

HYDRAULIC FLAT TAPPET



Non Roller 1955-1981

287 301 316 341 350 370 389 400 421 455 V8

Description	Part Number	C.I.D. Group	Grind	Lobe Sep.	Advised Duration Intake Exhaust	Duration @ .050" Intake Exhaust	Gross Lift 1.5 / 1.5 Intake Exhaust	Suitable Component Kit
BAJA BEAST / PERFORMANCE LEVEL 2 Low to mid-range torque for daily drivability. Economical price. RPM Power Range: 1500 - 4250 / Redline: 5500+	60915	301 350	272H	112°	272° 279°	211° 220°	.422" .443"	84057
TORQUE BEAST / PERFORMANCE LEVEL 3 Delivers impressive mid-range and top end power. Healthy sound. Economical price. RPM Range: 1750 - 4500 / Redline: 5750+	60918	370 421	288H	112°	288° 298°	214° 224°	.444" .467"	84160
POWER BEAST / PERFORMANCE LEVEL 4 Upper mid-range to top end power. Emphasis on top end. RPM Power Range: 2000 - 4800 / Redline: 6200+	60916	421 455	278H	112°	278° 289°	221° 229°	.455" .470"	84160
ULTRA BEAST / PERFORMANCE LEVEL 4 Hot street profile that delivers impressive mid-range and top end power. RPM Power Range: 2000 - 4800 / Redline: 6200+	60919	428 455	304H	112°	304° 316°	231° 240°	.470" .470"	84160
HIGH PERFORMANCE COMPU-PRO / Performance Level 4 Intended for the performance oriented hot street application. These cams offer an extended rpm range with emphasis on upper bottom to top end power (strong mid-range). Performance gears, headers, dual exhaust, larger than stock cfm carburetor, performance manifold and increased compression (9.5:1 to 10.5:1) are required. Works well with automatic transmission if matched with proper ring and pinion gears and/or high stall converter. RPM Power Range: 1600-1800 to 4500-4800 / Redline: 6000+	60243	428 455	284HDP	112°	284° 290°	228° 235°	.479" .494"	84160
CUSTOM GROUND HYDRAULIC Special order hydraulic lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	00160H	All CID	Refer to www.crower.com for camshaft recommendation					

Note: These cams use .000" intake and exhaust valve lash.

ENGINEERED COMPONENT KITS

Part No.	Lifters	Springs	Retainers	Seals	Remarks
84160	66056-16	68404-16	87048-16	86072-16	Hydraulic Lifter. Up to 6500 plus rpm.
84160X3	66056X3-16	68404-16	87048-16	86072-16	CamSaver Hydraulic Lifter. Up to 6500 plus rpm.
84057	66056-16	68305X1-16	87048-16	86072-16	Hydraulic Lifter.

Spring pressure:

68404-16 Seat: 1.600" @ 116 lbs / Nose: 1.100" @ 302 lbs / Coil bind: 0.910" (Stock O.D., no machine work).

Note: Non-adjustable pushrods can be used if you have proper lifter preload (.050" off snap-ring). Custom length pushrods are available from Crowder to achieve proper lifter preload. Customer must furnish accurate pushrod length.

CAUTION! When using high lift cams pay close attention to retainer, oil seal and valve guide clearance at full lift (minimum .050").

Note: The above kit will not work if using Pontiac heads with 1.65:1 rocker ratio (springs are too short). Contact Crowder for special spring and retainer combination. See diagram 2.

Note: For proper valve adjustment on solid lifter profiles, Crowder "Sure-Lock" rocker nuts (86053) must be used.

Valve timing events are available online at: www.crowder.com

Crowder 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

ACCESSORIES

Description	See Page (s)
Rocker Arms	Pg's.134-146
Cranks	Pg's.170-183
Rods	Pg's. 185-206
Accessories	Pg's. 117-119





HYDRAULIC FLAT TAPPET

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Description	Part Number	C.I.D. Group	Grind	Lobe Sep.	Advertised Duration		Duration @ .050"		Gross Lift 1.5 / 1.5		Suitable Component Kit
					Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
ULTRA-PERFORMANCE COMPU-PRO / Performance Level 4 The following grinds are best suited for dual purpose hot street/drag strip situations. These cams exhibit strong mid-range and top end torque and horsepower. Headers, dual exhaust, larger cfm carburetor, performance ignition and 11:1 compression are a must. Cylinder head modifications would be beneficial. Use with standard transmission or automatic with high stall converter. Low gearing a must. RPM Power Range: 2000-2200 to 6000-6200 / Redline: 6500	60243	301 350	284HDP	112°	284°	290°	228°	235°	.479"	.494"	84160
	60244	370 421	297HDP	112°	297°	308°	239°	241°	.500"	.500"	84160
HI-DRAULIC HAULER / PERFORMANCE LEVEL 4 Lope at idle. Hot street/strip cam with strong mid-range power. RPM Power Range: 2500 - 6000	60210	389 400	278HDP	108°	278°	288°	229°	239°	.480"	.501"	84160
HI-DRAULIC HAULER / PERFORMANCE LEVEL 4 Rough idle. Explosive mid-range power and torque. RPM Power Range: 2800 - 6000+	60211	389 400	296HDP	108°	296°	308°	236°	242°	.509"	.516"	84160
HI-DRAULIC HAULER / PERFORMANCE LEVEL 5 Rough idle. Violent mid-range acceleration. RPM Power Range: 3000 - 6000	60212	428 455	304HDP	108°	304°	312°	239°	247°	.497"	.522"	84160
HI-DRAULIC HAULER / PERFORMANCE LEVEL 5 Brutal mid to top end torque and horsepower. RPM Power Range: 3000 - 6500	60213	428 455	308HDP	108°	308°	314°	248°	256°	.518"	.537"	84160
CUSTOM GROUND HYDRAULIC Special order hydraulic lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	00160H	All CID	Refer to www.crower.com for camshaft recommendation								

Note: These cams use .000" intake and exhaust valve lash.

