

SUPERJET 1300

Portable Pump



OWNERS MANUAL

Rev: 1 Mar 2016

NOTE: This manual is an integral part of the pump package and MUST be read before operating the unit. This manual must be kept and regularly referred to throughout the lifetime of the equipment. Failure to do so could result in injury and damage to the equipment. Please ensure that any amendment received is incorporated in the text and that this manual is passed on to any subsequent holder or user of the equipment.

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HEALTH AND SAFETY

WHEN ENGINE IS RUNNING DO NOT:

1. Run with any guard removed.
2. Attempt any work in the guarded area.
3. Attempt to move the unit.
4. Refill the fuel tank (without removing it from the frame into a safe area first)
5. Remove the pressure cap from the expansion tank (wait until the engine has cooled.)
6. Place hands inside the volute housing.
7. Place any part of body near suction inlet. (If running with no suction hose connected, always connect the end cap.)

WHEN ENGINE IS RUNNING DO:

8. Run the unit on level ground wherever possible. Inclination must never exceed 45°.
9. Check all couplings are secure before increasing pressure.
10. Wear ear protection when working near a running pump. It is also advised that eye protection is used. Loose fitting clothing should not be worn whilst operating the pump.

WARNING: The gas priming exhaust reaches extreme temperatures.

WARNING: This pump weighs 116kg (dry).

WARNING: The pump should not be run in underground or poorly ventilated spaces.

WARNING: The guards on the exhaust side of the engine can become hot after prolonged running at high speed.

WARNING: Noise levels over 85dB can be emitted by this pump and ear protectors should be worn at all times when running the pump.

WHEN ENGINE IS NOT RUNNING:

1. Do not place any heavy or loose items on the unit.
2. Do not drop the unit from any height.

MAINTENANCE

1. Allow the unit to cool before attempting to remove any part.
2. Before starting any maintenance ensure the ignition switch is off and disconnect one battery lead or remove the battery.
3. Use only authorised spare parts supplied by PSL or Kohler.

WARNING: The pump body, when delivering water under pressure, is a pressure vessel. Failure to assemble the pump body correctly can lead to leaks or in extreme cases failure of the pump body. Ensure that the body is correctly positioned and that all bolts are tightened using a spanner of the correct size and length.

DISPOSAL OF PETROL AND OIL

Always dispose of surplus petrol and oil from the engine in a safe and environmentally safe way. Only use receptacles specifically provided for petrol and oil. Only dispose of surplus petrol and oil at authorised sites.

TO THE OPERATORS OF THE PORTABLE FIRE PUMP

Your new Superjet 1300 fire pump will deliver years of efficient and trouble free service if given reasonable care and properly operated.

A study of the following pages should enable you to overcome any difficulties which might arise in the operation of this equipment. We request that you read this manual carefully before placing this fire pump into service.

Several pages of useful data are contained herein to help you answer many of the questions that may arise relative to the hydraulics of fire fighting.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE

WARRANTY

PSL unconditionally guarantees to replace, for a period of two years, any defective part or parts in the Superjet 1300 pump.

Every new Superjet 1300 pump is guaranteed to deliver performance as specified in our sales brochure.

This warranty does not obligate us to bear costs of labour or transportation charges incurred in the replacement of parts.

We shall not be responsible, under the terms of this warranty, for the cost of repairs or alterations not authorised by us.

We shall not be responsible for damages or contingent liabilities resulting from failures of any Firemaster pump.

We make no warranty of any trade accessories incorporated in the assembly or employed in conjunction with any Firemaster pump.

Excessive overloading of this pump beyond our recommended limits of capacity and pressure shall void this warranty.

DESCRIPTION

The pump set consists of twin cylinder air-cooled petrol engine that is coupled to a single stage centrifugal pump.

The pump set consists of the following main components:

- A: Kohler CH1000 V twin engine
- B: Vortex centrifugal pump end
- C: Exhaust ejector primer
- D: Stainless steel carry frame

DATA

Dimensions and mass:

Length	750mm (760mm with optional Recoil Starter)
Width	495mm
Height	625mm
Weight Dry	110.5 Kg (116 kg with recoil starter)

Engine

Make	Kohler
Model	CH1000
Type	2 cyl, overhead valve, air-cooled, petrol engine
Bore & Stroke	90 x 78.5mm
No of cylinders	2
Displacement	999cc
Fuel Tank capacity	12 litres
Fuel Type	min 95 Octane
Lubrication	Wet sump
Starting System	Electric and recoil
Battery	12 Volt PS1280 VRLA Wet Cell

Pump

Make	Phoenix Maxflo
Type	Centrifugal
Discharge Rate	Over 1950 litres/min @ 1 bar (100 kPa) 1300 litres/min @7 bar (700 kPa)
Discharge Port size	2 X 50 mm
Primer Type	Exhaust eject
Maximum draft height	6 metres
Discharge Valve	Screw down Bonnet

