

# KOMATSU

## D155AX-6

NET HORSEPOWER  
264 kW 354 HP @ 1.900 rpm

OPERATING WEIGHT  
39.500 kg

**D**  
**155**

CRAWLER DOZER



## D155AX-6

# WALK-AROUND

## A unique machine with unrivalled benefits

The D155AX-6 delivers outstanding productivity, reliability and versatility. For the best value, the hydraulics, power train, frame and all other major components are engineered by Komatsu. So you get a machine with high-quality components that are designed to work together.



### **Komatsu SAA6D140E-5**

engine with high pressure common rail injection delivers ample power in a fuel efficient way. The engine meets EU Stage IIIA and EPA Tier III emissions regulations.

### **Automatic transmission with automatically actuated lockup torque converter**

Increases dozing speed in lockup mode to improve fuel consumption and productivity.

### **Innovative Sigmadozer®**

Reduces digging resistance and demonstrates a high blade fill-factor while improving material rolling performance.

Blade capacity 9,4 m<sup>3</sup>



### **K-Bogie under**

Improves stability, compo

**NET HORSEPOWER**  
264 kW 354 HP

**OPERATING WEIGHT**  
39.500 kg

### ***New integrated ROPS cab***

Provides a smooth operator environment with unmatched visibility due to integrated ROPS structure.



### ***Large TFT monitor***

Improved operator interface through Komatsu-developed information technology.

### ***Newly designed ripper***

Combines excellent ripper visibility with increased material extraction performance.



**KOMTRAX**

### ***Komatsu Tracking System***

Track and monitor your machine anytime, anywhere for total peace of mind.

### ***ercarriage system***

ment durability, and operator comfort.

# COMFORTABLE ERGONOMIC CONTROL



## **Palm command electronic controlled travel joystick**

The palm command travel joystick provides the operator with an environment that supports a comfortable posture and precise machine control, without fatigue. Shifting gears is easily carried out with the gear shift lever's push button control.



Steering joystick



Blade and ripper control joystick

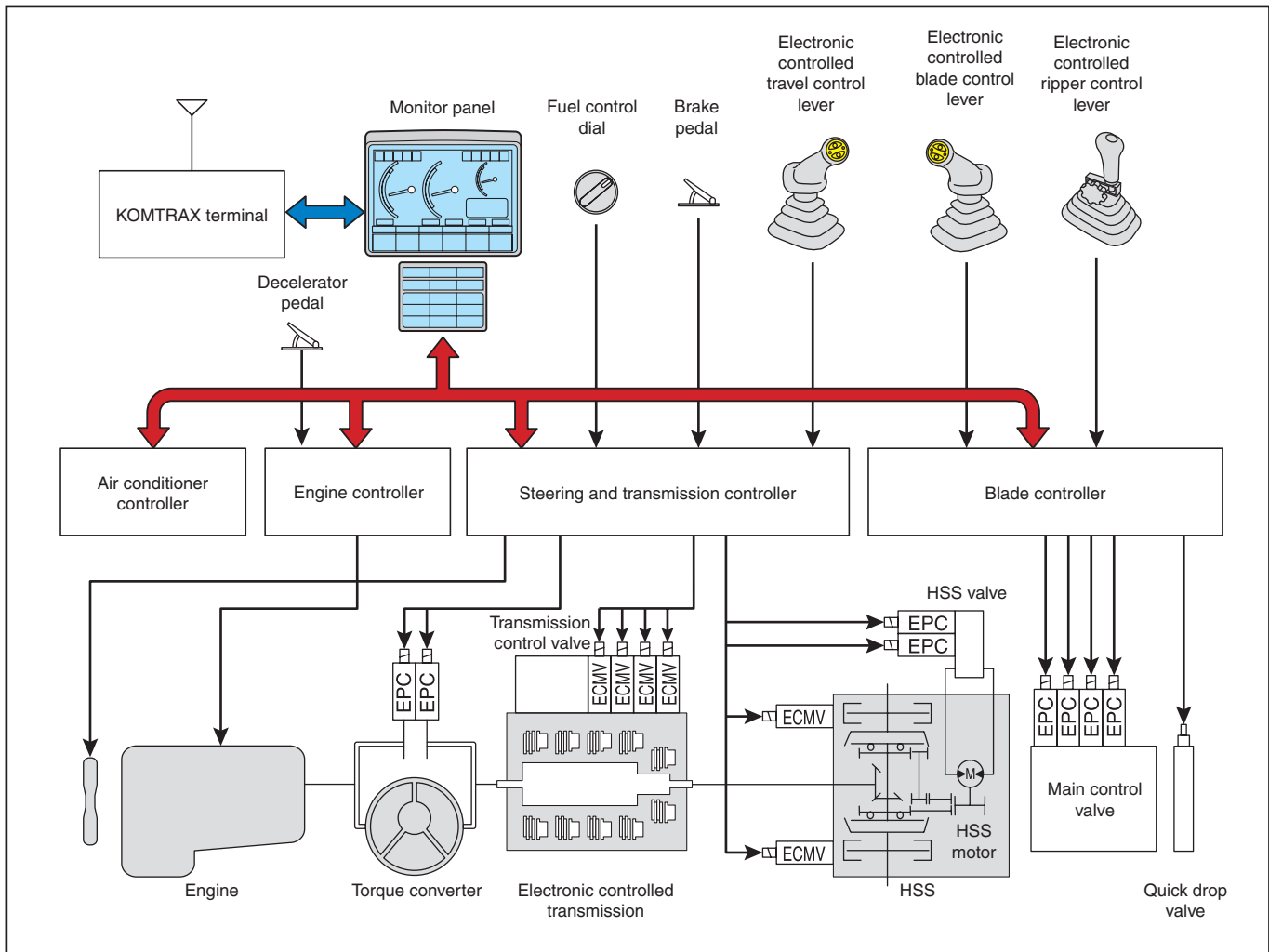
## **Fully adjustable suspension seat and travel control console**

