



YT27 Pusher-Leg Rock Drill Technical Documents

Executive Standard No.

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Shandong Drill T Mining Machinery Co.,Ltd

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Introduction

Thank you for choosing a product from Drill T. We have a strong global sales and service network, consisting of customer centers and distributors worldwide. Our experts are highly trained professionals with extensive product knowledge and application experience. In all corners of the world, We can offer product support and expertise to ensure that our customers can work at maximum efficiency at all times.

Scope of application

YT27 is a heavy-duty pusher leg Rock Drill featuring high efficiency and low air consumption. It is primarily designed for drilling in mines, hydro-power stations, and road construction projects. It is also a new product suitable for tunneling and other stone works in mining and metallurgical industry.

Operation

Using the rock drill for the first time

Before using the rock drill for the first time you must read these instructions carefully and understand all of them.

When the rock drill arrives from the factory, the inside of the tool is coated with heavy oil to prevent corrosion.

After unpacking and installing the tool, pour a small amount of lubrication to clean the interior. Follow this immediately with a liberal amount of air tool oil.

The rock drill and pusher leg are lubricated with oil mixed with compressed air, which is taken to the parts that need continuous lubrication. Oil is metered into the compressed air using the FY250 lubricator connected to the air line.

Preparations before starting

Check the drilling equipment

- Check that all of the drilling equipment is good working order.
- Check that the impact surface of the drill steel shank is flat with no signs of wear.
- Make sure that the air inlet and exhaust ports are free from obstructions.
- Check that the flushing holes in the drill steel and drill bit are not blocked and that the flushing air/water flows through without obstruction.
- Ensure that the fittings are tight and leak-proof.



DANGER

Always check for damaged or loose hoses and fittings before operation.
Whipping hoses serious injury.

Drilling

Starting the rock drill

1. Open the main valve for compressed air.
2. Open the cock for the flushing water.
3. Adjust the feed control lever to give a suitable feed force for collaring the hole.
4. Align the rock drill so that the working tool touches the desired collaring point.
5. Move the throttle lever forward a little, which will start water flushing, percussion and rotation.
6. Collar the hole with reduced feed force.
7. Move the throttle lever fully forward once the working tool has gained a secure footing in the rock.
8. Adjust the feed force by means of the control lever so that the maximum penetration rate is obtained.

Stopping the rock drill

Pull the throttle lever backwards, which will stop percussion, rotation and flushing water.

Re-positioning the pusher leg

1. Switch off the rock-drill percussion and flushing by means of the throttle lever.
2. Press the trigger, whereupon the piston rod is pulled back into the pusher-leg cylinder automatically.
3. Re-position the pusher leg.
4. Release the trigger, whereupon the piston rod will move outwards again.
5. Move the throttle lever forward into the working position.



WARNING

Involuntary start.

Involuntary start of the machine may cause injury.