Couplings

Suction	4" BSRT to BS336
Delivery	2 x 50mm FBSP

OPERATION OF SUPERJET 1300 FIRE PUMPS

SUMMARY OF WHAT TO REMEMBER

1. Close delivery valve and drain valve, before attempting to prime pump.
2. Always keep primer shut off valve closed when working from hydrants or relay pumping.
3. Open primer operating valve fully with full throttle to re-prime or eliminate trapped air from suction line.
4. Never run pump without water in it except during priming.
5. Accelerate and retard speed of engine gradually.
6. Watch gauges periodically to ensure pump is operating normally.
7. Keep good gaskets in suction hose, and handle carefully to avoid damage to coupling threads.
8. Air leakage into suction line is the most frequent source of trouble when pumping from a suction lift.
9. Always use a suction strainer when pumping from open water.
10. Foreign matter in impellers is a result of failure to use adequate strainers and a common source of trouble.
11. Drain pump immediately after each run.
12. Check oil level in motor after each pumping run.
13. Do not run a pump long with discharge completely shut off.
14. Do not close a "shutoff" type nozzle when pumping with throttle wide open.
15. The pump may emit noise levels above 85dB and ear protection should be worn at all times.

ENGINE OPERATION

General information

The Superjet 1300 pump use Kohler CH1000 engines. This is a twin cylinder, overhead valve, air-cooled engine. All drilled/tapped holes and fasteners on this engine are ISO metric. However, where the pump attaches to the engine, SAE standards apply. This engine will operate satisfactorily at any angle up to 20 degrees or at which the operator and pump can function safely. Engine power will decrease 3.5% for each 300 metres (1,000 ft) above sea level and 1% for each 5.6°C above 25°C.

Starting and stopping

Choke operation/engine warm-up

This is a low emissions engine, which operates differently from previously built engines. It is designed for maximum performance and life if operated with choke fully open (control pushed in) and throttle fully open (in FAST). To open the choke fully requires an engine warm up period of several seconds to several minutes, depending on the ambient temperature.

To start the engine move the choke lever to the fully closed position (away from the operator) after starting the engine, first open the choke (moving the lever toward the operator) until the engine just begins to run smoothly. Then open the choke in small steps, allowing the engine to accept small changes in speed and load, until the choke is full open.

To obtain best starting results

Start, store and refuel pump in level position.



Do not use a pressurized starting fluid. Starting fluid is flammable. Severe engine damage or fire may result.

A warm engine requires less choking than a cold engine.

Starting in cold weather

- Use the correct oil for the starting temperature expected.
- Set speed control at part throttle position.
- A warm battery has more starting capacity than a cold battery.
- Use fresh 95 octane petrol to improve starting.

Before starting engine

- Move choke lever to fully closed position.
- Move throttle control to FAST position.
- Switch on ignition switch then push starter button to start.
(use short starting cycles (15 secs. per min.) to prolong starter life. Extended cranking can damage starter motor)
- Once engine has started throttle back to idle position.

Note: Choke must fully close.

Note: Charge battery before attempting to start engine - see battery maintenance on Page 18.

Battery Charging

The Battery is a high capacity VRLA model and is maintenance free.

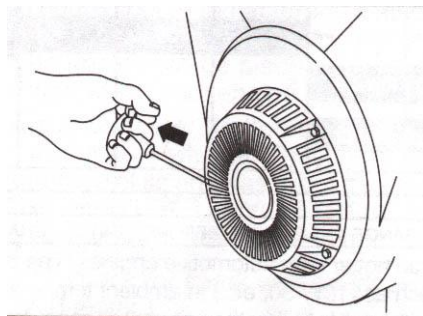
The battery fitted is ready for immediate use but, if not required for several months it should be charged at 2 amps for 4 hours before storing. When in service, check that the battery terminals are clean and tight.

Rewind/Emergency Starter

CAUTION BEWARE OF KICK BACK WHEN USING REWIND STARTER.
THE ENGINE IS NOT FITTED WITH COMPRESSION RELEASE.

Should the engine fail to crank either from an electrical fault or from a flat battery, the following procedure should be followed:

- Follow starting procedure as previously detailed.
- Grasp rope handle as illustrated and pull slowly until resistance is felt. Pull cord rapidly to overcome compression, prevent kickback and start engine.



Do not operate with battery disconnected without ensuring that battery + cables are fully insulated to prevent accidental arcing.

Stopping the engine

Do not move the choke lever to choke position to stop engine. Backfire or engine damage may occur. Move the throttle control to the SLOW position then turn the key to OFF.

PRIMING THE SUPERJET 1300 PUMP

Operating the primer

The Superjet 1300 primer should typically develop up to 15" Hg in an airtight pumping system.

The primer is an exhaust-eject type, extremely reliable and requires only minimal maintenance.

The primer is activated by a combination spring return, on-off valve connected to the exhaust system and a one way valve situated at the pump inlet. Pulling the valve closes off the exhaust outlet redirecting the gases through the primer. The velocity of the passing exhaust gases causes a vacuum at the primer, which lifts the one way valve off its seat and evacuates the air in the pump and suction line.

