

Input/output cut off mechanism

Possible to cut off reverse input in linear motion

Overview

In conventional power transmission mechanism that transmits force from input to output side, when an excessive external force is applied, the reverse input is transmitted from output to input side, destroying the input side structure. Therefore, 2 types of mechanism have been developed to cut off input from the output side: normal lock type mechanism and normal free type mechanism. However, these mechanisms are for rotary motion, and there is a necessity to develop a mechanism that cuts off the reverse input in linear motion.

This invention is able to provide an input/output cut off mechanism that can cut off reverse input from the output side in linear motion with a relatively simple structure. This invention has a frame, a slide and a switch that can change between fixed state and open state of the slide section. It is configured to be switchable from fixed state to open state at fixed state, and from open state to fixed state at open state. This mechanism allows a relatively simple structure to cut off reverse input from output side and prevent structure destruction at the input side.

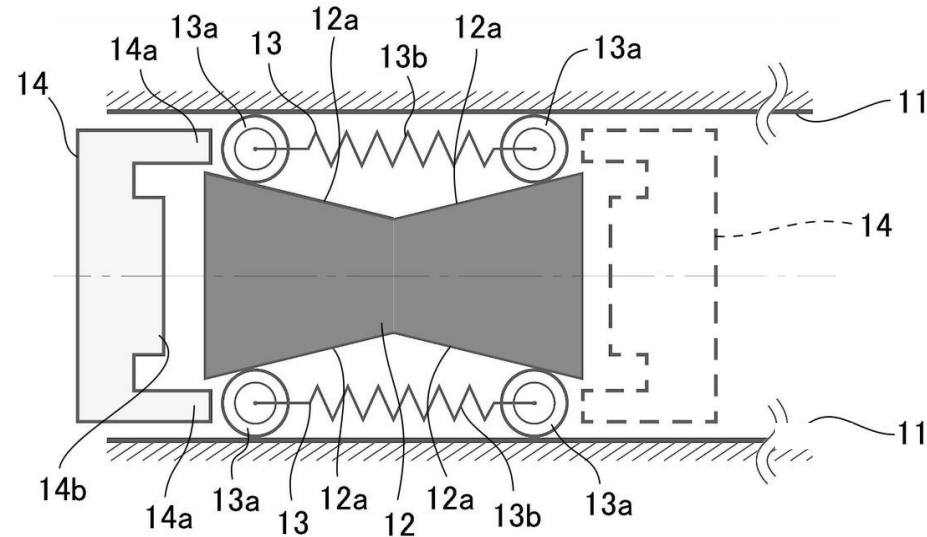
Product Application

- Robot hand, robot arm joint
- Brake system, gear

IP Data

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The frame is movable in respect to the slide to cut off reverse input from the output side



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|----------------------|---------------------|----------------------|------------|
| 11. Frame | 12. Slide | 12a. Sloping surface | 13. Switch |
| 13a. Pinching member | 13b. Elastic member | 14. Input part | |
| 14a. Insertion part | 14b. Contact part | | |

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