



SONDAGENS DE ANGOLA

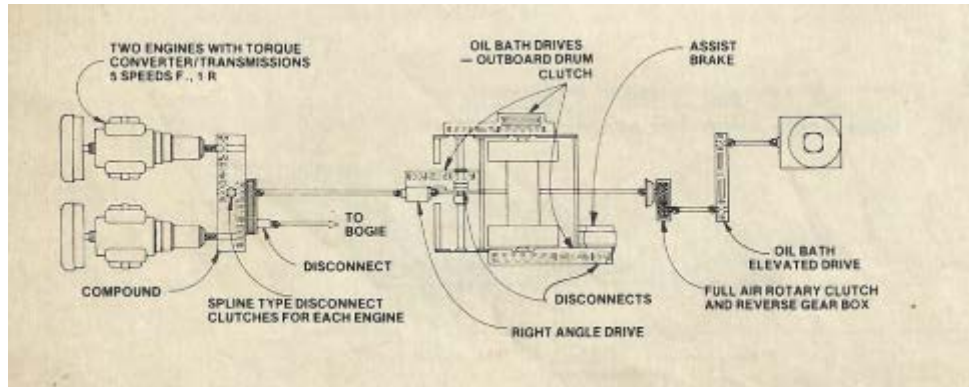
SA03

EXPLORER RIG Unit SN: 73005-6



As a self propelled mechanical drive rig, the Model 2042 drawworks, telescoping mast, oil bath chain case elevated rotary drive and two engine rig power are united into one self propelled rig load.

The side-by-side engines are high mounted for easy accessibility and maintenance. Either or both engines can be used for hoisting, rotary or roading operations.



GENERAL DESCRIPTION

Designed by
Model
Type
Rebuilding

IRI
2042TD-HT "Explorer" Rocket
Franks Cabot 750 III
2010

DERRICK OR POLE

Derrick Serial Number
Derrick Size & Model

D300-1121024
112' - 300000# Four Legs Telescoping

VEHICLE

Vehicle Serial Number
Vehicle Model

195246
600CC8V71

ENGINE

Engine Serial Number
Engine Model
Engine Manufacturer

8VA-186893 & 8VA-189106
7087-7040 (8V-71N)
Detroit Diesel (GMC)