A ball valve is located immediately after the one way valve and should only be closed if the pump inlet is under pressure, i.e. when pumping in closed circuit relays or from a hydrant supply.

Before the pump can be primed, delivery valves, drain valves, and other openings to the pump must be closed and absolutely air tight.

When operating from draft, suction hose connections must be tight and free of air leaks.

Make certain the suction hose strainer is properly submerged and free from foreign material.

Pull the primer valve all the way out and open throttle to full revs to start priming. Hold the valve open until water discharges from the primer exhaust port and a positive reading shows on the delivery gauge. Crack open delivery valve to flow water. Push valve all the way in to shut off primer and throttle back.

If water does not discharge from primer exhaust within about 40 seconds, stop priming and check for air leaks.

The primer should achieve a 1 metre lift within 12 seconds and a 3 metre lift within 22 seconds using 4" (100mm) suction hose.

When pumping from hydrants, the primer is not needed and the valve must be kept closed.

PUMP OPERATION

Source of water supply

Water may be drafted from a pond, lake, stream, cistern, stock tank, or well but, whatever the source, the static lift must not exceed 5 metres (16 feet) from the centre of the pump to the surface of the water, and a lift not exceeding 3 metres (10 feet) is recommended. The source of supply should be reasonably clear and free from foreign matter. It is recommended that all water holes, which may be needed for fire protection, be deepened if necessary and kept free from weeds and refuse. In many fire protection areas, cisterns or reservoirs are built and allowed to fill up with rain water to allow them to be used in emergencies.

Pumping in cold weather

The first insurance against cold weather trouble is to keep fire apparatus stored in heated quarters. All water must be eliminated from pump casing and primer line between periods of operation.

When setting up for pumping, unnecessary delays should be avoided by having thoroughly trained pump operators. Be sure that the primer and hose lines are kept closed until ready for use. Have hose lines ready so that the pump may be started as soon as it has become primed. Do not stop flow of water through the pump until ready to drain and return to station.

When finished pumping

Drain water out of pump casing immediately. (Drain valve is located at lowest point in pump casing). Do not forget to close the drain valve after all water has been drained out. Trouble in priming will follow on the next run if this is forgotten.

Pumps not often used for fire service should be inspected and run periodically to ensure that they will be in readiness for an emergency.

Pumping salt water

The pump should be flushed out with fresh water immediately after pumping salt water to prevent excessive corrosion. A centrifugal pump will show 2½% higher pressure and require 2½% more power when handling seawater than when handling fresh water, if operated at the same speed and capacity.

Use of pump for emergency practices

It frequently happens that operators of a portable fire pump, who are not thoroughly familiar with its operation, become confused under the stress of an emergency and neglect some small detail that may cause trouble or delay in getting the equipment into operation. Therefore, we strongly urge that practice tests be conducted repeatedly until operators are thoroughly trained. More than one person in the brigade should be a competent operator.

Practice should include pumping from low lifts, high lift with short and long suction lines, with suction line elevated to form an air trap, and from hydrants, at large and small capacities.

It is well, also, to note the effects of air leaks in hose, insufficient submergence and restriction of suction line (suction line can be restricted by placing a can or strong closure around the suction strainer).

NEVER BREAK OR RESTRICT SUCTION OR ADMIT AIR INTO SUCTION LINE WHILE MOTOR IS OPERATING WITH THROTTLE OPEN. This will release the load and could allow the motor to over rev.

PUMP TESTING

Measurement of pump performance

Pump performance is measured by the quantity of water it can deliver per minute against a certain pressure called “Total Head”, or “Net Pump Pressure” as it is usually termed in fire pump testing.

The Net Pump Pressure is the sum of the pump discharge pressure as shown on the pressure gauge with which the pump is equipped, and the total suction lift converted to equivalent kPa. If a pump is operating from a hydrant, the Net Pump Pressure is the discharge pressure less the incoming pressure from the hydrant measured at the suction entrance to the pump.

Capacity of a fire pump is measured in litres per minute. The usual method of measurement is to determine the pressure of the jet of water leaving a given size nozzle by means of a “Pitot Gauge” from which the capacity is computed mathematically.

A Pitot Gauge consists of a small tube adapted so as to point directly into the nozzle from the centre of the issuing stream, the other end of the tube being connected to an accurate pressure gauge. The nozzle jet drives straight into the Pitot tube and converts the velocity of the jet into pressure, which is an accurate measure of the velocity of the water as it leaves the nozzle. The tip of the Pitot tube should be one-half the diameter of the nozzle away from the nozzle tip while taking readings.

If a Pitot Gauge is not available, approximate pump capacities can be determined by reference to the following chart.

