



# TETRA

TD TETRA MAKİNE MÜH. MİM. MAD. SAN ve TİC. LTD. ŞTİ.  
SONDAJ MAKİNELERİ ve EKİPMANLARI



[www.tetramakine.com](http://www.tetramakine.com)

## TETRA - TD 2500

### HYDROLIC CORE DRILL

### TECHNICAL CATALOG



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## GENERAL

TD TETRA close to 30 years experience in the sector with the best in Turkey, is one of the world's top three machine tool builder. All of the machines are operator friendly and easy to use. TD TETRA MAKİNE does not use any brand or product of Far East origin in any of its products. Unlike other companies, many optional features are available as standard, and are produced by keeping fuel and spare parts economy at the forefront. When many factors such as operating costs, drilling speeds, spare parts and fuel economy, ease of use come together, TD TETRA machines are the choice of enterprises and the companies whose machine parks are only TD TETRA's become our biggest reference.

## TECHNICAL SPECIFICATIONS

### ENGINE

TYPE	DIESEL
MODEL	FORD ECOTORQ EURO 6
KW	283
HP	380
ENGINE SPEED	1800(ADJUSTABLE)
COOLING	WATER AND INTERCOOLER

### HYDRAULIC POWER UNIT

MAIN PUMP MAX. (REXROTH 140 CC)	145 CC - 2500 RPM - 350 BAR - 319 LT/MIN
SECOND PUMP MAX.(REXROTH 60 CC)	60 CC - 3250 RPM -350 BAR - 158 L/MIN
SERVICE PUMP MAX.(REXROTH 28 CC)	28 CC - 3250 RPM -350 BAR - 88 L/MIN
OIL COOLING	FAN COOLER

## Technical Data

**Table of values** (theoretical values, without efficiency and tolerances; values rounded)

Size	A11VO	40	60	75	95	130	145	190	260
Displacement	$V_{g \max}$	42	58.5	74	93.5	130	145	193	260
	$V_{g \min}$	0	0	0	0	0	0	0	0
Speed	maximum at $V_{g \max}$ <sup>1)</sup>	$n_{\max}$	3000	2700	2550	2350	2100	2200	1800
	maximum at $V_g \leq V_{g \max}$ <sup>3)</sup>	$n_{\max 1}$	3500	3250	3000	2780	2500	2500	2300
Flow at $n_{\max}$ and $V_{g \max}$	$q_{v \max}$	126	158	189	220	273	319	405	468
Power at $q_{v \max}$ and $\Delta p = 350$ bar	$P_{\max}$	74	92	110	128	159	186	236	273
Torque at $V_{g \max}$ and $\Delta p = 350$ bar	$T_{\max}$	234	326	412	521	724	808	1075	1448

