OPTIONAL EQUIPMENT

- Air cleaner, double element with dust indicator
- Alternator, 35 ampere/24V
- Batteries, 140 Ah x 12V
- Blower cooling fan
- Decelerator pedal
- Engine hood
- Fenders
- Lighting system, (includes 2 front, 1 rear)
- Mono-lever steering
- Muffler with curved exhaust pipe
- Radiator guard door, flat
- Radiator reserve tank
- Rear cover
- ROPS mounting brackets
- Starting motor, 7.5 kW/24V
- Seat, adjustable
- Track roller guard, end sections

STANDARD EQUIPMENT FOR BASE MACHINE

- Air conditioner
- Backup alarm
- Cab
- Cab accessories
  - Cup holder
  - Rear view mirror
- Cooling fan, reversible
- Electronic instrument monitor panel
- Engine side covers, gull-wing
- Front pull hook
- Heater and defroster
- Hitch type drawbar
- High mount foot rests
- Hydraulics for ripper
- Intake pipe with precleaner
- Light working, cab additional
- Locks, filter caps and covers
- Pressure check parts for power train
- Radiator core protective grid
- Rigid type drawbar
- ROPS canopy
- ROPS canopy with sweep
- Suspension seat, adjustable
- Suspension seat, reclining with fabric material (cab only)
- Track roller guard, full length
- Underguard, heavy-duty
- Vandalism protection cover for instrument panel
- Water separator

HORSEPOWER

Net: 149 kW 200 HP @ 1950 rpm

OPERATING WEIGHT

20670 kg 45,570 lb

SHOES

<table>
<thead>
<tr>
<th>Shoe</th>
<th>Additional weight</th>
<th>Ground contact area</th>
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</thead>
<tbody>
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<td>390 kg +750 lb</td>
<td>3930 cm² 6150 in²</td>
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</table>

Crawler Dozer

KOMATSU®

D85ESS-2A

WITH STEERING CLUTCH/BRAKE SYSTEM

www.Komatsu.com

Materials and specifications are subject to change without notice.
**WALK-AROUND**

**The Komatsu S6D125E-2 diesel engine** provides an output of 149 kW 200 HP with excellent productivity.

Left hand *joystick* controls all tractor motion. Right hand joystick controls all blade movements.

**Gull-wing** engine side covers for easy and safer servicing. (optional)

**Blade tilt lines** completely protected.

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

Forward mounted *pivot shafts* isolate final drives from blade loads.

**Electronic monitoring system** prevents minor problems from developing into major ones. (optional)

**Optional hexagonal, low noise cab** with viscous damping mounts provides unsurpassed operator comfort and visibility.

**Wet, multiple-disc brakes** eliminates brake-band adjustments for maintenance-free operation.

**Bolt-on segmented sprocket teeth** for easy in-the-field replacement.

Photo may include optional equipment.

**HORSEPOWER**

Net: 149 kW 200 HP @ 1950 rpm

**OPERATING WEIGHT**

20670 kg 45,570 lb

**BLADE CAPACITY (SAE)**

- Straight Tilt Dozer: 4.4 m³ 5.8 yd³
- Angle Dozer: 3.4 m³ 4.4 yd³
The Komatsu S6D125E-2 diesel engine provides an output of 149 kW 200 HP with excellent productivity. Left hand joystick controls all tractor motion. Right hand joystick controls all blade movements.

Electronic monitoring system prevents minor problems from developing into major ones. (optional)

Optional hexagonal, low noise cab with viscous damping mounts provides unsurpassed operator comfort and visibility.

Gull-wing engine side covers for easy and safer servicing. (optional)

High capacity Straight tilt dozer combined the highest power in its class with outstanding productivity.

Blade tilt lines completely protected.

Wet, multiple-disc brakes eliminates brake-band adjustments for maintenance-free operation.

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

Forward mounted pivot shafts isolate final drives from blade loads.

Modular power train for increased serviceability and durability.

Bolt-on segmented sprocket teeth for easy in-the-field replacement.

Photo may include optional equipment.
OPERATOR’S COMPARTMENT

All steering, direction, 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 lever providing the operator with the feeling of natural control with Komatsu’s joystick.

