



SCHAEFF

A **YANMAR** BRAND

CRAWLER EXCAVATOR



Specifications

Operating weight	8200 kg
Engine power	55.4 kW (75 HP)
Bucket capacity	87 – 305 l
Digging depth	4.52 m
Reach	7.72 m

Features

- ▶ Short-tail machine
- ▶ Extra-wide blade for dozer applications
- ▶ Flexibility in daily work by task-specific adjustment of the boom systems
- ▶ Comfort cab with perfect all-round visibility
- ▶ Increased productivity thanks to load sensing hydraulics
- ▶ Knickmatik® allows for working closely along walls
- ▶ Wide range of proven working tools

TC85

SPECIFICATIONS

TC85

ENGINE

Manufacturer, model	Deutz, TCD 2.9 L4
Type	Turbo diesel engine with intercooler, exhaust-gas optimized EU Stage III B, EPA TIER IV final
Combustion	4-stroke cycle, Common Rail injection
Number of cylinders	4 in line
Displacement	2,900 cm ³
Net power rating at 2,200 rpm (ISO 14396)	55.4 kW (75 hp)
Max. torque	300 Nm @ 1,600 rpm
Cooling system	Water

ELECTRICAL SYSTEM

Nominal voltage	12 V
Battery	12 V / 105 Ah
Generator	14 V / 95 A
Starter	12 V / 2.6 kW (3.5 HP)
Cold-starting aid	Glow plugs 12 V

TRANSMISSION

Hydrostatic travel drive with planetary reduction gears on sprocket drives. Multi-disc brake acting as parking brake, automatically bled. 2-stage variable displacement motor, full power shift.

2 speed ranges:

Travel speed, forward and reverse	0-2.7 / 5.2 kph
Gradeability	> 60 %
Drawbar pull 1st / 2nd speed range	6579 / 3282 daN

UNDERCARRIAGE

Maintenance-friendly B1 track-type undercarriage with triple grouser plates or rubber crawlers. Idler suspension with hydraulic crawler-chain tensioning.

Width rubber crawlers / steel crawlers	450 / max. 600 mm
Total length (sprocket - idler)	2200 / 2250 mm
Total length (undercarriage)	2850 mm

DOZER BLADE

Independent of drive train, sensitive control via separate hand lever.

Width x height	2330 x 496 mm
Dozer cut below ground	390 mm
Dozer lift above ground	500 mm
Slope angle	35°

STEERING

Independent individual control of crawler chains, also counterwise. Sensitive control provided by pilot-operated hand levers combined with foot pedals. Full drawbar pull even at shifts in direction.

SWING SYSTEM

Hydrostatic drive with 2-stage planetary gear and axial piston fixed displacement motor, also acts as wear-resistant brake. In addition, spring-loaded multi-disc brake acting as parking brake.

Swing speed	0-11 min ⁻¹
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KNICKMATIK®

Lateral parallel adjustment of boom arrangement at full dig depth.

Angle of articulation / lateral adjustment left	56° / 650 mm
Angle of articulation / lateral adjustment right	61° / 990 mm

FLUID CAPACITIES

Fuel tank	130 l
Hydraulic system (incl. tank)	140 l



OPERATING DATA, STANDARD EQUIPMENT

Operating weight (monobloc boom) acc. to ISO 6016	8200 kg
Operating weight (circular boom) acc. to ISO 6016	8600 kg
Undercarriage (steel crawlers) 500 mm	+250 kg
Transport dimensions: monobloc boom / circular boom (L x H)	6575 x 2630 / 6110 x 2600 mm
Total width with dozer blade	2330 mm
Total height (top of cab)	2600 mm
Ground clearance	410 mm
Reach max. (monobloc boom / circular boom)	7650 / 7720 mm
Digging depth max. (monobloc boom / circular boom)	4520 / 3910 mm
Uppercarriage tailswing	1510 mm
Uppercarriage frontswing (monobloc boom / circular boom)	2420 / 1765 mm
Working envelope 180° (monobloc boom / circular boom)	3930 / 3275 mm
Working envelope 360° (monobloc boom / circular boom)	4840 / 3530 mm
Bucket digging force acc. to ISO 6015 (monobloc boom)	53,200 N
Stick digging force acc. to ISO 6015 (monobloc boom / circular boom)	42,600 / 47,300 N
Specific ground pressure, rubber crawlers (monobloc/circular)	0.35 / 37 daN/cm ²
Specific ground pressure, steel crawlers (monobloc/circular)	0.36 / 38 daN/cm ²

HYDRAULIC SYSTEM

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

Max. pump capacity	156 l/min
Working pressure, max.	280 bar

The thermostatically controlled oil circuit ensures that the oil temperature is promptly reached and avoids overheating. Return filter installed in oil tank allows for eco-friendly replacement of filter elements.