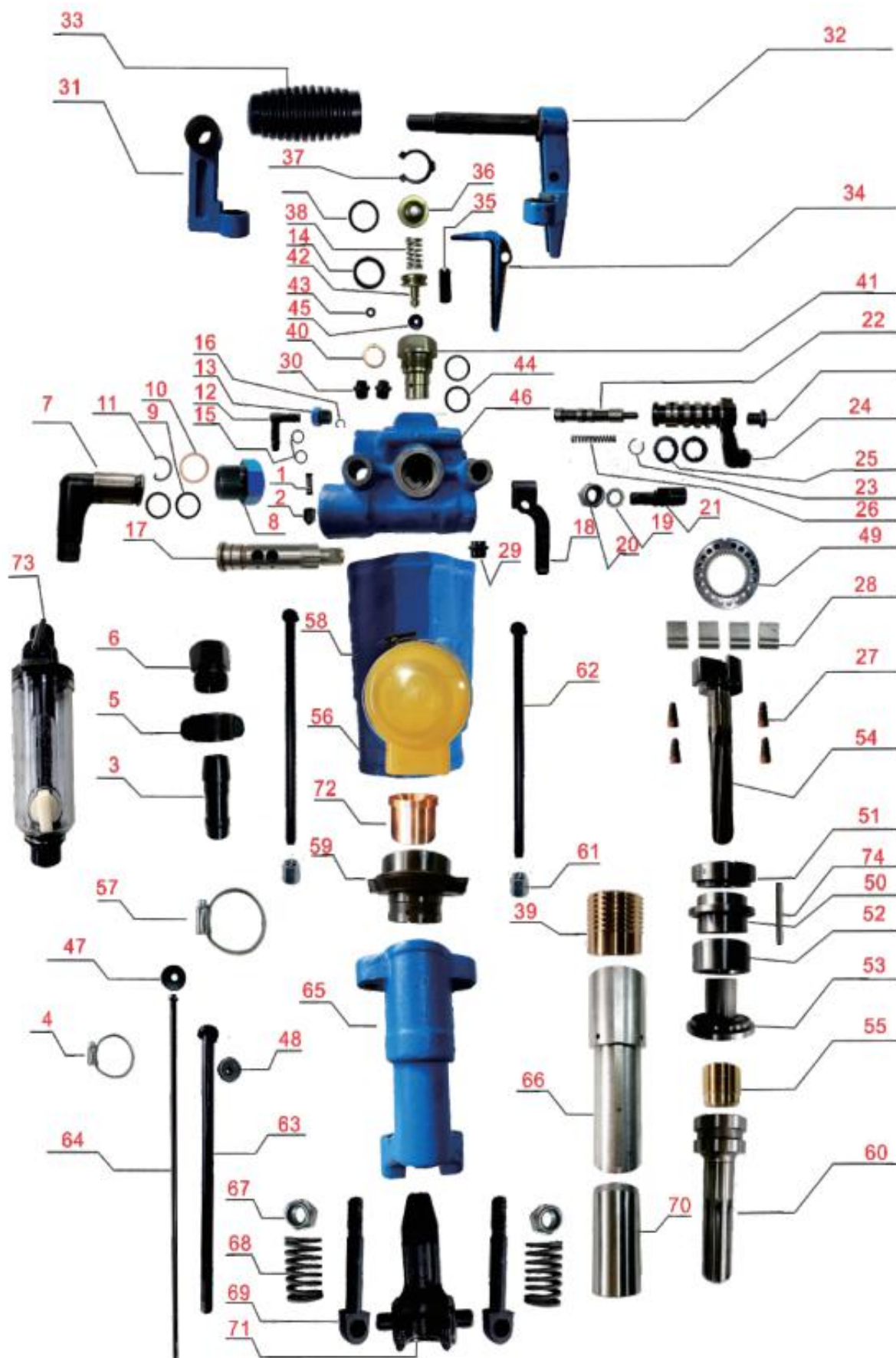
- Keep your hands away from the start and stop device until you are ready to start the machine.
- Learn how the machine is switched off in the event of an emergency.
- Stop the machine immediately in all cases of power supply interruption.
- Always use approved protective equipment. Operators and all other persons in the working area must wear protective equipment.

YT27 Rock drill

Technical parameter

Model	Parameter		
YT27	Weight	27	Kg
	Dimension (L x W x H)	668x248x202	mm
	Cylinder Diameter	80	mm
	Piston Stroke	60	mm
	Working Pressure	0.4-0.63	MPa
	Impact Energy (at 0.5 MPa)	≥64	J
	Air Consumption (at 0.5 MPa)	≤57	L/S
	Impact Frequency (at 0.5 MPa)	≥39	Hz
	Water pressure	Less than working pressure 0.1~0.15	MPa
	Air hose Inner Diameter	25	mm
	Water hose Inner Diameter	13	mm
	Drilling Diameter	34-42	mm
	Max Drilling Depth	5	m
	Shank Size	H22/H25 x 108	mm
FY250 Lubricator	Weight	1.2	Kg
	Capacity	0.25	L
Pusher Legs FT160A	Weight	17	kg
	Length retracted	1668	mm
	Length extracted	3026	mm
	Feed length	1338	mm
	Piston bore	65	mm
Pusher Legs FT160B	Weight	16	kg
	Length retracted	1428	mm
	Length extracted	2586	mm
	Feed length	1098	mm
	Piston bore	65	mm
Pusher Legs FT160C	Weight	18	kg
	Length retracted	1820	mm
	Length extracted	3310	mm
	Feed length	1490	mm
	Piston bore	65	mm

