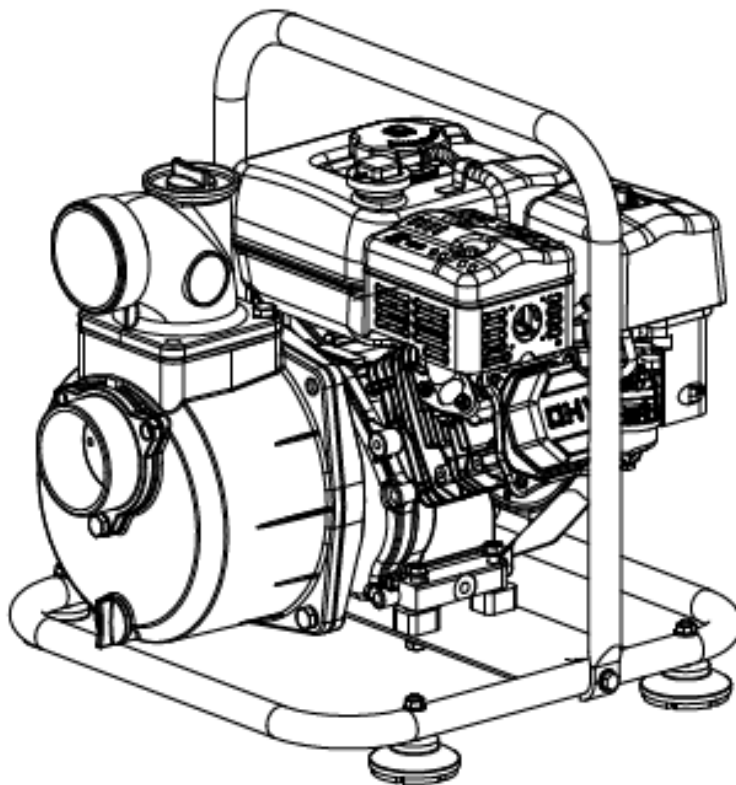




2" / 3" Gas Water Pump

Owner's Manual



! WARNING: Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Items:#750131 & #750132

SAVE THESE INSTRUCTIONS

Thank you very much for choosing an Ironton™ product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code: _____

Purchase Date: _____

Save the receipt, warranty, and this manual. It is important that you read the entire manual to become familiar with this product before you begin using it.

This Gas Water Pump is designed for certain applications only. Northern Tool & Equipment is not responsible for issues arising from modification or improper use of this product such as an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call **1-877-234-6869**.

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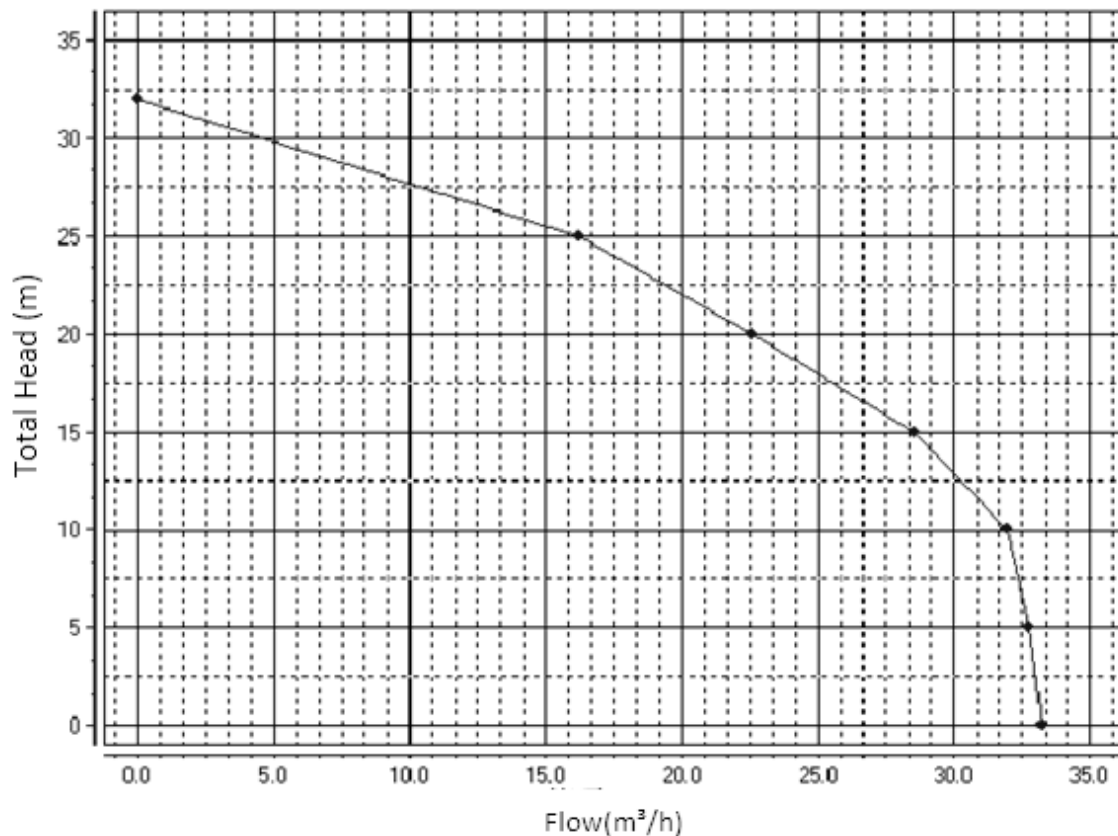
Intended Use

The Ironton 2" and 3" Gas Water Pumps are designed with a simple structure allowing for an easy start and reliable operation. These quiet and easy-to-use water pumps are designed to pump water and non-corrosive liquids. The water pumps have many applications including farming irrigation, drought-resistant irrigation, pool, flooding, pond draining, and construction sites.

Technical Specifications

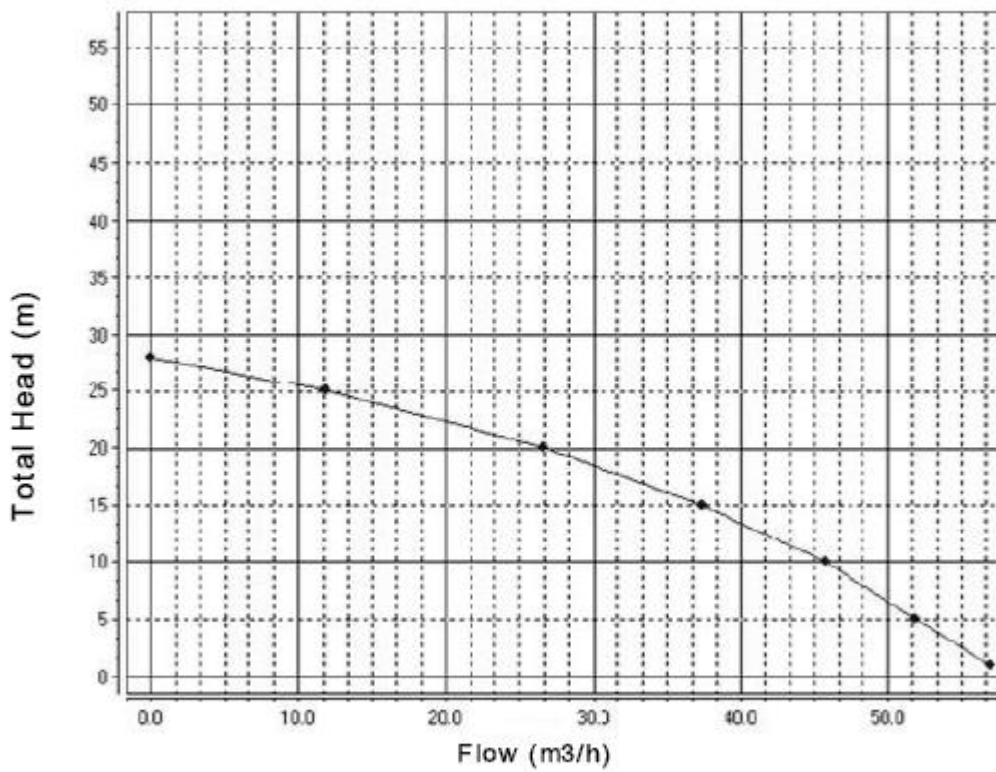
2" Gas Water Pump: #750131	
Property	Specification
Engine	Ironton 212cc
Suction & Discharge Size	2" NPT
Maximum Flow	7860 GPH
Maximum Suction Head	23 FT
Maximum Total Head	98 FT
Maximum Pressure	46 PSI
Passable Solid Size	5/8"
Mechanical Seal	Silicon Carbide
Overall Dimensions (LxWxH)	18"x17.5"x17"
Dry Weight	50.7 lbs.

Performance Curve



3" Gas Water Pump: #750132	
Property	Specification
Engine	Ironton 212cc
Suction & Discharge Size	3" NPT
Maximum Flow	14,160 GPH
Maximum Suction Head	23 FT
Maximum Total Head	98 FT
Maximum Pressure	40 PSI
Passable Solid Size	5/8"
Mechanical Seal	Silicon Carbide
Overall Dimensions (LxWxH)	18" x 17.5" x 17"
Dry Weight	55.1 lbs.

Performance Curve



1m=3.28ft 1m3/h=264.2GPH

Important Safety Information

⚠️WARNING

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this water pump. Always be aware of the environment and ensure that the water pump is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the water pump until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this water pump in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the water pump. There are specific applications for which the water pump was designed.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will be safer and do the job better at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements.

