WINTER FUEL CONDITIONER

General

Harley-Davidson has received reports of winter driveability conditions with Harley-Davidson motorcycles which may include erratic engine operation and low idle.

See Illustration. These symptoms may be caused by carburetor icing, which can occur when certain environmental factors are present; specifically, low ambient temperatures combined with high humidity.

In response to this situation, Harley-Davidson has developed a winter fuel conditioner. The Harley-Davidson Winter Fuel Conditioner acts as a freezing point depressant to eliminate carburetor icing.

See "Product/Flashpoint", following. Despite the high flashpoint, the Harley-Davidson Winter Fuel Conditioner will ignite and burn in the combustion chambers.

The Part Number is 99889-91. This fuel additive comes in 118cc bottles and is available in a case of 12 bottles.

Mix Ratio - Winter Fuel Conditioner/fuel

Usual winter riding conditions
One bottle .................. 16 gallons (60.6 Liters)

Very poor riding conditions
0.25 ounces ................. one gallon (2cc per Liter)

WARNING

This is a flammable product and should be used accordingly; that is, take all precautions normally associated with flammable consumer products.

Because of the nature of the conditions it is designed to address, this product is much less flammable than some other commonly available consumer products. For example:

<table>
<thead>
<tr>
<th>Product</th>
<th>Flashpoint* °F (°C)</th>
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<tbody>
<tr>
<td>Gasoline, unleaded regular</td>
<td>-41° (-43°)</td>
</tr>
<tr>
<td>Rubbing alcohol (@ 98%)</td>
<td>45° (9°)</td>
</tr>
<tr>
<td>Methanol</td>
<td>51° (11°)</td>
</tr>
<tr>
<td>Duralt®</td>
<td>104° (40°)</td>
</tr>
<tr>
<td>Harley-Davidson Winter Fuel Conditioner®</td>
<td>188° (87°)</td>
</tr>
</tbody>
</table>

*FLASHPOINT - The lowest temperature at which the vapor of a combustible liquid can be made to ignite.

PRECAUTIONS

- Keep container(s) closed when not in use.
- Do not expose conditioner or container to a heat source.
- Do not allow welding, smoking or sparks in vicinity when using.

INFORMATION

There are several books which contain detailed information about carburetor icing. One of these is:

"Automotive Fuels Handbook, SAE International"
Library of Congress No. TP 343.089 1990
(Dewey System) No. 629.25'38-dc20

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<tr>
<th>ROUTING</th>
<th>SERVICE MANAGER</th>
<th>SALES MANAGER</th>
<th>PARTS MANAGER</th>
<th>LEAD TECHNICIAN</th>
<th>TECHNICIAN NO. 1</th>
<th>TECHNICIAN NO. 2</th>
<th>TECHNICIAN NO. 3</th>
<th>TECHNICIAN NO. 4</th>
<th>RETURN THIS TO</th>
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<tbody>
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Temperature/Humidity Relationship - Carburetor Icing

- No Icing
- Icing
- Severe Icing

Air Temperature °F (°C)

Relative Humidity %