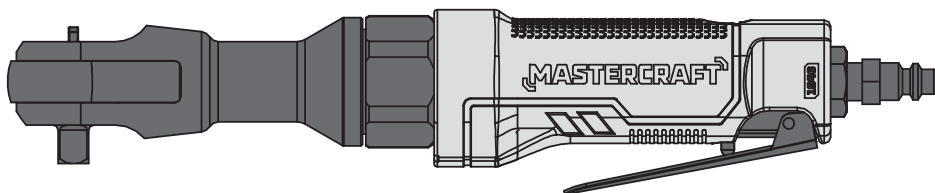


MASTERCRAFT™/MC

model no. 058-1966-0

3/8" AIR RATCHET WRENCH



IMPORTANT:

For your own safety, read and follow all of the Safety Guidelines and Operating Instructions before operating this ratchet wrench. Keep this manual for future reference.

INSTRUCTION MANUAL

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NOTE: If any parts are missing or damaged, or if you have any questions, please call our toll-free helpline at 1-800-689-9928.



SAVE THESE INSTRUCTIONS

This manual contains important safety and operating instructions. Read all instructions and follow them with use of this product.

SQUARE DRIVE	3/8"
SPEED (no load)	160 RPM
MAXIMUM TORQUE	50 ft-lb (68 Nm)
CFM REQUIREMENT	3.1 CFM @ 90 PSI
OPERATING PRESSURE	90 PSI (6.2 bar)
AIR INLET SIZE	1/4"-18 NPT
AIR HOSE	3/8" (9.5 mm)
WEIGHT	2 lb 9 oz (1.17 kg)

CFM: Cubic Feet per Minute (the volumetric flow rate of air corrected to standardized conditions of temperature and pressure).


NPT: National Pipe Thread.

SAFETY GUIDELINES

This manual contains information that relates to PROTECTING PERSONAL SAFETY and PREVENTING EQUIPMENT PROBLEMS. It is very important to read this manual carefully and understand it thoroughly before using the product. The symbols listed below are used to indicate this information.

DANGER!
 Potential hazard that will result in serious injury or loss of life.

WARNING!
 Potential hazard that could result in serious injury or loss of life.

CAUTION!
 Potential hazard that may result in moderate injury or damage to equipment.

Note: The word "Note" is used to inform the reader of something he/she needs to know about the tool.

PERSONAL SAFETY

These precautions are intended for the personal safety of the user and others working with the user. Please take time to read and understand them.

SAFETY GUIDELINES

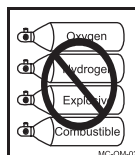
**DANGER!**

Potential hazard that will result in serious injury or loss of life.

- Keep children away from the work area. Do not allow children to handle power tools.
- Do not use this tool in the presence of flammable liquids or gases. Sparks that are created during use may ignite gases.
- Do not point the tool towards yourself or other people, even when the tool has stopped. Keep hands, feet, and all other parts of the body clear from work area.
- Always ensure that the workpiece is firmly secured leaving both hands free to control the tool.
- Always ensure that the tool has stopped before putting it down after use, in the interest of safety and to prevent possible damage to the tool or personal injury.



- Do not use oxygen or any other combustible or bottled gas to power air-powered tools. Failure to observe this warning can cause explosion and serious personal injury or death. Use only the compressed air to power air-powered tools. Use a minimum of 25' (7.6 m) of hose to connect the tool to the compressor. Failure to comply will result in serious injury or loss of life.



- Risk of electric shock: Do not expose a compressor to rain. Store it indoors. Disconnect the compressor from the power source before servicing. Compressor must be grounded. Do not use grounding adaptors.



- Risk of personal injury: Do not direct compressed air from the air hose towards the user or other personnel.



- Risk for breathing: Never directly inhale the air produced by the compressor.



