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(71) Applicant: GM GLOBAL TECHNOLOGY OPERATIONS LLC [US/US]; 300 Renaissance Center, Detroit, Michigan 48265-3000 (US).

(72) Inventors: DUAN, Chengwu; Room 301, Building 1198, 900 North Sanxin Road, Songjiang District, Shanghai

201620 (CN). YAO, Jian; Room 201, Number 58, 318 Zepu Road, Shanghai 201805 (CN). SAMIE, Farzad; 30720 Cheviot Hills Drive, Franklin, Michigan 48025 (US). HUANG, Ying; Jinwan Road 56, Pudong New District, Shanghai 201206 (CN).

(74) Agent: LIU, SHEN & ASSOCIATES; 10th Floor, Building 1, 10 Caihefang Road, Haidian District, Beijing 100080 (CN).

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(54) Title: MULTI-MODE TRANSMISSION INCLUDING A CONTINUOUSLY VARIABLE TRANSMISSION

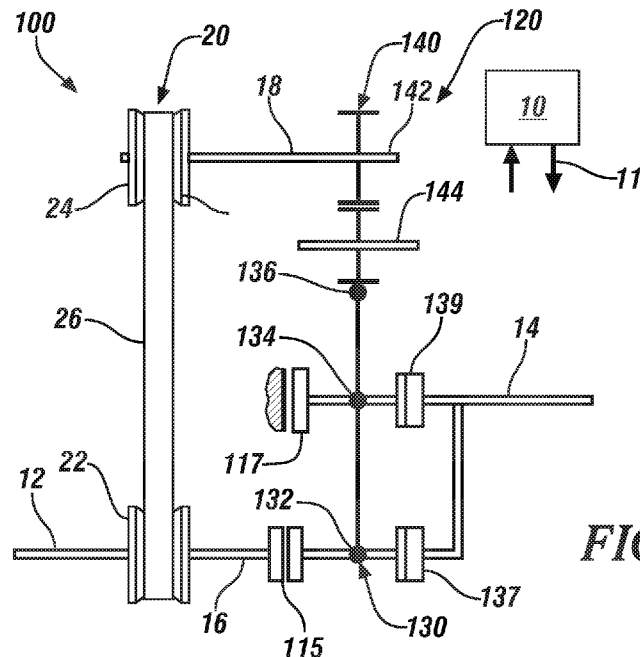


FIG. 1

(57) Abstract: A transmission includes a continuously variable unit (CVU) (20) arranged in parallel with an expansion gearset (120). The CVU (20) includes a first pulley (22) that is rotatably coupled to a second pulley (24) and an input member (12). The expansion gearset (120) includes a planetary gearset (130) that is arranged in series with a coplanar second gearset (140), and the second gearset (140) includes a first gear (142) engaged with a layshaft gear (144). The second pulley (24) is rotatably couplable to the first gear (142) of the second gearset (140). The layshaft gear (144) is engaged with a ring gear (136) and a carrier member (134) which is rotatably couplable to an output member (14). The first pulley (22) is rotatably couplable to the sun gear (132) via a first clutch (115). The transmission operates in a continuously variable mode when the first clutch (115) is deactivated, and operates in a power split mode when the first clutch (115) is activated.



WO 2017/177359 A8

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