

Service Information Letter - Fuel Systems

SMALL RECIPROCATING ENGINES

RSA-5 and RSA-10

Issued 12-18-2018

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SUBJECT: Overhaul kits for RSA-5 and RSA-10 Fuel Injection Servos.

PURPOSE: To provide repair shops with overhaul kits for the following servos as recommended by Precision Airmotive.

Revision 1: Supplement Single Kit# 2576576 was incorrectly titled 2576676

Revision 2: Replaced Gasket 365533 with 2577258 in all Single Kit listings
Single Kit# 2576574: Packing Preformed 951789 qty 1ea was 2ea
Single Kit# 2576574: Added Packing Preformed 951392 qty 1ea

Revision 3: Incorporated new Overhaul kits for specific RSA-10ED1 configurations

Revision 4: Added stem seal 2577245 and removed stem seal 2539561 and spring 2539560 to all existing kits. Added new kit specific to 2576630-4. Reference SIL RS-100.

Revision 5: Removed thrust washers 367757 and 2538330 from kits 2576649 and 2576650 (ref. SB PRS-110)

DESCRIPTION: Precision Airmotive has created overhaul kits for RSA-5 and RSA-10 series fuel injection servos. These kits are offered in single kits containing enough parts to overhaul 1 servo, and also in bulk kits containing enough parts to overhaul 10 servos. The table below lists the part numbers required for each servo model.

| SERVO MODEL | SINGLE KIT | SUPPLEMENT KIT | BULK KIT | BULK SUPPLEMENT KIT |
|---------------------------------------|------------|----------------|----------|---------------------|
| RSA-5AD1 | 2576573 | None Required | 2576578 | None Required |
| RSA-5AB1 | 2576573 | 2576576 | 2576578 | 2576581 |
| RSA-10AD1 NOT for 2576630-4 | 2576574 | None Required | 2576579 | None Required |
| RSA-10AD1** | 2576649 | None Required | 2576650 | None Required |
| RSA-10ED1 | 2576575 | None Required | 2576580 | None Required |
| RSA-10ED1 * | 2576647 | None Required | 2576648 | None Required |
| RSA-10ED2 | 2576575 | 2576577 | 2576580 | 2576582 |
| RSA-10DB1 | 2576575 | 2576577 | 2576580 | 2576582 |
| RSA-10DB2 | 2576575 | 2576577 | 2576580 | 2576582 |

NOTE: For Servo Models which supplement kits, both are required for overhaul. For example, an RSA-5AB1 requires the 2576573 single kit (which contains the majority of the parts) and the 2576576 supplement kit (which contains additional parts only required for RSA-5AB1 servos).

***This Kit applies to specific Fuel Injection Servo Part Numbers:
2549038-4, 2576554-3 and 2576562-4**

****This Kit is specifically for 2576630-4.**

These kits contain the parts necessary for overhaul of most servos, but in some cases, parts contained in the kits will not be applicable to the specific servo parts list, and additional parts may be required. All parts must be installed in accordance with the latest approved component maintenance manual (see Index of Manuals: 15-895).

KIT PARTS LISTINGS**Single Kit P/N 2576573****Bulk Kit P/N 2576578****RSA-5**

| Part # | Description | Qty. |
|---------------|---------------------------|-------------|
| 177718 | Washer, Spring | 1 |
| 187313 | Nut, Elastic Stop | 1 |
| 2525165 | Spring, Idle Linkage | 1 |
| 2525318 | Spacer | 1 |
| 2525494 | Packing, Preformed | 1 |
| 2526413 | Stop Assy, Throttle | 1 |
| 2537608 | Strainer Assy, Fuel Inlet | 1 |
| 2538283 | Seat Assy | 1 |
| 2538295 | Diaphragm Assy, Air | 1 |
| 2538298 | Bushing | 1 |
| 2538330 | Washer, Nonmetallic | 1 |
| 2539449 | Nut, Self Locking | 2 |
| 2539738 | Pin, Spring | 2 |
| 2540537 | Bellows Assy, Center Body | 1 |
| 2540542 | Bushing | 1 |
| 2540577 | Seal, Mixt. Control | 1 |
| 2541801 | Diaphragm Assy, Fuel | 1 |
| 2542391 | Name Plate, Service | 1 |
| 2577245 | Seal, Servo Stem | 1 |
| 2577258 | Gasket | 1 |
| 328617 | Seal, Aluminum | 1 |
| 367725 | Bearing | 2 |
| 367726 | Washer, Shim | 1 |
| 367757 | Washer | 1 |
| 500-1 | Warning Label | 1 |
| 901045K12 | Washer, Split Lock | 2 |
| 901200 | Cotter Pin | 2 |
| 901209K1 | Cotter Pin | 1 |
| 909290 | Pin, Spring | 1 |
| 909311 | Pin, Spring | 1 |
| 951400 | Packing, Preformed | 2 |
| 951401 | Packing, Preformed | 1 |
| 951437 | Packing, Preformed | 3 |
| 951787 | Packing, Preformed | 3 |
| 951789 | Packing, Preformed | 2 |
| 953516-10 | Packing, Preformed | 2 |
| 953541-10 | Packing, Preformed | 1 |
| P19821 | Washer, Spring | 1 |
| P4235 | Screw, Fill Head | 2 |

* Bulk kits contain 10 times the quantity of parts shown.