⚠️WARNING

WORK AREA SAFETY

- Inspect the work area before each use. Keep the work area clean, dry, free of clutter, and well lit. Cluttered, wet, or dark work areas can result in injury. Using the water pump in confined work areas may put you dangerously close to other cutting tools and rotating parts.
- Place the water pump on a firm, level surface. If the water pump is tilted or overturned, fuel spillage may result.
- Do not allow the water pump to come into contact with an electrical source. The water pump is not insulated and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the water pump. Do not allow children to handle the water pump.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injured or property damage if contacted.

⚠️WARNING

PERSONAL SAFETY

- Stay alert, watch what you are doing, and use common sense when operating the water pump. Do not use the water pump while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool may result in serious personal injury.
- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents on the tool often cover moving parts and should be avoided.
- Wear the proper personal protective equipment when necessary. Use ANSI Z87.1 compliant safety goggles (not safety glasses) with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- Do not overreach. Keep proper footing and balance at all times.
- Remove keys or wrenches before connecting the tool to an air supply, power supply, or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may cause personal injury.

⚠️CAUTION

WATER PUMP USE AND CARE

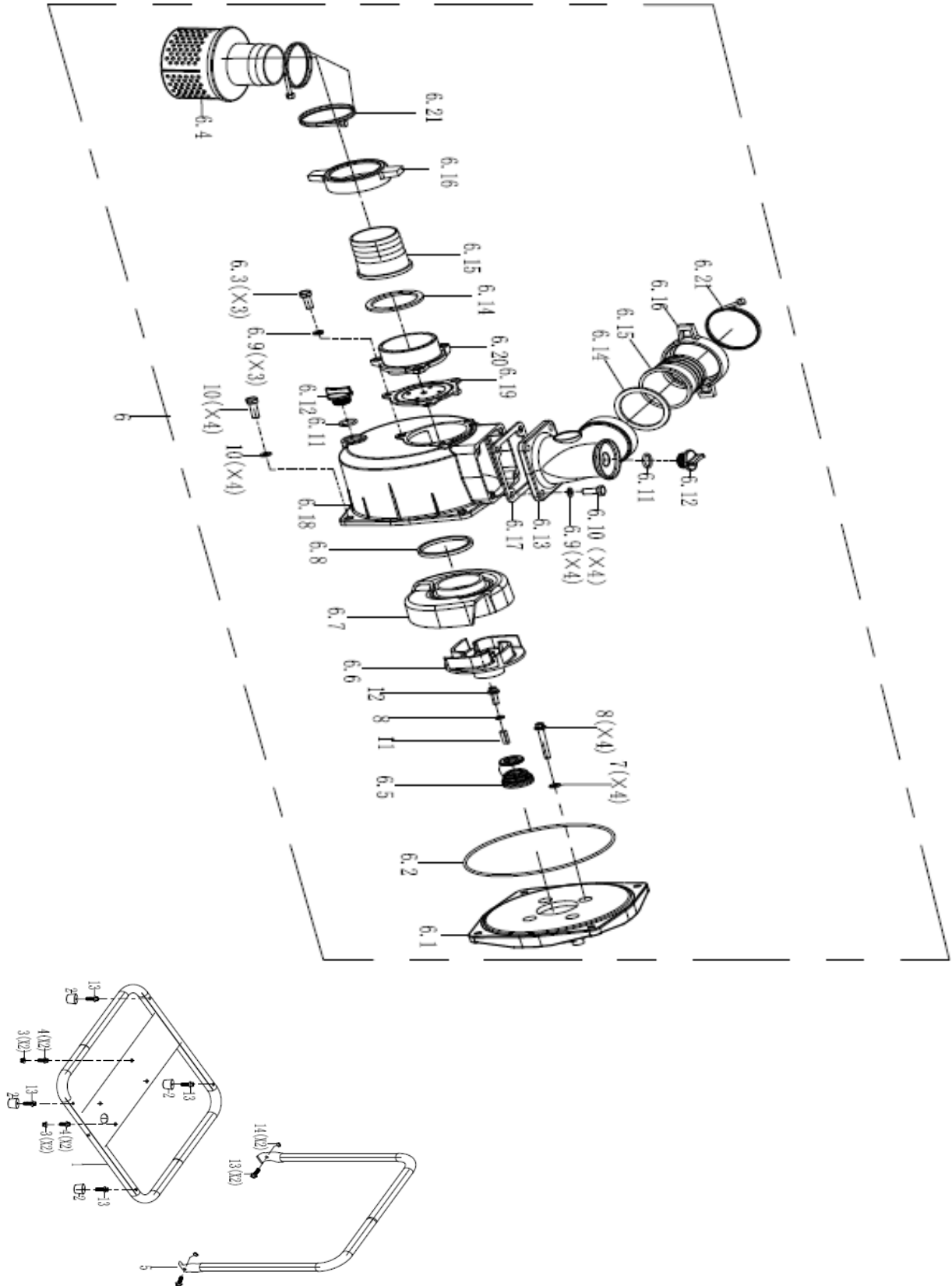
- Do not force the water pump. Products are safer and do a better job when used in the manner for which they are designed. Plan your work, and use the correct product for the job.
- Check for damaged parts before each use. Carefully check that the water pump will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the water pump with a damaged part.
- Store the water pump when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the water pump for good working condition prior to storage and before re-use.
- Use only accessories that are recommended by the manufacturer for use with your water pump. Accessories that may be suitable for one product may create a risk of injury when used with another tool. Never use an accessory that has a lower operating speed or operating pressure than the tool itself.

Specific Operation Warnings

⚠WARNING

- INSPECT and PREPARE the water pump before each use, as directed in this manual.
- Pump clean water only. DO NOT use for salt water, brine, laundry discharge or any application that may contain foreign materials and/or caustic chemicals.
- Never pump gasoline or flammable liquids with this product.
- To prevent fire hazards and to provide adequate ventilation, keep the pump at least 1 meter (3 feet) away from buildings and other equipment during operation. Do not place flammable objects near the pump.
- Know how to stop the pump quickly, and understand the operation of all controls. Never permit anyone to operate the pump without proper instructions.
- FOLLOW INSTRUCTIONS for SAFELY FUELING the engine. Gasoline is flammable and can explode. Always use caution when handling gasoline.
- Keep a fire extinguisher rated "ABC" nearby.
- Refuel in a well-ventilated area with the engine stopped.
- Keep refueling area clear of smoking, flames or sparks as gasoline fumes can be ignited.
- Do not overfill the fuel tank. After refueling, make sure the tank cap is closed properly and securely.
- Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Never run the engine in an enclosed or confined area. Exhaust contains poisonous carbon monoxide gas; exposure can cause loss of consciousness and may lead to death.
- The muffler becomes very hot during operation and remains hot after stopping the engine. DO NOT touch the muffler while it is hot.
- Let the engine cool before storing the pump indoors.
- See the Troubleshooting section of this manual before attempting any repairs. Wear personal protective equipment such as ANSI Z87.1 compliant safety glasses and follow safety instructions.

2" Pump Exploded View



2" Pump Main Parts of Water Pump

Ref.	Code	Description	Qty.
1	809004	SEAT, FRAME	1
2	531112	RUBBER DAMPING BRACKET	4
3	90018	NUT M8	4
4	91348	BOLT M8X35	4
5	804007	HANDLE, FRAME	1
6	801054	WATER PUMP ASSY	1
6.1	7232	PUMP, COVER	1
6.2	7212	PACKING RING,WATER PUMP	1
6.3	7218	BOLT M8X20	3
6.4	7225	FUEL FILTER	1
6.5	7209	PACKING RING,WATER PUMP	1
6.6	7230	FAN, RECOIL STARTER	1
6.7	7203	VOLUTE	1
6.8	7215	PACKING RING,WATER PUMP	1
6.9	7210	FLAT WASHER 8X16X1.5	7
6.10	7216	BOLT M8X25	4
6.11	7219	PACKING RING, WATER PUMP	2
6.12	7220	PLUG SCREW	2

