

TATA HITACHI

Reliable solutions

# SHINRAI **POWER**

• RELIABLE • TRUSTWORTHY • CAPABLE

**YOUR STRONGEST PARTNER 4x4**



Model  
**SHINRAI POWER**

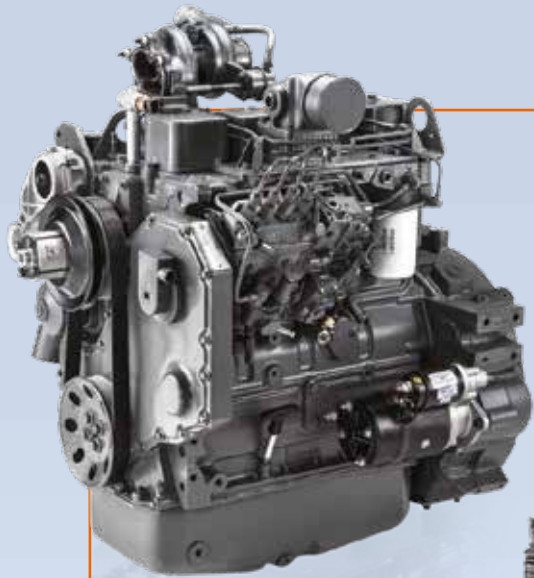
Operating Weight  
**8,680 Kg**

Engine  
**99 HP**

Bucket Capacity  
**Backhoe: 0.30 m<sup>3</sup>**  
**Loader: 6-in-1 bucket**







### RELIABLE DRIVE LINE FOR RELIABLE PERFORMANCE

- The most powerful engine (99 HP)
- Superior engine performance
- Globally proven and reliable transmission & axles
- In-line fuel injection pump (FIP) for cost-effective maintenance



IN-LINE FUEL  
INJECTION PUMP



AXLE & TRANSMISSION



### RELIABLE STRUCTURES FOR LONG LIFE AND SUPERIOR PERFORMANCE IN TOUGH CONDITIONS

- Strong and tested structures for tough operations
- Higher reaches of loader and backhoe attachments for faster and effortless performance
- Manufactured with high grade steel through robotic welding



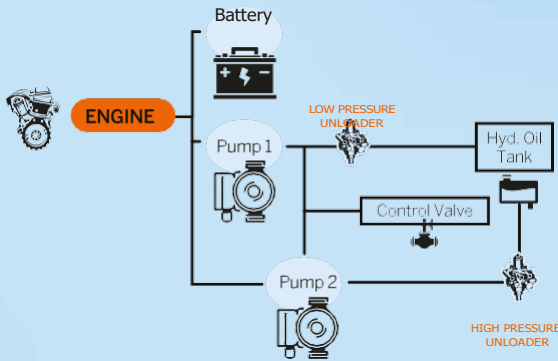
ROBUST STRUCTURES



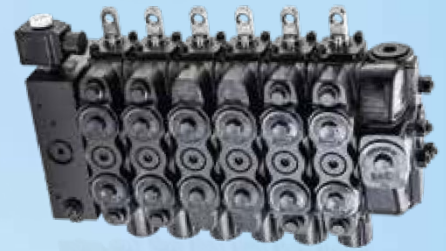


## EXCELLENT HYDRAULIC SYSTEM FOR MORE POWER WITH HIGH FUEL EFFICIENCY

- Provides better performance with increased fuel efficiency
- High/Low pressure unloader systems ensure optimum hydraulic oil flow as per need
- Ensures optimal utilisation of engine and hydraulic power



HYDRAULIC PUMP



CONTROL VALVE

## A CABIN THAT OFFERS MAXIMUM COMFORT AND SAFETY



- Well ventilated and spacious cabin
- Excellent visibility
- Comfortable operator seat
- Large leg space
- Air-conditioner\*
- Ergonomic controls
- User-friendly consoles
- Multi-functional display
- Ample storage space
- Music system with FM radio, AUX and USB.
- Meets FOPS safety requirements
- Low engine noise and vibration

