KOMATSU®

D155AX-5

FLYWHEEL HORSEPOWER
231 kW **310 HP** @ 1900 rpm

OPERATING WEIGHT
39200 kg **86,420 lb**

D155AX

Photo may include optional equipment.

AVANCE

Crawler Dozer

D155AX-5 avance BOSS Crawler Dozer

WALK-AROUND

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

The entirely new Komatsu D155AX-5 ***carries on the tradition*** of excellence established by the proven and reliable D155AX-3.

Power steering dedicated hydraulic pump controls the hydrostatic steering system (HSS). Provides smooth, quick, and powerful control in varying ground conditions. See page 5.

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.

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

D155AX-5
CRAWLER DOZER

FLYWHEEL HORSEPOWER
231 kW **310 HP** @ 1900 rpm

OPERATING WEIGHT
39200 kg **86,420 lb**

BLADE CAPACITY
Semi-U: 8.8 m³ **11.5 yd³**
Full-U: 11.8 m³ **15.4 yd³**

Easy to learn and easy to operate ***joystick controls***. The left-hand joystick controls all tractor motion, while right-hand joystick controls all blade functions for accurate grading and high productivity. See page 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 page 8.

Blade tilt lines completely protected.

Komatsu ***TORQFLOW transmission*** offers single-lever control of speed (3 forward and 3 reverse) and directional changes. See page 9.

Operator's Compartment

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

Low-Noise Design

The engine, power train components, and control valves are rubber-mounted to the frame. A low-noise engine is used and a radiator mask 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 System (CLSS) the 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 prevent external dust from entering the cab. The cab's hexagonal design provides excellent front, side, and rear visibility. The REU and the viscous damper suspension softens shocks for operator comfort and extends component life.

Electronic Fuel Throttle Dial

Provides precise and easy operation for engine control.

Courtesy of Machine.Market

Electronic Monitor Panel

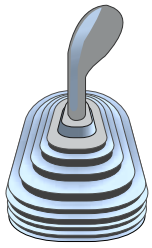
An electronic monitoring system prevents minor problems from developing into major ones. All meters and gauges are controlled by a micro-computer that provides a wide indication range for easier, more precise reading.

- *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*
- *Gear Shift Indicator*
- *HSS Charge Pressure Caution Lamp*
- *HSS Electronic System Caution Lamp*
- *HSS Oil Temperature Caution Lamp*
- *Monitor Caution Cancel Switch*
- *Monitor Caution Lamp*
- *Service Meter*
- *Tachometer*
- *Transmission Oil Temperature Caution Lamp*
- *Transmission Oil Temperature Gauge*
- *User Code Display*

Hydrostatic Steering System—Smooth, Powerful Turning

The Hydrostatic Steering System (HSS) is supplied by an independent hydraulic pump. Engine power is transmitted to both tracks without power interruption on the inside track. When the machine turns, the outside track moves faster and the inside slower for smooth, powerful turns. The left and right tracks can be counterrotated for a minimum turning radius providing excellent maneuverability. Shock-free steering reduces machine vibration and minimizes operator fatigue.

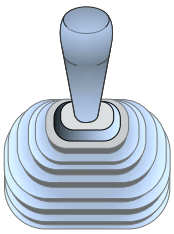
- Turning while dozing—the machine turns by driving the left and right tracks under power at different speeds allowing the machine to travel at the same speed as in straight dozing.
- Side-cutting—when side-loading the blade, straight travel can be maintained utilizing HSS.
- On downhill slopes—the machine doesn't require cross-steering. The joystick provides the same steering response on downhill slopes as on flat ground.
- Grading—can be done efficiently without damaging the ground because the inside track is not locked during turning.



Left Hand

Steering Functions

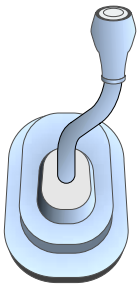
- Forward and reverse
- Right and left steering
- First, to second, to third shifting



Right Hand

Blade Functions

- Lifting and lowering
- Tilting



Ripper Functions

- Forward and rearward
- Raise and lower

Courtesy of Machine.Market

Undercarriage and Frame

Undercarriage

Advanced Resilient Equalized Undercarriage (REU)

The Komatsu X-type bogie, resilient equalized undercarriage (REU) performs independent seesaw 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. The X-type 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 undercarriage. 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.

Courtesy of Machine.Market

Flexibility

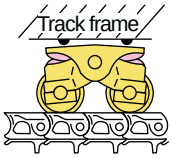
Flexibly grasps ground surface due to Komatsu's unique track-roller design for more and better ground contact.

