

Zero Tail Swing Compact Crawler Excavator

OPERATING WEIGHT	11,067 lbs (5.0 t)
NET ENGINE POWER	39.4 hp (29 kW)
BUCKET CAPACITIES	2.5 – 13.2 ft ³ (70 – 374 L)
MAX DIG DEPTH	12' 1" (3,695 mm)
MAX REACH	20' 4" (6,200 mm)


**COMPACT CRAWLER EXCAVATOR
TC50**
Operating Data, Standard Equipment*

Operating weight acc. to ISO 6016 (Incl. operator)	11,067 lbs (5,020 kg)
Overall length in travel position	11' 9" (3,570 mm)
Overall height in travel position	12' 9" (3,895 mm)
Total width (undercarriage)	6' 1" (1,850 mm)
Total width (uppercarriage)	6' 11" (1,850 mm)
Uppercarriage tailswing	3' 3" (995 mm)
Uppercarriage front swing	6' 8" (2,020 mm)
Working envelope 180° / 360°	9' 11" / 13' 3" (3,020 / 4,040 mm)
Ground clearance	14" (360 mm)
Digging depth	12' 1" (3,695 mm)
Bucket hinge pin height (lowest point)	12' 9" (3,890 mm)
Bucket hinge pin height (top position)	14' 7" (4,456 mm)
Dump height	11' 9" (3,594 mm)
Maximum working height	17' 1" (5,222 mm)
Maximum reach at ground level	20' 4" (6,200 mm)
Bucket digging force (ISO 6015)	7,020 lbs/ft (31,200 N)
Stick digging force (ISO 6015)	6,075 lbs/ft (27,000 N)
Ground pressure (rubber crawlers)	3.8 psi (0.27 daN/cm ²)
Ground pressure (steel crawlers)	4.0 psi (0.28 daN/cm ²)

*Dimensions with 65" (1,650 mm) dipperstick.

Specifications

Engine	
Manufacturer, model	Yanmar 4TNV88
Type	4-cylinder, diesel engine COM II/EPA II
Combustion	4-stroke, direct fuel injection
Displacement	134 in ³ (2,190 cm ³)
Net power rating at 2,200 rpm (ISO 9249)	39.4 hp (29 kW)
Maximum torque @1,500 rpm	106 lb/ft (144 Nm)
Cooling system	Water

Electrical System	
Nominal voltage	12 V
Battery	12 V / 74 Ah
Starter	12 V / 2.0 kW
Generator	12 V / 50 A

Power Transmission	
Two-stage hydrostatic travel drive with axial piston variable displacement motor and reduction gear, fully enclosed. "Straight-Travel"-function standard. Brake valve for downhill drive.	
Travel speed, forward and reverse	0-1.7 / 3.1 mph (0-2.8 / 5.0 km/h)
Automatic shift-over between speed range 1 and 2.	
Maximum gradeability	60%
Drawbar pull 1st /2nd speed range	9,622/5,395 lbf (4,280/2,400 daN)

Undercarriage	
Torsion resistant welded design. Crawler unit carriers in sloped design for dirt outlet. Maintenance-free crawler-type undercarriage. Idler suspension with hydraulic crawler tensioning.	
Rubber crawlers / steel crawlers	16" (400 mm)
Tread width	76" (1,920 mm)
Total length (sprocket/idler)	96" (2,430 mm)
Total length (undercarriage)	63" (1,590 mm)

Dozer Blade	
Independent from drive train, sensitive control via hand lever.	
Width x height	78" x 16" (1,990 x 400 mm)
Dozer cut below ground	9" (220 mm)
Dozer lift above ground	20" (500 mm)
Slope angle	38°

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

Fluid Capacities	
Fuel tank	17.2 gal (65 L)
Hydraulic system including 15.9 gal (60 L) tank	23.8 gal (90 L)