YT27 Rock drill structure chart



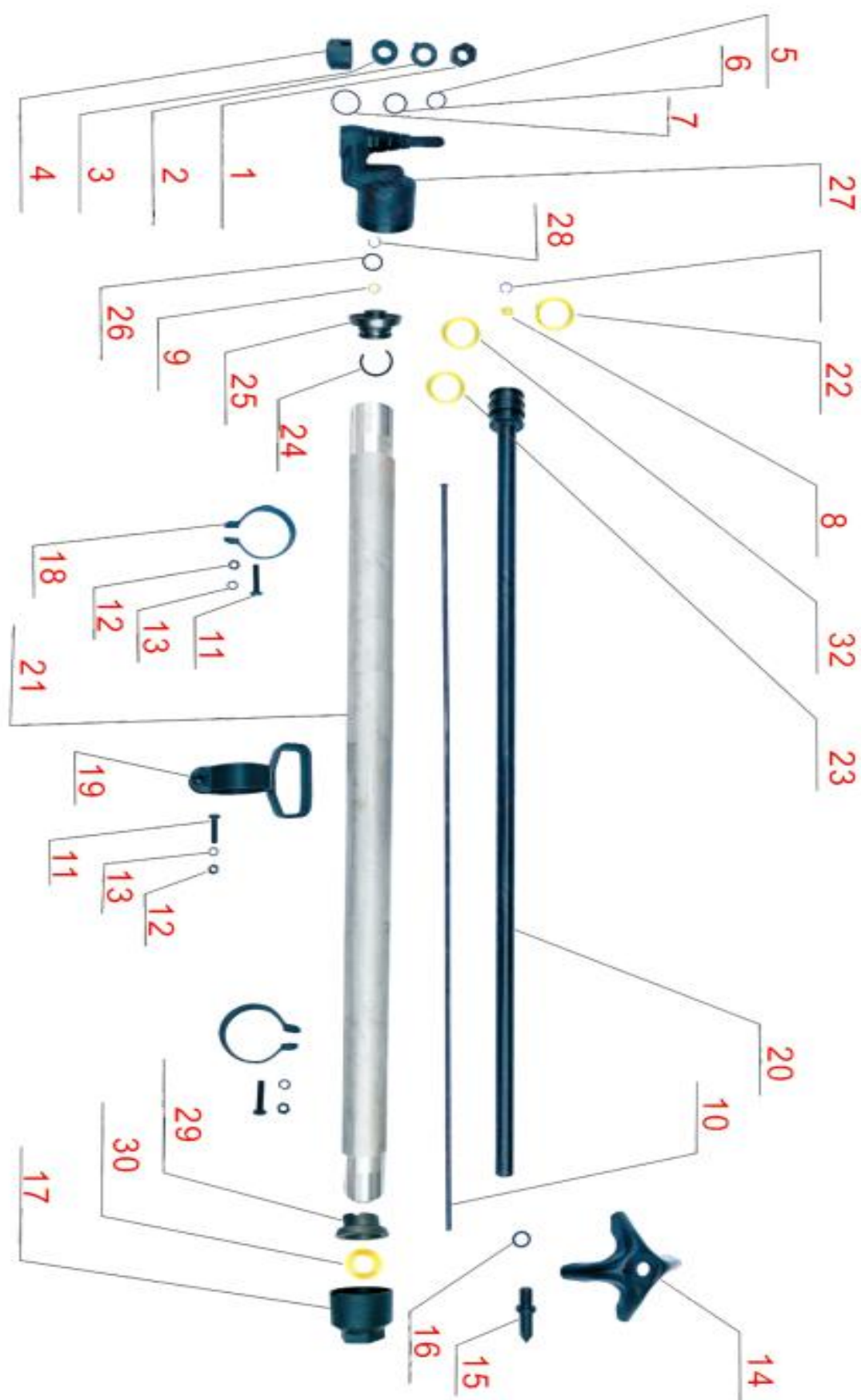
YT27 Rock drill

Spare parts list

Serial No.	Parts No.	Description	Description
1	YT25-3.20	Spring	弹簧
2	YT25-3.21	Positioning pin	定位销
3	25-04	Conical hose connector	锥形胶管接头
4	No.2A	Hose clamp	喉箍
5	25-01	Wing nut	蝶形螺母
6	25-16	Pipe socket	管接套
7	7655-309A	Air hose elbow	空气软管弯头
8	7655-307	Air hose nut	空气软管螺母
9	30x3-25	Ring seal	环形密封圈
10	YT25-3.12	Pad	垫
11	YT25-3.33	Snap ring	卡环
12	YT27-308	Water hose connector	水软管接头
13	YT27-309	Water hose nut	水软管螺母
14	18x3-25	Ring seal	环形密封圈
15	16x2.4GB1235-76	O-ring	O 形密封圈
16	YT27-310	Water hose connector snap ring	水软管接头卡环
17	YT27-1	Control valve	操纵阀
18	YT27-306	Control handle	操纵手把
19	GB9310	Standard spring washer	标准型弹簧垫圈
20	GB6172M10	Hexagon thin nuts	六角薄螺母
21	YT25-3.17A	Fastening pin	紧固销
22	YT27-315	Reversing valve	换向阀
23	YT27-314	Snap ring	卡环
24	YT24-3.14A	Pressure regulating valve	调压阀
25	YT24-3.13A	Up circle	涨圈
26	YT27-311	Spring	弹簧
27	YT25-1.15	Tower spring	塔型弹簧
28	YT25-1.14	Ratchet pawl	棘轮爪
29	YT30-3.07	Large sealing sleeve	大密封套
30	YT30-3.06	Small sealing sleeve	小密封套
31	YT27-317A	Right handle frame	右把手架
32	YT27-319A	Left handle frame welding parts	左把手架焊接件
33	YT27-318A	Damping handle	减震手把
