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Abstract

DRIVE UNIT FOR A ROTARY DECORATION

A proposed drive unit for a rotary decoration whose transmission gear train is configured to include a damper such as a coil spring, and which is capable of imparting a desired elegant swing motion to the rotary decoration.

There is a reciprocating stepping motor 9 capable of rotating in both the normal and reverse directions to drive a rotatory decoration 5 in such a manner that the rotatory decoration 5 causes a reciprocative swing motion. Also, a memory circuit 31 is provided for storing data for determining the drive timing of this stepping motor 9. Then, there is further provided a control circuit 32 for controlling this stepping motor 9 in accordance with the data stored in the memory circuit 31.

Said data numeralizes the pulse interval of the operation pulse for stepping motor 9 so as to transform the rotation speed of rotational decorating 5 as a sine curve, and

(1) the pulse intervals of operation pulses are set to uniform intervals having a small value in a predetermined section corresponding to an intermediate portion in one rotational direction of the rotary decoration 5, or

(2) the pulse intervals of operation pulses are set to close intervals in a predetermined section immediately after

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the rotational direction of the rotary decoration 5 is reversed, or

(3) the pulse intervals of operation pulses being set in a predetermined section immediately before the rotational direction of the rotary decoration 5 is reversed.

Fig. 3

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