

WATER PUMPSET HIGH HEAD DIESEL

AM-WP5050- HHDE

AM-WP5065-HHDE



TECHNICAL SPECIFICATIONS

MODEL	AM-WP5050-HHDE	AM-WP5065-HHDE
ENGINE MODEL	AM-173FD	AM-178FD
SUCTION/DISCHARGE	65MM/50MM	65MM/50MM
MAX. LIFT	65 Mtr	65 Mtr
SUCTION DEPTH MTR.	5MTR	5MTR
MAX. CAPACITY (M3/HR)	30	30
FUEL CONSUMPTION	600(H/KW.H)	600(H/KW.H)
GROSS WEIGHT	33KG	38KG

1.PUMP SAFETY

Your safety and the safety of others are very important. And using this water pump safely is an important responsibility.

To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this manual. This information alerts you to potential hazards that could hurt you or others.

Of course, it is not practical or possible to warn you about all the hazards associated with operating or maintaining a water pump. You must use your own good judgment.

You will find important safety information in a variety of forms, including:

Safety Labels -- on the pump.

Safety Messages -- preceded by a safety alert symbol and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

OPREFACE

Thank you for choosing our company's diesel engine pump direct connecting unit which shorts for water pump unit below!

The water pump unit is the research and development that our company integrates the characteristics of the similar type at home and abroad. The model adopting the general power of diesel engine that our company produces has the features of strong power, low fuel consumption, low pollution, low noise, easy operation etc. The appearance design of this type, diesel water pump unit, is modern and elegant in fashion, beautiful in modeling, and convenient in move.

The water pump unit is widely used in agriculture, garden, construction and other industries, especially the best choice for field operation.

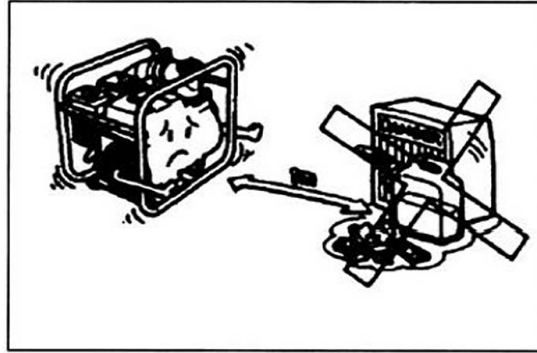
This instruction book expounds the operation and maintenance procedures of the water pump unit and. Before operating this model, please be sure to read the instruction book carefully. Our company has set maintenance station varies regions, which can provide considerate service for your diesel engine water pump unit.

The technical data and icon in this instruction is consistent with the publication of the latest products. For revising version and making other revision, the instruction's content may be slightly different with the actual situation. The company has the right to revise at any time, so when revising, we do not make prior notice, please understand. We company possess this operation instruction's copyright. Without written consent of the company, reprint is not allowed. Rights reserved.

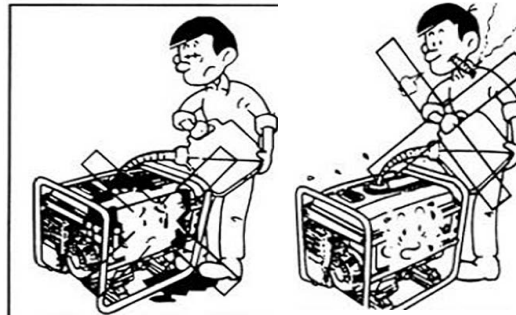
The instruction will be a permanent part of water pump unit. If the water pump unit is transferred, please attach the instruction at random.

SAFETY PRECAUTIONS

- Do not smoke or allow flames or sparks to get near fuel. Always refuel your engine in a well-ventilated place. Do not overfill the tank and always close the filler cap securely.



- Never run the pump indoors as the engine emits poisonous carbon monoxide.



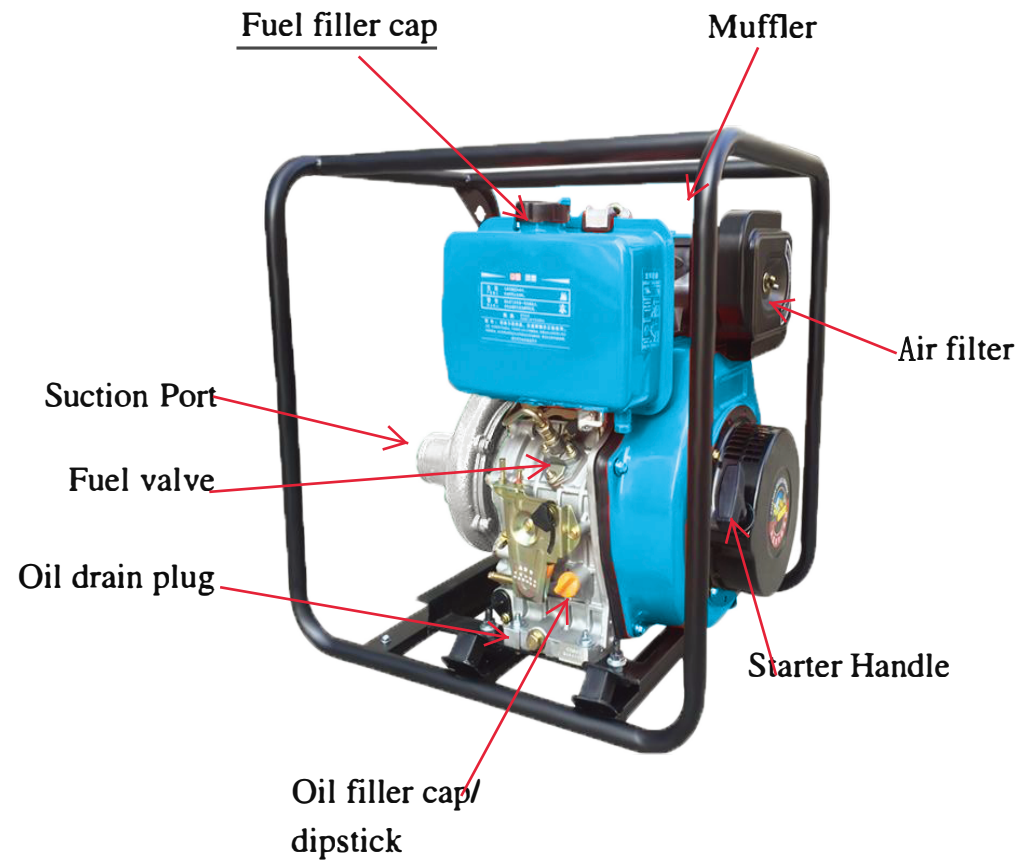
DO NOT SPILL! NO SMOKING!

- Do not touch the muffler during or just after operation; as the engine and muffler get hot. Always let the engine fully cool before touching and storing the pump indoors.
- Always keep the pump at least 1 meter (3 feet) away from buildings and other equipment during operation. Do not place flammable objects or liquids close to the pump.



- Before operating your displacement pump, please check your local laws and regulations before operating your pump. It is illegal in some areas to operate an engine without a spark arrester; therefore, a spark arrester is available as an optional part for this pump.
- Know all the pumps controls and know how to stop the pump quickly in the event of an emergency. Do not let anyone without proper instructions operate the pump.
- Always keep children and pets away from the pump.
- Do not pump flammable or corrosive liquids such as gasoline or acid. In order to prolong the life of your pump, avoid pumping corrosive liquids such as seawater, chemical solutions, used oil, or acidic liquids.
- Always operate your pump on a level surface. If the pump is tilted, fuel may spill and rapid wear might occur as a result of inadequate lubrication.

KNOWING YOUR DIESEL DISPLACEMENT PUMP



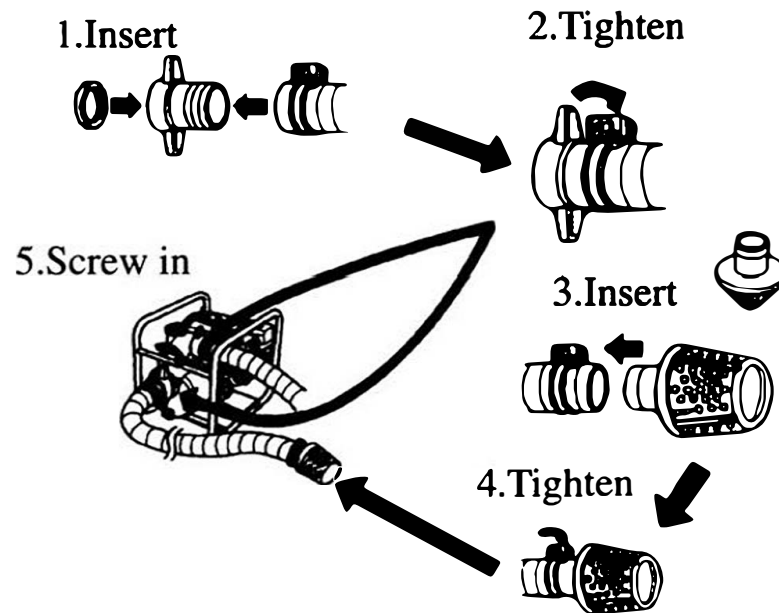
PER-OPERATION PREPARATION

Suction Hose

The first step in preparing the pump for operation is to install the suction hose. For the suction hose, use a reinforced-wall or wire braided hose to prevent suction collapse. A short hose is recommended over a long hose. The pumps have standard National Pipe Threads on them; therefore, any standard hose set will fit with the pump. If your hoses are metric threads or any other standard, please give our company a call we carry a full line of adapters or provide you with a possible solution.

NOTE: Always install the provided strainer on the end of the suction hose before pumping. If gravel or debris enters the pump, the impeller can be seriously damaged.

Shown below is the pump hose utilizing a barbed connection and hose clamp. If you already have specialized hose, disregard the following diagram. When using the barbed connection setup, make sure to use a hose clamp to properly secure the hose to the barb connector.



The second step is to install the discharge hose. The discharge hose can be fabric, just make sure to use a hose clamp to secure the hose to the barb. This will prevent the hose from disconnecting under high pressure.

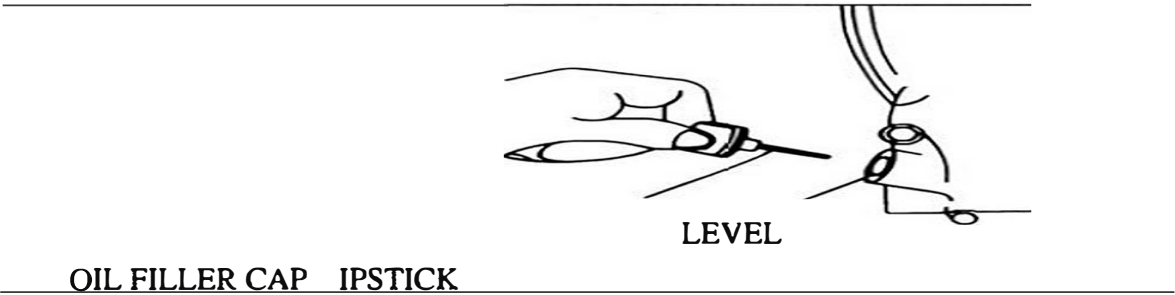
Note: A short and large-diameter hose is preferred over any other. A short and large diameter will provide lower fluid friction and improve efficiency.

