


## DEVELOPMENT OF VIBRATION COMPENSATOR – 50% CHEAPER, 30% LIGHTER, 20% MORE POWER EFFICIENT



### BUSINESS NEED

- // 5/6 cylinder marine diesel engine require external vibration compensator to eliminate 2<sup>nd</sup> moment vibrations.
- // Customer's challenge was to design a simple and reliable system with minimum number of costly bought out components

### SOLUTION

- // 4.5 Ton vibration compensator designed, developed and prototype by L&T TS
- // Two contra rotating eccentric masses of 500 kg driven through an electric drive system
- // Used Lenze motor and drives instead to generate torque
- // Used belt drives for a silent operation along with eliminating the need for lubrication for the system
- // Starting algorithm to Eliminate air motor requirement on the further variants of the product

### BUSINESS VALUE DELIVERED

- // 50% cost reduction
- // 20% more energy efficient by storing energy lost on brake resistors

