

KOMATSU®

D155AX-6 Tier 3 SIGMADOZER®

NET HORSEPOWER
264 kW **354 HP** @ 1900 rpm

OPERATING WEIGHT
39500 kg **87,100 lb**

D
155

CRAWLER DOZER



Photos may include optional equipment.

WALK-AROUND

OUTSTANDING PRODUCTIVITY & FUEL ECONOMY

Innovative SIGMADOZER® reduces digging resistance and demonstrates smooth material roll up to increase blade load.

Blade capacity 9.4 m³ 12.3 yd³.

Automatic transmission with lockup torque converter increases speed and power to improve fuel consumption and productivity. See page 5.

SAA6D140E-5 turbocharged after-cooled diesel engine provides an output of 264 kW 354 HP with excellent productivity, and is EPA Tier 3, EU stage 3A and Japan emissions certified.

Hydraulic drive radiator cooling fan controlled automatically, reduces fuel consumption and operating noise levels

Gull-wing engine side covers for easy and efficient engine servicing

Blade tilt lines completely protected

Increased-track length, seven roller undercarriage ensures outstanding grading ability and stability

KOMTRAX®

KOMTRAX® equipped machines can send location, SMR and operation maps to a secure website utilizing wireless technology. Machines also relay error codes, cautions, maintenance items, fuel levels, and much more.

PCCS (Palm Command Control System)

- Electronic controlled PCCS travel control
- Electronic controlled PCCS blade/ripper control
- Fuel control dial
- Automatic/manual gearshift selectable mode
- Gearshift pattern preset function
- Electronic Controlled Modulation Valve (ECMV) controlled transmission



K-Bogie undercarriage system improves traction, component durability, and operator comfort

Extra-low machine profile

provides excellent machine balance and low center of gravity

NET HORSEPOWER
264 kW 354 HP @ 1900 rpm

OPERATING WEIGHT
39500 kg 87,100

BLADE CAPACITY
9.4 m³ 12.3 yd³

New integrated ROPS cab includes:

- Large quiet operator environment
- Comfortable ride with new cab damper
- Excellent visibility without ROPS post
- High capacity air conditioning system
- Pressurized cab
- Adjustable armrests and suspension seat

Hydrostatic Steering System (HSS)

provides smooth, quick, and powerful control in various ground condition

Large TFT LCD monitor

- Easy-to-see and use 7" large multi-color monitor.
- Can be displayed in 10 languages for global support.

TFT : Thin Film Transistor
LCD : Liquid Crystal Display

Newly designed ripper

offers excellent ripper visibility



Photos may include optional equipment.

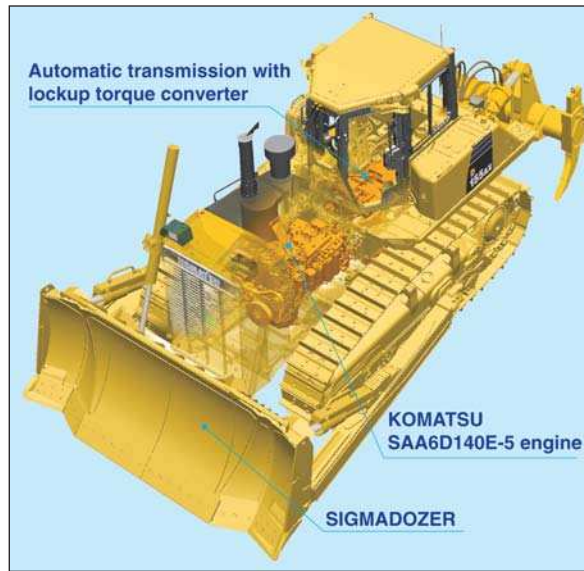
Modular power train for increased serviceability and durability. Forward mounted pivot shafts isolate final drives from blade loads

High-rigidity, simple hull frame

and monocoque track frame with pivot shaft for greater reliability

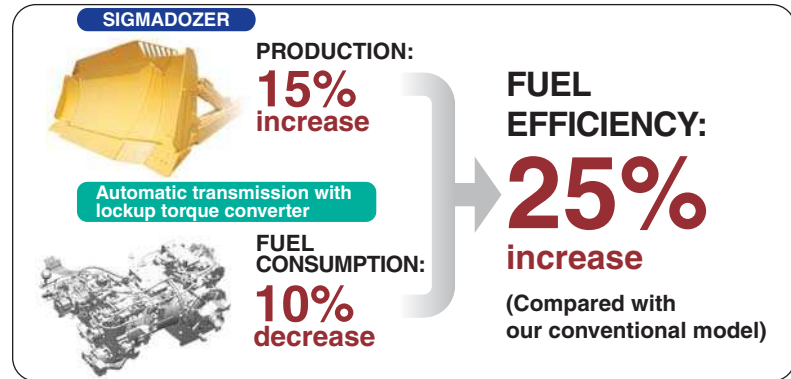
Wet disc brakes require less maintenance

