

 **HBM-NOBAS**  
BAUMASCHINEN

# High Performance Grader



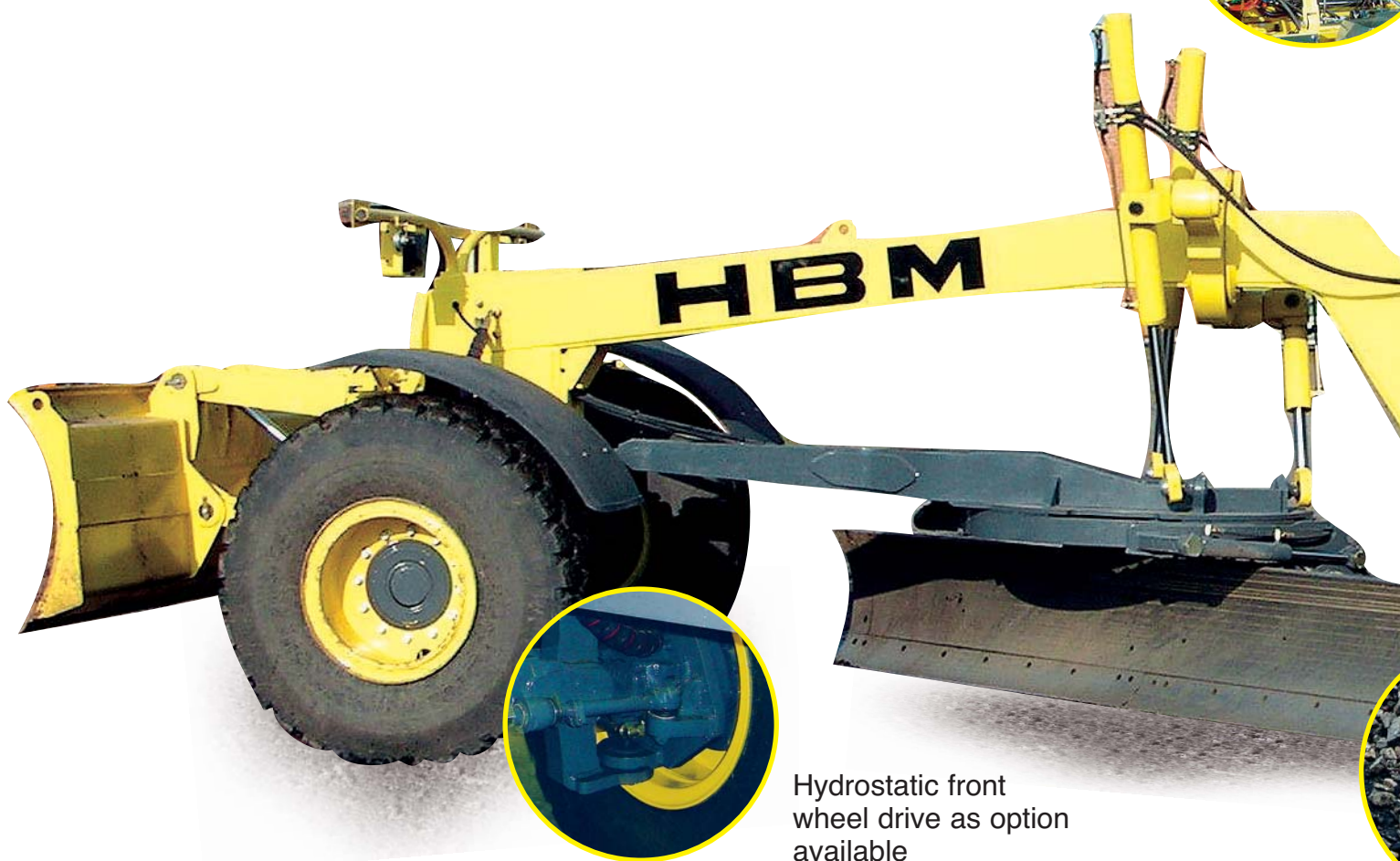
## MOTOR GRADER

BG 240 T-4 (6 x 4)

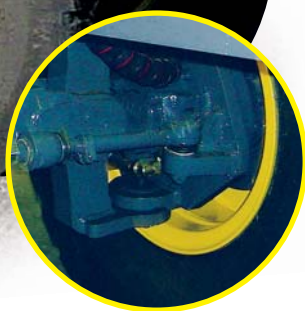
BG 240 TA-4 (6 x 6)

