



# HR 42 Crawler Excavator

Power and state-of-  
the-art engineering

Operating weight 12-13 t  
Engine power 69 kW (94 HP)  
Bucket capacities 130-450 l



HR 42 - The machine illustrated may include non-standard equipment.

# Technical data

## Engine

Manufacturer	Deutz BF 4M 2012
Type	4-cylinder, turbocharged diesel engine
Combustion	4-stroke, direct injection
Displacement	4040 cm <sup>3</sup>
Power rating in compliance with ISO 9249 (DIN 70020) at 2100 min <sup>-1</sup>	69 kW (94 HP)
Cooling system	Water

## Electrical system

Operating voltage	12 V
Battery	12 V / 135 Ah / 600 A

## Travel drive

Hydrostatic travel drive with reduction gear. Gear-integrated multi-disc brake acting as parking brake, automatically hydraulically bled. 2-stage variable displacement motor, full power shift.

2 speed ranges:	
forward / reverse	0-2.7 / 5.4 km/h
Gradability	> 60%
Drawbar pull (low speed)	82 kN

## Dozer blade

Independent from drive.

Width	2500 mm
Lift below ground	400 mm
Lift above ground	500 mm
Slope angle	35°

## Undercarriage

Maintenance-free crawler-type undercarriage with triple grousers or rubber crawler chain. Idler suspension with hydraulic crawler-chain tension.

Specifications for rubber / steel crawler chain:

Width	500 / max. 800 mm
Length (sprocket – idler)	2628 / 2608 mm
Total length	3345 mm

## Steering

Independent individual control of crawler chains, also counterwise. Sensitive control provided by 2 pilot-operated hand levers combined with foot pedals.

## Swing system

Hydrostatic drive with two-stage planetary gear and axial-piston fixed-displacement motor, simultaneously acting as low-wear brake. In addition, automatically controlled spring-loaded multi-disc brake acting as parking brake.

Swing speed	0-9 min <sup>-1</sup>
-------------	-----------------------

## Hydraulic system

Working hydraulics: Axial piston pump with load-sensing, coupled with a load-independent flow division (LUDV). Simultaneous, independent control of all movements. Sensitive manoeuvres irrespective of loads.

Max. pump capacity	158 l/min
Max. working pressure	350 bar
Dual gear pump for all positioning functions and slewing of uppercarriage. Pressure cut-off valve for sensitive and energy-saving swing movements.	

Pump capacities	41.4+36 l/min
Max. working pressure	230 bar
Control circuit for work attachments:	
Pump capacity	adjustable
Working pressure	up to 350 bar
Two servo-assisted four-way control levers for excavator operations.	

## Operating data (standard equipment)

Operating weight (monobloc boom) in compliance with ISO 6016	12,500 kg
Undercarriage with steel crawler chains	+ 310 kg
Total length, travel position (monobloc boom)	4680 mm
Total height, travel position (monobloc boom)	5710 mm
Transport dimensions, monobloc boom (L x H)	7260 x 2880 mm
Total width including dozer blade	2500 mm
Total height (cab roof)	2880 mm
Ground clearance	420 mm
Uppercarriage tail swing	1370 mm
Uppercarriage front swing (monobloc boom)	2620 mm
Slew circle 180°	3920 mm
Slew circle 360°, monobloc boom	5240 mm
Breakout force in compliance with DIN 24086 (monobloc boom)	81,500 N
Ripping force in compliance with DIN 24086 (monobloc boom)	61,000 N
Specific ground pressure (rubber / steel)	0.43 / 0.44 daN/cm <sup>2</sup>

## Knickmatik®

Lateral parallel adjustment at total digging depth.

Angle of articulation /Lateral adjustm. to the left 55°/855 mm

Angle of articulation /Lateral adjustm. to the right 55°/995 mm

## Cab

Sound-insulated full-vision steel cab. Safety glass, skylight. Cab heating through hot-water heat exchanger with three-speed fan and separate windshield defroster.

Hydraulically cushioned comfort seat with armrests and longitudinal, height and seat back adjustments. Instrument panel with safety module.

Working floodlights Halogen E-3.

