

Title (en)  
Temperature-responsively operated drive mechanism

Title (de)  
Temperaturgesteuerter Antriebsmechanismus

Title (fr)  
Mécanisme de commande sensible à la température

Publication  
**EP 1211353 A3 20031126 (EN)**

Application  
**EP 01309029 A 20011024**

Priority  
JP 2000357478 A 20001124

Abstract (en)  
[origin: EP1211353A2] A temperature-responsively operated drive mechanism 29 is designed to provide a switching drive force to switching-type indicating means 10 placed on a freeze-indicating sign system. The temperature-responsively operated drive mechanism 29 includes members 35 and 36 made of a shape memory alloy for providing the switching drive force to the switching-type indicating means 10 in accordance with a temperature such as a predetermined temperature, and a drive force assisting means 50 for providing an assist force for assisting in the switching drive force during switching operation of the members made 35 and 36 of the shape memory alloy. Therefore, the speed of switching turning movement of the switching-type indicating means 10 in the freeze-indicating sign system can be increased, whereby the switching of the indications on the switching-type indicating means 10 at the predetermined temperature corresponding to a freezing temperature can be conducted quickly and automatically, thereby informing a driver or a road manager or the like of the freezing of a road surface occurring in winter season.

IPC 1-7  
**E01F 9/00**

IPC 8 full level  
**E01F 9/00** (2006.01); **E01F 9/015** (2006.01); **E01F 9/619** (2016.01); **E01F 9/673** (2016.01); **G08G 1/09** (2006.01)

CPC (source: EP)  
**E01F 9/40** (2016.02)

Citation (search report)

- [XA] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 12 31 October 1998 (1998-10-31)
- [XA] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 08 29 August 1997 (1997-08-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 02 29 February 2000 (2000-02-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 12 25 December 1997 (1997-12-25)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 10 31 October 1996 (1996-10-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 352 (M - 1631) 4 July 1994 (1994-07-04)

Cited by  
CN114214979A; EP2753762A4; RU184148U1

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