

BREAKING ROCK NEWS 1.0 TRENCHERS AND SURFACE MINERS CATALOG







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CHOOSE A TRENCHER, THE MOST EFFICIENT SOLUTION......0010 CHOOSE A 3RD GENERATION TESMEC TRENCHER THE (B)EVOLUTION

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Focus on: Tesmec Tools Selection	

ROCKSAW

300	0100
Focus on: Mini and Micro-Trenches Technology	
885	0200
975	0300
1150	0400
1275L	

CHAINSAW 0550 775DT Dirt Series 0600 885 0700 975 0800 985 0900 1150XHD 1000 1475 1100 1675 1200 Focus on: Cutting Rock Methods 1300 M5 1400 TLM 60/60 1500 800 Wheeled Trencher 1600







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ROCK HAWG	2150
1150XHD	
1475	
Focus on: Jobsite Management	

SERVICES AND	SOLUTIONS	

If you are planning a job...



PIPELINE CONSTRUCTION



Underground Powerlines



LONG DISTANCE NETWORKS



Metropolitan Networks



Access Networks installation (Trenching or Trenchless)



SURFACE MINING



BULK EXCAVATION WORKS

RAILWAY SOIL PREPARATION

OPTICAL FIBER INSTALLATION



CHANNEL EXCAVATION



WATER AND SEWAGE NETWORKS INSTALLATION

... why choose inefficient and dangerous solutions?



- Low efficiency
- Low precision
- Slow digging speed
- Bad for rock excavation
- Excessive volumes of removed materials



- Dangerous for health
- Not applicable everywhere by law
- Coarse material crashing
- Dangerous for underneath soil
- Noisy



- Slow
- Low efficiency
- Expensive in developed countries
- Health threat



URBAN DRAINAGE WORKS

SOIL RECLAMATION



Drainage works



Irrigation works





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CHOOSE A TRENCHER, THE MOST EFFICIENT SOLUTION



Trenching is the most cost-efficient solution for most applications

Productivity advantages

One large trencher (90-150 ton class) can substitute up to 15 excavators (20-25 ton class). Also, trenchers cut the minimum required ditch width which equates to less cubic meters being dug for each linear meter of production, reducing the excavation area by at least 30% (Trencher vs Excavator).

Logistic advantages

More production with fewer machines and operators results in a lower cost of logistics and makes it easier to manage the worksite.

Cost advantages

The cost of purchasing a trencher versus the cost of a fleet of excavators is similar, however, the digging cost per linear meter when using

rock breakers is about 55-60 % higher than that of a trencher. Trenchers also have a lower operating, labor, and maintenance costs when compared to excavators. Trenchers excavates the rock into smaller pieces which means, there is no longer a need for large loaders and dump trucks, a smaller quantity of back-fill material is needed, and it saves in transportation costs.

Environmental advantages

Fewer machines mean less CO2 emissions, and by breaking up the rock into smaller pieces as the trencher excavates it, it becomes a usable backfill material which leads to less wasted material. In retrospect, the cost of bedding & backfilling with an excavator will be 35-65% higher than that of a trencher. Trenchers also produce less dust, vibration, and noise than using explosives so they can be potentially used in areas near bridges, roads, railways, and populated areas in general.

Bedding and Backfilling advantages

A vertical wall trench requires less backfill material than a "V" wall excavated trench; making it easier and less expensive to backfill. It is also easier to get good compaction of backfill material which reduces the risk of erosion and surface collapse.

Safer technology

The use of explosives is subject to increasing regulations and restrictions but trenchers can be used everywhere.

Last but not least: less crew on the jobsite means less risks of injury or incident.

CHOOSE A 3RD GENERATION TESMEC TRENCHER



Ease of use, Reliability, Modularity

The electronic control system **TrenchTronic 3.0** improves the ease of use of the trencher, increase productivity, and makes it less dependent on the operator's skills.

Even unexperienced operators can now fully exploit the potential of the machine in a very short time, dramatically increasing jobsite productivity and decreasing the excavation cost.

Automatic Plus (A+) operating mode

No setup is required by the operator. The machine automatically sets itself to the most efficient operating capability and operates in "optimal" working conditions (digging pressure and engine RPM) as set by Tesmec.

Automatic digging start

The desired excavation depth is automatically reached maintaining a constant digging pressure (value preset by Tesmec).

This feature saves time by reaching desired excavation depths much faster than in manual operation.

Reliability

TrenchTronic components are designed to have the highest reliability even in very tough conditions of use (vibration, shock, dust, weather, etc.).

Modularity

The new TrenchTronic control panel is able to be installed on all Tesmec trencher models. Additional controls may need to be added depending on the model type of the machine, i.e. digging attachment, optional equipment, etc.

Performance increase

On average there is over a 17% increase in the productivity with TrenchTronic. In case of malfunction, the control system has two alerts, one will alert the operator of possible faulted component(s) [SPN], the other alerts in the case of failure [FMI]. In the event of a deadlock in the chain, the system will automatically resume digging, maintaining the previous settings (pressure of excavation, depth, etc.).

Re.M (Remote Monitoring system) provides

on demand retrieval of operating, maintenance, and troubleshooting information to help improve each machine's bottom-line performance. The machine's main on-board information is networked to a remote server via a GPRS connection. Any of the available information can be accessed from a remote PC anywhere at any time as long as an Internet connection is available.

The Re.M web portal provides companies with an easy and fast way to gather machine data at any given time in any given place.

Customer's plant manager advantages

The entire trencher fleet is now 24/7 under control, through a continuous remote monitoring of:

- Machine position (via GPS) integrated with Google $\text{Earth}(\mathbb{R})$
- Operating conditions (working load, fuel consumption, etc...)

 Accurate productivity measurements by distinguishing machine idle time from actual production time. Knowing this information on

THE (R)EVOLUTION









Advanced solutions for Trenchers management

a daily bases allows companies to address any issues promptly with operators resulting in an immediate improvement in productivity

- All main machine parameters (engine,
- hydraulics, electronics, temperatures)

- Geofences, that can be created for safety or job costs purposes.

Service manager advantages

Remote Diagnostics & Troubleshooting (together with TrenchTronic 3.0).

In the event of a malfunction, technicians or managers can start the troubleshooting process and decide what type of crew and what parts may likely be required before heading out for the machine.

This means saving time and money.

TrenchIntel, the brand new Tesmec DGPS technology for trenchers and surface miners. Tesmec TrenchIntel gives the input to develop an integrated system that automatically controls machine alignment and digging depth, with relevant benefits in jobsite management, machine performance and excavation accuracy.

performance and excavation accuracy. Differential GPS technology overcomes many other solutions to control machine alignment and/ or digging depth, such as: laser system, stakes and other rudimental methods.

Automatic guidance system

Based on the information gathered during surveys, the new automatic guidance system for Tesmec trenchers and surface miners is able to automatically maintain and control the running line and the appropriate depth and grade, as requested by the project with extreme accuracy.

The plus of an integrated system

While other technologies (such as laser) and traditional GPS systems simply control depth and

grade, Tesmec DGPS has a high level accuracy and is TrenchTronic 3.0 ready: the integration between differential GPS guidance system and TrenchTronic 3.0 electronic control provides full automatic operation capability, alignment control through auto steering included.

After a simple pre-set of working parameters the machine is able to execute excavation by itself, so that operator's task can be simply to survey the progress and check safety issues without stress.

Your fleet as an ecosystem

With the same base station you can manage all your fleet, comprehensive of all the machines that you have to control in the jobsite - not just Tesmec Trenchers or Rock Hawg. One device has the full control of the jobsite,

One device has the full control of the jobsite, so that your fleet behave as an ecosystem, considering each other, optimizing working space and increasing operation performance.

Ground Applications

	RS ROCKSAW	CS CHAINSAW	BW BUCKET WHEEL	RH ROCK HAWG	M SERIES	TLM 60/60	800
GROUND CATEGORY	Cutting depth: 0-5' (0-152 cm) Cutting width: 2"-16" (5-40 cm)	Cutting depth: 3'-24' (91-732 cm) Cutting width: 8"-72" (20-183 cm)	Cutting depth: 0-10' (0-305 cm) Cutting width: 18"-72" (45-183 cm)	Cutting depth: 0-1'11" (0-60 cm) Cutting width: 10'3"-12'6" (312-381 cm)	Cutting depth: 0-16' (0-488 cm) Cutting width: 14"-42" (35-107 cm)	Cutting depth: 5'-14' (152-430 cm) Cutting width: 60" (153 cm)	Cutting depth: 2'-6'7" (61-200 cm) Cutting width: 36" (91 cm)
Extremely hard & Abrasive rock Monolithic, very to extremely strong rocks (Granit, Basalt, Metamorphic Schists)					•		
Hard Rock Monolithic and strong rocks (Limestone, Dolomite, Sandstones)	•	•		•	•		
Medium Rock Medium strong rocks (Gypsum, Rocksalt, Sandstone, Limestone, Mudstone, Conglomerates, Strong coal)	•	•		•	0		
Weak Rock Monolithic and fractured weak rocks (Sandstone, Mudstone, Permafrost, Conglomerates, Soft Coal)	•	•	0	•	0		0
Hard soil Hard and compacted soils (Arid and compacted desert soils)	•	•	•		0		•
Dirt soil Very soft soils (Soft agricultural soils)		•	•		0	•	•

Suggested application Possible application ullet0



Technical Specifications

Model	Gross	Fngine	Weight Bange	RS - ROCKSAW MAX Transport Dimensions	CS - CHAINSAW	BW - BUCKET WHEEL MAX Transport Dimensions	RH - ROCK HAWG MAX Transport Dimensions
Model	Power	Lignic	Weight hange	RANGE Trenching Dimensions 30' 10" x 5' 11" x 9' 4"	RANGE Trenching Dimensions	RANGE Trenching Dimensions	RANGE Trenching Dimensions
300	100 hp (74.5 kW)	Perkins 1104D-44T	19,842-22,046 lbs (9.000-10.000 kg)	(940 x 180 x 285 cm) 0-2'2" (0-65 cm) 2"-6" (5-15 cm)			
775DT	225 hp	Caterpillar C7.1 ACERT	34,171-52,000 lbs		31' 5" x 8' 4" x 10' 2" (959 x 255 x 310 cm)	34' 2" x 8' 4" x 10' 2" (1.041 x 255 x 310 cm)	
11501	(168 KVV)	Tier 3	(15.500-23.586 Kg)		4'-8' (122-244 cm) 10"-24" (25-61 cm)	6′ 6″ (198 cm) 18″-30″ (46-76 cm)	
885	225 hp (168 kW)	Caterpillar C7.1 ACERT Tier 3 ou Tier 4f	39,683-46,297 lbs (18.000-21.000 kg)	31' 5" x 8' 4" x 9' 5" (958 x 253 x 287 cm) 1'11'-3'3" (60-100 cm) 4"-8" (10-20 cm)	30' 11" x 8' 4" x 9' 6" (943 x 253 x 290 cm) 3'-5' (91-152 cm) 8"-18" (20-45 cm)		
975	325 hp (242 kW)	Caterpillar C9 ACERT	55,116-72,752 lbs (25.000-33.000 kg)	29' 4" x 8' 4" x 10' 8" (893 x 254 x 325 cm) 0-4' 2" (0-127 cm)	34' 9" x 8' 7" x 10' 4" (1.059 x 261 x 315 cm) 4'-10' (122-305 cm)		
005	350 hp	Caterpillar	67,241-88,185 lbs	6 -12 (15-30 cm)	42' 3"x 8' 4"x10' 4" (1.287 x 253 x 315 cm)		
960	(261 kŴ)	Tier 4f	(30.500-40.000 kg)		4'-6'(122-183 cm) 12"-28" (30-71 cm)		
1075	325 hp	Caterpillar	83,000-92,000 lbs			38' 4" x 10' 2" x 10' 9" (1.168 x 310 x 327 cm)	
	(242 KVV)	C9 AGENT	(37.047-41.730 Kg)			7'-8' (213-244 cm) 20''-40'' (51-102 cm)	
1150	440 hp (328 kW)	Caterpillar C13 ACERT	99,208 lbs (45.000 kg)	34 9 x 8 4 x 12 (1.059 x 255 x 366 cm) 0-4' 6" (0-137 cm) 6"-14" (15-36 cm)			
	440 hp	Caterpillar	110,231-132,278 lbs		42' 9" x 9' 6" x 11' 1" (1.303 x 290 x 338 cm)		32' 9" x 10' 3" x 11' 1" (998 x 312 x 338 cm)
TIJUNID	(328 kW)	C13 ACERT	(50.000-60.000 kg)		6'-12'(183-366 cm) 18"-42" (45-107 cm)		0-1' 8" (0-50 cm) 10' 3" (312 cm)
1175XHD	440 hp	Caterpillar	135,000-142,000 lbs			44' 5" x 10' 4" x 14' 1" (1.354 x 315 x 429 cm)	
	(320 KVV)	GT5 AGENT	(01.233-04.410 kg)			3′-9′ (91-274 cm) 30″-54″ (76-137 cm)	
1275L	540 hp (403 kW)	Caterpillar C15 ACEBT	150,000 lbs (68 038 kg)	36 6 X 11 2 X 12 2 (1.113 x 340 x 371 cm)			
	(100 111)	o ro no zm	(00,000 kg)	8″-16″ (20-40 cm)		45' 3" x 12' x 14' 4"	
1375	540 hp (403 kW)	Caterpillar C15 ACERT	160,000-175,000 lbs (72.575-79.379 kg)			(1.379 x 366 x 437 cm) 3'-9'6" (91-290 cm)	
					52' 3" x 11' 6" x 11' 11" (1 502 x 250 x 252 cm)	36"-66" (91-168 cm)	36'11" x 12' 6" x 11' 11" (1 126 x 281 x 262 cm)
1475	630 hp (470 kW)	Caterpillar C18 ACERT	169,756-242,509 lbs (77.000-110.000 kg)		8'-16' (244-488 cm) 30"-48" (76-122 cm)		0-1' 8" (0-50 cm) 12' 6" (381 cm)
1575	630 hp (470 kW)	Caterpillar C18 ACERT	210,000-248,000 lbs (95.255-112.491 kg)			28' 6" x 12' x 14'4" (868 x 366 x 437 cm) 3'8"-10' (112-305 cm) 42"-72" (107-183 cm)	
1675	760 hp (567 kW)	Cummins OSK 19	264,556-330,695 lbs (120,000-150,000 kg)		63'8" x 14' 6" x 13' 3" (1.940 x 441 x 405 cm) 8' 24' (244 732 cm)		
	(,		,		30"-72" (76-183 cm)		
M3	350 hp (261 kW)	Caterpillar C9 ACERT	95,000-135,000 lbs (43.091-61.235 kg)		(1.359 x 267 x 340 cm) 6'-12' (183-366 cm)		
					49' 2" x 10' 4" x 11' 6"		
M5	440 hp (328 kW)	Caterpillar C13 ACERT	137,000-167,000 lbs (62.142-75.750 kg)		6'-16' (183-488 cm) 16"-42" (40-107 cm)		
	540 hp	Caterpillar	139,000 lbs		57' 1" x 12' 8" x 13' 9" (1.740 x 386 x 420 cm)		
	(403 kŴ)	C15 ACERT	(63,200 kg)		5'-14' (152-427 cm) 60" (153 cm)		
800*	350 hp (261 kW)		47,400 lbs (21.500 kg)		32' 10" x 8.2' x 10' 5" (1.001 x 250 x 318 cm) 2'-6' 7" (61-200 cm) 36" (91 cm)		