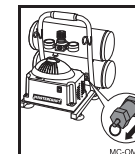
- Risk of bursting: Do not adjust the pressure switch or safety valve for any reason. They have been preset at the factory for the compressor's maximum pressure. Tampering with the pressure switch or the safety valve may cause personal injury or property damage.



- Risk of burns: The pump and the manifold generate high temperatures. In order to avoid burns or other injuries, do not touch the pump, the manifold, or the transfer tube while the compressor is running. Allow the parts to cool down before handling or servicing. Keep children away from the compressor at all times.



- Risk of bursting: Make sure the regulator is adjusted so that the compressor outlet pressure is set lower than the maximum operating pressure of the tool. Before starting the compressor, pull the ring on the safety valve to make sure the valve moves freely. Drain water from tank after each use. Do not weld or repair tank. Relieve all pressure in the hose before removing or attaching accessories.



**WARNING!**

Potential hazard that could result in serious injury or loss of life.

- Do not allow unskilled or untrained individuals to operate the ratchet wrench or any air-powered tool.
- Always ensure that accessories such as sockets are specially designed/rated for use with the ratchet wrench. Also ensure they are secured and correctly fastened before connecting the tool to the air supply.
- Use only lightweight coil type hoses to connect the tool to compressor coupling. Do not fit quick change couplings onto the machine as vibration can cause the coupling to fail.
- Do not use the ratchet wrench for a task that it is not designed to perform. Do not use the tool without having been instructed by a qualified person.
- Disconnect the tool from the air supply when it is not in use, and store it in a safe, clean, dry, and childproof location.
- Do not carry the ratchet wrench by the air hose. Failure to comply could result in personal injury.
- Locate the compressor in a well-ventilated area for cooling, a minimum of 12" (31 cm) away from the nearest wall.
- Protect the air hose and the power cord from damage and puncture. Inspect them for weak or worn spots every week, and replace them if necessary.
- Always wear hearing protection when using the air compressor. Failure to do so may result in hearing loss.
- Do not carry the compressor while it is running.
- Do not operate the compressor if it is not in a stable position.
- Do not operate the compressor on a rooftop or in an elevated position that could allow the unit to fall or be tipped over.

**CAUTION!**

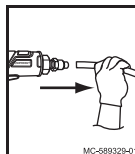
Potential hazard that may result in moderate injury or damage to equipment.

- Always ensure that the tool has stopped before connecting to air supply.
- Do not wear watches, rings, bracelets, or loose clothing when using any air tool.
- Maintain proper footing at all times in order to ensure correct balance.
- Do not overload the tool. Allow the tool to operate at its optimum speed for maximum efficiency.
- Do not use a tool that is leaking air, that has missing or damaged parts, or that requires repairs. Make sure all screws are securely tightened.
- For optimal safety and tool performance, inspect the tool daily in order to ensure free movement of the trigger, safety mechanisms, and springs.
- Always keep your air tool clean and lubricated. Daily lubrication is essential to avoid internal corrosion and possible failures.
- Keep the work area clean. A cluttered or dirty workbench may lead to an accident. Floors should be kept clear.
- Use the tool only in a well-ventilated area.
- Carry the tool by the handle only, keeping the finger away from the trigger. Do not carry the tool by the hose, magazine or any other parts.
- Handling and storage of oil: Use with adequate ventilation. Avoid contact of oil with eyes, skin, and clothing. Avoid breathing spray or mist. Store in a tightly closed container in a cool, dry, well-ventilated area free from incompatible substances.
- Do not use the tool near or below the freezing point, as doing so may cause the tool failure.
- Do not store the tool in a freezing environment to prevent ice formation on the operating valves of the tool, which may cause tool failure.

**CAUTION!**

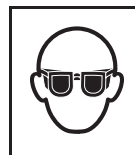
Potential hazard that may result in moderate injury or damage to equipment.

- Disconnect tool from the air supply and turn off the compressor before performing any maintenance or changing accessories, when the tool is not in use, when it is being handed to another person, and when it is left unattended. Failure to comply may result in moderate injury or damage to equipment.



