

# D155CX-8

*Tier 4 Final Engine K170 Pipelayer K216 Pipelayer* 

# **PIPELAYER** Photos may include optional equipment.

### **NET HORSEPOWER**

**354 HP** @ 1900 rpm 264 kW @ 1900 rpm

### **OPERATING WEIGHT**

 K170
 K216

 120,970 lb
 128,660 lb

 54870 kg
 58360 kg

### LIFT CAPACITY

 K170
 K216

 170,000 lb
 216,000 lb

 77110 kg
 97976 kg

\*Maximum lift at tipping point (ISO 8813 1992)

# **WALK AROUND**



# Outstanding Lift Capacity and Balance With a Conventional Undercarriage Design

Standard 24 ft 7.3m boom or optional 28 ft 8.5m boom with 170,000 lb 77,110 kg (K170) or 216,000 lb 97,976 kg (K216) lift capacity

Long and wide oval track undercarriage places the final drives and other heavy components lower to the ground for improved center of gravity and balance

Komatsu SAA6D140E-7 variable geometry turbocharged and after cooled 15.24 liter diesel engine is EPA Tier 4 Final emissions certified.

- Heavy duty Selective Catalytic Reduction (SCR) system
- Diesel Exhaust Fluide (DEF) system
- Komatsu Diesel Particulate Filter (KDPF) system
- Heavy duty cooled Exhaust Gas Recirculation (EGR) system
- Electronic control system seamless to the operator
- Komatsu Variable Geometry Turbocharger (KVGT) system
- Heavy duty High Pressure Common Rail (HPCR) fuel injection system

Komatsu Diesel Particulate Filter (KDPF) and Selective Catalytic Reduction (SCR) systems reduce particulate matter and NOx while providing automatic regeneration that does not interfere with daily operation.

Komatsu Variable Geometry Turbocharger (KVGT) uses a hydraulic actuator to provide optimum air flow under all speed and load conditions.

Komatsu Auto Idle Shutdown helps

reduce excessive idle time.



Front bumper with integrated towing pin.

High flow rear hydraulics for winch (standard).

Rear view monitoring system (standard).

Front view monitoring system (standard).

Right view monitoring system (standard).

**Advanced diagnostic system** continuously monitors machines operation and vital systems to identify machine issues, assists with troubleshooting, and minimizes down time.

### **Integrated ROPS cab features:**

- · Large, quiet, and pressurized cab
- Excellent visibility with integrated ROPS structure
- High capacity heated air suspension seat
- Roof mounted A/C condenser
- Auto climate control provides heating and cooling for year round operator comfort
- Skylight for viewing the boom
- Emergency exit
- Load Moment Indicator (LMI) with boom angle indicator and anti-2-block alarm is standard

**Hydrostatic Steering System (HSS)** with 14% higher capacity steering motor provides smooth, quick, and improved steering control in various ground conditions. (Counter-rotation is available when in neutral.)

### **Complete operator control**

- Palm Command Control System (PCCS)
- Boom/hook/counterweight functions on one joystick lever
- 3-speed manual shift transmission
- Foreward/reverse shift pattern preset function
- Electro-hydraulic controlled winches
- Winch drums easily viewed for spooling cable
- Power and Economy modes
- Quick drop control to release the load quickly

### **Cold weather operation**

- Large capacity batteries
- Engine air intake heater grid
- Provision for engine oil and coolant heaters, 120V
- Radiator cooling fan with full time reverse mode



### Large color monitor:

- Easy-to-read large 7" high-resolution multi-color monitor
- Easy-to-use multiple choice pull-down menus
- Easy-to-use onboard diagnostics without requiring a laptop
- Ecology guidance
- Secondary 7" display for front and side cameras

### **LED (Light Emitting Diode) work lights:**

- 10 lamps
- Illuminate large area to front, side, rear

### Serviceability:

- Machine access from 4 corners of machine
- Battery disconnect switch with lockout
- Tie-offs for technician restraint harness



Komtrax remote monitoring with Iridium GPS satellite system is standard and there is no fee. Send information to a secure website including machine location, SMR, error codes, cautions, maintenance items, fuel usage, fuel levels, DEF levels, ambient conditions, and much more.

