TATA HITACHI

Reliable solutions

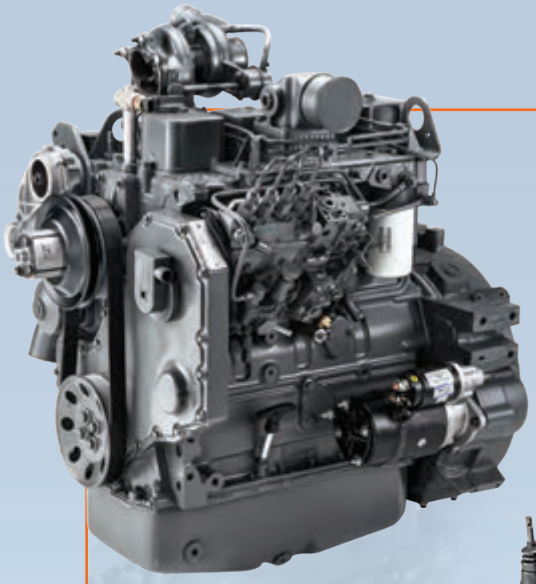
SHINRAI POWER

• RELIABLE • TRUSTWORTHY • CAPABLE

YOUR STRONGEST PARTNER 4x4

BUILT FOR TOUGH CONDITIONS

Model	Operating Weight	Engine	Bucket Capacity
SHINRAI POWER	**8,680 Kg**	**99 HP**	**Backhoe: 0.30 m^3** **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

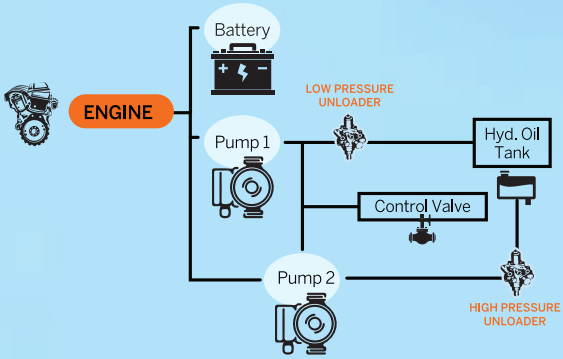
RELIABLE STRUCTURES FOR
LONG LIFE AND SUPERIOR PERFORMANCE IN TOUGH CONDITIONS

- 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

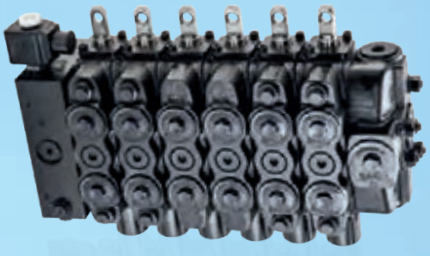
ROBUST STRUCTURES

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

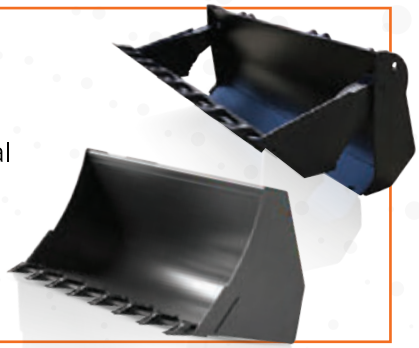
ULTIMATE SUPPORT FOR THE ULTIMATE MACHINE

- 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.

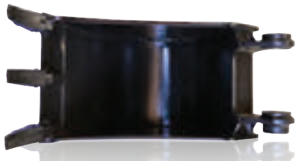
REAR TYRES

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 m³: 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 m³: 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	4BTAA 3.9 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, Powered Axel.
- Floats up to +/- 8 degrees to handle uneven terrains
- 4WD - Front axle,king pin angle = 7° camber angle = 1.5 Ratio Total = 13,714:1

