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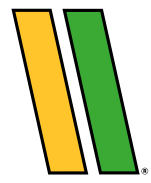
JOSKIN®

CARGO MODULAR SYSTEM

*MODULARITY AND EASE OF USE FOR
MAXIMUM PROFITABILITY*



www.joskin.com



CARGO CHASSIS

MODULAR CHASSIS

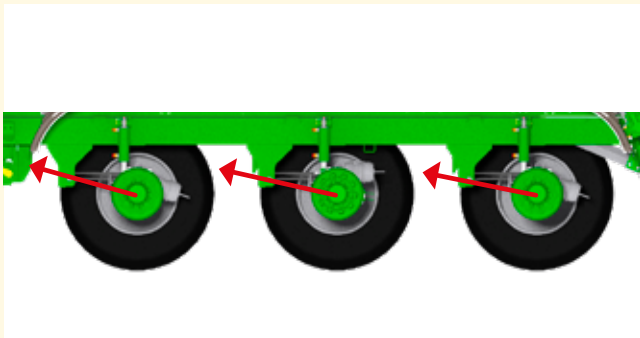
The CARGO concept **maximizes the use** of your agricultural implements thanks to **a single basic chassis for 5 types of implements!** It is a flexible, cost-effective solution. In addition to a slurry tanker, with or without spreading implement, the chassis can be fitted with a muck spreader body (vertical or horizontal beaters), a silage trailer body or a Drakkar multipurpose trailer body.



CARGO TSM



CARGO TRM



RUNNING GEAR

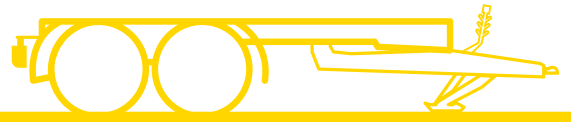
CARGO chassis are equipped with a "Hydro-Tandem/Tridem" hydraulic suspension (clearance: +/- 25 cm) for excellent stability on hills, 100% even load distribution, optimum road holding and perfect adaptation to the terrain. The CARGO TRM (tridem) is also standard equipped with a double self-steering system (first and last axles) and a front lifting axle to minimize tyre wear when driving with the vehicle unloaded. The CARGO TSM is fitted as standard with a rear free-steering axle with a wide steering angle for maximum agility.

More details: see p. 10.

PLACING/REMOVING IMPLEMENTS

To ensure a fast, easy change-over of the implements, the chassis is fitted with guides. The TWIST-LOCK attachment system is used to secure the implement to the chassis, while push-pull connectors are used for hydraulic connection. In this way, in just a few minutes, you can change of implement. The CARGO is also equipped with rear hooks supporting the strains of the implement.

Axle(s)	Models	Chassis length (m)	Max. wheel Ø (mm)	Max. wheel width (mm)	Axle(s): ■ (mm) - track (mm) - studs	Brakes (mm)
2	CARGO TSM	6	1,500	750	ADR 2x150x2100-10S	420 x 180
3	CARGO TRM	7.1	1,500	750	ADR 3x150x2100-10S	420 x 180



MANAGEMENT AND CONTROL

The solenoid valves are grouped together on a monoblock base and protected in a galvanised housing. This hydraulic distribution installation includes an entry block (capacity: 60 l/min or 120 l/min). Most hydraulic functions on vehicles require a low flow, but some, such as the hydraulic motors of the turbo-filler, distributor(s), etc., require a high flow. The ISOBUS technology is standard on all CARGO chassis and implements, enabling the machine to be easily controlled directly via the tractor's terminal.



DRIVING COMFORT

The CARGO chassis is standard fitted with a narrow beam drawbar for a maximal steering angle. This drawbar is kept especially short to strengthen the features of a compact vehicle. It is also fitted with a hydropneumatic suspension. Comfort is here a priority!



P.T.O.-SHAFT TRANSMISSION

Depending on the implement you are using, the drive shafts can be adapted easily to drive the shredding beaters of your Silo-CARGO, for example.



