



**TATA HITACHI**

Reliable solutions

# YOUR MOST TRUSTED PARTNER

**SHINRAI** *PRIME*

• RELIABLE • TRUSTWORTHY • CAPABLE



Model  
**SHINRAI PRIME**

Engine Gross power  
**74.3 HP**

Operating Weight  
**STD: 8,050**  
**4WD: 8,150**  
**Loader: 7,800**

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



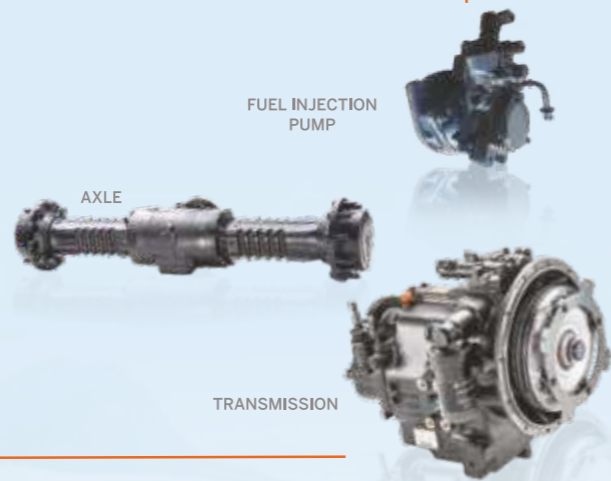


**RELIABLE ENGINE  
FOR EXCEPTIONAL PERFORMANCE**

- New fuel efficient CEV IV Japanese engine
- Superior engine performance
- Engine control unit (ECU) equipped with CRDI (Common Rail Direct Injection) system - Provides higher output power and torque rise while offering exceptional fuel efficiency
- 4 valve per cylinder
- Engine mounted After Treatment Device (DOC- Diesel Oxidation Catalyst)
- Automatic fuel priming system

**RELIABLE DRIVE LINE FOR  
TOP-NOTCH PERFORMANCE**

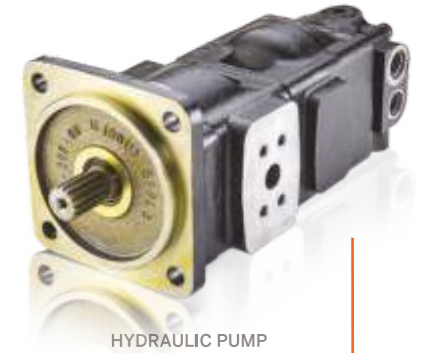
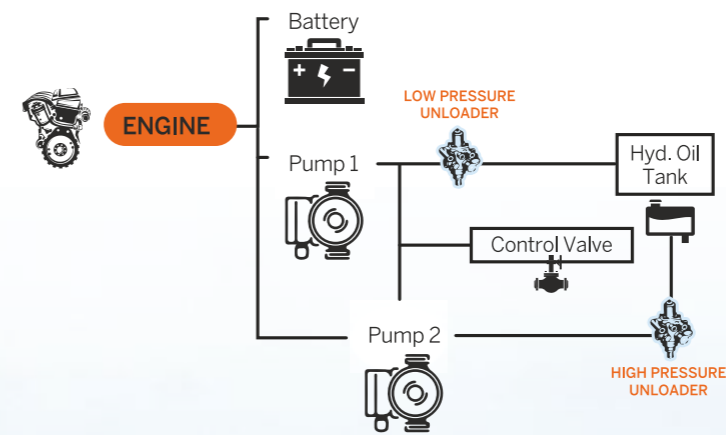
- Electronically controlled parameters for optimized performance and increased life
- Proven transmission and axle system
- Rotary fuel injection pump
- 4 wheel drive\*



**4x4**

**EXCELLENT HYDRAULIC SYSTEM  
FOR HIGH CALIBER PERFORMANCE**

- Provides great performance with fuel efficiency
- High/Low pressure unloader systems ensure optimum hydraulic oil, when needed
- Ensures optimal utilisation of engine and hydraulic power
- Long lasting hydraulic hoses for superior life



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 for comfortable operation
- Ergonomic controls
- User-friendly consoles
- Multi-functional digital display
- Ample storage space
- Air-conditioner\*
- Meets FOPS\* safety requirements
- Quieter engine
- Powerful music system with FM, USB, AUX, Bluetooth connectivity and calling facility.
- Fuel theft alarm
- Machine theft alarm
- LED work lights

