

PCT ORGANIZACION MUNDIAL DE LA PROPIEDAD INTELECTUAL
 Oficina Internacional
**SOLICITUD INTERNACIONAL PUBLICADA EN VIRTUD DEL TRATADO DE COOPERACION
 EN MATERIA DE PATENTES (PCT)**

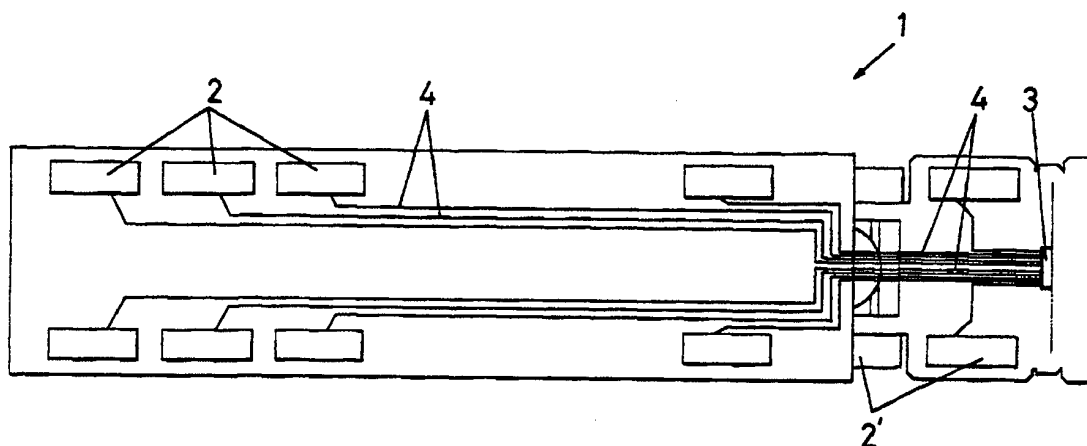


(51) Clasificación Internacional de Patentes ⁶ : F16D 66/00, B60T 17/22	A1	(11) Número de publicación internacional: WO 97/00388 (43) Fecha de publicación internacional: 3 de Enero de 1997 (03.01.97)
--	-----------	--

(21) Solicitud internacional: PCT/ES96/00131 (22) Fecha de la presentación internacional: 13 de Junio de 1996 (13.06.96) (30) Datos relativos a la prioridad: U 9501650 15 de Junio de 1995 (15.06.95) ES (71)(72) Solicitantes e inventores: MELLADO TOMÁS, Ismael [ES/ES]; Calle Cartagena 54, 3ªA, E-30002 Murcia (ES). MELLADO PEREZ, Antonio [ES/ES]; Calle Cartagena 54, 3ªA, E-30002 Murcia (ES). (74) Mandatario: LAHIDALGA DE CAREAGA, Jose Luis; Calle Goya, 143, 1º Izquierda, E-28009 Madrid (ES).	(81) Estados designados: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, Patente ARIPO (KE, LS, MW, SD, SZ, UG), Patente euroasiática (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Patente europea (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), Patente OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Publicada <i>Con informe de búsqueda internacional. Antes de la expiración del plazo previsto para la modificación de las reivindicaciones, será publicada nuevamente si se reciben tales modificaciones.</i>
---	---

(54) Title: DEVICE FOR CONTROLLING THE TEMPERATURE OF THE BRAKES, APPLICABLE TO HEAVY VEHICLES

(54) Título: DISPOSITIVO PARA EL CONTROL DE LA TEMPERATURA DE LOS FRENOS, APLICABLE EN VEHICULOS PESADOS



(57) Abstract

Device for controlling the temperature of the brakes, applicable to heavy vehicles, of the type intended to provide the driver of the vehicle with information related to the friction temperature and global temperature of each of the brake assemblies of the vehicle, and characterized in that it is comprised of at least two temperature sensors connected to a data display unit situated in the dashboard of the vehicle, wherein are also incorporated warning and danger lamps as a function of the temperature.

(57) Resumen

Dispositivo para el control de la temperatura de los frenos, aplicable en vehículos pesados, de los destinados a proporcionar al conductor del vehículo información de la temperatura de fricción y la temperatura global de cada uno de los conjuntos de frenos del vehículo, y caracterizado por estar compuesto por al menos dos sensores de temperatura conectados a un panel de datos situado en el salpicadero del vehículo, donde se incorporan también señales de aviso y de peligro en función de la temperatura.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES 96/00131

A. CLASSIFICATION OF SUBJECT MATTER

IPC6 F16D 66/00 B60T 17/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6 F16D B60T

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

CIBEPAT. WPIL

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO, A, 93 00525 (RANCOURT) 7 January 1993 see page 16, line 10 - page 17, line 4; claim 28; figure 2	1,3
A	US, A, 4 790 606 (ERICH REINECKE) 13 December 1988 see column 4, line 43 - column 12, line 47; figure 1	1
A	WO, A, 92 14075 (KNORR-BREMSE AG) 20 August 1992 see page 2, line 16 - page 5, line 11; figures 1,2 & ES, A,2 060 469	1,2
A	FR, A, 2 708 319 (MAHON JEAN) 3 February 1995 see the whole document	1
	--- -/--	

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

26 November 1996 (26.11.96)

Date of mailing of the international search report

2 December 1996 (02.12.96)

Name and mailing address of the ISA/

S.P.T.O.

Authorized officer

Facsimile No.

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES 96/00131

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 4 824 260 (RAYMOND J. NOVOTNY) 25 April 1989 see column 3, line 12 - column 4, line 63; figures 1-3	1
A	--- DE, A, 40 24 771 (STÖRK-TRONIC) 6 February 1992 see the whole document	1
A	--- US, A, 4 569 600 (ROBERT B. PRENICZNY) 11 February 1986 see the whole document -----	1