FLYWHEEL HORSEPOWER
116 kW **155 HP** @ 1,800 rpm

OPERATING WEIGHT
MECHANICAL ANGLE: **19,800 kg** 43,720 lb

KOMATSU®

D68ESS-12E0

D 68ESS

CRAWLER DOZER

Photo may include optional equipment.

D68ESS-12E0

D68ESS-12E0 Crawler Dozer

WALK-AROUND

Left hand ***Joystick*** controls all tractor motions.

The Komatsu SA6D114E-2 turbocharged diesel engine provides an output of 116kW ***155HP,*** with excellent productivity.

High capacity ***Mechanical Angle Dozer*** combines the highest power in its class with outstanding productivity.

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

Modular power train for increased serviceability and durability.

D68ESS-12E0

CRAWLER DOZER

FLYWHEEL HORSEPOWER

116 kW **155 HP** @ 1800 rpm

OPERATING WEIGHT
Mechanical Angle : **19,800 Kg**

BLADE CAPACITY
Mechanical Angle : **2.6 M³**

Gull-wing engine side doors
for easy and safer servicing.

Electronic Fuel Gauge
for easy checking of fuel quantity.

Photo may include optional equipment.

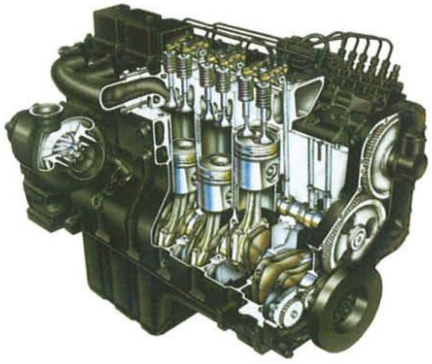
Powerful Winch
The newly designed towing winch with larger line pull and single lever control increases productivity significantly by shortening winching time.

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

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

Bolt-on sprocket (segment type)
for easy maintenance.

Engine



Komatsu SA6D114E-2 Turbocharged Diesel Engine

Powerful Engine

A powerful **SA6D114E-2** turbochanged diesel engine provides a massive output of 116 kW **155 HP.** The engine power is transmitted smoothly to the final drives via a high-efficiency torque converter.

Transmission

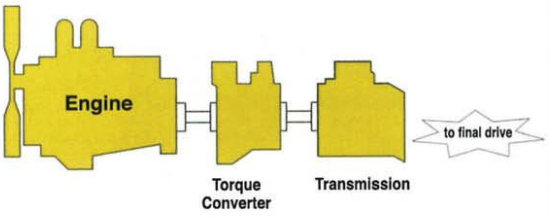
The Komatsu Torqflow system makes it simple and easy to select speeds and change direction. Both can be done by shifting a single joystick.

Komatsu Torqflow Power Train

The Komatsu Torqflow power train consists of torque converter and planetary power shift transmission. The torque converter is placed between the engine and transmission.

Torq-flow

Engine power is transmitted to the transmission through the torque converter (hydraulic coupling) oil.



Advantages
• Easy gear shifting • Engine does not stall even a heavy load suddenly comes (TC relieves load) • Small power gap at speed shift • Good power persistence in heavy job

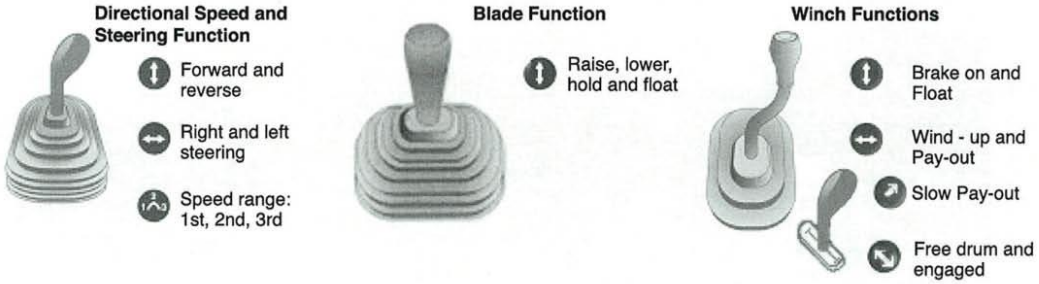
Torque Converter

The torque converter automatically varies the power required at the tracks to meet the changing load requirements of the machine. Engine power is transferred by the converter with little change in torque when the load is light.