MECHANICAL FLAT TAPPET

Description	Part Number	C.I.D. Group	Grind	Lobe Sep.	Advertised Duration		Duration @ .050"		Gross Lift 1.5 / 1.5		Suitable Component Kit
					Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
PRO-STREET / PERFORMANCE LEVEL 3 High revving, super mid to top end power grind. RPM Power Range: 2800 - 6000+	60310	389 455	284FDP	112°	284°	288°	240°	248°	.477"	.501"	84360
PRO-STREET / PERFORMANCE LEVEL 4 Super upper mid-range and top end power profile. RPM Power Range: 3000 - 6500+	60311	389 455	292FDP	112°	292°	302°	247°	252°	.505"	.517"	84360
COMPU-PRO / PERFORMANCE LEVEL 5 High revving, superior upper bottom profile with emphasis on mid to top end power. RPM Power Range: 3500 - 7000+	60353	389 455	304FDP	108°	304°	312°	255°	262°	.527"	.546"	84360
CUSTOM GROUND SOLID Special order solid lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	00160M	All CID	Refer to www.crower.com for camshaft recommendation								

Note: These cams use .022" intake, .024" exhaust valve lash.

ENGINEERED COMPONENT KITS

Part No.	Lifters	Springs	Retainers	Seals	Remarks
84160	66056-16	68404-16	87048-16	86072-16	For rpm up to 6500 plus.
84160X3	66056X3-16	68404-16	87048-16	86072-16	CamSaver Lifter. For rpm up to 6500 plus.
84357	66963-16	68405-16	87048-16	86072-16	Solid Lifter. For rpm up to 7000 plus.
84357X980	66963x980-16	68405-16	87048-16	86072-16	CoolFace Solid Lifter. For rpm up to 7000 plus.

MECHANICAL ROLLER TAPPET



Mechanical 1955-1981

287 301 316 341 350 370 389 400 421 455 V8

Description	Part Number	C.I.D. Group	Grind	Lobe Sep.	Advertised Duration @ .050"	Intake Exhaust	Intake Exhaust	Gross Lift 1.5 / 1.5	Intake Exhaust	Suitable Component Kit
ULTRA-ACTION / PERFORMANCE LEVEL 5 All range camshaft for heavy car, high stall with compression and headers. RPM Power Range: 3000 - 6500+	60450	389 455	275R	112°	275° 284°	233° 242°	.495" .496"			845685
ULTRA-ACTION / PERFORMANCE LEVEL 5 Radical mid-range cam, shifts at 6500 rpm with a redline of 7000. RPM Power Range: 4000 - 7000	60451 MTO	389 455	284R	108°	284° 294°	247° 254°	.582" .567"			845685
ULTRA-ACTION / PERFORMANCE LEVEL 5 Large cid camshaft (455 cid or bigger). Smashing mid-range power hit and top end performer. RPM Power Range: 4500 - 7250+	60452 MTO	389 455	294R	108°	294° 298°	257° 263°	.649" .636"			845685
CUSTOM GROUND SOLID Special order roller lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	00160R	All CID	Refer to www.crower.com for camshaft recommendation							

The above cores are 8620 steel billet. Use bronze distributor gear.

Note: These cams use .026" intake, .028" exhaust valve lash.

Note: "MTO" denotes that this item is not usually stocked but is Made To Order in 2-3 days.

Part No.	Lifters	Springs	Retainers	Seals	Remarks
845685	66294-16	68369-16	87055M-16	86072-16	Roller Lifter. For rpm up to 7500 plus.

Note: Non-adjustable pushrods can be used if you have proper lifter preload (.050" off snap-ring). Custom length pushrods are available from Crower to achieve proper lifter preload. Customer must furnish accurate pushrod length.

CAUTION! When using high lift cams pay close attention to retainer, oil seal and valve guide clearance at full lift (minimum .050").

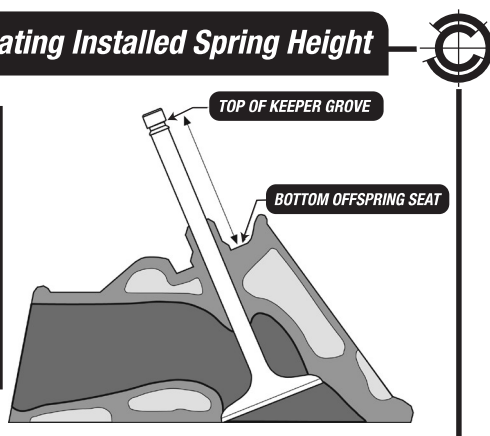
Note: The above kit will not work if using Pontiac heads with 1.65:1 rocker ratio (springs are too short). Contact Crower for special spring and retainer combination. See diagram 2.

Note: For proper valve adjustment on solid lifter profiles, Crower "Sure-Lock" rocker nuts (86053) must be used.

Valve timing events are available online at: www.crower.com

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.

ACCESSORIES

Description	See Page (s)
Rollers	Pg's 125-133
Rockers	Pg's. 134-146
Rods	Pg's. 185-206
Cranks	Pg's. 170-183