Single Kit # 2576574**Bulk Kit # 2576579****RSA-10AD1**

| Part # | Description | Qty. |
|---------------|---------------------------|-------------|
| 177718 | Washer, Spring | 1 |
| 187313 | Nut, Elastic Stop | 1 |
| 2521918 | Bushing, Throttle Stop | 2 |
| 2525165 | Spring, Idle Linkage | 1 |
| 2525318 | Spacer | 1 |
| 2525494 | Packing, Preformed | 1 |
| 2526413 | Stop Assy, Throttle | 1 |
| 2526429 | Packing, Preformed | 3 |
| 2537610 | Strainer Assy, Fuel Inlet | 1 |
| 2538283 | Seat Assy | 1 |
| 2538295 | Diaphragm Assy, Air | 1 |
| 2538298 | Bushing | 1 |
| 2538330 | Washer, Nonmetallic | 1 |
| 2539449 | Nut, Self Locking | 2 |
| 2539738 | Pin, Spring | 2 |
| 2540537 | Bellows Assy, Center Body | 1 |
| 2540542 | Bushing | 1 |
| 2540577 | Seal, Mixt. Control | 1 |
| 2541801 | Diaphragm Assy, Fuel | 1 |
| 2542391 | Name Plate, Service | 1 |
| 2577245 | Seal, Servo Stem | 1 |
| 2577258 | Gasket | 1 |
| 328617 | Seal, Aluminum | 1 |
| 367726 | Washer, Shim | 1 |
| 367757 | Washer | 1 |
| 393849 | Screw, Fill Head | 2 |
| 500-1 | Warning Label | 1 |
| 901045K12 | Washer, Split Lock | 2 |
| 901200 | Cotter Pin | 2 |
| 901209K1 | Cotter Pin | 1 |
| 909290 | Pin, Spring | 1 |
| 909311 | Pin, Spring | 1 |
| 951392 | Packing, Preformed | 1 |
| 951400 | Packing, Preformed | 2 |
| 951401 | Packing, Preformed | 1 |
| 951787 | Packing, Preformed | 1 |
| 951789 | Packing, Preformed | 1 |
| 951790 | Packing, Preformed | 2 |
| 953516-10 | Packing, Preformed | 2 |
| P19821 | Washer, Spring | 1 |

* Bulk kits contain 10 times the quantity of parts shown.

Single Kit # 2576575**Bulk Kit # 2576580****RSA-10ED1**

| Part # | Description | Qty. |
|-----------|---------------------------|------|
| 177718 | Washer, Spring | 1 |
| 187313 | Nut, Elastic Stop | 1 |
| 2521918 | Bushing, Throttle Shaft | 2 |
| 2525165 | Spring, Idle Linkage | 1 |
| 2525318 | Spacer | 1 |
| 2525494 | Packing, Preformed | 1 |
| 2526413 | Stop Assy, Throttle | 1 |
| 2537610 | Strainer Assy, Fuel Inlet | 1 |
| 2538283 | Seat Assy | 1 |
| 2538298 | Bushing | 1 |
| 2538330 | Washer, Nonmetallic | 1 |
| 2538420 | Diaphragm Assy, Air | 1 |
| 2538783 | Screw, Cap Socket Head | 1 |
| 2539115 | Washer, Shim | 1 |
| 2539449 | Nut, Self Locking | 2 |
| 2539738 | Pin, Spring | 2 |
| 2540538 | Bellows Assy, Center Body | 1 |
| 2540542 | Bushing | 1 |
| 2540577 | Seal, Mixt. Control | 1 |
| 2541803 | Diaphragm Assy, Fuel | 1 |
| 2542391 | Name Plate, Service | 1 |
| 328617 | Seal, Aluminum | 1 |
| 2577245 | Seal, Servo Stem | 1 |
| 2577258 | Gasket | 1 |
| 367757 | Washer | 1 |
| 393849 | Screw, Fill Head | 2 |
| 500-1 | Warning Label | 1 |
| 901045K12 | Washer, Split Lock | 2 |
| 901200 | Pin, Cotter | 2 |
| 901209K1 | Pin, Cotter | 1 |
| 907577 | Ring, Retaining | 1 |
| 909290 | Pin, Spring | 1 |
| 909311 | Pin, Spring | 1 |
| 951392 | Packing, Preformed | 2 |
| 951394 | Packing, Preformed | 1 |
| 951400 | Packing, Preformed | 2 |
| 951401 | Packing, Preformed | 1 |
| 951787 | Packing, Preformed | 3 |
| 951789 | Packing, Preformed | 2 |
| 951790 | Packing, Preformed | 2 |
| 953516-10 | Packing, Preformed | 4 |
| P19821 | Washer, Spring | 1 |

* Bulk kits contain 10 times the quantity of parts shown.

