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(54) **SANDING MACHINE PROVIDED WITH A VARIABLE HARDNESS ROLLER**

(57) The present invention relates to a processing unit 100; 100' and a sanding machine M for sanding at least one panel P. The sanding machine M comprises an inlet station 1 for the inlet of a panel P to be machined and a station output 2 for the output of the processed panel P; a work table 3, for transporting the panel P to be processed, and at least one processing unit 100 of the panel P comprising an operator roller 60; 60' rotatable around a rotation axis AA, capable of smoothing the panel P in machining, and a support frame 70 configured to support the operator roller 60; 60', in particular above the work surface 3.

The support frame 70 comprises a first 71 upright element and a second 72 upright element capable of contain a translation of the operating roller 60; 60' along the axis of rotation AA, in which at least one of the upright elements can be opened and configured to assume both a closed position facing the operating roller 60; 60' to contain a translation of the roller operator 60; 60' along the rotation axis AA, is an opening position, spaced from the operating roller 60; 60', to allow translation of at least a portion of the operating roller 60; 60' along the rotation axis AA.

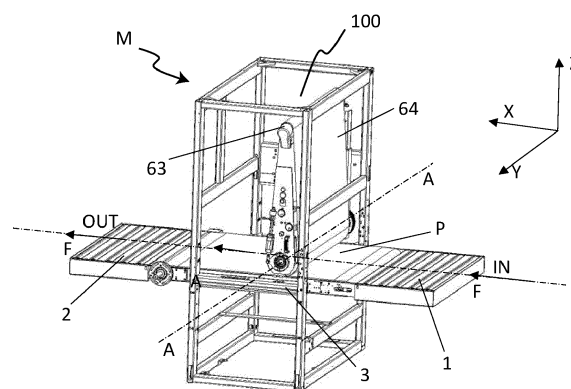


Fig. 1



EUROPEAN SEARCH REPORT

Application Number

EP 22 18 6631

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EPO FORM 1503 03.82 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	CN 107 309 747 A (ANHUI SHENGMEI METAL TECH CO LTD) 3 November 2017 (2017-11-03)	1, 4-6, 16	INV.
Y	* paragraphs [0036] - [0038]; figures 1-3,	2, 3	B24B21/12
A	8, 10 *	7-15	B24B7/00
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Y	EP 2 687 328 A1 (VIET ITALIA S R L CON UNICO SOCIO [IT])	2, 3	B24B7/12
	22 January 2014 (2014-01-22)		B24B7/28
	* c. 4, l. 48-54;		B24B41/02
	figure 1 *		

A	US 6 089 958 A (COSTA ALESSANDRO [IT] ET AL) 18 July 2000 (2000-07-18)	1-16	
	* paragraph [0014]; figures 2, 3 *		

			TECHNICAL FIELDS SEARCHED (IPC)
			B24B
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		13 October 2022	Bonetti, Serena
CATEGORY OF CITED DOCUMENTS 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 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			



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EP 22 18 6631

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-10, 16 (completely); 11-15 (partially)

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

EP 22 18 6631

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-10, 16(completely); 11-15(partially)

**Sanding machine for panels according to claim 2,
characterised by an operator roller with a metal core and an
interchangeable sleeve.**

Problem solved: improve the transmission of the torque.

2. claims: 11-15(partially)

**Sanding machine for panels according to claim 11,
characterised by an adjustment system.**

**Problem to be solved: adjust the position of the operating
roller.**

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

EP 22 18 6631

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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
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82