KOMATSU®

GD675-3

NET HORSEPOWER
149 kW **200 HP**
OPERATING WEIGHT
14870 kg **32,780 lb**
BLADE LENGTH
3.71 m **12 ft**

GD
675

Model shown may include optional equipment.

MOTOR GRADER

GD675

GD675-3 Motor Grader

WALK-AROUND

GD675-3
MOTOR GRADER

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OPERATING WEIGHT
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GALEO

Building on technology and expertise Komatsu has accumulated since its establishment in 1921, GALEO presents customers worldwide with a strong, distinctive image of technological innovation and exceptional value. The GALEO brand will be employed for Komatsu's full lineup of advanced construction and mining equipment. Designed with high productivity, safety and environmental considerations in mind, the machines in this line reflect Komatsu's commitment to contributing to the creation of better world.

Genuine Answers for Land and Environment Optimization

A simple ***blade suspension system*** allows good forward visibility.

The ***advanced monitoring system*** delivers self-diagnostics and can provide historical diagnostic information.

Excellent visibility to the rear. Front and rear glass is angled to prevent dust build up.

Stable work equipment speeds are unaffected by engine speed.

Model shown may include optional equipment.

Low front nose providing good visibility.

A ***wide working range*** is accomplished through unsurpassed blade geometry,

Bronze alloy guides on blade and circle provide long service life.

The ***lock-up torque converter*** provides smooth power for grading and speed for roading or snow removal.

Brakes are hydraulically operated wet type multiple-disc and maintenance free. No air system.

Wheel spin is reduced with the ***manual lock/unlock differential.(optional)***

High performance engine ***Komatsu SAA6D114E turbocharged and air to air aftercooled*** diesel provides 149 kW **200 HP** for demanding applications.

Access to all necessary ***engine*** maintenance items is easy with wide hinged compartment doors.

KOMATSU DESIGNED

Converter Drive: Designed to Provide Power and Performance on the Job Site

High Performance Komatsu SAA6D114E Engine

The GD675 gets exceptional power and efficiency from the turbocharged and air to air aftercooled engine. Output is 149 kW **200 HP** SAA6D114E (variable horsepower in higher gears) providing excellent tractive effort with good fuel efficiency.

Electronic Overspeed Protection

helps prevent engine and transmission damage from premature downshifting and grade-induced overspeeding.

Electronic Transmission Control

produces smooth shifting, which enables the operator to maintain a uniform grading surface if shifting is required. Smooth shifts also extend the life of the transmission by placing less stress on transmission clutches. A single lever controls direction, speed and parking brake.

Komatsu Power Shift Transmission

is designed and built specifically for Komatsu graders. The transmission provides on-the-go, full power shifting as well as inching capability and automatic shifting in the higher ranges.

Lock-up Torque Converter

or direct drive the operator chooses the optimum transmission set-up for the job at hand. If power for tough grading or low speed fine control is required, the operator can select the torque converter mode. With the torque converter, the operator has tremendous tractive effort. More importantly, is the fine control at low speed without shifting or using an inching pedal. Torque converter drive is available in gears 1-4. If high transport speed or high speed for snow removal is needed, the operator can select direct drive. The operator has the best of both worlds, torque converter or direct drive, at his fingertips.

Gear Selections

Eight forward speeds and four reverse speeds give the operator a wide operating range. With four gear selections below 9.7km/h(6mph), the operator can precisely match working speeds to job conditions for maximum productivity in earthmoving applications. Gears five, six and seven provide optimal speed range for snow removal operations. When in torque converter mode, shifting is automatic in speeds five through eight. The operator sets the maximum gear he wishes to operate in and the transmission will then shift automatically between gears five through eight up to the operator selected maximum gear.

Low Effort Inching Pedal

gives the operator, when in direct drive mode, precise control of machine movement. This is especially important for operators who are not familiar with operating a torque converter drive motor grader.

CLSS with Proportional Flow Hydraulic System

Power on Demand

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. The bottom line is greater efficiency.

Implement Control Valves

Designed and built by Komatsu specifically for motor graders. They are direct acting and provide outstanding operator “feel” and predictable system response for unmatched implement control. To help maintain exact blade settings, lock valves are built into the hydraulic circuits. Relief valves are also incorporated into selected circuits to protect the cylinders from over-pressurization.

Low Operating Effort

Implement controls are designed to reduce operator fatique. They feature short lever throws and low effort in both directions. Properly spaced control levers and short lever throws allow the operator to use multiple controls with one hand.

