



3220 100TH ST. SW BLDG E
EVERETT, WASHINGTON 98204
FAA-PMA FACILITY #PQ111NM

Service Bulletin Fuel Systems

Bulletin No.: PRS-103

Date: 05/12/98

SUBJECT: RSA-10 Fuel Diaphragm Assembly, Part Number 2541803.

SECTION I - PLANNING INFORMATION

A. EFFECTIVITY:

- 1) All RSA-10DB1, RSA-10DB2, RSA-10ED1, and RSA-10ED2 fuel injection servos manufactured, overhauled, or repaired between 9/30/97 and the date of this bulletin. See section II for additional effectivity information.
- 2) All 2541803 fuel diaphragm assemblies shipped from Precision Airmotive between 9/30/97 and 4/24/98 which are identified with the following lot numbers:

6744
7059
7091
7430
7653
7839

These four digit lot numbers are stamped on the metal washer of the diaphragm assembly. The subject diaphragm is applicable to all RSA-10DB1, RSA-10DB2, RSA-10ED1, and RSA-10ED2 servos.

B. REASON:

Insufficient heat treatment of the metal diaphragm washers may result in distortion of the washers during operation.

C. COMPLIANCE:

At the next 100 hour inspection or next annual inspection whichever occurs first, but in no case later than May 1, 1999.

SECTION II - IDENTIFICATION OF AFFECTED SERVOS**A. SERVOS MANUFACTURED, OVERHAULED, OR REPAIRED BY PRECISION AIRMOTIVE:**

Fuel Injection Servos manufactured or overhauled by Precision Airmotive Corporation must comply with the accomplishment instructions in Section III paragraph A if the serial number is found in the following list:

Part Number	Serial Number(s)	Part Number	Serial Number(s)	Part Number	Serial Number(s)	
2524273-12	70119201	2524273-12 (continued)	71777	2524500-9 (continued)	70138905	
	70119209		72082		70138906	
	70131005		72090		70138909	
	70133209		72557		70142601	
	70142501		73155		70142602	
	70142502		73198		70142603	
	70142504		73566		70142604	
	70142505		73902		70142605	
	70142508		74270		70142606	
	70145701		76225		70142607	
	70145702		76417		70142608	
	70145703		79788		70142610	
	70145704		80735		70143301	
	70145705		81238		70143302	
	70145706		82554		70143304	
	70154401		82803		70143306	
	70154402		84165		70143308	
	70154403		85392		70143309	
	70154404		2524275-16		70143310	
	70154405				18323	70143310
	70154406				24631	11318
	70154407	25590		13704		
	70154408	45831		14289		
	70154410	48937	15033			
	1782	70450	15887			
	17783	2524422-9	17838			
	18802		70149901	17838		
	20002		70149902	21617		
	35758		70149903	22106		
	45634		70149904	30050		
	49240		70149905	31002		
	50778		70153501	37770		
	52595		70153502	40492		
	54753		70153503	40502		
	55467		70153504	40504		
	56775	70153505	40602			
	57575	70153506	40725			
	59381	70153507	40731			
	61981	70153508	40767			
	63206	2524491-9	40773			
	64038		6824	40773		
64302	47159		41515			
67856	63400	41848				
70646	72580	42675				
	2524500-9	42679				
		70096702	42679			
		70138902	43838			
	70138903	44562				

Precision Airmotive Service Bulletin PRS-103

Part Number	Serial Number(s)
2524500-9 (continued)	44564
	44605
	44827
	45486
	45495
	45505
	45561
	45593
	46969
	46980
	47066
	48527
	48766
	50192
	51376
	51398
	51407
	52248
	52266
	53032
	53060
	53534
	53543
	53562
	53927
	55180
	55512
	55520
	55537
	55561
	55885
	58521
	58544
	59373
	60122
	60138
	60139
	60194
	60216
	61195
	61979
	63226
	63268
	63276
	64311
	64358
	65284
65450	
65453	
65472	
65778	
66062	
66743	