Flow rate (litres/minute)

Pump Pressure (KPa)	Nozzle Size (mm)	13	16	19	22	23	25	28	32
100		111.5	169	238	319	349	412	517	676
200		157	239	337	451	493	583	731	955
300		193	292	412	553	605	714	896	1170
400		223	338	476	638	698	825	1035	1351
500		249	378	532	714	780	922	1157	1511
600		273	414	583	782	855	1010	1267	1655
700		295	446	630	844	923	1091	1368	1787
800		315	477	673	903	987	1166	1463	1911

IMPORTANT: when testing the output of the SupaJet 1300 use two 19mm nozzles to give an approximate output of 1300 litres per minute @ 7 bar.

MAINTENANCE SCHEDULES

  	⚠ WARNING	Before working on engine or equipment, disable engine as follows: 1) Disconnect spark plug lead(s). 2) Disconnect negative (–) battery cable from battery.
	Accidental Starts can cause severe injury or death. Disconnect and ground spark plug lead(s) before servicing.	

Normal maintenance, replacement or repair of emission control devices may be performed by any repair establishment or individual; however, warranty repairs must be performed by a Kohler authorised dealer.

Maintenance Schedule:

Daily - Check Oil Level before use

150 hours or Annually - Change engine oil & oil filter recommended

150 hours or Annually - Check air filter & clean as necessary

150 hours or Annually - Remove cooling shrouds and clean cooling areas.

150 hours or Annually - Replace Fuel Filter

150 hours or Annually - Check oil cooler fins & clean as necessary

300 hours or 2 yearly - Change oil filter

300 hours or Annually - Remove & clean KN air filter

500 hours - Have crankshaft splines lubricated.

600 hours - Replace spark plugs and set gap

OIL AND FUEL RECOMMENDATIONS

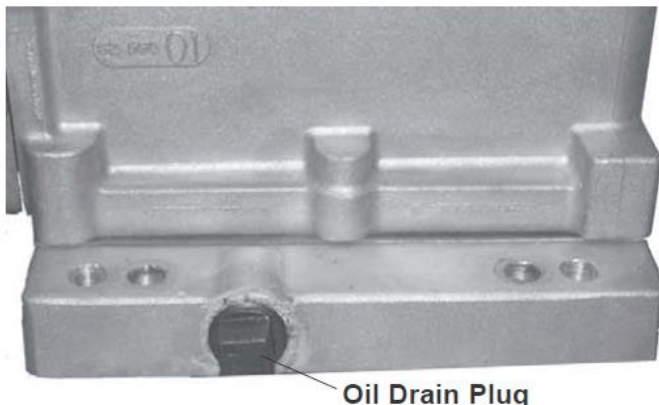
Check oil level regularly. See oil chart, capacity, checking and filling procedures on page 12 and 13.

Maintain correct oil level. Check daily before starting engine.

Change Oil

Change oil after the first 8 hours of operation. Drain oil while engine is warm.

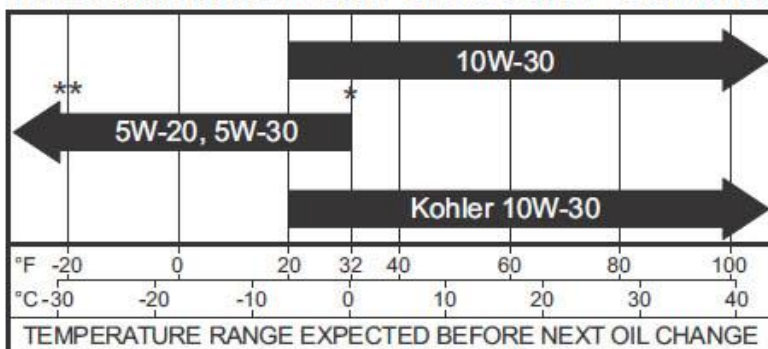
Note: Change oil thereafter every 150 hours of operation or yearly.



Oil Drain Plug

Change and add oil according to the chart below. Do not overfill.

RECOMMENDED SAE VISCOSITY GRADES



- * Use of synthetic oil having 5W-20 or 5W-30 rating is acceptable, up to 4°C (40°F)
- ** Synthetic oils will provide better starting in extreme cold below 23°C (-10°F)

Use a high quality detergent oil classified "For Service SF, SG, SH," Use no special additives with recommended oils. Do not mix oil with petrol.

* Air-cooled engines run hotter than automotive engines. The use of multi-viscosity oil such as 10W-30, etc. in ambient temperatures above 4°C will result in higher than normal oil consumption. If multi-viscosity oil is used, check the oil level more frequently to prevent any possible engine damage due to lack of lubrication.

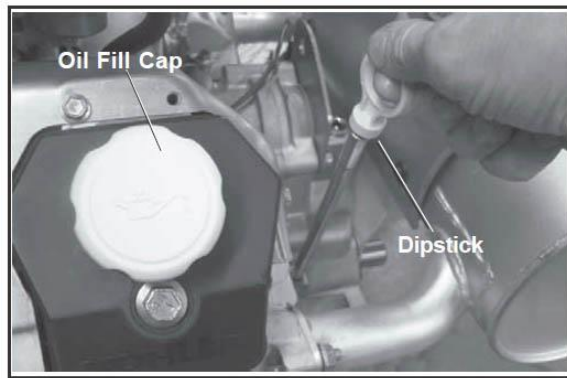
* Use of SAE 30 oil below 4°C will result in hard starting and possible engine damage due to lack of lubrication.

