## We are DEVELON

We trace our roots to 1937 as one of Korea's first large scale machine plant. Throughout time we have consistently delivered exceptional products and solutions.

DEVELON is a bold name that reflects our core ambition to continue developing onwards and leaving behind a positive footprint in our world. Moving forward, we seek to be part of our customers and partners' endeavor to build a better world.

### Powered by **Innovation**

# ©2024 HD Hyundai Infracore. All rights reserved. Certain specification(s) are based on engineering calculations and are not actual measurements. Specification(s) are provided for comparison purposes only and are subject to change without notice. Specification(s) for your individual Develon equipment will vary based on normal variations in design, manufacturing, operating conditions, and other factors. Pictures of Develon units may show other than standard equipment

# DEVELON Construction Equipment



# PRIDE AT WORK

DEVELON strives to build state-of-the-art earthmoving equipment to give every operator maximum performance, more precision, versatile machine preferences, and proven quality. Take pride in your work with a DEVELON!

#### **POWERFUL AND RELIABLE ENGINE**

· Perkins mechanical engine, with EPA Tier II and E.U. stage II emission regulations, built for power, reliability and efficiency.

#### **EXCELLENT VISIBILITY**

- · One piece rounded wind shield for wide span of view.
- · Well designed loader frame offers clear line of site and excellent visibility.

#### **SERVICEABILITY**

- · Tilt-up hood provides easy access to engine compartment.
- · All greasing points are accessible from ground level for safety and reduced maintenance time.
- · Integrated safety bar and lock system ensures operator safety.

#### **EXCELLENT BACKHOE PERFORMANCE**

- · Pilot controls provide the operator with better precision and control. (Optional)
- · An extendable dipper significantly increases the machine's versatility. (Optional)
- · Unique backhoe boom design provides good visibility.
- \* Option spec info is included to the images contained in this material and may not be the same with the actual specs.

- certified design for safe operation.
- · Hinged-type side windows for excellent ventilation.
- · Conveniently located gauges, switches and levers for quick and easy use.
- · Suspension seat with full adjustment for improved operator ride.

**ENHANCED HYDRAULIC MECHANISM** 

· Automatic return-to-dig function reduces

durability and greater lifting capacity.

POWERFUL LOADER PERFORMANCE

terrain conditions. (Optional)

loading cycle times.

· Four wheel drive system designed for on-the-go activation improves loader performance in rough

· A strong and rigid loader frame designed for

- · Adjustable flow control system (AFCS) optimizes the travel power of the machine when traveling on the highway.
- · Alternative pilot control pattern allows the operator to get the job done efficiently.
- · Stabilizer safety system protects from both raises and lowers of the stabilizer.



- · Six pillared cab with ROPS / FOPS
- · Tilting, adjustable steering column.



#### POWERFUL AND RELIABLE ENGINE

A powerful Perkins mechanical engine with EPA Tier II and E.U. stage II emissions compliance, 4 cylinder, 4 cycle, turbo- charged, is built for power, reliability, efficiency.





#### **AXLE AND BRAKES**

Front & rear axles are designed for heavy duty to withstand the challenging Jobsite conditions. Outboard, planetary gears improve serviceability while multi wet disc type brakes eliminate possible external contamination. The parking brake can be easily activated from within the cab by the push of an electric switch.



#### **EXCELLENT BACKHOE PERFORMANCE**

The backhoe is inherently strong design, perfect for heavy duty applications. The boom allows good visibility into the trench when the operator is digging around buried obstructions such as water mains, sewer pipes, utility lines, etc. Pilot controls(option) improve operator control and precision when excavating. And an extendable dipper as an option significantly increases the machine's versatility.



#### **WORK LIGHTS**

Standard two front & two rear-adjustable 55 watt halogen work lights and optional four front & four rear-adjustable 55 watt halogen work lights provide excellent illumination at the work area.





Innovative hydraulic technologies make the DB100 series fast, smooth and easy to control.