34	YT27-316	trigger	扳机
35	GB879 8X24	Elastic cylindrical pin	弹性圆柱销

36	YT25-3.05	Reed cover	簧盖
37	YT25-3034	Elastic ring	弹性环
38	YT25-3.06	Spring	弹簧
39	YT27-204	Rotating nut	转动螺母
40	YT25-3.35	Pad	垫
41	YT25-3.08	Water injection valve body	注水阀体
42	YT25-3.11	Water injection valve	注水阀
43	4x2-25	Ring seal	环形密封圈
44	24x2.4	O-ring	O 形密封圈
45	YT25-3.13	Rubber pad	胶垫
46	YT29-2	Back head	柄体
47	7655D-2	Water needle sleeve	水针套
48	YT25-3.14	Air needle cushion	气针垫
49	YT29-3	Ratchet	棘轮
50	YT27	Valve	阀
51	YT29-4	Valve deck	阀盖
52	YT29-5	Valve cabinet	阀柜
53	YT27-6	Valve sleeve	阀套
54	YT27-7	Spiral rod	螺旋棒
55	7655-111	Spiral nut	螺旋母
56	YT29-9A	Muffler cover	消声罩
57	NO.4X	Hose clamp	喉箍
58	YT27-10	Cylinder block	缸体
59	YT27-1/11Z	Guide sleeve	导向套体
60	YT27-12	Piston	活塞
61	GB56M16	Hexagon thick nut	六角厚螺母
62	YT27-13	Long bolt	长螺栓
63	YT27-14	Air needle	气针
64	YT27-15	Water needle	水针
65	YT27-16	Front head	机头
66	YT27-17	Rotating sleeve	转动套
67	GB889 M16	I type non-metallic insert Hexagon lock nut	I 型非金属嵌件 六角锁紧螺母
68	76565-205	Rod chuck spring	钎卡弹簧
69	7655-203C	Rod chuck bolt	钎卡螺栓
70	YT25-2.03	Shank sleeve	钎尾套
71	7655-207C	Rod chuck	钎卡
72	YT27-2/11Z	Bushing	衬套
73	FY250	Lubricator	注油器
74	7655D-6	Positioning pin	定位销