Engine oil

Engine oil is an important factor in determining the performance and life of your engine. Always make sure the oil level is within the upper and lower limits specified on the oil dipstick. Make sure to check the engine oil on a level surface or incorrect readings will result.

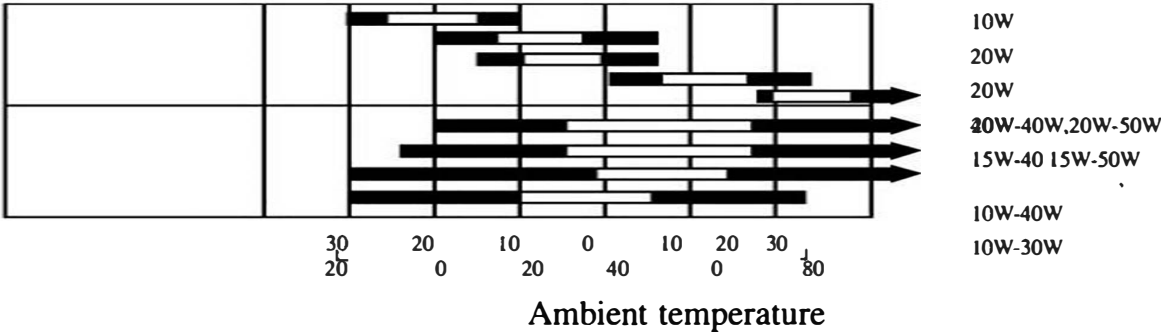
- To check the engine oil, first, remove the oil dipstick by turning counterclockwise.
- Wipe the dipstick clean and insert the dipstick back into the oil filler neck. Do not screw it in. Please refer to Fig 2-1.
- If the level is low, fill engine oil to the top of the oil filler neck with the recommended oil below.

Fig 2-1. Illustration of checking the engine oil



Below is a table of recommended oil grades for the engine in various weather conditions. Please use the proper oil according to the Table 2-1.

Table 2-1. Ambient temperature versus oil grades

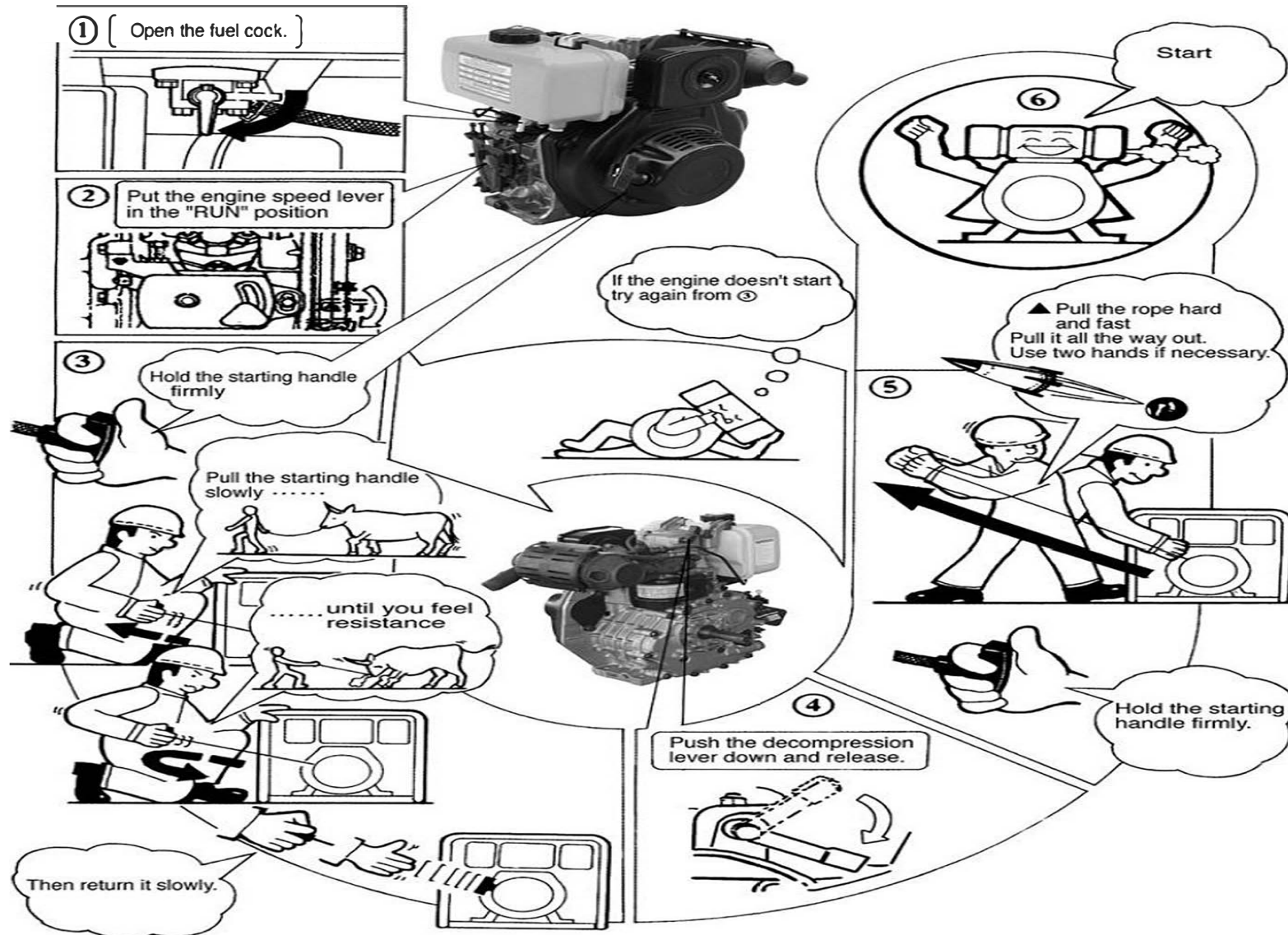


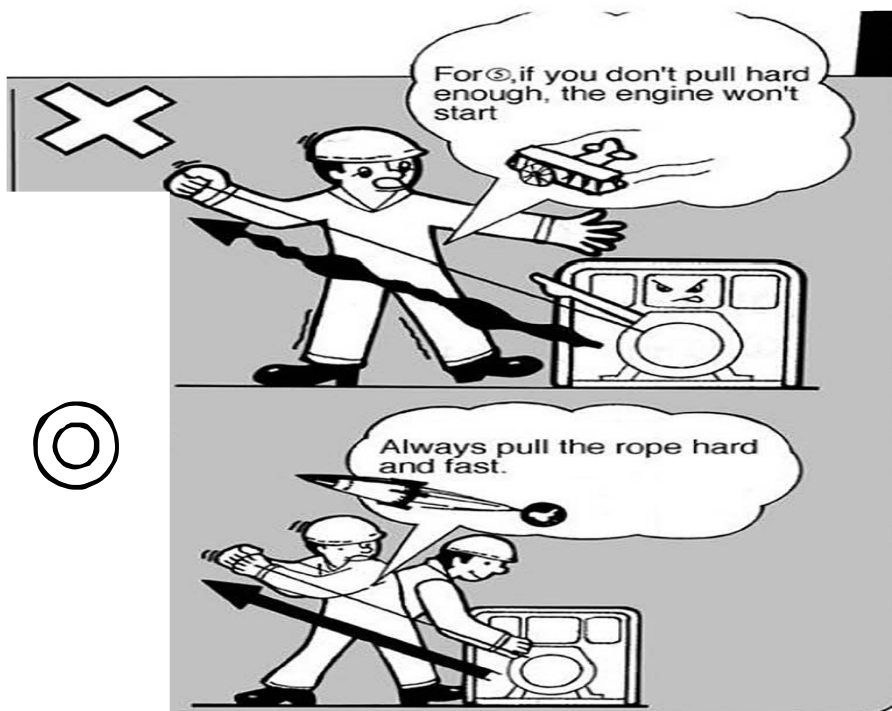
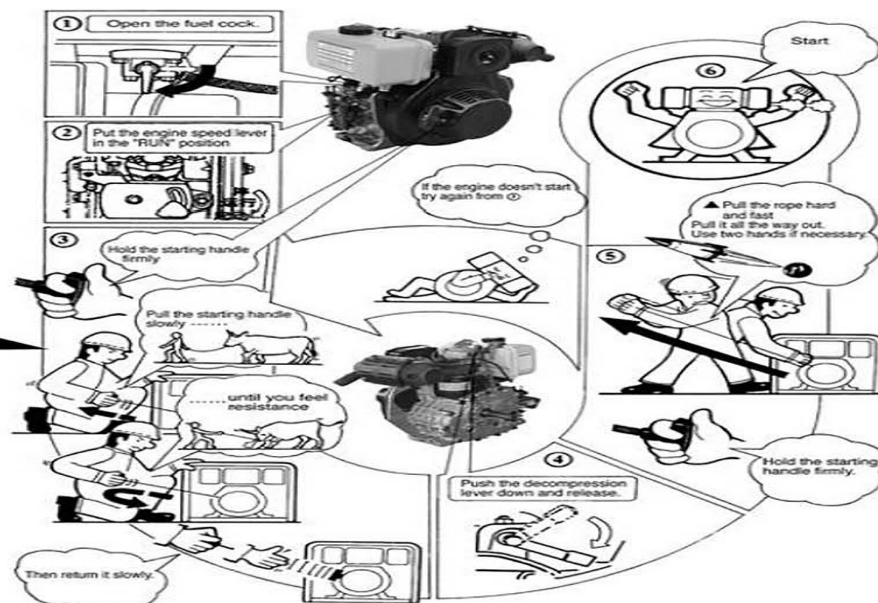
Note: For diesel engines, we highly recommend the use of 15W-40 engine oil. Some other grades are comparable, but 15W-40 is the preferred oil grade.

STARTING THE ENGINE

Recoil Starting

Note: When the engine is running, do not pull the recoil handle, otherwise the engine may be damaged.

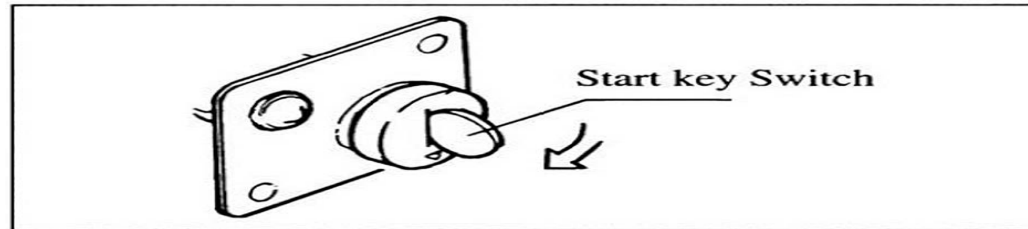




Diesel engine with electric starter system Starting

The preparation of the diesel engine for the electric starting system is the same as the manual recoil type.

- a. Open the fuel cock.
- b. Set the speed governor lever to the start position.
- c. Turn the start switch clockwise to the "Start" position.



- d. If the engine is started, immediately remove your hand away from the key switch.
- e. If the engine does not start after 10 seconds, wait awhile (about 15 seconds) before trying to start the engine again.

If you run the starter motor too long, the voltage of the accumulator will drop and the motor may be damaged. Keep the key switch in the "ON" position

(1) Battery

- a. Always check the liquid level of the battery every month, if the level is lower than the low limit mark, refill the battery with distilled water till you reach the upper limit mark.

