



SCHAEFF

A **YANMAR** BRAND

MINI EXCAVATOR



Technical data

Operating weight	4870 kg
Engine power	29.0 kW (39.4 HP)
Bucket capacity	68-232 l
Dig depth	3.7 / 3.9 m
Reach	6.0 / 6.2 m

Features

- ▶ Short-tail machine
- ▶ Extra-wide blade for dozer applications
- ▶ Top-mounted boom cylinders for perfect protection of cylinders and larger range of application
- ▶ Comfort cab with perfect all-round visibility
- ▶ Knickmatik® allows for working closely along walls
- ▶ Wide range of proven working tools

TC48

SPECIFICATIONS

ENGINE

Manufacturer, model	Mitsubishi, S4Q2
Type	4-cylinder diesel engine, EPA/Tier 4 Interim
Combustion	4-stroke, swirl chamber injection
Displacement	2190 cm ³
Net power rating at 2200 rpm (ISO 9249)	29.0 kW (39.4 hp)
Torque	134 Nm at 1800 rpm
Cooling system	Water

ELECTRICAL SYSTEM

Nominal voltage	12 V
Battery	12 V / 71 Ah
Generator	12 V / 50 A
Starter	12 V / 2.0 kW

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.

2 speed ranges:

Travel speed, forward and reverse	0-3.2 / 4.8 kph
Gradeability	max. 60 %
Drawbar pull 1st speed range	4400 daN

UNDERCARRIAGE

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

Width rubber crawlers / steel crawlers	400 mm
Tread width (narrow/wide version)	1450 / 1590 mm
Total length (sprocket - idler)	1920 mm
Total length (undercarriage)	2430 mm

DOZER BLADE

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

	Narrow version	Wide version
Width x height	1860 x 400 mm	1990 x 400 mm
Dozer cut below ground	310 mm	295 mm
Dozer cut above ground	395 mm	460 mm
Slope angle	34°	36°

STEERING

Independent, individual control of crawlers, also counterwise via 2-circuit hydraulic system. Sensitive control via hand levers combined with foot pedals. Pedal console serving as foot rest.

SWING SYSTEM

Hydrostatic drive, also acts as wear-resistant brake. Additional spring-loaded multi-disc brake. Internally toothed ring gear.

Swing speed	0-10 rpm
-------------	----------

KNICKMATIK®

Parallel lateral adjustment of boom arrangement at total	1220 mm
Angle of articulation / lateral adjustment left	75° / 515 mm
Angle of articulation / lateral adjustment right	55° / 705 mm

FLUID CAPACITIES

Fuel tank	52 l
Hydraulic system (incl. tank 48 l)	77 l
Coolant	6 l



OPERATING DATA, STANDARD EQUIPMENT

Transport weight (rubber crawlers, without bucket)	4645 kg
Operating weight acc. to ISO 6016 (rubber crawlers, QAS, bucket, incl. operator)	4870 kg
With steel crawlers	+270 kg
Total length (travel position)	3650 mm
Total length (trailer transport position)	5540 mm
Total height (travel position)	3895 mm
Total width of undercarriage (narrow/wide version)	1860 / 1990 mm
Total width of uppercarriage	1600 mm
Uppercarriage tailswing	1470 mm
Uppercarriage frontswing	1735 mm
Working envelope 180° / 360°	3205 / 3470 mm
Ground clearance	360 mm
Bucket digging force (ISO 6015)	31,200 N
Stick digging force (ISO 6015)	27,000 N
Ground pressure (rubber crawlers)	0.26 daN/cm ²

HYDRAULIC SYSTEM

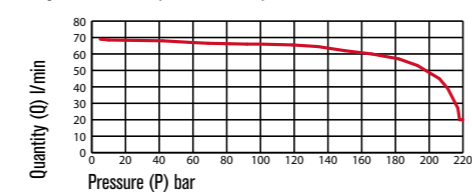
Variable pump capacity	max. 140 l/min
Working pressure	250 bar

Working hydraulics: LS-axial-piston variable displacement pump, load sensing and load-independent flow distribution (LUDV) for all work functions and travel drive. Simultaneous independent control of all movements.

Tank-immersed return filter with electric contamination indicator, full flow filtration. Hydraulic oil radiator provided as standard. Boom, dipperstick and articulated cylinders with end-positioning damping on both sides, bucket retract function with one-side end-position damping.

Open return provided as standard. All functions can be activated proportionally. Two servo-assisted joystick controls for excavator operations. Shut-off of all functions when operator dismounts from machine

Control circuit for work attachments (standard):
Diagram shows P/Q provided on couplers



CAB

Spacious, sound-insulated full-vision steel cab, FOPS* (acc. to ISO 3449) and TOPS (acc. to ISO 12117) certified. Two equally large doors. Safety glass windows, thermo windows tinted in green. Skylight thermo window, bronze tinted. Panoramic rear window. Front window supported by pneumatic springs, lockable for ventilation and slidable under cab roof. Windshield washer system. Storage compartment. Preparation for radio installation. Left-hand outside rear-view mirror.