PRODUCTIVITY AND FUEL ECONOMY FEATURES



New fuel efficient bulldozer

New D155AX-6 has achieved both high levels of productivity and fuel economy through usage of SIGMADOZER® and automatic transmission with lockup torque converter. SIGMADOZER® developed based on a completely new excavation theory-dramatically increasing production. The highly efficient transmission greatly reduces fuel consumption. The D155AX-6 significantly improves fuel efficiency and production compared with our conventional model.



Outstanding productivity

Production increased by 15%
(compared to the D155AX-5B)

SIGMADOZER®

Based on a completely new excavating theory, SIGMADOZER® dramatically improves dozing performance and increases productivity. A new frontal design concept adopted for digging and rolling up material at the center of the blade, increases material holding capacity and also eliminates sideways spillage.

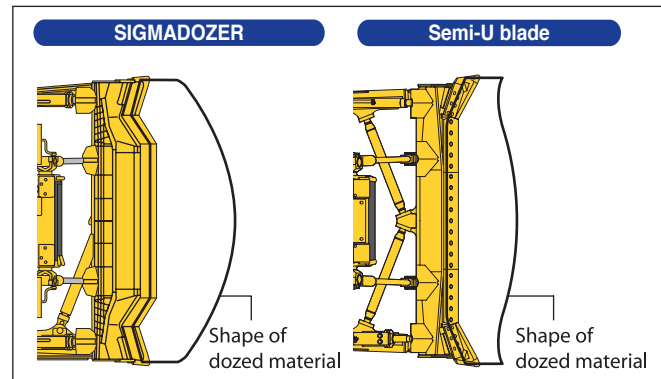
Reduced digging resistance produces smoother flow of material, enabling the dozing of larger quantities of material with less power. In addition, adoption of a new blade linkage system holds the blade closer to the tractor for improved visibility. This also enhances digging force and reduced lateral sway of the blade.



**SIGMADOZER®
D155AX-6**



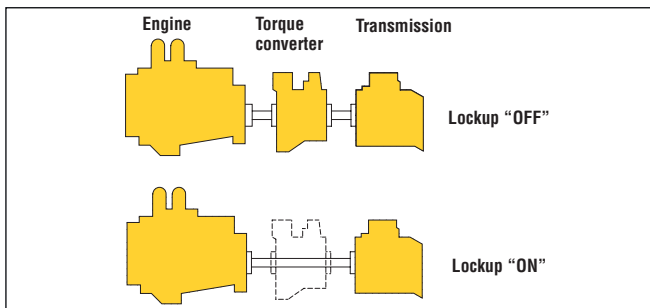
**Semi-U blade
D155AX-5**



Outstanding fuel economy

Automatic transmission with lockup torque converter

A sharp reduction in fuel consumption and greater power train efficiency is achieved by the new automatic gearshift transmission and lock up torque converter. The automatic gearshift transmission selects the optimal gear range depending on the working conditions and load placed on the machine. This means the machine is always operating at maximum efficiency. Manual gearshift mode is selectable by the operator with a switch.



Automatic/manual gearshift selectable mode

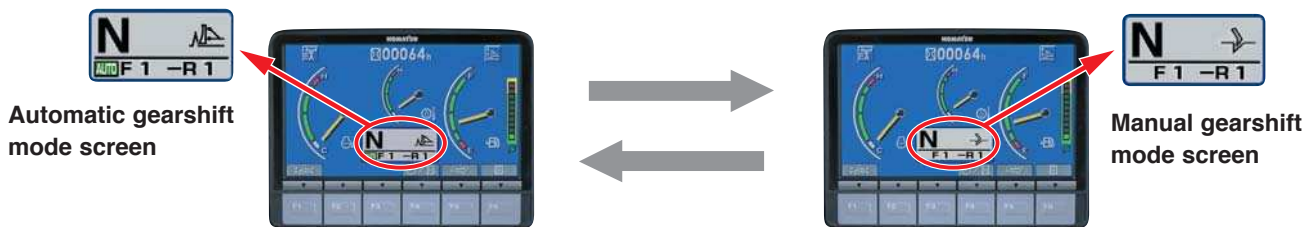
Automatic or manual gearshift modes can be selected with ease to suit the application by simply pressing the switch on the multi-monitor (selection at neutral).

