

Important: (1) Normal maintenance and adjustments to the product is the responsibility customer. (2) Normal wear and tear is not covered under warranty. (3) Rubber/plastic parts and consumables such as blades, clutch and clutch-bell, spark-plugs, nylon line, air-filters, fuel-filters, oil seals etc. are not covered under the warranty.

No Warranty On Electrical Motor / Electrical Parts / Battery Etc.

Incidental / Consequential Loss: KisanKraft Limited or its manufacturers will not be liable for general damages, including bodily injuries, or for incidental or consequential damages including, but not limited to, loss of use, loss of profits, loss of production, expense of substitute equipment or other commercial loss or damage.

Limitation of Liability: This limited warranty is in lieu of all other express warranties, obligations, or liabilities. Any implied warranties, obligations or liabilities, including, but not limited to, any implied warranty of merchantability shall be limited in duration to the applicable warranty period. Any action for breach of any warranty hereunder, including, but not limited to, any implied warranty of merchantability must be brought within the applicable warranty period.

Modifications of Warranty: No agent, representative, dealer, or employee of KisanKraft Limited or any of its manufacturers has the authority to increase or alter the obligations of this warranty.

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Receipt is required for availing warranty services

Jurisdiction: All disputes are subject to Bangalore court's jurisdiction.

Our Products	<ul style="list-style-type: none"> ◆Chainsaws◆Brush Cutters and Accessories◆Harvesters◆ ◆Engines and Water Pumps◆Hand Tools◆Garden Tools◆ ◆Cultivators and Accessories◆Sprayers and Accessories◆ ◆Transplanter and Post Hole Digger ◆Milking Machines◆
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This warranty is null & void, if you fail to register the warranty with KisanKraft by sending the KisanKraft Copy with dealer's stamp.

KisanKraft Limited (formerly known as KisanKraft Machine Tools P Ltd)

🌐: www.kisankraft.com ✉: info@kisankraft.com ☎: +91.80. 22178200

Product	Mist-Dust Sprayer	KisanKraft Invoice Date	
Brand	KisanKraft	KisanKraft Invoice No.	
Model	KK-MDS-20L		
WARRANTY PERIOD	6-MONTHS	FOR THE SPECIFIED PERIOD FROM THE DATE OF SALE OR DELIVERY WHICHEVER IS EARLIER.	
Dealer's Invoice Date		Dealer's Invoice No.	
Buyer's Info (Name, Address, Phone, etc.):		Dealer's Stamp (Address, Phone, TIN, etc.):	
Buyer's Sign		Dealer's Sign	

What is covered: KisanKraft Limited and its manufacturers warrant this product to be free from defects in material or workmanship. All parts defective in material and workmanship are covered.

This warranty will only cover defects arising under normal usage.

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- (1) Operation of product with incorrect fuel or lubricants, (2) Incorrect usage of machine or misuse, (3) Lack of maintenance, (4) Negligence, (5) Accident or physical damage, (6) Repairs made by unauthorized parties and/or with unauthorized parts, (7) Improper set up, adjustments, tampering or altered products

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Wide Range of Products for Every Need



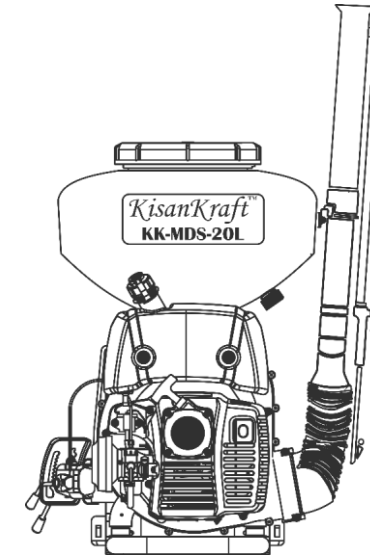
For more information give **MISSED CALL: 07676065555**



Many of our products have BIS: ISI certification.



User Manual



KisanKraft Limited.

(Formerly known as KisanKraft Machine Tools Pvt. Ltd)
Sri Huchhanna Tower, #4, 1st Main, 7-A Cross, Maruthi Layout, Dasarahalli,
HAF Post, Hebbal, Bangalore 560024, Karnataka, INDIA

- ◆ Bangalore (HO) ◆ Ahmedabad ◆ Bhopal ◆ Bhubaneswar ◆ Coimbatore ◆
- ◆ Jaipur ◆ Guwahati ◆ Patna ◆ Hubli ◆ Hyderabad ◆
- ◆ Karnal ◆ Kolkata ◆ Lucknow ◆ Pune ◆ Raipur ◆ Shimla ◆

KisanKraft has a large range of products to serve the farmers. A list of our products is given below:

