

BID SUBMITTAL FORM
Alabama County Joint Bidding Program
BID ITEM – MEDIUM DUTY MOTOR GRADER - OPTION A

Company Name: TRACTOR & EQUIPMENT Co. Inc.
Address: P.O. Box 12326
Birmingham, AL 35212
Bid Submitted by: JOE PATTON
(Name of company representative)
Title: V.P. e-mail address: jpatton@TEC1943-com
Phone: (205) 591-2131 Fax: (205) 591-8321

By submitting this bid, we agree:

The equipment model number identified below meets the bid specs for this bid item

That the bid price will be honored for all counties for the period from Jan. 1, 2024 to Dec. 31, 2024.

The equipment will be delivered at the bid price to all counties participating in the joint bid program

The company representative listed above will be the contact person for purchasing this bid item under the joint bid program

The bid is accompanied by a current catalog or model specification document for the model number identified below

The bid is accompanied by a copy of the manufacturer's standard warranty as required in the bid specifications

The bid includes the e-verify documentation required by Alabama law

If awarded the bid, a performance bond will be provided upon request

The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP) for the Standard Machine**

Initials

AR

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MEDIUM DUTY MOTOR GRADER - OPTION A

Total Bid Price for Standard Machine: \$ 358,865.⁰⁰
(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs)

Freight Preparation and Delivery: \$ 4900.⁰⁰
(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: \$ 534,391.⁰⁰

Equipment Model #: KOMATSU GD655-6

Description: MEDIUM DUTY MOTOR GRADER

Signature of company representative submitting bid: 

Title: V.P.

* NOTE: Award will be made based on the total cost of the **Standard Machine**. The total cost of the standard machine is to include the freight preparation, delivery and standard warranty cost. Freight preparation, delivery will be excluded from the total bid price of the standard machine in determining the percentage discount for any available options.

* Bid Includes A 5 YEAR - 3000 Hour
Premier Warranty And A 5 YEAR -
3000 Hour TEX Service Care
Program *

* TEX DOES NOT charge ANY Travel Time or
Mileage on A WARRANTY Claim *

**BID SUBMITTAL FORM: OPTION COST SHEET
MEDIUM DUTY MOTOR GRADER - OPTION A**

By submitting this bid, we agree:

To offer any available options at the percent difference between the Manufacturer's Suggested Retail Price Sheet and the actual bid price on the Standard Machine*

40

The bid documents include the Manufacturer's Suggested Retail Price Sheet (MSRP) with **any available Options** for the Standard Machine

40

Equipment Model #: KOMATSU GD655-6

Description: MEDIUM DUTY MOTOR GRADER (OPTION A)

Signature of company representative submitting bid: 

Title: V.P.

***Note:** The percent difference between the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the standard machine as specified by these **Bid Specifications** and the actual price bid by the vendor will be calculated to determine the percentage discount to be applied to any available options. The bid price of the freight preparation, delivery cost shall be excluded in determining the percentage discount to be applied to available options. Any individual county may choose to add any available option to the standard machine at the percentage discount at the time of purchase.

* OUR BID PRICE INCLUDES A 5 YEAR - 3000 HOUR
PREMIER WARRANTY AND A 5 YEAR - 3000
HOUR TEC SERVICE CARE PROGRAM *

* TEC DOES NOT CHARGE ANY TRAVEL TIME
OR MILEAGE ON A WARRANTY CLAIM *

BID SPECIFICATIONS FOR MEDIUM DUTY MOTOR GRADER – OPTION A

GENERAL

These specifications shall be construed as the minimum acceptable standards for a medium duty motor grader. Should the manufacturer's current published data or specifications exceed these standards, the manufacturer's standards shall be considered minimum and shall be furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished. Additional, the machine offered for bid shall include all standard manufacturer's equipment. The motor graders must be a new current production model and shall meet all EPA and other applicable standards at the time of manufacture.

The use of specific names or numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer, but is intended solely for the purpose of indicating the type, size, and quality of equipment considered best adapted to the uses of counties participating in this joint bid.

BID SUBMITTAL FORM

Each bidder must submit his or her bid on the Bid Submittal Form included in the invitation to bid package. All written warranties to be submitted shall be attached to the Bid Submittal Form.

BID PRICE

The price bid shall include all destination charges, delivery charges, title fees, rebates and all other applicable costs and refunds.

MANUALS

Each unit shall be provided with one (1) copy of the operator's manual, one (1) copy of the repair manual and one (1) copy of the current parts manual. Units will not be accepted for delivery until the manuals as outlined above are received by the purchaser.

REPLACEMENT PARTS AVAILABILITY

Parts must be available for 5 years or 7,500 hours of use for the piece of equipment bid. If replacement parts are not delivered within three (3) working days of an order being placed, the bidder will deliver an equivalent machine for the County to use at no cost to the County until such time as the parts are delivered to the County so it can affect repairs to its machine.

WARRANTY

Bidders shall submit a copy of the manufacturer's standard warranty. Warranty shall include service response time of a maximum of 36 hours within notification by county.

Yes ☒ No ☐
Page #
or
Attachment ☒

ENGINE

Engine shall be a turbo-charged, direct injection, four-stroke, **6-cylinder** diesel engine and shall be electronically controlled for more efficient fuel injection and fuel burn.

Engine shall be designed and manufactured by the machine manufacture

Yes ☒ No ☐
Page # 13

Engine displacement shall not be less than **406 cu. in.** and shall develop, as standard, a rated net power of at least **218 HP.**

Yes ☒ No ☐
Page # 13

Engine shall be isolation/resilient mounted to minimize sound and vibration and shall meet currently required EPA emission regulations for manufacturer.

Yes ☒ No ☐
Page # 13

STARTING SYSTEM

Shall be equipped with a **24-volt** electrical system. **140-amp** alternator.

Yes ☒ No ☐
Page # 16

TRANSMISSION

Shall be designed and built by the machine manufacturer and shall be a **dual-mode**, power shift direct drive and torque convertor with Auto Shift.

Yes ☒ No ☐
Page # 13/6/16

Also, to be equipped with transmission guard.

Yes ☒ No ☐
Page #

TANDEM

Machine to be equipped with differential lock/unlock electro-hydraulically controlled with a multi-disc design .

Yes ☒ No ☐
Page # 7/13

CONTROLS AND HYDRAULICS

Hydraulics system shall be a closed center, load sensing type, with a variable Displacement, axial piston-type pump.

Yes ☒ No ☐
Page # 7/14

BLADES

Machine shall be equipped with **14 ft.** long, **24 in** high and no less than **7/8** in thick moldboard with hydraulic side shift and tip control.

Yes ☒ No ☐
Page # 14
cover

Blade shall also include reversible overlay end bits.

Yes ☒ No ☐
Page # DEALER

All blade functions shall be hydraulically or electronically actuated.

Yes ☒ No ☐
Page # 7/14

DRAWBAR AND CIRCLE

The circle shall be steel construction with 6 replaceable wear shoes.

Yes ☒ No ☐
Page # 10/13/14

FRAME

Articulated type main frame.

Yes ☒ No ☐
Page # 3

Articulation joint shall have mechanical locking device to prevent frame articulation while servicing or transporting machine.

Yes ☒ No ☐
Page # 3

TIRES

All six wheels shall be one-piece tire rims and shall provide mounting for 17.5 R25 tires.

Yes ☒ No ☐
Page # 13

Tires shall be Goodyear, Bridgestone/Firestone, or Michelin only 17.5 x R25 12PR Bias Tires.

Yes ☒ No ☐
Page # 13/14

BRAKES

Service brakes shall be multi-disc, oil-cooled and completely sealed.

Yes ☒ No ☐
Page # 13

WEIGHT (STANDARD OPERATING)

Base machine weight shall not be less than 37,546 lbs. Weight shall include standard machine configuration, lubricants, coolants, full fuel tank and operator of 200lbs This is factory specified operating weight only. No additional weights may be added for purpose of meeting these specifications.

Yes ☒ No ☐
Page # 14

INVITATION TO BID HEAVY EQUIPMENT NOTICE OF BID OPENING

NOTICE IS HEREBY GIVEN that the Association of County Commissions of Alabama, which administers the Alabama County Joint Bid Program on behalf of Alabama's county governing bodies, shall receive and open bids for the purchase of zero (0) or more items of heavy road equipment at its office located at 2 North Jackson Street, Montgomery, Alabama, at **10:00 a.m. on Friday, October 27, 2023**. Bid specifications are available at <http://www.alabamacounties.org/heavy-equipment/> for each of the following items:

Backhoes
Track Mount Excavators
Compact Track Mount Excavators
Mini Track Excavator
Wheeled Excavators
Highway Speed Truck Excavators
Motorgraders
Heavy Duty Hydrostatic Bulldozers
Mulching Dozer
Wheel Loaders
Heavy Duty Dump Chassis'
Lowboy Tractors
Skid Steer Attachments

Asphalt Milling Attachments
Ride-on Industrial Boom Mowers
Rubber Tire Roller
7.5 Ton Single Drum Vibratory Roller
One-man Pothole Patchers
Trailer Mounted Patchers
Trailer Mount Mastic Patcher/Crack Sealer
Asphalt Storage Tanks
Half Round End Dump Trailer
Lowboy Trailers
Dump Bodies (Automatic and Manual)

Time is of the essence in submitting bids and only bids received in the Association office by 10:00 a.m. Central Time on Friday, October 27, 2023 will be opened and considered. Bidders and any other interested individuals are invited to attend the bid opening.

NOTICE OF BID OPENING PROCEDURES

All bids for Heavy Equipment will be opened and the name(s) of the bidders read aloud on the morning of the bid opening on Friday, **October 27, 2023 at 10:00 a.m.** at 2 North Jackson Street, Montgomery, AL. The specifics of each bid submitted will be compiled by the Association staff thereafter and will be available, **upon written or emailed request**, one week after the bid opening. Requests should be emailed to jointbid@alabamacounties.org.

THE INVITATION PACKAGE

The invitation package for each item to be bid includes: this invitation to bid, the written bid specifications for the particular item of heavy road equipment, and a Bid Submittal Form to be used in submitting a bid for that particular item. Bidders should verify that they have received all pages of the invitation package. If there are any omissions, the bidder should contact Kenya Howard in the Association office by mail, fax, or e-mail (jointbid@alabamacounties.org) to request missing pages. It is the responsibility of the bidder to make this request in sufficient time to prepare and submit the bid in time for the bid opening. Bidders should carefully read and comply with all parts of the invitation package, including all attachments and/or any addendum.