Oil Capacity

Approximately 2.7 Litres when changing oil and filter

Oil Checking Procedure:

Before starting engine, check oil level.



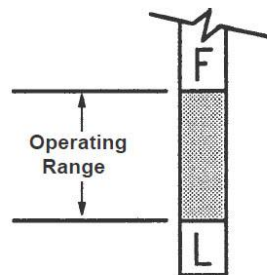
Place pump level.
Clean around oil fill
and/or dipstick.

Remove dipstick.
Wipe with a clean
cloth.

Tighten dipstick
remove and check.

Oil filling procedure:

First, add 2 litres of the correct oil. Start and run engine at idle for 30 seconds. Shut engine off and wait 30 seconds. Then add more oil slowly to bring level to the full mark on dipstick.



Oil Pressure

If the oil pressure drops below 0.1 - 0.2 kg/cm² on the gauge, stop pump immediately. Check oil level with dipstick. If oil level is between ADD and FULL marks on the dipstick, do not try to restart engine. Contact an Authorised Kohler Dealer.

Do not operate engine until oil pressure is corrected.

If the oil level is below the ADD mark on the dipstick, add oil to bring level to FULL mark. Restart engine and check oil pressure. If pressure is normal, continue to operate pump.



Changing Oil Filter.

Replace the oil filter annually at 150 hours or at least every other oil change or 300 hours of operation.

Replace the oil filter as follows:

1. Before removing the oil filter, clean the area around the oil filter and housing to keep dirt and debris out of the engine. Remove the old filter. A spring loaded inner cup allows the automatic oil drain back into the crankcase as the oil filter is removed. Wipe off the surface where the oil filter mounts.
2. Drain the oil from the engine crankcase.
3. Allow ample time for the oil to drain completely.
4. Reinstall the drain plug and torque to 21.4 N.m
5. Apply a thin film of clean oil to the rubber gasket on the new filter. Partial pre-filling of the oil filter is recommended.
6. Install the replacement oil filter to the filter adaptor. Turn the oil filter clockwise until the rubber gasket contacts the oil filter housing (not inner cup), then tighten the filter an additional $\frac{3}{4}$ -1 turn.
7. Fill the crankcase with new oil of the proper type to the "F" mark on the dipstick.
8. Start the engine and check for oil leaks. Correct any leaks before placing the pump into service. Check oil level to be sure it is up to but not over the "F" mark.

Fuel

Fuel must meet these requirements:

- Clean, fresh, unleaded gasoline.
- Octane rating of 87 (R+M)/2 or higher.
- Research Octane Number (RON) 90 octane minimum.
- Gasoline up to 10% ethyl alcohol, 90% unleaded is acceptable.
- Methyl Tertiary Butyl Ether (MTBE) and unleaded gasoline blend (max 15% MTBE by volume) are approved.
- Do not add oil to gasoline.
- Do not overfill fuel tank.
- Do not use fuel over 30 days old.

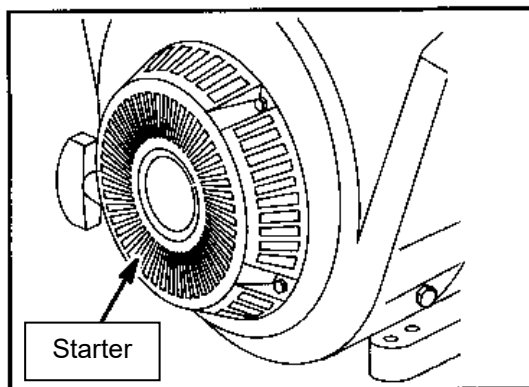
Note: E15, E20 and E85 are NOT approved and should not be used; effects of old, stale or contaminated fuel are not warrantable.

Air Cleaner

1. Undo clamp on air-cleaner
2. Carefully slide air cleaner off housing

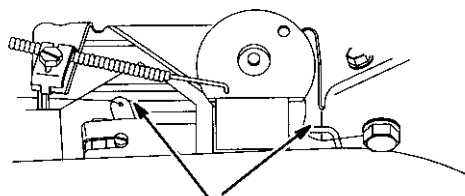
Keep engine parts clean

With a brush or cloth, remove debris from debris guard daily or more often if needed to prevent engine damage caused by overheating. Do not clean with a forceful spray of water as damage to the fan blades could result if the engine is running.



Rewind Starter Guard

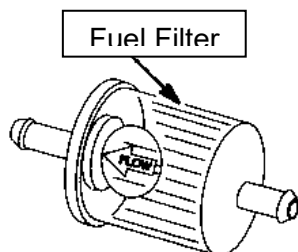
To ensure smooth operation, keep governor linkage, springs and controls free of debris.