- **Automatic gearshift mode**

The mode for general dozing. When a load is applied, the transmission automatically shifts down, and when the load is off, it automatically shifts up to a set maximum gear speed. This mode economizes both fuel and production in conjunction with the torque converter lockup mechanism.

- **Manual gearshift mode**

The mode for dozing and ripping rough ground. When loaded, the transmission automatically shifts down, but does not shift up when the load is off.

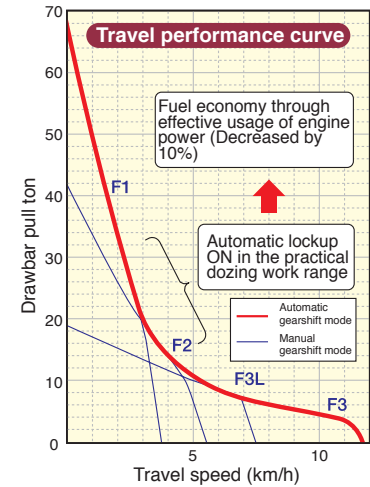


Fuel consumption decreased by

10%

(compared to the D155AX-5B)

Lockup mechanism of torque converter is automatically actuated to transfer engine power directly to the transmission in usual dozing speed range. Locking up the torque converter eliminates loss of horsepower by 10%. Because the electronically controlled engine is extremely efficient, a decrease in fuel consumption is realized while also maintaining machine power.



PRODUCTIVITY FEATURES



Komatsu's new "ecot3" engines are designed to deliver optimum performance under the toughest of conditions, while meeting the

latest environmental regulations. This engine is EPA Tier 3, EU Stage 3A and Japan emissions certified; "ecot3" - ecology and economy combine with Komatsu technology to create a high performance engine without sacrificing power or productivity.



Engine

Fuel efficient electronic controlled engine

The Komatsu SAA6D140E-5 engine delivers 264 kW **354 HP** at 1900 rpm. The fuel-efficient, powerful Komatsu engine makes the D155AX-6 superior in both ripping and dozing operations. The engine is EPA Tier 3, EU stage 3A and Japan emissions certified. The engine is turbocharged and features direct fuel injection and air-to-air aftercooling to maximize power, fuel efficiency and emission compliance. To minimize noise and vibration, the engine is mounted to the main frame with rubber cushions.



Hydraulic drive radiator cooling fan

The engine cooling fan rotation speed is electronically controlled. The fan rotation speed depends on engine coolant and hydraulic oil temperatures, the higher the temperature the higher the fan speed. This system increases fuel efficiency, reduces the operating noise levels and requires less horsepower than belt driven fan.

CONTROL FEATURES

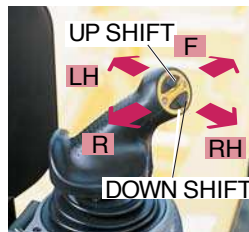


Human-Machine Interface Palm Command Control System (PCCS)

Komatsu's ergonomically designed control system "PCCS" creates an operating environment with "complete operator control."

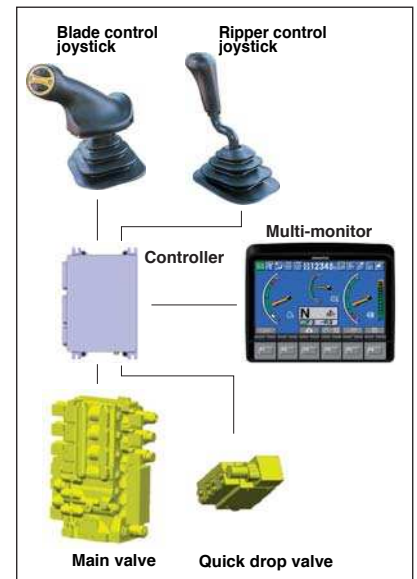
Palm command electronic controlled travel control joystick

Palm command travel joystick provides the operator with a relaxed posture and superb fine control without operator fatigue. Transmission gear shifting is simplified with thumb push buttons.