PREPARING AND SUBMITTING BIDS

All bids must be typed or hand written in ink on the attached Bid Submittal Form. **The completed Bid Submittal Form shall be placed in front of and separated from all other documents included in the bid packet, such that it will be the first document viewed upon opening the bid packet.**

Bids submitted in pencil and bids not submitted on the Bid Submittal Form will **not** be considered. All bids shall include a current catalog or model specification document for the equipment model number being offered for consideration. Bids submitted without such documentation will **not** be considered. Only information contained on the attached Bid Submittal Form and in the model specification document will be considered in evaluating bids.

Each separate requirement in the bid specification includes a block for indicating whether or not the item bid meets the specification. The bidder shall indicate compliance with each requirement by checking "Yes" or "No" in the block to the right of each bid specification. In addition, the bidder shall indicate the page number in the supplied manufacturer's equipment literature on which compliance with the specification can be verified. Failure to complete this portion of the bid form may result in the subject bid not being considered. Additionally, all bidders are required to submit a factory build/order sheet showing all of the standard and option items for each piece of equipment bid in order to assist the bid review committee in assuring that each bid is in conformance with the required bid specifications.

Each bid for one of the heavy equipment items included in the bid package must be submitted on the Bid Submittal Form for that item and forwarded in a separate envelope with the bid item and item number clearly identified on the outside of the envelope. Envelopes containing a "no bid" shall also include the words "NO BID" on the outside of the envelope. Facsimiles and e-mails will not be accepted. Bids submitted by "Express/Overnight" services must be in a separate inner envelope or package sealed and identified as stated above. All bids must be received in the Association office prior to the bid opening. Bids received after the deadline will be returned unopened.

The County Joint Bid Program reserves the right to require a performance bond from successful bidders as permitted under Alabama law. However, **no bid bond is required for this bid offering.**

All bids should be mailed or hand-delivered to:

**ATTN: Joint Bid Program
Association of County Commissions of Alabama or ACCA
2 North Jackson Street, FL 7, Montgomery, Alabama 36104 (Physical Address)
P.O. Box 5040, Montgomery, Alabama 36103 (Mailing Address)**

BID SPECIFICATIONS

Please note that each piece of heavy equipment available for bid may include several different sizes and categories of machines. You should read each set of specifications very carefully as the differences vary depending upon the piece and size of equipment.

Where applicable, each bid submission shall include the separate cost of each item listed in the "Options" section of the bid specifications. However, all bids will be awarded on the basis of the **total cost of the machine with all options included**. Therefore, the "Bid Price" stated on the Bid Submittal Form must be the total cost, including the cost of all options.

Once the bids have been awarded, any county participant purchasing under this program may, at its discretion, deduct one or more of the options set out in the bid specifications, and in such event, the cost of the option as stated on the bid shall be deducted from the total cost of the machine. There shall be no other deductions and no additions made to the machine by the purchasing county or by the vendor.

Any use of specific names and/or model numbers in the attached specifications is not intended to restrict the bidder or any seller or manufacturer, but is included solely for the purpose of indicating the type, size, and quality of materials, product services, or equipment considered best adapted to the use of the counties participating in the joint bid program.

BIDDER QUALIFICATIONS

All bidders and all program participants must be in compliance with any applicable federal, state, county and municipal laws, regulations, resolutions and ordinances, including but not limited to, licensing, permitting, and taxation requirements. All bidders should be prepared to submit evidence or documentation as proof that they are properly licensed and permitted under any applicable laws upon request. Such evidence or documentation may be submitted with the bid. Additionally, all bidders shall provide proof that they are in compliance with the e-verify requirements of Alabama's Immigration Law (Ala. Code § 31-13-1 et seq., as amended by Act No. 2012-491).

BID AWARD

The Houston County Commission will serve as the awarding authority for all bids and will award all contracts at a regular meeting of the Houston County Commission. Any and all bids submitted in compliance with this invitation to bid shall be considered, and award will be made to the lowest responsible bidder meeting bid specifications as determined by the awarding authority in compliance with Alabama law. All bids will be reviewed and evaluated by a committee created for that purpose, which committee will make comments and recommendations to the awarding authority regarding the award. All factors contained in each invitation package will be evaluated in determining the successful bidder, and any omissions of the stated requirements may be cause for rejection of the bid submitted. The awarding authority reserves the right to reject any and all bids, to waive any informality in bids, and to accept in whole or in part such bid or bids solely at its discretion.

The contract period will be one year with an option to renew for a second and third year under identical price, terms, and conditions upon the mutual consent of the vendor and the awarding authority. Any renewal contract shall be approved in writing by the vendor and the awarding authority no later than 90 days prior to the expiration of the existing contract.

CONTACT REGARDING BIDS AND INVITATION

Contact initiated by a potential bidder with any county official, county employee, or member of the Association staff shall only be as specifically set out in this Invitation to Bid. Any questions related to the bid or the County Joint Bid Program shall be directed to Association staff in writing under the procedures set out in this Invitation to Bid. Additionally, a bidder may contact the Association in writing to request an appointment to review bid specifications following the bid opening. **However, there shall be no communication with any county official or county employee regarding this bid between the date of this invitation and the date of bid award.** Any contact other than as set out here shall be deemed as an attempt to unduly influence the bid award, and shall be grounds for rejection of the bid submitted by the bidder initiating such other contact.

Any questions or problems related to downloading or obtaining copies of this Invitation to Bid should be directed to **Kenya Howard** at jointbid@alabamacounties.org or **334-263-7594**.

Any other questions or requests for additional information regarding this invitation or the bid specifications shall be submitted **in writing** no later than five (5) days prior to bid opening to:

Patrick McDougald
Association of County Commissions of Alabama
P.O. Box 5040
Montgomery, Alabama 36103
E-mail: pattymackdaddy@gmail.com

KOMATSU®

GD655-6

Tier 4 Final Engine

MOTOR GRADER



HORSEPOWER

Net: 218 HP 163 kW
Gross: 221 HP 165 kW

OPERATING WEIGHT

37,346 lb 16940 kg
41,667 lb 18900 kg (with ripper)

BLADE LENGTH

14' 4.27 m

WALK-AROUND

CD655-6



Photos may include optional equipment.

HORSEPOWER

Net: 218 HP 163 kW
Gross: 221 HP 165 kW

OPERATING WEIGHT

37,346 lb 16940 kg
41,667 lb 18900 kg (with ripper)

BLADE LENGTH

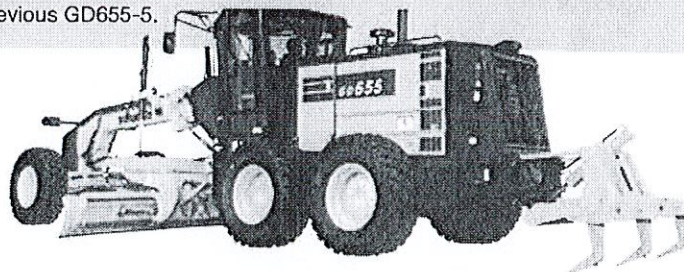
14' 4.27 m



THE ROAD TO SUCCESS STARTS WITH KOMATSU

The GD655-6 features a new SAA6D107E-3 Tier 4 Final Compliant Engine and when coupled to Komatsu's Dual Mode Transmission, operators benefit from maximum control while reducing fuel consumption by up to 15% when compared to the previous GD655-5.

Komatsu's Dual Mode Transmission utilizes both a torque converter and a direct drive clutch to achieve high tractive effort, inching ability, high ground speeds and low fuel consumption.



Performance Features

- Dual mode transmission takes advantage of the torque multiplication and inching characteristics of a torque converter as well as the low fuel consumption and increased travel speed of a direct drive.
- Automatic engine stall prevention disengages direct drive and utilizes a torque converter preventing engine stall
- Economy and Power engine modes
- Spring applied, hydraulic-release parking brake with larger caliper diameter for increased capacity
- Long wheelbase optimizes fine grading performance and body stability while maintaining a 24.2 ft turning radius
- 25 degree articulation angle
- Closed-center load sensing hydraulics system ensures predictable work equipment response, multi-functioning abilities, reduced noise, and reduced fuel consumption.

Serviceability

- Hydraulically driven, reversible cooling fan
- Monitor based diagnostics
- New dust boots installed on control valves prevent contamination
- Ground level fueling with no obstruction from ripper
- Fuel pre-filter and water separator
- New battery box location provides protection from dust and debris

Standard Features

- Rearview camera with separate color monitor
- Air conditioner/heater
- KOMTRAX Level 5
- Provision for grade control
- Blade-lift accumulators
- Circle slip clutch
- Cab mounted work lights

Structural / Quality Features

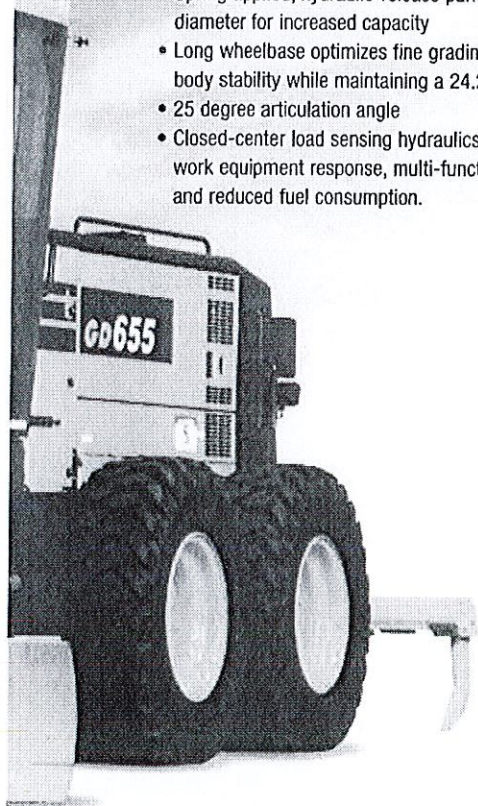
- Komatsu Harmony – all major components are designed and manufactured by Komatsu
- Reduced cab noise by fine tuning rigidity of driveline (74 dB(A) in cabin)
- Optimized lubrication circuit in transmission for increased durability
- Larger drive shaft for increased durability
- New, stronger front frame
- Steel backed, rubber clamps to keep hydraulic lines cleanly routed and reduce chafing

Komatsu Tier 4 Final Engine

- The new SAA6D107E-3 engine reduces fuel consumption by up to 15% compared to the previous model
- Selective catalytic reduction (SCR) system
- Komatsu Diesel Particulate Filter with automatic active regeneration
- Hydraulically actuated Komatsu Variable Geometry Turbocharger
- Hydraulically actuated Cooled EGR
- Komatsu auto idle shutdown reduces unnecessary idle time, reducing SMR, fuel consumption, and exhaust emissions
- SCR system includes a heated DEF tank, heated lines and a reversing pump to prevent DEF from freezing in the delivery lines.

