



## Tractor steering axle ZF TERRASTEER

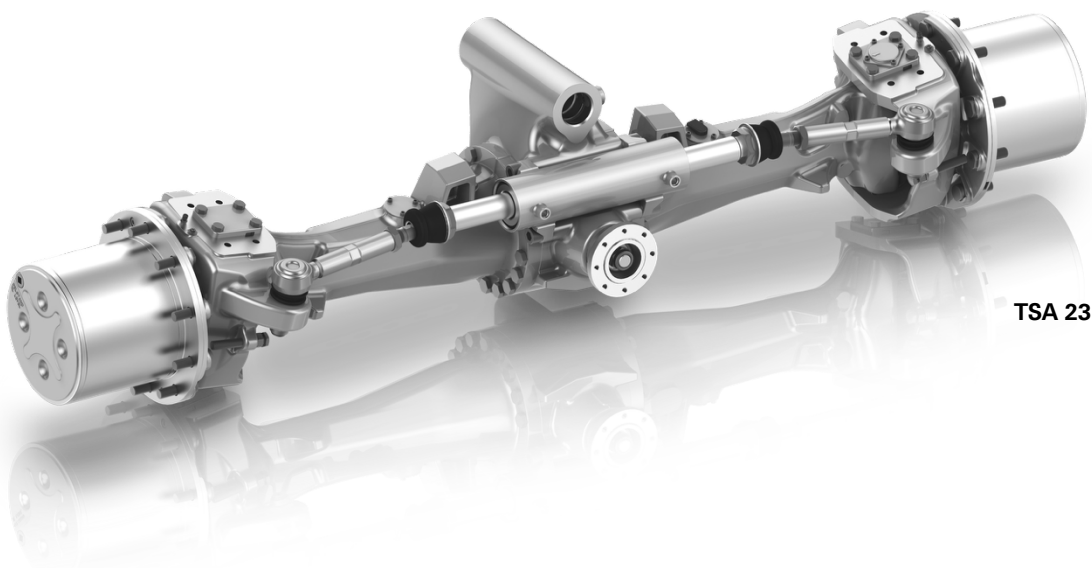
### TSA-Series:

The TSA axle series from ZF is engineered to meet the demands of nearly all 4x4 applications, drawing on decades of expertise in tractor axle technology. With a high planetary gear ratio, the TSA ensures optimal efficiency, a lean design, and high ground clearance – all while supporting high admissible loads.

Steering angles of up to 55° enable excellent maneuverability and minimal soil impact, thanks to precise steering geometry. Its modular architecture allows for flexible configuration, including optional features such as brakes, differential lock, and steering angle sensors.

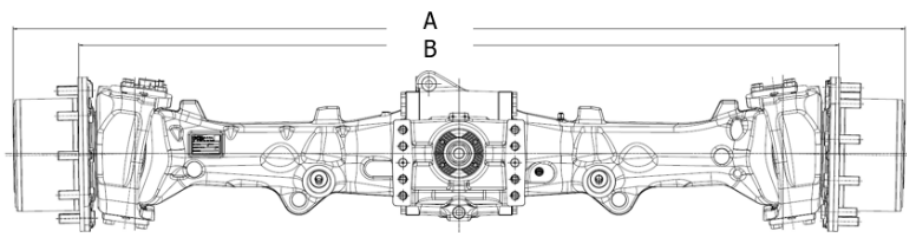
Manufactured across ZF facilities in Europe, Asia, and South America, each TSA axle benefits from global production capabilities and local engineering support. Designed for durability and versatility, the TSA series covers power ranges from 60 to 260 HP, making it a robust solution for a wide variety of agricultural and industrial applications.

- Modular design with standardized parts enables a great variety of additional options
- Lower fuel consumption thanks to reduced weight and increased efficiency
- Large steering angles of up to 55° provide better tractor maneuverability

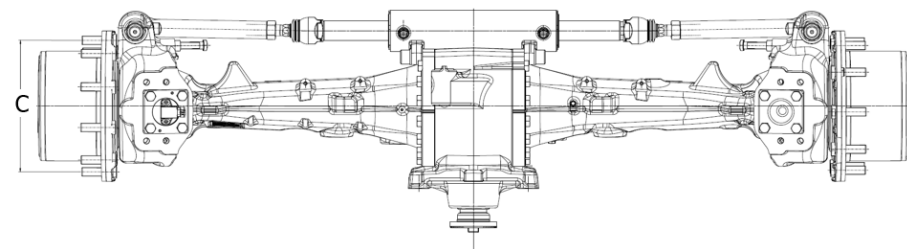


TSA 23

TERRASTEER TSA Rear view



TERRASTEER TSA Top view



Installation Dimension	TSA							
	09	11	12	14	16	20	23	26
Overall width A [mm]	1,811	1,829	1,900	1,953	1,953	2,226	2,226	2,278
Flange-to-flange dimension B [mm]	1,640	1,640	1,680	1,680	1,680	1,900	1,900	1,940
Bolt circle diameter D [mm]	275					335		
Max. steering angle $\beta$ [°]	55°					52°		
Technical Data								
Engine power (reference value) [kW/HP] according to ISO 14396	66/90	77/105	92/125	103/140	114/155	147/200	169/230	191/260
Speed max. [km/h]	50							
Output torque max. [Nm]	21,000	25,000	28,000	30,000	33,000	39,000	43,000	45,000
Overall ratio	11.5 - 16.5		12.0 - 16.5		13.0 - 17.0		13 - 16.5	
Axle weight [kg]	260	265	330	390	400	490	495	510
Static axle load max. [kg]	3,600	4,000	4,500	4,800	5,200	5,800	6,200	6,600
Static axle load with front loader operation max. [kg]	5,600	6,100	6,600	7,000	7,500	8,300	8,700	9,100