

Rig 102 Specification 525 Super Single

1. Hoisting Equipment:

Drawworks:	Rig Tech RT- 400B
Rated:	750 HP
Drum Grooving:	1-1/8"
Max. Capacity:	476,336 lbs
Max. Single line pull:	70,715 lbs
	SN: RT- B – 001 - 2005
Powered by:	(1) each of (2) 540 HP, Caterpillar C-15 Engines
Auxiliary Brake:	Eaton
	Model: 424WCB2
Drawworks Drum Clutch:	Eaton
Model:	Airflex 32VC100
Compound:	Rig Tech-Dual Engine Input/Single Drive Output
Model:	RTCOMP-2
Compound Clutch:	(2) each
Make:	Eaton
Model:	Airflex 16VC100
Part #:	142821HN
Right Angle Drive:	Rig Tech
Model:	R.A.G.B.2:1
Drive Lines:	Spicer (2) each-42"installed
Model:	Spline
Right Angle Lube Pump:	Precision
Transmission:	(2) (1) each engine/five forward/no reverse
Manufacturer:	Allison
Model:	CIT-6061-4
Part #:	29522621-FA
Weight Indicator:	Wagner Type "FS" or Equivalent

Drilling Line Spooler: Electric
Size: 1-1/8" x 2000' capacity

Deadline Anchor: Hercules
Type: Hercules model 118T
Mount: Drawworks trailer unit

2. Mast:

Make IDS
Model: 4R-72-500
Height: 71'-6"
Rated: 500,000# hook load capacity

Crown: IDS
Model: 4R-72-500
Sheaves: (7) each 30" sheaves
(1) each 24" crossover sheave

Raising System: (2) two each triple stage hydraulic cylinders
Make: Parker
Model: Triple Stage/Double Acting

Standpipe: 4" x 5000 psi

3. Substructure:

Make: IDS
Model: HR12-1.0
Height: 12' 2"
Clear Height: 11'
Capacity: 800,000 lbs

Pipe Delivery Boom:

Make: IDS
Model: C30-L15
Clamp Force: 30,000 ft/lbs
Lift Capacity: 15,000 lbs

4. Hydraulic Power Unit: (Top Drive)

Power: (1) each 540/630HP, C-15/C-18, Caterpillar Engine
Hyd. Pump: HPU TD PKG
Make: Sauer Danfoss
Model: 90R250 MA5A38B80

5. Traveling Equipment:

Split Traveling Block:

Make: M.D Cowan
Model: Banjo 4-S-500
Max Hook Load: 250 ton
Number Sheaves: 4
Sheave Diameter: 30"
Grooved For: 1-1/8"
Max. Lines: 8

6. Rotary Equipment:

Top Drive: Power Swivel
Manufacturer: Venturetech Group
Model: XK-250
Max Static Load: 250 tons
Max Torque: 23,000 ft-lbs
Max Speed: 140 rpm
Pressure Rating: 5,000 psi
Integrated brake:
Integrated pinned traveling block:

Hydraulic Torque Wrench: (Iron Roughneck)

Make: U.S. Tools
Model: HT-75
Max Make Up: 75,000 ft-lbs
Max Break Out: 100,000 ft lbs
Connection Range: 3 3/8" to 8 1/2"

7. Power Generation:

Engines:	(2) each C-15 Caterpillar Engines
Manufacturer:	Caterpillar
Model:	C-15
HP:	540
Generators:	(2) each
Model:	LCG

8. Mud Pumps:

Manufacturer:	Gardner Denver
Model:	PZ -9
Quantity:	(2) two each
HP:	1000
Piston Stroke:	9"
Working Pressure:	5000 psi
Max. Liner Size:	7"
Min. Liner Size:	4"
Drive:	Mechanical drive w / torque converters
Power:	(2) two each Cat 3508, 900 HP engines

Torque Converters:

	(2) each
Make:	NOI
Model:	C-300-80

Pump Accessories:

Liner Washer Pumps:	(2) each
Make:	Gardner Denver or Equivalent

Pulsation Dampeners:	(2) each
Make:	IEI
Model:	5M-20

Charging Pumps:	(2) each, 5x6x11
Make:	MCM or Equivalent

Model: Series 250

Shear Relief Valves: (2) each
Make: OTECO or Equivalent
Model: Plunger Type

9. Mud System:

Manufacturer: M.D. Cowan
Active Mud Tanks: (2) each with curved bottoms
Total Volume: 640 bbl (active system)
80 bbl Separate (Trip Tank)

