

RIG SPECIFICATION



MD COWAN - SUPER SINGLE® MD525 (M)

MD COWAN SPECIFICATIONS

DERRICK AND SUBSTRUCTURE			
DERRICK/MAST			YES – API 4G Monogrammed
Make/type:			INTERNATIONAL DERRICK SERVICE (IDS)
With no set back:			
Height:			72'
Dimensions of base:			8'1" WIDE X 6' DEEP
Dimensions of crown:			8'1" X 6' DEEP
Gross nominal capacity:			825,000 GNC
Static hook load:			500,000 SHL
Minimum number of lines:			8
Ladders with safety cages and rests:			YES
Platform for crown sheave access:			YES
Light system explosion proof:			YES
MAKE-UP/BREAK-OUT TOOL			1-BLOHM & VOSS Make-up/Break-out wrench WITH UP TO 65,000 FT-LBS. M/U torque; 85,000 FT-LBS B/O torque
SUBSTRUCTURE			YES
Make/type:			IDS
Slip Bowl height (above Ground level):			14' 8"
Length:			48'
Width:			12'
Slip Bowl beam capacity (total):			250 TON
Clear height below Slip Bowl beams (to Ground level):			10'6"
Hydraulic Pipe Arm			1- IDS HYDRAULIC PIPE ARM FOR HANDLING 3-1/2" TO 5" RANGE II or III DRILL PIPE, 6-1/4" TO 8-1/4" DRILL COLLARS & RANGE III CASING W/HYDRAULIC ARM FOR HANDLING PIPE FROM PIPE RACK TO GRABBERS
DRAWWORKS AND ASSOCIATED EQUIPMENT			

Drawworks				
Make/type:				RIG TECH RT-400B
Engine make/type:				CAT C-15 W/ALISON 6-SPD. TRAN.
Rated input power:				540 HP
Drum size (diameter x length):				21" X 25-1/8"
Drum type (grooved/smooth):				GROOVED (Lebus)
For drill line size:				1 1/4"
Brake type (disk/drum):				DRUM
Brake size:				42" x 10"
Maximum Hook load - 8 lines:				435,000 LBS
Crown block safety devices:				YES
Make/type: Forum device				RT-400 CROWN PROTECTOR
Auxiliary brake:				EATON WCB 424
Independent fresh water cooling system for draw works and air brake:				EATON-AIRFLEX MODEL # RT-BWCS-101 400,000# BRAKING
Wire line Unit				YES
Make/model:				OIL WORKS OWI-1000
Wire length (nominal):				12,000'
Wire size:				.092 IN
Max working load:				835 LBS
Safe working load:				800 LBS
Depth counter:				YES
Pull Indicator				NO
DERRICK HOISTING EQUIPMENT				
Crown Block				
Make/type:				IDS
Rated Capacity:				500,000 SHL
No. of sheaves:				8--7 vertical/1horizontal
Sheave diameter:				6-36" 1-30" 1-24"
Sheave grooved for line size:				1 1/4"
Traveling Block				
Make/type:				COWAN INTEGRATED 4-SHEAVE SPLIT BLOCK
Rated Capacity:				250 TON
No. of sheaves:				4
sheave diameter:				36"
Sheave grooved for line size:				1 1/4"

Drilling Line				YES
Diameter:				1-1/4"
Construction:				BETHLEHEM STEEL AMERICAN RRL/IWRC/EIPS DOMESTIC or equivalent
Length (original):				2,500'
Drilling line reel:				YES
Drum cover:				NO
Drilling line drum power driven:				Optional
Roller guides:				NO
Dead Line Anchor				
Make/type:				HERCULES HA-119T
Weight sensor:				60,000#
SLIP BOWL SYSTEM - NON-ROTATING				
Make/type:				1- CAVINS TF-100-S
Gate/Bowl Opening:				8-3/4"/10-1/8" API STANDARD
Hook Load:				400,000#
Operating Air Pressure:				60-80 PSI
Operating Hydraulic Pressure:				275-300 PSI
Tubular Goods Range				2-3/8"-8-5/8" O.D.
Top Drive/Power Swivel				
Make:				VENTURETECH
Model:				XK-250
Type (electric/hydraulic):				HYDRAULIC - SUNSTRAND HYDRAULIC PUMP POWERED BY CATERPILLAR C-18 DIESEL ENGINE & HYDRAULIC SYSTEM
Rated capacity:				250T
Working pressure:				5,000 PSI
Maximum continuous torque @ 120 rpm: (Power curve available upon request)				22,000 FT-LBS
Maximum continuous rotary speed:				160 RPM
Cooling system type:				N/A
Upper inside BOP:				2 3/4" INSIDE
Floating Cushion sub (Upper Torque Sub):				4 1/2" I.F.
100 RPM Dynamic load rating:				140 Tons
Working pressure:				5,000 PSI
Output power:				24,000 ft-lbs