## TELEMATICS SUITE FOR REAL TIME MONITORING



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



- Location, Geo Fencing
- Fuel Level Indication
- Fuel Consumption Report
- 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



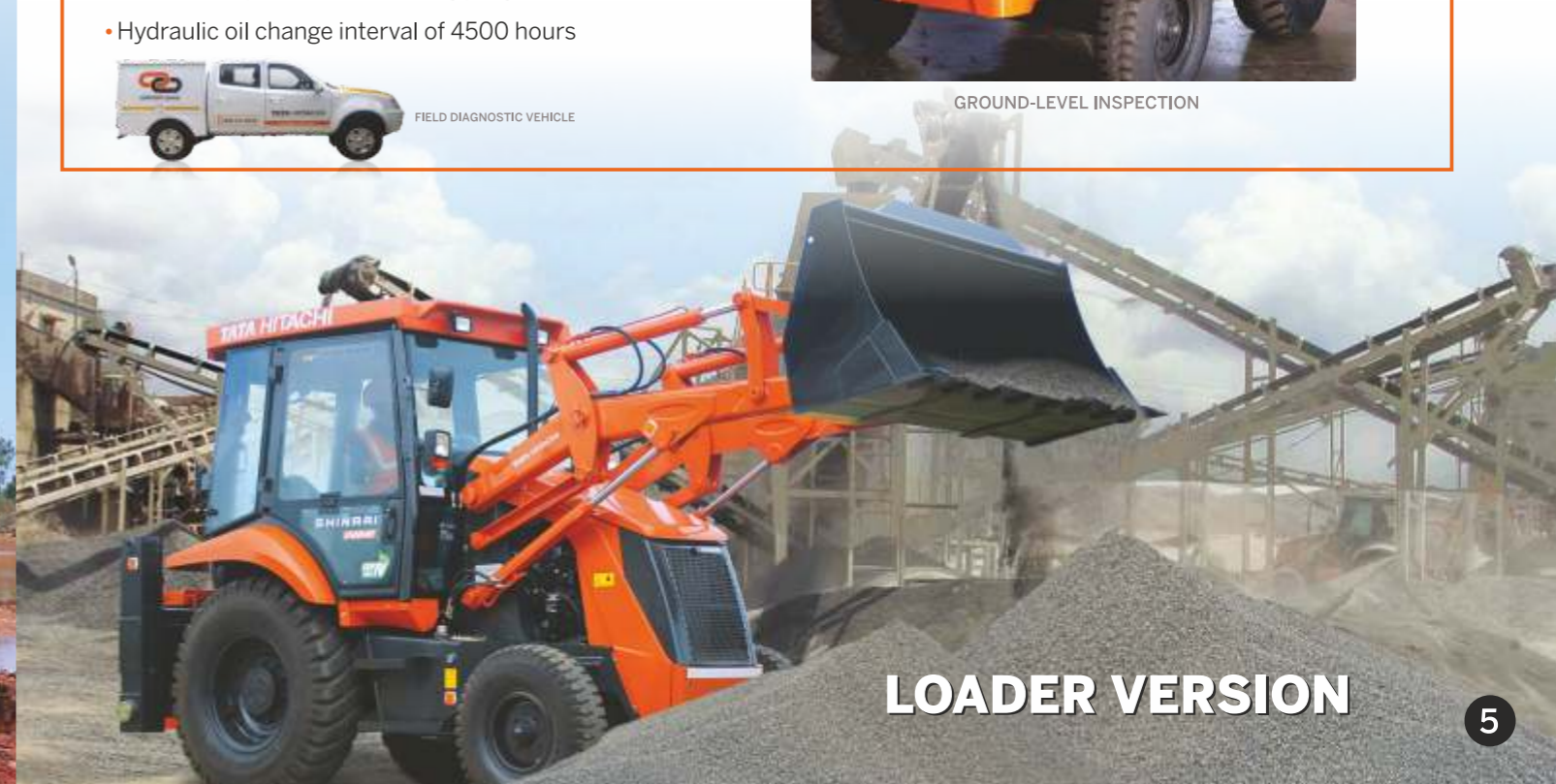
- Warranty, extended warranty and post-warranty services.
- On-site services through a wide network of dealerships
- Fault codes display in the cluster for ease of maintenance and troubleshooting
- Field diagnostic vehicle for immediate on-site resolution
- On-site and plant-based training programmes
- Hydraulic oil change interval of 4500 hours



