



TATA HITACHI

Reliable solutions

SHINRAI

● RELIABLE ● TRUSTWORTHY ● CAPABLE



Model
SHINRAI-BX80

Operating Weight
7,800 kg

Bucket Capacity
Backhoe: 0.26 m³
Loader: 1.1 m³

**THE NEW
REVOLUTION IN
BACKHOE LOADERS**

RELIABLE DRIVE LINE FOR RELIABLE PERFORMANCE

- Superior engine performance
- Reliable transmission and axle system
- In-line fuel injection pump for easy maintenance

RELIABLE



Engine



Fuel Injection Pump



Axle & Transmission



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BE IN SYNC WITH SHINRAI

- GPS- and GPRS-based remote tracking through InSite*
- Monitors the machines' location and operations
- Offers information about the machine and the fleet

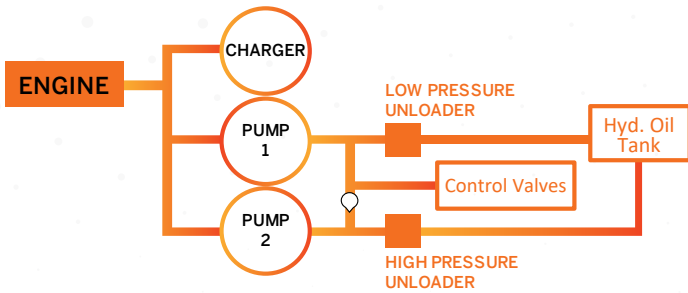
inSite
INSIGHTS INTO YOUR JOB SITE



TRUSTWORTHY

EXCELLENT HYDRAULIC SYSTEM

- Provides great performance with fuel efficiency
- High/Low pressure unloader systems ensure the passage of hydraulic oil, when needed
- Ensures optimal utilisation of engine and hydraulic power



Reliable Pump and Control Valve

CAPABLE

A CABIN THAT OFFERS MAXIMUM COMFORT AND SAFETY

- Maximum comfort, safety, and noise reduction
- Meets ROPS*/FOPS* safety requirements
- Offers air-conditioning*, ergonomic controls
- User-friendly consoles and ample storage space



Spacious Cabin

ULTIMATE SUPPORT FOR THE ULTIMATE MACHINE



SUPPORT CHAIN

- Warranty and post-warranty services
- On-site services through a wide network of dealerships
- Field diagnostic vehicle for immediate on-site resolution
- On-site and plant-based training programmes



Field Diagnostic Vehicle



Ground-level Inspection

*Optional features

TECHNICAL SPECIFICATIONS

ENGINE

Make	Cummins
Model	B3.980C30
Type	Turbo-charged, inter-cooled direct injection
Gross Power	80 HP (60 kW) @ 2,200 RPM
Max. Torque	325 Nm @ 1,300 RPM
Battery	12 V, 130 Ah, 95 amps
No. of Cylinders	4 nos.
Bore	102 mm
Stroke	120 mm
Displacement	3,922 cc

HYDRAULIC SYSTEM

Excellent Hydraulic System (EHS) with Tandem gear pump for lower fuel consumption
 System Pressure 245 bar
 Max. Pump Flow 128 lpm @ 2,200 RPM
Control Valve: Sectional valves that are individually replaceable.

TRANSMISSION

- Equipped with Carraro-make transmission with synchro-shuttle
- Solenoid-type mechanism allows smooth, easy forward and reverse movements.
 Transmission allows for four forward and two reverse speeds

AXLE

Front Axle

- Heavy-duty, non-powered axle
- Floats up to +/-16 degrees to handle uneven terrains

Rear Axle

- Rear Carraro axle that is heavy-duty and long-lasting
- High brake torque
- Zero-maintenance performance

SPEEDS

Forward

1st.....	5.78 kmph	1st.....	7 kmph
2nd.....	9.23 kmph	2nd.....	11.22 kmph
3rd.....	20.60 kmph	3rd.....	Not recommended
4th.....	40.44 kmph	4th.....	Not recommended

