

Shifter support

The support housing holds the carrier and plate, as well as the return springs.

**34513-52
1952-1971**

**34514-52B
1972-1976**

**34514-75
1977-1978**

**34514-75A
1979-1984**

This support holds the shifter pawl carrier and the rotating shifter cam plate that moves the shift forks through the gears. Its revision history closely tracks the shifter plate.



The Iron Sportster trap door assembly holds the mainshaft, countershaft, and shifter mechanism.



The Iron Sportster shifter comes as the 34009-52 assembly.

34012-52

1952-1971



Here is the entire assembly but with the -52 part number embossed on the holder.



The 34512-52 casting part number on the front-facing side of the holder. The silvery appearance and surface finish of later holders leads me to believe these are zinc, aka pot metal. This part looks sand cast.

34012-52C

1972-1976



The later parts were die cast. The surface finish and fine detail indicates this is made from zinc, not aluminum. This holder has the "lifters" as well as the two dowels that hold them in, and the two locating dowels on the bottom.



The left-facing mounting surface holds the two locating dowels and has the threaded hole to mount the assembly to the trap door.

34012-52C (cont)



The rear-facing side of the shifter support. In addition to having the "lifters" the lifter dowels, and the locating dowels, this part has the "plugs" at the top of the big grooves, which locate the large return springs that center your shifter lever.



The view as the part faces to the right of your bike shows the lifters and plugs more clearly. There are two thin long dowel pins that you peen over to mount the lifters.

34012-52C (cont)



This top view, as it would sit in your bike, shows the two dowel pins for the lifters. You can see the upper lifter and one of the mounting dowel pins as well.



Flipping the part shows where the factory put the casting part number on this die casting. The 34512-52A, while not dispositive, as the lawyers would say, does tend to correlate with the upgrade from the -52 sand-cast part. The letter suffix usually means that this part will retrofit to the older part.

34012-75

1977-1977



This part revision is for the left-hand shift case redesign in 1977. There is a pocket where the shifter cam plate mounts, since the shifter shaft has to pass right by it.

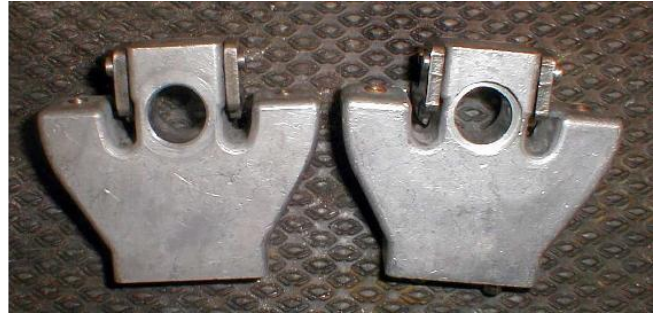


The -75 part number showed the factory wanted to release this in 1975, but they must have had development problems.

34012-75B

1979-1984

Unknown what changed in 1979.

Comparison views

Here is a comparison of the right-side and left-side shifter designs. The 34012-52C on the left and the 34012-75 on the right.

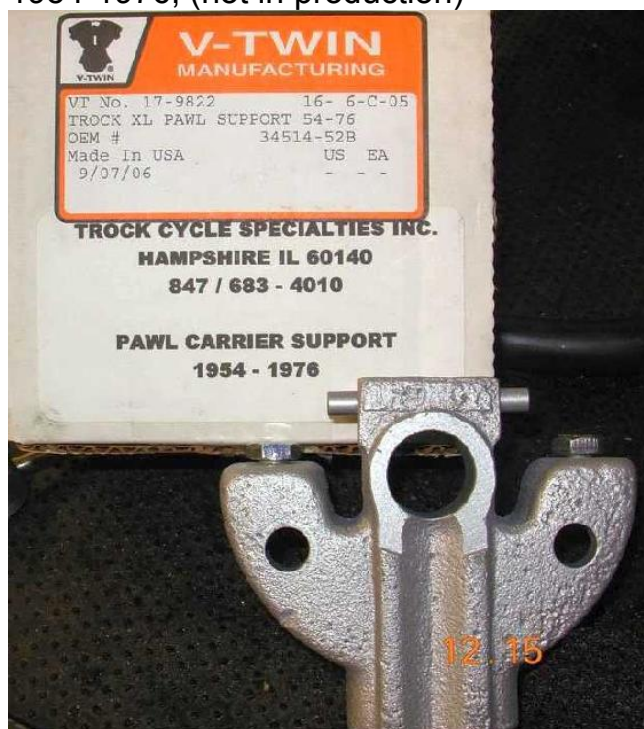


The 34012-52C on the left and the 34012-75 on the right. The pocket in the shaft hole in the -75 part means the shifter cam plate is shorter, as is likely the pawl carrier.

Aftermarket replacements

Trock

1954-1976, (not in production)



Drag racer Ron Trock made a cast iron shifter support. It should fit all years 1976 and prior.



Another view of the Trock support as installed on a billet Strociek trap door (courtesy Dr Dick).