When a heavy load is encountered, the torque multiplication becomes greater, resulting in reduction of tractor speed. At this moment, the torque converter increases the amount of torque available for the tracks without increasing engine horsepower.

OPERATOR COMFORT

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 control forward and to the left. If he desires a gear changes, he merely twists his wrist. The machine responds the movement to the lever providing the operator with the feeling of natural control with Komatsu's joystick.



Easy to operate Work Equipment Control Lever

With the Closed center Load Sensing System (CLSS), blade lever stroke is directly proportional with blade speed, regardless of the load and travel speed. This results in superb, fine controllability.

Advantages of CLSS

More precise and responsive operation due to the pressure compensation valve.

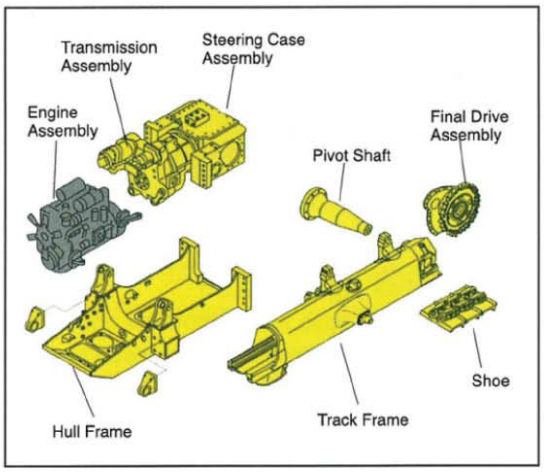
Electric Panel

- ***Electrical Charge Lamp***
- ***Engine Oil Pressure Caution Lamp***
- ***Engine Water Temperature Gauge***
- ***Fuel Gauge***
- ***Intake Air Heater Lamp***
- ***Service Meter***
- ***Transmission Oil Temperature Gauge***
- ***Transmission Gear Indicator***

UNDERCARRIAGE AND FRAME

Low Drive and Long Track Undercarriage

Komatsu's low drive and long track undercarriage offer excellent stability with low ground pressure. Large-diameter bushings, increased track link heights, and improved oil-seals ensure maximum reliability and durability.



Durability

Fewer components means greater reliability. We've designed a simple hull frame made of a thick, single plate. Track frames have a large-section structure for maximum rigidity. Even the box-section construction of the blade back beam is reinforced, all with durability in mind.

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.

Modular Designed Power Train Units

The modular design allows easy removal and installation of any individual unit for shorter downtime.

EASY MAINTENANCE

Gull-Wing Engine Side Covers

With a gas-spring cylinder that opens widely, the engine and the auxiliary components can be checked easily.

Remote Greasing

Serviceability has also been improved with the addition of remote greasing of equalizer bar center pin.

Wet, Multiple-Disc Brakes

The wet type multiple-disc brakes eliminate brake-band adjustments for maintenance-free operation.

Reservoir

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

Check Ports

Oil pressure test ports for the power train are centralized on the right hand side of the operator platform for easy access.

SPECIFICATIONS

ENGINE

Model	Komatsu SA6D114E-2
Type	4-stroke cycle, water-cooled, direct injection, turbocharged engine
Number of cylinders	6
Bore	114 mm 4.49"
Stroke	135 mm 5.31"
Piston displacement	8.3 ltr 5.06 in3
Gross horsepower	127 kW 170 HP @ 1800 rpm
Net flywheel horsepower	116 kW 155 HP @ 1800 rpm
Net maximum torque	824 Nm 84 Kg m @ 1300 rpm

