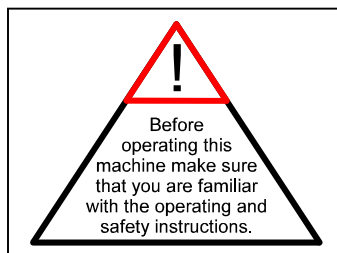


**MODEL 2 2404 0010
PNEUMATIC ROTARY HAMMER**



OPERATING MANUAL



SAFETY INSTRUCTIONS

Any power tool can be dangerous. Please follow these simple safety procedures – they are for your protection.

- Do not use this product in anyway other than as directed by these operating instructions.
- When working with the machine, it must be held with two hands. Always make sure that you have a safe stance / foothold.
- Regular maintenance is essential – check screws, fittings etc. for tightness
- Check air line for damage
- Make sure the unit is lubricated
- Never use blunt drills
- Wear goggles, gloves and ear protection
- Always disconnect air when changing drills or working on the machine
- Remove rings, watches, ties etc. that could tangle in the moving parts

WARNING! Never use the flexible hose as a lifting handle!

Your safety is in your hands! Keep these instructions!

Noise and vibration levels

Typically the A-weighted noise levels of the tool are:

- Sound pressure level: 90 dB(A)
- Sound power level: 103 dB(A)

Wear ear protection.

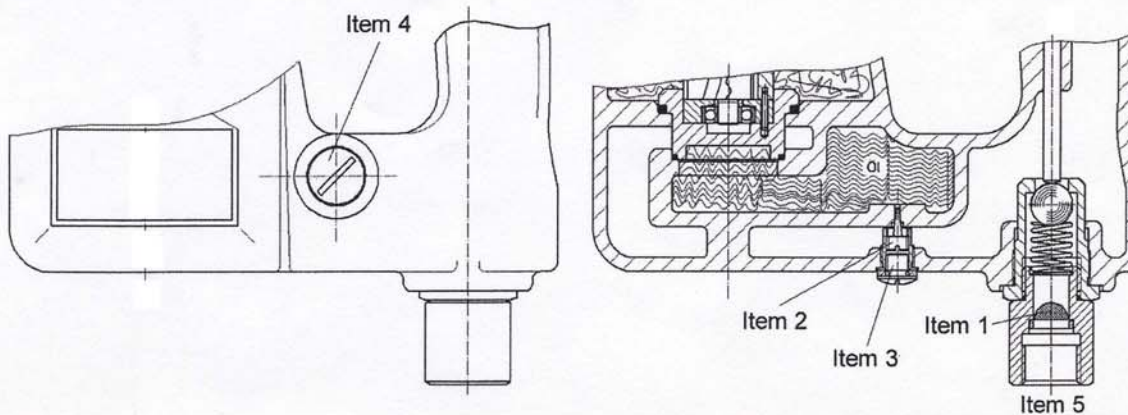
The typical weighted acceleration is 11 m/s².

SPECIFICATIONS

Air connector:	R1/2"
Operating pressure:	max. 90 PSI (6 bar)
Air consumption:	21 CFM (600 l/min)
Water connection ball cock:	R1/4"
Free speed:	0-625 RPM
Load speed:	0-440 RPM
Hammering under load:	0-3000 blows/min
Drilling performance in medium-hard concrete:	12 mm dia = 34 cm ³ /min. = 300 mm/min
Drill bits for concrete:	5-28 mm dia.
Performance optimum in concrete:	12-20 mm dia.
Percussion core bits for concrete:	66-90 mm dia.
Twist drills for steel:	5-13 mm dia.
Drill bits for wood:	5-30 mm dia.
Motor oil capacity:	75 cm ³
Weight:	11.7 lbs. (5.3 kg)
Safety clutch for protection against overloading and accidents	
Gears sealed dust tight with central and permanent lubrication (maintenance free)	
Adjustable side handle with depth gauge and water flushing.	
Supplied kit: 1 case, 1 dust guard, 1 5-cc bottle of oil	

Before using the tool:

Open oil plug (item 4) and pour in oil from bottle in case.



START-UP AND OPERATION

Do not exert undue pressure on the rotary hammer. This will not increase its performance. Just position the bit and guide it into the hole.

Placing the tool into case: Make sure the adjusting sleeve is locked at the setting "Rotary hammer drilling"

Side handle: This can be turned through 360° and clamped in any desired position.

Depth gauge: Press unlock button, adjust the depth gauge and release button.

Lubrication of chuck: Occasionally lubricate drill bit connection ends and spray sparingly with lubricant sprayer. Do not spray into the chuck.

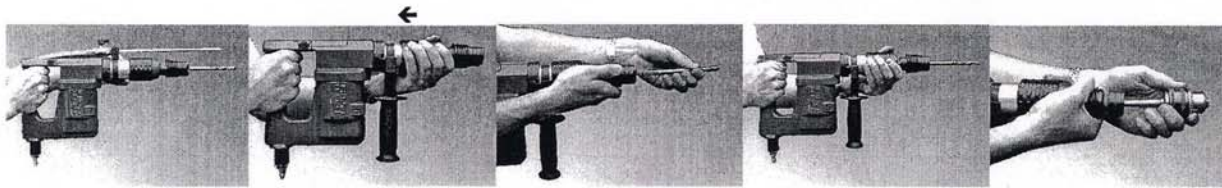


Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

DRILLING IN EXPLOSIVE SURROUNDINGS

Fig.1: The drill bit must be water cooled to avoid sparks. Water connection on ball cock.

