



US006932187B2

(12) **United States Patent**
Banter et al.

(10) **Patent No.:** **US 6,932,187 B2**
(45) **Date of Patent:** **Aug. 23, 2005**

(54) **PROTECTIVE ACOUSTIC COVER ASSEMBLY**

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(*) 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.: **10/686,036**

(22) Filed: **Oct. 14, 2003**

(65) **Prior Publication Data**

US 2005/0077102 A1 Apr. 14, 2005

(51) Int. Cl.⁷ **H05K 5/03**; H04M 1/20;
H04M 9/08

(52) U.S. Cl. **181/149**; 381/189; 379/451;
379/437

(58) Field of Search 181/149; 381/325,
381/189; 379/439, 452, 451, 437

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(57) **ABSTRACT**

A protective acoustic cover assembly including a metal foil with perforations, and a treatment on one or more surfaces of said metal foil. The treatment is a hydrophobic or oleophobic treatment, or both. The protective acoustic cover assembly has an average specific acoustic resistance of less than about 11 Rayls MKS from 250-300 Hz, an average specific acoustic reactance magnitude of less than about 1 Rayls MKS from 250-300 Hz, and an instantaneous water entry pressure value of greater than about 11 cm. The perforations of the metal foil preferably have an average maximum pore size of less than about 150 micrometers. The protective acoustic cover assembly further includes an adhesive mounting system, and the preferred metal foil is nickel.

23 Claims, 5 Drawing Sheets

