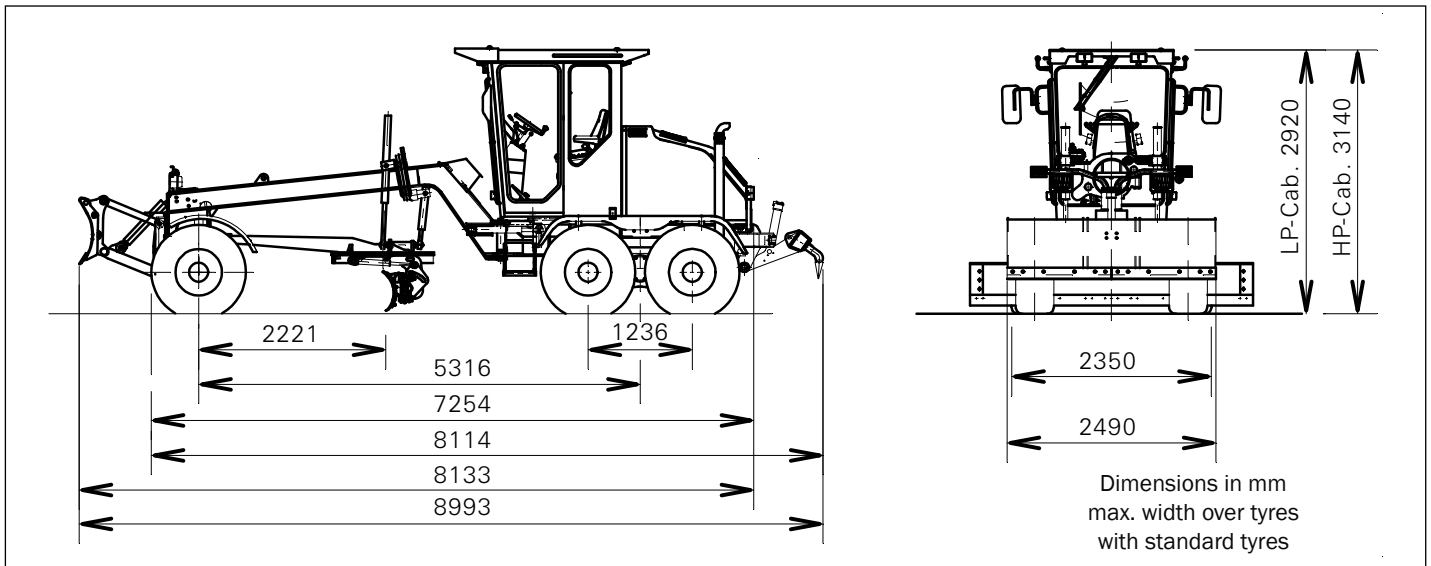




# Motor Grader

**BG 110 T-5 (6x4) / BG 110 TA-5 (6x6)**



### Engine Data

Make/Model	PERKINS/diesel engine
Emission Certification	EU Stage IIIB / U.S. EPA Tier 4(i) / Japanese MLIT Step 4
Type	4 cycle, direct injection, turbo-charged, water-cooled intercooled
Rated net horsepower (ISO 14396)	at 2200 rpm 98 kW/133 HP
No. of cylinders	in line 4
Bore & stroke	105 x 127 mm
Displacement	4.4 litres

Engine equipped with dual element, dry-type air cleaner with dust ejector. 24 volt starting and electrical system. 80 amp alternator and 24 volt starter with 4.5 kW (6.1 HP). 2 batteries 74 Ah each.



### Speeds

(all wheel drive and rear axle drive systems)

Forward	km/h
1.	4.0
2.	7.0
3.	12.0
4.	18.0
5.	25.0
6.	40.0
Reverse	
1.	4.0
2.	12.0
3.	25.0

Acoustic back-up alarm in reverse driving



### Operating Weight

Total weight	approx. 12000 kg
On rear wheels	approx. 8500 kg
On front wheels	approx. 3500 kg

Weights shown include cab, all operating fluids, rear ripper (width 1920 mm), front dozer blade.



### Rear Axle

Oscillating tandem axle with axle insert.  
No-Spin differential  
Multi-disc brakes in all four wheel hubs.  
Parking brake at powershift transmission.



### All Wheel Drive System

Hydrodynamic rear axle drive with 6-speed Ergopower transmission and torque converter (make ZF 6 WG) with freely selectable micro-processor controlled hydrostatic front axle drive. Power train is controlled appropriate to tyre traction.



### Tandems

Drive via roller chains.  
Torsion-proof box sections.

Height	450 mm
Width	171 mm
Thickness of walls	15/18 mm
Wheel base	1236 mm
Oscillation	±15°
Ground clearance	280 mm



### Rear Axle Drive System

Hydrodynamic rear axle drive with 6-speed Ergopower transmission (make ZF 6 WG) and torque converter.



### Wheels & Tyres

Tyre size	405/70 R20 radial
Rim size	13.00 x 20



## Brakes

### Service brake

Dual-circuit, power-assisted, multi-disc oil-bath type, effective on four wheels. Includes reserve power and operator warning system.

### Parking brake

Independent electrically operated brake, acting on rear axle. Hydraulic spring accumulated single disc type.



## Front Axle

### 2 types are available

Oscillation	15° up and down
Steering angle	45°
Wheel lean	±17°
Ground clearance	500 mm

### Non driven with wheel lean (T version)

Stable welded steel beam with wheel lean.

### Driven with wheel lean (TA version)

Stable welded steel beam with wheel lean.

Radial piston engines in wheel hubs.

Pulling power electronically adjustable (infinitely variable depending on surface conditions.).

