

BE75

HYDRAULIC EXCAVATOR



- Efficient Hydraulic System
- Powerful Economical Engine
- Effort-free Operation
- Operator Comfort
- Dual Speed Travel System



Operating Mass	: 7500 kg
Net Power (FHP)	: 42.5 kW (57 hp) @ 2000 rpm
Bucket capacity	: 0.3m ³

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HYDRAULIC EXCAVATOR

Salient Features :

Efficient Hydraulic System

Hydraulic system with axial piston pump assures smooth compound work equipment movement & travel. Rugged closed center load sensing hydraulic system.

Powerful Economical Engine

Diesel engine delivers 57 FHP @2000 rpm. A direct injection system for reduced fuel consumption assures high operational economy.

Effort-free Operation

Hydraulically assisted simple feather touch ergonomically designed controls ensure effort free operation

Operator Comfort

Specially designed cabin provides plenty of work space and excellent visibility. Remote location of hydraulic tank away from the cabin prevents heating up of the cabin enhancing operator comfort & productivity.

Dual Speed Travel System

Dual speed hydrostatic drive with counter balance valve and automatic parking brake ensures smooth and safe operation. The lower speed can be used during excavator operation and the higher speed during long distance travel for better mobility.



ENGINE

Make	Kirloskar Oil Engines Ltd.
Model	4R 1040 NA
Type	Diesel, 4 Stroke, Water cooled Direct Injection and Naturally Aspirated
Net Power (FHP)	42.5 kW (57 hp) @ 2000 rpm
Maximum torque	272 Nm (28 Kgm) @ 1500 rpm
Number of Cylinders	4, In-line
Bore & stroke	φ 105mm x 120 mm
Total Displacement	4160 cm ³
Electrical	
Alternator	24V, 40A
Starting Motor	24V
Battery	2 x 12V, 75Ah



UNDERCARRIAGE

Track frame	Sturdy H-bar type centre frame is integrally welded with reinforced box sections
Track shoe width (STD)	450 mm
No. of shoes on each side	40 (Triple Grouser)
No. of Carrier rollers	1
on each side	
No. of track rollers	5
on each side	
Grouser height	16 mm
Ground pressure Mpa.	0.031
(kg/cm ²)	(0.32)



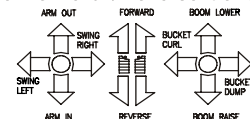
SWING SYSTEM

Type	Planetary gear reduction with built-in automatic brake for swing lock.
Max. Swing speed	11.8 rpm
Swing circle	Internal gear & pinion, immersed in grease
Reduction ratio	142.348
Tail swing radius	1830 mm



CONTROLS

Work attachment	Hand operated joy stick pilot controls with accumulator system for smooth safe operation.
Travel	Two foot pedals cum hand levers operated pilot control valves for forward / reverse travel and steering



INDICATORS/ALARM/GAUGES

Indicators for alternator charge. Alarm for low engine oil pressure. Gauges for fuel level, hour meter, water temperature and hydraulic oil level sight gauge.



REFILL CAPACITY (Coolant & Lubricant)

System	Capacity (litres)
Fuel Tank	122
Radiator	10
Engine	9.5
Final Drive each side	0.8
Hydraulic Tank	60

STANDARD EQUIPMENT

Boom (3710 mm), std arm (1650 mm), std. bucket (0.3m³, SAE heaped), starting motor, alternator, batteries, suction type fan, dry type air cleaner, horse power summation hydraulic system, 450 mm triple grouser shoes, hydraulic track adjuster, counter weight, hydrostatic drives, pilot pressure controls, all weather steel cabin (with safety glass windows, lockable door, wiper, electric horn, cabin lamp and adjustable seat with reclining device), rear view mirror, ash tray, fan, portable fire extinguisher, front light & tool kit. Blade attachment for light dozing and levelling operations.

OPTIONAL ATTACHMENTS

Hydraulic Rock Breaker, Hard Faced Bucket, Trenching Bucket, Cabin Front guard, FOPS, Ripper, Short Boom (2650 mm), Ditch Cleaning Bucket, Weed Bucket, Trapezoidal Bucket.





HYDRAULIC SYSTEM

SYSTEM CAPACITY (LITRES): 100

Hydraulic Pumps

Main

Type	Variable displacement axial piston pump
Max. oil flow	144+72 lpm @ 2000 rpm of engine

Hydraulic Motors

Travel	2 Nos. of two speed axial piston motors with built-in counter balance valves
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Swing	1 No. axial piston motor
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Control valves

Type	Main	Compact pilot operated load sensing 8 spool valve
Relief Valve settings MPa (kg/cm ²)	Work attachment (Bloom/Arm/Bucket)	24.50 (250)
	Swing circuit	12.5 (130)
	Travel circuit	24.5 (250)

Hydraulic Cylinders

Type		Double acting piston
	Qty.	Bore x stroke (mm)
Boom	1	φ120 x 830
Arm	1	φ100 x 885
Bucket	1	φ 90 x 685



DRIVES AND BRAKES

Drive type	Two speed hydrostatic with axial piston motor and planetary reduction gear box for each track
Travel and Steering	Forward/reverse travel and steering actuated with either hand levers or foot pedals. Independent drive to each track enables machine to make a pivot turn in either direction.
Max. Draw bar pull	55.7 kN (5680 kg)
Max. Travel Speeds	1) 2.6 km/h. working 2) 4.4 km/h. transport
Counter balance valve	Counter balance valve fitted on each hydraulic motor acts as hydraulic brake. This also prevents possible over speeding in down gradient.
Brakes	Oil disc type, spring applied, hydraulically released brakes. The brakes are automatically released when pedals are operated for travel.



