) Use longer spring (two stripes) to increase Pg - Ps.										
D) At T.P. 6.06, connect pipe with needle valve and tee to Pg port. Connect manometer to tee.										
E) If unable to meet T.P. 6.06, readjust T.P. 6.01. Higher value Pr - Pa increases Pg - Pa. If T.P. 6.01 has been readjusted, recheck T.P. 6.02 to 6.06 inclusive.										
*										
6.01	Adjust air regulator				85.0	Pr-Pa	35		37 in Hg.	
6.02					40.0	Pr-Pa	X		X in. Hg.	
Difference from T.P. 6.01						2.5 in.Hg			max.	
6.03	5 X	3 1680	1 MAX		2 100.0		595			4 200
Needle valve closed.										

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						SHEET	SHEETS	REV.		
						8	OF 8	L		
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi
						MIN	REC	MAX		
* 6.04	X	1680	MAX		100.0		571			210
							Pg-Ps 2.4		3.5 in. Hg.	
6.05	X	1680	MAX		100.0		459			250
							Pg-Ps 0.7		1.2 in. Hg.	
# 6.06	4000	900	MAX		35.0	114		130		125
							Pg-Pa 6.5		9.5 in. Hg.	
Note: Open needle valve fully. Adjust valve to meet the flow requirements of T.P. 6.06 as required (nozzle flow must be seen to increase a minimum of 1 P.P.H. during this adjustment before recording actual PPH and Pg-Pa values).										
EXTERNAL LEAKAGE CHECK										
A) Cap Po at drive flange by-pass tap. B) Remove Po line to control and install Po plug. C) Cap outlet port. D) Set P1 pressure to 1000 psig. E) Observe leakage for 2-3 minutes. F) No leakage permitted.										
7.01							OK		REJECT	
7.02	Record shipping weight						X		4.8 lbs. max.	
						CHECKED				
						INSPECTED BY				
						ACCEPTED BY				

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TESTE AETS 68472 | AETS 68472 TEST

		Number AETS 68472		Rev. L
		TEST SPECIFICATION		
		Sheet 1 of 6		
Orig By: G. Chan		Chk By: W.H. Foster		Project Leader: M. Taylor
Date:		Test Stand No.:		Operator:
Unit: Automatic Fuel Control		Model: PT6T-3D		P/N: 3244883
REL DATE	REV	A	B	C
25 Feb 93				
22 Apr 93				
25 May 93				
18 Oct 93				
5 Nov 93				
22 Mar 94				
27 Apr 94				
18 May 94				
31 Aug 95				
29 Jan 96				
17 Sep 96				
		SIT REV STATUS		
		SIT REV SIT REV		
		L L L L L L		
		1 2 3 4 5 6 7 8 9 10 11 12		
		13 14 15 16 17 18 19 20 21 22 23 24		

AUDIT SPECIFICATION

A. See AEEI-68403 for location of adjustments and pressure taps.

B. (1) Install throttle quadrant fixture with a 4.0 lb load applied to throttle stop lever to hold lever against maximum throttle stop.

(2) Index throttle quadrant to 90° T.A. Torque throttle quadrant fixture to 40-45 in-lb.

C. Control rotation CW as viewed from control shaft end.

D. Po pressure must meet limits where given ± 10 psi. (Po need not be set when unit is calibrated with an aircraft pump).

E. Set Pn at 157 PSIG with nozzle flow of 400 PPH. Do not alter valve for the whole of test.

F. Set test conditions (RPM, Supply, & Pc) in the sequence indicated by number 1, 2, 3, etc.

(1) When two numbers are listed, set and then trim test condition in the sequence indicated.

(2) Approach all speeds, total fuel supplies, and Pc settings from a lower value, except at hysteresis points.

G. Speed for Test Points indicated (#) (2.02, 3.01, 3.03, 4.01, 4.02, 6.04), is to be set to ± 2 RPM of specified value. All other points are to be set within ± 20 RPM of specified value.

H. Total fuel supply is to be set to ± 20 PPH of the specified value or within limits when shown. (Po need not be set when unit is calibrated with an aircraft pump).

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				TEST SPECIFICATION			AETS 68472			
							SHEET 2	SHEETS OF 6	REV. L	
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi
						MIN	REC	MAX		
METERING VALVE ORIFICE AND BY-PASS HEAD (P1-P2) "HG) SETTING										
1.01	2 6800	3-6 1600	1 MAX		4 40.0	273		287		5 300
						P1 - P2 = 26 - 46 in. Hg. Pn PSIG				
1.02	2900	720	30-32		40.0	75		80		80
Remove Py line.										
1.03	6800	1600	MAX		90.0	615		645		175
						Px - Py 1.2 in. Hg. max. Pn PSIG				
1.04	6800	1600	MAX		125.0	710		730		140
1.05	6800	1600	MAX		40.0	-10		+10		300
Hysteresis of T.P. 1.01.										
(By-Pass Adjustment Check)										
After by-pass valve adjustment has been completed (T.P. 1.01 thru 1.05) and the detent cup has been locked in position.										
A) At T.P. 1.06 set the same conditions as T.P. 1.01. Record flow..										
B) At T.P. 1.07 rotate the detent cup 3 clicks CW, and record the flow. The nozzle flow must increase by 3 PPH min. from T.P. 1.06.										
C) At T.P. 1.08 rotate the detent cup an additional 3 clicks CW, and record the flow. The nozzle flow must increase by 3 PPH min. from T.P. 1.07.										
D) At T.P. 1.09 adjust the detent cup to the original position. Record the flow.										
E) At T.P. 1.10 rotate the detent cup - 3 clicks CCW, and record the flow. The nozzle flow must decrease by 3 PPH min. from T.P. 1.09.										
F) At T.P. 1.11 rotate the detent cup an additional 3 clicks CCW, and record the flow. The nozzle flow must decrease by 3 PPH min. from T.P. 1.10.										
G) At T.P. 1.12 adjust the detent cup to the original position. Record the flow.										