DEVICE	ALL001	ALL002	ALL003	ALL004	ALL005	ALL006	ALL008	ALL010	ALL011	ALL012	ALL013	ALL014
300 RS					O	•*	0		•**	0		
775DT CS	Ð		-			•	0	Ð	0	Ð		
775DT BW	Ð					•	0	0		0		
885 RS	Ð	Ð	•	Ð		•	0		0	Ð		
885 CS	O	O		Ð		•	0		0	O		0
975 RS	Ð	•	•	•		0	0	0	0	0	•	•
975 CS	Ð		Ð	•		0	0	Ð	0	Ð		0
985 CS	Ð	Ð	•	•	•	•	0	•	0	Ð	Ð	0
1075 BW	Ð		•	•	•	•	0	0	•	0	•	•
1150 RS	Ð	•	•	•	•	•	0	Ð	0	Ð	•	
1150XHD CS	Ð		Ð	•	•	•	0	Ð	0	O	•	0
1150XHD RH	Ð		-		-	-	0	Ð	-	Ð	-	-
1175XHD BW	O						Ð	0		0	•	•
1275L RS	Ð		-				Ð	0	0	0		
1375 BW	O						Ð	0		0	•	•
1475 CS	Ð		Ð	•	-	-	0	Ð	0	Ð		0
1475 RH	Ð		•				0	Ð		Ð		-
1575 BW	Ð		-				Ð	0	-	0		
1675 CS	Ð		Ð	•			0	Ð	0	Ð		0
M3	Ð		Ð	•			Ð	0	0	0		0
M5	Ð		Ð	•		•	Ð	0	0	0	•	0
TLM 60/60	D		•				Ð			•	•	•
800	O	•	•	•	•	•	0	0		•	•	•

Features available for brand new machines only, to be specified at purchase order

Standard device

• Available as option upon request

O Special technical solution upon request

· Not feasible

CODE NAME

ALLO01 Air compressor

ALL002 Side mounted truck loading conveyor - foldable and within transport dimension (standard only for 985 CS) with short cross conveyor

ALL003 Side mounted truck loading conveyor - not foldable and over transport dimension (with short cross conveyor only for 975 CS)

ALL004 Extended cross conveyor with hydraulic shift

ALL005 Laying system - automatic back-filling system

ALL006 Tilting undercarriage

ALL008 Cold weather package for operations down to -25° C (-13° F) (Closed engine doors already included)

ALL010 Automatic greasing

ALL011 Brushes

ALL012 Safety devices (flashing light, rear-view mirror, external emergency buttons)

ALL013 Short cross conveyor (only for 985 CS ***)

ALL014 Rock separator

* Self leveling undercarriage

** Except for 300 RS with T650 narrow attachment

*** The machine has to be equipped with ALL004 and/or ALL013

Available devices

DEVICE	OPT001	OPT002	OPT003	OPT005	OPT008	OPT011	OPT012	OPT013	OPT014	OPT015	OPT016	OPT017	OPT018	OPT019	OPT020	OPT021	OPT022	OPT023
300 RS	•	O	O		•	O	•		0		•			•	O	O	O	
775DT CS		O	0	O		Ð	O	•	O	Ð	O	0			O	O	0	Ð
775DT BW		O	-	O	0	O	O	•	0	O	O	0		•	•	•	•	Ð
885 RS	•	O	0	O	O	Ð	O	Ð	Ð	Ð	Ð		•	•	0	0		Ð
885 CS	•	O	0	O	O	O	O	Ð	Ð	Ð	Ð	0	•	·	O	O	O	O
975 RS		Ð	0	O	Ð	Ð	Ð	Ð	0	Ð	Ð		Ð		0	0	0	Ð
975 CS	Ð	Ð	0	O	O	Ð	Ð	Ð	Ð	O	Ð	0	Ð	0	O	Ð	O	Ð
985 CS	Ð	Ð	0	O	Ð	Ð	Ð	Ð	Ð	Ð	Ð	0			0	0	0	Ð
1075 BW	•	O	•	O	O	O	O	O	0	-	O	O	•	•	0	0	0	O
1150 RS		Ð		Ð	Ð	Ð	Ð	Ð	Ð	O	Ð		•	•	0	0	0	Ð
1150XHD CS	O	O	0	O	O	O	O	O	O	O	O	0	O	0	0	0	0	Ð
1150XHD RH	•	O	Ð	Ð	O	Ð	O	O	Ð	Ð	Ð	•	Ð	•	•	•	•	Ð
1175XHD BW	•	O	-	Ð	O	Ð	O	O	0	•	Ð	O	•	•	•	•	-	•
1275L RS	•	Ð	0	Ð	0	Ð	Ð	Ð	0	•	Ð	•	•	•	0	0	0	
1375 BW	•	O	•	O	0	O	O	Ð	0	•	Ð	O	•	•	•	•	•	•
1475 CS	Ð	Ð	0	Ð	Ð	Ð	Ð	Ð	Ð	O	Ð	0	Ð	0	0	0	0	Ð
1475 RH	·	Ð	Ð	O	Ð	Ð	Ð	Ð	Ð	Ð	Ð		Ð	·	•			O
1575 BW		Ð		O	0	Ð	Ð	Ð	0		Ð	Ð	•		•		•	
1675 CS	Ð	Ð	0	O	0	Ð	Ð	Ð	O	O	Ð	0	Ð	0	0	0	0	O
M3	Ð	Ð	0	O	0	Ð	Ð	Ð	0	Ð	Ð	•	•	•	•		•	0
M5	Ð	Ð	0	O	0	Ð	Ð	Ð	0	Ð	Ð	•	•	·	·	•	·	0
TLM 60/60	•	•	•	Ð	•	•	Ð	•	•		Ð	•	•		O	•	•	0
800				O		0			0									

Features that can be installed on the machine at any time, even on the job site

Standard device

- O Available as option upon request
- 0 Special technical solution upon request

Not feasible .

CODE NAME

- **OPT001** Lateral cleaners
- OPT002 Fuel pump
- OPT003 Water spray dust suppression system
- OPT005 Laser automatic system for depth control
- OPT008 Rubber track pads
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- OPT013 Rear-view mirror
- OPT014 Video Camera
- OPT015 3D GPS system for automatic machine guidance
- OPT016 Cab anti-vandalism window covers
- **OPT017** Slopers
- OPT018 Closed engine doors
- OPT019 Transport kit for truck loading conveyor-not foldable and over transport dimension, side mounted
- OPT020 Laying Box (light or heavy)
- OPT021 Rollers
- OPT022 Reels
- **OPT023** Remote control for maintenance

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	Pipeline Construction	Underground Powerlines installation	Long Distance Networks installation	Metropolitan Networks installation	Access Networks INSTALLATION (TRENCHING OR TRENCHIESS)	Optical Fiber Installation	Bulk excavation works	Terrain levelling / soil preparation
MODEL				-	menomeeog			
300 KS		•		•	•	•		
77501 65	_	_	_					
775DT BW	•	•	•					
885 RS		•		•	•	•		
885 CS		•	•	•	•	•		
975 RS		•	•			•		
975 CS	•	•	•	•		•		
985 CS		•	•	•		•		
1075 BW	•	•	•					
1150 RS		•	•			•		
1150XHD CS	•	•	•					
1150XHD RH							•	•
1175XHD BW	•	•						
1275L RS		•	•			•		
1375 BW	•	•						
1475 CS	•	•	•					
1475 RH							•	•
1575 BW	•	•						
1675 CS	•	•	•					
M3	•	•						
M5	•	•						
TLM 60/60								
800								

Applications Chart

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MODEL	Urban Drainage works	Soil Reclamation	Drainage works	Irrigation Works	Underground Connection Networks installation	Surface Mining	Channel excavation	Water and Sewage Networks installation
300 RS					•			
775DT CS			•	•				
775DT BW			•	•				•
885 RS					•			
885 CS	•				•			
975 RS					•			
975 CS	•				•			•
985 CS	•				•			
1075 BW				•			•	•
1150 RS					•			
1150XHD CS	•				•			•
1150XHD RH		•				•	•	
1175XHD BW							•	•
1275L RS					•			
1375 BW							•	•
1475 CS	•				•		•	•
1475 RH		•				•	•	
1575 BW							•	•
1675 CS	•				•		•	•
M3	•						•	•
M5	•						•	•
TLM 60/60			•	•				
800			•	•				

Focus on

SELF SHARPENING TOOLS

CUSTOM-DESIGN TEETH



BETTER CUTTING PERFORMANCE

and

HIGHER MACHINE PRODUCTIVITY



DID YOU KNOW?

The better tool for given cutting conditions (rock type, teeth pattern, machine model) maximizes cutting performances and minimizes tool breakage/wear to an acceptable level.





DON'T UNDERSTIMATE WHICH TOOL TO USE IN ROCK EXCAVATION



TESMEC TOOLS SELECTION

specifically designed for Tesmec Trenchers and Rock Hawgs

to achieve the maximum performances in the more demanding conditions

SMALLER CARBIDE DIAMETER reduced vibration level • higher machine stability

lower stress on machine parts

benefits on machine reliability

Tesmec Tools Selection









TOOLS

TESMEC

DIGGING

up to 3 times longer duration* special tungsten carbide grade special rotation system special pocket protection system * compared to commercial products with similar carbide dimensions

EXTRA TOUGH CARBIDE GRADE

outstanding performance in all - and especially in hard rock - conditions

• • • •

SPECIAL RETAINER AND WASHER

improving tools rotation increasing tool holders lifetime

• • • •

HYBRID TIPS

excellent penetration best steel wash protection in abrasive conditions







ASK TESMEC EXPERTS FOR THE BEST TOOLS FOR YOUR JOBSITE

ROCKSAW *The cutting edge*





1. Thanks to the Re.M monitoring solution, machine position (GPS) and operating conditions can be continuously monitored. The 300 model can be provided with a remote control for a better safety and a wider jobsite control.

2. Provides the equipment with the most appropriate attachment capabilities and structural strength, in order to trench anything from hard soil to hard rock.

3. Specially designed attachments to dig rock with high efficiency for telecom networks and fiber optic cables laying applications, in intercity or urban context.

4. Re.M guarantees a continuous remote monitoring of machine position (GPS) and operating conditions.







Let's go into depth. Conceived for the toughest conditions and especially designed for excavation of cables ducts, Rocksaw Trenchers ensure high productivity to cut very hard material and concrete.

Tesmec Rocksaw Trenchers are suitable for narrow and deep cut, ideal to reduce the volume of the ditch material.

Some models can be equipped with an automatic cable laying system and an integrated back-filling system for fiber optic networks, electric cable projects and small diameter pipelines.

Tesmec Rocksaw Trenchers can be used in urban and extra urban context and can work in extreme environmental conditions.

5. Increase the trencher performance through the Trenchtronic 3.0 feature. The system sets itself to the best operating ability and operates in the optimal working conditions.

6. Specially designed digging attachment to work in close proximity to the shoulder of a road or a narrow sidewalk and to make 13.5° curved trenches.

7. Digging attachment with minimum cutting width, ideal for trenchless application and fiber optic cables and laying in urban areas.

8. Capability to perform 3 operations in one step which reduces costs and saves time.







Re.M Remote Control with: Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS

T400 ATTACHMENT





FEATURES AND APPLICATIONS

Compact Rocksaw trencher machine specially designed for fiber-optic projects in urban areas. This model features an offset digging back-end, tilting track system, and - as optional - an automatic cable laying system and an integrated back-filling system. It is remotely controlled.



Underground Powerlines Installation

Metropolitan Networks

Access Networks installation (Trenching or Trenchless)



Optical Fiber installation

UNDERGROUND CONNECTION NETWORKS INSTALLATION









ATTACHMENT	"A"	"В"	"C"
T400	29' 4" (895 cm)	18' 5" (561 cm)	4' 6" (138 cm)
T650 WIDE	30' 10" (940 cm)	22' 8" (690 cm)	6' 2" (188 cm)
T650 NARROW	-	21' 1" (642 cm)	5′ 8″ (173 cm)

300 ROCKSAW TECHNICAL SPECIFICATIONS

Standard Features

This system allows the operator to handle the necessary operations by remote control

The machine is equipped by variable tilt tracks (selfleveling) with a maximum range of 0' 8" (21 cm) Rubber track pads

Hydraulic brush system to clean the edges of the trench Floating Rocksaw digging attachment with offset and transport tilt

Trenching Dimensions

T400 DIGGING ATTACHMENT

- Digging depth.....0-1'4" (0-40 cm) • Digging width.....2.7"-6" (7-15 cm)
- **T650 NARROW DIGGING ATTACHMENT** • Digging depth.....1'-2'2" (30-65 cm)
- Digging width......2"-2.7" (5-7 cm) **T650 WIDE DIGGING ATTACHMENT**
- Digging depth.....1'-2'2" (30-65 cm) • Digging width.....2.7"-6" (7-15 cm)
- Note: ask to Tesmec Trenchers Technical Department for the max width at max depth configuration

Model	Perkins 1104D-44T Tier 3
Max horsepower	100 hp (74.5 kW)
Max no load rpm	2.200 rpm
Fuel tank capacity	31.7 gal (120 l)
Fuel consumption	4.3 gal/hr (16 l/hr) at full load
Oil filter: full flow canist	er
Cooling medium liquid ambient air temperatur	adequate for 115° F (46° C) e

Air cleaner: dry type 2 stages

Operating and Transport Weight

Weight......19,842-22,046 lbs (9.000-10.000 kg) Ground pressure......10.8-12 psi (0.75-0.83 kg/cm2) Note: dependent on configuration and options

Trencher Drive

Open circuit transmission with pressure flow power control

Radial piston fixed displacement motor

Rock wheel back-end with 13.5° pivoting system

Offset digging back-end hydraulically shiftable left right 23.6" (60 cm) from center line

The combination between the tilt tracks and the offset ability allows the machine to dig near or above sidewalks and road shoulder

Crawler Drive

Dual path, hydrostatic drive, planetary transmission capable of full counter rotation

Service and parking integral brake: spring applied hydraulic release, wet disc brake

Speed range:

High	range	0-1.69	mph	(0-2.7	km/h
Low	range	.0-0.11	mph	(0-1.8	km/h

Open circuit, pressure and flow compensated (Load Sensina)

Main circuit pumps with power control

Main circuit max flow	26.41 gpm (100 l/min)
Max pressure	4351 psi (300 bar)
Service pump	
Max flow	12.7 gpm (48 l/min)
Max pressure	2.844 psi (200 bar)
Oil tank	(1001) len 7 12

Transport Dimensions

Transport dimensions with automatic laying system: **T400 ATTACHMENT**

T650 NARROW ATTACHMENT

.....not available

T650 WIDE ATTACHMENT

Transport dimensions without automatic laying system and counterweight: **T400 ATTACHMENT**

T650 NARROW ATTACHMENT

T650 WIDE ATTACHMENT

Main Available Devices

ALL005 Laying system - automatic back-filling system **OPT002** Fuel pump

OPT003 Water spray dust suppression system

OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year

OPT020 Laying Box (light or heavy)

OPT021 Rollers

OPT022 Reels

A complete devices list is available at page 0040

Focus on



MINITRENCH DITCH SIZE



(2'')

The increasing use of fiber optics and new generation networks in the telecom sector has boosted the development of new cable laying technologies with low environmental impact, reduced open-pit excavation, realization costs, and increased job site safety. Heavy vehicle traffic and construction sites in the middle of the roadway, sidewalks, or medians are inconvenient and have high socio-economic costs for local governments.











Mini-trenching is suited to lay more than one cable at once, minimizes open-pit excavation, **requires specialized rockwheel/rocksaw equipment** and was classified by the International Society for Trenchless Technology (ISTT) as a **low environmental impact technique**.



Tesmec has developed highly technological trenching solutions capable of meeting all requirements regarding mini-trenching procedures.



MINI AND MICRO-TRENCHES TECHNOLOGY









Tesmec's minitrenchers guarantee highly precise results with low spoil production and environmental impact thanks to SMALL TEETH WITH TUNGSTEN CARBIDE TIP



*Available on other models



3 BACKFILLING with dedicated cement mixture for total cohesion with the existing trench







In order to guarantee the safety of the trenching work sites and to increase the operation speed, without having to face any trouble or losing money in case of breakdown of existing underground utilities, Tesmec developed a ground probing radar: **GEORADAR EXPLORER.**

The product developed by TESMEC is an original solution for the trenching technology and is complementary to it.

885





Trench Inte TrenchIn<u>tel</u>____

DGPS guidance system:

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

Rocksaw trencher machine specially designed for underground network projects in urban areas. This model features a super offset digging back-end, tilting track system, and - as optional - an automatic cable laying system. TrenchTronic 3.0 equipped.





Underground Powerlines Installation



METROPOLITAN NETWORKS



ACCESS NETWORKS INSTALLATION (TRENCHING OR TRENCHLESS)



Optical Fiber installation

Underground Connection Networks installation



885 ROCKSAW TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Electrical system: 24 V

Anti vibration isolator mounts: used on engine, radiator/ oil cooler

Fuel and hydraulic tank: pressurized and with locking caps

Digging motor safety brake (Negative type, Spring applied)

Doors in the wheel boom to allow picks replacement without needing to lift up the wheel

Trenching Dimensions

Depth	0-3' 3" (0-100 cm)
Standard widths	4"-8" (10-20 cm)
Offset from tractor centerline	4' 11" (150 cm)
Extra-offset (cab side)	12" (30 cm)
Note: ask to Tesmec Trenchers To the max width at max depth confid	echnical Department for guration

Operating and Transport Weight

Trencher Drive

Hydrostatic: one pump and one motor capable of transmitting full engine horsepower Infinitely variable digging disc speeds.....

