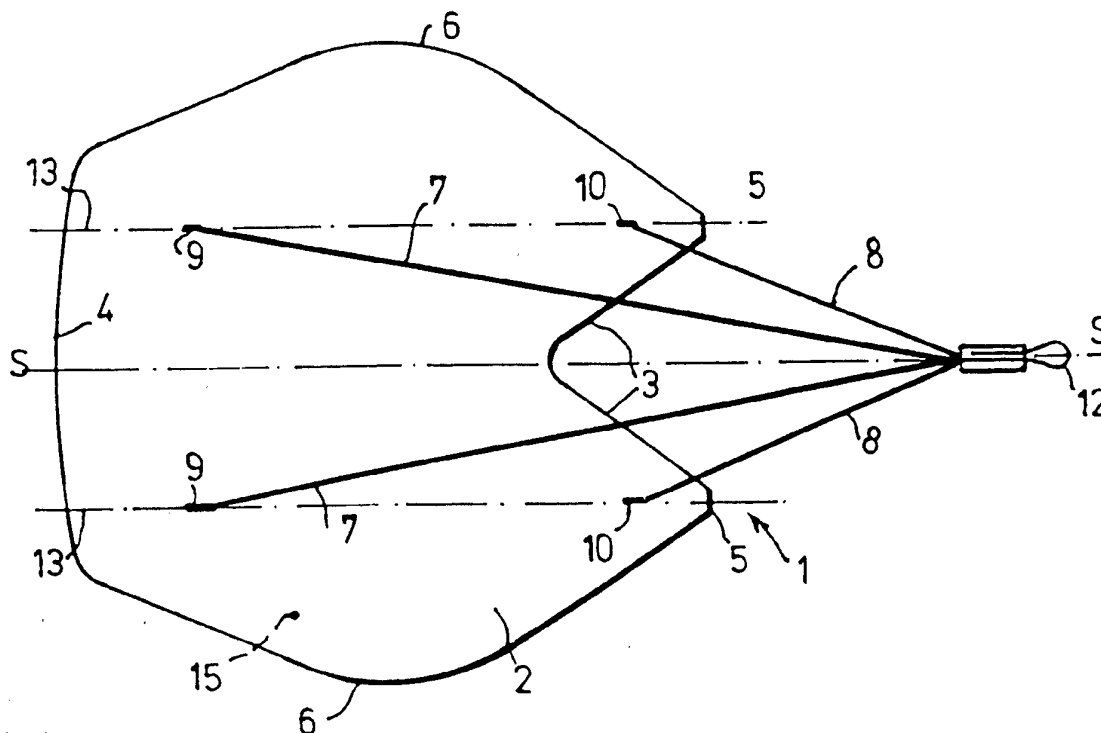




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : B63B 21/40, 21/22, 21/46 E02D 5/80	A3	(11) International Publication Number: WO 94/12386
		(43) International Publication Date: 9 June 1994 (09.06.94)
(21) International Application Number: PCT/NL93/00257	(81) Designated States: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 1 December 1993 (01.12.93)		
(30) Priority Data: 92.02083 1 December 1992 (01.12.92) NL		
(71) Applicant (for all designated States except US): VRIJHOF ANKERS BEHEER B.V. [NL/NL]; Meerkooetsstraat 83a, NL-2990 AC Krimpen s/s IJssel (NL).		
(72) Inventor; and (75) Inventor/Applicant (for US only): VAN DEN HAAK, Rob [NL/NL]; Meerkooetsstraat 83a, NL-2990 AC Krimpen s/s IJssel (NL).	Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <i>In English translation (filed in Dutch).</i>	
(74) Agent: FERGUSON, A.; Octrooibureau Vriesendorp & Gaade, P.O. Box 266, NL-2501 AW The Hague (NL).		

(54) Title: ANCHOR FLUKE



(57) Abstract

Anchor fluke comprising a bottom side and an upper side and a longitudinal plane of symmetry, the upper side being defined by two convexly bent faces, formed by faces ascending in a convex manner from the sharp front edge in a symmetrical fashion relative to the longitudinal plane of symmetry towards the rear and sideways up to an apex line, by surfaces connecting smoothly thereonto in that location and descending in a symmetrical and convex fashion rearwards and towards the sides.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT	Austria	GB	United Kingdom	MR	Mauritania
AU	Australia	GE	Georgia	MW	Malawi
BB	Barbados	GN	Guinea	NE	Niger
BE	Belgium	GR	Greece	NL	Netherlands
BF	Burkina Faso	HU	Hungary	NO	Norway
BG	Bulgaria	IE	Ireland	NZ	New Zealand
BJ	Benin	IT	Italy	PL	Poland
BR	Brazil	JP	Japan	PT	Portugal
BY	Belarus	KE	Kenya	RO	Romania
CA	Canada	KG	Kyrgyzstan	RU	Russian Federation
CF	Central African Republic	KP	Democratic People's Republic of Korea	SD	Sudan
CG	Congo	KR	Republic of Korea	SE	Sweden
CH	Switzerland	KZ	Kazakhstan	SI	Slovenia
CI	Côte d'Ivoire	LI	Liechtenstein	SK	Slovakia
CM	Cameroon	LK	Sri Lanka	SN	Senegal
CN	China	LU	Luxembourg	TD	Chad
CS	Czechoslovakia	LV	Latvia	TG	Togo
CZ	Czech Republic	MC	Monaco	TJ	Tajikistan
DE	Germany	MD	Republic of Moldova	TT	Trinidad and Tobago
DK	Denmark	MG	Madagascar	UA	Ukraine
ES	Spain	ML	Mali	US	United States of America
FI	Finland	MN	Mongolia	UZ	Uzbekistan
FR	France			VN	Viet Nam
GA	Gabon				