Cab heating with windshield defroster through coolant heat exchanger and 2-speed fan, ventilating mode in summer.

Operator's seat MSG 85 (standard version), hydraulic damping, adjustable armrests, weight, longitudinal and tilt adjustments. Lap belt.

Instrument panel on the right-hand side of the operator's seat with visual & acoustic warning device, hour-meter, instrument cluster with large fuel gauge.

Working floodlights Halogen H-3.

Noise emission ambiance L_{wa} 96 dB (A)

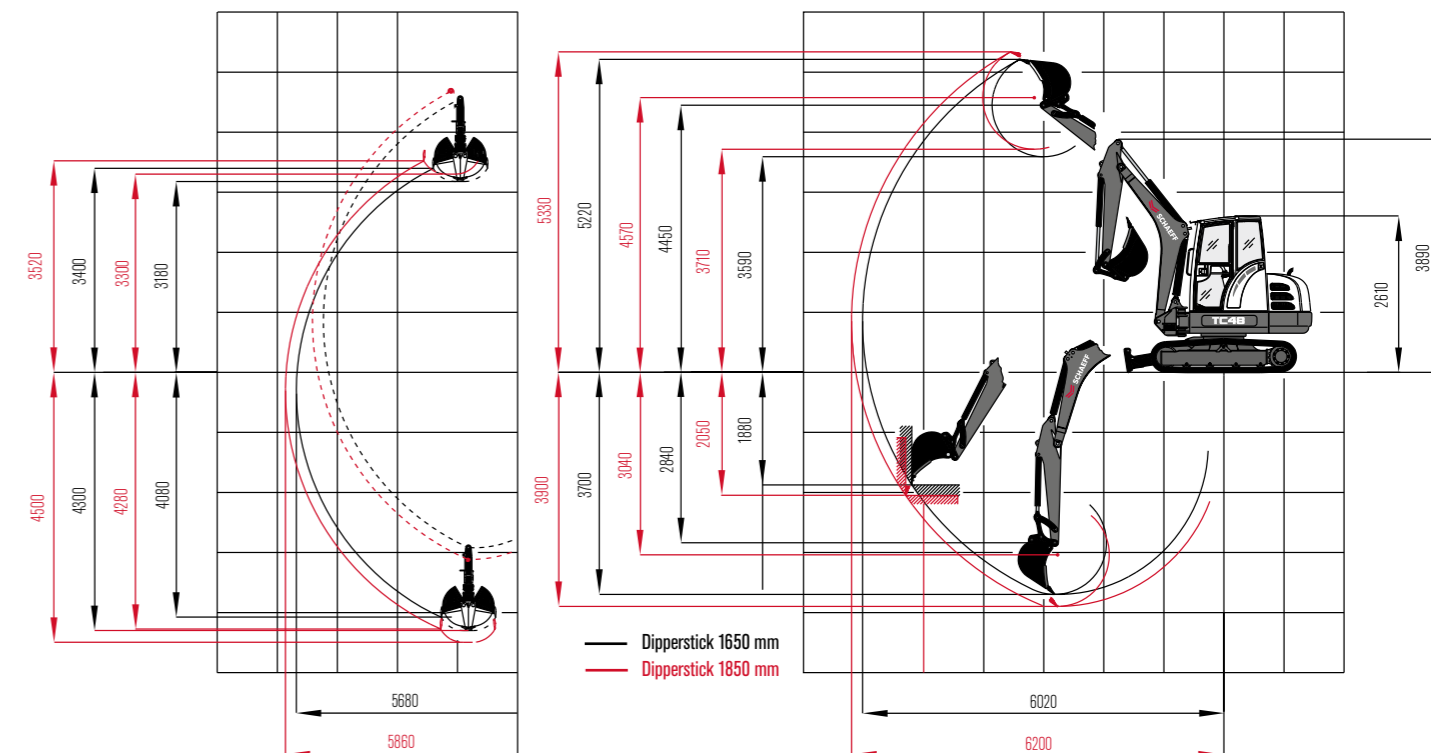
Noise emission cab L_{pa} 72 dB (A)

Sound level values in compliance with EC-directives.