Gear pump for all positioning and swing movements. Pressure cut-off valve for sensitive and energy-saving swing movements.

Max. pump capacity	68 l/min
Working pressure, max.	230 bar

Control circuit for work attachments:

Pump capacity, adjustable up to max.	100 l/min
Working pressure, max.	280 bar

Two servo-assisted joystick controls (ISO) for excavator operations.

CAB

Spacious, sound-insulated full-vision steel cab (ROPS certified). Sliding window in cab door. Safety glass windows, thermo windows tinted in green. Skylight thermo window, bronze tinted. Panoramic rear window. Front window supported by pneumatic springs, slidable under cab roof. Ventilation position by tilting the front window. Windshield washer system. Storage compartment. Preparation for radio installation. Left-hand outside rear-view mirror.

Cab heating with front window defroster by coolant heat exchanger with stepless fan. Fresh air and recirculating air filters.

Operator's seat MSG 85 (comfort version), hydraulic damping, extra-high backrest, tilt-adjustable armrests, longitudinal-horizontal suspension, mechanical lumbar support. Lap belt.

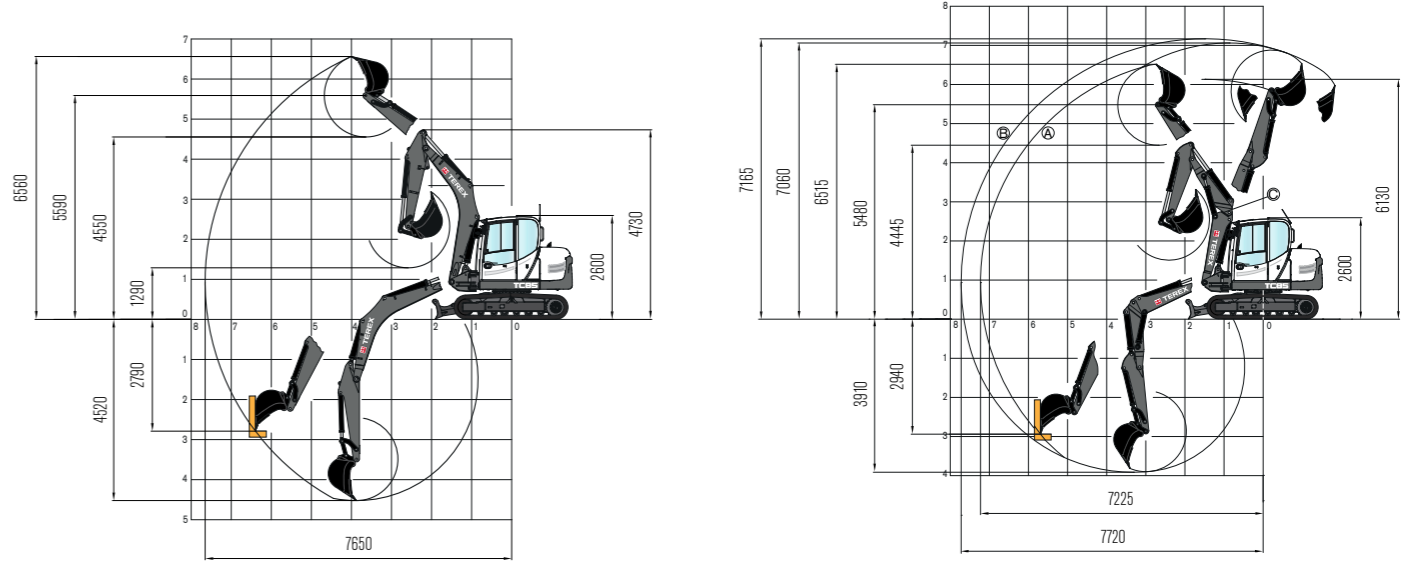
Instrument panel on the right-hand side of the operator's seat with visual & acoustic warning device, hour-meter and safety module.

