

# **CRAWLER EXCAVATOR**



Operating weight

Dig depth

Increased productivity thanks to load sensing hydraulics

Knickmatik® allows for working closely alongside walls

Wide range of proven working tools

**WORKS FOR YOU.** 

# **SPECIFICATIONS**

# **OPERATING DATA, STANDARD EQUIPMENT**

Operating weight (monobloc boom) acc. to ISO 6016	27,560 lbs (12,500 kg)
Operating weight (two-piece articulated boom "TPA") acc. to ISO 6016	28,220 lbs (12,800kg)
Undercarriage (steel crawlers) 20" (500 mm wide)	+683 lbs (310 kg)
Transport dimensions: Monobloc boom / TPA boom (L x H)	23' 10" x 9 '5" (7,260 x 2,880)
Total width with dozer blade	8' 2" (2,500 mm)
Total height (top of cab)	9' 5" (2,870 mm)
Ground Clearance	16.5" (420 mm)
Uppercarriage tailswing	4' 6" (1,370 mm
Uppercarriage frontswing (monobloc boom)	8' 7" (2,620 mm)
Working envelope 180° (monobloc boom)	13' 1" (3,990 mm)
Working envelope 360° (monobloc boom)	17 2" (5,240 mm)
Bucket digging force acc. to ISO 6015 (monobloc boom)	18,322 lbf (81,500 N)
Stick digging force acc. to ISO 6015 (monobloc boom / TPA boom)	13,715 lbf (61,000) N)
Ground pressure (rubber crawlers)	6.2 psi (0.43 daN/cm²)
Ground pressure (steel crawlers)	6.4 psi (0.44 daN/cm²)
Ground pressure (steel crawlers)	6.4 psi (0.44 daN/cm²)

# **ENGINE**

Manufacturer, model	Deutz, TCD 2012 LO4
Туре	4-cylinder turbocharged diesel engine, Tier 3
Combustion	4-stroke cycle, direct fuel injection
Displacement	247 in <sup>3</sup> (4,040 cm <sup>3</sup> )
Net power rating at 2,000 rpm (SAE J 1349)	100 HP (74.9 kW)
Torque	295 lbf ft (400 Nm) @ 1,600 rpm
Cooling system	Water

# **ELECTRICAL SYSTEM**

Nominal voltage	12 V
Battery	12 V / 135 Ah
Generator	12 V / 55 A
Starter	12 V / 4.1 hp (3.1 kW)

# 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	0-1.7 / 3.4 mph (0-2.7 / 5.4 km/h)
Gradeability	> 60 %
Drawbar pull 1st / 2nd speed range	18,790 / 9569 lbf (8,358 / 4,253 daN)

#### UNDERCARRIAGE

Maintenance-friendly B4 track-type undercarriage with triple grouser plates or rubber crawlers. Idler suspension with hydraulic crawler track tensioning.

Width rubber crawlers / steel crawlers	20" / max. 31" (500 / max. 800 mm)
Total length (sprocket - idler)	8' 7" / 8' 6" (2,628 / 2,608 mm)
Total length (undercarriage)	10' 11" (3,345 mm)

# DOZER BLADE

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

Width x height	8' 2" x 20" (2,500 x 510 mm)
Dozer cut below ground	16" (400 mm)
Dozer lift above ground	20" (500 mm)
Slope angle	35°

#### **STEERING**

Independent, individual control of crawler chains, also counterwise. Sensitive control provided by pilotoperated 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, automatically controlled spring-loaded multi-disc brake acting as parking brake.

Swing speed 0-9 rpm

# **KNICKMATIK®**

Lateral parallel adjustment of boom arrangement at full digging depth.	
Angle of articulation / lateral adjustment left	65° / 34" (855 mm)
Angle of articulation / lateral adjustment right	56° / 38" (955 mm)

# **FLUID CAPACITIES**

Fuel tank	50 gal (190 l)
Hydraulic system (incl. tank 16 gal (60 l))	37 gal (140 l)

#### HYDRAULIC SYSTEM

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

Pump capacity, max.41.7 gpm (158 l/min)Working pressure, max.5,080 psi (350 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.

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

Working pressure, max.	3,335 psi (230 bar)
Control circuit for work attachments:	
Pump capacity, adjustable up to max.	26.4 gpm (100 l/min)
Working pressure, max.	5,080 psi (350 bar)

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

10.8 + 9.5 gal (41 + 36 l/min)

#### CAB

Pump capacity, max.

