



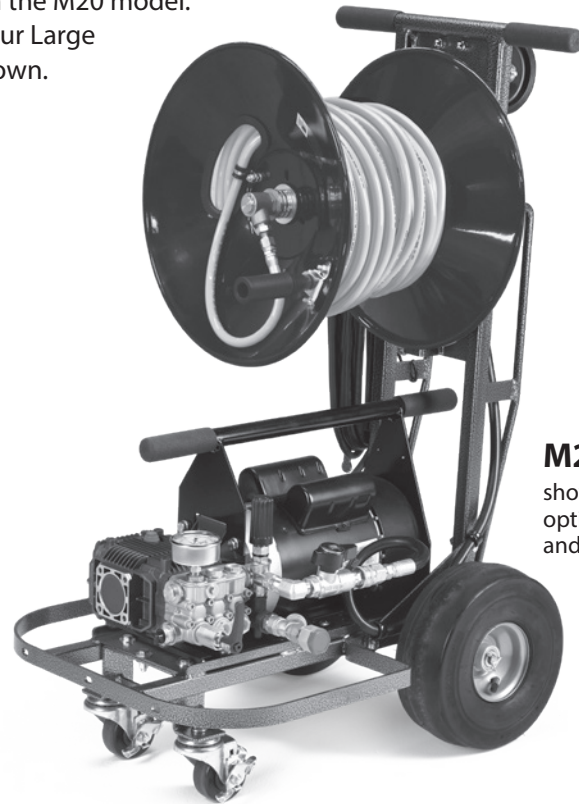
User Guide for M20 or M20T Jetters

-IMPORTANT-

**FOR YOUR SAFETY, AND
TO ENABLE MAXIMUM
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.**

The pump/motor unit may be removed from the cart on the M20 model. The cart holds our Large Hose Reel as shown.



M20
shown with
optional hose
and reel

The M20T is the pump/motor unit only, no cart or reel.



M20T

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**Manufacturers of Quality
Sewer & Drain Cleaning
Equipment since 1957**

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Factory Direct Customer Service
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Competent • Polite • Clear

! Safety First!

Instructions and Precautions

Read and understand these safety warnings before using the M20 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 or wet areas. When working directly through non-trapped clean outs or openings into sewers, make sure that there is adequate ventilation in 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.

Electric Jettors

This is electric equipment in a wet environment. Every precaution should be taken when water and electricity are in close proximity.

- **Never run your jetter without a properly grounded electrical supply and hookup.**
- Avoid getting the electrical connections and components wet.

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 under the influence of drugs, alcohol or if taking medication that alters alertness.
- Wear goggles or a face shield to protect your eyes, protective gloves, rubber sole boots, and other protective clothing as required.
- 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 PVC (polyvinyl chloride) or neoprene covering of the hose.
- NEVER clean the machine using its own spray. High-pressure spray could damage components.
- Keep all labels, decals, warnings, cautions, and instructions with machine. For new decals or labels contact Mytana.

Additional care and maintenance details follow in this manual.

The Jetting Process

Sewer jetting (or hydro-jetting) uses a combination of water pressure (psi) and flow (gpm) through a hose and nozzle to used to penetrate and flush out blockages, or to simply clean the walls of drains and sewer lines to prevent future blockages.

Sewer jetting differs from **normal pressure washing**:

- Sewer jet nozzles direct the flow of water back toward the operator at a 15 to 45 degree angle. This backward stream propels the sewer nozzle and hose forward into the sewer line and also cleans the walls of the pipe.
- Jetting pumps deliver more flow and controlled pressure to clear tough blockages.

Components of hydro jettors: Water pump, motor, hose reel; various sub-components that protect the pump and the operator; various nozzles for various cleaning applications and situations. Larger jettors use a water storage tank for water supply buffer.

MyTana stocks replacement parts for our jettors. Many are available to purchase online at mytana.com/jetter-parts.



Assembly

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



Vented Plug

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

Follow Pre-operation checklist and Operation instructions as outlined on page 5.

Model Details

Refer to the photos below for the location of controls and components. Pump details are on next page.

M20T model will have the pump/motor caddy unit only.

Motor

Instructions for startup/shutdown of the motor are on the following pages. Additionally, refer to the motor's manual for details and care of the motor.