The driver's seat and console are among the most important parts of the driver's equipment. A heavy-duty, ergonomic seat with headrest gives the driver a secure and comfortable work environment. The operator can turn and lock the seat at 15° to improve visibility and reduce neck strain during reverse operations. Furthermore, the position of the travel control joystick and console can be shifted forwards or backwards, up or down to suit any operator.



When turned 15°

# POWER TRAIN ELECTRONIC CONTROL



## Power train electronic control

The D155AX-6 uses a new power train electronic control system. The controller registers the amount of operator control (movement of lever and operation of switches) along with machine condition signals from each sensor, such as the engine speed and machine angle. These inputs are used to accurately control the torque converter, transmission, steering motor and brakes for optimal machine operation.

## Engine speed control dial

The engine controller continuously checks and controls the engine speed, adjusting the fuel injection for maximum fuel efficiency.

## Engine controller


By controlling the fuel injection system, the engine controller optimises fuel consumption for the power required. It works on three levels.

- **Passive:** manages work condition information, provides an on-board operation manual and reports the machine's history
- **Active:** provides error codes and acts as a warning system to help reduce expensive breakdowns
- **Measurement tool:** allows service technicians to see various machine parameters without special (and expensive) hardware and makes technical information available immediately to optimise operating time

# PRODUCTIVITY FEATURES

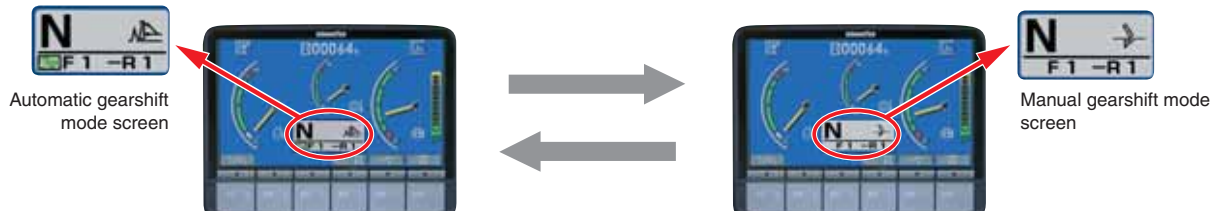
## Preset travel speed selection function

Fitted as standard, the preset travel speed selection function lets the operator choose between three preset gear patterns: F1-R2, F2-R2 and manual shift. When the F1-R2 or F2-R2 patterns are chosen, the operator simply moves the travel control joystick up or down to engage the appropriate pre-selected forward or reverse gear. This function cuts gear-shifting times during repeated round-trip operations. In addition, F3L has been newly installed for high speed leveling work.

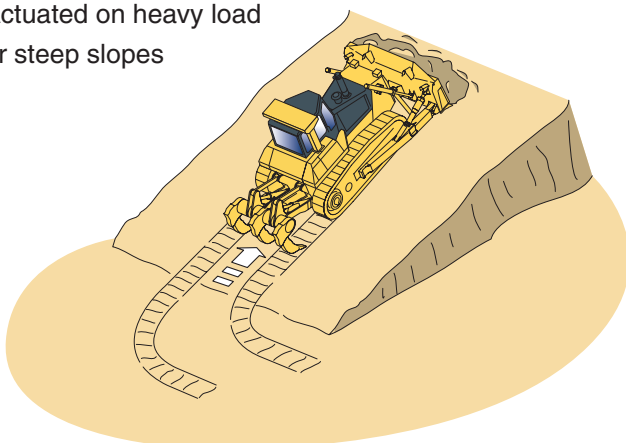
	<b>Automatic gearshift mode</b>	<b>Manual gearshift mode</b>
	<b>F1-R1 MODE</b>	<b>F1-R1 MODE</b>
	Press DOWN switch ↑ ↓ Press UP switch	Press DOWN switch ↑ ↓ Press UP switch
	<b>F1-R2 MODE</b>	<b>F1-R2 MODE</b>
	Press DOWN switch ↑ ↓ Press UP switch	Press DOWN switch ↑ ↓ Press UP switch
	<b>F2-R2 MODE</b>	<b>F2-R2 MODE</b>
	Press DOWN switch ↑ ↓ Press UP switch	
	<b>F2-R3L MODE</b>	