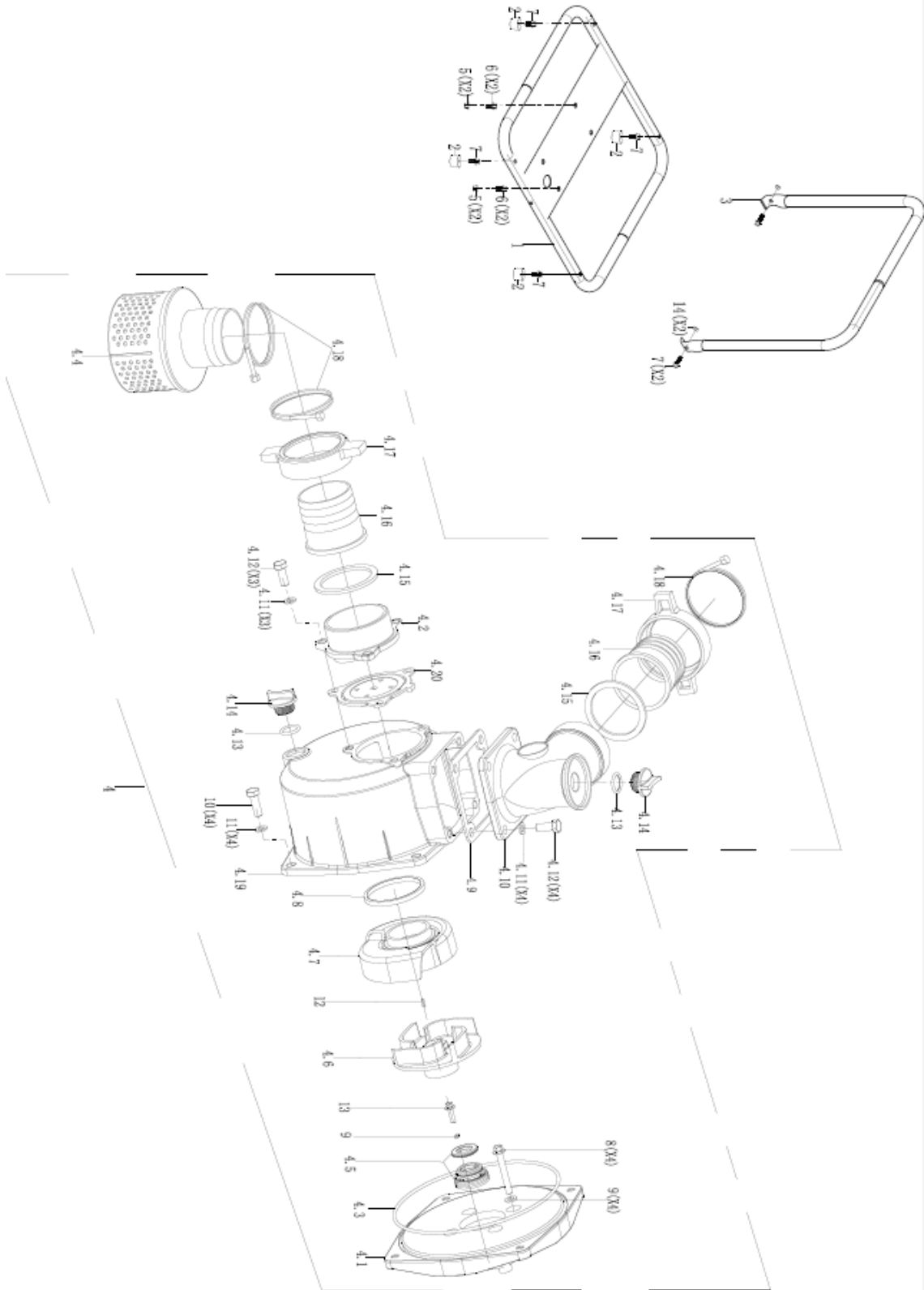
Ref.	Code	Description	Qty.
6.13	7227	OUTLET	1
6.14	7222	PACKING RING, WATER PUMP	2
6.15	7208	CONNECTOR, TUBE	2
6.16	7229	NUT	2
6.17	7213	PACKING RING,WATER PUMP	1
6.18	7204	BODY, WATER PUMP	1
6.19	7221	VALVE, SUCTION PORT	1
6.20	7228	INLET	1
6.21	7223	CLIP	2
7	91213	BOLT, BRITAIN M8X60	4
8	94257	FLAT WASHER	5
9	91346	BOLT M8X25	4
10	94222	FLAT WASHER φ8	4
11	246509	FLAT KEY	1
12	91214	BOLT, BRITAIN M8X30	1
13	91335	BOLT M8X35	6
14	90023	LOCK NUT M6	2

3" Pump Main Parts of Water Pump

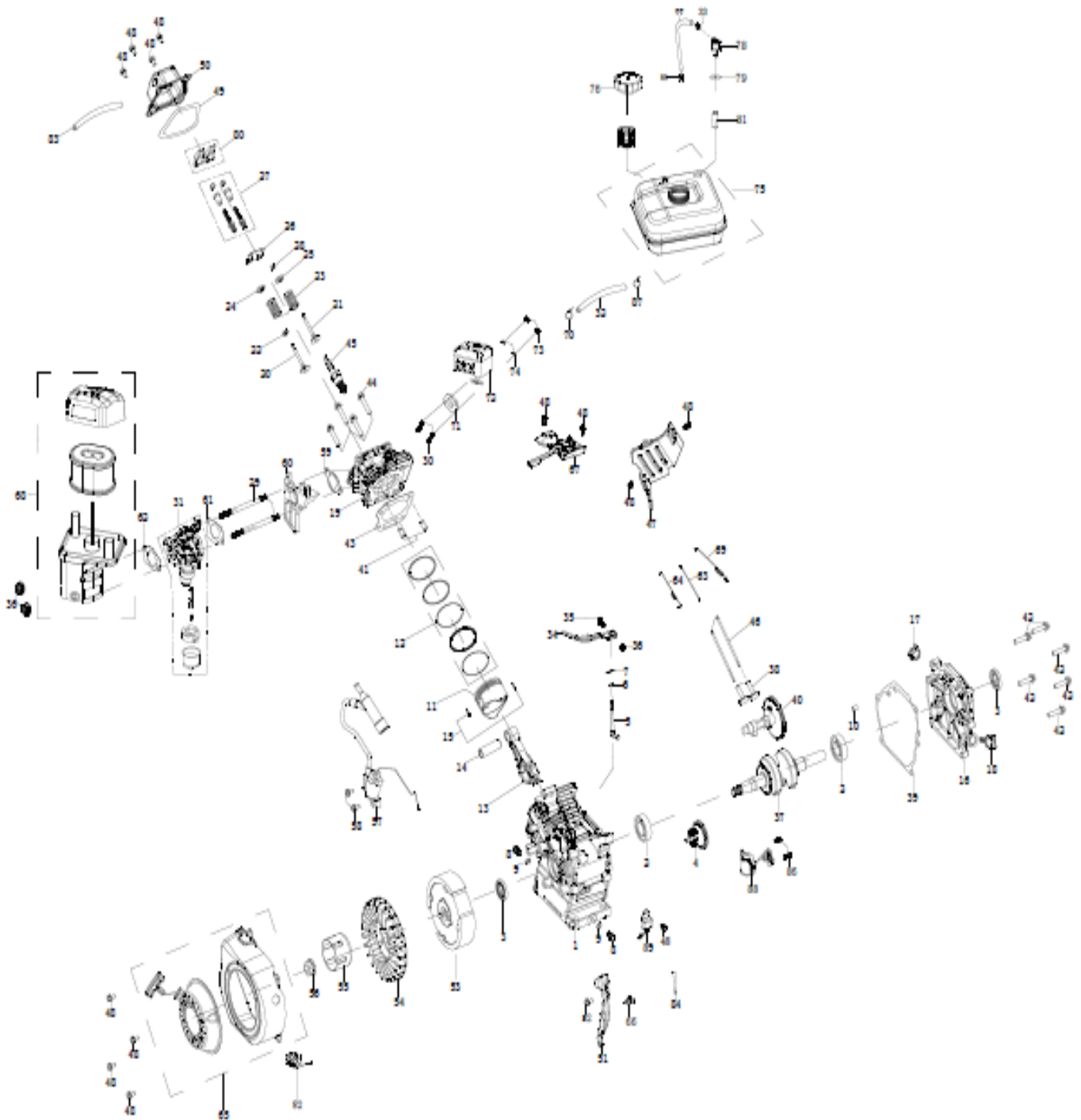
Ref.	Code	Description	Qty.
1	809001	FRAME	1
2	531112	RUBBER DAMPING BRACKET	4
3	804007	HANDLE, FRAME	1
4	801055	WATER PUMP ASSY	1
4.1	7322	WATER PUMP BASE	1
4.2	7209	PACKING RING, WATER PUMP	1
4.3	7305	PACKING RING, WATER PUMP	1
4.4	7318	OUTLET	1
4.5	7302	PACKING RING,WATER PUMP	1
4.6	7230	FAN, RECOIL STARTER	1
4.7	7303	VOLUTE	1
4.8	7304	PACKING RING, WATER PUMP	1
4.9	7313	BODY, WATER PUMP	1
4.10	7219	PACKING RING, WATER PUMP	2
4.11	7307	FLAT WASHER 10X19X1.5	7

Ref.	Code	Description	Qty.
4.12	7308	BOLT M10X25	7
4.13	7220	SCREW-PLUG	2
4.14	7314	INLET VALVE	1
4.15	7320	INLET	1
5	90018	NUT M8	4
6	91348	BOLT M8X35	4
7	91335	BOLT M6X35	6
8	91213	BOLT, BRITAIN M8X60	4
9	94257	FLAT WASHER 8*16*1.5	5
10	91355	BOLT M10*1.25*30	4
11	94214	FLAT WASHER 10.3*20.6*1.65	4
12	246509	FLAT KEY 8*16*1.5	1
13	91214	BOLT, BRITAIN M8X30	1
14	90023	LOCK NUT M6	2

