



INSTRUCTIONS

-J01800

REV.10-6-99

Kit Numbers 25190-00, 25191-00, 25192-00Y, 25193-00,
25194-00, 25195-00Y and 25196-00Y

1991-2000 XL/BUELL CAM KIT

General

These cam kits are designed for use on 1991 and later XL and Buell Model Motorcycles. See the following for Kit Number and Model application:

Kit Number	Description	Application
25190-00	Pinion and Drive Gear Set ("D" Cams)	XL
25191-00	Pinion and Drive Gear Set ("W" Cams)	XL and Buell
25192-00Y	Pinion and Drive Gear Set ("15" Cams)	Buell
25193-00	Pinion and Camgears Set ("D" Camgears)	XL
25194-00	Pinion and Camgears Set ("W" Camgears)	XL Sport
25195-00Y	Pinion and Camgears Set ("15" Camgears)	Buell
25196-00Y	Pinion and Camgears Set ("W" Camgears)	Buell

NOTE

Cam lobes are stamped with a letter "D", "W", or "15" followed by a number (1,2,3 or 4). The first letter/number indicates model year application; the number following identifies the cam location/function. See Service Manual for more details.

NOTE

Use only "W" cams on 1998 and 1999 XL Sport models. Use only "W" or "15" cams on Buell models. "D" cams are used on all other models.

CAUTION

Do not install this cam set in 1990 and earlier Sportster/Buell engines. This cam set will cause severe engine damage if installed in pre-1991 engines.

WARNING

The rider's safety depends on the correct installation of this kit. Follow the procedures listed in this Instruction Sheet and in the appropriate Service Manual. If the procedures are not within your capabilities, or if you do not have the correct tools, have your Harley-Davidson dealer perform the installation. Failure to comply could result in death or serious injury.

NOTE

A Service Manual is available from your Harley-Davidson/Buell Dealer.

Camshaft Removal/Installation

Camshaft installation requires the removal of the pinion gear, tappet guides, tappets and gear case cover. Follow the procedures in the applicable Service Manual to remove the camshaft(s), and note the following:

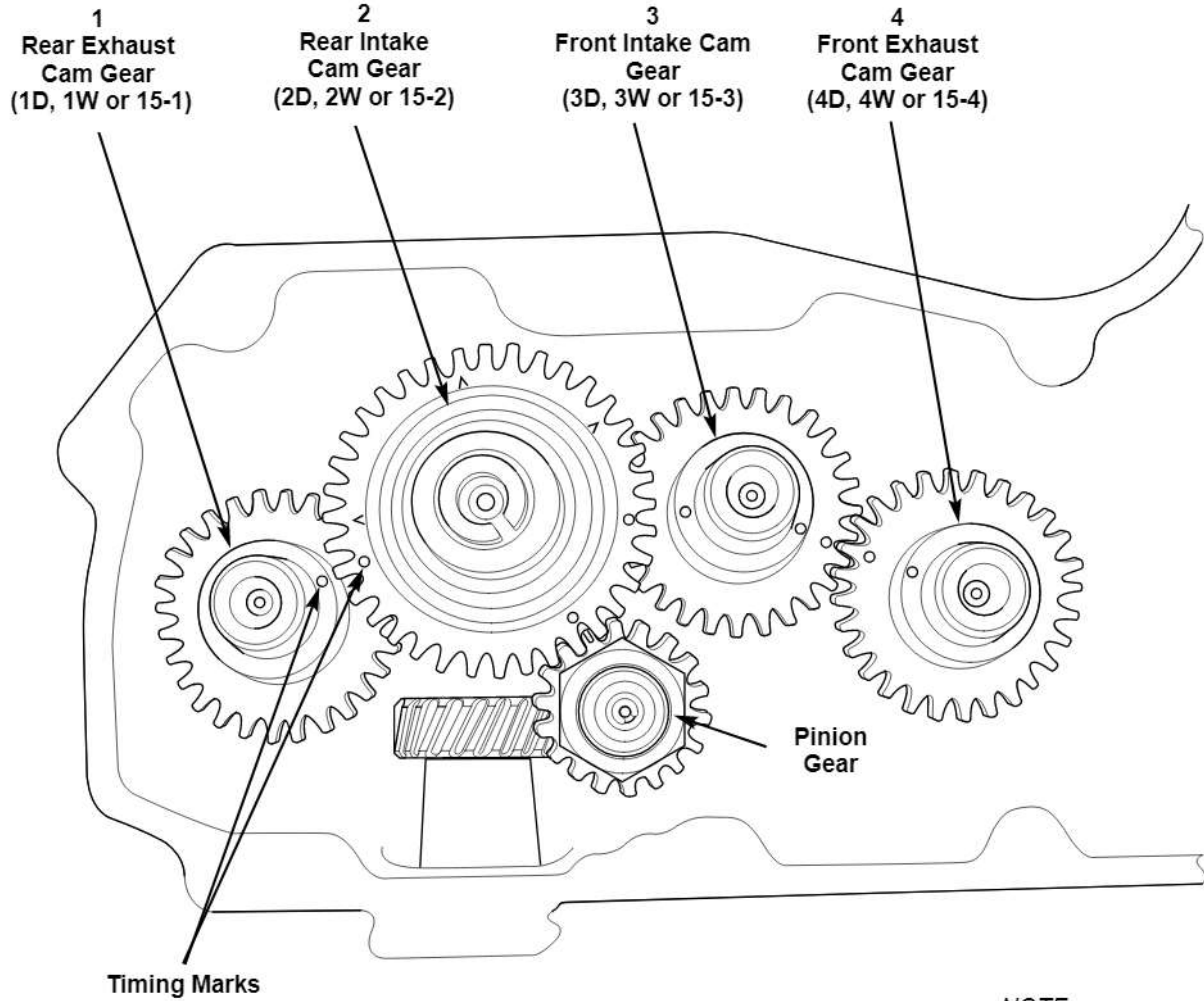
CAUTION

When installing new gears in 1991-2000 XL/Buell engines, be sure to replace the high contact ratio pinion gear and #2 cam gear as a set. Failure to do so will result in severe engine damage.

NOTE

It is not necessary to remove the oil pump gear or oil pump.

1. See Figure 1. Rotate engine to align timing marks. Cams are numbered 1 to 4 from the rear exhaust (1) to the front exhaust (4). Remove camshaft 2. One at a time remove camshaft 1, 3, and 4, and replace with the appropriate camshaft from this kit. Be careful to maintain timing mark alignment. Install camshaft 2 last. Carefully check alignment of all timing marks.
2. Following instructions in Service Manual, assemble gear case cover (with new gasket). After final assembly, torque cover screws in proper sequence to 80-110 in-lbs.
3. Check ignition timing following Service Manual procedures.



NOTE
Though not depicted, Rear Intake Cam Gear has 46 teeth and Pinion Gear has 23 teeth

Figure 1. Camshaft Identification and Timing Mark Alignment