GD535 -5

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

OPERATING WEIGHT
13680 kg (Cab)

BLADE LENGTH
3.71 m
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 Cab/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

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

OPERATING WEIGHT
- 13680 kg (Cab)

BLADE LENGTH
- 3.71 m
Improvements in transmission and axles raise 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
  Drive with Torque Converter in all shift position. This mode provides high controllability and torque multiplication. Additionally Lock-up will work in F5-F8 and R3-R4 position. For example shifting F8 position serves automatic shifting through F4-F8 in responsible to machine speed.

• Manual mode
  Works like a same way as conventional power shift, by engaging lock-up clutch with all gears. This mode maximize efficiency of direct shifting. In reverse travelling, works same way as Auto mode, serves less operation frequency.
2) Anti Stall
Prevents engine stalling while Lock-up, never needs to restart the engine and shift the gear.

3) Electronic Over-speed Protection
Restricts downshifting until reducing the travel speed to the safe range of shift changing.

Long Wheelbase & Short Turning Radius

The long wheelbase enables high leveling performance and easier to set the blade position. Long wheelbase also contributes to expanding blade reach in combination with large articulation angle. Additionally the minimum turning radius still short with wide steering angle, serves high maneuverability.
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.

**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 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.

Electric Throttle Control

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

Excellent visibility of hexangular 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.

Rear view

ROPS/FOPS Structure

Low profile cab and canopy are designed to ensure ROPS/FOPS (ISO 3471/ISO 3449) certification.

Cab
Adjustable Control Console

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

Lunch Box Tray and Cup Holder

The tray and cup holder for personal items, placed at the left side of the operator’s seat for Cab. Large tray for Canopy.

Other Cab Accessories

- **Air Conditioner (A/C)**
  Increase air flow rate by refurbishing the shape of air outlets.

- **12V Outlet**
- **Ashtray**

- **Mobile Phone Tray**

- **Suspension Seat (Optional)**
  Adopt high-rigidity suspension seat to enhance vibration absorption.
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 hood doors 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 Information Display

“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.

**Sealed connectors**
Wiring 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 dirt.

**Waterproof seal**

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**
Includes replaceable metal wear inserts, cutting edge and end bits. Cutting edge and end bits are hardened.

**Scarifier and Ripper**
Digs up hard material cannot be removed by the blade. This scarifier can accommodate up to 9 teeth. The ripper also can accommodate up to 5 shanks.
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, and operation record, also 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 ECO 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 monitor system can record the maintenance history such as changing the engine oil.

Indicator, switches
- LCD unit
- Warning lamp
- 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

Operation record
Fuel consumption record
KOMTRAX delivers the energy-saving operation report based on the operating information such as fuel consumption, load summary and idling time, which helps you efficiently run a business.

**Energy Saving Operation Report**

Through the web application, a variety of search parameters are available to quickly find information about specific machines based on key factors. Moreover, KOMTRAX finds out machines with problems from your fleet and shows you through an optimal interface.

**Equipment Management Support**

The Komatsu remote monitoring and management technology provides insightful data about your equipment and fleet in user-friendly format.

**Optimal Strategy for Efficient Work**

The detailed information that KOMTRAX puts at your fingertips helps you manage your fleet conveniently on the web anytime, anywhere. It gives you the power to make better daily and long-term strategic decisions.
Komatsu Total Support

To keep your machine available and minimize operation cost when you need it, Komatsu Distributor is ready to provide a variety of supports before and after procuring the machine.

**Fleet recommendation**
Komatsu Distributor can study the customer’s 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 replace the existing ones from Komatsu.

**Product support**
Komatsu Distributor gives the proactive support and secures the quality of the machinery that will be delivered.

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

**Technical support**
Komatsu product support service (Technical support) is designed to help customer. Komatsu Distributor offers a variety of effective services to show 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 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 policy which establishes and agrees to reduce the owning, operating and total Life Cycle Costs (LCC) to Komatsu’s customer through high quality, prompt delivery and competitively priced in own remanufactured products (QDC).
### 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: Gross 115 kW (154 HP)/2000 min⁻¹  
  ISO 9249/SAE J 1349: Net 108 kW (145 HP)/2000 min⁻¹  
- E-mode: 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  
U.S. EPA Tier 3 and EU Stage 3A emissions equivalent.

### 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>4.3 km/h</td>
<td>4.8 km/h</td>
</tr>
<tr>
<td>2nd</td>
<td>6.1 km/h</td>
<td>9.4 km/h</td>
</tr>
<tr>
<td>3rd</td>
<td>8.2 km/h</td>
<td>18.4 km/h</td>
</tr>
<tr>
<td>4th</td>
<td>11.6 km/h</td>
<td>35.2 km/h</td>
</tr>
<tr>
<td>5th</td>
<td>16.2 km/h</td>
<td>–</td>
</tr>
<tr>
<td>6th</td>
<td>22.7 km/h</td>
<td>–</td>
</tr>
<tr>
<td>7th</td>
<td>31.1 km/h</td>
<td>–</td>
</tr>
<tr>
<td>8th</td>
<td>43.4 km/h</td>
<td>–</td>
</tr>
</tbody>
</table>

Maximum travel speed at engine high idle is 47.5 km/h.  
Travel speeds calculated with 14.00-24-12PR tires.