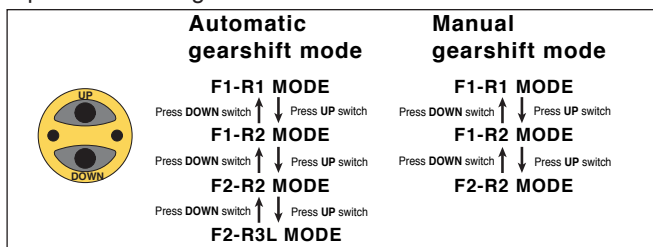
Palm command electronic controlled blade/ripper control joystick

Electronically-controlled palm command joystick is equipped for blade/ ripper control. Combined with the highly reliable Komatsu hydraulic system, excellent machine control is the result.



Gearshift pattern preset function

When the gearshift pattern is set to either <F1-R2>, <F2-R2> or <F2-R3L> in automatic gearshift mode, the transmission is automatically shifted, reducing operator repetition and fatigue.



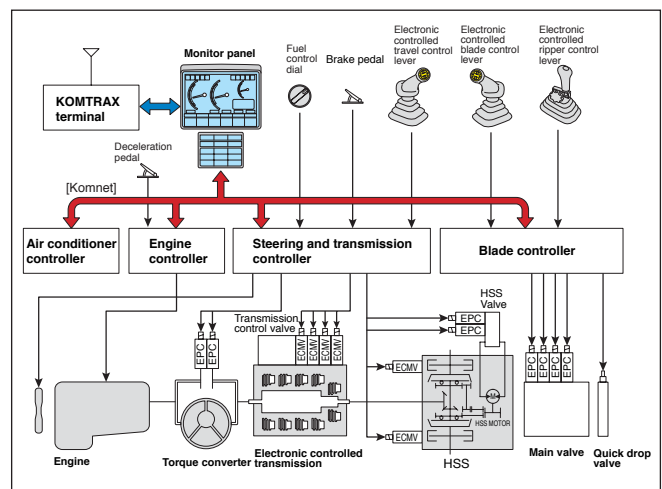
Electronic Controlled Modulation Valve (ECMV) controlled transmission and brakes

The electronic controller automatically adjusts each clutch engagement depending on travel conditions, providing smooth shockless clutch engagement, improved component life and operator ride comfort.

Hydrostatic Steering System—smooth, powerful turning

The engine power is transmitted to both tracks without power interruption on the inside track for smooth, powerful turns. The HSS system allows minimum turning radius and provides excellent maneuverability.

Outline of electronic control system



WORKING ENVIRONMENT



New integrated ROPS cab

A newly designed cab is integrated with ROPS. High rigidity and superb sealing performance sharply reduces noise and vibration for the operator and prevents dust from entering the cab. The result is relaxed operation in a comfortable environment for the operator. Side visibility of the D155AX-6 is unsurpassed because external ROPS structure and posts are not required.

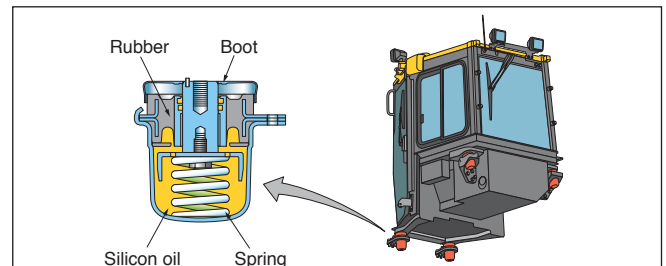
Large multi-lingual LCD color monitor

A large user-friendly color monitor enables accurate and precise work. Improved screen visibility is achieved by use of TFT liquid crystal display that can easily be read at various angles and lighting conditions. The monitoring system also features simple and easy to operate switches, and the function keys facilitate multi-function operations.

The monitor system has the ability to display data in 10 languages to globally support operators around the world.

Comfortable ride with cab damper mounting

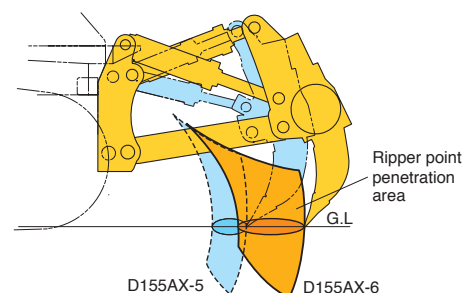
The D155AX-6's cab mount uses a cab damper that provides excellent shock and vibration absorption capacity. The cab damper mounts also soften shocks and vibration while traveling over adverse conditions that conventional mounting systems are unable to absorb. The cab damper spring isolates the cab from the machine body, suppressing vibration and providing a quiet, comfortable operating environment.