Axial piston variable pump |  
Technical data, standard unit

### Technical data, standard unit

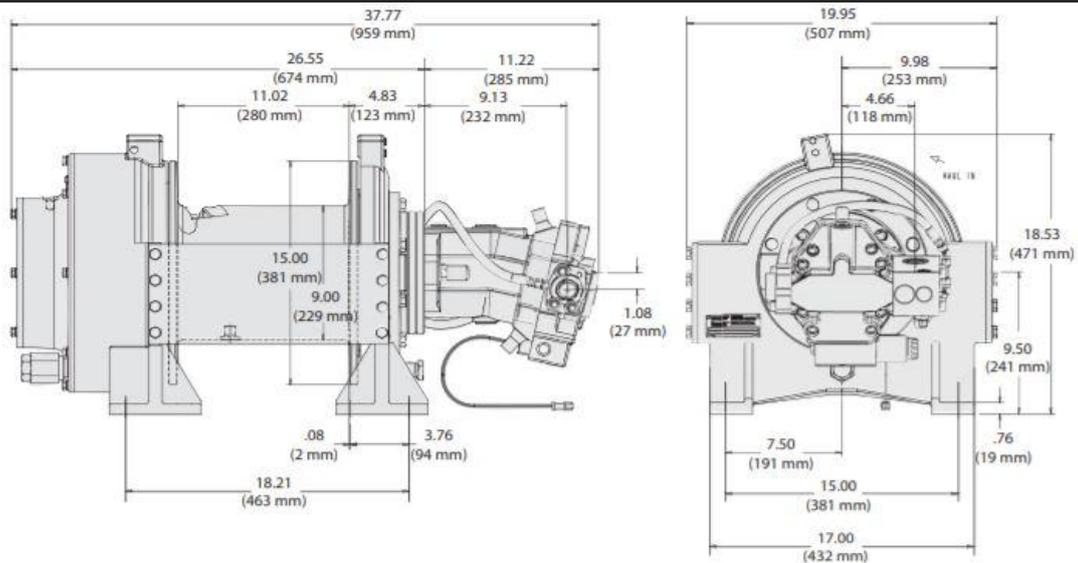
Size	NG	18	28	45	71	88	100	140
Displacement, geometric, per revolution	$V_{g \max}$	18	28	45	71	88	100	140
Rotational speed maximum <sup>1)</sup>	at $V_{g \max}$	$n_{\text{nom}}$	3300	3000	2600	2200	2100	2000
	at $V_g < V_{g \max}$ <sup>2)</sup>	$n_{\text{max perm}}$	3900	3600	3100	2600	2500	2400
Flow	at $n_{\text{nom}}$ and $V_{g \max}$	$q_{v \max}$	59	84	117	156	185	200
	at $n_E = 1500$ rpm and $V_{g \max}$	$q_{vE \max}$	27	42	68	107	132	150
Power	at $n_{\text{nom}}$ , $V_{g \max}$	$P_{\max}$	28	39	55	73	86	93
	at $\Delta p = 280$ bar and $n_E = 1500$ rpm and $V_{g \max}$	$P_{E \max}$	12.6	20	32	50	62	70
Torque	$\Delta p = 280$ bar	$T_{\max}$	80	125	200	316	392	445
	at $V_{g \max}$ and $\Delta p = 100$ bar	$T$	30	45	72	113	140	159

## MAIN HOIST

SINGLE LINE CAPACITY	18144 KG (REXROTH 80 CC)
LINE SPEED MAX.	43 M/MIN
CABLE SIZE	25-50 M 16-18-20 MM

## WIRESLINE

CAPACITY	6MM LINE- 2500 M
LINE SPEED MAX.	300 M/MIN
LINE SPEED(LOWER) MAX.	250 M/MIN



- 40,000 lb. (18,144 kg) First-layer line pull**
- Ferrule Pocket**
- 69:1 or 99:1**
- SAE Motors**
- Sprag Clutch**
- Weight 688 lb (312 kg)**
- Optional Free Spool**

### Specifications

#### HRD 99V049/24-04 FS - LOW SPEED

4.88 cu in. Motor (88.0 cc)  
 3010 PSI (207 bar) @ 42 gpm (158.9 lpm)  
 Wire Rope Diameter: 3/4 in. (19 mm)

	LINE PULL		LINE SPEED		ROPE CAPACITY	
	LB	KG	FPM	MPM	FT	M
1	40,000	18,144	48	15	33	10
2	34,660	15,721	55	17	71	21
3	30,590	13,875	63	19	115	35
*4	27,370	12,415	70	21	164	49

#### HRD 99V049/24-04 VS - HIGH SPEED

2.45 cu in. Motor (40.1 cc)  
 3008 PSI (207 bar) @ 42 gpm (158.9 lpm)  
 Wire Rope Diameter: 3/4 in. (19 mm)

	LINE PULL		LINE SPEED		ROPE CAPACITY	
	LB	KG	FPM	MPM	FT	M
1	18,750	8,505	97	30	33	10
2	16,250	7,371	112	34	72	21
3	14,340	6,504	127	39	115	35
*4	12,830	5,819	142	43	164	49