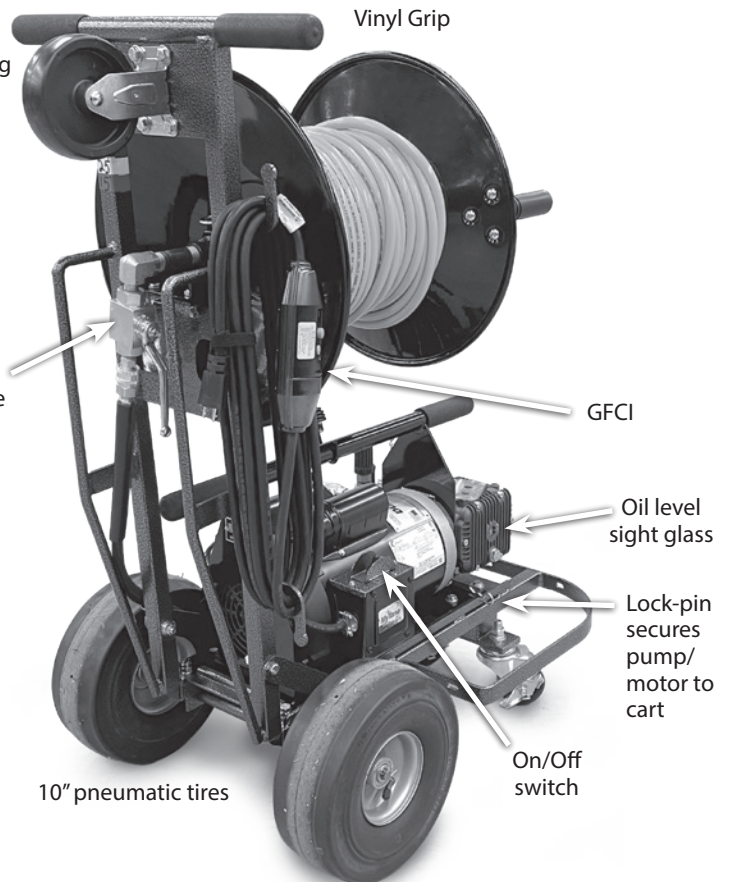
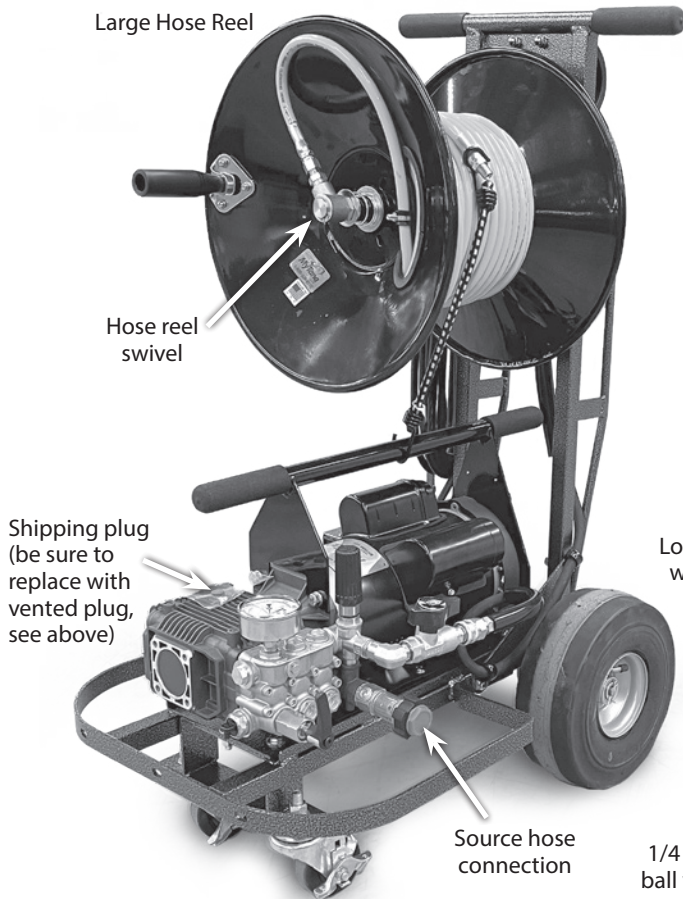
M20 The motor/pump unit may be removed from the cart. Pull out the lock-pin and lift the unit off the frame.

