

## T-78 NATIONAL 1320 UE

### TECHNICAL OVERVIEW

<b>Rating</b>	2,000 HP	1,491 kW
<b>Hook load</b>	1,000,000 lbs @ 12 lines	454 t
<b>Drilling depth theoretical</b>	20,000 ft	6,096 m

Year of construction 1981, refurbishment 2003

### MAST

<b>Type</b>	Pyramid cantilever	
<b>Height</b>	152 ft	46.3 m
<b>Base</b>	25 ft	7.6 m
<b>N.G.C</b>	1,330,000 lbs	603 t
<b>Hook load</b>	1,000,000 lbs	454 t

### SUBSTRUCTURE

<b>Type</b>	Pyramid swing-up	
<b>Height</b>	30 ft	9.1 m
<b>Casing load</b>	800,000 lbs	363 t
<b>Setback load</b>	500,000 lbs	227 t

### DRAWWORKS

<b>Type</b>	National 1320-UE	
<b>Horsepower rating</b>	2,000 HP	1,491 kW
<b>Max. line pull</b>	98,900 lbs	45 t
<b>Drilling line diameter</b>	1 ½"	38.1 mm
<b>Auxiliary brake</b>	Baylor 7838	

### TOP DRIVE

<b>Type</b>	Varco TDS-11SA	
<b>Capacity</b>	1,000,000 lbs	454 t
<b>Torque</b>	37,500 ft.lbs	50,842 Nm

### ROTARY TABLE

<b>Type</b>	National C-375	
<b>Table opening</b>	37 ½"	952.5 mm



### DRIVE GROUP

<b>Engine type</b>	Caterpillar 3512B	
<b>Horsepower rating</b>	5 x 1,476 HP	
<b>Generator type</b>	Caterpillar SR4	
<b>Generator rating</b>	4 x 1,500 kVA	
<b>Voltage</b>	600/440 V, 60 Hz	
<b>SCR unit</b>	Hill Graham	

### MUD SYSTEM

<b>Pump type</b>	Wirth TPK-1600 Triplex	
<b>Horsepower rating</b>	3 x 1,600 HP	
<b>Standpipe pressure</b>	7,500 psi	517 bar
<b>Shale shaker</b>	3 x Brand King Cobra	
<b>Shale shaker type</b>	Linear motion	
<b>Active mud system</b>	1,420 bbl	226 m <sup>3</sup>
<b>Reserve mud system</b>	940 bbl	150 m <sup>3</sup>

### BOP EQUIPMENT

<b>Annular</b>	13 5/8" x 5,000 psi	
<b>Double ram</b>	13 5/8" x 10,000 psi	
<b>Single ram</b>	13 5/8" x 10,000 psi	

### CAMP EQUIPMENT

Full rig and base camp