



# HR 18 Mini Excavator

Power and state-of-  
the-art engineering

Operating weight 4.68 t  
Engine output 34.6 kW (47 HP)  
Bucket capacities 75-245 l



HR 18 - The machine illustrated may include non-standard equipment



# Technical data

## Engine

Manufacturer	Mitsubishi
Type	4-cylinder diesel engine, EPA
Combustion	4-stroke, swirl chamber injection
Power rating acc. to ISO 9249 (DIN 70 020) at 2200 rpm	34.6 kW (47 HP)
Displacement	2505 cm <sup>3</sup>
Cooling system	Water

## Electrical system

Nominal voltage	12 V
Battery	12 V / 74 Ah

## Power transmission

Two-stage hydrostatic travel drive with axial piston variable displacement motor and reduction gear, fully enclosed. "Straight Travel function". Brake valve for downhill drive.

Travel speeds (forward and reverse):	
1 <sup>st</sup> speed range / 2 <sup>nd</sup> speed range	0-2.9 / 5.0 km/h
Max. gradability	60 %
Drawbar pull, 1 <sup>st</sup> / 2 <sup>nd</sup> speed range	4200 / 2350 daN

## Undercarriage

Maintenance-free crawler-type undercarriage. Idler suspension with hydraulic crawler tensioning.

Width rubber crawlers / steel crawlers	400 mm
Tread width	1450 mm
Total length (sprocket - idler)	1916 mm
Total length (undercarriage)	2427 mm

## Dozer blade

Dozer blade available in "standard" and "extra-long" version (referring to distance crawler - dozer blade), independent of drive train, sensitive control via hand lever.

Width x height ("standard" / "extra-long")	1860 x 400 mm
Dozer cut below ground	307 mm / 410 mm
Dozer cut above ground	402 mm / 510 mm
Slope angle	35 deg. / 30 deg.
Slope balance	7.6 deg. / 9.0 deg.

## Steering

Independent, individual control of crawlers, also counter-wise via 2-circuit hydraulic system. Sensitive control via hand levers combined with foot pedals. Pedal console serving as foot rest. During high gear maneuvers, there is an automatic downshift to 1st speed range at full steering force.

## Swing system

Hydrostatic drive with axial piston motor and reduction gear. Internally toothed ring gear.

Swing speed of uppercarriage	0-9.3 rpm
Swing brake: Hydrostatic drive, also provides dynamic braking. Additional, spring-loaded multi-disc brake automatically acting when the swing control lever is in neutral position.	

## Hydraulic system

Working hydraulics: Summation-controlled dual piston variable displacement pump for all work movements and travel drive, 1 gear pump for slewing and dozer blade, 1 pump for pilot pressure. 3 simultaneous movements possible.

Working pressure	245 bar
Pump capacity	57+57+37+8 l/min
Tank-immersed return filter with electric contamination indicator, full flow filtration. Hydraulic oil radiator provided as standard. Boom, dipperstick and articulated cylinders with end-position damping on both sides, bucket retract function with one-side end-position damping.	

Additional control circuit for work attachments provided as standard.

Working pressure	max. 210 bar
Pump capacity, pressure-controlled	57 l/min
Open return as standard. All functions can be activated proportionally. Two servo-assisted four-way control levers for excavator operations. Safety cut-off of all functions as soon as driver leaves cab.	

## Operating data, standard equipment

Operating weight (rubber / steel crawler)	4680 / 4950 kg
Total length, travel position	3650 mm
Total length (trailer transport position)	5540 mm
Total height, travel position	3890 mm
Total height up to top edge of cab	2610 mm
Total width, uppercarriage / undercarr.	1600 / 1850 mm
Uppercarriage tailswing	1470 mm
Working envelope, 180° / 360°	3200 / 3470 mm
Ground clearance	360 mm
Breakout force acc. to DIN 24086	30,600 N
Ripping force acc. to DIN 24086	26,400 N
Specific ground pressure (rubber crawlers)	0.26 daN/cm <sup>2</sup>
Specific ground pressure (steel crawlers)	0.27 daN/cm <sup>2</sup>

## Knickmatik®

Lateral parallel adjustment of boom arrangement at full digging depth.

