



HR 20 Crawler Excavator

Power and state-of-
the-art engineering

Operating weight 5.65 t
Engine output 37.9 kW (51.5 HP)
Bucket capacities 75-245 l



HR 20 – 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 in compliance with ISO 9249 (DIN 70 020) at 2400 rpm	37.9 kW (51.5 HP)
Displacement	2505 cm ³
Cooling system	Water

Electrical system

Nominal voltage	12 V
Battery	12 V / 72 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	0-3.0 / 5.2 km/h
Gradeability	> 60 %
Drawbar pull, 1 st / 2 nd speed range	4120 / 2420 daN

Undercarriage

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

Width rubber crawlers / steel crawlers	400 mm
Tread width	1580 mm
Undercarriage length (sprocket-idler/total)	2058 / 2570 mm

Dozer blade

Independent of drive train, sensitive control via hand lever.

Width x height	1990 x 446 mm
Dozer cut below ground	360 mm
Dozer cut above ground	430 mm
Slope angle	35°
Slope balance	8°

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. Additional uppercarriage holding brake engaged with the engine switched off and by operating the multi-function lever (push-button). Internally toothed ring gear.

Swing speed of uppercarriage	0-9.5 rpm
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Swing brake: Hydrostatic drive, also provides dynamic braking.

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	62.4+62.4+43.2+8.4 l/min

Return filter with electric contamination indicator, full-flow filtration. Hydraulic oil cooler provided as standard. Boom

and dipperstick cylinders with end-position damping on both sides: "bucket retract" function with end-of-stroke damper - "bucket dump" function without end-of-stroke damper.

Additional control circuit for work attachments (e. g. clamshell grab, swing bucket, hammer) provided as standard.

Max. working pressure	210 bar
Pump capacity, pressure-controlled	62 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 crawler)	5650 kg
Operating weight (steel crawler)	5960 kg
Total length, travel position	3750 mm
Total length (trailer transport)	max. 5810; min. 5390 mm
Total height, travel position	4040 mm
Total height up to top edge of cab	2650 mm
Total width, uppercarr. / undercarriage	1780 / 1980 mm
Uppercarriage tailswing	1050 mm
Slew circle, 180° / 360°	3100 / 4100 mm
Ground clearance	360 mm
Breakout force in compliance with DIN 24086	40,000 N
Ripping force in compliance with DIN 24086	28,200 N
Specific ground pressure (rubber crawlers)	0.29 daN/cm ²
Specific ground pressure (steel crawlers)	0.31 daN/cm ²

Knickmatik®

Lateral parallel adjustment of boom arrangement at full digging depth.

Angle of artic. / lateral adjustm. to the left	60° / 710 mm
Angle of artic. / lateral adjustm. to the right	60° / 850 mm

Cab

Spacious, sound-insulated full-vision steel cab, FOPS* (in compliance with ISO 3449) and TOPS (in compliance with ISO 12117) certified. Safety glass windows, skylight thermo window, tinted. Panoramic rear window. Front window supported by pneumatic springs and slidable under cab roof. Windshield washer. Glove box. Radio installation kit. Left-hand outside rear-view mirror.

Cab heating with windshield defroster through coolant heat exchanger and 3-setting fan, ventilating mode in summer. Fabric-covered, hydraulically cushioned operator's seat with height-adjustable armrests, height, tilt and weight adjustments, lap belt. Instrument panel with safety module. Working floodlight Halogen H-3.

Noise emission ambience L_{WA}	100 dB (A)
Noise emission cab L_{pA}	75 dB (A)

Measured in compliance with EEC-directive 2000/14.