Operator's Cab

- ROPS/FOPS Level II
- High capacity seat design with suspension
- New auxiliary jack for MP3 device and 2 x 12V sockets
- New LCD monitor panel with enhanced capability
- New standard rearview monitoring system with separate color monitor
- Hexagonal cab design provides excellent visibility of the moldboard



PERFORMANCE FEATURES

KOMATSU NEW ENGINE TECHNOLOGIES

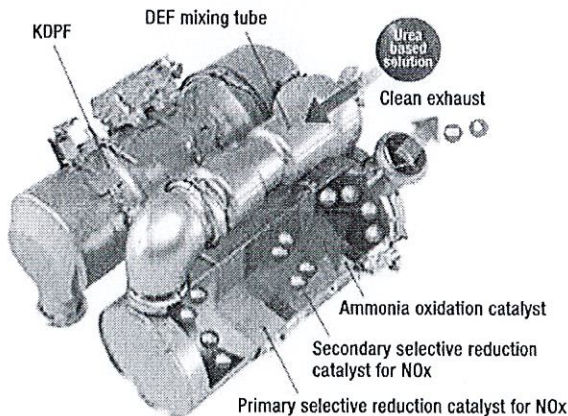
New Tier 4 Final Engine

The Komatsu SAA6D107E-3 engine is EPA Tier 4 Final emissions certified and provides exceptional performance while reducing fuel consumption. Based on Komatsu proprietary technologies developed over many years, this new diesel engine reduces nitrogen oxides (NOx) compared to the previous model.

Technologies Applied to New Engine

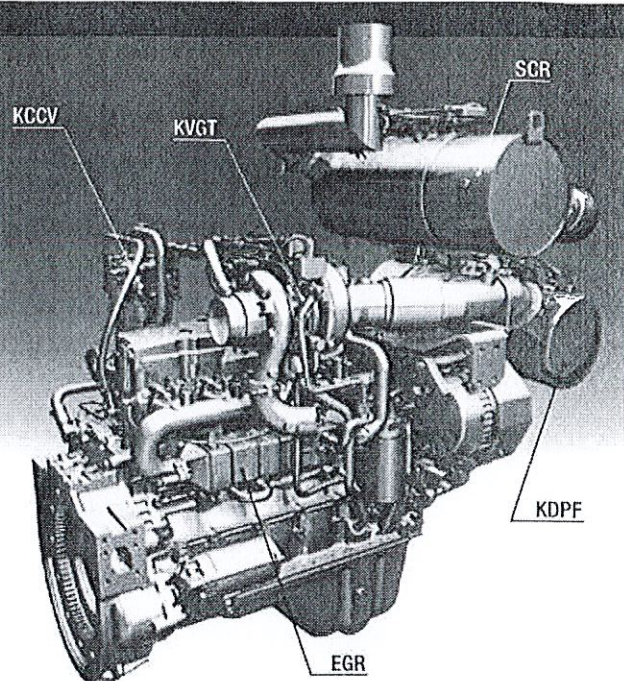
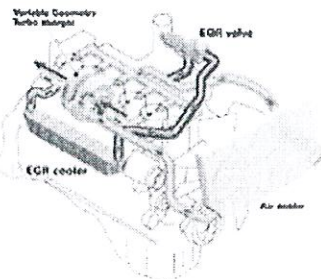
Heavy-duty aftertreatment system

This new system combines a Komatsu Diesel Particulate Filter (KDPF) and Selective Catalytic Reduction (SCR). The SCR NOx reduction system injects the correct amount of Diesel Exhaust Fluid (DEF) at the proper rate, thereby decomposing NOx into non-toxic water vapor (H₂O) and nitrogen gas (N₂).



Heavy-duty cooled Exhaust Gas Recirculation (EGR) system

The system recirculates a portion of exhaust gas into the air intake and lowers combustion temperatures, thereby reducing NOx emissions. EGR gas flow has been decreased for Tier 4 Final with the addition of SCR technology. The system dramatically reduces NOx, while helping cut fuel consumption below Tier 4 Interim levels.

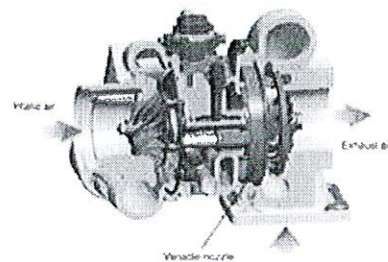


Advanced Electronic Control System

The electronic control system performs high-speed processing of all signals from sensors installed in the vehicle providing total control of equipment. Engine condition information is displayed on the monitor inside the cab, providing necessary information to the operator. Additionally, managing the information via KOMTRAX helps customers keep up with required maintenance.

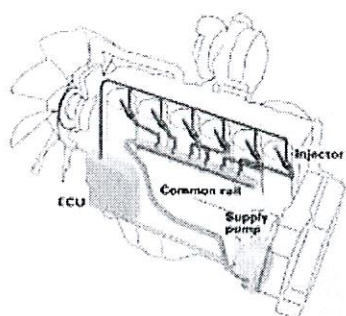
Komatsu Variable Geometry Turbocharger (KVGT) system

The KVGT system features proven Komatsu design hydraulic technology for variable control of air-flow and supplies optimal air according to load conditions. The upgraded version provides better exhaust temperature management.



Heavy-Duty High-Pressure Common Rail (HPCR) Fuel Injection System

The system is designed to achieve an optimal injection of high-pressure fuel by means of computerized control, providing near complete combustion to reduce PM emissions.



Higher Productivity & Lower Fuel Consumption

A new variable displacement piston pump, improvements in the transmission and driveline components, and a sophisticated electronic control system for the engine and transmission all combine to achieve optimum and efficient operation. The new GD655-6 will consume up to 15% less fuel than the GD655-5.

Fuel consumption

up to **5%** reduction (P mode)
up to **15%** reduction (E mode)

(Compared with GD655-5)

Hydraulically Driven Cooling Fan

The engine cooling fan rotation speed is electronically controlled. This system increases fuel efficiency, reduces the operating noise levels, and requires less horsepower than a belt driven fan. The fan is manually reversible by the operator for periodic cleaning.

Long Wheel base & Short Turning Radius

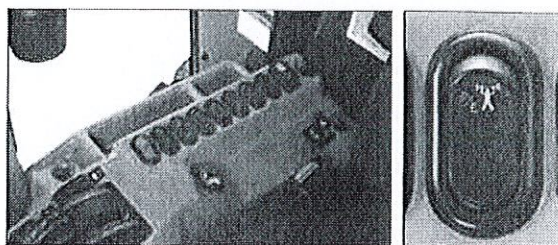
Longest wheelbase in class for exceptional fine grading performance. A 25 degree articulation angle allows the GD655-6 to maintain a tight turning radius of 24'3" making this grader very maneuverable for tight road work and cul-de-sac operation.

Komatsu Auto Idle Shutdown

Komatsu auto idle shutdown automatically shuts the engine down after idling for a set period of time to reduce unnecessary fuel consumption and exhaust emissions. Idle duration prior to shutdown can be easily programmed in the monitor.

Selectable Working Modes

The operator can choose between two working modes, Economy Mode or Power Mode, depending on their work demand and conditions.



Power mode



Greater productivity can be achieved by taking full advantage of high output power. P mode is appropriate for heavy grading applications.

Economy mode



E mode can be selected for reduced fuel consumption. E mode is appropriate when performing light and finish grading.

Forward kW (HP)

	P mode		E Mode	
	AUTO	MANU	AUTO	MANU
F1	135	135 (180)	135 (180)	135 (180)
F2	(180)			
F3	150	150 (200)		
F4	(200)			
F5				
F6				
F7	163	163	163	163
F8	(218)	(218)	(218)	(218)

Reverse kW (HP)

	P mode		E Mode	
	AUTO	MANU	AUTO	MANU
R1	135	135	135 (180)	135 (180)
R2	(180)	(180)		
R3	150	150		
R4	(200)	(200)		

DUAL-MODE TRANSMISSION

Komatsu Dual-mode Transmission

The dual-mode transmission is built specifically for Komatsu motor graders. The transmission provides full power shifting as well as inching capabilities and automatic shifting in the higher ranges.

Transmission Mode Selection

• Manual Mode

Transmission functions as a conventional direct drive with 8 forward speeds. Operators will benefit from consistent machine speed and reduced fuel consumption. When the control system senses an increase in load and determines that the engine is at risk of a stall condition, the direct drive clutch is automatically disengaged, allowing the power to be transferred through the torque converter, preventing engine stall.

• Automatic Mode

When the gear selector is positioned in F1-F4, the transmission will remain in the desired speed range and utilizes the torque converter. The high tractive effort of the torque converter allows a start from stop in any range, F1-F4. Operators will enjoy the easy, 2 pedal (accelerator and brake) operation. In the higher ranges (F5-F8) the electronic control system will automatically shift the transmission from F4 to the selected speed range and automatically engage/disengage the lock-up torque converter as necessary.

Low Effort Inching Pedal

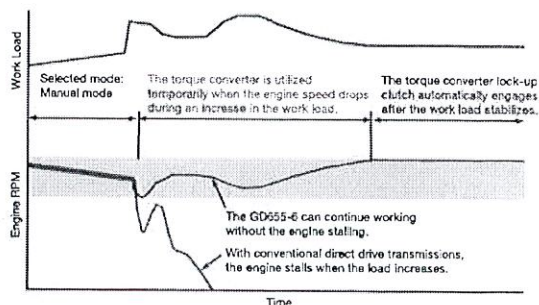
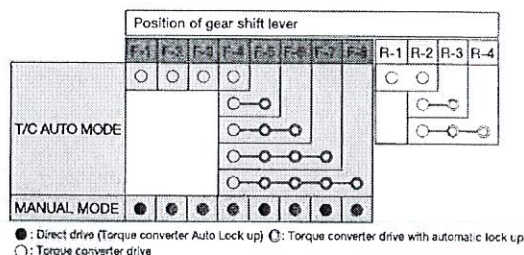
The inching pedal provides the operator precise control of machine travel at low speeds. This feature benefits all operators, but especially those accustomed to conventional, direct drive motor graders.

Electronic over-speed protection

Helps prevent engine and transmission damage caused by premature downshifting and grade-induced over speeding.

Electronic Transmission Control

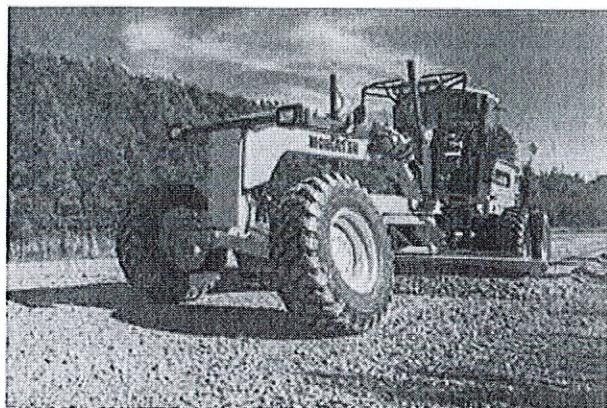
The electronic control produces smooth shifting, which enables the operator to maintain a uniform grade while shifting. Smooth shifts also extend the life of the transmission by reducing the shock loads in the transmission clutches. A single lever controls direction, speed, and the parking brake.