# BG 240 T-4 (6 x 4) / BG 240 TA-4 (6 x 6)

Drivers cab tiltable  
for easy service



Hydrostatic front  
wheel drive as option  
available

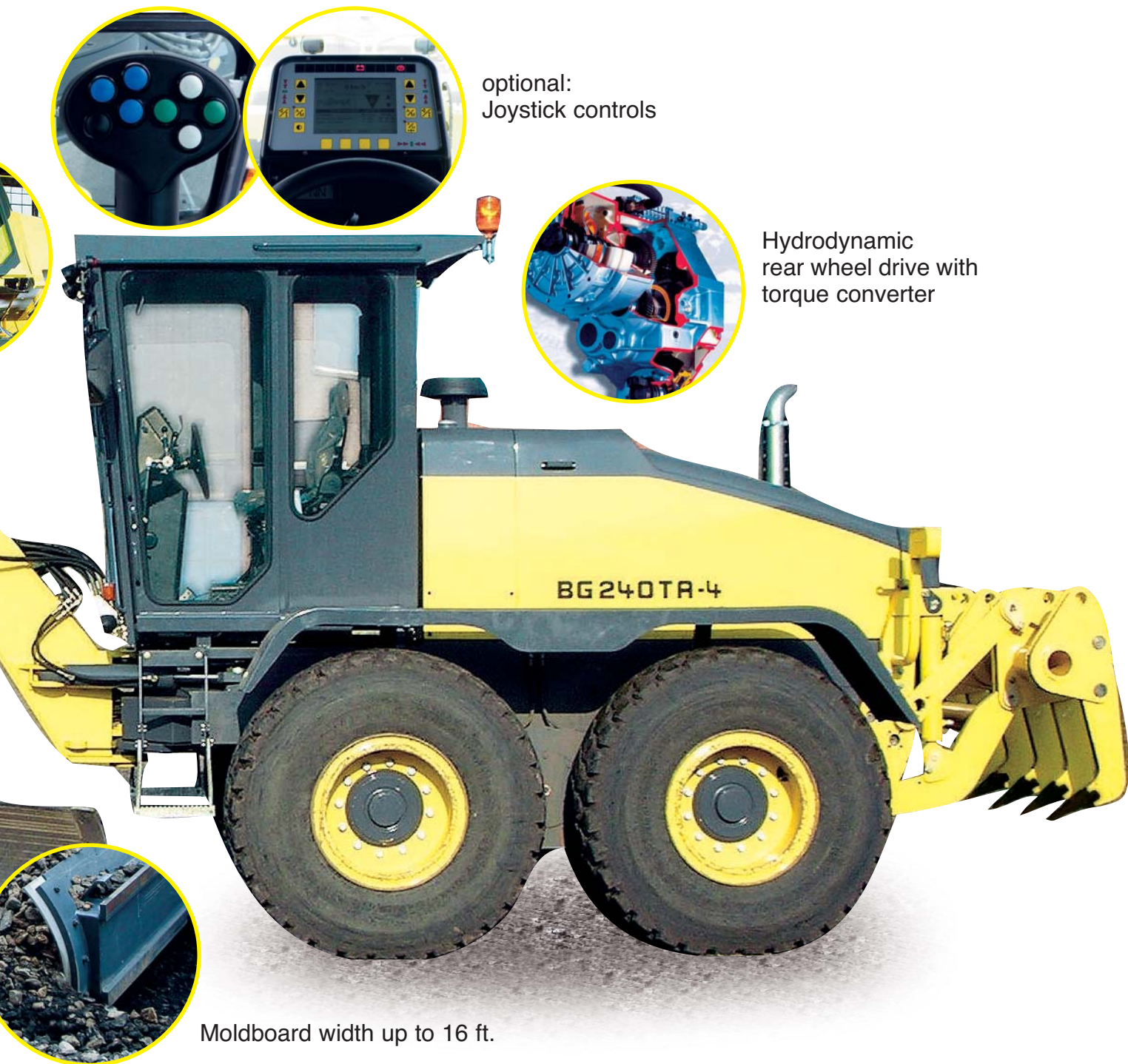


The BG 240 is one of the most powerful graders worldwide. Its hydrodynamic tandem drive provides an extremely high torque at the four rear wheels for starting and guarantees excellent acceleration even under full load. In combination with the hydrostatic front wheel drive (optional), it can handle the heaviest jobs without difficulty. When the ground condi-

tions are very difficult, the standard installed differential lock can be engaged on the front and rear axle to prevent spinning of the wheels. This makes the machine ideal for difficult jobs on building sites as well as for maintenance work on unpaved roads in complicated environmental conditions and for other extremely heavy grader work.