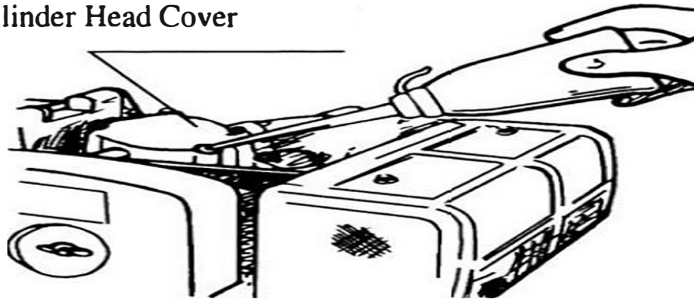
If the liquid level in the battery is too low, the electric starter will not function to its best potential. Always keep the level of the liquid in the battery between the upper and lower limits. If there is too much liquid, the liquid will splash onto other nearby parts thereby ruining the battery.

Cold starting

If the engine is difficult to start in winter, take off the rubber seal plug and put 2cc of machine oil into the hole.

Notice: Engines supplied to the Torrid Zone will not contain the rubber plug. A solid plug is provided instead.

Cylinder Head Cover



Warning:

Never use flammable liquids as fuel, as gasoline etc. Also, never take away the air cleaner for easy starting of the engine, doing so may cause explosions from the intake gases.

Never take the oil plug unless you're planning on filling the oil. If the plug is not in place, rain, dust, and other impurities may be sucked into the engine causing serious damage to the engine parts.

Oiling screw plug



OPERATION

4-4 Operating conditions

The displacement pumps operating range should be based upon the NPSH (net positive suction head). A more precise definition of available NPSH is “the difference between the total suction head and the vapor pressure of the liquid, in feet of liquid, at the suction flange”. We can measure the total suction head of the pump and we can find vapor pressure from the liquid temperature. The difference between these two values is the available NPSH. The following equation is the mathematical expression of the definition for available NPSH:

$$h_{sv} = h_{sa} - h_{vpa} \quad \text{where:}$$

h_{sv} = available net positive suction head, in feet of liquid
 h_{sa} = total suction head, in feet of liquid, absolute
 h_{vpa} = vapor pressure of liquid at suction nozzle, in feet of liquid, absolute

The approximation will be based at an altitude less than 250 meters or 820 feet. Subtracting 10 meters or 32.8 feet from the net positive suction head can approximate the suction head of the pump. When increasing the altitude of operation, the atmosphere should be decreased as well as the suction head of the pump. The amount of decrease can be estimated by subtracting 10 meters from the local atmosphere value. If you are using your pump at high altitudes and having difficulty obtaining NPSH values, please consult your local power equipment dealer.

It is better to use a straight and short pipeline when operating the displacement pump. A short and straight pipeline will minimize the frictional losses in the pipeline. The pipeline should be fixed to something to avoid vibrations. Before operating the pump, you must check the connections between the pump and pipelines to verify that everything is installed properly and that there are no leaks of any kind.

The filter net should be kept at a certain distance between the river surface, river bottom, and riverbank. The net must also be submerged at least 3 meters or 1 foot below the water surface to avoid sucking air into the pipeline. The net must also be 2 meters or .7 feet above the river bottom or riverbank to avoid sucking stones or weeds into the pipeline.

MAINTENANCE SCHEDULE



Performed at every indicated month or operating hour interval, whichever comes first.		Each use	First month or 20 Hrs.	Every 3 months or 50 Hrs.	Every 6 months or 100 Hrs.	Every year or 300 Hrs.
ITEM						
• Engine oil	Check level	○				
	Change		○		○	
• Air cleaner	Check	○				
	Clean			○(1)		
• Idle speed	Check-Adjust					○(2)
• Spark plug	Check-Clean				○	
• Spark arrester	Clean				○	
• Combustion chamber	Clean					○(2)
• Valve clearance	Check-Adjust					○(2)
• Fuel tank and strainer	Clean					○(2)
• Fuel tube	Check	Every 2 <u>years</u> (Replace if necessary) (2)				
Impeller	Check					○(2)
Impeller clearance	Check					○(2)
Pump inlet valve	Check					○(2)

• Emission-related items.

(1) Service more frequently when used in dusty areas.

(2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to shop manual for service procedures.

If the gap between the impeller and flow guidance surface is over 1 mm, an adjustment shim can be added on the shaft shoulder to reduce the gap. This will permit continuous use of the water pump. Please refer to figure 2-2 for a diagram of the water pump and a listing of the components.

Stopping the pump

First, bring down the speed of the engine by using the speed governor. Let it run for 3 minutes at no load before stopping it.

Then stop the engine.

Sudden stops to the engine will cause abnormal temperature increases in the block of the engine. Decrease the load gradually when stopping the engine.

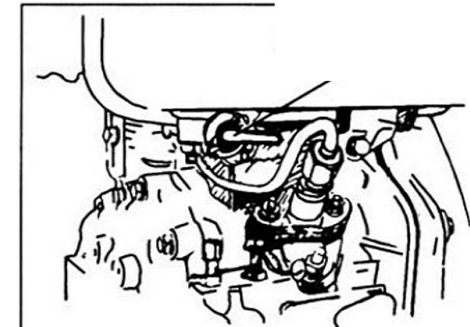
Also, never stop the engine with the decompression lever.

If the engine comes with an electric starter, turn the starting switch to the “Off” position.

Pull the recoil handle slowly until pressure is felt by your hand, this means the piston is on the compression stroke; where the intake and exhaust valves are closed and then let the handle recoil back into the engine. This natural position will prevent rust from occurring when the engine is being stored for long periods of time. Perform these steps only when the engine is off; doing so otherwise will damage the engine.

Set the fuel cock at “S” (stop position)

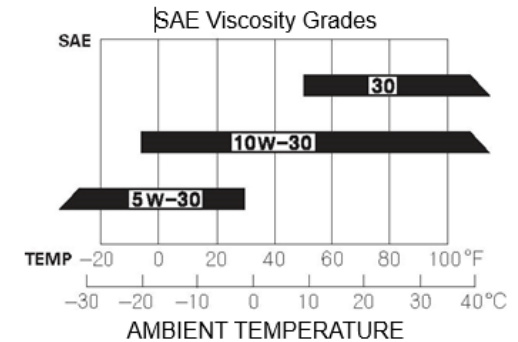
Fuel Cock Lever



SAE 10W-30 is recommended for general use. Other viscosities shown in the chart may be used when the average temperature in your area is within the recommended range.

The SAE oil viscosity and service classification are in the API label on the oil container. We recommend that you use API SERVICE category SJ oil.

The recommended operating range of this pump is 23 °F to 104 °F (-5 °C to 40 °C).



AIR FILTER CLEANING

A dirty air filter will restrict air flow to the carburetor, reducing engine performance. If you operate the pump in very dusty areas, clean the air filter more frequently than specified in the MAINTENANCE SCHEDULE (see page 17).

1. Clean the air filter in warm soapy water, rinse, and dry it thoroughly. Or clean in nonflammable solvent and dry it thoroughly.
2. Dip the air filter in clean engine oil, and then squeeze out all excess oil. The engine will smoke when started if too much oil is left in the foam.
3. Wipe dirt from the air cleaner base and cover, using a moist rag. Be careful to prevent dirt from entering the air duct that leads to the

The engine oil capacity is .60 liters or .63 US quarts



SAE 10W-30 OR
EQUIVALENT
MOTOR OIL ASAE
10W-30

**CHANGE THE OIL AFTER THE
FIRST MONTH OR AFTER 20
HOURS, WHICHEVER COMES
FIRST. AFTER THIS, EVERY 6
MONTHS OR 100 HOURS,
WHICHEVER COMES FIRST.**



NOTICE

A loose spark plug can overheat and damage the engine.
Over tightening the spark plug can damage the threads in the cylinder head.