Drakkar-CARGO

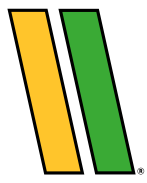
Vacu-CARGO

Ferti-CARGO and
Ferti-CARGO HORIZON

Silo-CARGO

CARGO MODULAR SYSTEM: IMPLEMENTS

	Drakkar-CARGO	Vacu-CARGO	Ferti-CARGO Vertical beaters	Ferti-CARGO HORIZON Horizontal beaters	Silo-CARGO
Compatible with CARGO TSM	27 m ³ DIN 33 m ³ DIN	18,000 l 20,000 l	16.87 m ³ *	16.87 m ³ *	43 m ³ DIN
Compatible with CARGO TRM	31 m ³ DIN 37 m ³ DIN	23,000 l 25,500 l	19.62 m ³ * 25.2 m ³ *	19.62 m ³ * 25.2 m ³ *	48 m ³ DIN



DRAKKAR-CARGO

The Drakkar-CARGO is based on a **multipurpose body** for transporting many different types of material: silage, grains, pulp, beets, potatoes, etc. Thanks to its unique and **very fast unloading system**, with a hermetic conveyor belt and a moving front wall, the material avoids being damaged, while the body is perfectly stable during the use.



ADJUSTABLE STANDS

Storage areas for the implements vary and are not always perfectly flat. That is the reason why the 4 storing stands are adjustable. In this way, your Drakkar-CARGO implement can be unhitched in any situation, as long as the chosen area is sufficiently load-bearing.

- 1 3 grain chutes (600 x 270 mm)
- 2 Mobile front wall
- 3 Hydraulic door with large clearance
- 4 Hermetic tapered body for easy unloading
- 5 Conveyor belt driven by hydraulic motors
- 6 Hydraulic cover (option)
- 7 Hydraulic extensions (option)



Models	Body volume (m ³)	Body volume with 300 mm dome (m ³)	Inside body length (m)	Inside body width (m)	Inside body height (m)
7600/27/150	27	30	7.3 - 7.7	2.34 - 2.38	1.5
7600/33/180	33	36	7.3 - 7.7	2.34 - 2.38	1.5
8600/31/150	31	34	8.3 - 8.7	2.34 - 2.38	1.5
8600/37/180	37	41	8.3 - 8.7	2.34 - 2.38	1.5

VACU-CARGO

The Vacu-CARGO transport tank optimises the frequency of use of your JOSKIN CARGO chassis. Available with a capacity from 18,000 to 25,500 l, it is only equipped with the standard essentials in order to reduce the empty weight as much as possible. Its design in 6 mm special high tensile steel according to the EN707 safety standard provides a safe and efficient means of transport. In short, the **ideal solution for your slurry transport works**.



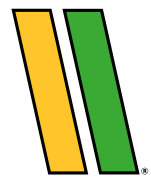
PUMP

The Vacu-CARGO is standard fitted with a powerful vacuum pump: the JUROP PN 130/D (13,000 l/min). As an option, it can be replaced by a PN(R) 155 model with vanes (15,500 l/min) or a DL 180 (17,600 l/min) or DL 250 (25,000 l/min) with lobes. In any case, it is placed on the left-hand side of the tank, not only to provide an easy access, but also to keep the implement compact and complete. When the implement is stored on its stands, it remains complete and operational, and the chassis is not burdened with an unnecessary dead weight. The pump is driven as a standard by a P.T.O.-shaft and an angle transmission gearbox, which can be replaced (as an option) by a hydraulic motor.

- 1 Vacuum pump
- 2 All types of pumping tools
- 3 Adjustable stands
- 4 Tank galvanised inside and outside
- 5 Many options available: top filling accesses, in-tank mixers, etc.



Models	Theoretical capacity (l)	Pump	Tank Ø (mm)
VACU 18000	18,615	PN 130/D (13,000 l/min)	1,900
VACU 20000	20,465	PN 130/D (13,000 l/min)	2,000
VACU 23000	23,414	PN 130/D (13,000 l/min)	2,000
VACU 25500	25,840	PN 130/D (13,000 l/min)	2,100



FERTI-CARGO

As part of the family of muck spreaders with "simple design and ease of use", the Ferti-CARGO combines the principles that led to the very concept of this type of machine: **lightweight and robust, easy to maintain and durable, easy to handle and economical** (from a budgetary point of view, but also less energy-consuming), wide body with bolted spreading unit for possible disassembly in the event of a conversion to a silage body.



