



# PATROL 4.2L & 4.5L - SINGLE CAM

New Improved Cam Core Technology

Description	Part Number	Lobe Sep.	Advertised Duration (.010")		Duration @ .050"		Lobe Lift		Gross Lift		Suitable Component Kit
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
<b>NISSAN PATROL 4.2L (Stock Specs)</b>	<b>Stock</b>	112°	260°	260°	198°	198°	.280"	.280"	.420"	.420"	<b>Stock</b>
<b>STAGE 1</b> Hotter than stock profile. Smooth idle quality and will work with stock valve springs. No ECU upgrade required. 12+ HP over stock setup. RPM Range: Idle - 6000+	<b>61390</b>	112°	280°	280°	220°	220°	.296"	.296"	.445"	.445"	<b>68147</b>
<b>STAGE 2 - Forced Induction Special</b> Performance oriented street, use with turbo, supercharger and/or nitrous. Will work with stock springs and ECU. HP gains depend on engine mods. RPM Range: 1000 - 6500+	<b>61391</b>	112°	299°	299°	228°	228°	.309"	.309"	.464"	.464"	<b>68147</b>
<b>STAGE 2</b> Recommend for hot street use. Rough idle is expected. Requires spring change (#68147). Lobe at idle is common. HP gains depend on engine mods. RPM Range: 1100 - 7000+	<b>61392</b>	112°	303°	303°	235°	235°	.333"	.333"	.500"	.500"	<b>68147</b>
<b>STAGE 3 - 3/4 Race</b> Road/Rally and Street/Strip. Requires spring change (#68147) and ECU upgrade to take advantage of higher rpm potential. HP gains depend on engine mods. RPM Range: 1200 - 7250+	<b>61393</b>	110°	309°	309°	248°	248°	.338"	.338"	.507"	.507"	<b>68147</b>
<b>STAGE 4 - Full Race</b> Emphasis on top end power with extremely rough idle quality. Not recommended for daily driver. Spring/ECU upgrade req. HP gains depend on engine mods. RPM Range: 1300 - 7500+	<b>61394</b>	108°	316°	316°	256°	256°	.350"	.350"	.526"	.526"	<b>68147</b>
<b>CUSTOM GRIND</b> Crower can custom grind cams to your desired specs, also proprietary profiles available upon request.	<b>00054</b>	Refer to <a href="http://www.crower.com">www.crower.com</a> for camshaft recommendation									

Note: These cams use .014" intake (hot), .016" exhaust valve lash (hot).

**Note: The above cams will not fit the 4.8L Nissan Patrol applications.** Duration figures are taken at the lobe.

#### Spring pressure:

68147-12 Seat: 1.590" @ 85 lbs / Nose: 1.150" @ 261 lbs / Coil bind: 1.030" (No machine work required).

#### 4340 Steel Billet Connecting Rods Available

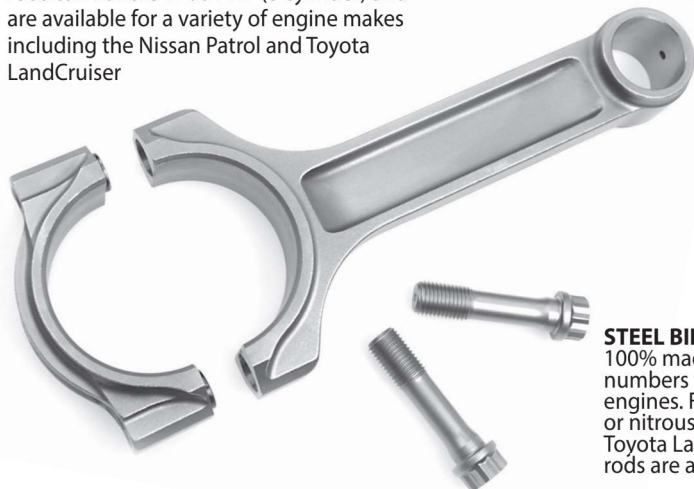
B93771B-6 - 4.2L/4.5L

B93772B-6 - 4.8L

#### REMEMBER!

When installing new camshaft please remember that the contact surface of the follower must be free of wear/smooth surface.

Crower's premium steel billet connecting rods can handle 1200+ HP (6 cylinder) and are available for a variety of engine makes including the Nissan Patrol and Toyota LandCruiser



#### MAXI-LITE BILLET RODS

Crower's new Maxi-Lite billet is approximately 100 grams lighter than Crower's standard billet.



#### STEEL BILLET RODS

100% made in the USA from premium steel billet material, Crower offers shelf part numbers for the Nissan Patrol 4.8L (#B93772B-6) and the 4.2L/4.5L (#B93771B-6) engines. Features 220,000 p.s.i. rod bolts designed for high boost applications and/or nitrous. Optional 280,000 p.s.i. bolt upgrade also available for severe-duty use. Toyota LandCruiser 4.5L (#B93758B-6) and 4.8L - 8 cylinder (#B93760B-8) connecting rods are also on the shelf.

