

HMK MG330

MOTOR GRADER



HIDROMEK®

MG330 RELIABLE PERFORMANCE





MG330

YOUR RELIABLE PARTNER!

Hidromek proudly introduces the Hidromek Motor Grader Models MG330 of which durability and performance are well proven in wide range of markets.

Built to handle almost any job-precision finishing, scarifying, bank-cutting, ditch working.

The clean and powerful turbo-charged diesel engine has been adopted for the MG330, ensuring reliable work under the toughest conditions.

Dual independent braking systems mean that the MG330 Motor Graders can be brought to an immediate stop at any time, while the cab is designed with full attention to operators' needs.



Engine to Meet Tough Needs

Direct-injection, turbo-charged Mitsubishi 6D16-T engine offers superior output and high torque levels. This powerful engine, known for its low fuel consumption, low emission, and reliability, packs a powerful 101 kW (135 HP) / 2200 rpm output, ensuring that the MG330 always give outstanding performance under any conditions, from light to heavy duty work.

The efficient turbo-charged ensures excellent performance even when working at high altitudes of up to 3000 meters. MG330's engines also feature easy starting, and outstanding durability.

Frame Structure (High Strength Main Frame)

The computer simulations and actual field tests were used to develop the MG330's high strength main frame. The design eliminates stress points for increased durability and long life.

The MG330's feature strong durable main frame developed using the latest design and materials' technology and proven using computer simulation tests.

Differential Lock / Unlock

The differential lock/unlock features optional on MG330, improving performance during turning or when operating on rough underfoot conditions. The easy-to-operate lock/unlock switch is located on the front console.



Direct Power Shift (DPS) Transmission

The direct drive planetary gear transmission, which was developed especially for the MG330, is designed to match the high performance 6D16-T diesel engine for optimum efficiency. This transmission eliminates momentum loss by enabling immediate engagement of any of the MG330's 6 forward or reverse gears without using the clutch.

By this perfect combination with the engine and DPS transmission, MG330 provides maximum travel and working speeds with optimum drawbar pull.



MG330 offers maximum productivity and durability

Moldboard (Blade)

Equipped as optional with a tip cylinder, the blade has excellent Rolling performance, which allows a variety of operations, ranging from levelling sand to mixing, dozing and digging everything or snow and ice removal.

Cutting edges and endbits are available to maintain maximum service life.



Blade-Slip Clutch

The MG330 feature an optional blade-slip clutch, an alternative clutch protection system to the conventional shear-pin mechanism.

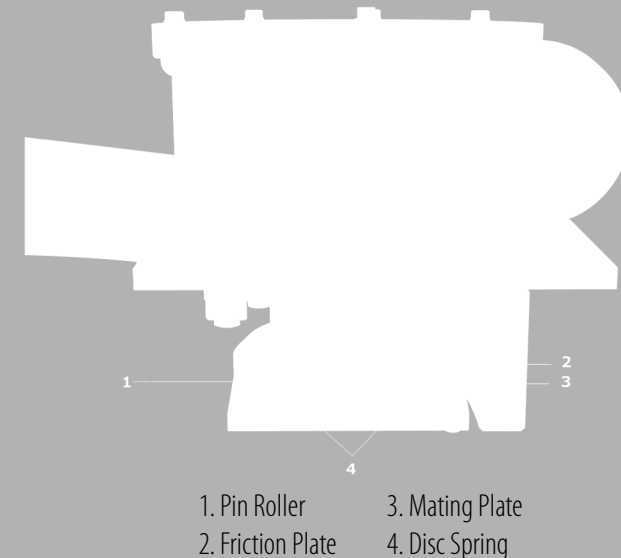
The MG330's clutch may slip when an abnormally strong external force is exerted on the blade, to give full protection against destructive overloading.

The main advantages of the blade-slip clutch over the shear-pin type mechanism include the elimination of replacement parts, such as shear pin, and the time and expense needed for maintenance. Please note that the blade rotating torque can be set for optimum performance, contributing to greater working efficiency.