Shaker Skid:

(2) each Shakers
Make: Derrick
Model: FLC 504
Rated: 400 GPM (per shaker)

Trip Tank/Choke Skid:

Trip Tank Pump: (2) each, 2x3x11
Make: MCM or Equivalent
Model: 250 Series
Gas Buster: 30"X30' internally baffled
Choke Manifold: American Oilfield Products or Equivalent

Mud Accessories:

Mud Mixing Agitators: (5) each, (2) process, (3) suction
Make: Teco Motor or Equivalent
Model: Pitboss

Mud Mixing Hopper:
Make: Vortex Ventures
Model: VVEU6SD

Mud Transfer Pumps: (4) each (2) per tank, 5x6x11
Make: MCM or Equivalent

Model: Series 250

10. BOP Equipment:

Accumulator US Oil Tools
Model: T-80-5
No. Bottles: (10) each
No. Stations: (5) five
Primary Pump: Electric triplex
Model: WWE2018256T
Pressure: 3000 psi
Motor HP: 20 HP:
RPM: 1770
Secondary Pump: Air
Quantity: (2) each
Includes: Remote control station mounted in rig floor doghouse

BOP:

Annular Preventer:

Manufacturer: Townsend
Model: Type 90 annular BOP
Size: 11"
Pressure Rating: 5000 psi
Top: Studded
Bottom: Flanged

Double Ram Preventers:

Manufacturer: Townsend
Model: Type 82 Ram
Size: 11"
Pressure Rating: 5,000 psi
Top Flange: 5,000 psi
Bottom Flange: 5,000 psi
Side Outlets: (2) two each, 4-1/16" x 5,000 psi

Choke Manifold:

Manufacturer: American Oilfield Products

Pressure Rating: 5,000 psi
Valves: Gate
Quantity: (2) each, 4-1/16"
(5) each, 2-1/16"
(2) each, 2-1/16" 5M manual choke

Wing Choke Valves:

Manufacturer: American Oilfield Products or Equivalent
Model: Type WG
(1) each 3 1/8"x 5M
HCR Valve: (1) 3 1/8"Cameron Hydraulic control valve or Equivalent

Wing Kill Valves:

Manufacturer: American Oilfield Products or Equivalent
Model: Type WG
(2) each 2 1/16"x 5M (1) 2 1/16 check valve

11. Auxiliary Buildings and Equipment:

Fuel Tank:

Cylindrical 40'x 8'
Manufacturer: Permian Tank MFG
Capacity: 265 bbls
Fuel Pumps: (2) each
Manufacturer: Myers or Equivalent
Drive: Electric
Filter System: Racor or Equivalent
Fuel system mounted on end of fuel tank within a containment system

Water Tank System:

Cylindrical, 40'x12'
Capacity: 500 bbls
Water Pumps: (2) each, 2x3x11
Manufacturer: (1) Mission Magnum/(1)Baker or Equivalent
Model: Series 178

Drive: Electric

Lubster Skid: 30'x7', (5) each oil totes

Brake Cooling System:

Manufacturer: Eaton
Model: BSP BWC 5101
Pumps: (2) each, 3x2x13
Manufacturer: Baker SPD or Equivalent
Model: 9998816A800Z

Drive Motor: (2) each, 20 HP
Manufacturer: Marathon or Equivalent
Model: DA256TTGN1026AE

Brake cooler is mounted on the Lubster Skid

Doghouse Skid:

49'x8'
Utilization: Drillers Cabin (raises)(Hydraulically pinned)
Half used for crew change house
Houses closing unit

Drawworks Trailer:

Hoisting system mounted to trailer unit.
Rig hydraulic power system (self contained)
Drill Line Spool
Fifth wheel connection
Drawworks Trailer Ramp (access to boat)
Trailer in Drilling Position: Mounted to 10'x50' trailer pad (Boat)

TD HPU/Parts House/Air Compressor:

Top Drive HPU
(1) 540/630 HP, C-15/C-18 Cat Engine

Compressor: Sullivan Palatek
Model: 25D
Part #: 651-0015

12. Miscellaneous:

Air Slips: Cavins, Spider air operated slips
Model: TF 100-S
Bowl Opening: API standard 10-1/8" diameter
Tubular Range: 2-3/8" to 8-5/8" OD
Rating: 700,000 lbs

Junk Bin: Misc. Parts Storage