



# INSTRUCTIONS

-J03139

REV. 10-23-03

Kit Number 29605-00A

## THUNDER SLIDE JET KIT

### General

This kit is designed for use on 2000 and later Twin Cam 88 model carbureted motorcycles.

### Kit Contents

See Service Parts Illustration and parts list at the end of this sheet for kit contents.

#### NOTE

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

#### CAUTION

Harley-Davidson® motorcycles equipped with some Screamin' Eagle® high-performance engine parts may not be used on public roads and in some cases must be restricted to closed course competition. This engine related performance part is intended for racing applications and is not legal for sale or use in California on pollution controlled motor vehicles. Engine related performance parts are intended for the experienced rider only.

#### WARNING

When servicing the fuel system, do not smoke or allow open flame or sparks in the vicinity. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury.

### Carburetor Removal

Refer to the appropriate Service Manual for 2000 and later Carbureted Twin Cam model motorcycles and follow the instructions in the "Carburetor" section to remove the Carburetor.

### Installation

#### Thunder Slide Installation

1. See Figure 1 and Service Parts Illustration. Remove the carburetor top, slide spring, spring seat, jet needle and metal vacuum piston slide.

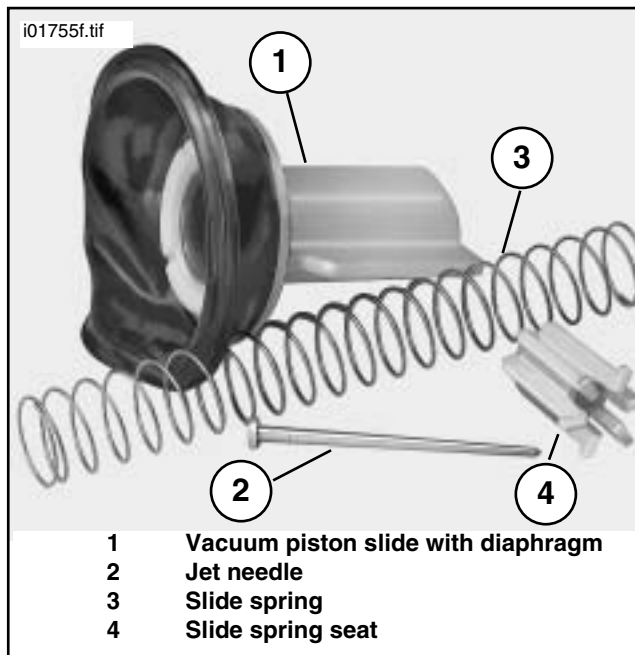


Figure 1. Vacuum Piston Chamber Slide Components

2. Carefully remove the original rubber diaphragm from the metal slide by gently pulling at the edge of the diaphragm in a circular motion until diaphragm is out of the stock slide retaining groove. The stock rubber diaphragm will be installed on the Thunder Slide.
3. To assemble the stock diaphragm on the Thunder Slide, first install the larger slide retainer (9) with the radial grooves facing up on the slide. You will notice that the slide has a collar on the top which you will have to push the larger retainer past.
4. Lay the diaphragm on the lower retainer in the same direction it was on the stock slide.
5. Press the small slide retainer (8) with the grooves facing down, on top of the diaphragm. You should hear a "snap" as it all goes together. Make sure it is flat and secured on top of the slide and that the diaphragm is centered.

## DYNOJET Kit Installation

### NOTE

*These are recommended starting points. Jet changes may be required during tuning.*

1. See Figure 2 and Service Parts Illustration. Place the carburetor upside down on a bench. Remove the chamber assembly and the carburetor float bowl. Remove the stock main jet and emulsion tube, sometimes referred to as the main jet holder. Ensure that the Needle Jet does not fall out during this procedure. Replace the stock emulsion tube with the new DYNOJET emulsion tube (11) provided. When the DYNOJET emulsion tube is fully seated, there will still be threads visible. Install the DYNOJET main jet provided. Use the BJ175 main jet with a completely stock bike. Use the BJ185 main jet with an aftermarket airbox, and/or aftermarket exhaust. With an aftermarket airbox, exhaust, and cams use the BJ195 main jet. With extensive engine work ie: cams, pistons, head work, airbox and exhaust, it may be necessary to use the BJ200 main jet.

