

## Load capacities

Height of bucket pivot point		Load distance from center of slewing ring				
		2,5 m	3,0 m	4,0 m	4,5 m	5,4 m
3,0 m	Supported	180° 90°	180° 90°	180° 90°	180° 90°	180° 90°
	Movable	-	-	1,44 0,98	-	-
1,5 m	Supported	2,99 2,05	2,33 1,52	1,72 0,94	1,35 0,65	1,20 0,57
	Movable	2,26 1,92	1,80 1,41	1,13 0,89	0,78 0,61	0,68 0,53
0 m	Supported	-	2,93 1,27	1,89 0,83	1,31 0,59	1,08 0,52
	Movable	-	1,88 1,20	1,07 0,79	0,86 0,55	0,76 0,48
- 0,7 m	Supported	2,70 1,67	2,60 1,20	1,72 0,77	1,19 0,58	1,00 0,54
	Movable	1,65 1,53	1,58 1,15	1,03 0,76	0,74 0,56	0,65 0,51

All values given in tonnes (t) were determined according to ISO 10567 and include a stability factor of 1.33 or 87% of the hydraulic lifting capacity. All values are with quick coupler,

but determined without a spoon. When the work tool is attached, the permissible payloads are reduced by the weight of the work tool. Equipment: rubber track, dipper arm 1650 mm.

## Additional equipment / attachment tools

### Additional equipment

Mechanical quick-change device  
 Protective roof (weight reduction: 80 kg)  
 Luxury driver's seat, height-adjustable, with high backrest, driver's weight infinitely adjustable, seat tilt and length adjustable.  
 Fold-up comfort armrests with tilt adjustment  
 FOPS - roof window grille  
 Work lights on the cab, front / rear  
 Work lights on the boom  
 Yellow rotating beacon  
 "Driving" warning system (acoustic warning signal)  
 Kranverlade-Seilgeschirr  
 Felasto base plates for steel chains  
 Quick change adapter for hydraulic hammer  
 Catalyst  
 Organic oil filling ester base VI 68  
 Anti-theft device (immobilizer)

Further additional equipment on request

### Spoon

Backhoe bucket, conical (SW) 300 mm / 80 l  
 Backhoe, with ejector (SW) 300 mm / 75 l  
 Backhoe bucket, conical (SW) 400 mm / 115 l  
 Backhoe, with ejector (SW) 400 mm / 110 l  
 Tieflöffel (SW) 500 mm / 150 l  
 Tieflöffel (SW) 600 mm / 180 l  
 Tieflöffel (SW) 750 mm / 245 l  
 Trenching bucket (SW) 1250 mm / 170 l  
 Swivel bucket, 2 x 45° (SW) 1250 mm / 180 l

### Clamshell grab

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

### Hydraulikhammer

Type SH 85, soundproofed. Working tools: pointed and flat chisels.

Further attachment tools on request

Subject to change

Schaeff-Terex GmbH & Co. KG

Schaeffstr. 8, PO Box 61, D-74595 Langenburg

Telephone +497905/58-0, Fax +497905/58-114

www.schaeff-terex.com

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Manfred Fuchs, construction mini excavator

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**HR 20**

**MINI EXCAVATOR**



Operating weight 5.65 t  
Engine power 37.9 kW (51.5 HP)  
Bucket capacity 75 – 245 l

# Technical data

## Motor

Make	Mitsubishi
Type	4 cylinder diesel engine
Working method	4-stroke vortex chamber injection
Performance according to ISO 9249 (DIN 70020) at 2400 rpm	37.9 kW (51.5 HP)
displacement	2505 cm <sup>3</sup>
Cooling system	Water

## Electrical system

Operating voltage	12 V
Battery	12 V / 74 Ah / 680 A
alternator	12 V / 50 A
Starter	12 V / 2.0 kW

## traction drive

Two-stage hydrostatic travel drive with axial piston adjustment motor and reduction gears, fully enclosed. "Straight travel" function.	
Travel brake valve for downward travel.	
Travel speed, forwards and backwards Climbing	0 – 3.0 / 5.2 km/h
ability Traction	> 60 %
force (1st speed / 2nd speed)	4120 / 2420 daN

## landing gear

Maintenance-free crawler track. Idler suspension with hydraulic chain tension.	
Wide rubber tracks / steel tracks Track width Drive length	400 mm
(axle	1580 mm
distance/total)	2058 / 2570 mm

## plow blade

Driving independent, can be controlled sensitively with a hand lever.	
Width x Height	1990 x 446 mm
Hub unter Planum	360 mm
Hub over grade	430 mm
angle of repose	35°
Slope compensation	8°

## steering

Independent individual control of the caterpillar chains, also in opposite directions through dual-circuit hydraulics. Sensitive operation via hand lever, combined with foot pedals, foot support on pedal console. While of a steering process automatic switching to level 1 with full Link power.

