

TATA HITACHI

Reliable solutions



SHINRAI

RELIABLE
 TRUSTWORTHY
 CAPABLE

Aap Ki Unnati Ka Sachcha Saathi



Model
SHINRAI PRO

Engine Gross power

47 HP

Operating Weight

STD: 7940 Kg

Bucket Capacity

Backhoe: 0.26 m³

Loader: 1.1 m³





RELIABLE ENGINE

FOR EXCEPTIONAL PERFORMANCE

- New fuel efficient reliable engine
- Superior engine performance
- 4 valve per cylinder
- Inline fuel injection pump for easy maintenance
- Zero maintenance cyclonic pre-cleaner



RELIABLE DRIVE LINE FOR

TOP-NOTCH PERFORMANCE

- Electrically controlled parameters for optimized performance and increased life
- Proven transmission and axle system
- Easy maintenance







INTELLIGENT OPTIMUM HYDRAULIC SYSTEM OHS

- Provides great performance with fuel efficiency
- Expert hydraulic flow optimization through intelligent controller and variable displacement pump to match high performance at lower fuel consumption
- Ensures optimal utilisation of engine and hydraulic power
- Long lasting hydraulic hoses for superior life



CONTROL VALVE



VARIABLE DISPLACEMENT PUMP (EDS + LS)



CONTROLLER



A CABIN THAT OFFERS

MAXIMUM COMFORT AND SAFETY

- Well ventilated and spacious cabin
- Excellent visibility
- Comfortable operator seat
- Large leg space for comfortable operation
- Ergonomic controls

- User-friendly consoles
- Multi-functional display
- Ample storage space
- Music system with FM and USB
- Meets FOPS* safety requirements
- Quieter engine



BUCKET OPTIONS

LOADER BUCKETS

- Standard Loader Bucket -Used for standard operations like loading and dozing.
- 6-in-1 Loader Bucket Multipurpose bucket used for loading, dozing, leveling, grabbing, spreading and backfilling.



BACKHOE BUCKETS

- Standard Backhoe Bucket- Recommended for soil applications.
- Heavy Duty Bucket Used in crushing Application.
- **Trench Buckets** Used for pipe-laying, optical fibre cable laying and trench applications.
- **Ditch Cleaning Bucket** Comes with perforated holes which help in draining water so that solid waste load can be taken and used for solid waste management.

TYRE OPTIONS

General purpose tyres & heavy duty tyres

- General purpose tyres recommended for soft soil strata applications.
- Heavy Duty Tyres recommended for hard soil strata applications.



ATTACHMENT OPTIONS



- Rockbreaker Extensively used for demolition applications
- Quick Coupler allows fast changeover of bucket and multiple attachments.



- Auger Used for drilling, pole erection, plantation, fencing, casing applications.
- Ripper Tooth Used for pulling a block of rock or concrete.





TELEMATICS SUITE

FOR REAL TIME MONITORING







- Monitors machine location and operations
- Offers information about the machine and the fleet











SUPPORT CHAIN



Location, Geo Fencing



Fuel Level



Fleet Management



Overall Fleet Summary in Graphical Widgets (Dashboard)



Asset Utilisation



Asset Operation



Ability to track Machine Maintenance/Service due date



Accessible on Web and App

ULTIMATE SUPPORT FOR

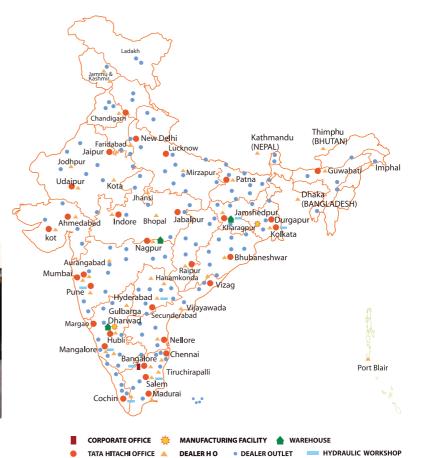
THE ULTIMATE MACHINE

- Warranty, extended 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





GROUND-LEVEL INSPECTION





SPECIFICATIONS

ENGINE

Make	Cummins
Model	4B3.3T-35.1-C
	Turbo-charged, Water Cooled, 4-cycle diesel engine
Max. Torque	215 Nm @ 1,320 RPM
Battery	12 V, 130 Ah
No. of Cylinders	4 nos
Bore	95 mm
Stroke	115 mm
Displacement	3,261 cc
Alternator	120Amps

HYDRAULIC SYSTEM

Intelligent Optimum Hydraulic system, Variable Displacement Pump with Electric Displacement Control and Load Sense to optimize fuel consumption System Pressure ... Max. Pump Flow 265 bar ... 105 lpm @ 1,950 RPM Control Valve: Sectional valves that are individually replaceable.