# STABILITY AND BALANCE



Oval track with a low center of gravity provides excellent stability and a smooth ride. Long trackon-ground offers low ground pressure and leaves shallow tracks in the ground when turning.



Front bumper with 2.5"(63mm) diameter pin meets ISO# 10532 and is easy to attach a cable with terminator.



Right side mounted winches add to lifting ability and provide unimpeded visibility to work equipment on the left side

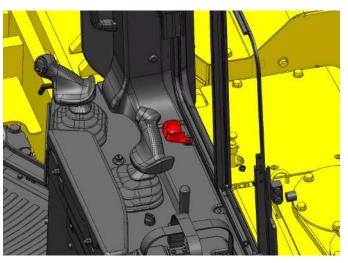


Pull-Master winches are built to Komatsu specifications to provide precise, smooth hook and boom movement

# **OPERATOR COMFORT REDUCES FATIGUE**



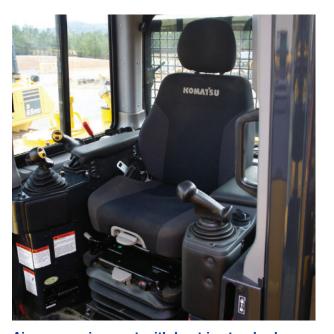
Comfortable air-conditioned and heated ROPS cab has large glass area for good visibility



Boom/hook/counterweight control centralized on one lever



Engine decelerator and brakes can be applied independently



Air-suspension seat with heat is standard

# **VISIBILITY**



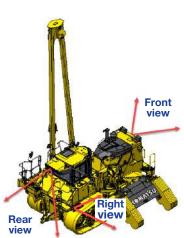
Good view to the boom through the skylight in the cab roof



Good view to winch drums for spooling



ROPS structure integrated into cab eliminates side posts





Three cameras provide additional views around the machine. Forward view camera (above), with selectable right-side camera and rearview camera are standard. Load Moment Indicator information is displayed at top of screen.

# **SERVICEABILITY**



Steps and handrails on 4-corners of machine provide access for servicing the engine and other components



Steps, platform and handrails provide easy access to the fuel tank





Komatsu Care complimentary factory scheduled maintenance for the first 3 years or 2000 hours, whichever occurs first. Includes two Diesel Particulate Filter exchanges and Selective Catalytic Reduction maintenance in the first 5 years or 9000 hours.

Komtrax remote monitoring telematics with Iridium GPS satellite system is standard with no subscription fee for the life of the machine

# **SPECIFICATIONS**



### **ENGINE**

ENGINE	
Model	Komatsu SAA6D140E-7**
Type 4-cycle,	water-cooled, direct injection
Aspiration	Komatsu Variable Geometry
Turbocharged, air-t	o-air aftercooled, cooled EGR
Number of cylinders	6
Bore x stroke140	mm x 165 mm <b>5.51" x 6.50"</b>
Piston displacement	15.24 ltr <b>930 in<sup>3</sup></b>
Governor	Mid-range, electronic
Horsepower	
SAE J1995	Gross 268 kW <b>360 HP</b>
ISO 9249 / SAE J1349*	Net 264 kW <b>354 HP</b>
Rated rpm	1900 rpm
Fan drive type	
Lubrication system	,
Method	. Gear pump, force lubrication
Filter	Full-flow
*Net horsepower at the maximum spe	
radiator cooling fan	

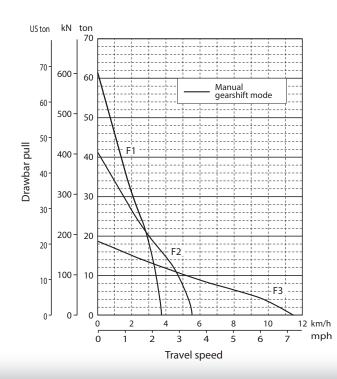
<sup>\*\*</sup>EPA Tier 4 Final emissions certified



### **TORQFLOW TRANSMISSION**

Komatsu's 3-speed 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. Equipped with gearshift lock lever and neutral safety switch.

