

# Service Information Letter - Fuel Systems

SMALL RECIPROCATING  
ENGINES  
Marvel Schebler &  
Facet Carburetors  
Serial No. 3-6-92  
Issued 3-7-92  
Page 1 of 8

**SUBJECT:** Throttle Shaft Repair Kits:  
**REFERENCE:** Supersedes Facet Service Information Letter 9-15-87.  
**PURPOSE:** To list contents of throttle shaft repair kits.


Throttle Shaft Repair Kits are being made available in addition to the Minor Repair Kits for those carburetors that require service prior to TBO and for which the service technician has determined a Major Repair Kit is not required.

At TBO a Major Repair Kit is still required per Precision Airmotive Service Bulletin MSA-3\*.

## NOTICE

The minimum of a Minor Repair Kit is required to complete the installation of the Throttle Shaft Kit. Refer to Precision Airmotive Service Information Letter 2-25-92 for the correct Minor Repair Kit part number.

\*refer to Facet Aerospace Service Bulletin A1-86

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

THROTTLE SHAFT REPAIR KIT 778-1000

SERVICES - A10-3856-12      A10-4025

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-811	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
1	24-A33	SPRING - THROTTLE OPENING
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1001

SERVICES - A10-4218-1      A10-4495      A10-4975

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1182	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT

THROTTLE SHAFT REPAIR KIT 778-1002

SERVICES - A10-4438-1

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1435	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
1	24-A33	SPRING - THROTTLE OPENING
3	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT

THROTTLE SHAFT REPAIR KIT 778-1003

SERVICES - A10-2983      A10-4953      A10-5199  
                  A10-3103-1      A10-5093

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1519	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-58	SCREW - THROTTLE VALVE
1	24-487	SPRING - THROTTLE OPENING
2	60-260	BUSHING - THROTTLE SHAFT
2	82-14	COTTER PIN

THROTTLE SHAFT REPAIR KIT 778-1004

SERVICES - A10-4115-1      A10-4654      A10-5069

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1520	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-58	SCREW - THROTTLE VALVE
1	24-A469	SPRING - THROTTLE OPENING
2	60-260	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1005

SERVICES - A10-4894      A10-5067      A10-5128

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1520	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-58	SCREW - THROTTLE VALVE
2	60-260	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1006

SERVICES - A10-2848      A10-4240      A10-5142  
          A10-2948      A10-4252      A10-5220  
          A10-2971P      A10-4457      A10-5220E  
          A10-3346-1      A10-4978-1      A10-5257  
          A10-3565-1      A10-5050      A10-5267  
          A10-3729      A10-5082  
          A10-4233      A10-5126

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1520	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-58	SCREW - THROTTLE VALVE
1	24-A10	SPRING - THROTTLE OPENING
2	60-260	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1007

SERVICES - A10-3678-12      A10-4910-1      A10-5135  
          A10-3678-32      A10-5009      A10-5217  
          A10-4910      A10-5062

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1521	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-483	SCREW - THROTTLE VALVE
1	24-A10	SPRING - THROTTLE OPENING
2	60-260	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1008

SERVICES - A10-2827                    A10-3479                    A10-4744  
              A10-3007                    A10-3847                    A10-4809  
              A10-3063-2                  A10-3878                    A10-4865  
              A10-3148-1                  A10-4164                    A10-5034  
              A10-3323                    A10-4164-1                  A10-5193  
              A10-3391-1                  A10-4206                    A10-5288

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1522	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
1	24-A33	SPRING - THROTTLE OPENING
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1009

SERVICES - A10-3634                    A10-4329                    A10-5042  
              A10-4057                    A10-4404                    A10-5054  
              A10-4057-1                  A10-4404-1

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1523	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
1	24-A33	SPRING - THROTTLE OPENING
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1010

SERVICES - A10-4401-1

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1524	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1011

SERVICES - A10-5043

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1525	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
1	24-A33	SPRING - THROTTLE OPENING
3	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1012

SERVICES - A10-5200                    A10-5221                    A10-5258  
                  A10-5200-1                    A10-5227                    A10-5264  
                  A10-5211                    A10-5238                    A10-5280-1  
                  A10-5211-1                    A10-5246

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1526	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1013

SERVICES - A10-5045-1                    A10-5206-11                    A10-5253  
                  A10-5092                    A10-5210                    A10-5255  
                  A10-5180                    A10-5219                    A10-5256  
                  A10-5189                    A10-5224                    A10-5382  
                  A10-5206                    A10-5230                    A10-5283  
                  A10-5206-1                    A10-5235

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1526	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
1	24-B72	SPRING - THROTTLE OPENING
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1014

SERVICES - A10-3237                    A10-4439

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1531	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-58	SCREW - THROTTLE VALVE
1	24-A10	SPRING - THROTTLE OPENING
2	60-260	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1015

SERVICES - A10-4895

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1531	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-58	SCREW - THROTTLE VALVE
2	60-260	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1016

SERVICES - A10-3965                      A10-3965-11 A10-4171  
                    A10-3965-1

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1533	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
1	24-A443	SPRING - THROTTLE OPENING
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	78-A169	WASHER - THRO. LEV. LOCK NUT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1017

SERVICES - A10-2301                      A10-3759                      A10-4191  
                    A10-3168                      A10-3859  
                    A10-3649-1                      A10-3859-1

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1533	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
1	24-A33	SPRING - THROTTLE OPENING
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	78-A169	WASHER - THRO. LEV. LOCK NUT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1018

SERVICES - A10-4893-1                      A10-5192                      A10-5284

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1533	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	78-A169	WASHER - THRO. LEV. LOCK NUT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1019

SERVICES - A10-3965-12

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1533	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
1	24-B38	SPRING - THROTTLE OPENING
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	78-A169	WASHER - THRO. LEVER LOCK NUT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

THROTTLE SHAFT REPAIR KIT 778-1020

SERVICES - A10-5243

A10-5261

A10-6001

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13-1928	ASSEMBLY-THROTTLE SHAFT & STOP
2	15-A23	SCREW - THROTTLE VALVE
2	44-220	PACKING - O-RING (THRO. SHAFT)
2	55-255	RETAINER - THRO. SHAFT PACKING
2	60-A160	BUSHING - THROTTLE SHAFT
1	82-14	COTTER PIN - THRO. LEV. LOCK NUT