There is more to it than that: With our drive philosophy we account for the demand on flexibility with high-speed grader works. By applying the torque converter lock-up (optional), the BG 240 changes into a machine with direct mechanical drive without conversion loss in the drive line. Its travelling performance with a maximum speed of about 50 km/h in

this mode speaks for itself. Now, with the BG 240, complicated shifting and controlling by the operator are things of the past. After selecting the required mode, the grader is able to adjust automatically to the requirements of the particular operating mode. The grader is alternatively equipped either with NAIS (rods) or with joystick controls. Good panora-



optional:  
Joystick controls

Hydrodynamic  
rear wheel drive with  
torque converter

Moldboard width up to 16 ft.

mic view and ergonomically designed controls further facilitate the operator's work either in the standard cabin or the optional low-profile cab. The easy to operate tilting system of the cabin is one of the special characteristics of the BG 240, not just because of its good serviceability. With the powerful mouldboard, the grader has the

prerequisite for its high performance. Based on our decades of experience in building graders, for developing the BG 240 we directed our special attention on high shifting speed and long outreach of the mouldboard. With its optional mouldboard width of 16 feet (4.88 m), the BG 240 can fully utilize all of its traction power and can provide extremely high yar-

dage. The roller mounted slewing ring (optional), which is unique in this grader class, ensures precise work and guarantees levelling tolerances accurate to the millimetre.

Despite of 23 tonnes of service weight, the BG 240 is a distinctly compact machine. Fully hydraulic front wheel steering, articulated frame

steering, excellent clarity and incomparable accelerating and pushing force make the machine to be an extremely manoeuvrable and powerful machine. Referred to other graders of its class, it is a truly high-performance grader.



## Engine Data

Make/Model CUMMINS /diesel engine  
 Typ 4 cycle, direct injection, turbo charged, water-cooled,  
 Rated net horsepower (SAE J 1995) at 2200 RPM 164 kW/223 HP  
 at 2000 RPM 172 kW/234 HP  
 No. of cylinders in line 6  
 Bore & stroke 107 x 124 mm  
 Displacement 6,7 litres  
 Engine equipped with a dual element, dry-type air cleaner with dust ejector. 24 volt starting and electrical system. 70 amp alternator and 24 volt starter with 3,7 kW (5,0 HP).  
 2 batteries 100 Ah each.



## Operating weight

Total weight approx. 23 000 kg  
 On rear wheels approx. 17 000 kg  
 On front wheels approx. 6 000 kg

Weights shown include cab, all operating fluids, HD rear ripper, front dozer blade.



## All wheel drive system

Hydrodynamic rear axle drive with 6-speed Ergopower transmission and torque converter as well as freely selectable microprocessor controlled hydrostatic front axle drive. Power train is controlled appropriate to tyre traction of front and rear wheels.



## Rear axle drive system

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

### Speeds for all wheel drive and rear axle drive systems \*

(tyres 20.5 R25)

Forward	km/h
1.	5,00
2.	8,00
3.	13,00
4.	20,00
5.	30,00
6.	47,00
Reverse	km/h
1.	5,00
2.	13,00
3.	32,00

Acoustic back up alarm in reverse driving.

\* Speed with torque converter lock-up, permitted max. speed may vary depending on national regulations.



## Rear Axle

Oscillating tandem axle.  
 Lock-on/Lock-off differential 100%.  
 Multi-disc brakes in all four wheel hubs.  
 Parking brake at tandem axle.



## Tandems

Drive via roller chains.  
 Torsion-proof box sections.  
 Height 580 mm  
 Width 208 mm  
 Thickness of walls 25 mm  
 Wheel base 1632 mm  
 Oscillation  $\pm 15^\circ$   
 Ground clearance 520 mm



## Wheels & Tyres

Tyre size 17.5 R25 radial  
 Rim size 14 x 25/1.3



## Brakes

### Service brake

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

### Parking brake

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



## Front Axle

### 2 types are available

Oscillation 15° up and down  
 Steering angle 45°  
 Wheel lean  $\pm 17^\circ$   
 Ground clearance 591 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 and radial piston engines in wheel hubs. Pull force electronically adjustable (infinitely variable).  
 Possibility to fit in the hydraulic differential lock.



## Steering

Hydraulic power steering.

Minimum turning radius without dozer blade 7700 mm  
 Minimum turning radius with dozer blade 8600 mm  
 Steering angle 45°



## Frame

Front and rear frame sections connected with an adjustment-free articulated pin.