3" Pump Exploded View



Exploded View of Engine

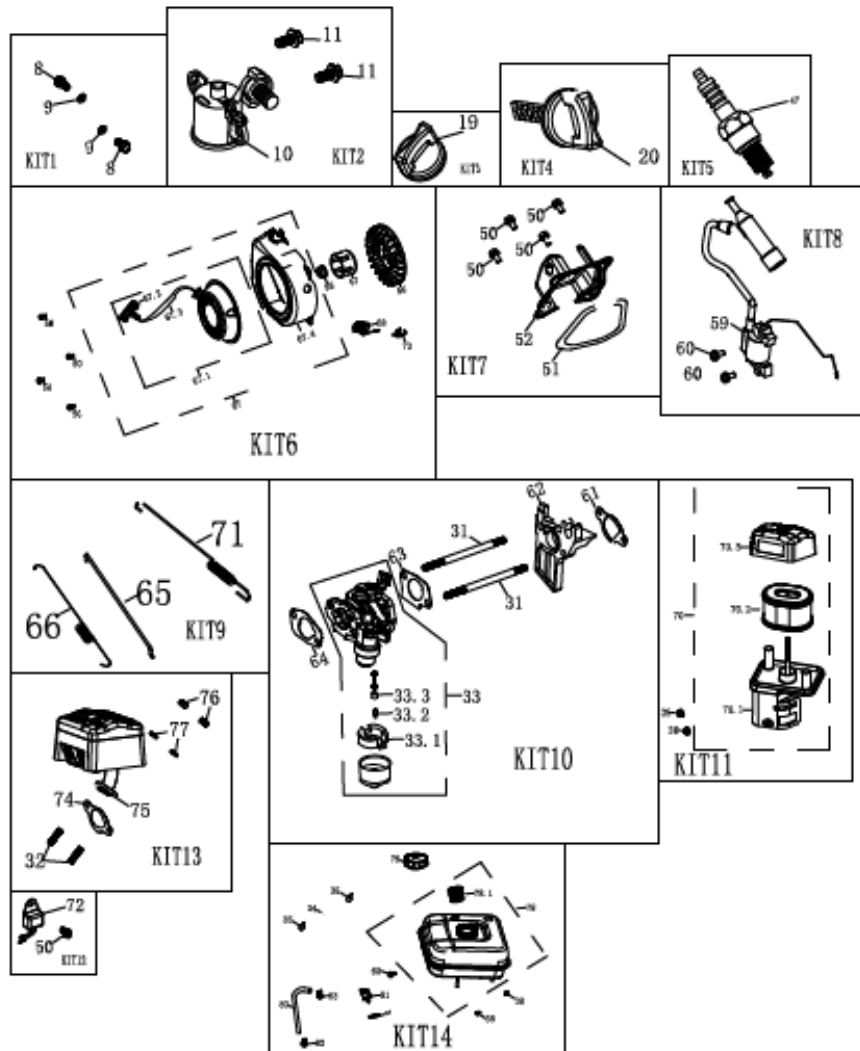


Main Parts of Engine

Ref.	Code	Description	Qty.
1	240210	CRANK CASE	1
2	93027	BALL BEARING	2
3	93507	OIL SEAL	2
4	244302	GOVERNOR ASSEMBLY	1
5	243901	SHAFT, GOVERNOR ARM	1
6	96804	WASHER, GOVERNOR ARM SHAFT	1
7	243902	PIN, LOCK	1
8	91816	BOLT, DRAIN PLUG	2
9	94007	WASHER, DRAIN PLUG	2
10	240901	DOWEL PIN, CASECOVER	1
11	241208	PISTON	1
12	241606	SCRAPER RING SET, PISTON	1
13	241503	ROD ASSEMBLY, CONNECTING	1
14	245503	PIN, PISTON	1
15	241301	CLIP, PISTON	2
16	240105	COVER ASSEMBLY, CRANKCASE	1
17	241401	OIL PLUG	1
18	245601	DIPSTICK	1
19	241011	CYLINDER HEAD	1
20	241704	VALVE, IN	1
21	245904	VALVE EXHAUST	1
22	241806	RETURNER, INTAKE VALVE	1
23	246001	SPRING, VALVE	2
24	241801	SEAT, VALVE SPRING, IN	1
25	241802	SEAT, VALVE SPRING, EX	1
26	242202	PLATE, PUSH ROD GUIDE	1
27	91818	ROCKER ARM TIGHTENING BOLTS	2
28	241804	ROTATOR	1
29	91006	BOLT, STUD	2
30	91007	BOLT, STUD	2
31	242816	CARBURETOR ASSEMBLY	1
32	95405	FUEL LINE	1
33	94408	CLIP, FUEL LINE	1
34	244001	GOVERNOR ARM	1
35	91822	BOLT, GOVERNOR ARM	1
36	90016	NUT M6	3
37	240349	CRANKSHAFT ASSEMBLY	1
38	246102	LIFTER, VALVE	2
39	96041	PACKING, CASE COVER	1
40	242003	CAMSHAFT ASSEMBLY	1
41	240905	PIN, DOWEL	2
42	91347	BOLT M8X30	6
43	96058	GASKET, CYLINDER HEAD	1
44	91359	BOLT M8X60	4
45	97108	SPARK PLUG	1

Ref.	Code	Description	Qty.
46	241901	ROD, PUSH	2
47	240501	SHROUD	1
48	91325	BOLT M6X12	13
49	96045	PACKING, HEADCOVER	1
50	241104	COVER COMP, CYLINDER HEAD	1
51	245702	WIND SHIELD COMP.	1
52	91330	BOLT M6X20	1
53	240401	FLYWHEEL ASSEMBLY	1
54	244601	FAN, RECOIL STARTER	1
55	244503	PULLEY, STARTER	1
56	90003	NUT	1
57	97514	IGNITION COIL ASSY	1
58	91331	BOLT M6X25	2
59	96047	PACKING, INTAKE	1
60	242301	INSULATOR, CARBURETOR	1
61	96051	PACKING, CARBURETOR	1
62	94226	SPACER, CARBURETOR	1
63	242701	ROD, GOVERNOR	1
64	244201	SPRING, THROTTLE RETURN	1
65	244702-010	RECOIL STARTER ASSEMBLY	1
66	240802	CLIP	1
67	244403	SHROUD ASSY, UPPER	1
68	242910	AIR CLEANER ASSEMBLY	1
69	244101	SPRING, GOVERNOR	1
70	94403	CLIP, FUEL LINE	1
71	96054	PACKING, EXHAUST	1
72	243707	MUFFLER COMP	1
73	90011	NUT M8	2
74	94206	SPRING WASHER	2
75	243101-010	FUEL TANK ASSEMBLY	1
76	519201	FUEL TANK CAP COMP	1
77	95303	CONNECTING PIPE	1
78	546606	MANUAL CHOKE ASSEMBLY	1
79	550605	PACKING WASHER, ONE-WAY VALVE	1
80	242101	ROCKER ARM	2
81	95903	VENTILATION TUBE PROTECTOR	1
82	245205	SWITCH ASSEMBLY	1
83	95603	TUBE, BREATHER	1
84	599601	CLIP, WIRE HARNESS	1
85	94409	CLIP, FUEL LINE	1
86	91329	BOLT M6X16	2
87	94404	CLIP, FUEL LINE	1
88	245102	SWITCH ASSEMBLY, OIL LEVEL	1
89	245104	AMPLIFIER	1

Exploded View of Engine Kit

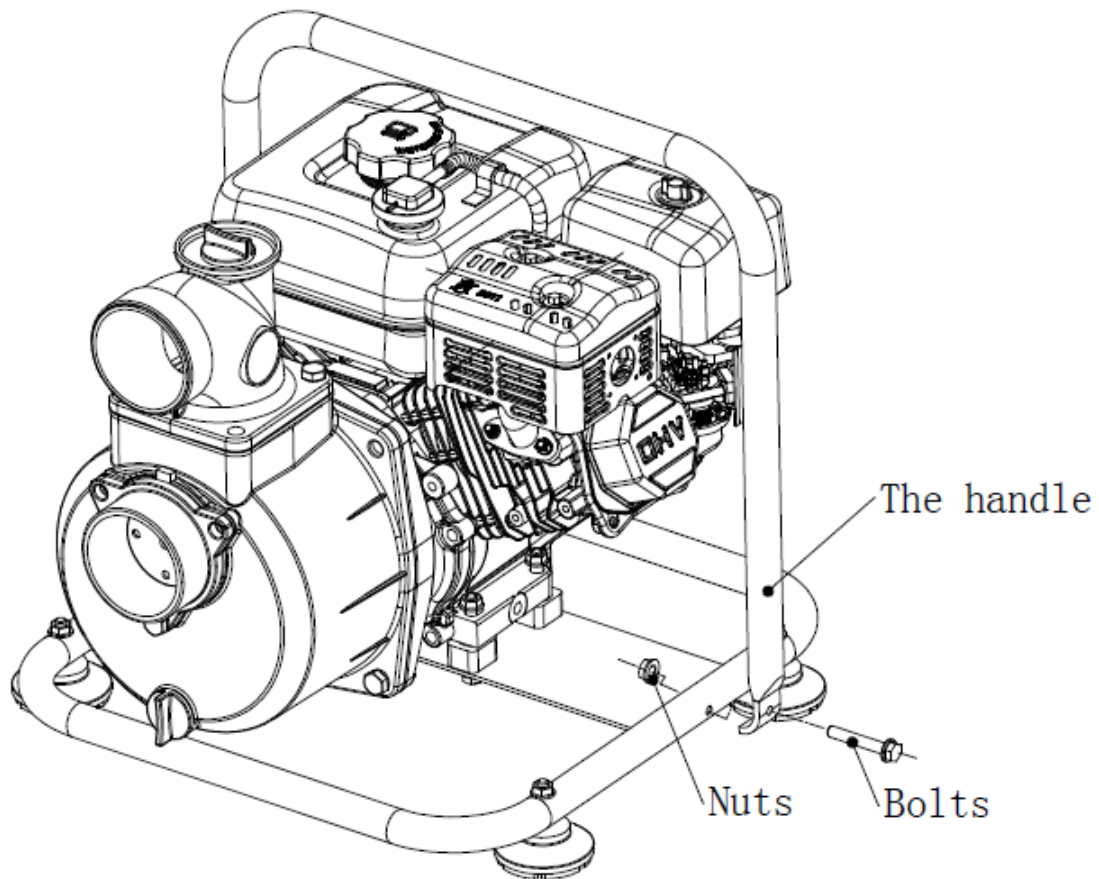


Kit Ref.	Kit Part	Description	Qty.
KIT1	8 9	Washer, Drain Plug	1
KIT2	10 11	Switch Assembly, Oil Level	1
KIT3	19	Oil Plug	1
KIT4	20	Dipstick	1
KIT5	47	Spark Plug	1
KIT6	50 56 57 58 67 (67.1 67.2 67.3 67.4) 68 73	Recoil Starter Assembly	1
KIT7	50 51 52	Cover Comp, Cylinder Head	1
KIT8	59 60	Ignition Coil Assembly	1
KIT9	65 66 71	Governing Spring	1
KIT10	31 33 (33.1 33.2 33.3) 61 62 63 64	Carburetor Assembly	1
KIT11	38 70 (70.1 70.2 70.3)	Air Cleaner Assembly	1
KIT12	50 72	Amplifier	1
KIT13	30 74 75 76 77	Muffler Comp	1
KIT14	34 35 38 60 78 (78.1) 79 81 82 83 84	Fuel Tank Assembly	1

Assembly Instructions

⚠WARNING

CHECK and TEST the completed assembly as directed in this manual. Serious injury could result from water leaks if the water pump is improperly assembled. DO NOT MODIFY the water pump's design.



