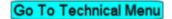
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# **REF: Engine Mechanicals - Sub-03T**

# Installing a 1986 Primary Cover on a L1984-1985 Sportster

This primary cover swap was done by XLForum member, 85IRONDIRT, on a 1985 XLH 1000. 1)

In 1977, Sportsters got new cases to accommodate the left side shifter.

And through all the engine changes including case changes and the swap to the Evo cases in 86, the primary cover mounting holes on the cases stayed the same.

The OEM primary cover gasket (34955-75) will fit 1977-1990 Sportsters as per the parts catalogs.

This mod should work for Late 1984-1985 Ironheads. The 86-90 primary cover is more shallow than the L84-85 cover.

But it will bolt up to a L84-85 case and clear everything internally running the L84-85 clutch which uses the spring washer for the pressure plate.

## Considerations:

- You will have to use all the hardware from an 86-90 model due to the cover not being as deep.
- The lowest front stud will be too long with the 86 cover.
- The 85 stud for the footpeg sticks out of the 86 cover by about 3 inches and will need to be changed.
- The shifter shaft will also be about 3 inches too long so you'll need the shorter 86-90 shifter shaft. The heel of the new aftermarket shaft had to be ground off some as it was contacting the front of the case causing hard shifting.
- The Ironhead primary chain adjustor looks as if it would have worked but a Hayden Enterprises unit was used instead.
- The shorter 86-90 perimeter bolts will have to be used.

## Parts Acquired:

- Primary Cover (25430-86) loaded.
- Primary Cover Screws (3481) 1/4" x 20 x 1-1/2" Socket Head Screw (10)
- Primary Cover Gasket (34955-75)
- Shifter Shaft (34628-86)
- Left Footrest Stud (24752-86) 1/2" x 4-1/8"
- Clutch Cable, length? OEM are (38619-86 or -86A for 883) and (38621-86 or -86A for 1100)

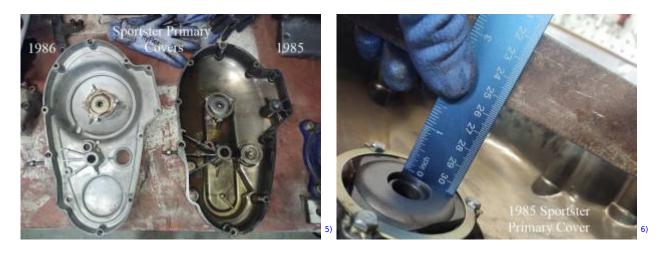
Click on any pic below to enlarge:

Here are some measurements on the 86 primary cover mounting holes (in metric) for comparison with a

## L84-85 cover.



## Comparison between the 85 and 86 primary covers.





Here is an aftermarket 86-90 shifter shaft by Eastern as compared to the 85 shifter shaft. Eastern part# 1110-0050 (replaces 86-90 shifter shaft 34628-86).







Here is the 86 cover installed with a few bolts for example before installing the new shifter and peg shafts. Note how far out the 85 shafts are from the cover.

The third pic below with the 86 shifter shaft installed.







Done! A 1986 primary cover on a 1985 Sportster.



13)

14)



Comments from 85IRONDIRT regarding this cover swap:

If you are not doing a lot of customization, the swap is not worth it. It is a much thinner profile but that is about the only difference.

I wanted a non-chrome cover and that is the only reason I went this route considering the cost of used polished aluminum 1985 covers.

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#### Link to thread from the XLF

https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-cover?t=2078880

2) 3) 4)

## photo by Iron Mike of the XLFORUM

https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-primary-cover-to-86-90-pecific/ironhead-sportster-motorcycle-talk-1957-1985/201772-late-84-85-pecific/ironhead-sportster-motorcycle-talk-1957-1985/2017-1985/

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