*FOPS-approved only with skylight guard (optional)

TC48

WORKING RANGES & DIMENSIONS: MONOBLOC BOOM



LIFTING CAPACITIES

Bucket hinge height	Dipperstick 1650 mm	Load radius from center of ring gear											
		2.5 m		3.0 m		3.5 m		4.0 m		4.5 m		5.0 m	
		End	Side	End	Side	End	Side	End	Side	End	Side	End	Side
3.0 m	S	-	-	-	-	1.26	0.95	1.26	0.75	1.20	0.62	-	-
	T	-	-	-	-	0.80	0.92	0.59	0.73	0.51	0.59	-	-
2.0 m	S	1.90	1.78	1.71	1.14	1.51	0.92	1.36	0.71	1.21	0.62	1.08	0.51
	T	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	S	3.07	1.35	2.27	1.08	1.80	0.86	1.50	0.71	1.27	0.58	1.10	0.52
	T	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	S	2.75	1.31	2.14	0.98	1.73	0.80	1.45	0.67	1.24	0.56	0.94	0.51
	T	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	S	2.14	1.31	1.87	1.04	1.51	0.80	1.21	0.65	1.01	0.57	-	-
	T	1.02	1.28	0.75	0.98	0.60	0.78	0.52	0.64	0.45	0.54	-	-

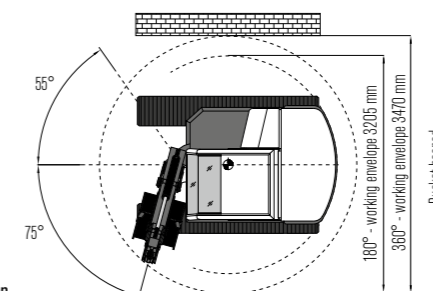
All values in tons (t) were determined acc. to ISO 10567 and include a stability factor of 1.33 or 87% of the hydraulic lifting capacity. All values were determined with quick-attach system but without bucket. In case of mounted-on work attachments, the deadweights of the work attachments must be deducted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

Working equipment: Undercarriage 1850 mm, rubber crawlers, monobloc boom, dipperstick 1650 mm.

Abbreviations: S = Supported by blade, T = Traveling

DIMENSIONS

Work equipment:
Monobloc boom with dipperstick 1650 mm



Max. height loading position

WORK ATTACHMENTS

BUCKETS

Bucket, QAS	300 mm wide, capacity 68 l
Bucket, QAS	400 mm wide, capacity 99 l
Bucket, QAS	500 mm wide, capacity 131 l
Bucket, QAS	600 mm wide, capacity 164 l
Bucket, QAS	700 mm wide, capacity 198 l
Bucket, QAS	800 mm wide, capacity 232 l
Ditch-cleaning bucket, QAS	1300 mm wide, capacity 191 l
Swing bucket, QAS	1300 mm wide, capacity 191 l

GRABS

Clamshell grab GL 1250, grab swing brake	set of shells 250 mm wide, capacity 45 l
Clamshell grab GL 1350, grab swing brake	set of shells 350 mm wide, capacity 65 l
Clamshell grab GL 1450, grab swing brake	set of shells 450 mm wide, capacity 85 l
Clamshell grab GL 1600, grab swing brake	set of shells 600 mm wide, capacity 115 l
Ejector	

OTHER WORK ATTACHMENTS

Hydraulic hammer	Cutting unit
Augers	Quick-change adapter for hydraulic hammer
Load hook integrated in quick-attach system	Bolt-on load hook for bucket rod

Further work attachments available on request

OPTIONAL EQUIPMENT

BOOM OPTIONS

Monobloc boom, with extended dipperstick 1850 mm

CRAWLER CHAIN OPTIONS

Steel crawler track, 400 mm wide

Rubber-coated steel crawler chain 'Roadliner', 400 mm wide.

HYDRAULIC SYSTEM

Schaeff 'Fingertip' control for work attachments on right joystick	Hose-rupture / load-retaining valve for boom with load warning device
Schaeff 'Fingertip' control for work attachments on left joystick	Hose-rupture / load-retaining valve for dipperstick
Second control circuit (e.g. for sorting grab)	Biodegradable hydraulic oil / ester-based HLP 68 (Panolin)
Conversion kit from ISO controls to Schaeff controls	Excavator control changeover: ISO-John Deere

DRIVER'S STAND

Operator's seat MSG 85 (comfort version), hydraulic damping, extra-high backrest, longitudinal-horizontal suspension

Operator's seat MSG 95 (premium version), air damping, extra-high backrest, longitudinal-horizontal suspension, seat and backrest heating

DIESEL ENGINE

Diesel exhaust cleaner	Catalyst
------------------------	----------

CAB

Air-conditioning	FOPS - skylight guard
Working floodlight, front	Motion alarm incl. horn (to be deactivated on demand)
Working floodlight, rear	Radio set installation kit
Yellow beacon	

OTHER OPTIONAL EQUIPMENT

Mechanical quick-attach system (QAS)	Anti-theft device (immobilizer)
Quick-attach system, mechanical (genuine Lehnhoff system), type MS03	Canopy, steel pipe construction with 4 vertical support members, working floodlight, TOPS/FOPS certified (weight reduction 80 kg)
Additional boom-mounted working floodlight	Electrical refueling pump
Engine-independent diesel heater with fresh air circulation and timer	Special coating / adhesive films
Crane loading wire-rope harness	

Further optional equipment available on request



Yanmar Compact Germany GmbH
Kraftwerkstrasse 4
74564 Crailsheim, Germany

www.schaeff-yanmar.com