



#### Andrews Valve Parts for Twin Cam 99-04. Evolution and Shovelhead Motors

When installing performance cams, total spring assembly height should be checked before operation. The valve spring collars and springs offered here provide correct total spring assembly height without complicated machining on the heads themselves.

#### High Lift Spring Set

Fits Twin Cam 88 and Evolution Big Twin and Sportster motors. When used with the steel upper collars listed above, cam lifts of over .510" can be achieved. Installation does not require machining.

24198 Set of 4

#### High Lift Spring Set for Shovelheads

For 74" and 80" motors. Provide the correct spring pressure for Andrews Shovelhead cams. Installation doesn't require complicated machining.

24294 Set of 4

## High Lift Upper Collars for Shovelheads

When used with high-lift springs, these collars for 74" and 80" motors can accommodate cams of up to .600" lift. Made from T6 aluminum.

24297 Set of 4

#### Medium Lift Upper Spring Collars for Shovelheads

For 74" and 80" motors and designed to add .060" spring travel to stock springs without other modifications. Simplify the installation of Andrews 'B' or '#2' cams in stock Shovelhead motors. Heat-treated steel.

24295 Set of 4

#### Low Profile Lower Spring Collars for Shovelheads

Low-profile lower spring collars for 74" and 80" motors. Similar to 80-84 OEM collars, but low profile for easier installation of high lift cams. Required if using 80-84 style valve guides which use seals like CC #24347. Made from heat-treated steel.

24296 Set of 4





## Eibach 'EVS' High Performance Valve Springs

Kits fit Evolution and Twin Cam 88 engines from 84-04. No machining is required. Each kit includes steel top collars, but you must re-use your stock keepers and lower collars.

- Progressive spring design
- Lower friction loads
- · High RPM capabilities
- Better performance

686826

High Performance Kit (seat pressure is 149 lbs. at 1.790" and 385 lbs. at 1.230"; springs bind at 0.98" and maximum lift is 0.56")





#### S&S Valve Spring Kit

Triple valve spring kit is designed for use with stock shoulderless guides and valves with 5/16"-diameter stems. It will accommodate cams with lifts up to .640", and includes steel top collars that have been drilled for lightness and to increase cooling. Spring seat pressure is 170 lbs. at the stock 1.800" installed height.

45846

Fits Evolution Big Twin and Sportster engines from 84-03 and Twin Cam 88 engines from 99-04



# Manley Valve Spring Lift Kits

Increase the amount of valve travel without binding for use with high-performance camshafts with higher-than-stock lift. Kits are packaged with reverse wound springs to reduce harmonics and control spring surge. Most kits are available with titanium collars for ultimate performance, or with steel collars as a lower cost alternative. Kits requiring special machining operations include complete instructions. Valve keepers are not included.

## Lift Kits for 57-85 Sportster Models

Stock-diameter springs with 20% more pressure. Includes steel top collars and uses stock lower collars. Springs 85 lbs. at 1.310", 295 lbs. at .820", bind at .790".

99294 Set of eight valve keepers

#### .465" Lift Kits for Shovelheads

Use with stock or Manley thin-stem valves. Kits include springs, upper collars and use stock lower collars. Oversize springs require no machining. Springs 170 lbs. at 1.450", 315 lbs. at .985", bind at .880".

99216 Kit with steel collars for stock stem

diameter valves

99295 Set of 8 keepers for CC #99216 99294 Set of 8 keepers for CC #99219

#### .650" Lift Kits for Shovelheads

Titanium top collars with steel lower collars and special interference fit tri-springs. 180 lbs. at 1.600", 365 lbs. at 1.100", 415 lbs. at .950", bind at .850".

99225 Kit for stock stem diameter valves 99295 Set of 8 keepers for CC #99225 kit

99294 Set of 8 keepers for CC #99226 kit

41516 5/16" pilot for CC #99226

#### Lift Kits for Evolution and Twin Cam 88 **Engines**

Fit Big Twin engines from 84-04. No machining required, steel or titanium top collars used with stock lower collars. Springs 180 lbs. at 1.800", 360 lbs. at 1.250", 400 lbs. at 1.150", bind at 1.020".

99227 Kit with steel collars (.550" lift) 699240 Kit with steel collars (.600" lift)

699241 Kit with titanium collars (.600" lift) 99228 Kit with titanium collars (.650" lift)

99296 Set of eight keepers. Replaces OEM

18229-83





ENGINE

SEATS & TOURING

F00T CONTROLS

HAND CONTROLS



LIGHTING





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INTAKE



**ENGINE** 

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DRIVELINE





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SHEETMETAL



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