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(54) Rock crusher including improved feeder control.

(57) A method and apparatus for controlling the operation of a rock crusher and feeder such that the rate of supply by the feeder to the crusher hopper is kept within carefully controlled parameters and such that the power level at which the crusher operates is maintained within a narrow range at the optimum operating range of the rock crusher. A microprocessor having a first PID control loop receives an input signal from a transducer sensing the power draw by the crusher motor and a second PID control loop receives a signal from an analog level sensor measuring the level of rock in the hopper. The first PID compares the sensed power draw with a selected maximum power draw and produces an output signal proportional to the difference between the sensed power draw and the selected power draw. The second PID compares the sensed level in the hopper to a selected or desired level in the hopper and produces a signal proportional to this measured difference. The signal from the first PID and the signal from the second PID are transmitted to an arbitration routine for comparing the signals. The first or second signal calling for the lower feeder speed will be transmitted to the feeder variable speed drive.

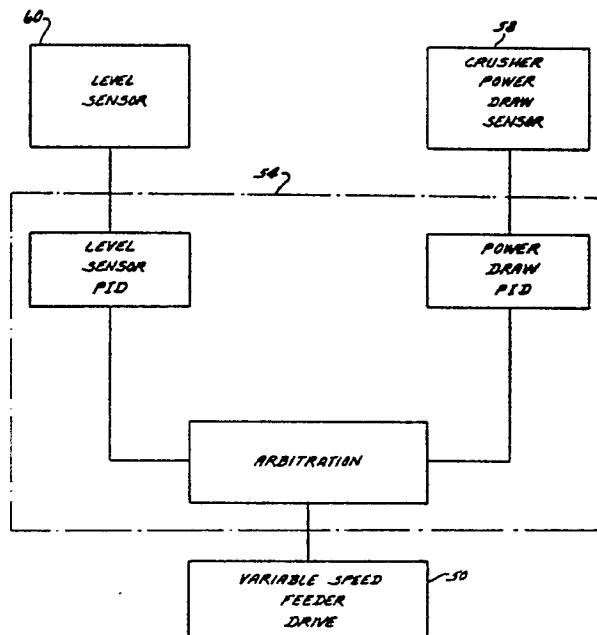


FIG. 2

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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.4)																
Y A	DE-A-2 356 857 (PREROVSKE STROJIRNY) * Whole document *  ---	1,5-7, 11,12 2-4,8- 10	B 02 C 25/00																
Y A	US-A-4 281 800 (M.D. FLAVEL) * Whole document *  ---	1,5-7, 11,12																	
	CONTROL ENGINEERING, vol. 10, no. 1, January 1963, pages 97-99, New York, US; W.R. PATTERSON et al.: "Magnetic logic maximizes crusher output" * Page 97 * -----																		
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)																
			B 02 C																
The present search report has been drawn up for all claims																			
Place of search THE HAGUE		Date of completion of the search 05-01-1988	Examiner SARRE																
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