In-Seat Bank-Cut Operations

The MG330 feature a strong, durable main frame, developed using the latest design and materials' technology and proven using computer simulation tests.

The adoption of in-seat bank-cut system makes it possible to control the position of the blade from the cab. This ensures a wider range of applications from fine finishing through bank cutting. The machine can be set to cut 90 degrees left or right.



1. Pin Roller
2. Friction Plate
3. Mating Plate
4. Disc Spring

OPERATOR COMFORT



Wide Visibility

MG330 series motor graders optional operator cab has been designed to offer a wide range of visibility to the operator for a better, safer and more comfortable operation.



Adjustable Operator Seat

ROPS and FOPS certified cab offers a safe and comfortable working environment to the operators. The deluxe suspension seat offers wide ranging adjustments which allows the operator to choose the best sitting position.



MG330



Transmission Shift Lever

The transmission shift lever allows operator to select the optimal combination of machine speed and drawbar pull from among six forward and six reverse gears, improving operating efficiency in a variety of operations. The transmission lever requires little effort to adjust, ensuring superb operating smoothness.



Hydraulic Operating Levers

MG330 series motor graders are fitted with "Industry Standart" soft touch, short stroke levers which are direct coupled by rod and ball linkage to the hydraulic control valves. The system provides precise implement control with minimum stress to the operator.





SERVICE AND MAINTENANCE

Designed for easy operation, the locking engine compartment side cover incorporates a one-touch gas damper.

In addition to opening easily, the cover is large enough to provide easy access to all engine components and facilitate oil, battery fluid level and other daily checks. Filters also located to be changed easily.

The fuel cap is located to the side of the engine compartment so that it can be refilled easily from the ground level.

The fuse box is positioned to the right of the operator's seat for easy access.

The service hour meter is located on the side console so that it can be checked easily by the operator.

Air supply system is a standard equipment for MG330, which can be used as an air source to inflate tires by using an optional tire charge hose.

Quick, straightforward inspections also allow operators to monitor vehicle status closely, so that MG330 maintenance is almost always preventive.





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SAFETY FIRST!

The engine can only be started when the transmission lever is in the neutral position.

A warning buzzer sounds to alert the operator if the transmission shift lever is operated while the parking brake remains engaged.

If air pressure is insufficient to power the service brakes, an alarm buzzer sounds until pressure is recharged.

In case of engine overheating, an alarm buzzer sounds to indicate. If this warning is ignored, the engine will eventually shut off itself.

Emergency steering system is an optional feature for MG330.

ROPS/FOPS Cab

ROPS/FOPS Cab provides low sound and low vibration. Noise levels are below industry standards due to the acoustic design of the cabin. All round work site vision from the operator platform is unrestricted with blade (moldboard) and rear implement (ripper) vision being exceptional due to the large one piece front and rear windscreens. All windows are tinted as standard.