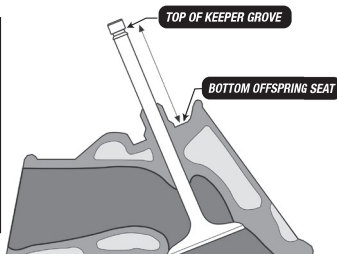
Description	Part Number	Lobe Sep.	Advised Duration		Duration @ .050"		Lobe Lift		Suitable Component Kit
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
<b>STAGE 1</b> Street use with emphasis on bottom end and mid range power.	61381-2	112	266°	271°	218°	222°	.401"	.401"	84197 84197S
<b>STAGE 1</b> Designed for street/strip applications in normally aspirated engines.	61382-2	112	270°	280°	219°	227°	.397"	.415"	84197 84197S
<b>STAGE 2</b> Street/Strip package. Perfect for all-motor use.	61383-2	112	274°	288°	222°	230°	.401"	.425"	84197 84197S
<b>STAGE 2 - 3/4 Race</b> Excellent high torque and mid-range power	61384-2	112	292°	300°	229°	237°	.415"	.426"	84197 84197S
<b>STAGE 4 - Full Race</b> Drag Race and radical Street/Strip	61385-2	112	300°	308°	237°	245°	.436"	.458"	84197 84197S
<b>STAGE 5 - Full Race</b> All out, all motor drag profile. Not for the inexperienced tuner	61386-2	112	308°	314°	245°	253°	.458"	.480"	84197 84197S
<b>CUSTOM GROUND SOLID</b> Special order solid lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	00048-2	Refer to <a href="http://www.crower.com">www.crower.com</a> for camshaft recommendation							

## ENGINEERED COMPONENT KITS

Part. No	Spring	Retainers	Remarks
84197	68195-24	87077-24	Titanium retainers.
84197S	68195-24	87077S-24	Steel retainers

**Diagram 1. Calculating Installed Spring Height**

Measure the height from top of keeper groove to bottom of spring seat. Refer to the "height" column of your retainer and add or subtract the amount given from the original overall measurement. See Page 148



**Note:** If heads have been extensively modified (machined spring pockets, longer valves, etc.) contact Crower for proper spring, keeper, cup and retainer recommendations. Have your keeper/seat measurement available.



Description	Part Number	Lobe Sep.	Advertised Duration Intake Exhaust	Duration @ .050" Intake Exhaust	Lobe Lift Intake Exhaust	Suitable Component Kit
<b>STAGE 1</b> Fair idle. Good bottom end profile with mid-range power. Emphasis on torque.	61381T-2	114	271° 266°	222° 218°	.401" .401"	84197 84197S
<b>STAGE 1</b> Street use and more aggressive turbo and nitrous. Slight lobe at idle. RPM Range: Idle to 7500+	61382T-2	114	280° 270°	227° 219°	.415" .397"	84197 84197S
<b>STAGE 2</b> Excellent for turbo and nitrous for street/strip applications. Wide center for top end performance. RPM range 2600 to 7200+	61383T-2	114	288° 274°	230° 222°	.425" .401"	84197 84197S
<b>STAGE 4 - Full Race</b> Race turbo (30+ lbs of boost minimum). Also works well with NOS. RPM Range: 2600 to 7200+	61384T-2	114	300° 292°	237° 229°	.426" .415"	84197 84197S
<b>STAGE 4 - Full Race</b> Race turbo (30+ lbs of boost minimum). Also works well with NOS. RPM Range: 2600 to 7200+	61385T-2	114	308° 300°	245° 237°	.458" .436"	84197 84197S
<b>STAGE 5 - Full Race</b> Performance built, race oriented application. Not for the inexperienced tuner. Top end insanity. RPM Range: 3000 to 8000+	61386T-2	114	314° 308°	253° 245°	.480" .458"	84197 84197S
<b>CUSTOM GROUND SOLID</b> Special order solid lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	00048-2	Refer to <a href="http://www.crower.com">www.crower.com</a> for camshaft recommendation				

### ENGINEERED COMPONENT KITS

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84197	68195-24	87077-24	Titanium retainers.
84197S	68195-24	87077S-24	Steel retainers

#### Crower Recommends ZDDPlus for all Flat Tappet Cams

**ZDDPlus™** contains 42,700 ppm of phosphorus and 57,300 ppm of zinc. When a 4-ounce bottle of ZDDPlus™ is added to 5 quarts of oil, it is diluted 41:1, which contributes 1047 ppm of phosphorus and 1397ppm of zinc to whatever the oil may or may not already contain.

**Part #86092 - 4oz Bottle of ZDDPlus & Paste**

### CROWER CAM BREAK-IN PROCEDURE

**This applies to all hydraulic and solid lifter camshafts using higher than stock spring pressure:**

- Do not use block restrictors in the oil galleries. This severely limits oil flow to the cam, lifters and overhead.
- Break-in cam and lifters with low pressure springs only. Do not exceed 235 lbs open pressure.
- During break-in run engine for 35 to 45 minutes and vary rpm from 2000 to 3000.
- For break-in procedure Crower recommends 10W/30 motor oil. Heavier weight oils do not cold flow.
- Do not use synthetic oils during break-in period.
- For further information, please refer to the Crower Installation booklet that accompanies the camshaft.
- Use ZDD Plus Additive P/N 86092

**CRANKSHAFTS**  
(See Page 170-183)



**RODS**  
(See Page 185-206)

