

MOTOR GRADER

BG 160 T-4 (6 x 4) BG 160 TA-4 (6 x 6)



Engine Data

Make/Model CUMMINS /diesel engine
Type 4 cycle, direct injection, turbo charged, water-cooled, intercooled
No. of cylinder in line 6
Bore & stroke 107 x 124 mm
Displacement 6.7 litres

Base Power

Rated net horsepower (SAE J 1995) at 2200 RPM, 119 kW/162 HP
Engine equipped with a dual element, dry type air cleaner with dust ejector. 24 V starting and electrical system. 70 Amp alternator and 24 V starter with 3.7 kW (5.0 HP). 2 batteries 74 Ah each.



Rear axle drive system

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

Speeds (all wheel drive and rear axle drive systems)

	km/h
Forward	
1.	4.3
2.	6.7
3.	11.0
4.	17.2
5.	25.0
6.	40.0

Reverse

1.	4.3
2.	11.0
3.	25.0

Acoustic back up alarm in reverse driving



Operating weight

Total weight approx. 16000 kg
On rear wheels approx. 11200 kg
On front wheels approx. 4800 kg

Weights shown include cab, all operating fluids, 4-teeth rear ripper, front dozer blade



Rear Axle

Oscillating tandem axle with axle insert.
Operator controlled wet multiple disc lock/unlock differential.
Multi-disc brakes in all four wheel hubs.
Parking brake at powershift transmission.



Tandems

Drive via roller chains.
Torsion-proof box section.
Height 550 mm
Width 184 mm
Thickness of walls 20 mm
Wheel base 1542 mm
Oscillation $\pm 15^\circ$
Ground clearance 435 mm



All wheel drive system

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



Wheels & Tyres

Tyre size	455/70 R24 radial
Rim size	13.00 x 24



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 power shift
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	546 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, pulling power on surface conditions.
Electronically adjustable (infinitely variable), possibility to fit in the hydraulic differential lock.



Steering

Hydraulic power steering	
Minimum turning radius without dozer blade	6900 mm
Minimum turning radius with dozer blade	7650 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	270 x 270 mm
Plate thickness	20 mm

Rear: Fully welded box section	
Dimensions (solid main bars)	250 x 80 mm
Hydraulic articulated frame steering (left & right)	30°



Circle

Hardened teeth, flame-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	1348 mm
Thickness	40 mm
Height	95 mm
Adjustable guide 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)	30 x 175 mm
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Moldboard (Standard)

Moldboard (12 ft)	3660 x 580 x 20 mm
Blade material	High carbon steel
Blade pull (at a friction factor of 0,8)	
BG 160 T-4	89 kN
BG 160 TA-4	114 kN



Blade Range

Reach outside tyres without articulation (RH&LH) blade resting on levelled surface	2220 mm/1780 mm
Reach outside tyres with articulation (RH&LH), blade resting on levelled surface	3050 mm/2610 mm
Blade side shift	1250 mm
Blade tilt range	38°-78°
Bank sloping angle (RH&LH)	90°
Lift above ground	480 mm
Cut below ground	520 mm
Distance blade/front axle	2204 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 tank	310.0 litres
Hydraulic oil tank	170.0 litres
Engine oil	18.0 litres
Ergopower transmission	34.0 litres
Axle drive front (BG 160 TA-4)	8.3 litres
Axle drive rear	13.5 litres
Planetary gears front (BG 160 TA-4)	3.6 litres
Planetary gears and brakes	16.0 litres
Tandem case (2 x 21 litres)	42.0 litres
Circle drive	6.0 litres
Coolant	33.0 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	205 bar
Oil flow, max.	99l/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 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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Low-profile cab, tiltable

Height / Width / Depth	1760 / 1470 / 1700 mm
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NAIS control panel

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 strenght and minimum wear. The circle is held positively in place by an adjustment-free roller bearing. Drawbar fully welded solid section in "Y"-design.

Circle diameter	1348 mm
Tool widht	78 mm
Height	130 mm

Moldboard (11 ft)	3355 x 580 x 20 mm
Moldboard (14 ft)	4267 x 580 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	14.00-24 diagonal
Rim size	10.00 x 24

Tyre size	405/70 R24 radial
Rim size	13.00 x 24

Tyre size	17.5 R25 radial
Rim size	14.00 x 25/1.3

Other types on request.