## Automatic/manual gearshift selectable mode

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

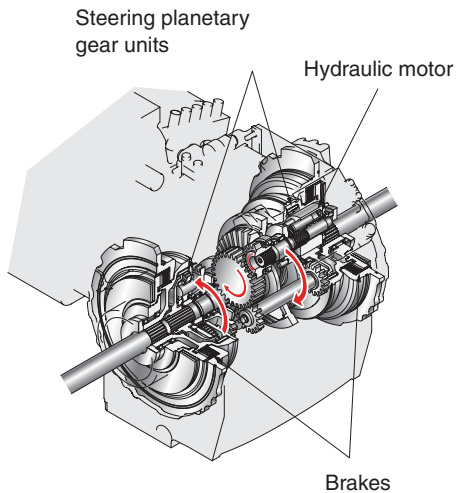


Actuated on heavy load or steep slopes



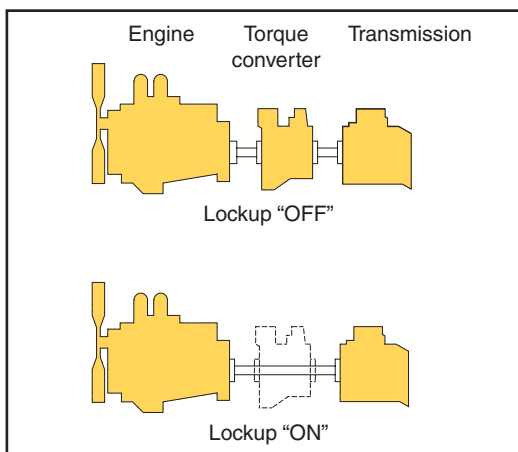
## Auto-downshift

The engine controller continuously monitors the engine speed, travel gear and travel speed. When a load is applied and the machine slows, the controller automatically downshifts, optimising the gear speed for the best dozing performance. This function enables comfortable operation and high productivity without manual downshifting. (This function can be deactivated by a cancel switch on the monitor panel.)



### Hydrostatic steering system (HSS)

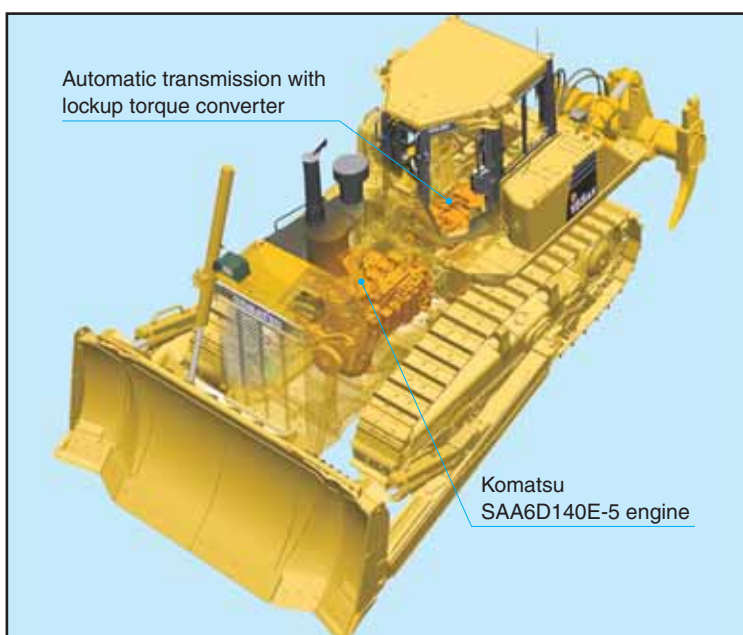
The HSS delivers smooth, powerful turning. It is powered by an independent, variable-displacement hydraulic pump. The engine power is continuously transmitted to both tracks, even during sharp turns. When the machine turns, the outside track is sped up while the inside track is slowed down. The tracks can even rotate in opposite directions (counter-rotation) to minimise the turning circle and maximise manoeuvrability. The HSS delivers shock-free steering, reducing machine vibration and driver fatigue. It also minimises track damage to the ground.



### 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 with a switch).



The 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 maintaining machine power.

# NEW ECOT3 ENGINE

## Komatsu's innovative engine technologies

### A clean, powerful engine

The powerful yet fuel-efficient engine makes the D155AX-6 an outstanding performer in both ripping and dozing operation. The SAA6D140E-5 surpasses European Stage IIIA and EPA Tier III emissions regulation. It features direct fuel injection, a turbocharger, an aftercooler and EGR for maximum fuel efficiency.

### Heavy duty HPCR system

#### (High Pressure Common Rail fuel injection)

A high pressure pump pumps fuel into an accumulator chamber or 'Common Rail'. An ECU (electronic control unit) then optimizes fuel injection from the common rail into the engine cylinders. This improves engine power and fuel efficiency, reducing emission and noise levels.

### Heavy-duty cooled EGR system

#### (Exhaust Gas Recirculation)

Cooled exhaust gas returned to the cylinders prevents nitrogen and oxygen bonding during combustion, reducing NOx emissions, lowering thermal stress and improving fuel efficiency.