......0-1210 fpm (0-370 m/min) Cutters: standard rotary carbide tipped 3/4" (1.9 cm) shank diameter - optional 1" (2.5 cm)

Engine

LESSER REGULATED

.CAT C7.1 ACERT Tier 3
2.150 rpm
106 gal (400 l)
hr (45 l/hr) at full load
0° F (54° C) ambient air

Air cleaner: dry type, 2 stages with dual pre-cleaner and automatic dust ejection

HIGHLY REGULATED

Model	.CAT C7.1 ACERT Tier 4f / Stage IV
Max horsepower	
Max no load rpm	2.150 rpm
Fuel tank capacity	106 gal (400 l)
Fuel consumption	12 gal/hr (45,7 l/hr) at full load
AD Blue tank capac	ity8,5 gal (32 l)
AD Blue consumption	on0,5 gal/hr (1,8 l/hr) at full load
Cooling rating adeque temperature	uate for 130° F (54° C) ambient air
Alter a la service de la service	 A strange with sharp and strange

Air cleaner: dry type, 2 stages with dual pre-cleaner and automatic dust ejection

Crawler Drive

Dual path, hydraulic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed:

forward and reverse......0-2.2 mph (0-3,6 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Overall track length	8' 4" (255 cm)
Track pad type: triple grouser	
Track chain type: FL6	
Track pad width	1' 8" (50 cm)
Track tilt angle	+5°/-5°

Conveyor

WHEEL CONVEYOR	
Conveyor belt length	7' 5" (226 cm)
Conveyor belt width	1' 2" (35 cm)
CROSS CONVEYOR	
Conveyor belt length	6' 1" (185 cm)
Conveyor belt width	1' 8" (50 cm)
SIDE MOUNTED SWIVEL	
TRUCK LOADING CONVEYOR	
Conveyor belt width	1' 8" (50 cm)
Discharge height max	12' 2" (370 cm)

Hydraulic Transmission

Pressure and flow compensated	(load sensing)
Pump flow maximum	46 gpm (175 l/min)
Pressure setting	2.500 psi (172 bar)
Oil tank capacity	

Transport Dimensions

Length	31' 5"	(958	cm)
Width without truck conveyor	8′ 4″	(253	cm)
Width with truck conveyor	8' 10"	(270	cm)
Height, tractor with cab	9' 6"	(290	cm)
Height, tractor with cab elevated	11' 10"	(360	cm)

Main Available Devices

ALLO01 Air compressor

ALL002 Side mounted truck loading conveyor - foldable and within transport dimension (standard only for 985 CS) with short cross conveyor

ALL004 Extended cross conveyor with hydraulic shift OPT002 Fuel pump

- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT015 3DGPS System for automatic machine guidance
- OPT023 Remote control for maintenance

A complete devices list is available at page 0040

Keep you updated on: **www.tesmec.com**

975





Trench Int Trenchintel

DGPS guidance system:

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 **Electronic Control with:** Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M **Remote Control with:**

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

Rocksaw version of the 975 model, this model has been conceived for the toughest rock conditions. 325 hp engine, 30 metric ton-class, and TrenchTronic 3.0 control system are some of the main characteristics of this mid-size rock-cutter.





UNDERGROUND POWERLINES INSTALLATION



OPTICAL FIBER INSTALLATION

UNDERGROUND CONNECTION NETWORKS INSTALLATION







975 ROCKSAW TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Electrical system: 24 V

Anti vibration isolator mounts: used on engine, radiator/ oil cooler unit and cab

Stabilizers with trench cleaners: automatically adjust to terrain changes

Positive locking digging chain adjustment

Trenching Dimensions

Max depth	4'2" (127 cm)
Widths	6"-12" (15-30 cm)
Note: ask to Tesmec Trenchers	Technical Department for
the max width at max depth cont	figuration

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_			

Model	CAT C9 ACERT Tier 3
Max horsepower	325 hp (242 kW)
Max no load rpm	2.000 rpm
Fuel tank capacity	193 gal (730 l)
Fuel consumption15.4 ga	al/hr (58.3 l/hr) at full load
Cooling rating adequate for temperature	122° F (50° C) ambient air

Air cleaner: dry type, 2 stages with pre-cleaner and automatic dust ejection

Operating and Transport Weight

Weight......63,000-68,000 lbs (28.576-30.844 kg) Ground pressure......11-12 psi (0.78-0.85 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: one pump and two motors capable of transmitting full engine horsepower

Flywheel gearboxes

Infinitely variable digging attachment speeds

......0-575 fpm (0-175 m/min) Cutters: rotary carbide tipped 1 $12^{\prime\prime}$ (3.8 cm) shank diameter

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed: forward and reverse

Speed ranges:

• High range.....0-2.5 mph (0-4 km/hr)

 Low range......0-1.4 mph (0-2.2 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Overall track length	9′	9"	(298	cm)
Track pad type: triple grouser				
Track chain type: Caterpillar D5				
Track pad width		2	' (61	cm)

Hydraulic Transmission

Pressure and flow compensated	d (load sensing)
Pump flow maximum	43 gpm (164 l/min)
Pressure setting	2.500 psi (172 bar)
Dil tank capacity	73 gal (275 l)
Transport Dimensions	
_ength	29' 4" (893 cm)
Nidth	8' 4" (254 cm)
HeightBoom	frame 10' 8" (325 cm)
Ov	er cab 10' 4" (315 cm)

Main Available Devices

ALL001 Air compressor OPT002 Fuel pump OPT005 Laser automatic system for depth control OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year OPT012 Work light package OPT014 Video Camera

UPTUT4 Video Camera

OPT015 3DGPS System for automatic machine guidance

OPT018 Closed engine doors

OPT023 Remote control for maintenance

A complete devices list is available at page 0040

1150





TrenchInte

DGPS guidance system:

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

Rocksaw trencher for long-distance fiber optic networks, electric cable projects and small diameter pipelines; the 1150 is a high performance rock-cutter featuring a saw cutting up to 4'6" (137 cm) deep and 14" (36 cm) wide. TrenchTronic 3.0 equipped.



INSTALLATION

LONG DISTANCE NETWORKS

UNDERGROUND POWERLINES



Optical Fiber installation

UNDERGROUND CONNECTION NETWORKS INSTALLATION





1150 ROCKSAW TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Electrical system: 24 V

Stabilizers with adjustable drags

Tool box with locking door

Engine doors with security locks

Gearboxes, fuel and hydraulic tanks: pressurized with 5 psi (0.3 bar) filtered breathers

Flywheel gearboxes: shaved, helical gearing, case hardened for extreme shock load

Vibration isolator mounts: used on engine, radiator, oil cooler, exhaust silencer and cab

Trenching Dimensions

Max depth	4'6" (137 cm
Widths	6"-14" (15-36 cm
Note: dependent on configuration a	and options

Engine

01/16

Model	CAT C13 ACERT Tier 3
Max horsepower	
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption	22 gal/hr (83 l/hr) at full load
Cooling rating adequate	e for 122° F (50° C) ambient air

Air cleaner: dry type, 2 stage with dual pre-cleaner

Operating and Transport Weight

Weight	99,208 lbs (45.000 Kg)
Ground pressure	15 psi (1.06 kg/cm ²)
Note: dependent on configuratio	n and options

Trencher Drive

Hydrostatic: two pumps and two motors capable of transmitting full engine horsepower

Infinitely variable digging attachment speeds.....standard ratio $0 \div 800$ fpm ($0 \div 244$ m/min)

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed: forward and reverse

• High range.....0-2.77 mph (4.43 km/hr)

 Low range......0-1.25 mph (2.0 km/hr) Integral parking and emergency brake: spring applied, hydraulic release, wet disc brake

Tracks

12' 5" (379 cm)
or equivalent
1' 10" (56 cm)

Hydraulic Transmission

Pressure and flow compensated (Load sensing) Auxiliary pump flow maximum40 gpm (151 l/min) Auxiliary pressure setting2.500 psi (172 bar) Oil tank capacity
Transport Dimensions
Length w/digging attachment & counterweight
Width
Height with cab
Main Available Devices
ALLOO1 Air compressor

- ALL010 Automatic greasing
- ALL012 Safety devices (flashing light, rear-view mirror, external emergency buttons)
- OPT002 Fuel pump
- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- OPT014 Video Camera
- OPT015 3DGPS System for automatic machine guidance
- OPT016 Cab anti-vandalism window covers

OPT023 Remote control for maintenance

A complete devices list is available at page 0040







Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

60 metric ton class trencher for high-productivity, long-distance excavation works in the toughest rock conditions; the 1275L model is the biggest Rocksaw trencher machine in the Tesmec family, suitable for fiber optics back-bone projects, electric-cable networks, utilities and small size pipelines. A master rock-cutter.



UNDERGROUND POWERLINES INSTALLATION



OPTICAL FIBER INSTALLATION

Q Q Q

LONG DISTANCE NETWORKS



UNDERGROUND CONNECTION NETWORKS INSTALLATION



1275L ROCKSAW TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Load control: operator selectable digging pressure, automatic operation

Toolbox with locking doors

Engine doors with security locks

Fuel and hydraulic tank: aircraft quality locking caps

Gearboxes and hydraulic tanks: pressurized with 5 $\ensuremath{\mathsf{psi}}$ (0.3 bar) filtered breathers

Vibration isolator mount: used on engine, radiator, oil cooler, exhaust silencer

External support structure for elevating cab, wear-pad design with adjustment

Electrical system: 24 V starting, 12 V controls

Trenching Dimensions

Max depth	5' (152 cm)
Widths8"	' (20 cm) to 16" (40 cm)

in 1/2 inch (1.3 cm) increments

Note: dependent on configuration and options

Engine

Model	CAT C15 ACERT Tier 3
Max horsepower	540 hp (403 kW)
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption28.9 gal/hi	r (109.4 l/hr) at full load
Cooling rating adequate for 122 temperature	2° F (50° C) ambient air

Air cleaner: dry type, centrifugal precleaner with primary and secondary filters

Operating and Transport Weight

Weight......150,000 lbs (68.038 kg) Ground pressure......17 psi (1.2 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: four pumps and two motors Flywheel gearboxes: shaved, helical gearing, case hardened for extreme shock load Three operator selectable digging speed ranges with 5' (152 cm) depth wheel:0-445 fpm (0-136 m/min)0-646 fpm (0-197 m/min)0-846 fpm (0-258 m/min) Cutters: rotary carbide tipped 1 ½" (3.81 cm) shank

diameter

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction
Infinitely variable speed: forward and reverse
Speed ranges:
High range......0-2.5 mph (0-4 km/hr)

Low range......0-1.4 mph (0-2.3 km/hr)

Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Hydraulic Transmission

Pressure and flow compensated	(load sensing)
Pump flow maximum	45 gpm (170 l/min)
Pressure setting	2.500 psi (172 bar)
Oil tank capacity	203 gal (768 l)

Transport Dimensions

Length with stabilizer removed	36' 6	" (1.113	cm)
Width	11′	2" (340	cm)
with digging motors removed, 2' 6'	" (76 c	m) D7	
track pads			

Height....12' 2" (371 cm) over wheel with wheel folded

Main Available Devices

ALL001 Air compressor

ALL008 Cold weather package for operations down to -25°C (-13° F) (Closed engine doors already included)

OPT002 Fuel pump

OPT005 Laser automatic system for depth control

OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year

OPT012 Work light package

OPT016 Cab anti-vandalism window covers

A complete devices list is available at page 0040

CHAINSAW *A cut above*





- 1. Pressurized cab with air conditioning, heating, sound suppression and ROPS (Rollover Protective Structure) structure.
- 2. Increase the trencher performance through the TrenchTronic 3.0 feature. The system sets itself to the best operating capability and operates in the optimal working conditions.
- 3. New digging attachment, which are specially designed to improve trenching performances even on hard rock.
- 4. Optimized Tier 3 engine with improved components to get the best performances in even the hardest conditions.





Entrench performance with a Chainsaw trencher. The engineered design of Tesmec Chainsaw trenchers ensures minimal over-excavation, with standard trench walls and floor. The excavated material is deposited in a continuous windrow alongside the trench. In the case where space is limited, the excavated material can be discharged to dump truck directly with a truck loader conveyor.

Tesmec Chainsaw trenchers are suitable for water conduits, utilities, pipelines and cables ducts (such as fiber optic projects or electric cable networks) excavation, also in residential areas or in close proximity to utilities structures and other networks of pipes and urban infrastructure.

- 5. Thanks to the Re.M monitoring solution, machine position (GPS) and operating conditions can be continuously monitored.
- 6. Chainsaw trenchers are provided with a special digging attachment, ideal for digging in anything from hard rock to dirt/soil.
- 7. Specially designed tracks which works even on sloped terrain.
- 8. Some Chainsaw models are provided with an elevated cabin that permits for a wider visibility on the job site.
- 9. Specially designed digging attachment to work close to the shoulder or a narrow sidewalk.

775DT CS Dirt series





Trench Inte

TrenchIntel DGPS guidance system:

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

The new 775DT is the first "light" Tesmec Chainsaw trencher specifically developed for dirt excavation and drainage works. Light weight and robustness, transportability, productivity and reliability, and very high user friendliness thanks to the brand new electronic control TrenchTronic 3.0 are the main characteristic of this machine.





Drainage works



IRRIGATION WORKS





* Dimension 10' 2" (310 cm) becomes 10' 4" (315 cm) in the case of using single grouser.

"A"	"В"
6′ (183 cm)	29'-4'' (895 cm)
8′ (244 cm)	31'-5" (959 cm)

775DT "DIRT SERIES" CHAINSAW TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression and ROPS structure Electrical system: 24 V

- Self-leveling (tilting) undercarriage:
- Track tilt angle: 10°
- Automatic/manual operation

Trenching Dimensions

Max depth	8' (244 cm)
Widths range	
Note: ask to Tesmec Trenchers	s Technical Department for
the max width at max depth cor	figuration

Engine

Model	CAT C7.1 ACERT Tier 3
Max horsepower	225 hp (168 kW)
Max no load rpm	2.200 rpm
Fuel tank capacity	121.5 gal (460 l)
Fuel consumption	.11.9 gal/hr (45 l/hr) at full load
Cooling rating adequate temperature	e for 130° F (54° C) ambient air

Air cleaner: dry type 2 stages with pre-cleaner and automatic dust ejection

Operating and Transport Weight

Trencher Drive

Hydrostatic: one pump and one motor capable of transmitting full engine horsepower

Flywheel gearbox

Infinitely variable digging attachment speeds.....

.....0-850 fpm (0-259 m/min) Tesmec designed single strand, 4" (101.6 cm) pitch chain, "K" style

Single piece, light boom for dirt & soft soil

Standard cutters: single edge, hard surfaced cup cutters for dirt

Crawler Drive

Hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed: forward and reverse Speed range:

- High range...... 0-2.1 mph (0-3.3 km/hr)
- Low range.....0-1.3 mph (0-2.1 km/h)
 Integral parking and service brake: spring applied,
- hydraulic release, wet disc brake

Tracks

Hydraulic Transmission

Pressure and flow compensated (load sensing)				
Pump flow maximum	53 gpm (201 l/min)			
Pressure setting	2.600 psi (180 bar)			
Oil tank capacity	77 gal (290 l)			

Cross Conveyor

Pressure and flow compensated pump with dual hydraulic drive motors reversible and shiftable Belt speed infinitely variable..0-820 fpm (0-250 m/min) Discharge direction: right or left

Conveyor belt width	2′ 6″ (76 cm)
Conveyor length	
Discharge height	4′ 12″ (152 cm)

Transport Dimensions

Length with 8' boom31'	5" (959 cm) and crumbshoe
Width	8' 4" (255 cm)
Height	10' 2" (310 cm)

Main Available Devices

- ALL001 Air compressor
- ALL010 Automatic greasing
- ALL012 Safety devices (flashing light, rear-view mirror, external emergency buttons)
- OPT002 Fuel pump
- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- OPT014 Video Camera
- OPT015 3DGPS System for automatic machine guidance
- OPT020 Laying Box (light or heavy)
- OPT021 Rollers

OPT022 Reels

OPT023 Remote control for maintenance

A complete devices list is available at page 0040

885





Trench Inte

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TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

Chainsaw trencher specially designed for fiber-optic projects in urban and suburban areas. This model features offset digging chain, tilting tracks, elevating cab and - as main optional - automatic cable laying system, back-filling system and truck loading conveyor. The 885 can also be employed in trench excavation for small underground utilities such as electric cables, water,

gas and other. TrenchTronic 3.0 equipped.



