GD535-5

HORSEPOWER
Gross: 115 kW 154 HP / 2000 min⁻¹
Net: 108 kW 145 HP / 2000 min⁻¹

OPERATING WEIGHT
13820 kg

BLADE LENGTH
3.71 m³

Photos may include optional equipment.
**PRODUCTIVITY**
- High Productivity & Low Fuel Consumption
- Lock-up Torque Converter Transmission
- Long Wheelbase & Short Turning Radius

**ECOLOGY & ECONOMY**
- Komatsu Technology
- High Performance and Low Emission Engine
- Engine Power Mode Selection System

**COMFORT**
- Excellent Visibility
- ROPS/FOPS Canopy (ISO 3471/ISO 3449)

**MAINTENANCE**
- Easy Maintenance Design
- Maintenance Information Display

**RELIABILITY**
- Components that Prevent Machine Failure and Improve Machine Reliability

**ATTACHMENTS**
- Komatsu genuine attachment tools

**ICT* & KOMTRAX**
- High Resolution 3.5” Liquid Crystal Display (LCD) Color Monitor
- KOMTRAX

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- Gross: 115 kW 154 HP / 2000 min⁻¹  
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- 13820 kg

**BLADE LENGTH**  
- 3.71 m
Improvements in transmission and axles raises efficiency, and the sophisticated electronic engine and transmission control offers optimized output - all combined - realizing 15% better production and 14% better fuel consumption in the field compared with the GD511A-1.

**Production**

15% up (P mode)

**Fuel consumption**

14% reduction (E mode)

(Compared with GD511A-1)

*Fuel consumption varies depending on the job conditions.

**Lock-up Torque Converter Transmission**

The lock-up torque converter transmission is specially designed for Komatsu graders. This provides both efficiency of direct shifting and operability of automatic shifting.

1) Transmission mode selection

- **Auto mode**
  Torque converter allows the operator to be free from inching pedal operation and provides smooth machine control and much torque when starting, which allows the operator to start from even 4th gear. Besides, automatic gear shifting in F4-F8 gears provides high maneuverability.

- **Manual mode**
  Transmission drives directly in all gears, works the same way as conventional power shift machine with constant machine speed and economical operation. Even in manual mode, torque converter works in shift changing to minimize shift shock.
2) Engine stall prevention function
The combination of manual mode and auto mode avoids engine stalling which leads to smooth operation in low speed.

3) Electronic over-speed protection
Helps to prevent engine and transmission damage due to premature downshifting and grade-induced overspeeding.

Longest Wheelbase & Short Turning Radius
The longest wheelbase ensures superior grading ability. Wide steering and articulation angle keeps short turning radius, for excellent maneuverability.
Komatsu Technology

Komatsu uniquely develops all major components including total control system, like engines, electronics, and hydraulic components. With this "Komatsu Technology" and continuous customer feedback, Komatsu has been achieving great advancements in technology. This resulted in new generation of high performance and environmentally friendly products.

High Performance and Low Emission Engine

Komatsu SAA6D107E-1, turbocharged and air-to-air aftercooled engine, realizes high productivity and low fuel consumption. Common rail injection system provides precise throttle control and thus it delivers higher work speeds with high horsepower. Two P and E modes optimize engine outputs and help to reduce fuel consumption.
Engine Power Mode Selection System

The system allows the operator to select from the two modes, <P mode> or <E mode>, according to the working conditions. The selector switch which is on the console switch is easy to access.

- **P mode**
  Maximize production by taking full advantage of engine output. Appropriate for job sites which emphasize productivity.

- **E mode**
  Suited for carrying out lighter work economically. This feature provides the sufficient power, better fuel consumption, and prevents tire slipping to extend tire life.
Excellent visibility of hexagonal floor and rear layout side pillar boosts operator’s confidence and productivity in all grader applications. Well-positioned blade linkage provides an unobstructed view of the moldboard and front tires.
**ROPS/FOPS Canopy**

Low profile canopy is designed to ensure ROPS/FOPS (ISO 3471/ISO 3449) certification. The wide view reduces operator’s fatigue.

**Adjustable Control Console**

The control console moves back and forth and the operator easily gets in and out of the canopy. The steering wheel also tilts to suit the operator’s preference.

**Electric Throttle Control**

Throttle is electronically controlled and the operator can set the optimal engine RPM at hand.

**Lunch Box Tray**

The tray for personal items, placed at the left side of the operator’s seat.
Easy Maintenance Design

Ground refueling
Easily refueling from the ground eliminates the need for climbing on and down from the tandem.

Service access platform
The punched metal foot plates on the tandem and grab rails ensure safety maintenance and inspection.

