

## Hex-A-Just® 4.6L 2V

Increase both torque and horsepower with improved cam timing balance. This engine is unique in that the individual bank valve trains are controlled by two separate chains and cam sprockets. The patented Cloyes Hex-A-Just® system allows you to quickly make adjustments to balance the right and left banks and meet any custom cam specifications required to maximize your engines output.

**This is not a two-piece sprocket design.**

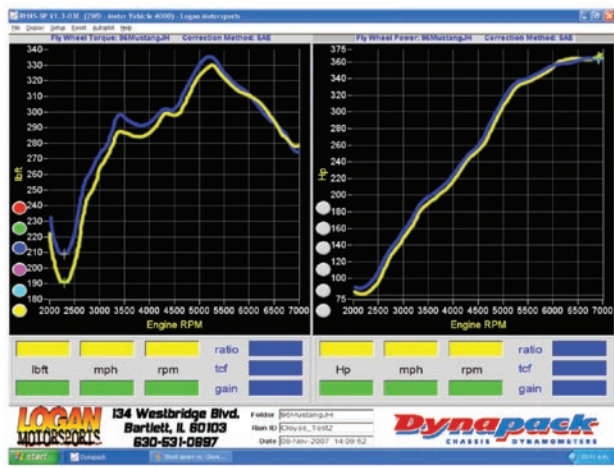
This exclusive Hex-A-Just® product is a one-piece sprocket design that functions in the same way as the OE configuration. It utilizes a stainless steel adjuster plate of specified hardness and thickness that replaces the OE cam sprocket washer.

Wide tolerances are an inherent flaw with any mass produced OE part. This is corrected by the fact that our sprockets are precision machined from premium billet steel on our state-of-the-art CNC equipment. Special care is taken to tolerance critical features (bore fitment, keyway fitment, timing angle, etc.) for each high performance sprocket manufactured. All sprockets are then induction hardened and oil-quenched using our in-house multi-stage heat treat process.

The dynamometer graph shows noticeable torque and horsepower gains as a result of corrected camshaft positions from a simple bolt-on. Your additional fine tuning results in maximum gains.



- Patented Hex-A-Just® allows +/- 4°
- Induction Heat Treated, Billet Steel Sprockets
- Precision tooth profile for ideal chain mesh
- Precision machined keyway and bore fitment
- Exclusive light, fine finished performance chains



**2V - Full Kit** - Includes ALL the timing components; two Hex-A-Just® adjustable billet steel cam sprockets, billet steel crank sprocket, two fine finish chains, all guides and tensioners.

**2V - Upgrade Kit** - Everything in this kit is an upgrade from OE; two Hex-A-Just® adjustable billet steel cam sprockets, billet steel crank sprocket, two fine finish chains.

**2V - Sprocket Kit** - Includes the two Hex-A-Just® adjustable billet steel cam sprockets.

FORD 4.6 L 2V KITS			
YEARS	FULL KIT	UPGRADE KIT	SPROCKET KIT
1996-1998	9-3162A	9-3165A fits years 1996-2000	9-3169A
1999-2000	9-3163A		fits all years
2001-2004	9-3164A	9-3166A	1996-2004

## Hex-A-Just® 4.6L 4V

As with the 2V, the 4V has the same potential to increase both torque and horsepower with improved cam timing balance. This engine is like the 2V in that the individual bank valve trains are controlled by two separate primary drives, but in addition the 4V utilizes secondary drives to control the intake cams. The patented Cloyes Hex-A-Just® system allows you to make the needed adjustments to customize your valve train settings. Our primary cam sprockets allow you to balance the banks, while the 9-keyway secondary cam sprockets give you the tools required to adjust exhaust cam to intake cam overlap.

### **This is not a two-piece sprocket design.**

This exclusive Hex-A-Just® is a one-piece primary sprocket design that functions in the same way as the OE configuration. It utilizes a stainless steel adjuster plate of specified hardness and thickness that replaces the OE cam sprocket washer.

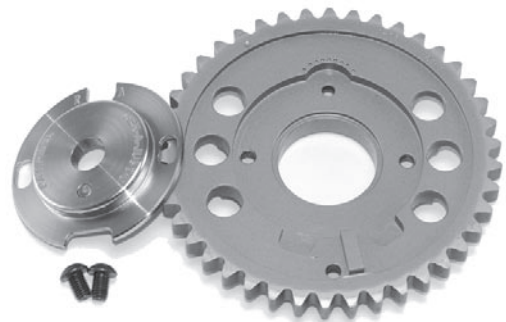
All of our sprockets are machined from premium billet steel on our state-of-the-art CNC equipment. Special care is taken to tolerance critical features (bore fitment, keyway fitment, timing angle, etc.) for each high performance sprocket manufactured. All sprockets are then induction hardened and oil-quenched using our in-house multi-stage heat treat process.

### **4V – Upgrade Kit**

Everything in this kit is an upgrade from OE; two Hex-A-Just® adjustable billet steel primary cam sprockets, two 9-keyway billet steel secondary cam sprockets, two 1-keyway billet steel secondary cam sprockets, billet steel crank sprocket, two fine finish primary chains, two upgraded secondary roller chains.



- Patented Hex-A-Just® allows +/- 4°
- Induction Heat Treated, Billet Steel Sprockets
- 9-keyway secondary cam sprockets allow +/- 4°
- Secondary sprockets adjustable in 1° increments
- Precision tooth profile for ideal chain mesh
- Precision machined keyway and bore fitment
- Exclusive light, fine finished performance chains
- Upgraded secondary racing roller chains



*Our one-piece billet steel cam sprocket design, used on both 2V and 4V applications, works identical to the OE configuration by using our custom adjustable washer.*

<b>FORD 4.6 L 4V KITS</b>	
<b>YEARS</b>	<b>UPGRADE KIT</b>
1996-1999	9-3174A
2001-2004	9-3175A