Travel speed	Forward	Reverse
1st	3.8 km/h <b>2.4 mph</b>	4.6 km/h <b>2.9 mph</b>
2nd	5.6 km/h <b>3.5 mph</b>	6.8 km/h <b>4.2 mph</b>
3rd	11.6 km/h <b>7.2 mph</b>	14.0 km/h <b>8.7 mph</b>





### FINAL DRIVES

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



### STEERING SYSTEM

PCCS lever controls for all directional movements. Pushing the PCCS lever forward results in forward machine travel, while pulling it rearward reverses the machine. Simply tilt the PCCS lever 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. Counter-rotation turns are also available. Wet, multiple-disc, pedal-controlled service brakes are spring-actuated and hydraulically released. Gearshift lock lever also applies parking brakes.



### **UNDERCARRIAGE**

Pipelayer model	K170	K216		
Suspension	Fixed roller, non-oscillating track frame			
Track roller frame	Monocoque, high-tensile-strength steel construction			
Track type	Sealed and	lubricated		
Track shoe	Moderate service w	vith clipped grouser		
Shoe width	810 mm <b>32 in</b>	860 mm <b>34 in</b>		
Shoes per side	48	48		
Track gauge	2400 mm <b>94.5 in</b>	2550 mm <b>100.4 in</b>		
Length of track on ground	3925 mm <b>154 in</b>	3925 mm <b>154 in</b>		
Ground contact area ISO 16754	7.1 m <sup>2</sup> <b>10,990 in<sup>2</sup></b>	7.5 m <sup>2</sup> <b>11,670 in<sup>2</sup></b>		
Ground pressure ISO 16754 (1)	0.77 kgf/cm² <b>11.0 psi</b>	0.77 kgf/cm² <b>11.0 psi</b>		
Track rollers per side	9	9		
Carrier rollers per side	2	2		
Grouser height	80 mm <b>3.1 in</b>	80 mm <b>3.1 in</b>		
Link pitch	228 mm <b>9.0 in</b>	228 mm <b>9.0 in</b>		
Ground pressure ISO 16754 (1)  Track rollers per side  Carrier rollers per side  Grouser height	0.77 kgf/cm <sup>2</sup> <b>11.0 psi</b> 9 2 80 mm <b>3.1 in</b>	0.77 kgf/cm <sup>2</sup> <b>11.0 psi</b> 9 2 80 mm <b>3.1 in</b>		

(1) Ground pressure with 7.3 m 24 ft long boom and drawbar



### **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.

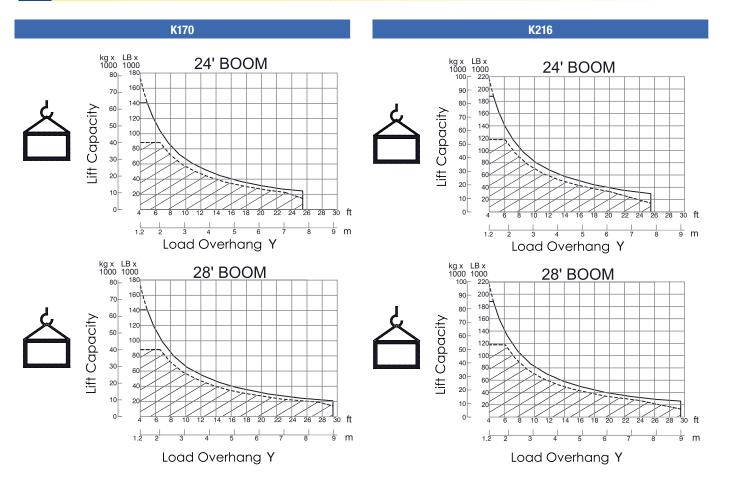
Variable piston pump with capacity (discharge flow) of 325 L/min 85.9 U.S. gal for steering and 320 L/min 84.6 U.S. gal for implement at rated engine rpm.