FT160A Air leg structure chart



FT160A Air leg

Spare parts list

Serial No.	Parts No.	Description	Description
1	FT160A-1	Fasten the screw nut	锁紧螺母
2	FT160A-2	Stop pad	止退垫
3	FT160A-3	Elastic rubber pad	弹性胶垫
4	FT160A-4	Anti-loose sleeve	防松套
5	32x3.1 GB1235-76	O-ring	O 形密封圈
6	38x3.5 GB1235-76	O-ring	O 形密封圈
7	45x3.1 GB1235-76	O-ring	O 形密封圈
8	FT160A-16	Air hose rubber pad	气管胶垫
9	FT160A-10	Double YX sealing ring	双 YX 形密封圈
10	FT140-14 (FT160A、 FT170)	Air tube	气管
	FT160B-3	Air tube	
	FT160C-3	Air tube	
11	GB5782 M10x40	Hexagon head bolts	六角头螺栓
12	AM10 GB53-76	Small hexagon flat nuts	小六角扁螺母
13	GB93 10	Standard spring washer	标准型弹簧垫圈
14	FT160A-15	Top fork welding parts	顶叉焊接件
15	FT160A-14	top notch	顶尖
16	GB93 22	Standard spring washer	标准型弹簧垫圈
17	FT160-12A (FT160A、 B、 C)	Down tube seat	下管座
18	FT160-11	Locking ring	锁紧圈
19	FT160A-17 (FT160A、 B)	Handle	提把
	FT160-10 (FT160C)	Handle	
20	FT160A-12	Piston rod welding parts	活塞杆焊接件
	FT160B-2	Piston rod welding parts	
	FT160C-2	Piston rod welding parts	
21	FT160A-11	Outer tube	外管
	FT160B-1	Outer tube	
	FT160C-1	Outer tube	
22	FT160A-9 (FT160A、 B、 C)	YX sealing ring	YX 形密封圈
23	FT160A-8 (FT160A、 B、 C)	Support ring	支承环
24	FT160A-7	Elastic ring	弹性圈
25	FT160A-6	Frame pad	架体垫
26	30x3.1 GB1235-76	O-ring	O 形密封圈
27	FT160A-5	Frame Welding Parts	架体焊接件
28	GB893.1 22	Elastic retaining ring For hole	孔用弹性挡圈
29	FT160A-13 (FT160A、 B、 C)	Guide sleeve	导向套
30	FT140-16A (FT160A、 B、 C)	Dust sleeve	防尘套

FY250 Lubricator

structure chart



FY250 Lubricator

Spare parts list

Serial No.	Parts No.	Description	Description
1	FY250B-1	Fasten the screw nut	注油器体
2	FY200B-2	Stop pad	油阀
3	FY250B-3	Elastic rubber pad	壳体
4	FY200-2	Anti-loose sleeve	挡圈
5	FY200-11	O-ring	弹性挡圈
6	FY200A-2	O-ring	油堵
7	GB879 3x24	O-ring	弹性圆柱销
8	14x2.4 I-1 GB1235-76	O-ring	O 形密封圈
9	22x2.4 I-1 GB1235-76	O-ring	O 形密封圈
10	35x3.1 I-1 GB1235-76	O-ring	O 形密封圈
11	Q/LB18-92-52x3	O-ring	O 形密封圈
12	Q/LB3-94-25*	Small hexagon flat nuts	蝶型螺母
13	Q/LB4-92-25*	Standard spring washer	锥形气管接头
14	Q/LB14-92-A25	Top fork welding parts	管接套