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# IH: Oiling & Lubrication

## Trans/Primary Oiling

[Click here](#) for primary oil change intervals and capacities in the REF section of the Sportsterpedia.

## Primary Oil Level Plug / bolt

57-70 (3728), 1/4"x20x1/2" hex bolt.

71-85 (2420), 1/4"x20x3/4" posidrive bolt.

Any 1/4"x20 bolt will do as a replacement.

If the threads are jacked up when this bolt is removed, you can drill / tap to next size up. <sup>1)</sup>



1982 Primary Oil Site Plug <sup>2)</sup>

## Primary Oiling

# Transmission / Primary Vent

[Click here](#) to diagnose leaks from the vent hose.

1957-1976 models vent the primary thru the motor internally via the oil transfer valve.

[Click here](#) to read more on the transfer valve in the Sportsterpedia.

1977-1985 models vent out the back of the motor from the top of the transmission near the rear motor mount just behind the solenoid (1/4" hose fitting).

The primary / transmission vents to atmosphere from the top of the transmission near the rear motor mount just in front of the solenoid (1/4" hose fitting).

## Routing the Vent Hose

### 1977-1980

- 1977-1980 models use a fitting (34744-77) with a SAE 3/8" x 16 (x app. 7/16") bolt pattern that has a 1/4" hose nipple on the other end.
- Generally speaking, the rubber hose should run up under the seat and curl pointing down to keep any water from running down it.

If it has rotted or come loose from the fitting it can make a mess of that area.<sup>3)</sup>

You can use a cable tie to lightly strap the hose to the frame / other or just let it hang.

The taller you make the loop, the more that oil mist will stay in the tranny compartment.

There should be no sags in the hose between the attachment to the engine and the open end of the hose.

This will allow air to escape and oil to separate from the air and drop back down into the tranny compartment.

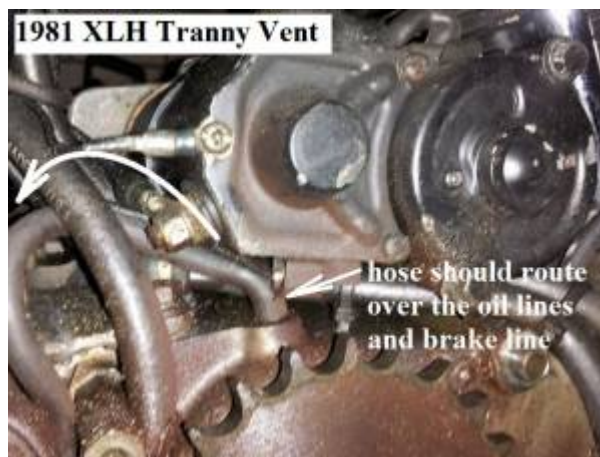


## 1981-1985

- 1981-1985 models use a pressed in metal tube (26272-81) instead with a 1/4" hose nipple on the end.  
This coincides with a change in starters in 1981.
  - The 1981 vent nipple is on the top right of the case just under the end of the starter solenoid.
  - In 1982, they moved the vent farther in toward the center, still under the solenoid.
- **Note:** The transmission vent hose routing on Late 1981 XLH/XLS models was changed per Service Bulletin M-813 to reduce excessive oil leakage from the transmission.  
Early 1981 models can be changed to the new routing.  
The vent hose should be routed under the starter, over all the oil lines and the rear brake line, then down between the pivot bolt and swing arm.<sup>6)</sup>



7)



8)



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1)

doodah man of the XLFORUM

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/174554-77-ironhead-primary-case-oil-level-plug-size-and-or-part-number#post3737288>

2)

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<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-general-discussion-and-problems/187379-uh-oh-can-t-drain-tranny-oil?t=2001239&highlight=primary+drain+plug>

3)

IronMick of the XLFORUM

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/197565-oil-leakage-from-the-drive-sprocket-area?highlight=transmission+vent#post4342518>

4)

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<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/189608-oil-leak-near-solenoid-weird-bolt-underneath-it?highlight=transmission+vent#post4080371>

5)

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<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/50355-and-yet-another-77-ground-up-rebuild/page11?t=209347&page=11>

6)

HD Service Bulletin #M-813 dated January, 30 1981

7)

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<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/107760-new-project-1973-ih-with-1981-engine-lots-of-pics?t=982933>

8)

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<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/157643-81-on-starter-solenoid-rebuild-guide-w-picts?t=1687400>

9)

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<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/143721-1982-xlh-rebuild-issues?threadid=1557219>

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