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(54) Improvements in or relating to crushing machines

(57) A jaw crusher comprises an oscillating jaw (2,3) having an operating setting D which is adjustable by means of a toggle device (7) connected to the oscillating jaw (2,3) by a freely supported toggle plate (5). The oscillating jaw (2,3) and the toggle device (7) are connect-

ed and held in tension by a tension rod assembly (9,10,11) and there are provided means for determining the tension applied to the tension rod assembly (9,10,11), comparing the measured tension with a pre-set value and adjusting the tension to the pre-set value.

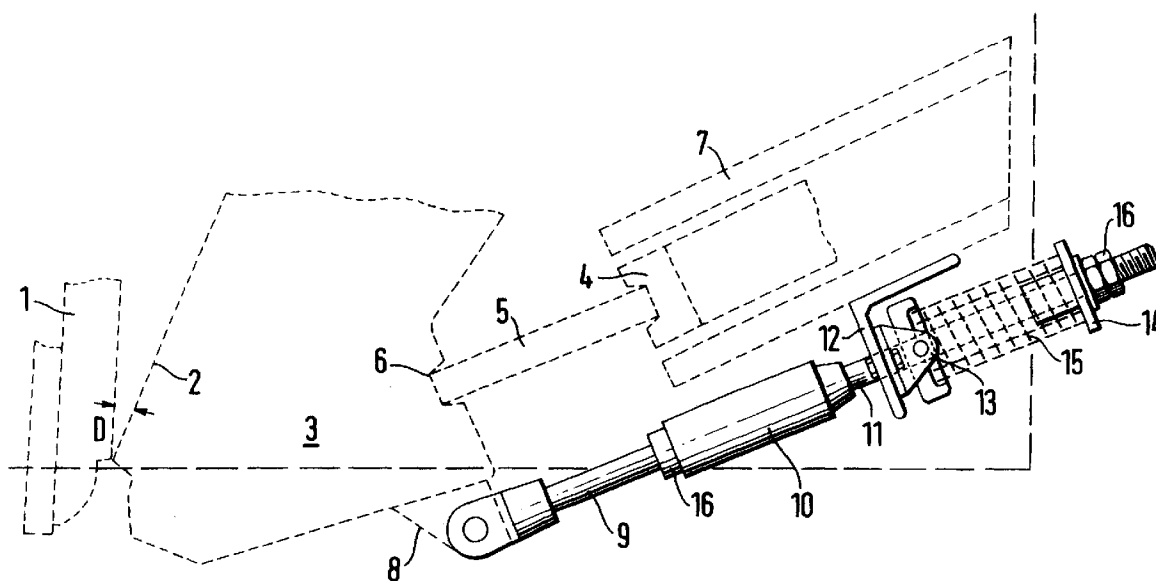


Fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 97 30 6543

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Y	US 4 765 546 A (G.W. STEWART) * column 4, line 61 - column 5, line 31; figures 1-4 *	1-6	B02C1/02
A	---	7,8	
Y	US 4 749 132 A (TATSUO HAGIWARA) * the whole document *	1-6	
A	FR 1 171 849 A (WESTFALIA DINNENDAHL GRÖPPEL A.G.) * the whole document *	1	
A	FR 2 460 716 A (FIVES-CAIL BABCOCK S.A. ET APPAREILS DRAGON S.A.) * the whole document *	1	
A	AU 461 995 B (VICKERS RUWOLT PROPRIETARY LTD.) * claims 8-10; figure 2 *	1,7,8	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B02C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 5 November 1997	Examiner VERDONCK, J
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p> <p>& : member of the same patent family, corresponding document</p>			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement 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.
- ☐ 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 has 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: 1-8



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**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 97 30 6543

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: 1-8

Jaw crusher comprising an oscillating jaw and a toggle device being connected and held in tension by a tension rod assembly wherein there are provided means for determining the tension applied to the tension rod assembly, comparing the measured tension with a preset value and adjusting the tension to the preset value.

2. Claim : 9

a locking device for a movable shaft or rod.

The two groups of claims solve different problems and are not linked by common or corresponding special technical features. They define two different inventions not linked by a single general inventive concept.