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

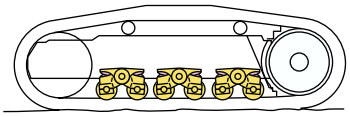
Powerful Drawbar Pull for All Kinds of Terrain

The X-type 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

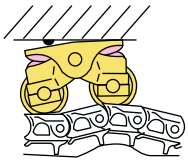


Functions as a conventional rigid undercarriage.

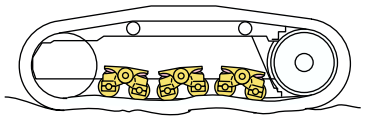


Ensures almost the same traction force as a conventional rigid undercarriage.

On uneven ground

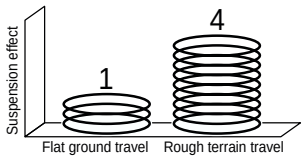


Seesaw movement is performed corresponding to ground surface.



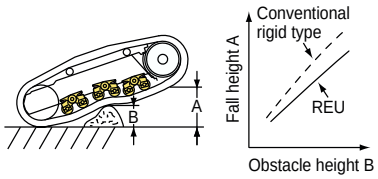
Compared with a rigid type, the actual ground contact area increases and powerful drawbar pull is ensured because the track shoes follow the contour of the ground. Large compression of the rubber pads contributes to greater suspension effect.

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 drop height of machine is reduced.

Frame

Flat Bottom Frame

The pivot shafts and monocoque track 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 231 kW **310 HP** SA6D140E-3 provides high torque for efficient dozing power. Engine meets EPA Tier II standards, and with high reliability and low fuel consumption.

Automatic Preheating Mechanism

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

Modular Power Train Components

Modular design facilitates 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

Courtesy of Machine.Market

ENGINE

Komatsu SA6D140E-3, 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.

Gross horsepower* . . . . . 251 kW **337 HP** @ 1900 rpm
Flywheel horsepower** . . . . . 231 kW **310 HP** @ 1900 rpm
Maximum torque . . . . . 164 kg/m **1,186 lb/ft** @ 1250 rpm

* Gross horsepower output for complete engine operating under J1995 conditions.

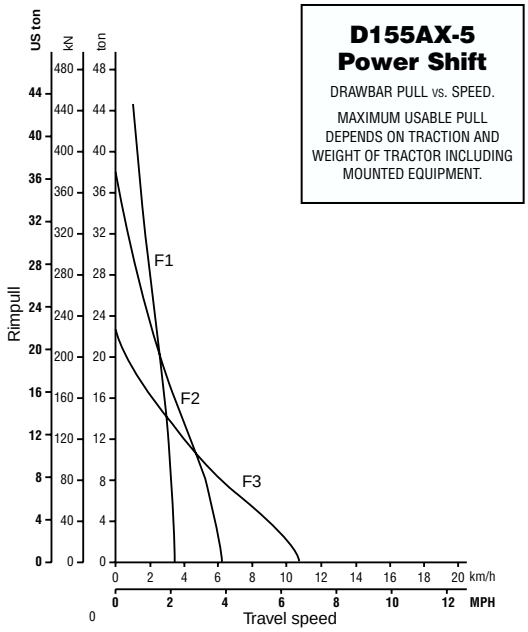
** Net flywheel horsepower output for standard engine (SAE J1349) including air cleaner, alternator (not charging), water pump, lubricating oil pump, fuel pump, muffler, and fan.

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. 11 kW/**24V** electrical starting motor. 35A/**24V** alternator. 170 Ah/2 x **12V** 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 and steering changes. Gearshift lock lever and neutral safety switch prevent machine from accidental starts.

Travel speed	Forward	Reverse
1st	0–3.5 km/h **0–2.2 mph**	0–4.8 km/h **0–3.0 mph**
2nd	0–6.2 km/h **0–3.9 mph**	0–8.4 km/h **0–5.2 mph**
3rd	0–10.8 km/h **0–6.7 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. Pushing the joystick forward results in forward machine travel, while pulling it rearward reverses the machine. Simply tilt the joystick 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. Counterrotation turns are also available. Wet, multiple-disc, pedal-controlled service brakes are spring-actuated and hydraulically released. Gearshift lock lever also applies service brakes.

