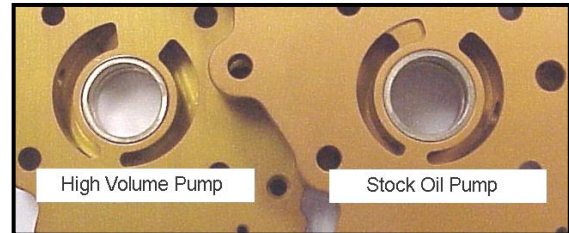




Axtell Bypass Valve # 425-103

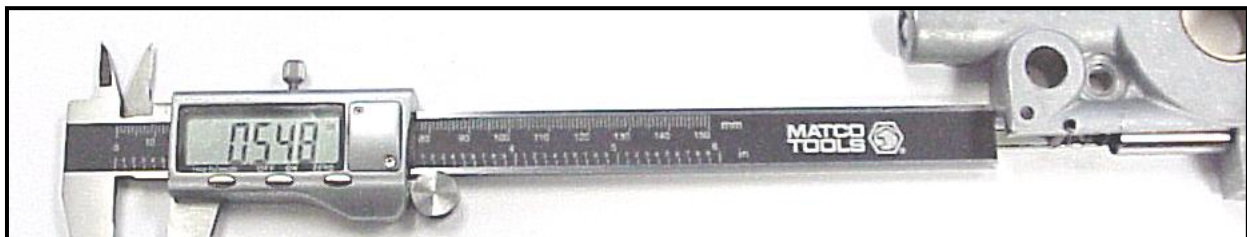
Patent Pending 61/693612

This kit includes all of the parts required for installation of the Axtell Bypass Valve into the factory die-cast cam support plate, and both versions of the Screamin' Eagle® billet cam plates. SE has produced two different billet cam support plates, one for use with the factory oil pump and one for use with H-D®'s "high volume" oil pump. For the high volume pump, the capacity of the kidney-shaped passages was increased and the relief valve roll pin location was changed to increase the preload on the bypass valve. This change affects the "stack height" of the Axtell Bypass Valve assembly during installation. For this reason, two different height spring retainer end caps are included with this kit and the installer must determine the correct cap to use. Selecting the correct cap involves a simple measuring process that can be performed before the roll pin is removed from the cam plate in step 3.



Step 1 Disassemble the engine motorcycle to the point that the cam cover can be removed. This kit can be installed without removing the cam support plate from the engine if desired.

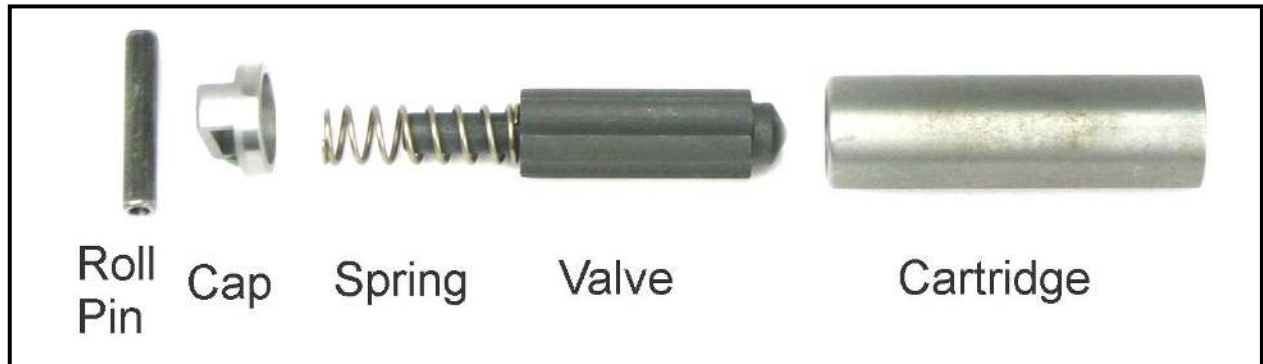
Step 2 Once the cam cover is removed and a visual inspection performed, measure the distance between the roll pin and the end of the bypass valve port in the cam support plate as



shown (cam plate has been cut away for clarity). This measurement will help determine the correct cap to use. For stock, die-cast cam plates, this measurement will be .548" (+/- .003"). The correct cap for use with stock die-cast plates measures .320"

Cam Plate	Port End to Roll Pin	Correct Cap
Factory-stock die-cast	.548" (+/- .003")	.320"
SE billet plate for stock pump HD® # 25282-07	.560" (+/- .003")	.320"
SE billet kit w/high volume pump HD® # 25282-11	.630" (+/- .003")	.250"
SE billet 99-06 hyd. conv. w/HV pump HD® # 25284-11	.630 (+/- .003")	.250"

Step 3 Remove the factory bypass valve and spring. Using a 1/8" pin punch, gently drive out the roll pin from the cam support plate. Clean the bore with brake clean and inspect for abnormalities.



Step 4 Trial fit the cartridge and cap only and verify that the end of the cap aligns evenly with the roll pin openings in the plate. The cap should not block the roll pin passage nor should it leave a sizable gap (.070") between the cap and roll pin. The correct stack of components should allow just enough room for the roll pin to be installed.

Step 5 Remove the cap and cartridge, wash all 4 bypass components and lightly oil them. Install the bypass valve components as shown above; compress the spring and install the new roll pin supplied. Re-assemble motorcycle and enjoy!

