



CONSTRUCTION EQUIPMENTS



HD100

SIMPLY MORE PRODUCTIVE

**GET MORE DONE
WITH ONE.**



**UNRIVALED BUCKET
TEAR-OUT FORCE**

6392 Kgf



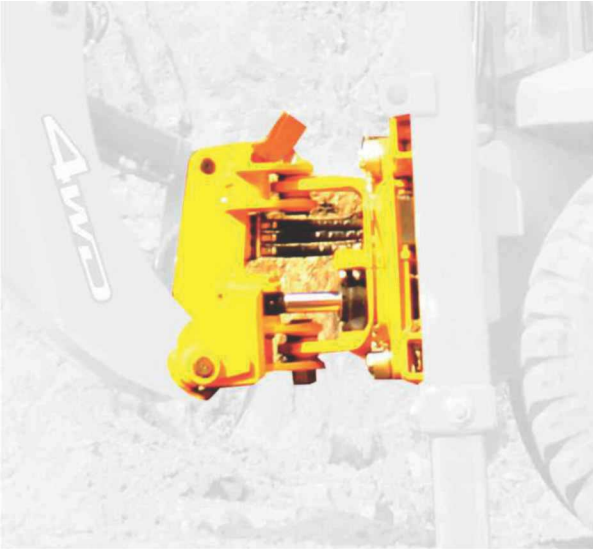
**OUTSTANDING
LOADER BUCKET
BREAK-OUT FORCE
8793 kgf**



**MAXIMUM
DUMP HEIGHT**

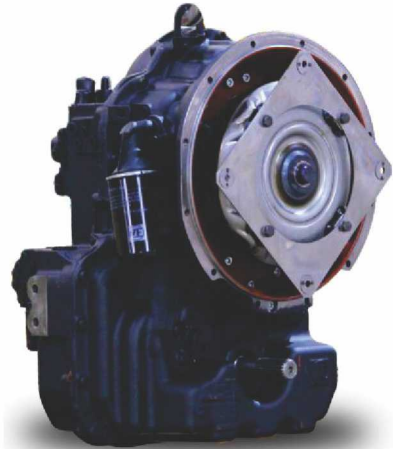
9.71 Ft.

UNSURPASSED RELIABILITY



Lift more and Multi-Task

To minimize and limit damages during loading and digging operations the sliding/swivel King post is made of Steel. To stop hoses from snagging we enclose them in a flexible, robust guide. To ensure longer life and smooth operations we have used heavy duty durable pins and bushes.



Efficient Powertrain Performance

HD 100 comes with ZF Power shift transmission with integral torque converter proven and tested to provide superb drive power in every condition. It consists of an integral torque converter with 4-range forward and reverse fully power-shift gear selection. Conventional gear-lever with transmission disconnect adds to the overall ease of operation.



Big on Savings : We understand that fuel is one of the biggest costs of Construction equipment's, hence we've designed our Backhoe loader to provide reduced fuel consumption and higher productivity, thus saving More money.

Proven Components : We've used only proven, reliable and durable components in our backhoe to maximize uptime and ensure our machine spends as much time as possible earning for you.

High on Performance : By extending service intervals for fluids and filters, we've Brought down cost of ownership even more, thus ensuring Better Turnaround time and Superior Up-time.

A HISTORY OF INNOVATION PERFORMANCE SPEAKS



Side-shift for Tight spaces

Bull machine's standard equipped side-shift Backhoes are equipped with swivel king-post which can Travel **1.03mtr.** Right or left of centre, making them ideal for work in crowded urban areas and around obstacles.

Get your work-done on time

Higher hydraulic pump capacity coupled with shorter hydraulic circuit leads to shorter cycle times and hence more work in less time.



Managing Lift capacity at the push of a button

Enhanced "Palm on Top" loader control grip is even more comfortable and easy to use. Power steering with tiltable axis enables the operator to adjust as per his convenience.