TORQMATIC

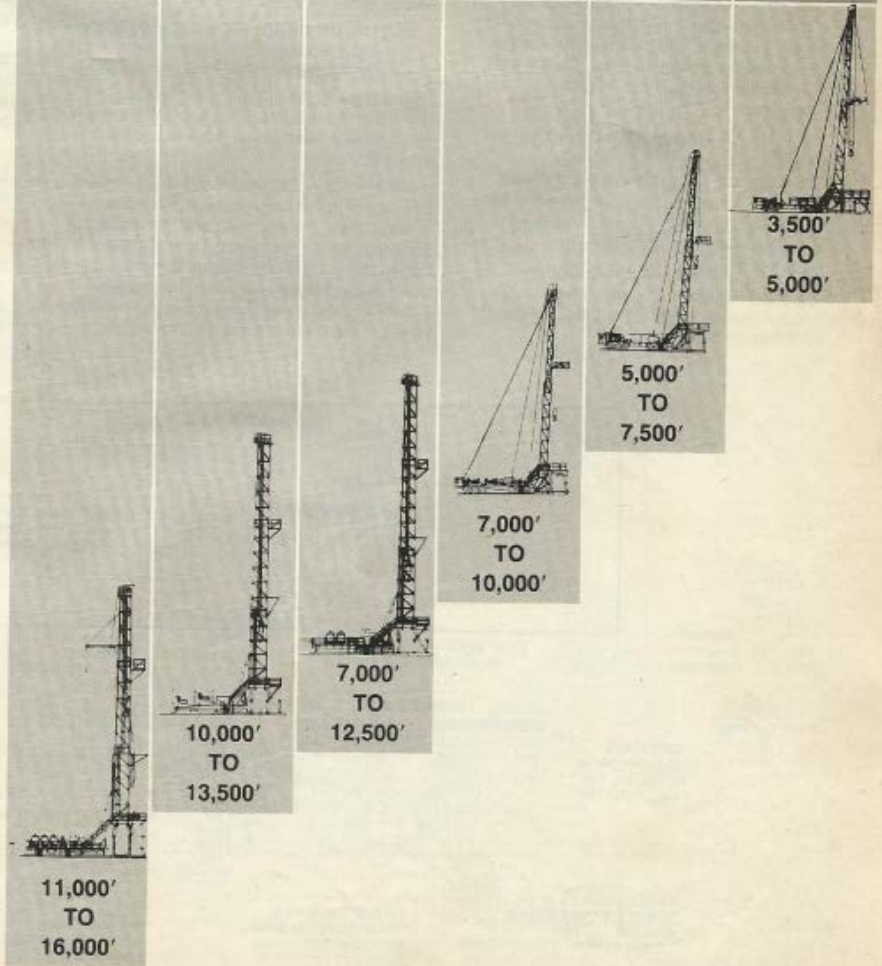
Serial Number
Model
Manufacturer

11976 & 11977
CLBT-4460-1 (A/N 6778089)
Allison (GMC)

STANDARD RIG SPECIFICATIONS

SERIES	1500	1200	1100	900	750	550
HORSEPOWER	1500	1300	1000	1000	700	500
DRIVE AVAILABILITY M—MECHANICAL E—ELECTRIC	M&E	M	M&E	M&E	M&E	M
DRAWWORKS	2550HL	2550	2346SHL	2346	2042	1287W
MAST	127' 735K	127' 715K	127' 500K	117' 350K	112' 300K	108' 250K
MAST TYPE	FREE-STANDING	FREE-STANDING	FREE-STANDING	GUYED	GUYED	GUYED
PIPE OPERATION	TRIPLES	TRIPLES	TRIPLES	DOUBLES	DOUBLES	DOUBLES
SUBSTRUCTURE FLOOR HEIGHT	22'	17'	17'	17'	15'	8'

DEPTH RATINGS ARE FOR MOST ECONOMICAL DRILLING RANGE USING 4½" 16.6# DRILL PIPE AND SETTING 9⅝"-7⅝" CASING STRINGS.



DRAWWORKS

Drawworks	Model 2042 TDHT
Power	2 x Detroit 8 V 71 N engines, 304 each @ 2100 RPM With acoustic housing over both engines
Transmission	Allison Model CLBT-4460-1
Gears	6 - Forward 1 - Reverse
Drum Size	40" x 19 ⁵ / ₈ " with Lebus grooving
Main drum brakes (dia x width)	Band breaks water cooled (42" x 12")
Effective brake area	3,050 Sq.in
Drilling Line	Size 1 ¹ / ₈ " EIPS
Hoisting speeds	5 Forward, 1 Reverse
Rotary speeds	5 Forward, 1 Reverse
Drum clutch	PO 24" 2 plate
Rotary clutch	PO 18" 2 plate
Brake clutch	Positive jaw
Hydromatic Brake	22SR Hydromatic Brake D631499-X
Crown Saver	Koomey

MAST SPECIFICATION

Make	Franks model 117-300
Type	Telescoping, Hydraulic raised & Extended, Tilted
Derrick Height	112 ft (15ft-4" high on road for travelling)
Rated tilt angle	2 3/4°
Hook Load Capacity	8 Lines 300,000 lbs 6 Lines 281,000 lbs
Fast line & Dead line Sheaves	1 - 36" & 1 - 30"
Cluster Sheaves	4 - 30"
Racking capacity	
Range 2 Double 4-1/2"OD DP,6-1/2" OD TJ	9500 ft
Range 2 Double 4"OD DP,6-1/8" OD TJ	10000 ft
Wind rating with maximum set back	69 mph

SUBSTRUCTURE

Model	DZ4750
Serial n ^o	101101
Manufactured	2011
Maximum rated static load	460858 lbf
Set back capacity	191088 lbf
Max rated combined load	651946 lbf
Height above GL	4.77 metres or 15.65 ft
Clearance under Rotary Table Beam	3.65 metres or 11.97 ft