ADVANCED CONTROL FEATURES

Closed-center Load Sensing System (CLSS)

The variable displacement pump idles at low output. When it senses a load requirement, the pump supplies flow and pressure quickly to match the demand. The result is less hydraulic system heat, quick response and lower fuel consumption. The bottom line is greater efficiency with this Closed-center Load Sensing System (CLSS).



Implement Control Valves

Designed and built by Komatsu specifically for motor graders, the valves are direct acting and provide outstanding operator "feel" and predictable system response for precise 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 fatigue. 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 the same time, flow is proportional to ensure several implements can operate simultaneously.

Constant Implement Speed

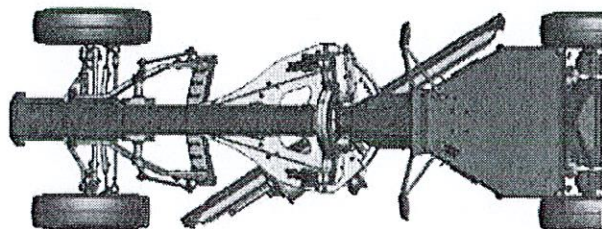
Implement speed is constant regardless of engine speed because of the large pump output and proportional flow control function.

VERSATILE MOLDBOARD GEOMETRY

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.

Aggressive Moldboard Angles

A long wheelbase 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 soil, clay or for snow and ice removal.



Rugged Construction

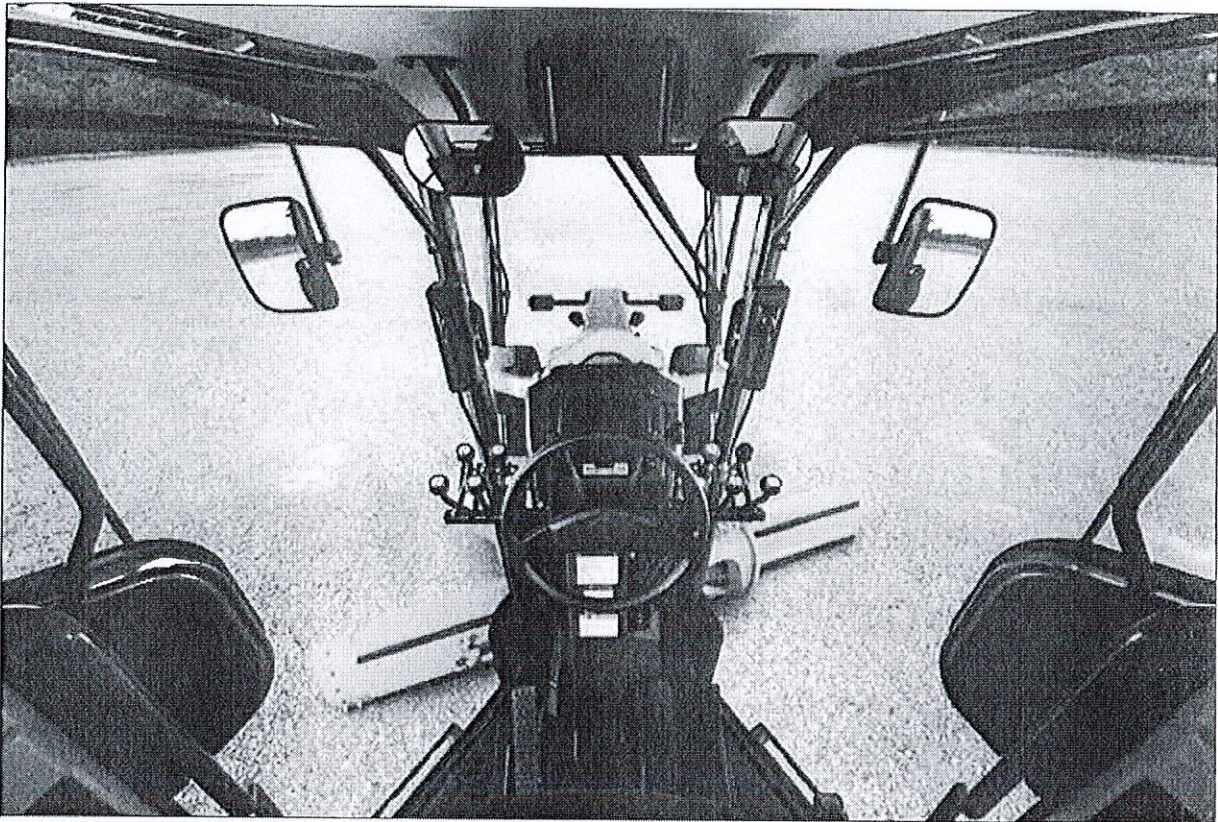
The A-frame drawbar has a U-shape welded construction. A one-piece forged circle is built to stand up to high stress loads. To reduce wear, teeth are induction hardened in the front 180° of the circle. For maximum support, the circle is secured to the drawbar by six support shoes.

Protection System

Blade Lift Accumulators absorb shocks when the moldboard contacts immovable objects. This feature is most useful in applications where hidden objects are frequently encountered, as in rough grading and rocky areas. It provides precise control while allowing relief from vertical impact loads.

OPERATOR ENVIRONMENT

GP655-6



Visibility

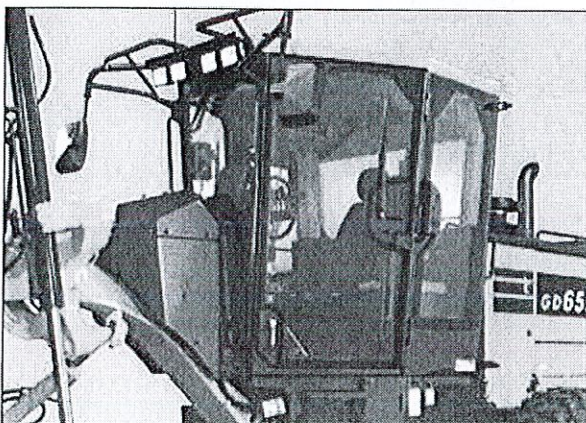
Excellent visibility from the hexangular cab and layout of the rear side pillars boost operator confidence and productivity in all grader applications. Well-positioned blade linkage provides an unobstructed view of the moldboard and front tires.

ROPS/FOPS Cab

The low profile, enclosed cab offers a wide field of vision and roomy interior to reduce operator fatigue. The cab is ROPS/FOPS Level II (ISO 3471/ISO 3449) certified.

Excellent Rear View

With excellent rearview visibility, the operator has an unobstructed view to the rear of the machine as well as the ripper.



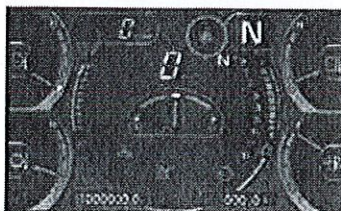
Work equipment lock lever

A lock lever is equipped as standard for improved security maintenance. It is easy to use and the locked/unlocked status can be seen at a glance.



Seat Belt Warning Indicator

A warning indicator on the monitor appears when the seat belt is not fastened.



Rear View Monitoring System

The operator can view the rear of the machine with a full color monitor that is located above the windshield. Visual guidelines can also be added for additional convenience.



Low Noise

New hydraulically driven fan and redesigned layout of the cooling system provide a low noise level.

Operator's ear dynamic noise level (ISO6396)

74 dB (A)

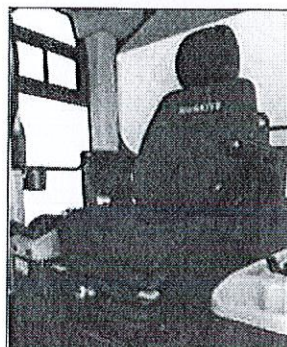
Circumference dynamic noise level (ISO6395)

106 dB (A)

(Typical test data at Komatsu test center)

Suspension Seat

The suspension, fabric covered seat which is adjustable to the operator's weight is provided as standard. The suspension seat dampens vibrations transmitted from the machine and reduces operator fatigue. The seat features fold-up armrests and a retractable seat belt.



Adjustable Control Console

By moving the control console forward and backward, entry and exit from the cab becomes easy. The steering wheel also tilts to the operators preference.



Auxiliary input jack

Connect operator's preferred digital device to the auxiliary jack to enjoy audio through the factory stereo system.



Electric Throttle Control

An RPM set switch allows the operator to perfectly match ground speed to working conditions. The switch has three positions, auto, off, and manual. When the engine speed is set and the switch is positioned in Auto, the brake or acceleration pedal will temporarily override the RPM set point.



Air Conditioner

Well-positioned air conditioning vents keep the cab temperature comfortable regardless of weather conditions.



Standard Equipment

Lunch box tray



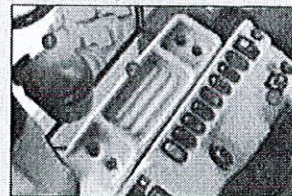
Engine shutdown secondary switch



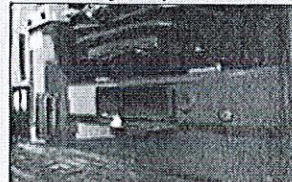
Radio



① Ashtray ② Mobile phone tray
③ Cigarette lighter



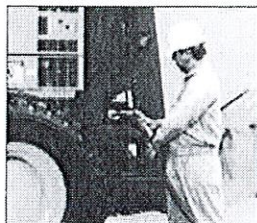
Manual storage compartment



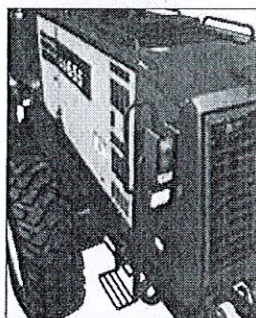
MAINTENANCE & DURABILITY FEATURES

Easy Access to Service Areas

- Large hinged lockable doors are standard and provide easy access to the engine and radiator service points. Spin-on filters can be changed quickly.
- Circuits and fuse sizes are clearly identified in the fuse panel located in the cab.
- The tandem oil check point is conveniently located at the end of the tandem.
- Refueling from the ground is easy.
- Engine oil, hydraulic oil and coolant drains are positioned for easy maintenance.
- A tandem axle step is provided with a punched metal foot plate to ensure stable footing during maintenance and inspection.



