

KOMATSU

GD675-6

EU Stage IV Engine

MOTOR GRADER



GD675

ENGINE POWER

165 kW / 221 HP @ 2.100 rpm

OPERATING WEIGHT

16.995 kg
19.220 kg (with ripper)

BLADE LENGTH

4,27 m

Walk-Around

CD675-6



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165 kW / 221 HP @ 2.100 rpm

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16.995 kg
19.220 kg (with ripper)

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4,27 m



INCREASED PRODUCTIVITY & OUTSTANDING FUEL ECONOMY

High Productivity & Low Fuel Consumption

- Low consumption EU Stage IV engine
- Eco guidance & auto idle stop
- Engine with variable horse power for best power/speed ratio
- Smooth and powerful low-speed operations with torque converter engine stall prevention

KOMTRAX™

- 3G mobile communications
- Increased operational data and fuel savings

First-Class Operator Comfort

- Hexagonal cab for exceptional all-round visibility
- Rear-view camera
- Quiet and spacious operator environment
- Fully adjustable air-suspended seat

Optimised Work Equipment

- Long wheel base and short turning radius
- Versatile moldboard geometry
- Excellent blade controllability with multifunctional control valves
- Blade lift accumulators
- Reinforced blade circle and resin wear plates

Reliability & Maintenance

- Multifunction monitor with troubleshooting function
- Easy access AdBlue® tank
- Hydraulic driven, reversible cooling fan



Complimentary maintenance program for customers

Powerful and Environmentally Friendly



Variable engine power

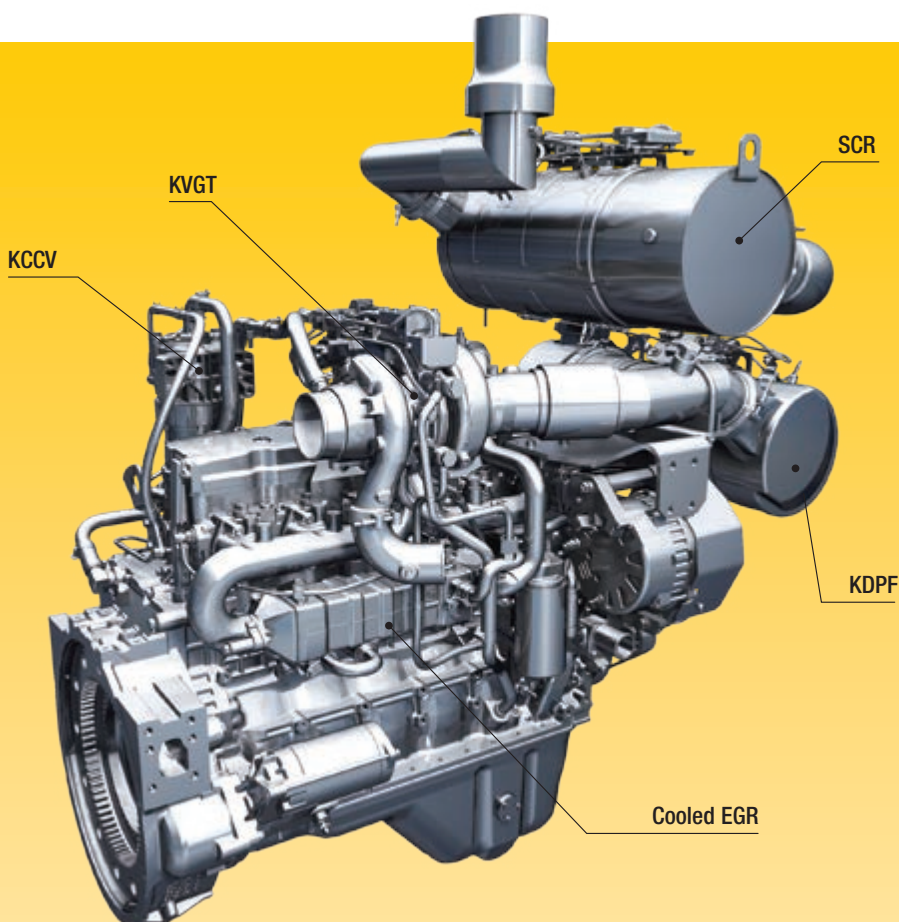
To obtain the right tractive force, engine horse power can be varied between gears. To further fine tune and save fuel the system allows selection of the appropriate mode between Power or Economy mode according to each working condition.

