



SCHAEFF

A **YANMAR** BRAND

MINI EXCAVATOR



Specifications

| | |
|------------------|-----------------|
| Operating weight | 5020 kg |
| Engine power | 26.5 kW (36 HP) |
| Bucket capacity | 68-232 l |
| Dig depth | 3.7 / 3.9 m |
| Reach | 6.2 / 6.4 m |

Features

- ▶ Zero-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 alongside walls
- ▶ Wide range of proven working tools

TC50

SPECIFICATIONS

TC50

ENGINE

| | |
|---|---|
| Manufacturer, model | Yanmar 4TNV88 |
| Type | 4-cylinder diesel engine, EPA/Tier 4 Interim (2008) |
| Combustion | 4-stroke, direct fuel injection |
| Displacement | 2190 cm ³ |
| Net power rating at 2200 rpm (ISO 9249) | 26.5 kW (36 hp) |
| Torque | 138 Nm at 1320 rpm |
| Cooling system | Water |

ELECTRICAL SYSTEM

| | |
|-----------------|---------------|
| Nominal voltage | 12 V |
| Battery | 12 V / 74 Ah |
| Generator | 12 V / 40 A |
| Starter | 12 V / 2.3 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 | 0-2.8 / 5.0 kph |
| Automatic shift-over between speed range 1 and 2. | |
| Gradeability | max. 60 % |
| Drawbar pull 1st / 2nd speed range | 4280 / 2400 daN |

UNDERCARRIAGE

Torsion-proof welded design. Crawler unit carriers in sloped design for dirt outlet. Maintenance-free crawler-type undercarriage. Idler suspension with hydraulic crawler track tensioning.

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

DOZER BLADE

Independent of drive train, sensitive control via hand lever.

| | |
|-------------------------|---------------|
| Width x height | 1990 x 400 mm |
| Dozer cut below ground | 220 mm |
| Dozer lift above ground | 500 mm |
| Slope angle | 38° |

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 | 0-10 rpm |
|-------------|----------|

KNICKMATIK®

Lateral parallel adjustment of boom arrangement at full dig depth.

| | |
|--|--------------|
| Angle of articulation / lateral adjustment left | 67° / 860 mm |
| Angle of articulation / lateral adjustment right | 64° / 770 mm |

FLUID CAPACITIES

| | |
|------------------------------------|------|
| Fuel tank | 65 l |
| Hydraulic system (incl. tank 60 l) | 90 l |



OPERATING DATA, STANDARD EQUIPMENT

| | |
|--|--------------------------|
| Transport weight (incl. QAS, without bucket) | 4820 kg |
| Operating weight acc. to ISO 6016 (incl. operator) | 5020 kg |
| Total length (travel position) | 3570 mm |
| Total height (travel position) | 3895 mm |
| Overall width (undercarriage) | 1990 mm |
| Total width (uppercarriage) | 1850 mm |
| Uppercarriage tailswing | 995 mm |
| Uppercarriage frontswing | 2020 mm |
| Working envelope 180° / 360° | 3015 / 4040 mm |
| Ground clearance | 360 mm |
| Bucket digging force (ISO 6015) | 31,200 N |
| Stick digging force (ISO 6015) | 27,000 (23,800*) N |
| Ground pressure (rubber crawlers) | 0.27 daN/cm ² |

HYDRAULIC SYSTEM

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

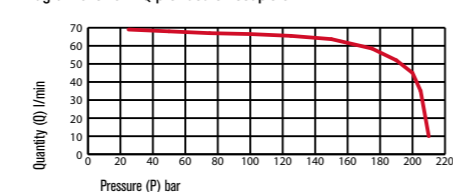
Working hydraulics: LS-axial-piston variable displacement pump, load sensing and load-independent flow distribution (LUDV) for all work functions and travel drive. Simultaneous independent control of all movements.

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. Door with large entry zone on left-hand side. Sliding window on right-hand side. 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. Fixed window part without frame which obstructs the forward view. Windshield washer system. Storage compartment. Preparation for radio installation. Left-hand outside rear-view mirror. One key for door, fuel cap and hood.

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, height-adjustable, longitudinal-horizontal suspension. 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 front left.