Rear ripper with depth penetration indicator	4 teeth (max. 7)
Width	2120 mm
Ripping depth	285 mm
Lift above ground	580 mm
Weight	610 kg

Heavy-duty rear ripper, with depth indicator	6 teeth
Width	2120 mm
Ripping depth	375 mm
Lift above ground	590 mm
Weight	1529 kg
(only with front blade or counter weight in front)	

Front dozer blade with position indicator	
Width/Height	2490 x 703 mm
Cut below ground	250 mm
Lift above ground	605 mm
Weight	691 kg

Scarifier, in front of front axle

Front dozer, articulated

Front ballast instead of dozer blade	380 kg
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Mudguards	on rear wheels
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Mudguards	on front wheels
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Protective cover for powershift transmission

Biological Oil in hydraulic system

Articulation angle indicator

Fuel tank pump with automatic switch-off

Lock-up clutch for torque converter

Special paint

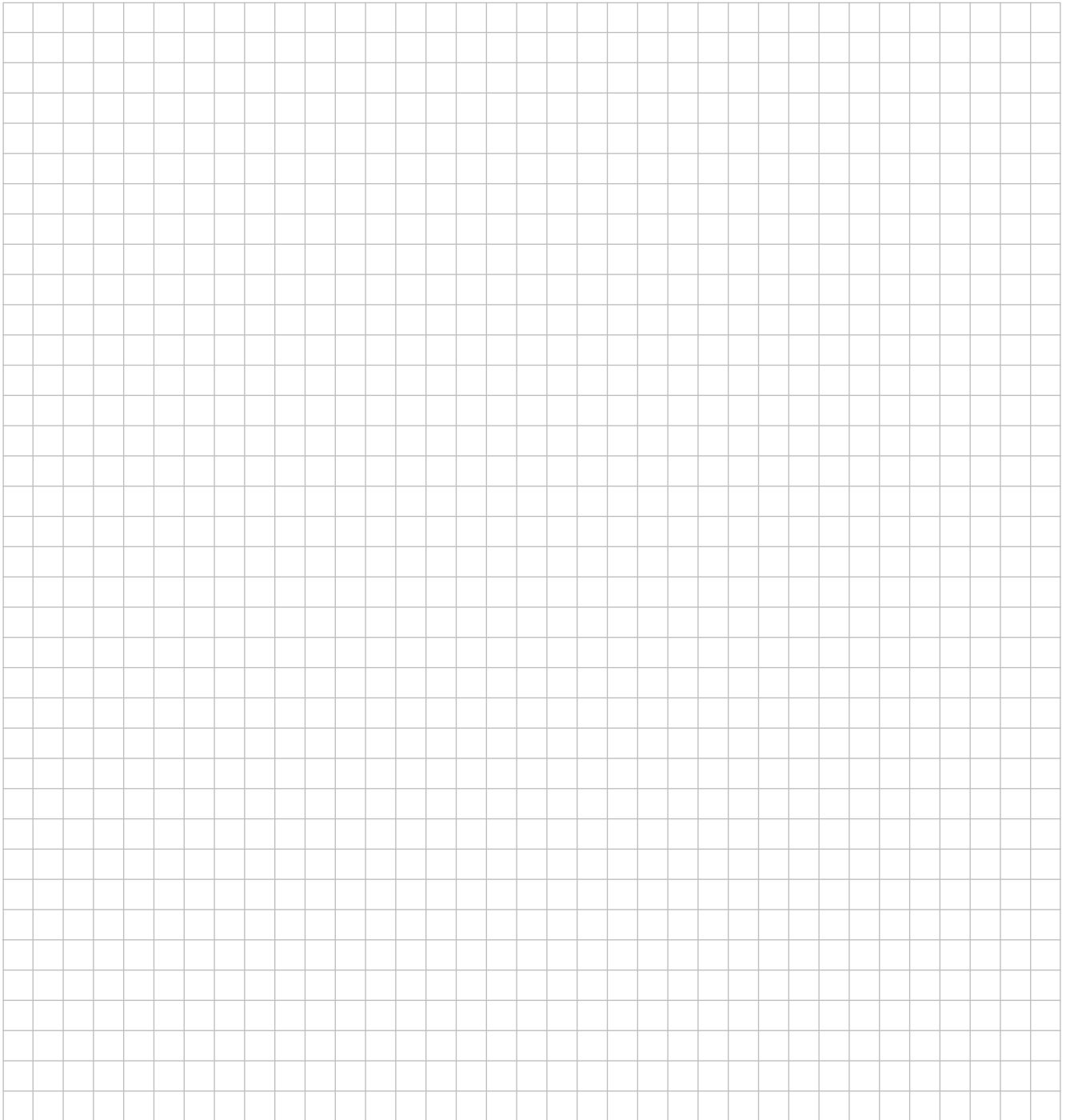
Tool kit, wheel chocks, warning triangle, fire extinguisher, first aid kit etc.

Automatic blade control

Various automatic laser or ultrasonic controlled blade systems

CE certificate

Speed limitation at 25 km/h possible



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