### TANDEM DRIVE

Oscillating welded box section: 490 mm x 203 mm  
Side wall thickness: Inner: 22 mm  
Outer: 19 mm  
Wheel axle spacing: 1525 mm  
Tandem oscillation: 11° forward, 13° reverse

### FRONT AXLE

Type: Solid bar construction welded steel sections  
Ground clearance at pivot: 600 mm  
Wheel lean angle, right or left: 16°  
Oscillation, total: 32°

### REAR AXLE

Alloy steel, heat treated, full floating axle.  
Lock/unlock differential optional.

### 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 disc type.

### 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. Four circle support shoes with replaceable wear plates.  
Circle reversing control hydraulic rotation: 360°
**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

**OPERATING WEIGHT (APPROXIMATE)**

Includes lubricants, coolant, full fuel tank, ROPS/FOPS cab/canopy, 14.00-24 tires and single-piece rims:

- Total (Cab): 13680 kg
- (Canopy): 13310 kg
- On rear wheels (Cab): 9985 kg
- (Canopy): 9670 kg
- On front wheels (Cab): 3695 kg
- (Canopy): 3640 kg

With front mounted scarifier:

- Total (Cab): 14260 kg
- (Canopy): 13865 kg
- On rear wheels (Cab): 10100 kg
- (Canopy): 9755 kg
- On front wheels (Cab): 4160 kg
- (Canopy): 4110 kg

With rear mounted ripper and front push plate:

- Total (Cab): 15150 kg
- (Canopy): 14785 kg
- On rear wheels (Cab): 10640 kg
- (Canopy): 10325 kg
- On front wheels (Cab): 4510 kg
- (Canopy): 4460 kg

**SCARIFIER (OPTIONAL)**

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

**RIPPER (OPTIONAL)**

- Ripping depth, maximum: 273 mm
- Ripper shank holders: 5
- 3 shanks are standard additional 2 shanks as an optional
- Ripper shank holder spacing: 459 mm
- Penetration force: 7610 kg
- Pry out force: 3225 kg
- Machine length increase, beam raised: 1008 mm
### DIMENSIONS

#### MOTOR GRADER - GD535-5

<table>
<thead>
<tr>
<th>Letter</th>
<th>Description</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Height : Cab</td>
<td>3250 mm *2</td>
</tr>
<tr>
<td>B</td>
<td>Height : Muffler (Cab)</td>
<td>2840 mm *2</td>
</tr>
<tr>
<td></td>
<td>Height : Muffler (Canopy)</td>
<td>3075 mm *2</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>Front tire to rear bumper (Rear hook)</td>
<td>8565 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 back of ripper</td>
<td>2510 mm *1</td>
</tr>
<tr>
<td>H</td>
<td>Overall length</td>
<td>9880 mm *1</td>
</tr>
<tr>
<td>I</td>
<td>Tread (front)</td>
<td>2070 mm</td>
</tr>
<tr>
<td>J</td>
<td>Width of standard moldboard</td>
<td>3710 mm</td>
</tr>
<tr>
<td>K</td>
<td>Tread (rear)</td>
<td>2060 mm</td>
</tr>
<tr>
<td>L</td>
<td>Width over tires</td>
<td>2455 mm *2</td>
</tr>
<tr>
<td>M</td>
<td>Articulation, left or right</td>
<td>25°</td>
</tr>
</tbody>
</table>

*1: Optional  
*2: When equipped with 14.00-24 tires

### WHEELS, FRONT AND REAR

<table>
<thead>
<tr>
<th>Tire</th>
<th>Rim size</th>
<th>Wheel group</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.00-24</td>
<td>9”</td>
<td>Single-piece</td>
</tr>
<tr>
<td>14.00-24</td>
<td>9”</td>
<td>Single-piece</td>
</tr>
<tr>
<td>14.00-24</td>
<td>10”</td>
<td>Multi-piece</td>
</tr>
<tr>
<td>14.00-R24</td>
<td>10”</td>
<td>Multi-piece</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 Orbcomm
- Lights: back-up, stop, tail, directional, headlights (2 halogen type, front bar mounted)
- Multi color monitor

### Operator Environment
- 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, cariper disc type
- Dual mode transmission (F8-R4) power shift, direct drive and torque converter with auto shift, engine stall prevention function
- Service brakes, fully hydraulic wet disc

### Cab Accessories
- Air conditioner
- Cup holder
- 12V outlet
- Room mirror
- Wiper and washer

### Work Equipment and Hydraulics
- 9 section hydraulic control valve
- Circle, drawbar mounted, 360° rotation hydraulic blade lift and circle side shift
- 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
- 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)

### Standard Equipment
- Adjustable seat, fabric (Cab)
- Alternator, 24V/60A
- AM/FM radio (Cab)
- Battery disconnect switch
- Cab mount floodlight (Cab)
- Differential, lock/unlock
- Fire extinguisher
- General toolkit
- Hydraulic blade tip
- Large capacity batteries, 2 x 12V/120 Ah
- Licence-plate light
- Pre-cleaner
- Push plate

### Optional Equipment
- Rear view camera (Cab, hydraulic fan)
- Ripper
- Scarifier
- Steering cylinder guard
- Tool box with lock
- Transmission under guard
- Warning light, amber beacon

---

Materials and specifications are subject to change without notice. Komatsu is a trademark of Komatsu Ltd. Japan.

https://home.komatsu/en/