### Air-to-air charge air cooling system

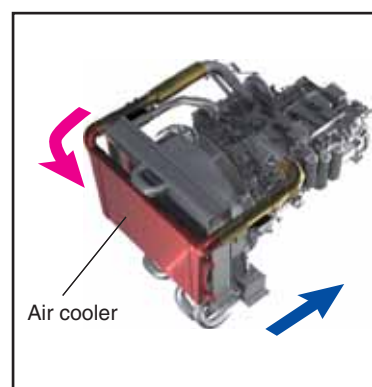
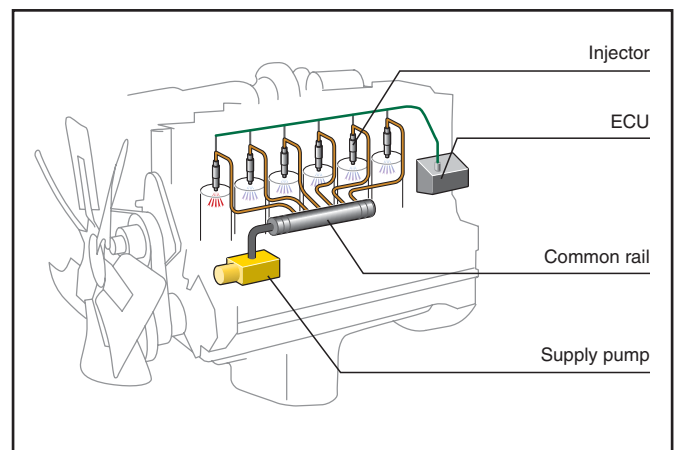
By cooling the compressed air supplied by the turbo-charger to the cylinders, this system optimizes combustion efficiency, reduces emissions and improves engine performance.

### New combustion system

Our new combustion system optimises combustion timing and ignition. Thanks to extensive computer simulations and analyses, its specially designed combustion chamber reduces NOx and particulates emissions, fuel consumption and noise levels.

### Improved efficiency with hydrostatic-driven engine cooling fan

Fan rotation is automatically controlled, based on the coolant and hydraulic oil temperature. This saves fuel and provides great productivity with a quiet operating environment.





# WORK EQUIPMENT

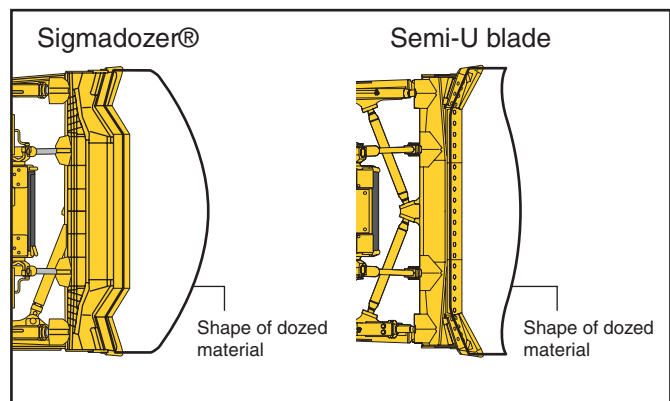
## Blades

Komatsu uses a box blade design, offering the highest resistance for a low weight blade. This increases total blade manoeuvrability. High-tensile-strength steel has been incorporated into the front and sides of the blade for increased durability. The blade shape design makes it easy to handle a wide range of materials, offering good blade penetration, combined with a low blade rolling resistance. And finally, Komatsu blades help deliver very good, lower fuel consumption performance.



## Sigmodozer®

Operating like a V-shape bucket for the best penetration, the Sigmodozer® blade provides a perfect flat edge for excellent grading performance. The blade's convex figure increases the blade fill factor and capacity. In addition, its lateral edges push rolling material continuously towards the centre for the best rolling characteristics.



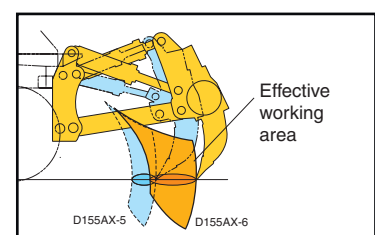
## Rippers

Komatsu rippers combine the highest productivity and longevity. The shank is fitted with specially designed wear parts to extend lifetimes and deliver the best penetration into any material. Komatsu's patented variable-angle rippers provide the ideal bolder removal action. Their special design allows the cylinders to work in harmony for the ideal combination of ripper-point movement and lifting-out force. What's more, you have precise control over the ripper-point angle to ensure maximum penetration.



## New ripper design

The ripper cylinders were reduced from four to two, greatly improving rear visibility during ripping. The expanded ripper movement offers even improved ripper operation.



## UNDERCARRIAGE

### Low drive undercarriage

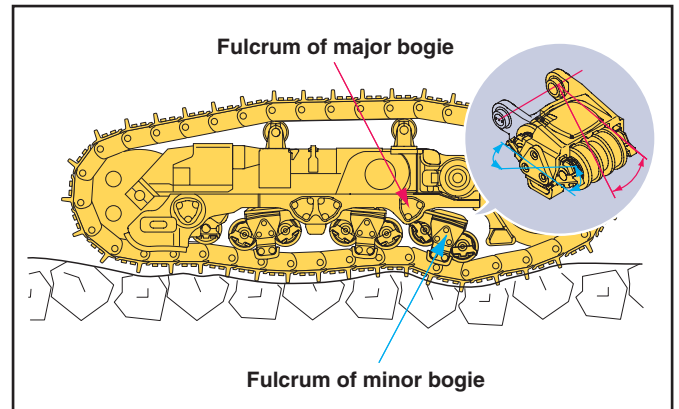
The D155AX-6's low drive undercarriage with K-bogie system is extremely flexible to follow uneven ground yet delivers excellent grading ability and dozer stability. It includes heavy-duty link assemblies with large-diameter bushings, high track links and superior oil seals for increased durability.