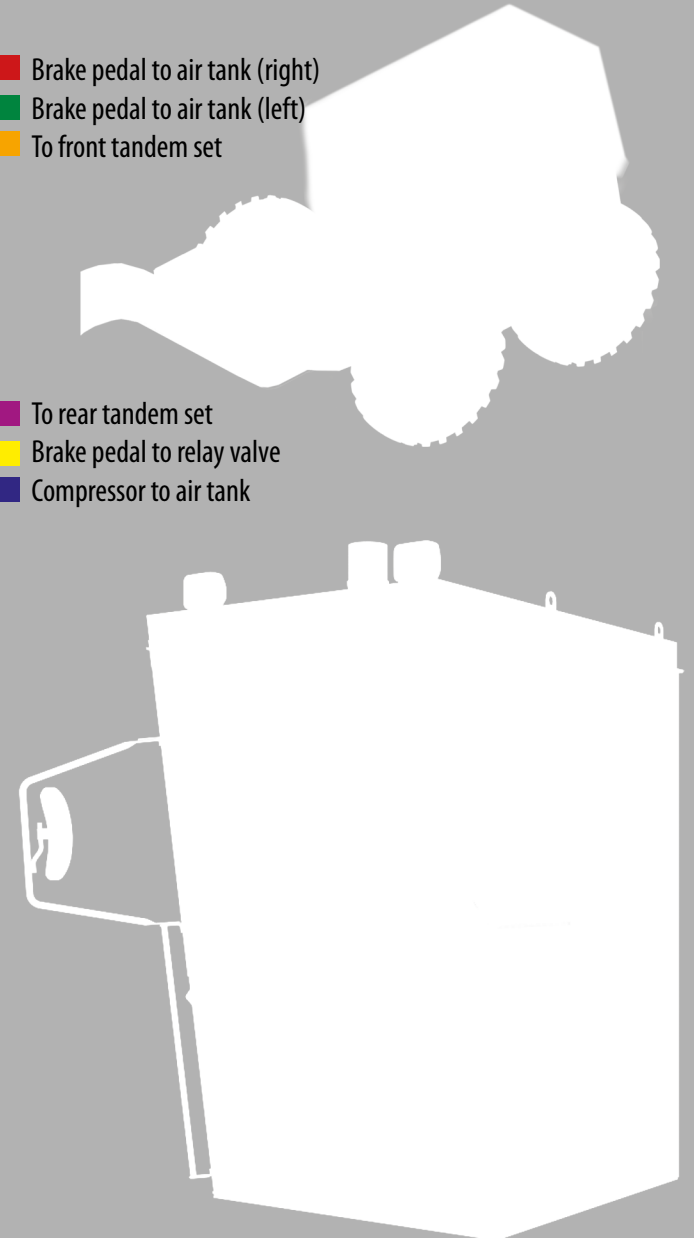
To minimize the amount of noise and vibration that reaches to operator, the cabin and engine compartment are fully separated. Also, the engine compartment uses double-layer soundproofing on the cabin side and the cabin is rubber-mounted.

Fail-Safe Braking System

Two completely independent air-actuated oil-cooled disc brake systems provide on demand positive braking with only a light touch of the pedal which ensure that braking is instantaneous, noiseless and, most important, fail-safe. Duplicate back-up air circuits give operators complete control even in the case of a system malfunction.

- Brake pedal to air tank (right)
- Brake pedal to air tank (left)
- To front tandem set

- To rear tandem set
- Brake pedal to relay valve
- Compressor to air tank





ATTACHMENTS

Moldboard (Blade)

Equipped as optional with a tip cylinder, the blade has excellent rolling performance, which allows a variety of operations, ranging from levelling sand to mixing, dozing and digging everything or snow and ice removal.

The moldboard provides optimal curvature and large throat clearance that helps move all soil types quickly and efficiently. Cutting edges and endbits are available to maintain maximum service life.

Midmounted Scarifier

Positioned between the front axle and the blade to break up tough material that the blade can then move, all in a single pass. Scarifier includes 9 teeth. 11 teeth option is also available.

Front Mounted Attachments

Push plate/counterweight, front blade are available to attach on machine as optional.

Rear Ripper

The MG330's optional ripper is made to penetrate tough material fast and rip thoroughly for easier material movement with the moldboard. The ripper includes three shanks. Five shanked option is also available.

Ground Engaging Attachments

A wide variety of cutting edges and end bits are available.



ENGINE

Model	Mitsubishi 6D16-T
Type	Water cooled 4 cycle, in-line 6 cylinder direct-injection, with turbo- charged, diesel engine
No. of cylinder - bore x stroke	6 – 118 mm x 115 mm
Piston displacement	7545 cc
Emission Level	Compatible with USA EPA Tier 1 and European
Performance	
Rated RPM	@2200 RPM
Flywheel horsepower	135 HP (101 KW)
Max. torque	608 Nm
Fuel system	
Fuel	Diesel gas oil, ASTM specification D975-60T NO.2D
Governor	Centrifugal type, minimum, maximum control
Lubrication system	
Type	Forced lubrication by gear pump
Filter	Full-flow
Oil Cooler	Water cooled
Cooling system	Forced circulation by centrifugal water pump, blow type fan
Air-cleaner	Dry cyclone type with dust evacuator Double elements air cleaner
Compressor	
Type	Air cooled
Displacement	301 cc
Starting method	
Type	Electric starting motor
Starting motor	24V - 5,0 KW
Alternator	24V - 50A
Battery	24V (12V – 110Ah) x 2