Ripper visibility

Ripper cylinders were reduced from four to two, greatly improving rear visibility during ripping.

Also, expanded ripper movement offers a wider range of operation.



MAINTENANCE FEATURES

Preventative maintenance

Preventative maintenance is the only way to ensure long service life from your equipment. That's why Komatsu designed the D155AX-6 with conveniently located maintenance points to make necessary inspections and maintenance quick and easy.

Multi-monitor with troubleshooting function to prevent critical machine trouble

Meters, gauges, and warning functions are centrally arranged on the multi-monitor. These offer ease of start-up inspection and promptly warns the operator with a lamp and buzzer if any abnormalities occur. In addition, error codes are indicated in 4 stage codes to prevent the machine from major problems. Replacement times for oil and filters are also indicated.



Easy radiator cleaning with hydraulic drive fan

The radiator can be cleaned by utilization of the reversible, hydraulically driven cooling fan. The fan can be reversed from inside the cab by simply turning the switch to reverse, or the fan can be programmed to automatically reverse at set intervals.

Oil pressure checking ports

Pressure check ports for power train components are centralized to promote quick and simple diagnosis.

Gull-wing engine side covers

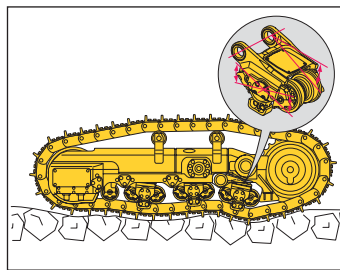
The engine area is easily accessed with gull-wing engine side covers. The gull-wing doors ease engine maintenance and filter replacement. Side covers have been changed to a thick one-piece structure with a bolt-on catch to improve durability.



Low maintenance costs

Increased undercarriage component life

K-Bogie track rollers having a large oscillation travel always follow the track link even on uneven ground. This feature keeps the correct alignment between the rollers and links to contribute to long undercarriage component life.



Reliable simple hull frame

Simple hull structure main frame design increases durability and reduces stress concentration at critical areas. The track frame has a large cross section and utilizes pivot shaft mounting for greater reliability.

Sealed DT connectors

Main harnesses and controller connectors are equipped with sealed DT connectors provide high resistance to water and dust entry and excellent reliability.

Flat face O-ring seals

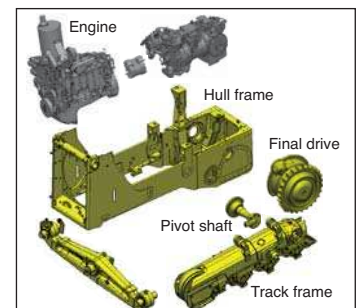
Flat face O-ring seals are used to securely seal all hydraulic hose connections and to prevent oil leakage.

Enclosed hydraulic piping

Hydraulic piping for the blade tilt cylinder is completely housed in the push arm, protecting it from damage.

Modular power train design

Power train components are sealed in a modular design that allows the components to be removed and installed without oil spillage, making servicing work clean, smooth and easy.



Maintenance free disc brakes

Wet disc brakes require less maintenance.

D155AX-6 CRAWLER DOZER

SPECIFICATIONS



ENGINE

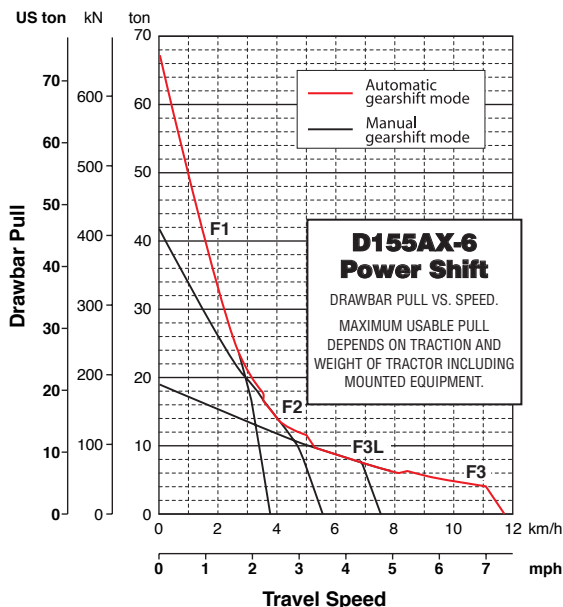
Model Komatsu SAA6D140E-5
 Type 4-cycle, water-cooled, direct injection
 Aspiration Turbocharged, air-to-air aftercooled, cooled EGR
 Number of cylinders 6
 Bore x stroke 140 mm x 165 mm **5.51" x 6.50"**
 Piston displacement 15.24 ltr **930 in³**
 Governor All-speed and mid-range, electronic
 Horsepower
 SAE J1995 Gross 268 kW **360 HP**
 ISO 9249 / SAE J1349 Net 264 kW **354 HP**
 Hydraulic fan at maximum speed Net 239 kW **320 HP**
 Rated rpm 1900 rpm
 Fan drive type Hydraulic
 Lubrication system
 Method Gear pump, force lubrication
 Filter Full-flow



