

Title (en)

FENDER FOR PROTECTING BOAT HULLS AGAINST WEAR

Title (de)

SCHUTZVORRICHTUNG ZUR VERMEIDUNG VON VERSCHLEISS DURCH SCHIFFSRÜMPFE ODER AN DENSELBEN

Title (fr)

DISPOSITIF DE DEFENSE DESTINE A EVITER L'USURE DES COQUES DE BATEAUX

Publication

**EP 1024999 A1 20000809 (FR)**

Application

**EP 97912290 A 19971031**

Priority

FR 9701951 W 19971031

Abstract (en)

[origin: WO9922987A1] The invention concerns a fender for absorbing shocks and preventing wear of a first object in relative movement with respect to a second object (29), comprising a main protective element with axial symmetry and circular cross-section (10) rotating freely about a geometrical axis (16) fixed relative to a support (18, 20, 22) integral with one or the other of the first and second objects and having a hardness index less than that of said first object, and two secondary protective cone-shaped elements with axial symmetry and circular cross-section (12, 14) arranged at each end of the main protective element (10), independent thereof, and also freely rotating about the same geometrical axis (16).

IPC 1-7

**B63B 59/02**

IPC 8 full level

**B63B 59/02** (2006.01); **E02B 3/26** (2006.01)

CPC (source: EP US)

**B63B 59/02** (2013.01 - EP US); **E02B 3/26** (2013.01 - EP US); **Y02A 30/30** (2017.12 - EP US)

Citation (search report)

See references of WO 9922987A1

Designated contracting state (EPC)

DE ES FR GB IT NL SE

DOCDB simple family (publication)

**WO 9922987 A1 19990514**; AU 4953597 A 19990524; EP 1024999 A1 20000809; US 6196150 B1 20010306

DOCDB simple family (application)

**FR 9701951 W 19971031**; AU 4953597 A 19971031; EP 97912290 A 19971031; US 53036000 A 20000428