Specifications:

	CHUCK SIZE		WEIGHT		LENGTH		BORE		STROKE		FRQ'CY		AIR CONS		REC.WRKG		AIR HOSE		HOSE FITTING
model	*ins*	*mm*	*lbs*	*kg*	*ins*	*mm*	*ins*	*mm*	*ins*	*mm*	*bpm*	*hz*	*cfm*	*L/sec*	*psi*	*bar*	*ins*	*mm*	
DM5/S (hex)	3/4	19	.63	4.8	15.75	400	1.125	28	2.4	61	2600	43	16	7	90	6	1/2	12.5	1/2"NPT

Notes:1. The weights shown include a silencer

Pneumatic Tool Test Results:

MODEL	WEIGHT		WEIGHTED ACCELERATION LEVEL	ACCELERATION LEVEL	NOISE LEVEL PRESSURE	NOISE LEVEL POWER
	KG	lbs	M/sec/sec	"db"	db(A)	db(A)
DM5	4.8	10.63	22.42	147.01	85	105

EC DECLARATION OF CONFORMITY : Machinery Safety

We Macdonald Air Tools Ltd., East Kilbride, Scotland declare under our sole responsibility that the product to which this declaration relates, conforms to the requirements of the Council Directive of the 23rd July 1998 on the approximation of the laws of the Member States relating to the Machinery (98/37/EC) and any subsequent amendments.
Other Applicable Directives : 84/537/EEC, 79/113/EEC - Applicable Standards : EN 28662-5, 28662-2, 28662-3, 792-4:2000

Product Name: DM5 *Model : CHIPPING HAMMER* *Serial Number :*

Signature of Certifier : *(E J Van Der Stighelen - Engineering Manager)* *Date & Place of issue :/ / East Kilbride*

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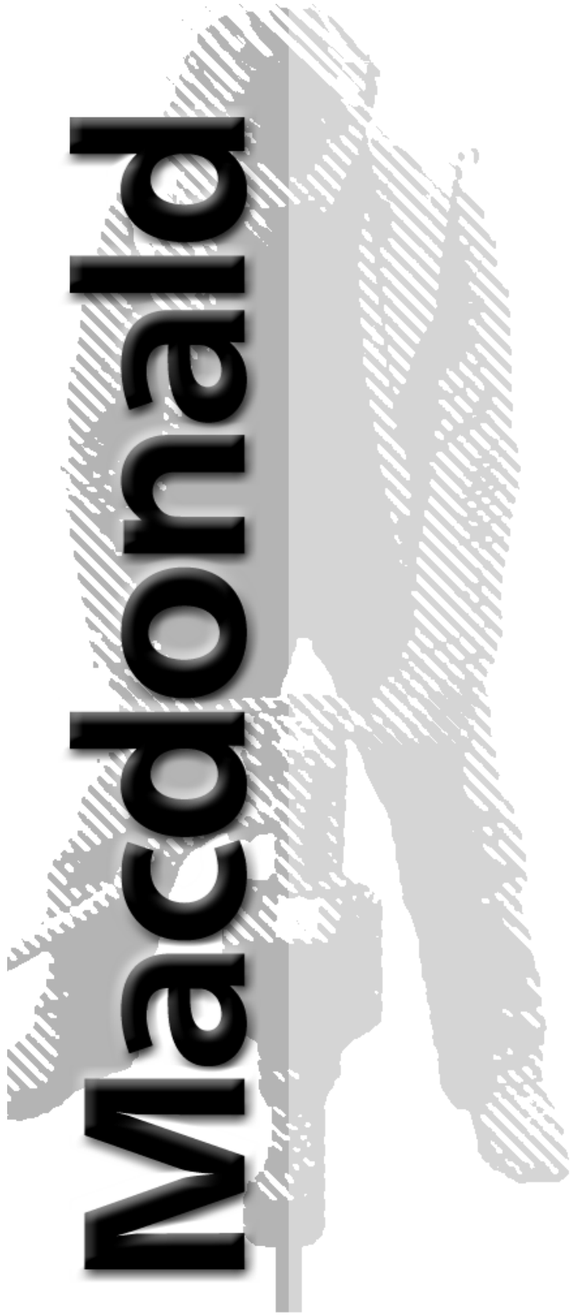
CE