<p>Brush Cutters and Accessories</p> <ul style="list-style-type: none"> Brush Cutter/Power Weeder Backpack Brush Cutter Tea Pruner Pole pruner with Engine Reaper Attachment Blades-Circular Blades (2 & 3 points) Baffle Nylon Rope Tap & Go <p>Chainsaws</p> <ul style="list-style-type: none"> Petrol Chainsaw Electric Chainsaw Chain Sharpening Machine <p>Engines and Water Pumps</p> <ul style="list-style-type: none"> Engine –Diesel-(Horizontal) Engine –Diesel(Vertical) Engine-Kerosene Water Pump with Petrol Engine Water Pump with Kerosene Engine Water Pump with Diesel Engine <p>Hand Tools</p> <ul style="list-style-type: none"> Secateurs Folding Saw Garden Rake Garden Shovel Hedge Shear Lopper Telescopic Hedge Shear Telescopic Lopping Shear Tree Pruner Telescopic Steel Pipe & Fruit Picker Bag Sheep Shear <p>Garden Tools</p> <ul style="list-style-type: none"> Electric Pressure Washer Hedge Trimmer Lawn Mower (Electric, Petrol & Manual) Leaf Blower 	<p>Cultivators and Accessories</p> <ul style="list-style-type: none"> Petrol and Diesel <p>Sprayers and Accessories</p> <ul style="list-style-type: none"> Battery Sprayer Portable Power Sprayer Trolley Sprayer Manual Knapsack Sprayer Manual Pressure Sprayer Rose Cans Hose Crimping Machine HTP Sprayer HTP Delivery Hose HTP Hose Reel HTP Stand HTP Gun / Lance(Brass Rod) Knapsack Power Sprayer Mister / Duster / Granuel Spreader HTP Sprayer Set with Diesel Engine HTP Sprayer Set with Kerosene Engine Fogging Machine <p>Milking Machine</p> <ul style="list-style-type: none"> Wood Shredder Fodder Ensiling Chaff Cutter Fodder Grinder Chaff Cutter Fodder Mini Chaff Cutter <p>Harvester</p> <ul style="list-style-type: none"> Maize Sheller Maize Sheller + Dehusker Maize Combine Harvester Onion Digger Carlotti Italy Tea Leaf Harvester Sugarcane Combine Harvester Sugarcane Leaf Stripper <p>Transplanter and Post Hole Digger</p> <ul style="list-style-type: none"> Paddy Transplanter (2 & 8 Rows) Transplanter-Vegetable & Tobacco Post Hole Digger(4" to 14" Augers)
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S.NO	KK-P-NO	KK-Part Name	S.NO	KK-P-NO	KK-Part Name
44	B-44	Clamp(Misting/Dusting Plate)	110	B-110	Dust Rod
45	B-45	Screw & Washer M6x25(Star)	111	B-111	Pin(Dust Rod)
46	B-46	Screw & Washer M6x60(Hex)	112	B-112	Screw M6x40(Hex SPL)
47	B-47	Chemical Tank Lid	113	B-113	Connector(Dust Rod)
48	B-48	Gasket(Chemical Tank Lid)	114	B-114	Pulling Rod
49	B-49	Tube 8x1.5-500 MM(Air Valve)	115	B-115	Nut M6 Nylon
50	B-50	Air Valve	116	B-116	Spring Throttle Rod
51	B-51	Filter Big(Chemical Tank)	117	B-117	Nut M6
52	B-52	Chemical Tank	118	B-118	Nut Flow adjust
53	B-53	Screw M6x15(SPL)	119	B-119	O-ring (Nut Flow adjust)
54	B-54	Rubber Washer	120	B-120	Cover(Impeller)
55	B-55	Washer 6 Plain	121	B-121	Fuel Filter Upper
56	B-56	Clamp Hose Hanging	122	B-122	Gasket Fuel Filter Upper
57	B-57	Nut M6 Nylon	123	B-123	Drain Cap
58	B-58	N/A	124	B-124	Gasket(Drain Cap)
59	B-59	Fuel Tank Cap	125	B-125	Clip Dust Rod
60	B-60	N/A	126	B-126	Elastic split pin
61	B-61	N/A	127	B-127	Y-Joint
62	B-62	N/A	128	B-128	Nylon hose 8.5x200mm
63	B-63	N/A	129	B-129	Nylon hose 10x260mm
64	B-64	N/A	130	B-130	Wing Nut M6
65	B-65	Gasket Fuel Tank	131	B-131	Screw M6x45(Hex)
66	B-66	Grommet Fuel Pipe	132	B-132	Brass Sleeve

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S.NO	KK-P-NO	KK-Part Name	S.NO	KK-P-NO	KK-Part Name
23	B-23	Volute Cover	89	B-89	Shoulder Belt
24	B-24	ST Screw M5x20	90	B-90	Stopper Nut(SPL)
25	B-25	Plastic Tie In	91	B-91	Washer M8 Plain
26	B-26	Spray Pump Assem	92	B-92	Spring Stopper
27	B-27	Screw & Washer M4x10(Star)	93	B-93	Screw Stopper(SPL)
28	B-28	Damper(Body)	94	B-94	Stop Switch
29	B-29	Frame	95	B-95	Screw & Washer M5x16(Star)
30	B-30	Back Pad	96	B-96	Graduator
31	B-31	Pad Clip	97	B-97	Knob Throttle/Dust Rod
32	B-32	Gasket(Misting/Dusting Plate)	98	B-98	Throttle Cable
33	B-33	ST Screw 4.2x13	99	B-99	Nut M8
34	B-34	Pipe(Dusting)	100	B-100	Nut M5
35	B-35	Rocker Shaft(Dusting Plate)	101	B-101	Protection Pipe-170 MM
36	B-36	O-ring (Rocker Shaft(Dusting)	102	B-102	Handle /Knob
37	B-37	Dusting Plate	103	B-103	Bracket(Link Frame)
38	B-38	Misting Plate	104	B-104	Screw M6x25(Star)
39	B-39	Rubber Plug(Dusting Plate)	105	B-105	Washer M8 Plain
40	B-40	Wind Board	106	B-106	Tube LS-10x1.5x1050
41	B-41	Screw & Washer M4x12	107	B-107	Clip for Tube
42	B-42	Mesh(Dusting)	108	B-108	Throttle Rod
43	B-43	Gasket(Clamp Misting/Dusting Plate)	109	B-109	Link Frame