#### CONTROL PATTERN SELECTOR (OPTIONAL)

The control pattern selector switch, located in the cabin, allows the operator to change from the excavator ISO control pattern to the backhoe SAE control pattern for the backhoe simply by pressing a button. This allows the operator to use the accustomed pattern they are familiar with to get the job done efficiently.

#### ADJUSTABLE FLOW CONTROL SYSTEM (AFCS)

By using the "turtle" switch ("turtle" for low speed attachment control) on the front instrument cluster, the operator diverts any unused hydraulic fluid from the second pump to the hydraulic reservoir. In a loader application, AFCS optimizes the travel power of the machine and improves productivity AFCS is also useful when traveling on the road.



#### **CLAM SAFETY SYSTEM (OPTIONAL)**

Prevents the uncontrolled opening of the clam bucket by its weight of load during both loading and dozing processes.



#### STABILIZER SAFETY SYSTEM

Two stabilizers and two stabilizer safety valves are equipped(each operated by its own control valve and cylinder). They provide protection in the event of a hose burst in both stabilizers. Also, they protect from both raises (while working) and lowers (while traveling) of the stabilizer.

# COMFORTABLE OPERATION

### You are at the Center of Comfort and Control

DB100 series backhoe loaders are designed for the operator's comfort. The steering column and backhoe control tower can be tilted and adjusted for convenient operation. Deluxe, joystick levers, conveniently located switches and an AM/FM radio with mp3 input provide the pleasant operation. Hinge-type side windows can be opened for improved ventilation. Additionally, front and rear windshield wipers are equipped for excellent visibility during bad weather conditions.





#### **COMFORTABLE OPERATOR'S CAB**

The DB100 series cab is designed to offer maximum comfort, safety and low noise to the operator. The cab structure is supported by six pillars meeting ROPS/ FOPS safety requirements. The cab also offers dual entry, deluxe trim, tilt steering column and a washable molded floor mat. Large roomy cab space and rounded glass contribute to operator comfort. Adjustable seat for a wider operating range and more comfortable ride. Equipped with seat cushion extension, seat cushion tilt, and vertical angle adjusting armrests.

#### **CLIMATE CONTROL SYSTEM** (OPTIONAL)

A full heating, defrosting system keeps the operator comfortable with 15 air vents placed throughout the cab. Air conditioning system as an option well placed air vents within front, back and sides of seat provides operator with optimum temperature.

#### PILOT CONTROL SAFETY SYSTEM (OPTIONAL)

Disables the control lever of loader, backhoe (excavator), and stabilizer levers by flipping the safety switch on the side console





#### POWER BOOSTED BRAKE (OPTIONAL)

Newly developed Boosted Brake System now allows the operator to use brake much conveniently with additional hydraulic assisted power.

#### **BRAKES**

Oil immersed wet disc brakes are individually actuated by two separated brake pedals. Brakes are self adjusting for improved service life.

#### POWER SHIFT TRANSMISSION

Standard power shift transmission provides fast, easy and efficient operation. A convenient gear/shift selector allows for gear selection and forward, neutral or reverse direction.





#### **EXCELLENT VISIBILITY**

One-piece rounded front glass and large windows around the cab provide the operator with a full 360 degree range of visibility. Wide upper front window good visibility to cutting edge of bucket for loader. Sloped and narrow bonnet is designed for easy and safe work with the front loader.

#### SIDE CONSOLE WITH **FULL INSTRUMENTATION**

In the DB100 series cab, all gauges switches and levers are conveniently located for easy access. Whether in the loader position or the backhoe position, the operator can easily reach all controls.

Safety Switch (Loader) Safety Switch (Backhoe) 13



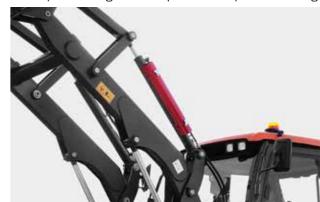
# **SERVICEABILITY**

#### **QUICK AND EASY MAINTENANCE**

Tilt-up hood provides easy access to the engine compartment. The one-piece hood tilts away for easy ground access to all critical services and grease points for maintenance and operator safety.