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				TEST SPECIFICATION			AETS 68472			
							SHEET 3 OF 6		SHEETS 6	
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi
						MIN	REC	MAX		
1.06	6800	1600	MAX		40.0	273		287		
1.07	3 Clicks CW. Record flow. Nozzle flow must be more than T.P. 1.06					X +3		X		
1.08	3 Additional clicks CW from T.P. 1.07. Record flow Nozzle flow must be more than T.P. 1.07					X +3		X		
1.09	6800	1600	MAX		40.0	273		287		
	Adjust dedent to original position and record flow.									
1.10	3 Clicks CCW. Record flow. Nozzle flow must be less than T.P. 1.09					X -3		X		
1.11	3 Additional clicks CCW from T.P. 1.10. Record flow Nozzle flow must be less than T.P. 1.10					X -3		X		
1.12	6800	1600	MAX		40.0	273		287		
<u>ENRICHMENT SPRING SETTING</u>										
2.01	2-7 6800	3-6 1600	1 MAX		4 70.0	X		X		5 220
# 2.02	6606	1500	MAX		70.0	-10		-18		200
Approach enrichment speed from 6,000 rpm, fuel flow is to be -10 to -18 pph less than 2.01.										
2.03	5800	1350	MAX		70.0	439		460		160
<u>MAX. GOVERNOR SPRING SETTING</u>										
# 3.01	4 7047	3-7 1650	1 MAX.		2-6 100.0	620		660		5 180
3.02		1650	"		"		625			180
Record speed.										

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				TEST SPECIFICATION			AETS 68472			
							SHEET 4	SHEETS OF 6	REV. L	
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi
						MIN	REC	MAX		
# 3.03		1650	"		"	393		443		260
Increase speed 150 RPM above that recorded at T.P. 3.02. Flow to be within limits as shown.										
# 3.04		1650	"		"		625			180
X X Hysteresis 50 RPM max. of T.P. 3.02										
<u>IDLE SPEED STOP SETTING AND PICK-UP ANGLE</u>										
A) At T.P. 4.02, increase T.A. until 4 pph max. fuel flow from 4.01 is observed.										
# 4.01	3 3300	1-7 800	4 28-30		2-5 30.0	106		127		6 90
# 4.02	3300	800			30.0					90
Pick-up $\angle$ 30° 34°										
<u>LOW END OF ACCELERATION CURVE AND THROTTLE MOVEMENT EFFECT</u>										
At T.P. 5.02, after recording nozzle flow, move T.A. to 30°, observe nozzle flow change and record.										
# 5.01	2 815	4 200	3 40		1 LOCAL	60		X		5 30
# 5.02	2100	670	40		25.0	142		170		50
Move T.A. to 30° 5 PPH maximum decrease.										

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				TEST SPECIFICATION			AETS 68472			
							SHEET 5	SHEETS OF 6		REV. L
TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	COND DEG.	Pc psia	NOZZLE FLOW, PPH			P1 - P2 "Hg	Po psi
						MIN	REC	MAX		
<u>GOVERNOR RESET CHECK</u>										
A) At T.P. 6.01 to 6.03, place calibrated 2529539-67X bleed fixture at the end of a pipe connected to the Pg port. Connect the high pressure side of the manometer to a tee in this pipe. Connect a 1/4" needle valve downstream of the bleed fixture. Connect the low pressure side of the manometer to a tee between the bleed fixture and the valve. The pressure at this point is designated Ps. The speed at T.P. 6.01 must be gradually increased above 7,000 RPM until required flow is obtained. Maintain this speed setting within ± 2 RPM for T.P. 6.02 and 6.03. Pg - Ps at T.P. 6.02 and 6.03 is to be approached from lower Pg - Ps value only.										
B) At T.P. 6.04, connect pipe with needle valve and tee to Pg port. Connect manometer to tee.										
6.01	5 X	3 1680	1 MAX		2 100.0			595		4 200
Needle valve closed.										
6.02	X	1680	MAX		100.0			571		210
						Pg-Ps 2.3		3.6 in. Hg.		
6.03	X	1680	MAX		100.0			459		250
Difference from T.P. 6.02						Pg-Ps 0.6		1.3 in. Hg.		
# 6.04	4000	900	MAX		35.0	114		130		125
						Pg-Pa 6.3		9.7 in. Hg.		
<u>Note:</u> Open needle valve fully. Adjust valve to meet the flow requirements of T.P. 6.04 as required (nozzle flow must be seen to increase a minimum of 1 P.P.H. during this adjustment before recording actual PPH and Pg-Pa values).										
<u>EXTERNAL LEAKAGE CHECK</u>										
A) Cap Po at drive flange by-pass tap. B) Remove Po line to control and install Po plug. C) Cap outlet port. D) Set P1 pressure to 1000 psig. E) Observe leakage for 2-3 minutes. F) No leakage permitted.										

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