Fuel-efficient hydraulic system

Normally, the variable displacement pump idles at low output. When it senses a load requirement, the pump supplies quick flow and pressure to match the demand. The result is less hydraulic system heat, quick response and lower fuel consumption. Because of the large pump output and proportional flow control function, implement speed is constant regardless of engine speed.

Adjustable idle shutdown

To reduce unnecessary fuel consumption and exhaust emissions, and for lower operating costs, the Komatsu auto idle shutdown automatically turns off the engine after it idles for a set period of time, which can be easily programmed from 5 to 60 minutes. An Eco-gauge and Eco guidance tips on the cab monitor further encourage efficient operations.



Exhaust Gas Recirculation (EGR)

Cooled EGR is a technology well-proven in current Komatsu engines. The increased capacity of the EGR cooler now ensures very low NOx emissions and a better engine performance.

High-Pressure Common Rail (HPCR)

To achieve complete fuel burn and lower exhaust emissions, the heavy-duty High-Pressure Common Rail fuel injection system is computer controlled to deliver a precise quantity of pressurised fuel into the redesigned engine combustion chamber by multiple injections.

Komatsu Closed Crankcase Ventilation (KCCV)

Crankcase emissions (blow-by gas) are passed through a CCV filter. The oil mist trapped in the filter is returned back to the crankcase while the filtered gas is returned to the air intake.

Komatsu Variable Geometry Turbo (KVTG)

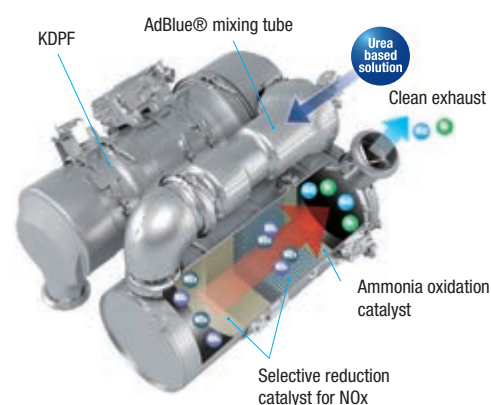
The KVTG provides optimal airflow to the engine combustion chamber under all speed and load conditions. Exhaust gas is cleaner, fuel economy is improved while machine power and performance are maintained.

Komatsu EU Stage IV

The Komatsu EU Stage IV engine is productive, dependable and efficient. With ultra-low emissions, it provides a lesser environmental impact and a superior performance to help reduce operating costs and lets the operator work in complete peace of mind.

Heavy-duty aftertreatment

The aftertreatment system combines a Komatsu Diesel Particulate Filter (KDPF) and Selective Catalytic Reduction (SCR). The SCR system injects the correct amount of AdBlue® at the proper rate to break down NOx into water (H₂O) and nontoxic nitrogen gas (N₂). NOx emissions are reduced by 80% vs. EU Stage IIIB engines.



Adjustable idle shutdown



Eco-gauge and Eco guidance



Fuel consumption history

Optimised Work Equipment



Long wheelbase & short turning radius

The long wheel base enables a superior grading with a long blade. On the other hand, the turning radius is short, and provides excellent maneuverability.



Aggressive moldboard angles

Komatsu graders feature a versatile moldboard geometry. Save time and money when pulling ditches by throwing the windrow to the right, not into the roadway - without narrowing the road bed. It's made possible by Komatsu's extraordinary reach and aggressive blade angle. Ample clearance between the heel of the blade and mainframe, even with the toe sharply angled down.