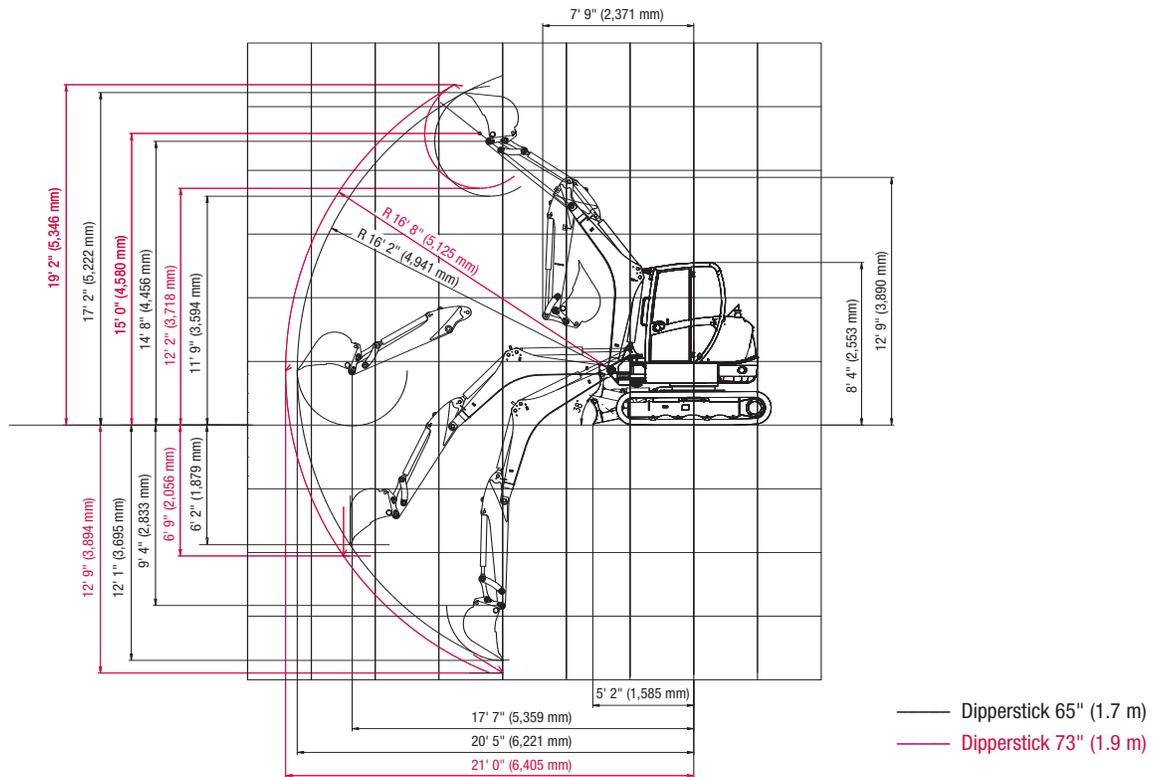
Hydraulic System	
Working hydraulics: LS-axial-piston variable displacement pump, load sensing and load-independent flow distribution (LUDV) for all work functions and travel drive. Simultaneous independent control of all movements.	
Maximum variable pump capacity	37 gpm (140 L/min)
Maximum working pressure	3,626 psi (250 bar)
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.	
Auxiliary hydraulics:	
Maximum working pressure	3,045 psi (210 bar)
Flow	19.8 gpm (75 L/min)
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.	

Knickmatik®	
Lateral parallel adjustment of boom arrangement at full digging depth.	
Angle of articulation / lateral adjustment right 64°	30" (770 mm)
Angle of articulation / lateral adjustment left 67°	34" (860 mm)

Cab	
Spacious, insulated steel cab reduces noise levels and provides excellent visibility, 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 with unobstructed forward view. Windshield washer system. Storage box. Radio pre-wired. Left-hand outside rearview mirror.	
Cab heating with windshield defroster through coolant heat exchanger and 2-speed fan, ventilating mode in summer.	
Fabric-covered, hydraulically cushioned driver's seat, height, tilt and weight adjustments. Safety belt. Armrests on both sides.	
Instrument panel on right hand side of operator's seat with visual & acoustic overload warning device, hour-meter, instrument cluster with large fuel gauge.	
Working flood lights Halogen H-3 front left.	
Noise emission ambience LwA	94 dB (A)
Noise emission cab LpA	79 dB (A)
Measured in dynamic measuring cycle (EEC-directive 2000/14)	
Travel motion signal	
Yellow beacon, radio, immobilizer (anti-theft device), working floodlights prepared for optional installation.	

*Optional FOPS approved skylight guard available.

Working Ranges & Dimensions



Lifting Capacities: 65" (1.65 m) Dipperstick

Unit x 1,000 lbs		Load radius from the center of the ring gear													
Bucket hinge pin height		8' 2"		9' 10"		11' 6"		13' 1"		14' 9"		16' 4"		17' 4"	
		End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side
6' 7"	S	—	—	3.70	2.80	3.42	2.21	3.06	1.70	2.73	1.43	2.54	1.19	2.38	1.12
	T	—	—	3.35	2.71	2.40	3.07	1.90	1.68	1.57	1.37	1.28	1.12	1.21	1.06
3' 3"	S	7.85	3.29	5.67	2.56	4.41	2.07	3.62	1.70	3.06	1.39	2.60	1.17	2.29	1.06
	T	3.64	3.13	3.00	2.45	2.27	1.96	1.87	1.59	1.54	1.30	1.26	1.10	1.12	0.99
0' 0"	S	6.68	3.00	5.38	2.36	4.21	1.87	3.46	1.52	2.82	1.30	2.34	1.10	2.14	1.04
	T	3.44	3.00	2.56	2.25	2.07	1.81	1.70	1.48	1.41	1.24	1.21	1.04	1.12	0.97