## Swing mechanism

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

Rotational speed of the swivel brake: The hydrostatic swivel drive acts as a low-wear swivel brake. Additional spring-applied multi-disc brake works automatically when the swivel lever is in zero position.	0 – 9,5 min <sup>-1</sup>
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## Hydraulics

Working hydraulics: Total output-controlled double-piston variable pump for all work movements and travel drive, 1 gear pump for pivoting and clearing blade, 1 pump for pilot pressure. Three Movements can be controlled independently.

Working pressure	245 bar
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Pump flow rate 62.4 + 62.4 + 43.2 + 8.4 l/min

Return filter with electrical clogging indicator, full-flow filtration. Standard hydraulic oil cooler. Boom and stick cylinders with End position cushioning on both sides, "turn in spoon" dampened, "spoon tip out" without damping.

Standard additional control circuit for work tools (e.g. clamshell grab, swing bucket, hammer).

Working pressure max. 210 bar

Pump delivery rate depending on pressure 62 l/min

All functions can be controlled proportionally. Servo excavator operation with Two-lever cross control. Safety shutdown of all functions, when driver gets out.

## Operating data for standard equipment

Operating weight (rubber track)	5650 kg
Operating weight (steel chain)	5960 kg
Total length driving position	3750 mm
Total length (trailer transport)	max. 5810 mm; min. 5390 mm
Total height driving position	4040 mm
Total height of driver's cabin	2650 mm
Overall width of the uppercarriage	1780 mm
Overall width undercarriage	1980 mm
Uppercarriage tail radius	1050 mm
Envelope circle 180° / 360°	3100 / 4100 mm
Ground clearance	360 mm
Breaking force according to DIN 24086	40.000 N
Tear strength according to DIN 24086	28.200 N
Specific ground pressure (rubber)	0.29 daN/cm <sup>2</sup>
Specific ground pressure (steel)	0.31 daN/cm <sup>2</sup>

## from Knickmatik®

Parallel lateral displacement at full digging depth.	
Bend angle / lateral offset to the left	60° / 710 mm
Bend angle / lateral offset to the right	60° / 850 mm

## Driver's cab

Spacious, soundproof, full-view steel cabin, FOPS\* (according to ISO 3449) and TOPS (according to ISO 12117) tested. Safety glazing. Roof thermal window, tinted bronze. Panoramic rear window. Gas spring-supported windshield can be inserted under the cabin roof. Windshield washer system. Storage compartment. Prepared for radio installation.

Exterior mirror on the left.

Cabin heating with windscreen defrosting by cooling water heat exchanger with 3-stage fan, ventilation mode in summer.

Hydraulically cushioned comfort seat with fabric cover and height-adjustable armrests, weight, length and inclination adjustment, lap belt. Dashboard console with security module. Work lights

Halogen H-3.	
Sound power level LWA	99 dB (A)
Sound pressure level LpA	75 dB (A)

