

KOMATSU®

D155A-5

FLYWHEEL HORSEPOWER
225 kW 302 HP @ 1900 rpm

OPERATING WEIGHT
38700 kg 85,320 lb

D
155A

CRAWLER DOZER



Photo may include optional equipment

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D155A-5 *AVANCE* Crawler Dozer

WALK-AROUND

Easy to learn and easy to operate **left hand joystick** controls all tractor motion, while right hand joystick controls all blade functions for accurate grading and high productivity. See pages 4 and 5.

Reduced maintenance with **hydraulic reservoir sight gauge** and spin-off filters housed in compartment. Gull wing engine side doors for easy and safer engine servicing. (See other reduced maintenance features on page 8.)

The entirely new Komatsu D155A-5 **carries on the tradition** of excellence established by the highly regarded D155A-3.

Blade tilt lines completely protected.

Komatsu torque converter **reduces shocks** for smooth operation. See page 9.

Modular power train for increased serviceability and durability. Forward mounted pivot shafts isolate final drives from blade loads. See page 8.

Komatsu Torqflow transmission offers **single lever control** of speed (3 forward and 3 reverse) and directional changes. See page 4.

A Komatsu-designed **resilient equalized undercarriage** (REU). Unique X-type bogies provide tremendous traction on uneven ground. Improves traction component durability and operator comfort. See page 6.

Wet type multiple-disc steering clutches/brakes eliminate both clutch and brake adjustment for facilitating maintenance. See page 5.

Photos may include optional equipment



OPERATOR'S COMPARTMENT

Operator's Compartment

All steering, direction, and speed changes can be made with a single joystick control. When the operator wants to move the machine forward and to the left, he simply moves the joystick forward and to the left. When he desires a gear change, he merely twists his wrist. The machine responds to the movement of the lever, providing the operator with feeling of natural control with Komatsu joystick.

Low-Noise Design

The engine, power train components, and control valves are rubber-mounted to the frame. A low-noise engine used and a radiator mask which diverts the engine noise. Engine side covers provide more than style by damping engine noise.

Easy-to-Operate Work Equipment Control Lever

- A PPC valve is used with the right joystick blade control. This improves operator comfort because of reduced operating effort and stroke.
- With the Closed-Center Load Sensing (CLSS) hydraulic system, blade lever stroke is directly proportional with blade speed, regardless of the load and travel speed. This results in superb, fine controllability.

Hexagonal Pressurized Cab (Optional)

Air filters and a higher internal air pressure combine to prevent external dust from entering the cab. The cab's hexagonal design provides excellent front, side, and rear visibility. The REU and the oil damper mount cab soften shock for operator comfort and extend components life.



Photo may include optional equipment

Electronic Monitor Panel

An electronic monitoring system prevents minor problems from developing into major ones. All meters and gauges are controlled by a microcomputer, which provides a wide indication range for easier, more precise reading.

- Electrical Charge Lamp
- Engine Air Intake Pre-heat Lamp
- Engine Coolant Temperature Caution Lamp
- Engine Coolant Temperature Gauge
- Engine Oil Pressure Caution Lamp
- Fuel Gauge
- Service Meter
- Monitor Caution Cancel Switch
- Monitor Caution Lamp
- Transmission Oil Temperature Gauge

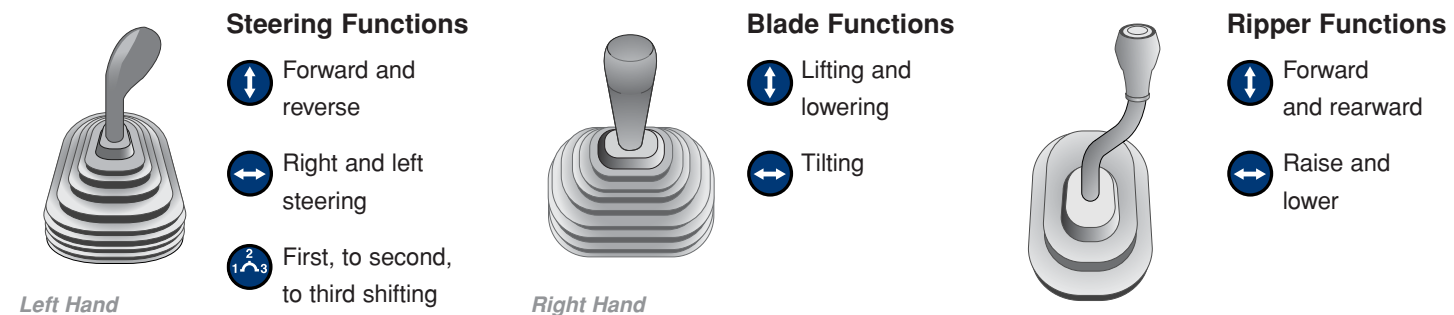


Wet type multiple-disc steering clutches/brakes

Wet type multiple-disc type steering clutches are controlled by left hand single-lever joystick. Steering clutches are spring loaded and hydraulically released, eliminating clutch adjustment for maintenance-free operation. Wet multiple-disc steering brakes are spring loaded and hydraulically released, and interconnected with steering clutches for steep turn. Steering brakes also function as service brakes with pedal operation.