Balanced Flow

When the operator uses several controls at one time, flow is proportional to ensure several implements can operate simultaneously.

Constant Implement Speed

Implement speed is constant regardless of engine speed because of the large pump output and proportional flow control function.

The Most Versatile Moldboard Geometry in the Business

Komatsu graders boast the industry’s most 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. No extra machines or crew are needed to pick up the windrow. It’s made possible by Komatsu’s extraordinary reach. Plus, there is generous clearance between the heel of the blade and main frame, even with the toe sharply angled down.

Extra-long lift cylinders let the moldboard reach 815 mm **2'8"** below grade.

Blade Angle A long wheel base allows the operator to obtain an aggressive moldboard angle. This large blade angle permits material to roll more freely along the blade, which reduces power requirements. This is particularly helpful in dry or clay soil and snow and ice removal.

Rugged Construction The A-frame drawbar u-shape welded construction. A one-piece forged circle is built to stand up to high stress loads. To reduce wear, teeth are induction hardened in the front 180° of the circle. For maximum support, the circle is secured to the drawbar by six support shoes.

Replaceable Metal Wear Inserts

Replaceable metal wear inserts are located between the drawbar and circle and the support shoes and circle. This wear system helps keep components tight for fine grading and allows easy replacement. Komatsu also uses replaceable metal wear items in the following areas:

- Circle and moldboard tip bracket bearings
- Moldboard slide rail

Cylinder Socket Dust Seals

- **Blade Lift and Drawbar Sideshift**

Cylinder sockets have dust seals to prevent dust from entering inside the sockets causing wear.

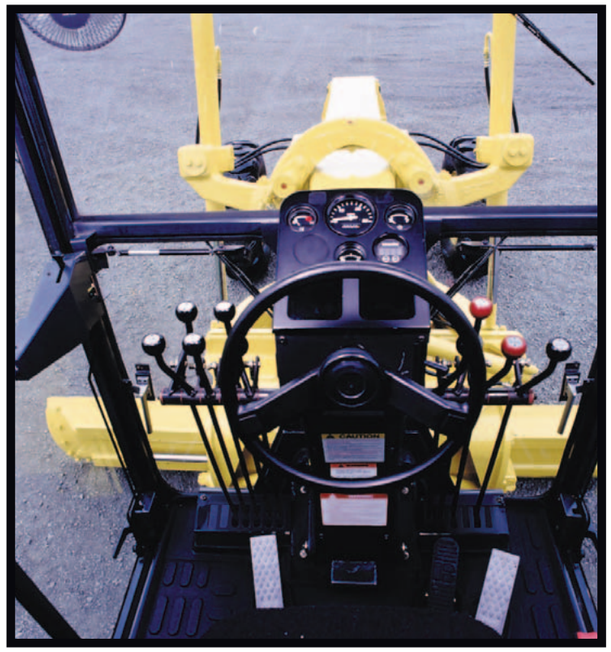
Optional Protection Systems

- **Blade Lift Accumulators** absorb shocks when the moldboard contacts immovable objects. This option is especially useful in rough grading and rocky areas. It provides precise control while allowing relief from vertical impact loads.
- **Circle Drive Slip Clutch** protects the drawbar, circle and moldboard from horizontal shocks when an object is hit near the toe or heel of the blade. This option is most useful in applications where hidden objects are frequently encountered.

Working Environment

Excellent Visibility

Exceptional visibility helps improve operator confidence and productivity in all grader applications. Well positioned blade linkage provide an unobstructed view of the moldboard and front tires. Tapered engine hood provide good visibility to the rear of the machine, especially to the rear ripper.



Quiet Cab (Optional)

With the doors closed, the quiet environment keeps the operator alert and focused. Extra leg and foot room create a spacious, open cab. The cab includes built-in storage space for personal items such as a lunch box, coffee cup, and a hook for a coat.

Low Effort

Pedals, hydraulic controls, and transmission shifter reduce operator strain and fatigue. Pedals are angled and raised off the cab floor to make them easy to reach.

Easy-to-Read Gauges

Electronic monitoring system checks important machine systems and provides the operator with three levels of warning.

Adjustable Control Console

The control console is adjustable backward and forward to facilitate entry and exit from the cab. The steering wheel also tilts to the operators preference. There are handrails on both sides of the cab so the operator need not grasp the steering wheel when entering the cab.

Optional Air Conditioner

Well-positioned air conditioning vents keep the operator comfortable through a wide range of outside conditions. In warm weather, the operator can get cold air flow towards his/her back even when the front lower window is opened.