Underground Powerlines Installation

Long Distance Networks



Metropolitan Networks



Access Networks installation (trenching or trenchless)

MODULAR MACHINE

AL TRACTOR FRA FOR DIFFERENT ATTACHMENTS

Optical Fiber installation



URBAN DRAINAGE WORKS



UNDERGROUND CONNECTION NETWORKS INSTALLATION





"A"	"В"	
3' (91 cm)	28'-11" (883 cm)	
4′ (122 cm)	29'-11" (913 cm)	
5′ (152 cm)	30'-11" (943 cm)	



885 CHAINSAW TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Positive locking digging chain adjustment

Stabilizers with dirt drags: automatically adjust to terrain changes

Vibration isolator mount: used on engine, radiator, oil cooler, exhaust silencer and operator station Electrical system: 24 V

Trenching Dimensions

Max depth		5′	(152	cm)
Widths range	8″-18″	(20	- 45	cm)
Offset	5'	-7″	(169	cm)
Note: dependent on configuration an	d options			

Engine

LESSER REGULATED

Model	CAT C7.1 ACERT Tier 3
Max horsepower	
Max no load rpm	2.150 rpm
Fuel tank capacity	106 gal (400 l)
Fuel consumption11.9 g	al/hr (45 l/hr) at full load
Cooling rating adequate for 1 temperature	130° F (54° C) ambient air

Air cleaner: dry type, 2 stages with dual pre-cleaner and automatic dust ejection

HIGHLY REGULATED

Model	.CAT C7.1 ACERT Tier 4f / Stage IV
Max horsepower	225 hp (168 kW)
Max no load rpm	2.150 rpm
Fuel tank capacity	
Fuel consumption	12 gal/hr (45,7 l/hr) at full load
AD Blue tank capac	;ity8,5 gal (32 l)
AD Blue consumpti	on0,5 gal/hr (1,8 l/hr) at full load
Cooling rating adequent temperature	uate for 130° F (54° C) ambient air
Air alaanan duu tu	 A strange with sheet one strange

Air cleaner: dry type, 2 stages with dual pre-cleaner and automatic dust ejection

Operating and Transport Weight

Trencher Drive

Hydrostatic: one variable displacement pump and one motor

Flywheel gearbox: shaved, helical gearing, case hardened for extreme shock load

Infinitely variable digging attachment speeds......0-690 fpm (0-210 m/min) Tesmec designed single strand, 4.5" (11.4 cm) pitch chain, "K" or "M" style

Digging teeth:

- (Rock) 1"1/2 (3,81 cm) diameter shank, rotary carbide insert
- (Dirt) single edge, hard surface cup cutters

Crawler Drive

Dual path, hydraulic drive, planetary transmissions with single lever steering, single lever direction Variable displacement pump and motor

Infinitely variable speed:

forward and reverse......0-2.2 mph (0-3.6 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Self-leveling (tilting) undercarriage:

- Track tilt angle: +5°/-5°
- Automatic/manual operation
 Overall track length......8' 4" (255 cm)

Track pad type: triple grouser

Track chain type: FL6

Track pad width.....1' 8" (50 cm)

Hydraulic Transmission

Pressure and flow compensated	(load sensing)
Pump flow maximum	46 gpm (175 l/min
Pressure setting	2.500 psi (172 bar
Oil tank capacity	

Cross Conveyor

Pressure and flow compensated pump with dual hydraulic drive motors Belt speed infinitely variable...0-1.148 fpm (0-350 m/min) Discharge direction: right or left

biobilargo allocion. light of lore				
Conveyor belt width	1	' 8'	' (50	cm)
Conveyor length	6′	1″	(185	cm)

Transport Dimensions

Length with crumbshoe and truck loading conveyor.....

	ft ft	boom:	28' 29'	11 11	" "	(883 (913	cm)
5	ft	boom:	30'	11	"	(943	cm)
Width				.8' a'	4″ 6″	(253	cm)
Tielgint				.0	U	(200	uni

Main Available Devices

ALL001 Air compressor

- ALL002 Side mounted truck loading conveyor not foldable and over transport dimension
- ALL004 Extended cross conveyor with hydraulic shift ALL012 Safety devices (flashing light, rear-view mirror,
 - external emergency buttons)

OPT002 Fuel pump

- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package

OPT014 Video Camera

- OPT015 3D GPS system for automatic machine guidance
- OPT020 Laying box (light or heavy)
- OPT021 Rollers

OPT022 Reels

OPT023 Remote control for maintenance

A complete devices list is available at page 0040

975





Trench Inte TrenchIn<u>tel</u>____

DGPS guidance system:

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS

SINGLE CHAIN BOOM





FEATURES AND APPLICATIONS

Mid-size Chainsaw trencher conceived for rock excavation for utilities projects such as fiber optic, electric cables, water conduits, pipelines and other. The 975 can be equipped with elevating cabin and tilting tracks; upon request it can also fit an automatic laying system for fiber optic back-bone projects or electric cable networks. TrenchTronic 3.0 equipped.





Optical Fiber installation

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Underground Connection Networks installation



Water and Sewage Networks installation



METROPOLITAN NETWORKS

PIPELINE CONSTRUCTION

INSTALLATION

UNDERGROUND POWERLINES

LONG DISTANCE NETWORKS


975 CHAINSAW **TECHNICAL SPECIFICATIONS**

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Electrical system: 24 V

Anti vibration isolator mounts: used on engine, radiator/ oil cooler unit and cab

Stabilizers with trench cleaners: automatically adjust to terrain changes

Positive locking digging chain adjustment

Trenching Dimensions

SINGLE CHAIN BOOM

Max depth	1()' (305	cm)
Widths range	12"-18"	(30-45	cm)
DOUBLE CHAIN NARROW BOOM	1		
 Max denth 	1(n' (305	cm)

		5 1000	uni
Widths range	18"-28"	(45-71	cm)
DOUBLE CHAIN WIDE BOOM			

• Max depth......8' (244 cm) Note: dependent on configuration and options

Engine

Model	CAT C9 ACERT Tier 3
Maxhorsepower	
Maxnoloadrpm	2.000rpm
Fueltankcapacity	
Fuel consumption	.15.4 gal/hr (58.3 l/hr) at full load
Cooling rating adequate	e for 122° F (50° C) ambient air
temperature	

Air cleaner: dry type, 2 stages with pre-cleaner and automatic dust ejection

Operating and Transport Weight

Weight:55,116-72,752 lbs (25.000-33.000 kg) Ground pressure:......10-13 psi (0.69-0.90 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: one pump and two motors capable of transmitting full engine horsepower Flywheel gearboxes

Infinitely variable digging attachment speeds..0-525 fpm (0-160 m/min) Tesmec designed single strand or double link 4.5" (11.4

cm) pitch chain, "K" style Standard cutters: rotary carbide tipped 1,5" (3.8 cm)

shank diameter

Optional cutters: single edge, hard surfaced spade teeth for dirt - Tesmec dirt tool with 1,5" (3.8 cm) shank diameter

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction Infinitely variable speed: forward and reverse

Speed ranges:

• High range.....0-2.5 mph (0-4 km/hr) • Low range.....0-1.4 mph (0-2.2 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Overall track length	9'9" (298 cm)
Track pad type: triple grouser	
Track chain type: Caterpillar D5	
Track pad width	2' (61 cm)
III III TATA AND AND	

Hydraulic Transmission

Pressure	and	flow	compensated	(load	sensing)
Pump flow	/ maxi	mum		l gpm ('	164 l/min)
Pressure s	setting	J	2.5	500 psi	(172 bar)
Dil tank ca	apacit	, V		73 c	al (275 l)
		/			, , , ,

Cross Conveyor

Pressure and flow compensated pump with dual hydraulic drive motors Reversible and shiftable Belt speed infinitely variable 0-790 fpm (0-240 m/min) Discharge direction: right or left Conveyor belt width......1' 11" (60 cm)

Conveyor length	8' 3" (250 cm)
Discharge height	4' 9" (145 cm)
Transport Dimension	ns
Length with crumbshoe	without truck loading
conveyor4 ft	boom: 27' 6" (839 cm)
6 ft	boom: 29'-10" (909 cm)
8 ft	boom: 32'-6" (990 cm)
10 ft	boom: 34' 9" (1 059 cm)
Width, no motor removal Width, with motor removal Height	

0' 0" 1050

Main Available Devices

ALL001 Air compressor

- ALL003 Side mounted truck loading conveyor not foldable and over transport dimension (with short extended cross conveyor only for 975 CS)
- ALL010 Automatic greasing
- ALL012 Safety devices (flashing light, rear-view mirror, external emergency buttons)
- **OPT001** Lateral cleaners
- OPT002 Fuel pump
- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- **OPT014 Video Camera**
- OPT015 3DGPS System for automatic machine guidance
- OPT020 Laying Box (light or heavy)
- **OPT021** Rollers
- **OPT022** Reels
- **OPT023** Remote control for maintenance

985





Trench Inte TrenchIntel

DGPS guidance system: Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS

SINGLE CHAIN BOOM





FEATURES AND APPLICATIONS

Mid-size self-leveling offset Chainsaw trencher conceived to satisfy all ranges of customers: from highway constructors to pipeline contractors and other customers working on projects where space is one of the main issues. The 985 features a 350HP-CAT Tier 4f engine and is equipped with a center mounted truck conveyor, which unloads spoil directly into the truck located in front of the machine, thus limiting the space taken up. TrenchTronic 3.0 equipped.



Underground Powerlines Installation

Long Distance Networks



Optical Fiber installation



Urban Drainage works



UNDERGROUND CONNECTION NETWORKS INSTALLATION



METROPOLITAN NETWORKS



985 CHAINSAW TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Electrical system: 24 V

Anti vibration isolator mounts: used on engine, radiator/ oil cooler unit and cab

Stabilizers with dirt drags: automatically adjust to terrain changes

Positive locking digging chain adjustment

Cab and Compartment security locks

Fuel and hydraulic tank: pressurized with locking caps

Trenching Dimensions

3 different boom lengths: 4',5',6' (122,152,183 c	m)
SINGLE CHAIN BOOM	
• Max depth6' (18	3 cm)

Widths range	12"-18" (30-45	cm)
DOUBLE LINK CHAIN BOOM		
Max depth	6′ (183	cm)
Widths range	18"-28" (45-71	cm)
DOUBLE CHAIN BOOM		
Max depth	6′ (183	cm)
Widths range	24"-28" (61-71	cm)
Note: dependent on configuration and	d options	

Engine

HIGHLY REGULATED

Model	.CAT C9.3 ACERT Tier 4f / Stage IV
Maxhorsepower	
Max no load rpm	2.150 rpm
Fuel tank capacity	
Fuel consumption	18 gal/hr (68 l/hr) at full load
AD Blue tank capacit	y11,1 gal (42 l)
AD Blue consumption	n0,74 gal/hr (2,8 l/hr) at full load
Cooling rating adequ temperature	ate for 130° F (54° C) ambient air

Air cleaner: dry type, 2 stages with dual pre-cleaner

Operating and Transport Weight

Trencher Drive

Attachment Offset: 33" (84 cm) from machine centerline either direction, 66" (168 cm) total, hydraulically shiftable the entire distance without cylinder change.

Hydrostatic: one pump and two motors capable of transmitting full engine horsepower

Flywheel gearboxes

Infinitely variable digging attachment speeds.....

.....0-525 fpm (0-160 m/min) Tesmec designed single or double link 4.5" (11.4 cm) pitch chain, "K" style

Standard cutters: rotary carbide tipped 1,5" (3.8 cm) shank diameter

Optional cutters: single edge, hard surfaced spade teeth for dirt - Tesmec dirt tool with 1,5" (3.8 cm) shank diameter

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction Variable displacement pump and motor Infinitely variable speed: forward and reverse Speed range......0-2 mph (0-3.2 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

- Self-leveling (tilting) undercarriage
- Track tilt angle.....
- Automatic/manual operation
 Overall track length......9' 9" (298 cm)
 Track pad type: triple grouser
 Track chain type: Caterpillar D5

Track pad width.....1'10" (55 cm)

Hydraulic Transmission

Pressure	and	flow	compensated	(load	sensing)
Pump flow	v maxi	imum	67	' gpm (:	253 l/min)
Pressure s	setting	J	2.	500 psi	(172 bar)
Oil tank ca	pacity	/		103	gal (390 l)
					0 1 /

Cross Conveyor

Pressure and flow compensated pump with dual hydraulic drive motors Belt speed infinitely variable 0-1250 fpm (0-380 m/min) Discharge direction: right or left

Conveyor	belt width	2	61 (61	cm)
Conveyor	length8'	2″	(249	cm)

Transport Dimensions

Length with crumbshoe and tr	uck loading conveyor
4 ft b	oom: 39' 9" (1.217 cm)
5 ft b	oom: 41' 1" (1.252 cm)
6 ft b	oom: 42' 3" (1.287 cm)
Width	8' 4" (253 cm)
Height	10' 4" (315 cm)

Main Available Devices

ALL001 Air compressor

- ALL002 Central mounted truck loading conveyor foldable and within transport dimension with short cross conveyor
- ALL012 Safety devices (flashing light, rear-view mirror, external emergency buttons)
- ALL013 Short cross conveyor
- **OPT001** Lateral cleaners
- OPT002 Fuel pump

 $\pm 7^\circ$

- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset
- Management (monitoring via GPRS) per year OPT012 Work light package
- OPT014 Video Camera
- OPT015 3D GPS system for automatic machine
- guidance OPT023 Remote control for maintenance

1150XHD





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DGPS guidance system: Extra high precision 3D GPS

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS

SINGLE CHAIN BOOM





FEATURES AND APPLICATIONS

50 metric ton-class, TrenchTronic 3.0 equipped rock trencher for midsize pipelines; the 1150XHD is the best-selling Tesmec trencher. This model is equipped with a 440 hp engine and can dig up to 12' (366 cm) deep and up to 42" (107 cm) wide, making it the ideal trencher for mid-size pipelines and underground utilities.