SPREADING SYSTEM AND BEATERS

The spreading width varies from 8 to 16 m, depending on the products to be spread. To achieve it, the two vertical beaters with 4 spirals (height: 1,830 mm on models 6011 and 7011, and 2,080 mm on model 7014) rotate at a speed of 423 rpm and project the material via their bolted teeth in 400 HB steel (80 x 12 mm). Two discs (Ø 1,000 mm - on HARDOX protection plate) with 3 fixed blades are located under the beaters to project the material. The flow per hectare is easily adjusted by combining the speed of the tractor with that of the moving floor (flow metre within reach of the cab); a galvanised guillotine door (option) can also be an advantage.

- 1 Moving floor with 4 Ø 14 mm shipping chains (grade 80)
- 2 Vertical beaters
- 3 Removable teeth in HB 400 steel (HARDOX)
- 4 Beater rotation speed: 423 rpm
- 5 Adjustable stands
- 6 Extensions as an option



Models*	Inside body length, before door (m)	Inside body width (m)	Inside body height (m)	Manure volume before door (m ³)	Manure volume up to beaters (m ³)
6011/17	6	2.05	1.05	16.87	18.42
7011/20	7	2.05	1.05	19.62	21.17
7014/25	7	2.05	1.35	25.2	27.2

* The first 2 figures indicate the average length (dm), the next 2 ones the average height (dm) and the last two ones the volume before the door (m³).

FERTI-CARGO HORIZON

The design of the Ferti-CARGO HORIZON is based on the Ferti-SPACE2 with horizontal beaters and has the same basic features: lightness, sturdiness and easy maintenance. Both **durable and extremely manoeuvrable**, the Ferti-CARGO HORIZON also proves to be economical, both from a budgetary and energy point of view. Thanks to its wide body with bolted spreading table, it can be converted into a silage trailer body.



SPREADING SYSTEM AND BEATERS

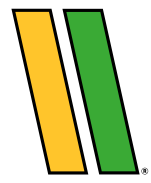
The spreading width varies from 12 to 22 m, depending on the products to be spread. Two horizontal beaters (\varnothing 600 mm on \varnothing 140 mm tube) rotate at 320 rpm to mill the pile of material fed to them by special S700MC steel teeth (230 x 50 mm). The crumbled material is projected against the closed spreading canopy to finally fall on the spreading discs (\varnothing 1,040 mm) rotating at a 500-rpm speed. 6 adjustable blades spread it evenly over a large width. If the material is too fibrous, the spreading canopy can be opened to 100°, enabling the spreading work to be carried out mainly by the beaters.

- 1 Moving floor with 4 \varnothing 14 mm shipping chains (grade 80)
- 2 Horizontal beaters
- 3 Removable teeth in S700MC steel
- 4 Beater rotation speed: 320 rpm
- 5 Adjustable stands
- 6 Extensions as an option



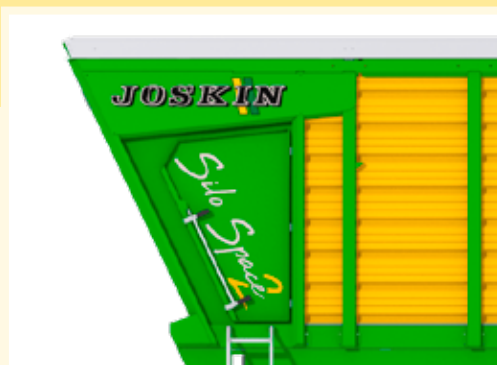
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7014/25	7	2.05	1.35	25.2	27.2

* The first 2 figures indicate the average length (dm), the next 2 ones the average height (dm) and the last two ones the volume before the door (m³).



SILO-CARGO

The Silo-CARGO design is based on that of the Silo-SPACE2, the JOSKIN silage trailer optimised to boost the profitability of farmers and contractors. This machine **pushes the boundaries in terms of loading capacity and maneuverability**. Silage unloading is **smooth and ultra-fast** thanks to the tapered shape of the body and its moving floor, not to mention the high-clearance rear door and the hinged, sloping front wall!



ACCESS TO THE INSIDE OF THE BODY

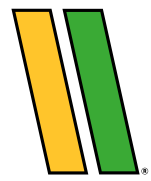
When the silage trailer is equipped with shredding beaters, a side access door is essential to get inside the body. If JOSKIN already offered one of the best accesses on the market with a large side door, it now offers the only solution enabling the user to access the inside of the trailer when the hydraulic cover system (DUO-COVER) is opened after unloading on the silo. This side access door is located on the front left and is accompanied by an access ladder.