Reinforced blade circle

Durability is improved by the increase in the circle's cross-sectional area, the addition of a drawbar reinforcing plate, and the adoption of a joint bar. Reliability is improved by the reinforced front frame and drawbar. The change to a resin prevents the scratches on the surface of the circle and provides the longer service life.





First-Class Comfort

Quiet and comfortable cab

Operator comfort is essential for safe and productive work. The cab on the GD675-6 is quiet and comfortable, an ideal environment to concentrate on the job. The high capacity climate control system pressurises the cab to keep dust out. A high quality sound-absorbent lining covers the interior to minimise noise levels for the operator.

Superior visibility

Hexangular cab and rear layout side pillar combine for excellent visibility and boost operator's confidence and productivity in all grader applications. Well-positioned blade linkage provides an unobstructed view of the moldboard and front tires. The fully integrated rear-view camera which can be on all the time ensures a safe working area around the machine.

Fully adjustable air-suspended seat

A comfortable, heavy-duty and fully adjustable heated air-suspended seat is at the centre of the operator's safe and spacious work space. The seat is equipped with fold-up arm rests and a retractable seat belt which is monitored through the machine monitor.





Fully integrated rear-view camera system



The electric throttle control allows the operator to perfectly match the engine speed to working conditions



Set the steering wheel to the most comfortable position

Information & Communication Technology



Lower operating costs

Komatsu ICT contributes to the reduction of operating costs by assisting to comfortably and efficiently manage operations. It raises the level of customer satisfaction and the competitive edge of our products.

Large widescreen monitor

A large user-friendly colour monitor enables safe, accurate and smooth work. Multilingual and with all essential information available at a glance, it features simple and easy-to-operate switches and multifunction keys that provide fingertip access to a wide range of functions and operating information.

Eco guidance

The monitor panel displays instant guidance messages to help promote energy saving, and the Eco-gauge indicates the actual fuel consumption: keep the Eco-gauge in the green zone for better fuel efficiency. To further improve savings, logs can be consulted for operations, Eco guidance and fuel consumption.



Information at a glance: basic dashboard LCD monitor



A multifunction monitor displays and controls a wealth of operational and maintenance information



Eco guidance supports energy saving in real time

KOMTRAX™

The way to higher productivity

KOMTRAX™ uses the latest wireless monitoring technology. Compatible on PC, smartphone or tablet, it delivers insightful and cost saving information about your fleet and equipment, and offers a wealth of information to facilitate peak machine performance. By creating a tightly integrated web of support it allows proactive and preventive maintenance and helps to efficiently run a business.



Knowledge

You get quick answers to basic and critical questions about your machines – what they're doing, when they did it, where they're located, how they can be used more efficiently and when they need to be serviced.

Performance data is relayed by wireless communication technology (Satellite, GPRS or 3G depending on model) from the machine to a computer and to the local Komatsu distributor – who's readily available for expert analysis and feedback.

Power

The detailed information that KOMTRAX™ puts at your fingertips 24 hours a day, 7 days a week gives the power to make better daily and long-term strategic decisions – at no extra cost. Problems can be anticipated, maintenance schedules customised, downtime minimised and machines kept where they belong: working on the jobsite.

Convenience

KOMTRAX™ enables convenient fleet management on the web, wherever you are. Data is analysed and packaged specifically for effortless and intuitive viewing in maps, lists, graphs and charts. You can foresee eventual maintenance issues and required spare parts, and troubleshoot a problem before Komatsu technicians arrive on site.



Easy Maintenance



Easy access to service points

Large doors give a convenient access to engine, filters and radiator. Refueling from ground level is safe and comfortable.



AdBlue® tank

For simple access, the AdBlue® tank is installed at ground access level and is equipped with a sight gauge to prevent spillage or overflow.