GROUND-LEVEL INSPECTION



FIELD DIAGNOSTIC VEHICLE



LOADER VERSION



A RANGE OF ATTACHMENTS





**ROCK BREAKER**

Extensively used for demolition applications

**Specifications**

- Operating Weight- 431 kg
- Operating Pressure- 100 to 140 bar
- Impact Blow Rate- 350 to 850 bpm




**AUGER**

Used for drilling, Pole erection, Plantation, Fencing, Casing applications

**Specifications**

- Torque Range- 2717 NM to 8152 NM
- Oil Pressure Range- 80 to 240 bar
- Diameter- 150 mm-1200 mm



**FORKLIFT**

Pallet Handling, Container loading

**Specifications**

- Lifting Capacity- 1500 kg
- Fork Length- 1220 mm



**JIB CRANE**

Container movements & Other material lifting

**Specifications**

- Lifting Capacity- 1000 kg
- Distance from Fron Tyre-3897 mm
- Lift Height from Ground- 5318 mm



**QUICK COUPLER**

Allows fast changeover of buckets and attachments.

**Specifications**

- Operating Weight- 87 kg
- Front & Rear Pin Diameter- 50 & 55 mm



**MULCHER**

Urban development & Bush cutting

**Specifications**

- Drum Speed- 2400 RPM
- Cutting Drum Width-1000 mm
- Oil Pressure- 160 bar-180 bar




**RIPPER TOOTH**

Used for pulling a block of rock or concrete.

**Specifications**

- Digging Force- 5685 kgf




**GRAPPLE**

Iron & Wooden block handling

**Specifications**

- Lifting Capacity- 1000 kg
- Distance from Fron Tyre-3897 mm
- Lift Height from Ground- 5318 mm



**DOZER BLADE**

Leveling & Dozing

**Specifications**

- Width- 366 mm
- Length- 2357 mm
- Height- 874 mm



**6IN1 LOADER BUCKET**

Leveling, Dozing, loading, Grabbing, grading, Digging

**Specifications**

- Bucket Capacity- 1.0 m<sup>3</sup>
- Bucket Width-2350 mm
- Number of Tooth Points- 8

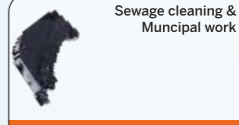


**TRENCH BUCKET**

Trenching (OFC, Pipe laying & Drainage construction)

**Specifications**

- Bucket Capacity- .09 m<sup>3</sup>
- Bucket Width-1 ft
- Number of Tooth Points- 3




**DITCH CLEANING BUCKET**

Sewage cleaning & Municipal work

**Specifications**

- Bucket Capacity- .35 m<sup>3</sup>
- Bucket Width- 945mm



**BOOSTER LOADER BUCKET**

High dump truck loading, Wagon loading

**Specifications**

- Max. Loading Height- 4312 mm
- Bucket Capacity- 1.1 m<sup>3</sup>
- Reach at Full Height-2345 mm




**LONG BACKHOE ARM EXTENSION**

Specific high reach applications

**Specifications**

- Max. Cutting Height- 6946 mm
- Max. Reach- 6334 mm

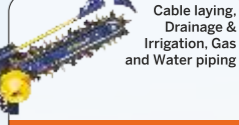


**HEDGE TRIMMER**

Bush trimming

**Specifications**

- Max. Cutting Diameter- 40 mm
- Max. Cutting Length-1500 mm
- Back Pressure- 20 bar



**TRENCHER**

Cable laying, Drainage & Irrigation, Gas and Water piping

**Specifications**

- Width- 1018 mm
- Length-2262 mm
- Cutting Width Range- 150 mm-300 mm

4 METRE DUMP HEIGHT





# SPECIFICATIONS

## ENGINE

Make ..... Tata Hitachi  
 Model ..... V3800-TIE4B  
 Type ..... Turbo-charged, inter-cooled direct injection  
 Gross Power ..... 74.3 HP (55.4 kW) @ 2,200 RPM  
 Max. Torque ..... 305 Nm @ 1,500 RPM  
 Battery (with cut-off switch) ..... 12 V, 130 Ah  
 No. of Cylinders ..... 4 nos  
 Bore ..... 100 mm  
 Stroke ..... 120 mm  
 Displacement ..... 3,769 cc  
 Alternator ..... 100Amps