Ground refueling



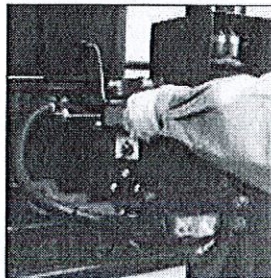
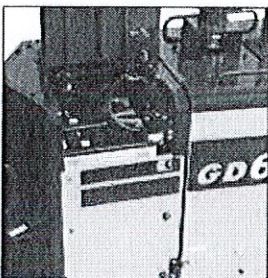
Easy Access DEF Tank

The DEF tank is located at the rear of the machine and accessible from ground level. A lockable, hinged door prevents the need to open the hood during refilling. An external sight gauge aids in preventing overflow and spillage while refilling.



Battery Disconnect Switch

For inspection and maintenance, the batteries can be disconnected with the master disconnect switch.

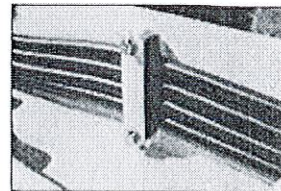


Battery Location

The battery box has been relocated to minimize dust accumulation.

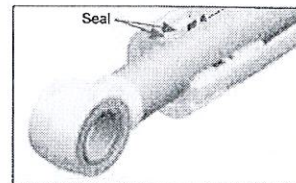
Metal Backed, Rubber Isolated Hose Clamps

Hydraulic hoses are routed and secured with metal backed, rubber isolating clamps to prevent vibrations, chafing, and damage.



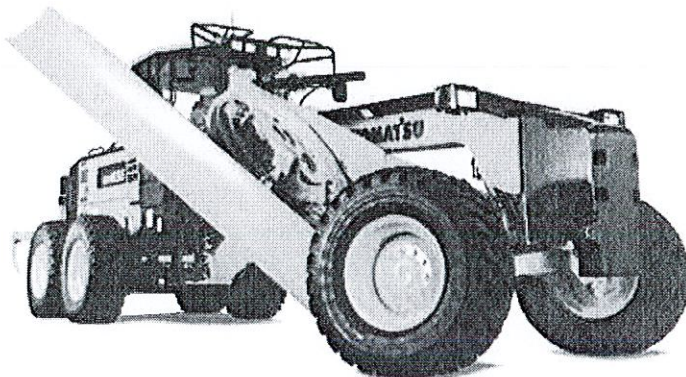
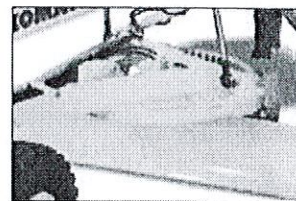
Double Seal, Blade Side Shift Cylinder

A double seal design has been adopted on the blade side shift cylinder given its proximity to the ground, making it susceptible to contamination.



Reinforced Blade Circle

The cross-sectional area of the circle has been increased to improve strength and durability. Structural changes to the drawbar and front frame also improve structural integrity and rigidity.



KOMTRAX EQUIPMENT MONITORING

GET THE WHOLE STORY WITH
KOMTRAX®

✓ WHAT

- KOMTRAX is Komatsu's remote equipment monitoring and management system
- KOMTRAX **continuously monitors and records** machine health and operational data
- Information such as fuel consumption, utilization, and a detailed history **lowering owning and operating cost**

✓ WHEN

- Know when your machines are **running or idling** and make decisions that will improve your fleet utilization
- Detailed movement records ensure you know when and where your equipment is moved
- Up to date records allow you to **know when maintenance is due** and help you plan for future maintenance needs

✓ WHERE

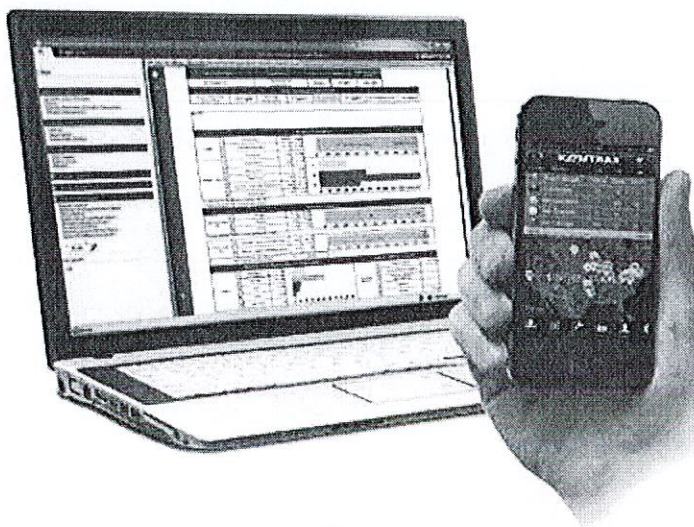
- KOMTRAX data **can be accessed virtually anywhere** through your computer, the web or your smart phone
- Automatic alerts keep fleet managers up to date on the latest machine notifications

✓ WHY

- Knowledge is power - **make informed decisions** to manage your fleet better
- Knowing your idle time and fuel consumption will help maximize your machine efficiency
- **Take control of your equipment** - any time, anywhere

✓ WHO

- KOMTRAX is **standard** equipment on all Komatsu construction products



KOMTRAX®

For construction and compact equipment.

KOMTRAX Plus™

For production and mining class machines.

KOMATSU PARTS & SERVICE SUPPORT



Every new Komatsu Tier 4 Final construction machine is covered.

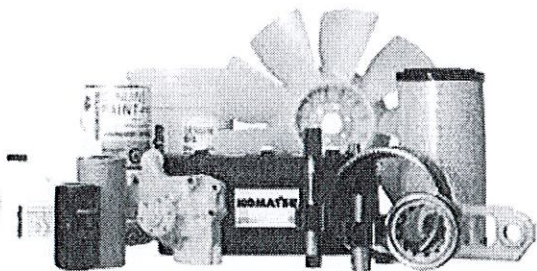
The Komatsu CARE program covers all new Komatsu Tier 4 Final construction equipment, whether rented, leased or purchased. For the first 3 years or 2,000 hours, whichever occurs first, you'll receive:

- Regular service at 500, 1,000, 1,500 and 2,000-hr. intervals
- DEF tank breather element replacement at 1,000 hours
- DEF and CCV filters replacement at 2,000 hours
- 50-point inspection by factory-trained technician at each scheduled interval
- Technician labor
- Fluids, oils, coolant, filters, SCR screen, tank breather and parts
- Technician travel to and from your equipment location

Plus two complimentary scheduled KDPF exchanges and SCR system service for 5 years-no hours limits.*

Service will be performed by a Komatsu Distributor and only Komatsu genuine fluids and filters will be used.

Komatsu CARE® services are available from every Komatsu Distributor in the U.S. and Canada.

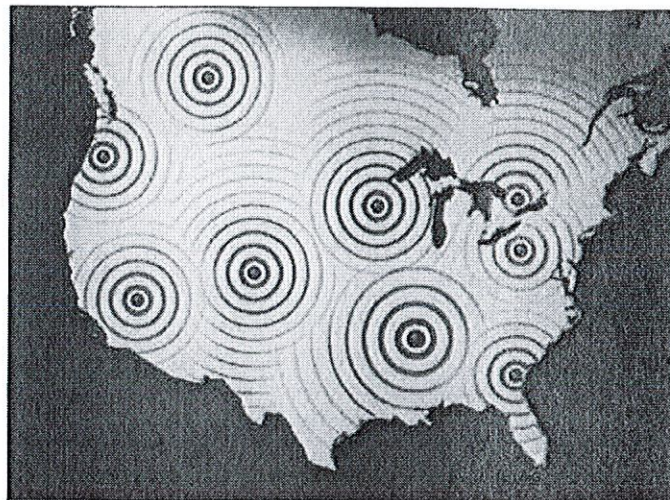


Komatsu CARE® – Extended Coverage

- Extended Coverage can provide peace of mind by protecting customers from unplanned expenses that effect cash flow
- Purchasing extended coverage locks-in the cost of covered parts and labor for the coverage period and helps turn these into fixed costs

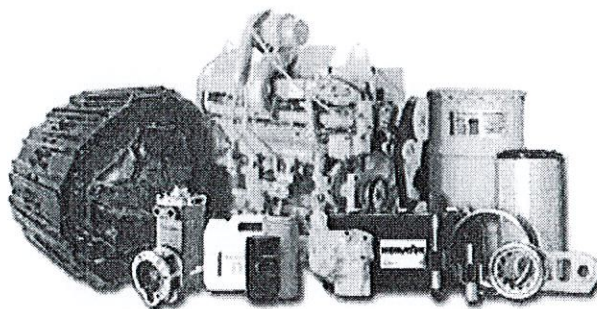


* Some exclusions apply. Please contact your Komatsu distributor for specific program details.



Komatsu Parts Support

- 24/7/365 to fulfill your parts needs
- 9 parts Distribution Centers strategically located across the U.S. and Canada
- Distributor network of more than 300 locations across U.S. and Canada to serve you
- Online part ordering through Komatsu eParts
- Remanufactured components with same-as-new warranties at a significant cost reduction



Komatsu Oil and Wear Analysis (KOWA)

- KOWA detects fuel dilution, coolant leaks, and measures wear metals
- Proactively maintain your equipment
- Maximize availability and performance
- Can identify potential problems before they lead to major repairs
- Reduce life cycle cost by extending component life

SPECIFICATIONS



ENGINE

Model SAA6D107E-3* ✓
 Type Water-cooled, 4-cycle, direct injection
 Aspiration Turbocharged, aftercooled, cooled EGR
 Number of cylinders 6 ✓
 Bore 107 mm 4.21"
 Stroke 124 mm 4.88"
 Piston displacement 6.69 L 408 in³
 Gross horsepower (Manual mode)

P-mode

Gear 1-3 136 kW 183 HP / 2000 rpm
 Gear 4-6 151 kW 203 HP / 2000 rpm
 Gear 7-8 165 kW 221 HP / 2100 rpm

E-mode

Gear 1-6 136 kW 183 HP / 2000 rpm
 Gear 7-8 165 kW 221 HP / 2100 rpm

Net horsepower (Manual mode)**

P-mode

Gear 1-3 134 kW 180 HP / 2000 rpm
 Gear 4-6 149 kW 200 HP / 2000 rpm
 Gear 7-8 163 kW 218 HP / 2100 rpm

E-mode

Gear 1-6 134 kW 180 HP / 2000 rpm
 Gear 7-8 163 kW 218 HP / 2100 rpm

Max. torque 941 Nm 96.0 kgm 694 ft-lbs / 1450 rpm
 Torque rise 30 %

Fan speed Max. 1450 rpm

Air cleaner 2-stage, dry-type

* EPA Tier 4 Final emissions certified.

** Net horsepower output for standard (SAE J1349) including air cleaner, alternator (not charging), water pump, lubricating oil, fuel pump, muffler and fan running at minimum speed.



