



SCHAEFF

A **YANMAR** BRAND

MINI EXCAVATOR



Specifications

Operating weight	2925 kg
Engine power	17.5 kW (24 HP)
Bucket capacity	38-110 l
Dig depth	2.8 / 3.0 m
Reach	4.8 / 5.0 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
- ▶ Increased productivity thanks to load sensing hydraulics
- ▶ Knickmatik® allows for working closely alongside walls
- ▶ Wide range of proven working tools

TC29

SPECIFICATIONS

TC29

ENGINE

Manufacturer, model	Mitsubishi, S4L-W462KL
Type	4-cylinder diesel engine, EPA/Tier 4 final
Combustion	4-stroke, swirl chamber injection
Displacement	1500 cm ³
Net power rating at 2000 rpm (ISO 9249)	17.5 kW (24 HP)
Torque	84 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	0-2.7 / 4.6 kph
Gradeability	max. 60 %
Drawbar pull 1st / 2nd speed range	2600 / 1100 daN

UNDERCARRIAGE

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

Width rubber crawlers / steel crawlers	300 mm
Tread width	1100 mm
Total length (sprocket - idler)	1390 mm
Total length (undercarriage)	1830 mm

DOZER BLADE

Dozer blade available in "standard" and "extra-long" version, independent of drive train, sensitive control via hand lever.

Width x height ("standard" / "extra-long")	1410 x 325 mm
Dozer cut below ground	285 / 296 mm
Dozer cut above ground	206 / 406 mm
Slope balance	9° / 8°

STEERING

Independent, individual control of crawler chains, also counterwise. 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	0-9.5 rpm
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KNICKMATIK®

Lateral parallel adjustment of boom arrangement at full dig depth.

Angle of articulation / lateral adjustment left	60° / 445 mm
Angle of articulation / lateral adjustment right	67° / 595 mm

FLUID CAPACITIES

Fuel tank	52 l
Hydraulic system (incl. tank 72 l)	85 l



OPERATING DATA, STANDARD EQUIPMENT

Transport weight (incl. bucket)	2850 kg
Operating weight acc. to ISO 6016 (incl. operator)	2925 kg
Total length (travel position)	3100 mm
Total length (trailer transport position)	4700 mm
Total height (travel position)	3000 mm
Total width	1400 mm
Uppercarriage tailswing	1300 mm
Uppercarriage frontswing	1525 mm
Working envelope 180° / 360°	2825 / 3050 mm
Ground clearance	270 mm
Bucket digging force (ISO 6015)	21,300 N
Stick digging force (ISO 6015)	13,600 (11,900*) N
Ground pressure (rubber crawlers)	0.27 daN/cm ²

HYDRAULIC SYSTEM

Pump capacity	max. 99 l/min
Working pressure	210 bar

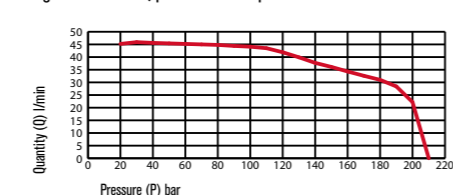
Working hydraulics: LS-axial-piston variable displacement pump, load sensing and load-independent flow division (LUDV) for all work functions and travel drive. Simultaneous independent control of all movements.

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.

Fabric-covered operator's seat FSP010 with 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 flood lights Halogen H-3.

Noise emission ambience L_{wa} 94 dB (A)

