COMPONENTE | *Component*	O.S | *W.O*	MODELO | *Model*	PN	SN
FUEL CONTROL UNIT		DP-F2 - 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	73-20-08	TLN02349	June 23/2020 Revision 14

CONJUNTO MAIOR | *MAIN PART*	
PN	SN

TESTE APLICÁVEL AOS PART NUMBERS | *TEST APPLICABLE TO PART NUMBERS*		
3244755-22	3244755-23	3244755-23 MOD 24

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. *Assemble the Main Fuel Control Unit to the test stand, using spline adapter and mounting adapter, or equivalent.*			
B	Remova o plugue e instale o acessório especial de teste. Remova o plugue e instale um adaptador padrão nas portas. *Remove plug and assemble, special testing fixture. Remove plug and install a standard adapter into ports.*			
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 and pointer on the end of throttle 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 psig e dentro de ± 25 psig 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 psig at higher pressures, using Pn back pressure regulator valve.*			
E	Ajuste o parafuso de pressão diferencial P1-P2 para uma pressão de 30 - 42 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 - 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 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. *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.*			
G	Ajuste a porca até que o fluxo de injeção leia 9-13 pph. *Adjust nut until the nozzle flow reads 9-13 pph.*			

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*
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. *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	Após ajustar o parafuso de ajuste da velocidade de marcha lenta, torqueie a porca de 20 – 25 lb.in. *After adjustment of idle speed adjustment screw, torque nut to 20 – 25 lb.in.*			

TESTE AETS 14274 | *AETS 14274 TEST*

TEST SPECIFICATION

Number AETS 14274 Rev. T

Sheet 1 of 8

Orig By: G. Chan	Chk By: W.H. Foster	Project Leader: W.H. Foster	MFG Approval:
Date:	Test Stand No.:	Operator:	S/N:
Unit: Automatic Fuel Control		Model: DP-F2 A-38/41	P/N: 3244755

REL DATE	REV
29 JUL 94	T

SHT	REV STATUS	SHT	REV
1	T	13	
2	T	14	
3	T	15	
4	T	16	
5	T	17	
6	T	18	
7	T	19	
8	T	20	
9		21	
10		22	
11		23	
12		24	

A. See AEEI 14089 for location of adjustments and pressure taps.

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

(2) Index throttle quadrant to 93.5° T.A. Torque throttle quadrant fixture to 40-45 in. lbs.

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

D. Maintain Po pressure of 30 to 50 PSIG at control by-pass tap, except where otherwise specified.

E. P2 pressure shall be set within ± 10 psi of specified value at pressures below 200 psig and ± 25 psi of specified value at pressures above 200 psig.

F. Set test conditions (speed, supply, Pc, etc.) in the sequence indicated by numbers 1, 2, 3, etc.
(a) When two numbers are listed, set and then trim test condition in the sequence indicated.
(b) Approach all speeds, total fuel supplies, and Pc settings from a lower value, except at hysteresis points.

G. All adjustments are to be properly torqued.
Test points indicated (*) require special attention and are to be checked below following proper torquing.

1.	Metering valve orifice torque	35		40 in. lbs.
2.	By-pass setting torque	25		35 in. lbs.
3.	Min. flow M.V. stop (breakaway) torque	4		20 in. lbs.
4.	Max. flow M.V. stop torque	20		25 in. lbs.
5.	Max. gov. eccentric lock-nut torque	7		7.5 in. lbs.
6.	Max. throttle stop torque	20		25 in. lbs.
7.	Idle speed stop torque	20		25 in. lbs.
8.	Flow body to drive body torque	20		25 in. lbs.
9.	Drive body adapter to drive body torque	25		30 in. lbs. – in 5 in. lbs. Increments
10.	Bleeds torque	9		11 in. lbs.

H. Speed for tests points 3.01, 3.03, 4.01, 4.02 and 6.01 is to be set to ± 2 RPM of specified value. All other points are to be set within ± 20 RPM of specified value.