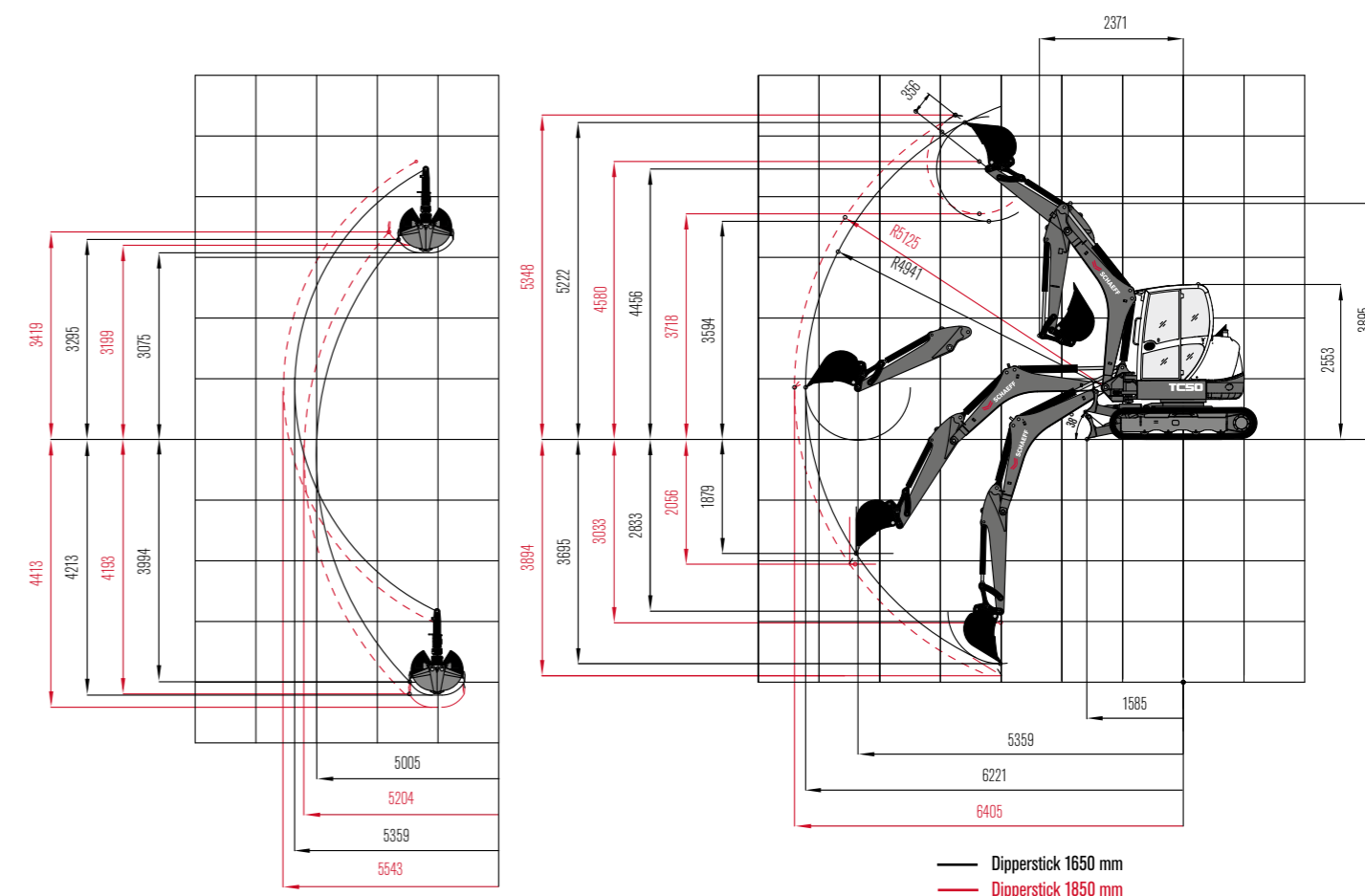
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|---|-----------|
| Noise emission ambience L _{WA} | 94 dB (A) |
| Noise emission cab L _{PA} | 79 dB (A) |

Yellow beacon, radio, immobilizer (anti-theft device), working floodlights prepared for optional installation.

*with dipperstick 1850 mm (optional)

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

WORKING RANGES & DIMENSIONS: MONOBLOC BOOM



LIFTING CAPACITIES

| 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 | | 5.3 m | |
| | | End | Side | End | Side | End | Side | End | Side | End | Side | End | Side | End | Side |
| 2.0 m | S | - | - | 1.68 | 1.27 | 1.55 | 1.00 | 1.39 | 0.77 | 1.24 | 0.65 | 1.15 | 0.54 | 1.08 | 0.51 |
| | T | - | - | 1.52 | 1.23 | 1.09 | 0.94 | 0.86 | 0.76 | 0.71 | 0.62 | 0.58 | 0.51 | 0.55 | 0.48 |
| 1.0 m | S | 3.56 | 1.49 | 2.57 | 1.16 | 2.00 | 0.94 | 1.64 | 0.77 | 1.39 | 0.63 | 1.18 | 0.53 | 1.04 | 0.48 |
| | T | 1.65 | 1.42 | 1.32 | 1.11 | 1.03 | 0.89 | 0.85 | 0.72 | 0.70 | 0.59 | 0.57 | 0.50 | 0.51 | 0.45 |
| 0 m | S | 3.03 | 1.36 | 2.44 | 1.07 | 1.91 | 0.85 | 1.57 | 0.69 | 1.28 | 0.59 | 1.06 | 0.50 | 0.97 | 0.47 |
| | T | 1.56 | 1.32 | 1.16 | 1.02 | 0.94 | 0.82 | 0.77 | 0.67 | 0.64 | 0.56 | 0.55 | 0.47 | 0.51 | 0.44 |

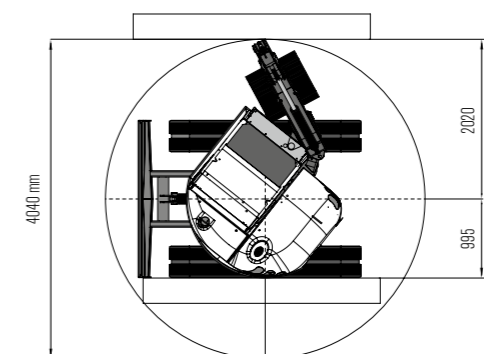
All values in tons (t) were determined acc. to ISO 10567 and include a stability factor of 1.33 or 87% of the hydraulic lifting capacity. All values were determined with quick-attach system but without bucket. In case of mounted-on work attachments, the deadweights of the work attachments must be deducted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

Working equipment: Rubber crawlers.

Abbreviations: S = Supported by blade, T = Traveling

DIMENSIONS

Work equipment:
Monobloc boom with dipperstick 1650 mm



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 |
| Swing bucket, directly mounted | 1000 mm wide, capacity 211 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 |
| Auger | 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 incl. second additional control circuit 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 | Float position - dozer blade |

DRIVER'S STAND

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

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

CAB

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

OTHER OPTIONAL EQUIPMENT

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



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