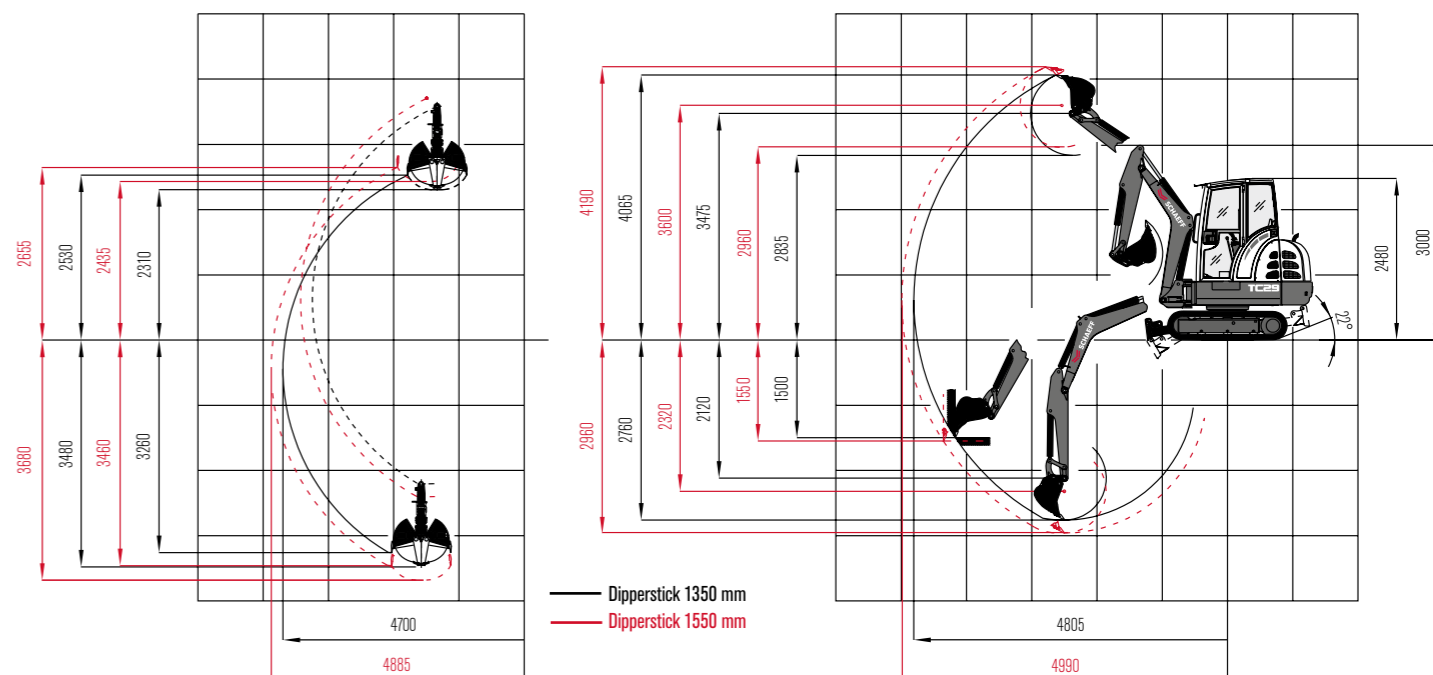
Noise emission cab L_{pa} 76 dB (A)

Measured in dynamic measuring cycle acc. to EC-directive 2000/14/EC.

* with dipperstick 1550 mm (optional)

**FOPS-approved only with skylight guard (optional)

WORKING RANGES & DIMENSIONS: MONOBLOC BOOM



LIFTING CAPACITIES

Bucket hinge height		Load radius from center of ring gear									
		2.0 m		2.5 m		3.0 m		3.5 m		4.0 m	
Dipperstick 1350 mm		End	Side	End	Side	End	Side	End	Side	End	Side
2.0 m	S	-	-	0.83	0.68	0.78	0.54	0.66	0.39	-	-
	T	-	-	0.68	0.66	0.53	0.53	0.38	0.38	-	-
1.0 m	S	1.41	0.94	1.04	0.67	0.91	0.51	0.77	0.38	0.54	0.32
	T	0.85	0.93	0.67	0.66	0.45	0.49	0.36	0.37	0.30	0.31
0 m	S	1.35	0.81	0.98	0.58	0.75	0.48	0.62	0.37	0.52	0.32
	T	0.76	0.78	0.56	0.57	0.45	0.46	0.35	0.36	0.29	0.30
-1.0 m	S	1.04	0.88	0.85	0.52	0.68	0.46	0.45	0.37	-	-
	T	0.75	0.82	0.50	0.51	0.43	0.45	0.35	0.36	-	-

