

12 **EUROPEAN PATENT APPLICATION**

21 Application number: **81303208.3**

51 Int. Cl.³: **B 21 B 37/08**
B 21 B 31/24

22 Date of filing: **13.07.81**

30 Priority: **16.07.80 GB 8023229**

43 Date of publication of application:
20.01.82 Bulletin 82/3

88 Date of deferred publication of search report: **21.04.82**

84 Designated Contracting States:
AT BE CH DE FR GB IT LI LU NL SE

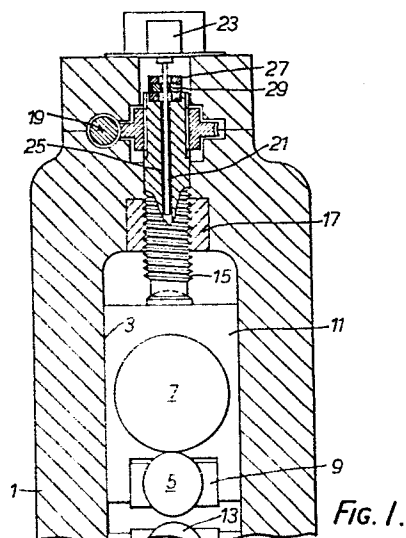
71 Applicant: **DAVY-LOEWY LIMITED**
Prince Of Wales Road
Sheffield S9 4EX Yorkshire(GB)

72 Inventor: **Foss, Alan**
32, Boswell Road Wath-on-Deerne
Near Rotherham Yorkshire(GB)

74 Representative: **Kirk, Geoffrey Thomas**
BATCHELLOR, KIRK & EYLES 2 Pear Tree Court
Farringdon Road
London EC1R 0DS(GB)

54 **Rolling mills.**

57 A rolling mill has a transducer for measuring the separation of a movable part of the mill from the fixed part of the mill. The transducer comprises a magnetostrictive element (21) secured to one end of the parts, a transmitter for transmitting magnetostrictive signals into the element, a receiver for receiving signals reflected back along the element and magnetic means (29) secured to the other part which produces a magnetic field which serves to reflect the signals along the element. Time measuring means measure the time interval between transmitting the energy and receiving the echo and this is representative of the distance between the two parts of the rolling mill.





European Patent
Office

EUROPEAN SEARCH REPORT

0044222

Application number

EP 81 30 3208.3

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	DE - A1 - 2 622 505 (SACK) * claims 1, 2; fig. 2 *	1,2	B 21 B 37/08 B 21 B 31/24
	US - A - 3 404 551 (SPISAK) * claim 1; fig. 1 *	1	
	US - A - 3 216 231 (GRANBORG) * claims 1 to 3; fig. 1 *	1	
	DE - B - 1 285 431 (MOELLER)		
A	US - A - 3 559 432 (RASTELLI)		B 21 B 31/00 B 21 B 37/00 B 21 C 51/00
			TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
			CATEGORY OF CITED DOCUMENTS
			X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
			& member of the same patent family. corresponding document
X The present search report has been drawn up for all claims Place of search Berlin Date of completion of the search 20-01-1982 Examiner SCHLAITZ			