## HYDRAULIC SYSTEM

Excellent Hydraulic System (EHS) with Tandem gear pump for lower fuel consumption  
 System Pressure ..... 245 bar  
 Max. Pump Flow ..... 113 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

### Front Axle

- Heavy-duty, non-powered axle
- Floats up to +/-8 degrees to handle uneven terrains
- 4 WD Front Axle, King Pin Angle=7°, Camber Angle=1.5, Ratio Total-13.714:1

### Rear Axle

- Rear heavy-duty Carraro axle
- High brake torque

## SPEEDS

Speeds @ 1950 rpm with standard tyres

### Forward

1st ..... 5 kmph  
 2nd ..... 8 kmph  
 3rd ..... 17 kmph  
 4th ..... 32 kmph

### Reverse

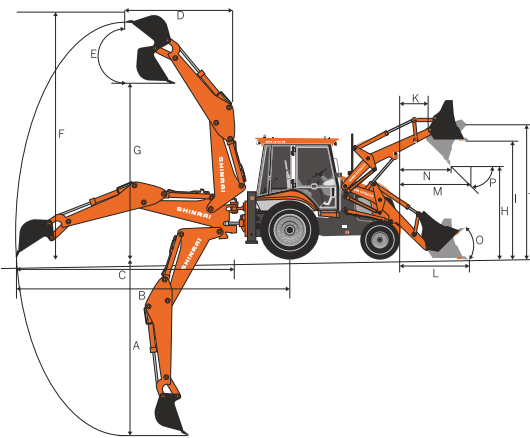
1st ..... 6 kmph  
 2nd ..... 9 kmph  
 3rd ..... Not recommended  
 4th ..... Not recommended

## 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

Dim. Notations	Dimension	Description
A	4,700	Max. digging depth
B	6,880	Max. reach from rear axle centre
C	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)
H	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

## STEERING

Type ..... Hydraulic actuation with priority for smooth control  
 Turning Radius ..... Inner wheel braking  
 Outside Loader Bucket ..... 11.73 m  
 Outside Wheels ..... 8.6 m

## TYRES

Front (Std.) ..... 9x16, 16 PR  
 Front Wider (4 WD) ..... 12.5/80-18, 12 & 14 PR  
 Rear (Std.) ..... 16.9 x 28, 12 PR  
 Rear (HD) ..... 14 x 25, 20 PR

## REFILL CAPACITY

Fuel Tank ..... 128 L  
 Engine Oil ..... 13.2 L  
 Engine Coolant ..... 13 L  
 Transmission Oil ..... 16 L  
 Rear Axle Oil ..... 17.1 L  
 Hydraulic Oil Refill ..... 86 L  
 Front Axle-Live ..... 8.9 L [4WD]

## 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 m³

Dim. Notations	Dimension	Description
L	1,620	Reach at ground level
M	1,332	Max. reach at full height
N	840	Reach in bucket dump position

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

All dimensions are in mm

## BACKHOE BUCKET OPTIONS

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

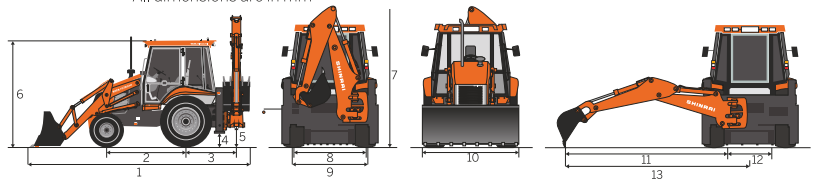
## LOADER BUCKET OPTIONS

Type	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 m³	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

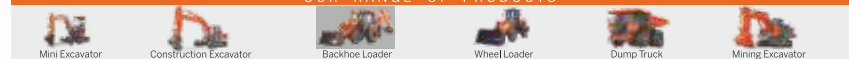


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### OUR RANGE OF PRODUCTS



Authorised Dealer

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.