Linkage, springs & Controls

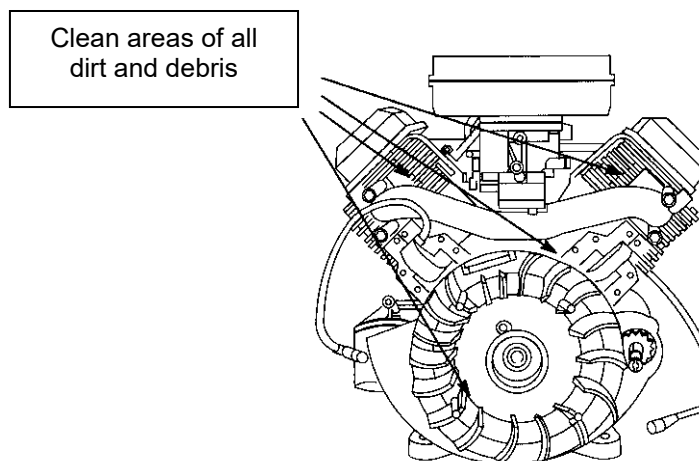
Fuel Filter

Replace the in-line fuel filter yearly or if fuel has been contaminated. See an Authorized Kohler Service Dealer for correct replacement



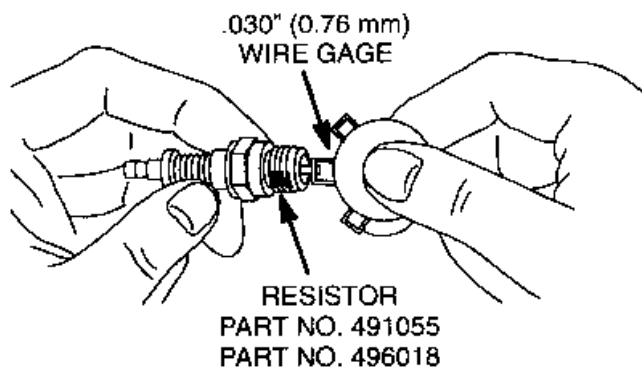
Air Cooling System

Chaff or debris may clog the air cooling system, especially after prolonged operation. Clean area shown to prevent overheating and engine damage.



Spark Plug Service

Replace spark plugs every 600 hours. If plugs become fouled do not blast clean. Clean by scraping or wire brushing and washing with a commercial solvent.



SERVICE AND STORAGE

For engine service:

See an Authorised Kohler Service Dealer. Each one carries a stock of Genuine Kohler Parts and is equipped with special service tools. Trained mechanics ensure expert repair service. Only dealers advertising as "Authorised Kohler" are required to meet Kohler standards.

For pump service

Most Authorised Kohler Dealers are capable of performing minor repairs and adjustments to the pump components. Any major repairs or overhauls should be returned to the factory.

Storage instructions

Engines stored for over 60 days need to be protected or drained of fuel to prevent gum deposits forming in the fuel system or on essential carburetor parts.

1. For engine protection, we recommend the use of Kohler Gasoline Additive, Part No. 5041, available from an Authorised Kohler Dealer. Mix additive with fuel in fuel tank or storage container. Run engine for a short time to circulate additive through carburetor. Engine and fuel can be stored for up to 24 months.
2. While engine is still warm, drain oil from crankcase. Refill with fresh oil of the recommended grade.
3. Remove spark plugs and pour about 30 ml. of engine oil into cylinders. Replace spark plugs and crank slowly to distribute oil.
4. Clean dirt and chaff from cylinders, cylinder head fins, blower housing and muffler area.
5. Store in a clean dry area.

Tune-up specifications

Armature air gap	0.008 - 0.012 in. (0.20 - 0.30 mm)
Spark plug gap	0.030 in. (0.76 mm)
Valve clearance cold; intake and exhaust	hydraulic non adjustable

Electrical

Battery

- Check battery condition using the fitted voltmeter, voltage should not be below 10 volts. If voltage is below 10 volts, recharge the battery by connecting battery charger through the 12 volt accessory socket on the dash.
- Clean battery terminals from time to time.
- Always maintain battery in good charged condition.
- Battery should be charged once a month when not in use.

Battery Charging

- The engine has a built in alternator with an output of 16 amps.

Fuses

- A main fuse is located on the wiring loom near the battery.