Always in your Control

Hydraulically actuated, zero maintenance without Separate auxiliary brake oil tank, **DANFOSS** (Denmark) brakes enables the operator to manoeuvre in tight spaces with less effort.

Enjoy your workday

The Bull backhoe loaders are loaded with comfort Packs, including efficient HVAC system and Music stereo. Ergonomically positioned controls at your fingertips, adjustable operator seat, More leg room for ease of operation, Tilttable steering, Joystick control with selector switch. Excellent ventilation –Partial or full opening of Rear & Side windows with Double exit on both sides.

Excellent view of Front-loader bucket

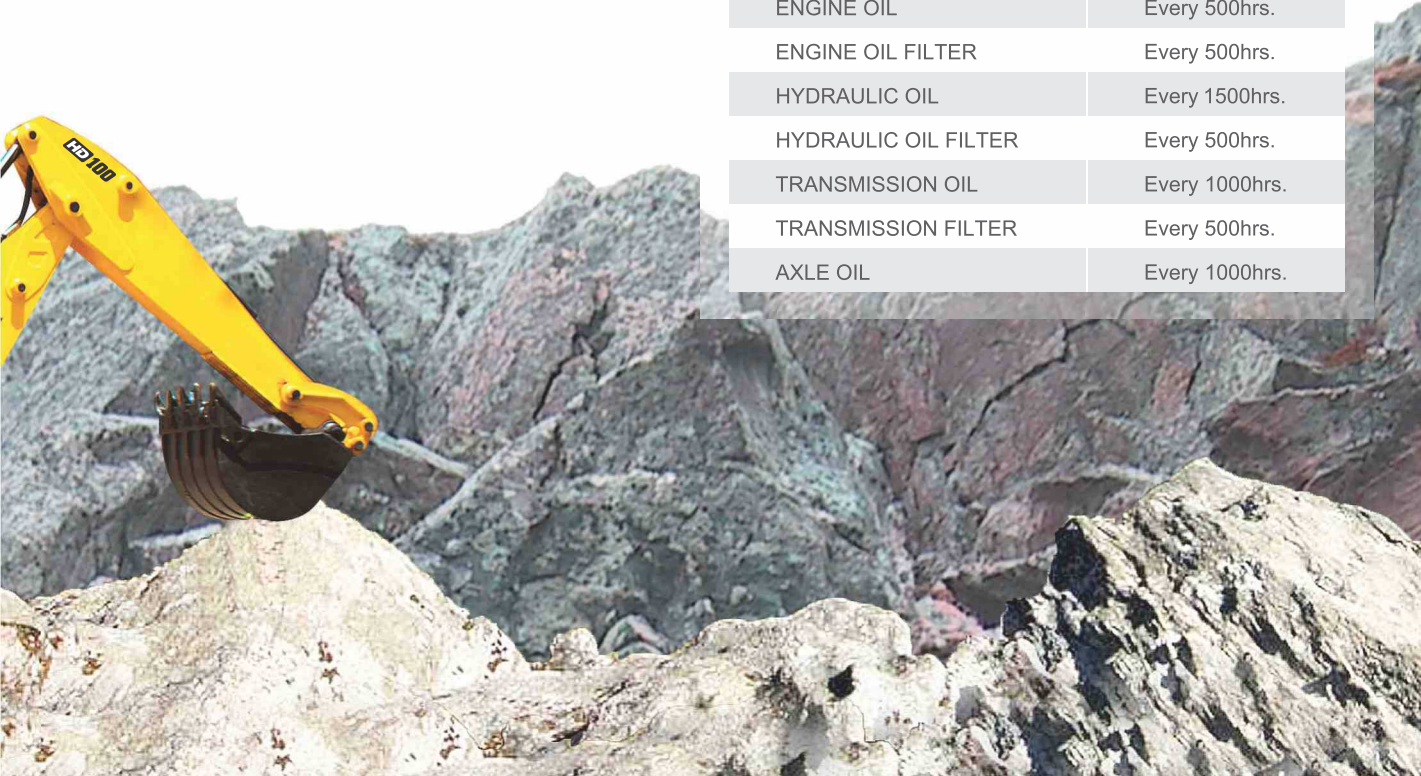
Clear sightlines to the loader bucket corners have been maintained over the sloped hood.