I. Total supply is to be set to ± 20 PPH of the specified value or within limits when shown. When aircraft pump is used, ignore specified values of total supply and Po pressure settings. Except at T.P. 1.02 and 7.02 adjust boost pressure to obtain specified Po values.

	TEST SPECIFICATION	AETS 14274 SHEET 2 OF 8	REV. T

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi

K. Valve in spill valve outlet to be kept in closed position unless otherwise indicated.

L. Close shutoff valves to Pn and Py gauges.

M. Before calibration, check for external air leakage using "Lec-Tec". Slow bubbling is permitted at the joint of drive body and drive body adapter, 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 when Pc = 100 psia, RPM = 0 and T/A = Max. Px to be measured at the bellows ratio lever cover.

Px-Py [ ] ± 1.2" Hg. Max.

N. After by-pass valve adjustment has been completed and the detent cup has been locked in position check specific gravity adjustment at min. M/V setting.

1) Rotate the cup 3 clicks cw from original position – nozzle flow must increase at each click.
2) Rotate the cup 3 clicks ccw from original position – nozzle flow must decrease at each click.
3) Return the detent cup to the original position and recheck M/V settings.

	TEST SPECIFICATION	AETS 14274 SHEET 3 OF 8	REV. T

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi
	1	4	2	3						
1.01	0	200-275	Max.	120						

CHECK RELIEF VALVE OPENING

(a) Cap outlet port.

(b) Increase fuel flow until supply is within supply limits specified and observe P1-Po differential.

(c) If P1-Po differential is out of limits, shim as required.
(1) Add shims to increase differential.

Relief valve opening P1-Po 1000 [ ] 1050 psi

CHECK PRESSURIZING VALVE OPENING

(a) Increase supply pressure with outlet port open, observe start of nozzle flow. During this test adjust and maintain Po at 40 ± 2 PSIG.

(b) Increase P1 if out of limits, shim as required.
(1) Add shims to increase differential.

	1			2	3					
1.02	0			Max.	120					

Pressurizing valve opening P1 - Po 55 [ ] 68 psi

If valve cover has been removed and re-assembled, torque screws to 4.5 – 5.0 in. lb. in 1 in. lb. increments maximum while alternating between the screws.

METERING VALVE ORIFICE AND BY-PASS HEAD (P1-P2 "HG) SETTING

(a) Test points 2.01 thru 2.03 are interrelated and should be recorded after all three (3) adjustments have been made. At test points 2.01, 2.02 and 2.07 open shut-off valve to Pn gauge. Close valve after test.

(b) If at T.P. 2.03 P1 – P2 is higher than 41 in. Hg. remove by-pass valve cover and replace existing spacer P/N 3240905 with thicker spacer P/N 3240905-1. If P1 – P2 is less than 33 in. Hg. remove and discard existing spacer.

(c) Re-torque the by-pass valve retaining screws to 20 in. lb. in increments of 5 in. lb. and re-calibrate T.P. 2.01 to 2.03.

	2	3-6	1		4					5
2.01*	5800	1300	Max.	-	40	223	[ ]	233	[ ]	

Pn = 160 psig

Adjust head and orifice. P1 - P2 = 30-42 in. Hg.

TEST SPECIFICATION

AETS 14274

SHEET 4 OF SHEETS 8 REV. T

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi
	2	3-6	1		4					5
2.02*	2900	660	28 – 30	-	40	90		93		
										Pn=35 psig
	Set Min. M.V. stop after removing Py line. Retrim head and re-adjust 2.01 & 2.02 if out of limits.									
2.03*	5800	1300	Max.	-	90	503		523		650
							Pc-Py		3.9" Hg. Max.	
2.04*	5800	1300	Max.	-	120	662		705		950
							As per note (b) check appropriate box			
							Original spacer			
							Spacer removed			
							Spacer replaced			
2.05	5800	1300	Max.	-	135	700		X		950
2.06*	5800	1300	Max.	-	135	578		593		870
	Set max. M.V. stop.									
2.07	5800	1300	Max.	-	40	-10		+10		
	Hysteresis of Pt. 2.01									Pn = 160 psig

MAX. GOVERNOR SPRING SETTING

(a) Adjust eccentric shaft to meet flow limits.
(b) If unable to set with eccentric, Max. T.A. may be varied within T.A. limits.
(c) If unable to set with eccentric or Max. T.A. maintain eccentric on scribe line and determine amount of RPM off.
(d) Split control and adjust gov. spring as req'd. (CW adj. of gov. 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 low 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 requried, re-check T.P. 3.01 and reset if necessary.