POWER TRAIN

Power control unit	
Type	Hydraulically controlled, 8 spool type control valve with safety valve
Transmission	Power shift (Planetary gear, hydraulically actuated) with 6 speeds for both forward and reverse
Final Drive	Final Drive Double-reduction by spiral bevel and planetary gear without differential
Brake	
Service brake	Air-actuated, oil cooled disc brake on four rear wheels
Parking brake	Spring-engaged, air disengaged multiple oil disc brake on transmission shaft

PERFORMANCE

Speeds	
Forward	
1st	3,6 km/h
2nd	6,3 km/h
3rd	10,2 km/h
4th	15,1 km/h
5th	26 km/h
6th	42,4 km/h
Reverse	
1st	3,7 km/h
2nd	6,4 km/h
3rd	10,4 km/h
4th	15,4 km/h
5th	26,4 km/h
6th	43,2 km/h
Max. drawbar pull	62171 N (6344 kg)

HYDRAULIC SYSTEM

Circuit	Open-center
Oil pump	Tandem gear pump
Capacity	(discharge flow at engine 2200 RPM) 60 L/min. for steering circuit 60+60 L/min. for blade/other equipment
Relief pressure	172 bar for steering 17,2 bar for equipment
Oil Motor	
Type	Trochoid motor
Capacity	76 L/min

SERVICE CAPACITY

Radiator	34 L
Fuel tank	230 L
Engine crankcase	13 L
Transmission	29 L
Rear axle case	34 L
Hydraulic tank	67 L
Tandem drive case (each side)	73 L
Circle reverse gear case	3,5 L

FRAME

Main frame	Fabricated steel box section
Section (width x height)	250 mm x 318 mm
Rear frame	Fabricated steel, integral with rear axle case
Rear axle	Full floating
Front axle	
Type	Reversed elliot type, hydraulic leaning
Oscillation	15 Degrees Left or Right
Wheel lean	20 Degrees Left or Right
Ground clearance	555 mm
Drawbar	
Type	A-shaped, angle section
Section (height x thickness)	150 mm x 15 mm
Circle	
Type	Internal gear
Outside diameter	1420 mm
Turning angle	360 Degrees
Circle rotation control	Hydraulic
Circle guide shoes	6

TANDEM DRIVE

Roller chain drive	
Height	492 mm
Width	196 mm
Sidewall thickness	
Inner	22 mm
Outer	12 mm
Drive chain pitch	44,45 mm
Wheel axle spacing	1505 mm
Tandem oscillation	
Front up	13 Degrees
Front down	12 Degrees

OPERATING WEIGHT

13.400 kg

with full fuel tank, lubricants, coolant, hydraulic equipment, operator, 3,710 mm blade, 13,00-24-12PR tires, Mid-mounted Scarifier, Rear ripper and ROPS/FOPS cab, front counter weight

MOLDBOARD (BLADE)

Type	Wear-resistant steel, with box section reinforcement with hydraulic side shift
Length x Height x Thickness	3710 mm x 610 mm x 19 mm
Number of cutting edges	
Length x Height x Thickness	2 - 1829 mm x 152 mm x 15,9 mm
Blade Base	2500 mm

BLADE RANGE

Max. lift above ground	460 mm
Max. drop below ground	630 mm
Max. shoulder reach	
Left	1890 mm
Right	1900 mm
Max. bank cutting angle	90 Degrees
Cutting angle (min. - max.)	36 to 81 Degrees

