Andrews Products, Inc.
431 Kingston Ct.
Mt. Prospect, IL 60056
(847-759-0190 ph)
(847-759-0848 fax)

Buell Blast Cam Gear Installation Instructions

1. Both cam gears in each set should be the same grind (B-50 or B-70).

2. Remove fuel tank and engine rocker box top cover. Each rocker arm must be removed in order to remove the pushrod. If you intend to reuse stock pushrods, mark them for reinstallation later.

3. Remove ignition parts and stock cam gears. The outer cam gear case cover will now be used as a gage to check the gear tooth fit for both new cams. Checking the gear tooth fit for your new cams is very important! Do not skip this step!

4. To check the installed fit on your new Blast cams:

a. Install both cam gears in the outer cover for a trial fit.

b. With your fingers, turn the two cam gears and verify that they roll freely. If there is no tightness, proceed to step f. Note: If you can't turn the gears with your fingers, they are too tight.

c. If there is any tightness or binding, you may test each of the Andrews Blast cams against the mating stock cam gear so that the tight fitting part can be identified. In other words, a B50 #2 cam gear can be installed in the outer cover and rolled against a stock #1 cam gear. This is one way to identify either cam gear for correct fitment. Cam gears which bind should not be installed without further examination and inspection. Tight or binding gears can cause cam gear damage!

d. Measure the cam gear which fits using a micrometer and two .108" dia. pins. Do the same with the stock cam gear. Note any differences in size.

e. If either cam gear is too tight, Andrews Products can gear hone the teeth to fit correctly.

f. Next, install the cover onto the engine with no pushrods and only the #2 cam gear. Verify that the engine now turns without any binding. If there is no binding, the cam gear backlash is correct and you can continue to reassemble the engine.

g. If the #2 cam drive gear is tight, a smaller pinion gear (from H/D) must be used. (Our catalog also describes a procedure to determine the correct size for a different size pinion gear).

5. Andrews Products has a tooth honing machine which can be used for reducing the size of cam gear teeth for proper fitting to a cam gear cover. If you think your parts need this work done, call for further information. There may be a charge for this type of custom fitting.

6. New cam gears can now be installed. Reinstall gear cover. Make sure that each cam gear has correct end play as per H/D service manual (.012-.020 inches). Insufficient end play will result in cam overheating and failure of the part.

7. B50 and B70 Buell cams need piston to valve clearance checked. Stock pushrods can be reused since stock size base circles are used on both B50 and B70 cams.

8. Modified engines will usually require custom length pushrods.

9. Andrews Products makes chrome-moly adjustable pushrods (part # 292035) which will simplify this installation. Adjustable pushrods are made in sets of 2 identical length rods. To install, adjust to shortest length, then position in engine with rocker installed. Next, adjust pushrod longer until all freeplay is gone. Then turn adjuster out 4-4.5 full turns (24-27 flats) and tighten locknut. Wait until hydraulic unit bleeds down and repeat procedure on next pushrod.

10. If adjustable pushrods are to be installed, it will be necessary to set each pushrod length before installing the outer covers (since the outer covers do not collapse for pushrod adjustment). Or you can use an aftermarket cover kit which will telescope shorter (to allow pushrod adjustment).

11. H/D hydraulic lifters are capable of 6000+ RPM without floating. We are recommending that solid lifters not be used with either Buell cam grinds. B70 cams need .570 minimum valve travel. Checking valve travel and piston-valve clearance is recommended on B50 and B70 cams.

12. Keihin carburetors may need retuning with different size jets for best running.

BUELL BLAST CAM TIMING SPECS

Grind	Timing	Dur	Valve Lift	Spring Travel	Springs	Lift @ TDC
STK W	9.5/25.5	215	.475	COMPARISON	STOCK	.073
	39/11	230	.475	DATA	-	.080
B50	16/32	228	.498	.530	STOCK	.163
	43/15	238	.498	.530	-	.146
B70	22/38	240	.530	.570	ANDREWS	.191
	48/20	248	.530	.570	HI-LIFT	.156

1. Timing specs taken @ .053 cam lift in crank degrees.
2. Valve lift is calculated by multiplying max cam lift by 1.633 rocker ratio.
3. Spring travel figures are listed as the minimum for setting coil bind.

IMPORTANT NOTE:

On first production runs of B50 and B70 cams, the two timing marks which are to be used for cam gear installation have been highlighted with red paint. ***All other timing marks are to be ignored!*** With a clock face for reference and the crankshaft in position for cam gear installation, the mark which lines up with the #1 gear will be approximately at 4:00 o'clock and the mark which lines up with the pinion gear will be located approximately at 7:00 o'clock. The ignition drive key will be near 12:00 o'clock.