Part Number	Serial Number(s)
2524500-9 (continued)	66790
	67697
	67736
	67759
	67793
	67817
	67824
	67851
	67869
	68127
	68892
	69943
	70031
	70213
	70551
	70571
	70608
	70737
	72212
	72945
	72964
	73049
	73081
	73850
	74432
	74629
	75991
	76060
	76132
	76888
	76895
	77274
	77446
	77627
	77723
	78109
	78521
	78847
	79695
	79775
	80003
	80094
	80473
	80790
	80844
	80869
	80925
82011	
82014	
82466	
82496	
82562	
83358	

Part Number	Serial Number(s)
2524500-9 (continued)	83399
	83732
	83805
	84623
	84914
	84978
	85379
	87531
	96808
	97358
	97624
	70027705
	70030901
	70110007
	84010111
	85240039
	87131130
	87361592
	87501959
	2524501-9
	35043
	41175
	43202
	43954
	46263
2524556-9	70142209
	70142210
	70155901
	27001
	27002
	55514
	57393
	64340
	68259
	70527
	78528
	78829
	84768
	70063006
2524791-7	71407
	71456
	78452
	78455
	81569
	81590
	84551
	84553
	84900
2524855-4	70137205
2524896-4	85139
2524902-6	70145801
	70145805
	70145806

Part Number	Serial Number(s)
2524902-6 (continued)	70145807
	70145808
	70145809
	70145810
2549038-3	70115704
	70127107
	70131404
	70133804
	70139401
	70139402
	70139405
	70139407
	70139409
	70139410
	70148501
	70148502
	70148503
	70148504
	70148505
	70148506
	70148507
	70148508
	70148509
	70148510
	70149601
	70149602
	70149603
	70149604
	70149605
	70149606
	70149607
	70149608
	70149609
	70149610
	70151101
	70151102
	70151103

Part Number	Serial Number(s)
2549038-3 (continued)	70151104
	70151105
	70151106
	70151107
	70151108
	70151109
	70151110
	70152901
	70152902
	70152903
	70152904
	70152905
	70152906
	70152907
	70152908
	70152909
	70152910
	70153001
	70153002
	70153003
	70153004
70153005	
70153006	
70153007	
70153008	
70153009	
70153010	
70007807	
70024605	
70024905	
2549056-2	70114304
2576554-1	70145004
	70145005
	70145006
	70145007
	70145008
70145010	

Part Number	Serial Number(s)
2576554-1 (continued)	70141805
	70144103
	70144209
	70148605
	70148606
	70148607
	70148608
	70148609
	70151801
	70151802
	70151803
	70151804
	70151805
	70151806
	70151807
	70151808
	70151809
	70151810
	70155701
	70155702
	70155703
	70155704
	70155705
	70155706
	70155707
	70155708
	70155709
	70155710
	70157801
	70157802
	70157803
	70157806
	70157807
70157808	
70157810	

B. SERVOS OVERHAULED OR REPAIRED BY REPAIR STATIONS OTHER THAN PRECISION AIRMOTIVE:

Fuel Injection Servos overhauled or repaired by repair stations other than Precision Airmotive between 9/30/97 and the date of this bulletin must comply with the accomplishment instructions in Section III paragraph B.