#### K-Bogie undercarriage system

The K-bogie undercarriage system features a fixed idler and flexible mounted track rollers. The track rollers are mounted in pairs on a twin bogie system, allowing a high vertical track roller movement

#### K-Bogie features

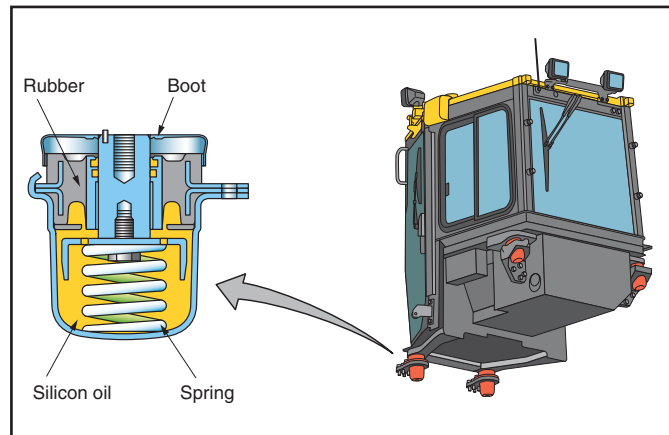
- Provides excellent support for the link assembly even under difficult working conditions
- Enables the best transfer of traction as the shoe assembly is always in contact with the ground
- Lessens the impact load on undercarriage components, increasing their lifetime
- Reduces vibration and shocks for the smoothest ride over the roughest terrain
- The longer undercarriage with seven track rollers greatly improves machine stability



# OPERATOR COMFORT

## A smooth ride

The D155AX-6 cab mounts use a new cab suspension system that combines outstanding protection against big impacts with high vibration damping. Cab damper mounts absorb shocks and vibrations much more effectively than conventional mounting systems can. The damper spring isolates the complete operator compartment from the machine body, suppressing vibrations. The result is less noise in the cab and a smoother ride over rough terrain.



## Pressurised SpaceCab™

The cab's new hexagonal design and large, tinted windows ensure excellent visibility in all directions. It features superior cab sealing, air filters and raised internal air pressure to prevent dust getting into the cab. In addition, the high-quality interior is fully lined with sound-absorbent material.



## Excellent blade visibility

The slim engine bonnet and well-positioned seat guarantee the operator always has a clear view of the blade. This helps the operator work more effectively and increases grading efficiency. Rough and finish grading can both be carried out easily, significantly reducing cycle times.

## Large multi-lingual TFT monitor

A large user-friendly color monitor enables safe, accurate and smooth work. Screen visibility is improved through a TFT liquid crystal display that can be easily read at various angles and in various lighting conditions.

- Simple and easy-to-operate switches
- Industry first function keys facilitate multi-function operations
- Displays data in 10 languages to support operators around the world



## EASY MAINTENANCE

### Preventative maintenance

Preventative maintenance is the only way to ensure a long service life for your equipment. That's why Komatsu designed the D155AX-6 with conveniently located maintenance points for quick and easy access and inspection.

### Centralised service station

We've centralised all the hydraulic and lubrication oil filters providing easy, safe access to all service points and cutting maintenance times.



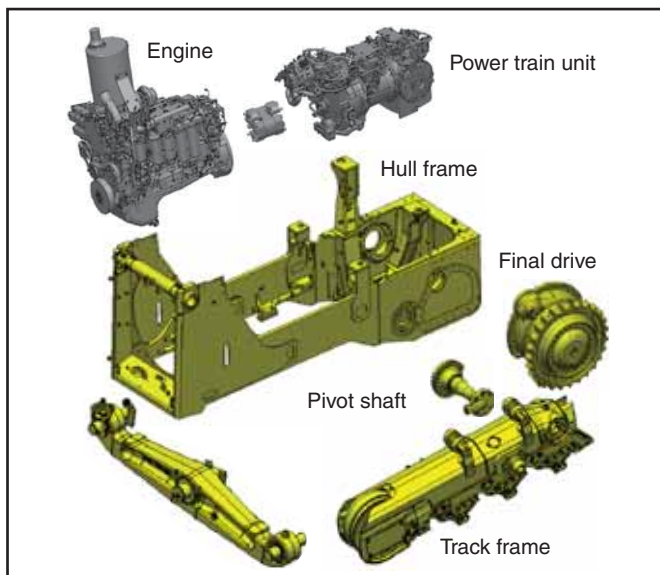
### Enclosed hydraulic piping

The hydraulic piping for the blade-tilt cylinder is complete encased in the push arm to prevent damage.