TORQFLOW TRANSMISSION

Komatsu's automatic TORQFLOW transmission consists of a water-cooled, 3-element, 1-stage, 1-phase torque converter with lockup clutch, and a planetary gear, multiple-disc clutch transmission which is hydraulically actuated and force-lubricated for optimum heat dissipation. Equipped with gearshift lock lever and neutral start switch.

Travel speed	Forward	Reverse
1st	3.8 km/h 2.4 mph	4.6 km/h 2.9 mph
2nd	5.6 km/h 3.5 mph	6.8 km/h 4.2 mph
3rd L	7.5 km/h 4.7 mph	9.2 km/h 5.7 mph
3rd	11.6 km/h 7.2 mph	14.0 km/h 8.7 mph



FINAL DRIVES

Double-reduction, spur and planetary final drives increase tractive effort. Segmented sprockets are bolt-on for easy in-the-field replacement.



STEERING SYSTEM

PCCS lever controls for all directional movements. Pushing the PCCS lever forward results in forward machine travel, while pulling it rearward reverses the machine. Simply tilt the PCCS lever to the left to make a left turn. Tilt it to the right for a right turn.

Hydrostatic steering system (HSS) is powered by steering planetary units and an independent hydraulic pump and motor. Counter-rotation turns are also available. Wet, multiple-disc, pedal-controlled service brakes are spring-actuated and hydraulically released. Gearshift lock lever also applies parking brakes.

Minimum turning radius **2.14 m 7'0"**



UNDERCARRIAGE

Suspension Oscillation-type with equalizer bar and forward mounted pivot shafts
 Track roller frame Monocoque, high-tensile-strength steel construction

K-Bogie undercarriage

Lubricated track rollers are resiliently mounted on the track frame with a bogie suspension system whose oscillating motion is cushioned by rubber pads.

Track shoes

Lubricated tracks. Unique dust seals for preventing entry of foreign abrasives into pin-to-bushing clearance for extended service. Track tension easily adjusted with grease gun.

Number of shoes (each side) 42
 Grouser height 80 mm **3.1"**
 Shoe width (standard/maximum)* 560 mm **22"/710 mm 28"**
 Ground contact area 36680 cm² **5,685 in²**
 Ground pressure (tractor only) 82.4 kPa 0.84 kg/cm² **11.9 psi**
 Number of track rollers (each side) 7
 Number of carrier rollers (each side) 2

*Single tilt machine only



COOLANT AND LUBRICANT CAPACITY (REFILL)

Fuel tank 625 ltr **165 U.S. gal**
 Coolant 82 ltr **21.7 U.S. gal**
 Engine oil 37 ltr **9.8 U.S. gal**
 Damper 1.5 ltr **0.4 U.S. gal**
 Transmission, bevel gear and steering system 90 ltr **23.8 U.S. gal**
 Final drive (each side) 31 ltr **8.2 U.S. gal**



OPERATING WEIGHT

Tractor weight 31000 kg **68,350 lb**
 Including rated capacity of lubricant, coolant, full fuel tank, operator and standard equipment

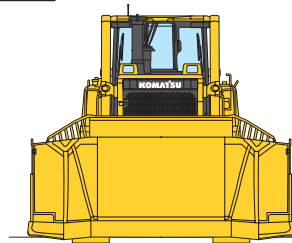
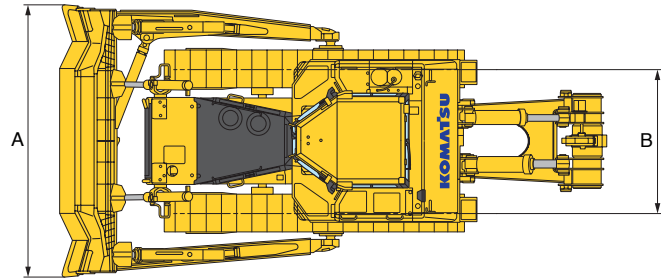
Operating weight 39500 kg **87,100 lb**
 Including strengthened SIGMADOZER[®], giant ripper, ROPS cab, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.

