US008021890B2

(12) **United States Patent**
Petty

(10) **Patent No.: US 8,021,890 B2**
(45) **Date of Patent: Sep. 20, 2011**

(54) **COLORIMETRIC TEST FOR BRAKE SYSTEM CORROSION**

(76) Inventor: **Jon A. Petty**, Loa, UT (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **12/264,003**

(22) Filed: **Nov. 3, 2008**

(65) **Prior Publication Data**

US 2010/0107741 A1 May 6, 2010

(51) **Int. Cl.**
G01N 21/77 (2006.01)
G01N 33/20 (2006.01)
G01L 5/28 (2006.01)

(52) **U.S. Cl.** **436/169**; 436/73; 436/84; 436/164; 422/400; 422/420; 73/39; 73/61.42; 73/61.43; 73/121

(58) **Field of Classification Search** 436/164, 436/166, 169, 73, 84; 422/55, 56, 61, 400, 422/420, 430; 73/39, 53.01, 61.41, 61.42, 61.43, 121
See application file for complete search history.

(56) **References Cited**

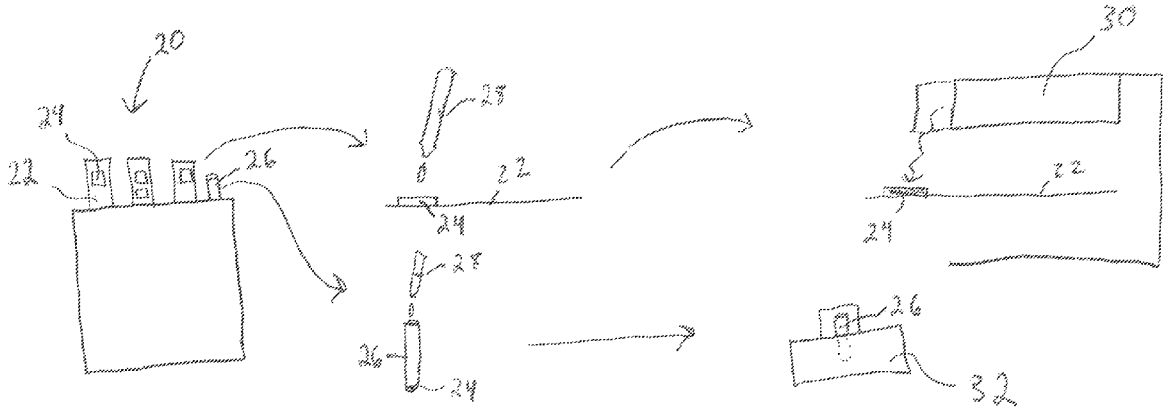
U.S. PATENT DOCUMENTS

3,438,735	A *	4/1969	Doyle	436/60
5,278,075	A *	1/1994	Stone	436/73
5,856,199	A *	1/1999	Kreiser et al.	436/169
6,043,096	A *	3/2000	Evtodienko et al.	436/39
6,651,487	B1 *	11/2003	Petty	73/61.46
6,691,562	B2 *	2/2004	Petty	73/61.46
6,821,786	B2 *	11/2004	Rupp	436/73
2008/0206874	A1 *	8/2008	Manka	436/2

* cited by examiner

Primary Examiner — Maureen M Wallenhorst
(74) *Attorney, Agent, or Firm* — Gavin J. Milczarek-Desai; Quarles & Brady LLP

(57) **ABSTRACT**

A method and kit for determining a concentration of iron in brake fluid when contacting a calorimetric reagent such that a color results. The level of iron can be used to determine the amount of active corrosion within a brake system and determine if special service procedures are required.

14 Claims, 2 Drawing Sheets