

# DETAILED TECHNICAL SPECIFICATION

## BACKHOE LOADER - (4WD)

### KIRLOSKAR ENGINE

PARAMETERS		UM	Specification (With standard Dipper)	Specification (With Extendable Dipper/arm)
<b>FEATURES</b>				
1	4WD			✓
2	Pantograph wiper with water jet (Front & Rear)			✓
3	FM cum USB player			✓
4	Mobile Charger			✓
5	Bottle Holder			✓
6	Storage box in cabin			✓
7	Excavator side shift - Manual			✓
8	Loader bucket Self levelling			✓
9	Loder bucket return to dig feature			✓
10	4 rear work lamps			✓
11	Hard faced buckets			✓
12	Ambient Temperature (Deg C)		-15 <sup>0</sup> C till +45 <sup>0</sup> Deg C	
13	Altitude		upto 3000 meter	
<b>PERFORMANCE PARAMETERS</b>				
<b>A</b>	<b>EXCAVATOR PERFORMANCE</b>			
1	Backhoe bucket -Standard capacity	cum	0.26	0.18
2	Bucket tear out force	kgf	6018	6018
3	Dipper tear out force	kgf	3250	2072
4	Lift capacity to bucket pivot at full reach (no bucket fitted) (SAE J31)	kgf	1554	850
5	A: Max dig depth	m	4.80	6.01
6	B: Reach ground level to rear wheel center	m	6.92	8.14
7	C: Reach ground level to slew center	m	5.54	6.77
8	D: Reach at full height to slew center	m	2.88	3.31
9	E: Side reach to center line of machine	m	6.00	7.31
10	F: Max working height	m	6.22	6.93
11	G: Max load over height	m	4.39	5.13
12	H: Total Side shift (King post travel)	m	1.06	1.06
13	J: Total Bucket rotation power	deg	187	187
<b>B</b>	<b>LOADER PERFORMANCE</b>			
1	Loader bucket -Standard capacity	cum	1.2	1.2
2	Bucket break-out force	kgf	6425	6425
3	Loader arm break-out force	kgf	5777	5777
4	M : Dump height	m	3.00	3
5	N : Load over height	m	3.51	3.51
6	O: Pin height	m	3.72	3.72
7	P : Pin forward reach	m	0.41	0.41
8	Q : Reach at ground	m	1.57	1.57
9	R : Max reach at full height	m	1.21	1.21
10	S : Reach at full height-Bucket dumped	m	0.85	0.85
11	T : Below ground level dig depth	m	0.07	0.07
12	U : Rollback at ground	deg	45	45
13	V : Dump angle	deg	45	45
14	Bucket Pay Load capacity	Kg	1980	1980
15	Lift capacity at full height	kg	2465	2465
<b>STATIC DIMENSIONS</b>				
1	A : Overall Length (Transport)	m	6.17	6.17
2	B : Wheelbase	m	2.14	2.14
3	D : Minimum ground clearance	m	0.36	0.36
4	E : Slew ground clearance	m	0.61	0.61

5	G : Height to top of cab	m	2.88	2.88
6	H : Overall height	m	3.77	4.04
7	J : Track width - Rear	m	1.75	1.75
8	K : Track width - Front	m	1.87	1.87
9	L : Width over bucket	m	2.37	2.37
<b>Speed (Forward/ Reverse)</b>				
1	Gear 1st	kmph	5.3 / 7.1	
2	Gear 2nd	kmph	8.4 / 11.0	
3	Gear 3rd	kmph	18.5 / NA	
4	Gear 4th	kmph	36.6 / NA	
<b>AGGREGATES</b>				
<b>A</b>	<b>ENGINE</b>			
1	Water cooled, diesel engine -Make		Kirloskar 4R1040TA, turbo charged	
2	No of cylinders : 4		4	
3	Gross power : Kw(hp)		66.2 kw (90 HP) at 2200 rpm	
4	Peak Torque : Nm		350 Nm@ 1400 rpm	
5	Emission norms		BSIII	
<b>B</b>	<b>TRANSMISSION</b>			
1	Type		Synchro shuttle, 4 speed, fully synchromesh	
2	Make		Carraro	
3	Torque converter stall ratio		3.01:1	
4	Selection of 2wd to 4w drive		Electrical	
<b>C</b>	<b>AXLES</b>			
1	<b>FRONT AXLE</b>			
a	Front Axle type		4WD, Steered	
b	Total oscillation angle	deg	16°	
c	Make		Carraro	
2	<b>REAR AXLE</b>			
a	Rear Axle Type		Drive Axle	
b	Make		Carraro	
<b>Tyre Sizes</b>				
1	Front tyre		12.5/80 - 12 PR	
2	Rear tyre (Industrial)		16.9x28 - 12 PR	
<b>Turning Circle (inner wheel not braked)</b>				
1	Outside loader bucket	m	11.4	
<b>Electricals</b>				
1	Battery	AH	150	
2	Alternator	Amps	90	
3	Voltage	V	12	
<b>Hydraulics</b>				
1	System type		Open Centre	
2	System pressure	Bar	225	
3	Pump type		Fixed displacement, Gear pump	
4	Pump flow	lpm	117.5	
5	Make		Parker / Casappa	
<b>Steering</b>				
1	Front wheel		Fully power, hydrostatic steering	
<b>Brakes</b>				
1	Service brakes, dual line, self adjusting, compensated oil immersed, multi disc type on the rear axle with two independent pedals linked together for normal use.		Hydraulically actuated	
2	Option to switch automatically from 2wd to 4wd for effective braking		Electrical switch	
3	Parking brake on rear axle		Hand operated disc brake	
<b>Operating Weight</b>		Kg	8400	
<b>Optional Items :-</b>				
1	Multipurpose front bucket (6-in-1)			
2	ROPS/FOPS Cabin			

3	HVAC
4	Rock breaker piping/circuit
5	Extendable dipper (Telescopic)
6	Front tyre fender (mud guard)
7	Cold start kit
8	Beacon Light
9	Fire extinguisher