### Modular power train

All the power train components are enclosed in a sealed module. This eliminates oil spills during mounting and dismounting, and prevents dust and dirt polluting individual components. So servicing is much cleaner, smoother and easier.



### Self-diagnostic monitor

The multi-function monitor panel displays the running time, engine revs, fuel level and water coolant temperature in real time. It also gives the operator maintenance and service information such as when oil filters need replacing or abnormalities occur. In addition, it supplies Komatsu mechanics with detailed information without any external service.



### Gull-wing engine side cover

The gull-wing engine side covers give you easy access for engine maintenance and replacing the filters. They have a solid structure with a bolt-on latch, so they last longer and are easier to repair.



### Simple, reliable structure

The simple hull main frame design reduces stress concentrations at critical points and extends the machines lifetime. The track frame has a large cross section and uses pivot shaft mounting for greater reliability.

### O-ring face seal

The hydraulic hose connections use high-quality O-ring face seals for a better seal, even under tough working conditions.

# SERVICEABILITY AND CUSTOMER SUPPORT

When you buy Komatsu equipment, you open the door to a wide range of programmes and services designed to help you get the most from your investment. These services ensure exceptional productivity, long and useful equipment lifetime, low operating costs and a high trade-in or resale value.

- Many of vital components in the D155AX-6 have already proven their complete reliability in other heavy-duty Komatsu earthmoving equipment.
- Our extensive parts warehouses and logistics system (across Europe and globally) ensure unparalleled parts availability.
- We're continuously training our service personnel to guarantee your machine is properly serviced and kept in top condition.
- The sophisticated Komatsu Oil Wear Analysis (KOWA) programme identifies potential problems early so they can be dealt with during scheduled preventative maintenance reducing breakdowns and repair costs.
- To reduce overall operation costs, the Komatsu Flexible Warranty Programme (KFWP) lets you choose from a range of extended warranty options for your machine and its components according to your individual needs and activities.
- With a Komatsu Repair & Maintenance Contract, you can establish fixed operating costs and ensure maximum machine availability for the duration of the contract.



## KOMTRAX™ Komatsu Tracking System

The Komatsu Tracking System, KOMTRAX™, provides a revolutionary new way to monitor your equipment, anytime, anywhere. It lets you pin-point the precise location of your machines and obtain real-time machine data. Using GPS transmitter and satellite technology, it's designed to be future proof and will meet your demands today and tomorrow.



## SPECIFICATIONS



### ENGINE

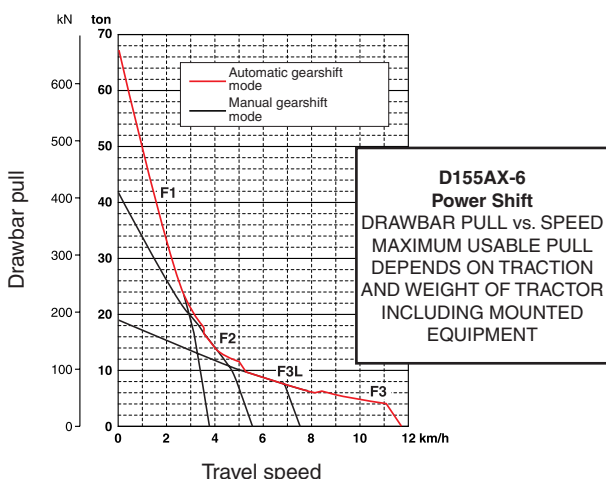
Model ..... Komatsu SAA6D140E-5  
 Type ..... Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel  
 Rated capacity  
 ISO 9249 / SAE J1349\* ..... 264 kW/354 HP @ 1.900 rpm  
 No. of cylinders ..... 6  
 Bore x stroke ..... 140 x 165 mm  
 Displacement ..... 15,24 ltr  
 Fan drive type ..... Hydraulic  
 Lubrication system  
 Method ..... Gear pump, force lubrication  
 Filter ..... Full flow  
 \*Net horsepower at maximum speed  
 of the radiator cooling fan ..... 239 kW 320 HP



### TORQFLOW TRANSMISSION

Type ..... Komatsu TORQFLOW  
 Torque converter ..... 3-element, 1-stage, 1-phase, water-cooled  
 Transmission ..... Planetary gear, multiple-disc clutch hydraulically actuated, force-lubricated  
 Gearshift lock lever and neutral safety switch prevent accidental starts.

Max. travel speeds	Forward	Reverse
1st	3,8 km/h	4,6 km/h
2nd	5,6 km/h	6,8 km/h
3rd L	7,5 km/h	9,2 km/h
3rd	11,6 km/h	14,0 km/h



### ENVIRONMENT

Engine emissions ..... Fully complies with EU Stage IIIA and EPA Tier III exhaust emission regulations  
 Noise levels  
 LwA external ..... 111 dB(A) (2000/14/EC)  
 LpA operator ear ..... 78 dB(A) (ISO 6369 dynamic test)



### STEERING SYSTEM

Type ..... Hydrostatic Steering System (HSS)  
 Steering control ..... PCCS-lever  
 Service brakes ..... Wet, multiple-disc, pedal-controlled, spring-actuated and hydraulically released  
 Minimum turning radius (counter-rotation)  
 (as measured by track marks on ground) ..... 2,14 m