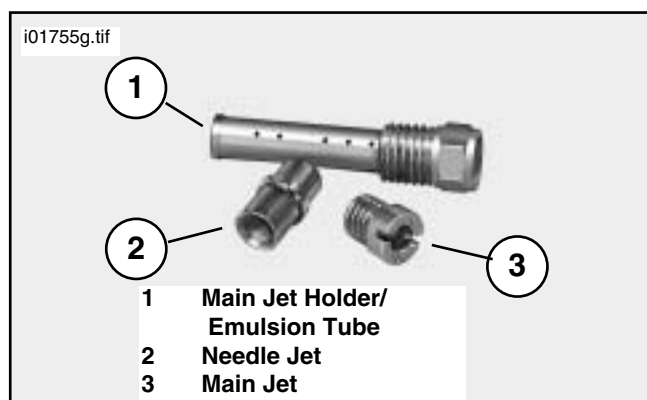


Figure 2. Stock Carburetor Jets and Holder

2. See Service Parts Illustration. Install the E-clip (6) on groove #4 of the new DYNOJET needle (5). Install the new Thunder Slide (7), Dynojet needle (5), needle (10) spacer, with stock needle retainer and new Dynojet slide spring (12) into the carburetor body, making sure the slide spring is aligned properly.

### NOTE

*During the next step, care must be taken not to drill through the Idle mixture screw. The Idle mixture screw is directly underneath the plug, be ready to pull back on the drill the instant you break through the plug.*

3. See Figure 3 and Service Parts Illustration. Locate the Idle mixture plug (1). If you see a Idle mixture screw head not plugged, proceed directly to the adjusting procedure. With the plug drill bit (13) provided, carefully drill through the the plug. Use the screw (14) provided to secure and remove the plug.
4. Carefully turn the mixture screw clockwise until it seats, then turn out 3-1/2 turns.

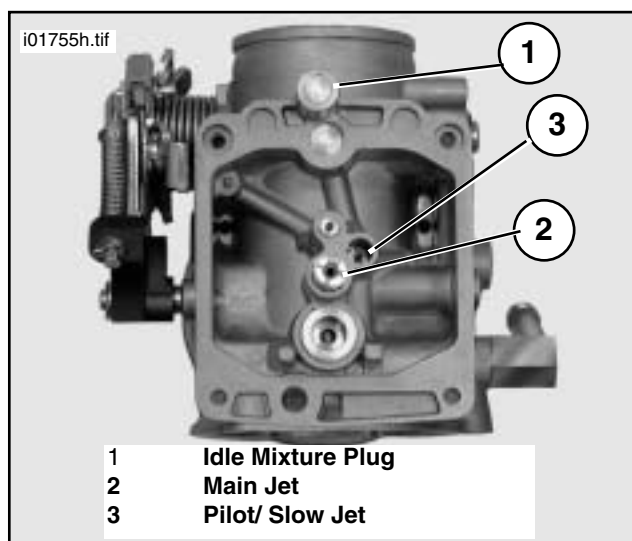


Figure 3. Idle Mixture Plug Location

### NOTE

*If the Idle mixture screw setting exceeds 3.5 turns to achieve low speed drivability when running a free flowing aftermarket exhaust and/or other modifications, install a larger pilot / slow jet.*

## Carburetor Installation

For installation procedures refer to the "Carburetor" section in a the Service Manual. Use fuel hose clamp (15) provided in kit.

### NOTE

*Prior to performing any jetting changes, ensure the carburetor and manifold are installed correctly and there are no intake leaks. Also make sure the float is adjusted correctly (Refer to the "Fuel System" section in the Service Manual for float adjustment procedures).*

## TROUBLE SHOOTING GUIDE

### NOTE

*Proper idle before troubleshooting is required.*

### ⚠ WARNING

**BEFORE STARTING THE MOTORCYCLE: Check fuel line and vacuum line. Open and close the throttle checking for smoothness and full operation. Check accelerator pump action to make sure actuation rod is installed correctly in float bowl. Turn on fuel petcock and check for any fuel leaks.**

### Check on Initial Start-Up

1. Start the engine, turn the handlebars from lock to unlock to ensure cables are routed properly.
2. Blip the throttle 2 to 3 times to ensure linkage is not sticking.