Spacious, sound-insulated full-vision steel cab, FOPS\* (acc. to ISO 3449) certified. Safety glass windows, thermo windows tinted in green. Skylight window, 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 3-speed fan, ventilating mode in summer.

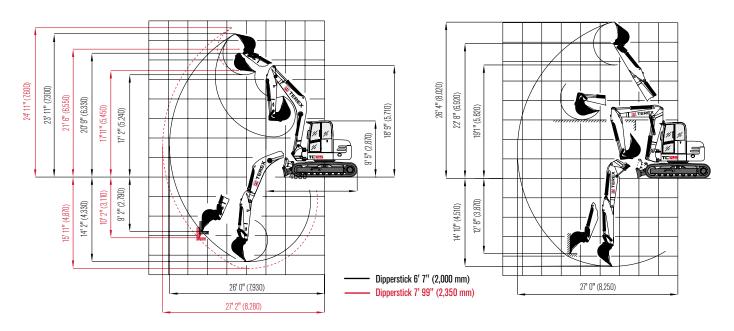
Operator's seat MSG 85 (comfort version) hydraulic damping, adjustable armrests, height, tilt and weight adjustments. Lap belt.

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

Working flood lights Halogen H-3.

Sound level values in compliance with EC-directives.

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



# LIFTING CAPACITIES

Bucket hinge height		Load radius from center of ring gear									
Dipperstick 6' 7" (2,000 mm)		10'6" (3.2 m)		13'1" (4.0 m)		16'5" (5.0 m)		19'8" (6.0 m)		21'8" (6.6 m)	
		End	Side	End	Side	End	Side	End	Side	End	Side
6'7" (2.0 m)	S	10.58 (4.80)	4.54 (2.06)	7.89 (3.58)	7.40 (3.36)	6.66 (3.02)	5.03 (2.28)	6.13 (2.78)	3.75 (1.70)	5.91 (2.68)	3.26 (1.48)
	T	6.94 (3.15)	-	7.78 (3.53)	7.23 (3.28)	5.11 (2.32)	4.98 (2.26)	4.47 (2.03)	3.73 (1.69)	3.02 (1.37)	3.21 (1.46)
3'3" (1.0 m)	S	15.85 (7.19)	8.59 (3.90)	11.73 (5.32)	6.31 (2.86)	8.59 (3.90)	4.47 (2.03)	7.17 (3.25)	3.53 (1.60)	6.46 (2.93)	3.00 (1.36)
	T	10.27 (4.66)	8.44 (3.83)	7.78 (3.53)	4.56 (2.07)	5.73 (2.60)	4.56 (2.07)	4.36 (1.98)	3.57 (1.62)	3.64 (1.65)	2.93 (1.33)
0 m	S	16.09 (7.30)	8.86 (4.02)	13.03 (5.91)	5.84 (2.65)	9.99 (4.53)	4.36 (1.98)	6.32 (2.87)	3.33 (1.51)	7.05 (3.20)	2,91 (1.32)
	T	10.36 (4.70)	8.64 (3.92)	7.08 (3.21)	5.71 (2.59)	5.31 (2.41)	4.30 (1.95)	2.51 (1.14)	3.26 (1.48)	3.62 (1.64)	2.87 (1.30)
-1'8" (-0.5 m)	S	15.01 (6.84)	8.09 (3.67)	14.04 (6.37)	6.04 (2.74)	9.70 (4.40)	4.30 (1.95)	8.13 (3.69)	3.35 (1.52)	7.43 (3.37)	3.02 (1.37)
	T	(4.45)	7.98 (3.62)	7.18 (3.26)	5.75 (2.61)	5.36 (2.43)	4.21 (1.91)	2.58 (1.17)	3.31 (1.50)	3.46 (1.57)	2.95 (1.34)

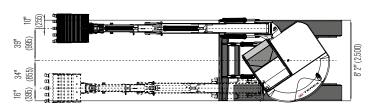
The above loads (all values in lbs x 1,000 resp. metric tons) are in compliance with SAE J 1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. In each case, the smaller value is indicated. All values were determined with load hook. In the event of an attached bucket the difference weights bucket minus load hook must be deducted from the permissible payloads. When used for crane operations, excavators must be equipped with hose-rupture safety valves and overload warning device.

