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(54) **TORPEDO JOINT BAND WITH IN-WATER SEPARATION CAPABILITY UTILIZING FRANGIBLE LINK EEDS**

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(57) **ABSTRACT**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 32 days.

A joint band assembly secures payload and drive sections of a torpedo together and subsequently separates them while the torpedo is making a run. A pair of essentially semicircular bands is arranged in a ring shape have radially inwardly extending lip portions that compressively engage circumferential rims radially outwardly extending from a separation section having first and second parts connected to the payload and drive sections. Adjacent ends of the semicircular bands are coupled together by electro-explosive devices (EEDs) that each has a tubular body portion containing an explosive charge adjacent an annular segment of the tubular body portion. The annular segment has reduced thickness as compared to thickness of the tubular body portion to assure its rupture and separation of the body portion and the interconnected bands. The serial arrangement of bands and EEDs assures separation in the event that one of the electro-explosive devices should fail to detonate, and safety wire and a bonding agent hold separated parts together after detonation to prevent scattering of fragments and possible damage to the payload or drive sections.

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(51) **Int. Cl.**⁷ **F42B 19/00**

(52) **U.S. Cl.** **114/22; 102/378; 89/1.14**

(58) **Field of Search** **114/22; 102/378; 89/1.14**

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12 Claims, 4 Drawing Sheets