BM TRADA CERTIFICATION ISO 9002 UKAS QUALITY MANAGEMENT 016

DM52011V2.0

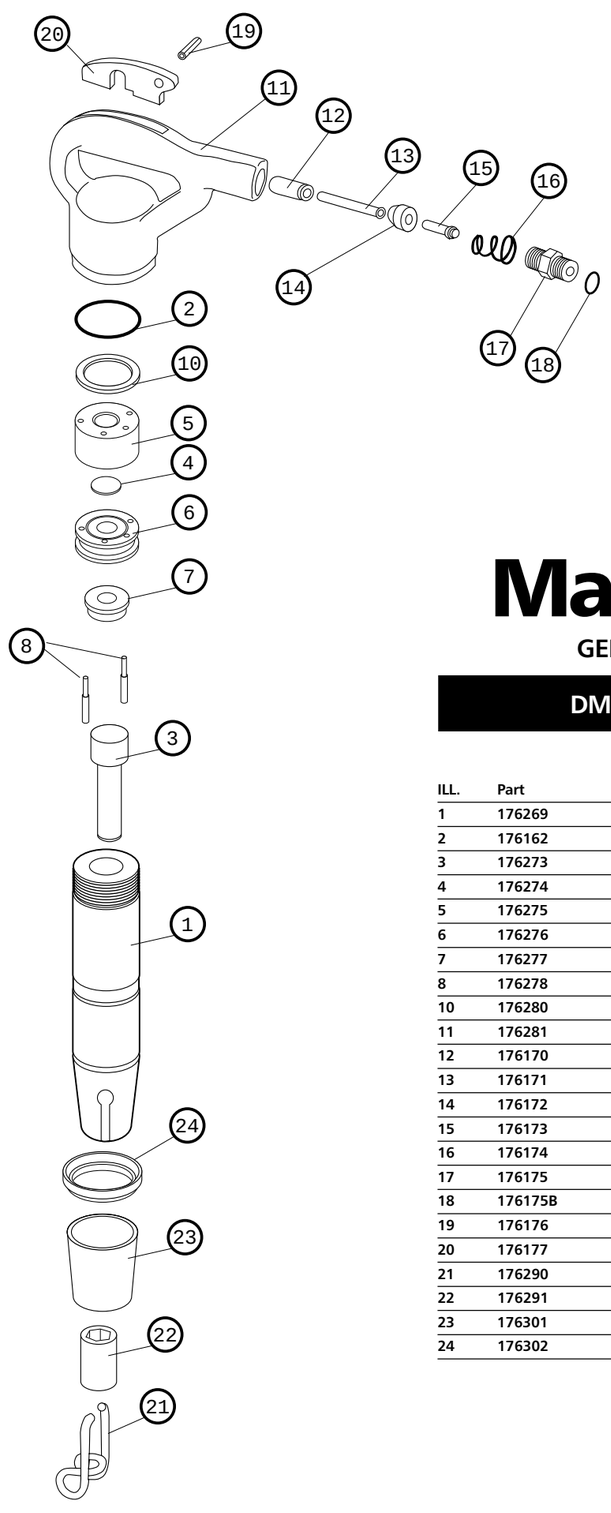
Specification & Parts List



DM5 Chipping Hammer

The Macdonald DM5 Chipping Hammer is the ideal tool for light duty demolition work in brick or concrete. Due to the hammer only action these tools will give reduced maintenance costs, harder hitting power and less spares requirements than hammer drill tools. They can be used with a range of standard accessories.

DM5 Chipping Hammer



Macdonald

GENUINE SPARE PARTS

DM5 Chipping Hammer

ILL.	Part	Description of Part	Per Tool
1	176269	CYLINDER	1
2	176162	CYLINDER O-RING	1
3	176273	PISTON	1
4	176274	VALVE DISC	1
5	176275	VALVE PLATE UPPER	1
6	176276	VALVE PLATE LOWER	1
7	176277	PLASTIC VALVE BUMPER	1
8	176278	DOWEL PIN	2
10	176280	PACKING	2
11	176281	HANDLE	1
12	176170	PUSH ROD BUSHING	1
13	176171	PUSH ROD	1
14	176172	THROTTLE VALVE BUSHING	1
15	176173	THROTTLE VALVE	1
16	176174	THROTTLE VALVE SPRING	1
17	176175	INLET BUSHING	1
18	176175B	INLET BUSHING O-RING	1
19	176176	LEVER/TRIGGER PIN	1
20	176177	LEVER/TRIGGER	1
21	176290	SPRING RETAINER	1
22	176291	CHISEL BUSHING HEX 19 X50mm	1
23	176301	SILENCER	1
24	176302	SILENCER CAP	1

MAINTENANCE AND REPAIR

Attention to a few fundamental points will prolong the life of the tool, keep it in service and ensure maximum working efficiency.
Ensure that the operator reads and understands what he is required to do to comply with these points prior to using the tool. Ensure also that he carries out his part of the instructions.

1. Ensure the machine is disconnected from air supply before doing any work on it.

2. Ensure the machine is held firmly in a vice or fixture for dismantling.

3. Correct tools for dismantling and assembling must be used.

4. When using a solvent or cleaner, follow the manufacturer's instructions.

5. Before clearing the machine for use, ensure that all the connections and joints are tight, looseness causes air losses, vibration and general inefficiency.

