

User Guide for M30 MaxBlast Jetter

-IMPORTANT NOTICE-

FOR YOUR SAFETY, AND
TO ENABLE MAXIMUM
USE AND EFFECTIVENESS
OF YOUR EQUIPMENT,
READ (AND
UNDERSTAND) THIS
INSTRUCTION MANUAL
ENTIRELY BEFORE USING
YOUR HIGH-PRESSURE
WATER JETTING UNIT!

FAILURE TO FOLLOW
INSTRUCTIONS
AND REGULATIONS
CONTAINED IN THIS
MANUAL CAN RESULT IN
SERIOUS INJURY TO THE
OPERATOR AND/OR TO
ANYONE IN CLOSE
PROXIMITY TO THE
WORK AREA.



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Safety First!

Instructions and Precautions

Read and understand these safety warnings before using the M30 jetter. Drain and sewer cleaning can be dangerous if warnings are ignored. Follow appropriate safety procedures, your company's policies and applicable safety codes and/or laws while operating this machine.

Environment

- Use caution in confined, wet areas. Drain cleaning professionals often work directly through non-trapped openings into sewers — make sure that there is adequate ventilation into the work area.
- Neutralize or remove corrosive chemical drain cleaners from drain before starting.
- Do not operate machine in areas where combustible gases, liquids or dust are present. Fire or explosion may occur.

Keep bystanders or unauthorized persons away Insist they keep a safe distance before operating high pressure equipment.

 Never hold on to nozzle or point it at anyone with machine turned on. High pressure water streams can cause serious bodily harm.

Always insert hose at least 4-5 feet into pipe opening and hold onto hose before turning the machine on.

Shut the machine down:

- · When changing nozzles, hose or reels.
- Before disconnecting water supply. Running a water pump "dry" will seriously damage the water pump.
- If it will be unattended.
- If machine fails to run properly.

Common Sense

- Don't operate equipment while smoking, under the influence of drugs, alcohol or if taking medication that alters alertness.
- Wear goggles or a face shield to product your eyes, protective gloves, rubber sole boots, and other protective clothing as required.
- Keep all labels, decals, warnings, cautions, and instructions with machine. For new decals or labels contact Mytana.
- NEVER run flammable liquids or toxic chemicals (such as insecticide or weed killer), acids or hard caustics (such as lye) through the pump. Only water!

- NEVER use chemicals or agents that are not compatible with the Buna-N and PVC (polyvinyl chloride) or neoprene covering of the hose.
- NEVER clean the machine using its own spray.
 The machine is water-protected, but not water proof. High-pressure spray could damage machine components.

Gas Jetters

- Operate machine in well ventilated environment.
 Exhaust fumes can be potentially lethal to the operator.
- Do not allow flame or sparks in the area of operation.
- Do not refuel engine when it is running or hot.
 Spilled gasoline or gas vapor can ignite if it comes in contact with hot engine.
- Be careful not to touch engine block or the manifold/ muffler during operation. These areas will become very hot during normal operation.
- Do not operate the machine with the air cleaner cover removed, this can cause a fire.
- Do not lay jetter unit on its side or tilt it backwards more than 30° when transporting. This can cause gas to leak out the cap vent.
- ▶ DO NOT fill the gas tank all the way. Leave several inches of space between the gas and the top of the tank to prevent gas from leaking out when transporting.

Use of diesel fuel in the gas tank may damage the engine. In case of fuel spill use a cloth to clean up the spilled fuel and move the machine to another area until all vapors have cleared.

Gas jetters with an electric starter package will have a battery attached. Batteries contain sulfuric acid. Avoid direct skin contact.

 Wear protective gloves, clothing and eye wear when handling your battery.

Additional care and maintenance details follow in this manual.

Assembly

Hose reel

swivel

Vented plug

Replace shipping plug on pump Remove the shipping plug on the top side of pump and replace with vented plug. This is very important for the proper operation of the pump.



• Do not store or run the pump on its side or at a sharp angle, since oil can run out of the vent plug.

Connect the battery The M30 ships with one unconnected battery terminal. Loosen the nut on this terminal with a wrench and connect the loose cable to the terminal between the nut and the "U" shaped bracket on the battery. Tighten securely.

Model Details

Motor

Instructions for startup/shutdown of the motor are on the following pages. Also, refer to the engine's manual that ships with the M30 for details and care of the Honda motor.

The M30 motor is equipped with an auto-throttle feature which is helpful if you need to change nozzles or move the jetter a short distance while on a job. Auto-throttle will reduce pressure and send the pump into bypass as well as slow the motor, easing wear and tear on both pump and motor. See operating instructions for more details.