ROTARY TABLE

Make	Dreco
Size	20 1/2"
Static load	350 ton
Max speed	350 RPM

SWIVEL

Make	National Oilwell
Model	PC 150
Serial n ^o	S33-162
Capacity	150 ton
Maximum pressure	4000 PSI

TRAVELLING BLOCKS

Make	Mud King Block Hook Combo
Model	BHU-150
Serial n ^o	15016
Capacity	150 ton
Sheaves	30" for 1-1/8" drilling line
Elevator links	3 1/2" Diameter x 72" long x 150 Ton

KELLY & BUSHINGS

4" square	6 5/8" Reg upper box
	4 1/2" Reg lower pin
Kelly bushings	4 1/4" CamTech MD type
3" Hex	6 5/8" Reg upper box
	2 3/8" IF lower box
Kelly bushings	3" Varco KRVS type

KELLY SPINNER

Make	VARCO 6600
Rotation	Right & Left
Connections:	6 5/8" API Reg LH
Height:	38 1/2" (978 mm)
Diameter:	28" (711 mm)
Weight:	1110 lbs (504 kg)
Oil grade and Capacity:	SAE 40 4 1/4 gal (4.8 l)
Stall torque:	1200 ft-lbs (1622 Nm)
Speed:	110

KELLY COCKS

6 5/8" Upper LH Thread x 1
4" FH or NC 40 X 2
3 1/2" IF x 2
3 1/2" IF x 1 with NRV valve
2 7/8" VAL PAC DS x 1
2 7/8" VAL PAC DS x 1 NRV

PIPE SPINNER

Make	Varco
Model	SS-10

MUD PUMP 1

Make	Baoji Shaanxi (Emsco F800)
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Serial n°
Engine # 99Y00336

2001-21
Type 3508 DI

Powered by
Maximum strokes
Charge pumps belt drive
Pulsation dampener
Discharge line outlet
Discharge line gate valve

Caterpillar 1000 HP diesel engine
150 SPM at 800HP input
8 x 6 mission fluid king
Hydrill KB 45 5000 psi
3" 5000 psi
3" 5000 psi

MUD PUMP 2

Make
Serial n°
As above
Powered by
Maximum strokes
Charge pumps belt drive
Pulsation dampener
Discharge line outlet
Discharge line gate valve
Mud pump power transmission
Serial n°

Baoji Shaanxi (Emsco F800)
2001-20
Engine # 97Y00665
Caterpillar 1000 HP diesel engine
150 SPM at 800HP input
8 x 6 mission fluid king
Hydrill KB 45 5000 psi
3" 5000 psi
3" 5000 psi
Wichita (Belts)
W21-00-300

MUD PUMP PERFORMANCE

Piston size in	6-3/4"	6-1/2	6-1/4"	6"	5-1/2"	5"
Pressure Mpa	13,5	14,6	15,8	17,1	20,4	24,7

DISCHARGE MANIFOLD

Rig floor
Cellar manifold
Kill line outlet
New stand pipe

2" 1502 thread outlet (used for cementers)
2" x 1502 thread outlets (1 - mud loggers /
1 - Directional drillers)
On to BOP Kill line
3" x 5000 psi

CHOKE MANIFOLD

NEW: Choke Manifold 3-1/8" – 5.000 PSI, type H2S.

Pressure rating
Hydraulic Choke
Valves
Manual choke
Buffer chamber

5000 psi
3-1/8"x 5000 psi plunger type
3-1/8" x 5000 psi gate valves
3-1/8"x 5000 psi plunger type
8" ID

NEW: BOP Stack 13 5/8 – 5.000

BOP EQUIPMENT

Annular BOP Shaffer type
Shaffer BOP double rams
Rams

13-5/8" x 5000 psi H2S Service
13-5/8" x 5000 psi H2S Service
5", 4" 3 1/2", 2 7/8" x 5000 psi

DIESEL TANK

Capacity 3000 gals
Fuel Treatment Alfa Laval Treatment System complete with solid retaining centrifuge.