Required Assembly Tools

- Open-end wrenches: S10 and S8
- Bolts: M6
- Nuts: M6

Installation Steps

1. Ensure the handle mounting hole fits the base of the mounting holes.
2. Insert the bolt and screw in the nut by hand.
3. Tighten the nut with an S10 open-end wrench and then tighten the bolt with an S8 open-end wrench.

Before Each Use

Step One: Inspect & Repair

If the water pump has been previously used, it must be prepared BEFORE EACH SUBSEQUENT USE.

⚠️WARNING

Read instructions below carefully for inspecting and preparing the water pump. Damaged or clogged equipment could result in leaks or uncontrolled spray.

⚠️WARNING

IMPORTANT SAFETY RULES

- Check oil. Before each use, check the oil level and add oil to the proper level if it's low.
- Turn off engine. Turn off the engine and remove the spark plug cap before cleaning, inspecting, or servicing the water pump.
- Guards/shields. Make sure all guards and shields are replaced after servicing the water pump.
- Replacement parts. If a part needs replacement, only use parts that meet the manufacturer's specifications. Replacement parts that do not meet specifications may result in a safety hazard or poor operation of the water pump.

1. Ensure water pump casing is empty.	Ensure the water pump has been thoroughly flushed with fresh water and drained from prior use.
2. Clean suction strainer.	Clean the suction strainer of any material residue. It is important to clean the suction strainer of debris before each use, to ensure it is not clogged.
3. Inspect & repair.	Inspect and test the water pump thoroughly. <ol style="list-style-type: none"> a. Inspect fittings for cracks and leaks. Replace all damaged fittings with original parts. b. Check to be sure all nuts, bolts, and screws are tight. c. Check the engine's oil level (see engine's owner's manual). d. Check for fuel leaks. Any fuel leak is a fire hazard and needs to be repaired before starting engine.

Step Two: Fueling

⚠️WARNING

- Gasoline is highly flammable and explosive. Use extreme care when handling gasoline.
- A running engine is hot enough to ignite fuel. Never add fuel or remove gas cap if engine is running or still hot.
- Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.

1. Engine off / cool	The engine must be off and allowed to cool at least two minutes before adding fuel.
2. Outdoor location	Fill fuel tank outdoors – never indoors.
3. Check engine oil level	Check engine oil level as specified in the engine manual.
4. Remove gas cap	Remove engine gas cap.
5. Add gasoline	<p>Add gasoline through fill opening from a UL-approved container.</p> <p>Important Safety Instructions:</p> <ul style="list-style-type: none"> • Use approved container. NEVER pump fuel directly into engine at gas station. Static charge can build and ignite fuel. Use a UL approved fuel container to transfer gas to the engine. • Don't overfill. DO NOT overfill the gas tank. Allow at least 1/2" of empty space below the fill neck to allow for fuel expansion. • Heat / flames / sparks. Stay away from sources of heat, flame, or sparks while adding fuel.
6. Spills / splashes	<p>Clean up fuel spills/splashes immediately.</p> <ol style="list-style-type: none"> a. Move water pump away from spilled fuel. b. Wipe fuel off engine and wait 5 minutes for excess fuel to evaporate before starting engine. c. Gas soaked rags are flammable and should be disposed of properly. d. If gasoline is spilled on your skin or clothes, change clothes and wash skin immediately.
7. Replace gas cap	Replace gas cap securely before starting engine.
8. Gasoline storage	Store gasoline in a cool, dry place, tightly sealed container.

Step Three: Attach a Suction Strainer

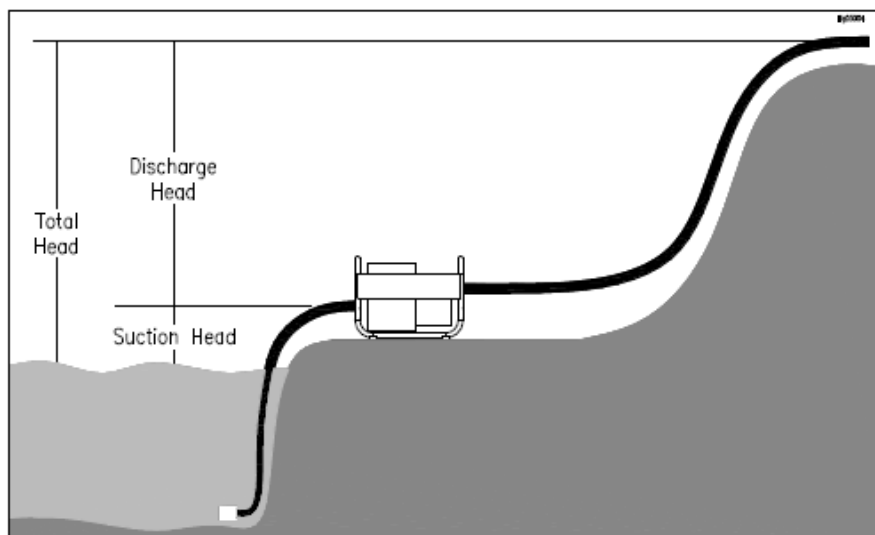
⚠WARNING

This pump is designed to pump water only. Never use the water pump to pump flammable liquids.

1. Attach suction strainer	A suction strainer should be attached to the suction hose. A suction strainer has holes or slots small enough to prevent large debris from working through and damaging the pump.
2. Keep the strainer clean	Keep the strainer clean. If possible, suspend the strainer to keep it from working into sediment -OR- <ol style="list-style-type: none"> a. Prepare a bed of large stones on which the strainer will rest. b. Tie the strainer inside a basket or pail.

Step Four: Place the Water Pump

1. Place the water pump near the liquid surface.	Place the water pump in a location as close to the liquid surface as possible. This will ensure proper pump suction. All hoses must be kept as straight as possible, avoiding sharp bends. NOTE: 23 feet is the maximum height of a suction head.
2. Use a flexible hose.	Use at least 12" of flexible hose to make plumbing connections to the pump body. Rigid piping may put stress on the pump, causing damage.
3. Place the unit on secure footing.	Always be sure the unit is on secure footing. Keep the immediate pump area free of all bystanders. If the water pump is sitting beside a pit, be sure it is well-anchored so that it does not fall in.
4. Do not run the pump dry.	Do not run the pump dry. Always fill the pump body with water before starting. It is not necessary to drain the pump body after each use, unless there is danger of freezing, settling of solids, or crystallization.
5. Fill the pump with water.	Fill the pump with water using the priming port on the top of the pump. (The pump self-primes only when it is first filled with priming water.) All hoses and pipe connections must be air-tight.



Operating Instructions

Part 1: Operating the Water Pump

⚠WARNING

- Review safety information provided in this manual.
- Use the priming port on the top of the pump. Completely fill the pump chamber with water before starting the engine.
- Follow these safety rules and precautions when running the water pump's engine:
 - **Hot muffler.** If you are starting a warm engine, stay clear of the muffler. It may still be hot enough to burn you.
 - **Hot exhaust.** Hot exhaust fumes from the engine can cause fire. Position muffler at least 7' from combustible objects during operation.
 - **Fire extinguisher.** Have a Class B fire extinguisher available as a precautionary measure when operating the water pump engine in dry areas.
 - **Carbon monoxide.** The running engine gives off carbon monoxide, a poisonous gas that can kill you. You CANNOT smell it, see it, or taste it. ONLY run the water pump engine OUTDOORS and away from air intakes. NEVER run the water pump engine inside homes, garages, sheds, or other semi-enclosed spaces. These spaces can trap poisonous gases, EVEN if you run a fan or open windows. If you start to feel sick, dizzy, or weak while using the water pump, shut off the engine and get to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.
- Before starting the engine, consult the engine's Owner's Manual.
- Throttle control. When operating the water pump much higher than the water surface, you may need to speed up the engine, using the throttle. When the pump is near the water surface, a slower engine speed can be used. This will save the engine life and fuel. Consult the engine's Owner's Manual for the throttle location.
- Secure the flexible hose. Never allow a vehicle to run over the flexible hose. This sudden shut off pressure can cause "hydraulic shock". If your flexible hose must be laid across a high traffic area, it is advised to protect the flexible hose with planking.
- Keep the pump from freezing. Never allow water to freeze the pump. Freezing water can be extremely dangerous to the pump. Always drain the water from the pump if freezing temperatures are a factor.
- Flush the pump with fresh water after each use. Some liquids being pumped may leave a solid or sticky residue. This may shorten the life of the pump.






