

(12) International Application Status Report

Received at International Bureau: 13 June 2018 (13.06.2018)

Information valid as of: 16 July 2018 (16.07.2018)

Report generated on: 21 March 2019 (21.03.2019)

(10) Publication number:

WO2018/221714

(43) Publication date:

06 December 2018 (06.12.2018)

(26) Publication language:

Japanese (JA)

(21) Application Number:

PCT/JP2018/021130

(22) Filing Date:

01 June 2018 (01.06.2018)

(25) Filing language:

Japanese (JA)

(31) Priority number(s):

2017-110435 (JP)

(31) Priority date(s):

02 June 2017 (02.06.2017)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

F16G 5/16 (2006.01)

(71) Applicant(s):

AISIN AW CO., LTD. [JP/JP]; 10, Takane, Fujii-cho, Anjo-shi, Aichi 4441192 (JP) (for all designated states)

(72) Inventor(s):

OCHI, Akira; c/o AISIN AW CO., LTD. 10, Takane, Fujii-cho, Anjo-shi, Aichi 4441192 (JP)

ISHIHARA, Wataru; c/o AISIN AW CO., LTD. 10, Takane, Fujii-cho, Anjo-shi, Aichi 4441192 (JP)

MIYAKE, Takayuki; c/o AISIN AW CO., LTD. 10, Takane, Fujii-cho, Anjo-shi, Aichi 4441192 (JP)

TOKUNAGA, Junichi; c/o AISIN AW CO., LTD. 10, Takane, Fujii-cho, Anjo-shi, Aichi 4441192 (JP)

(74) Agent(s):

ITEC INTERNATIONAL PATENT FIRM; Gotanda Daiichiseimei Bldg., 19-3, Nishigotanda 2-chome, Shinagawa-ku, Tokyo 1410031 (JP)

(54) Title (EN): TRANSMISSION BELT ELEMENT AND TRANSMISSION BELT

(54) Title (FR): ÉLÉMENT DE COURROIE DE TRANSMISSION ET COURROIE DE TRANSMISSION

(54) Title (JA): 伝動ベルト用エレメントおよび伝動ベルト

(57) Abstract:

(EN): An element for a transmission belt wound on a primary pulley and a secondary pulley of a continuously variable transmission, said element including a body section having a saddle surface that makes contact with the ring of the transmission belt, and a pair of pillar sections extending from the body section so as to be positioned on both sides in the width direction of the saddle surface. The saddle surface is a convex curved surface formed by an elliptical arc, and when the major axis of the elliptical arc is "a" and the minor axis of the elliptical arc is "b," the relationship $b/a \# 0.015$ is satisfied. Thus, the stress distribution of the ring in contact with the saddle surface can be optimized and the durability of the ring and the transmission belt can be improved.

(FR): L'invention concerne un élément pour une courroie de transmission enroulée sur une poulie primaire et une poulie secondaire d'une transmission à variation continue, ledit élément comprenant une section corps ayant une surface de selle qui entre en contact avec l'anneau de la courroie de transmission, et une paire de sections pilier s'étendant à partir de la section corps de façon à être positionnées sur les deux côtés dans la direction de la largeur de la surface de selle. La surface de selle est une surface incurvée convexe formée par un arc elliptique et, lorsque l'axe principal de l'arc elliptique est « a » et que l'axe mineur de l'arc elliptique est « b », la relation $b/a \# 0,015$ est satisfaite. Ainsi, la distribution de contrainte de l'anneau en contact avec la surface de selle peut être optimisée et la durabilité de l'anneau et de la courroie de transmission peut être améliorée.

(JA): 無段変速機のプライマリプーリおよびセカンダリプーリに巻き掛けられる伝動ベルトのエレメントは、当該伝動ベルトのリングと接触するサドル面を有する胴部と、サドル面の幅方向における両側に位置するように胴部から延出された一対のピラー部とを含み、サドル面は、楕円弧により形成された凸曲面であり、楕円弧の長径を"a"とし、楕円弧の短径を"b"としたときに、 $b/a \leq 0.015$ を満たす。これにより、サドル面に接触するリングの応力分布を適正化して当該リングおよび伝動ベルトの耐久性を向上させることが可能となる。

International search report:

Received at International Bureau: 16 July 2018 (16.07.2018) [JP]

International Report on Patentability (IPRP) Chapter II of the PCT:

Not available

(81) Designated States:

AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

European Patent Office (EPO) : AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR

African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG

African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW

Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, RU, TJ, TM