



# INSTRUCTIONS

-J00051

REV. 9-19-2001

Kit Number 29151-90A

## SCREAMIN' EAGLE® EVOLUTION 1340 HI-FLO CARB & AIR CLEANER KIT

### General

This kit is designed for use on 1984 and later Evolution Big Twin models.

#### NOTE

*This kit will not fit cruise control equipped vehicles.*

#### NOTICE

This engine related performance part is intended for High Performance or Racing applications and is not legal for sale or use on pollution controlled motor vehicles. This kit may reduce or void the limited vehicle warranty. Engine related performance parts are intended for the experienced rider only.

#### WARNING

To protect against shock and accidental start-up of vehicle, disconnect the battery cables, negative cable first, before proceeding. Inadequate safety precautions could result in death or serious injury.

#### WARNING

Always disconnect the negative battery cable first. If the positive battery cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

#### WARNING

Gasoline is extremely flammable and highly explosive under certain conditions. Do not smoke or allow open flame or sparks anywhere in the area when draining or servicing the fuel system. Drain gasoline into approved gasoline container only. Inadequate safety precautions could result in death or serious injury.

#### NOTE

1990 and later 1340 models require performance manifold, Part No. 29046-88A, and 1989-style throttle/idle cables for proper cable free length compatibility with carburetor linkage. 1996 and later 1340 models require a specific cable. Please see cable selection guide on Page 5 to choose appropriate cable.

#### NOTE

See Figure 1. To install on 1992 and later vehicles, Threaded Cylinder Head Insert Kit, Part No. 29304-92 is also required. To install on 1993 and later vehicles, Breather Manifold Kit, Part No. 29308-93 is also required.

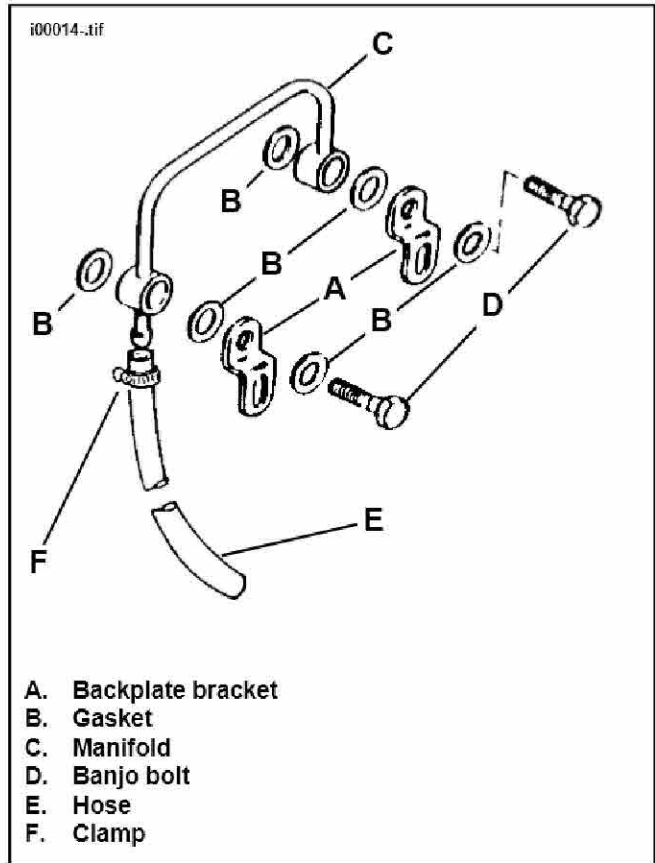


Figure 1. Breather Manifold Kit

### Kit Contents

See the Service Parts Illustration at the end of this instruction sheet for a list of kit contents.

### Removal

#### NOTE

Refer to applicable Service Manual for detailed instructions to remove necessary components. Service Manuals are available from your Harley-Davidson Dealer.