## MAST SYSTEM

FEEDING LENGTH	3,5 M
DRILLING ANGLE	45 TO 90
ROD PULL CAPACITY	6,3 M
POSITIONING FOR MAST	HYDRAULIC
FEEDING FORCE	12200 KG - 22600 KG
FEEDING SPEED	SPEED KONTROL PANEL(FAST AND SLOW)

## ROTATION UNIT

SPEED	TRANSFORMATION	MAX. (rpm) (Vgmax/Vgmin)	MAX. TORQUE (Nm) (Vgmax/Vgmin)
1 ST	6.27:1	135/199	6533/4445* 9774/6646**
2 ND	3.12:1	272/400	3251/2212* 4864/3307**
3 RD	1.75:1	485/714	1824/1241* 2728/1855**
4 TH	1;1	850/1250	1042/709* 1559/1060**
ORAN	2;1		

\* $\eta_{mh}$ (hydro mechanical efficiency):0.9 and working pressure is calculated as 260 bar.

\*\* $\eta_{mh}$ (hydro mechanical efficiency):1 and working pressure is calculated as 350 bar.

*The size of the hole corresponds to the diameter of the PQ tie-rod body, equipped with a case spring and rotating proportional control. The self-lubricated mechanical drive 4-speed rotor is operated through the hydraulic motor with alternating load. Data presented above is based on the assumption of operating a diesel engine with a constant speed of 1800 RPM.*

