

MINIMAN XD OWNER'S MANUAL



OWNER SUPPORT

For assistance, parts, or service, please contact:

Minute Manufacturing L.L.C.

550 N. Marymount Rd. Unit K

Salina, KS 67401

Phone: 785-655-0650

Email: minutemanufacturing@gmail.com

Revision: 3.1 (August 2026)

KEEP MANUAL WITH EQUIPMENT AT ALL TIMES

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SAFETY INFORMATION

GENERAL WARNINGS & GUIDELINES

- Before operating this fire skid, read and fully understand this Owner's Manual.
- Failure to follow the instructions, precautions, and warnings in this manual may result in equipment damage, serious injury, or death.
- Always wear proper personal protective equipment (PPE) when operating this unit.
- Do not modify the unit in any way without manufacturer approval.
- Ensure all operators are properly trained and familiar with the controls and safety procedures.
- A functioning spark arrester may be required by state or federal regulation when operating in wildland areas — inspect and clean regularly.

OPERATION INSTRUCTIONS

STARTUP PROCEDURE

- Check engine oil — confirm dipstick level is in the correct zone.
- Check fuel level — use fresh, non-ethanol gasoline.
- Set choke.
- Turn fuel shutoff switch ON.
- Turn the kill switch ON.
- Ensure the pump is filled with water — do not run the pump dry.
- Start the engine using the recoil starter.

NORMAL OPERATION

- Confirm arrow on bottom 3-way valve handle faces the water source (tank or auxiliary water).
- Confirm arrow on top 3-way valve handle faces the tank for spraying, or away for discharging.
- Set the small 3-way valve to the recirculation position (arrow facing downward) when not spraying to prevent pump overheating. For spot spraying, set the valve at a 45-degree angle. Close the valve for maximum nozzle volume and pressure.
- To spray water: turn booster hose valve ON and operate the nozzle.

DRAFTING OPERATION

- Make sure pump is filled with water. Fill through top 1" priming cap and reinstall cap after filling.
- Connect suction hose to the suction port on the bottom 3-way valve. Set hose and strainer in water source, away from debris.
- Turn the bottom 3-way valve toward the suction hose (away from tank).
- Turn the top 3-way valve toward the tank (to fill tank via manifold).
- Turn the small 3-way valve (recirculation) downward to allow water into the tank.
- Start the engine — you should hear the engine pull down when drafting and feel water pumping into the tank.
- If the pump will not draft: Gently shake or agitate the strainer and hose end while submerged and drafting to help dislodge trapped air and force water up the hose.

SHUTDOWN PROCEDURE

- If the pump was used with foam, chemicals, or high-mineral water, flush with fresh water for 2 minutes before shutdown. Keep the engine idling and valves open while flushing. Discharge water through the booster hose and discharge valve.
- Allow the engine to idle and cool while recirculating.
- Turn the kill switch OFF.

STORAGE & WINTERIZATION

If storing for extended periods or in freezing conditions:

- Drain water from the tank and manifold by pumping it out. Tilt the skid toward the rear or park at an angle to remove as much water as possible.
- Drain the pump and manifold using the drain plug on the bottom of the pump casing. Ensure valves are positioned correctly to allow the manifold to drain.
- Drain the booster hose by: 1. Unwind completely; 2. Remove the nozzle; 3. Rewind hose; 4. Reinstall the nozzle. This will allow all water to drain from hose.
- Fill the pump and manifold with RV antifreeze for freeze protection.
- Treat the gasoline with fuel stabilizer or run the fuel tank empty before storing.
- Store skid in a dry, covered area (preferably under a tarp or protective cover).

SAFETY WARNINGS

- Do not run the pump dry — permanent mechanical seal damage will occur.
- Always use clean, non-ethanol gasoline.
- Always perform maintenance with the engine off and the spark plug wire disconnected.
- Secure the skid properly in the vehicle before transport.
- Drain pump and hoses before freezing conditions.
- Dispose of oil, fuel, and filters according to local environmental regulations.
- Use appropriate PPE (gloves & eye protection) when handling fuel or chemicals.

SPECIFICATIONS

FLUID CAPACITIES

- The Miniman XD Truck Fire Skid requires proper fluids to ensure safe and reliable operation. Always use the recommended fuel and oil types listed below.

