



**TATA HITACHI**

Reliable solutions

# SHINRAI

● RELIABLE ● TRUSTWORTHY ● CAPABLE



Model  
**SHINRAI-BX80**

Operating Weight  
**7,800 kg**

Bucket Capacity  
**Backhoe: 0.26 m<sup>3</sup>**  
**Loader: 1.1 m<sup>3</sup>**

**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



Engine



Fuel Injection Pump



Axle & Transmission



# SHINRAI

• RELIABLE • TRUSTWORTHY • CAPABLE



## BE IN SYNC WITH SHINRAI

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

**inSite**  
INSIGHTS INTO YOUR JOB SITE



BE IN SYNC WITH YOUR MACHINE



Location, Geo Fencing

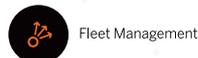


Fuel Levels



Asset Utilization

## INSITE HELPS YOU WITH



Fleet Management



Ability to track Machine Maintenance/Service due date



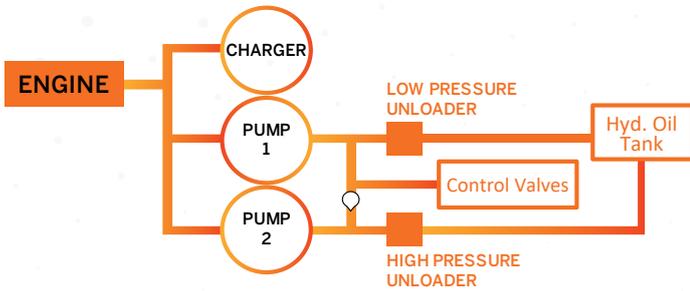
Overall Fleet Summary in Graphical Widgets (Dashboard)



Asset Operation

## EXCELLENT HYDRAULIC SYSTEM

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



Reliable Pump and Control Valve

## 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



- 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

## LOADER BUCKET OPTIONS

**Standard Loader Bucket 1.1 m<sup>3</sup>:** Loader bucket is used for standard operations like loading and dozing applications.

**6-in-1 Loader Bucket:** Multi-purpose loader bucket is used for applications like loading, dozing, leveling, grabbing, spreading and backfilling. This is useful in construction sites for performing various applications.



## REAR TYRES



**General Purpose Tyres:** Recommended for soft soil strata applications. Provides better grip and helps maneuvering machine in slushy soil strata.

**Heavy Duty Tyres:** Recommended for hard soil strata applications. Has additional ply rating to withstand hard soil conditions like crusher site.

## BACKHOE BUCKET OPTIONS



**Standard Backhoe bucket 0.26 m<sup>3</sup>:** It is recommended for soil applications and optimally designed for loading with high bucket fill ratio ensuring more load in each bucket pass.

**Heavy Duty bucket 0.22 m<sup>3</sup>:** It is used in applications like crushing where material handled is predominantly stone chips or the likes.

**Trench Buckets, 1 ft and 1.5 ft width:** Used exclusively for pipe-laying and trench applications. Currently offering two varieties of buckets based on the width of the trench. The 1 feet bucket is used for optical fiber cable laying operations and the 1.5 feet bucket is preferred for water pipe and electrical line applications.



**Ditch Cleaning Bucket:** This bucket comes with perforated holes in the bucket which helps in draining water from the load taken in the bucket. It is of great use in solid waste handling.

**Ripper Tooth:** Used for pulling a block of rock or concrete.

## ATTACHMENTS



### Rock Breaker:

Due to exponential growth in construction sector of both Urban & Rural India, this attachment is used extensively for demolition applications and breaking small to medium sized stones. The Tata Hitachi B60 Super Breaker coupled with SHINRAI BX80 Backhoe Loader offers superior performance & increased efficiency.

**Auger:** Used for drilling/pole erection/ plantation/fencing/casing applications. The Tata Hitachi 8000MAX offers high power torque which can dig up to 6 M deep and 1200 MM diameter hole.



**Quick Coupler:** The Tata Hitachi Quick Coupler allows fast changeover of bucket & multiple attachments, thereby achieving increased productivity due to reduced changeover time and labor.