1. Remove stock air cleaner assembly.
2. Turn fuel valve to OFF position. Disconnect fuel line at carb and drain any remaining gas into proper container. Remove fuel tank.
3. Disconnect the throttle cables at the carburetor.

4. Disconnect Vacuum Operated Electrical Switch (VOES) and choke/enricher cable. Remove carb. Remove the stock manifold. Discard the choke/enricher cable.
5. See Figure 1. On 1993 and later vehicles, install Breather Manifold Kit, Part No. 29308-93.

## Installation - Carburetor

### NOTE

The Service Parts Illustration at the end of this Instruction Sheet, governs ALL index numbers.

### NOTE

If you grind approximately 0.330 in. off the short end of the allen wrench, it will make installation of the manifold allen head bolts easier.

1. See Figure 2. Make VOES connection:
  - 1a. If a high flow intake manifold is being used on a VOES equipped vehicle, drill through tapped blind hole at top of manifold with 1/8 in. drill. DO NOT damage threads.
  - 1b. Apply Loctite pipe sealant with Teflon to threads on VOES fitting (23) and install fitting.

### NOTE

If you do not use the VOES with the carburetor kit, you can expect poor mid-range performance and reduced fuel economy.

2. Install replacement intake manifold. Do not tighten bolts or nuts at this time.

### NOTE

If installing with high flow intake manifold, Part No. 29046-88A, use manifold spacer furnished with manifold.

3. See Figure 2 and Service Parts Illustration. Assemble gaskets (14 or 17), manifold spacer (24) and carburetor assembly (13) to manifold using long allen head bolts (1), washers (8) and lockwashers (9). Tighten bolts.
4. Align the carburetor.
  - 4a. Install the air cleaner support brackets (21) on the cylinder heads, using the hex head bolts (3), washers (8) and lockwashers (9). Do not tighten bolts at this time.
  - 4b. See Figure 3. Install the air cleaner adapter (15) on the carburetor throat. Do not tighten bolts (5) or nuts (11) at this time.
  - 4c. Place the carburetor gasket (16) and the backplate (20) in position on the carburetor. Use two button head screws (2), diagonally opposite each other and snug the backplate up to the carburetor. Align the backplate with the air cleaner support brackets. When the backplate and brackets are aligned, the carburetor is aligned.
5. Remove the two button head screws (2), backplate (20) and carburetor gasket (16). Be sure you don't move the carburetor.

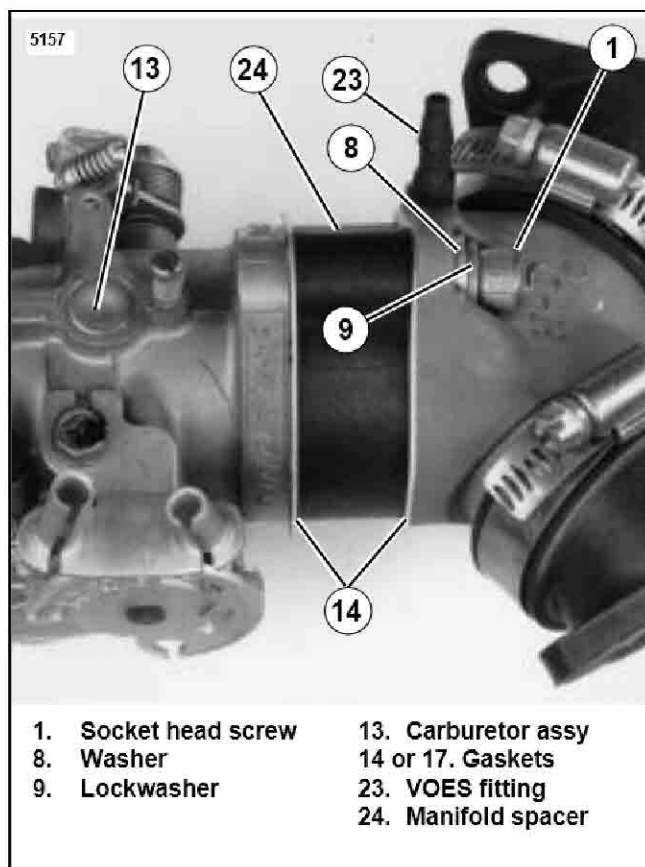


Figure 2. Manifold, Spacer, Gasket and Carburetor

6. Tighten the manifold allen head bolts and nuts without changing the carburetor position.

## WARNING

Check for fuel leaks after installing fuel lines. Fuel leaks can cause a fire which could result in death or serious injury.