- 1 1-part hydraulic door with protected door cylinders
- 2 Hydraulic moving floor with 4 yaw chains driven by two 2-gear hydraulic motors
- 3 Retractable sloping front wall
- 4 DUO-COVER hydraulic cover (option)
- 5 Extensions (option)
- 6 Shredding beaters (option)
- 7 Adjustable stands



Models*	DIN volume (m ³)	Volume with 300 mm heap (m ³)	Inside body length (m)	Inside body width (m)	Inside body height (m)
480D	43	47	7.55 - 8.55	2.34 - 2.38	2.28
540T	54	53	8.55 - 9.55	2.34 - 2.38	2.28

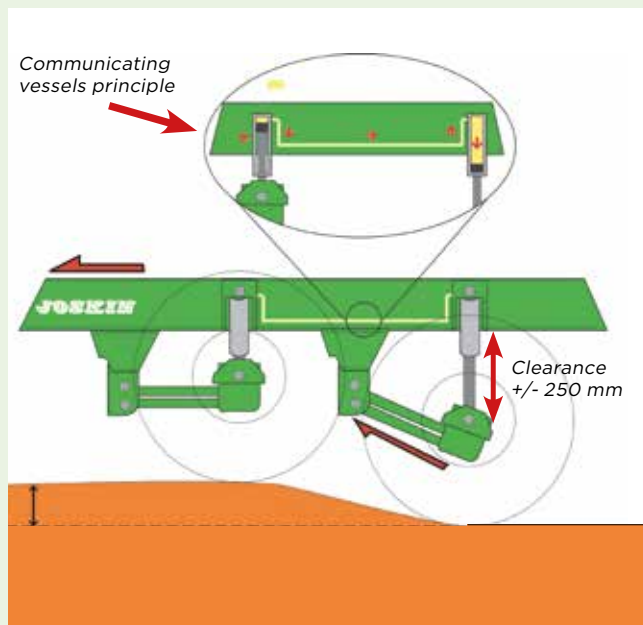




RUNNING GEARS

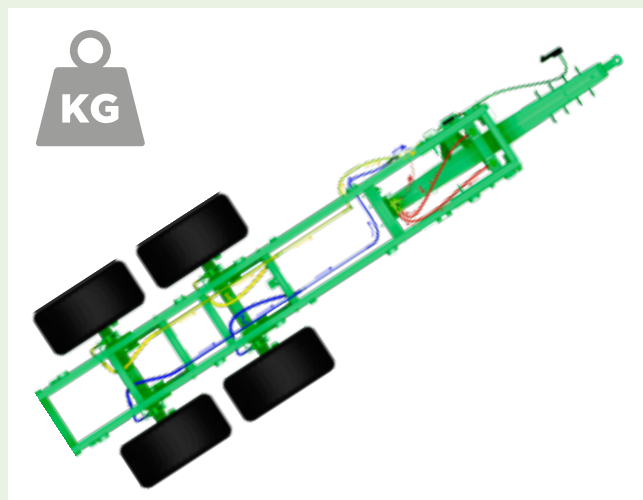
PROVEN DESIGN

JOSKIN running gears are designed to meet the criteria of **reliability, stability, comfort and safety** on the road and in the field in every situation, whatever the vehicle.



JOSKIN HYDRAULIC RUNNING GEARS: HYDRO-TANDEM/TRIDEM

The JOSKIN Hydro-Tandem and Hydro-Tridem running gears combine simplicity, reliability, high clearance and stability. Indeed, the vehicle can be easily pulled over any obstacle thanks to its concept of **semi-independent axles** with spring leaves attached to an element fixed under the chassis, itself located in front of each axle, thus offering a **large clearance of up to 250 mm**. The operating principle of this suspension is based on the law of communicating vessels. Only the cylinders on the same side are connected to each other in a closed circuit. The independence of the circuits on both sides of the chassis, combined with the fact that the oil is incompressible, ensures a perfect lateral stability. As a result, the vehicle is less likely to tilt in bends and on hills. Moreover, thanks to this design, the pressure transmitted to the ground is perfectly distributed between all the wheels, which also spares the soil structure. The first lifting axle is fitted as standard on all CARGOs with Hydro-Tridem suspension to minimize tyre wear when driving with the trailer empty.