Relief valve setting

for implement 27.5 MPa 280 kg/cm2	3,980 psi
for steering 38.2 MPa 390 kg/cm2	5,550 psi



### LIFTING CAPACITY (ANSI/ASME B30.14, ISO 8813)



	Lift Capacity (ISO 8813:1992)	K170 24' Boom / 28' Boom	K216 24' Boom / 28' Boom
Α	Lift capacity maximum at tipping point	77111 kg	97976 kg
, ,	@ 4' overhang	170,000 lb	216,000 lb
В	Rated load maximum @ 4' overhang	65544 kg	83280 kg
Б	(85% of tipping)	144,500 lb	183,600 lb
0	Working load maximum @ 4' overhang	40000 kg	53340 kg
С	(25% of rope strength)	88,200 lb	117,600 lb

# **SPECIFICATIONS**



### COMPONENT WEIGHTS (APPROXIMATE)

Pipelayer model	K170	K216
Counterweight total weight	6070 kg <b>13,380 lb</b>	9148 kg <b>20,169 lb</b>
Counterweight section quantity	11	17
Weight per section	11 @ 552 kg <b>1,217 lb</b>	15 @ 516 kg <b>1,137 lb</b>
Weight per Section	11 @ 552 kg 1,217 lb	2 @ 700 kg <b>1,557 lb</b>
Boom 7.3 m 24' standard	1715 kg	3,781 lb
Boom 8.5 m 28' optional	1927 kg	4,249 lb
Counterweight frame	1881 kg <b>4,146 lb</b>	1363 kg <b>3,005 lb</b>
Counterweight yoke	636 kg <b>1,400 lb</b>	880 kg <b>1,940 lb</b>
Boom block and load block	706 kg <b>1,556 lb</b>	833 kg <b>1,837 lb</b>



# SERVICE REFILL CAPACITIES

r <b>165 U.S.</b> g	Fuel tank 625 ltr
r <b>27.5 U.S.</b> g	Coolant 104 ltr
r <b>9.8 U.S.</b> g	Engine oil
r <b>0.4 U.S.</b> g	Damper 1.5 ltr
r <b>23.8 U.S.</b> g	Transmission, bevel gear, steering system 90 ltr
r 8.2 U.S. g	Final drive (each side)31 ltr
r <b>10.3 U.S.</b> g	DEF tank
r <b>25.1 U.S.</b> g	Hydraulic oil capacity (tank only) 95 ltr
r <b>35 U.S.</b> g	Hydraulic oil capacity (system) 133 ltr
r <b>6.3 U.S.</b> g	Boom Winch Case (gearbox) 23.8 ltr
r <b>4.1 U.S.</b> g	Hook Winch Case (gearbox)



### PIPELAYING EQUIPMENT

Pipelayer model	K170	K216			
Boom length standard	d 7300 mm <b>24'</b>				
Boom length optional	8569 mm <b>28'</b> 5				
Boom parting lines					
Hook line partings	6	8			
Hook low speed raise	8.5 - 13.0 m/min	7.3 - 10.5 m/min			
	28 - 42.8 ft/min	23.8 - 34.6 ft/min			
Hook high anged rains	19.3 - 23.3 m/min	17.0 - 20.6 m/min			
Hook high speed raise	63.3 - 76.6 ft/min	55.7 - 67.5 ft/min			
Hook free fall	Yes				
Boom winch drum diameter	254 m	m <b>10"</b>			
Boom winch drum width	279 m	m <b>11"</b>			
Boom winch drum cable capacity	75.3 m	1 <b>247'</b>			
Boom winch drum rope diameter	19 mm	0.75"			
Hook winch drum diameter	254 m	m <b>10"</b>			
Hook winch drum width	432 m	m <b>17"</b>			
Hook winch drum cable capacity	152 m <b>499'</b>				
Hook winch drum rope diameter	19 mm <b>0.75"</b>				