PIPELINE CONSTRUCTION

Underground Powerlines



URBAN DRAINAGE WORKS

UNDERGROUND CONNECTION NETWORKS INSTALLATION



WATER AND SEWAGE NETWORKS INSTALLATION





1150XHD CHAINSAW
TECHNICAL SPECIFICATION

Standard Features

"A"

6' (183 cm)

8' (244 cm)

10' (305 cm) 12' (366 cm)

Pressurized cab with air conditioning, heating, sound suppression

"B"

Elevating cab module with roll over protection (ROPS) Electrical system: 24 V

Stabilizers with adjustable drags

Gearboxes, fuel and hydraulic tanks: pressurized with 5

psi (0.3 bar) filtered breathers Vibration isolator mounts: used on engine, radiator, oil cooler, exhaust silencer and cab

Trenching Dimensions

SINGLE CHAIN BOOM

٠	Max depth	8	3' (244	cm)
•	Widths range	.18"-20"	(45-51	cm)
D	DUBLE CHAIN NARROW BOOM			

Max depth	12' (366 cm)
Widths range	28"-36" (71-91 cm)
DOUBLE CHAIN WIDE BOOM	

• Max depth.....10' (305 cm)

Note: dependent on configuration and options

Engine

Model	CAT C13 ACERT Tier 3
Max horsepower	
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption	23 gal/hr (87 l/hr) at full load
Cooling rating adequate for temperature	or 122° F (50° C) ambient air

Air cleaner: dry type, 2 stages with pre-cleaner and automatic dust ejection

Operating and Transport Weight

Weight......110,231-132,278 lbs (50.000-60.000 kg) Ground pressure......15.9-18.8 psi (1.1-1.3 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: two pumps and two motors capable of transmitting full engine horsepower

Flywheel gearboxes: shaved, helical gearing, case hardened for extreme shock load

Infinitely variable digging attachment speeds...0-550 fpm (0-168 m/min)

Tesmec designed 6.5" pitch digging chain for single chain configuration or $4.5^{\prime\prime}$ pitch digging chain for double chain configuration

Cutters: rotary carbide tipped 1 1/2" (3.81 cm) shank diameter

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed: forward and reverse

Speed ranges:

• High range.....0-2.77 mph (0-4.46 km/hr) • Low range.....0-1.25 mph (0-2.01 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Overall track length.....12' 5" (379 cm) Track pad type: triple grouser

Track chain type: Caterpillar 42/325 or equivalent Track pad width.....2' (60 cm)

Pressure and flow compensated	(load sensing)
Pump flow maximum	.63.4 gpm (240 l/min)
Pressure setting	2.500 psi (172 bar)
Oil tank capacity	100 gal (378.5 l)

Cross Convevor

Pressure and flow compensated pump with dual hydraulic drive motors

Reversible and shiftable

Belt speed infinitely variable...0-750 fpm (0-229 m/min) Discharge direction: right or left

Conveyor belt width	2' 6" (76 cm)
Conveyor length	13' 8" (416 cm)
Discharge height	4'1"-6'1" (123-181 cm)

Length with crumbshoe and counterweight:				
6 ft boom: 36' 5" (1.110 cm)				
8 ft boom: 38' 5" (1.171 cm)				
10 ft boom: 40' 9" (1.242 cm)				
Width*9' 6" (290 cm)				
Height with low cab11' 1" (338 cm)				
* width could be reduced to 9'-3" (280 cm) removing digging motors				

Main Available Devices

ALLOO1 ALLOO3	Air compressor Side mounted truck loading conveyor - not foldable and over transport dimension				
AI I 010	Automatic greasing				
ALL012	Safety devices (flashing light, rear-view mirror, external emergency buttons)				
OPT001	Lateral cleaners				
OPT002	Fuel pump				
OPT005	Laser automatic system for depth control				
OPT011	Subscription for the Remote Asset Management (monitoring via GPRS) per year				
OPT012	Work light package				
OPT014	Video Camera				
OPT015	3DGPS System for automatic machine guidance				

OPT018 Člosed engine doors

OPT023 Remote control for maintenance

1475





Trench lm Trenchintel

DGPS guidance system: Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path

Pass optimization and fleet control



TrenchTronic 3.0 **Electronic Control with:** Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M **Remote Control with:**

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

90 metric ton-class rock trencher for mid to big size pipelines, the 1475 is the second largest Tesmec Chainsaw trencher. TrenchTronic 3.0 equipped, this 630 hp powered unit can dig trenches for big-diameter pipe up to 16' (488 cm) deep in the toughest conditions.







PIPELINE CONSTRUCTION



INSTALLATION

LONG DISTANCE NETWORKS INSTALLATION



UNDERGROUND CONNECTION NETWORKS INSTALLATION



CHANNEL EXCAVATION



WATER AND SEWAGE NETWORKS INSTALLATION



URBAN DRAINAGE WORKS





1475 CHAINSAW TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Battery box and toolbox with locking door

Fuel and hydraulic tank: aircraft quality locking caps Flywheel gearbox and hydraulic tanks: pressurized with 5 psi (0.3 bar) filtered breathers

Flywheel gearbox: shaved, helical gearing, case hardened for extreme shock load

Vibration isolator mount: used on engine, radiator, oil cooler, and exhaust silencer

Stabilizers / dirt drags (chainsaw only): automatically adjust to terrain changes

Lights: 24 V forward facing

Hydraulic cooler externally mounted

Electrical system: 24 V

Trenching Dimensions

SECTIONABLE BOOM

- Depth range...8' through 16' (244 cm through 488 cm)

- Max width limited by depth:
- Max width...... 48"(122 cm) at 12'(366 cm) depth
- Max width...... 42"(107 cm) at 14'(427 cm) depth
- Note: dependent on configuration and options

Engine

Model	CAT C18 ACERT Tier 3
Max horsepower	630 hp (470 kW)
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption34.6 gal	l/hr (131 l/hr) at full load
Cooling rating adequate for 1	22° F (50° C) ambient air
temperature	

Air cleaner: dry type, 2 stages with pre-cleaner and automatic dust ejection

Operating and Transport Weight

Weight.......169,756-242,509 lbs (77.000-110.000 kg) Ground pressure......15.2-21.7 psi (1.07-1.53 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: four pumps and two motors capable of transmitting full engine horsepower

Flywheel gearboxes, shaved, helical gearing, case hardened for extreme shock load

4 operator selectable digging speed ranges:

	0-400	tpm	(0-122)	m/min
	0-470	fpm	(0-143	m/min
	0-530	fpm	(0-162	m/min
	0-600	fpm	(0-183	m/min
Tailwheel diameter		·	4′ (1	22 cm
• · · · ·			'	

Cutters: rotary carbide tipped 1 $^{1\!\!/}_{2}\!\!''$ (3.81 cm) shank diameter

Digging chain: D9L

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction Infinitely variable speed: forward and reverse Speed ranges:

- High range......0-1.62 mph (0-2.59 km/hr)
- Low range......0-0.81 mph (0-1.30 km/hr)

Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Overall track length	15′	6"	(473	cm)
Frack pad type: triple grouser				
Frack chain type: Caterpillar D8K (1	" bolts)		

Track pad width.....2' 6" (76 cm)

Hydraulic Transmission

Pressure and flow compensated	(load sensing)
Pump flow maximum	45 gpm (170 l/min)
Pressure setting	2.500 psi (172 bar)
Oil tank capacity	

Cross Conveyor

Hydrostatic: one pump and two motors
Reversible and shiftable
Belt speed infinitely variable0-900 fpm (0-275 m/min)
Discharge direction: right or left
Conveyor belt width2' 12" (91.4 cm)
Conveyor length
Discharge height7' 7" (231 cm)

Transport Dimensions

Length with crumbshoe8 ft boom: 42' 5" (1.292 cm)
10 11 000111. 45 (1.572 611)
12 ft boom: 47' 7" (1.452 cm)
14 ft boom: 51' (1.553 cm)
16 ft boom: 52' 3" (1.592 cm)
Length without boom:
only tractor with stabilizers
Width11' 6" (350 cm) with motor removal
Height with cab11' 11" (363 cm)
Height with cab elevated14' 2" (431 cm)

Main Available Devices

ALL001 Air compressor

ALL003 Side mounted truck loading conveyor - not foldable and within transport dimension

- ALL010 Automatic greasing
- ALL012 Safety devices (flashing light, rear-view mirror, external emergency buttons)
- OPT001 Lateral cleaners
- OPT002 Fuel pump
- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- OPT014 Video Camera
- OPT015 3DGPS System for automatic machine guidance
- OPT018 Closed engine doors
- OPT023 Remote control for maintenance

A complete devices list is available at page 0040

Keep you updated on: www.tesmec.com

1675





Trench Inte TrenchIn<u>tel</u>____

DGPS guidance system: Extra high precision 3D GPS system Automatic depth and grade control

Autosteering to a predefined path

Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS

DOUBLE CHAIN NARROW BOOM .'-24' 732 , j 05-7 30"-48" **DOUBLE CHAIN** 76-122 cm WIDE BOOM 10'-22' 305-671 cm 42"-60" TRIPLE CHAIN 107-153 cm BOOM E 8'-14' 244-427 (54''-72' 137-183 cm



FEATURES AND APPLICATIONS

Tesmec's largest Chainsaw trencher is conceived as a high-productivity machine for big diameter pipelines and utilities projects in hard rock. TrenchTronic 3.0 equipped, thanks to its 760 hp engine the 1675 can cut trenches up to 24' (732 cm) deep and 72" (183 cm) wide. The peak of excellence for big projects in the toughest excavating conditions.



PIPELINE CONSTRUCTION



Long Distance Networks

Urban Drainage works



UNDERGROUND CONNECTION NETWORKS INSTALLATION



CHANNEL EXCAVATION



WATER AND SEWAGE NETWORKS



"A" 8' (244 cm) * 49'-9" (1.514 cm) 10' (305 cm) 51'-3" (1.562 cm) 12' (366 cm) * 52'-11" (1.613 cm) 14' (427 cm) 54'-9" (1.665 cm)

"A"	"B"
16' (488 cm)	56′-5″ (1.718 cm)
18' (549 cm)	58′-2″ (1.772 cm)
20' (610 cm)	60'-0'' (1.828 cm)
22′ (671 cm)	61′-10″ (1.884 cm)
24' (732 cm)	63′-8″ (1.940 cm)

* Not available for double chain narrow/wide

1675 CHAINSAW TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Battery box and toolbox with locking door

Engine doors with security locks

Gearboxes and hydraulic tanks: pressurized with filtered breathers

Vibration isolator mount: used on engine, radiator, oil cooler, and exhaust silencer

Convevor fold: hvdraulic winch Lights: 24 V forward facing

Electrical system: 24 V

Trenching Dimensions

DOUBLE CHAIN NARROW BOOM

	•
Max depth	24' (732 cm)
Standard widths range	30"-48" (76-122 cm)
Special widths range	28"-48" (71-122 cm)
DOUBLE CHAIN WIDE BOOM	
Max depth	22' (671 cm)
Standard widths range	42"-60" (107-153 cm)
Special widths range	40"-60" (102-153 cm)
TRIPLE CHAIN BOOM	· · ·
Max depth	14' (427 cm)
Widths range	54"-72" (137-183 cm)

Note: dependent on configuration and options

Engine

01/16

Model	Cummins QSK 19
Max horsepower	760 hp (567 kW)
Max no load rpm	2.100 rpm
Fuel tank capacity	430 gal (1.630 l)
Fuel consumption at full load	36 gal/hr (136 l/hr)
Cooling rating adequate for 122° F	(50° C) ambient air
temperature @ 8 000 ft (2 438 m) a	alt

Air cleaner: dry type, 2 stages with pre-cleaner and automatic dust ejection

Operating and Transport Weight

Note: dependent on configuration and options

Trencher Drive

Hydrostatic: four pumps and two motors capable of transmitting full engine horsepower

Flywheel gearboxes, shaved, helical gearing, case hardened for extreme shock load

Infinitely variable digging attachment speeds:

Sectional Boom

4 operator selectable digging speed ranges:

0-3	50) fpm	(0-107	m/	min
0-4	430) ḟpm	(0-131	m/	min
0-50	00	fpm	(0-152	m/	min
0-5	70	fpm	(0-174	m/	min
Tailwheel diameter			4′ (1	22	cm

Cutters: rotary carbide tipped 1 1/2" (3.8 cm) shank diameter Digging chain: 67/D9N

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction Infinitely variable speed: forward and reverse

Speed ranges:

....0-2.1 mph (3.36 km/hr) High range...

 Low range.....0-1.1 mph (1.76 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Overall track length......15' 8" (477 cm) Track pad type: single, double or triple grouser Track chain type: Caterpillar 62/350 Track pad width......2' 6" (76 cm)

draulic Transmission

Pressure and flow compensated (load sensing)				
Pump flow maximum	65 gpm (245 l/min)			
Pressure setting	2.500 psi (172 bar)			
Oil tank capacity				

Hydrostatic: one pump and two motor Reversible and shiftable Belt speed infinitely variable....0-900 fpm (0-275 m/min) Discharge direction: right or left or.....21' 0" (640 cm)

)ischarge	height	8	' 1″	(246	cm)
-	or	9'	10"	(300	cm)

Transport Dimensions

Length with boom and guard:

-	.
	8 ft boom: 49'-9" (1.514 cm)
	10 ft boom: 51'-3" (1.562 cm)
	12 ft boom: 52'-11" (1.613 cm)
	14 ft boom: 54'-9" (1.665 cm)
	16 ft boom: 56'-5" (1.718 cm)
	18 ft boom: 58'-2" (1.772 cm)
	20 ft boom: 60'-0" (1.828 cm)
	22 ft boom: 61'-10" (1.884 cm)
	24 ft boom: 63'-8" (1.940 cm)
Longth without boom:	· · · ·

Length without boom: 0

only tractor with stabilizers	40° 11″ (1.247 cm)
Width14' 6" (441 cm) with 2'	6" (76 cm) track pads*
Height with low cab	13' 3" (405 cm)
* Width could be reduced to 13' 7" ((15 cm) removing

digging motors

Main Available Devices

ALLO01 Air compressor

ALL003	Side	mounte	ed truck	loading	conveyor	-	not
	folda	ble and	within tr	ansport	dimension		

- ALL010 Automatic greasing
- ALL012 Safety devices (flashing light, rear-view mirror, external emergency buttons)
- **OPT001** Lateral cleaners
- **OPT002** Fuel pump
- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year OPT012 Work light package
- OPT014 Video Camera
- OPT015 3DGPS System for automatic machine guidance
- **OPT018** Closed engine doors
- OPT023 Remote control for maintenance

Focus on

HAINSAW

1

Trenching technology has developed into the most economical and cost efficient method for opening ditches for utilities, cables, pipelines, rock excavation in surface mining and construction.

Tesmec has become the market leader in the major market areas as a guarantee of performance and reliability in hard working conditions.



FLEXIBLE SOLUTIONS TO ENLARGE THE CUT

Sometimes the width of the trench required by customer is not available with only one Tesmec trencher, so we have developed different procedures for wide trench excavation:

> **SINGLE CUT** to be enlarged by excavator

DOUBLE CUT to be cleaned by excavator (in some cases)



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EASIER TRANSPORTABILITY

LOWER COST AND TIME OF TRANSPORTATION

JOB SITE ARRANGEMENT

HIGHER AVAILABILITY

TESMEC ON

ORGANIZATION SUPERVISION CONSULTANCY ANALYSIS

THE JOB SITE

2

SINGLE CUT METHOD



CUTTING ROCK METHODS

ROCKSAW PILOT TRENCH PROCEDURE

Optimized time efficiency and lower costs.











The Rocksaw machine digs a narrow trench up to the final, required depth. This first excavation allow to crush part of the rock making easier the enlarging of the trench to its final width. Then the Chainsaw machine enlarges the trench to its the final width, and clears it.

Thanks to the Rocksaw pilot trench, the Chainsaw excavates the trench to its final dimensions **2 to 5 times faster**.





2

PILOT TRENCH METHOD



HARD ROCK TRENCHING SOLUTIONS

M3





Trenchlnնe Trenchln<u>tel</u>____

DGPS guidance system:

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS

SINGLE CHAIN





FEATURES AND APPLICATIONS

Tesmec's smallest torque converter equipped unit @ 350 hp features very high chain pull and very low chain speed. Oriented toward trenching requirements in highly abrasive and extreme rock conditions. TrenchTronic 3.0 equipped.

