

FSL500 Reverse Circulation Drilling Rig



INTRODUCTION

FSL500 reverse circulation drilling rig is a new multi-purpose, high-efficiency, environmental protection, multi-track-type rig, which uses the latest foreign gas lift reverse circulation drilling technology, rock dust can be effectively collected through a dust collector to avoid environmental pollution. You can also collect slagging cyclone separator can be used in geological prospecting department of sampling analysis. It is a geological exploration drilling, drilling wells, monitoring wells, ground source heat pump air-conditioning and other deep hole of choice for equipment.

The drilling rig can be used in a variety of compressed air on the ground hole reverse circulation drilling. The lifting system, guide compensation, drill pipe loading and unloading, rotation and feed, legs, winch, walking and other system to achieve all of the hydraulic system to significantly reduce the labor intensity and improve the efficiency and quality of construction.

CHARACTERISTICS

- 1: Diesel engine mounted hydraulic system, all the system include the walking, rotation, feed, lifting, Leg, lifting, compensation system, rod change is hydraulic.
- 2: Reverse circulation system working together with DTH technology, air compressor provide pressed air for impact and dust collect.
3. During working, use the reverse circulation hammer, double tube, pressed air enter between two tube and dust out from the inner tube.
4. Also it's available to positive circulation use normal drilling tool.
5. The working system composed of feed system, guide (mast), rotary head, compensation system, centralizer, rod exchange system, winding and so on.
6. Axes pressure, feed speed, rotary speed is adjustable.
7. The walking system is a self-walking system, convenient for moving, which could install four hydraulic leg, when load on truck, it doesn't need hiking up, it can load on truck directly.
8. Four hydraulic leg use for keep the balance of the drilling during working.

- 9.The sub winding could hoisting Max.1ton drilling tool,it also could help to rod change.
- 10.The guide(mast) could working in 45°-90°,guide have a extention system,which ensure the guide could moving toward the drilling surface,to keed the balance of the guide.
11. Gradienter,angle lable and centralizer to ensure the precision accuracy of hole.
- 12.The air system have a special lubrication system to lubricating the hammer to extend the service life.

MAIN COMPONENTS

- 1.Cummins engine 132KW.
- 2.Crawler type chassis,steel crawler shoe which could install rubber crawler shoe.
- 3.Walking speed reduction system.
- 4.Hydraulic motor from EATON.
- 5.Rotary motor from EATON.
- 6.Multiple gearpump from PERMCO

SPECIFICATION

NO.	SPECIFICATION	UNIT	DATA	REMARKS
1	Model		FSL500A	
2	Rock Hardness		F=6-20	
3	Drilling Type		Reverse Circulation DTH hammer	
4	Air pressure type		High/Middle pressure	With DTH hammer
5	Max.Hole depth	m	380m	
6	Hole Diameter	mm	115-305mm	
7	Working Pressure	Mpa	1.05-3.45	as air compressor
8	Air consumption	m3/min	16-85	as air compressor
9	Engine	Kw	132	CUMMINS
10	Rod Length	mm	3m	
11	Rod Diameter	mm	102/127	
12	Axle Pressure	t	5	
13	Lifting Force	t	20	
14	Lifting Speed(Slow)	m/min	4.2	
15	Feed Speed(Slow)	m/min	5.2	
16	Lifting Speed(fast)	m/min	30	
17	Feed Speed(fast)	m/min	37	
18	Rotary Torque	Nm	8500/4250	
19	Rotary Speed	r/min	0-90/0-180	
20	Drilling Speed	m/h	10~25	With DTH hammer
21	Traveling Speed	Km/h	2.5	
22	Gradeability	°	21	
23	Weight	kg	80000	
24	Length	mm	6500	
25	Width	mm	2100	
26	Height	mm	2800	

Attachment partlist of FSL500A

NO.	NAME	CODE	UNIT	Q'TY
1	Extension Pin Rod		pc	1
2	Top Pin Rod		pc	1
3	Hoisting swivel elevator		pc	1
4	Hoisting joint		pc	1
5	Wire rope hoisting swivel elevator		pc	1
6	Straight wrentch		pc	1

7	Curve wrench		pc	1
8	Backing pin		pc	2
9	Protection cover		pc	1
10	Inner hole cleaner		pc	1
11	External hole cleaner		pc	1
12	Bend-pipe cover plate		pc	2
13	Air seal	HZ550-0019	pc	4
14	Cleaning air pipe	M22X1.5 - 6M	pc	1
15	Main air pipe	M64X2-20M	pc	1
16	Starting key		pc	1
17	Engine manual		pc	1
18	Drill rig manual		pc	1
19	Filter core for air cleaner		set	1
20	Open ended wrench		set	1
21	Inner hexangular wrench		set	1
22	Specialtool for grease fitting		set	2
23	Grease gun		set	1
24	Seals attached to machine		set	1

PICTURE