Lighting

- A flexible quartz halogen light is provided for night time operation

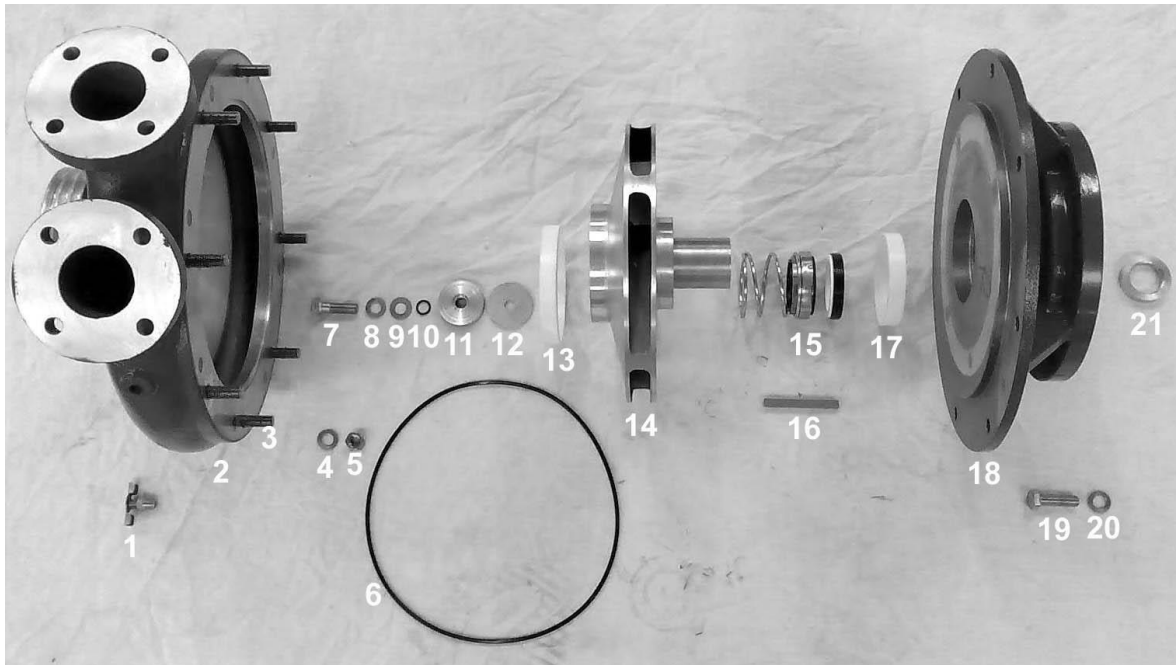


If running pump without the battery, positive terminal must be taped securely to prevent accidental arcing.

Consumables Parts Listing

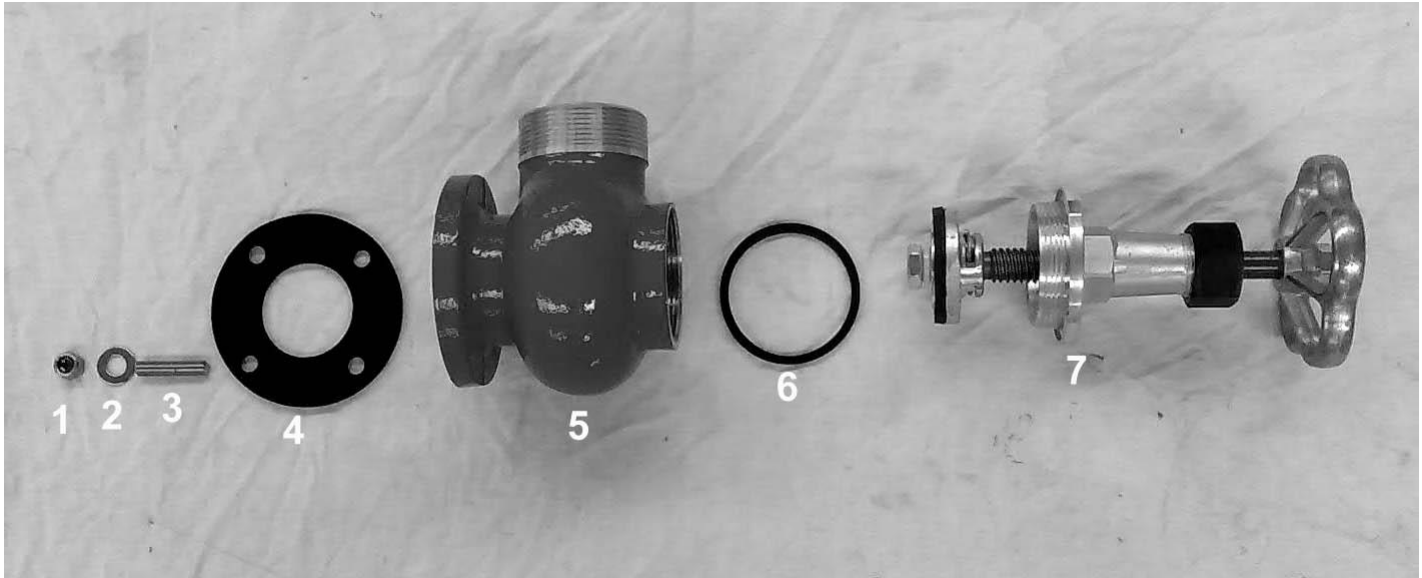
Part Number	Description	Qty
RC12YC	Spark plug	2
6116	Fuel filter	1
6208304-S	Air-Filter	1
492932S	Oil Filter	1
PS1218	12V VRLA Battery	1

