

TRAILER MOUNTED DRILLING RIG

CNPC produces two series of trailer-mounted drilling rigs: Separate main frame and integral main frame drilling rigs to meet the operation requirement for desert and Gobi oilfield.

TRAILER-MOUNTED DRILLING RIG WITH SEPARATE MAIN FRAME

Main series GW-M1000 and ZJ10DBT, ZJ30DBT, AJ40DBT, the rig consists of front and rear modules mainly during transportation. The front module includes drill floor and rotary table drive while the rear module includes drawworks drive, power system, suits for transportation.

TECHNICAL FEATURES

- Front level of substructure may be telescoping or semi trailer mounted while the rear module is semi trailer mounted.
- Mast is two or three sections telescoping and can be moved with rig main module or separately.
- AC VFD motor drive is used for power transmission while diesel engine compound is optional.
- Good mobile feature with module design for easy moving and installation.
- A separate driller cabin is fitted. Operations for air, electric and hydraulic, drilling data and parameters are all in the cabin. All operations by driller can be completed in the cabin for better working conditions and less working strength..
- According to user' s requirement , auto drilling system and top drive drilling system can be equipped.



TECHNICAL PARAMETER

Drilling rig model		ZJ10DBT	ZJ30DBT	ZJ40DBT	GW-M1000	
Nominal drilling depth, m	127mm(5")drill pipe	500-800	1500-2500	2000-3200	2000-3200	
	114mm(4 1/2")drill pipe	500-1000	1600-3000	2500-4000	2500-4000	
Max. hook load, kN		500	1700	2250	2250	
Hook speed, m/s		0-0.9	0-11.5	0-1.2	0.16-1.93	
Line strung of hoisting system		8	10	10	10	
Drill line diameter, mm		22	29	32	32	
Max. pull of fast line, kN		103	210	280	280	
Drawworks	Model	JC10DB	JC30DB	JC40DB	JC32B	
	Power rating, kW	110	600	800	735	
	Speed	Ⅱ, smooth hange	Ⅰ, smooth change		6F+2R	
Main brake		One side hydraulic disc brake			Band brake or disc brake	
Auxiliary brake		Regenerating brake			pneumatic disc brake	
Crown block		TC50	TC170	TC225	TC225	
Traveling block		YC50	YC170	YC225	YC225	
Sheave OD of hoisting system, mm		540	915	1120	1120	
Hook		Top drive	YG170	DG250	DG225	
Swivel	Model		SL170	SL225	SL225	
	Stem dia., mm		64	75	75	
Rotary table	Table opening, mm(in)		520(20 1/2)	698.5(27 1/2)		698.5(27 1/2)
	Speed		1F+1R,VFD motor drive		3F+1R	
	Drive mode		Independent motor drive		Compound drive	
Mast	Type	K,two sections, telescoping			K, telescoping	
	Height, m	19	33	35	40	
	Max. load, kN	600	1700	2250	2250	
Substructure	Type	Skid front level, semi trailer mounted rear level	Parallel front level,semi trailer mounted rear level	Swing lift trailer mounted frontlevel, trailer mounted rear level	Both front and rear levels are semi trailer mounted	
	Floor height, m	3.5	4.5	6	5.5	
	Clear height, m	3	3.2	4.5	4.3	
Mud pump	Model ×number	F-800 × 1	F-1300 × 1	F-1300 × 2	F-1300 × 2	
	Drive mode	Diesel engine				
Drive mode		AC-DC-AC, one for one control			Diesel engine + torque converter	
Drive speed,km/h		≤30			≤10	
Minimum turning radius, m		14	16	21	22	