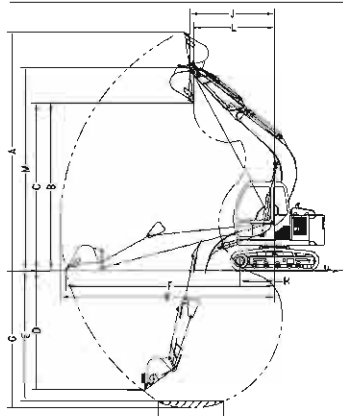
BACKHOE BUCKETS

	STD
Bucket capacity (m ³) (SAE heaped)	0.3
Bucket width (mm) without side cutters	740
Bucket width (mm) with side cutters	920
Bucket weight (kg)	
Without side Cutters	220
With Side cutters	244
No. of Bucket teeth	4



Working Range and Digging Forces

Description	Standard
Working Range (mm)	Arm 1650 (mm)
A. Max. digging height	7120
B. Max. dumping height	4995
C. Max. bucket loading clearance	5000
D. Max. Vertical wall digging depth	3580
E. Max. digging depth of cut for 2440 mm level bottom	3775
F. Max. digging reach at ground level	6225
G. Max. digging depth	4090
H. Min reach at ground reference plane	818
J. Reach at Max. Height	2705
K. Max. reach	6385
L. Reach to bucket pin center at Max. height	2530
M. Max. bucket hinge pin height	6065
FORCES kN (kgf)	
Bucket digging force	48.3 (4923)
Arm crowd force	37.4 (3802)



Material and specifications are subject to change without notice, illustrations may include optional equipment & accessories



SAFETY

- Built-in swing brake and Hydraulic swing lock ensure safety during long distance travel and transportation.
- Horn
- Automatic parking brake
- Relief valves and safety valves for hydraulic system protection.
- Counter balance valves in travel motors to avoid possible over speeding in down gradients.
- Accumulator in pilot line to bring down the work attachment to a safer position in the absence of engine power.
- Hydraulic filters for protection of hydraulic system against oil contamination.
- Mechanical safety levers for locking hydraulic system controls.



FILTER SYSTEM

Engine	
Lub Oil	Paper type
Fuel	Pre and micro
Air	Double element dry type with pre cleaner
Hydraulic system	Return line filter



MASS (kg)

Operating mass	7500
(Approximate)	[Including Boom (3710mm) Std. Arm (1650 mm), Std. Bucket (0.3m ³ , SAE heaped), operator, lubricant, coolant/filled fuel tank & hyd. tank]



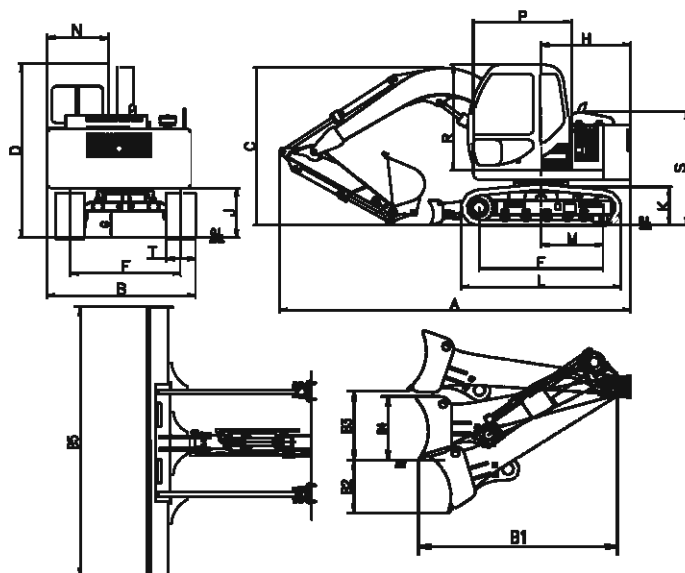
Dozing Blade Dimensions (mm)

B1 - Cutting Edge to Rib pin center dist.	1290
B2 - Digging depth from ground level	375
B3 - Vertical lift from ground level	320
B4 - Blade height	410
B5 - Overall width	2250



DIMENSIONS (mm)

A-Overall length / B-Width	5850/2280
C-Overall ht. - Top of boom / D-Cab	2615 / 2495
E-Track length on ground / K - Height	2060 / 680
F-Track gauge / T - Width	1700/450
G-Min ground clearance / J-Cwt	405 / 760
H-Tail swing radius	1770
L-Crawler overall length	2645
M-Spocket axis to axis of rotation	1030
S- Height Upto Engine Hood	1865
N-Cab width / P - length / R-height	940/1590/1615



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Hydraulic Excavators

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BE200

BE220

BE220RRE

BE240HD

BE300LC

BE450LC

BE700

BE700E

BE1000-1

BE1000E-1

BE1250

BE1600

BE1800E