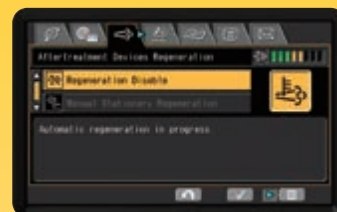


Komatsu CARE™

Komatsu CARE™ is a complimentary maintenance program that comes as standard with your new Komatsu machine. For the first 3 years or 2,000 hours it covers factory-scheduled maintenance, performed by Komatsu-trained technicians with Komatsu Genuine parts. It also offers up to a maximum of 2 complimentary Komatsu Diesel Particulate Filter (KDPF) exchange units and a warranty for 5 years or 9,000 hours for the KDPF and Selective Catalytic Reduction (SCR) unit.



Basic maintenance screen



Aftertreatment regeneration screen



AdBlue® level guidance



Specifications

ENGINE

| | |
|----------------------------|---------------------------------------------------------------------------------------------|
| Model | Komatsu SAA6D107E-3 |
| Type | Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel |
| No. of cylinders | 6 |
| Bore × stroke | 107 × 124 mm |
| Displacement | 6,69 l |
| Fan drive type | Hydraulic, reversible |
| Engine power | |
| (Power mode ISO 14396) | |
| Gear 1-3 | 137 kW / 183 HP @ 2.000 rpm |
| Gear 4-6 | 151 kW / 203 HP @ 2.000 rpm |
| Gear 7-8 | 165 kW / 221 HP @ 2.100 rpm |
| (Economy mode ISO 14396) | |
| Gear 1-6 | 137 kW / 183 HP @ 2.000 rpm |
| Gear 7-8 | 165 kW / 221 HP @ 2.100 rpm |
| (Power mode SAE J1349) | |
| Gear 1-3 | 135 kW / 180 HP @ 2.000 rpm |
| Gear 4-6 | 150 kW / 200 HP @ 2.000 rpm |
| Gear 7-8 | 163 kW / 218 HP @ 2.100 rpm |
| (Economy mode SAE J1349) | |
| Gear 1-6 | 135 kW / 180 HP @ 2.000 rpm |
| Gear 7-8 | 163 kW / 218 HP @ 2.100 rpm |
| Max. torque / engine speed | 941 Nm / 1.450 rpm |
| Torque rise | 30% |

TRANSMISSION AND TORQUE CONVERTER

| | |
|------|-----------------------------------------------------------------------------------------------|
| Type | Full power shift transmission with integral free wheeling stator torque converter and lock-up |
|------|-----------------------------------------------------------------------------------------------|

MAX. TRAVEL SPEEDS

| | Forward | Reverse |
|-----|-----------|-----------|
| 1st | 3,4 km/h | 4,5 km/h |
| 2nd | 5,0 km/h | 9,2 km/h |
| 3rd | 7,0 km/h | 20,3 km/h |
| 4th | 10,2 km/h | 40,3 km/h |
| 5th | 15,4 km/h | - |
| 6th | 22,3 km/h | - |
| 7th | 30,6 km/h | - |
| 8th | 44,3 km/h | - |

ENVIRONMENT

| | |
|-----------------------------------|-----------------------------------------------------------------|
| Engine emissions | Fully complies with EU Stage IV exhaust emission regulations |
| Noise levels | |
| LwA external | 106 dB(A) (2000/14/EC Stage II) |
| LpA operator ear | 75 dB(A) (ISO 6396 dynamic test) |
| Vibration levels (EN 12096:1997)* | |
| Hand/arm | ≤ 2,5 m/s ² (uncertainty K = 1,36 m/s ²) |
| Body | ≤ 0,5 m/s ² (uncertainty K = 0,17 m/s ²) |

* For the purpose of risk assessment under directive 2002/44/EC, please refer to ISO/TR 25398:2006.