POWER SUPPLY SYSTEMS			
RIG POWER PLANT			GENERATOR HOUSE: 10' WIDE BY 51' LONG W/ NEW SQUARE D MCC
Diesel Engine/Generator Sets			
Quantity:			2
Make/type:			CATERPILLAR / C-15
Maximum continuous power:			540 HP
At rotation speed of:			CONSTANT 1200RPM
Equipped with spark arrestors:			YES
Mufflers installed:			YES
AC - Generator			
Quantity:			2
Make/type:			CATERPILLAR/455 KW
At rotation speed of:			CONSTANT 1200RPM
Output volts:			60 Hz 480 VOLTS
Air Compressors - Medium Pressure (rig air):			
Quantity:			CURTIS – 2 each
Make:			
Model:			RS30F
Rated Capacity:			102 CFM
Working pressure:			175 PSI
Prime mover (electric/diesel):			ELECTRIC
Continuous power:			30 HP
AIR RECEIVERS			OILWORKS – 2 each
Volume (total):			600 ft ³
Maximum Pressure			175 PSI
Location:			Lube Skid
FUEL TANK			
Standard Cylindrical Tank/ Optional Rectangular Cylindrical 8' diameter			MDC FABRICATED 265 BBL.
WELL CONTROL			
LOW PRESSURE BLOWOUT PREVENTERS			

SUPERSINGLE® MD525

MD COWAN SPECIFICATIONS

All appropriate components H ₂ S rated				No
RAM TYPE PREVENTERS				YES
Quantity:				1
Make/model:				Horn Equipment LWS
Type (single / double / triple):				DOUBLE
Size:				11 IN
Working pressure:				5,000 PSI
Ram locks:				YES
Type (manual/hydraulic):				MANUAL
Side outlets:				4
Size:				4"
WP:				5,000 PSI
Bottom connection:				11" x 5M
Top connection:				11" x 5M
AVAILABLE RAMS (INSTALLED & SPARE)				
Quantity / type / size:				1/BLIND
Quantity / type / size:				1/PIPE/4 1/2"
ANNULAR PREVENTER				Yes
Quantity:				1
Make/type:				Horn Equipment HA
Size:				11" x 5M
Working pressure:				5,000 psi
Bottom connection:				5,000 psi
Top connection:				5,000 psi
KILL LINE VALVES				YES
Quantity:				1
Make/type:				
Size:				2-1/16 IN
Working pressure:				5,000 PSI
Hydraulic / manual / non-return:				MANUAL
Quantity:				1
Make/type:				
Size:				2-1/16 IN
Working pressure:				5,000 PSI
Hydraulic / manual / non-return:				NON-RETURN
BOP CONTROL SYSTEM				

Accumulator Unit			
Make/model:			Burnsco "Bison"
Location:			LOWER DOGHOUSE SKID
Fluid reservoir capacity:			160 US GALLONS
Total accumulator capacity (with out prior recharge):			160 US GALLONS
System working pressure:			3,000 PSI
Total useful accumulator volume equals all preventer opening and closing volumes:			160/YES
Plus percent additional volume:			
Accumulator Hydraulic Pumps			
Electric Driven:			
Quantity:			1
Make/model:			TRIPLEX
Each driven by motor of power:			20HP
At operating pressure:			3,000 PSI
Air Driven:			
Quantity:			2
Make/model:			
Flow rate of each pump:			
At operating pressure:			3,000 PSI
Primary Control Panel			
Control panel make/model:			
			Townsend/Burnsco
Location:			
			DOG HOUSE SKID
Panel controls for the following functions:			
Annular BOP:			YES
Ram BOP's:			YES
Choke line valve:			YES
System pressure regulator:			YES
Pressure regulator for annular:			YES
Flow meter:			
Quantity of pressure gauges:			3
CHOKE MANIFOLD			
Nominal size:			
			2" & 4"
Minimum ID:			
Maximum WP:			5,000 PSI
Quantity of fixed chokes:			2
Make/model:			MCFEE MN-60

SUPERSINGLE® MD525

MD COWAN SPECIFICATIONS

Size (ID):				3/4" ORIFICE 1 1/2" OD
Quantity of adjustable chokes:				2
Make/model:				AOP INDUSTRIES
Size (ID):				2-1/16 IN
Power choke remote control panel:				NO
Make/model:				N/A
Size (ID):				N/A
CHOKE LINE (BOP to MANIFOLD)				YES
Quantity:				1
Make/type:				Midwest Hose
ID:				3"
Working pressure:				5,000 PSI
H2S Service:				NO
FLEXIBLE BOP CONTROL HOSES				YES
Quantity:				10
Make/type:				SYNFLEX TYPE "B"
ID:				1"
Working pressure:				5,000 PSI
Fire resistant:				YES
Traveling Stand for BOP's				YES
MUD SYSTEM				
MUD PUMPS				YES
Quantity:				2
Make:				WEATHERFORD
Model:				MP10
Horsepower:				1,000
Type (triplex / duplex):				TRIPLEX
Mud pumps drive motors / engines:				CATERPILLAR 3508 ©
Motor type:				Variable Speed - Diesel
Continuous power rating per engine:				1200 RPM FOR 3508
Fluid end type:				WEATHERFORD (Interchangeable w/Emsco F-1000)
Maximum working pressure:				5,000 PSI
Test pressure:				5,000 PSI
Pump stroke counter type:				CUSTOMER TO FURNISH
Supercharging pump type:				YES
Driven by motor of power:				PINION SHAFT
Discharge/suction line ID:				3 1/2" X ID