ROTARY HAMMER DRILLING

Fig.2: Pull back the adjusting sleeve and turn it clockwise to lock. Do not use the quick-release chuck at this setting because drill bits will be damaged.

Fig.3: Pull back the locking sleeve and insert the drill bit. Turn the locking sleeve until it snaps back into the outset position. Press the drill bit against the work surface before switching on otherwise the tool will not hammer. If the drill bit sticks in the hole, withdraw and reinsert it several times when drilling.

Fig.4: When starting to drill into brittle materials (tiles etc), unlock the adjusting sleeve to "Rotary drilling only", hold the tool by the adjusting sleeve and press it slowly against the work surface until it hammers weakly. Hold and continue to drill the hole. Switch off the tool briefly and relock the adjusting sleeve.

ROTARY DRILLING ONLY

Fig. 5: Unlock the adjusting sleeve. The quick-release chuck is used at this setting. Commercially available HS twist drills can be used in the quick-release chuck.

MAINTENANCE OF PNEUMATIC MOTOR

Only maintenance in compliance with regulations ensures constant performance, less wear and longer life (as per following list).

Motor lubrication:

Proper lubrication is essential. Consequently, the rotary hammer has a built-in oiler. It is adjusted and set at the factory and must not be readjusted. If necessary nonetheless, turn the plug screw (Item 3) as far as it will go and screw back a quarter turn. At regular intervals of five hours operation, the oil level must be checked through the oil plug (Item 4). If necessary, top up. The oil to be used must have the viscosity grade SAE 5 W/SAE 10 W. At temperatures below 3°C (38°F) a defreeze lubricant e.g. BP Energol AX10, Kilfrost or Kompranol H74 must be used.

It is unavoidable that small amounts of oil flow out of the air vent ports.

35-cc oil refill bottle (Order-No. 9 9902 0020).

Compressed air supply:

The compressed air must be clean and dry (proper compressed air equipment). The compressed air hose must be blown through before connecting it. The hose, fittings and line must have the necessary bore to ensure that the required volume of air is available (600 l/min). A sieve/ filter (Item 1) is provided in front of the tool connector. It must be checked and cleaned regularly. The operating pressure must not exceed 90 PSI/6 bar otherwise the motor will be damaged.

Motor cleaning:

After approx. 10 hours operation, the motor must be rinsed through with cleaning oil (Order-No. 9 9902 0100). Cleaning oil must be poured from the bottle into the air connection (item 5), then the air line connected and the hammer switched on (approx. 20 sec. under no load).

Motorvane wear:

The vanes are the main wearing parts and they should be changed in good time. A clear drop in performance indicates wear (more than 100 hours operation with regular oiling).

MAINTENANCE OF PNEUMATIC MOTOR

Disassembly

Refer to the sectional drawing and spare parts list when disassembling and reassembling. The vanes are the main wearing parts and they should be changed in good time. Vanes are considered worn if their width is less 7 mm (Fig. 6).

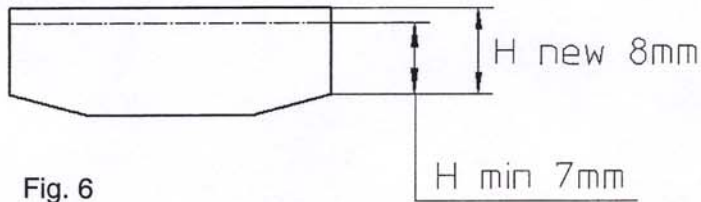


Fig. 6

Loosen screws (Item 21), pull out centering cover (Item 7) and inner motor parts. Pull end plates (Items 40+48) with bearings (Items 41+47) and spacers (Items 42+48) off the rotor (Item 45). Take off cylinder bushing (Item 43) and remove vanes (Item 38) from the rotor slots. Replace vanes when necessary.

Reassembly

Remove any oil and resin residue from the rotor slots before reassembly. The new vanes (Item 38) should fit easily into the slots. Reassembly then is done essentially in reverse order.

Caution!

If the bearings (Items 41+47) have been replaced, ensure correct spacing. If necessary use new spacers (Items 42+48) and grind them to a clearance of 0,04 - 0,05 mm (Fig. 7). To get the right clearance it is necessary to press the inner bearing rings towards the bushing (Item 4) respectively washer (Item 19). The chamfered edges of the spacers items 42 and 48 should point towards the center of the rotor.

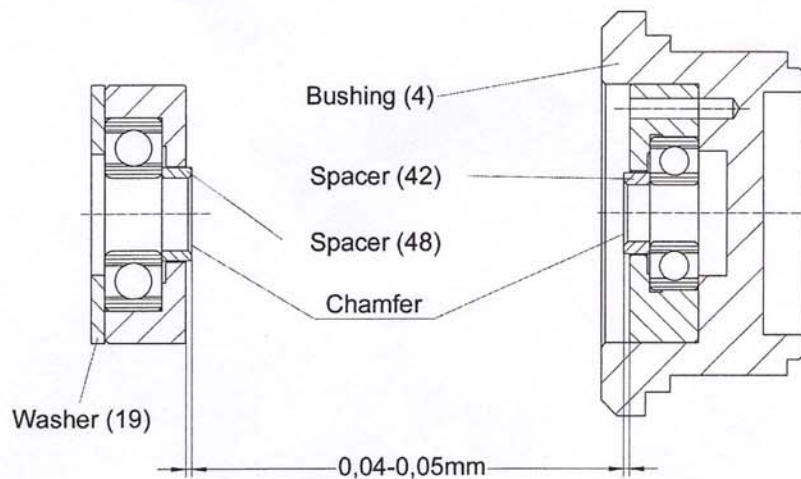


Fig. 7