BLEED SIZE 58 62

(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.).

TEST SPECIFICATION

AETS 14274

SHEET 5 OF SHEETS 8 — REV. T

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi
	4	3-7	1		2.5					6
3.01	6487	1450			95	492		504		625
	Set Gov. break T.A. at 92.5° - 94.5°. Lever must be .030" min. away from stop plate, at the centerline of stop screw. Record speed. Flow to be within limits shown.									
3.02		1450	90°		95		481			590
3.03		1450	90°		95	371		391		410
3.04		1450	90°		95		481			590
					X		X	Hysteresis –50 RPM (max.) of T.P. 3.02.		
3.05	6487	1450	30° - 35°		95	X		225	Pn=160 psig	

If minimum schedule cannot be met select larger no. Py bleed and recheck T.P. 3.01 to 3.05.

IDLE SPEED STOP SETTING AND PICK-UP ANGLE

(a) At test point 4.01 insert .1875 dia. rigging pin and check T.A. if out of limits re-adjust rigging bracket position. At test point 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 cam pick-up angle is out of limits, replace governor spring.
- (1) Use a higher numbered spring to increase pick-up angle
- (2) Use a lower numbered spring to decrease pick-up angle.
- (3) Adjust spring tension to same load as set on spring removed.
- (4) Re-set gov. break at test point 3.01 and re-run test points 3.02 and 3.03.
- (5) Re-set idle stop screw at test point 4.01.

Note: Open shut-off valve to Pn gauge.

	4	1-7	5	2-6					3-8
4.01	3560	810	28-30	34	135		145		Pn = 52 psig

Set idle stop screw (CW adj. incr. flow) dec. and reset speed after adjustment.

4.02	3560	810	Throttle cam pick-up	35°		39°
			Spring			Stripe

Remove rigging pin

TEST SPECIFICATION

AETS 14274

SHEET 6 OF SHEETS 8 REV. T

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi

LOW END OF ACCEL. CURVE AND THROTTLE MOVEMENT EFFECT

	2	5	3		1					4-6
5.01	815	200	40	-	Local	85		X		Pn=25 psig
5.02	1700	400	40	-	25.0	138		146		Pn = 60 psig

Move T.A. to 30° [ ] 5 PPH max. dec.

Note: Close shut-off valve to Pn gauge.

(a) After recording nozzle flow at test point 5.02 move throttle to 30° T.A.
(1) Observe nozzle flow change and record.

MAX. IDLE RESET STOP ADJ.

	1	3-5			2					4
6.01	4380	990		-	70	262		274		210

Set Max. idle reset stop. Record T.A. [ ]

CUT-OFF MODULATION AND CUT-OFF LEAKAGE

A. At test point 7.01 set test condition with 20° T.A.
(a) Move throttle to 30° T.A. and observe nozzle flow change.
(b) If nozzle flow change is excessive –
(1) Reset throttle to 20° T.A.
(2) Back off override adj. nut on cut-off link.
(3) Adjust cut-off link longer to meet max. flow change limit.

Note: Open shut-off valve to Pn gauge.

	2	3-6	1		4					5-7
7.01	2000	500	20	-	A.R.	160		170		Pn=60 psig

Nozzle flow change [ ] 2 PPH max.