TANDEM DRIVE

| | |
|--------------------------------|--------------------------|
| Oscillating welded box section | 520 mm × 202 mm |
| Side wall thickness | |
| Inner | 22 mm |
| Outer | 19 mm |
| Wheel axle spacing | 1.525 mm |
| Tandem oscillation | 11° forward, 13° reverse |

FRONT AXLE

| | |
|---------------------------------|----------------------------------------------|
| Type | Solid bar construction welded steel sections |
| Ground clearance at pivot | 620 mm |
| Wheel lean angle, right or left | 16° |
| Oscillation, total | 32° |

REAR AXLE

| | |
|------|-----------------------------------------------------------------------------|
| Type | Alloy steel, heat treated, full floating axle with lock/unlock differential |
|------|-----------------------------------------------------------------------------|

WHEELS, FRONT AND REAR

| | |
|-------------------------|--------------------|
| Bearings | Tapered roller |
| Tires | 17.5 R25, tubeless |
| Tire rims (demountable) | 13" one-piece rims |

STEERING SYSTEM

| | |
|------------------------|-----------------------------------------------------------------------------|
| Type | Hydraulic power steering providing stopped engine steering meeting ISO 5010 |
| Minimum turning radius | 7,4 m |
| Maximum steering range | 49° |
| Articulation | 25° |

BRAKE SYSTEM

| | |
|---------------|-------------------------------------------------------------------------------------|
| Service brake | Foot operated, sealed oil disc brakes, hydraulically actuated on four tandem wheels |
| Parking brake | Manually actuated, spring applied, hydraulically released caliper |

FRAME

| | |
|-----------------------|------------|
| Front frame structure | |
| Height | 300 mm |
| Width | 300 mm |
| Side | 16 / 32 mm |
| Upper, Lower | 25 mm |

Specifications

CIRCLE

Single piece rolled ring forging. Six circle support shoes with replaceable wear surface. Circle teeth hardened on front 180° of circle

| | |
|---------------------------------------------|----------|
| Diameter (outside) | 1.530 mm |
| Circle reversing control hydraulic rotation | 360° |

MOLDBOARD

Hydraulic power shift fabricated from high carbon steel. Includes replaceable metal wear inserts, cutting edge and end bits. Cutting edge and end bits are hardened.

| | |
|------------------------------------|---------------------|
| Dimensions | 4.270 × 660 × 25 mm |
| Arc radius | 432 mm |
| Cutting edge | 152 × 16 mm |
| Replaceable/ Reversible side edges | 156 × 16 × 456 mm |
| Blade pull | |
| Base GVW | 10.100 kg |
| With ripper GVW | 10.980 kg |
| Blade down pressure | |
| Base GVW | 6.940 kg |
| With ripper GVW | 8.400 kg |

BLADE RANGE

| | |
|------------------------------------------------------------|--------------------------|
| Moldboard side shift | |
| Right | 820 mm |
| Left | 820 mm |
| Maximum shoulder reach outside rear tires (frame straight) | |
| Right | 2.000 mm |
| Left | 2.000 mm |
| Maximum lift above ground | 480 mm |
| Maximum cutting depth | 615 mm |
| Maximum blade angle, right or left | 90° |
| Blade tip angle | 40° forward, 5° backward |

HYDRAULIC SYSTEM

Load-sensing closed center hydraulics with variable displacement piston pump. Short stroke/low effort direct acting control valves with preselected maximum flow setting to each function. Double acting anti-drift check valves on blade lift, tip, circle shift, articulation, and leaning wheels.

| | |
|-------------------------|-----------------------|
| Output (at rated speed) | 200 l/min |
| Standby pressure | 3,4 MPa / 35 kg/cm² |
| Max. system pressure | 20,6 MPa / 210 kg/cm² |

OPERATING WEIGHT

Includes lubricants, coolant, full fuel tank

| | |
|-----------------------------------------------|-----------|
| Total | 16.995 kg |
| On rear wheels | 12.710 kg |
| On front wheels | 4.360 kg |
| With rear mounted ripper and front push plate | |
| Total | 19.220 kg |
| On rear wheels | 13.985 kg |
| On front wheels | 5.230 kg |
| With front mounted scarifier | |
| Total | 17.800 kg |
| On rear wheels | 12.820 kg |
| On front wheels | 4.985 kg |