Hoses and Nozzles

Reel

Electric start

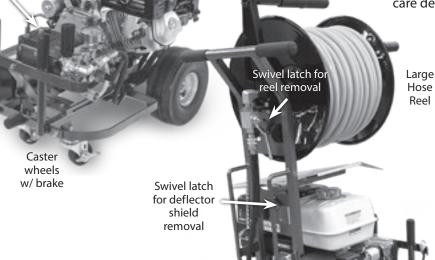
Your jetter works via the proper blend of water pressure and water volume: the more water that has to pass through the restriction of a hose, the less pressure you will have at the nozzle end. To optimize cleaning power, use the shortest hose with the largest inside diameter that you can.

The jets in the nozzle affect pressure. Over time, water pressure will wear the orifices in your nozzle resulting in pressure drop and reduced cleaning effectiveness. Nozzles need to be replaced or repaired as normal wear occurs.

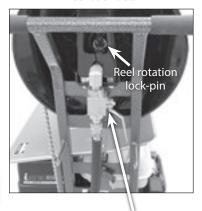
Pump

This section includes information about the components of the pump, and basic care. Specific maintenance and care details are on the back page.

continued on next page



Reel back detail



Ball Valve

10" pneumatic tires

The M30 is designed to go in to bypass when the ball valve on the reel is shut off during operation. This means the pump is running but not pushing the water out through the nozzle. Instead it is being cycled through the pump. The pump should not run in bypass for more than 10-12 minutes.

Pressure Regulator/Unloader

The regulator/unloader lets you regulate the pressure while in operation, and it relieves pressure on the pump while in bypass. The regulator knob is located at the pump.

Be sure to decrease pressure to lowest level before shutting the machine down to avoid pressure lock.

Thermal Relief Valve

Water temperatures in excess of 140° F will damage pump seals. The thermal relief (PTP) valve protects the pump should it overheat by opening and releasing the hot water. Cool water from the source can then flow through the pump.

Over heating can occur if the pump runs in bypass for more than several minutes. The PTP valve will wear out if opened too much and will need to be replaced.

Water Inlet and Filter

The water inlet has a filter to prevent small particles from running through your pump, which can damage it. This filter needs to be checked before each use to make sure there is no obstruction.

Pulse Valve

The stem and handle extending from one cylinder of the water pump enables pulsation of the water stream through the hose and nozzle.

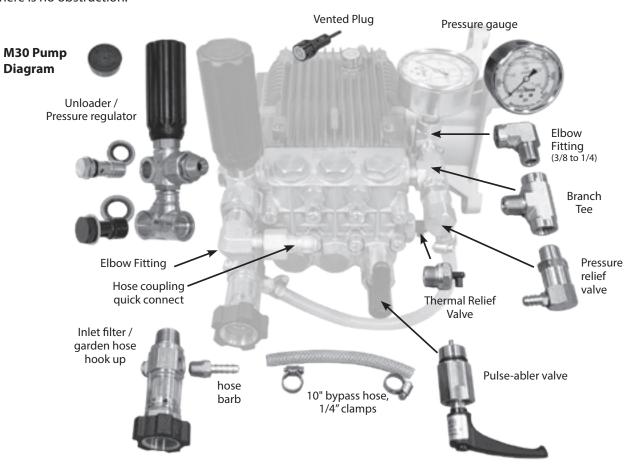
Turning the pulse control handle clockwise (right), temporarily disables this valve creating vibration in the hose, allowing the hose to "wiggle" through multiple or tight bends easily. Turn the control left to stop pulsation.

Pulsing creates extreme vibration and faster wear on the pump. Use pulsation only as needed, do not use if a blockage or sewer line configuration does not require it.

Basic Care

- Do NOT run pump without water in it. This can damage the cylinder walls or the pump casing.
- Do not use water more than 140°.
- NEVER run pump if there is ice in pump or outlet hose.
- If the M30 will be unused for more than 2-3 days, even in warm temperatures, we recommend running antifreeze through pump and hose before storage.
- Periodically change oil in pumps.

See back page for motor/pump care and maintenance schedule.



Pre Operation Checklist

Check for adequate and clean water supply.

Use no smaller than 5/8" garden hose for supply.

- Run water through the hose into a 5 gal. bucket for 1 minute, it should measure at least 4.5 gallons
- Flush debris out of faucet and supply hose
- Shut water off again when water runs clear

Make sure water inlet filter is clean.