Photo may include optional equipment



UNDERCARRIAGE AND FRAME

Undercarriage

Advanced Resilient Equalized Undercarriage (REU)

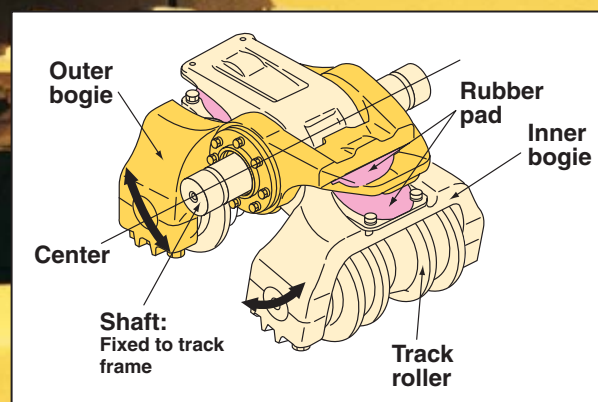
The Komatsu X-type bogie resilient equalized undercarriage (REU) performs independent see-saw movements. Tremendous traction can be achieved even on uneven ground, because the shoe always follows the contour of the ground.

A rubber shock absorber is mounted on the X-type bogie and decreases vibration and shock. This X-bogie and rubber cushion provide different absorption characteristics, depending on the ground surface. When the machine travels on flat ground, the REU functions as a conventional rigid under-

carriage. When the machine travels on uneven ground, the REU maximizes the suspension effect. The Komatsu REU system improves traction, component durability, and operator comfort.

Conventional Undercarriage

There is minimal shoe slippage with the conventional low drive type undercarriage. The shoe slip limit has been substantially raised due to long tracks and large ground contact area. The large traction force thus obtained, in combination with high engine power, results in superb drawbar pull. With the low center of gravity, dynamic stability is excellent.



Flexibility

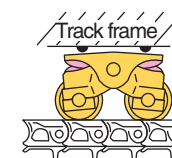
Flexibly grasps ground surface due to Komatsu's unique track-roller design for more and better ground contact.

- Independent X-bogies and rubber pads (cushions) are incorporated into the track rollers.

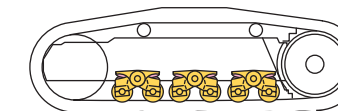
Powerful Drawbar Pull for All Kinds of Terrain

The X-bogie and rubber pad provide different suspension characteristics depending on the ground surface. On flat ground, REU functions as a conventional rigid undercarriage. On uneven terrain, the REU maximizes the suspension effect the shoes always follow the contour of the ground, ensuring a greater actual ground contact for greatly-improved drawbar pull.

On flat ground

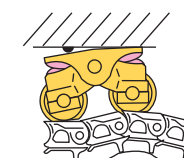


Functions as a conventional rigid undercarriage.

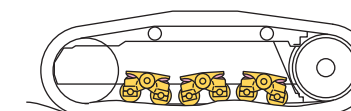


Ensures almost the same traction force as a conventional rigid undercarriage.

On uneven ground

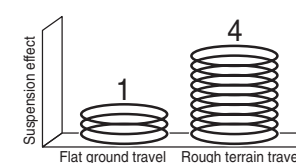


Seesaw movement is performed corresponding to ground surface.



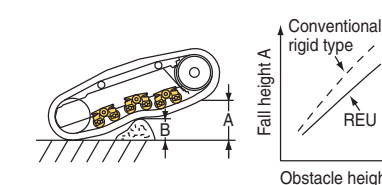
Compared with a rigid type, the actual ground contact area increases and powerful drawbar pull is ensured because the track shoes follow the contour of the ground. Large deformation of the rubber pads contributes to greater suspension effect.

Comfortable Ride on Uneven Ground



On uneven ground, the rubber pad provides four times the suspension effect.

Minimum Shock in Riding Over Obstacles



When riding over obstacles, the height of the machine fall is low.