S.NO	KK-P-NO	KK-Part Name	S.NO	KK-P-NO	KK-Part Name
1	B-1	S.T Screw M5x16	67	B-67	Fuel Pipe Long(525 MM)
2	B-2	Guide Cover	68	B-68	Fuel Pipe Short(500 MM)
3	B-3	Damper(Engine)	69	B-69	Fuel Filter
4	B-4	Washer 6 Plain	70	B-70	Fuel Tank
5	B-5	Nut M6 Flanged	71	B-71	Screw M5x50(Star)
6	B-6	Screw & Washer M5x14(Star)	72	B-72	Washer 5 Plain
7	B-7	Bracket(Engine)	73	B-73	Spacer (fuel Tank)
8	B-8	Screw & Washer M6x30(Allen)	74	B-74	Clip Big
9	B-9	Screw & Washer M5x12(Star)	75	B-75	Flexible Hose
10	B-10	Bracket(Throttle Cable)	76	B-76	Clip Small
11	B-11	Screw M5x60(Star)	77	B-77	Cock Assy
12	B-12	Washer 5 Plain	78	B-78	Handle
13	B-13	Nut M5	79	B-79	Clip Small With Hook
14	B-14	Volute Case(Engine Side)	80	B-80	Spray Pipe Short
15	B-15	Square Nut	81	B-81	Spray Pipe Long
16	B-16	O-ring 100x3.1	82	B-82	N/A
17	B-17	Elbow	83	B-83	Nozzle
18	B-18	Impller	84	B-84	Nozzle Fan Assy
19	B-19	Washer 6 Spring	85	B-85	N/A
20	B-20	Washer 6 Plain	86	B-86	N/A
21	B-21	Screw M6x30(Hex)	87	B-87	N/A
22	B-22	Support(Single Bolt)	88	B-88	N/A

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- ◆Cultivators and Accessories◆Sprayers and Accessories◆
- ◆Transplanter and Post Hole Digger ◆Milking Machines◆

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BEFORE GETTING STARTED

Please read and follow the instructions in this manual before using the machine. The user should be familiar with the safety notices, machine performance, and maintenance, etc. The operation manual will be used later in case of any repair, accessories replacement, and accessories procurement, so preserve it carefully.

APPLICATION





Our Knapsack Mist-Dust Sprayer is a portable, flexible and efficient machinery for plant protection. It is mainly used in prevention and cure of diseases and pests in plants like cotton, rice, wheat, fruit trees, tea trees, banana trees, etc. It can also be used for chemical weeding, epidemic prevention, sanitation protection in cities, vegetable protection, etc.

MAIN FEATURES

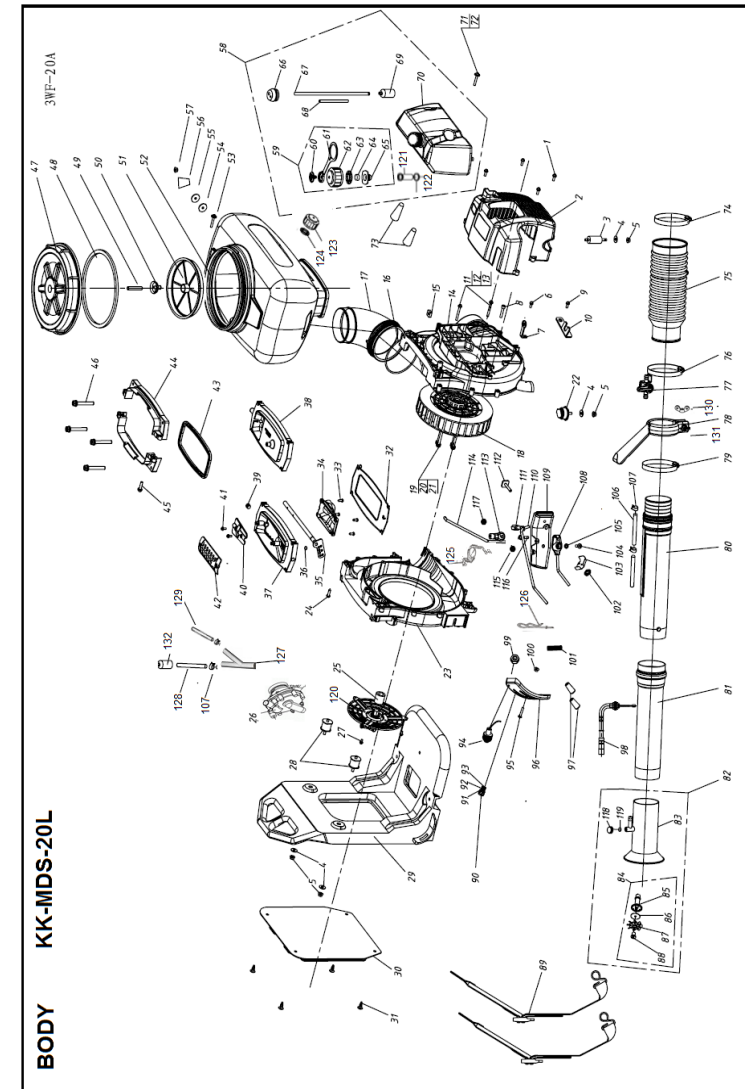
1. This machine adopts gear structure to decrease speed, so it is very durable.
2. The main part is the plunger pump in two directions- type. The structure is simple and compact, so it is easy to maintain.
3. This machine has high pressure, good flow and efficiency, so the protection effect is also very obvious.
4. The main spraying parts are three nozzles, which are developed and only adopted by our company. So the spraying range is wide.