B. At test point 7.02 check cut-off leakage.
(a) Remove nozzle outlet line from control.
(b) Set total supply with throttle in cut-off position. (Highest T.A. position where no leakage is observed at outlet fitting).
(c) Increase T.A. to permit flow out the outlet fitting, and adjust Po pressure to 40 ± 2 PSIG.
(d) Decrease T.A. as required until no leakage is observed at outlet fitting. (Observe T.A.).
(e) If T.A. is out of limits, shim cut-off valve seat.
(1) Remove shims under C.O. valve seat to increase T.A. (.002" thickness shim changes T.A. approx. 2°)
(f) Same Pc as established for T.P. 7.01.
(g) Record cut-off leakage.
(h) Record P1.
(i) Open valve in spill valve outlet.

	TEST SPECIFICATION	AETS 14274
		SHEET 7 OF SHEETS 8
		REV. T

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi
7.02	2 2000	3-6 500	1 8-10	-	4 A.R.	0	[ ] 0.5 cc/Min.			5-7 [ ]

P1 pressure [ ] 250 PSIG max.

C. At test point 7.03 (-5° T.A.).
(a) Observe P1 pressure
(b) Adjust override nut for 0.000" clearance between nut and bushing.
(c) Adjust upper lever (idle reset lever) stop to just contact lever.
(d) At 0° T.A. lower C.O. lever to be within ± 5° of horizontal.

At test point 7.04 operate
(a) Operate throttle lever over full range of travel
(b) Record throttle torque.

7.03	2 2000	3-5 500	1 -5		4 A.R.

P1 pressure equal to or less than T.P. 7.02.

7.04	2000	500	Min-Max-Min		Local

Thro Torque [ ] 15 in. lbs. Max.

D. At test point 7.05 test spill valve reverse flow leakage through its check valve.
(a) Remove nozzle outlet from control.
(b) Close valve in spill valve outlet.
(c) Adjust Po = 60 psig.

7.05	2000	500	8-10	-	Local	0	[ ]	20 cc/min
						P1 pressure	[ ]	250 psig max.
7.06	6487	1450	MAX	-	135			

Reconnect nozzle outlet. Set condition lever to -5°, distance between centres of idle reset lever shaft and Max. idle reset link must be .30 Min. [ ] X. Nozzle flow less than 85 pph.

Note: Re-adjust Po to 40 psig.

O.K. [ ] Reject

TEST SPECIFICATION	AETS 14274	
	SHEET 8 OF SHEETS 8	REV. T

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi
	1	3	2		4					
8.01	1530	370	28-30	-	1.0	X		X		
	Open shut-off valves to Pn and Py gauges. Set Pn to 32 psig. Valve in spill valve line closed.									
8.02	1530	370	28-30	-	1.0	X		X		
	Open spill valve outlet valve. Adjust screw so that nozzle flow is within 1 PPH of T.P. 8.01						0	1		
8.03	Check spill valve Pa port. Port may be wet but there must be no measurable leakage. Close shut-off valves to Pn and Py gauges. Note: Air pressure is Py in psig as shown in the appropriate column.									

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 and both spill valve ports.
D. Set P1 pressure to 1000 PSIG
E. Observe leakage for 2-3 minutes.
F. No leakage permitted.

OK REJ.

TESTE AETS 14275 | *AETS 14275 TEST*

	TEST SPECIFICATION	Number AETS 14275	Rev. L
		Sheet 1 of 5	
Orig By: G. Chan	Chk By: W.H. Foster	Project Leader: M. Taylor	MFG Approval:
Date:	Test Stand No.:	Operator:	S/N:
Unit: Automatic Fuel Control		Model: DP-F2 / A-38/41	P/N: 3244755

REV.	REL. DATE
L	21 DEC 82

SHT	REV STATUS	SHT	REV
1	L	13	
2	L	14	
3	L	15	
4	L	16	
5	L	17	
6		18	
7		19	
8		20	
9		21	
10		22	
11		23	
12		24	

Audit Specification

A. See AEEI 14089 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 93.5° T.A.

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

D. Maintain Po pressure to 30 to 50 psig at control by-pass tap except where otherwise specified.

E. P2 pressure shall be set within ± 10 psi of specified value at pressures below 200 psig and ± 25 psi of specified value at pressures above 200 psig.