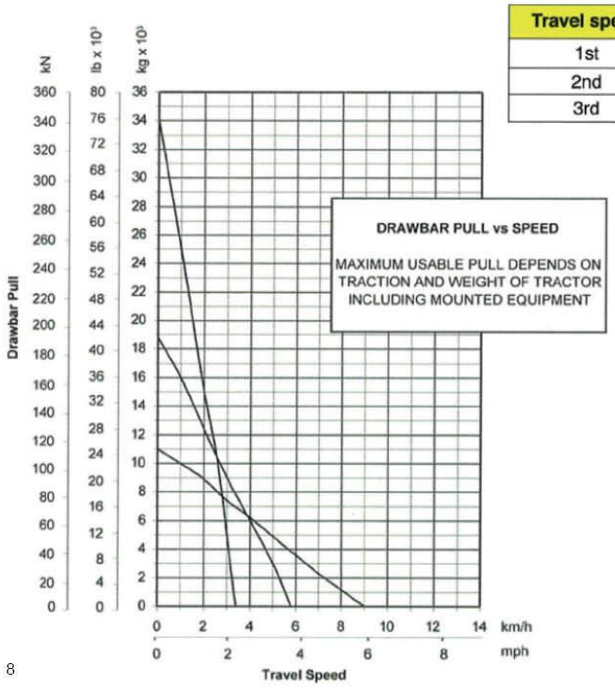
Direct injection fuel system. All-speed mechanical governor. Forced lubrication driven by gear pump. Full-flow for lube purification. Dry-type air cleaner with automatic dust evacuator and dust indicator, 7.5 kW/24 V electrical starter motor, 35 kW/24 V alternator, 2 x 150 Ah/12V batteries.

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

TORQFLOW TRANMISSION

Komatsu's TORQFLOW transmission consists of water-cooled, 3-element. 1-stage, 1-phase torque converter and 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	3.4 km/h	4.4 km/h
2nd	5.8 km/h	7.6 km/h
3rd	9.0 km/h	11.3 km/h



FINAL DRIVE

Spur gear double-reduction, final drives increase tractive effort. Segmented sprocket are bolt-on type for easy in-the-field replacement.

DIRECTIONAL, SPEED AND STEERING CONTROL

Joystick controls for all directional, speed and steering. Pushing the joystick forward results in forward machine travel, while pulling it backward reverses the machine. Simply tilt the joystick to the left to make a left turn. Tilt it to the right to make a right turn.

Speed range can be selected by twisting the joystick.

Wet, multiple-disc, pedal-controlled service brakes are spring actuated and hydraulically-released. The directional and gear control joystick lock lever also applies the brakes. Brakes are free from adjustment.

UNDERCARRIAGE

Suspension	Oscillation with equalizer bar and forward mounted pivot shafts
Track roller frame	Monocoque, large section durable constructions
Track shoes	Lubricated tracks links with improved seals

	D68ESS-12E0
	Mechanical Angle
Number of track rollers (each side)	7
Number of carrier rollers (each side)	2
Number of shoes (each side)	41
Grouser height	65 mm
Shoe width (standard)	610 mm
Ground contact area	35,750 cm2
Ground pressure :	0.55 Kg/cm2
Track gauge	1925 mm
Length of track on ground	2930 mm

COOLANT AND LUBRICANT CAPACITY (REFILLING)

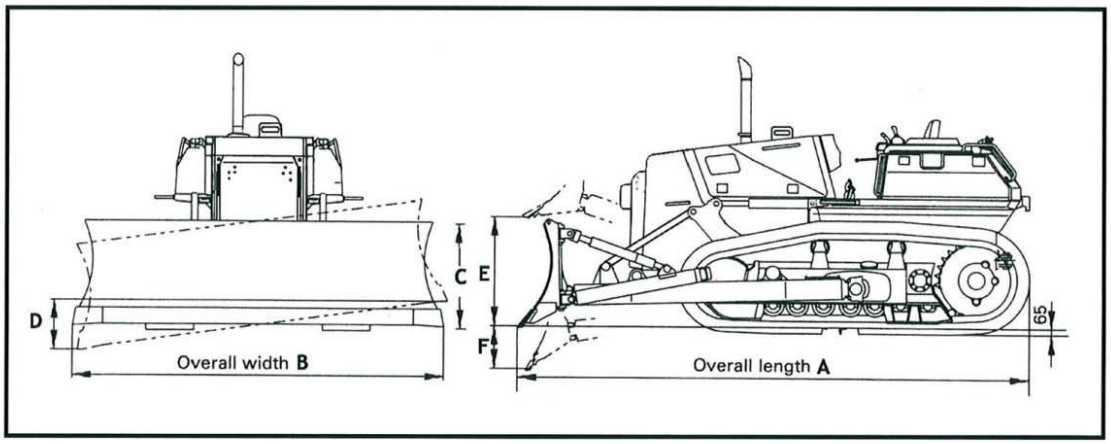
Coolant	44 ltr
Fuel tank	315 ltr
Engine oil	19 ltr
Damper	1.3 ltr
Transmission, bevel gear and steering system	69 ltr
Final drive (each side)	28.5 ltr

OPERATING WEIGHT (APPROXIMATE)

Tractor weight :
Including rated capacity of lubricant, coolant, full fuel tank, operator and standard equipment 14,980 kg without mechanical angle dozer.