SAFETY INSTRUCTIONS




Safety Symbols:

	This graphic accompanied by the words WARNING and DANGER calls attention to an act or a condition which can lead to SERIOUS INJURY.
	Do not lend or rent your sprayer duster without the Operation Manual. Be sure that anyone using your sprayer-duster reads and understands the information contained in this manual.
	Wear ear protection
	Wear respiratory protection

PARTS DIAGRAM & LIST- BODY

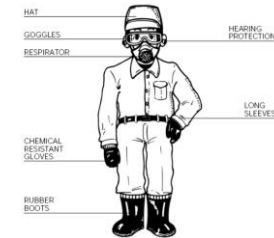


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24	E-24	Screw & Washer M6x20(Allen)	52	E-52	Starter Handle
25	E-25	Spark Plug	53	E-53	Starter Cover
26	E-26	Screw ST4.2x19	54	E-54	Gasket-Starter Handle
27	E-27	Air Cleaner outside cover	55	E-55	Primer Bulb
28	E-28	Air Filter Sponge			

	Wear safety boots
	Wear safety gloves
	Wear exposure suit

Safety Measures to be taken during Operation

- 1. Read this manual carefully.** Be sure you understand how to operate this machine properly before you use it.
- 2. Use Protective clothing**
 - Wear flanged cap.
 - Wear dirt/fog-proof glasses.
 - Wear gauze mask.
 - Wear long gloves.
 - Wear coat guarding against poisons.
 - Wear boots.
- 3. Following personnel cannot use the machine.**
 - Mentally disabled patients.
 - Drunk.
 - Under age or old person.
 - Person with no knowledge of the machine.
 - Dog-tired person or patient and others who cannot operate the machine normally.
 - Person who have just exercised strenuously or slept not enough.
 - Pregnant and breast feeding Women
- 4. Prevent fire**
 - Do not fire or smoke nearby the machine.
 - Never fuel the machine when it is hot or running.
 - Never pour fuel on the machine when it is hot or running.
 - Always tighten the fuel tank lid.
 - Always move at least 10 feet away from the fuel container before starting the machine.



Starting the engine:

- Put the dust gate handle to the lowest position before starting the engine, otherwise chemical will be jetted when starting engine.

- b. Be sure nobody stands in front of nozzle, even though dust gate closed, residual dust in pipe will be blown out.

Spray operation (Misting / Dusting):

- It is fine to carry out operation during cool weather with little wind. For example, in the early morning or in the late afternoon. This can reduce the evaporation and drift of chemicals and improve the protecting effect.
- Operator should move windward.
- If your mouth or eyes are spattered with chemicals, wash them with clean water and go to see a doctor.
- If the operator has a headache or dizziness, stop working at once and go to see a doctor in time.
- For the operator's safety, misting/dusting must be carried out strictly according to the instruction of the chemicals and agricultural requirements.
- If you want to stop the engine while dusting, the dust gate must be shut at first.

Fueling:



Your sprayer-duster uses oil –gasoline mixture.

- Do not smoke or bring any fire or flame near the fuel or the sprayer duster.
- Never refuel the machine when it is hot or running.
- Never pour fuel on the machine. If you do, be sure clean them off.

Warning:



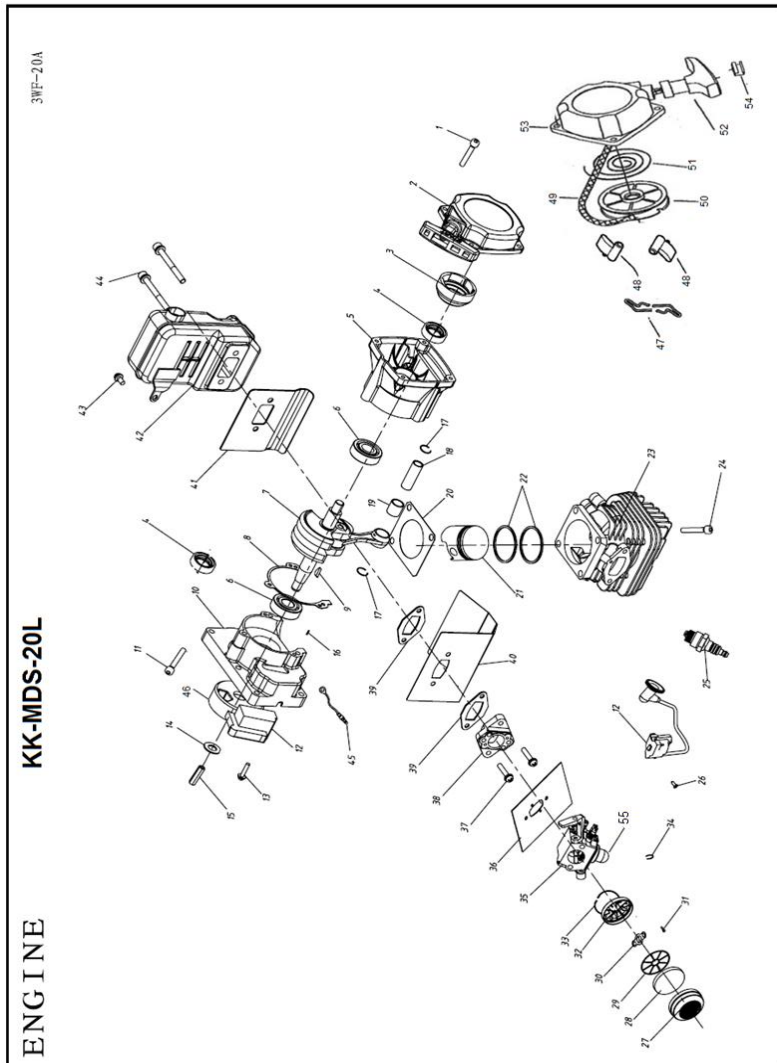
Never touch the muffler, spark plug, or other metallic parts of the engine while the engine is in operation or immediately after shutting down the engine.

These metallic parts reach high temperatures during operation and doing so could result in serious burns.

- Ensure proper ventilation** while working in trenches, hollows or other confined areas. To reduce the risk of igniting highly combustible fuel vapor and causing a fire, never smoke while working with or standing next to the mist blower. Your mist blower produces toxic exhaust fumes as soon as the engine is running. These gases may be colorless and odorless. To reduce the risk of serious of fatal injury from inhaling toxic fumes, **never run the mist blower indoors** or in poorly ventilated locations. It may cause harmful effect if the machine is started or run in a closed room.
- Always **hold your unit firmly**-make sure you always have a firm and secure footing.
- Examine the work area:**
 - Do not direct the air blast towards bystanders since the air flow can blow small objects at great speed. If you get tired while operating your mist blower, take a break in good time.
 - Take care in slippery conditions

S.NO	KK-P-NO	KK-Part Name	S.NO	KK-P-NO	KK-Part Name
1	E-1	Screw & Washer M5x20(Allen)	29	E-29	Stop Board (Air filter)
2	E-2	Starter Assy	30	E-30	Baffle
3	E-3	Start Reel	31	E-31	Screw & Washer M5x55(Allen)
4	E-4	Oil Seal 15x25x7	32	E-32	Air Cleaner Inside cover
5	E-5	Crank Case Small	33	E-33	Clip (Air Cleaner)
6	E-6	Bearing 6202	34	E-34	Stop Ring-8(Outer)
7	E-7	Crank Shaft	35	E-35	Carburator
8	E-8	Gasket-Crank Case	36	E-36	Gasket-Carburetor
9	E-9	Key CrankShaft	37	E-37	Screw & Washer M5x30(Allen)
10	E-10	Crank Case Big	38	E-38	Insulator
11	E-11	Screw M5x35(Allen)	39	E-39	Gasket-Insulator
12	E-12	Ignition Coil Set	40	E-40	Gasket Metal-Insulator
13	E-13	Screw & Washer M4x20(Allen)	41	E-41	Gasket –Muffler
14	E-14	Washer 10-Plain	42	E-42	Muffler
15	E-15	Nut M-10 (SPL)	43	E-43	Screw M6x12(Allen)
16	E-16	Pin 4H 8x10	44	E-44	Screw & Washer M6x65(Allen)
17	E-17	CirClip -Piston Pin	45	E-45	Stop Line Wire
18	E-18	Piston Pin	46	E-46	Fly Wheel
19	E-19	Needle Bearing - Piston Pin	47	E-47	Lock (Ratchet)
20	E-20	Gasket-Cylinder	48	E-48	Ratchet
21	E-21	Piston	49	E-49	Starter Rope
22	E-22	Piston Ring	50	E-50	Rope reel

