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| <b>(21) International Application Number:</b> PCT/US00/02304<br><b>(22) International Filing Date:</b> 28 January 2000 (28.01.00)<br><b>(30) Priority Data:</b><br>09/238,547 28 January 1999 (28.01.99) US<br><b>(71) Applicant (for all designated States except US):</b> LEICA MICROSYSTEMS INC. [US/US]; P.O. Box 123, Buffalo, NY 14240-0123 (US).<br><b>(72) Inventors; and</b><br><b>(75) Inventors/Applicants (for US only):</b> COTTON, Christopher, T. [US/US]; 2 Stony Ridge Drive, Honeoye Falls, NY 14472 (US). SABIN, Jeffrey, M. [US/US]; 424 Burt Circle, Lewiston, NY 14092 (US). RYAN, Thomas, E. [US/US]; 12 Woodland Drive, Batavia, NY 14020 (US).<br><b>(74) Agent:</b> VIKSNINS, Ann, S.; Schwegman, Lundberg, Woessner & Kluth, P.O. Box 2938, Minneapolis, MN 55402 (US). |           | <b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>Without international search report and to be republished upon receipt of that report.</i><br><br><div style="text-align: center;">This Sheet Has Been Replaced<br/></div> |

**(54) Title:** BRAKE CHECK HANDHELD REFRACTOMETER**(57) Abstract**

A refractometric apparatus and method for monitoring the percentage of water in hydraulic fluids employ a temperature sensitive device allowing a user to obtain accurate and correct readings of various measured properties. In particular, the temperature sensitive member comprises a prism-wedge-mirror combination in conjunction with a bimetallic strip. The combination ensures the proper angular displacement of a light beam inside the refractometric apparatus and, therefore, the correct reading of a parameter to be measured.