⚠CAUTION

HIGH ALTITUDE OPERATION


Operating at an altitude of greater than 2000 feet (610 meters) may affect your engines performance, fuel consumption, and emissions. To remain emissions compliant and improve engine performance at higher altitudes, a high-altitude kit is required. A high altitude kit includes a carburetor jet resized to help correct air / fuel mixture at altitude. To order a high altitude kit or if you have additional questions, go to www.northerntool.com or contact us at 1-877-234-6869. Please note, engines with the high-altitude kit installed operated at lower altitudes could cause severe engine damage and affect emissions compliance. When modified, a tag or decal should be added to the product stating that a high-altitude kit was installed and to remind you to re-service the carburetor (re-jet) when operating in lower altitude environments.

Part 2: Operating the Engine

Safety Precautions

⚠WARNING	
Warning Symbol	Description
	<p>Rapid retraction of the starter cord (kickback) can jerk your hands toward the engine faster than you can let go. Broken bones, fractures, bruises, or sprains could result.</p> <ul style="list-style-type: none"> • When starting the engine, pull the cord slowly until resistance is felt, then pull rapidly. • Components such as blades, impellers, pulleys, sprockets, etc., must be securely attached.
	<p>Rotating parts can contact or entangle hands, feet, hair, clothing, or accessories. Traumatic amputation or severe laceration can result.</p> <ul style="list-style-type: none"> • Operate equipment with guards in place. • Keep hands and feet away from rotating parts. • Tie up long hair and remove jewelry. • Do not wear loose-fitting clothing, dangling drawstrings, or items that could become caught.
	<p>Engines give off carbon monoxide, an odorless, colorless, poisonous gas.</p> <ul style="list-style-type: none"> • Start and run the engine outdoors. • Do not start or run the engine in enclosed areas, even if doors or windows are open.
	<p>Running engines produce heat. Engine parts, especially mufflers, become extremely hot. Severe thermal burns can occur on contact. Combustible debris, like leaves, grass, and brush, can catch fire.</p> <ul style="list-style-type: none"> • Allow the muffler, the engine cylinder, and the fins to cool before touching. • Remove accumulated debris from the muffler and cylinder areas. • Install and maintain in working order a spark arrester before using equipment on forest-covered, grass-covered, brush-covered unimproved land. The state of California requires this. Other states may have similar laws. Federal laws apply on federal land.
	<p>Starting an engine creates sparks. Sparking can ignite nearby flammable gases. Explosion and fire could result.</p> <ul style="list-style-type: none"> • If there is natural or an LP gas leakage in the area, do not start the engine. • Do not use pressurized starting fluids because vapors are flammable.

⚠WARNING

Warning Symbol	Description
	<p>Gasoline and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death. When adding fuel:</p> <ul style="list-style-type: none">• Turn the engine OFF and let the engine cool for at least 2 minutes before removing the gas cap.• Fill the fuel tank outdoors or in a well-ventilated area.• Do not overfill the fuel tank.• Keep gasoline away from sparks, open flames, pilot lights, heat, and other ignition sources.• Check fuel lines, the tank, the cap, and fittings frequently for cracks or leaks. Replace if necessary. <p>When Starting Engine:</p> <ul style="list-style-type: none">• Make sure the spark plug, muffler, fuel cap and air cleaner are in place.• Do not crank the engine with the spark plug removed.• If fuel spills, wait until it evaporates before starting the engine.• If the engine floods, set the choke to the OPEN/RUN position, place the throttle in FAST, and crank until the engine starts. <p>When Operating Equipment:</p> <ul style="list-style-type: none">• Do not choke the carburetor to stop the engine. <p>When Transporting Equipment:</p> <ul style="list-style-type: none">• Transport with the fuel tank EMPTY. <p>When Storing Gasoline or Equipment with Fuel in Tank:</p> <ul style="list-style-type: none">• Store away from furnaces, stoves, water heaters, or other appliances that have a pilot light or other ignition source because they can ignite gasoline vapors.

⚠WARNING

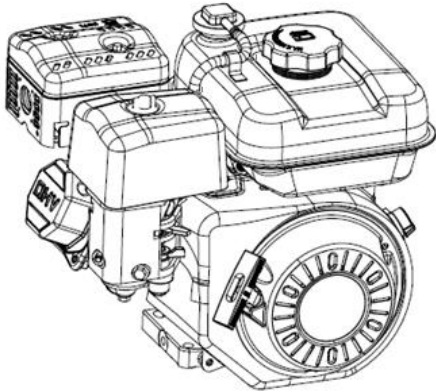
To prevent death or personal injury, read and understand this manual before operating pump.

Pay special attention to the following:

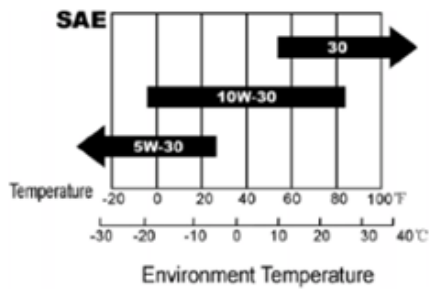
1. Make sure to run the engine in a well-ventilated area, keep at least three feet away from building walls or other equipment, and keep away from inflammables such as gasoline and matches, to avoid possible fire.
2. Keep the engine out of reach of children and pets to avoid accidents.
3. Be sure the engine's operator has thoroughly read through this manual.
4. Refuel in a well-ventilated area without the engine running, in a location safe for refueling or

storing gasoline (free from smoking, flames, and sparks).

5. Refill the fuel tank, avoiding overfilling. If there is a fuel spill, be sure to clean thoroughly before operating.
6. Locate the engine on a level, working platform to avoid fuel spills.
7. Make sure the fuel filler cap is tightened securely.
8. The exhaust muffler will be very hot even after the engine stops running. Never touch it, or you may be burned. Transport or store the engine only after it has completely cooled.



Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, the actual product may differ slightly from the product described.



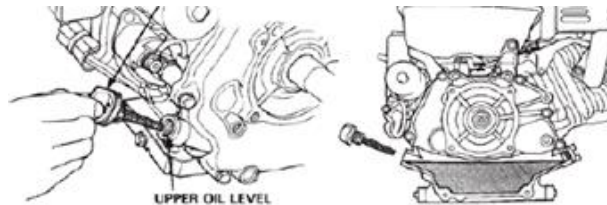
Pre-Operation: Engine Oil Inspection

⚠CAUTION

Engine oil is a key factor in the engine's performance. Do not apply engine oil with additives or 2-stroke gasoline oil.

Check the engine while it's stopped on level ground. The recommended engine oil is: SAE 10W-30. Viscosity varies by region and temperature, so the lubricant has to be selected in accordance with our recommendation.

Check Engine



1. Ensure that the engine is stopped on level ground.
2. Remove the dipstick and clean it.
3. Reinsert the dipstick into the oil filler without screwing it, and check the oil level.
4. If the level is too low, add the recommended engine oil to the oil filler neck.
5. Reinstall the dipstick.

⚠CAUTION

Operating with insufficient engine oil may severely damage the engine.

Fuel & Fuel Tank

To ensure that the engine runs smoothly, use only FRESH, UNLEADED GAS WITH AN OCTANE RATING OF 87 OR HIGHER. Using unleaded gasoline will decrease the possibility of producing carbon deposit and will prolong the engine's service life. Never apply used or polluted gasoline or a mixture of gasoline with the engine oil. Make sure the fuel is free of dirt and water.

Gasoline Containing Alcohol

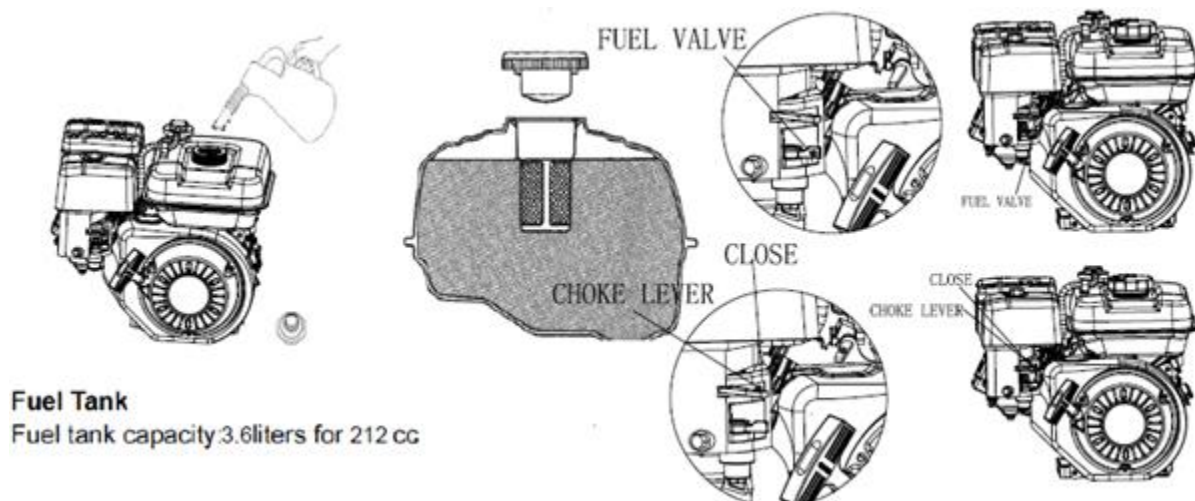
If you decide to use gasoline containing alcohol (fuel blend), be sure its octane rating is at least as high as that recommended by the company. There are two types of "gasohol". One contains ethanol, and the other contains methanol. Neither gasoline containing more than 10% ethanol nor 5% methanol should be used. If the methanol content in the fuel blend exceeds 5%, it may result in poor engine performance, as well as damaging metal, rubber, and plastic parts.