<u>SYSTEM</u>	<u>CAPACITY</u>	<u>TYPE / NOTES</u>
Engine Oil - Honda GXH50	0.26 qt (0.25 L)	SAE 10W-30, 4-stroke engine oil. Synthetic or conventional oil. Check dipstick before each use.
Engine Fuel Tank - Honda GXH50	0.20 gal (0.75 L)	Unleaded gasoline, 86+ octane. Non-ethanol fuel recommended.
Auxiliary Fuel Can	1.0 gal (3.8 L)	1-gallon auxiliary gas can. Store securely during operation.
Pump Priming Water	Fill pump casing	Ensure pump casing is full before operation to prevent damage.
Water Tank	50 gal (189 L) 100 gal (379 L)	Polyethylene tank with sight tube and float.

DIMENSIONS & WEIGHTS

- The Miniman XD Truck Fire Skid is available in 50-gallon (50XD) and 100-gallon (100XD) tank configurations. Dimensions and weights may vary slightly depending on accessories.

<u>MODEL</u>	<u>DIMENSIONS (L x W x H)</u>	<u>DRY WEIGHT (EST)</u>	<u>WET WEIGHT (EST)</u>
50XD	35" x 50" x 25"	200 lbs	620 lbs
100XD	43" x 50" x 31"	220 lbs	1,050 lbs

MAINTENANCE

SERVICE SCHEDULE

Perform maintenance at the following intervals, whichever comes first. For additional engine maintenance requirements, refer to the Honda GXH50 Owner's Manual.

Break-In Period: 10 Hours / 1 Month

- Change engine oil on new engine after 10 hours of use (see Fluid Capacities). Perform this service once before beginning the standard 50-hour oil-change interval.

Every 25 Hours / 3 Months

- Inspect all hoses, fittings, and nozzles.

Every 50 Hours / 6 Months

- Clean air filter.
- Inspect spark plug and clean or replace if necessary.
- Change engine oil (see Fluid Capacities).

Every 100 Hours / Annually

- Replace spark plug.
- Replace air filter.
- Clean fuel filter.
- Inspect and clean spark arrester screen.
- Inspect and replace pump seals if leaking.
- Tighten all bolts, clamps, and fittings.