Easy access to service points
Wide-open engine hoods improve accessibility to service points. All major service points are accessible from the ground level.

Large fuel filter and fuel pre-filter with water separator
Provides the large filter with enhanced filtering performance, surely removes water and dirt in fuel to prevent fuel system troubles.
“Maintenance time caution lamp” display
When the remaining time before maintenance becomes less than 30 hours*, the maintenance time monitor appears. Pressing the key switches on the monitor to change to the maintenance screen.

* The setting can be changed within the range between 10 and 200 hours.
Components that Prevent Machine Failure and Improve Machine Reliability

Slip clutch circle drive
Protects the work equipment from shock load when the blade hits an obstruction. Return of the blade position, it is easily done by lever.

Sealed connectors
Main harnesses and controller are connected by sealed connectors providing high reliability, water resistance, and dust resistance.

Hydraulically controlled wet multiple-disc brake
This brake system is completely sealed and adjustment-free. The large braking surface provides dependable braking capability and extends life before an overhaul.

Double seal cylinder (Blade side shift cylinder)
A double-seal design is used for the blade side shift cylinder, which is installed near the ground and possibly gets damage by dirt.

Battery Location
The battery bay is elevated from the ground and prevents intrusion of dusts into the battery and power supply circuit.
Komatsu Genuine Attachment Tools

Moldboard
Fabricated from high carbon steel.
Includes replaceable metal wear inserts, cutting edge and end bits.
Cutting edge and end bits are hardened.

Scarifier
Digs up hard material cannot be removed by the blade.
This scarifier can accommodate up to 9 teeth.
High Resolution 3.5” LCD Color Monitor

The high resolution 3.5-inch color LCD monitor improves its visibility. The function switches are simple and easy to operate. The operator easily accesses various user menus like maintenance information, operation, and record, or adjusts the machine settings.

Visual user menu
The menus are grouped according to each function with easily understandable icons which enable the operator to reach the information intuitively.

Operation record and fuel consumption history
The energy saving guidance menu enables the operator to check the operation record and fuel consumption history by pushing the button. The records can be used to reduce the overall fuel consumption.

Maintenance history
The machine can remember the maintenance history such as changing the engine oil.

Indicator, switches
- LCD unit
- Warning display
- Pilot lamp
- Pilot display
- Engine coolant temperature gauge
- Torque converter oil temperature gauge
- Service meter / Odometer / Clock / Fuel consumption gauge display
- Speedometer
- Tachometer
- Articulation indicator
- Shift indicator
- Fuel gauge
- Gear shift lever position display
- Function switches
KOMTRAX assists customer’s equipment management and contributes to fuel cost cutting

Equipment management support
KOMTRAX terminal installed on your machine collects and sends information such as machine location, working record, machine conditions, etc. using wireless communication. You can review the KOMTRAX data remotely via the online application. KOMTRAX not only gives you the information on your machine, but also the convenience of managing your fleet on the Web.

Machine monitoring

Location

Monthly SMR record

Monthly working record

*KOMTRAX may be unable to be used in some countries or the areas. Please consult your Komatsu distributor.

- Location information / Operational status
- Service Meter
- Engine lock
- Gauge level
- Error / Caution
- Time for replacement
- Load information
- Average gas mileage
To keep your machine available and minimize operation cost when you need it, Komatsu Distributor is ready to provide variety of support before and after procuring the machine.

**Fleet recommendation**
Komatsu Distributor can study customer job site and provide the most optimum fleet recommendation with detailed information to meet all of your application needs when you are considering to buy new machines or to replace the existing ones from Komatsu.

**Technical support**
Komatsu product support service (Technical support) are designed to help customer. Komatsu Distributor offers a variety of effective services how much Komatsu is dedicated to the maintenance and support of Komatsu machine.

- Preventive Maintenance (PM) clinic
- Oil & Wear analysis program

**Repair & maintenance service**
Komatsu Distributor offers quality repair service, periodical maintenance, and maintenance service to the customer, utilizing and promoting Komatsu developed programs.

**Komatsu Reman (Remanufactured) components**
Komatsu Reman products are the result of the implementation of the Komatsu global Reman policy which establishes and agrees to reduce the owning, operating and total Life Cycle Costs (LCC) to Komatsu’s customer through prompt delivery, high quality and competitively priced in own remanufactured products (QDC).