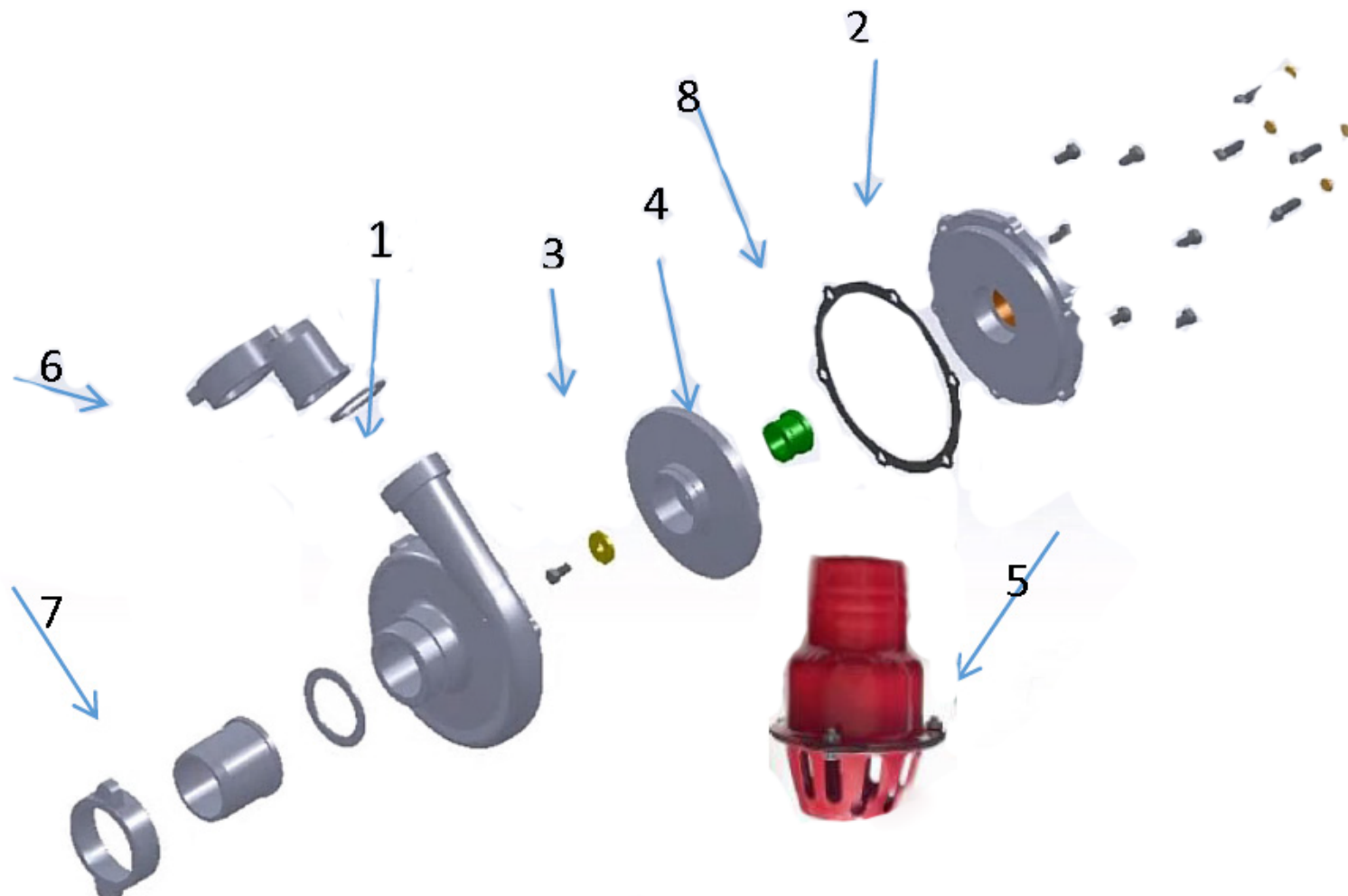
DRAIN



FILL 0.6L OIL

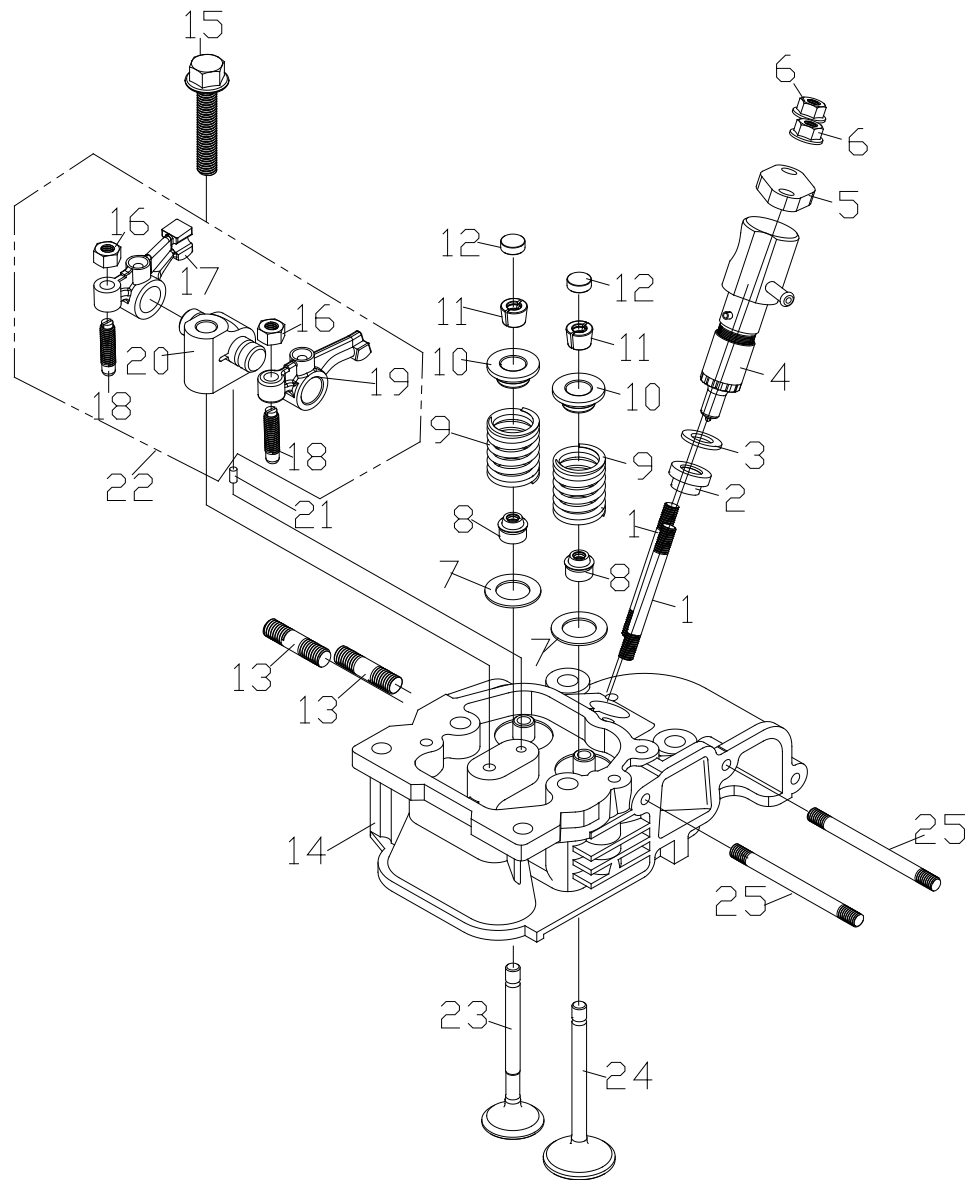


DIAGRAM & SPARE PARTS LIST OF WATER PUMP SET - DIESEL



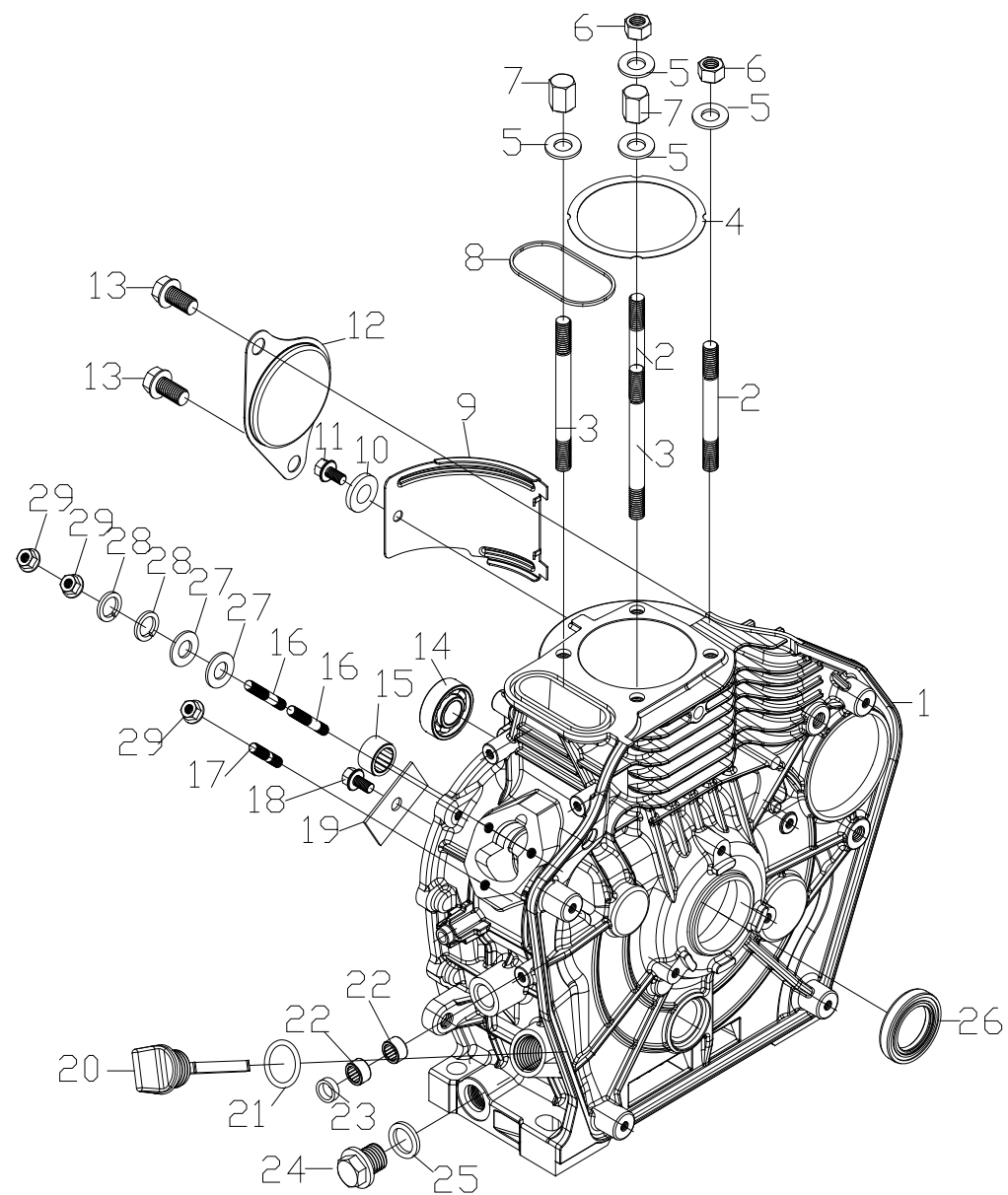
SL NO.	PART NO	DESCRIPTION
1	AM-WP5065-HHG-WP01	CASING
2	AM-WP5065-HHG-WP02	COVERꠔCASING
3	AM-WP5065-HHG-WP03	IMPELLER
4	AM-WP5065-HHG-WP04	SEAL RING
5	AM-WP5065-HHG-WP05	FILTER
6	AM-WP5065-HHG-WP06	TIE-IN,TUBE
7	AM-WP5065-HHG-WP07	TIE-out,TUBE
8	AM-WP5065-HHG-WP08	water block

CYLINDER HEAD ASSY -A



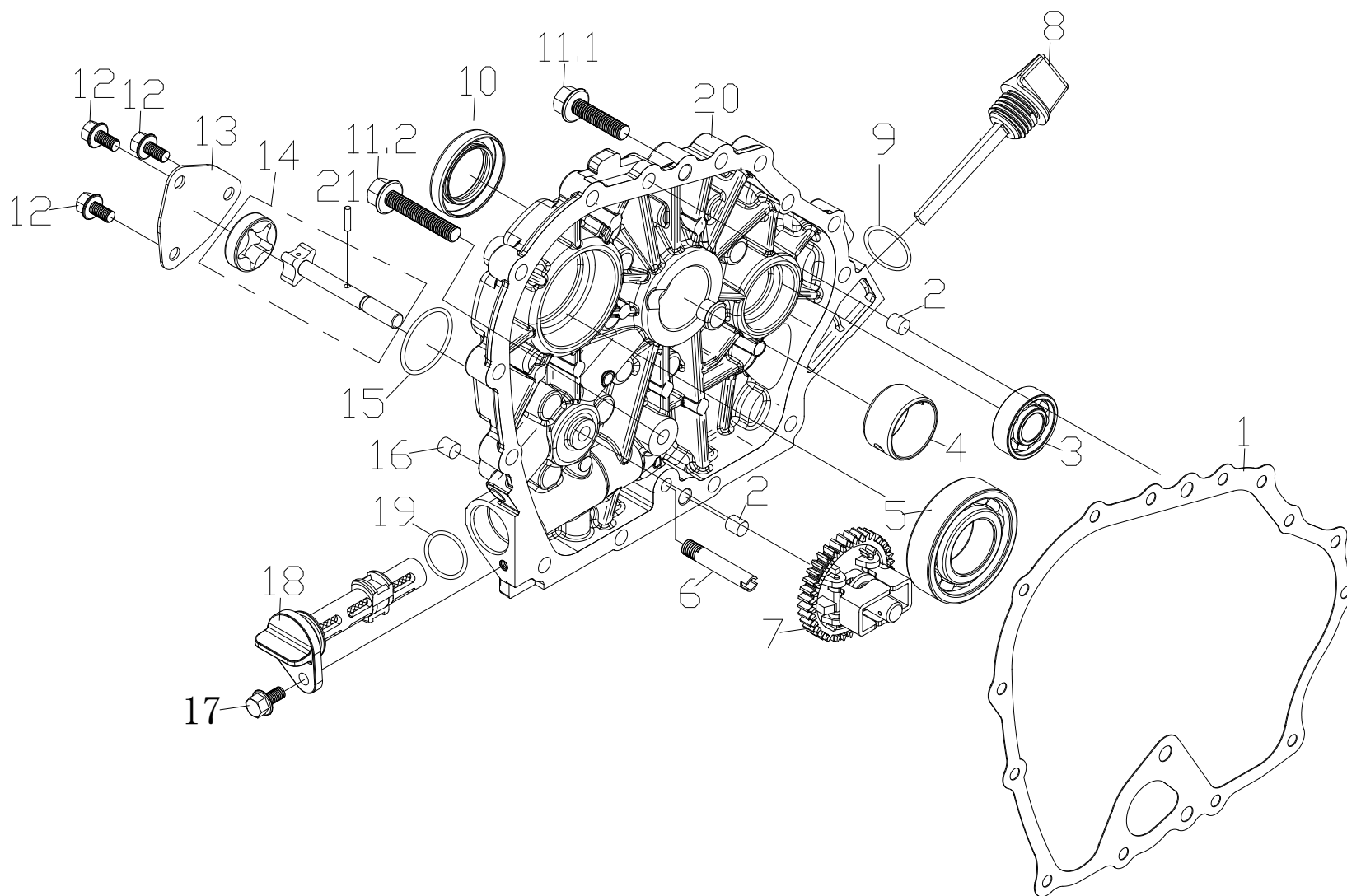
SL NO	PART NO	DESCRIPTION	SL NO.	PART NO	DESCRIPTION
1	AM-173FD-A01	Bolt Stud	14	AM-173FD-A14	Flange Bolt -cylinder head
2	AM-173FD-A02	Adjusting Gasket Cover	15	AM-173FD-A15	Lock Nut
3	AM-173FD-A03	Adjusting Gasket	16	AM-173FD-A16	Valve ExhaustArm
4	AM-173FD-A04	Fuel Injection Assy	17	AM-173FD-A17	Arm Base
5	AM-173FD-A05	Fuel Injection Clamp	18	AM-173FD-A18	Valve InletArm
6	AM-173FD-A06	Flange Nut	19	AM-173FD-A19	Valve Rock Arm Inlet
7	AM-173FD-A07	Valve Spring Washer	20	AM-173FD-A20	Rock Arm Seat
8	AM-173FD-A08	Valve Seal	21	AM-173FD-A21	Pin
9	AM-173FD-A09	Spring Valve	22	AM-173FD-A22	Arm Assy
10	AM-173FD-A10	Rock Arm Assy	23	AM-173FD-A23	ValveExhaust
11	AM-173FD-A11	Cotter	24	AM-173FD-A24	Valve Inlet
12	AM-173FD-A12	Valve Adjusting Plate	25	AM-173FD-A25	Bolt Stud
13	AM-173FD-A13	Bol Stud			