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	3.4 km/h 2.1 mph	4.5 km/h 2.8 mph
2nd	5.0 km/h 3.1 mph	9.2 km/h 5.7 mph
3rd	7.0 km/h 4.3 mph	20.3 km/h 12.6 mph
4th	10.2 km/h 6.3 mph	40.3 km/h 25.0 mph
5th	15.4 km/h 9.6 mph	-
6th	22.3 km/h 13.9 mph	-
7th	30.6 km/h 19.0 mph	-
8th	44.3 km/h 27.5 mph	-



TANDEM DRIVE

Oscillating welded box section 520 mm x 202 mm 1'8" x 8"
 Side wall thickness: Inner 22 mm 0.87"
 Outer 19 mm 0.75"
 Wheel axle spacing 1525 mm 5'0"
 Tandem oscillation 11° forward, 13° reverse
 Tank 7 L 1.8 U.S. gal



FRONT AXLE

Type Solid bar construction welded steel sections
 Ground clearance at pivot 620 mm 2'0"
 Wheel lean angle, right or left 16°
 Oscillation, total 32°



REAR AXLE

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



WHEELS, FRONT AND REAR

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



STEERING

Hydraulic power steering providing stopped engine steering meeting ISO 5010.
 Minimum turning radius 7.4 m 24'3"
 Maximum steering range, right or left 49°
 Articulation 25°



BRAKES

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 11.8"
 Width 300 mm 11.8"
 Upper, Lower 25 mm 1.0"



DRAWBAR

A-shaped, u-section press formed and welded construction for maximum strength with a replaceable drawbar ball.
 Drawbar frame 210 x 22 mm 8.3" x 0.87"

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) 1530 mm 5'0"
Circle reversing control hydraulic rotation 360°



MOLDBOARD

Hydraulic power shift fabricated from high tensile steel. Includes replaceable metal wear inserts, cutting edge and end bits.

Cutting edge and end bits are hardened.

Dimensions 4320 x 660 x 22 mm 14' x 26" x 0.87"

Arc radius 432 mm 1'5"

Cutting edge 152 x 16 mm 6" x 0.63"

Replaceable/Reversible side edges

..... 156 x 16 x 456 mm 6' x 0.63" x 1'6"

Blade pull

Base GVW 10100 kg 22,267 lbs

With ripper GVW 10980 kg 24,207 lbs

Blade down pressure

Base GVW 6940 kg 15,300 lbs

With ripper GVW 8400 kg 18,519 lbs



BLADE RANGE

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 480 mm 1'7"

Maximum cutting depth 615 mm 2'0"

Maximum blade angle, right or left 90°

Blade tip angle 40° forward, 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, tip, circle shift, articulation, and leaning wheels.

Output (at engine rated rpm) 200 L/min 52.8 U.S. gal/min

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, speed meter, transmission shift indicator, engine tachometer, torque converter oil temperature

Warning lights/Indicator:

Standard . . . battery charge, brake oil pressure, blade float, brake oil pressure, inching temperature, directional indicator, engine oil pressure, hydraulic oil temperature, heater signal, lift arm lock, parking brake, differential lock, torque converter oil, temperature, ecology, P mode, fan reverse, rpm set, high beam, working lights



CAPACITIES (REFILLING)

Fuel tank 390 L 103.0 U.S. gal

Cooling system 30 L 7.9 U.S. gal

Crank case 23 L 6.1 U.S. gal

Transmission 45 L 11.9 U.S. gal

Final drive 17 L 4.5 U.S. gal

Tandem housing (each) 57 L 15.1 U.S. gal

Hydraulic system 69 L 18.2 U.S. gal

Circle reverse housing 7 L 1.8 U.S. gal



OPERATING WEIGHT (APPROXIMATE)

Includes lubricants, coolant, full fuel tank

Total 16940 kg 37,346 lbs

On rear wheels 12620 kg 27,822 lbs

On front wheels 4320 kg 9,524 lbs

With rear mounted ripper and front push plate:

Total 18900 kg 41,667 lbs

On rear wheels 13820 kg 30,468 lbs

On front wheels 5070 kg 11,177 lbs

With front mounted scarifier:

Total 17480 kg 38,537 lbs

On rear wheels 12600 kg 27,778 lbs

On front wheels 4870 kg 10,737 lbs



RIPPER

Ripping depth, maximum 425 mm 1'5"

Ripper shank holders 5

Ripper shank holder spacing 534 mm 1'9"

Penetration force 9390 kg 20,701 lbs

Pryout force 17600 kg 38,801 lbs

Machine length increase, beam raised 690 mm 2'5"



SCARIFIER

Middle, V-type

Working width 1430 mm 4'8"

Scarifying depth, maximum 190 mm 7.5"

Scarifier shank holders 11

Scarifier shank holders spacing 138 mm 5.4"

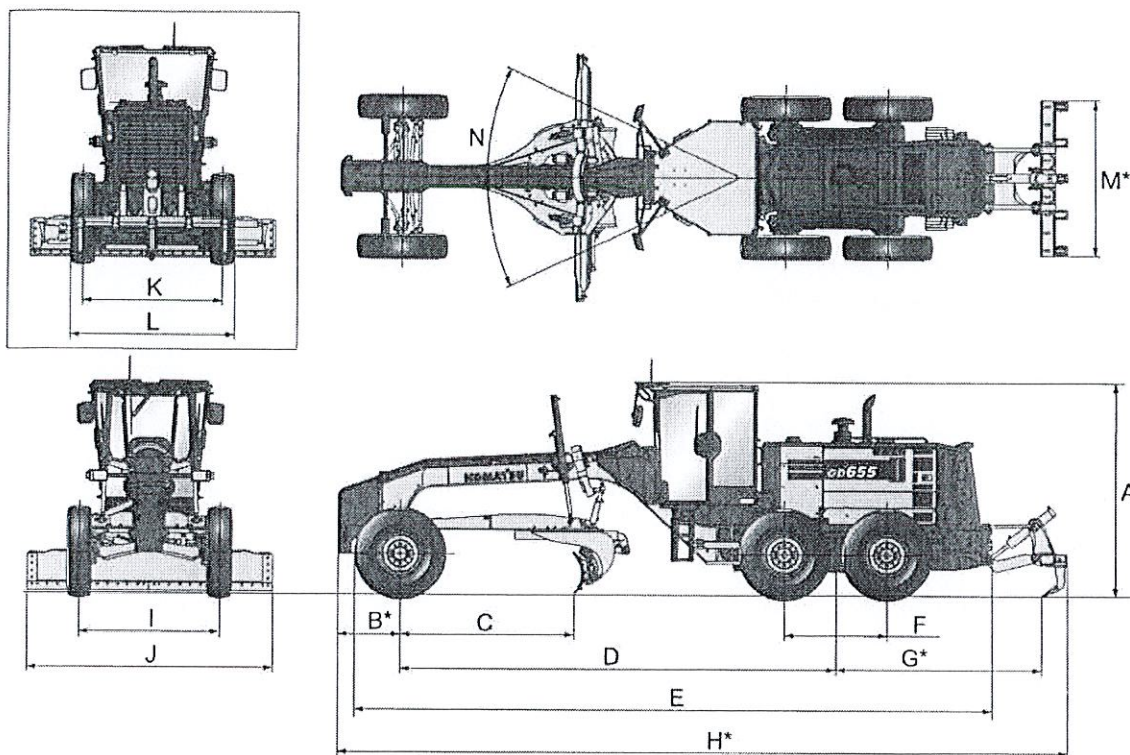
Rear

Working width 2186 mm 7'2"

Scarifying depth, maximum 165 mm 6.5"

Scarifier shank holders 9

Scarifier shank holders spacing 267 mm 10.5"


DIMENSIONS


A	Height: Low profile cab	3200 mm 10'6"
B*	Center of front axle to counterweight (Pusher)	930 mm 3'1"
C	Cutting edge to center of front axle	2580 mm 8'6"
D	Wheelbase to center of tandem	6495 mm 21'4"
E	Front tire to rear bumper	8675 mm 28'6"
F	Tandem wheelbase	1525 mm 5'0"
G*	Center of tandem to back of ripper	3065 mm 10'1"
H	Overall length	10875 mm 35'8"
I	Tread (front)	2170 mm 7'1"
J	Width of standard moldboard	4267 mm 14'0"
K	Tread (rear)	2160 mm 7'1"
L	Width over tires	2630 mm 8'8"
M*	Ripper beam width	2305 mm 7'7"
N	Articulation, left or right	25°

* : optional



STANDARD EQUIPMENT FOR BASE MACHINE

Engine and its related items:

- Accelerator and electric throttle control
- Air cleaner, double element with dust indicator
- Air intake extension
- Antifreeze -22 F(-30C)
- Auto-idle Shutdown
- Hydraulic driven, reversing, cooling fan, blower type, plastic blade, with fan guard
- Engine, Komatsu SAA6D107E-3, 145 to 218 VHP EPA Tier 4 Final certified, turbocharged and air-air after cooled
- Fuel line pre-filter
- KDPF - After-Treatment Assembly Consisting of KDOC and KCSF
- Secondary Engine Shutdown Switch
- Selective Catalytic Reduction (SCR) System

Electrical system:

- Alarm, backup
- Alternator, 140 Ampere, (24V)
- Batteries, Extreme duty, 2 x 12V, 1146 cca each
- Battery, disconnect switch with lockout-tagout
- Dome light cab
- Headlights, (2) halogen type, front bar mounted
- Horn, electric
- Indicator lights:
 - Battery charge
 - Blade float
 - Brake oil pressure
 - Cooling fan reverse mode
 - Differential lock
 - Differential oil temperature
 - Dual power mode, economy and power
 - Engine oil pressure

- Engine RPM set
- Lift arm lock
- Lights, high beam
- Parking break
- Transmission system electrical circuit
- Lights, backup, stop, directional
- Starter 5.5kW
- Working light, front(4) and rear(2)
- Working light, (4) cab mounted flood type

Operator environment:

- 12V (10A) power port
- Air conditioner (R134a) with heater
- AM/FM radio
- Cab: low profile with ROPS/FOPS Level II (SAE J1040, J2311)
- Console, adjustable with instrument panel monitoring system
- Electric defroster rear window
- Mirrors: interior cab, right and left exterior mirrors
- Multi-monitor with 7" LCD Display
- Rearview Camera and Monitor
- Sound suppression, 74 DbA at operators ear with floor mat with tinted windows, front, rear and door intermittent wiper/washers

Power train:

- Dual mode transmission (8F-4R) power shift direct drive and torque converter with auto shift
- Axle, rear full floating, planetary type reduction
- Service brakes, fully hydraulic wet disc
- Parking brake, spring apply, hydraulic release dry disc
- Differential, manual lock/unlock
- Tires and rims: 17.5R25 radials on one-piece 13" rims (6)

Work equipment and hydraulics:

- Blade accumulators
- Blade lift float, detent type, LH and RH
- Circle, drawbar mounted, 360° rotation with blade lift and circle side shift with anti-drift check valves
- Circle slip clutch
- Greaseless circle wear plates
- Hydraulic control valve, 10 valve section with control levers
- Hydraulic system, closed center, load sensing
- Steering, full hydraulic with tilt steering wheel plus leaning front wheels and frame articulation with anti-drift check valves

Other standard equipment:

- Anchor points for secure tie-off
- Battery cover and engine side covers
- Komtrax - Level 5
- Precleaner, Turbo II
- Provision for Grade Control, TOPCON
- Provisions for rear hydraulic ripper
- Rear hitch
- Steps and handrails, right, left and rear
- Toolbox with lock
- Vandalism protection, lockable fuel tank, hydraulic tank

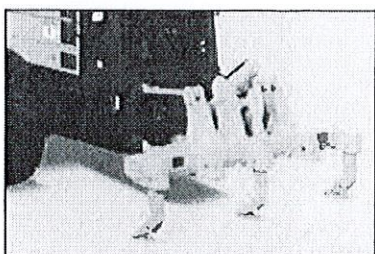


OPTIONAL EQUIPMENT

- Moldboard: 3710 mm x 660 mm x 22 mm 12' x 26" x 0.87" with replaceable end bits, 152 mm x 16 mm 6" x 0.63" through-hardened cutting edges and 5/8" hardware
- Pusher plate (for use with rear mounted ripper/scarifier assembly)
- Rear-mounted ripper/scarifier assembly includes (3) shanks or (9) scarifier shanks can be inserted into the available slots
- Mid-mounted scarifier assembly (includes 11 shanks and replaceable points)
- Winter tires with three piece rims
- 610 mm 2' LH/RH moldboard extensions
- Kit provision for a single function front attachment



Scarifier



Ripper

EN-GD655-6BR01-0722-V8

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Printed in USA

AD05(2.5M)OTP

07/22 (EV-1)

KOMATSU®

Note: All comparisons and claims of improved performance made herein are made with respect to the prior Komatsu model unless otherwise specifically stated.

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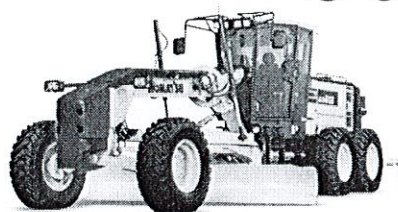
Komatsu Care Plus II

Extended maintenance and repair



GD655-7/GD655-6

Tier 4 final engine



Program information

Komatsu Care Plus II takes care of your equipment maintenance and repairs. You'll receive all the benefits of Komatsu Care Plus such as oil sampling, automatic maintenance scheduling, 50-point inspections, and the peace of mind that your equipment is being taken care of the way Komatsu intended. In addition, we've bundled Komatsu's Premier Extended Coverage to support your equipment's needs in case of unexpected repairs. Our comprehensive support plan protects your equipment with certified labor and includes diagnostic time.

Benefits

- Fixed maintenance and repair costs
- National service coverage
- Special financing
- Competitive pricing

Guaranteed

Komatsu Genuine Parts — To promote long-term performance and reliability, only genuine Komatsu parts are used for your equipment's maintenance.

Certified labor — So you're confident the job will get done right, work on your machine will be performed by Komatsu factory-trained service technicians. In addition to required work, they also perform a 50-point inspection to make sure your machine stays running at top performance.

Komatsu Oil and Wear Analysis (KOWA) — Enables us to detect abnormalities in your machine's condition, so we can further investigate and take the necessary actions to prevent catastrophic failures and minimize downtime.

Komtrax — Have a busy schedule? We'll monitor your machine through Komtrax telematics to automatically schedule your next maintenance and notify you when it's complete.

Contract agreement

Machine model:

Serial number:

Length:

60 MONTH

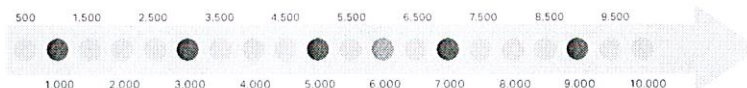
Duration:

3000 HOURS

Planned maintenance interval	500	1,000	2,000	6,000
Reset monitor panel for service interval	•	•	•	•
Complete 50-point inspection	•	•	•	•
Perform KOWA sampling	•	•	•	•
Lubricate machine	•	•	•	•
Change engine oil	•	•	•	•
Replace engine oil filter	•	•	•	•
Replace main fuel filter	•	•	•	•
Replace fuel pre-filter	•	•	•	•
Replace air conditioner recirculation filters	•	•	•	•
Replace engine air filter	•	•	•	•
Replace hydraulic oil filter element		•	•	•
Change transmission case oil		•	•	•
Clean transmission case strainer		•	•	•
Replace transmission oil filter cartridge		•	•	•
Clean transmission breather		•	•	•
Change final drive case oil		•	•	•
Replace hydraulic tank breather		•	•	•
Clean final drive breather		•	•	•
Replace differential lock filter element		•	•	•
Clean differential lock filter strainer		•	•	•
Replace hydraulic oil pilot filter		•	•	•
Change hydraulic tank oil			•	•
Clean hydraulic tank strainer			•	•
Change circle rotation gear case oil			•	•
Change tandem case oil			•	•
Check disc brake			•	•
Change grease in front wheel bearing			•	•
Replace KCCV filter			•	•
Replace DEF filter			•	•
Replace DEF tank breather element			•	•
Replace DEF filler port filter			•	•
Change coolant				•
Additional parts				
KDPF filters				As needed
Additional items may be included				

Coolant replacement will be included in maintenance intervals starting at 6,000 hrs.

Machine hours



Repair coverage

- Powertrain
- Hydraulics
- Engine
- Cabin
- Electrical
- Structural
- Certified technicians
- Diagnostics
- Travel

For complete list of repairs, refer to page two of the contract.

Covered Items	Plus II	Covered Items	Plus II	Covered items	Plus II
Engine and related parts					
Engine oil related		Torque flow assembly/power module	●	Hydraulic accumulators	●
Cooler	●	Hydrostatic pumps and motors	●	Hydraulic oil coolers and cooling fans	●
Engine filter mount	●	Control and PPC valves	●	Swivels (rotary manifolds)	●
Remote make-up oil tanks	●	Oil coolers, tanks and reservoirs	●	Swing motor	●
Remote mounted oil filtration system	●	Oil filter mount	●	Hydraulic oil filter assembly	●
Valves	●	Electronic control module	●	Hydraulic tanks	●
Hose clamps and hoses*	●	Senders, solenoids and sensors	●	Senders, solenoids and sensors	●
Air intake and exhaust		Steering and transfer cases	●	Pipes, tubes, clamps, valves and hoses*	●
Air cleaner housing and after coolers	●	Damper	●	Suspension	
Inter coolers	●	Swing gear box	●	Electronic control module	●
Turbo charger**	●	Pipes, tubes, clamps and hoses*	●	Suspension cylinders and control valves	●
Intake and exhaust manifolds	●	Drive line		Suspension control arm assemblies	●
EGR valve and cooler	●	Axles and axle housings	●	Senders, solenoids and sensors	●
Mufflers**	●	Axle mounting and oscillation	●	Pipes, tubes, clamps, valves and hoses*	●
Senders, solenoids and sensors	●	Differentials and final drives	●	Electrical system	
Pipes, tubes, clamps, hoses	●	Wheel/rim	●	Gauges and instruments	●
Fuel system		Drive shaft/axle shaft and universal joints	●	Wiring harnesses	●
Fuel tank assembly and mounting	●	Valves	●	Switches	●
Fuel filter mounts	●	Pipes, tubes, clamps and hoses*	●	Relays and circuit breakers	●
Fuel transfer, auxiliary, lift and injection pumps	●	Steering		Start switch	●
Fuel coolers	●	Steering clutch	●	Fuse/circuit breaker panel and circuit board	●
Injectors**	●	Steering clutch and brake control valve	●	Monitor panels	●
Fuel manifolds/valves	●	Steering pump and emergency steering pump	●	Komtrax, VHMS and PLM (payload meter)	●
Senders, solenoids and sensors	●	Steering oil cooler	●	Electronic controllers	●
Pipes, tubes, clamps and hoses*	●	Steering valves	●	Air intake heaters and glow plugs	●
Engine mount		Steering box	●	Senders, solenoids and sensors	●
AC compressor/condenser	●	Steering linkage, column and console	●	Frames, structures and linkages	
Alternator** and starter	●	Tie rod	●	Boom/arm	●
Damper and vibration damper	●	Senders, solenoids and sensors	●	Bell crank and Z-bar on wheel loaders	●
Power take off	●	Pipes, tubes, clamps and hoses*	●	Carbody	●
Belt tensioner**	●	Braking system		Steel frame (front, rear, sub)/revolving frame	●
Flywheel and flywheel housing	●	Brake primary and secondary cylinders	●	Steel of outrigger on backhoe loaders	●
Heat shielding and framework	●	Brake pump and emergency brake pump	●	Motor grader circle	●
Transmission	●	Wet brake assemblies	●	Undercarriage	
Senders, solenoids and sensors	●	Brake oil cooler assemblies	●	Bogie assemblies	●
Electronic control modules	●	Brake oil cooler fan, pump and motor	●	Equalizer bar	●
Engine wiring harness	●	Brake caliper	●	HIC assemblies	●
Aftertreatment system		Accumulators	●	Pivot shaft assembly	●
KDPF assembly**	●	Tanks and reservoirs	●	Recoil springs	●
HC and DEF dosing nozzles**	●	Electronic control modules	●	Track adjusters	●
SCR assembly	●	Senders, solenoids and sensors	●	Track roller frame	●
KCCV assembly	●	Pipes, tubes, clamps, valves and hoses*	●	Hybrid systems	
Senders, solenoids and sensors	●	Cooling system		Capacitor/inverter	●
Pipes, tubes, clamps and hoses*	●	Radiator	●	Generator/motor	●
DEF mixing tube	●	Expansion tank	●	Hybrid controller	●
Other DEF system related		Thermostat**	●	Lubrication pump	●
Tank	●	Cooling fan, fan drive and shrouding	●	Radiator	●
Heater, pump and tank heater valve	●	Water pump**	●	Swing motor	●
Pump controller	●	Senders, solenoids and sensors	●	Water pump**	●
Senders, solenoids and sensors	●	Pipes, tubes, clamps, valves and hoses*	●	Wiring harness	●
Pipes, tubes, clamps and hoses*	●	Hydraulic systems		Intelligent Machine Control system	
Power transmitting system		Non-propulsion hydraulic pumps and motors	●	GNSS and GPS antenna(s), GNSS receiver/controller, GNSS	●
Transmission		Hydraulic cylinders	●	Control box and ICT controller	●
Transmission and torque converters	●	Hydraulic valve and controls	●	IB monitor	●
		Electronic control modules	●	Sensors and encoders	●

Premier coverage type includes items in addition to the above list and is subject to the limitation listed in Section 2 of this agreement.

