

Table of Contents

IH: Oiling & Lubrication - Sub-01A	3
Feed Oil Passages Through Pics	3
1957-1976 Case Oil Scavenge Paths	3
<i>Cam Cover Oiling</i>	3
<i>Cam Cover \ Gasket</i>	4
<i>Rocker Box</i>	4
Right Crankcase Feed Galley	4
Top End Oiling	5
<i>Rocker Arm / Valve Oiling</i>	5
<i>Rocker Box Oiling</i>	5

[Go To Technical Menu](#)

IH: Oiling & Lubrication - Sub-01A

Feed Oil Passages Through Pics

1957-1976 Case Oil Scavenge Paths

Cam Cover Oiling

The oil going up to the top end not only passes by the bushing in the cam chest, but also is fed to and from the cam cover and through the cam cover gasket. ¹⁾

It is possible for the gasket to blow out and seal up the oil galley feed passages.

Also if silicon was used on the cover, it is possible for that to break loose and stop up the passages.

You can take the cover off and run a tap down all the threaded holes to clear out any obstructions.

Also check that the face of the cover and case are not marred by some big scratch or dent.

To get old silicone out of bolt holes, you can use an inflation needle for footballs/basketballs/soccerballs.

²⁾

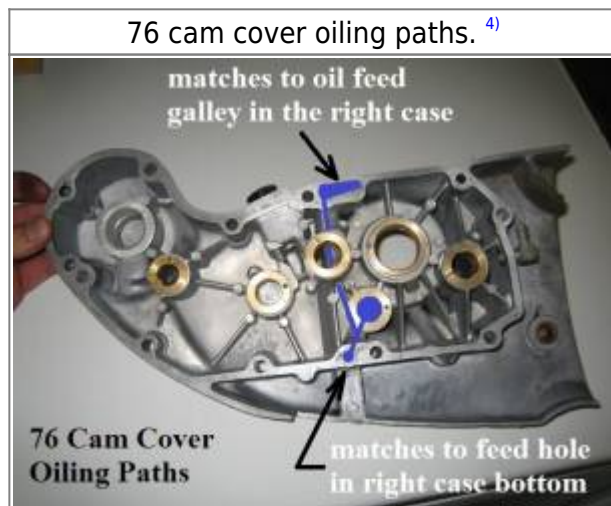
Cut the tip off of it then screw it into the end of an air blowgun.

It's narrow enough that it doesn't block debris from getting out of the hole.

Oil path of 85 style cam cover ³⁾



Cam Cover \ Gasket



Rocker Box

The feed to the rockers is not a large diameter passage and not a lot of oil goes to the rocker gear. ⁵⁾ But if you pull the lines off with the engine running you should be getting a good steady flow out of them.

Right Crankcase Feed Galley

The lifter oil feed galley is a hole located along the top of the case between both intake tappets.

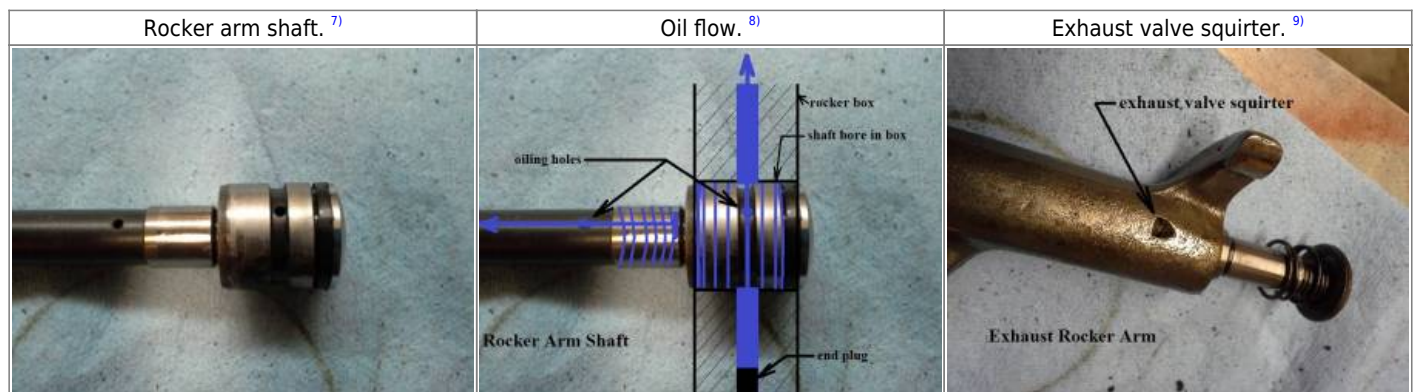
- The feed galley is responsible for carrying oil to the rocker boxes.
- It gets it's oil from the oil pump by routed holes in the cam cover.
 - A hole is internally routed from the top to the bottom of the cover with a hole exiting in a corresponding hole in the case.
 - The cam cover gets it's oil from the oil pump via intersecting holes between the bottom of the case and the cover.
 - Feed oil is routed inside the cover but not to the gearcase.
- The hole in the middle of the case at the top intersects into the internal oil feed galley to the rocker box oil lines.
- Pressurized oil travels up the oil lines to the rocker arms.
- **This is the end point of static oil pump pressure to the top end.** Gravity oil drains from the boxes thru the head / cylinder drains into the crankcase and down the pushrod tubes into the cam chest.

Oil feed on 76 XLCH ⁶⁾



Top End Oiling

Rocker Arm / Valve Oiling



Rocker Box Oiling

Oil travels in a passage between the two rocker arm shafts (big end).

The oil line comes from underneath into one shaft bore on the pushrod side in each rocker box.

There is a rifle drilled hole between the rocker arm shafts in each box that connects the two for oil passage.

Each hole is plugged off on the outside of the box.





Go To Technical Menu

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3)

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<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/115252-cam-fitment-question-on-ih-help-me-out-plz?t=1103082>

4)

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<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/64242-1976-rebuild?t=401480>

5)

Ferrous Head of the XLFORUM

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/92089-oil-pressure-issues?t=753175&highlight=split+rocker+box>

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