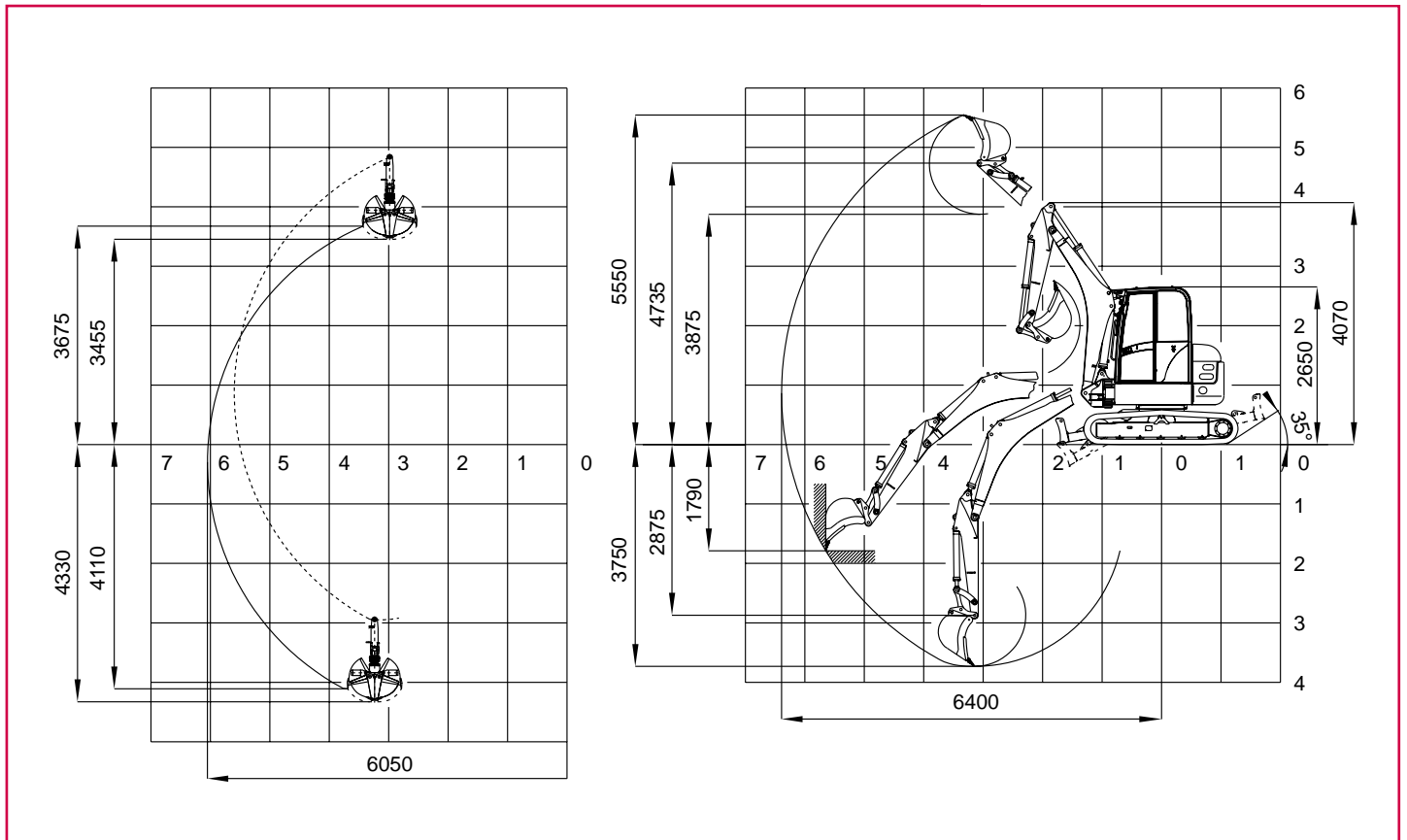
Fluid capacities

Fuel tank	95 l
Hydraulic system (tank 75 l)	108 l

* FOPS-approved only with skylight guard (optional)