Measured according to EC Directive 86/662

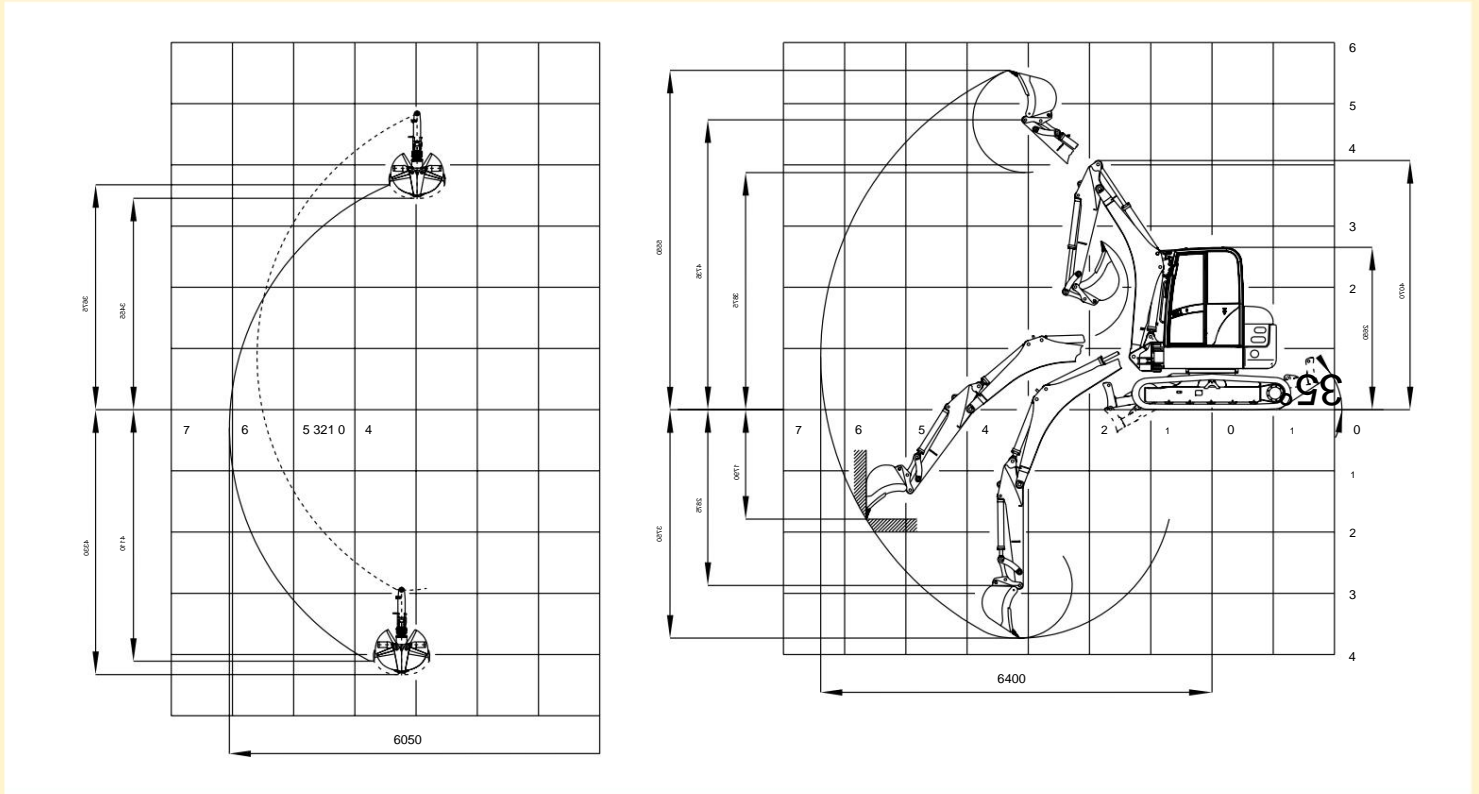
## Filling quantities

Diesel tank capacity	95 l
Hydraulic filling quantity (tank 75 l)	108 l

\* FOPS only with roof window grille (option)

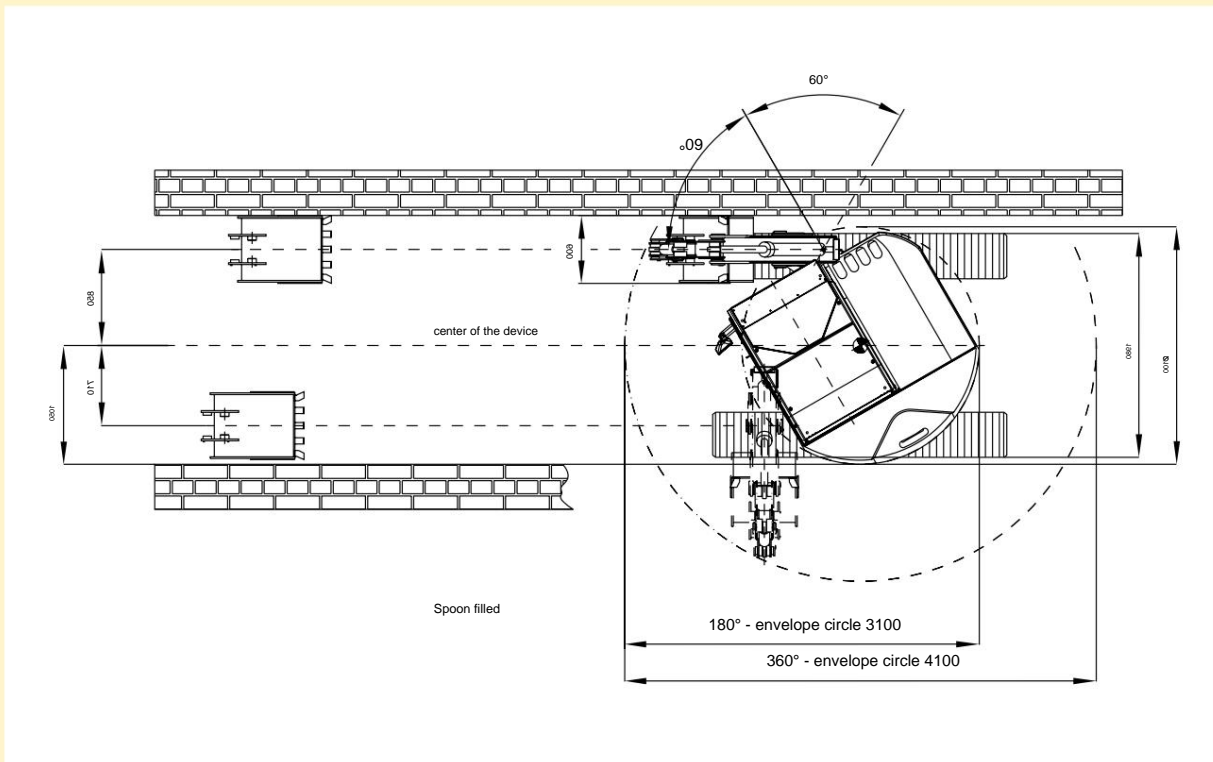
## Digging curves

### HR 20 Monoausleger



## Top view / envelope circle

### HR 20 top view / envelope circle



Work facility:  
Mono boom with  
Dipper arm 1650 mm