

# MINI EXCAVATOR



#### **Specifications**

Operating weight Engine power Bucket capacity

Dig depth

Reach

3,800 lbs (1,725 kg) 18 HP (13.1 kW)

0.74-3.2 ft<sup>3</sup> (21-91 l)

7' 3" (2.2 m) 12' 10" (3.9 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 alongside walls
- Wide range of proven working tools

**WORKS FOR YOU.** 

## **SPECIFICATIONS**

## **OPERATING DATA. STANDARD EQUIPMENT**

, -	
Transport weight (incl. bucket)	3,635 lbs (1,650 kg)
Operating weight acc. to ISO 6016 (incl. operator)	3,800 lbs (1,725 kg)
Total length (travel position)	8' 2" (2,500 mm).
Total length (trailer transport position)	12' 6" / 12' 2"* 3,800 (3,720* mm)
Total height (travel position)	7' 10" (2,390 mm).
Width (crawlers retracted)	3' 3" (990 mm)
Uppercarriage tailswing	3' 8" (1,130 mm)
Uppercarriage frontswing	4' 1" (1,240 mm)
Working envelope 180° / 360°	7' 9"/ 8' 2" (2,370 / 2,500 mm)
Ground Clearance	6.7" (170 mm)
Bucket digging force (ISO 6015)	3,237 lbf (14,400 N)
Stick digging force (ISO 6015)	2,091 (1,866* lbf) / 9,300 (8,300* N)
Ground pressure (rubber crawlers)	3.6 psi (0.25 daN/cm²)
Ground pressure (steel crawlers)	3.7 psi (0.26 daN/cm²)

### **ENGINE**

Mitsubishi, L3E
3-cylinder diesel engine, EPA/Tier 4 Final (2008)
4-stroke, swirl chamber injection
58 in³ (952 cm³)
18 hp (13.1 kW)
40.6 lbf ft (55 Nm) @ 2,100 rpm
Water

### **ELECTRICAL SYSTEM**

Nominal voltage	12 V
Battery	12 V / 74 Ah
Generator	12 V / 40 A
Starter	12 V / (2.3 hp) 1.7 kW

## **TRANSMISSION**

Single-stage hydrostatic travel drive with axial piston variable displacement motor and reduction gear, fully enclosed. "Straight-Travel" function. Brake valve for downhill drive.

Travel speed, forward and reverse	1.5 mph (0-2.4 kph)
Gradeability	max. 60 %
Drawbar pull	2,610 lbf (1,160 daN)

#### UNDERCARRIAGE

Maintenance-free crawler-type undercarriage. Idler suspension with hydraulic crawler track tensioning. Mechanically retractable/extendable undercarriage provided as standard.

Range of adjustment, outside edge of crawler chains	3' 3-4' 5" (990-1,340 mm)
Width rubber crawlers / steel crawlers	9" (230 mm)
Total length (sprocket - idler)	44.5" (1,130 mm)
Total length (undercarriage)	58.7" (1,490 mm)

## **DOZER BLADE**

Independent of drive train, sensitive control via separate hand lever.	
Width x height	4' 5" x 9" (1,340 x 235) mm
Dozer cut below ground	6.3" (160 mm)
Dozer lift above ground	8" (200 mm)
Slope angle	25°

## **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-restistant brake. Additional spring-loaded multi-disc brake. Internally toothed ring gear.

0-10 rpm Swing speed



## KNICKMATIK®

Lateral parallel adjustment of boom arrangement at full digging depth.	
Angle of articulation / lateral adjustment left	60° / 15" (370 mm)
Angle of articulation / lateral adjustment right	60° / 20" (510 mm)

### **FLUID CAPACITIES**

Fuel tank	8 gal (30 l)
Hydraulic system (incl. tank 6.6 gal (25 l))	9 gal (35 l)

## **HYDRAULIC SYSTEM**

Pump capacity	8.3 + 4.7 gpm (31.5 + 18 l/min)
Working pressure	2.395 psi (165 bar)

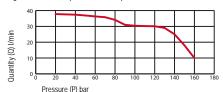
Working hydraulics: Dual fixed displacement pump with power switch. Load-independent flow division (LUDV) for all work functions and travel drive. Simultaneous independent control of all movements.

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 <sub>WA</sub>	93 dB (A)
Noise emission cah I	78 dB (A)

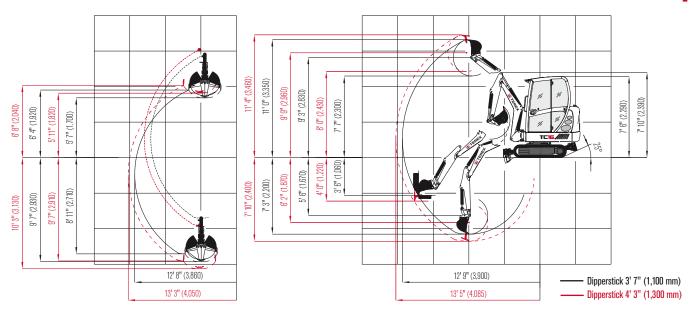
Measured in dynamic measuring cycle acc. to EC-directive 2000/14/EC.

