

Model Y24 Hand-hold Rock Drill

一、 Instruction

The rock drill is widely used for dry drilling in the medium-hard and hard rock($f=8-18$). It's suitable for drilling works in surface mine, quarry for boulder blasting and other dry drilling working.

FY200B oil reservoir is matched with this rock drill to ensure the fine lubrication.

二、 Specification

Weight	≈24kg
Length	604mm
Cylinder dia.	70mm
Piston stroke	70mm
Work pressure	0.4~0.63MPa
Impact frequency*	≥27HZ
Air consumption*	≤55L/s
Air pipe inner dia.	19mm
Shank head dia	34~42mm
Shank dimensions(hex×length)at0.4Mpa	22×108±1mm

FY200B oil reservoir:

Capacity	200ml
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三、 Maintenance

一、 Notice in operation

- 1、 This rock drill has been filled with antirust oil. It should be washed and with lubrication before being operated.
- 2、 The dunghill should be blowed before linking the aie pipe to flexible and credible. The oiler should be filled with lubrication and adjust the oil flux.
- 3、 Before start the machine should check whether all parts are flexible and credible. The oiler should be filled with lubrication and adjust the oil flux.
- 4、 Machine propelling force mainly depends on machine own weight, if apply thrust, it will accelerate drilling speed.
- 5、 Ensure that maintain machine at intervals. Clear dirty and change damaged,frayed and deteriorated parts at least twice a month.
- 6、 If machine should store for a long time.dismantle machine first, oil and seal , then placed a dry place.

二、 Oil reservoir

The controlling structures of Y24 all are on back head (25)(except oil valve).

1.Control valve

The control valve (23) is controlled by control handle (37). There are five positions and its function scope is as figure 5

Figure 5 position of control

2. Oil reservoir

The oil flux of FY200B oil reservoir is easy to be adjusted. Turning oil valve handle can control the oil flux. As usual the perfect oil reservoir is 2.5-3 milliliter/minute. When symmetrical oil fog can be seen in the air then the oil flux is proper.

三、Lubrication

Lubrication will affect the capability and lift of machine. It is permitted to operate machine without lubricant.

Please refer to following list when choose lubricant:

Temperature	Name	No	Flash point	Kinematic viscosity	Solidifying point	Standard
10—30℃	Machine oil	N46	180℃	41.4—50.6(40℃)	-10℃	GB443-84
-10—10℃	Machine oil	N22	170℃	19.8—24.2(40℃)	-15℃	GB443-84
-30—30℃	Refrigerator oil	HD-13	160℃	11—15(50℃)	-40℃	SY1213-79

四、Air pipe and pressure

1. Air pipe

Air pipe inner dia. ϕ 19mm. length not exceeds 15 meter and the dia.of pipe connector not less ϕ 19mm.

2. Air pressure

The usual pressure is 0.4-0.63Mpa. If pressure is too high the machine will be vibrated fiercely and the shank and parts are easy be broken. But with low pressure the efficiency will be low.

五、Shank pole

The shank pole should be standard hex.empty pole (GB6481-86). If the user make shank pole with steel by himself then the shank pole should accord with figure 7 and following points.

1.The rigidity of shank: HRC 49-55

2.Shank sleeve should be even and vertical with shank axes and the angle can not be too large.

Should accord with figure

六、Notice in disassembly assembly

1、Air valve

It should be careful in disassembling and assembling the air valve. It can't be in stack and knocked. The valve should can go to two extremities softly in valve chest.

2、Shank sleeve

The shank sleeve and rotational sleeve are fixed together. When disassembling shank sleeve the rotational sleeve should be heated to 200℃. Then use shank with dia. less 30mm to knock out the shank sleeve. When shank sleeve is assembled the rotational sleeve should be heated to 200℃ then put the cool shank into rotational sleeve and knock it to end.

3、Air connection tube and water connection tube

When dismantling, push in air connection tube and water connection tube,fetch steel wire ring clamp with tool. When assembling, push air connection tube and water connection tube into the right handle, put steel wire ring clamp into half slot, hen pull air connection tube and water connection tube

4、Rifle nut

The rifle nut and piston is connected with left revolved whorl. The user should pay attention to revolving direction in disassembly and assembly.

5、 When whole machine in assembled the side bolt nut(34) should be screwed down equably to insure machine working safely.

七、 Technology Safety

When operating the machine the user should not only follow the common working rules but also have to pay attention to the following points:

- 1、 Ensure that technical safe practices are employed.
- 2、 Pay attention to the position of steel wire ring clamp.
- 3、 Check steel wire ring clamp whether or not abrase, if so, change another at once.
- 4、 Do not allow use low burning point and easy explosion lubricating oil.

四、 Parts and Illustrations

1、 Parts list

Parts list of handle rock drill model Y24:

No	Part No	Name	Qty	No	Part No	Name	Qty
1	I-1GB1235-76	O-seal ring	3	24	Y24-3.05	Air tube	1
2	YT24-1.02	Ratch	1	25	Y24-3.08	Handle	1
3	YT24-1.03	Valve chest	1	26	Y24-3.17	Air tube sleeve	1
4	YT24-1.04	Valve	1	27	Y24-3.23	Nut plug	1
5	YT24-1.05	Valve cover	1	28	Y24-3.27	Handle	1
6	YT24-1.06	Fixing pin	1	29	Y24-3.29	Rubber handle	2
7	YT24-1.07	Ratch pawl	4	30	Y24-3.31	Handle bolt	1
8	YT24-1.08 ^a	Rifle nut	1	31	Y24-3.32	Pad	2
9	YT24-1.09	Rifle bar	1	32	YT24-3.02	Side bolt	2
10	YT24-1.10	Piston	1	33	YT24-3.07	Big seal ring	1
11	YT24-1.11	Cylinder	1	34	YT24-3.09	Side bolt nut	2
12	YT24-1.12	Guide sleeve	1	35	YT24-3.10	Steel retaining ring	1
13	YT24-1.13 ^a	Muffler	1	36	YT28-3.11	Air connection tube	1
14	YT24-1.15	Crowned spring	4	37	YT24-3.21	Control handle	1
15	D100 zbj15001-87	Hoop	1	38	YT24-3.22	Fixing pin	1
16	YT24-2.01 ^a	Front head	1	39	YT25-3.14	Air tube pad	1
17	YT24-2.02	Rotational sleeve	1	40	YT25-3.20	Spring	1
18	YT24-2.03	Shank cover	1	41	YT25-3.21	Setting pin	1
19	YT28-2.05	Yoke spring	2	42	YT25-3.35	Pad	1
20	YT24-2.06	Yoke bolt	2	43	Gb889 M16	I-hex.locking nut	4
21	YT24-2.07 ^a	Yoke	1	44	GB6172 M10	Hex.thin nut	1
22	YT28-2.12	Spring pad	2	45	GB93 10	Spring pad	1
23	YT24-3.03	Control valve	1				

Model FY200B Oil Reservoir Parts List:

No	Part No	Name	Qty	No	Part No	Name	Qty
1	FY200B-1	Oil reservoir	1	7	GB879 3 × 24	Pin	1
2	FY200B-2	Oil valve	1	8	I-1GB1235-76	14×2.4O- ring	2
3	FY200B-3	shell	1	9	I-1GB1235-76	22×2.4 O- ring	1
4	FY200-2	Retainer ring	1	10	I-1GB1235-76	35×3.1 O- ring	1
5	FY200-11	Spring retaining ring	1	11	Q/LB18	52×3 O- ring	1
6	FY200A-2	Oil plug	1	12	19Q/LB14	Pipe connector	1