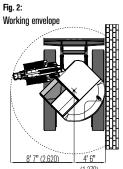
Working equipment: Rubber crawlers.

Abbreviations: S = Supported by blade, T = Traveling

# **DIMENSIONS**

Fig. 1: Excavation within the entire width of the machine





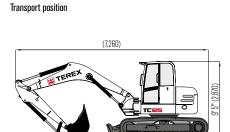


Fig. 3:

# **WORK ATTACHMENTS**

# BUCKETS

Bucket, QAS	16" (400 mm) wide, capacity 5.26 ft <sup>3</sup> (149 l)
Bucket, QAS	20" (500 mm) wide, capacity 7.06 ft <sup>3</sup> (200 l)
Bucket, QAS	24" (600 mm) wide, capacity 8.97 ft <sup>3</sup> (254 l)
Bucket, QAS	28" (700 mm) wide, capacity 10.9 ft <sup>3</sup> (308 l)
Bucket, QAS	31" (800 mm) wide, capacity 12.9 ft <sup>3</sup> (364 l)
Bucket, QAS	35" (900 mm) wide, capacity 14.9 ft <sup>3</sup> (421 l)
Bucket, QAS	39" (1,000 mm) wide, capacity 16.85 ft³ (477 l)
Ditch-cleaning bucket, QAS	59" (1,500 mm) wide, capacity 13.1 ft <sup>3</sup> (371 l)
Swing bucket, QAS	59" (1,500 mm) wide, capacity 13.1 ft³ (371 l)
Swing bucket, QAS	71" (1,800 mm) wide, capacity 15.2 ft <sup>3</sup> (430 l)

# **OPTIONAL EQUIPMENT**

# **BOOM OPTIONS**

TPA boom, with dipperstick 6' 7" (2,000 mm)

Monobloc boom with dipperstick 6' 7" (2,000 mm), but with inverted boom cylinders

Monobloc boom, with extended dipperstick 6' 7" (2,000 mm)

#### CRAWLER CHAIN OPTIONS

Rubber crawler track, 20" (500 mm wide)

Rubber-coated steel crawler chain 'Roadliner', 20" (500 mm wide).

# OPTIONAL SUPPORT/DOZER SYSTEMS

Front dozer blade, extra-long version

#### HYDRAULIC SYSTEM

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Second control circuit (e.g. for sorting grab)	Biodegradable hydraulic oil / ester-based HLP 68 (Panolin)
Open return	Conversion kit from ISO controls to Schaeff controls
Float position dozer blade	A/B control pattern switch
Hose-rupture / load-retaining valve for monobloc boom	Hose-rupture / load-retaining valve for dipperstick (monobloc boom)
Hose-rupture / load-retaining valve for TPA boom	Hose-rupture / load-retaining valve for intermediate boom and dipperstick (TPA boom)
Hose-rupture / load-retaining valve for extended dipperstick (monobloc boom)	Hose-rupture / load-retaining valve for monobloc boom with inverted boom cylinders
Hydraulic boom height limitation, monobloc boom	Hydraulic boom height limitation, TPA boom

# **GRABS**

Clamshell grab GS 3325, grab swing brake
Clamshell grab GS 3400, grab swing brake
Clamshell grab GS 3500, grab swing brake
Clamshell grab GS 3600, grab swing brake
Clamshell grab GS 3600, grab swing brake
Ejector

set of shells 13" (325 mm) wide, capacity 5.3 ft³ (150 l)
set of shells 16" (400 mm) wide, capacity 7.06 ft³ (200 l)
set of shells 20" (500 mm) wide, capacity 8.83 ft³ (325 l)

# OTHER WORK ATTACHMENTS

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

# DIESEL ENGINE

Diesel exhaust cleaner	Catalyst
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 beacon	

# **OPERATOR'S STAND**

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

# **OTHER OPTIONAL EQUIPMENT**

Air conditioning	Anti-theft device (immobilizer)
Quick-attach system, mechanical (genuine Lehnhoff system), type MSO8	Quick-attach system, hydraulical (genuine Lehnhoff system), type HS08
Hydraulic installation for quick-attach system	Electrical refueling pump
Rear fog lamp	Engine-independent diesel heater with fresh air circulation and timer
Special coating / adhesive films	
Further entional equipment available on request	

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