Check fluid levels:

— oil in pump

— oil and gas in motor

Check hose for wear or kinks

Check hose reel and all connections

Select nozzle, make sure orifices are not blocked or worn to excess

Wear proper clothing, footwear, gloves and eye protection

Operating Instructions

- 1. After checking supply (see above), attach male end of garden hose to water inlet valve at pump
- 2. Attach nozzle to end of high-pressure jetting hose. Finger tighten, do not over tighten.
- 3. Unlock reel rotation
- 4. Mark the hose approximately 15 ft back from the nozzle with electrical tape. Use this tape as a marker to reduce pressure and shut down the engine when bringing the hose back out of the drain pipe.
- 5. Open ball valve on the back of the reel
- 6. Open water faucet again to prime pump. An equal amount of water should pass through the orifices of the nozzle.
- 7. Push jetter hose into drain up to the marker when possible (minimally several feet).
 - ► If you shut the ball valve off before you inserted the hose into the drain, be sure to re-open the valve BEFORE starting up the motor.
- 8. Turn the fuel valve to "on" (by moving lever to the right)
- 9. Start Motor/Engine
 - turn key to "start" and start engine
 - the engine has an Auto-choke feature, no need to adjust the choke lever, see the engine's owner's manual for more information
 - · it also has automatic throttle, see right
- 10. Adjust pressure with pressure regulator knob, turning right to increase pressure, left to decrease.
 - For normal operation, do not exceed the recommended 3000 psi with the larger 3/8" hose, or 1500 psi with the smaller 1/8" hose.
- 11. Start jetting, using pulsation only if needed to promote forward motion of nozzle and hose.

During operation

- Tight bends and certain blockages are often more easily negotiated by rotating or twisting the jetter hose at drain opening. Once you are through that area, pull back and pass through several times to ensure cleaning.
- Once you have opened any blockage(s), pull hose back very slowly to provide maximum cleaning to wall of pipe.
- When operating from the high end to low end (most common) shut off the water flow ball valve on the reel occasionally. This will allow debris to get ahead of the nozzle and flush it down the pipe.
- Warm water is effective in cleaning grease and ice blockages. A cold-hot mix from the tap is adequate, but do not exceed 140° Fahrenheit. Hotter water can damage seals in your pump. If you need hot water, use our HotBox water heater, see next page.

Automatic throttle

- Turn the water flow OFF on the back of the reel to engage the throttle down. You'll hear the engine idle down and the pressure will drop.
- Be sure to feed the nozzle back into the line at least 6 ft before you turn the water flow back on and re-engage the motor/pressure.
- Don't operate in throttle down for more than 10-12 minutes or the pump could overheat.

continued on next page

Shut Down

- 1. As you pull the hose back out of the line, when you see the tape marker, reduce pressure gradually with pressure regulator until gauge is at zero.
- 2. Stop the motor/engine
 - · Move throttle lever all the way to the right (slowest setting)
 - Turn the key to the "off" position
 - · Turn the fuel valve to the "off" position

Do not shut off water flow with ball valve until the pressure is reduced to zero. If the ball valve on the reel is shut off under pressure, it can create a pressure lock and will be hard to turn the valve on for the next job.

- 3. Continue to run water through pump and hose for 30 - 60 seconds.
- 4. Close water faucet and disconnect garden hose.
- Close reel ball valve. Disconnect supply hose from jetter.
- 6. Pull remaining jetter hose from drain line, remove nozzle if you choose.
- 7. Blow water out of the hose if freezing is a concern.
- 8. Store jetter hose properly on reel or in a coil to avoid damage to hose.

anti-freeze if needed

Winterize/add

Jetter motor must be off for setup

Remote Jetting

Disconnect the jumper hose from the pump to the reel.

To remove the reel, twist the swiveling latch on the back of the reel. Lift the entire reel unit up and out from the bracket, and insert it in to the reel stand slot. Tighten the swiveling latch.

Carry the reel and position near the opening where the hose will be inserted.

Attach the 50' jumper hose at the pump, then to the reel. Start up beginning at #1 in the Operation Instructions.

> NOTE: The reel stand and jumper hose are temporarily unavailable. The price of the M30 has been adjusted accordingly.

These parts will be back in stock at a later date.

Anti Freeze Procedure

If you know there will be a period of 2-3 days when the jetter will be idle OR if the jetter is stored in potentially freezing weather, make sure to run antifreeze into pump and hose as part of your shut down procedure.

This helps with lubrication, prevents o-rings from drying out and greatly reduces the chance of rust, minerals and other contaminants damaging the pump during storage.

Insert a short length of garden hose into a gallon of antifreeze. Turn on the pump and run until you see antifreeze coming out of the nozzle end of the hose.

At next use of jetter, you can recover most of that antifreeze when you hook up to your water source. Antifreeze can be used multiple times. However if it gets too diluted (more than 50% water) or if there is any discoloration, discard that antifreeze and replace with new.