### UNDERCARRIAGE

Suspension ..... Oscillating equaliser bar and pivot shaft  
 Track roller frame ..... Monocoque, large section, durable construction  
 K-Bogie undercarriage ..... Lubricated track rollers are resiliently mounted on the track frame with a bogie suspension system  
 Tracks ..... Lubricated tracks, fully sealed  
 Track tension ..... Combined spring and hydraulic unit  
 Number of shoes (each side) ..... 42  
 Grouser height (single grouser) ..... 80 mm  
 Shoe width (standard) ..... 610 mm  
 Ground contact area ..... 39.955 cm<sup>2</sup>  
 Track rollers (each side) ..... 7  
 Carrier rollers (each side) ..... 2



### OPERATING WEIGHT (APPR.)

Including strengthened Sigmadozer®, giant ripper, steel cab, ROPS, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank  
 Operating weight ..... 39.500 kg



### COOLANT AND LUBRICANT CAPACITY (REFILLING)

Fuel tank ..... 625 ltr  
 Radiator ..... 82 ltr  
 Engine oil ..... 37 ltr  
 Damper ..... 1,5 ltr  
 Torque converter, transmission, bevel gear and steering system ..... 90 ltr  
 Final drive (each side) ..... 31 ltr  
 Dozer blade hydraulics ..... 85 ltr  
 Giant ripper (additional capacity) ..... 37 ltr  
 Multishank ripper (additional capacity) ..... 37 ltr



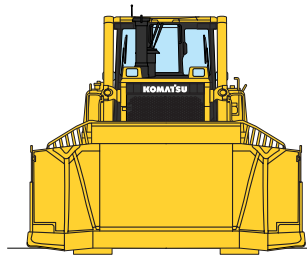
### FINAL DRIVE

Type ..... Planetary gear, double-reduction  
 Sprocket ..... Segmented sprocket teeth are bolt-on for easy replacement

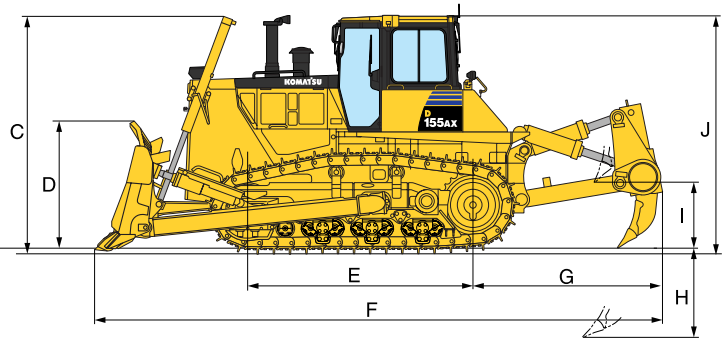
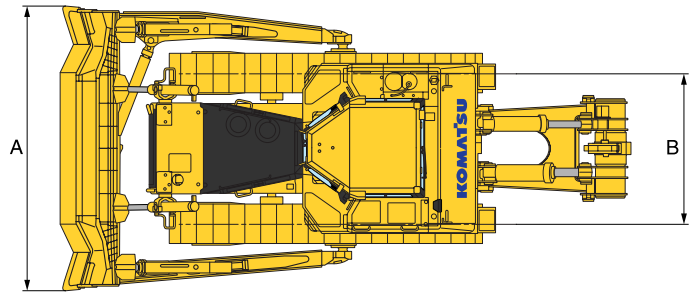


**DIMENSIONS**

	D155AX-6
A	4.060 mm
B	2.140 mm
C	3.385 mm
D	1.850 mm
E	3.275 mm
F	8.225 mm
G	2.745 mm
H	1.240 mm
I	950 mm
J	3.395 mm



Ground clearance: 500 mm



**HYDRAULIC SYSTEM**

Type ..... CLSS (closed-centre load sensing system)  
 All spool valves externally mounted beside the hydraulic tank.  
 Main pump ..... Variable displacement piston pump  
 Maximum pump flow ..... 325 ltr/min  
 Relief valve setting ..... 280 kg/cm<sup>2</sup>  
 Spool control valve positions  
 Blade lift ..... Raise, hold, lower, and float  
 Blade tilt ..... Right, hold, and left  
 Additional control valve positions for ripper  
 Ripper lift ..... Raise, hold, and lower  
 Ripper tilt ..... Increase, hold, and decrease  
 Hydraulic cylinders ..... Double-acting, piston  
 No. of cylinders × bore  
 Blade lift ..... 2 × 110 mm  
 Blade tilt ..... 1 × 160 mm  
 Ripper lift ..... 1 × 180 mm  
 Ripper tilt ..... 1 × 200 mm



**RIPPER EQUIPMENT**

Multishank ripper  
 Type ..... Hydraulically controlled variable ripper  
 No. of shanks ..... 3  
 Weight (including hydraulic control unit) ..... 3.760 kg  
 Beam length ..... 2.320 mm  
 Maximum lift above ground ..... 950 mm  
 Maximum digging depth ..... 900 mm  
 Giant ripper  
 Type ..... Hydraulically controlled variable ripper  
 No. of shanks ..... 1  
 Weight (including hydraulic control unit) ..... 2.440 kg  
 Beam length ..... 1.400 mm  
 Maximum lift above ground ..... 950 mm  
 Maximum digging depth ..... 1.240 mm



**DOZER EQUIPMENT**

Blade capacities are based on the SAE recommended practice J1265.

