

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

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

1. claims: 1-17

Machining head according to claim 1, characterized by the potential technical feature: an advancing device which is arranged or formed on or in the housing and which is designed to generate a pushing force that imparts a pushing movement along a push axis to a machining tool coupled to the housing. Problem solved: increasing the degrees of freedom of the machining tool. Machining head according to claim 1, characterized by the potential special technical feature: an additional coupling zone on the housing to couple the housing to a bearing device that supports the housing, the additional coupling zone on the housing comprising at least one additional coupling interface for supporting the housing on the bearing device. Problem solved: easy replacement of the machining head.

1.1. claims: 7-9, 13-17

Machining head according to claim 1, characterized by the potential special technical feature: an additional coupling zone on the housing to couple the housing to a bearing device that supports the housing, the additional coupling zone on the housing comprising at least one additional coupling interface for supporting the housing on the bearing device. Problem solved: easy replacement of the machining head.

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 additional fees, this Authority did not invite payment of additional fees.
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.:
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 and, where applicable, the payment of a protest fee.
 - The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
 - No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2018/073729

A. CLASSIFICATION OF SUBJECT MATTER		
<i>B23Q 1/48</i> (2006.01)i; <i>B23B 29/034</i> (2006.01)i; <i>B23Q 3/12</i> (2006.01)i; <i>B23B 29/02</i> (2006.01)i; <i>B23Q 3/155</i> (2006.01)n		
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) B23Q; B23B		
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) EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 2005188798 A1 (BISCHOF KENNETH R [US] ET AL) 01 September 2005 (2005-09-01) figures 1-11	1-6,10-12 7-9,13-17
X Y	US 4569115 A (UNNO KEIZO [JP] ET AL) 11 February 1986 (1986-02-11) column 7, lines 50-57; figure 2b	1-6,10-12 7-9, 13-17
X	JP S62181303 U (X) 17 November 1987 (1987-11-17) figures 1-2	1-4, 10-12
X	CH 679289 A5 (SUHNER INTERTRADE AG) 31 January 1992 (1992-01-31) figures 1-2	1-4, 10-12
Y	EP 1291130 A2 (WALDRICH WERKZEUGMASCH [DE]) 12 March 2003 (2003-03-12) paragraphs [0018], [0019]; figures 1-3	7-9, 13-16
Y	US 5823722 A (TAKENAKA KOJI [JP]) 20 October 1998 (1998-10-20) figures 1-4	7-9, 13-16
Y	EP 2756918 A1 (GMTK MULTI PROCESS MACHINING S A [ES]) 23 July 2014 (2014-07-23) abstract; figures 1-8	13-17
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family 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 application or patent but published on or after the international filing date "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) "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 21 November 2018		Date of mailing of the international search report 29 November 2018
Name and mailing address of the ISA/EP European Patent Office p.b. 5818, Patentlaan 2, 2280 HV Rijswijk Netherlands Telephone No. (+31-70)340-2040 Facsimile No. (+31-70)340-3016		Authorized officer Lasa Goñi, Andoni Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2018/073729

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2015266148 A1 (NISHIDA KIYOSHI [JP] ET AL) 24 September 2015 (2015-09-24) abstract; figures 1-5	13-16
.....		

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/EP2018/073729

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
US	2005188798	A1	01 September 2005	CN	101341002	A	07 January 2009
				EP	1737588	A2	03 January 2007
				JP	2007525333	A	06 September 2007
				KR	20060127208	A	11 December 2006
				US	2005188798	A1	01 September 2005
				WO	2005082067	A2	09 September 2005
US	4569115	A	11 February 1986	NONE			
JP	S62181303	U	17 November 1987	NONE			
CH	679289	A5	31 January 1992	NONE			
EP	1291130	A2	12 March 2003	DE	10144679	A1	27 March 2003
				EP	1291130	A2	12 March 2003
				JP	2003094205	A	03 April 2003
				US	2003069115	A1	10 April 2003
US	5823722	A	20 October 1998	JP	3310148	B2	29 July 2002
				JP	H09131637	A	20 May 1997
				US	5823722	A	20 October 1998
EP	2756918	A1	23 July 2014	BR	112014005598	A2	21 March 2017
				CN	103826795	A	28 May 2014
				EP	2756918	A1	23 July 2014
				US	2014228190	A1	14 August 2014
				WO	2013038032	A1	21 March 2013
US	2015266148	A1	24 September 2015	CN	104245227	A	24 December 2014
				EP	2982473	A1	10 February 2016
				JP	5523640	B1	18 June 2014
				JP	WO2014162556	A1	16 February 2017
				US	2015266148	A1	24 September 2015
				WO	2014162556	A1	09 October 2014