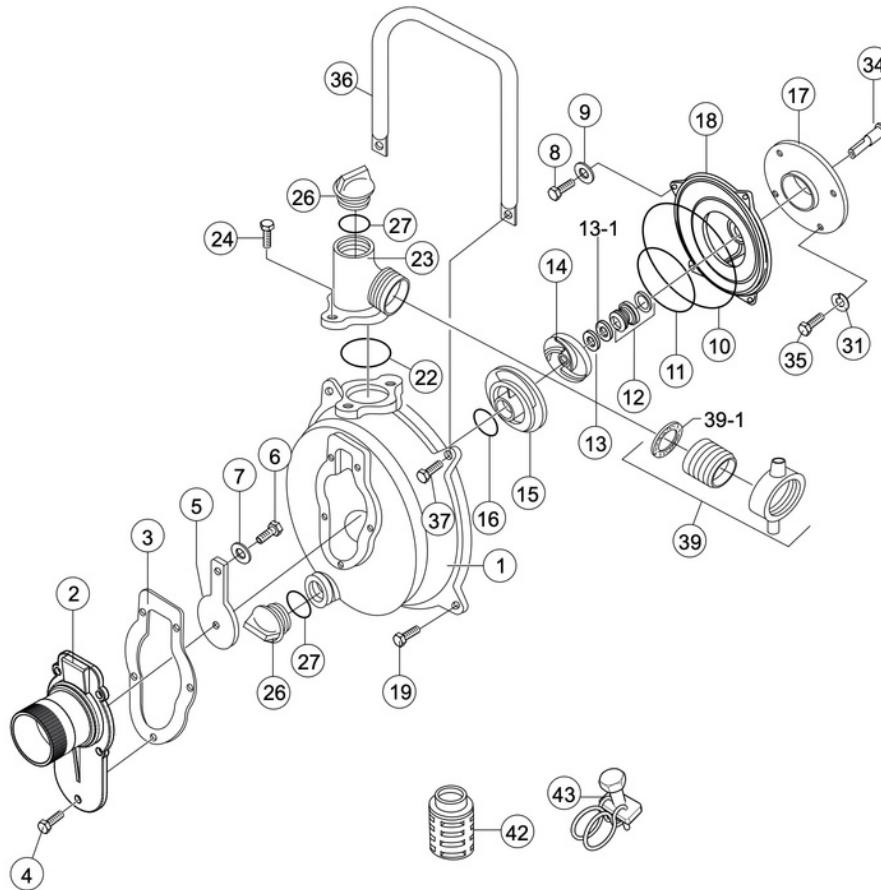
TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
● Engine will not start	• Empty fuel tank • Kill switch in OFF position • Choke not set • Spark plug fouled or disconnected • Low oil shutdown triggered • Fuel shutoff switch in OFF position	• Refill with fresh non-ethanol fuel • Verify kill switch is ON • Set choke for cold start • Inspect/clean spark plug and reconnect wire • Check oil level and add if necessary • Verify fuel shutoff switch is ON
● Engine starts but stalls	• Dirty air filter • Fuel contaminated or old • Carburetor clogged • Choke left engaged	• Clean or replace air filter • Drain and replace with fresh fuel • Clean carburetor or seek service • Return choke to RUN position
● Engine runs rough or misfires	• Stale or contaminated fuel • Clogged fuel filter or carburetor jet • Bad or misgapped spark plug	• Drain and refill with fresh, non-ethanol fuel • Clean or replace fuel filter/carburetor jet • Clean, re-gap, or replace spark plug
● Excessive engine vibration	• Loose mounting bolts • Engine contacting frame • Damaged engine mounts	• Tighten all mounting bolts • Inspect and adjust engine position • Replace damaged mounts
● Low water pressure	• Nozzle partially blocked • Hose kinked or leaking • Pump impeller worn/damaged • Air in suction line • Tank out of water	• Inspect/clean nozzle • Straighten or replace hose • Inspect/replace impeller or seals • Re-prime pump and tighten suction fittings • Refill tank
● Pump overheats	• Running pump without water • Recirculation valve closed during use • Excessive run time without spraying	• Ensure pump is primed with water • Open recirculation valve when not spraying • Allow cool-down cycles
● Pump will not prime or has no water flow	• Pump ran dry • Air leak in suction line • Suction hose strainer clogged • Valves not aligned properly	• Fill pump with water before starting • Tighten suction fittings • Clean suction strainer • Verify valve positions per “Normal Operation”
● Water leaks around fittings	• Loose clamps or fittings • Worn gasket	• Tighten clamps/fittings • Replace gasket
● Water leaks between pump and engine	• Mechanical seal has failed	• Replace mechanical seal (#12). See “Pump Diagram & Parts”, page 6.
● Pump will not draft	• Pump not primed • Valves not aligned properly • Air leak in suction line • Suction hose strainer clogged • Air in drafting hose	• Fill pump with water before starting • Verify valve position per “Drafting Operation” • Tighten suction fittings, verify no leaks • Clean suction strainer • Gently shake or agitate the strainer and hose end while submerged in water to remove trapped air from the drafting hose and help force water up the drafting hose



PUMP DIAGRAM & PARTS

► MULTIQUIP QP-15HP PUMP DIAGRAM – HONDA GXH50



NO.	PART NO.	PART NAME	QTY.	REMARKS
1	1714100010	CASING	1	
2	1749100160	SUCTION COVER	1	
3	1714330370	SUCTION COVER PACKING	1	
4	0141050512	SCREW	5	
5	1701350350	CHECK VALVE	1	
6	0141090510	SCREW	1	
7	0401450050	WASHER	1	
8	0105050620	BOLT	4	
9	0458220060	SEAL WASHER	4	
10	0489311810	O-RING	1	
11	0489241380	O-RING	1	
12	0806112515	MECHANICAL SEAL	1	
13	0852831812	ADJUST LINER	1	
13-1	0852851812	ADJUST LINER	1	
14	1129100030	IMPELLER	1	
15	1714100130	VOLUTE CASING	1	
16	0482200380	O-RING	1	
17	1129060600	CASING COVER SET PLATE	1	
18	1714100021	CASING COVER	1	
19	0181051025	BOLT SET WITH LOCK WASHER	2	
22	0480350440	O-RING	1	
23	1749100090	DELIVERY ELBOW	1	
24	0181050820	BOLT SET WITH LOCK WASHER	2	
26	0631211060	FLOODING/DRAIN CAP	2	
27	0481310250	FLOODING/DRAIN CAP O-RING	2	
31	0451250060	LOCK WASHER	4	
34	1129221010	PUMP SHAFT	1	
35	0141050620	SCREW	4	
36	17462070100014	HANDLE	1	
37	0181051030	BOLT SET WITH LOCK WASHER	2	
39	0741158040	HOSE COUPLING SET	2	INCLUDES ITEM W/#
39-1#	0744310401	HOSE COUPLING PACKING	2	
42	0742214040	STRAINER	1	
43	0932251120	WIRE HOSE BAND	3	



