



## Why BULL SMART ?

- Low owning & operating cost resulting in better ROI.
- **BULL SMART** can load Hyva / Full body trucks without using ramp, through Booster bucket option on loader.
- 40 types of application specific quick interchangeable bucket options using BQRSIL mechanism.
- More than 10,000 Satisfied customers across India - A testimony of BULL's performance & service support network.
- BULL, recognized as inhouse R&D unit by ministry of science & technology since 2004.
- 'State of the art' Manufacturing plant with powder coating process for extended life.
- **SMART** Technology Hydraulics – High on Performance, Low on power consumption.



FINAL ASSEMBLY LINE



WORLD CLASS NEW BACKHOE LOADER PLANT

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INVEST SMART, WORK SMART

EARN SMART... BE SMART



- High Performance Machine
- 78 HP Kei/Isuzu Engine, Carraro Transmission
- Nationwide Sales & Service Network

### ENGINE

Kirkstar 4R 1040, TC 85-II Diesel Engine  
 No. of Cylinders - 4  
 Gross Power: 56.7kw (78hp) @ 2200 Rpm.  
 Torque : 300Nm @ 1500rpm.

### TRANSMISSION

**BULL SMART** comes with CARRARO synchromesh transmission that provides superb drive power in all conditions. It consists of a 4-speed fully synchromesh gearbox with integral torque converter and electrically operated forward & reversing shuttle.  
 The pedals layout and conventional 4 pattern gear lever with transmission disconnect switch adds to the overall ease of operation. On the move gear changes are possible.

Option : **SMART** HST offers state of the art open loop Hydrostatic drive (patent pending)

### AXLES

Rear : Drive axle rigidly mounted, incorporates Max-trac, lock proportioning differential, driven by short propshaft from gear box.  
 Front: Steer axle, centrally pivoted with oscillation angle ±16°

### BRAKES

Service: Hydraulically actuated, dual line, self-adjusting, compensated oil immersed, multi-disc type on the rear axle, well protected from dirt, water etc., requiring no maintenance. Operation through independent pedals, lined together for normal use.

Two independently operable foot pedals enable machine to manoeuvre in tight spaces.

Parking: Hand operated, oil immersed multi-disc on the rear axle.

### STEERING

Full power, front wheel hydraulic power steering with manual capability in the event of engine or hydraulic power failure.

Hydraulic supply from pump via priority valve. Working pressure 1980 p.s.i (110bar).

### ELECTRICALS

130 Ampere-hour 12 volts battery systems with alternator & full road lighting.

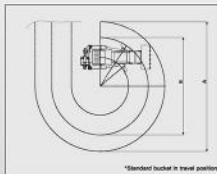
### TYRES

Rear: 2WD - 9.00R16 - 16PR  
 4WD - 12.5R20L8-12PR  
 Rear: 2WD & 4WD - 16.9R20 - 12PR Standard Industrial Tyre  
 : 14.00-20 - 12PR Heavy Duty Tyre

### TURNING CIRCLE

Inner Wheels Braked  
 A\* - Outside Loader Bucket - 8.8 m  
 B - Outside Wheels - 6.3 m

Inner Wheels not Braked  
 A\* - Outside Loader Bucket - 11.5 m  
 B - Outside Wheels - 8.9 m



\*Standard bucket in travel position

### SPEED

GEAR	Forward Km/hr	Reverse Km/hr
1st	5.9	5.9
2nd	9.5	9.3
3rd	20.3	Not Recommended
4th	41	Not Recommended

4th gear, with wet sump converter kit

### HYDRAULICS

**SMART** technology hydraulics : 3307 p4(228 bar), pump flow 120 Lpm @ 2200 rpm.

### WEIGHT

Shipping : 7500kg

### SERVICE CAPACITIES

Hydraulic Tank Capacity : 70Ltr  
 Fuel tank : 128 Ltr  
 Engine Coolant : 13.5 Ltr  
 Engine Oil : 10 to 12 Ltr  
 Transmission : 19 Ltr  
 Rear Axle : 17 Ltr

### CAB

Front curved cab glass provides excellent visibility.

Excellent operator safety. Conforms to ROPS and FOPS standards.

Plenty of legroom minimises fatigue and allows the operator to work un-interrupted for long hours.  
 A fully adjustable seat combined with ergonomically positioned controls and tilttable steering column.