INTERNATIONAL SEARCH REPORT

Intern: al Application No
PCT/NL 93/00257

A. CLASSIFICATION OF SUBJECT MATTER
IPC 5 B63B21/40 B63B21/22 B63B21/46 E02D5/80

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)

IPC 5 B63B E02D

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 practical, 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.
X	NL,A,7 608 728 (NEW HOOK ANCHORS HOLDING) 7 February 1978 cited in the application see page 3, line 13 - line 17; figures ---	1-17, 19-21
X A	DE,A,23 52 144 (W.KLEMM) 24 April 1975 see figure 2 ---	1,2,13 19
X	NL,A,7 606 300 (P.BRUCE) 15 December 1976 see figures 1,9 ---	1
X	DE,A,29 29 495 (W.KLEMM) 5 February 1981 see figures 7,8 ---	1
A	US,A,4 781 142 (M.CHEUNG) 1 November 1988 cited in the application see figures ---	1,3, 19-21
	--- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "I" 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)
- "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

"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

"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

"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.

"&" document member of the same patent family

Date of the actual completion of the international search

3 August 1994

Date of mailing of the international search report

- 4. 08. 94

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+ 31-70) 340-3016

Authorized officer

Stierman, E

INTERNATIONAL SEARCH REPORT

Intern al Application No
PCT/NL 93/00257

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	WO,A,93 03958 (VRIJHOF ANKERS BEHEER) 4 March 1993 see page 23, line 1 - page 24, line 11; figures 12-18 ---	22
A	US,A,1 838 745 (C.CRONEY) 29 December 1931 see figures ---	22
A	EP,A,0 297 703 (KOBAYASHI) 4 January 1989 see abstract; figures 5,6 ---	22
A	EP,A,0 254 033 (A.GARCIA NORENA) 27 January 1988 see abstract; figures 16,17 -----	22

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NL93/00257

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. - Claims 1-21 - Anchor fluke
2. - Claims 22-30 - Anchor with coupling mechanism to an anchorline
3. - Claim 30 - A coupling mechanism

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
 1. - Claims 1-21
 2. - Claims 22-30
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/NL 93/00257

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
NL-A-7608728	07-02-78	GB-A- 1584196	11-02-81
DE-A-2352144	24-04-75	NONE	
NL-A-7606300	15-12-76	GB-A- 1513453	07-06-78
		AU-B- 503066	23-08-79
		AU-A- 1480376	15-12-77
		CA-A- 1057587	03-07-79
		DE-A, C 2625711	30-12-76
		FR-A, B 2314094	07-01-77
		JP-C- 1345499	29-10-86
		JP-A- 52005181	14-01-77
		JP-B- 61010355	28-03-86
		LU-A- 75145	25-01-77
		SE-B- 427448	11-04-83
		SE-A- 7606620	14-12-76
		US-A- 4134356	16-01-79
DE-A-2929495	05-02-81	NONE	
US-A-4781142	01-11-88	NONE	
WO-A-9303958	04-03-93	NL-A- 9101396	16-03-93
		NL-A- 9200270	01-09-93
		AU-A- 2589792	16-03-93
		GB-A- 2273690	29-06-94
		NL-T- 9220023	01-06-94
US-A-1838745		NONE	
EP-A-0297703	04-01-89	JP-C- 1706858	27-10-92
		JP-B- 3072519	18-11-91
		JP-A- 63315395	23-12-88
		AU-B- 604437	13-12-90
		US-A- 4836126	06-06-89
EP-A-0254033	27-01-88	AU-B- 597988	14-06-90
		AU-A- 7463187	07-01-88
		CA-A- 1301560	26-05-92
		JP-C- 1695062	17-09-92

INTERNATIONAL SEARCH REPORT

Information on patent family members

Internal Application No

PCT/NL 93/00257

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP-A-0254033		JP-B- 3058953	09-09-91
		JP-A- 63068483	28-03-88
		US-A- 4846093	11-07-89