Low-noise design
For smoother riding comfort, power train components and hydraulic control valves are mounted to the frame with rubber pads to soften vibration and shut out noise. Since the D85ESS employs joysticks, the walk-through operator compartment is uncluttered for smooth entry and exit. An adjustable seat with backrest is standard equipment.

Three-stage height adjustable armrests
Three-stage height adjustable armrests and relocated fuel control lever provide comfortable operation and increased leg space.

Hexagonal pressurized cab (optional)
Air filters and a higher internal air pressure combine to prevent external dust from entering the cab. In addition, the cab’s hexagonal design provides excellent front, side, and rear visibility. The viscous damper cab suspension softens shocks for operator comfort and extends component life.

Electronic monitoring system (optional)
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 an easier, more precise reading.

Field-proven engine
Powerful S6D125E-2 diesel engine provides a massive output of 149 kW (200 HP). The engine power is transmitted smoothly to the final drives via a high-efficiency torque converter.

Modular designed power train units
The modular design allows easy removal and installation of any individual unit for shorter downtime.

Flat bottom frame
A flat bottom frame, the monocoque track frames and forward-mounted pivot shafts provide good maneuverability in muddy terrain by preventing mud from building up under the frame.

Sturdy design
Because fewer components mean greater reliability, we’ve designed a simple hull frame made of a thick, single plate. Track frames have a large-section construction for maximum rigidity. Even the box-section construction of the blade back beam is reinforced, all with durability in mind.

CLSS for D85ESS-2A

Easy-to-operate work equipment control lever
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.

Benefits of CLSS

● More precise and responsive operation due to the pressure compensation valve.
● Reduced fuel consumption by discharging only the required amount of oil from the pump.
● The work equipment moves smoothly for operations such as side-cutting even when priority is given to steering.

Three-stage adjustable armrests
Three-stage adjustable armrests and relocated fuel control lever provide comfortable operation and increased leg space.

Easy-to-operate work equipment control lever

Wet, multiple-disc brakes
Eliminate brake-band adjustments for maintenance-free operation.

Coolant reservoir
A radiator coolant reservoir makes it easier to check the coolant level and eliminates frequent refilling.

Tough undercarriage
Large-diameter bushings, increased track link heights, and improved oil-seals help to increase undercarriage durability. Serviceability has also been improved with the addition of remote greasing of the equalizer bar center pin.

Low drive and long track undercarriage
Komatsu’s design is extraordinarily tough and offers excellent grading ability and stability.

EASY MAINTENANCE

Oil pressure check ports (optional)
Oil pressure check ports for the power train are centralized on the right hand side of the operator platform for easy access.

Gull-wing engine side covers (optional)
A gas-spring cylinder opens the gull-wing engine side covers widely, allowing the engine and auxiliary components to be easily checked.
All steering, direction, 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 lever providing the operator with the feeling of natural control with Komatsu’s joystick.

Low-noise design
For smoother riding comfort, power train components and hydraulic control valves are mounted to the frame with rubber pads to soften vibration and shut out noise. Since the D85ESS employs joysticks, the walk-through operator compartment is uncluttered for smooth entry and exit. An adjustable seat with backrest is standard equipment.

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Modular designed power train units
The modular design allows easy removal and installation of any individual unit for shorter downtime.

Flat bottom frame
A flat bottom frame, the monocoque track frames and forward-mounted pivot shafts provide good maneuverability in muddy terrain by preventing mud from building up under the frame.

Sturdy design
Because fewer components mean greater reliability, we’ve designed a simple hull frame made of a thick, single plate. Track frames have a large-section construction for maximum rigidity. Even the box-section construction of the blade back beam is reinforced, all with durability in mind.

Steering functions
- Forward and reverse
- Right and left steering

Blade functions
- First, to second, to third shifting
- Tilting

Easy-to-operate work equipment control lever
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.

Benefits of CLSS
- More precise and responsive operation due to the pressure compensation valve.
- Reduced fuel consumption by discharging only the required amount of oil from the pump.
- The work equipment moves smoothly for operations such as side-cutting even when priority is given to steering.

CLSS for D85ESS-2A

Cylinder
Unload valve
Tank

Cylinder
Unload valve
Tank

Oil pressure check ports (optional)
Oil pressure check ports for the power train are centralized on the right hand side of the operator platform for easy access.