Bracket to store blocks during shipping is standard

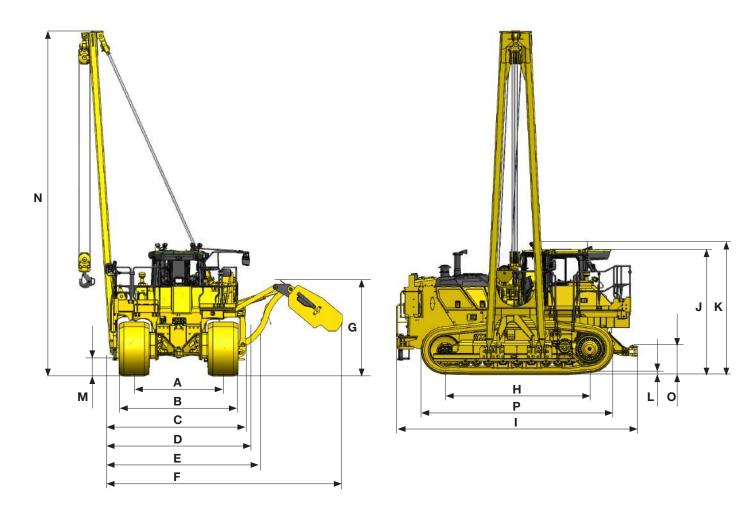


### SHIPPING

Dinelayer configuration	K170		K216		
Pipelayer configuration	Width	Weight	Width	Weight	
Fully assembled, boom vertical, 10% fuel**	4115 mm <b>13'6"</b>	54590 kg <b>120,353 lbs</b>	4356 mm <b>14'4"</b>	58005 kg <b>127,879 lbs</b>	
Boom removed	4115 mm <b>13'6"</b>	52660 kg <b>116,100 lbs</b>	4356 mm <b>14'4"</b>	56080 kg <b>123,630 lbs</b>	
Boom and C/W sections removed	3810 mm <b>12'6"</b>	46590 kg <b>102,720 lbs</b>	4074 mm <b>13'4"</b>	46930 kg <b>103,460 lbs</b>	
Boom and C/W sections and C/W frame and C/W yoke removed	3657 mm <b>12'</b>	44090 kg <b>97,190 lbs</b>	3855 mm <b>12'8"</b>	44680 kg <b>98,510 lbs</b>	

<sup>\*\*</sup> K170: 28' boom, long drawbar, 32" track shoes, 10% fuel

<sup>\*\*</sup> K216: 28' boom, long drawbar, 34" track shoes, 10% fuel



### **DIMENSIONS**

	Pipelayer model	K1	70	K2	16
Α	Track gauge	2400 mm	7' 10"	2550 mm	8' 4"
В	Width of tractor (32" shoes)	3210 mm	10' 6"	3410 mm	11' 2"
С	Width of tractor (counterweight/boom/counterweight frame removed)	3653 mm	12'	3854 mm	12' 8"
D	Width of tractor (counterweight/boom removed)	3796 mm	12' 5"	4073 mm	13' 4"
E	Width of tractor (counterweight retracted)	4079 mm	13' 4"	4356 mm	14' 3"
F	Width of tractor (counterweight extended)	6255 mm	20' 6"	6532 mm	21' 5"
G	Machine height (top of counterweight)		2604 mm	8' 6"	
Н	Length of track on ground		3925 mm	12' 10"	
ı	Operating length		6516 mm	21' 4"	
J	Height of machine (ROPS cab)		3400 mm	11' 2"	
K	Height of machine (ROPS cab lights in working position)		3604 mm	11' 10"	
ĸ	Height of machine (ROPS cab lights rotated down for shipping)		3505 mm	11' 6"	
L	Grouser height		80 mm	3.1"	
M	Ground clearance		572 mm	1' 10"	
N	Boom height (at SAE 1.22 M [4 ft] overhang) 7.31 M (24 ft) boom		8096 mm	26' 6"	
IN	Boom height (at SAE 1.22 M [4 ft] overhang) 8.53 M (28 ft) boom		9310 mm	30' 6"	
0	Drawbar height		782 mm	2' 6"	
Р	Track overall length		5213 mm	17' 1"	