	Overall length with dozer	Blade capacity	Blade width × height	Maximum lift above ground	Maximum drop below ground	Maximum tilt adjustment	Additional weight
Sigadozer® single tilt	6.125 mm	9,4 m <sup>3</sup>	4.060 × 1.850 mm	1.320 mm	617 mm	570 mm	4.940 kg
Sigadozer® dual tilt	6.125 mm	9,4 m <sup>3</sup>	4.060 × 1.850 mm	1.320 mm	617 mm	920 mm	5.020 kg
Strengthened Sigadozer® single tilt	6.125 mm	9,4 m <sup>3</sup>	4.060 × 1.850 mm	1.320 mm	617 mm	570 mm	5.360 kg
Strengthened Sigadozer® dual tilt	6.125 mm	9,4 m <sup>3</sup>	4.060 × 1.850 mm	1.320 mm	617 mm	920 mm	5.450 kg
Semi-U blade single tilt	6.175 mm	9,4 m <sup>3</sup>	4.130 × 1.790 mm	1.255 mm	593 mm	575 mm	4.960 kg
Semi-U blade dual tilt	6.175 mm	9,4 m <sup>3</sup>	4.130 × 1.790 mm	1.255 mm	593 mm	953 mm	5.050 kg
U blade single tilt	6.590 mm	11,9 m <sup>3</sup>	4.225 × 1.790 mm	1.255 mm	593 mm	600 mm	5.630 kg
U blade dual tilt	6.590 mm	11,9 m <sup>3</sup>	4.225 × 1.790 mm	1.255 mm	593 mm	970 mm	5.720 kg

# CRAWLER DOZER

## STANDARD EQUIPMENT

### CAB

- Suspension seat: fabric, reclining, high backrest, turnable
- Seat belt
- Headrest
- High mount footrest
- Palm lever steering control (PCCS)
- Mono lever blade control
- Air conditioner
- Heated rear window
- Pre radio installation kit (12 V, antenna, loudspeakers)
- Decelerator pedal
- Electronic monitor panel
- Fenders
- Rear-view mirror (inside cab)
- Sun visor
- Cup holder
- Lunch box holder

### UNDERCARRIAGE

- Single grouser heavy-duty shoes (610 mm)
- Heavy-duty link assembly, sealed and lubricated
- Segmented sprockets
- K-Bogie system
- Hydraulic track adjusters

### ENGINE RELATED PARTS

- Cooling fan, hydrostatic driven
- Hard water area arrangement incl. corrosion resistor
- Intake pipe with rain cap
- Dry type air cleaner, double element with dust indicator and evacuator
- Locks, filter caps and covers
- Starting motor 24 V/11 kW
- Alternator 24 V/50 A
- Batteries 2 × 12 V/170 Ah
- Gull wing engine side covers
- Hydroshift transmission

- Torque converter with automatic lock-up
- Damper
- HSS hydrostatic steering system

### ATTACHMENTS

- Front pull hook
- Wiper rear window
- Wiper front window
- Wipers doors
- Tool kit

### WORK EQUIPMENT

- Hydraulics for ripper
- Hydraulics for dozing blades

### CONTROL SYSTEMS

- Komtrax™ Komatsu tracking system

### SAFETY EQUIPMENT

- Back-up alarm
- Warning horn
- Steel cab, meets ISO 3471 and SAE J1040, APR88 ROPS standards, as well as ISO 3449 FOPS standards.

## OPTIONAL EQUIPMENT

### UNDERCARRIAGE

- Single grouser heavy-duty shoes (560 mm, 660 mm, 710 mm)
- Full length track roller guard

### ENGINE RELATED PARTS

- Electric type engine oil and coolant heater
- Alternator 24 V/75 A
- High-capacity batteries 2 × 12 V/220 Ah

### ATTACHMENTS

- Rigid drawbar
- Counterweight + hitch
- Ripper working light
- Additional working light, rear
- Additional cab lights, front and rear

### CONTROL SYSTEMS

- Komatsu-Topcon machine control systems

### WORK EQUIPMENT

- Sigmadozer® single tilt, 9,4 m<sup>3</sup>
- Sigmadozer® dual tilt, 9,4 m<sup>3</sup>
- Strengthened Sigmadozer® single tilt, 9,4 m<sup>3</sup>
- Strengthened Sigmadozer® dual tilt, 9,4 m<sup>3</sup>
- Semi-U blade single tilt, 9,4 m<sup>3</sup>
- Semi-U blade dual tilt, 9,4 m<sup>3</sup>
- U blade single tilt, 11,9 m<sup>3</sup>
- U blade dual tilt, 11,9 m<sup>3</sup>
- Multishank variable angle ripper
- Giant variable angle ripper

### SAFETY EQUIPMENT

- Fire extinguisher
- First aid kit
- Emergency steering

Call the experts



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