Working floodlights Halogen H-3.

Sound level values in compliance with EC-directives.

*FOPS-approved only with skylight guard (optional)

WORKING RANGES: MONOBLOC BOOM / CIRCULAR BOOM



A = Digging envelope, reach restricted
B = Digging envelope, reach unrestricted
C = End position of intermediate boom

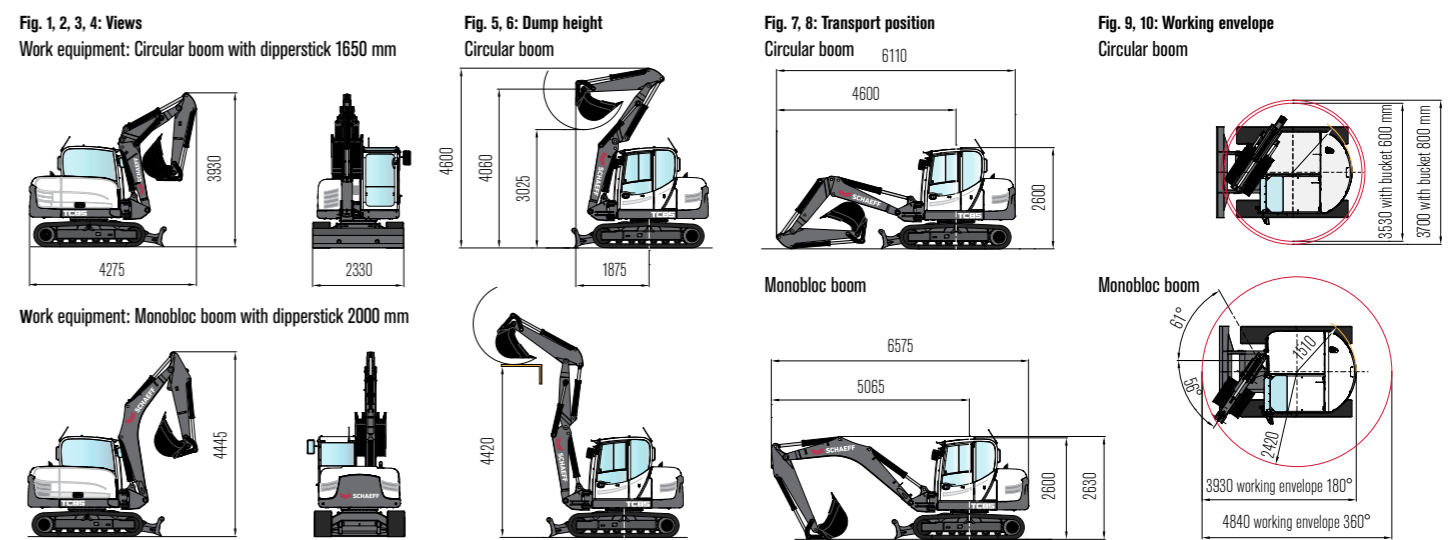
LIFTING CAPACITIES

Bucket hinge height	Load radius from center of ring gear															
	3.0 m		4.0 m		5.0 m		6.0 m		Max.							
	MB	CB	MB	CB	MB	CB	MB	CB	MB	CB	MB	CB				
3.0 m	2.10	1.53	3.50	1.90	2.00	1.30	2.10	1.40	1.70	0.90	1.70	0.90	1.70	0.90	1.30	0.80
1.5 m	2.00	1.50	2.10	1.80	1.40	1.20	1.50	1.30	1.00	0.90	1.00	0.90	0.90	0.80	0.90	0.80
0 m	3.10	2.70	1.80	1.39	1.30	1.10	1.40	1.20	0.90	0.80	1.00	0.90	0.80	0.70	0.80	0.70
-1.0 m	2.00	2.80	2.20	1.70	1.20	1.00	1.30	1.10	0.90	0.80	0.90	0.80	0.80	0.70	0.70	0.70
	2.60	2.00	2.80	2.20	1.60	1.10	1.80	1.50	1.10	1.00	1.30	1.10	0.90	0.80	0.80	0.40

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 operating loads. When used for load hook applications, excavators must be equipped with hose-rupture valves and overload warning device in compliance with EN 474-5.