PARTS DIAGRAM & LIST- ENGINE

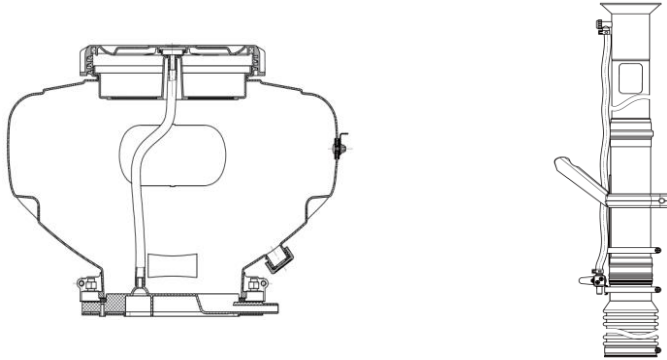


- On ice, in wet or snow
 - On slopes or uneven ground
4. **Watch out for obstacles:**
Roots, ditches, holes or rubbish which could cause you to trip or stumble.
 5. Do not point the blow pipe at people or animals.
 6. Start unit on the ground with throttle at idle.
 7. Check whether the blower pipe is not blocked by the ground or by any objects.
 8. The engine exhaust contains chemicals to cause cancer, birth defects, or other reproductive harm.
 9. Please use a low-poisonous liquid or powder, In the process of adding or emptying the liquid and powder, as it may cause environmental pollution and may harm human and animals when touched or inhaled.
 10. Operator must be trained properly before operating the machine.
 11. All values must be inserted in the equation in the units specified. Note that hectares have to be multiplied by 10,000 to obtain square meters. Assuming a working width of 3m and a walking speed of 60 m/min (1 m/s), the calculation of the above example would be as follows.
 12. The gasoline engine must use mixed fuel with volume rate of 30:1 for gasoline to two-stroke engine oil.
 13. In order to avoid any damage caused by violent movement of the engine to some parts or body, high-speed rotation without load must be prohibited. Allow the engine to run at low speed **for 3 to 5 minutes** immediately after start and before stopping. It is **strictly prohibited to stop the engine suddenly at high speed.**
 14. While adding fuel, the engine should be stopped, fire sources must be kept far away and smoking is prohibited.
 15. In order to avoid injury, do not touch the cap of spark plug and the conducting wire during the rotation of the engine.
 16. The surface of the muffler and the cylinder is very hot, make sure that neither your hands nor the body comes in contact with them. Especially children should be far away from the engine.
 17. **Transportation:**
 - The engine should be turned off when the unit is moved between work areas.
 - After the engine has stopped, the muffler is still hot, so never touch them. Ensure that there is no fuel leakage from the tank.
 - Take necessary safety measures so as to prevent any loss of fuel or damage to the mist-blower during transport.

ASSEMBLY INSTRUCTIONS

1. Assembly for Spraying:

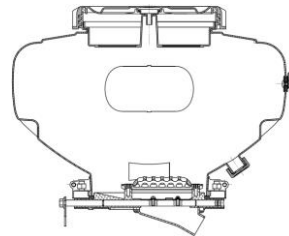
Remove the tow wing nuts fixed on the chemical tank and take down the tank and assemble as shown in the figure below.



2. Assembly for Dusting:

Remove the chemical tank, take down the inlet rubber tube, outlet rubber tube, suction strainer, spraying lid plate, pressing lid and union, replace it with lower lid of chemical tank, then connect the dusting pipe as shown in the figure. Remove the four nuts fixed on the chemical tank and take down the tank. Change dusting lid plate for spraying lid plate, connect the guide pipe to the machine, and then assemble the chemical tank.

1. Remove the chemical tank, take down the inlet rubber tube, outlet rubber tube, suction strainer, spraying lid plate, pressing lid and union, replace it with lower lid of chemical tank, then connect the dusting pipe as shown in the figure



MAINTENANCE AND STORAGE

Spraying Units

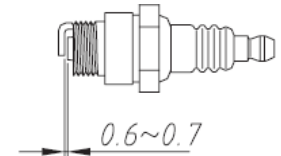
1. Clean out any residual spray mixture or dust in the chemical tank and all other parts after operation with clean water and dry it.
2. Clean the dust gate and chemical tank inside and outside properly after dusting.
3. Loosen the chemical tank lid while the machine free.
4. Let the machine run at a low speed 2-3 minutes after cleaning.

Fuel System Maintenance:

1. Water or dirt in the fuel is one of the main causes for the engine trouble, clean the fuel system regularly.
2. Residual fuel remaining in the fuel tank and carburetor for long time will gum and clog the fuel system, causing the engine to not work properly. So all of the fuel should be drained if the machine isn't used for more than a week.

Air Filter and Plug:

1. Clean the air filter after every day operation. Dirt adhering to sponge reduces the engine power.
2. Dry filter before reinstalling.
3. Clean stains or carbon off the spark plug and adjust spark gap to 0.6~0.7mm.



Note:

- The work including maintenance, cleaning and adjusting must be done only after stopping the machine.
- Perform periodic checks of the parts (bolts, nuts etc.). Replace the worn-out parts without any delay.
- The improper maintenance, the use of non-conforming components and removal of safety devices may lead to any damage or injury.

