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United States Patent [19]

Graham

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[54] VIBRATORY DRIVE UNIT

[76] Inventor: S. Neal Graham, 365 Beechwood Dr., Noblesville, Ind. 46060

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[58] Field of Search 198/753, 756, 757, 769, 198/760

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Primary Examiner—D. Glenn Dayoan

Attorney, Agent, or Firm—Woodard, Emhardt, Naughton, Moriarty & McNett

[57] ABSTRACT

A bidirectional vibratory drive unit is disclosed for use with vibratory driven feeder bowls and parts separators, including a base member having first and second pluralities of lower spring mount pads and a top member having corresponding first and second pluralities of upper spring mount pads. A plurality of springs alternatively attach between the first plurality of upper spring mount pads and the first plurality of lower spring mount pads or between the second plurality of upper spring mount pads and the second plurality of lower spring mount pads to change the bias of the top member relative to the base member. Electromagnetic coils are alternatively attachable to the base member and are operable in cooperation with the springs to vibrate the top member in alternative first or second driven directions relative to the base member.

9 Claims, 3 Drawing Sheets