Working equipment: Rubber crawlers. Abbreviations: MB = Monobloc boom, dipperstick 2000 mm; CB = Circular boom, dipperstick 1650 mm

DIMENSIONS



WORK ATTACHMENTS

BUCKETS

Bucket, QAS, light material, without teeth	300 mm wide, capacity 87 l
Bucket, QAS, light material, without teeth	400 mm wide, capacity 127 l
Bucket, QAS, light material, without teeth	600 mm wide, capacity 212 l
Bucket, QAS	300 mm wide, capacity 87 l
Bucket, QAS	400 mm wide, capacity 127 l
Bucket, QAS	500 mm wide, capacity 169 l
Bucket, QAS	600 mm wide, capacity 212 l
Bucket, QAS	800 mm wide, capacity 303 l
Ditch-cleaning bucket, QAS	1250 mm wide, capacity 251 l
Ditch-cleaning bucket, QAS	1500 mm wide, capacity 305 l
Swing bucket, QAS	1500 mm wide, capacity 305 l

OPTIONAL EQUIPMENT

BOOM OPTIONS

Monobloc boom, with dipperstick 2000 mm
Circular boom, with dipperstick 1650 mm

CRAWLER CHAIN OPTIONS

Rubber crawler track, 450 mm wide
Steel crawler track, up to 600 mm wide
Rubber-coated steel crawler chain 'Roadliner', 450 mm wide.

OPTIONAL SUPPORT/DOZER SYSTEMS

Front dozer blade, 2480 mm wide
Front dozer blade, extra-long version

HYDRAULIC SYSTEM

Second control circuit (e.g. for sorting grab)	Biodegradable hydraulic oil / ester-based HLP 68 (Panolin)
Open return	Float position dozer blade
Schaeff 'Fingertip' control incl. second additional control circuit on left joystick	Schaeff 'Fingertip' control incl. third additional control circuit on left joystick
Conversion kit from ISO controls to Schaeff controls	Excavator control changeover: ISO-SAE

GRABS

Clamshell grab GM 2325, grab swing brake	set of shells 325 mm wide, capacity 150 l
Clamshell grab GM 2400, grab swing brake	set of shells 400 mm wide, capacity 200 l
Clamshell grab GM 2500, grab swing brake	set of shells 500 mm wide, capacity 250 l
Ejector	

OTHER WORK ATTACHMENTS

Ripper tooth / QAS (1 tooth)	Cutting unit
Hydraulic hammer	Quick-change adapter for hydraulic hammer
Augers	Bolt-on load hook for bucket rod
Load hook integrated in quick-attach system	
Further work attachments available on request	

DIESEL ENGINE

Diesel particulate filter	Automatic idle
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CAB

Lighting package: 1 double beam working floodlight - cab-mounted rear center, 1 working floodlight cab-mounted - front right	FOPS - skylight guard
Additional boom-mounted working floodlight	Radio set installation kit
Yellow rotating beacon	Sliding window on right-hand side.

OPERATOR'S STAND

Operator's seat MSG 95 (premium version), air damping, extra-high backrest and tilt-adjustable armrests, longitudinal-horizontal suspension, seat and backrest heating, pneumatic lumbar support	
Klimatronic	Thermoelectric cooler

OTHER OPTIONAL EQUIPMENT

	Anti-theft device (immobilizer)
Quick-attach system, mechanical (genuine Lehnhoff system), type MS08	Quick-attach system, hydraulic (genuine Lehnhoff system), type HS08
Hydraulic installation for quick-attach system	Electrical refueling pump
Additional rear weight, 229 kg	Engine-independent diesel heater with fresh air circulation and timer
Special coating / adhesive films	
Further optional equipment available on request	



Yanmar Compact Germany GmbH
Kraftwerkstrasse 4
74564 Crailsheim, Germany

www.schaeff-yanmar.com