- Use safety goggles and ear protection: Wear safety glasses with side shields when operating the tool/compressor and verify that others in the work area are also wearing safety glasses. Safety glasses must conform to American National Standards Institute (ANSI Z87.1) requirements and must provide protection from flying particles from the front and the sides.

Air-powered tools are loud and the sound can cause hearing damage. Always wear ear protection to prevent hearing damage and loss. Failure to comply may result in moderate injury.

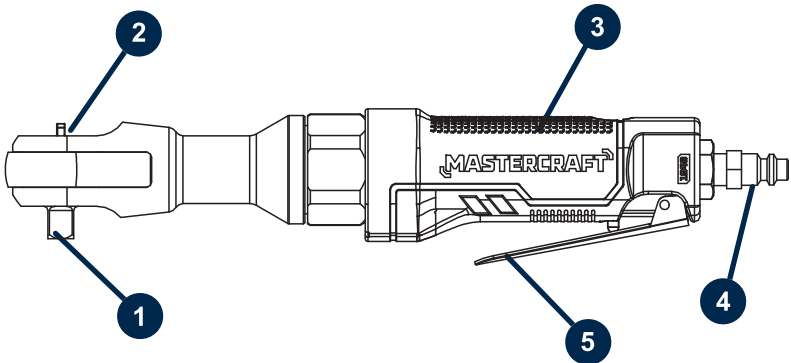
**VIBRATION PRECAUTION!**

Potential hazard that could result in serious injury or loss of life.

Read and follow the safety instructions before using the vibrating tool to avoid temporary or permanent physical injury, particularly to the hands, arms and shoulders, and to reduce the risk of vibration-related injury.

- Always ensure that a person handling the vibrating tool for extended periods of time is examined by a doctor periodically and is free of medical problems.
- Do not allow a pregnant woman or person with improper blood circulation to the hand, history of hand injury, nervous system disorder, diabetes, or Raynaud's Disease to operate the vibrating tool.
- Seek medical advice immediately for vibration-related symptoms such as tingling, numbness, and white or blue fingers.
- Do not smoke while using the vibrating tool to avoid the risk of vibration-related injury.
- Use appropriate gloves to reduce the vibration effects on the hands of the user.
- Do not perform vibration-related works continuously.
- Hold the vibrating tool gently and safely. Grip the tool lightly and let it perform the work, while keeping control of it.
- Stop the vibrating tool immediately if abnormal vibration occurs.

Note: Recycle unwanted materials rather than disposing of them as waste. Sort tools, hoses, and packaging into separate categories and take to the local recycling centre or dispose of in an environmentally safe way.



No.	Description	No.	Description
1	Square drive	4	Air inlet plug
2	Forward/reverse switch	5	Trigger
3	Handle		

Compatible compressor

GUIDELINES FOR PROPER USAGE AND OPERATION

Always ensure the use of appropriately matched air tools and compressors. The compressor should be able to supply a minimal air delivery of 3.5 CFM @ 90 PSI to ensure it can run continuously with the ratchet wrench. Using a tool or combinations of tools that together or separately require more than compressor capacity will reduce performance and could void the guarantee/warranty of compressor or tool.

General description

The Mastercraft® Air Ratchet Wrench features a lightweight body made of aluminium, a steel angle head, and ergonomically designed grips for comfort even during extended use. Exhaust is discharged at the front of the tool. The ratchet can be ideally used for automotive applications such as removing or replacing radiators and spark plugs, air conditioning system repairs, and water pump repairs. The ratchet is compact and powerful to turn bolts in confined spaces.