We recommend using RV antifreeze.

Troubleshooting

| Problem | Probable Cause | Solution |
|--|--|--|
| Low Water Pressure | Worn nozzle | Replace nozzle |
| | Oversized nozzle | Attache correct nozzle |
| | Pulling air at inlet line | Disassemble, reseal and reassemble |
| | Inlet strainer clogged | Detach hose, clean strainer |
| | Pressure regulator wide open | Turn pressure regulator to the right to increase pressure |
| No water flow | Kinked or collapsed garden hose | Remove kink or replace worn hose |
| | Water supply not turned on | Turn water supply on |
| | Clogged nozzle | Remove nozzle & clean orifices |
| | Intake or reel valve primed | Make sure valves are open |
| Inconsistent and/or erratic pressure | Sucking air on inlet side of pump | Make sure connections are tight |
| | Partial blockage in inlet hose or filter | Remove blockage |
| | Pump not properly primed | Disconnect hose at outlet & run until pump is properly primed |
| Water leaking from under pump manifold | Worn packing (seals) | Install new packing (seals) |
| Oil leaking from underside of crankcase | Worn piston rod seals | Replace seals |
| Water in crankcase Oil will take on a cream color or look cloudy if mixed with water | Humid air condensing into water in crankcase | Change oil. Use only high grade automotive 30 weight non detergent oil |
| | Worn packing and/or piston rod sleeve. O-ring on plunger retainer worn | Replace packing. Replace O-rings |
| Oil leaking at rear portion of the crankcase | Damaged crankcase; rear cover O-ring' drain- plug or sight glass O-ring | Replace cover O-ring, drain plug O-ring or sight glass O-ring |
| Frequent or premature failure of the packing (seals) | Scored, damaged or worn plunger | Replace plungers |
| | Excessive pressure to inlet manifold | Reduce inlet pressure |
| | Abrasive material in fluid passing through pump | Properly filter fluid being pumped. Use clean hoses & fittings |
| | Excessive temperature of fluid being pumped | Do not exceed 140 degrees |
| | Running pump dry | NEVER run pump dry! |

Care and Maintenance

Regular inspection and maintenance are key to preventing breakdowns and prolonging the life of the equipment.

Keep machine clean and dry to maximize performance and longevity.

Keep antifreeze in hose and pump in freezing temps or if idle for more than 2-3 days, see procedure on page 6.

Never let pump run dry!! Pump cavitation can occur in only a few seconds of low water supply. Ensure adequate source supply before operating.

Avoid running anything abrasive through pump which will damage pump components, resulting in total malfunction or, minimally, loss of pressure capability.

Keep jetter hose away from sharp edges and muffler

- The hot muffler can damage the coating on the hose making it prone to bursting.
- Sharp edges can scrape, slice and generally damage hose quickly. While hose is easily replaced, it pays to take care by buffering sharp edges with tape, cardboard, or our TigerTail helps protect your hose, see MyTana.com.

Do not use pulse valve more than necessary.

Never run pump if there is ice in pump or outlet hose.

Maintenance Schedule

Follow this maintenance schedule to maximize the life of your jetting equipment. SHUT OFF ENGINE BEFORE ATTEMPTING ANY REPAIRS OR MAINTENANCE.

Inspect and check for:

Frequency

| Leaks in discharge or inlet fitting and hose | Daily |
|---|--------|
| Adequate water supply to the pump | Daily |
| Jet nozzles are not clogged or worn | Daily |
| Pump oil level, fuel level engine oil level | Daily |
| PRESSURE HOSE for wear and damage. | Daily |
| INLET FILTER and FUEL FILTER for dirt and sediment. | Daily |
| AIR CLEANER for dirt | Weekly |

Service item:

Frequency

| Pump Crankcase Oil Change | 1st mo. or 25 hours for "break in" |
|------------------------------|--|
| | Then every year or 500 hours |
| | If water gets into crankcase, change immediately |
| Engine Oil Change* | 1st mo. or 20 hrs. |
| | Then every 6 mo. or 100 hrs. |
| Air Filter Cleaning * | Every 3 mo. or 50 hrs. |
| Fuel Filter Change * | Every 6 mo. or 100 hrs. |
| Spark Plug Change * | Every 6 mo. or 100 hrs. |

^{*} Refer to engine manufacturer's manual for more details.

Recommended oil:

Engine Use SAE 10W30 Motor Oil to full mark on dipstick or to dot on sight glass

Pumps

- Primary General Pump (GP) Brand
- Secondary SAE 30W, non-detergent