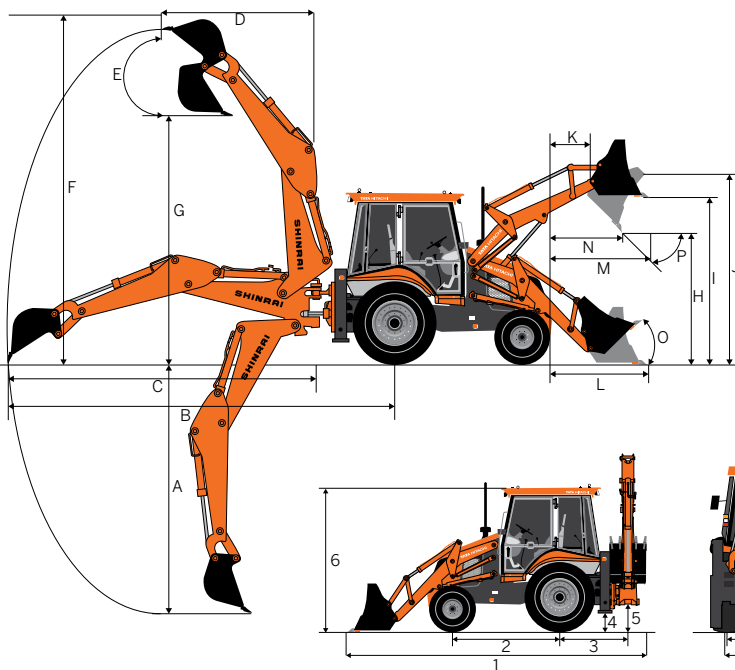
Reverse

BACKHOE PERFORMANCE

Backhoe Bucket digging force.....	5,685 kgf	Backhoe Arm Length.....	1.96 m
Backhoe Arm digging force.....	3,220 kgf	Backhoe Boom Length.....	2.46 m
Slider Frame Travel.....	1,050 mm	Bucket width	752 mm
Lift Capacity of bucket pivot at full reach (no bucket fitted)	1,629 kg		

Dim. Notations	Dimension	Description
A	4,702	Max. digging depth
B	6,850	Max. reach from rear axle centre
C	5,480	Max. reach from slew centre
D	2,012	Max. reach during loading from slew centre
E	180°	Bucket rotation angle
F	6,100	Max. cutting height in backhoe
G	4,355	Max. loading height in backhoe

All dimensions are in mm



BRAKES

Service Brake: Oil-immersed wet disc, that is hydraulic-actuated, with independent pedals for better control in narrow spaces
 Parking Brake: Hand-operated disc brake on the rear axle

STEERING

Type Hydraulic actuation with priority for smooth control
 Turning Radius..... Inner wheels not braked
 Outside Loader Bucket..... 11.73 m
 Outside Wheels..... 8.9 m

TYRES

Front (Std.).....	9x16, 16 PR
Rear (Std.).....	16.9 x 28, 12 PR
Rear (HD).....	14x25, 20 PR

REFILL CAPACITY

Fuel Tank.....	128 L
Engine Oil.....	15 L
Engine Coolant.....	15.7 L
Transmission Oil.....	16 L
Rear Axle Oil.....	17.1 L
Hydraulic Oil Refill.....	86 L

LOADER PERFORMANCE

Below ground dig depth.....	110 mm
Loader bucket break-out force.....	6,580 kgf
Loader arm break-out force.....	5,488 kgf
Payload.....	1,920 kg
Loader Bucket capacity.....	1.1 m ³

Dim. Notations	Dimension	Description
H	2,750	Dump height
I	3,276	Load over height
J	3,513	Pin height
K	367	Pin forward reach
L	1,619	Reach at ground level
M	1,341	Max. reach at full height
N	860	Reach in bucket dump position

Bucket Angles		
O	45°	Bucket roll-in angle
P	45°	Bucket rotation angle

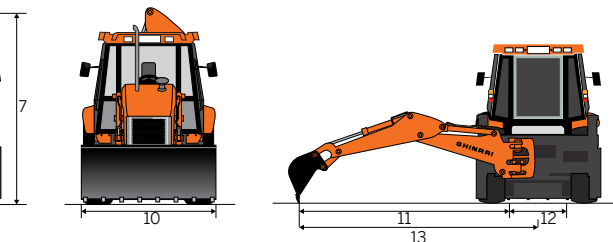
All dimensions are in mm

OVERALL DIMENSIONS

Width of loader bucket.....	2,352 mm
Front tyre tread.....	1,710 mm
Rear tyre tread.....	1,900 mm
Height to top of cabin.....	2,960 mm

Dim. Notations	Dimension	Description
1	5,915	Transport length
2	2,150	Wheel base
3	1,370	Slew centre to rear axle centre
4	350	Lowest ground clearance point
5	490	Ground clearance to slew centre
6	2,960	Height of cabin
7	3,605	Total transport height
8	1,710	Front wheel tread width
9	1,900	Rear wheel tread width
10	2,352	Loader bucket width
11	5,650	Max. side reach to slew centre
12	1,050	Total side-shift travel
13	6,175	Max. side reach to machine centre

All dimensions are in mm



Authorised Dealer

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These specifications are subject to change without notice. Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some difference in colour and features.