Air Compressor Size & Power	2 HP	2 1/2 HP	3+ HP
5–6 Gallons	Light-duty and intermittent use	Light-duty and intermittent use	Medium-duty and intermittent use
8–11 Gallons	Light-duty and intermittent use	Medium-duty and intermittent use	Heavy-duty and continuous use
15+ Gallons	Medium-duty and intermittent use	Heavy-duty and continuous use	Heavy-duty and continuous use

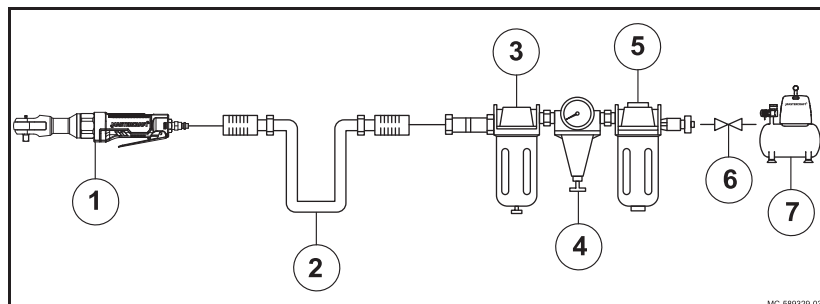
Air system

- Always use clean, dry, regulated, compressed air at the recommended pressure and specific flow rate (see “Technical Specifications” section).



CAUTION!
Potential hazard that may result in moderate injury or damage to equipment.

- Use only sockets specifically designed for this ratchet wrench. Failure to comply may result in moderate injury or damage to the equipment.



No.	Description	No.	Description
1	Mastercraft® Air Ratchet Wrench	5	Filter
2	Air hose	6	Cut-off valve
3	Lubricator	7	Air compressor
4	Regulator 0 - 123 PSI (0 to 8.5 bar)		

- It is recommended that an automatic in-line filter-regulator-lubricator be used and be located as close to the tool as possible.
- If a filter-regulator-lubricator is not installed, place up to 6 drops of pneumatic tool oil directly into the air inlet plug before each use.

**WARNING!**

Potential hazard that could result in serious injury or loss of life.

- Do not exceed the maximum and minimum pressures. The use of the wrong pressure (too high or too low) or the use of unclean air may cause excessive noise and rapid wear, which will shorten the life of the tool.
- Keep hands and other parts of the body away from the work area when connecting the air supply. Failure to comply could lead to serious injury or loss of life.

- If a filter-regulator-lubricator is installed, keep the air filter clean. A dirty filter will reduce the air pressure to the tool, which will cause a reduction in power, efficiency, and general performance.

Read this Instruction Manual thoroughly or have the tool operators read thoroughly before using the tool.

- Read all safety rules and precautions (see "Safety guidelines" section) at the beginning of this manual.
- Always inspect the air tool prior to each use in order to
 - ensure proper use of power source.
 - determine whether the tool is in proper working order.
- Drain the compressor tank daily. Water in the air supply line will damage the tool.
- Clean air inlet and filter weekly.
- Line pressure should be increased to compensate for unusually long air hoses. The hose diameter should be 3/8" ID. The fittings must have the same inside dimensions.
- Ensure that the trigger is not pressed while connecting the tool to the air supply.
- Ensure the air supply is clean and is maintained at the regulated pressure of 90 PSI and recommended air flow rate (see section "Technical specifications").

**CAUTION!**

Potential hazard that may result in moderate injury or damage to equipment.

- Make sure all connections in the air supply system are sealed in order to prevent air from leaking. Failure to comply may result in moderate injury or damage to equipment.

**WARNING!**

Potential hazard that could result in serious injury or loss of life.

- Do not use the tool if it is not in proper working order.
- Do not use oxygen or any other combustible or bottled gas to power this tool.
- Do not use this tool in the presence of any flammable liquids or gases.
- Keep hose away from heat, oil, and sharp edges. Check hose for wear and tear, and ensure that all connections are secure. Failure to comply could lead to serious injury or loss of life.