Mud pump pulsation dampener type:				AS SUPPLIED BY WEATHERFORD
Reset relief valve:				3"
Torque Converters				
Quantity:				2
Make/type:				U.S. Oilworks / C300-80
TRANSFER PUMPS / MIXING PUMPS				
Mixing Pumps				YES
Quantity:				2
Make/model:				5" X 6" W/50 H.P. ELECTRIC MOTORS-MISSION MAGNUM
Output capacity:				11" IMPELLER 80 TO 110 GALLONS PER MINUTE
Drive motor type:				ELECTRIC 50HP
Power output:				N/A
CHARGING PUMPS				
Quantity:				2
Make/model:				5" X 6" W/50 H.P. ELECTRIC MOTORS- MISSION MAGNUM
Output capacity:				11" IMPELLER-80 TO 110 GALLONS PER MINUTE
STANDPIPE MANIFOLD				
Quantity of standpipes:				1 (MUD)
Standpipe/ID:				4"/ 3" ID
Kill line outlet:				YES
fill-up like outlet:				YES
Bleed-off line outlet:				YES
Outlet for MWD sensor				YES
ROTARY HOSES				
Quantity				2
Make/type:				Midwest Hose
ID x Length:				4" ID X 43' L.
Working pressure:				5,000
Snubbing lines:				YES
Quantity:				2
Make/type:				Midwest Hose
ID x Length:				4" x LENGTH DEPENDS ON PUMP RIG UP
Working pressure:				5,000
Snubbing lines:				YES

LOW PRESSURE MUD SYSTEMS			2-12'W X 5'H X 40' L W/10' PORCH ON END FOR PUMPS V-CRIMPED; DESIGNED TO ELIMINATE SURFACE TRIP HAZARDS ON WALKING SURFACE
MUD TANKS (CURVED BOTTOMS)			YES
Quantity:			2
Total capacity (usable):			~700 bbls
Usable capacity No. 1:			~350
Type (active / reserve):			ACTIVE
Height:			5
Mixer:			YES
High Pressure Mud guns:			YES
Usable capacity No. 2:			~350
Type (active / reserve):			ACTIVE
Height:			5
Mixer:			YES
High Pressure Mud guns:			YES
SHALE SHAKER			
Quantity:			1
Make/model:			VORTEX FLUID SYSTEM
Type:			ORBITAL 3000 DUAL SHAKER
Nominal flow rate (total):			1000
MUD AGITATORS			YES
Quantity:			3
Make/model:			Bario Max 2000 or equivalent
Driven by motor of power:			10 HP
Located in tanks:			YES
Impeller Blades, Type			YES
MUD HOPPER			YES
Quantity:			1
Make/model:			Oilworks mixing hopper
Feed pump make/model:			5" X 6" MISSION MAGNUM
Type/size:			11" IMPELLER
Capacity:			450
Drive motor hp:			50

Is feed pump dedicated to mud hopper(s):				YES
DESANDER				YES – US Oilworks
Cone No. & size				2 - 10"
DESILTER				10 - 4" cone
WATER TANK				MDC FABRICATED
Rectangular V-crimp 8' Wide				400 bbl.
Centrifugal Pumps				2
Type/Size:				ODESSA PUMP 2" X 3" CENTRIF. Or equivalent
Drive Motor HP:				20 HP MOTORS
BRAKE COOLING/LUBESTER SKID				
Additional skid containing a brake cooling unit and lubrication bulk handling equipment.				MDC Fabricated Skid
Brake cooling unit				Rig Tech RTBSS-101
Bulk Handling Lubester				5 EA BULK LUBE TOTES; 350 GAL. EA; STAINLESS STEEL TANKS INCLUDED FOR ENGINE OIL, HYDRAULIC OIL, GEAR OIL, ENGINE COOLANT, AND WASTE OIL
Tote				
Make:				Custom Metalcraft, Inc.
Model:				TranStore 515829
Hose Reel				(4 total) 50 ft; ½" hose
Make:				Lincoln
Model:				94300 series "A"
Pump for Oil Totes				Pneumatic
Make:				Lincoln
Model:				84934
Pump for Coolant				Pneumatic
Make:				Lincoln
Model:				85627 series "B"

OPTIONAL EQUIPMENT – INCLUDED			
AUXILIARY TRAILERS			
RIG MANAGER/TOOLPUSHER OFFICE/LIVING QUARTERS			13' X 48' Skid Mounted
TELEHANDLER FORKLIFT			1-10,000# Forklift
DRILL PIPE			10.000ft range 3 drill pipe
DRILL COLLARS			15-6" Drill Collars
DRILL COLLARS			8-8" Drill Collars