SERVICE REFILL CAPACITIES

| | |
|------------------------|-------|
| Fuel tank | 390 l |
| AdBlue® tank | 37 l |
| Cooling system | 30 l |
| Crank case | 23 l |
| Transmission | 45 l |
| Final drive | 17 l |
| Tandem housing (each) | 57 l |
| Hydraulic system | 69 l |
| Circle reverse housing | 7 l |

RIPPER

| | |
|--------------------------------------|-----------|
| Ripping depth, maximum | 425 mm |
| Ripper shank holders | 5 |
| Ripper shank holder spacing | 534 mm |
| Penetration force | 9.390 kg |
| Pryout force | 17.600 kg |
| Machine length increase, beam raised | 690 mm |

SCARIFIER

| | |
|---------------------------------|----------|
| Middle, V-type | |
| Working width | 1.430 mm |
| Scarifying depth, maximum | 190 mm |
| Scarifier shank holders | 11 |
| Scarifier shank holders spacing | 138 mm |
| Rear | |
| Working width | 2.186 mm |
| Scarifying depth, maximum | 165 mm |
| Scarifier shank holders | 9 |
| Scarifier shank holders spacing | 267 mm |

DRAWBAR

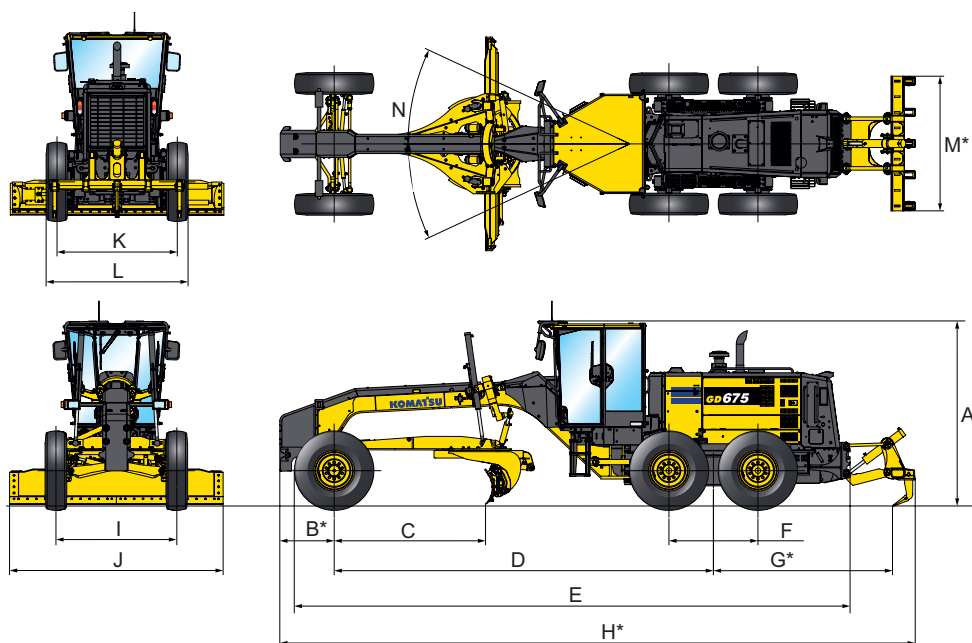
A-shaped, u-section press formed and welded construction for maximum strength with a replaceable drawbar ball.

| | |
|---------------|-------------|
| Drawbar frame | 210 × 22 mm |
|---------------|-------------|

DIMENSIONS

| | |
|----|-----------|
| A | 3.200 mm |
| B* | 930 mm |
| C | 2.580 mm |
| D | 6.495 mm |
| E | 9.510 mm |
| F | 1.525 mm |
| G* | 3.065 mm |
| H* | 10.875 mm |
| I | 2.170 mm |
| J | 4.270 mm |
| K | 2.170 mm |
| L | 2.630 mm |
| M* | 2.305 mm |
| N | 25° |