Operating weight :
Dozer, sweep guard, operator, standard equipment, rated capacity of lubricant, coolant and full fuel tank and winch.
Angle dozer 19,800 Kg

DIMENSION



		D68ESS-12E0
	DESCRIPTION	MECHANICAL ANGLE (mm)
A	OVERALL LENGTH	6,280
B	BLADE LENGTH	3,970
C	BLADE HEIGHT	950
D	MAXIMUM TILT ADJUSTMENT	400
E	MAXIMUM LIFT ABOVE GROUND	1,205
F	MAXIMUM DROP BELOW GROUND	585

HYDRAULIC SYSTEM

Closed-center Load Sensing System (CLSS) designed for precise and responsive control.

Hydraulic control unit :
The control valve is externally mounted beside the hydraulic tank. Gear type hydraulic pump with capacity (discharge flow) of 134 ltr/min at rated engine rpm.

Relief valve setting	20.6 Mpa (210 kg/cm2)
Hydraulic cylinders	Double-acting, piston

Hydraulic oil capacity (refilling) : **48.0 ltr**

Control valves :

Spool control valve for angle dozer
Positions :

	Valve spool position
Blade lift	Raise, hold, lower, and float

	Number of cylinders	Bore
Blade lift	2	110 mm

DOZER EQUIPMENT

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

	Overall Length with Dozer & Winch	Blade Capacity	Blade Width x Height	Maximum Lift above Ground	Maximum Drop Below Ground	Maximum Tilt Adjustment	Additional Weight
Mechanical Angle Dozer	6280 mm	2.6 m^3	3970 mm x 950 mm	1205 mm	585 mm	400 mm	2660 kg

STANDARD EQUIPMENT FOR BASE MACHINE

ENGINE AND ITS RELATED ITEMS :
- Air cleaner, double element type
- Engine, KOMATSU SA6D114E-2, 116 kW 155 HP, direct injection turbocharged
- Engine intake guard
- Exhaust pipe, curved
- Fan, blower

ELECTRIC SYSTEM :
- Alternator 35 A, 24V
- Batteries, 2 x 150 Ah, 12V
- Lights (2 front)
- Starting motor 7,5 kW, 24V

POWER TRAIN AND CONTROLS :
- Torqflow transmission, torque converter
- Joystick for directional, speed and steering control.

UNDERCARRIAGE :
- Sprockets, segmented, bolt-on type
- Idler with recoil spring
- Track frames : -7 Track roller, 2 carrier roller
- Track roller and section guiding guards
- Track shoe assembly, single grouser shoes with sealed and lubricated link assembly.

GUARDS AND COVERS :
- Engine hood and side panels
- Fenders strengthened type
- Radiator mask double perforated type
- Rear cover, strengthened type
- Underguards, crankcase and transmission.

OPERATOR ENVIRONMENT :
- Instrument panel, electronic
- Seat, adjustable
- High mounted footrest

HYDRAULIC AND CONTROLS :
- Mono-lever blade control

SPECIAL ARRANGEMENTS :
- Fuel hoses, heat resistance
- Water separator
- Racor Filter

VANDALISM PROTECTION :
- Filter cap locks and cover locks

OTHER STANDARD EQUIPMENT
- Mechanical Angle Dozer
- Hitch Draw Bar
- Tool kit

OPTIONAL EQUIPMENT

- Sweep guards
- Towing winch, wet type
  Type Single drum, reversible, gear driven, hydraulically controlled
  Additional weight 1.570 kg (with cable)
  Cable dia. x length 26 mm x 65 m

Line Pull :

Bare drum	26.910 kg
Full drum	15.570 kg
Free drum	Constant mesh gear type

KOMATSU®