7. Install the new fuel line. Route the fuel line so it does not contact any part of the vehicle. Cut off excess. Install the protective cover from the original fuel line to protect the new fuel line from heat.
8. Connect the VOES hose. If your motorcycle is a 1990 model, replace original throttle cables with new cables. Refer to applicable Service Manual for detailed cable installation and routing information.

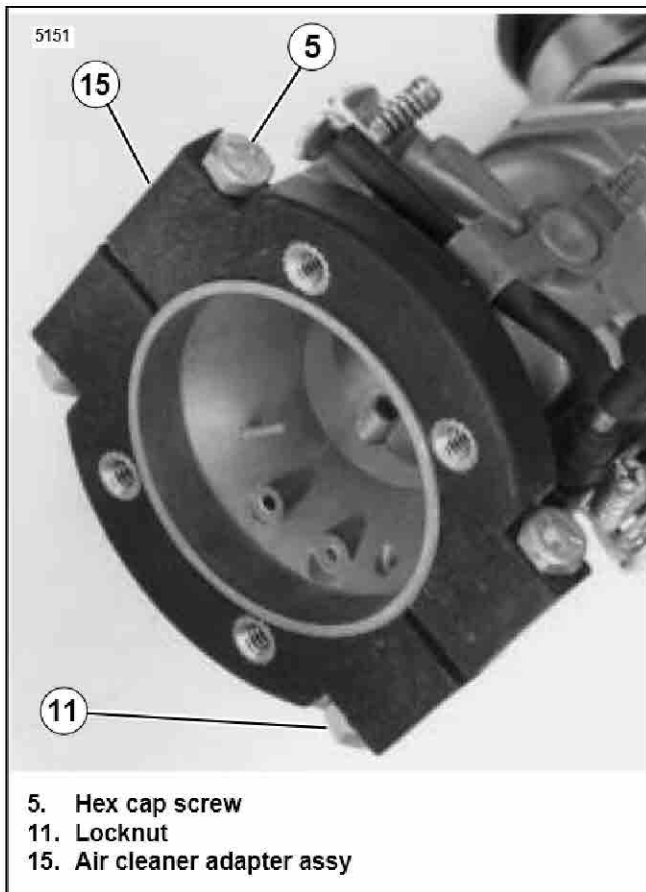


Figure 3. Air Cleaner Adapter and Carburetor

9. See Figure 4. Install the air cleaner adapter (15) on the carburetor throat. Do not tighten bolts at this time.
10. See Figure 4 and 5. Assemble carburetor gasket (16), backplate (20) and venturi (22) to the air cleaner adapter (16), using the button head screws (2). Use Loctite 271 (red) and tighten the air cleaner adapter bolts (5) and nuts (11).

**CAUTION**

Be sure throttle plate returns to full idle position (idle adjusting screw against stop) when throttle grip is released. Turn handlebars lock to lock to check.