* optional



Standard and Optional Equipment

ENGINE AND RELATED PARTS

| | |
|-----------------------------------------------------------------------------|---|
| Komatsu SAA6D107E-3 turbocharged common rail direct injection diesel engine | ● |
| EU Stage IV compliant | ● |
| Alternator 24 V/90 A | ● |
| Batteries 2 × 12 V/140 Ah | ● |
| Cooling fan, hydrostatic driven with reversing function | ● |
| Fuel pre-filter | ● |
| Locks, filter caps and covers | ● |
| Cyclone type air cleaner | ● |
| Alternator 24 V/140 A | ○ |

TRANSMISSION AND BRAKES

| | |
|-----------------------------------|---|
| Automatic powershift transmission | ● |
| Torque converter with lock-up | ● |
| Engine stall prevention function | ● |
| Transmission under guard | ● |
| Fully hydraulic brake system | ● |
| Differential lock/unlock | ● |

SERVICE AND MAINTENANCE

| | |
|------------------------------------------------------------------------------------------------------------------------------|---|
| Dry type air cleaner, double element with dust indicator and evacuator | ● |
| Multifunction video compatible colour monitor with Equipment Management and Monitoring System (EMMS) and efficiency guidance | ● |
| Water separator | ● |
| KOMTRAX™ – Komatsu wireless monitoring system (3G) | ● |
| Komatsu CARE™ – complimentary maintenance program for customers | ● |
| Tool kit | ● |

CABIN

| | |
|-------------------------------------------------------------|---|
| Heated air-suspended seat: fabric, reclining, high backrest | ● |
| Seat belt with visible alert | ● |
| Air conditioner | ● |
| Radio | ● |
| Auxiliary input (MP3 jack) | ● |
| 2 × 12 Volt power supply (120 W) | ● |
| 1 × 24 Volt power supply | ● |
| Viscous cab mounts | ● |
| Wiper front and rear window | ● |
| Wipers doors | ● |
| Rear-view mirror (inside cab) | ● |
| Heated rear window | ● |
| Sun visor (rear) | ● |
| Cup holder | ● |
| Lunch box holder | ● |

SAFETY EQUIPMENT

| | |
|---------------------------------------------------------------------------------------------------|---|
| Steel cab, meets ISO 3471 and SAE J1040, APR88 ROPS standards, as well as ISO 3449 FOPS standards | ● |
| Back-up alarm | ● |
| Warning horn | ● |
| Rear-view camera system | ● |
| Rear-view mirrors | ● |

LIGHTING SYSTEM

| | |
|-------------------------------------------|---|
| Working lights: 4 front and 2 rear lights | ● |
| 4 working lights, cab-mounted, front | ● |
| Rotating beacon | ○ |

HYDRAULIC SYSTEM

| | |
|-----------------------------------------------------------------------------------|---|
| Closed-centre load sensing (CLSS) hydraulic system | ● |
| 10 section hydraulic control valve | ● |
| Anti-shock accumulators for blade lift | ● |
| Drawbar-mounted circle, 360° rotation, hydraulic blade lift and circle side shift | ● |
| Circle slip clutch | ● |
| Hydraulics for ripper | ● |

CHASSIS AND TYRES

| | |
|------------------|---|
| Heavy-duty axles | ● |
| Tyres 17.5 R25 | ● |

ATTACHMENTS

| | |
|------------------------------------|---|
| Front blade | ○ |
| Additional pusher plate | ○ |
| Scarifier, assembly, 11-shank type | ○ |
| Multishank parallelogram ripper | ○ |

MOLDBOARD

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Moldboard 4.270 mm × 660 mm × 25 mm with replaceable end bits, through hardened cutting edges 152 mm × 16 mm, hydraulic blade side shift and hydraulic tilt with anti-drift check valves. Maximum moldboard angle position 90° right & left | ● |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|

Further equipment on request

- standard equipment
- optional equipment

Your Komatsu partner:

KOMATSU

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