Ground pressure 106 kPa 1.08 kg/cm² **15.4 psi**

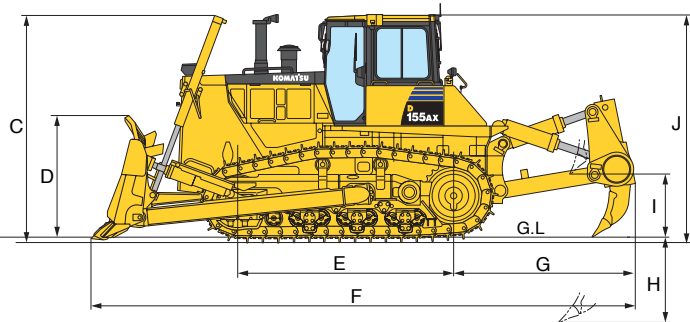


DIMENSIONS

A	4060 mm	13'4"
B	2140 mm	7'
C	3385 mm	11'1"
D	1850 mm	6'1"
E	3275 mm	10'9"
F	8225 mm	27'
G	2745 mm	9'
H	1240 mm	4'1"
I	950 mm	3'1"
J	3395 mm	11'2"



Ground clearance: 500 mm 1' 8"



HYDRAULIC SYSTEM

Closed-center load sensing system (CLSS) designed for precise and responsive control, and for efficient simultaneous operation.

Hydraulic control unit:

All spool control valves externally mounted beside the hydraulic tank. Variable piston pump with capacity (discharge flow) of 325 ltr/min **85.9 U.S. gal/min** for steering and 180 ltr/min **47.6 U.S. gal/min** for implemented at rated engine rpm.

Relief valve setting . . . for implement 27.5 MPa 280 kg/cm² **3,980 psi**
 for steering 38.2 MPa 390 kg/cm² **5,550 psi**

Control valves:

Spool control valve for SIGMADOZER®, Semi-U tilt dozer and Full-U tilt dozer.

- Positions: Blade lift Raise, hold, lower, and float
- Blade tilt Right, hold, and left

Additional control valve required for variable digging angle multi-shank ripper and giant ripper.

- Positions: Ripper lift Raise, hold, and lower
- Ripper tilt. Increase, hold, and decrease

Hydraulic cylinders Double-acting, piston

	Number of cylinders	Bore
Blade Lift	2	110 mm 4.33"
Blade Tilt (Sigma Dozer Blade)	2	160 mm 6.30"
Blade Tilt (Single Tilt)	1	160 mm 6.30"
Ripper Lift	1	180 mm 7.09"
Ripper Tilt	1	200 mm 7.87"

Hydraulic oil capacity (refill):

- Semi-U tilt dozer 85 ltr **22.5 U.S. gal**
- Full-U tilt dozer 85 ltr **22.5 U.S. gal**

Ripper equipment (additional volume):

- Multi-shank ripper 37 ltr **9.8 U.S. gal**
- Giant ripper 37 ltr **9.8 U.S. gal**



DOZER EQUIPMENT

Use of high-tensile-strength steel in moldboard for strengthened blade construction. Blade tilt hose piping is mounted inside the dozer push arm to protect from damage.

	Overall length with dozer	Blade capacity	Blade length x height	Maximum lift above ground	Maximum drop below ground	Maximum tilt adjustment	Additional weight
Strengthened SIGMADOZER®	6125 mm 20'1"	9.4 m ³ 12.3 yd³	4060 mm x 1850 mm 13'4" x 6'1"	1320 mm 4'4"	617 mm 2'	920 mm 3'	5360 kg 11,820 lb
Semi-U Tilt Dozer	6175 mm 20'3"	9.4 m ³ 12.3 yd³	4130 mm x 1790 mm 13'7" x 5'10"	1255 mm 4'1"	593 mm 1'11"	953 mm 3'	4960 kg 10,936 lb
Full-U Tilt Dozer	6590 mm 21'7"	11.9 m ³ 15.6 yd³	4225 mm x 1790 mm 13'10" x 5'10"	1255 mm 4'1"	593 mm 1'11"	970 mm 3'2"	5630 kg 12,420 lb