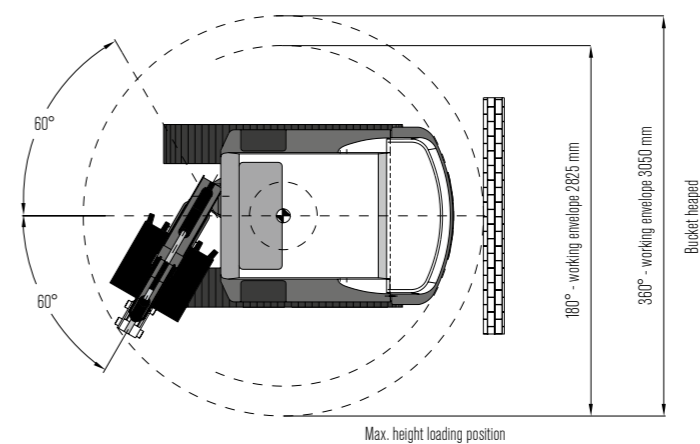
All values in tons (t) were determined acc. to ISO 10567 and include a stability factor of 1.33 or 87% of the hydraulic lifting capacity. All values were determined with quick-attach system but without bucket. In case of mounted-on work attachments, the deadweights of the work attachments must be deducted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

Working equipment: Rubber crawlers.

Abbreviations: S = Supported by blade, T = Traveling

DIMENSIONS

Work equipment:
Monobloc boom with dipperstick 1350 mm



WORK ATTACHMENTS

BUCKETS

Bucket, QAS	250 mm wide, capacity 33 l
Bucket, QAS	300 mm wide, capacity 41 l
Bucket, QAS	400 mm wide, capacity 60 l
Bucket, QAS	500 mm wide, capacity 80 l
Bucket, QAS	600 mm wide, capacity 98 l
Ditch-cleaning bucket, QAS	1000 mm wide, capacity 91 l
Ditch-cleaning bucket, QAS	1200 mm wide, capacity 110 l
Swing bucket, QAS	1000 mm wide, capacity 91 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
Ejector	

OTHER WORK ATTACHMENTS

Hydraulic hammer	Cutting unit
Auger	Quick-change adapter for hydraulic hammer
Bolt-on load hook for bucket rod	Further work attachments available on request

OPTIONAL EQUIPMENT

BOOM OPTIONS

Monobloc boom, with extended dipperstick 1550 mm

CRAWLER CHAIN OPTIONS

Steel crawler track, 300 mm wide

HYDRAULIC SYSTEM

Schaeff 'Fingertip' control (electro proportional) for additional control circuit for work attachments on right joystick, actuation via rollers	Schaeff 'Fingertip' control (electro proportional) incl. second additional control circuit on left joystick, actuation via rollers
Hose-rupture / load-retaining valve for boom with load warning device	Second additional control circuit (e.g. for sorting grab), foot pedal
Hose-rupture / load-retaining valve for dipperstick	Biodegradable hydraulic oil / ester-based HLP 68 (Panolin)

Float position - front dozer blade

DRIVER'S STAND

Fabric-covered operator's seat MSG 20 (standard version), lap belt, adjustable driver's weight

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

CAB

Rain guard	FOPS - skylight guard
Cab-mounted working floodlight, front right	Cab-mounted working floodlight, rear right
Boom-mounted working floodlight	Radio set installation kit
Anti-theft device, coded key (immobilizer)	Electronic immobilizer, keypad operation
Yellow beacon	Motion alarm incl. horn (to be deactivated on demand)

OTHER OPTIONAL EQUIPMENT

Mechanical quick-attach system (QAS)	Front dozer blade - extra-long version
Quick-attach system, mechanical (genuine Lehnhoff system), type MS03	Canopy with working floodlight (weight reduction: 80 kg)
Crane loading wire-rope harness	Special coating / adhesive films
Further optional equipment available on request	



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