

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
2 August 2001 (02.08.2001)

PCT

(10) International Publication Number  
WO 01/55663 A3

(51) International Patent Classification<sup>7</sup>: F42B 15/10

(21) International Application Number: PCT/US00/22965

(22) International Filing Date: 21 August 2000 (21.08.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
09/493,310 28 January 2000 (28.01.2000) US

(71) Applicant: LOCKHEED MARTIN CORPORATION  
[US/US]; 6801 Rockledge Drive, Bethesda, MD 20817 (US).

(72) Inventor: NYGREN, William, D.; 641 South Downing Street, Denver, CO 80209 (US).

(74) Agent: DACHS, Louis, L.; 1794 Palisades Drive, Pacific Palisades, CA 90272 (US).

(81) Designated States (*national*): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

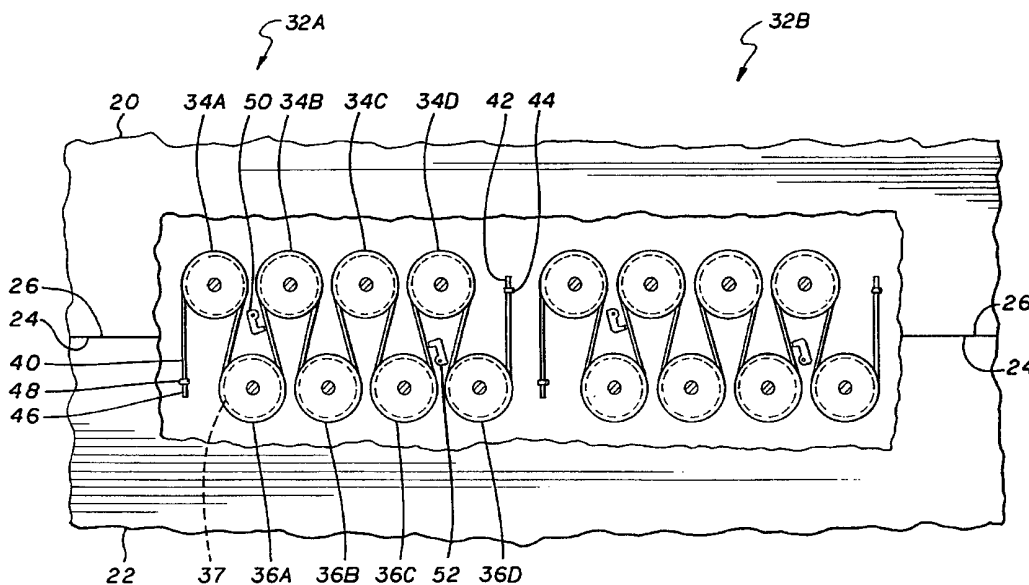
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:  
— with international search report

(88) Date of publication of the international search report:  
10 May 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SEPARATION SYSTEM FOR MISSILE PAYLOAD FAIRINGS



(57) Abstract: In detail, the system includes at least one first pulley (34A, B, C, D) mounted on the first structural member (20) and at least one second pulley (36A, B, C, D), mounted on the second structural member (22). A cable (40) is attached by one end (42) to the first structural member (20) and wound about the first and second pulleys and is attached by its second end (46) to the second structural member (22). Preferably there are two or more first and second pulleys with the cable alternately wound between said first and second pulleys with one end of cable attached to the first structural member and the opposite end attached to the second structural member. Thus the cable (40) holds the first and second structural members (20, 22) together. A system (52) to sever the cable (40) is included, which upon actuation will sever the cable allowing the two structural members (20, 22) to separate.



WO 01/55663 A3

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/22965**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : F42B 15/10

US CL : 102/377

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : US 102/377,378; IPC F42B 15/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,046,426 A (Julien et al.) 10 September 1991	1-10

 Further documents are listed in the continuation of Box C.
  See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

23 JANUARY 2001

Date of mailing of the international search report

07 MAY 2001

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

NICHOLAS WILLIAM DICOSTANZO

Telephone No. (703) 308-8508