F. Set test conditions (supply and Pc) in the sequence indicated by numbers 1, 2, 3, etc.

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

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

G. Speed for Test Points 3.01, 3.03, 4.01, 4.02, and 6.01 is to be set to ± 2 RPM of specified value. All other points are to be set to ± 20 RPM of specified value.

H. Total supply is to be set to ± 20 PPH of the specified value or within limits when shown.

I. Valve in spill valve outlet to be kept in closed position unless otherwise specified.

J. Close shut-off valves to Pn and Py gauges.

K. When aircraft pump is used ignore specified values to total supply and Po pressure settings. Except at T.P. 1.02 and 7.02 adjust boost pressure to obtain specified Po values.

	TEST SPECIFICATION	AETS 14275 SHEET 2 OF SHEETS 5	REV.

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi

CHECK RELIEF VALVE OPENING

(a) Cap outlet port.

(b) Increase fuel flow until fuel supply is within limits specified and observe P1-Po differential.

	1	4	2	3						
1.01	0	200-275	MAX	120						
				Relief valve opening	P1-Po	1000			1050 psi	

CHECK PRESSURIZING VALVE OPENING

(a) Increase supply pressure with outlet port open, observe start of nozzle flow. During this test adjust and maintain Po at 40 ± 2 PSIG.

	1	2	3						
1.02	0	MAX	120						
			Pressurizing valve opening	P1-Po	55			68 PSI	

METERING VALVE ORIFICE AND BYPASS HEAD (P1-P2"HG) SETTING

Note: At test points 2.01, 2.02 & 2.05 open shut-off valve to Pn gauge. Close valve after test.

	2	3-6	1	4						5
2.01	5800	1300	Max	40.0	219		237			
	P1 – P2 = 30 – 42 "HG								Pn=160 psig	
2.02	2900	660	28-30	40.0	88		93			
	Pn=35 psig. Remove Py line									
2.03	5800	1300	Max	90	492		534			650
						Pc-Py		3.9" HG max.		
2.04	5800	1300	Max	135	576		596			870
	Max. M.V. Flow									
2.05	5800	1300	Max	40.0	-10		+10			
	Pn=160 psig. Hysteresis of T.P. 2.01									

TEST SPECIFICATION

AETS 14275

SHEET 3 OF SHEETS 5 — REV. L

TEST POINT	SPEED RPM	SUPPLY - PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi
MAX. GOVERNOR SPRING SETTING										
	4	3-7	1		2-5					6
3.01	6487	1450	Max		95	473	[ ]	523		625
3.02	[ ]	1450	90°		95		481			590
	Record Speed									
3.03	[ ]	1450	"		95	366	[ ]	396		410
	Adj. Speed 150 RPM greater than T.P. 3.02									
3.04	[ ]	1450	"		95		481			590
						X	[ ]	X	Hysteresis –50 RPM (Max. of T.P. 3.02)	
3.05	6487	1450	30° - 35°		95	X	[ ]	225	Pn=160 psig	
IDLE SPEED STOP SETTING AND PICK-UP ANGLE										
At test point 4.01 insert .1875 dia. rigging pin and check T.A. At test point 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).										
	4	1-7	5		2-6					3-8
4.01	3560	810	28-30		34	130	[ ]	150		Pn = 52 psig
Note: Open shut-off valve to Pn gauge. Set idle stop screw (CW adj. incr. flow) dec. and reset speed after adj. Throt. Cam pick-up angle.										
4.02	3560	810								
	Idle throttle angle 35° [ ] 39° Remove rigging pin.									
LOW END OF ACCEL, CURVE AND THROTTLE MOVEMENT EFFECT										
	2	5	3		1					4-6
5.01	815	200	40		Local	80	[ ]	X		Pn = 25 psig
5.02	1700	400	40		25	136	[ ]	147		Pn = 60 psig
	Move. T.A. to 30° [ ] 5 PPH maximum decrease									

(a) After recording nozzle flow at test point 5.02 move throttle to 30° T.A.
(b) Observe nozzle flow change and record.
(c) Close shut-off valve to Pn gauge.