Preparation before use

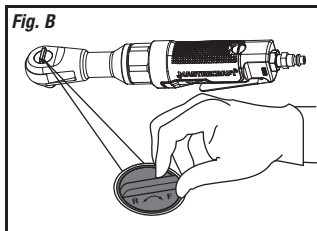
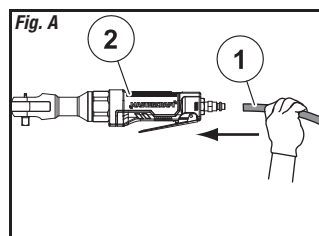
1. Attach the air hose to the air inlet plug of the ratchet wrench.

Note: Add a few drops of pneumatic tool oil to the air inlet plug before operation, if the automatic oiler system is not used. Add a few drops more after each hour of continuous use.

2. Set the compressor air pressure to 90 PSI. Do not exceed the recommended air pressure (see "Technical specifications section").
3. Check the air connection for leaks. Now the tool is ready for use.

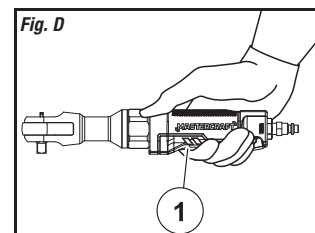
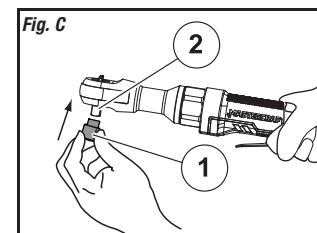
Operation

1. Plug in compressor, turn it and set the pressure regulator to 90 PSI. Attach one end of the air hose to the compressor and the other end of the air hose (1) to the tool (2) (Fig. A).



2. Rotate the forward/reverse switch clockwise towards "F" for tightening operation, and counter-clockwise towards "R" for loosening operation (Fig. B).

3. Place and lock the socket (1) over the square drive (2) of the tool (Fig. C).



4. Place the socket on the nut to be removed or installed, and press the trigger (1) to operate the tool (Fig. D).



CAUTION!

Potential hazard that may result in moderate injury or damage to equipment.

- Use only the sockets that are specifically designed for this ratchet wrench. Failure to comply may result in moderate injury or damage to the tool.



WARNING!

Potential hazard that could result in serious injury or loss of life.

- Do not allow the tool to free run for extended periods of time as this will shorten its life.
- Ensure the air supply is clean and has a regulated pressure of 90 PSI.
- Do not use additional and excessive force on the tool to remove a nut. Failure to comply could lead to serious injury or loss of life.

Note: Turn off the air compressor and disconnect the air hose before you change a socket. After you attach the socket, connect the air hose and turn the air compressor back on.



DANGER!

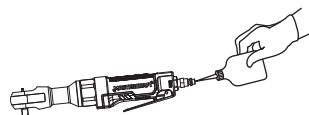
Potential hazard that will result in serious injury or loss of life.

- Keep children away from the work area. Do not allow children or untrained persons to handle power tools. Failure to comply will result in serious injury or loss of life.

Maintenance

MAINTENANCE REQUIRED	DESCRIPTION	TOOLS OR MATERIALS REQUIRED	MAXIMUM SERVICE INTERVAL		
			Each use or every 2 hrs	Monthly	As Needed
General inspection for free movement	Trigger, spring, safety mechanism	None	X		
In-depth inspection	Worn or broken parts			X	X
Replace worn or broken parts					X
Lubrication	See below	Pneumatic tool oil	X		

- Lubrication: If the ratchet wrench and the compressor are not equipped with an in-line lubrication system, place up to 6 drops of pneumatic tool oil into the air inlet before each work day or after every 2 hours of continuous use, depending on the characteristics of the workpiece.



- Do not use worn or damaged sockets. Inspect the tool periodically, and replace the worn or broken parts in order to ensure that the tools are operating safely and efficiently.
- Disconnect the tool from the air supply when it is not in use.
- Loss of power or erratic action may be due to the following
 - Excessive drain in the air line.
 - Moisture or restriction in the air pipe.
 - Incorrect size or type of hose connector. Check the air supply and follow instructions.

