

Title (en)  
Fragmentation warhead

Title (de)  
Splittergefechtskopf

Title (fr)  
Tête militaire du type à fragmentation

Publication  
**EP 0940648 A3 19991215 (DE)**

Application  
**EP 99104252 A 19990303**

Priority  
DE 19809181 A 19980304

Abstract (en)  
[origin: DE19809181C1] The fragmentation warhead has an annular gap (2) between the fragmentation mantle (1) and the charge. The mantle has preformed fragments (3) with free spaces (4) extending radially between them.

IPC 1-7  
**F42B 12/24**

IPC 8 full level  
**F42B 12/24** (2006.01)

CPC (source: EP)  
**F42B 12/24** (2013.01)

Citation (search report)

- [XY] US 3498224 A 19700303 - CORDLE PAUL E, et al
- [Y] US 3298308 A 19670117 - THRONER JR GUY C
- [XA] US 5313890 A 19940524 - CUADROS JAIME H [US]
- [YD] DE 3940462 A1 19910613 - RHEINMETALL GMBH [DE]
- [YA] US 3580175 A 19710525 - KENNEY JAMES E, et al
- [A] US 3637449 A 19720125 - RAECH HARRY JR
- [A] US 3757693 A 19730911 - SHEA F
- [AD] DE 3510431 A1 19861002 - HELWIG CHRISTOPH DR [DE], et al
- [A] US 5117759 A 19920602 - HENDERSON WILLIAM M [US], et al
- [A] DE 3721619 A1 19890112 - DEUTSCH FRANZ FORSCH INST [FR]
- [A] DE 4025097 A1 19920213 - PHILDIUS LOGISTIK INT [DE]
- [A] FR 2480427 A1 19811016 - MICHEL GERARD [FR]

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
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