Sound-power level LWA 103 dB (A)

Sound-pressure level L<sub>pA</sub> 80 dB (A)

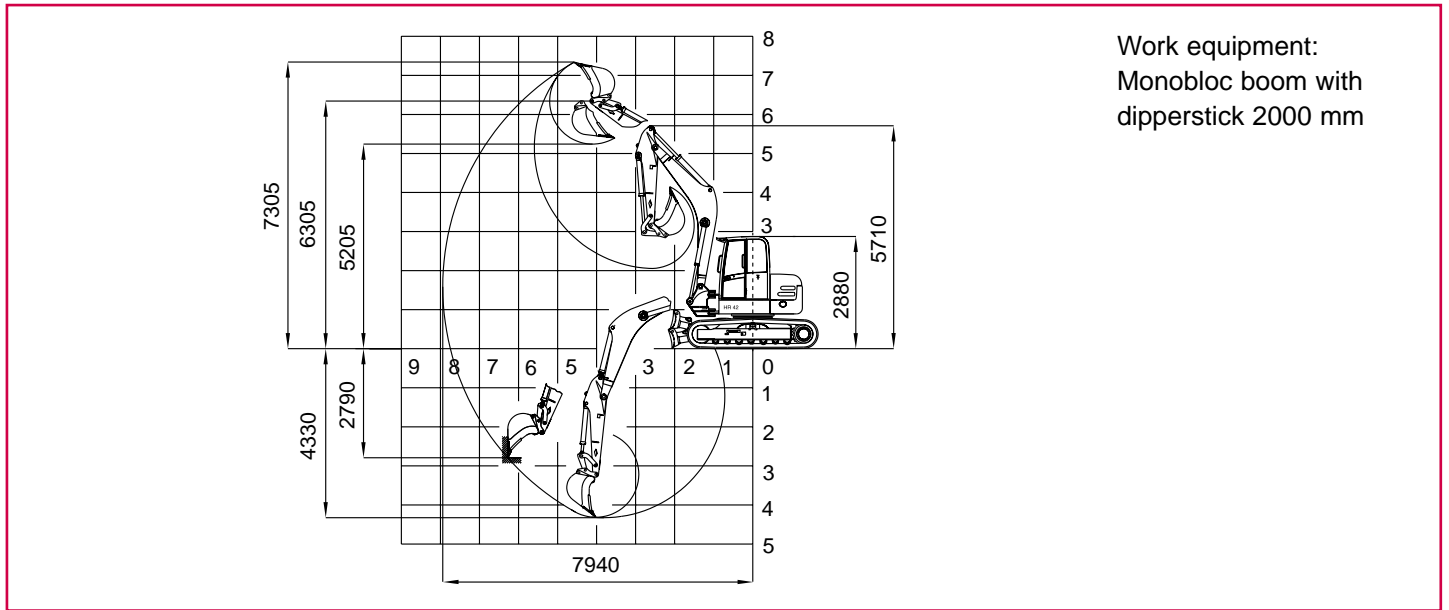
Measured in compliance with EC-Directive 2000/14.

## Fluid capacities

Diesel tank capacity	190 l
Hydraulic system (incl. tank)	140 l

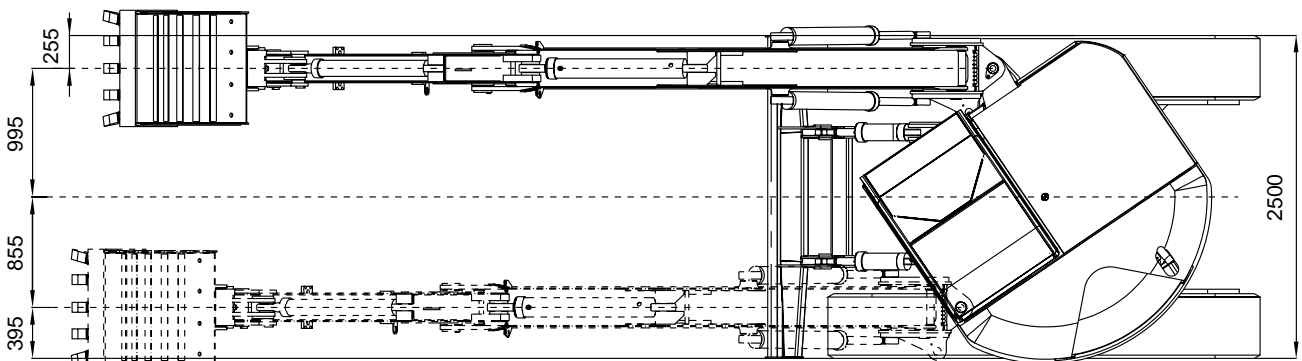
# Digging envelope

HR 42 Monobloc boom (All dimensions refer to undercarriage feat. rubber crawler chains)