Minimum turning radius . . . . . 2.1 m **6'11"**
(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
Track roller guards . . . . . X-bogie roller guards

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) . . . . . 610 mm **24"**/710 mm **28"**
Ground contact area . . . . . 39160 cm² **6,048 in²**
Ground pressure (tractor only) . . . . . 0.72 kg/cm² **10.3 psi**
Gauge . . . . . 2100 mm **6'11"**

COOLANT AND LUBRICANT CAPACITY (REFILLING)

Coolant . . . . . 101 ltr **26.7 U.S. gal**
Fuel tank . . . . . 625 ltr **165 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)

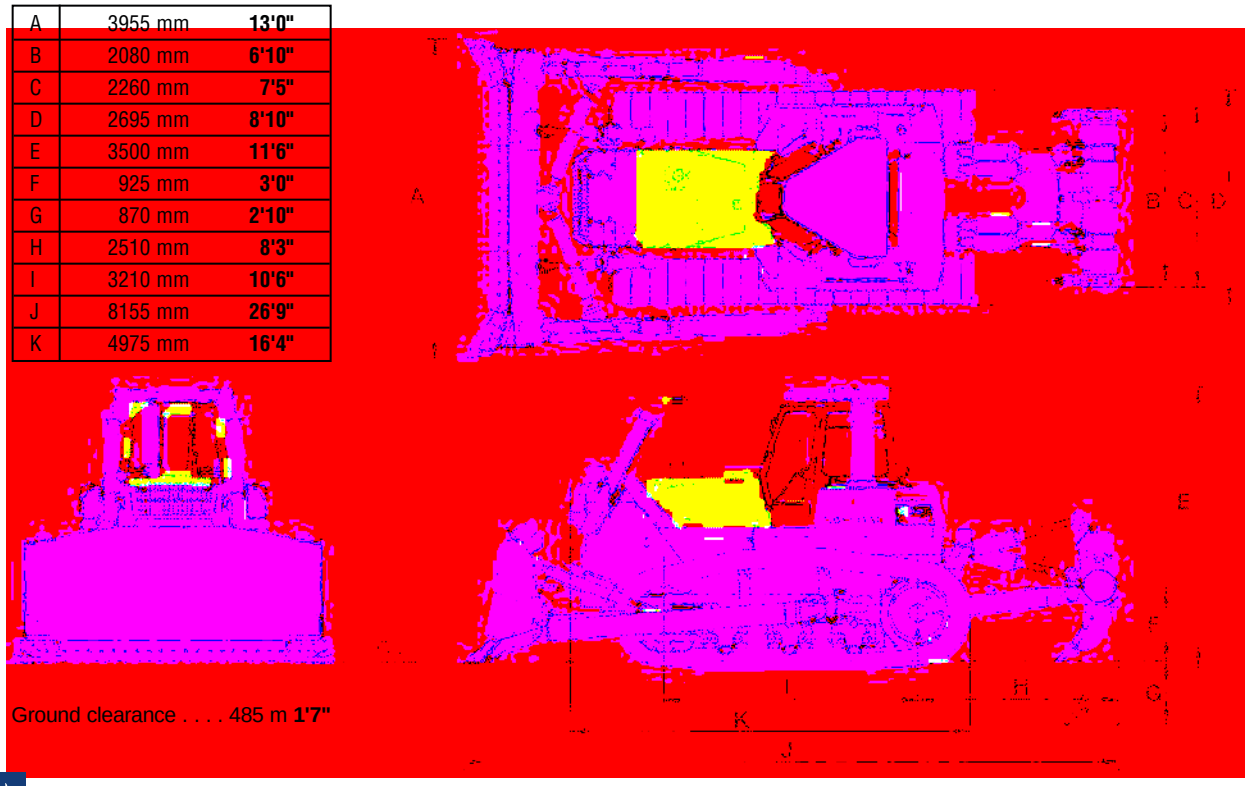
Tractor weight:
Including rated capacity of lubricant, coolant, full fuel tank, operator and standard equipment . . . . . 28400 kg **62,610 lb**

Operating weight:
Operating weight . . . . . 39200 kg **86,420 lb**
Ground pressure . . . . . 0.98 kg/cm² **14.3 psi**

Including strengthened Semi-U tilt dozer, multi-shank ripper, steel cab, ROPS, operator, standard equipment, rated capacity of lubricant, coolant, full fuel tank, optional air conditioner, and extreme service shoes.

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 m **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 . . . . . 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 . . . . . 87 ltr **23.0 U.S. gal**
Full-U tilt dozer . . . . . 87 ltr **23.0 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 m³ **11.5 yd³**	3955 mm x 1720 mm **13' x 5'8"**	1250 mm **4'1"**	590 mm **1'11"**	1000 mm **3'3"**	5710 kg **12,590 lb**
Full-U Tilt Dozer	6695 mm **22'**	11.8 m³ **15.4 yd³**	4265 mm x 1760 mm **14' x 5'9"**	1250 mm **4'1"**	590 mm **1'11"**	1080 mm **3'7"**	6450 kg **14,220 lb**
Angle Tilt Dozer	6502 mm **21'4"**	4.9 m³ **6.4 yd³**	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**

STANDARD EQUIPMENT FOR BASE MACHINE

ENGINE AND ITS RELATED ITEMS
- Engine, Komatsu SA6D140E-3, 231 kW **310 HP**, turbocharged, aftercooled, direct injection, emission certified, diesel
- Engine pre-cleaner
- Exhaust pipe with rain cap
- Fan, blower
- Fuel hoses, general purpose