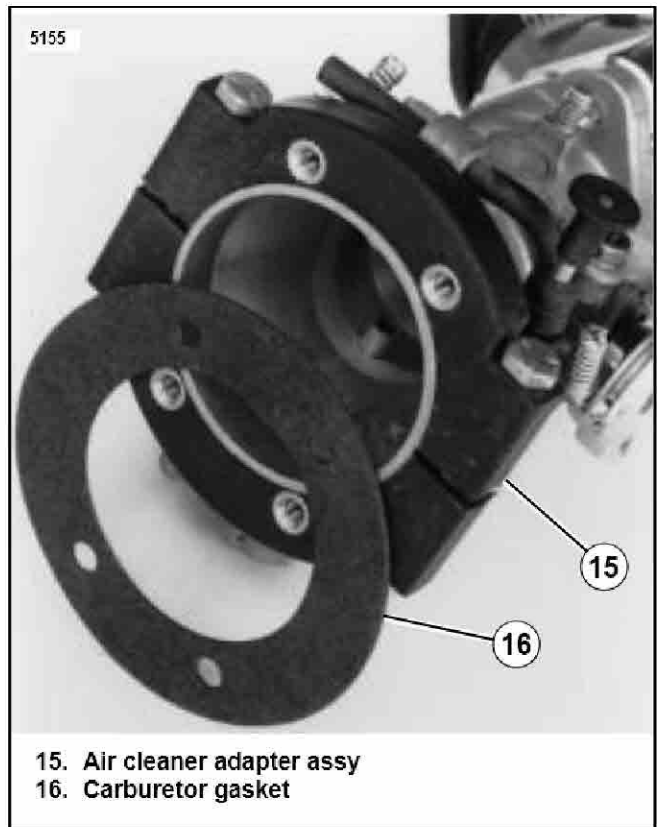


Figure 4. Air Cleaner Adapter and Carburetor Gasket

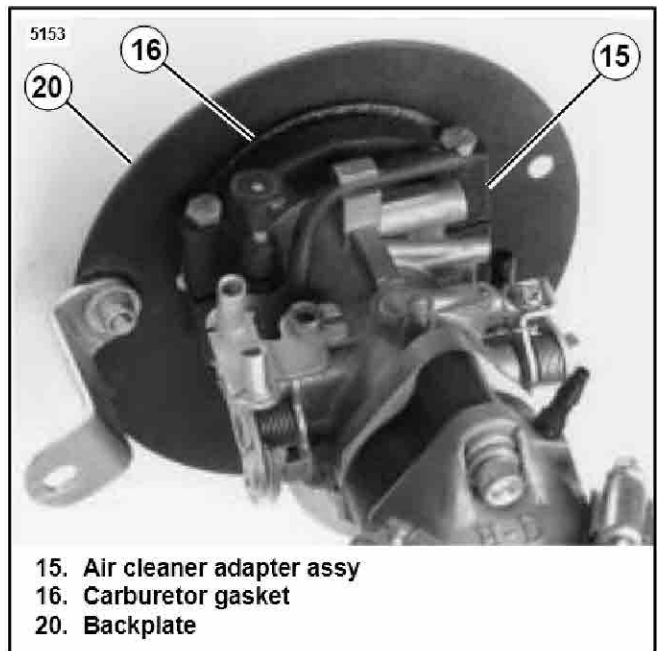
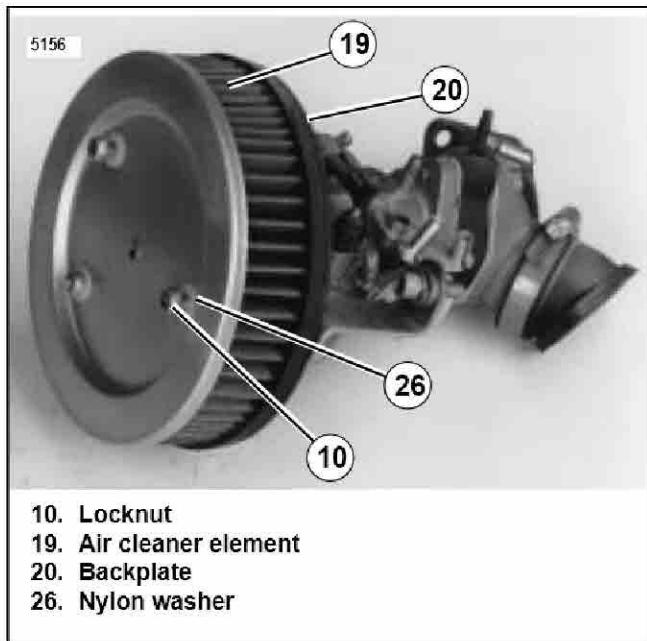