Gull-wing engine side covers (optional)
A gas-spring cylinder opens the gull-wing engine side covers widely, allowing the engine and auxiliary components to be easily checked.

Wet, multiple-disc brakes
Eliminate brake-band adjustments for maintenance-free operation.

Coolant reservoir
A radiator coolant reservoir makes it easier to check the coolant level and eliminates frequent refilling.
CRAWLER DOZER

SPECIFICATIONS

**ENGINE**

<table>
<thead>
<tr>
<th>Spec</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>4-stroke cycle, water-cooled, direct injection</td>
</tr>
<tr>
<td>Aspiration</td>
<td>Turbocharged</td>
</tr>
<tr>
<td>Number of cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Bore x stroke</td>
<td>125 mm x 150 mm (4.92” x 5.91”)</td>
</tr>
<tr>
<td>Piston displacement</td>
<td>11.04 ltr (674 in³)</td>
</tr>
<tr>
<td>Governor</td>
<td>All-speed, mechanical</td>
</tr>
<tr>
<td>Horsepower</td>
<td>Isuzu 5049 / SAE J1349</td>
</tr>
<tr>
<td>Net</td>
<td>149 kW (200 HP)</td>
</tr>
<tr>
<td>Rated rpm</td>
<td>1950 rpm</td>
</tr>
<tr>
<td>Fan drive type</td>
<td>Mechanical</td>
</tr>
<tr>
<td>Lubrication system</td>
<td>Gear pump, forced lubrication</td>
</tr>
<tr>
<td>Method</td>
<td>Full-flow</td>
</tr>
</tbody>
</table>

**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.

**STREETING SYSTEM**

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. Wet, multi-disc steering clutches are hydraulically loaded and hydraulically released. Wet, multi-disc brakes are spring-actuated and hydraulically released.

Steering brakes also function as service and parking brakes. Minimum turning radius: 3.4 m 11’2”

*As measured by track marks on ground.*

**UNDERCARRIAGE**

Suspension: Oscillation with equalizer bar and forward mounted pivot shafts

Track roller frame: Monocoque, large section, durable construction

Track shoes: Lubricated tracks. Unique dust seals for preventing entry of foreign abrasives into pin-to-bushing clearances for extended service.

Track tension is easily adjusted with a grease gun.

Number of carrier rollers (each side): 2

Number of track rollers (each side): 8

Ground contact area: 30400 cm² (4770 in²)

Ground pressure: 50.0 kPa 0.50 kg/cm² 7.25 psi

**COOLANT AND LUBRICANT**

Coilant: 0.52 ltr 13.7 U.S. gal

Fuel tank: 406 ltr 107.3 U.S. gal

Engine oil: 38 ltr 10.0 U.S. gal

Dumper: 1.7 ltr 0.4 U.S. gal

Transmission, bevel gear, and steering system: 48 ltr 12.7 U.S. gal

Final drive (each side): 27 ltr 7.1 U.S. gal

**COOLANT AND LUBRICANT CAPACITY (REPL.MS)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine oil</td>
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</tr>
<tr>
<td>Transmission</td>
<td>1.7 ltr 0.4 U.S. gal</td>
</tr>
<tr>
<td>Tractor</td>
<td>48 ltr 12.7 U.S. gal</td>
</tr>
<tr>
<td>Final drive (each side)</td>
<td>27 ltr 7.1 U.S. gal</td>
</tr>
</tbody>
</table>

**HYDRAULIC SYSTEM**

**DOZER EQUIPMENT**

Use of high tensile strength steel in moldboard for strengthened blade construction.

