

Patent Protection & Registration

Patents grant property rights on new and useful inventions, allowing the patent holder to prevent others from using, making, or selling that invention without permission for a limited time. U.S. patents are permitted by the U.S. Constitution and are designed to promote scientific progress and invention. By allowing inventors to profit from licensing or selling their patent rights, inventors can recoup their research and development costs and benefit financially from their inventing efforts. There are three main types of patents utility, plant, and design. Utility and plant patents can last up to 20 years, while design patents can last up to 14 years. When a patent expires, the patented material enters the public domain, making it free to use by anyone without a license. U.S. patents are issued by the United States Patent and Trademark Office (USPTO).

<u>U.S. Patent No. 11,193,778</u> entitled "Apparatus and Method for Vehicle Economy Improvement" issued December 7, 2021 to Webfleet Solutions B.V. of Amsterdam, Netherlands. Invented by Paul Roeland Verheijen of Heemstede, Netherlands; Gianfranco Santoro of Amsterdam, Netherlands; Jasper Johannes Anthonius Pauwelussen of The Hague, Netherlands; Michael Su of Leipzig, Germany; Marco Wedekind of Leipzig, Germany and Steffen Orlowsky of Dessau-Ro lau, Germany. Abstract: A method of determining a coasting area is disclosed, together with methods of providing coasting information to a vehicle driver; coasting being when the vehicle is allowed to decelerate or to roll without being under power. In embodiments, the coasting area is determined by: determining an end point location of a coasting area based upon a location in map data of an expected decrease in speed of a vehicle traversing a road network represented by the map data; determining a start point location of the coasting area based on at least one attribute associated with the map data proximal to the end point location; and generating coasting information indicative of the coasting area having the start point and end point locations. In other embodiments, coasting information is provided to a driver by: determining a location of a coasting area based on a location of a navigation device; and determining whether to output information indicative of the coasting area based on a current speed of travel of the navigation device and, if so, outputting an indication of the coasting area.

<u>U.S. Patent No. 11,193,245</u> entitled "Machine Train Composed of Road Milling Machine and Road Finisher, and Method for Operating Road Milling Machine and Road Finisher" issued December 7, 2021 to Wirtgen GmbH of Windhagen, Germany. Invented by Christoph Menzenbach of Neustadt, Germany; Rene Muller of Vettelscho, Germay; Cyrus Barimani of Konigswinter, Germany. Abstract: A machine train is composed of a road milling machine that travels in front and a road finisher that travels behind. The road milling machine has a profile data determining device configured so that a sequence of height profile data describing the height of the road surface in the longitudinal direction is determined while the road milling machine advances. For transmission of the height profile data, a data transmission device is provided on the road milling machine and a



data receiving device is provided on the road finisher. To change the position of the screed, the road finisher has a levelling device that comprises at least one actuator and a control unit, which is configured so that the control unit generates a control signal for controlling the at least one actuator in accordance with a height profile data set.

<u>U.S. Patent No. 11,192,604</u> entitled "Electric Drive Motorcycle" issued December 7, 2021 to Piaggio & C. S.P.A. of Pontedera, Italy. Invented by Luca Carmignani, Paolo Capozzella, Jury Cantini, Walter Mariotti of Pontedera, Italy. Abstract: An electric drive motorcycle (100) is competed with a filter box in the rear portion thereof, without limiting the space available for the batteries, comprises: a front portion comprising one or more front wheels and a handlebar; a rear portion comprising a saddle (101), a shell body arranged below said saddle (101), and a rear wheel arranged below said shell body; an intermediate portion extending as a connection between said front portion and said rear portion; an electric drive unit (8) connected to said rear wheel (105); and a hybrid supply unit supplying said electric drive unit (8), comprising at least a battery unit (115) and a combustion engine (116) actuating an electric generator (120), said combustion engine (116) comprising an exhaust duct (133) with an expansion chamber (134) and a filter box (135) for feeding air to the combustion engine (116), wherein said electric generator (120) is apt to supply said battery unit (115) and/or said electric drive unit, wherein, inside the shell body (107) and below the saddle (101), a housing space is provided extending from one side to the other one of the shell body (107) and which receives the hybrid supply unit, in a first portion thereof, and wherein said filter box (135) and said exhaust duct (133) are arranged on the same side of the motorcycle.

<u>U.S. Patent No. 11,193,247</u> entitled "Self-propelled Construction Machine" issued December 7, 2021 to Wirtgen GmbH of Windhagen, Germany. Invented by Tobias Stinner of Nister, Germany; Sebastian Drumm of Rosrath, Germany; Burkhard, Frank of Vettleschoss, Germany. Abstract: In a self-propelled construction machine (1), in particular road milling machine, comprising a machine frame (8), at least three travelling devices (12, 16), wherein at least one of the three travelling devices (12, 16) is realized as a pivotable travelling device (16) so that said travelling device (16) is pivotable about at least one vertical pivoting axis in relation to the machine frame (8) between a first pivoted-in and at least one second pivoted-out position, at least one working device (20), in particular a milling drum, for working the ground pavement (3), at least one hydraulic drive system (70) for driving at least two travelling devices (12, 16), wherein at least one of the at least two driven travelling devices is the pivotable travelling device (16), wherein the hydraulic drive system (70) comprises at least one hydraulic pump (78), it is provided for the following features to be achieved: the hydraulic drive system (70) comprises one each hydraulic variable displacement motor (72) for driving the driven travelling devices (12) with the exception of the at least one pivotable travelling device (16), wherein the hydraulic drive system (70) comprises a hydraulic fixed displacement motor (74) for driving the at least one pivotable travelling



device (16).

U.S. Patent No. 11,192,729 entitled "System and Apparatus for Print Media Manufacturing Buffering and Sorting, and Corresponding Method Thereof" issued December 7, 2021 to Lighting Source, LLC of LaVergne, Tennessee. Invented by Peter Kubiak of Rosenheim, Germany; Josef Martin Strasser of Staudac-Egerndach, Germany. Abstract: Apparatuses, systems, and methods are described for providing a multiple process workflow. The system includes a first process device configured to convey at least a portion of a printed element and an apparatus. The apparatus includes a storage section, an input section configured to receive the at least a portion of the printed element, a gripper configured to selectively transport the at least a portion of the printed element from the input section to the storage section and to selectively transport the at least a portion of the printed element from the storage section. The system further includes a second process device configured to perform at least one operation on the at least a portion of the printed element.