Storage for a Long Time:

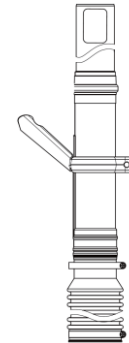
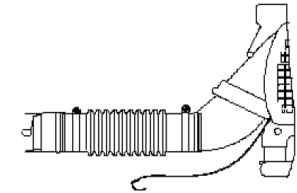
1. Clean the machine and apply antirust oil to all the metal parts.
2. Remove the spark plug and pour 15~20g of 2-stroke engine oil into the cylinder through the spark plug pole. Pull the starter handle 4~5 times to distribute the oil inside the engine. Pull the handle slowly until the piston reaches the top of its travel and leave it there, then install the spark plug.
3. Remove the chemical tank, clean the dust gate and inner and outer sides of the chemical tank, then install the tank and leave the lid loose.
4. Remove spray units and clean and store them.
5. Drain the fuel in the tank and carburetor completely.
6. Cover the machine with plastic dustcoat and store it in a dry and clean place

6. Spraying:

TROUBLE	CAUSE	REMEDY
No spray mixture or intermittent spraying	Nozzle switch or control valve got clogged	Clean the nozzle switch / control valve.
	Liquid lead pipe got clogged.	Clean pipe.
	No pressure or low pressure	Tighten the tank lid and tighten the two wing nuts.
Spray mixture leakage	The spraying lid plate is not fitted correctly	Fit the spraying lid plate correctly
	All threaded joints got loosened	Tighten the joints

2. Remove the four nuts fixed on the chemical tank and take down the tank.
Change dusting lid plate for spraying lid plate, connect the guide pipe to the machine, and then assemble the chemical tank.

3. Dusting or spreading granular chemicals may cause reactions, that is related to the factors, such as the kind of chemicals, air temperature, and air wet etc. In order to avoid this, use the attachment-**insurance chain**. Use screw to fix the bend pipe. One end of insurance chain should be inserted into jet pipe, vibrated freely and should touch the ground.



ROTATION

1. Check:

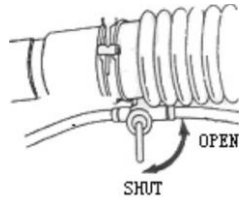
- a. Check whether the spark plug and all the connections are intact. Ensure there is no leakage from the fuel tank.
- b. Check if the cooling air channel is clogged. If clogged, the engine will be over heated.
- c. Check whether the air filter is dirty. If so, the dirt will reduce the amount of air drawn in. So the engine doesn't run well and consume more fuel.
- d. Ensure the gap of the sparking plug is 0.6~0.7mm.
- e. Pull the starter 2 or 3 times, check if it rotates normally.

2. Fueling:

- a. The fuel for this machine is a mixture of gasoline and 2-stroke oil. The ratio between them should be 30:1. Incorrect gasoline, oil mixture may damage the engine.
- b. Never fuel the engine when it is hot or running.
- c. While fueling, never take away the strainer.

3. Adding Chemical:

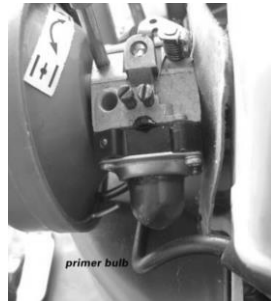
- a. During spraying operation, while adding chemical, the switch must be shut as shown in the figure.
- b. During dusting operation, dusting valve throttle and fuel lever should be on the bottom position, other-wise, the machine will have output chemical.
- c. As powder chemical can easily become block, so the chemicals should not be in the chemical tank for a long time.
- d. While spraying, the chemical tank lid should be turned on tightly. After adding powder chemical, please clean the screw of the chemical tank mouth and then turn on the lid tightly.



4. Cold Start:

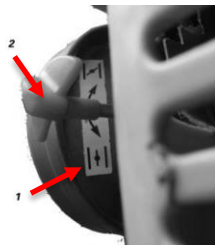
Please operate according to the following instructions:

- a. Fill the fuel tank with the amount of Fuel/oil mixture needed for the job.
- b. Put the fuel lever on the starting position.
- c. Press and release the primer bulb 3-5 times until it is full of fuel.as shown in the figure
- d. Pull the starter for a few times and have it returned slowly. Do not leave the handle to return freely to avoid the damage of the starter.
- e. Circum gyrate the choke handle so that the choke is closed and pull starter handle until the engine fires.
- f. After starting the engine, open the choke completely.
- g. Let the engine run at low speeds for 2-3 minutes, then start the spraying or dusting operation.



5. Starting the Warm Engine:

- a. Leave the choke fully open.
- b. If the engine draws in too much fuel, leave the fuel switch fully close, pull the starter 5-6 times. Then start the engine as above



- 1. Air Filter
- 2. Choke handle

	Water in the fuel	Drain the fuel and fill with fresh fuel
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4. Engine Hard To Stop:

TROUBLE	CAUSE	REMEDY
The engine runs even after keeping the throttle handle at the lowest position.	The throttle cord not adjusted or piston of carburetor is jammed.	Adjust the cord, Clean/ replace the carburetor.