#### INTEGRATED SAFETY BAR

An integrated safety bar and locking pin are an integral part of the bucket cylinder, and guarantee operator safety when servicing.



#### VISIBLE HYDRAULIC OIL LEVEL GAUGE

The hydraulic oil sight guage is installed on the side of the hydraulic tank for the convenient inspection from on ground level.



## **TECHNICAL SPECIFICATION**

#### **ENGINE**

#### Model

Perkins / 1104C-44T

#### Horsepower

GROSS POWER: 100 HP (74.5 kW) @ 2,200 rpm NET POWER: 95 HP (71 kW) @ 2,200 rpm

#### Type

4-stroke, water cooled turbocharged.

#### Non-road emission standards

Certified to EPA Tier II / EU stage II

#### Max torque

42 kg·m @ 1,350 rpm

#### Piston displacement

4.4 €

#### Fuel

Diesel

#### **HYDRAULIC SYSTEM**

#### System type

Open center

#### Pump type

Tandem gear pump

#### Pump flow

138.4 L/min (Steering + Attachment)

#### System Pressure

250 kg/cm<sup>2</sup>

#### Loader valve

- Mechanical control (Standard): 1 Lever
- Pilot control (Optional): 1 Joystick, Boom float, Bucket return to dig

#### Backhoe valve

- Mechanical control (Standard): 2 Levers
- Pilot control (Optional): 2 Joysticks
- Pilot control (Excavator ISO control pattern is standard)
  Optional pattern change valve for excavator (ISO) control
  pattern ↔ Backhoe (SAE) control pattern

#### Stabilizer Control

- Mechanical Control (Standard): 2 Levers
- Pilot Control (Option): 2 small levers
- Stabilizer Safety lock valve (Standard)

#### **ELECTRICAL**

#### Voltage

12 volts

#### Alternator

100 amp

#### **Battery**

850 CCA (Standard) = 1 EA

#### **OPERATING WEIGHTS**

#### Standard configuration

7,440 kg

2 WD, GP bucket (0.8 m³), counter weight (350 kg), ROPS/FOPS canopy, mono dipper

#### Optional configuration

8,230 kg

4 WD, MP bucket (1.0 m³), counter weight (150 kg), ROPS/FOPS cabin, ext. dipper

#### Add-on weight

Counter weight 550 kg
Drive shaft & T/M under guard 55 kg
Fork 170 kg

#### **TIRES**

#### Front

STD: 11L-16 SL,12 PR (2 WD) OPT: 12.5 / 80-18,12 PR (4 WD)

#### Rear

STD: 19.5-24,12PR OPT: 16.9-28,12PR

#### **SERVICE REFILL CAPACITIES**

#### Fuel tank

127 ℓ

#### Engine coolant water

19 ℓ

#### Engine oil with filter

8 8

#### Hyd. tank with filter

50ℓ

#### Hyd. system total

93 {

#### Transmission and torque converter

18 ℓ

#### Front axle (4 WD)

8 8

#### Rear axle

16 የ

#### **BACKHOE ATTACHMENTS**

#### **Buckets**

0.2 m<sup>3</sup> (STD) 0.17 m<sup>3</sup> 0.26 m<sup>3</sup>

#### Boom

2.63 m (STD) 2.81 m

#### Arm

2.0 m (STD) 2.0 m ~ 3.12 m

#### **LOADER BUCKETS**

Capacity	Remark	Capacity	Remark
0.8 m <sup>3</sup>	GP BOCE (STD)	0.9 m <sup>3</sup>	GP TOOTH
1.0 m <sup>3</sup>	GP BOCE	1.0 m <sup>3</sup>	MP
0.7 m <sup>3</sup>	GP TOOTH	1.0 m <sup>3</sup>	MP WITH FORK

\* GP : General Purpose, MP : Multi Purpose

\* BOCE : Bolt on Cutting Edge

#### **COUNTER WEIGHT**

#### Description

Weight

#### None, Guard Front

10 kg

#### Casting, Additional

150 kg

#### Casting (STD)

350 kg

#### Casting Additional for Telescopic Arm

550 kg

#### **POWERTRAIN**

#### Transmission

4-speed helical-cut gears, full powershift standard; electric clutch cutoff on loader lever