**Front:** Fully welded box section  
 Minimum dimensions of box section 300 x 310 mm  
 Plate thickness 25 mm

**Rear:** Fully welded section  
 Dimensions (solid main bars) 510 x 90 mm

Hydraulic articulated frame steering (left & right) 30°



## Circle

Hardened teeth, cut on inside of circle for maximum strength and minimum wear. The circle is held positively in place at four points by four clamps and guide shoes. The clamp and guide shoes are located where greatest loading occurs.

Diameter	1510 mm
Thickness	40 mm
Height	110 mm
Adjustable shoes and clamps	4



## Circle drive

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

Rotation	360°
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## Drawbar

Y-shaped fully welded construction.

Dimensions (solid sections)	40 x 210 mm
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## Moldboard (Standard)

Moldboard (14 ft)	4267 x 661 x 20 mm
Blade material	High carbon steel
Blade pull at a friction factor of 0,8	BG 240 T-4 124 kN BG 240 TA-4 154 kN



## Blade Range

Reach outside tyres without articulation (RH&LH)	2600 / 1800 mm
Reach outside tyres with articulation (RH&LH) blade resting on levelled surface	3430 / 2630 mm
Blade side shift	1250 mm
Blade tilt range	36°-76°
Bank sloping angle (RH&LH)	90°
Lift above ground	510 mm
Cut below ground	590 mm
Distance blade / front axle	2719 mm

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



## Operator's Platform

<b>Dimensions</b>	
Width	1150 mm
Depth	1400 mm
Available with various options as listed under „Optional equipment“.	



## Capacities

Fuel tank	515,0 litres
Hydraulic oil tank	150,0 litres
Engine oil	18,0 litres
Ergopower transmission	35,0 litres
Axle drive, rear	27,5 litres
Planetary gears, front (BG 240 TA-4)	3,6 litres
Planetary gears and brakes	27,0 litres
Tandem (2 x 21 litres)	42,0 litres
Circle drive	9,0 litres
Coolant	38,0 litres



## Light Equipment

2 headlights front, 2 direction indicator lights each (including warning signal flasher) front and rear and additional 2 at cab, 2 tail lights, 2 stop lights, 1 back-up light, clearance lights, 2 working lights rear, 2 working lights front each at lower and upper edge of cab.



## 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 this low standby pressure improves fuel-efficiency and reduces heat generation.

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

Operating pressure	225 bar
Oil flow, max.	99 l/min



## Optional Equipment

### Standard-Cab, 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 NAIS (rods) 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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### Low-profile cab, tiltable

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

### Air-condition for cab

### Heatable rear view mirrors

### Auxilliary heating

### Beacon (orange)

### Air-cushioned driver's seat

### Recording speedometer

### Cooling box

### Stereo radio with CD-player

### Sliding side windows

### Protective grids for lights and cabin

## Circle Drawbar

Hardened teeth, machine-cut on inside of circle for maximum strength and maximum wear. The circle is held positively in place by an adjustment-free roller bearing. Drawbar fully welded solid section in "Y"-design.

Circle diameter	1510 mm
Tool width	83 mm
Height	130 mm

Moldboard (13 ft)	3962 x 661 x 20 mm
Moldboard (16 ft)	4876 x 661 x 20 mm

## Cover plate for upper guide rail of moldboard

Adjustable moldboard corner shoe, left or right

Moldboard extension, left or right (1 ft)	305 mm
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Float position for both moldboard lift cylinders

Electric fuel pump with automatic switch-off

Towing device, tiltable

## Wheels and tyres

Tyre size	17.5-25 diagonal
Rim size	14.00 x 25/1.3
Tyre size	20.5 - 25 diagonal
Rim size	14.00 x 25/1.3
Tyre size	20.5 R25 radial
Rim size	14.00 x 25/1.3

## Heavy-duty rear ripper, with depth indicator

6 teeth	
Width	2120 mm
Ripping depth	270 mm
Lift above ground	570 mm
Weight	1529 kg

## Front dozer blade, with position indicator

Width / Height	2980 x 950 mm
Cut below ground	110 mm
Lift above ground	560 mm
Weight	950 kg

## Scarifier in front of front axle

Mudguards on rear wheels

Mudguards on front wheels

Protective cover for powershift transmission

Biological Oil in hydraulic system

Articulation angle indicator

Fuel tank pump with automatic switch-off

Special paint

Lock up clutch for torque converter

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

Automatic blade control

Various automatic laser or ultrasonic controlled blade systems

CE certificate

Speed limitation at 20 km/h possible