ELECTRICAL SYSTEM
- Alternator, 50 Ampere
- Back-up alarm
- Batteries, large capacity
- Starter, 11.0 kW

POWER TRAIN AND STEERING CONTROLS
- Hydrostatic Steering System (HSS)
- Mono-lever steering with PPC
- Three forward, three reverse speeds
- TORQFLOW transmission
- Torque converter

UNDERCARRIAGE
- Track frame
- X-bogie roller guard
- Track shoes assembly, 610 mm **24"** extreme service with sealed and lubricated link assembly

GUARDS AND COVERS
- Engine hood and side panels, perforated
- Radiator guard door, sound deflection
- Rear cover
- ROPS mount brackets
- Underguards, hinged with front pull device

OPERATOR COMPARTMENT
- Lunchbox holder
- Seat, suspension, fully adjustable
- Seat belt

HYDRAULICS AND CONTROLS
- Blade lift cylinders

SPECIAL ARRANGEMENTS
- Hard water area arrangement (corrosion resister)
- High altitude arrangement (no fuel adjustment up to 3000 m **10,000 ft**)
- Hot area arrangement, –20°C **–4°F** through +50°C **+122°F**
- Poor fuel (contamination) area arrangement (additional fuel filter)

VANDALISM PROTECTION
- Filler cap locks and cover locks

OTHER
- Marks and plates, for USA and Puerto Rico

ROPS canopy must be ordered for all machines.
Dozer assembly and rear-mounted equipment are not included.

OPTIONAL EQUIPMENT

COUNTERWEIGHT
- Segmented plate, 2122 kg **4,679 lb**

ROPS CANOPY
- Additional weight 505 kg **1,110 lb**
- Meets ISO 3741, 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 **5'2"**

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'**

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'**

SHOES

Shoes (optional)	Additional weight		Ground contact area	
560 mm **22"** single-grouser shoes	–700 kg	**–1,540 lb**	35950 cm²	**5,572 in²**
610 mm **24"** single-grouser shoes	–490 kg	**–1,080 lb**	39160 cm²	**6,070 in²**
660 mm **26"** single-grouser shoes	–300 kg	**–660 lb**	42370 cm²	**6,567 in²**
710 mm **28"** single-grouser shoes	–77 kg	**–170 lb**	45580 cm²	**7,065 in²**
560 mm **22"** extreme service shoes	–240 kg	**–530 lb**	35950 cm²	**5,572 in²**
660 mm **26"** extreme service shoes	+240 kg	**+530 lb**	42370 cm²	**6,567 in²**
710 mm **28"** snow shoes	–115 kg	**–250 lb**	45580 cm²	**7,065 in²**

OTHER
- Additional rear light for ripper
- Air conditioner with heater, defroster, pressurizer
- Converter 24 volt
- Fast fuel fill adaption
- Fire extinguisher
- Heater and defroster
- Hydraulic pitch for Semi-U and Full-U dozer blades
- Hydraulic provision for ripper
- Instrument panel cover and lock (for ROPS canopy)
- Mirror, convex inside cab
- Radiator core protective grid
- Radiator guard door, strengthened, hinged
- Rigid drawbar
- Seat with fabric surface (cab only)
- Sprocket, scallop type
- Sun visor
- Track roller guard - full
- Water separator
- Working light for ripper

SUPPORT

Count on Komatsu and your local distributor for the support you deserve. Our success depends on satisfying your need for productive equipment and supporting that equipment. That's why we have one of the largest and strongest heavy-equipment distributor organizations in North America. Their personnel are not only trained to help you select the equipment that is best-matched for your business but to support that equipment.

Finance Through its finance company, Komatsu can offer you a wide variety of financing alternatives designed to meet your needs. Programs include municipal leases for governmental agencies, conditional sales contracts, and leases with $1 purchase options for customers interested in owning their equipment. Ask your distributor about Komatsu leasing. We offer finance and operating leases and the unique *Advantage Lease* which offers you predetermined purchase, return, and renewal options.

Parts Three computer-linked parts distribution centers provide fast access to anywhere in the U.S. and Canada. Most parts are available overnight. Plus, Komatsu distributors keep a large assortment of commonly used parts in stock for immediate access.

Remanufactured parts Save money and still have the same warranty as new parts at a fraction of the cost with like-new remanufactured parts.

Maintenance Take advantage of the experience we have gained and ask your distributor about our factory-supported programs including: regular scheduled maintenance, oil and wear analysis, diagnostic inspections, undercarriage inspections, training, special service tools, parts programs, and even a special software program to help your distributor keep track of and manage service-related data.

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