**DIMENSIONS**

Ground clearance: 490 mm 1’6”
**SPECIFICATIONS**

**ENGINE**
- **Horsepower**: 34,000 lb
- **Number of cylinders**: 6
- **Type**: 4-stroke cycle, water-cooled, direct injection
- **Aspiration**: Turbocharged
- **Bore x stroke**: 125 mm x 150 mm 4.92" x 5.91"
- **Compression ratio**: 190:1
- **Engine oil**: 48 ltr
- **Fuel tank**: 52 ltr
- **Coolant capacity**: 4.4 gal
- **Engine oil capacity**: 1.7 ltr
- **Coolant capacity**: 1.1 ltr
- **Engine oil**: 1.1 ltr
- **Coolant capacity**: 1.1 ltr
- **Engine oil**: 1.1 ltr

**TORQFLOW TRANSMISSION**
- Komatsu’s TORQFLOW transmission consists of a water-cooled, 3-element, 1-stage, 1-phase torque converter and a planetary gear, from accidental starts.
- Gearshift lock lever and neutral safety switch prevent machine force-lubricated for optimum heat dissipation.
- Joystick control of Komatsu’s TORQFLOW transmission consists of a water-cooled, durable construction.

**UNDERCARRIAGE**
- **Track length**: 5000 mm 19.7" 1370 mm 53.9" 1070 mm 42.1" 365 mm 14.4" 1115 mm 44.0" 220 mm 8.7"
- **Ground contact area**: 50.0 kg•m 723 lb ft @ 1200 rpm
- **Number of carrier rollers (each side)**: 2
- **Track roller frame**: Monocoque, large section, durable construction
- **Track shoes**: Lubricated tracks. Unique dust seals for preventing entry of foreign abrasives into pin-to-bushing clearances for extended service.
- **Track tension**: Easily adjusted with a grease gun.
- **Number of carrier rollers (each side)**: 2
- **Number of track rollers (each side)**: 8
- **Ground pressure**: 50.0 kg/m² 0.50 kg/cm² 7.25 psi
- **Travel speed**: 0-6.8 km/h 0-4.2 mph 0-2.4 mph
- **Drawbar pull**: 160 kN 35,300 lb
- **Blade capacity**: 2.4 yd³ 1.9 m³
- **Tilt**: 10° 4.5° 11° 20°
- **Angle**: 5° 0° 90° 89°

**COOLANT AND LUBRICANT CAPACITY (REFILL)**
- **Coolant**: 13.7 U.S. gal
- **Fuel tank**: 107.3 U.S. gal
- **Engine oil**: 10.0 U.S. gal
- **Dampers**: 0.4 U.S. gal
- **Transmission, bevel gear, and steering system**: 12 U.S. gal
- **Final drive (each side)**: 7.1 U.S. gal

**HYDRAULIC SYSTEM**
- **Closed-center load sensing system (CLSS) designed for precise and responsive control, and for efficient simultaneous operation.**
- **Hydraulic control units**: All spool control valves are mounted on the hydraulic tank.
- **Type of pump**: Gear pump
- **Capacity (discharge flow at rated engine rpm)**: 180 l/min 47.6 U.S. gal/min
- **Relief valve setting**: 5.0 MPa 723 lb/ft² 2,950 psi
- **Hydraulic cylinders**: Double-acting, piston
- **Number of cylinders**: Bore 146 mm 5.76" 2.55"

**FINAL DRIVES**
- Double reduction final drives of spur gear and planetary gears to minimize transmission of shocks to power train components.
- Segmented sprockets are bolt-on for easy in-the-field replacement.

**STRENGTH SYSTEM**
- Joystick controls for all directional movements. Pushing the joystick forward results in forward machine travel, while pulling it rearward reverses the machine. Simply the joystick to the left to make a left turn. Tilts it to the right for a right turn.
- Wet, multi-disc steering clutches are hydraulically loaded and hydraulically released. Wet, multi-disc brakes are spring-actuated and hydraulically released.
- Steering brakes also function as service and parking brakes. Minimum turning radius: 3.4 m 11’2”

**OPERATING WEIGHT**
- Tractor weight (including rated capacity of lubricant, coolant, full fuel tank, operator and standard equipment): 15420 kg 34,000 lb
- Operating weight: Including angle dozer, multi-shank ripper, FRP canopy (optional), operator, standard equipment, and rated capacity of lubricants, coolant, and full fuel tank: 20670 kg 45,570 lb

**DIMENSIONS**
- Ground clearance: 400 mm 1’4”

**DOZER EQUIPMENT**
- Use of high tensile strength steel in moldboard for strengthened blade construction.
- **Control valves**: Spool control valve for semi-U tilt dozer and straight tilt dozer.
- **Positions**: Blade lift, right, hold, and left
- **Type**: Blade lift 2.4 yd³ 1.9 m³
- **Angle**: 5° 0° 90° 89°
- **Number of shanks**: 3
- **Multi-shank ripper**: 55.0 ltr 14.5 U.S. gal