Maximum travel speed with standard tire

DB100	Gear 1	Gear 2	Gear 3	Gear 4
Forward(km/hr)	5.2	9.6	19.4	34.0
Reverse (km/hr) (Optional)	6.6	12.0	(19.0)	N/A

#### Torque converter

Single stage, dual phase

#### Differential

Hydraulic locking rear Push-button activation

#### Steering (Optional)

Hydrostatic power (emergency steering)

#### Brake

#### Service

 Power assisted, hydraulic wet disc, mounted inboard, self-adjusting and self-equalizing

#### Parking

- Spring-applied, hydraulically releases, wet, multi disc independent of service brakes with electric switch control

17 18

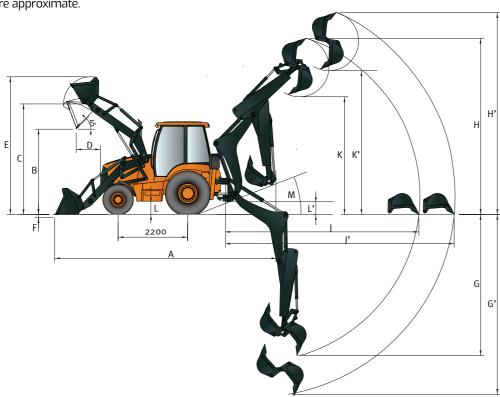
## DIMENSIONS & WORKING RANGE STANDARD & OPTIONAL

STD OPT

STD OPT

#### **DIMENSIONS**

All dimensions are approximate.



#### **DESCRIPTION**

Α	Overall length	7,080 (23' 3")
В	Dump clearance	2,710 (8' 11")
С	Hinge pin height	3,450 (11' 4")
D	Dump reach	805 (2' 8")
E	Max loading height	4,230 (13' 11")
F	Depth of bucket down	96 (0' 4")
G	Max digging depth (STD)	4,345 (14' 3")
G'	Max digging depth (EXT)	5,460 (17' 11")

#### **DESCRIPTION**

DES	CRIPTION	Unit : mm (ft·in)
Н	Max digging height (STD)	5,500 (18' 1")
H'	Max digging height (EXT)	6,150 (20' 2")
J	Max digging reach (STD)	5,830 (19' 2")
J'	Max digging reach (EXT)	6,860 (22' 6")
К	Max dumping height (STD)	3,585 (11' 9")
K'	Max dumping height (EXT)	4,230 (13' 11")
L	Minimum ground clearance	355 (1' 2")
Ľ	Height of outrigger	355 (1' 2")
М	Departure angle	19°

#### **BUCKETS**

	GP Bucket	MP Bucket
Transport length	7,080 (23' 3")	7,210 (23' 8")
Transport height	3,680 (12' 1")	3,680 (12' 5")
Transport width	2,250 (7' 5")	2,300 (7' 7")

#### **DIGGING FORCE**

Description		Unit	Speed	Power
Digging force	Bucket	l/af	5,480	5,820
Digging force	Boom	Kgf	3,435	3,750

#### **ENGINE** STD OPT

Perkins 1104C-44T	•	
HYDRAULIC SYSTEM	STD	ОРТ
Backhoe controls, 2-lever mechanical	•	
Loader controls, 1-lever mechanical	•	
Stabilizer controls, 2-lever mechanical	•	
Fan, suction	•	
Hydraulic hose face seals, o-ring	•	
Hydraulic oil cooler, T/M cooler	•	
Hydraulic valves, loader 3rd Function		•
Hydraulic valves, backhoe 7th Function		•
Hydraulic lines One-way, backhoe breaker line		•
Pilot control (Backhoe, Loader, Stabilizers all together)		•