Possibility to fit in the hydraulic differential lock.



## Steering

Hydraulic power steering	
Minimum turning radius without dozer blade	6400 mm
Minimum turning radius with dozer blade	7050 mm
Steering angle	45°



## Frame

Front and rear frame sections are connected with an adjustment free articulation pin.

### Front: Fully welded rear box section.

Minimum dimensions of box section	240 x 240 mm
Plate thickness	20/12 mm

### Rear: Fully welded rear frame

Dimensions (solid main bars)	210 x 70 mm
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Hydraulic articulated frame steering (left & right)	30°
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## Circle (closed version)

Hardened teeth, machine-cut on inside of circle for maximum strength and minimum wear. The circle is held positively in place by an adjustment free roller bearing.

Diameter	1348 mm
Tooth width	78 mm
Height	130 mm
Distance blade/front axle	2221 mm



## Circle Drive

Hydraulically driven worm gear transmission. Circle drive system is fully protected against impact damage by an overload clutch.

Rotation	360°
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## Drawbar

A-shaped fully welded construction.

Dimensions (solid sections)	30 x 170 mm
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## Moldboard (standard)

Moldboard (10 ft)	3050 x 505 x 15 mm (10' x 19,9"x 0,6")
Blade material	High carbon steel
Blade pull (at a friction factor of 0.8)	BG 110 T-5 61 kN
	BG 110 TA-5 81 kN



## Blade Range

Reach outside tyres without articulation (RH&LH), blade resting on levelled surface	2250 mm / 1690 mm
Reach outside tyres with articulation (RH&LH), blade resting on levelled surface	2820 mm / 2260 mm
Blade side shift	1000 mm
Blade tilt range	40° - 80°
Bank sloping angle (RH&LH)	90°
Lift above ground	455 mm
Cut below ground	430 mm
Distance blade/front axle	2221 mm

All blade movements and positions can be controlled from the operator's seat.



## Operator's Platform

Dimensions	
Width	1150 mm
Depth	1400 mm

Available with various options as listed under "Optional equipment", moldboard control acc. to EURO standard.



## Capacities

Fuel	195.0 litres
Hydraulic oil	140.0 litres
Engine oil	10.0 litres
Ergopower transmission	30.0 litres
Axle drive rear	11.0 litres
Planetary gears and brakes	8.0 litres
Tandem case (2 x 18 litres)	36.0 litres
Circle drive	6.0 litres
Coolant	31.0 litres



## Light Equipment

2 head lights at the front, every 2 indicator lights (including hazard warning lights) at the front and rear, 2 rear lights, 2 brake lights, 1 backup light plus every 2 working lights at the top and bottom at the front of the cab, 2 working lights at the top at the rear of the cab, and 2 tail lights on the sides.



## Load-Sensing Hydraulics

The control valves of the working hydraulics may be actuated at a time and independent of each other. The load-sensing pump (axial piston pump) discharges only the required quantity of oil if a control valve is actuated. When hydraulic power is not required system pressure is only 24 bar and ensures low oil temperature und fuel saving.

Lock valves and brake valves prevent a cylinder drift under load.

Operating pressure	184 bar
max oil flow	132 l/min



## Optional Equipment

### Cab, standard, tiltable

Integrated ROPS/FOPS cab mounted on isolators to limit vibration and noise entering the cab. Excellent all-round visibility. Roomy and comfortable. Adjustable steering pedestal with EURO control lever arrangement. Interior of cab fully lined, floor covering. Tinted safety glass windows, sliding doors left and right with lockable intermediate positions, fresh air heating with pre-filter, air circulation. Adjustable, mechanical spring mounted driver's seat with safety belt. One inside mirror and two folding outside mirrors.

Front window washer.

Wipers front and rear.

Blinds front and rear.

Height / Width / Depth	1980 / 1470 / 1700 mm
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### Cab, low-profile, tiltable

Height / Width / Depth	1760 / 1470 / 1700 mm
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### EP control panel (Joystick controls)

### Air-condition for cab

### Auxiliary heating

### Heatable rear view mirrors

### Beacon (orange)

### Air cushioned drivers' seat

### Recording speedometer

### Cooling box

### Stereo radio with CD-Player

### Sliding side windows

### Protective grids for cabin and lights

Moldboard (11 ft)	3355 x 505 x 15 mm (11' x 19,9" x 0,6")
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Moldboard (12 ft)	3660 x 505 x 15 mm (12' x 19,9" x 0,6")
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### Cover plate for upper guide rail of moldboard

Moldboard extension, left or right (1 ft)	305 mm
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### Adjustable moldboard corner shoes, left or right

### Float position for both moldboard lift cylinders

### Wheels and tyres

Tyre size	16/70-20 diagonal
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Rim size	13.00 x 20
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Tyre size	405/70 R24 radial
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Rim size	13.00 x 24
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Other tyres on request.

### Front dozer blade with position indicator, parallel guided

Width/Height	2490 x 765 mm
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Cut below ground	130 mm
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Lift above ground	585 mm
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Weight	760 kg
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### Rear ripper with depth penetration indicator, 4 teeth (max. 7)

Width	1920 mm
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Ripping depth	260 mm
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Lift above ground	450 mm
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Weight	450 kg
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### Mudguards

on front wheels

### Mudguards

on rear wheels

### Protective covers for transmission in different versions

### Articulation angle indicator

### Biological Oil in hydraulic system

### Special paint

### Fuel tank pump with automatic switch-off

Tool kit, wheel chocks, warning triangle, fire extinguisher, first aid kit etc.

### Automatic blade control

Various 2D / 3D / GPS systems

### CE certificate

### Speed limitation at 25 km/h possible



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Technical data are subject to alteration.