⚠CAUTION

Fuel can damage paint and some types of plastic. Be careful not to spill fuel when filling your fuel tank

It is normal to hear an occasional "spark knock" or "pinking" with the engine running under a heavy load.

If a "spark knock" or "pinking" occurs at a steady speed under the normal load, change the brand of gasoline; if such occurrences still happen, consult your dealer for help, otherwise the engine may be damaged.



Check

1. Remove the fuel filler cap and check the fuel level.
2. If the fuel level is too low, refuel the tank. Do not fill the fuel over the fuel filler shoulder.

Starting the Engine

⚠WARNING

- Gasoline is extremely flammable and is explosive under certain conditions. Only refuel in a well-ventilated area with the engine off.
- Do not smoke or allow flames or sparks in the area where gasoline is stored or where the fuel tank is refueled.
- Do not overfill the tank (there should be no fuel in the filler neck). After refueling, make sure the fuel filler cap is set back securely.
- Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of fuel vapor. Keep out of reach of children.

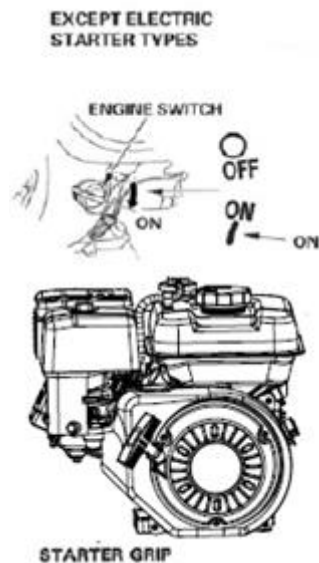
1. Push the fuel valve to ON.
2. Push the choke lever to CLOSE (see figure).

NOTE: If the engine is hot, closing the choke is unnecessary.

3. Move the throttle lever a little to the left (see figure).

4. Start the engine as follows (figure):

With the hand-operated kick-starter, push the engine switch to ON. Pull slightly on the starting rope handle until feeling resistance, and then pull quickly.



⚠ CAUTION
Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.

Oil Engine Alarm

The engine oil alarm is designed to function when there is insufficient engine oil in the crankcase. Lack of engine oil may damage the engine. Once the oil level in the crankcase is too low, the engine oil alarm will stall the engine automatically to free it from damage while the engine switch is still "ON".

Operating on Highlands

On highlands, the standard mixture ratio is relatively large so the engine performance may be impaired while the fuel consumption may increase. Too large of a mixture ratio will pollute the spark plug resulting in starting difficulty. This problem can be solved by amending the carburetor technological status. If you are operating on highlands with a height above sea level of 5905.5 inch, ask your dealer for suggestions.

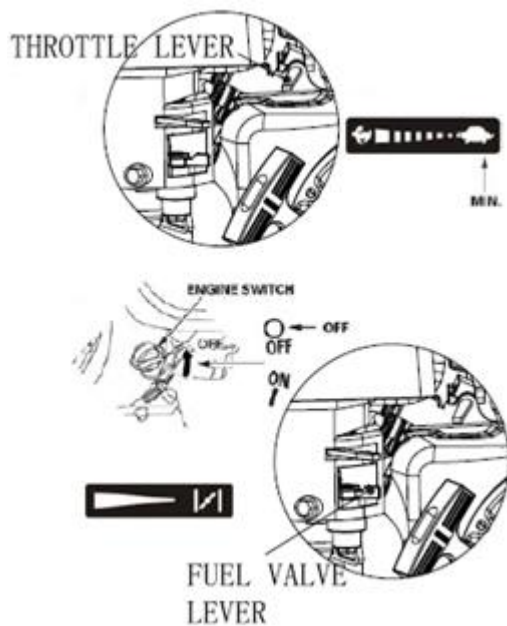
⚠CAUTION

Amended engine applicable to highlands may be damaged seriously in area below altitude of 1800 meters for overheating, because its mixture ratio is too small for operation in low altitude area. In the case, ask your dealer to recover the engine to its normal technical status.

Stop the Engine

In an emergency, turn the engine switch to OFF to stall the engine. In a normal situation, do the following (see figure):

1. Push the throttle lever to the bottom.
2. Push the engine switch to OFF.
3. Set the fuel valve to OFF.



⚠CAUTION

Suddenly stopping at a high speed with a heavy load will result in damage to the unit.

Maintenance

⚠WARNING

- Improperly maintaining this pump, or failure to correct a problem before operating, can cause a malfunction in which you can be seriously hurt or killed.
- Always follow the inspection and maintenance recommendations and schedules in this Owner's Manual.

To keep the water pump at the optimal performance, checking and making adjustments periodically is necessary. Regular maintenance and service may extend its service life. The Maintenance Schedule below specifies how often you should have your water pump serviced and other areas that need attention.

Maintenance Schedule

		Each	Whichever comes first			
		Items	First month or 20 hours	Every 3 months or 50 hours	Every 6 months or 100 hours	Every year or 300 hours
Engine oil check	Oil level	•				
	Oil change		•		•	
Air cleaner	Check	•				
	Check					
Spark plug				•1		•2
Valve clearance adjustment						
Clean combustion chamber						
Spark eliminator		Every 100 hours running lean				
Fuel supply pipe		Replace every 2 years				
Impeller check						•2
Water pump tank cover						•2
Water inlet valve check						•2

Key

1If used in extremely dusty areas, this maintenance should be done more often.

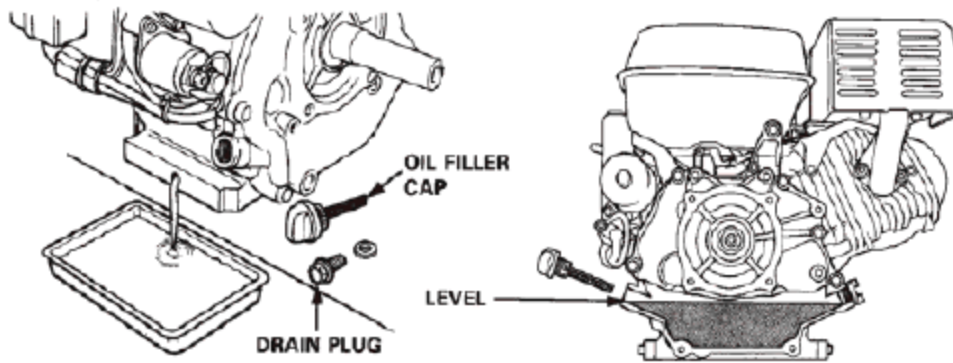
2Should only be done by an authorized service technician, unless you are equipped with proper repair tools.

Engine Oil Replacement

A warm engine can ensure quick oil draining.

- Remove the oil filler cap and oil drain plug and drain the oil.
- Reinstall the oil drain plug and tighten it. Put the oil filler cap in place.
- Fill specified fresh engine oil to the level index mark.

Note: Oil capacity is 0.6L



Air Cleaner Maintenance

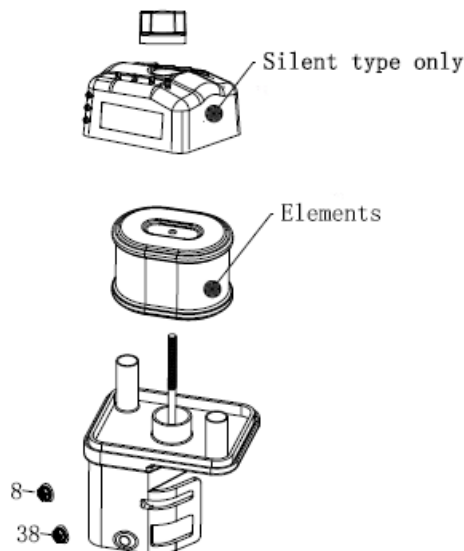
A dirty air cleaner will decrease the airflow quantity through the carburetor. To avoid troubles with the carburetor, clean the air cleaner regularly. In extremely dusty areas, this should be done more often.

WARNING: Never clean the air cleaner in gasoline or low-flash point solvent, for gasoline and low-flash point solvent may produce flames and even an explosion in certain conditions

⚠ CAUTION

Never operate the water pump without the air cleaner installed. In the case that dirt and dust is sucked into the engine, the engine will wear out more quickly.

1. Drive off the thumbnut and remove the air cleaner cover and filter element.
2. Replace the filter element with a factory approved filter.
3. Reinstall the removed parts.



Spark Plug Maintenance

The recommended spark plug is F7TC/F7RTC.

To keep the engine in good, working condition, check the spark plugs regularly and keep them clean and free of accumulated carbon.

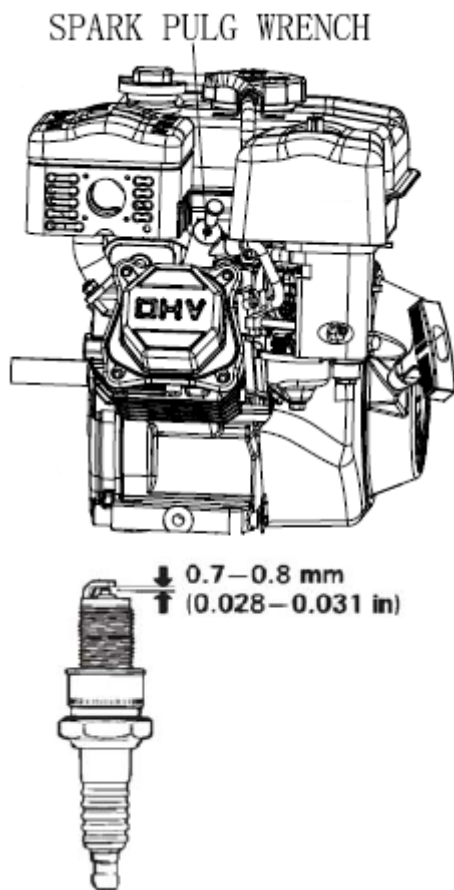
1. Remove the spark plug cap.