\*with dipperstick 1300 mm (optional)

<sup>\*\*</sup>FOPS-approved only with skylight guard (optional)

## **WORKING RANGES & DIMENSIONS: MONOBLOC BOOM**

## **TC16**



## **LIFTING CAPACITIES**

Bucket hinge heig		Load radius from center of ring gear															
Dipperstick 3' 7"		4' 11" (	(1.5 m)			6' 7" (	2.0 m)		8" 2" (2.5 m)				9' 10" (3.0 m)				
		U	UE UR		IR	U	E	UR		UE		UR		UE		U	R
		End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side
6' 7"	S	-	-	-	-	1.23 (0.56)	1.04 (0.47)	1.23 (0.56)	.82 (0.37)	1.19 (0.54)	.84 (0.38)	1.19 (0.54)	.64 (0.29)	-	-	-	-
(2.0 m)	T	-	-	-	-	.84 (0.38)	1.01 (0.46)	.84 (0.38)	.70 (0.32)	.75 (0.34)	.82 (0.37)	.75 (0.34)	.53 (0.24)	-	-	-	-
3' 3"	S	1.96 (0.89)	1.74 (0.79)	1.96 (0.89)	1.52 (0.69)	1.54 (0.70)	1.1 (0.50)	1.54 (0.70)	.86 (0.39)	1.23 (0.56)	.82 (0.37)	1.23 (0.56)	.60 (0.27)	.77 (0.35)	.71 (0.32)	.77 (0.35)	.46 (0.21)
(1.0 m)	T	1.2 (0.54)	1.7 (0.77)	1.2 (0.54)	1.32 (0.60)	.84 (0.38)	1.08 (0.49)	.84 (0.38)	.70 (0.32)	.62 (0.28)	.79 (0.36)	.62 (0.28)	.51 (0.23)	.42 (0.19)	.66 (0.30)	.42 (0.19)	.42 (0.19)
0 m	S	2.03 (0.92)	1.56 (0.71)	2.03 (0.92)	1.08 (0.49)	1.41 (0.64)	1.04 (0.47)	1.41 (0.64)	.73 (0.33)	.97 (0.44)	.77 (0.35)	.97 (0.44)	.55 (0.25)	.68 (0.31)	.68 (0.31)	.68 (0.31)	.44 (0.20)
	T	1.3 (0.59)	1.52 (0.69)	1.3 (0.59)	.90 (0.41)	.75 (0.34)	1.01 (0.46)	.75 (0.34)	.62 (0.28)	.51 (0.23)	.75 (0.34)	.51 (0.23)	.46 (0.21)	.40 (0.18)	.64 (0.29)	.40 (0.18)	.40 (0.18)
-2' 6"	S	1.41 (0.64)	1.34 (0.61)	1.41 (0.64)	.93 (0.42)	1.01 (0.46)	1.01 (0.46)	1.01 (0.46)	.68 (0.31)	.73 (0.33)	.73 (0.33)	.73 (0.33)	.53 (0.24)	.49 (0.22)	.66 (0.30)	.49 (0.22)	.42 (0.19)
(-0.75 m)	T	1.1 (0.50)	1.34 (0.61)	1.1 (0.50)	.82 (0.37)	.64 (0.29)	1.01 (0.46)	.64 (0.29)	).60 (0.27)	.51 (0.23)	.73 (0.33)	.51 (0.23)	.44 (0.20)	.42 (0.17)	.62 (0.28)	.42 (0.17)	.42 (0.17)