Figure 5. Air Cleaner Backplate



- 10. Locknut
- 19. Air cleaner element
- 20. Backplate
- 26. Nylon washer

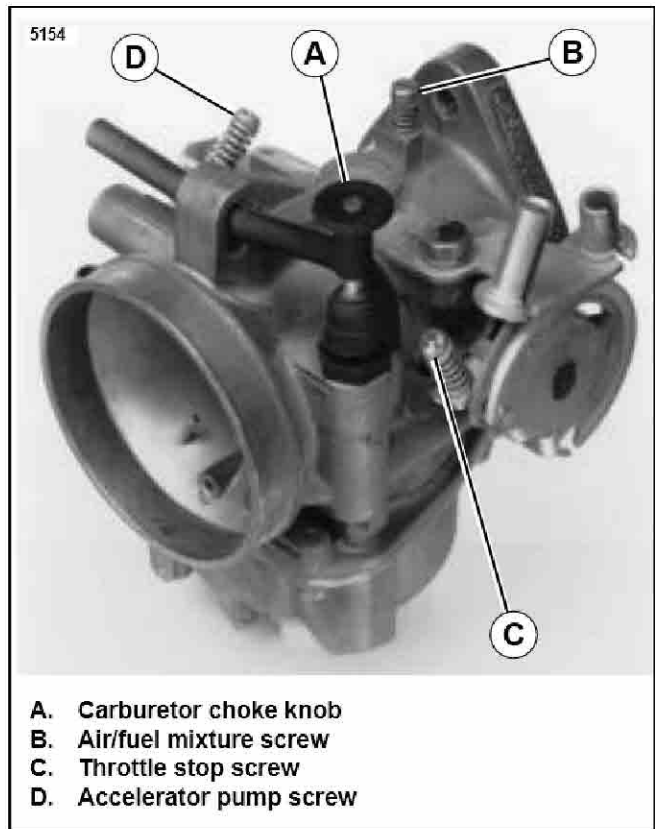
**Figure 6. Air cleaner Element Relationship to Backplate**

11. Install support bracket bolts (3), washers (7) and locknuts (11). Tighten all support bracket bolts. On 1993 and later vehicles, tighten breather manifold banjo bolts to 10-12 ft-lbs torque.
12. See Figure 6. Place air cleaner element (19) over backplate weld studs (A). Install air cleaner locknuts (10) and nylon washers (26).

**NOTE**

*The air cleaner element is pre-oiled and requires no service upon installation. For service interval and procedure see instructions at end of this Instruction Sheet.*

13. Install air cleaner cover using original bolt and washer.
14. Route the crankcase breather hose down. When the breather hose is re-routed, it will be necessary to install a very low restriction filter to keep dirt out of the breathing system. The hose should have no sharp bends or kinks.



- A. Carburetor choke knob
- B. Air/fuel mixture screw
- C. Throttle stop screw
- D. Accelerator pump screw

**Figure 7. Carburetor Adjustments**

**Operation And Adjustment**

**CHOKE** - See Figure 7. The carburetor choke knob (A) should be pulled up for initial or cold starting. Push the knob down as soon as the engine is warm enough to run without stumbling. Vehicle can be driven with the knob up the first few blocks.

**AIR/FUEL MIXTURE** - See Figure 7. The air/fuel mixture screw (B) is set initially at 5/8 turn outward from the full in position. **DO NOT** set idle speed or smoothness with this screw. The screw must be set within 1/8 turn of the 5/8 turn position for optimum performance.

**ENGINE IDLE SPEED** - See Figure 7. Idle speed is set with the throttle stop screw (C). Set engine idle speed at 1000 - 1150 rpm with engine at normal operating temperature.