**Product support**
Komatsu Distributor secure the certain quality of machine will be delivered.

**Parts availability**
Komatsu Distributor is available for emergency inquiry by the customers for genuine, quality guaranteed Komatsu parts.
**ENGINE**

- **Model**: KOMATSU SAA6D107E-1
- **Type**: Water-cooled, 4-cycle, direct injection
- **Aspiration**: Turbocharged and air to air aftercooled
- **Number of cylinders**: 6
- **Bore**: 107 mm
- **Stroke**: 124 mm
- **Piston displacement**: 6.69 L
- **Horsepower (Manual mode)**
  - **P-mode**
    - **SAE J 1995**: Gross 115 kW 154 HP/2000 min⁻¹
    - **ISO 9249/SAE J 1349**: Net 108 kW 145 HP/2000 min⁻¹
  - **E-mode**
    - **SAE J 1995**: Gross 107 kW 143 HP/2000 min⁻¹
    - **ISO 9249/SAE J 1349**: Net 101 kW 135 HP/2000 min⁻¹
- **Maximum torque**: 658 Nm 67.1 kgm/1450 min⁻¹
- **Torque rise**: 24%
- **Fan speed**: Max 1628 min⁻¹
- **Air cleaner**: 2-stage, dry-type

**TRANSMISSION AND TORQUE CONVERTER**

- Full power shift transmission with torque converter and lock-up.
- **Speeds (at rated engine speed)**:
<table>
<thead>
<tr>
<th>Gear</th>
<th>Forward</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>4.2 km/h</td>
<td>4.7 km/h</td>
</tr>
<tr>
<td>2nd</td>
<td>5.9 km/h</td>
<td>9.1 km/h</td>
</tr>
<tr>
<td>3rd</td>
<td>8.0 km/h</td>
<td>17.8 km/h</td>
</tr>
<tr>
<td>4th</td>
<td>11.3 km/h</td>
<td>34.1 km/h</td>
</tr>
<tr>
<td>5th</td>
<td>15.7 km/h</td>
<td>–</td>
</tr>
<tr>
<td>6th</td>
<td>22.0 km/h</td>
<td>–</td>
</tr>
<tr>
<td>7th</td>
<td>30.1 km/h</td>
<td>–</td>
</tr>
<tr>
<td>8th</td>
<td>42.0 km/h</td>
<td>–</td>
</tr>
</tbody>
</table>
- **Maximum travel speed at engine high idle is 46.0 km/h.**

**REAR AXLE**

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

**WHEELS, FRONT AND REAR**

- **Bearings**: Tapered roller
- **Tires**: 13.00-24-12PR, tubeless, 9" one-piece rims

**STEERING**

- Hydraulic power steering providing stopped engine steering meeting ISO 5010.
  - **Minimum turning radius**: 7.0 m
  - **Maximum steering range, right or left**: 49°
  - **Articulation**: 25°

**BRAKES**

- **Service brake**: Foot operated, wet multiple-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**: 280 mm
  - **Side**: 22 mm
  - **Upper, Lower**: 28 mm

**DRAWBAR**

- A-shaped, welded construction for maximum strength with a replaceable drawbar ball.
  - **Drawbar frame**: 220 mm x 16 mm

**CIRCLE**

- Single piece rolled ring forging. Six circle support shoes with replaceable wear surface. Circle teeth hardened on front 180° of circle.
  - **Diameter (outside)**: 1410 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.

Dimensions: 3710 mm x 645 mm x 16 mm
Arc radius: 329 mm
Cutting edge: 152 mm x 16 mm
Replaceable/Reversible side edges: 229 mm x 496 mm x 13 mm

Blade pull:
- Base GVW: 7785 kg
- Blade down pressure: 6510 kg

OPERATING WEIGHT (APPROXIMATE)

Includes lubricants, coolant, full fuel tank, with ROPS/FOPS canopy and scarifier.

- Total: 13820 kg
- On rear wheels: 4090 kg
- On front wheels: 9730 kg

SCARIFIER (OPTIONAL)

Middle, V-type
- Working width: 1065 mm
- Scarifying depth, maximum: 200 mm
- Scarifier shank holders: 9
- Scarifier shank holders spacing: 130 mm

MOLDBOARD

Includes lubricants, coolant, full fuel tank, with ROPS/FOPS canopy and scarifier.

Blade pull:
- Base GVW: 7785 kg
- Blade down pressure: 6510 kg

CAPACITIES (REFILLING)

- Fuel tank: 271 L
- Cooling system: 24 L
- Crank case: 23.1 L
- Transmission: 45 L
- Final drive: 13 L
- Tandem housing (each): 51 L
- Hydraulic system: 51.5 L
- Circle reverse housing: 4.1 L

INSTRUMENT

Electric monitoring system with diagnostics:
- Gauges:
  - Standard: articulation, engine coolant temperature, fuel level, speedometer, transmission shift indicator, engine tachometer, torque converter oil temperature
  - Warning lights/Indicator:
  - Standard: battery charge, brake oil pressure, inching temperature, directional indicator, engine oil pressure, hydraulic oil temperature, heater signal, lift arm lock, parking brake, torque converter oil temperature, eco, P mode, fan reverse, rpm set, high beam, working lights