#### **CAB & INTERIOR**

Air cleaner	•	
Alarm, back-up	•	
Radio		•
Coolant/Antifreeze	•	
Floor mat	•	
Gauges : coolant temperature, fuel level, tachometer, hour meter	•	
Indicators: Engine oil pressure, T/M oil temp, diff. lock, coolant temp, fuel level, battery charge, air cleaner, high beam, parking	•	
Instrument panel lights	•	
Seat belt, retractable (51 mm / 2 in)	•	
Seat, suspension with armrest	•	
Storage compartment, internal	•	
Throttles, hand and foot	•	
Transmission neutralizer button switch	•	
Air conditioner & Heater		•
Air conditioner only		•
Fuel warmer		•
Speed meter		•
Climate control system		•
Cabin ROPS / FOPS		•
Canopy ROPS / FOPS	•	
Canopy ROPS / FOPS with front shield		•

#### **SAFETY**

Differential lock	•	
Brakes, oil disc, dual pedals, interlocking	•	
lashing hazard/signal lights	•	
Working lights (2 front, 2 rear)	•	
Machine security system	•	
Mirror, rear view	•	
Parking brake	•	
Stop and tail lights	•	
Swing transport lock	•	
Warning horn, electric	•	
Grill guard bumper		•
Front drive shaft guards		•
Nork lights(4 front, 4 rear)		•
Rotating beacon		•
Power boosted brake		•
Pilot control safety system		•
Clam safety system		•

#### **ATTACHMENT**

_			

Stabilizers (Pag		•			
Backhoe	Backhoe				
	0.2 m <sup>3</sup> (0.26 yd <sup>3</sup> )	•			
Buckets	0.17 m³ (0.22 yd³)		•		
	0.26 m³ (0.34 yd³)		•		
	2.63 m for Heavy duty	•			
Boom	2.63 m		•		
	2.81 m		•		
Dipper	2.00 m ~3.12 m (Telescopic)		•		
Dippei	2.00 m	•			
Front loader					
	0.8 m³ (1.04 yd³) - Bolt-on cutting				
General	edge				
purpose	0.7 m³ (0.92 yd³) - Bolt-on teeth		•		
buckets	0.9 m³ (1.18 yd³) - Bolt-on teeth		•		
	1.0 m³ (1.31 yd³) - Bolt-on cutting edge		•		
Multi purpose			•		
buckets	1.0 m³ (1.3 yd³) w/ forks		•		

#### **OTHER** STD OPT

Battery, maintenance-free	•		
Battery, maintenance-free		•	
Battery disconnect switch		•	
Filters, spin-on		•	
Fuel prefilter with water s	eparator	•	
Glow plug (cold starting a	id)	•	
Ground level fuel fill		•	
Power receptacle, 12V		•	
Power steering, hydrostat	ic	•	
Emergency steering			•
Toolbox, external, lockable	2	•	
Torque converter		•	
Transmission : Power shift, 4 forward, 2 r	everse.2 wheel drive	•	
Transmission:			•
Power shift, 4 forward, 3 r Boom transport lock - Bac			
Boom locking bar - Loader			
Mechanical quick coupler			
Swing damper			<u> </u>
	Guard front, 10 kg (22 lb)		
	Casting, 150 kg (331 lb)		
Country weights	Casting, 350 kg (772 lb)		Ť
Counter weights	Casting additional for		
	Casting additional for telescopic arm, 550 kg (1,213 lb)		•
Return-to-dig, loader			•
Ride control, loader			•
Control pattern selector			•

#### **UNDERCARRIAGE**

STD	OPT

Fenders, rear	•	
Tilt steering wheel	•	
Tire(Front): 11L-16SL, 12PR(2WD, ATG)	•	
Tire(Rear): 19.5-24, 12PR(ATG)	•	
Fenders, 4WD, front		•
Tire(Front): 12.5/80-18,12PR(4WD, ATG)		•
Tire(Rear): 16.9-28,12PR(ATG)		•

- \* Standard and optional equipment may vary. Contact your DEVELON dealer for more information. The machine may vary according to International
- \* The photos may include attachments and optional equipment that are not
- \* Materials and specifications are subject to change without advance notice.

\* All imperial measurements rounded off to the nearest pound or inch.

20