### STANDARD EQUIPMENT FOR BASE D155CX-8 MACHINE\*

- Air cleaner, double element with dust indicator
- Alternator, 140 ampere/24V
- Backup alarm
- Batteries, 200 Ah/2 x 12V
- Battery disconnect switch with lockout
- Boom and C'wt limit switches
- Bumper, front with pull device
- Color monitor, LCD
- Decelerator pedal
- Draw works with 7.3m 24' boom, hook, blocks, cables, extendable counterweight
- Ecology drains
- Engine oil
- Coolant
- Hydraulic oil
- Fuel tank
- Engine hood
- Engine idle auto shutdown with adjustable
- Engine intake centrifugal precleaner
- Engine, gull-wing side covers
- Engine shutdown secondary switch
- Exhaust pipe with raincap
- Extended length fixed roller track frame, wide track gauge
- Fast fuel provision
- Fenders
- Front pull hook
- Fuel pre-filter and primary filter
- Fuel priming pump, electric
- Grid heater starting aid in cold weather
- Hard bar, integral non-oscillating
- High mount foot rests
- Horn, warning
- Hydraulic driven radiator cooling fan with manual reverse clean mode and cold weather reverse operating mode
- Hydraulics for draw works and counterweight
- Hydraulics for towing winch (high flow)
- KOMTRAX® Level 5, Iridium satelite
- Komatsu Diesel Particulate Filter (KDPF)

- Variable Geometry Turbocharger (VGT)
- Komatsu Selective Catalytic Reduction (SCR)
- Load Moment Indicator with boom angle indicator and Anti-2-block alarm
- · Locks, filler caps and covers
- Oil pressure check ports and covers
- Oil pressure check ports for power train
- PM service connector
- Provision for Load Moment Indicator
- Radiator mask, double door, heavy-duty, hinged perforated
- Radiator reserve tank
- Rear cover
- Restraint harness tie-off points
- ROPS cab
- Air conditioner/heater/defroster
- Autoclimate control
- Pressurized with air precleaner
- Condenser remote mounted
- Skylight in roof
- Emergency exit
- Cab accessories
- 12V power supply (2 ports)
- Cup holder
- Rearview mirro
- Rear view monitoring (1 camera)
- Forward view monitoring (1 camera)
- Right view monitoring (1 camera)
- AM/FM Radio w/remote AUX plug (3.5 mm)
- Lunch box holder
- Work lights, 10 LED type
- 2 front, hood mounted
- 2 front, cab mounted
- 2 side, cab mounted - 2 rear, fender mounted
- 2 rear, cab mounted
- Monitor with 7" color display
- Diagnostics capability
- Performance records
- Service records

- Seat, air suspension, fabric, heated, low back, rotates 12.5° to right, headrest
- Seat belt, 76 mm 3", retractable
- Seat belt indicator
- Sealed electrical connectors
- Starting motor, 11.0 kW/24V
- Starting aid, air intake heater grid
- Steering system
- Hydrostatic Steering System (HSS) - High capacity steering motor
- Storage bracket for blocks during transport
- Torque converter
- Track roller guards, end and center guiding sections
- Track shoe assembly
- 228 mm 9" pitch sealed and lubricated
- Master links
- K170: 810 mm 32" clipped moderate
- K216: 860 mm 34" clipped moderate service
- Transmission, 3-speed manual powershift
- Underguards, heavy duty
- Hinged belly pans
- Walkway with steps and handrails
- Water separator, fuel
- Wide core cooling package, 6 fins per inch spacing

\*Rear mounted equipment is not included in base machine standard equipment

\*\*Cab meets:

ROPS standard ISO 3471:2008 FOPS Level 2 standard ISO 3449:2005 Operator's ear noise (ISO 6394) 75 dB(A)

\*\*\*Accumulator meets: CRN OH 5729.1



### **OPTIONAL EQUIPMENT**



- Rear Attachment
  - HD long drawbar 240 kg 528 lb
- 8.5 m 28' boom
  - Includes longer hook cable



### ALLIED MANUFACTURER'S ATTACHMENTS (SHIPPED LOOSE)

- Guarding Medford
- Hinged cab rear screen 61 kg 135 lb
- Hydraulic winch with drawbar Allied H12E 1800 kg 4,000 lb (without cable)

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01/22 (EV-1)



Note: All comparisons and claims of improved performance made herein are made with respect to the prior Komatsu model unless otherwise specifically stated.

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