HYDRAULICS

- Tandem gear pump for work equipment steering control Capacity: 72 L/min + 36 L/min
- Relief valve setting:
  - Work equipment: 19.1 MPa 195 kg/cm²
  - Steering: 17.7 MPa 180 kg/cm²

BLADE RANGE

Moldboard side shift:
- Right: 1050 mm
- Left: 970 mm

Maximum shoulder reach outside rear tires (frame straight):
- Right: 1990 mm
- Left: 1920 mm

Maximum lift above ground: 480 mm

Maximum cutting depth: 565 mm

Blade tip angle: 40 ° forward, 3 ° backward

INSTRUMENT
### DIMENSIONS

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Height: Canopy</td>
<td>3145 mm</td>
</tr>
<tr>
<td>B</td>
<td>Height: Muffler</td>
<td>3055 mm</td>
</tr>
<tr>
<td>C</td>
<td>Cutting edge to center of front axle</td>
<td>2265 mm</td>
</tr>
<tr>
<td>D</td>
<td>Wheelbase to center of tandem</td>
<td>6100 mm</td>
</tr>
<tr>
<td>E</td>
<td>Overall length</td>
<td>8540 mm</td>
</tr>
<tr>
<td>F</td>
<td>Tandem wheelbase</td>
<td>1525 mm</td>
</tr>
<tr>
<td>G</td>
<td>Center of tandem to rear bumper</td>
<td>1795 mm</td>
</tr>
<tr>
<td>H</td>
<td>Tread (front)</td>
<td>2070 mm</td>
</tr>
<tr>
<td>I</td>
<td>Width of standard moldboard</td>
<td>3710 mm</td>
</tr>
<tr>
<td>J</td>
<td>Tread (rear)</td>
<td>2060 mm</td>
</tr>
<tr>
<td>K</td>
<td>Width over tires</td>
<td>2425 mm</td>
</tr>
<tr>
<td>L</td>
<td>Articulation, left or right</td>
<td>25°</td>
</tr>
</tbody>
</table>
Engine and Related Items
- Air intake extension
- Double element air cleaner and dust indicator
- Engine: Komatsu SAA6D107E-1, U.S. EPA Tier 3 and EU Stage 3A emissions equivalent, turbocharged and air-to-air aftercooled, 135HP/145HP net horsepower
- Fuel pre-filter

Electrical Systems
- Alarm, back-up
- Alternator, 24V/35A
- Battery, 2 x 12V/112Ah
- Horn, electric
- Indicators: parking brake, turn signal, lighting, high beam, brake oil pressure
- KOMTRAX, 3G or Orćomm
- Lights: back-up, stop, tail, directional, headlights (2 halogen type, front bar mounted)
- Multi color monitor

Operator Environment
- Canopy: low profile enclosed ROPS/ FOPS (ISO 3471/ISO 3449)
- Console, adjustable with instrument panel monitoring system
- Floor mat
- Mirrors: right and left exterior mirrors
- Seat, vinyl with seat belt

Power Train
- Axle, rear full floating, planetary type
- Brake, parking, spring applied, hydraulic release, disc type
- Dual mode transmission (F8-R4) power silt, direct drive and torque converter with auto shift, engine stall prevention function
- Service brakes, fully hydraulic wet disc
- Tires and rims: 13.00-24-12PR tubeless bias tires on 9" rims (6)

Work Equipment and Hydraulics
- 8 section hydraulic control valve
- Circle, drawbar mounted, 360° rotation hydraulic blade lift and circle side silt
- Circle slip clutch
- Moldboard: 3710 mm x 645 mm x 16 mm with replaceable end bits, through-hardened cutting edges 152 mm x 16 mm, hydraulic blade side shift
- Maximum moldboard angle position 90° right and left
- Steering, full hydraulic with tilt steering wheel plus leaning front wheels and frame articulation w/anti-drift check valves

Other Standard Equipment
- Fuel tank, ground level access
- Painting, Komatsu standard color scheme
- Steps and handrails, rear, right and left side
- Vandalism protection includes lockable access to fuel tank, battery cover and engine side covers
- Work lamps: front (2), rear (1)

Optional Equipment
- 9 section hydraulic control valves
- Alternator, 24V/60A
- Differential, lock/unlock
- General toolkit
- Hydraulic blade tip
- Large capacity batteries, 2 x 12 V/120 Ah
- Licence-plate light
- Pre-cleaner, Turbo II
- Scarifier, 9-shank type
- Steering cylinder guard
- Tires and rims: 14.00-24-12PR tubeless bias tires on 9" rims (6)
- Tool box with lock

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