6. Always blow out the hose before connecting to the tool to prevent dirt or other foreign matters being carried into the working parts of the tool.

Lubrication

All pneumatic tools require regular and adequate lubrication to prevent excessive wear and ensure efficient operation. Particular attention should be paid to lubrication during the initial running in period of a new tool.

The tool works at top speed and full power right from the start, so lack of lubrication during this period, before the tool is loosened , can lead to excessive wear on all working parts.

Where an oil reservoir is incorporated in the tool it should be filled daily.

Before starting work each day, pour a small quantity of the correct grade of oil into the air inlet and blow out the hose to ensure no dirt or moisture is lying in the hose. Couple the hose to the tool and give the tool a short burst. Care must be taken not to over-oil the tool to avoid excess oil blowing from the tool and damaging the working surface.

Only clean oil of the correct grade, as stated, should be used for lubrication. A heavy or dirty oil is useless as it will only serve to "gum up " the tool.

Recommended Oil :

The following oils are recommended for use with Macdonald Tools and these or their equivalents should be used in normal conditions. For abnormal conditions e.g. extreme heat, consult the oil company.

SHELL	Clavus 25
BP	Energol LPT 80
ESSO	Zerice 46
MOBIL	Almo 525

Air Supply

Always ensure that an adequate supply of compressed air at a pressure of 6 bar (90 p.s.i.g.) minimum is available to the tool. Reduced air pressure will affect the performance of the tool adversely.

Use the shortest length of hose possible between the compressor and the tool to avoid undue pressure drop through the hose.

General

The tools require adequate flows of compressed air at around 6 bar pressure for efficient operation. Always blow out the hose carefully before coupling to the tool in case dirt or foreign matter is carried into the tool in the air stream.
If the tool sticks completely, the most likely cause is dirt or improper or insufficient lubrication. If this happens the tool should be dismantled by a competent engineer, the parts should be thoroughly cleaned in a suitable solvent, lightly oiled and re-assembled. Keep the tool tight, do not allow any fasteners or connections to become loose because this can lead to air losses, vibration, excessive wear and inefficiency.
Always use sharp moils and chisels or spades because dull cutting edges cause the tool to absorb the blow instead of cutting through the workpiece. This results in operator fatigue, chisel breakages and poor productivity.

SAFETY AND OPERATING INSTRUCTIONS (General)

1. Never exceed the maximum air pressure recommended for the machine, usually this is 7.5 bar (110 p.s.i.g.) for hand held machines.

2. Do not use damaged, frayed or deteriorated hoses and fittings. Always store hoses properly after use away from heat sources or sunlight. A hose failure can cause injury.

3. When blowing out a hose or air line, ensure the open end is held securely, a free end will whip and can cause injury. Open the supply air cock carefully and ensure that any particles are ejected safely. A blocked air hose can become a compressed air gun.

4. Close the air cock at the compressor or the supply line and release the line pressure before disconnecting the hose. The air cock should be within easy reach of the work area.

5. Personal protection such as safety glasses, gloves and safety footwear should be worn by the operator and other personnel where work operation or regulations require their use. Ear defenders should be worn.

6. Depending on the material being worked on, precautions may be required against the generated dust.

USE OF THE MACHINE

1. Use only approved inserted tools.

2. Worn Inserted Tools can promote breakage, reduce work rate and increase vibration. An Inserted tool which breaks can cause injury.

3. Do not use frozen tools. In freezing conditions, store tools undercover, preferably in a warm building, Freezing conditions can make hardened steels brittle and cause breakage.

4. A proper working position should be adopted to ensure stability in the event of a breakage of an Inserted tool.

5. Always turn off compressed air supply and release the air pressure in the hose before changing the Inserted Tool or before disconnecting the hose.

6. Always present the tool as squarely as possible to the working surface to minimise the effects of side loading on the Inserted tool.

7. Do not use in circumstances where the tool may strike a live but possibly concealed electric cable.

8. If the compressed air supply stops during operation of the machine the throttle lever should be released immediately.

9. Never hold onto the Inserted tool, use the bottom sleeve or silencer.

Warning

NEVER ATTEMPT TO CHANGE A CHISEL, MOIL, ASPHALT CUTTER OR OTHER ACCESSORY ON A PNEUMATIC TOOL UNLESS THE TOOL HAS BEEN COMPLETELY DISCONNECTED FROM THE AIR SUPPLY.

THE CYLINDER OF THIS TOOL IS HARDENED AND SHOULD NOT BE WELDED UNDER ANY CIRCUMSTANCES. WELDING CAN CAUSE LOCAL SOFTENING.