STEERING SYSTEM

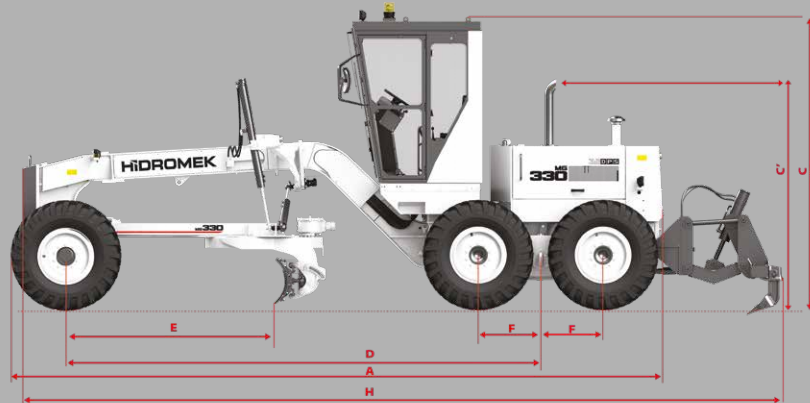
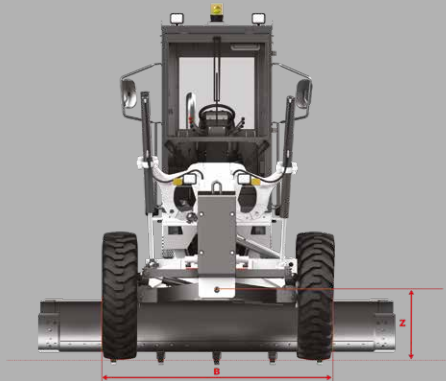
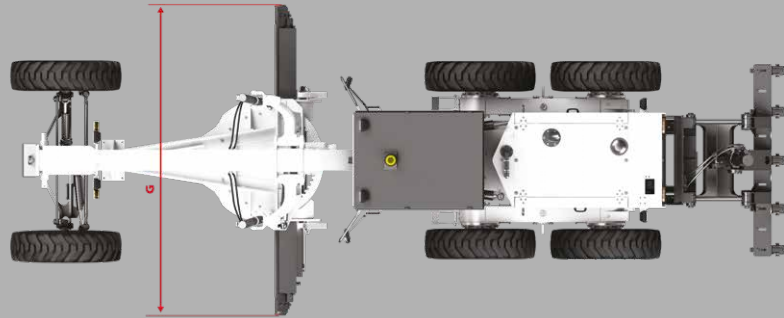
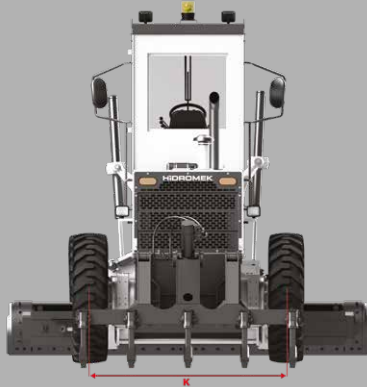
Type	Full hydraulic power
Steering angle	48 Degrees
Pump	Gear Type
Capacity	60 lt/min
System Pressure	172 bar
Frame articulation Angle	26 Degrees Left or Right
Min. turning radius	6,6 m

WHEELS

Front Wheel	
Tire	13,00-24-12PR (G-2)
Rim	8,00TG x 24
Inflation Pressure	26 psi
Rear Wheel	
Tire	13,00-24-12PR (G-2) Traction-type
Rim	8,00TG x 24
Inflation Pressure	26 psi

DIMENSIONS

Model		MG330	MG330 Cab
A: Total Length	mm	7820	7820
B: Total Width	mm	2380	2380
C: Total Height	mm	-	3465
C': Total Height	mm	2800	-
D: Wheel Base	mm	5700	5700
E: Blade Base	mm	2500	2500
F: Rear Axle Center	mm	752.5	752.5
G: Blade Length	mm	3710	3710
H: Total Length	mm	9100	9100
<small>(Front Counter Weight- Rear Ripper)</small>			
K: Tire Center Lines	mm	2000	2000



WARNING: HIDROMEK reserves the right to change the values given in this catalogue and designs indicated without prior notification.