\*Optional







**SUPPORT CHAIN**

## **ULTIMATE SUPPORT FOR THE ULTIMATE MACHINE**

- Warranty, extended warranty and post-warranty services
- After-sales support through trained engineers
- Easy availability of genuine parts



**GROUND-LEVEL  
INSPECTION**



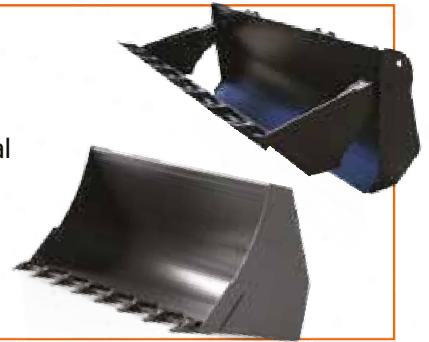
**WAREHOUSE**



## LOADER BUCKET OPTIONS

**6-in-1 Loader Bucket:** Used for applications like loading, dozing, leveling, grabbing, spreading and backfilling. This bucket is useful in performing a large variety of special applications.

**Loader Tilt Bucket:** Used for general applications involving loading and dozing.



## 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 0.30 m<sup>3</sup>:** Recommended for soil applications and optimally designed for loading with high bucket fill ratio, thus ensuring higher payload in each bucket pass.

**Heavy Duty bucket 0.22 m<sup>3</sup>:** Used in applications like crushing where material handled is predominantly stone chips and similar material.

**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.

## ATTACHMENTS



**Rock Breaker:**  
For demolition and breaking of small to medium sized rocks.



**Auger:**  
For drilling, pole erection, plantation, fencing and similar applications.



**Quick Coupler:**  
Coupler allows fast changeover between bucket and other attachments.



**Ripper Tooth:**  
For removing rocks, tree stumps and ripping hard ground. Most useful in ground clearance applications.



**Hedge Trimmer:**  
To cut back protruding branches on road and railway lines. Best for tree and bush trimming applications.



**Mulcher:**

- For clearing dense bushes, grinding small trees and cutting thick grass.
- For Road side, canal and river bank clearance applications.



# TECHNICAL SPECIFICATIONS

## ENGINE

Make ..... Cummins  
 Model ..... B3.9 99C 32  
 Type ..... Turbo-charged, inter-cooled direct injection  
 Gross Power ..... 99 HP (73.4 kW) @ 2,200 RPM  
 Max. Torque ..... 410 Nm @ 1,350 RPM  
 Battery ..... 12 V, 150 Ah  
 No. of Cylinders ..... 4 nos.  
 Bore ..... 102 mm  
 Stroke ..... 120 mm  
 Displacement ..... 3,922 cc  
 Alternator ..... 95 Amps

## 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

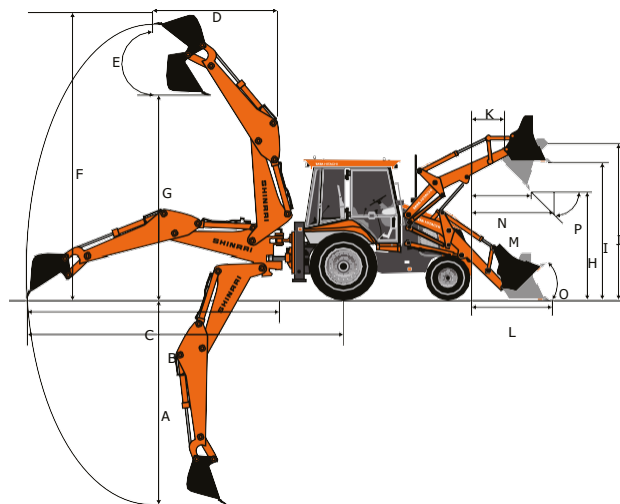
Forward		Reverse	
1st	4 kmph	1st	5 kmph
2nd	7 kmph	2nd	8 kmph
3rd	17 kmph	3rd	Not recommended
4th	29 kmph	4th	Not recommended