Excellent Serviceability

- Large hinged engine service doors
- Maintenance free all hydraulic disc brakes
- Message center
- Self-diagnostic system

Maintenance Features

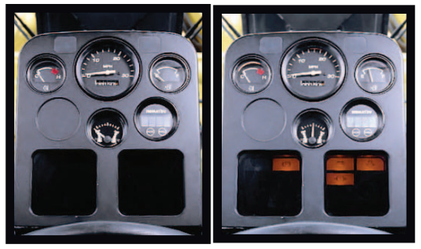
Superior Serviceability

Easy Access to Service Areas

- Large hinged doors are standard and provide easy access to the engine and radiator service points. Spin-on oil filters can be changed quickly.
- Lubrication points for articulation joint are remote-mounted.
- Fuse panel is located in the operator compartment. Circuits and fuse sizes are clearly identified.
- Tandem oil check point is conveniently located at the end of the tandem.
- Service meter is located on the left side of the steering console, offering a clear view from the ground.

Power Train Components

Features a modular design so you can remove the engine, transmission or final drives independently for quick service.



Message Center

The message center monitors the transmission and engine function with computer sensors. There are six modes available with ability to scroll through mode selections.

Maintenance-Free Oil Disc Brakes

Komatsu designs and builds multiple-disc brakes that are completely sealed and adjustment-free. The brakes are oil bathed, hydraulically actuated and spring-released and are located at each tandem wheel to eliminate brake loads on the power train and to speed up servicing. A fully hydraulic brake system eliminates all problems associated with air systems. The large braking surface provides dependable braking capability and long life before rebuild.

Friendly Environment

The rubber mounted engine and transmission transmit less engine noise and vibration to the operator and extend component life.

Specifications

ENGINE

Model . . . . . Komatsu SAA6D114E
Type . . . . . Water-cooled, 4-cycle, direct injection
Aspiration . . . . . Turbocharged and air to air aftercooled
Number of cylinders 6
Bore . . . . . 114 mm **4.49"**
Stroke . . . . . 135 mm **5.31"**
Piston displacement . . . . . 8.27 ltr **505 in³**
Gross horse power
Gear 1~3 . . . . . 139 kW **187 HP**@1900 rpm
Gear 4~8 . . . . . 154 kW **207 HP**@1900 rpm
Net flywheel horsepower*
Gear 1~3 . . . . . 134 kW **180 HP**@1900 rpm
Gear 4~8 . . . . . 149 kW **200 HP**@1900 rpm
Peak torque
Gear 1~3 . . . . . 856 Nm 87.3 kg.m **631 lb.ft**@1300 rpm
Gear 4~8 . . . . . 975 Nm 99.4 kg.m **719 lb.ft**@1300 rpm
Torque rise . . . . . 30 %
Fan . . . . . 7 blade, pusher
Air cleaner . . . . . 2-stage, dry-type
Electrical . . . . . 24 volt with 50 amp alternator
Battery . . . . . 2, low maintenance plus, 12 volt, 112 Ah

* Net flywheel HP output for standard (SAE J1349) including air cleaner, alternator (not charging), water pump, lubricating oil, fuel pump, muffler and fan.

TRANSMISSION AND TORQUE CONVERTER

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

Speeds (at rated engine speed)

Gear	Forward	Reverse
1st	3.3 km/h **2.1 mph**	4.3 km/h **2.7 mph**
2nd	4.7 km/h **2.9 mph**	8.8 km/h **5.5 mph**
3rd	6.7 km/h **4.2 mph**	19.3 km/h **12.0 mph**
4th	9.7 km/h **6.0 mph**	38.3 km/h **23.8 mph**
5th	14.6 km/h **9.1 mph**	
6th	21.2 km/h **13.2 mph**	
7th	29.1 km/h **18.1 mph**	
8th	42.2 km/h **26.2 mph**	

TANDEM DRIVE

Oscillating welded box section . . . . . 580 mm x 221 mm **1'11" x 9"**
Sprocket drive chain, single strand . . . . . 31.75 mm **1.25"** pitch
Side wall thickness: Inner . . . . . 22 mm **0.88"**
Outer . . . . . 19 mm **0.75"**
Wheel axle spacing . . . . . 1535 mm **5'0"**
Tandem oscillation . . . . . 13° forward, 13° reverse

FRONT AXLE

Type . . . . . Solid bar construction welded steel sections
Ground clearance at pivot . . . . . 625 mm **2'1"**
Wheel lean angle, right or left . . . . . 20°
Oscillation, total . . . . . 32°

REAR AXLE

Alloy steel, heat treated, full floating axle, spiral bevel gear reduction.

