

(12) International Application Status Report

Received at International Bureau: 11 July 2018 (11.07.2018)

Information valid as of: 10 December 2018 (10.12.2018)

Report generated on: 23 March 2019 (23.03.2019)

(10) Publication number:

WO2019/001341

(43) Publication date:

03 January 2019 (03.01.2019)

(26) Publication language:

Chinese (ZH)

(21) Application Number:

PCT/CN2018/092227

(22) Filing Date:

21 June 2018 (21.06.2018)

(25) Filing language:

Chinese (ZH)

(31) Priority number(s):

201710501086.X (CN)

(31) Priority date(s):

27 June 2017 (27.06.2017)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

F16D 3/16 (2006.01); **F16D 3/06** (2006.01); **F16D 3/84** (2006.01)

(71) Applicant(s):

KUNMING GUOZHOU TRANSMISSION MACHINERY CO., LTD. [CN/CN]; A8112, 8th Floor, 2nd Building, Yunnan Haigui Pioneer Park No. 80 Chunman Road, Information Industry Base Kunming Economic Development Zone Yunnan 650000 (CN) *(for all designated states)*

DALI YUANDONG TRANSMISSION MACHINERY CO., LTD. [CN/CN]; Fengyi Town Industrial Park, Dali City Dali Bai Autonomous Prefecture Yunnan 671000 (CN) *(for all designated states)*

GUIZHOU YUANDONG TRANSMISSION MACHINERY CO., LTD. [CN/CN]; Buliding 10, Phase 1 of Standard Factory Buildings Xiaoba Town Development Zone, Bijie City Guizhou 551700 (CN) *(for all designated states)*

HENAN XINZHOU TRANSMISSION MACHINERY CO., LTD. [CN/CN]; Shangji Town West Street, Xuchang County Xuchang, Henan 461000 (CN) *(for all designated states)*

(72) Inventor(s):

LIU, Chuan; Room 2606, Building 4 Tuodongdacheng, Guandu District Kunming, Yunnan 650000 (CN)

LIU, Gang; Room 2606, Building 4 Tuodongdacheng, Guandu District Kunming, Yunnan 650000 (CN)

SHANG, Yamin; Room 301, Unit 1, Building 25, Fengyi Manor Fengyi Town, Dali City Yunnan 671000 (CN)

(74) Agent(s):

CHOFN INTELLECTUAL PROPERTY; Room 1215-1218, Floor 12 Left Bank Community No. 68 Beisihuanxilu, Haidian District Beijing 100080 (CN)

(54) Title (EN): TRANSMISSION SHAFT ALLOWING COMPONENT TO BE CHANGED, AND TRUCK

(54) Title (FR): ARBRE DE TRANSMISSION PERMETTANT LE CHANGEMENT D'UN ÉLÉMENT, ET CAMION

(54) Title (ZH): 一种可更换部件的传动轴及载货汽车

(57) Abstract:

(EN): A transmission shaft (100) allowing a component to be changed comprises flange yokes (110), universal joints (120), a spline shaft (130), a sliding yoke (140), and a connection portion (150). The flange yokes (110) comprise a first flange yoke (111) and a second flange yoke (113). The universal joints (120) comprise a first universal joint (121) and a second universal joint (123). The first flange yoke (111) is connected to the sliding yoke (140) by means of the first universal joint (121). One end of the spline shaft (130) penetrates in the sliding yoke (140), and the other end of the spline shaft (130) is detachably connected to the connection portion (150). The connection portion (150) is connected to the second flange yoke (113) by means of the second universal joint (123). By means of the transmission shaft allowing a component to be changed, only parts of components need to be changed, thereby improving the performance of the transmission shaft; and the whole later-period repair cost is reduced while the service life of other components is prolonged. The present invention also relates to a truck. The use reliability and the economic applicability of the truck can be improved.

(FR): L'invention concerne un arbre de transmission (100) permettant le changement d'un élément, l'arbre comprenant des culasses à bride (110), des joints universels (120), un arbre cannelé (130), une culasse coulissante (140) et une partie de liaison

(150). Les culasses à bride (110) comprennent une première culasse à bride (111) et une seconde culasse à bride (113). Les joints universels (120) comprennent un premier joint universel (121) et un second joint universel (123). La première culasse à bride (111) est reliée à la culasse coulissante (140) au moyen du premier joint universel (121). Une extrémité de l'arbre cannelé (130) pénètre dans la culasse coulissante (140), et l'autre extrémité de l'arbre cannelé (130) est reliée amovible à la partie de liaison (150). La partie de liaison (150) est reliée à la seconde culasse à bride (113) au moyen du second joint universel (123). Au moyen de l'arbre de transmission permettant le changement d'un élément, seulement certaines parties des éléments nécessitent d'être changées, ce qui permet d'améliorer le rendement de l'arbre de transmission ; et le coût total de réparation sur une période ultérieure est réduit tandis que la durée de vie des autres éléments est prolongée. La présente invention concerne également un camion. La fiabilité d'utilisation et l'applicabilité économique du camion peuvent être améliorées.

(ZH): 一种可更换部件的传动轴(100),包括凸缘叉(110)、万向节(120)、花键轴(130)、滑动叉(140)以及连接部(150),凸缘叉(110)包括第一凸缘叉(111)与第二凸缘叉(113),万向节(120)包括第一万向节(121)与第二万向节(123),第一凸缘叉(111)与滑动叉(140)通过第一万向节(121)连接,花键轴(130)的一端穿设于滑动叉(140)内,花键轴(130)的另一端与连接部(150)可拆卸连接,连接部(150)通过第二万向节(123)与第二凸缘叉(113)连接;该可更换部件的传动轴,能实现仅需要更换部分零部件从而提高传动轴的性能,在提高其他零部件的使用寿命的同时,降低了整体的后期维修成本;还涉及一种载货汽车,能够提高载货汽车的使用可靠性以及经济适用性。

International search report:

Received at International Bureau: 20 September 2018 (20.09.2018) [CN]

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