DOUBLE CHAIN





PIPELINE CONSTRUCTION



Underground Powerlines

Urban Drainage works



CHANNEL EXCAVATION

WATER AND SEWAGE NETWORKS INSTALLATION





M3 **TECHNICAL SPECIFICATIONS**

42'-4" (1.290 cm)

44'-7" (1.359 cm)

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Load control: automatic optimal digging performance feature

Auto stabilizers or adjustable bern scrapers on chainsaw models (optional)

Tool box/battery box with locking door

Engine doors with security locks

Fuel and hydraulic tank: aircraft guality locking caps Stabilizers / dirt drags: automatically adjust to terrain changes

Lights: 24 V forward facing Digging chain boom top roller

Hydraulic digging chain adjustment

Vibration isolator mount: used on engine, radiator and oil cooler

Conveyor fold: hydraulic winch

Electrical system: 24 V starting, 24 V controls

Trenching Dimensions

DOUBLE CHAIN ATTACHMENT

• Depths.... 6' through 12' (183 cm through 366 cm) • Widths....26" through 40" (66 cm through 102 cm) SINGLE CHAIN ATTACHMENT

Depths......6' through 8' (183 cm through 244 cm)

- Widths.....14" through 20" (35 cm through 51 cm)
- Note: dependent on configuration and options

Engine

01/16

Model	CAT C9 ACERT Tier 3
Max horsepower	
Max no load rpm	2.200 rpm
Fuel tank capacity	
Fuel consumption at full lo	ad18.6 gal/hr (70.4 l/hr)
Cooling rating adequate for	135° F (57.2° C) ambient

air temperature Air cleaner: dry type, centrifugal pre-cleaner with

primary and secondary filters Oil filter: full flow canister

Fuel filter: Primary and water separator Operating range: 16 hours

Operating and Transport Weight

Weight......95,000-135,000 lbs (43.091-61.235 kg) Ground pressure......13.5-18.8 psi (0.93-1.29 kg/cm²) Note: dependent on configuration and options

Trencher Drive

10' (305 cm)

12' (366 cm)

This powertrain is comprised of several components
electronically controlled transmission driving a
heavy-duty differential, which transmits power to the
headshaft via sprockets and multi-strand roller chain
Five operator selectable digging speed ranges:
1st: 115-157 fpm (35-48 m/min
2nd: 151-206 fpm (46-63 m/min
4th: 288-394 fpm (88-120 m/min
5th: 412-562 fpm (126-171 m/min
Cutters: rotary carbide tipped 1,5" (3.81 cm) shant diameter

Chain option: 54/345

Note: chain speed are "as calculated" per a set-point horsepower output and may vary accordingly

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed: forward and reverse

Speed ranges:

• High range.....0-1.7 mph (0-2.72 km/hr) • Low range......0-0.85 mph (0-1.36 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Overall track length c/c.....12' 6" (381 cm) Track pad type: single, double or triple grouser Track chain type: Caterpillar D6 Track pad width.....2' (61cm)

Model: Caterpillar

Oil filter: 6 micron paper cartridge integral filter Electronically controlled utilizing (5) digging speeds Capacity (refill).....10 gal (38 l)

Hydraulic Transmission

Pressure and flow compensation	ated (load sensing)
Pump flow maximum	
Pressure setting	2.750 psi (189 bar)
Dil tank capacity	97 gal (367 l)

Cross Conveyor

Hydrostatic: one pump and two motor Reversible and shiftable Belt speed infinitely variable..0-1.000 fpm (0-305 m/min) Discharge direction: right or left Conveyor belt width......2' 6" (76.2 cm) Conveyor length......12' 4" (376 cm) Discharge height.....6' 1" (186 cm) **Transport Dimensions**

Length with crumbshoe:6 ft boom: 38' 0" (1.158 cm)
10 ft boom: 42' 4" (1.290 cm)
Width with 2' (61 cm) track pads8' 9" (267 cm)
Height with cab11' 2" (340 cm)
Height with cab elevated14' 8" (447 cm)
Height over cab with single grouser pads11' 2" (340 m)
Height over crumbshoe cylinder11'8" (356 cm)

Main Available Devices

ALLO01 Air compressor

- ALL008 Cold weather package for operations down to -25°C (-13° F) (Closed engine doors already included)
- **OPT001** Lateral cleaners

OPT002 Fuel pump

- OPT005 Laser automatic system for depth control
- Subscription for the Remote Asset Management (monitoring via GPRS) per year **OPT011**
- OPT012 Work light package
- OPT015 3D GPS system for automatic machine quidance
- OPT016 Cab anti-vandalism window covers







TrenchIntel

DGPS guidance system:

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

Tesmec's largest torque converter equipped unit @ 440 hp features industry leading high chain pull and very low chain speed. Oriented toward trenching requirements in highly abrasive and extreme rock conditions. TrenchTronic 3.0 equipped.



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UNDERGROUND POWERLINES

PIPELINE CONSTRUCTION

INSTALLATION

Urban Drainage works



CHANNEL EXCAVATION

WATER AND SEWAGE NETWORKS INSTALLATION



M5 TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Load control: automatic optimal digging performance feature

Battery box and toolbox with locking door

Hydraulic tank: pressurized with 5 psi (0.30 bar) filtered breathers Vibration isolator mount: used on engine, radiator, oil

cooler, and exhaust silencer Stabilizers / dirt drags: automatically adjust to terrain

changes

Lights: 24 V forward facing

Digging chain boom top roller

Hydraulic digging chain adjustment Electrical system: 24 V starting, 24 V controls

Trenching Dimensions

DOUBLE CHAIN ATTACHMENT

• Depths.... 6' through 16' (183 cm through 488 cm)

- Widths.....30"-42" (76-107 cm) max 14' (427 cm)30"-36" (76-91 cm) max 16' (488 cm)
- SINGLE CHAIN ATTACHMENT • Depths......6' through 8' (183 cm through 244 cm)

Engine

Model	CAT C13 ACERT
Max horsepower	440 hp (328 kW)
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption at full load	22.7 gal/hr (86 l/hr)
Cooling rating adequate for 12	25° F (51.7° C) ambient
air temperature	

Air cleaner: dry type, centrifugal pre-cleaner with primary and secondary filters

Operating and Transport Weight

Weight......137,000-167,000 lbs (62.142-75.750 Kg) Ground pressure......14.4-17.5 psi (1.01-1.23 kg/cm²) Note: dependent on configuration and options

Trencher Drive

This powertrain is comprised of several components: an electronically controlled transmission driving a heavy-duty differential, which transmits power to the headshaft via sprockets and multi-strand roller chain Five operator selectable digging speed ranges:

......1st: 98-197 fpm (30-60 m/min)2nd: 129-259 fpm (39-79 m/min)3rd: 180-361 fpm (55-110 m/min)

Note: chain speed are "as calculated" per a set-point horsepower output and may vary accordingly

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed: forward and reverse

Speed ranges:

High range......0-1.3 mph (0-2.1 km/hr)
 Low range.....0-0.9 mph (0-1.5 km/hr)
 Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Transmission

Model: Caterpillar

Oil filter: 6 micron paper cartridge integral filter Electronically controlled utilizing (5) digging speeds Capacity (refill)......10 gal (38 l)

Hydraulic Transmission

Pressure and flow compensated (load sensing) Pump flow maximum......45 gpm (170 l/min) Pressure setting......2.500 psi (172 bar) Oil tank capacity......97 gal (367 l)

Cross Conveyor

Hydrostatic: one pump and two moto	ors			
Reversible and shiftable				
Belt speed infinitely variable0-1.000	fpm	ı (0-3	305 m/	min)
Discharge direction: right or left				
Conveyor belt width	.2'	6"	(76.2	cm)
Conveyor length	12'	9"	(389	cm)
Discharge height	6′	9"	(206	cm)

Transport Dimensions

.ength	with	crumbshoe:		
-		6	ft	hoo

6 ft boom: 39' 7" (1.206 cm)
Widths:10'4" (315 cm) with 2'6" (76 cm) track pads
9'10" (300 cm) with 2'0" (61 cm) track pads
Height with cab11' 6" (351 cm)
Height with cab elevated13' 11" (424 cm)
Height with crumbshoe11' 10" (361 cm)
*Dimensions of 16' boom without crumbshoe (not available)

Main Available Devices

ALL001 Air compressor ALL008 Cold weather package for operations down to -25°C (-13° F) (Closed engine doors already included)

- **OPT001** Lateral cleaners
- OPT002 Fuel pump
- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year OPT012 Work light package
- OPT015 3D GPS system for automatic machine quidance
- OPT016 Cab anti-vandalism window covers

A complete devices list is available at page 0040

Keep you updated on: www.tesmec.com

TLM 60/60





Trench Inte Trenchintel

DGPS guidance system: Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

Designed and built for digging in extremely wet conditions, the TLM 60/60 has a 31.5" high floatation track pad and superior ground clearance to dig in wet terrains. With a max digging depth at 14' and max digging width at 60", the TLM 60/60 is perfect for the excavation of water mains and large utility projects.

The 42" wide side shift cross-conveyor allows for spoil discharge on either side. The TLM 60/60's 18 sq. ft. cab allows for superior operator comfort.



Drainage works

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IRRIGATION WORKS



TLM 60/60 TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Cab size: 18 sq. ft.

Toolbox with locking doors

Engine doors with security locks

Fuel and hydraulic tank: aircraft quality locking caps Vibration isolator mount: used on engine, radiator, oil

cooler, exhaust silencer

Electrical system: 24 V

Removable digging attachment: for flexibility of transport

Crumbshoe assembly: truss design for strength and modular design for interchangeable components and transport options

Crumbshoe side panels: for ditch support and safety

Trenching Dimensions

Digging depth	5′-14′	(152-	427	cm
Digging width		60"	(153	cm

Engine	
Model	CAT C15 ACERT
Max horsepower	540 hp (403 kW)
Max no load rpm	2.100 rpm
Fuel tank capacity	340 gal (1.287 l)
Fuel consumption at full load28	.9 gal/hr (109.4 l/hr)
Operating range	11.7 hours
Cooling rating adequate for 130° F	[:] (54° C) ambient air
temperature	

Air cleaner: dry type, centrifugal pre-cleaner with primary and secondary filters

Operating and Transport Weight

Trencher Drive

Hydrostatic: two pumps and two motors

Double chain (D4E)

Digging chain speed range: variable to 200 ft/min (60,9 m/min)

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed: forward and reverse Speed ranges:

- High range.....0-1.7 mph (0-2.74 km/hr)
- Low range......0-0.85 mph (0-1.37 km/hr)

Tracks

Overall track length20' 0" (609 cm) Track pad type: single

Track chain type: Caterpillar D6

Cross Conveyor

Hydraulic Transmission

Pressure and flow compensat	ed (load sensing)
Pump flow maximum	65 gpm (246 l/min)
Pressure setting	3.250 psi (224 bar)
Dil tank capacity	

Transport Dimensions

Length, complete unit w/crumbshoe and side panels:14' boom: 57' 1" (1.740 cm) Width:...12' 8"(386 cm) with 40" (102 cm) track pads Height with cab......11' 6" (351 cm) Height over crumbshoe side panels and single grousers:.........13' 9" (420 cm)

Main Available Devices

ALLO01 Air compressor

ALL008 Cold weather package for operations down to -25°C (-13° F) (Closed engine doors already included)

OPT005 Laser automatic system for depth control

OPT012 Work light package

OPT016 Cab anti-vandalism window covers

OPT020 Laying box (light or heavy)







Re.M

Remote Control with: Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

High-mobility off-road truck (4WD) equipped with bucket chain attachment, specially designed to be employed in dirt and soft rock excavation.

Radio-remote controlled machine. Central Tire inflation system (CTIS) that permits to control tires pressure from the cab. The 800 can cut trenches up to 6' 7'' (200 cm) deep and 36'' (91 cm) wide.





Drainage works

IRRIGATION WORKS



800 WHEELED TRENCHER TECHNICAL SPECIFICATIONS

Standard Features

Three seats cab, air conditioned and pressurized Remote control system for digging operations, with full control in steering and translation

Load control Heavy duty axels

High tensile steel frame Working lights Electrical system: 24 V

Trenching Dimensions

Digging	depth	2′-6′7″	(61-	200	cm)
Digging	width		.36"	(91	cm)

Engine

Air cleaner: dry type, 2 stage with pre-cleaner Alternator: 140A, 24 V

Operating and Transport Weight

Trencher Drive

Hydrostatic: two variable displacement pumps and one radial piston motor

Digging chain speed: selectable 3 speeds Chain: double chain with buckets Digging teeth: ¾" shank diameter, rotary carbide insert

Powershift

Speeds: 6 forward, 1 reverse Torque converter Lock-up

Wheels Drive

ROAD: selectable 2WD & 4WD, up to 50 mile/h (80 km/h) DIGGING: hydrostatic drive, infinite speed from 0 to 656 ft/h (0-200 m/h)

Oversized low pressure tires (16.00 x 25)

Suspensio

Hydro-pneumatic suspensions system Self- leveling Slope-control

Hydraulic Transmission

Oil

(

tank ca	ipacity	106 gal (400 l)
Cross	Conveyor	

Discharge direction: right or left	t
Belt speeds: 7	
Belt length	16' 11" (515 cm)
Belt width	

Transport Dimensions

Length	
Width	
Height	
0	

Main Available Devices

ALL001 Air compressor OPT002 Fuel pump OPT005 Laser automatic system for depth control

OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year OPT012 Work light package

BUCKET WHEEL TESMEC Do the dirty work



Bucket family - the most productive machines for loose material and able to dig different types of soil: well layered and brittle rock, moderately weak rock, compacted gravel and cobbles, soft soils or hard soils (like silky sand or hardpan), hard & soft dirt, clay, laterite soil, permafrost. Tesmec Bucket Wheel trenchers are equipped with a particular digging attachment that allows you to remove a large amount of material, complying with the digging dimensions.









1.Re.M guarantees a continuous remote monitoring of machine position (GPS) and operating conditions.

2. Pressurized cab with air conditioning, heating, sound suppression and ROPS (Rollover Protective Structure) structure.

3. The roller, hubs, bearings, and spindle assemblies are one unit. They bolt onto the Truck Body. If one component of the assembly is damaged it can be replaced without replacing the entire unit.

4. Rock, dirt, wet materials, wet and frozen soils and even permafrost can be dug with customized pocket types, patterns and buckets which are tailored to individual need.
5. Track tilt angle 10° with automatic/manual operation feature.

6. A sloped angle can be controlled by the cables installed on the attachment.

7. Automatically adjusts the speed of the machine based on the excavated material strength.

They can be equipped with either conical or spade tools to ensure the maximum productivity, this is dependent of the type of material which is being trenched.

All conveyors for the Tesmec Bucket Machine are designed with wing-type drive pulleys, this ensures that any material trapped under the belt will be ejected out of the pulley instead of building up on it.

775DT BW Dirt series

ESMEC

<u> Trencher</u>





TrenchIntel

DGPS guidance system:

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

Bucket Wheel version of the 775DT CS, this light bucket-trencher can grant an even higher productivity in terms of meters-yards per hour. TrenchTronic 3.0 equipped, this machine has been specially developed to be employed in "dirt" excavation; its compact dimensions and weight make the 775DT BW very easy to use and transport.





PIPELINE CONSTRUCTION



Underground Powerlines Installation



DRAINAGE WORKS

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IRRIGATION WORKS



WATER AND SEWAGE NETWORKS INSTALLATION



LONG DISTANCE NETWORKS



using single grouser.

775DT "DIRT SERIES" BUCKET WHEEL **TECHNICAL SPECIFICATIONS**

Standard Features

Pressurized cab with air conditioning, heating, sound suppression and ROPS structure Electrical system: 24 V

- Self-leveling (tilting) undercarriage:
- Track tilt angle: 10°
- Automatic/manual operation

Trenching Dimensions

Max depth......6' 6" (198 cm) Note: ask to Tesmec Trenchers Technical Department for the max width at max depth configuration

Engine

Model	CAT C7.1 ACERT Tier 3
Max horsepower	225 hp (168 kW)
Max no load rpm	2.200 rpm
Fuel tank capacity	121.5 gal (460 l)
Fuel consumption	11.9 gal/hr (45 l/hr) at full load
Cooling rating adequation	te for 130° F (54° C) ambient air

Air cleaner: dry type 2 stages with pre-cleaner and automatic dust ejection

Operating and Transport Weight

Estimate	ed weight		34,171-52,000	bs
			(15.500-23.586 k	g)
Ground	pressure5.5-6.11	psi	(0.38-0.42 kg/cm	1 ²)

Note: dependent on configuration and options

Trencher Drive

Hydrostatic: one pump and two motors

Infinitely variable digging wheel speeds.....0-12 rpm Dirt cutters: spade-type teeth

Fixed crumbshoe: with manual quick disconnect Wheel truck assemblies:

- · Six assemblies, two upper and one lower with standard 10" (25.4 cm) diameter wheels
- Modular designed "Truck-spindle and bearings" are • the same on all assemblies

Headshaft assembly:

- · Alloy steel shaft with keyway, hubs and tapered keys for multiple bucket setups
- Hardened, reversible split drive sprockets

Crawler Drive

Hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed: forward and reverse

Speed range..... 0-2.1 mph (0-3.3 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Overall track length	11′	2″	(340	cm)
Track pad type: single grouser, chan	nfere	d ec	lges	
Track chain type: FL6			0	
Track pad width		2' 7	7" (80	cm)

Hydraulic Transmission

Pressure and flow compensated	(load sensing)
Pump flow maximum	53 gpm (201 l/min)
Pressure setting	2.600 psi (180 bar)
Oil tank capacity	

Cross Conveyor

9'-8" [296cm]

Pressure and flow compensated pump with dual hydraulic drive motors reversible and shiftable Belt speed infinitely variable..0-820 fpm (0-250 m/min) Discharge direction: right or left

Conveyor belt width	2	' 6"	(76.2	cm)
Conveyor length	9)' 8"	(295	cm)
Discharge height	4′	11"	(150	cm)

Transport Dimensions

_ength	34' 2" (1.041 cm)
Width	
Height over cab	10' 2" (310 cm)
with 3 bottom buckets removed	

Main Available Devices

ALL001 Air compressor

OPT002 Fuel pump

- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- OPT015 3D GPS system for automatic machine guidance

OPT016 Čab anti-vandalism window covers OPT023 Remote control for maintenance

Focus on



The demand for food is growing due to the world population increase: to cover the growing demand for food, the agricultural sector needs more and more fertile and productive soils. Tesmec contributes to meet this requirement through the series of Tesmec trenchers and surface miners for **agricultural applications**. Tesmec trenchers and surface miners can be used for many fundamental operations in the agricultural field.