WHEELS, FRONT AND REAR

Bearings . . . . . .tapered roller
Tires . . . . . .low pressure, tubeless, 14.00 - 24, 12 ply rating-G2
Tire rims (demountable) . . . . . .10.00VA x 24SDC

STEERING

Hydraulic power steering providing stopped engine steering meeting SAE J1511.

Minimum turning radius . . . . . 6.9 m **22' 8"**
Maximum steering range, right or left . . . . . 49°
Articulation . . . . . 23°

BRAKES

Service brake . . . . . Foot operated, sealed oil disc brakes, hydraulically actuated on four tandem wheels, 13338 cm² **2067 in²** total braking surface
Parking brake . . . . . Manually actuated, spring applied, hydraulically released caliper with transmission interlock

FRAME

Section, welded unit (w x h) . . . . . 300 x 300 mm **11.8" x 11.8"**
Side plate . . . . . 250 x 14 mm **9.8" x 0.55"**
Vertical section modulus, front frame:
Minimum . . . . . 2140 cm³ **131 in³**
Maximum . . . . . 4860 cm³ **297 in³**
Linear weight per length, front frame:
Minimum . . . . . 173 kg/m **116 lb/ft**
Maximum . . . . . 221 kg/m **148 lb/ft**

DRAWBAR

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

Drawbar frame . . . . . 210 x 25 mm **8.3"x 1"**

CIRCLE

Single piece rolled ring forging. Six circle support shoes with replaceable wear surface. Circle teeth hardened .

Diameter (outside) . . . . . 1530 mm **5'0"**
Circle reversing control hydraulic rotation. . . . . 360°

MOLDBOARD

Hydraulic power shift fabricated from high carbon steel. Includes replaceable end bits. Cutting edge is through hardened.

Dimensions. . . . . 3710 x 645 x 19 mm **12'2" x 2'1" x 0.75"**
Arc radius . . . . . 329 mm **1'1"**
Cutting edge . . . . . 152 x 16 mm **6" x 0.63"**
Replaceable/reversible end bits. . . . . 152 x 16 mm **6" x 0.63"**

BLADE RANGE

Circle center shift: Right . . . . . 300 mm **1'0"**
Left . . . . . 215 mm **8"**
Moldboard side shift:
Right. . . . . 820 mm **2'8"**
Left . . . . . 820 mm **2'8"**
Maximum shoulder reach outside rear tires (frame straight)
Right. . . . . 2000 mm **6'7"**
Left . . . . . 2000 mm **6'7"**
Maximum lift above ground. . . . . 505 mm **1'8"**
Maximum cutting depth. . . . . 815 mm **2'8"**
Maximum blade angle, right or left. . . . . 90°
Blade tip angle. . . . . 40° forword, 5° backward

HYDRAULICS

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, tilt, circle shift, articulation, and leaning wheels.

Output . . . . . 194 ltr/min **51 gal**
Standby pressure. . . . . 3.4 MPa 35 kg/cm² **500 psi**
Maximum system pressure . . . . . 20.6 MPa 210 kg/cm² **3,000 psi**

INSTRUMENT

Electric monitoring system with diagnostics:
Gauges:
Standard. . . . . articulation, engine coolant temperature, fuel level, hour meter, message center, torque converter oil temperature
Optional . . . . . speedometer
Warning lights:
Standard. . . . . battery charge, engine oil pressure, heater signal, lift arm lock, parking brake, transmission electric circuit and torque converter oil temperature
Optional . . . . . blade accumulator, blade float, differential lock, differential oil temperature, directional indicator, high beam, working lights

CAPACITIES (REFILLING)