CRANKCASE ASSY - B



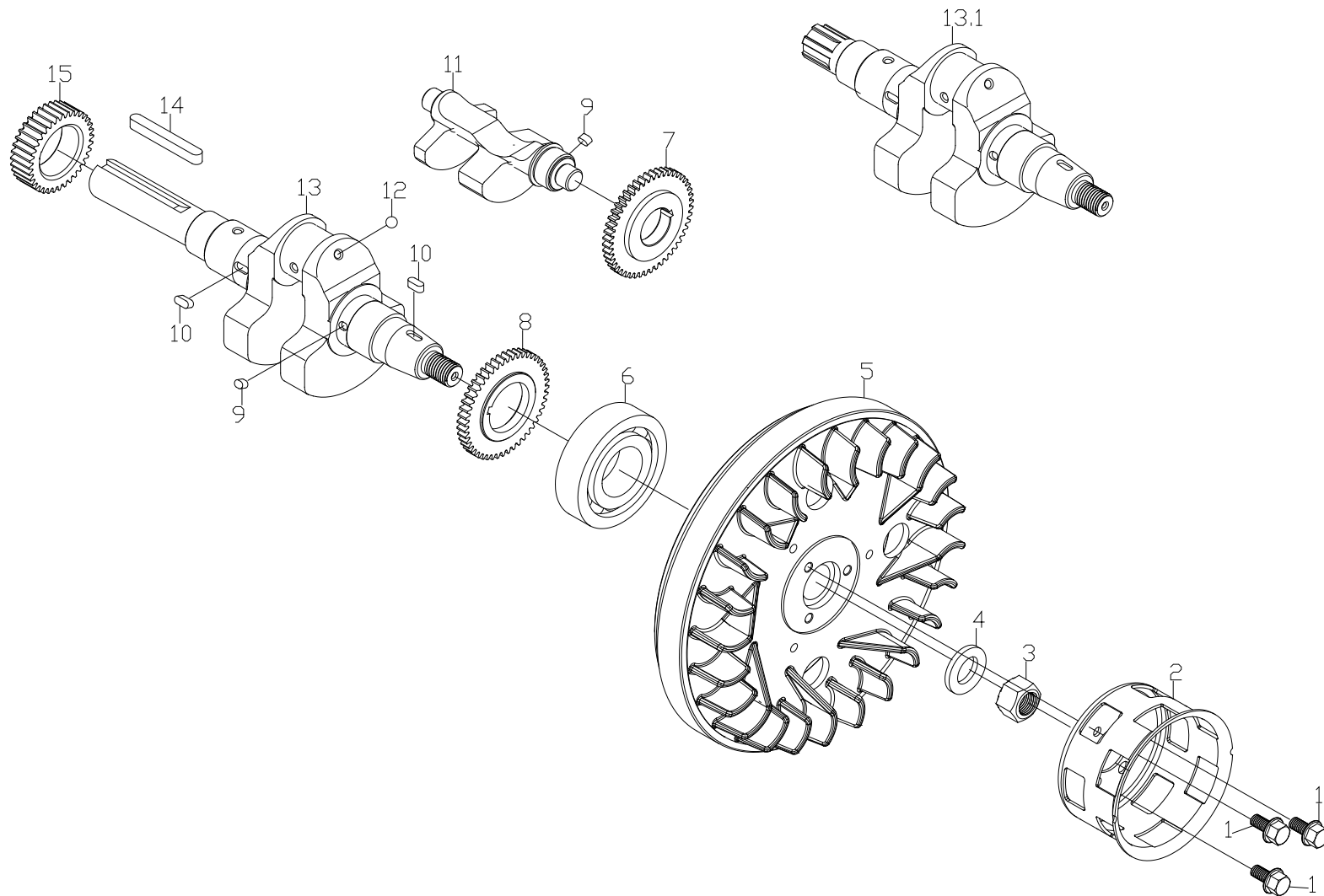
SL NO	PART NO	DESCRIPTION	SL NO.	PART NO	DESCRIPTION
1	AM-173FD-B01	Crankcase Complete	16	AM-173FD-B16	Bolt Stud
2	AM-173FD-B02	Cylinder Head Stud	17	AM-173FD-B17	Bolt Stud
3	AM-173FD-B03	Cylinder Head Stud	18	AM-173FD-B18	Bolt
4	AM-173FD-B04	Cylinder Head Shim	19	AM-173FD-B19	Retainer
5	AM-173FD-B05	Washer	20	AM-173FD-B20	Oil Filler Gap
6	AM-173FD-B06	Cylinder Head Nut	21	AM-173FD-B21	O-Ring
7	AM-173FD-B07	Cylinder Head Nut?Thick?	22	AM-173FD-B22	Needle Bearing
8	AM-173FD-B08	Rectangle Seal Ring	23	AM-173FD-B23	Oil Seal
9	AM-173FD-B09	Wind Guide Plate	24	AM-173FD-B24	Drain Plug
10	AM-173FD-B10	Washer	25	AM-173FD-B25	Oil Plug Seal
11	AM-173FD-B11	Flange Bolt	26	AM-173FD-B26	Oil Seal
12	AM-173FD-B12	Starter Seat Cover	27	AM-173FD-B27	Washer
13	AM-173FD-B13	Flange Bolt	28	AM-173FD-B28	Spring Washer
14	AM-173FD-B14	Ball Bearing	29	AM-173FD-B29	Flange Bolt
15	AM-173FD-B15	Needle Bearing			

CRANKCASE COVER ASSY - C



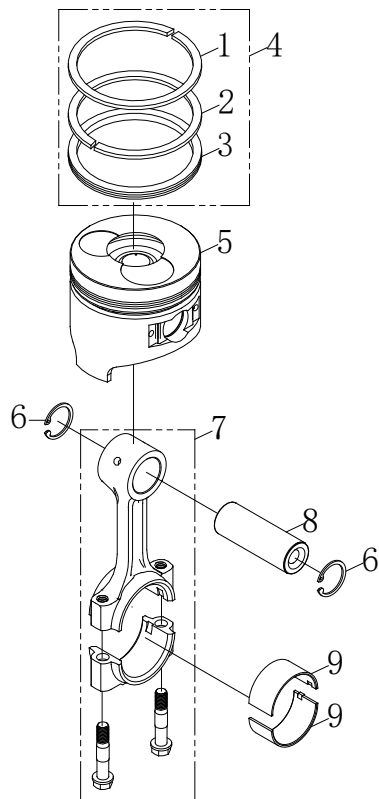
SL NO	PART NO	DESCRIPTION	SL NO.	PART NO	DESCRIPTION
1	AM-173FD-C01	Gasket Case Cover	13	AM-173FD-C12	Flange Bolt
2	AM-173FD-C02	Pin	14	AM-173FD-C13	Oil Pump Cover
3	AM-173FD-C03	Bearing	15	AM-173FD-C14	Oil Pump Assy
4	AM-173FD-C04	Main Bearing	16	AM-173FD-C15	Sealing Ring
5	AM-173FD-C05	Ball Bearing	17	AM-173FD-C16	Block Bolt
6	AM-173FD-C06	Oil Indicator	18	AM-173FD-C17	Flange Bolt
7	AM-173FD-C07	Governor Kit Comp	19	AM-173FD-C18	Engine Oil Filter Element
8	AM-173FD-C08	Dipstick	20	AM-173FD-C19	Seal Ring
9	AM-173FD-C09	O-Ring	21	AM-173FD-C20	Cover Crankcase
10	AM-173FD-C10	Oil Seal			
11	AM-173FD-C11	Flange Bolt			
12	AM-173FD-C11.1	Flange Bolt			

CRANK-FLY WHEEL ASSY - D



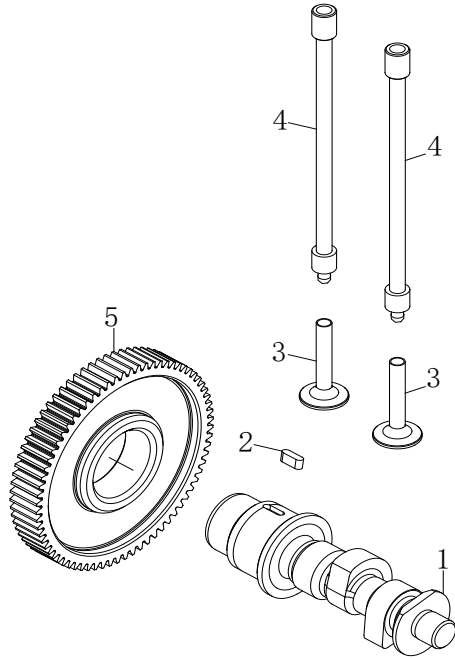
SL NO	PART NO	DESCRIPTION	SL NO.	PART NO	DESCRIPTION
1	AM-173FD-D01	Flange Bolt	11	AM-173FD-D11	Balancer Shaft
2	AM-173FD-D02	Starter Pulley	12	AM-173FD-D12	Steel Ball
3	AM-173FD-D03	Flange Nut	13	AM-173FD-D13	Crank Shaft Assy - NA
4	AM-173FD-D04	Washer	14	AM-173FD-D13.1	Crank Shaft Assy
5	AM-173FD-D05	Fly Wheel	15	AM-173FD-D14	Key
6	AM-173FD-D06	Ball Bearing	16	AM-173FD-D15	Crankshaft Timing Gear
7	AM-173FD-D07	Timing Gear Of Balance Shaft			
8	AM-173FD-D08	Drive Gear Of Balance Shsft			
9	AM-173FD-D09	Key			
10	AM-173FD-D10	Key			