TEST SPECIFICATION

AETS 14275

SHEET 4 OF SHEETS 5 | REV.

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi

MAX. IDLE RESET STOP ADJ.

(a) Hold idle reset lever against idle reset stop. Record fuel flow.

	1	3-5		2-4						6
6.01	4380	990		70	258		278			210

Record T.A. ☐

CUT-OFF MODULATION AND CUT-OFF LEAKAGE

A. At test point 7.01, set test condition with 20° T.A.
(a) Move throttle to 30° T.A. and observe nozzle flow change.

	2	3-6	1	4					5-7
7.01	2000	500	20	A.R.	160	☐	170	☐	Pn=60 psig

Open shut-off valve to Pn gauge.

Nozzle flow change ☐ 2 PPH max.

B. At test point 7.02 check cut-off leakage.
(a) Remove nozzle outlet line from control.
(b) Set total supply with throttle in cut-off position. (Highest T.A. position where no leakage is observed at outlet fitting).
(c) Increase T.A. to permit flow out the outlet fitting, and adjust Po pressure to 40 ± 2 psig.
(d) Decrease T.A. as required until no leakage is observed at outlet fitting (Observe T.A.).
(e) Same Pc as established for T.P. 7.01.
(f) Record cut-off leakage.
(g) Record P1.
(h) Open valve in spill valve outlet.

7.02	2000	500	8-10	A.R.	0.0	☐	0.5 cc/MIN.	☐

P1 pressure ☐ 250 PSIG Max.

C. At test point 7.03 (-5° T.A.).
(a) Observe P1 pressure.

At test point 7.04
(a) Operate throttle lever over full range of travel.
(b) Record throttle torque.

7.03	2000	500	-5	A.R.	P1 pressure equal to or less than T.P. 7.02
7.04	2000		Min-Max-Min	Local	Thro. Torque ☐ 15 in. lbs. Max.

	TEST SPECIFICATION	AETS 14275
		SHEET 5 OF SHEETS 5 / REV.

TEST POINT	SPEED RPM	SUPPLY PPH	THRO DEG.	TEMP °F	Pc psia	NOZZLE FLOW, PPH MIN	NOZZLE FLOW, PPH REC	NOZZLE FLOW, PPH MAX	P1 - P2 "Hg	P_2 psi

D. At test point 7.05 test spill valve reverse flow leakage through its check valve.
(a) Remove nozzle outlet from control
(b) Close valve in spill valve outlet
(c) Adjust Po = 60 psig.

	2	3-6	1		4			5-7
7.05	2000	500	8-10		Local	0 [ ]	20 cc/min	
						P1 pressure [ ]	250 psig max.	
7.06	6487	1450	Max.	-	135			

Reconnect nozzle outlet. Set condition lever to -5°, distance between centres of idle reset lever shaft and max. idle reset link must be .30 Min. [ ] X. Nozzle flow less than 85 pph.
O.K. [ ] Reject

NOTE: Readjust Po to 40 psig.

	1	3	2		4		
8.01	1530	370	28-30		1.0	X [ ]	X

Open shut-off valves to Pn and Py gauges. Set Pn to 32 psig. Valve in spill valve line closed.

8.02	1530	370	28-30		1.0	X [ ]	X

Open spill valve outlet valve. Nozzle flow must be within 1 PPH of T.P. 8.01 0 [ ] 1

8.03 Check spill valve Po port. Port may be wet but there must be no measurable leakage.

Note: Air pressure is Py in psig as shown in the appropriate column. Close shut-off valves to Pn and Py gauges.

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 and both spill valve ports.
D. Set P1 pressure to 1000 PSIG.
E. Observe leakage for 2-3 minutes.
F. No leakage permitted.

OK [ ] REJECT

Observações *Remarks*	

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