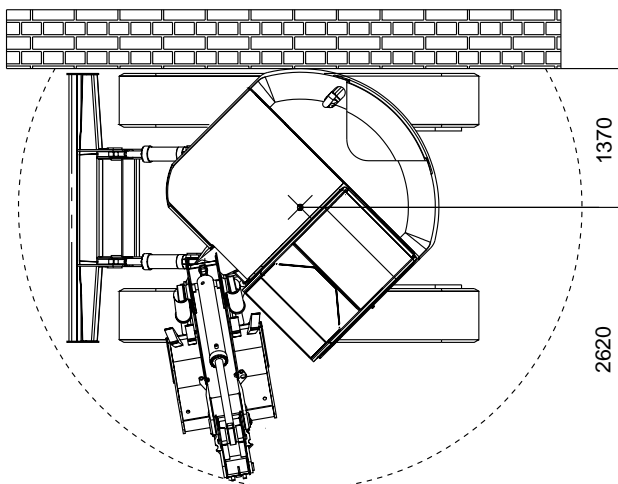


# Dimensions

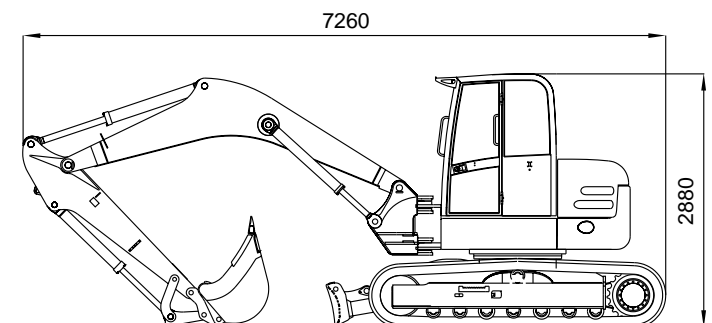
HR 42 Excavation within the entire width of the machine



HR 42 Slew circle



HR 42 Transport position



# Carrying capacity

Bucket hinge height		Load radius from centre of ring gear									
		3.2 m		4.0 m		5.0 m		6.0 m		6.6 m	
		180°	90°	180°	90°	180°	90°	180°	90°	180°	90°
3.0 m	Supported	4.80	2.06	3.58	3.36	3.02	2.28	2.78	1.70	2.68	1.48
	Travelling	3.15	–	3.53	3.28	2.32	2.26	2.03	1.69	1.37	1.46
1.5 m	Supported	7.19	3.90	5.32	2.86	3.90	2.03	3.25	1.60	2.93	1.36
	Travelling	4.66	3.83	3.53	2.07	2.60	2.07	1.98	1.62	1.65	1.33
0 m	Supported	7.30	4.02	5.91	2.65	4.53	1.98	2.87	1.51	3.20	1.32
	Travelling	4.70	3.92	3.21	2.59	2.41	1.95	1.14	1.48	1.64	1.30
– 0.7 m	Supported	6.84	3.67	6.37	2.74	4.40	1.95	3.69	1.52	3.37	1.37
	Travelling	4.45	3.62	3.26	2.61	2.34	1.91	1.77	1.50	1.57	1.34

All values specified in tons (t) were determined in compliance with ISO 10567 and include a stability factor of 1.33 or 87% of the hydraulic lifting capacity, the smaller value being indicated in each case. All values were determined with load hook. If a bucket is attached, the weight of the bucket must be deducted from the permissible payload. When used for load hook applications, excavators must be equipped with hose-rupture valves and overload warning device in compliance with EN 474-5.

Work equipment: Rubber crawler chain, MA = monobloc boom, dipperstick 2000 mm.

## Additional equipment

### Buckets (quick-mounting)

Bucket, conical	350 mm / 130 l
Bucket, conical	450 mm / 175 l
Bucket, with ejector	350 mm / 145 l
Bucket with ejector	450 mm / 200 l
Bucket	600 mm / 250 l
Bucket	800 mm / 330 l
Bucket	900 mm / 410 l
Bucket	1000 mm / 450 l
Ditch-cleaning bucket	1500 mm / 300 l
Swing bucket, 2 x 40°	1500 mm / 345 l

### Clamshell grabs

GS 3325	325 mm / 150 l
GS 3400	400 mm / 200 l
GS 3500	500 mm / 250 l
GS 3600	600 mm / 325 l

### Crawler-chain option:

Steel crawler chain (max. width 800 mm)

### Further options

Additional control circuit for hydraulic hammer  
 Quick-change adapter for hydraulic hammer operations  
 Hose-rupture valves for dipperstick  
 Filling with biodegradable hydraulic oil, ester-based, VI 68  
 Electrical refuelling pump  
 Lighting kit for cab (front & rear working floodlights)

Further accessories and attachments on request

Subject to modification