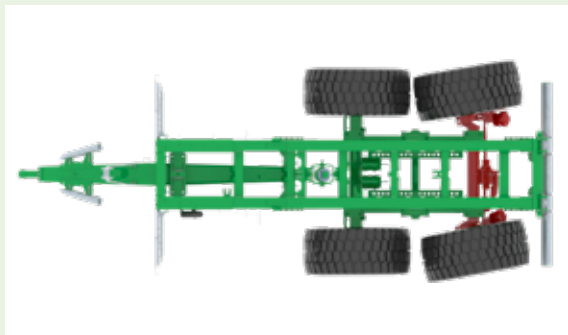


DYNAMIC WEIGHING SYSTEM ON HYDRAULIC SUSPENSION

Vehicles fitted with a hydraulic drawbar suspension and a hydraulic running gear can be fitted with a dynamic weighing system. Two pressure sensors on the running gear hydraulic circuit, as well as another one on the drawbar suspension, are connected to an ECU on the running gear. They send signals via a cable connection so that the weight can be displayed on a screen in the tractor cab. Another display can be installed on the loader or on the vehicle to see the load weight at all times. This system is also compatible with Isobus and can be operated via the Isobus terminal, which replaces in this case the separate display.

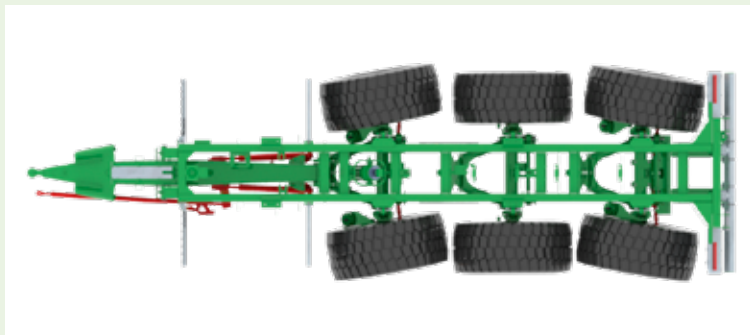
RUNNING GEARS

STEERING AXLES



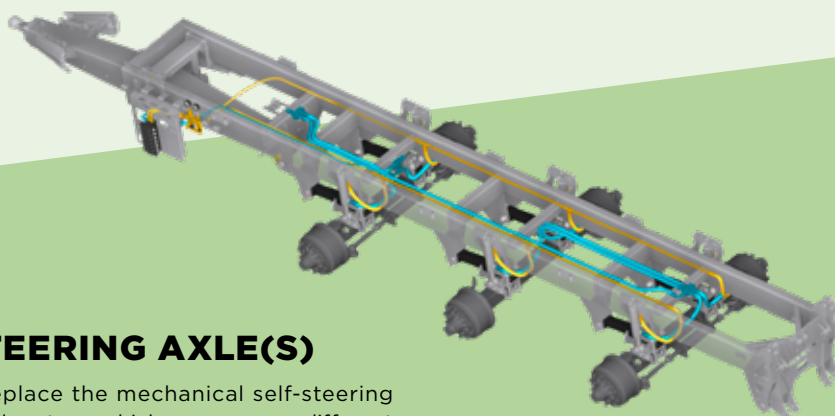
FREE-STEERING AXLE (STEERING WHEN DRIVING FORWARD)

The free-steering axle follows the direction imposed by the tractor. The **steering angle is +/- 15°** depending on the tyre size. When driving on the road at more than 15 km/h or when reversing, a hydraulic device ensures **powerful locking** and perfect alignment of the front and rear axles, guaranteeing the safety of the tractor-trailer combination. A shock absorber ensures the stability of the free-steering axle and prevents excessive vibration. A steering axle reduces the tyre wear significantly (less slippage) as well as the torsion on the whole vehicle in tight bends.