STANDART EQUIPMENTS

ELECTRICAL

Alternator, 50 Ampere

Back up alarm buzzer

Battery 24 Volt - 110 Ah

Motor starting, 24 Volt - 5,0Kw

Electric horn

2 Head lights

Rear combination lamps

Electrical system, 24 V

POWER TRAIN

Air cleaner; dry cyclone type with dust evacuator, dual element

Service brakes; air actuated, oil cooled disc brakes on all four rear wheels

Parking brakes; spring engaged, air disengaged, multi disc, oil cooled on transmission output shaft

Engine, Mitsubishi 6D16-TUH, water cooled, 4-cycle, in line 6 cylinder, direct injection, diesel engine, with turbo charger

Engine muffler

Tandem drive, roller chain drive

Transmission, power shift with 6 speeds for both forward and reverse

Priming pump

OPERATOR ENVIRONMENT

Accelerator

Adjustable control console

Indicator lights and buzzer

High beam indicator

Turn signal indicator

Parking brake indicator

Air filter warning lamp

Engine over heat warning lamp

Brake air pressure buzzer

Alternator not charging warning lamp

Parking brake alarm buzzer

Engine overheat alarm buzzer

Low engine oil pressure

Water temperature gauge, Air pressure gauge, Fuel gauge

Hydraulic controls (blade lift, center shift, side shift, circle drive, front wheel and articulation)

Electric hour meter

Center shift un-lock switch

Key switch

Hand throttle accelerator lever

Power steering, hydraulic

Adjustable operator's seat

Seat belt

Steering wheel

Operator guard

OTHER EQUIPMENTS

Parts catalog

Circle drive shear pin

Frame, articulated with safety lock

Reversible side edges and overlay end-bits for moldboard

Fuel tank, 230 L

Rear drawbar with pin

Drawbar, 6 shoes

Cross bar, 5 position

Moldboard, 3710 mm x 610 mm x 19 mm, wear-resistance steel, with box-section reinforcement with hydraulic side shift

Vandalism protection; engine compartment doors

Antifreeze, LLC (Long Life Coolant)

Toolkit

TIRES & RIMS

Tire: 13,00-24-12 PR

Rim: 8,00 TG x 24

MG330 OPTIONAL EQUIPMENTS

Cabs / Canopies;

Canvas Canopy - Steel Canopy - ROPS Canopy - Steel Cab - ROPS Cab - ROPS/FOPS Cab

Air conditioner

Blade slip clutch

Rear under view mirror

Air dryer

Heater with defroster

Vandalism protection; cap locks for hydraulic tank, radiator access cover

Front Dozer Blade, 2700 mm width

Scarifier, mid-mounted, V type, 9 and 11 teeth are available

Rear ripper, 3 shanks and 5 shanks are available

Front counter weight

Rear counter weight

Suspension seat

Room mirror, inside cab

Differential lock & unlock

Hydraulic blade tip control

Mid-mounted working lamp

Rear working lamp

Fuel water separator

Replaceable bronze wear strips for drawbar

Pre-cleaner

Floor mat

Tire: 14,00-24-12PR

NOT ONLY WITH OUR MACHINES, BUT ALSO WITH THE SERVICES WE PROVIDE, WE ARE DIFFERENT!



Expert Service

Our personnel who are experts in their subjects provide the opportunity of the highest quality and the fastest service with their high-end equipments.



Global Service Network

Hidromek that has global service network offers sale and service even in the various points of the world with hundreds of sale and service points abroad.



High Customer Satisfaction

A customer-oriented approach is adopted in all our operations in order to satisfy our customer at the highest level, add value their works and gain loyalty of them.



- HíDROMEK Production Facilities
- HíDROMEK Overseas Dealers
- ▼ HíDROMEK Overseas Sales and Aftersales Services Points
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