Frame

Flat Bottom Frame

The pivot shafts and monocoque frames prevent mud build-up. The design facilitates good maneuverability in muddy conditions and reduces the chance of hanging up on stumps or boulders.



ENGINE AND TORQUE CONVERTER

Engine

Fuel Efficient Engine

The field-proven, rugged reliable Komatsu 225 kW 302 HP SA6D140E-2 provides high torque for efficient dozing power and high reliability and low fuel consumption.

Automatic Preheating Mechanism

The best preheating times is set automatically by sensing ambient temperature. This simplifies the preheating operation.

Modular Power Train Components

Modular design has facilitated removal/installation of power train components, shortening machine downtime.

Wet, Multiple-Disc Brakes

Eliminate brake adjustments for maintenance-free operation.

Various Features for Easy Maintenance

- Radiator reserve tank
- Gull-wing engine side doors
- Centralized oil pressure test ports
- Centralized filter arrangement

SPECIFICATIONS

ENGINE

Komatsu SA6D140E-2, water-cooled, 4-cycle, turbocharged and aftercooled, diesel engine, 6 cylinders with 140 mm 5.51" bore x 165 mm 6.50" stroke and 15.24 ltr 930 in³ piston displacement.

Flywheel horsepower*:

SAE J1349 **225 kW** 302 HP at 1900 rpm
DIN 6270 **225 kW** 305 PS at 1900 rpm
Maximum torque **160 kg-m** 1,157 lb/ft @ 1250 rpm

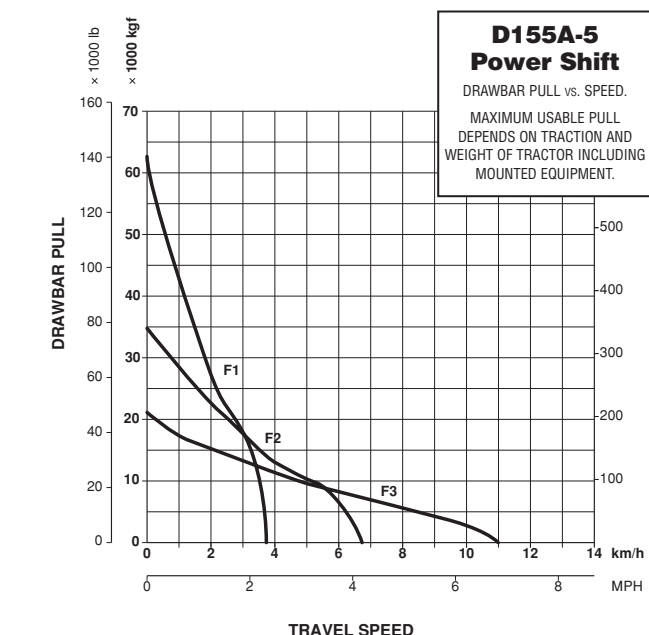
* Net flywheel horsepower output for standard engine (SAE J1349) including air cleaner, alternator (not charging), water pump, lubricating oil pump, fuel pump, muffler, and fan.

Direct-injection fuel system. All-speed mechanical governor. Forced lubrication driven by gear pump. Full-flow filter for lube oil purification. Dual element, dry-type air filters with automatic dust ejector and dust indicator. 24 V/11 kW electrical starting motor. 24 V/35A alternator. 2 x 12 V/170 Ah batteries.

TORQFLOW TRANSMISSION

Komatsu's TORQFLOW transmission consists of a water-cooled, 3-element, 1-stage, 1-phase torque converter and a planetary gear, multiple-disc clutch transmission which is hydraulically actuated and force-lubricated for optimum heat dissipation. Joystick control of gears (3 forward and 3 reverse) and directional steering changes. Gearshift lock lever and neutral safety switch prevent machine from accidental starts.

Travel speed	Forward	Reverse
1st	0-3.7 km/h 0-2.3 mph	0-5.0 km/h 0-3.1 mph
2nd	0-6.7 km/h 0-4.2 mph	0-8.2 km/h 0-5.1 mph
3rd	0-11.0 km/h 0-6.8 mph	0-13.9 km/h 0-8.6 mph



FINAL DRIVE

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

STEERING

Joystick controls for all directional movements. Simply tilt the joystick to the left to make a left turn. Tilt it to the right for a right turn. Pushing the lever forward results in the machine forwarding, while pulling it toward the operator reverses the machine. Gear shifting also possible with the single-steering lever.

Wet, multiple-disc steering are spring-loaded hydraulically released. Wet, multiple-disc, pedal-controlled service brakes are spring-actuated and hydraulically released. Gearshift lock lever also applies service brakes.