Hose and Nozzles

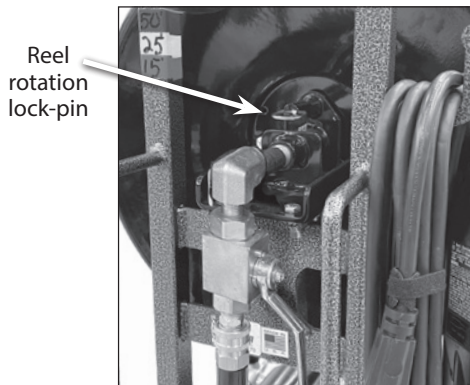
Your jetter works via the proper blend of water pressure and water volume: the more water that has to pass through the restriction of a hose, the less pressure you will have at the nozzle end. To optimize cleaning power, use the shortest hose with the largest inside diameter that you can.

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

continued next page



M20 Reel back detail



Pumps

This section includes information about the components of the pump, and basic care. Specific maintenance and care details are on pages 7-8, as is a detailed breakdown of pump parts.

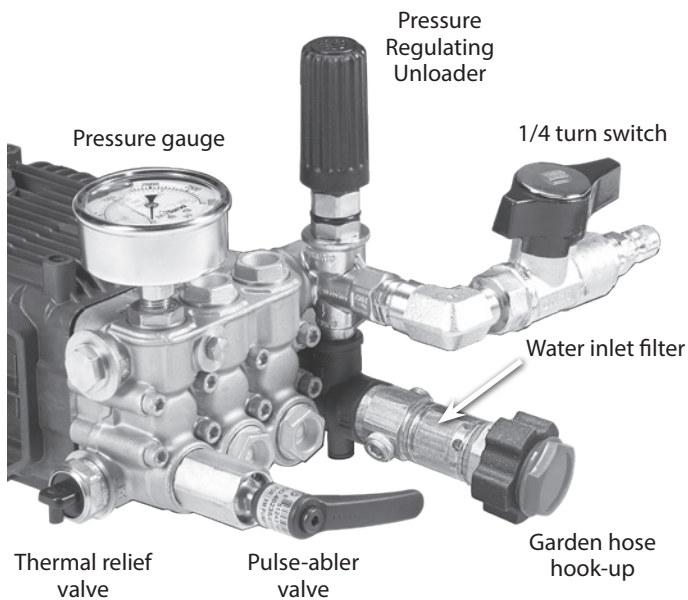
Pressure Regulator/Unloader

The pressure regulating unloader both regulates the pressure and relieves pressure on the pump while in bypass. The regulator knob is located at the pump. It allows you to adjust pressure during operation.

At the end of each job, reduce the pressure to zero to prevent pump lock.

Greater pressure requires more power/amperage from the power source. On 15 amp circuits, maximum pressure will be 1,200 psi, while 20 amp circuits can support 1,500 psi.

- ▶ If you have to use an extension cord beyond the 25' power cord provided, the pressure will drop further. And the risk of tripping a breaker increases.



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, meaning the pump is running but no water is being pushed through the hose for extended periods of time.

The PTP valve will wear out if opened too much and will need to be replaced.

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), one valve of the pump is temporarily disabled. This creates pulsation or vibration in the hose, allowing the hose to "wiggle" through multiple or tight bends easily. Turn the control left to stop pulsation.

NOTE: 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.

Water Inlet and Filter

The water inlet has a filter to prevent small debris from running through your pump. However **recheck the inlet filter before each use** to make sure there is no obstruction.

Before attaching source hose to the jetter, run water through the source hose to flush debris out of the faucet and hose. Make sure the water is running clean and clear.

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.

Pre Operation Checklist

- Check for adequate water supply. Use no smaller than 5/8" garden hose for supply to pump
- Check ground fault interrupter on electric models. Test and reset.
- Check hose reel and all connections
- Wear proper clothing—gloves and eye protection, rubber sole boots
- Make sure water inlet filter is clean.
- Check oil level in pump
- Select nozzle and make sure orifices are not blocked or worn to excess
- Check hose for wear or kinks