PISTON-CONNECTING ROD ASSY - E



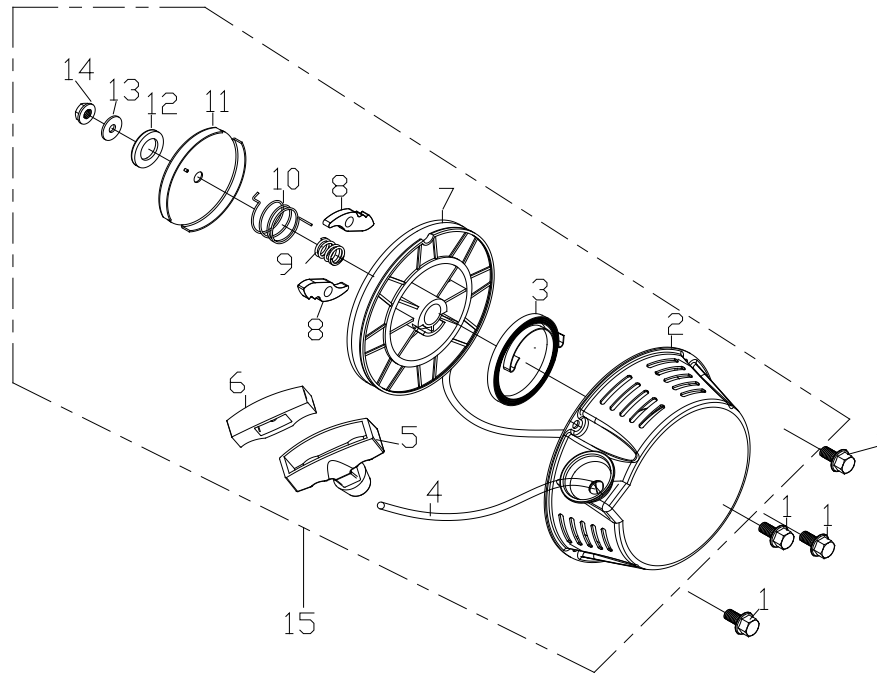
SL NO	PART NO	DESCRIPTION
1	AM-173FD-E01	Gas Ring 1
2	AM-173FD-E02	Gas Ring 2
3	AM-173FD-E03	Oil Ring
4	AM-173FD-E04	Piston Ring Assy
5	AM-173FD-E05	Piston
6	AM-173FD-E06	Piston Pin Clip
7	AM-173FD-E07	Connecting Rod Assy
8	AM-173FD-E08	Pin Piston
9	AM-173FD-E09	Crank Pin Bearing

CAMSHAFT ASSY - F



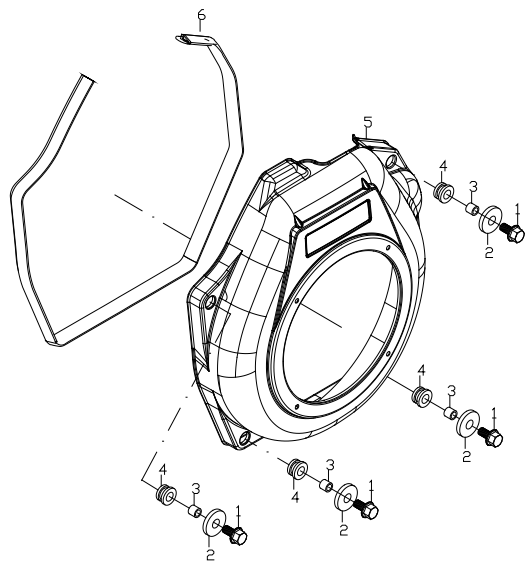
SL NO	PART NO	DESCRIPTION
1	AM-173FD-F01	Camshaft
2	AM-173FD-F02	Key
3	AM-173FD-F03	Valve Lifter
4	AM-173FD-F04	Push Rod
5	AM-173FD-F05	Camshaft Timing Gear

START COVER ASSY - G



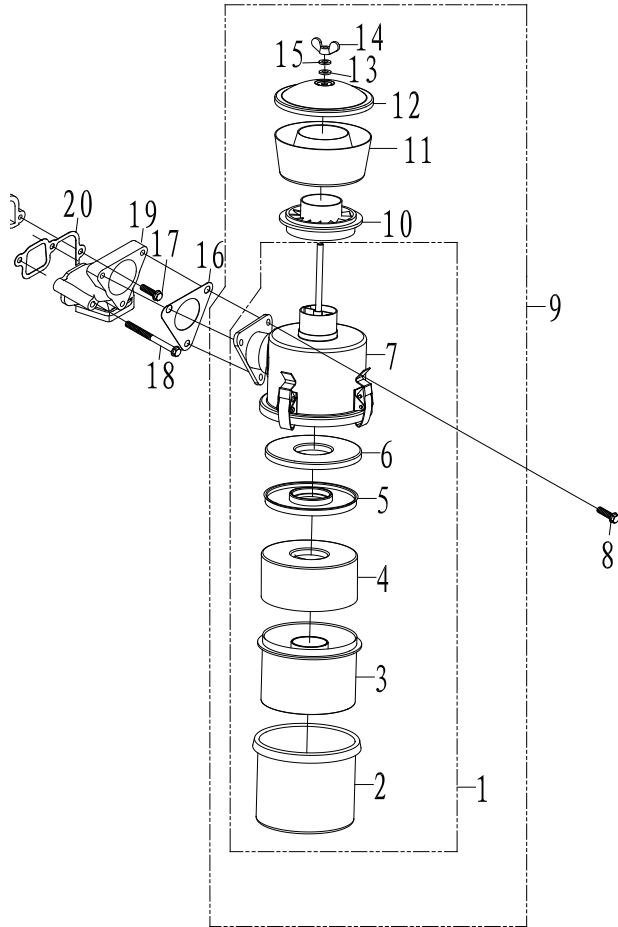
SL NO	PART NO	DESCRIPTION	SL NO.	PART NO	DESCRIPTION
1	AM-173FD-G01	Flange Bolt	9	AM-173FD-G09	Compress Spring
2	AM-173FD-G02	Recoil Stater Cover Comp	10	AM-173FD-G10	Return Spring
3	AM-173FD-G03	Spiral Spring	11	AM-173FD-G11	Spring Cover
4	AM-173FD-G04	Recoil Starter Rope	12	AM-173FD-G12	Rubber Washer
5	AM-173FD-G05	Starter Handle	13	AM-173FD-G13	Washer
6	AM-173FD-G06	Starter Handle Cover	14	AM-173FD-G14	Nut
7	AM-173FD-G07	Starter Reel	15	AM-173FD-G15	Starter COVER ASSY
8	AM-173FD-G08	Starter Patchet			

WIND SCOOPER ASSY - H



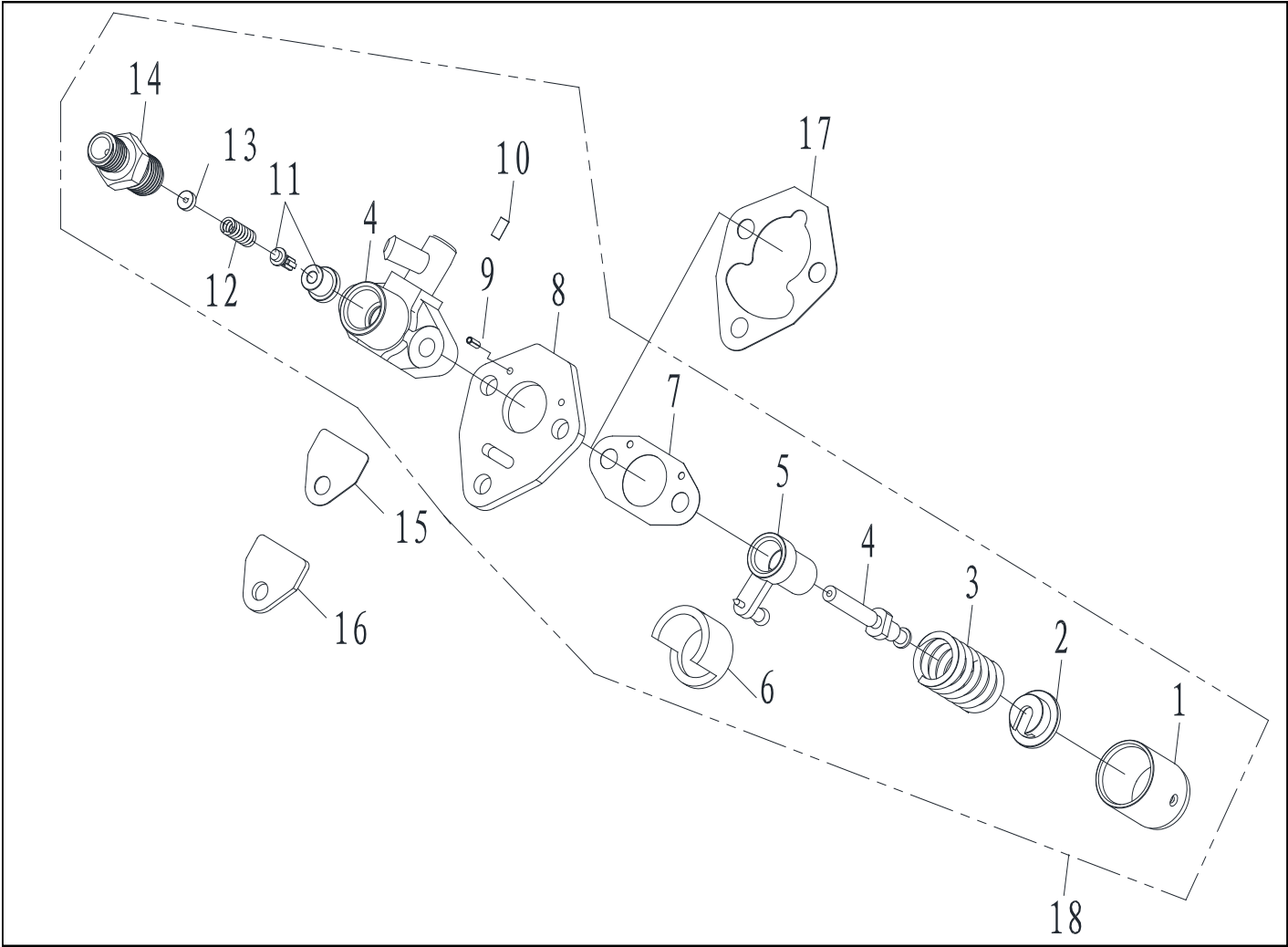
SL NO	PART NO	DESCRIPTION
1	AM-173FD-H01	Bolt
2	AM-173FD-H02	Washer
3	AM-173FD-H03	Collar
4	AM-173FD-H04	Shock Absorber
5	AM-173FD-H05	Wind Scooper Assy
6	AM-173FD-H06	Shock Absorber Seat