Storage

If it is necessary to store the tool for an extended period of time, apply a generous amount of lubrication before storing. The tool should be allowed to run for approximately 30 seconds after lubricating, in order to ensure that the lubrication is uniformly distributed throughout the tool.



WARNING!

Potential hazard that could result in serious injury or loss of life.

- Disconnect the tool from the air supply before changing accessories, servicing, or performing maintenance.
- Only use the tool after replacing or repairing any damaged parts or accessories.
- Use only recommended and properly rated replacement parts. Non-authorized parts may be dangerous. Failure to comply could lead to serious injury or loss of life.



CAUTION!

Potential hazard that may result in moderate injury or damage to equipment.

- Store the tool in a clean and dry environment. Failure to comply may result in moderate injury or damage to equipment.

Troubleshooting

The following chart lists common issues and solutions. Please read it carefully and follow all instructions closely.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Tool runs at normal speed but loses power under load.	<ol style="list-style-type: none"> 1. Motor parts are worn or damaged. 2. Cam clutch is worn or stuck due to lack of lubricant. 	<ol style="list-style-type: none"> 1. Lubricate clutch housing. 2. Check for excess clutch oil, overfilling can cause drag on high speed clutch parts. A typical oiled/lubricated wrench requires ½ ounce (14 mL) of oil. <p>Grease lubrication: Heat is generated due to insufficient grease in the chamber. Severe operating conditions may require frequent lubrication.</p> <p>If the problem persists, call 1-800-689-9928.</p>
Tool runs at low speed. Air flows slightly from exhaust.	<ol style="list-style-type: none"> 1. Motor parts are jammed with dirt. 2. Power regulator is in closed position. 3. Air flow is blocked by dirt. 	<ol style="list-style-type: none"> 1. Check whether there is blockage in air inlet and filter. 2. Pour pneumatic tool oil into air inlet plug as per instructions. 3. Operate the tool, changing direction of rotation back and forth in short bursts. Repeat the above steps as needed.



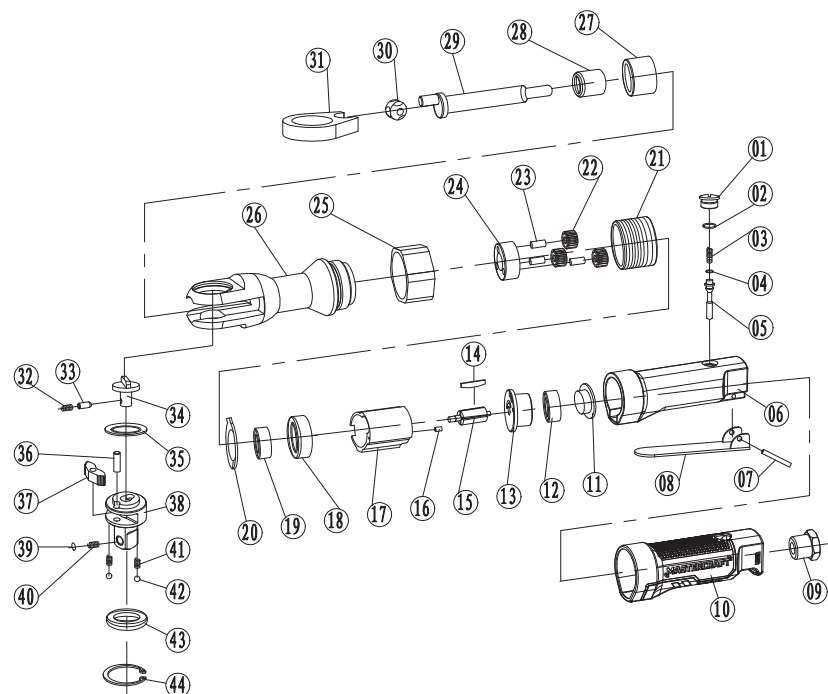
WARNING!