## DRILL CHUCK JAW

TYPE	HYDRAULIC
MAX.INSIDE DIAMETER	117,5 MM
HOLDING CAPACITY	19000 KG

## ROD HOLDER

TYPE	DOUBLE HYDRAULIC PISTON
MAX.INSIDE DIAMETER	150 MM
HOLDING CAPACITY	20000 KG

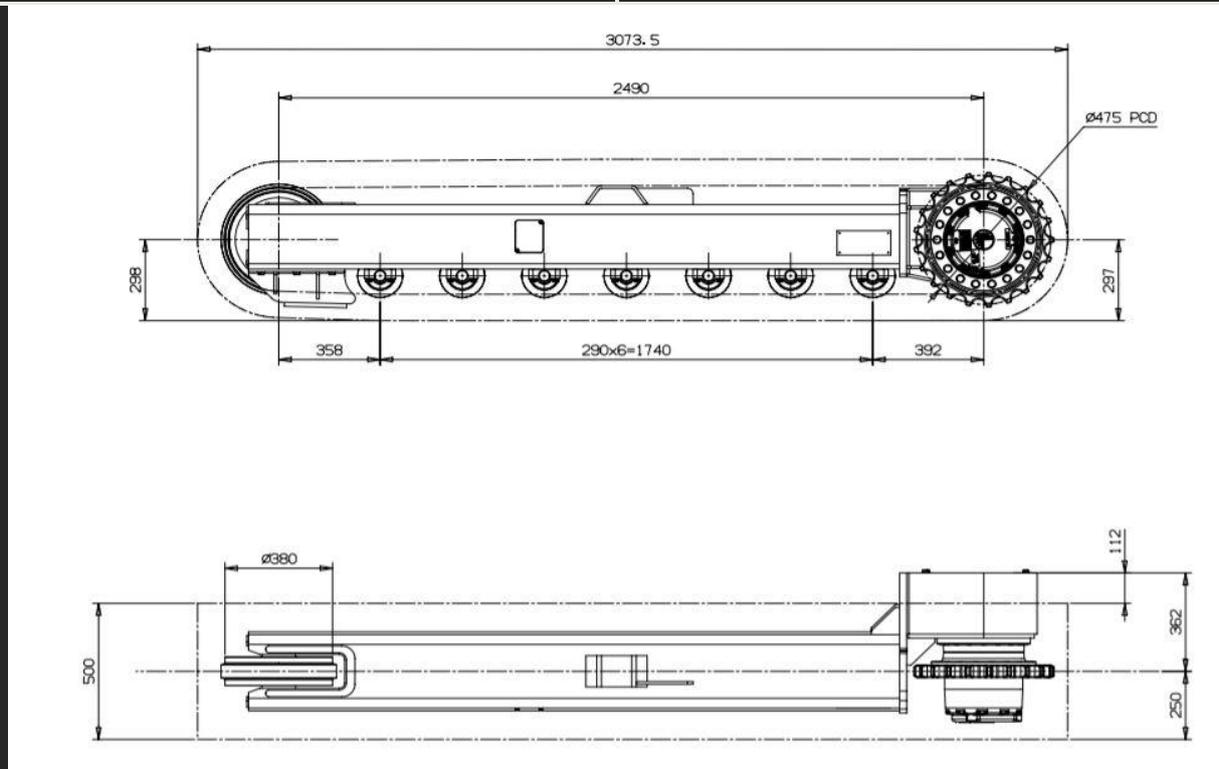
## DRILLING CAPACITY

DRILLING ROD DIAMETER	BWL	NWL	HWL	PWL
FINAL HOLE DIAMETER (MM)	60	75,7	96	122,6
DEPTH (M)	3000	2500	1900	1000

Drilling depths are given for vertical drilling in homogeneous ground to give an idea.

## CRAWLER UNDERCARRIAGE

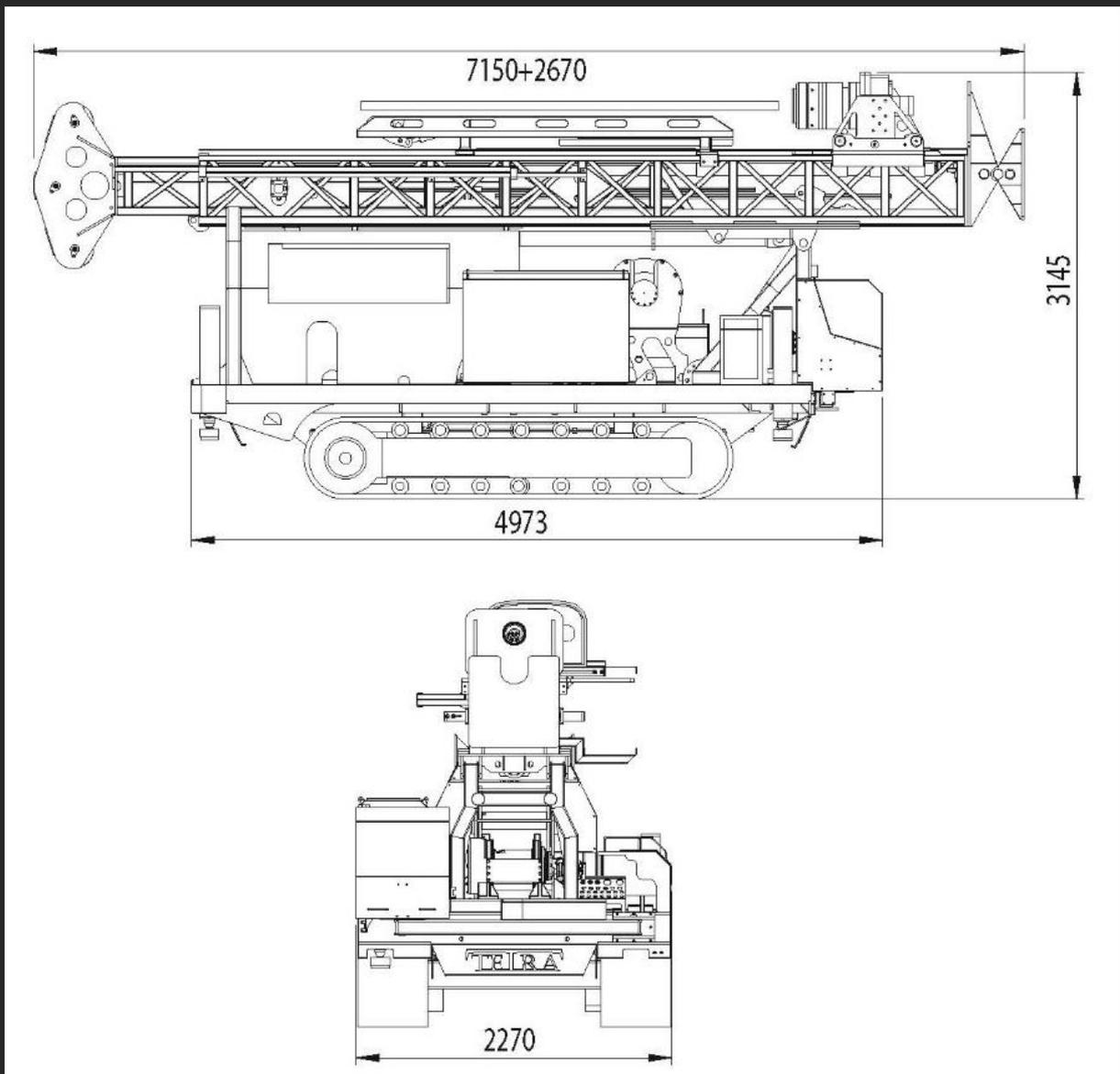
TYPE	GERMAN OR ITALIAN (STEEL)
TRACK WIDTH	500 MM
TRACK LENGTH	3073 MM
TRAVEL SPEED	ÇİFT HIZLI 1,07 -2,05 KM/S
LIFTING UP	4 HYDRAULIC PISTON