Ease of Service and Maintenance:

Front opening bonnet provides easy engine access, and one can open it up with just one lever. Everyday check can be done at ground level from one side of the machine. The loader arm mounting pivots and excavator end are machined, so they always align correctly. Meanwhile, our robust designed brass- bushes provide a long wear-free life. Engine over-heat alarm is Present inside the cab for on-time warning signals.

ENGINE - 100HP	Capacities	
	System	Service
HYDRAULIC TANK	120 Ltr	100 Ltr
FUEL TANK	115 Ltr	-
ENGINE COOLANT	17 Ltr	15 Ltr
ENGINE OIL	10 Ltr	10 Ltr
TRANSMISSION	19.5 Ltr	16 Ltr
REAR AXLE	17 Ltr	17 Ltr
FRONT AXLE (4WD)	8 Ltr	8 Ltr

Service intervals	
ENGINE OIL	Every 500hrs.
ENGINE OIL FILTER	Every 500hrs.
HYDRAULIC OIL	Every 1500hrs.
HYDRAULIC OIL FILTER	Every 500hrs.
TRANSMISSION OIL	Every 1000hrs.
TRANSMISSION FILTER	Every 500hrs.
AXLE OIL	Every 1000hrs.





FATIGUE BEATING COMFORT SPACIOUS AND ERGONOMIC CABIN

YOUR PERSONAL WORKSTATION MORE CARE BUILT IN FOR PRODUCTIVE OPERATION

The Bull backhoe operator station is built for your work. With strategically placed posts and wide flat cab windows with curved front glass, you get Un-obstructed panoramic views outside from virtually any working angle. In order to help you reap maximum benefit of the Bull machine's backhoe's Superior Performance, Productivity, Up-time we have designed these machines to be all day comfy. Ergonomic and extremely intuitive for operators to use, because '**A Comfortable Operator is A Productive Operator**'.



Outstanding Loader bucket Breakout:
 By using a straight arm loader design, Bull Backhoe-loader delivers an un-matched loader bucket location on top of the frame which produces exceptional bucket break-out force. **8793 Kgf**

Easy to Get-in and Get-out:
 Bull machine's backhoe are easy to Get-in and out, with large anti-slip steps of an open grill design to stop material build-up and prevent slipping.



Air Cleaner
 Dual integrated and pre-fitted Air cleaner removes 99% of airborne particles, thus reducing the risk of Engine contamination and making the cleaning and cartridge change intervals greater. Double element for enhancing machine performance by auto dust evacuation.

Easy to Maintain:
 Bull machine's one-piece front opening bonnet is easy to lift, and there's no need to remove extra side panels. Single layer Radiator and cooler is easy to clean.





Optional Quick Hitch

Our latest mechanical quick-hitch/ BQRSL (bucket Quick release Spring lever mechanism) makes attachment changing quick, safe, long lasting and ensures better turnaround time, thus increasing your productivity.

Versatile Machine

BULL Backhoe loader, by its nature, is a very versatile machine, and with our optional extras make it all the more so, allowing one to tailor ones 'BULL' to a huge array of different applications. There are umpteen bucket/ attachment options to choose from the list, which enables one to take up any job at ones hand, thus increasing ones productivity and multi-tasking ability.