Rear Axle

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

SPEEDS

@1850 RPM & Standard GP tyres

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

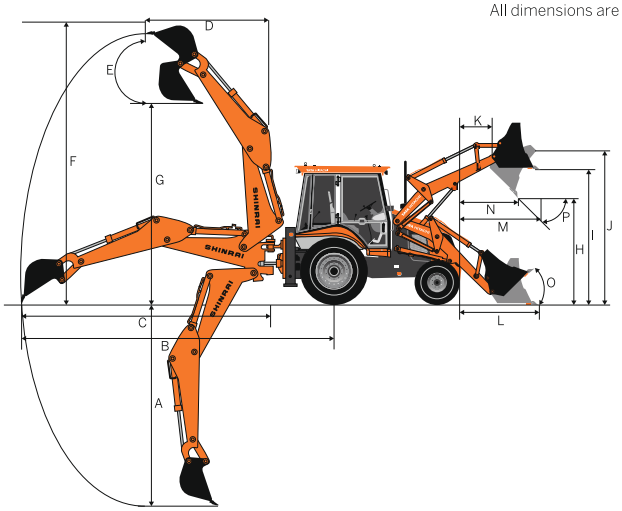
Parameter	Standard Backhoe	Long Reach Backhoe
Backhoe Bucket Digging force	5685 kgf	5534 kgf
Backhoe Arm Digging force	3220 kgf	3136 kgf
Backhoe Boom length	2.46 m	2.76 m

Slider Frame Travel - 1,050 mm
Backhoe Arm Length - 1.96 m

Bucket Width (STD) - 752 mm
Bucket Width (Option) - 661 mm / 600 mm

Dim. Notations	Dimension (Standard Backhoe)	Dimension (Long Reach Backhoe)	Description
A	4700	5003	Max. Digging depth
B	6880	7196	Max. reach from Rear axle Centre
C	5440	5798	Max. reach from Slew Centre
D	2001	2520	Max. reach during loading from Slew Centre
E	180°		Bucket rotation angle
F	6050	6526	Max. Cutting Height in Backhoe (Stabilizer fully extended condition)
G	4200	4476	Max. Loading Height in Backhoe (Stabilizer fully extended condition)

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 Wider (4WD)	12.5/80-18, 12 & 14PR
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	13 L
Transmission Oil	16 L
Rear Axle Oil	17.5 L
Hydraulic Oil Refill	86 L
Front Axle (Live)	9.1 L (4WD)

LOADER PERFORMANCE

Below ground dig depth	55 mm
Loader bucket break-out force	6,499 kgf
Loader arm break-out force	5,135 kgf
Payload	1,920 kg
Standard Tilt Bucket	1.1 m^3
Optional Bucket	6-in-1 bottom dump bucket 1.0m^3

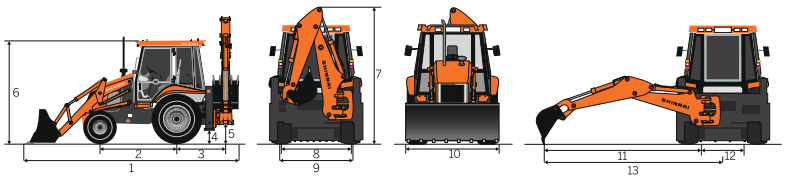
Dim. Notations	Dimension	Description
H	2,842	Dump height
I	3,509	Load over height
J	3,729	Pin height
K	454	Pin forward reach
L	1,817	Reach at ground level
M	1,432	Max. reach at full height
N	982	Reach in bucket dump position
Bucket Angles		
O	45°	Bucket roll-in angle
P	45°	Bucket rotation angle

All dimensions are in mm

MAIN MACHINE STATIC DIMENSIONS

Symbol	Dimension (Standard Backhoe)	Dimension (Long Reach Backhoe)	Description
1	6414		Transport Length
2	2110		Wheelbase
3	1415		Slew Centre to Rear Axle Centre
4	295		Minimum Ground Clearance point
5	485		Slew ground clearance
6	2885		Height of Cabin
7	3530	3820	Machine Transportation height
8	1710		Rear Wheel tread width
9	1900		Front Wheel Tread width
10	2357		Loader Bucket Width
11	5520	5798	Max reach from Slew center
12	1050		Total Side Shift Travel
13	5993	6323	Max side reach to Machine center

All dimensions are in mm



Tata Hitachi Construction Machinery Company Private Limited
Registered Office: Jubilee Building, 45 Museum Road Bangalore, India 560025
Telephone:+91 80 66953301 / 02/ 03/ 04/ 05 | Email: info@tatahitachi.co.in

OUR RANGE OF PRODUCTS

Authorised Dealership

THCM/SHINRAI-POWER/GP/E / JUN/2024