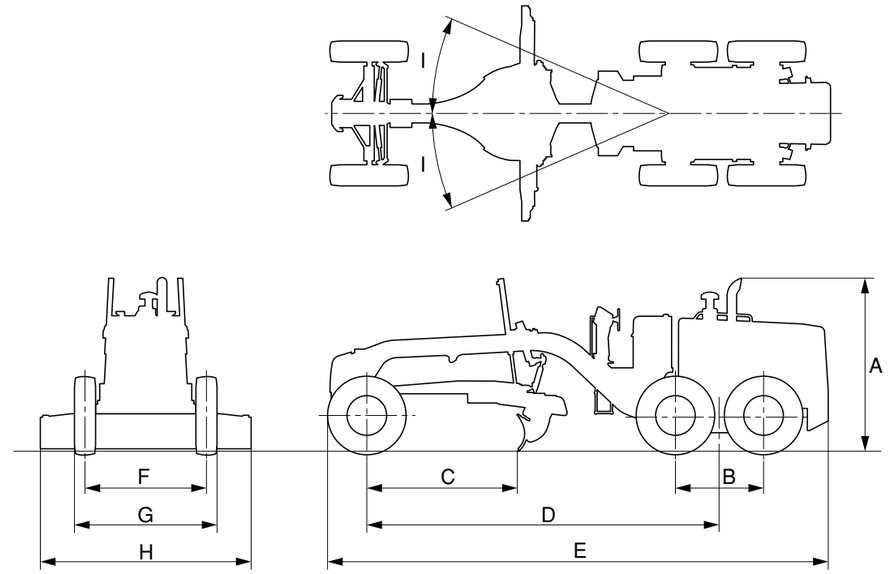
Fuel tank	.340 ltr	**89.8 U.S. gal**
Cooling system	.45 ltr	**11.9 U.S. gal**
Crankcase	.19 ltr	**5.0 U.S. gal**
Torque converter and Transmission	.45 ltr	**11.9 U.S. gal**
Final drive	.12 ltr	**3.2 U.S. gal**
Tandem housing (each)	.83 ltr	**21.9 U.S. gal**
Hydraulic system	.45 ltr	**11.9 U.S. gal**
Circle drive housing:		
Standard	.5 ltr	**1.3 U.S. gal**

OPERATING WEIGHT (APPROXIMATE)

Includes lubricants, coolant, full fuel tank, and operator.

Total . . . . . 14,870 kg **32,780 lb**
On rear wheels . . . . . 10,640 kg **23,455 lb**
On front wheels . . . . . 4,230 kg **9,325 lb**

DIMENSIONS



A	Height	3000 mm	**9'10"**
B	Tandem wheelbase	1535 mm	**5'0"**
C	Cutting edge to center of front axle	2600 mm	**8'6"**
D	Wheel base to center of tandem	6070 mm	**19'11"**
E	Overall length	8595 mm	**28'2"**
F	Tread	2130 mm	**7'0"**
G	Width over tires	2550 mm	**8'4"**
H	Width of standard moldboard	3710 mm	**12'2"**
I	Articulation	23°	**23°**

STANDARD EQUIPMENT

- Air cleaner, dual element , dry type, and service indicator
- Air intake extension
- Alarm, back-up
- Alternator, **60 amp**
- Batteries, heavy-duty, 112 Ah
- Brakes, sealed oil disc brakes
- Console adjustable
- Control valve bank, 8-section
- Decelerator/accelerator pedal
- Electrical system, 24 volt
- Engine
  Komatsu SAA6D114E turbocharged and air to air aftercooled diesel
- Engine preheat
- Frame articulation
- Full hydraulic steering, leaning front wheels
- Hinged hood-sides for engine compartment
- Horn
- Hydraulic circle shift, blade shift, and blade lift
- Hydraulic system, load sensing closed center
- Lights, rear back-up, stop/tail
- Moldboard, 3710 x 645 x 19 mm
  12'2" x 2'1" x 0.75"
- Maximum moldboard angle position 90° right and left
- Overlay end bits
- Throttle, hand control
- Tilt steering wheel
- Tires, 14.00 x 24, 12PR-G2 with 10" rims, tubeless
- Transmission, full power shift with selectable torque converter or direct drive
- Monitoring system with diagnostics/message center
- Vandalism protection

OPTIONAL EQUIPMENT

- Accumulators, anti-shock for blade lift
- Air conditioner
- AM/FM radio with cassette
- Cab, deluxe enclosed ROPS/FOPS
- Canopy ROPS/FOPS
- Circle slip clutch
- Defroster fan, front and rear
- Differential, lock/unlock with planetaries
- Dome light
- Hazard lights
- Headlights:
  —Front bar mounted with turn and hazard
- Moldboard 4319 x 645 x 19 mm
  14'2" x 2'1" x 0.75"
- Optional cutting edges
- Optional hydraulic control valves
- Optional paint
- Optional tires
- Outside convex mirrors
- Pusher block
- Ripper, rear mounted with holding valve
- Scarifier, forward mounted with holding valve
- Speedometer
- Suspension seat
- Tachometer
- Transmission guard
- Turn signals
- Windshield wipers, two lower, rear dual with washer
- Work lights

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