GENERATOR 1

Make Caterpillar Olympian (Perkins engine)
Model P 450
Output 400 KVA
320 KW
415 / 220 Voltage
50 hz

GENERATOR 2

Perkins Serie 2300
LSC 5453 nr. 54.376
400 KWA
400 V
50 Hz

MAN RIDER

Supply air 90 / 110 psi
Make Red Rooster
Type MR 500 P
Speed 16 mtrs / min
Lifting capacity 150 kg

MAIN TUGGERS

Supply Hydraulic
1 NEW Braden 3.2 ton SWL
2 NEW Braden 3.2 ton SWL

RIG FLOOR INSTRUMENTATION

Weight on hook
Stand Pipe Pressure
Rpm Rotary
Rotary torque

SPM Pump 1 & 2

NB - WOB / Hook load / Choke manifold pressure
Normally supplied by the mud loggers with a rig floor screen

SAFETY EQUIPMENT

Hard hats, gloves, safety boots, protective eye wear, coveralls - are supplied by the Agency.
SCBA sets x 5 - located in the dog house for the rig crew
SCBA set x 1 - Tool pusher's office
Fire extinguishers – sited in various places around the location
Fire pump (electrical & diesel) with foam generator
First Aid Boxes - dog house and Tool pusher's office

FORKLIFT TRUCK

Make Manitou
Model MLT 626
Max lifting load 5 ton

RIG TONGS

Make WOOLEY
Type DB
Size range (Jaws NEW)
3 1/2" to 8 1/4"
8 5/8" to 11 1/4"
11 3/4" to 14 3/8"
4" to 6-1/4"
7-1/2" to 9-3/4"
9-1/2 to 11-3/4"
12-3/4 to 14-3/4"

MUD BUCKET

Size 5", 4", 3 1/2", 2 7/8"

BIT BREAKERS

Size 16", 14 3/4", 9 5/8", 6 3/4", 4 3/4"

DRILLING STRING

10.000 feet of NEW drillpipes

Nominal OD 4" New seamless Drill Pipe according to API 5D, Spec 7 and API RP 7G S 135
Upset IU LB/F 14.0 Range R2 (9.3 TO 9.6 METER)
Taper shoulder 18 degree(Box conn) 35 degree(Pin conn)
Connection NC40
Tool Joint OD 5-1/2" Tool Joint ID 2-9/16"
Tool Joint Tong Space 9"(Pin) 12"(Box)
Hardband Arnco 100XT(3x1"wear pads on box TJ)
IPC TC 2000 or TK 34
Thread protectors Pressed steel, both ends

12 units of NEW HWDP nominal OD: 4" in accordance with API 7 & 7-1

Grade: Integral type made from AISI 4145 H Mod

Upset: EU

Unit Length: 9.45 mtr (+/-150mm)

Taper shoulder: 18 degree

Connection: NC40

Tool Joint OD: 5-1/2"

Tool Joint ID: 2-9/16"

Tool Joint length: 30" (Pin) 24"(Box)

Hardband: Arnco 100XT(4x1"wear pads on both TJ and 2x3"wear pads on central upset)

IPC: TC2000

Thread protectors: Pressed steel, both ends

4 units of NEW drillcollars Spiral drill collar 8", 31 ft long, 2-13/16"ID, CONN. 6-5/8" reg box up with bore back and pin down with api stress relief groove, elevator and slip recesses for option.

6 3/4" drill collars x 15 105 lbs / ft with 4 1/2" IF connections

4 3/4" drill collars x 15 49 lbs / ft with 3 1/2" IF connections

3 1/2" HWDP x 5 26 lbs / ft with 3 1/2" IF connections

223 joints 4" Drill pipe G105 5 1/4" tool joints ID 2 13/16" with 4" FH connections 2100 mtrs

87 joints 3 1/2" Drill pipe E Grade 4 3/4" tool joints ID 2 9/16" with 3 1/2" IF connections 800