SECTION III - ACCOMPLISHMENT INSTRUCTIONS

A. SERVOS MANUFACTURED, OVERHAULED, OR REPAIRED BY PRECISION AIRMOTIVE:

All RSA-10DB1, RSA-10DB2, RSA-10ED1, and RSA-10ED2 servos which were manufactured, overhauled, or repaired by Precision Airmotive between 9/30/97 and 4/24/98 and whose serial numbers appear in section II paragraph A must comply with the following instructions:

1. Remove the servo from the aircraft in accordance with the applicable engine and airframe maintenance publications.
2. *Do not* disassemble the fuel injection servo. Send the servo to a Precision Airmotive Warranty Repair Station (see Section IV).
3. The following steps are to be accomplished by the Warranty Repair Station:
 - a) Disassemble the servo in accordance with the applicable Precision Airmotive maintenance manual to allow inspection of the fuel diaphragm. Verify the lot number of the diaphragm. If the diaphragm is from an affected lot (see section I) the diaphragm must be replaced with a new diaphragm. If the diaphragm is not from an affected lot, it may be reused.
 - b) Reassemble and calibrate the servo in accordance with the applicable Precision Airmotive maintenance manual.
 - c) Mark a "D" on the data tag above the serial number to indicate compliance with this bulletin.
4. Reinstall the servo on the aircraft in accordance with the applicable engine and airframe maintenance publications and make an appropriate logbook entry.

B. SERVOS OVERHAULED, OR REPAIRED BY REPAIR STATIONS OTHER THAN PRECISION AIRMOTIVE:

All RSA-10DB1, RSA-10DB2, RSA-10ED1, and RSA-10ED2 servos which were overhauled, or repaired between 9/30/97 and the date of this bulletin must comply with the following instructions:

1. Consult the repair station that did the work on the servo to determine if it does or may contain a diaphragm from an affected lot (see section I). If the repair station can provide documentation to positively identify the diaphragm as being from a non-affected lot, removal of the servo is not required. Mark a "D" on the data tag above the serial number and annotate the logbook(s) appropriately. If the repair station can not provide documentation to positively identify the diaphragm as being from a non-affected lot, the servo must be removed from the aircraft in accordance with the applicable engine and airframe maintenance publications.

2. *Do not* disassemble the fuel injection servo. Send the servo to the originating repair station or to a Precision Airmotive Warranty Repair Station.
3. The following steps are to be accomplished only by a qualified fuel control repair station:
 - a) Disassemble the servo in accordance with the applicable Precision Airmotive maintenance manual to allow inspection of the fuel diaphragm. Verify the lot number of the diaphragm. If the diaphragm is from an affected lot (see section I) the diaphragm must be replaced with a new diaphragm. If the diaphragm is not from an affected lot, it may be reused.
 - b) Reassemble and calibrate the servo in accordance with the applicable Precision Airmotive maintenance manual.
 - c) Mark a "D" on the data tag above the serial number to indicate compliance with this bulletin.
4. Reinstall the servo on the aircraft in accordance with the applicable engine and airframe maintenance publications and make an appropriate logbook entry.

C. INDIVIDUAL PARTS:

All 2541803 diaphragms in inventory must be inspected to identify the lot number. The lot number is a four digit number stamped on the metal washer of the diaphragm. If the lot number is listed in section I paragraph A, the diaphragm must be returned to Precision Airmotive for replacement.

D. DISPOSITION OF NON-CONFORMING PARTS:

All non-conforming parts (as identified in paragraph A) must be returned to Precision Airmotive for replacement. Please mark all returns with the notation "RMA 1973" on all correspondence and on the outside of the package. No warranty consideration will be made until these parts are received by the Precision Airmotive Warranty Department.

E. WARRANTY INFORMATION:

Precision Airmotive Corporation will provide replacement parts at no charge. In addition, Precision Airmotive will reimburse a maximum of 4 hours labor expenses for removal and replacement of affected diaphragms from the servo at the posted shop rate. Labor expenses for removal and replacement of affected servos from aircraft will be reimbursed at the posted shop rate with time allowances per the Lycoming warranty flat rate. A warranty claim form for this bulletin is available from the Precision Airmotive Warranty Department.

F. ADDITIONAL INFORMATION:

Contact Precision Airmotive Corporation Product Support at (425)353-8181 or (877)353-8181 (toll free) for further information. Additional information may be found on our Internet web site at <http://www.pacpac.com>.