**FREE-TEXT RESPONSE**

- **Overall length**: 5505 mm 18’1" 1070 mm 42.1" 365 mm 14.4" 1115 mm 44.0" 220 mm 8.7"
- **Blade lift**: 2.4 yd³ 1.9 m³
- **Blade length (height)**: 2.4 yd³ 1.9 m³
- **Maximum lift above ground**: 1255 mm 4’1" 485 mm 1’7" 400 mm 1’4"
- **Maximum tilt adjustment**: 25 degrees
- **Angle**: 5505 mm 18’1" 1070 mm 42.1" 365 mm 14.4" 1115 mm 44.0" 220 mm 8.7"
- **Semi-U tilt dozer**: 3600 mm 11’11’’ 365 mm 14.4" 1115 mm 44.0" 300 mm 12’"
- **Tilt dozer**: 3600 mm 11’11’’ 365 mm 14.4" 1115 mm 44.0" 300 mm 12’”
- **Weight**: 2520 kg 5,560 lb
- **Weight**: 540 kg 1,190 lb
- **Weight**: 540 kg 1,190 lb
- **Weight**: 540 kg 1,190 lb
STANDARD EQUIPMENT FOR BASE MACHINE

- Air cleaner, double element with dust indicator
- Alternator, 35 ampere/24V
- Batteries, 140 Ah x 2 x 12V
- Blower cooling fan
- Decelerator pedal
- Engine hood
- Fenders
- Lighting system, (includes 2 front, 1 rear)
- Mono-lever steering
- Muffler with curved exhaust pipe
- Radiator guard door, flat
- Radiator reserve tank
- Rear cover
- ROPS mounting brackets
- Starting motor, 7.5 kW/24V
- Seat, adjustable
- Track roller guard, end sections
- Track shoe assembly
  — Sealed and lubricated track
  — 510 mm 20” single grouser shoe
- Underguards, oil pan and transmission
- Wet, multiple-disc steering clutch/brake
- Air conditioner
- Backup alarm
- Cab
- Cab accessories
  — Cup holder
  — Rear view mirror
- Cooling fan, reversible
- Electronic instrument monitor panel
- Engine side covers, gull-wing
- Front pull hook
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- Hydraulics for ripper
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- Radiator core protective grid
- Rigid type drawbar
- ROPS canopy
- ROPS canopy with sweep
- Seat belt, retractable
- Suspension seat, reclining with fabric material (cab only)
- Suspension seat, with high-back
- Suspension seat, reclining with fabric material (cab only)
- Track roller guard, full length
- Underguard, heavy-duty
- Vandalism protection cover for instrument panel
- Water separator

OPTIONAL EQUIPMENT

- Additional weight 420 kg 930 lb
- Roof dimensions:
  — Length: 1830 mm 6’0”
  — Width: 1700 mm 5’7”
  — Height from operator compartment floor: 1700 mm 5’7”

- Additional weight 285 kg 630 lb
- All-weather, enclosed pressurized cab
- Dimensions:
  — Length: 1765 mm 5’9”
  — Width: 1720 mm 5’8”
  — Height: 1625 mm 5’4”
  — Height from floor to ceiling: 1515 mm 5’0”

- Additional weight (including hydraulic control unit): 1680 kg 3,700 lb
- Beam length: 2170 mm 7’1”
- Maximum digging depth: 595 mm 1’11”
- Maximum lift above ground: 640 mm 2’1”

- Additional weight 340 kg 750 lb
- Roof dimensions:
  — Length: 1270 mm 4’2”
  — Width: 1490 mm 4’11”
  — Height from operator compartment floor: 1705 mm 5’7”

- Additional weight 120 kg 260 lb
- Ground contact area: 3380 cm² 5.170 in²
- Additional weight 230 kg 510 lb
- Ground contact area: 3636 cm² 5.640 in²
- Additional weight 360 kg 790 lb
- Ground contact area: 39340 cm² 6.100 in²

SHOES

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<td>+360 kg +790 lb</td>
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