3. Check the engine kill switch for correct operation.

After completing your installation and following the proper safety precautions, the machine should function properly with noticeable performance gains. If the machine functions well, but does not seem to have any performance gain, try needle positions on either side of the base settings to improve performance. If the machine has more pronounced troubles in function and performance, read through the troubleshooting guide. Find the problem description that best matches your trouble, and perform the recommended adjustment procedures. In some cases, more than one description closely resembles your problem. If so, perform each of the adjustment procedures in the easiest manner or the most logical conclusion.

## **Start and Idling Problems**

### **(Pilot jet must be stock)**

1. Motorcycle will not start cold.

\*\*\*It is important to know that your bike will start and idle without your needle, slide, or main jet installed. DYNOJET kits do not alter your stock idle circuit, or the starting circuit. Also Check:

- a. Fuel in the float bowl.
- b. Choke plunger for proper operation.
- c. Ensure throttle plate is closed. Check throttle play.
- d. Vacuum leaks (vacuum hose and area around intake manifold).
- e. Float bowl is not flooding over with gas (float damage, or dirt in needle valve).

2. Motorcycle will not start hot.

\*\*\*It is important to note whether the bike starts hard only when you let it sit for a period of time, or starts hard any time when hot. Both of these conditions are usually "rich" problems. If you have trouble after the bike sits, then check for gas tank venting problems. Also Check:

- a. Idle mixture screw turned out too far.
- b. Float bowl is not overflowing with gas.
- c. Pilot/ Slow jet (not stock).

3. Motorcycle idles rough until it reaches normal running temperature:

- a. Idle mixture screw set too "lean". Turning counterclockwise will enrich mixture.

4. Motorcycle idles well until it reaches normal running temperature, then idles rough and possibly stalls.

- a. Idle mixture screw turned out too far.
- b. Pilot/ Slow jet (not stock).
- c. Choke plunger or choke cable not returning to closed position.

5. Motorcycle starts, but does not idle at all.

- a. Idle mixture screw turned out too far.
- b. Vacuum hose disconnected.
- c. Pilot/ Slow jet plugged.
- d. Manifold air leak.
- e. Idle turned down too far.

6. Motorcycle starts, but does not idle at all. Bike seems to rev slowly off idle with possible black smoke.

- a. Idle mixture screw turned out too far.
- b. Pilot Air Jet plugged.
- c. Choke not returning to off position.
- d. Pilot/ Slow jet (not stock).
- e. Fuel leaking past needle valve.

7. Low speed and cruising problems: (Engine does not accept throttle past idle, engine accepts past throttle but pops through carburetor, engine surges when holding steady speed, engine is very cold-blooded and choke has to be left on for a long time).

- a. Check that main jet is drilled completely.
- b. Check for vacuum leaks.
- c. Check vacuum and hose for leakage.
- d. Check float level is not too low.
- e. Check accelerator pump operation.

If the above check out, then raise the needle one groove at a time and retest.

## **Acceleration Problems**

### **Proper idle must be established before off idle troubleshooting is carried out.**

1. Engine accelerates from down low, then goes flat. Seems to be worse in high gears.
  - a. Check needle installation, there must be three washers above the E-Clip.
  - b. Check needle shroud installation.
  - c. Drag pipes will always cause problem.
  - d. Poor choice of cam will cause flat spots in mid-range.

If the above check out, lower needle one groove at a time and retest.

2. Engine accelerates to red line but flattens out. Seems to be worse in higher gears and when hot.
  - a. Check parameters on fact sheet (main jet size for your application).
  - b. Check intake air flow. Many aftermarket filters do not flow as well as stock ones.
  - c. Check exhaust flow. Some aftermarket pipes flow much worse than stock ones, but may be noisier.

If the above check out, lower the main jet size.

3. Engine seems sluggish when accelerating in low gears or when cold. Seems to be better when rolling and in high gear.
  - a. Try restricting the air entering the air filter. If problem gets better, then try going to a larger main jet.

4. Bike functions normally with the exception of popping when decelerating.

- a. Check exhaust leaks and intake leaks.

If the above check out, try enriching mixture screw slightly, making sure bike idles smooth.