Angle of articulation / Lat. adj. to the left	75° / 515 mm
Angle of articulation / Lat. adj. to the right	55° / 705 mm

## Cab

Spacious, sound-insulated full-vision steel cab (free spaces acc. to EN 23411). ROPS (acc. to ISO 3471), FOPS\* (acc. to ISO 3449) and TOPS (acc. to ISO 12117) certified, with two equally large doors.

Safety glass windows, thermo windows tinted in green. Skylight thermo window. Front window supported by pneumatic springs, lockable in place for ventilation and slidable under cab roof. Windshield washer. Glove box. Instrument panel, on the right side of the operator's seat with visual and acoustic warning device. Left-hand outside rear-view mirror. Cab heating with windshield defroster through coolant heat exchanger and 2-setting fan, ventilating mode in summer.

Fabric-covered, hydraulically cushioned operator's seat with height-adjustable armrests, height, tilt and weight adjustments, lap belt. Working floodlight Halogen H-3.

Noise emission ambience L <sub>WA</sub>	100 dB (A)
Noise emission cab L <sub>PA</sub>	75 dB (A)
Measured according to EEC-directive 2000/14.	

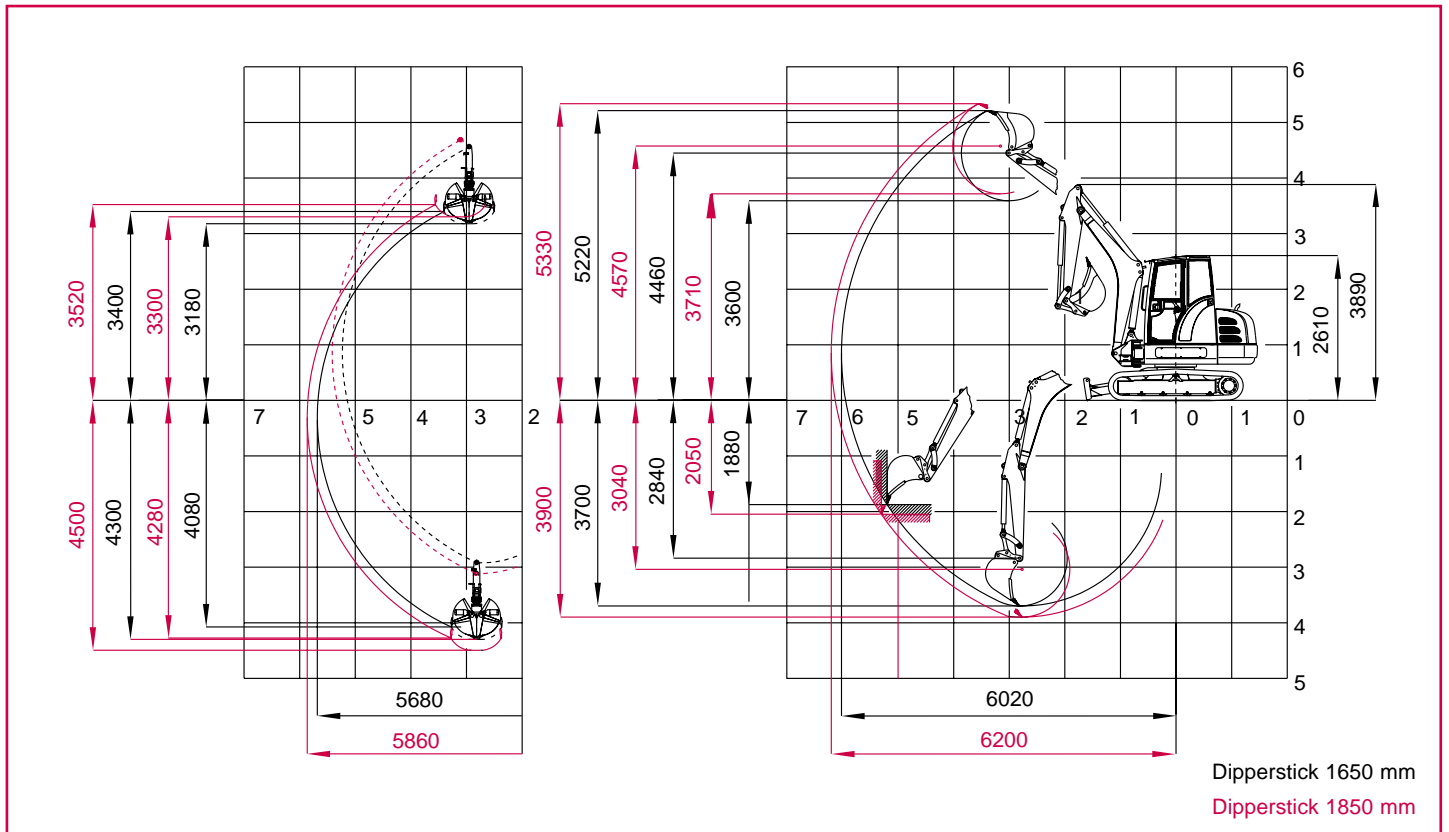