**ACCELERATOR PUMP** - See Figure 7. If your vehicle has an off-idle hesitation, you may have to adjust the accelerator pump stroke. Do this by adjusting the accelerator pump screw (D); **AFTER** all other adjustments have been made. Since off-idle hesitation can be caused by either a too lean or too rich pump stroke, you will have to determine which way to turn the screw by experimentation. Turn screw 1/4 turn at a time.

**JETS** - If your vehicle's engine is relatively unmodified, it will run well with the jets that come in the carburetor. Depending upon the level of performance modifications that you have done to your vehicle, your vehicle may run better with different size jets than those that are furnished in the carburetor. Your Harley-Davidson Dealer can order the jets listed in the chart, following

Available jets		
JET & PART NO.'S		SIZE (MM)
<b>Slow Speed</b>		
	27284-85	55
	27310-85	58
	27318-85	60
	27283-85	62
	27896-79	65
	27894-78	68*
	27895-78	70
	27897-78	72
<b>Intermediate Air/Fuel</b>		
	27113-87	Blank*
	27109-87	55
	27172-89	60*
	27110-87	80
	27111-87	1.00
	27112-87	1.20
	27173-89	1.70
<b>Main</b>		
	27106-85	1.30
	27107-85	1.35
	27149-85	1.40
	27151-85	1.45
	27150-85	1.50
	27108-87	1.60*
	27119-88	1.65
	27134-89	1.70

\*Furnished with carburetor

## AIR CLEANER ELEMENT MAINTENANCE

1. Remove air cleaner cover and inspect cleaner element every 5000 miles, or more often under dusty conditions.

### CAUTION

**Do not let dirty air filter cleaner/degreaser solution run to inside of filter or damage to the filter may occur.**

2. To clean element, remove it and wash it by rolling it in a shallow pan containing a small amount of air filter cleaner/degreaser (no more than 3/4 the depth of filter pleats).
3. Remove element from cleaner and allow five minutes for cleaner to dissolve dirt. From the inside out, rinse the filter with cold water. Shake and allow to air dry. Do not dry with compressed air.
4. Oil element using Air Cleaner Oil, Part No. 99882-88T. Apply along the full length of each pleat and allow to set until the element is a uniform color. Allow excess oil to drain off. Install element and cover.

### NOTE

*A new Filter Element, Part No. 29055-89, can be purchased from your Harley-Davidson dealer.*

**Screamin' Eagle Throttle Cable Selection Table**

Year	Model	95 OE Throt. Cable P/N	95 Screamin' Eagle P/N	96 OE Throt Cable P/N	96 Screamin' Eagle Assembly P/N	96 Screamin' Eagle Throt. Cable	96 Screamin' Eagle Idle Co P/N
90-95	FXSTS	56306-90	56306-88	56306-96	56414-96	56411-96	56417-96
92-95	DYNA	56356-92	56343-88	56356-96	56414-96	56411-96	56417-96
90-95	FLHT	56327-90	56327-81B	56327-96	56427-96	56426-96	56428-96
	FLHTC	56327-90	56327-81B	56327-96	56427-96	56426-96	56428-96
94-95	FLHR	56376-94		56376-96	56441-96	56440-96	56442-96
90-95	FLSTC	56343-90	56324-81C	56343-96	56415-96	56412-96	56418-96
90-95	FXSTC	56343-90	56324-81C	56343-96	56415-96	56412-96	56418-96
90-95	FLSTF	56343-90	56324-81C	56343-96	56415-96	56412-96	56418-96
90-95	FLSTN	56343-90	56324-81C	56343-96	56415-96	56412-96	56418-96
90-95	FXSTSB	56343-90	56324-81C	56343-96	56415-96	56412-96	56418-96