SELF-STEERING AXLE(S) (STEERING WHEN DRIVING FORWARD AND REVERSING)

The “self-steering” axle is an important safety feature as it **keeps your vehicle in line with the tractor at all times**. Triple-axle models are fitted as standard with two self-steering axles (front and rear axles), while the rear axle on tandem models can be steered as an option. The cylinder on the steering axle is operated by a sensor cylinder connected to the tractor by means of a hitching rod with quick coupling. This rod is anchored to the drawbar by means of a ball joint and controls the steering hydraulic circuit. The system is balanced by compensated cylinders that exert the same force in both directions. The circuit is equipped with a monoblock set-up unit including a pressure gauge, a nitrogen accumulator, an alignment valve and a calibration circuit. The advantage of the self-steering system is not only its **self-correcting system**, which automatically lifts the vehicle out of the rut, but above all its **steering both when driving forward and reversing**. A steering axle reduces the tyre wear significantly (less slippage) as well as the torsion on the vehicle in tight bends.

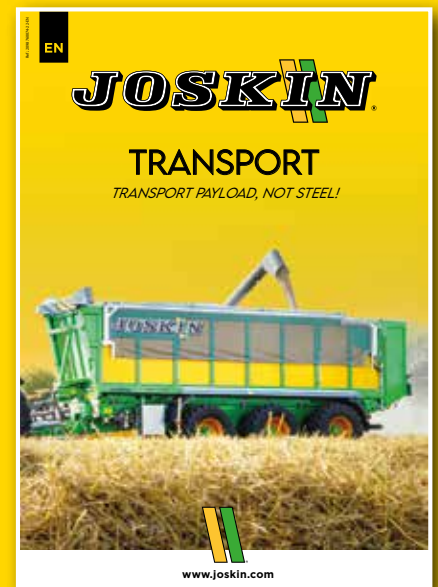
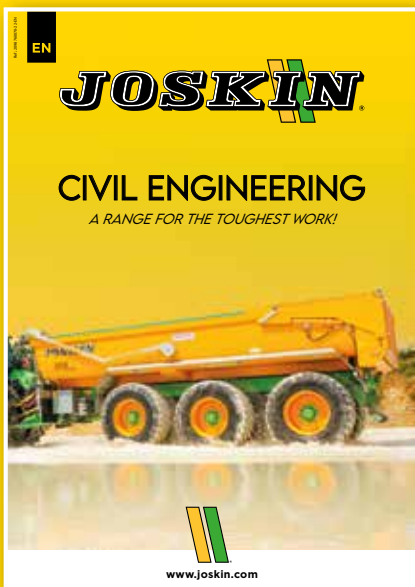
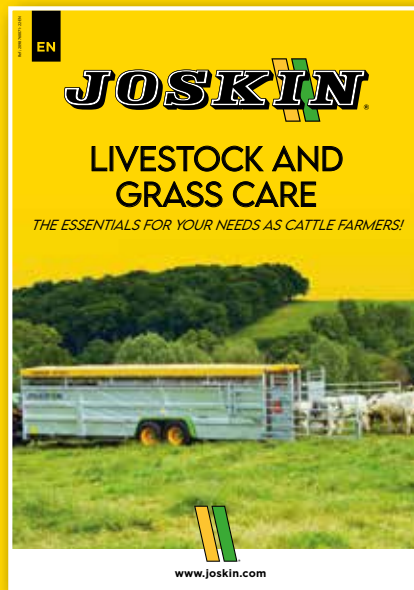
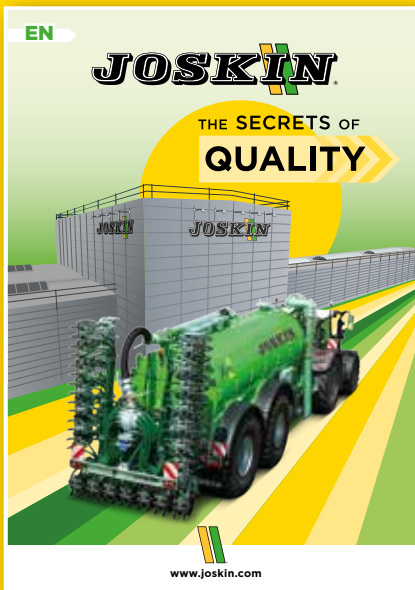


ELECTRONIC SELF-STEERING AXLE(S)

In some cases, it is worthwhile to replace the mechanical self-steering system with an electronically controlled system, which can manage different steering angles according to the driving speed (less steering at high speed and more at low speed), thus considerably increasing manoeuvrability and driving safety.

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