PUMP END PARTS LISTING



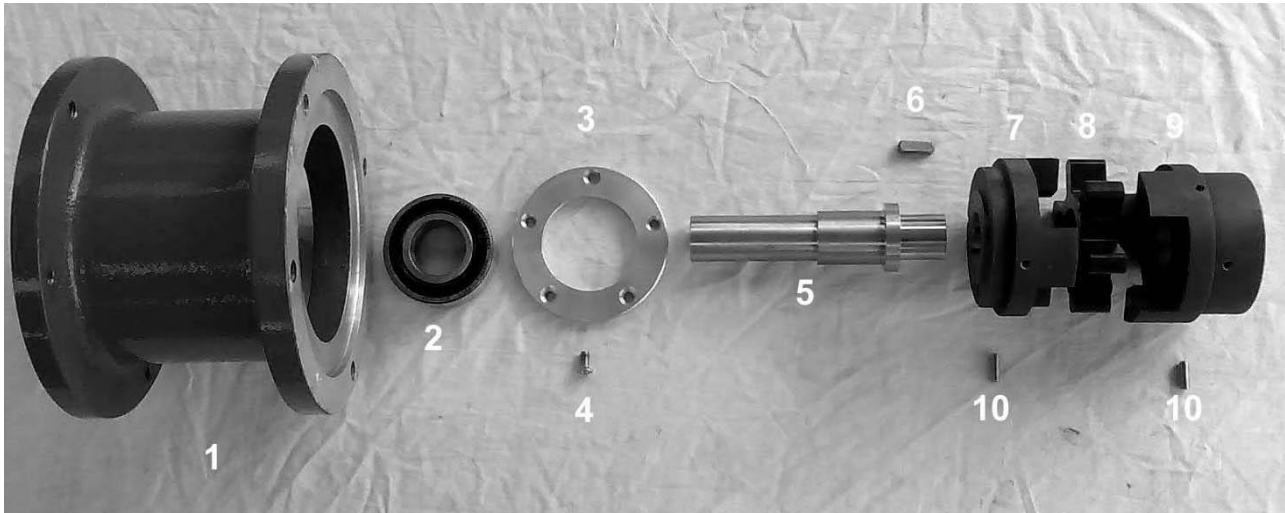
Item	Part Number	Part Description
1	PNZ32166	Drain cock brass 1/8" BSP
2	VortMaxDO1743	Maxflo Twin Outlet Volute Case
3	PNZ32173	Stud 3/8"x1 3/8" UNC SS304
4	PNZ32172	Washer 3/8" SS304 spring
5	PNZ32171	Nut 3/8" UNC SS304
6	PNZ32170	"O" Ring BS266 (volute to back plate)
7	PNZ32159	Bolt 3/8" UNF X 2" SS304 (retains impeller)
8	PNZ32172	Washer 3/8" SS304 spring
9	PNZ32160	Washer Flat 3/8 SS304
10	PNZ32168	O-Ring Impellor Bolt BS12
11	PNZ32160	Impellor Washer Alloy
12	PNZ32169	Gasket Impellor Washer
13	PNZ32157	Wear Ring Inlet
14	VortMaxI1738AL	Impellor Maxflo
15	PNZ32175	Carbon ceramic pump shaft seal 1 1/2"
16	PNZ32162	Shaft key SS 1/4"x300mm (main pump shaft)
17	PNZ32156	Wear Ring Mount Plate
18	VortBH1725	Volute Mounting Plate
19	PNZ32174	Bolt 3/8" UNC X 1" SS304 (back plate retaining)
20	PNZ32172	Washer 3/8" SS304 spring
21	MAXIMPSCR	Impellor Spacer

DELIVERY OUTLET PARTS LISTING



1	45NS8	M8 Nylock Nut SS304
2	70S817	M8 X 17 X 1.6 Flat Washer SS304
3	M8 X 35 Stud	Stud M8 X 35mm SS304
4	PNZ32177	Gasket rubber (pump body to outlet Globe Body)
5	Vort50AGB1730	Outlet Globe Body
6	P5005-18-O	"O" Ring Screw Down Bonnet
7	40248933	Screw Down Bonnet

PUMP DRIVE PARTS LISTING



1	VortMaxBH1678	Bearing Housing Pump Drive
2	3206A-2RS1TN9/MT	Bearing Annular Contact
3	VortMaxBRTN	Bearing Retainer
4	40S516	Bearing Retainer Screw (M5X16mmCSK SS304)
5	VortMaxPS	Pump Drive Shaft SS304
6	PNZ32162	Key Drive Coupling
7	5712925	Jaw Coupling Pump Drive Shaft
8	5713452	Coupling Insert
9	5712925	Jaw Coupling Engine Drive
10	39S1016	Grub Screw M10 X 16mm SS304

SUPERJET 1300 PULL STARTER PARTS