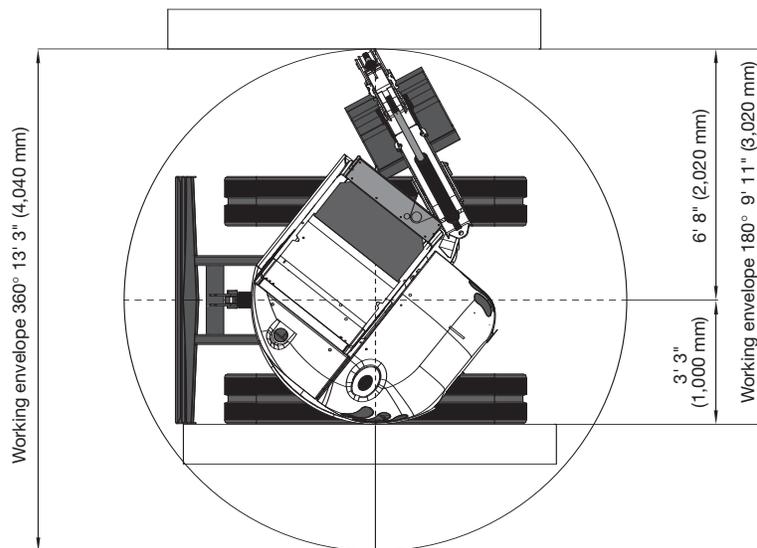
Unit x 1,000 kg		Load radius from the center of the ring gear													
Bucket hinge pin height		2.5 m		3.0 m		3.5 m		4.0 m		4.5 m		5.0 m		5.3 m	
		End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side
2.0 m	S	-	-	1.68	1.27	1.55	1.00	1.39	0.77	1.24	0.65	1.15	0.54	1.08	0.51
	T	-	-	1.52	1.23	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 payloads. Working equipment: Rubber crawlers. Abbreviations: S = Supported by blade, T = Traveling

Zero Tail Swing Compact Crawler Excavator TC50

Dimensions

Working equipment:
boom with 65" (1,650 mm)
dipperstick.



Attachments / Accessories

Optional Accessories	
Mechanical quick-coupler system for work tools (QMH)	
Canopy with working floodlight weight reduction	176 lbs (80 kg)
Dipperstick	73" (1,850 mm)
Steel crawlers	16" (400 mm) wide
Luxury driver's seat, height-adjustable, with extra-high back rest, progressively adjustable to operator's weight, seating has tilt and lengthwise adjustment. Upward folding, tilt-adjustable comfort armrests.	
FOPS-skylight guard	
Cab-mounted working floodlight, front and rear	
Boom-mounted working floodlight	
Yellow beacon	
Crane loading wire-rope harness	
Track shoes with "Felasto" tiles	
Quick-change adapter for hydraulic hammer	
Filling with biodegradable hydraulic oil, ester-based, VI 68	
Anti-theft device (immobilizer)	
Thumb	

Bucket Options		
Pin-on Style / Quick Coupler	Capacity cu. ft.	(Liters)
12" (300 mm) H.D. Bucket	2.5	70
16" (400 mm) H.D. Bucket	3.4	96
18" (450 mm) H.D. Bucket	4.2	119
24" (600 mm) H.D. Bucket	6.0	170
30" (760 mm) H.D. Bucket	8.1	230
42" (1,066 mm) Ditch-cleaning Bucket	7.6	215
48" (1,220 mm) Ditch-cleaning Bucket	8.8	250
24" (600 mm) Tilt-Bucket (45 degree rotation)	4.0	113
36" (900 mm) Tilt-Bucket (45 degree rotation)	6.2	175

Hydraulic Hammer

Sound-insulated. Tools: Moil point or chisel point

Further attachments available on request.



Terex Construction Americas

8800 Rostin Road
Southaven, MS 38671
USA

TEL 662-393-1800
SALES 866-837-3923
PARTS & TECH SUPPORT 888-201-6008
FAX 662-393-1700
EMAIL sales@terexca.com
WEB terexca.com

For more information, product demonstration, or details on purchase, lease and rental plans, please contact your local Terex Distributor.

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