Single Kit # 2576647**Bulk Kit # 2576648****RSA-10ED1**

| Part # | Description | Qty. |
|-----------|---------------------------|------|
| 177718 | Washer, Spring | 1 |
| 187313 | Nut, Elastic Stop | 1 |
| 2521918 | Bushing, Throttle Shaft | 2 |
| 2525165 | Spring, Idle Linkage | 1 |
| 2525318 | Spacer | 1 |
| 2525494 | Packing, Preformed | 1 |
| 2526413 | Stop Assy, Throttle | 1 |
| 2537610 | Strainer Assy, Fuel Inlet | 1 |
| 2538283 | Seat Assy | 1 |
| 2538298 | Bushing | 1 |
| 2538330 | Washer, Nonmetallic | 1 |
| 2538783 | Screw, Cap Socket Head | 1 |
| 2539115 | Washer, Shim | 1 |
| 2539449 | Nut, Self-Locking | 2 |
| 2539738 | Pin, Spring | 2 |
| 2540538 | Bellows Assy, Center Body | 1 |
| 2540542 | Bushing | 1 |
| 2540577 | Seal, Mixt Control | 1 |
| 2541803 | Diaphragm Assy, Fuel | 1 |
| 2542391 | Name Plate, Service | 1 |
| 2577125 | Diaphragm Assy, Air | 1 |
| 2577245 | Seal, Servo Stem | 1 |
| 2577258 | Gasket | 1 |
| 500-1 | Warning Label | 1 |
| 328617 | Seal, Aluminum | 1 |
| 367757 | Washer | 1 |
| 393849 | Screw, Fill Head | 2 |
| 901045K12 | Washer, Split Lock | 2 |
| 901200 | Cotter Pin | 2 |
| 901209K1 | Cotter Pin | 1 |
| 907577 | Ring, Retaining | 1 |
| 909290 | Pin, Spring | 1 |
| 909311 | Pin, Spring | 1 |
| 951392 | Packing, Preformed | 2 |
| 951394 | Packing, Preformed | 1 |
| 951400 | Packing, Preformed | 2 |
| 951401 | Packing, Preformed | 1 |
| 951787 | Packing, Preformed | 3 |
| 951789 | Packing, Preformed | 2 |
| 951790 | Packing, Preformed | 2 |
| 953516-10 | Packing, Preformed | 4 |
| P19821 | Washer, Spring | 1 |

* Bulk kits contain 10 times the quantity of parts shown.

Single Kit #2576649**Bulk Kit #2576650****RSA-10AD1**

Note: These Kits are the same as single kit 2576574 and bulk kit 2576579 except; Servo Stem Seal 2539561 and Spring 2539560 is used in lieu of Servo Stem Seal 2577245.

They also do not contain thrust washers 367757 and 2538330 (ref. SB PRS-110)

Supplemental Single Kit # 2576576**Supplemental Bulk Kit # 2576581****RSA-5AB1**

Note: To overhaul the above fuel injection servo, the above kits must be used in conjunction with single kit 2576573 or bulk kit # 2576578.

| Part # | Description | Qty. |
|-----------|-------------------------|------|
| 2522268 | Bushing, Throttle Shaft | 2 |
| 2523326 | Gasket | 1 |
| 2523555 | Gasket | 1 |
| 2525360 | Washer | 1 |
| 328617 | Seal, Aluminum | 1 |
| 909277K35 | Pin, Spring | 1 |
| P3779 | Gasket | 1 |

* Bulk kits contain 10 times the quantity of parts shown.

Supplemental Single Kit # 2576577**Supplemental Bulk Kit # 2576582****RSA-10DB1, RSA-10DB2, RSA-10ED2**

Note: To overhaul the above fuel injection servos, the above kits must be used in conjunction with single kit # 2576575 or bulk kit # 2576580.

| Part # | Description | Qty. |
|-----------|--------------------|------|
| 2525360 | Washer | 1 |
| 328617 | Seal, Aluminum | 1 |
| 909277K35 | Pin, Spring | 1 |
| 953516-10 | Packing, Preformed | 1 |
| 953541-8 | Packing, Preformed | 3 |

* Bulk kits contain 10 times the quantity of parts shown.