5. Dusting:

TROUBLE	CAUSE	REMEDY
No dust output or irregular output	The dust gate cannot be opened.	Adjust the pull rod of the dust gate
	The tank lid not tightened	Tighten the tank lid
	The dust or granule got mixed with foreign body.	Clean it
	Formation of lumps in the dust or granule.	Break the lumps
	Wet dust or granule	Dry them up.
The dust gate is not working properly	The granules are too big	Change the granules
	The dust gate can't closed	Clean the dust gate
Leakage of dust	The dust gate got clogged by foreign matter	Clean the dust gate
	The clamp plate of the chemical tank bottom is loosened	Tighten he clamp plate
	The sealing gasket of the dusting lid got damaged	Replace the gasket with a new one
The discharge rate is out of control	The O-sealing ring of the elbow got damaged	Replace the O-ring with a new one
	The control device of dust gate is not work properly	Replace the necessary parts.

2. Engine Lacks Power:

TROUBLE	CAUSE	REMEDY
The compression is good but engine is not able to take load.	The filter plate got clogged	Clean the filter plate
	Air leakage through the connection of carburetor	Stop the leakage by tightening the bolts and nuts
	Engine gets overheated	Stop the engine and allow it to cool.
	Water in the fuel	Drain the fuel and Refill with fresh fuel
	The carbon clogs the muffler	Clean the carbon deposits
Engine overheats	Air mixing ratio high & fuel ratio less	Adjust the carburetor.
	Cylinder covered with fumes & carbon	Clean the Cylinder
	Improper oil and quantity used	Use 2-T engine oil and correct quantity
	Usage for a long time	As an air cooled engine, use the machine only till the fuel tank is empty, afterwards allow it to cool.
Engine is noisy or is knocking	Fuel is bad	Replace the fuel.
	Carbon in cylinder	Clean the carbon
	The moving parts got worn out.	Check and replace the necessary parts

3. Engine Stops While Running:

TROUBLE	CAUSE	REMEDY
Engine stops suddenly	The lead wire of plug loose	Tighten / Replace the wire
	Piston damaged	Repair/replace the piston
	Plug covered with carbon	Clean the plug
	Less Fuel in the tank	Fill the fuel tank
The engine stops gradually	Carburetor got clogged	Clean the carburetor
	The air hole in the tank got clogged	Clean the air hole

6. Stopping the Engine:

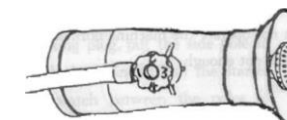
- a. During misting operation turn off the chemical switch first, then press the stopping Switch to stop the machine as shown in the figure.
 - b. During dusting operation, put the dusting lever at the close position, then press the stopping switch stop the machine.
- Note:** While the engine is running, the hose must be mounted to the machine, otherwise, cooling air will be reduced and the engine may be damaged.



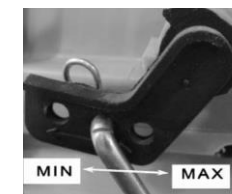
MISTING / DUSTING

Opening	Discharging(l/min)
1	1
2	1.5
3	2
4	3

Misting. Loosen the pressing lid, regulate the length of the nozzle opening to meet the different requirements of misting. Turn the regulating valve to change the amount of misting as shown in the figure



Dusting: Regulate the discharge by shifting the dust rod's position in the three holes of the rock-arm. as shown in the figure



TECHNICAL SPECIFICATIONS

Name		Specification
Engine	Diameter of cylinder	54mm
	Type	Forced air cooled, 2 stroke ,single cylinder
	Displacement	82.4cc
	Max. Output(kw/r/min)	4kw/7000r/min
	Operating Noise Level(7m) dB (A)	101db(A)
	Fuel Tank Capacity(L)	2.0L
	Oil Capacity	Gasoline and oil mixing ratio 30:1
	Ignition System	TCI
Starting System	Recoil and hand -operated	
Shaft	Container capacity(L)	20
	Spray range (Maximum)	Vert.: 18.00 m
		Horz.: 20.00m
	Horizontal spray volume	≥5.35 kg/min
Horizontal powder volume	≥3.5 kg/min	
Package Dimensions	Dimension(mm)	600*400*750(mm)
	Gross Weight(Kg)	8.3KG
	Net Weight(kg)	10.3KG
	20FT(unit)	150set/20' , 370sets/40Hc'.

TROUBLESHOOTING

1. Engine Cannot Start Or Starts With Difficulty:

Check if the spark plug is ignited. Screw down the sparking plug, put the side pole to touch the cylinder. Pull the starter and watch for sparks between the poles of sparking plug. Pull the starter carefully, do not touch the metal part of sparking plug so as to prevent any injury as shown in the figure



TROUBLE		CAUSE	REMEDY
No spark	Spark plug	Electrodes are wet	Dry them up
		Spark plug is covered with carbon	Clean the carbon deposit
		Damaged insulation of the spark plug.	Replace the spark plug
		Spark gap is incorrect	Adjust it to 0.6~0.7mm
	Ignition coil	The electrodes are burnt	Replace the spark plug
		The wrap of the wire damaged.	Repair or replace the wire
Normal	Fueling well and compression ratio is good	Too much fuel in cylinder	Drain the excess fuel
		Water or dirt in fuel	Change the fuel
	Fueling well but compression ratio is bad.	Wore and tore of Cylinder and piston ring.	Replace the cylinder/piston ring whichever is necessary
		Carburetor is not fueling	No fuel in the tank
	Filter gauze is clogged		Clean the filter
	The air hole of the tank is clogged		Clean the air hole