Operation Instructions

1. Attach garden hose (minimum of 5/8" diameter) to water faucet. Run water through the hose into an open drain or bucket to flush debris out of faucet and hose before connecting to pump. Shut water off again when water runs clear.
2. Attach other end (male end) of garden hose to water inlet valve at pump.
3. **M20** Hose on reel is ready to go. If using smaller trap hose, disconnect jumper hose at the pump, and connect the 1/8" jetter hose to the coupling
M20T Connect jetter hose to pump at the coupling
4. Attach nozzle to end of hose. Finger tighten, do not over tighten.
5. Mark the hose approximately 15 feet back from nozzle with electrical tape. Use this tape as a marker to shut off machine before retrieving all the line out of the drain pipe.
6. Open water intake.
7. Open water faucet again to prime pump. An equal amount of water should pass through the orifices of the nozzle.
8. Push jetter hose into drain up to the marker when possible (minimally several feet).
Always insert hose and nozzle into pipe opening and hold onto hose before turning the machine on.
9. Make sure power cord is plugged into a properly grounded 110 volt receptacle.
10. Start Motor/Engine by flipping switch into the "on" position.
11. Adjust pressure with pressure regulator knob, turning right to increase pressure, left to decrease.
12. 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 jetter hose at drain opening. Once you are through that area, pull back and pass through several times to ensure cleaning. After the blockage(s) has been opened, 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.
- **Grease and Ice Blockages** Warm water is effective in cleaning grease and ice blockages. A cold-hot mix from the tap is adequate. However, do not exceed 140° Fahrenheit. Hotter water can damage seals in the pump.

Shutting Down

1. When completing pass through drain, watch for tape marker on hose as you pull the hose out.
2. Reduce pressure gradually with pressure unloader knob until pressure gauge is at zero.
3. Stop the jetter motor/engine
 - Move switch to "off" position
 - Unplug power cord from receptacle
4. Continue to run water through pump and hose for 30 to 60 seconds.
5. Close water faucet and disconnect garden hose from spigot.
6. Close water inlet valve. Disconnect garden hose from jetter.
7. Pull remaining jetter hose from drain line.
8. Remove nozzle if you choose.
9. Store jetter hose properly on reel or in a coil to avoid damage to hose.

Winterize/add anti-freeze if needed

Troubleshooting

Problem	Probable Cause	Solution
Low Water Pressure	Worn nozzle	Replace nozzle
	Oversized nozzle	Attach nozzle sized for pump and hose
	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. See pg 4 for circuit requirements.
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
Electric motor trips circuit breaker OR electric motor overheats	Extension cord is used	Don't use or use heavy duty extension cord
	Pressure is at full pressure	Reduce pressure with pressure regulator
	Other electrical devices already drawing current on circuit	Either temporarily disconnect other electric devices or find new circuit
	Inadequate electric fuse or breaker	Recommended 20 amp breaker/fuse
	Exceeding maximum recommended pressure	Reduce pressure at regulator
	Clogged nozzle	Clean or replace nozzle
Electric motor won't start	No power at outlet	Tripped circuit breaker. Reset breaker
	GFI on power cord is tripped	Reset GFI
	Motor overload button is tripped	Reset overload button
Water leaking from under pump manifold	Worn packing (seals) Ice damage	Install new packing (seals)
Oil leaking from underside of crankcase	Worn piston rod seals	Replace seals
Water in crankcase <i>Oil will take on a cream color or look cloudy if mixed with water</i>	Humid air condensing into water in crankcase	Change oil – see oil recommendations on back page.
	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 equipment life. Keep machine clean and dry to maximize performance and life. See back page for maintenance schedule.

Pump

Never let pump run dry!! Pump cavitation can occur in only a few seconds of running dry.

Avoid running anything abrasive through pump

Abrasive materials will damage pump components, resulting in total malfunction or minimally, loss of pressure capability.

Do not use pulse valve more than necessary

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

Hose

Be careful with jetter hose against sharp edges

Sharp edges can scrape, slice and generally damage hose quickly. While hose is easily replaced, it pays to buffer sharp edges with tape, cardboard, etc. to maximize its useful life. MyTana has a TigerTail that helps protect your hose, available at MyTana.com.

Antifreeze 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 and prevents o-rings from drying out.