## BACKHOE PERFORMANCE

Backhoe Bucket digging force ..... 5,534 kgf    Backhoe Arm Length ..... 1.96 m  
 Backhoe Arm digging force ..... 3,136 kgf    Backhoe Boom Length ..... 2.46 m  
 Slider Frame Travel ..... 1,050 mm    Bucket width ..... 752 mm

Dim. Notations	Dimension	Description
A	5,003	Max. digging depth
B	7,196	Max. reach from rear axle centre
C	5,798	Max. reach from slew centre
D	2,520	Max. reach during loading from slew centre
E	180°	Bucket rotation angle
F	6,526	Max. cutting height in backhoe (Stabilizer fully extended position)
G	4,476	Max. loading height in backhoe (Stabilizer fully extended position)

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

## REFILL CAPACITY

Fuel Tank ..... 128 L  
 Engine Oil ..... 10.0 L  
 Engine Coolant ..... 15 L  
 Transmission Oil ..... 19 L  
 Rear Axle Oil ..... 18.6 L  
 Hydraulic Oil Refill ..... 86 L  
 Front Axle-Live ..... 9.6 L (4WD)

## LOADER PERFORMANCE

Below ground dig depth ..... 110 mm  
 Loader bucket break-out force ..... 6,499 kgf  
 Loader arm break-out force ..... 5,135 kgf  
 Payload ..... 1,920 kg  
 Standard Bucket ..... 6-in-1 bottom dump bucket 1.0 m<sup>3</sup>  
 Tilt Bucket ..... 1.1 m<sup>3</sup>

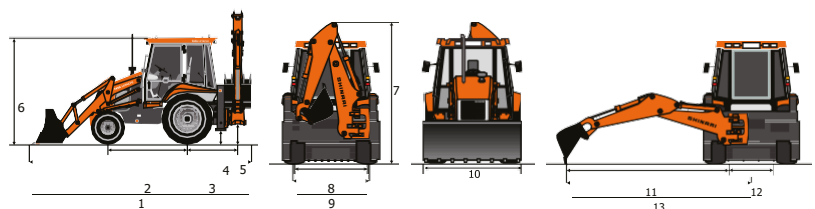
Dim. Notations	Dimension	Description
H	2,842	Dump height
I	3,509	Load over height
J	3,729	Pin height
K	454	Pin forward reach
L	1,817	Reach at ground level
M	1,432	Max. reach at full height
N	982	Reach in bucket dump position
<b>Bucket Angles</b>		
O	45°	Bucket roll-in angle
P	45°	Bucket rotation angle

All dimensions are in mm

## MAIN MACHINE STATIC DIMENSIONS

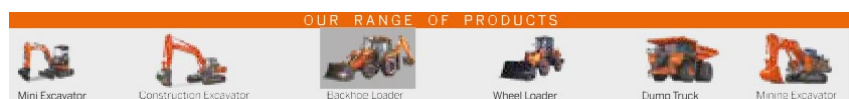
Symbol	Measured value	Description
1	6,414	Transport length
2	2,110	Wheel base
3	1,415	Slew centre to rear axle centre
4	295	Minimum ground clearance point
5	485	Slew ground clearance
6	2,885	Height of cabin
7	3,820	Machine transportation height
8	1,710	Front wheel tread width
9	1,900	Rear wheel tread width
10	2,357	Loader bucket width
11	5,798	Max. side reach to slew centre
12	1,050	Total side-shift travel
13	6,323	Max. side reach to machine centre
14	715	Static tire radius

All dimensions are in mm



## Tata Hitachi Construction Machinery Company Private Limited

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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.

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