⚠WARNING

When the engine has been running, the exhaust muffler is very hot and dangerously hot to the touch.

2. Check the spark plug visually. If there are signs of wear around it or the gasket is cracked, replace it with a new one. Before reinstalling a spark plug, clean it with a wire brush.
3. Measure the spark plug gap with a feeler gauge and adjust it by bending the side electrode. The spark plug clearance should be 0.70-0.80mm.
4. Check that the spark plug gasket is in good condition or replace it with a new one. Drive it into the engine with a spark plug wrench to protect the thread from being damaged.

Note: When installing a new spark plug, after it touches and presses the gasket, twist a half turn; for a used spark plug, twist 1/8-1/4 turn.



⚠CAUTION

Be sure to tighten the spark plug securely, otherwise it may become very hot and possibly damage the engine. Never use a spark plug with the improper heat range.

Storage

Prepare the water pump for end-of-season storage by running pure water through the system. This will flush out any contaminants and clean the water pump internals. After the water pump has been flushed with pure water, completely drain the water pump of all water to protect it from freezing.

⚠WARNING

- Gasoline vapors can ignite and cause a fire. Select a well-ventilated storage area away from sources of heat, flame, or sparks.
- The water pump will be damaged if it freezes.
- Protect the water pump from freezing during storage by following the instructions below.
- Never store the water pump inside where there is a source of heat or an open flame, spark, or pilot light as on water heaters, space heaters, furnaces, clothes dryers, or other gas appliances **EVEN IF** the water pump's gas tank is empty.
- Gasoline vapors can ignite if they collect inside an enclosure and an explosion can result.

⚠CAUTION

Gasoline will oxidize and deteriorate in storage. Old gasoline in the engine will cause hard starting and leave gum deposits that can clog the fuel system. Deterioration problems may occur within a few months, or even less if gasoline was not fresh when you filled the fuel tank.

Short-Term Storage

- Consider adding a fuel stabilizer to extend fuel storage life.
- Long Term Storage(between infrequent uses and at end of season):
- Drain the fuel tank and carburetor as instructed in the engine's Owner's Manual.

Important Safety Instructions

- Always drain fuel from tank in outdoor, well-ventilated area.
- Stay away from sources of heat, flame, or sparks while handling fuel.
- Clean up fuel spills/splashes immediately.

Preparing for Storage

1. Pump pure water	Briefly run the water pump while pumping pure water.
2. Drain the water pump	Using the water pump drain plug, drain the water pump completely of water to prevent freezing.

3. Engine storage	Refer to the engine manual for proper engine storage instructions. Always disable the engine for storage by unplugging the spark plug wire.
4. Water pump storage location	Store the water pump in a location away from corrosive material, sources of heat, open flames, sparks or pilot lights.
5. Gasoline storage	Store gasoline in a cool, dry place. Place in a tightly sealed container.

Troubleshooting

⚠WARNING

- PREPARE THE WATER PUMP FOR STORAGE according to the instructions in this manual.
- SELECT a well-ventilated STORAGE AREA away from sources of heat, flame, or sparks. Gasoline vapors can ignite and cause a fire.
- READ and FOLLOW the safety rules for troubleshooting / servicing the water pump to avoid accidental exposure to chemical and risk of electric shock.

Before attempting to service the water pump:

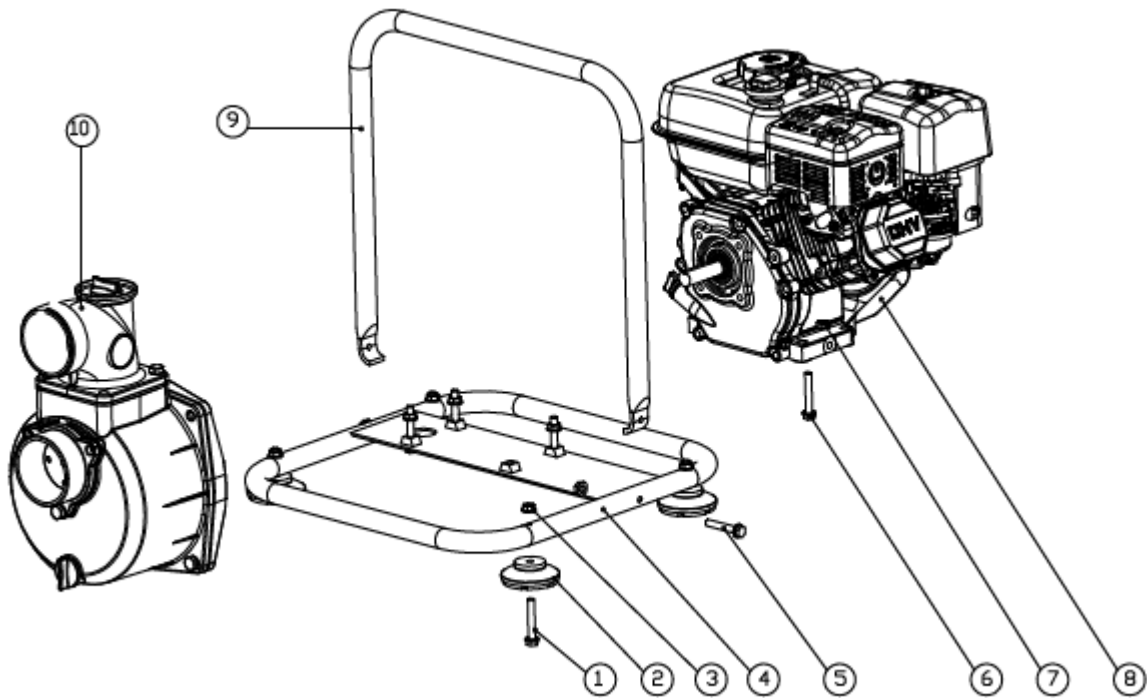
- | | |
|---------------------------------|---|
| 1. Review troubleshooting table | Review the troubleshooting table below for the type of problem you are experiencing. However, DO NOT attempt to repair until the steps listed below are followed. |
| 2. Flush the pump | Pump pure water briefly to clean out the pump. |
| 3. Drain the water pump | Drain the water pump completely of water using the water pump drain plug, to prevent freezing. |
| 4. Disconnect power | Switch off the engine and unplug the spark plug wire. |
| 5. Perform repairs | Follow the directions provided in the troubleshooting table to repair the water pump. |

Use the table below to troubleshoot problems before contacting customer service or your local dealer. If the problem continues after troubleshooting, call your local dealer for assistance.

Failure	Possible Cause	Corrective Action
Pump doesn't revolve	1. Engine will not turn over	See engine's Owner's Manual
	2. Rusting/sticking of impeller	Disassemble and clean
Pump fails to prime	1. Priming chamber not full enough	Add more water to priming chamber
	2. Air leaks on suction line joints	Check for loose screws or broken hoses
	3. Quick coupling gaskets worn	Replace gaskets
	4. Loose or broken hose clamps	Tighten or replace hose clamps
	5. Priming chamber is over heated	Pour cold water in chamber or let cool
	6. Engine speed is too slow	Increase engine speed
	7. Worn or broken volute or impeller	Replace worn or broken component
	8. Worn or broken mechanical	Replace mechanical seal

Failure	Possible Cause	Corrective Action
	seal	
Low capacity	1. Clogged suction hose	Clear obstruction
	2. Dirty suction strainer	Clear suction strainer
	3. Flow restriction due to hose kinks	Straighten suction and discharge hoses
	4. Suction lift too high	Move pump closer to water surface
	5. Engine speed too low	Increase engine speed
	6. Worn or broken mechanical seal	Replace mechanical seal
	7. Reduced engine performance	See engine's Owner's Manual
	8. Clogged impeller	Remove clog
	9. Worn impeller	Replace impeller

Parts Diagram



*750131 shown

Parts List

Item	Description	Model	Qty.
1	Flange Bolt	ALL	4
2	Rubber Feet	ALL	4
3	Flange Nut	ALL	6
4	Water Pump Frame	750131	1
	Water Pump Frame	750132	1
5	Flange Bolt	ALL	2
6	M8 Flange Nut	ALL	4
7	M8 Flange Nut	ALL	4
8	Ironton 208cc Engine	ALL	4
9	The handle	ALL	1
10	2" Semi-Trash Pump	750131	1
	3" Semi-Trash Pump	750132	1

Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-877-234-6869**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following will be required: Model Number, Serial Number/Lot Date Code, Description, and Item Number.
- The distributor reserves the rights to make design changes and or improvements to product lines and manuals without notice.

Limited Warranty

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the Ironton on product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of 90 days from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace or repair the product or product component without charge to You. Any costs incurred due to replacement or repair of items outside of an Ironton approved facility is the responsibility of You and not covered under warranty. Transportation costs to and from service center is the responsibility of the customer. This limited warranty is not transferable.

Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

In addition to the normal warranty, We shall warrant any normal wear item from defects in material or workmanship for a period of 90 days from the date of purchase by user. Normal wear items include, but are not limited to, valves, seals, hoses, springs, O-rings, and strainers.

Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

Remedy Limits

Product replacement or repair is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.

Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.



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Burnsville, Minnesota 55306

www.northerntool.com

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