# 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

## SPEEDS

### Forward

1st.....	5.78 kmph
2nd.....	9.23 kmph
3rd.....	20.60 kmph
4th.....	40.44 kmph

### Reverse

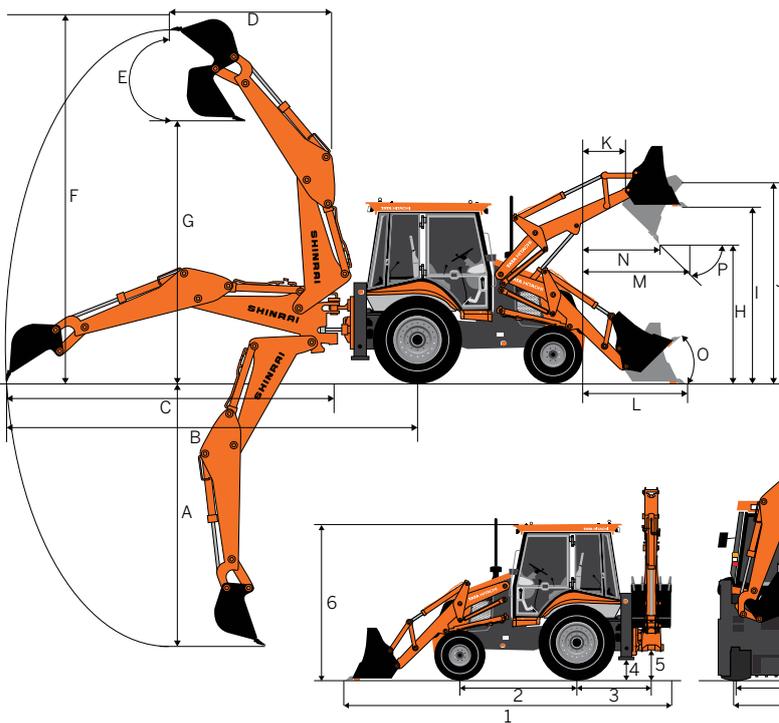
1st.....	7 kmph
2nd.....	11.22 kmph
3rd.....	Not recommended
4th.....	Not recommended

## 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<sup>3</sup>

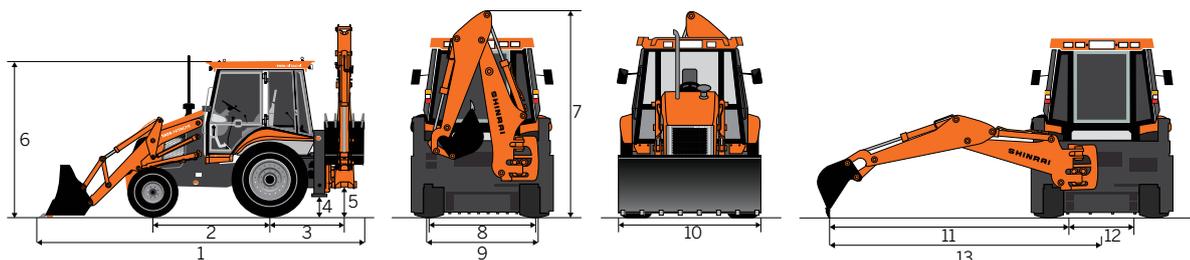
Dim. Notations	Dimension	Description
H	2,750	Dump height
I	3,276	Load over height
J	3,513	Pin height
K	367	Pin forward reach
L	1,619	Reach at ground level
M	1,341	Max. reach at full height
N	860	Reach in bucket dump position
Bucket Angles		
O	45°	Bucket roll-in angle
P	45°	Bucket rotation angle

All dimensions are in mm

## OVERALL DIMENSIONS

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





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Authorised Dealership

These specifications are subject to change without prior notice. The machine depicted may vary from the actual machine. Please contact our nearest office for latest specifications. Accessories shown here are not part of the standard equipment. Performance of the machine may vary with site and operating conditions encountered.