Potential hazard that could result in serious injury or loss of life.

- If any of the following symptoms appear while the tool is in use, turn it off and disconnect it from the air supply immediately. Failure to heed this warning will result in serious personal injury.
- Disconnect the tool and the electrical plug from the air supply before making any adjustments.
- Repairs must be performed by a qualified service technician only.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Tool stops working. Air flows freely from exhaust.	One or more motor vanes got stuck due to material build up.	<ol style="list-style-type: none"> 1. Pour pneumatic tool oil into the air inlet plug. 2. Tap motor housing gently with plastic mallet. 3. Operate the tool, changing the direction of rotation back and forth in short bursts (wherever applicable). 4. Disconnect the tool from the air supply. Operate motor manually by rotating the drive shaft (wherever applicable). <p>If the problem persists, call 1-800-689-9928.</p>
Tool does not shut off.	Throttle valve O-rings are dislodged from inlet valve.	<p>Replace O-rings.</p> <p>If the problem persists, call 1-800-689-9928.</p>

Note: For further repair information, please call 1-800-689-9928.



No.	Description	Qty.	No.	Description	Qty.
1	Nut	1	26	Ratchet housing	1
2	O-ring 9.5 x 2	1	27	Needle bearing	1
3	Spring	1	28	Bearing shell	1
4	O-ring 4 x 1.8	1	29	Crank shaft	1
5	Pin	1	30	Drive bushing	1
6	Gun body	1	31	Ratchet yoke	1
7	Pin 3 x 4	1	32	Spring	1
8	Trigger	1	33	Lock pin	1
9	Air inlet plug	1	34	Forward/Reverse switch	1
10	Housing	1	35	Washer	1
11	Dust cover	1	36	Pin	1
12	Bearing 626Z	1	37	Ratchet pawl	1
13	Rear cover	1	38	Ratchet anvil	1
14	Rotor Blade	4	39	Steel ball Dw=4.5	1
15	Rotor	1	40	Ball spring	1
16	Pin 1.5 x 6	1	41	Anti spring	2
17	Cylinder	1	42	Steel ball Dw=4	2
18	Front cover	1	43	Anti washer	1
19	Bearing 608Z	1	44	Retainer ring	1
20	Washer	1			
21	Thread ring gear	1			
22	Idler gear	3			
23	Idler gear pin	3			
24	Idler gear seat	1			
25	Clamp nut	1			

If any parts are missing or damaged, or if you have any questions, please call 1-800-689-9928.

3-Year Limited Warranty

This product is guaranteed for a period of three (3) years from the date of original retail purchase against defects in workmanship and materials, except for the following component:

Component A: Accessories, which are guaranteed for a period of one (1) year from the date of original retail purchase against defects in workmanship and materials.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification), at our option. We will bear the cost of any repair or replacement and any costs of labour relating thereto.

These warranties are subject to the following conditions and limitations:

- a) A bill of sale verifying the purchase and purchase date must be provided.
- b) This warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect, or lack of proper installation, operation, or maintenance (as outlined in the applicable instruction manual or operating instructions), or which is being used for industrial, professional, commercial, or rental purposes.
- c) This warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product which are expected to become inoperative or unusable after a reasonable period of use.
- d) This warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, tune-ups, or adjustments.
- e) This warranty will not apply where damage is caused by repairs made or attempted by others (i.e., persons not authorized by the manufacturer).
- f) This warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing).

- g) This warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons.
- h) This warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, or abrasives and chemical cleaners.
- i) This warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under the product manufacturer's warranty, if any.

Additional limitations

This warranty applies only to the original purchaser and may not be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential, or exemplary damages arising in connection with the sale, use, or inability to use this product.

Notice to consumer

This warranty gives you specific legal rights, and you may have other rights, which may vary from province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim, or exclude any statutory warranties set forth in any applicable provincial or federal legislation.

Made in China

Imported by Mastercraft Canada Toronto, Canada M4S 2B8