Digging envelope

HR 20 Monobloc boom



Carrying capacity

Bucket hinge pin height
Dipperstick 1650 mm

Load radius from the center of the ring gear

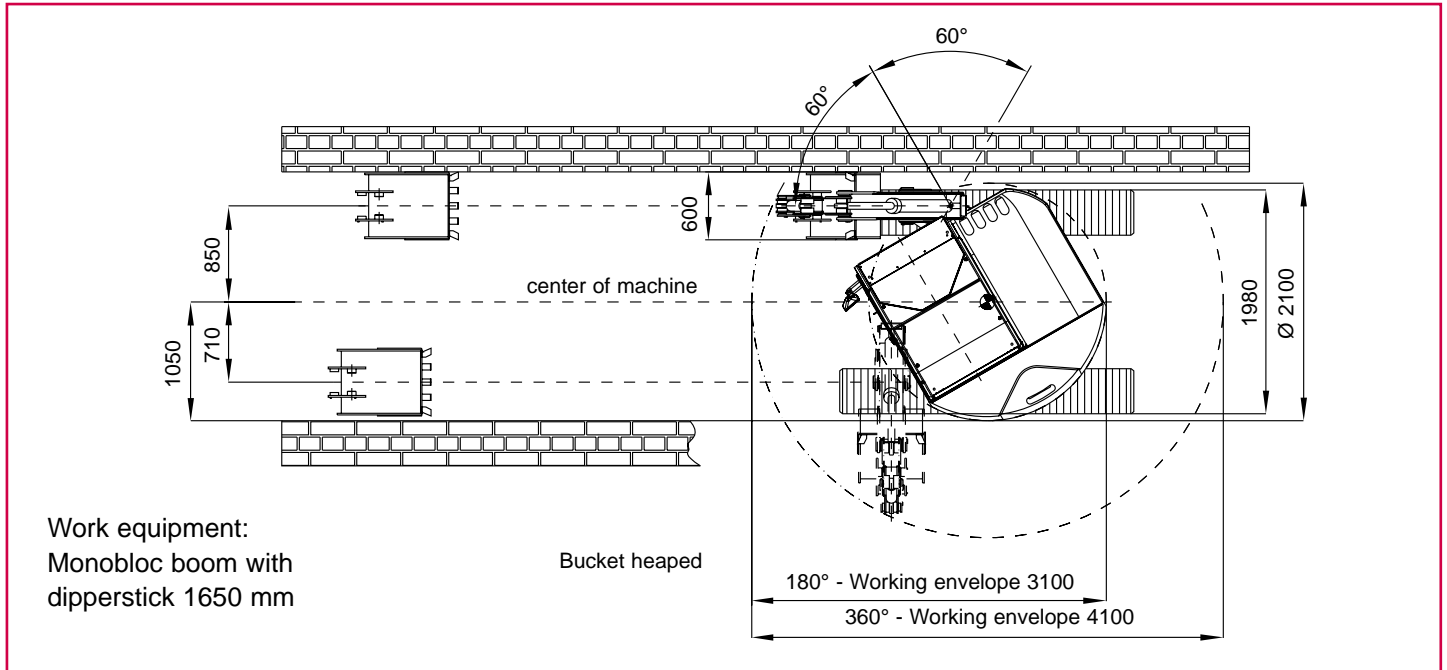
		2.5 m		3.0 m		4.0 m		4.5 m		5.4 m	
		180°	90°	180°	90°	180°	90°	180°	90°	180°	90°
3.0 m	Supported by blade	–	–	–	–	1.44	0.98	–	–	–	–
	Traveling	–	–	–	–	1.13	0.91	–	–	–	–
1.5 m	Supported by blade	2.99	2.05	2.33	1.52	1.72	0.94	1.35	0.65	1.20	0.57
	Traveling	2.26	1.92	1.80	1.41	1.13	0.89	0.78	0.61	0.68	0.53
0 m	Supported by blade	–	–	2.93	1.27	1.89	0.83	1.31	0.59	1.08	0.52
	Traveling	–	–	1.88	1.20	1.07	0.79	0.86	0.55	0.76	0.48
– 0.7 m	Supported by blade	2.70	1.67	2.60	1.20	1.72	0.77	1.19	0.58	1.00	0.54
	Traveling	1.65	1.53	1.58	1.15	1.03	0.76	0.74	0.56	0.65	0.51

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 20 Top view / Working



Additional equipment

Optional accessories

- Mechanical quick-attach system (QAS)
- Canopy (weight reduction: 80 kg)
- Luxury operator's seat, height-adjustable, with extra-high back rest, continuously adjustable to operator's weight, seating has tilt and lengthwise adjustments. Upward folding, tilt-adjustable comfort armrests.
- FOPS-skylight guard
- Cab-mounted working floodlights, 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-change adapter for hydraulic hammer
- Catalyst
- Biodegradable hydraulic oil, ester-based, VI 68
- Anti-theft device (immobilizer)

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