AUTOMATIC LASER FOR GRADE CONTROL AUTOMATIC TILE LAYING GPS SYSTEMS

> for DRAINAGE WORKS with

constant slope of the trenches automatic channel excavation



775 DT SERIES SURFACE MINERS

for SOIL RECLAMATION WORKS with

rocky layers removal terrain selection automatic digging control

light weight low ground pressure high floating capability high productivity ease of use transportability maneuvrability

AGRICULTURAL **A**PPLICATION

AUTOMATIC LASER FOR GRADE CONTROL INTEGRATED GPS SYSTEMS

> for IRRIGATION NETWORKS with

> > controlled slope precise shape accurate path



AUTOMATIC

ATTITUDE



AUTOMATIC PIPE LAYING The tile laying system includes: gravel hopper, laying crumbshoe, guide rollers, horizontal axis reel carrier

AUTOMATIC TRENCH EXCAVATION Laser system can drive the machine to dig the trenches in the right way

AUTOMATIC SLOPE AND DEPTH CONTROL Laser control is used to keep a constant digging depth or slope



powered by



ELECTRONIC MACHINE CONTROL OPERATOR SELECTABLE DIGGING PRESSURE FULLY AUTOMATIC OPERATION REMOTE DIAGNOSTIC SYSTEM







Agricultural needs meet for deep drainage tile pipe requirements

> FBK-Series COMING SOON







Re.M

Remote Control with: Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS

7' ROCK 11"-16" BUCKET





FEATURES AND APPLICATIONS

The 1075 BW model has been designed as a high-productivity trencher for pipelines and utilities projects in dirt and light rocky soils. Its buckets can be equipped with conical or spade tools to ensure the maximum productivity according to the relevant ground conditions.



PIPELINE CONSTRUCTION

Underground Powerlines installation



IRRIGATION WORKS



CHANNEL EXCAVATION



WATER AND SEWAGE NETWORKS





1075 BUCKET WHEEL TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Load control: operator selectable digging pressure, automatic operation Electrical system: 12 V /24 V

Trenching Dimensions

Digging depth, dirt.....optional 8 ft (213 cm) Digging depth, dirt.....optional 8 ft (244 cm) with the Tesmec "Extended-Depth Buckets" Digging depth, rock......7 ft (213 cm) Widths of cut: 7 ft-Dirt.....20" Min. (11" Bucket) to max. 40" (28" bucket) (51-102 cm)

Widths of cut: 8ft-Dirt......20" Min. (11" Bucket) to Max. 24" (16" Bucket) (51-61 cm)

Widths of cut: 7ft-Rock.....20" Min. (11" Bucket) to 26" (16" Bucket) (51-66 cm)

Engine

01/16

Model	.CAT C9 ACERT Tier 3
Max horsepower	
Max no load rpm	2.200 rpm
Fuel tank capacity	
Fuel consumption at full load.	16.9 gal/hr (64 l/hr)
Cooling rating adequate for 12	5° F (51.7° C) ambient
air temperature	

Air cleaner: dry type, centrifugal precleaner with primary and secondary filters

Operating and Transport Weight

Weight "Dirt"......83,000-92,000 lbs (37.647-41.730 kg) Weight "Rock"....87,000-92,000 lbs (39.462-41.730 kg) Ground pressure......10.1-11.2 psi (0.70-0.77 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: two pumps and two motors capable of transmitting full engine horsepower Digging wheel speed.....0-11.5 rpm

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction

Infinitely variable speed: forward and reverse

High range......0-2.5 mph (0-4.0 km/hr)
 Low range.....0-1.3 mph (0-2.1 km/hr)
 Integral parking brake: spring applied, hydraulic release, wet disc brake

Tracks

Overall track length......10' 9" (328 cm) Track pad type: single, double, or triple grouser Track chain type: Caterpillar D5

Track pad width.....2' 8" (81 cm)

Processing and flow componented (loss

Pressure and flow compensated	i (load sensing)
Pump flow maximum	45 gpm (170 l/min)
Pressure setting	2.500 psi (172 bar)
Oil tank capacity	108 gal (409 l)

Conveyor

Pressure and flow compensated	pump with dual
hydraulic drive motors	
Reversible and shiftable	
Beltspeedinfinitely variable 0-1.00)0fpm(0-304.8m/min)
Discharge direction: right or left	
Conveyor belt width	2' 12" (91.4 cm)
Conveyor length	
Discharge height	

9'-9" Tracks

[298cm]

4'-2'

[127cm]

Transport Dimensions

Lenath	.38' 4" (1	.168	cm)
Width without digging motors	9' 9"	(297	cm)
Width with digging motors	10′ 2″	(310	cm)
Height with cab	10' 9"	(327	cm)
Height with cab elevated	13′ 2″	(401	cm)
Height with crumbshoe	10' 10''	(330	cm)
(over Cab with single grouser pads)			
(3-bottom buckets and 2-top bucket set-up" & 3 and 3 on "rock set-up")	ts remove	ed on	"dirt
Height with roll-up crumbshoe	11' 5"	(348	cm)
Lover evilador with cindle arouser po	del with i	nenne	<u>הי וודי</u>

(over cylinder with single grouser pads) with respective (dirt/rock) buckets removed

Main Available Devices

ALL001 Air compressor OPT002 Fuel pump OPT005 Laser automatic system for depth control OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year OPT012 Work light package OPT017 Slopers OPT023 Remote control for maintenance

A complete devices list is available at page 0040

Keep you updated on: **www.tesmec.com**

PICTURES & DRAWINGS CAN BE DIFFERENT ACCORDING TO TECHNICAL SPECIFICATIONS - UPDATING PROGRAMME VARIATIONS WITHOUT NOTICE ARE POSSIBLE

1175XHD





Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS







FEATURES AND APPLICATIONS

60 metric ton-class Bucket Wheel trencher for mid to big size pipelines and utilities excavation in "dirt" and light rocky soils; the 1175XHD model is as a high-productivity machine that can be equipped with conical or spade tools to ensure the maximum productivity according to the different ground conditions.

ROCK







PIPELINE CONSTRUCTION

UNDERGROUND POWERLINES



CHANNEL EXCAVATION

WATER AND SEWAGE NETWORKS INSTALLATION



1175XHD BUCKET WHEEL TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) External support structure for elevating cab, wear-pad design with adjustment

Load control: operator selectable digging pressure, automatic operation

Battery box and toolbox with locking door

Engine doors with security locks

Fuel and hydraulic tank: aircraft guality locking caps Flywheel gearboxes and hydraulic tanks: pressurized with 5 psi (0.3 bar) filtered breathers

Vibration isolator mount: used on engine, radiator, oil cooler, and exhaust silencer

Stabilizers / dirt drags: automatically adjust to terrain changes

Lights: 24 V forward facing Electrical system: 12 /24 V

Trenching Dimensions

Depths.		3	ft min	(91	cm w	vith bo	oom le	evel)
					m	ax 9 ft	: (274	cm)
Widths	of cut,	Dirt	30"	(76	cm) t	to 54"	(137	cm)
N # / 1.1	e .	- -				~ ~ ~	1, 170	

Note: dependent on configuration and options

Engine

Model	CAT C13 ACERT Tier 3
Max horsepower	440 hp (328 kW)
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption at full load	22.7 gal/hr (86 l/hr)
Cooling rating adequate for 122	° F (50° C) ambient air
temperature	

Air cleaner: dry type, centrifugal precleaner with primary and secondary filters

Operating and Transport Weight

Weight"Dirt"...135,000-142,000lbs (61.235-64.410kg) Weight "Rock".....142,000 lbs (64.410 kg) Ground pressure......15.5-16.2 psi (1.09-1.14 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: four pumps and two motors capable of transmitting full engine horsepower Three operator selectable wheel speeds: 0-6.8 rpm, 0-10.3 rpm, 0-13.7 rpm Center pull articulated wheel Heavy-duty trapezoid design boom Heavy-duty hydraulic lift and tilt cylinders Fixed crumbshoe Hardened alloy steel shaft with multiple flanges for easy "digging-width" changes Hardened reversible split drive sprockets Four truck assemblies, two upper and two lower with standard 14" (35.6 cm) ride diameter wheels

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction Infinitely variable speed: forward and reverse Speed ranges: • High range.....0-3.0 mph (0-4.8 km/hr) • Low range......0-1.6 mph (0-2.6 km/hr) Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Overall track length	12' 2" (371 cm)
Track pad type: single, double or t	riple grouser
Track chain type: Caterpillar D7	
Track pad width	2' 6" (76 cm)
Optional track pad width	2' (61 cm)

Hvdraulic Transmission

Pressure and flow compensat	ited (load sensing)
^p ump flow maximum	45 gpm (170 l/min
Pressure setting	
Dil tank capacity	

[573cm]

Cross Conveyor

Thessure and now compensated pump with t	uuui
hydraulic drive motors	
Reversible and shiftable	
Belt speed infinitely variable0-750 fpm (0-229 m/r	min)
Discharge direction: right or left	
Conveyor belt width	cm)
Discharge height: variable	
Manual conveyor fold	

Transport Dimensions

Length	44' 5" (1.354 cm)
Width	10' 4" (315 cm)
with digging motors pads	removed, 2' 6" (76 cm) D7 track
Height	14' 1" (429 cm)
over wheel with (3) I (2) from the top	ouckets removed from bottom and

ALLO01 Air compressor

ALLO08 Cold weather package for operations down to -25°C (-13° F) (Closed engine doors already included)

- OPT002 Fuel pump
- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- OPT016 Cab anti-vandalism window covers
- **OPT017** Slopers







Re.M **Remote Control with:**

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS





FEATURES AND APPLICATIONS

70 metric ton-class Bucket Wheel trencher conceived as a high-productivity machine for big diameter pipelines and utilities projects in dirt and light rocky soils, this model can dig up to 9' 6" (290 cm) deep and 66" (168 cm) wide. Its buckets can be equipped with conical or spade tools to ensure the maximum productivity according to the different ground conditions.





PIPELINE CONSTRUCTION



CHANNEL EXCAVATION

WATER AND SEWAGE NETWORKS INSTALLATION

UNDERGROUND POWERLINES INSTALLATION



1375 BUCKET WHEEL TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

--- [86cm] 14'-0" Tracks(Extended)

[427cm]

6'-5" [195cm]

Elevating cab module with roll over protection (ROPS) Load control: operator selectable digging pressure, automatic operation

Toolbox with locking doors

Engine doors with security locks

Fuel and hydraulic tank: aircraft quality locking caps Gearboxes and hydraulic tanks: pressurized with 5 psi

(0.3 bar) filtered breathers Flywheel gearboxes: shaved, helical gearing, case

hardened for extreme shock load Vibration isolator mounts: used on engine, radiator,

oil cooler

External support structure for elevating cab, wear-pad design with adjustment

Center pull articulated wheel

Radial arm articulation

Heavy-duty trapezoid design boom

Heavy-duty hydraulic lift and tilt cylinders

Fixed crumbshoe

Extendable undercarriage

Electrical system: 24 V starting, 12 V controls

Trenching Dimensions

Depths minimum 3 ft (91 cm) with boom level.....maximum 9' 6" (290 cm)

Widths of cut.....from 36" (91 cm) to 66" (168 cm) Note: dependent on configuration and options

Engine

Model	CAT C15 ACERT Tier 3
Max horsepower	
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption at full loa	ad28.9 gal/hr (109.4 l/hr
Cooling rating adequate for	122° F (50° C) ambient air
temnerature	

Air cleaner: dry type, centrifugal pre-cleaner with primary and secondary filters

Operating and Transport Weight

Weight..........160,000-175,000 lbs (72.575-79.379 kg) Ground pressure.......16.1-17.7 psi (1.13-1.24 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: four pumps and two motors Three operator selectable digging speed ranges:

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction
Infinitely variable speed: forward and reverse
Speed ranges:
High range......0-2.06 mph (0-3.3 km/hr)

Inigit range......0-2.06 mpt (0-3.3 ktr/m)
 Low range......0-1.17 mph (0-1.87 km/hr)
 Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Overall track length......12' 3" (373 cm) Track pad type: single grouser Track chain type: Caterpillar D7 Track pad width.......2' 10" (86 cm)

Headshaft Assembly

Hardened alloy steel shaft with multiple flanges for easy "digging-width" changes

Hardened reversible split drive sprockets

Wheel Truck Assemblies

Four assemblies, two upper and two lower with standard 14" (35.6 cm) ride diameter wheels Factory set heavy-duty tapered roller bearings Heavy-duty mechanical seals with replaceable elements

Hydraulic Transmission

Pressure and flow compensated	(load sensing)
Pump flow maximum	.45 gpm (170 l/min)
Pressure setting	2.500 psi (172 bar)
Oil tank capacity	

Cross Conveyor

Hydrostatic: one pump and two motors Reversible and shiftable Belt speed infinitely variable...0-1.000 fpm (0-305 m/min) Discharge direction: right or left Conveyor belt width......4' (122 cm) Discharge height: variable Manual conveyor fold

Transport Dimensions

Length Width with digging motors removed, 2' 1 pads	45' 3" (1.379 cm) 12' (366 cm) 10" (86 cm) D7 track
Height (over wheel with lower and uppe and single grouser pads)	14' 4" (437 cm) er buckets removed,
Width with extended tracks Height over wheel with (3) buckets remov (2) from the top	14' (427 cm) 13' 8" (417 cm) ved from bottom and

Main Available Devices

ALL001 Air compressor

ALL008 Cold weather package for operations down to -25°C (-13° F) (Closed engine doors already included)

OPT002 Fuel pump

- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- OPT016 Cab anti-vandalism window covers
- OPT017 Slopers







Re.M Remote Control with: Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions











FEATURES AND APPLICATIONS

Tesmec's largest Bucket Wheel is conceived as a high-productivity machine for big diameter pipelines and utilities projects in "dirt" and light rocky soils. Its buckets can be equipped with conical or spade tools to ensure the maximum productivity according to the different ground conditions. No other trencher machine can grant such productivity in terms of linear meters per hour (foot per minute).