## Fluid capacities

Fuel tank	60 l
Hydraulic system (tank 72 l)	102 l

\* FOPS-approved only with skylight guard (optional)

# Digging envelope

HR 18 Monobloc boom



# Carrying capacity

Load radius from the center of the ring gear

Bucket hinge pin height

Dipperstick 1650 mm

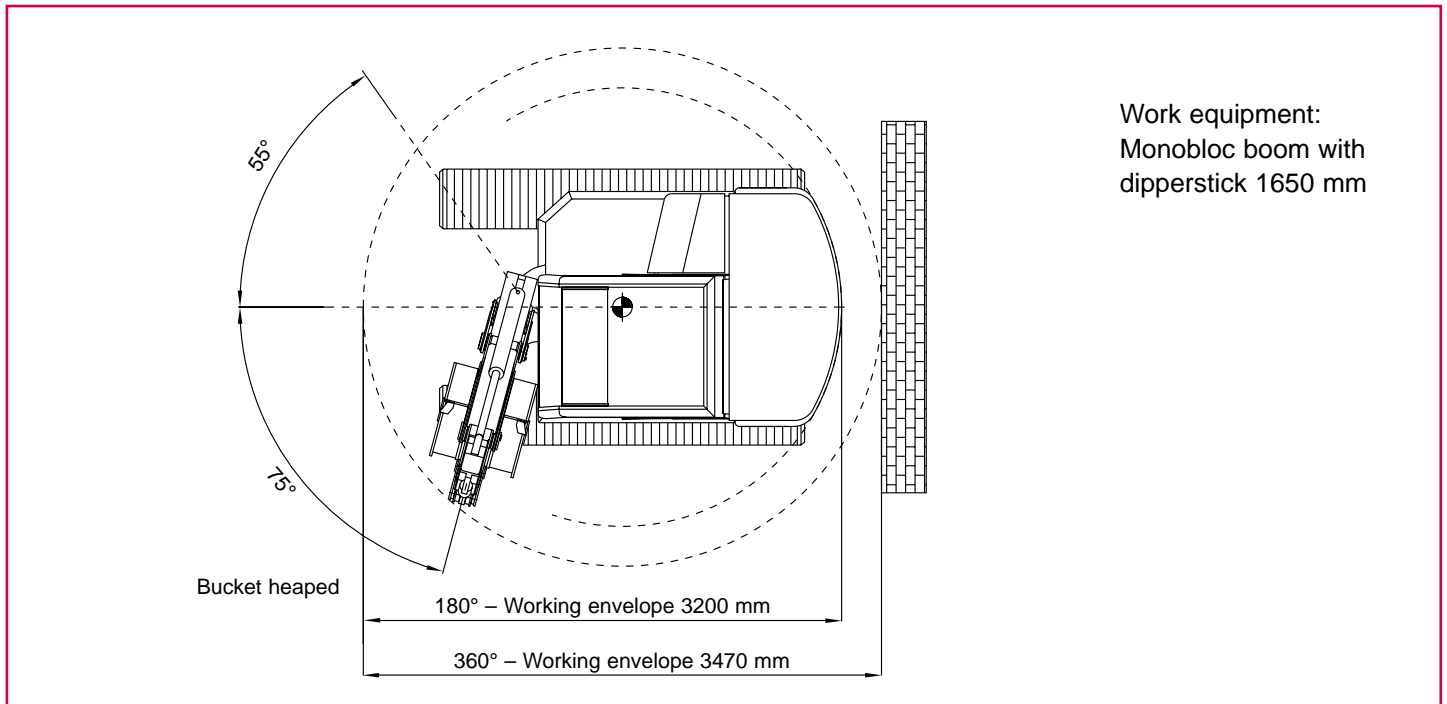
		2.5 m		3.0 m		3.5 m		4.0 m		4.5 m		5.0 m	
		180°	90°	180°	90°	180°	90°	180°	90°	180°	90°	180°	90°
3.0 m	Supported by blade	–	–	–	–	1.26	0.95	1.26	0.75	1.20	0.62	–	–
	Traveling	–	–	–	–	0.80	0.92	0.59	0.73	0.51	0.59	–	–
2.0 m	Supported by blade	1.90	1.78	1.71	1.14	1.51	0.92	1.36	0.71	1.21	0.62	1.08	0.51
	Traveling	0.94	1.47	0.91	1.11	0.68	0.87	0.62	0.68	0.56	0.59	0.45	0.50
1.0 m	Supported by blade	3.07	1.35	2.27	1.08	1.80	0.86	1.50	0.71	1.27	0.58	1.10	0.52
	Traveling	1.28	1.32	0.96	1.04	0.72	0.83	0.63	0.68	0.50	0.56	0.46	0.51
0 m	Supported by blade	2.75	1.31	2.14	0.98	1.73	0.80	1.45	0.67	1.24	0.56	0.94	0.51
	Traveling	1.05	1.25	0.82	0.95	0.64	0.77	0.59	0.65	0.54	0.54	0.42	0.50
– 1.0 m	Supported by blade	2.14	1.31	1.87	1.04	1.51	0.80	1.21	0.65	1.01	0.57	–	–
	Traveling	1.02	1.28	0.75	0.98	0.60	0.78	0.52	0.64	0.45	0.54	–	–

