Service-Information

Group 34 Brakes	March 1984	Bulletin No. 34 005 84 (2091)

RE: BRAKE FLUID - For U.S.A. and Canada Only -

Dear Dealer:

Experience has shown that although brake fluid is important to safety, it does not always receive the suggested attention or replacement.

In order to meet the high standards of brake fluid, (which is regulated by the Department of Transportation) Glycol is used as a basic element in the manufacturing of DOT 4 brake fluid.

Glycol is hygroscopic (i.e. it can absorb moisture).

When the water contents in brake fluid increases, the boiling point of the fluid is reduced.

According to DOT 4 safety specifications, the "wet boiling point" with a 3% water content must not drop below 297° F. If the water content is higher, the boiling point drops even further. Then, when the brakes are applied, the temperature of the brake fluid may exceed its boiling point and the braking effectiveness could be reduced or fail.

For safety reasons:

1. Brake fluid should be changed every 12 months or sooner according to the climate your customer lives in.

2. Keep in mind the time that a motorcycle is in storage, regardless if it is stored in our warehouse or your dealership. If in doubt, check the VIN label for date of manufacture.

3. We suggest purchasing brake fluid in small containers as the shelf life of brake fluid is also effected by moisture.

When the water content is 5% or higher, the properties of brake fluid begin to break down. This chemical reaction can cause corrosion and condensation, which can decay brake components.

Please route and initial before filing

Service Manager	Parts Manager	Service Writer	Technicians

High percentages of water occur when brake component seals (such as the reservoirs) have to withstand direct and repeated cleanings with high-pressure cleaning equipment. [See S.I. 00 029 83 (2087)].

Clean DOT 4 brake fluid is clear to amber in color. Deposits can discolor the fluid to a dark shade and give it a sticky residue on the bottom of the reservoir tank, which can clog the input hole. An even darker shade can occur due to the rubber seals and components wearing.

In addition, brake fluid may darken from components being treated with mineral oil, grease or solvents which get into the brake fluid.

If the above is allowed to occur, the operating safety of the hydraulic brake system is jeapardized.

When performing maintenance work or renewing brake fluid, please use the following instructions:

1. Always use clean tools without traces of oil or grease.

2. Clean rubber parts with new brake fluid, not solvents.

3. After cleaning, use dry pressurized air to blow parts off.

4. Never use left-over brake fluid from an unsealed container.

5. Flush out contaminated brake systems with new brake fluid.

By following these instructions, you will ensure your customer rides with a safe braking system.

Sincerely,

BMW OF NORTH AMERICA, INC.

Richard Dampf
National Technical Manager
Motorcycle Group

RD/cs