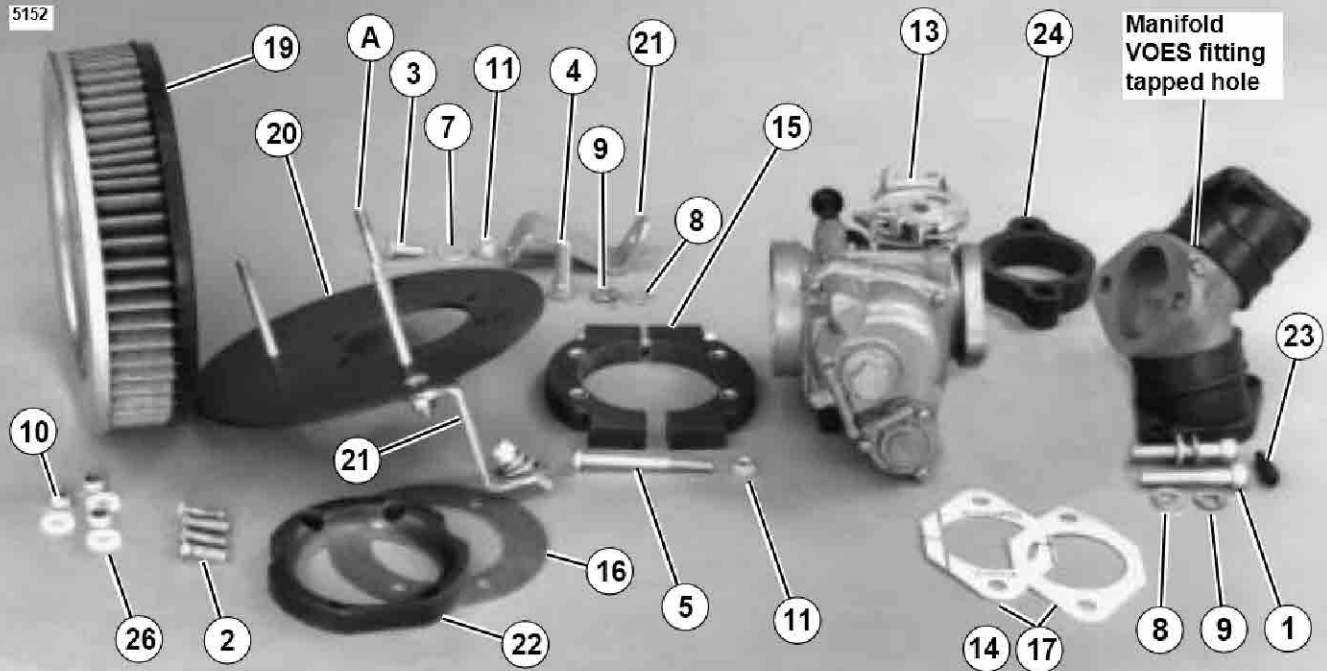
# Service Parts

Part No. 29151-90A

Date 9/01

Carburetor & Air Cleaner Kit

5152



Item	Description	Part Number	Item	Description	Part Number
1	Screw, hex, socket head (2)	885A	14	Gasket (2)	27022-88
2	Screw, hex, socket head (4)	927A	15	Adapter (2)	27041-90
3	Screw (2)	1602	16	Gasket, air cleaner	27044-90
4	Screw, hex, socket head (2)	3485A	17	Gasket	27077-78
5	Screw, hex, cap (2)	3768	18	Insert, air cleaner (not shown)	29448-99
6	Washer (4)	6228W	19	Element, air cleaner	29055-89
7	Washer (2)	6235	20	Backplate	29056-90
8	Washer (4)	6333	21	Bracket, mounting (1992& earlier)	29066-90
9	Lockwasher (4)	7041	22	Venturi	29148-90
10	Locknut, hex (3)	7671	23	Fitting, VOES	29190-85
11	Locknut, hex (4)	7686	24	Spacer	29271-88
12	Hose, vacuum (not shown)	26568-94	25	Hose, fuel (not shown)	42533-88A
13	Carburetor	27001-88A	26	Washer, nylon (3)	91725-83
			A.	Weld stud (part of backplate)	