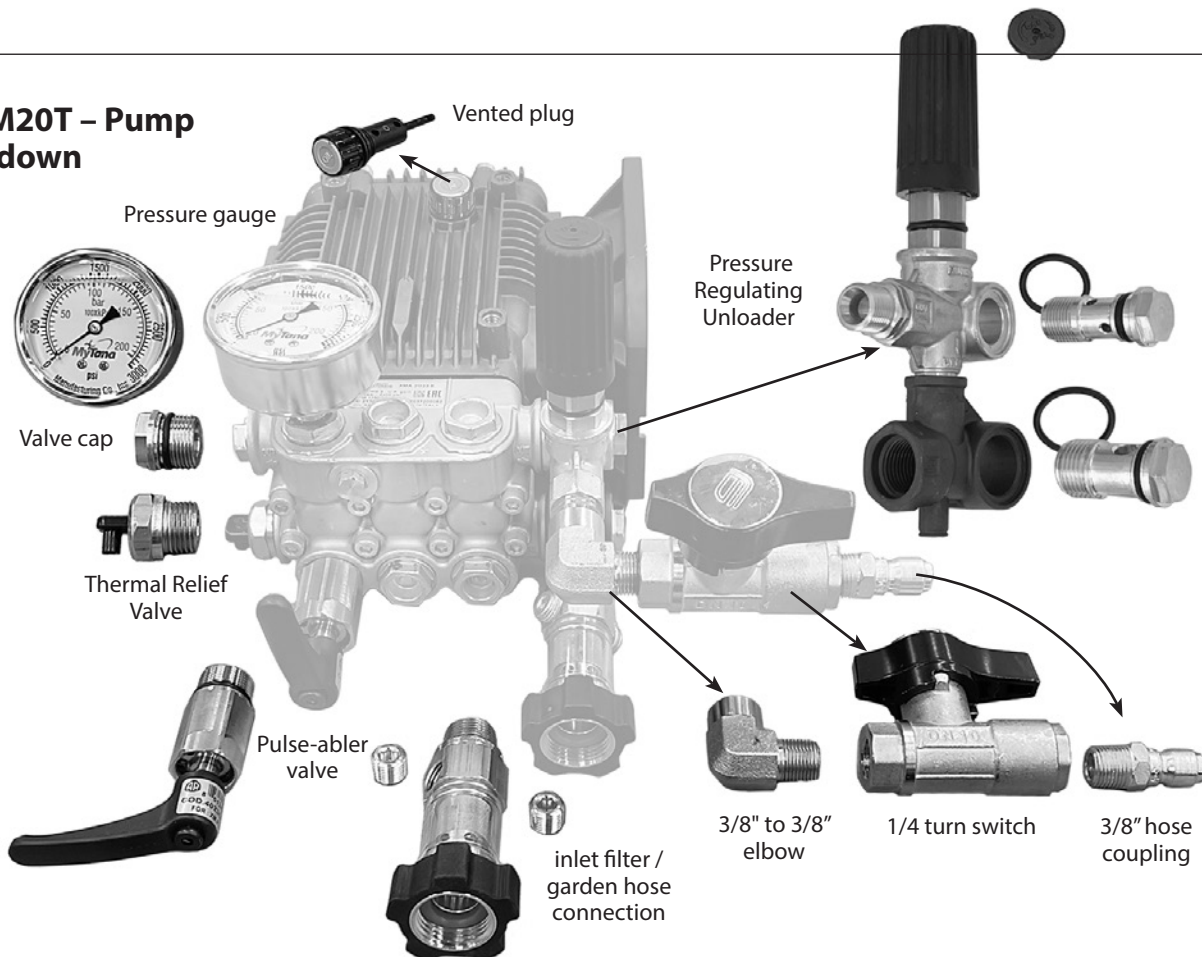
Insert a short length of garden hose into a gallon of antifreeze, turn on pump and run until you see antifreeze coming out of the nozzle end of the hose. At next use of jetter, you can recover most of that antifreeze when you hook up to your water source. Antifreeze can be used multiple times. However 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.

Motor

See information on page 4, under "Pressure Regulator/ Unloader" for use with different circuits.

M20/M20T – Pump Breakdown



Maintenance Schedule

Follow this maintenance schedule to maximize the life of your jetting equipment.

SHUT OFF AND UNPLUG MOTOR 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	Daily
PRESSURE HOSE for wear and damage.	Daily
INLET FILTER for dirt and sediment.	Daily

Service item: Frequency

Pump Crankcase Oil Change	1st month or 25 hours for "break in" Then every year or 500 hours If water gets into oil, change immediately <i>oil will take on a cream color or look cloudy if mixed with water</i>
Recommended oil: <ul style="list-style-type: none"> • Primary – General Pump (GP) Brand • Secondary – SAE 30W, non-detergent 	
Add antifreeze to hose and pump (see procedure on previous page)	Stored in potentially freezing temps If jetter will be unused for 2-3 days

Recommended: RV antifreeze.

Keep machine clean and dry to maximize performance and longevity.

Notes