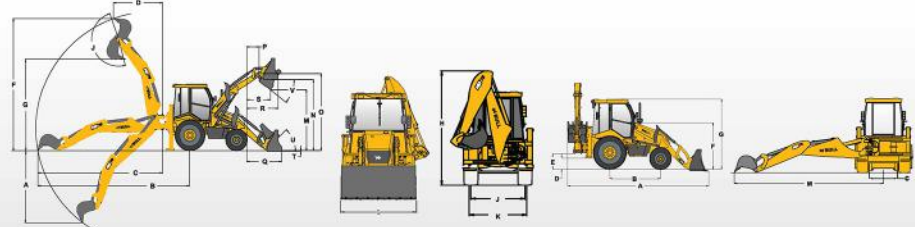
Cab provides easy 'walk through' two door access. Other

features include seat belt, large convex rear view mirror, interior light, front screen wiper, front and rear horn, hazard warning system, tool box and helper seat.

Instrumentation panel is positioned on the right hand side includes engine speed, engine hours, fuel level and water temperature.  
 Audible and visual fault warning system for alternator charge, coolant temperature, engine oil pressure, blocked air filter, transmission oil temperature and hand-brake on.

### OPTIONS

- Excavator Buckets
- Capacities - 0.27 cu.m (standard)
- Options - 0.17cu.m
- 0.21 cu.m
- Digging Cleaning Bucket,
- Taper Digging Bucket,
- Square hole Bucket
- Ripper Tooth
- Trench bucket
- Loader bucket with 125-11inch dump height
- 6 in 1 Bucket
- 4 Wheel drive
- telescopic Dipper
- AC Cabin



EXCAVATOR PERFORMANCE	STANDARD		EXTENSION (OPTION)	
	metres	Feet	metres	Feet
A. Maximum dig depth	4.8 m	158.5 in	5.00 m	164.0 in
B. Reach ground level over wheel centre	3.0 m	98.4 in	3.25 m	106.6 in
C. Reach ground level over wheel axle	3.46 m	113.7 in	3.60 m	118.1 in
D. Reach at full height to ear level	2.80 m	91.9 in	3.00 m	98.4 in
E. Maximum working height	3.60 m	118.1 in	3.71 m	121.7 in
F. Maximum load lift height	4.14 m	135.8 in	4.02 m	131.9 in
G. Maximum load lift capacity	4070kg			
H. Digging force at boom	3170kgf			
I. Dig capacity by bucket (per hour) for each	1400kg			
Per hour (Per)				

Load Capacity	WITH LUBRICATION		WITHOUT LUBRICATION	
	metre	Feet	metre	Feet
M. Digging height	2.80 m	91.9 in	2.96 m	97.1 in
N. Back-swing height	3.30 m	108.3 in	3.25 m	106.6 in
O. Max height	3.41 m	111.9 in	3.41 m	111.9 in
P. Pin lowest reach	3.40 m	111.5 in	3.40 m	111.5 in
Q. Reach ground	1.80 m	58.9 in	1.67 m	54.8 in
R. Reach at full height	1.40 m	45.9 in	1.30 m	42.7 in
S. Reach at height over wheel centre	1.10 m	35.9 in	1.00 m	32.8 in
T. Back-swing level dig depth	0.30 m	1.0 in	0.1 m	0.3 in
U. Rear axle ground	30"		40"	
V. Rear axle	40"		40"	
W. Min. wheel (standard)	2.35 m			
X. Back-swing level	880 kg			
Y. Loader on truck-out force	520 kg			
Pay load	360 kg			

STATIC DIMENSIONS	in (mm)	
	in (mm)	in (mm)
A. Overall length	8.04 m	26.4-8.02 m
B. Wheelbase	2.20 m	7.2-2.20 m
C. King-pin ground	1.53 m	5.0-1.53 m
D. Minimum ground clearance	0.48 m	1.6-0.48 m
E. Slew ground clearance	0.65 m	2.1-0.65 m
F. Height to top of bucket	1.50 m	4.9-1.50 m
G. Height to top of cabin	3.00 m	9.8-3.00 m
H. Over all height	3.71 m	12.0-3.71 m
J. Track width - rear	1.70 m	5.6-1.70 m
K. Track width - front	1.50 m	4.9-1.50 m
L. Width over bucket	2.35 m	7.6-2.35 m
M. Side reach to center line of machine	0.80 m	2.6-0.80 m

"40 types of application specific quick interchangeable loader bucket options"



\*All dimensions, weight & specifications may be allowed without notice. The information published in this leaflet is for illustrative purposes only. BULL reserves the right to change without prior notice. Some Loader buckets are compatible with Isuzu Models only.