AIR FILTER ASSY - J



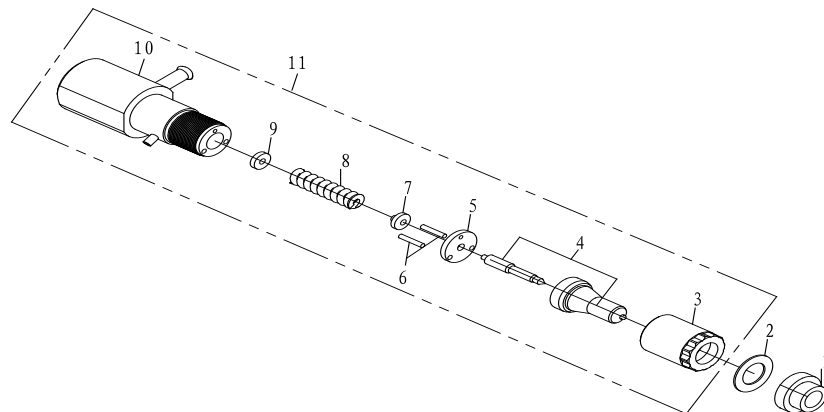
SL NO	PART NO	DESCRIPTION
1	AM-173FD-J01	Air Cleaner Cyclone
2	AM-173FD-J02	Air Filter Sump
3	AM-173FD-J03	Filter Case
4	AM-173FD-J04	Steel Wire Filter
5	AM-173FD-J05	Filter Case Cover
6	AM-173FD-J06	Foam Filter
7	AM-173FD-J07	Air Filter Connecting Disc
8	AM-173FD-J08	Flange Bolt
9	AM-173FD-J09	Air Cleaner Assy
10	AM-173FD-J10	Blade Base Air Cleaner
11	AM-173FD-J11	Detached Body Air Cleaner
12	AM-173FD-J12	Cyclone Filter Cover
13	AM-173FD-J13	Spring Washer
14	AM-173FD-J14	Washer
15	AM-173FD-J15	Butterfly Nut
16	AM-173FD-J16	Air Cleaner Gasket
17	AM-173FD-J17	Flange Bolt
18	AM-173FD-J18	Flange Nut
19	AM-173FD-J19	Intake Pipe
20	AM-173FD-J20	Intake Pipe Gasket

FUEL PUMP ASSY - K



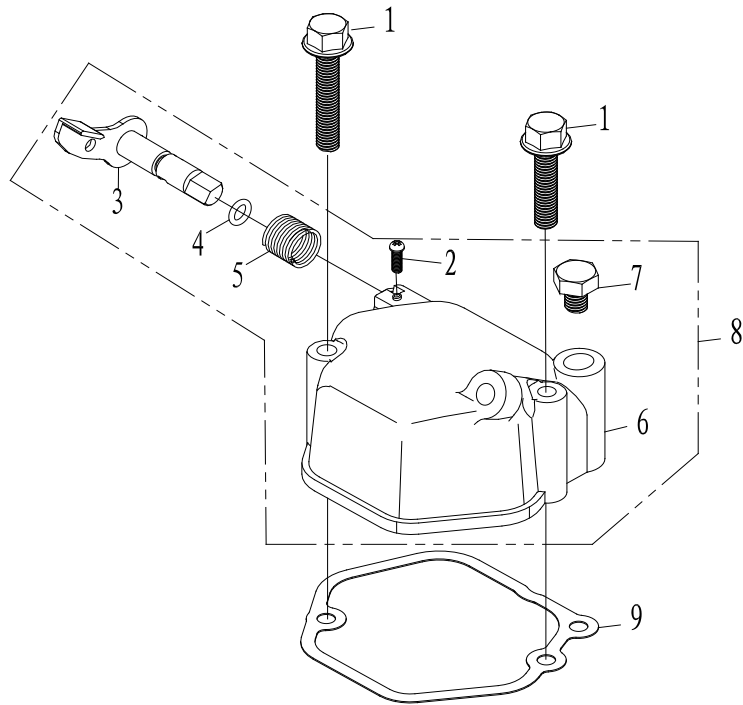
SL NO	PART NO	DESCRIPTION	SL NO.	PART NO	DESCRIPTION
1	AM-173FD-K01	Tappet	10	AM-173FD-K10	Pin
2	AM-173FD-K02	Spring Holder	11	AM-173FD-K11	Fip Block
3	AM-173FD-K03	Spring	12	AM-173FD-K12	Fuel Delivery Valve Core
4	AM-173FD-K04	Plunger- NOZZEL	13	AM-173FD-K13	Fuel Delivery Valve Seat
5	AM-173FD-K05	Fuel Limiting Sheath Weldmenl Assy	14	AM-173FD-K14	Fuel Delhrery Valve Spring
6	AM-173FD-K06	Support	15	AM-173FD-K15	Fuel Delhrery Washer
7	AM-173FD-K07	Fuel Pump Gasket	16	AM-173FD-K16	Fuel Delvery Valve Forc- ing Holder
8	AM-173FD-K08	Washer	17	AM-173FD-K17	Fuel Pump Gasket
9	AM-173FD-K09	Fip Connecting Plate	18	AM-173FD-K18	Fuel Pump ASSY

FUEL INJECTION ASSY - L



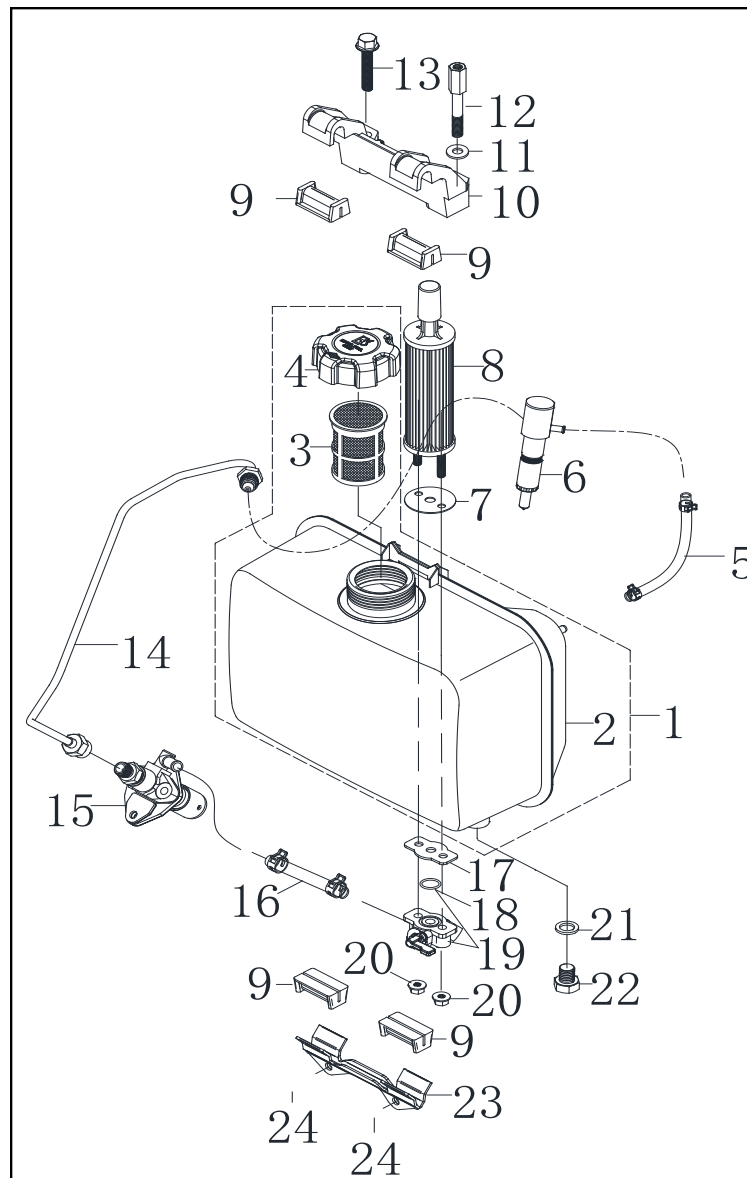
SL NO	PART NO	DESCRIPTION
1	AM-173FD-L01	Adjusting Gasket Cover
2	AM-173FD-L02	Adjusting Gasket
3	AM-173FD-L03	Injection Nozzle Nut
4	AM-173FD-L04	Injection Matching Parts
5	AM-173FD-L05	Intermediate Block
6	AM-173FD-L06	Locating Pin
7	AM-173FD-L07	Mandril
8	AM-173FD-L08	Volt-Adjustment Spring
9	AM-173FD-L09	Washer
10	AM-173FD-L10	Fuel Iniection Vaive Block
11	AM-173FD-L11	Fuel Injector Assy

BONNET ASSY - M



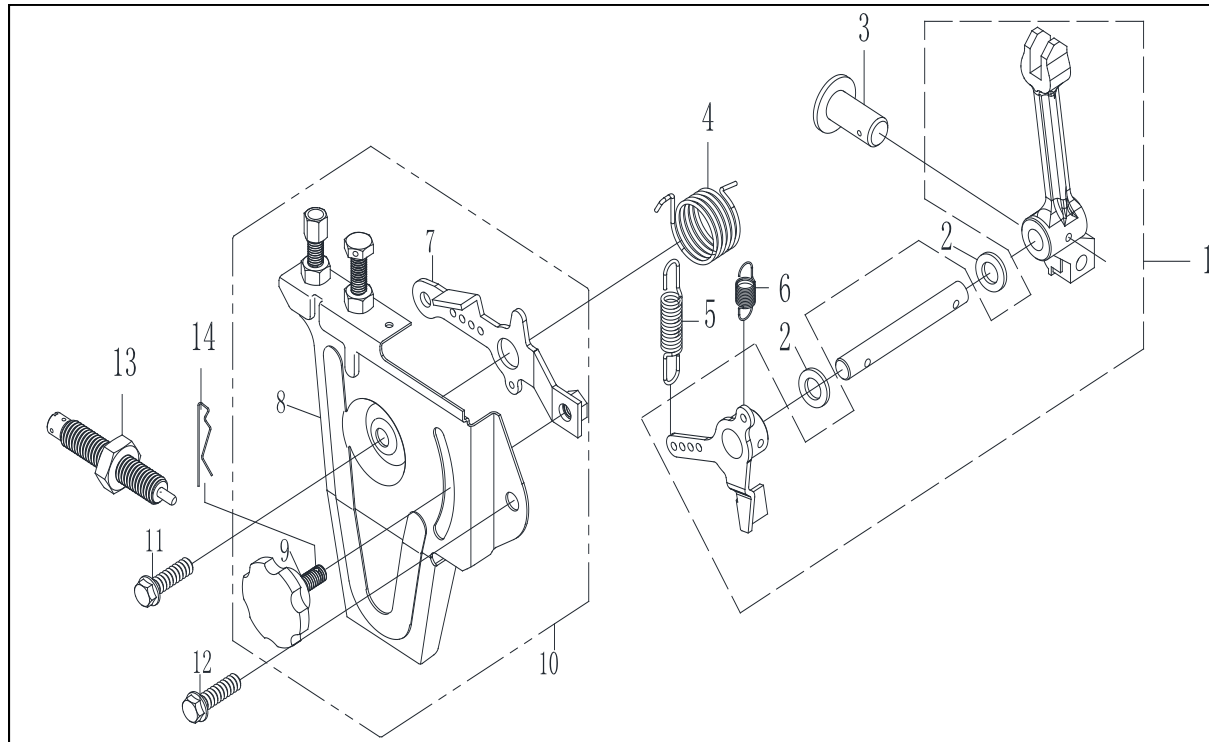
SL NO	PART NO	DESCRIPTION
1	AM-173FD-M01	Flange Bolt
2	AM-173FD-M02	Roller Install Bolt
3	AM-173FD-M03	Decompress Roller
4	AM-173FD-M04	O-ring,Decompress Shaft
5	AM-173FD-M05	Decompress Spring
6	AM-173FD-M06	Bonnet
7	AM-173FD-M07	Bolt
8	AM-173FD-M08	Bonnet Assy
9	AM-173FD-M09	Bonner Gasket

