



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 2 228 477 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
11.03.2015 Bulletin 2015/11

(51) Int Cl.:
D05B 65/00 (2006.01)

(43) Date of publication A2:
15.09.2010 Bulletin 2010/37

(21) Application number: **10156348.4**

(22) Date of filing: **12.03.2010**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL
PT RO SE SI SK SM TR**

Designated Extension States:
AL BA ME RS

(30) Priority: 13.03.2009 JP 2009061059

(71) Applicant: **JUKI Corporation
Chofu-Shi,
Tokyo 182-8655 (JP)**

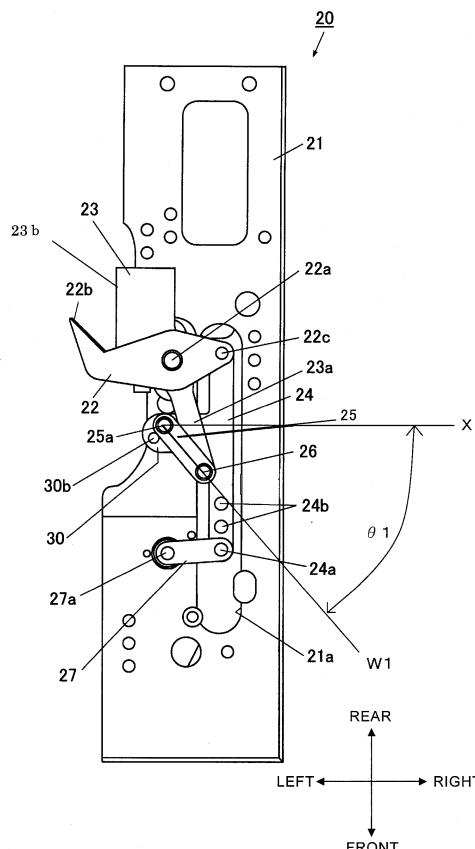
(72) Inventor: **Sakamoto, Shinichi
Tokyo 182-8655 (JP)**

(74) Representative: **Hoeger, Stellrecht & Partner
Patentanwälte
Uhlandstrasse 14c
70182 Stuttgart (DE)**

(54) Thread cutting device for sewing machine

(57) The invention relates to a thread cutting device (20) for a sewing machine (10). The thread cutting device (20) includes an upper knife (22), a lower knife (23), an open-close link (24) coupled to the upper knife (22) and the lower knife (23), a drive source (28) coupled to the open-close link (24) to move the open-close link (24) back and forth along a linear direction. A thread is cut by closing the upper knife (22) and the lower knife (23). The thread cutting device (20) further includes a conversion link (25) having one end rotatably coupled to the open-close link (24) and the other end rotatably coupled to the lower knife (23). The conversion link (25) converts the back-and-forth movement of the open-close link (24) into a circular movement and transmits the circular movement to the lower knife (23).

FIG. 3





EUROPEAN SEARCH REPORT

Application Number

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A,D	JP 2001 232086 A (JUKI KK) 28 August 2001 (2001-08-28) * abstract; figures 1-16 * -----	1-5	INV. D05B65/00
A	JP 2001 321589 A (JUKI KK) 20 November 2001 (2001-11-20) * abstract; figures 1-9 * -----	1-5	
A	US 3 149 594 A (BUCKREUS ALLAN J ET AL) 22 September 1964 (1964-09-22) * column 2, line 63 - column 8, line 64; figures 1-14 * -----	1-5	
A	JP H07 323173 A (BROTHER IND LTD) 12 December 1995 (1995-12-12) * abstract; figures 1-11 * -----	1-5	
			TECHNICAL FIELDS SEARCHED (IPC)
			D05B
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
Munich	29 January 2015	Herry-Martin, D	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

5
**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 15 6348

10
 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
 The members are as contained in the European Patent Office EDP file on
 The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

29-01-2015

	Patent document cited in search report	Publication date		Patent family member(s)	Publication date
15	JP 2001232086 A	28-08-2001	CN	1299897 A	20-06-2001
			CZ	20004722 A3	15-01-2003
			DE	10063003 A1	04-10-2001
			JP	4686025 B2	18-05-2011
			JP	2001232086 A	28-08-2001
20	JP 2001321589 A	20-11-2001	JP	4468550 B2	26-05-2010
			JP	2001321589 A	20-11-2001
25	US 3149594 A	22-09-1964	BE	606794 A1	01-02-1962
			DE	1303137 B	29-01-2015
			DK	127605 B	03-12-1973
			GB	995274 A	16-06-1965
			NL	132064 C	29-01-2015
			NL	267472 A	29-01-2015
			SE	127605 B	03-12-1973
			US	3149594 A	22-09-1964
			JP	3426709 B2	14-07-2003
30	JP H07323173 A	12-12-1995	JP	H07323173 A	12-12-1995
35					
40					
45					
50					
55	EPO FORM P0459		For more details about this annex : see Official Journal of the European Patent Office, No. 12/82		