## MUD/WATER PUMP

TYPE	HYDRAULIC WITH THE MACHINE (FCM)
CAPACITY	130-240 L/MIN (ADJUSTABLE)
MAX. PRESSURE	60-120 BAR

## MACHINE DIMENSIONS



## MACHINE WEIGHT

MAST STROKE LENGTH	MAIN HOIST HEIGHT	MAST LENGTH	MAST SLIDING STROKE
3500 MM	5510 MM	9300 MM	2650 MM
WEIGHT		12500 KG	

## STANDARD FEATURES

TWO-SECTION TELESCOPIC DRILLING MAST	S
MAST REELS	S
SAFETY SHEETS	S
HIGH TORQUE GEAR	S
4 PIECES HYDRAULIC PLUNGER-TYPE LEG MEMBERS	S
TRPLEX MUD PUMP	S
FUEL TANK 250 LT	S
OIL TANK 400 LT	S
OIL COOLER WITH FAN	S
EQUIPMENT CABINET	S
HYDRAULIC MUD MIXER	S
POSITIONING FOR MAST	S
ROD HOLDER	S
DRILL CHUCK JAW (UPPER JAW)	S
BATTERY CABINET	S
SLIDING MUD PUMP HOUSING	S

HYDRAULIC WIRELINE	S
CRAWLER UNDERCARRIAGE	S
TIJ REMOVAL TOOL HYDRAULIC	O
EXTRA FUEL FILTER	S
TACHOMETER	S
N-H-P JAW SET FOR UPPER JAW	O
N-H-P JAW SET FOR ROD HOLDER	S
REMOTE CONTROL	S
MUD PUMP	S
2. MUD PUMP	O
LIGHTING	S
DIGITAL DISPLAY	S
MULTIPLE MANOMETER	S
BRAKE WIRELINE MOTOR	S
DOUBLE CHAMBER REFRIGERANT RADIATOR	S

• All data are approximate and change depending on the model of equipment and accessories used.

- All mechanical parts are manufactured by our company and available in stock.
- Depending on the type of foundation is recommended Usage of additional mud-pump for drilling of deeper holes.
- Spare parts of Far Eastern manufacture are not used in the production of our equipment.
- Main pump systems are Germany REXROTH brand.
- Rotary engine is REXROTH brand.
- Cooling system is AKG brand which has a flow of 200 lt/min.and a capacity of 40000 Kcal/h.
- Filters are Italian UFI brand.
- Controllers are Italian AMKA or Denmark DANFOSS brand.
- Movement system is German or Italy brand which has a carrying capacity of 12.000 kg. on 60% slope.
- Warranty for 1 year or 2000 Hours.



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