FULE OIL ASSY - N



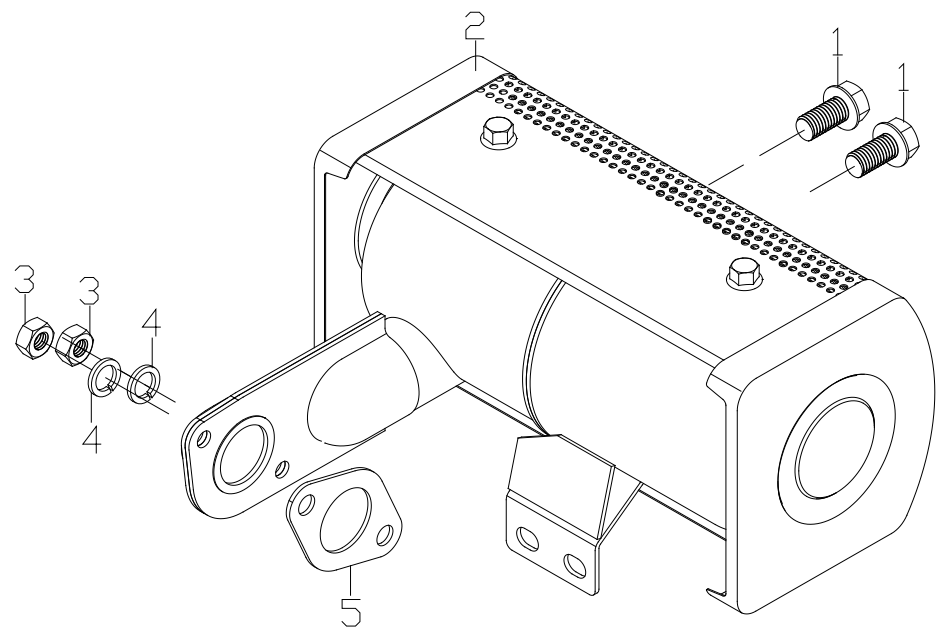
SL NO	PART NO	DESCRIPTION	SL NO.	PART NO	DESCRIPTION
1	AM-173FD-N01	Fuel Tank Assy	13	AM-173FD-N13	Washer
2	AM-173FD-N02	Fuel Tank	14	AM-173FD-N14	Upper Stay Bolt
3	AM-173FD-N03	Fuel Filter	15	AM-173FD-N15	bolt - fuel pump
4	AM-173FD-N04	Fuel Tank Cap	16	AM-173FD-N16	Fuel Injection Pipe Assy
5	AM-173FD-N05	Fuel Return Pipe	17	AM-173FD-N17	Oil Pump Assy
6	AM-173FD-N06	Oil Return Pipe	18	AM-173FD-N18	Oil Pipe
7	AM-173FD-N07	Oil Return Pipe Clip	19	AM-173FD-N19	Fuel Pipe
8	AM-173FD-N08	Fuel Iniection Assy	20	AM-173FD-N20	Fuel Pipe Clip
9	AM-173FD-N09	Fuel Filter Gasket	21	AM-173FD-N21	Fuel Switch Gasket
10	AM-173FD-N10	Fuel Filter Assy	22	AM-173FD-N22	O-Ring
11	AM-173FD-N11	Fuel Tank Damper	23	AM-173FD-N23	Fuel Tank Gock Assy
12	AM-173FD-N12	Upper Stay	24	AM-173FD-N24	Flange Nut

THROTTLE CONTROL ASSY - P



SL NO	PART NO	DESCRIPTION	SL NO.	PART NO	DESCRIPTION
1	AM-173F-P01	Lever Fork	8	AM-173F-P08	Speed control panel
2	AM-173F-P02	Adjusting washer	9	AM-173F-P09	Control Panel
3	AM-173F-P03	Speed control cap	10	AM-173F-P10	Control Panel
4	AM-173F-P04	Reset Spring	11	AM-173F-P11	Flange Bolt
5	AM-173F-P05	Governor Spring	12	AM-173F-P12	Flange Bolt
6	AM-173F-P06	Fine Tuning Spring	13	AM-173F-P13	Control Lever Assy
7	AM-173F-P07	Speed control arm	14	AM-173F-P14	Adjusting Rod Clip

EXHAUST ASSY - Q



SL NO	PART NO	DESCRIPTION
1	AM-173F-Q01	Flange Bolt
2	AM-173F-Q02	Muffler Comp
3	AM-173F-Q03	Nut
4	AM-173F-Q04	Spring Washer
5	AM-173F-Q05	Muffler Gasket

INSPECTION & MAINTAINANCE

For safety use, make sure the machine is cleaned every three months. Before working, make sure to inspect the filter and the nozzle and ensure there is no impurity. After working, make sure there is no water in the pump and the hose.

If the machine needs to be repaired in the guarantee period, please return the machine to the shop. You need to provide the certificate of purchase on order to repair or get the substitute.

Before packing, the machine should be cleaned, then use closed packaging, packaging should be firm. Store the machine in dry place.

For transportation safety. The machine should comply with ISTA.

Do not dispose of electrical machines as unsorted municipal waste, use separate collection facilities.

If electrical machines are disposed of in landfills or dumps, hazardous substances can leak into the ground water and get into the food chain, damaging your health and well being.

When replacing old machines with new ones, the retailer is legally obligated to take back your old machine for disposals at least free of charge.

WARRANTY CARD

CUSTOMER COPY

DATE _____	DATE OF DELIVERY _____	DEALERS OFFICIAL SEAL _____	DEALERS SIGN _____
PURCHASERS NAME & ADDRESS _____ _____ _____	CUSTOMER SIGN		
PRODUCT NAME	PRODUCT SERIAL NO.	INVOICE/DN NO.	
I/Will accept the terms and conditions of warranty as in the warranty card			

DEALERS COPY

DATE _____	DATE OF DELIVERY _____	DEALERS OFFICIAL SEAL _____	DEALERS SIGN _____
PURCHASERS NAME & ADDRESS _____ _____ _____	CUSTOMER SIGN		
PRODUCT NAME	PRODUCT SERIAL NO.	INVOICE/DN NO.	
I/Will accept the terms and conditions of warranty as in the warranty card			

COMPANY COPY

DATE _____	DATE OF DELIVERY _____	DEALERS OFFICIAL SEAL _____	DEALERS SIGN _____
PURCHASERS NAME & ADDRESS _____ _____ _____	CUSTOMER SIGN		
PRODUCT NAME	PRODUCT SERIAL NO.	INVOICE/DN NO.	
I/Will accept the terms and conditions of warranty as in the warranty card			

1. LIMITED WARRANTY PERIOD : For a period of six months from the date of Sale / delivery of the product which ever is earlier. 2. LIMITED WARRANTY OBLIGATION : Replacement of defective part(s) by authorized dealer are free of charges. If found defective by reasons of defective material / poor workmanship, parts will be replaced and there will be no value re-imbursement. 3. TERMS & CONDITIONS : a. Claims under warranty will be accepted on submission of Warranty Card duly filled and stamped by authorized dealer together with the original purchase document. : b. Shipping / transportation / Incidental charges incurred in replacing defective parts under warranty shall be borne by the purchaser

WARRANTY null & void if
(i) Lack of maintenance, (ii) Incorrect use of the machine or tampering, (iii) Use of non-genuine spare parts, (iv) Usage of acids, solvents, or any flammable materials, (v) Non-usage of filter water / clear water / soft water & using water above 40°C temperature, (vi) While using the pressure washers to draw water which is contaminated with dust & solvents (eg. paint thinners, gasoline, oil, etc.), (vii) Repair done by unauthorized service people, (viii) Those parts subject to wear & tear due to normal operations and plastic parts, rubber items etc, (ix) Loose connections, faulty electrical fixtures & fluctuations in power supply.
4. Should any failure occur during or after the warranty period, customer does not have the right to interrupt payment / price discount.
5. Incidental or consequential damages like inconvenience commercial loss, loss of tie, mental agony etc.
6. Loss of any nature due to operation or non-operation is not covered under warranty.
7. All free service are at Dealer's service point only.
8. Warranty ceases if service is not done periodically.
9. The attached card should be completed and returned to Ratnagiri Impex Pvt. Ltd. for registration immediately after sale / delivery.
10. The warranty is void unless you register the warranty card with Ratnagiri Impex Pvt. Ltd.
11. The decision of Ratnagiri Impex Pvt. Ltd., in settling the warranty is final in all respects.
12. All disputes are subject to Bangalore Courts Jurisdiction

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FREE SERVICE COUPON (30DAYS/30HRS. WHICHEVER IS EARLIER)

MODEL

SERIAL NUMBER

PDI DATE

SERVICE NO.

PURCHASE BILL NO.

DATE

DEALERS OFFICE SEAL

1. Check and test the fuel mixture
3. Check , clean and adjust the spark plug
5. Check and sparken the cutting tools
7. Start and check the noise, vibration, loosen etc..

OPERATIONS

2. check and clean the air filter
4. Check and adjust the carburetor tuning
6. Product familiarisation on usage
8. Routine maintenance and shortage.

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6. Product familiarisation on usage
8. Routine maintenance and shortage.

DOS & DONTs

1. Always read the instruction manual supplied along with the equipments and understand the correct installation and operating procedures before attempting to use the equipments.
2. It is important to use the personal protection equipments such as head helmet with visor, ear defenders, goggles, safety gloves, cut resistant shoes, trousers and jackets while operating potentially dangerous machines
3. Avoid untrained persons using the equipments. Children must not be allowed to handle these equipments
4. Always use genuine spares and accessories in repairs and usage to derive maximum life of the equipments.
5. Always keep the equipments in good working condition to minimize loss of output as well as to reduce the pollution and save the environment
6. Do not use the machine within range of persons unless they wear protective clothing
7. Do not operate the machine when fatigued or under the influence of alcohol or drugs
8. When the machine is running, please maintain a constant water supply. Without water circulation will damage the sealing rings of the machine.
9. For more query kindly contact for our Service Center/Dealer/ franchise

Agrimate Army For Pest Control

ANY WHERE - ANY TIME - ANY CROP



Marketed by:
**ratnagiri
impex**
BRINGING YOU THE FUTURE... NOW

IMPORTED & MARKETING BY,
RATNAGIRI IMPEX PVT., LTD.,

Annapurna House, #1 / 1G, 7th Cross, New
Guddadahalli Mysore Road, Bangalore - 560 026

Missed Call : 7393 938 938 Email: ask@agrimart.in