* Indicates coverage for 24 months/4,000 hours

** Indicates coverage through the first 5,000 hours



Komatsu Care Plus II

Extended maintenance and repair

Komatsu Care Plus II terms and conditions

Agreement coverage:

- a. Subject to the terms and conditions below, authorized Distributors will provide Komatsu genuine parts, labor and other services required to properly execute maintenance activities outlined in "Covered Items."
- b. The Machine will be eligible for this coverage starting at _____ SMR hours (MM/DD/YYYY) and expiring the earlier of the date when the Machine has accumulated _____ SMR hours or _____ MM/DD/YYYY. The phrase "SMR hours" represents the engine run time for the Machine and is measured using the hour meter or monitor panel installed in the Machine's operator cab.

Terms and conditions:

- a. It is the responsibility of the nearest servicing branch within distributors territory to the location of set machine to perform outlined maintenance service in accordance to the machine model specific reimbursement policy letter for appropriate service maintenance interval. Distributor should notify customer of planned service date minimum of 72 hours in advance via MyKomatsu.com, e-mail or other communication platform.
- b. It is the responsibility of the customer to confirm scheduled date and relinquish set machine for maintenance and/or repair upon arrival of distributor personnel. If the customer has a conflict on scheduled date, he/she must notify servicing distributor to perform services on a different date so long as it is done in a timely manner and follows the nature of these agreement.
- c. Relinquish machine to servicing distributor in a timely manner after failure has occurred to execute appropriate repairs. Relinquish machine for scheduled maintenance at designated interval hours for maintenance by servicing distributor. Failure to do so can result in additional charges for technician labor time or travel for a second trip to machine. Failure to repair machine promptly after machine failure was identified, can result in original or consequential failures not being covered.
- d. Customer is to have machine available for distributor personnel in reasonable cleanliness conditions as to allow the technician to properly execute tasks. The machine is to be set in a safe working environment that allows access to perform services.
- e. Customer should receive results of oil analysis, 50-point inspection, and MyKomatsu.com service completion after the execution of every maintenance service.
- f. All service records are maintained by the Komatsu and made available for distribution to share with designated customers via the My Komatsu or Komatsu Care Report.

Maintenance

Exclusions and limitations:

- a. Machine parts that are not procured from Komatsu or an authorized distributor.
- b. Machine attachments, optional extras and other work equipment such as buckets, dump bodies, blades, and associated wear packages such as teeth, cutting edges, and liners.
- c. Operating expenses on Covered Items required to keep the Machine in good operating condition and repair, including by way of example but not limitation:
 - i. System adjustments.
 - ii. Cleaning and calibration/re-calibration of intelligent Machine Control components.
 - iii. Hardware, Software or Firmware updates.
 - iv. Cosmetic damage that does not impact product functionality.
 - v. Application based maintenance that requires a higher frequency of filter/oil/lubricant replacement than what is listed in "Covered Items."
- d. Service coverage is provided nationally based on country of machine sale. Machines migrating outside of selling country are not eligible to be serviced by any other distributor under this program.
- e. All maintenance services must be completed within +/- 200 hours of the target service interval to qualify for Komatsu reimbursement. Failure to complete set maintenance service according to these conditions will result as a loss of set service interval, following service intervals will resume as scheduled afterwards. Example: 500-hour maintenance service must be completed within 300-700 SMR as reported by Komtrax. However, in order to qualify for program benefits such as, but not limited to **Major Component Assurance, Komatsu Certified Equipment**, all maintenance services must be completed within +/- 100 hours of set interval.

Repairs

Exclusions and limitations:

- a. Repairs or replacements of:
 - i. Hose and tube flange O-rings and gaskets.
 - ii. Hoses after the Machine has been in service for 24 months or 4,000 SMR hours.
 - iii. Hydraulic cylinder packing replacements after the Machine has been in service for 5,000 SMR hours.
 - iv. Starters, alternators, thermostats, belt tensioners, injectors, turbochargers, KDPF, HC and DEF dosing nozzles, and water pumps after the Machine has been in service for 5,000 SMR hours.
 - v. Covered Items that are worn because of use. Examples of wear resulting from use would include, by way of example but not limitation, oil consumption and high blow by pressure on engines, hydraulic cylinder seal leaks, wear of clutch or brake packs, pins or bushings, etc.
 - vi. Machine parts that are not procured from Komatsu or an authorized distributor.
 - vii. Machine attachments, optional extras and other work equipment such as buckets, dump bodies, blades, and associated wear packages such as teeth, cutting edges, and liners.
 - viii. Any Machine part or component not specifically included within the scope of the Coverage Type, unless otherwise noted.
- b. Operating expenses on Covered Items required to keep the Machine in good operating condition and repair, including by way of example but not limitation:
 - i. System adjustments.
 - ii. Cleaning and calibration/recalibration of intelligent Machine Control components (unless recalibration is required due to the repair or replacement of a covered intelligent Machine Control component).
 - iii. Hardware, Software or Firmware updates.
 - iv. Cosmetic damage that does not impact product functionality.



Komatsu Care Plus II

Extended maintenance and repair

- iv. As needed maintenance items such as repairs or replacements of mounting hardware, including bolts, nuts, pins, bushings, and bearings, paint, windshield wiper blades, seat belt assemblies, air cleaners, belts, light bulbs, batteries, cables, fuses, tires, track link assemblies, track shoes, idlers, rollers, sprockets, rock guards and deflectors.
- vi. Cost of carrying out scheduled structural inspections that are required to maintain coverage for certain Covered Items for Frame and Boom and Arm Coverage Types. If you wish to perform these inspections yourself, please obtain a copy of the Distributor Inspection Worksheet from your local Komatsu Distributor.
- c. Machine or Covered Item failures resulting from:
 - i. Operating the Machine outside the guidelines specified in O&M Manual.
 - ii. Operating the Machine outside of the parameters specified in the Machine specific Payload Policy or other notices or letters from Distributor or Komatsu.
 - iii. Noncompliance with the maintenance schedule and procedure outlined in the Machine's O&M manual.
 - iv. Fuel, lubricant or coolant contamination from any source.
 - v. Continuing to operate the machine when KOWA reports or the Machine monitor panel, Komtrax Plus, Komtrax, PLM or any other systems ("Machine Monitoring Systems") show critical errors, indicate that components are compromised by failures or are performing below specifications, or when the Distributor has requested that components be repaired or removed from the Machine because of an impending failure, manufacturer authorized field campaign or other good cause.
 - vi. Improper Machine storage procedures.
 - vii. Incomplete or faulty repair procedures on previous repairs completed by any person other than Distributor.
 - viii. Improper initialization procedures during Machine commissioning if the commissioning process was carried out by any person other than Distributor.
 - ix. Machine attachments options, accessories, modifications, or work equipment not authorized in O&M Manual and other materials published by Komatsu for distributors and customers or otherwise approved in writing and signed by an engineering officer of Komatsu.
 - x. Work site hazards or falling objects.
 - xi. Fire, accidents, vandalism, theft, acts of terrorism or war, acts of nature or other causes beyond the direct control of Distributor.
 - xii. Misuse, misapplication, negligence or other misconduct on the part of Customer or any other person.
- d. Customer may be responsible for paying for the following specific expenses related to repairs on Covered Items:
 - i. Transporting the Machine to a Distributor facility for completion of a covered repair and transporting the Machine back to the Machine's work location after completion of the covered repair.
 - ii. Overtime labor charges incurred at the request of Customer to complete repairs outside of the Distributor's normal working hours.
 - iii. Additional services performed at the Customer's request outside the scope of the Coverage Time, including, by way of example but not limitation, replacing parts and components outside such scope during performing a repair on a Covered Item.

Customer responsibilities: The obligations of Distributor under this Agreement are subject to and conditioned by the Customer's timely performance of the following, at their own expense:

- a. Operate, maintain, store, repair and otherwise use the Machine per the guidelines specified in the O&M Manual, Machine specific Payload Policy and all other notices or letters from Distributor or Komatsu concerning such topics.
- b. Maintain the Machine Monitoring Systems in good operating condition and repair.
- c. Notify Distributor promptly in the event of failure of a Covered Item. If the Machine is located outside of the Distributor territory at the time of a Covered Item failure, Customer can contact the local Komatsu distributor to carry out the covered repair.

Distributor responsibilities:

- a. Distributor will exercise commercially reasonable efforts to respond promptly to any Customer requests and questions related to this Agreement.
- b. Distributor will carry out covered maintenance services during normal Distributor working hours.
- c. All program coverages follow the spirit and guidelines outlines in Komatsu Service Policy and Procedure Manual.

Agreement transferability:

This Agreement is specific to the Machine listed in Section 1. Customer may not assign its right under this Agreement. This maintenance Agreement is transferrable with machine in the case of change in machine ownership. The unit under changed ownership is eligible to all the services outlined under original contract with no additional costs. Length and duration of Komatsu Care Plus II will follow as originally listed.

Agreement limitation of liability:

Except as expressly provided in this Agreement and in any written warranty certificate delivered by Distributor to Customer in connection with a purchase, Distributor does not make any representations or warranties, expressed, implied, arising by operation of law or otherwise, as to merchantability, fitness for a particular purpose, quality, design, condition, suitability, performance or any other matter or characteristic with respect to the Machine and any related attachments, options, accessories, modifications or work equipment. For any failure within the scope of the Coverage Type, Customer agrees that its sole and exclusive remedy will be for Distributor to perform the required repair. Distributor will not be liable under any circumstance to Customer for, and Customer waives and releases Distributor from all claims and liabilities for, any general, special, incidental, punitive, consequential, exemplary or any other damages of whatever kind or nature suffered or incurred by consignee, directly or indirectly, actual or alleged, whether arising in tort or in contract or otherwise, related to or arising out of this Agreement and the Machines and any related attachments, options, accessories, modifications or work equipment.

Agreed to by Customer and Distributor as of the Effective Date.

Distributor:

By _____
Name _____
Title _____

Customer:

By _____
Name _____
Title _____



Company ID Number:571783

Client Company ID Number:1453697

Information Required for the E-Verify Program	
Information relating to your Company:	
Company Name	Tractor & Equipment Co Inc
Company Facility Address	5336 Messer Airport Highway Birmingham, AL 35212
Company Alternate Address	PO Box 12326 Birmingham, AL 35202
County or Parish	Jefferson
Employer Identification Number	63-0211767
North American Industry Classification Systems Code	Merchant Wholesalers, Durable Goods (423)
Parent Company	
Number of Employees	500 to 999
Number of Sites Verified for	22