Minimum turning radius **3.7 m** 12'2"
(As measured by track marks on ground.)

UNDERCARRIAGE

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

Lubricated track rollers are resiliently mounted to roller frame through a series of exclusive X-type bogies whose oscillating motion is cushioned by rubber pads.

Number of track rollers (each side) 6
Number of carrier rollers (each side) 2

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) 41
Grouser height **80 mm** 3.1"
Shoe width (standard/maximum) **560 mm** 22"/**710 mm** 28"
Ground contact area **35950 cm²** 5,572 in²
Ground pressure (tractor only) 76.5 kPa **0.78 kg/cm²** 11.1 psi
Gauge **2100 mm** 6'11"

COOLANT AND LUBRICANT CAPACITY (REFILLING)

Coolant **99 ltr** 26.2 U.S. gal
Fuel tank **500 ltr** 132.1 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 **60 ltr** 15.9 U.S. gal
Final drive (each side) **58 ltr** 15.3 U.S. gal

OPERATING WEIGHT (APPROXIMATE)

Tractor weight:
Including rated capacity of lubricant, coolant, full fuel tank, operator and standard equipment **27900 kg** 61,510 lb
Above equipment plus optional side covers, air conditioner and 560 mm 22" extreme service shoes **28600 kg** 63,050 lb

Operating weight: Including Semi-U tildozer, multi-shank ripper, steel cab, ROPS, operator, standard equipment, rated lubricant, coolant full fuel tank, optional engine side covers, air conditioner and 560 mm 22" extreme service shoes **38700 kg** 85,320 lb
Ground pressure 105.9 kPa **1.08 kg/cm²** 15.4 psi

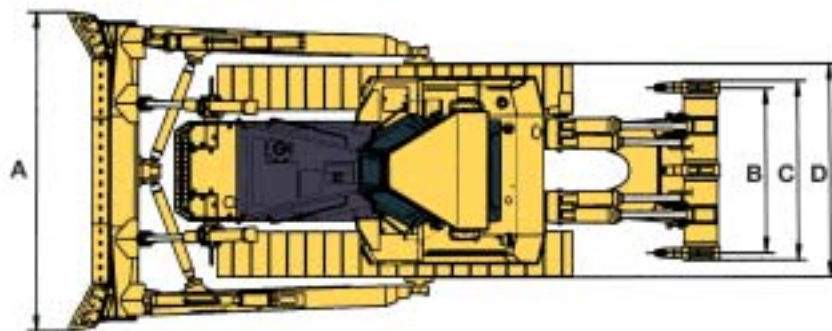


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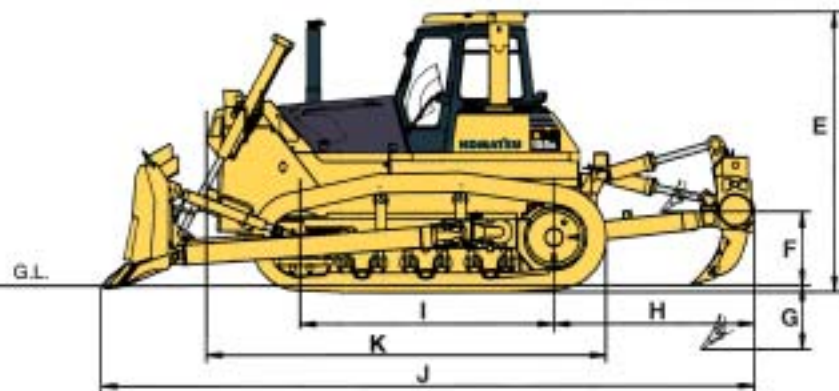


DIMENSIONS (SEMI-U TILT DOZER)

A	3955 mm	13'0"
B	2080 mm	6'10"
C	2260 mm	7'5"
D	2695 mm	8'10"
E	3500 mm	11'6"
F	925 mm	3'0"
G	870 mm	2'10"
H	2510 mm	8'3"
I	3210 mm	10'6"
J	8155 mm	26'9"
K	4975 mm	16'4"



Ground Clearance: 485 mm 1'7"



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. Gear-type hydraulic pump with capacity (discharge flow) of 255 ltr 67.4 U.S. gal/min at rated engine rpm.