6-in-1 Shovel

Equip your Bull loader with one of those, that can dig, doze, load grab, grade and backfill without having to switch attachments



ATTACHMENT VERSATILITY AN ALL-ROUNDER OPTIONS LIST



GRABBING FORK



BRICK GRABBER



BALE GRABBER



BOOSTER
BUCKET



SUGARCANE
GRABBER



FORK LIFT



TRENCH BUCKET



COMPACTOR



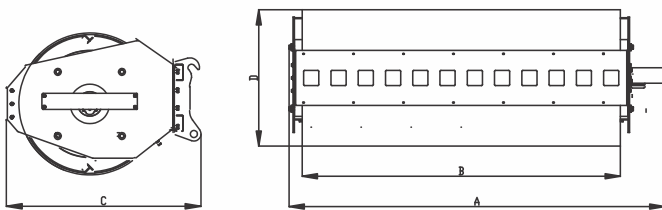
CONCRETE MIXER

BULL Machine offers a complete line of Attachments including : Grabbers, Lifters, Compactor, Concrete Mixer and more to take on the toughest jobs in the world.

WHEN PERFORMANCE MEETS FLEXIBILITY



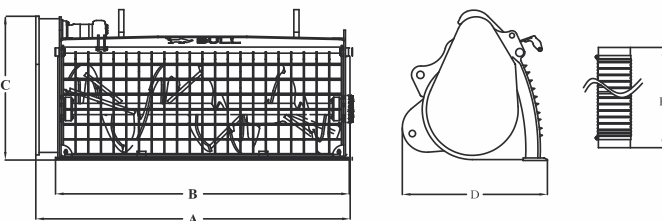
Road Roller Compactor



Easily attachable to Loader

A	Overall Length	2.48 m
B	Drum Length	2.10 m
C	Overall Width	1.23 m
D	Overall Height	0.9 m
	Operating Weight	1500 kg
	Vibration Force	8000 kgf
	Drum Oscillation or Tilt	12° deg

Concrete Mixer



A	Overall Length	1956 mm
B	Drum Length	1818 mm
C	Overall Width	890 mm
D	Overall Height	898 mm
	Flexible Discharge Hose	1500 mm
	Bucket Capacity	600 Litres
	Type of Transmission	Chain Drive

Easily Attachable with Quick Hitch Mechanism
Hydraulic Bottom opening to discharge Concrete

Engine

PERKINS 1104D-44TA, EU NRMM 97/68/ EC EURO III A, 4 cylinder, Water cooled Diesel Engine with ROPS & FOPS certification and Indian CMVR certification.

Capacity: 4400 cc
Gross Power: 74.5kW (100HP) @ 2200 RPM
Max. Torque: 410 Nm @ 1400 RPM

Transmission

ZF Power shift transmission with integral torque converter proven and tested to provide superb drive power in every condition. It consists of an integral torque converter with 4-range forward and reverse fully power-shift gear selection. Conventional gear-lever with transmission disconnect adds to the overall ease of operation.

Electricals

180 Ampere-hour 12 volts battery system with alternator and full road lighting, Bull backhoe provides highest performing and operating battery life in the segment.

Axles

REAR: Drive axle is rigidly mounted, incorporates CARRARO torque proportionate differential for longer durability and reliability.

FRONT: Steer axle, centrally pivoted with smooth oscillating angle.

Hydraulics

Pump type: CASSAPA pump (Italy with variable flow and fixed displacement gear)

Pump O/P: 145 LPM @ 2200 RPM Relief pressure: 3335 psi (230 bar)
Careful routing and enclosed hydraulic hoses and pipework guards against the site damage and allows easy servicing and guarantees longer life.

Shipping weight

Shipping weight of HD-100 with Standard GP bucket option is 8200 Kgs.

Steering

Durable and power track steering rod provides equal turn and quick response with less operating force. POWER STEERING.

Brakes

Effective DANFOSS make brakes, fade-free braking, self-adjusting, multi-disc arrangement, and oil immersed for minimum, easy maintenance and long operating life. Hand operated, disc-brake on rear axle multi-disc. Servo assisted brakes with twin brake pedals providing tighter turning circle and enhanced steering control on slippery grounds.