Bucket hinge heig	ght		Load radius from center of ring gear														
Dipperstick 4' 3" (1,300 mm)			4' 11" (	(1.5 m)		6' 7" (2.0 m)				8" 2" (2.5 m)				9' 10" (3.0 m)			
		U	UE UR		UE U		IR UE		E	UR		UE		U	R		
		End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side
6' 7"	S	-	-	-	-	-	-	-	-	.99 (0.45)	1.01 (0.46)	.99 (0.45)	.64 (0.29)	.77 (0.35)	.71 (0.32)	.77 (0.35)	.49 (0.22)
(2.0 m)	T	-	-	-	-	-	-	-	-	.66(0.30)	.99 (0.45)	.66(0.30)	.60 (0.27)	.46 (0.21)	.66 (0.30)	.46 (0.21)	.46 (0.21)
3' 3"	S	-	-	-	-	1.41 (0.64)	1.34 (0.61)	1.41 (0.64)	.97 (0.44)	.88 (0.40)	.86 (0.39)	.88 (0.40)	.62 (0.28)	.77 (0.35)	.71 (0.32)	.77 (0.35)	.46 (0.21)
(1.0 m)	T	-	-	-	-	.88 (0.40)	1.34 (0.61)	.88 (0.40)	.79 (0.36)	.62 (0.28)	.86 (0.39)	.62 (0.28)	.57 (0.26)	.51 (0.23)	.66 (0.30)	.51 (0.23)	.42 (0.19)
0 m	S	2.18 (0.99)	1.72 (0.78)	2.18 (0.99)	1.17 (0.53)	1.34 (0.61)	1.17 (0.53)	1.34 (0.61)	.79 (0.36)	.97 (0.44)	.82(0.37)	.97 (0.44)	.60 (0.27)	.71 (0.32)	.69 (0.31)	.71 (0.32)	.44 (0.20)
	T	1.28 (0.58)	1.65 (0.75)	1.28 (0.58)	.99 (0.45)	.79 (0.36)	1.1 (0.50)	.79 (0.36)	.71 (0.32)	.57 (0.26)	.82(0.37)	.57 (0.26)	.53 (0.24)	.46 (0.21)	.64 (0.29)	.46 (0.21)	.40 (0.18)
-2' 6"	S	1.5 (0.68)	1.7 (0.77)	1.5 (0.68)	1.1 (0.50)	1.08 (0.49)	1.12 (0.51)	1.08 (0.49)	.75 (0.34)	.77 (0.35	.82(0.37)	.77 (0.35	.55 (0.25)	.55 (0.25)	.66 (0.30)	.55 (0.25)	.42 (0.19)
(-0.75 m)	T	1.1 (0.50)	1.63 (0.74)	1.1 (0.50)	1.03 (0.47)	.77 (0.35)	1.12 (0.51)	.77 (0.35)	.66 (0.30)	.64 (0.29)	.82(0.37)	.64 (0.29)	.51 (0.23)	.44 (0.20)	.62 (0.28)	.44 (0.20)	.37 (0.17)

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. 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.

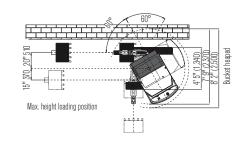
Working equipment: Rubber crawlers.

Abbreviations: UE = Undercarriage extended, UR = Undercarriage retracted, S = Supported by blade, T = Traveling

## **DIMENSIONS**

Work equipment

Monobloc boom with dipperstick 1100 mm



### **WORK ATTACHMENTS**

### **BUCKETS**

Bucket, QAS	10" (250 mm wide, capacity .85 ft³ (24 l)
Bucket, directly mounted	9" (220 mm wide, capacity .74 ft³ (21 l)
Bucket, QAS	12" (300 mm wide, capacity 1.06 ft³ (30 l)
Bucket, directly mounted	12" (300 mm wide, capacity 1.03 ft³ (29 l)
Bucket, QAS	16" (400 mm wide, capacity 1.55 ft³ (44 l)
Bucket, directly mounted	16" (400 mm wide, capacity 1.41 ft³ (40 l)
Bucket, QAS	20" (500 mm wide, capacity 1.94 ft <sup>3</sup> (55 l)
Bucket, QAS	24" (600 mm wide, capacity 2.5 ft³ (71 l)
Bucket, directly mounted	24" (600 mm wide, capacity 2.15 ft <sup>3</sup> (61 l)
Ditch-cleaning bucket, QAS	39" (1,000 mm wide, capacity 3.21 ft³ (91 l)
Ditch-cleaning bucket, directly mounted	47" (1,000 mm wide, capacity 3.0 ft³ (85 l)
Swing bucket, QAS	39" (850 mm wide, capacity 2.15 ft <sup>3</sup> (61 l)
Swing bucket, directly mounted	39" (1,000 mm wide, capacity 1,98 ft <sup>3</sup> (56 l)

## **GRABS**

Clamshell grab GL 1250, grab swing brake set of shells 10" (250 mm) wide, capacity 1.77 ft<sup>3</sup> (45 l) Fiector

## 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 51" (1,300 mm)

## **CRAWLER CHAIN OPTIONS**

Steel crawler chain, 9" (230 mm) wide

## **HYDRAULIC SYSTEM**

Terex 'Fingertip' control (electro proportional) for additional control circuit for work attachments on right joystick, actuation via rollers	Terex '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

## **DRIVER'S STAND**

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

## **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 (speakers)
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)	High-speed 0-4.5 kph
Quick-attach system, mechanical	Canopy with working floodlight
(genuine Lehnhoff system), type MS01	(weight reduction: 176 lbs (80 kg))
Crane lifting beam	Electrical refueling pump
Track shoes with "Felasto" tiles	Special coating / adhesive films
Additional boom-mounted working floodlight	Front dozer blade - extra-long version
Rear vandal guard	Further optional equipment available on request

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