

Red Shift Sportster® Buell XB® XR 1200 Cams can be Ordered Two Ways.

You can provide Zipper's your original cam gear set (A) from your engine, and we will remove the factory stock lobes (B) and replace them with new Red Shift 8620 Steel Billet Lobes timed and welded. Note- If gear noise is an issue H-D® had gone to great pains to tighten gear lash on pre-2000 engines, using literally hundreds of cam gear sizes to match manufacturing differences during engine mass production. Installing the Red Shift lobes on the factory gear set retains this precise fitment.

If no cores are available like XB or XR engines, race only application or you can't wait (in-house production time is usually 3 weeks, you can order cams installed on our new gear cores. Our cam gears feature a keyed drive to prevent gear slippage in severe applications, available with the #2 drive gear in the pre-2000 wide pitch design (D) or the fine pitch (E) later engines

Performance Notes: Any camshaft above .600" of lift on factory cores or race only will require the press-fit #2 drive gear to be welded to prevent rotation.

Zipper's new gear cores use a keyway on the #2 drive gear (G) to prevent rotation and do not require welding). Red Shift Sportster® cams can be timed and shipped un-welded, giving the performance engine builder final control of desired cam timing. This is required for any aftermarket 4-cam cases and recommended for all-out competition engines, due to manufacturing variations in case and component production. Early XR-style intake and exhaust patterns can be easily adapted. Email us with your special requests.

The one thing that the following cam grinds have in common is that they usually service engines that will be run hard!

For these cams to be able to deliver maximum output and valve control consideration must be given to the entire valve train especially in choices of tappets, pushrods, valves and rockers. 5-speed XL® engines use guide pins against a flat area on the lifter body to control lifter rotation within the bore; extra care is required for mock up to rotate the new cams in the engine and prevent unwanted tappet rotation in the bore.

91-'99 engines tappets require modifications to yield new net tappet travel + .100 for deflection from over revving the engine. After the tappet modification is complete Zipper's Tappet Pin kit must be used.

Engines that will see RPM above 6,000 require stiffer pushrods and proper valve springs with titanium collars to reduce valve train weight and maintain valve control. Once control is lost, performance suffers and expensive parts get beat up in a hurry. Before making your purchase, think of the cams as only part of your new valve train system.

Contact us if you need help selecting the proper supporting components. productsupport@zippersperformance.com



Special Notes-

- High Performance racing engines should always consider New Billet Cores
- XR 1200 and Buell XB engines require customer cores to process your order
- XR 750 pattern cams are available upon request