Relief valve setting: 20.6 MPa 210 kg/cm² 2,990 psi

Control valves:

Spool control valve for 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	120 mm 4.72"
Blade Tilt	1	180 mm 7.09"
Ripper Lift	2	160 mm 6.30"
Ripper Tilt	2	160 mm 6.30"

Hydraulic oil capacity (refilling):

Semi-U tilt dozer	97 ltr	25.6 U.S. gal
U-tilt dozer	97 ltr	25.6 U.S. gal
Multi-shank ripper (additional volume)	35 ltr	9.2 U.S. gal
Giant ripper (additional volume)	35 ltr	9.2 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
Semi-U Tilt Dozer	6300 mm 20'8"	8.8 m ³ 11.5 yd ³	3955 mm x 1720 mm 13' x 5'8"	1250 mm 4'1"	590 mm 1'11"	1000 mm 3'3"	4900 kg 10,800 lb
Full-U Tilt Dozer	6695 mm 22'	11.8 m ³ 15.4 yd ³	4265 mm x 1760 mm 14' x 5'9"	1250 mm 4'1"	590 mm 1'11"	1080 mm 3'7"	5600 kg 12,350 lb
Angle Tilt Dozer	6502 mm 21'4"	4.9 m ³ 6.4 yd ³	4850 mm x 1205 mm 15'11" x 3'11"	1295 mm 4'3"	745 mm 2'5"	520 mm 1'8"	5140 kg 11,330 lb

*Blade capacity is based on the SAE recommended practice J1265



STANDARD EQUIPMENT

- Air cleaner, double element with dust indicator
- Alternator, 35 ampere
- Batteries, 2 x 12V/170 Ah
- Blower cooling fan
- Bogie roller guards
- Decelerator pedal
- Electronic instrument monitor panel
- Fenders
- Horn, warning
- Hydraulics for dozer
- Lighting system, (includes 2 front, 1 rear)
- Mono-lever steering control
- Muffler with rain cap
- Radiator reserve tank
- Rear cover
- ROPS mounting brackets
- Suspension seat
- Starting motor, 11 kW/24V
- Track roller guard, end sections
- Track shoe assembly
 - Sealed and lubricated track
- 560 mm 22" single grouser shoe
- Underguards, oil pan and transmission



OPTIONAL EQUIPMENT

ROPS CANOPY

- Additional weight 505 kg 1,110 lb
- Meets ISO 3471, SAE J1040 APR88, and ISO 3449 FOPS standards.
- Roof dimensions:
 - Length: 1275 mm 4'2"
 - Width: 1500 mm 4'11"
 - Height from operator compartment floor: 1757 mm 5'9"

STEEL CAB

- Additional weight: 285 kg 630 lb
- All-weather, enclosed pressurized cab.
- Roof dimensions:
 - Length: 1765 mm 5'9"
 - Width: 1720 mm 5'8"
 - Height from floor to ceiling: 1515 mm 5'

VARIABLE MULTI-SHANK RIPPER

- Additional weight (including hydraulic control unit): 3710 kg 8,180 lb
- Beam length: 2260 mm 7'5"
- Hydraulically-controlled parallelogram-type ripper with three shanks. Digging angle steplessly adjustable
- Maximum digging depth: 870 mm 2'10"
- Maximum lift above ground: 925 mm 3'
- Standard digging angle*: 49°

VARIABLE GIANT RIPPER

- Additional weight (including hydraulic control unit): 2760 kg 6,080 lb
- Beam length: 1535 mm 5'
- Hydraulically-controlled parallelogram-type ripper with one shank. Digging angle steplessly adjustable
- Maximum digging depth: 1220 mm 4'
- Maximum lift above ground: 925 mm 3'
- Standard digging angle*: 49°

* Measured with ripper point on ground and shank is vertical

SHOES

Shoes (optional)	Additional weight	Ground contact area
560 mm 22" single grouser shoes	0 kg 0 lb	35950 cm ² 5,572 in ²
610 mm 24" single grouser shoes	+210 kg +460 lb	39160 cm ² 6,070 in ²
660 mm 26" single grouser shoes	+400 kg +880 lb	42370 cm ² 6,567 in ²
710 mm 28" single grouser shoes	+620 kg +1,370 lb	45580 cm ² 7,056 in ²
560 mm 22" extreme service shoes	+460 kg +1,010 lb	35950 cm ² 5,572 in ²
610 mm 24" extreme service shoes	+700 kg +1,540 lb	39160 cm ² 6,070 in ²
660 mm 26" extreme service shoes	+940 kg +2,070 lb	42370 cm ² 6,567 in ²

OTHER

- Air conditioner
- Backup alarm
- Cab heater and defroster
- Engine side cover
- Locks, filler caps and covers
- Hinged, strengthened radiator mask
- Reversible fan
- Rigid drawbar
- Seat belt
- Tool kit and ordinary spare parts