All values in tons (t) were determined acc. to ISO 10567 and include a stability factor of 1.33 or 87% of the hydraulic lifting capacity. All values were determined with quick-attach system but without bucket. In case of mounted-on work attachments, the deadweights of the work attachments must be deducted from the permissible payloads.

Working equipment: Rubber crawlers

# Dimensions

## HR 18 Top view / Working envelope



# Additional equipment

## Optional accessories

Mechanical quick-attach system for work tools (QAS)  
 Canopy with working floodlight (weight reduction: 60 kg)  
 Dipperstick 1850 mm  
 Luxury operator's seat, height-adjustable, with extra-high back rest, progressively adjustable to operator's weight, seating has tilt and lengthwise adjustment. Upward folding, tilt-adjustable comfort arm rests.  
 FOPS-skylight guard  
 Cab-mounted working floodlight, front and rear  
 Boom-mounted working floodlight  
 Yellow beacon  
 Travel motion alarm (acoustic signal)  
 Crane loading wire-rope harness  
 Track shoes with "Felasto" tiles, quick attachable  
 Quick-change adapter for hydraulic hammer  
 Filling with biodegradable hydraulic oil, ester-based, VI 68  
 Immobilizer

Further accessories available on request

## Buckets

Bucket, tapered (QAS)	300 mm / 80 l
Bucket, with ejector (QAS)	300 mm / 75 l
Bucket, tapered (QAS)	400 mm / 115 l
Bucket, with ejector (QAS)	400 mm / 110 l
Bucket (QAS)	500 mm / 150 l
Bucket (QAS)	600 mm / 180 l
Bucket (QAS)	750 mm / 245 l
Ditch-cleaning bucket (QAS)	1250 mm / 170 l
Swing bucket, 2 x 45 deg. (QAS)	1250 mm / 180 l

## Clamshell grabs

Type GL 1250 (QAS), grab swing brake	250 mm / 45 l
Type GL 1350 (QAS), grab swing brake	350 mm / 65 l
Type GL 1450 (QAS), grab swing brake	450 mm / 85 l
Type GL 1600 (QAS), grab swing brake	600 mm / 115 l

Further attachments available on request  
 Subject to change without further notice