**For Technical assistance:** Contact your DYNOJET distributor or call Dynojet U.S.A. (800)-992-4993

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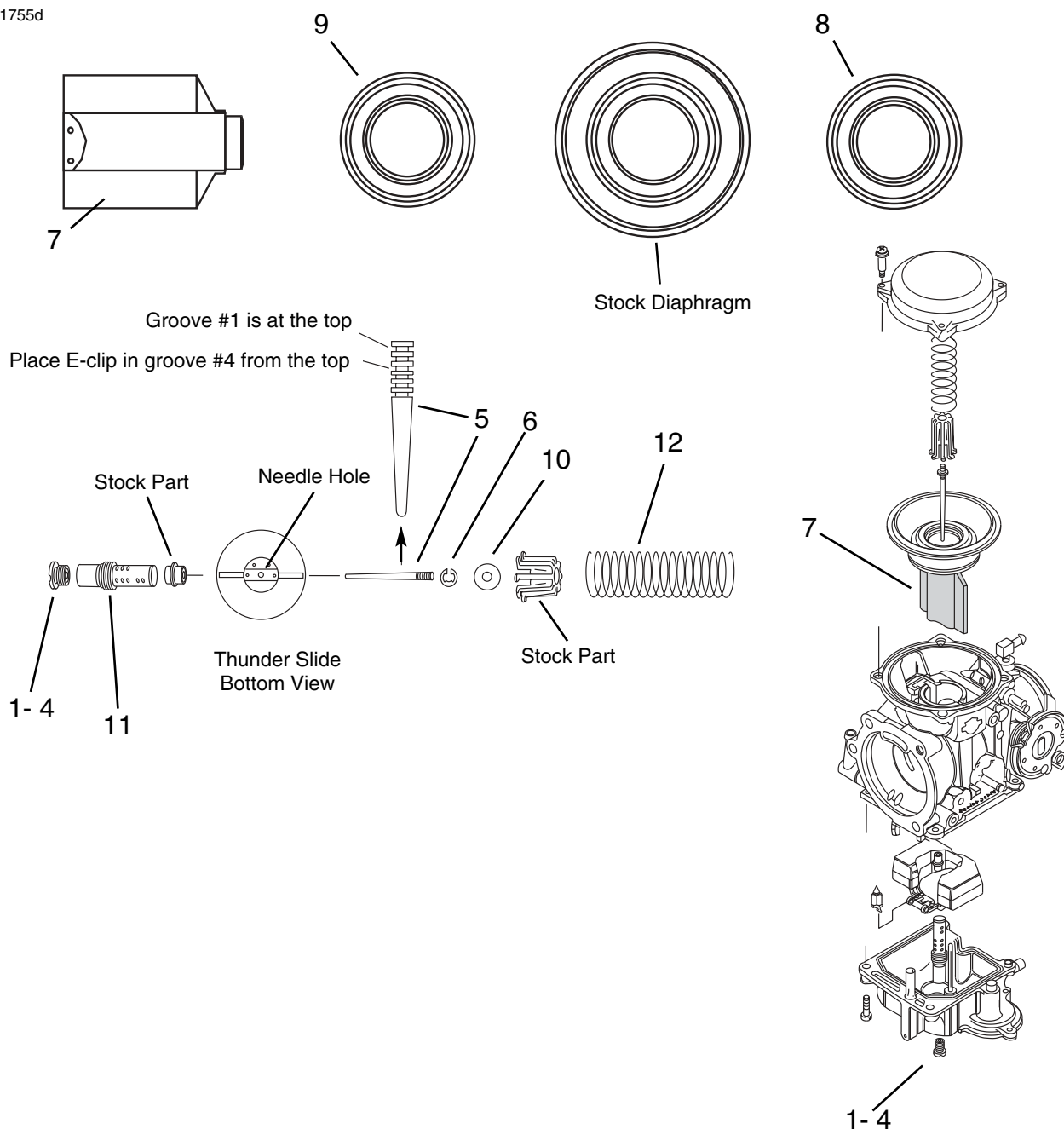
# Service Parts

Kit No. 29605-00A

Date 10/03

## THUNDER SLIDE JET KIT

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Item	Description	Part Number	Item	Description	Part Number
1	Main Jet	BJ175	9	Diaphragm Retainer Lower	DTS004
2	Main Jet	BJ185	10	Needle Spacer	THNR01
3	Main Jet	BJ195	11	Emulsion Tube	DET007
4	Main Jet	BJ200	12	Slide Spring	DSP088
5	Fuel Jet Needle	DNO891	13	Plug Drill (not shown)	DD #5/32
6	E-Clip	DE0001	14	Screw (not shown)	DS0001
7	Thunder Slide	DTS006	15	Clamp (not shown)	9946
8	Diaphragm Retainer Upper	DTS002			