TRANSMISSION

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

AXLE

I Front Axle

- · Heavy-duty, non-powered axle
- Floats up to +/-8 degrees to handle

Rear Axle

- Rear heavy-duty Carraro axle
- High brake torque

SPEEDS

Forward		
1st	. 5	kmph
2nd	. 7	kmph
3rd	16	kmph
4th	28	kmph

Poverse

1st	5 kmph
2nd	7 kmph
3rd	Not recommended
4th	Not recommended

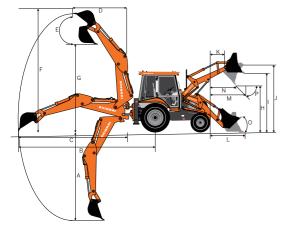
Speeds @ 1950 rpm with standard tyres

BACKHOE PERFORMANCE

Backhoe Bucket digging force 6,026 kgf	Backhoe Arm Length1.96 m
Backhoe Arm digging force 3,087 kgf	Backhoe Boom Length 2.46 m
Slider Frame Travel1,050 mm	Bucket width 752 mm

Dim. Notations	Dimension	Description
А	4,700	Max. digging depth
В	6,880	Max. reach from rear axle centre
С	5,440	Max. reach from slew centre
D	2,001	Max. reach during loading from slew centre
E	180°	Bucket rotation angle
F	6,050	Max. cutting height in backhoe (Stabilizer fully extended position)
G	4,200	Max. loading height in backhoe (Stabilizer fully extended position)
Н	2,690	Dump height
I	3,305	Load over height
J	3,550	Pin height
K	360	Pin forward reach

All dimensions are in mm



BRAKES

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

Type	Hydraulic actuation for smooth control
	inner wheel braking
	11.73 m
	8.6 m

TYRES

Front (Std.)	, 16 PR
Rear (Std.) 16.9 x 28	, 12 PR
Rear (HD)	20 PR

REFILL CAPACITY

Fuel Tank	100 L
Engine Oil	
Engine Coolant	
Transmission Oil	20 L
Rear Axle Oil	
Hydraulic Oil Refill	65 L

LOADER PERFORMANCE

Below ground dig depth	110 mm
Loader bucket break-out force	
Loader arm break-out force	5,139 kgf
Payload	1,800 kg
Loader Bucket capacity	1.1 m ³

Dim. Notations	Dimension	Description	
L	1,620	Reach at ground level	
М	1,332	Max. reach at full height	
N	840	Reach in bucket dump position	
Bucket Angles			
0	45°	Bucket roll-in angle	
Р	45°	Bucket rotation angle	

All dimensions are in mm

BACKHOE BUCKET OPTIONS

Туре	Bucket size	Bucket width	Bucket weight	No. of tooth point
Standard bucket	0.26 m ³	752mm	220 kg	5
Heavy duty bucket	0.22 m ³	695mm	195 kg	5
Trench bucket	0.09 m ³	1 ft	122 kg	3
Trench bucket	0.12 m³	1.5 ft	135 kg	3
Ditch cleaning bucket	0.35m^3	945mm	220 kg	NA

LOADER BUCKET OPTIONS

Туре	Bucket size	Bucket width	Bucket weight	No. of tooth point
Loader bucket	1.1 m³	2352 mm	560 kg	8
6 in 1 Loader bucket	1.0 m ³	2350mm	680 kg	8

OVERALL DIMENSIONS

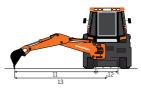
Dim. Notations	Dimension	Description
1	6,040	Transport length
2	2,130	Wheel base
3	1,370	Slew centre to rear axle centre
4	320	Minimum ground clearance
5	485	Slew ground clearance
6	2,940	Height of cabin
7	3,530	Machine Transport Height
8	1,900	Front wheel tread width
9	1,700	Rear wheel tread width
10	2,354	Loader bucket width
11	5,520	Max. side reach to slew centre
12	1,035	Total side-shift travel
13	6,050	Max. side reach to machine centre

All dimensions are in mm









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