PIPELINE CONSTRUCTION

Underground Powerlines INSTALLATION



CHANNEL EXCAVATION

WATER AND SEWAGE NETWORKS INSTALLATION



1575 BUCKET WHEEL TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Load control: operator selectable digging pressure, automatic operation

Battery box and toolbox with locking door

Engine doors with security locks

Gearboxes and hydraulic tanks: pressurized with 5 psi (0.3 bar) filtered breathers

Flywheel gearboxes: shaved, helical gearing, case hardened for extreme shock load

Vibration isolator mount: used on engine, radiator, oil cooler, exhaust silencer, and cab

Center pull articulated wheel

Radial arm articulation with quick disconnect mast

Heavy-duty design boom

Heavy-duty hydraulic lift and tilt cylinders Extending undercarriage

Fixed crumbshoe

Electrical system: 24 V starting, 12 V controls

Trenching Dimensions

Depths.......3' 8" through 10'(112 cm through 305 cm) Width.......34"(86 cm) buckets 42"-52"(107-132 cm) Cut 15 or 18 buckets

Width.......46"(117 cm) buckets 54"-66"(137-168 cm) Cut 15 or 18 buckets

Note: dependent on configuration and options

Engine

Model	CAT C18 ACERT Tier 3
Max horsepower	630 hp (470 kW)
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption at full load.	34.6 gal/hr (131 l/hr)
Cooling rating adequate for 1	30° F (54.4° C) ambient
air temperature	

Air cleaner: dry type, centrifugal pre-cleaner with primary and secondary filters

Operating and Transport Weight

Weight......210,000-248,000 lbs (95.255-112.491 kg) Ground pressure......15.5-18.3 psi (1.09-1.29 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: four pumps and two motors capable of transmitting full engine horsepower

Three operator selectable digging speed ranges:1st: 0-345 fpm (0-105 m/min) (6 rpm)2nd: 0-518 fpm (0-158 m/min) (9 rpm)3rd: 0-633 fpm (0-193 m/min) (11 rpm) Cutters: spade type teeth, rotary carbide tipped 1 ½" (3.8 cm) shank diameter teeth, or ESC0 teeth Digging rims: double segmented, 2" (5.1 cm) plate main rims with multiple drilled false rims to accept 15, or 18 buckets

Buckets style: semi-round style

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction
Infinitely variable speed: forward and reverse
Speed ranges:
High range......0-2.4 mph (0-3.84 km/hr)
Low range.....0-1.30 mph (0-2.08 km/hr)
Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Overall track length......15' 8" (478 cm) Track pad type: single, double or triple grouser Track chain type: Caterpillar 62/350 Track pad width......3' (91 cm)

Headshaft Assembly

Hardened alloy steel shaft with multiple flanges for easy rim width changes

Hardened reversible split drive sprockets

Wheel Truck Assemblies

Modular spindle type assemblies for two lower trucks, using heavy duty tapered roller bearings

Heavy-duty mechanical seals

2 upper truck assemblies (1) front and (1) rear with 6" (15.2 cm) diameter high alloy steel shafts with extra heavy-duty bearings and self centering spacers

Hydraulic Transmission

Pressure and flow compens	ated (load sensing)
Pump flow maximum	
Pressure setting	2.500 psi (172 bar)
Oil tank capacity	

Cross Conveyor

Hydrostatic: one pump and two motors w/gear reducer Reversible and shiftable

Beltspeedinfinitelyvariable....0-1.000fpm (0-305m/min) Discharge direction: right or left

Conveyor belt width	4' (122 cm)
Conveyor length	
Discharge height	6' (183 cm)
Hydraulic winch lift and fold	

Transport Dimensions

Length, tractor	.27′	8"	(843	cm)
with no front counter weight				
Length, backend	28'	6"	(868	cm)
Width		12′	(366	cm)
with 3' (91 cm) track pads (w/motors	s rer	nov	ed)	
Height	14′	4″	(437	cm)
(over wheel with lower and upper b	buck	ets	remo	ved,
and single grouser pads)				
Height, tractor with cab	12	' 1"	(368	cm)
Height, tractor with cab elevated	14	6"	(442	cm)

Main Available Devices

ALLO01 Air compressor

OPT002 Fuel pump

OPT005 Laser automatic system for depth control

- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- OPT017 Slopers

ROCK HAWG *The drum beats rock*





Power, safety, and efficiency. The high capacity of the Rock Hawg machines reduce the need of units to a single unit working simultaneously on the proposed job sites, guaranteeing an easy job site to manage. The shock and vibration from Rock Hawg excavation process is negligible, and therefore the danger zone becomes a non-issue. The special drum attachment with carbide diggings tools accompanied with the high engine power allows for a very efficient hourly output per each unit.







TRENCHTRONIC 3.0 improves the ease of use of the trencher and make it less dependent on operator skills, while increasing the performance and having the highest reliability in very tough conditions of use.

Re.M guarantees a remote monitoring of machine position (GPS) and operating conditions.
 DUST SUPPRESSION SYSTEM allows to cut down the dust generated during the digging operations. It consists of: pump, spray nozzles and hoses to reach the areas to be sprayed.
 UPCUTTING EXCAVATION METHOD reduce vibrations and permits material loading.

6. NEW GENERATION DRUMS have smaller diameter, double spiral pick lacing and modified picks attack angle.

 REVERSE SPIRAL DRUM PATTERN makes not necessary to remove the loose excavated material before the next working phase in order to eliminate the vibrations and instability.
 LASER guarantees constant excavation depth, even if the ground is not properly leveled.
 DRUM STABILIZERS reduce induced vibrations and smooth operating conditions.

10. Rock Hawg provide the best cost efficiency and productivity, avoiding primary crushing.

Consistent excavated material size makes for no need of primary crushing, resulting in easy loading and hauling. Tesmec Rock Hawg is suitable to excavate even strong and unfractured rock (up to 120 MPa), making vertical walls and square corners while producing low amount of dust. Thanks to the laser system, the Rock Hawg machine can produce a very smooth surface ride with controlled inclination.

Tesmec Rock Hawg is environmentally friendly in terms of Noise and Vibrations Emissions.

1150XHD





Trench Inte TrenchIntel

DGPS guidance system: Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS

10'3'' 312 cm





FEATURES AND APPLICATIONS

The Rock Hawg version of the 1150XHD model has been designed for continuous surface mining; its 10'3" (312 cm) wide drum is employed in bulk-excavations projects and open-pit quarries. 50 metric ton-class operating weight, 440 hp engine, elevating cab, hydraulic stabilizers and TrenchTronic 3.0 equipped. It can work up-cutting or down-cutting by simply changing the attachment.





BULK EXCAVATION WORKS





RAILWAY SOIL PREPARATION



SURFACE MINING



...¥

Soil Reclamation

CHANNEL EXCAVATION


DOWN-CUTTING

UP-CUTTING

1150XHD ROCK HAWG TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Electrical system: 24 V

Gearboxes, fuel and hydraulic tanks: pressurized with 5 psi (0.3 bar) filtered breathers

Vibration isolator mounts: used on engine, radiator, oil cooler, exhaust silencer and cab

Trenching Dimensions

Engine

Model	CAT C13 ACERT Tier 3
Max horsepower	440 hp (328 kW)
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption at full load	
Cooling rating adequate for 122	2° F (50° Č) ambient air
temperature	

Air cleaner: dry type, 2 stages with pre-cleaner and automatic dust ejection

Operating and Transport Weight

Weight......116,845 lbs (53.000 kg) Ground pressure......16.6 psi (1.17 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: two pumps and two motors capable of transmitting full engine horsepower

Flywheel gearboxes: shaved, helical gearing, case hardened for extreme shock load

Infinitely variable digging attachment speeds

Drum tool tip diameter: 5'4" (163.5 cm)

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction
Infinitely variable speed: forward and reverse
Speed ranges:
High range......0-2.78 mph (0-4.46 km/hr)
Low range.....0-1.25 mph (0-2.01 km/hr)

Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Overall track length	12' 5" (379 cm)
Track pad type: triple grouser	
Track chain type: Caterpillar 42/325	5 or equivalent
Track pad width	2' (60 cm)

Hydraulic Transmission

Pressure and flow compensa	ted (load sensing)
Pump flow maximum	63.4 gpm (240 l/min)
Pressure setting	
Dil tank capacity	
	•

Transport Dimensions

Length	32′	9"	(998	cm)
Width	1	0′3	(312	cm)
Height with cab	1′	1′ 1	" (338	cm)

Main Available Devices

- ALL001 Air compressor
- ALL010 Automatic greasing
- ALL012 Safety devices (flashing light, rear-view mirror, external emergency buttons)
- OPT002 Fuel pump
- OPT003 Water spray dust suppression system
- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset
- Management (monitoring via GPRS) per year OPT012 Work light package
- OPT014 Video Camera

OPT015 3D GPS system for automatic machine guidance

OPT016 Cab anti-vandalism window covers

OPT018 Closed engine doors

OPT023 Remote control for maintenance

A complete devices list is available at page 0040

1475





Trench Inte Trenchin<u>tel</u>

DGPS guidance system:

Extra high precision 3D GPS system Automatic depth and grade control Autosteering to a predefined path Pass optimization and fleet control



TrenchTronic 3.0 Electronic Control with: Operator selectable digging pressure and automatic operation Fully automatic operation Remote diagnostic system



Re.M Remote Control with:

Machine data remote monitoring Fleet location management Troubleshooting information Operating conditions





TRENCHING DIMENSIONS

12'6'' 381 cm





FEATURES AND APPLICATIONS

The Rock Hawg version of the 1475 model has been designed for continuous surface mining in rock, where its 12' 6" (381 cm) wide drum is employed in bulk-excavations projects, open-pit quarries, and very large diameter pipelines. Equipped with TrenchTronic 3.0, the 1475 RH is Tesmec's largest Rock Hawg featuring a 630 hp engine.



It can work up-cutting or down-cutting by simply changing the attachment.





BULK EXCAVATION WORKS

Railway soil preparation



Soil Reclamation



SURFACE MINING



CHANNEL EXCAVATION

DOWN-CUTTING

UP-CUTTING



1475 ROCK HAWG TECHNICAL SPECIFICATIONS

Standard Features

Pressurized cab with air conditioning, heating, sound suppression

Elevating cab module with roll over protection (ROPS) Battery box and toolbox with locking door

Fuel and hydraulic tank: aircraft quality locking caps Flywheel gearbox and hydraulic tanks: pressurized with

5 psi (0.3 bar) filtered breathers Vibration isolator mount: used on engine, radiator, oil

cooler, and exhaust silencer

Stabilizers / dirt drags (chainsaw only): automatically adjust to terrain changes

Lights: 24 V forward facing

Hydraulic cooler externally mounted Electrical system: 24 V

Trenching Dimensions

Drum diameter	5′ 11′	' (181	cm)
Excavation Width	12' 6'	' (381	cm)
Excavation Depths Range	0-1' 8"	(0-50	cm)
Max recommended digging depth	for maxim	um	
productivity	1′2′	' (35.6	cm)
Note: dependent on configuration and o	options		

Engin

Model	CAT C18 ACERT Tier 3
Max horsepower	630 hp (470 kW)
Max no load rpm	2.100 rpm
Fuel tank capacity	
Fuel consumption at full load	34.6 gal/hr (131 l/hr)
Cooling rating adequate for 12	2° F (50° C) ambient air
temperature	

Air cleaner: dry type, centrifugal pre-cleaner with primary and secondary filters

Operating and Transport Weight

Weight......240,000 lbs (108.863 kg) Ground pressure......21.5 psi (1.51 kg/cm²) Note: dependent on configuration and options

Trencher Drive

Hydrostatic: four pumps and two motors capable of ransmitting full engine horsepower
Flywheel gearboxes, shaved, helical gearing, case hardened for extreme shock load
4 operator selectable digging speed ranges:
0-480 fpm (0-146 m/min)
0-565 fpm (0-172 m/min)
0-635 fpm (0-194 m/min)
0-720 fpm (0-220 m/min)
Cutters: rotary carbide tipped 1 $\frac{1}{2}$ " (3.81 cm) shank diameter 3" (7.62 cm) gage
Drum tool tip diameter6' 3" (189 cm)

Crawler Drive

Dual path, hydrostatic drive, planetary transmissions capable of full counter rotation with single lever steering, single lever direction
Infinitely variable speed: forward and reverse
Speed ranges:

High range......0-1.62 mph (0-2.59 km/hr)
Low range.....0-0.81 mph (0-1.30 km/hr)

Integral parking and service brake: spring applied, hydraulic release, wet disc brake

Tracks

Hydraulic Transmission

Pressure and flow compensate	ed (load sensing)
Pump flow maximum	45 gpm (170 l/min)
Pressure setting	2.500 psi (172 bar)
Oil tank capacity	

Transport Dimensions

Length with drum installed	
• with drum guard	.36' 11" (1126 cm)
• without drum guard	35' 5" (1079 cm)
Length without drum (only Tractor)	30' 11" (942 cm)
Width with drum installed	12' 6" (381 cm)
Width without drum	11' 6" (350 cm)
with motor removal	
Height with cab	11' 11" (363 cm)
Height with cab elevated	14' 2" (431 cm)

Main Available Devices

- ALLO01 Air compressor
- ALL010 Automatic greasing

ALL012 Safety devices (flashing light, rear-view mirror, external emergency buttons)

- **OPT002** Fuel pump
- OPT003 Water spray dust suppression system
- OPT005 Laser automatic system for depth control
- OPT011 Subscription for the Remote Asset Management (monitoring via GPRS) per year
- OPT012 Work light package
- OPT014 Video Camera
- OPT015 3DGPS System for automatic machine guidance
- **OPT018 Closed engine doors**
- OPT023 Remote control for maintenance

A complete devices list is available at page 0040

Focus on

TECHNOLOGIES

EQUIPMENT

÷

SERVICES



INTEGRATED SOLUTIONS

for the FASTEST SAFEST CLEANEST COST EFFICIENT excavations

ENGINEERING - PROJECT STUDY Tesmec Estimation Department elaborates

job site specific working plans and productivity estimation to support customers to achieve their targets.

OUTSOURCING

Tesmec can provide to the contractors the complete outsourcing of trenching activities including operation, maintenance, fleet management, site supervision.





SMALL SIZE OF THE EXCAVATED MATERIAL



AUTOMATIC LASER LEVELLING SYSTEM The Rock Hawg automatically adjust boom position to keep a constant excavation depth, even if the ground is not properly levelled.

ReM REMOTE MONITORING

The on-board control system registers all the machine information and uploads them via a GPRS connection to make them available to the job site managers.

DUST SUPPRESSION SYSTEM A water spray system can reduce the emission of dust



Remote Monitoring Systems

TESMEC ROCK HAWGS

are drum surface miners that can trench different materials including hard rock and produce aggregates (fill material)

and job site parameters can be remotely accessed any time through a website and a user login

immediate control of machine and fleet status and performances

fuel consumption, engine load, engine RPM

possibility to easily prepare statistics, for example calculate the efficiency of the job site and the productivity of the machine

JOBSITE MANAGEMENT

100% OF EXCAVATED MATERIAL IS REUSABLE FOR BACKFILLING









PERFORMANCE ° Fine dug material, fast backfilling ° High precision and clean trenches

EFFICIENCY ^o Same volume dug with less machines ^o Easier job site management





- SERVICE
- ° Faasihiitu atud
- Icasionity study
 Ich site technice
- accietance

LOW POLLUTION

° Less machines or job site ° Tier3 and Tier4f standard





SAFETY [°] Operator protection [°] No blasting [°] No swinging arms



Minimum collater
 damages
 Low impact on
 evironment













MANAGEMENT

It's not just a digging matter

Relax. And make yourself comfortable: with Tesmec Integrated solutions it's all under control. We aim to provide our clients a complete range of services, not just performing machines.

Tesmec pays special attention not only to his products, but also to the people who use them and to the environment in which they are being used.

Our Support

We offer customized effective training courses managed by our specialized staff. The goal is to transfer specific know how onto the user(s) of the machines and to the appropriate management in charge of the work site in order to guide the operators. At the end of the course all participants will receive a training certificate.

Tesmec Support is also provided on the work site: our service staff is always available to help customers to get the best performance from their machines, the highest durability, and at the same time with the lowest impact on the environment. We particularly focus on training for operators and aftersales services: we are a "training oriented company".

Technical Advice

Tesmec Trencher Division provides customized services and solutions for all digging projects, even the most complex ones.

Special Services for excavation and bulk excavation by Tesmec consist of: technical advice and a geotechnical preliminary study, work site control, experienced trencher operators, spare parts management, fleet management with a specialized Tesmec team for mechanical assistance on site.

Large infrastructures might call for wide excavations or high-precision trenches in its urban areas: high performing machines and professional coordination of the work site are required to face these types of projects, Tesmec can assist with all of these needs and can tailor to your specific project.

SERVICES AND SOLUTIONS



Tesmec Integrated Solutions

InterParts

Tesmec developed the "Inter-Parts" Portal (Interactive Spare Parts) to provide the customer with the information for machine repair and to quickly meet their needs by providing Tesmec spare parts.

Inter-Parts is supported by the production department, dealers, and after-sales staff in the process of meeting the customers' requirements, allowing you to place an order for spare parts directly from the work site. It is available for the trenchers and Gallmac multipurpose machines.

The portal contains images, spare parts lists, instructions, and maintenance manuals in various languages.

Inter-Parts is accurate, fast and easy.

Sustainable Technology

Our future depends on technological development that helps to protect the planet

from pollution and climate change. The advanced technologies developed by Tesmec are always focused on the improvement of performance with respect for the environment. Tesmec is committed to reducing emissions, increasing energy efficiency, and using renewable energy sources.

Tesmec trenchers allow for reduced excavation sections and the excavated material can be reused.

Tesmec machines have engines with low noise and low pollution emissions: we chose the best components to avoid leakage of lubricating and hydraulic fluids, we try to avoid the use of polluting material, and we keep all the machines updated with the state of the art Diesel Engines.









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