Speed(4wd)

Forward max **37kmph**
Reverse max **22kmph**

Tyres

FRONT	2 WD	- 9 x 16 - 16 PR
	4 WD	- 12.5/80 x 18 - 12 PR
REAR	Industrial	- 16.9 x 28 - 12 PR
	Heavy Duty	- 14 x 25 - 20 PR

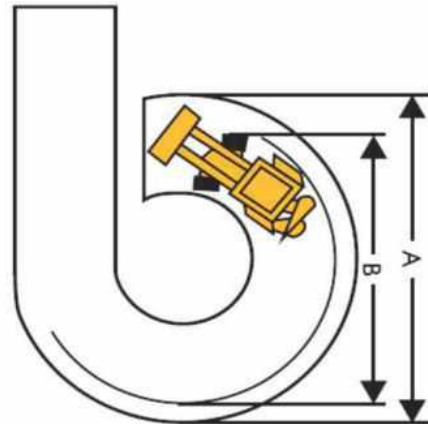
Turning circle

INNER WHEELS BRAKED

Outside loader bucket	A	8.8 mtr.
Outside wheels	B	6.3 mtr.

INNER WHEELS NOT BRAKED

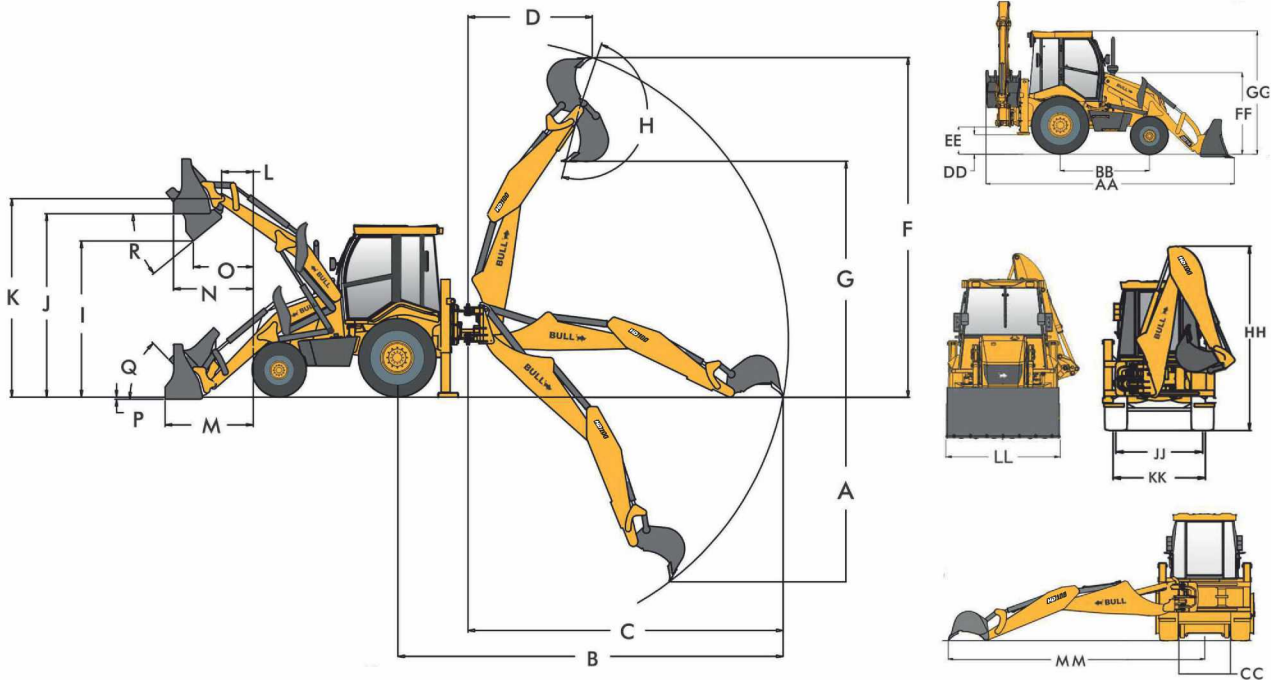
Outside loader bucket	A	11.6 mtr.
Outside wheels	B	8.9 mtr.