STANDARD EQUIPMENT FOR BASE MACHINE

- 12 volt accessory outlet
- Air cleaner, double element with dust indicator
- Air conditioner, heater, defroster, pressurizer
- Alternator, 75 ampere
- Batteries, 2 x 12V 200 Ah
- Blade lift cylinders
- Backup alarm
- Color monitor, LCD
- Coolant corrosion resistor
- Cup holder
- Decelerator pedal
- Electrical harnesses with sealed connectors
- Engine gull-wing side doors
- Engine speed control electronic dial
- Engine precleaner, with above the hood air intake pipe
- Fan, reversible, programable electronic control, hydraulic driven
- Fast fuel provision
- Filler cap locks and cover locks
- Fuel water separator
- Headrest
- Horn, warning
- Hydraulics for dozer, dual pitch and tilt
- Hydraulics for ripper, VGR/MSR
- Hydrostatic steering (HSS) system
- K-bogie undercarriage
- KOMTRAX®
- Lighting system (includes 2 front, 1 rear)
- Muffler with rain cap
- Lunch box holder
- Palm command control system (PCCS)
- PM service connectors
- Radiator with reserve tank
- Radiator guard door, hinged, perforated
- Rear cover
- Rear view mirror
- Seat, suspension type, high back, fabric, turn
- Seat belt, 76 mm 3"
- Shoes, 610 mm 24" extreme service
- Starting motor, 11kW/24V
- Sun visor
- Tool kit
- Torque convertor with auto lock-up
- Track roller guard, end sections
- Track shoe assembly
 - Sealed and lubricated track
- Transmission with automatic/manual gearshift modes
- Underguards, hinged with front pull hook

ROPS cab

- Additional weight: **700 kg** 1,545 lb
- All-weather, enclosed pressurized cab
- Dimensions:
 - Length: **1735 mm** 5'8"
 - Width: **1755 mm** 5'9"
 - Height from floor: **1635 mm** 5'4"
- Meets ISO 3471, SAE J1040 APR88 ROPS standards, and ISO 3449 FOPS standard.



OPTIONAL EQUIPMENT

Variable multi-shank ripper

- Additional weight (including hydraulic control unit): **3760 kg** 8,290 lb
- Beam length: **2320 mm** 7'7"
- Hydraulically-controlled parallelogram-type ripper with three shanks. Digging angle infinitely adjustable. Standard digging angle*: 49°
- Maximum digging depth: **900 mm** 2'11"
- Maximum lift above ground: **950 mm** 3'1"

Variable giant ripper

- Additional weight (including hydraulic control unit): **2440 kg** 5,380 lb
- Beam length: **1400 mm** 4'7"
- Hydraulically-controlled parallelogram-type ripper with one shank. Digging angle infinitely adjustable. Standard digging angle*: 49°
- Maximum digging depth: **1240 mm** 4'1"
- Maximum lift above ground: **950 mm** 3'1"

* Measured with ripper point on ground and shank vertical.

Other

- Additional cab lights, 2 front and 2 rear
- Additional rear light for ripper point
- Alternator, 90 ampere
- Counterweight with rigid drawbar
- Drawbar, long type
- Landfill package
- Radio, AM/FM with cassette
- Seat, air suspension type, high back, fabric

Shoes

Shoes (optional)	Additional weight	Ground contact area
560 mm 22" single-grouser shoes	0 kg 0 lb	36680 cm ² 5,685 in²
610 mm 24" single-grouser shoes	+200 kg +440 lb	39955 cm ² 6,193 in²
660 mm 26" single-grouser shoes	+410 kg +905 lb	43230 cm ² 6,700 in²
*710 mm 28" single-grouser shoes	+620 kg +1,370 lb	46505 cm ² 7,208 in²
560 mm 22" extreme service shoes	+460 kg 1,015 lb	36680 cm ² 5,685 in²
610 mm 24" extreme service shoes	+700 kg +1,545 lb	39955 cm ² 6,193 in²
660 mm 26" extreme service shoes	+940 kg +2,070 lb	43230 cm ² 6,700 in²

*Single tilt only

- Seat, suspension type, fabric, turn
- Single tilt blade hydraulics
- Woodchip package
- Working light for ripper

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