

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511095467 A

(19) INDIA

(22) Date of filing of Application :04/10/2025

(43) Publication Date : 05/12/2025

(54) Title of the invention : A SELF-ADJUSTING DEVICE FOR MAINTAINING BELT TENSION IN MACHINES

(51) International classification	:F16H7/08, F16H7/12, F16H7/10	(71) Name of Applicant : 1)NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY Address of Applicant :19, Knowledge Park-II, Institutional Area, Greater Noida – 201306, Uttar Pradesh, India. Uttar Pradesh India
(31) Priority Document No	:NA	(72) Name of Inventor :
(32) Priority Date	:NA	1)OM PRAKASH SAHANI
(33) Name of priority country	:NA	2)Dr. ANAND KUSHWAH
(86) International Application No	:	
Filing Date	:01/01/1900	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The invention relates to a self-adjusting device (1) for maintaining belt tension in machines. The device comprises a fixed base (2), a pivot arm (3), a tension pulley (4), a spring unit (5), and a feedback mechanism (6). The pivot arm (3) moves dynamically to adjust the tension pulley (4) in response to slack or tightness in the belt (8), while the spring unit (5) and feedback mechanism (6) ensure controlled, real-time adjustment. The invention ensures reduced wear, minimized downtime, and improved machine efficiency.

No. of Pages : 14 No. of Claims : 6