## **CONTENTS**

Vocal folds as a vibro-impact system	
P S Landa	1
Behaviour of granular materials in the field of vibration	
M Saeki and E Takano	11
To the general theory of hand-held percussion machines	
V I Babitsky	19
Free manifolds of dynamical billiards	
V V Beletsky, E I Kugushev, E L Starostin	29
Vibro-impact processes in systems with multiple impact pairs and	
distributed impact elements	
V L Krupenin	39
The impact based transportation process in a vibratory feeder	
P Wolfsteiner and F Pfeiffer	49
The effectiveness of the impact damper with granular material	
I Yokomichi, Y Araki, M Aisaka and H Kusano	59
Dynamics of gear-pair systems with backlash	
S Theodossiades and S Natsiavas	69
Nonlinear stability analysis of a single mass rotor contacting a	
rigid backup bearing	
H Ecker	79
Influence of contact and impacts on the dynamics of an elastic	
rotor with an elastic retainer bearing	
G Wegener, R Markert	89
Wavelets transform in analysis and control of a piezoelectric	
vibroconverter with impact	
VF Poterasu	99
Stability improvement of the vibro-impact discrete systems	
J Awrejcewicz and K Tomczak	109
Stability of periodic motions in systems with unilateral constraints	
A P Ivanov	119

Contents ix
Laser vibrometry for impact measurements
N A Halliwell, S A Kember and S J Rothberg279
On the attainable performance of shock control by visco-elastic bumper
A M Veprik and V I Babitsky289
Interaction analysis of mechanical system and hydraulic impact buffer
V Cech
Dynamics of the impact force generator
B Blazejczyk-Okolewska and K Czolczynski
Driver seat suspension design and identification for commercial vehicles
I Szepessy and I Wahl
Two-grooved automatic nail machine
S Vasilishin and V Roizman
Analytical and numerical methods for the analysis of the stitch forming
devices of blindstitch sewing
D Deltchev and Z Tcherneva-Popova
2 2
Author Index