PUMP SERVICING

➤ **DISASSEMBLY OF MULTIQIP QP-15HP PUMP**

1. Take pictures during disassembly to ensure proper reassembly of the pump.
2. Remove (4) bolts #19 and #37 (17mm) from pump casing #1 and casing cover #18.
3. Remove pump casing #1.
4. Remove volute casing #15. Note the orientation of volute and notch for reassembly.
5. Remove impeller #14 from pump shaft #34. Note the orientation of adjust liners #13 — their position sets impeller clearance and must go back exactly as removed. Tip: Remove impeller by rotating impeller counterclockwise with a large pair of adjustable pliers. If impeller will not break loose from pump shaft #34, remove the front recoil plate and secure flywheel with adjustable pliers or wrench. Then try to remove impeller again.
6. Remove mechanical seal #12 and adjust liners #13 from shaft #34 — note spring orientation and which face is ceramic for reassembly.
7. Remove the (4) bolts #8 (10mm) and seal washers #9 holding on the casing cover #18.
8. Remove casing cover #18.
9. Remove stationary portion of mechanical seal #12 from casing cover #18.

➤ **ASSEMBLY OF MULTIQIP QP-15HP PUMP**

1. Install the stationary portion of mechanical seal #12 in casing cover #18. It is recommended to replace the mechanical seal at each pump disassembly.
 - a. Clean sealing face with lint-free tissue and alcohol. Do not touch the seal faces with bare fingers or use grease/oil on the seal faces.
 - b. Seat seal firmly using diluted dish soap; ceramic side faces out.
2. Align casing cover #18 onto engine, seal drain slot facing down.
3. Fasten casing cover #18 with (4) bolts #8 (10mm) and seal washers #9. Tighten, cross sequence.
4. Install mechanical seal #12 onto pump shaft #34, ceramic face toward stationary portion of mechanical seal #12.
5. Install adjust liners #13 onto pump shaft #34.
6. Tighten impeller #14 onto pump shaft #34.
7. Seat O-rings #10 and #11 into their grooves on casing cover #18 — check it's fully seated all the way around, not pinched.
8. Install volute casing #15 — ensuring the tab on volute casing #15 sits in the groove in casing cover #18.
9. Install O-ring #16 on volute casing #15.
10. Install pump casing #1.
11. Install (4) bolts #19 and #37 (17mm) through pump casing #1 into casing cover #18. Tighten, cross sequence.
12. If the front recoil plate was removed during disassembly (step 5), reinstall the front recoil plate before proceeding.
13. Before starting: Pull the recoil starter to confirm the shaft turns freely. If resistance is felt, do not start. Recheck impeller and volute casing alignment/seating.

WARRANTY & SUPPORT

WARRANTY

- All Minute Manufacturing L.L.C. products are covered by a limited parts warranty against manufacturing defects from the date of product receipt. Standard use warranty: 12 months. Commercial use warranty: 6 months. This warranty excludes normal wear, consumable items (gaskets, seals), misuse, neglect, improper installation, and improper operation. Routine field adjustments and maintenance (tightening clamps, fasteners, inspecting connections, etc.) are a normal part of equipment operation and are the responsibility of the owner/operator. Please contact us with any issues.

SUPPORT

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Minute Manufacturing L.L.C.
550 N. Marymount Rd. Unit K
Salina, KS 67401
Phone: 785-655-0650
Email: minutemanufacturing@gmail.com

MODEL:

SERIAL:

DATE PURCHASED:



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PREVENT. PROTECT. PRESERVE.