*Standard bucket in travel position

Excavator Performance

			Retraction	Telescopic
*Standard bucket Capacity	cu.m. (cu.ft)		0.27 (09.53)	
Maximum Dig Depth	mtr. (ft.-in)	A	4.60 (15.09)	5.59 (18.33)
Reach at Ground Level to Rear Wheel centre	mtr. (ft.-in)	B	6.80 (22.30)	7.91 (25.95)
Reach at Ground Level to Slew centre	mtr. (ft.-in)	C	5.50 (18.04)	6.60 (21.65)
*Reach at Full Height to Slew centre	mtr. (ft.-in)	D	2.85 (9.35)	3.56 (11.67)
*Maximum Working height	mtr. (ft.-in)	E	5.92 (19.42)	6.77 (22.21)
Maximum Load over height	mtr. (ft.-in)	F	4.14 (13.58)	5.02 (16.46)
*Bucket Rotation Power	degree	G		188°
*Bucket Tear out Force	Kgf	H		6,392
*Dipper Tear out Force	Kgf			3,316



PERFORMANCE DIMENSIONS

Dimensions marked () are highest/at par in the category with competition.

Loader Performance

*Standard GP bucket Capacity	cu.m (cu.ft)	1.20 (42.37)	
*Dump Height	mtr. (ft.-in)	2.96 (9.71)	I
*Load over Height	mtr. (ft.-in)	3.39 (11.12)	J
Pin Height	mtr. (ft.-in)	3.61 (11.84)	K
Pin Forward Reach	mtr. (ft.-in)	0.42 (1.37)	L
Reach at Ground	mtr. (ft.-in)	1.47 (4.82)	M
*Max . Reach at full height	mtr. (ft.-in)	1.28 (4.19)	N
*Reach at full height Bucket Dumping	mtr. (ft.-in)	0.89 (2.91)	O
Below ground level Dig Depth	mtr. (ft.-in)	0.10 (0.32)	P
*Roll back at ground	degree	49°	Q
*Dump Angle	degree	45°	R
*Bucket Breakout force	Kgf	8,793	
*Loader arm Break out force	Kgf	5,642	
Pay Load	Kgf	2,000	

Static Dimensions

Over all length	mtr. (ft.-in)	6.04 (19.81)	AA
*Wheelbase	mtr. (ft.-in)	2.22 (7.28)	BB
King post travel	mtr. (ft.-in)	1.03 (3.37)	CC
Minimum ground clearance	mtr. (ft.-in)	0.48 (1.57)	DD
Slew ground clearance	mtr. (ft.-in)	0.65 (2.13)	EE
Height to top of bonnet	mtr. (ft.-in)	1.99 (6.52)	FF
Height to top of cabin	mtr. (ft.-in)	3.00 (9.84)	GG
Overall Height	mtr. (ft.-in)	3.71 (12.17)	HH
Track width - Rear	mtr. (ft.-in)	1.70 (5.157)	JJ
Track width - Front	mtr. (ft.-in)	1.93 (6.33)	KK
*Width over Bucket	mtr. (ft.-in)	2.35 (7.70)	LL
*Side reach to centre line of machine	mtr. (ft.-in)	6.08 (19.94)	MM



BULL SALES & SERVICE NETWORK WORLDWIDE



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COUNTRIES AND COUNTING PARTNERING PROSPERITY GLOBALLY

BULL MACHINES PVT. LTD.

HEAD OFFICE :

S.F No. 5/1A, Trichy Road, L&T Bypass
Junction, Chinthamanipur,
Coimbatore – 641 103.

Tel.: +91-422-2270859, +91-98426 70184

Customer care No.: +91-422392222

E-mail: sales@bullmachine.com,
service@bullmachine.com

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Dealer

