



Electric Tracked Dumper Operator's Manual MD450E

**FOR YOUR SAFETY
READ AND UNDERSTAND THE ENTIRE MANUAL
BEFORE OPERATING THIS MACHINE**

Warranty Registration Form

Model:	
Serial Number:	
Type of Use:	Business / Domestic
Name:	
Business Name:	
Address:	
Email Address:	
Phone Number:	
Date of Purchase:	
Place of Purchase:	
Proof of Purchase enclosed:	

For the warranty to be valid the Warranty Registration Form must be completed and returned to Lumag Distribution Limited within 14 days of the purchase, together with a copy of the purchase invoice.

We will use your email to confirm that we have received the completed Warranty Registration Form and contact you about any errors or omissions on the form. We may occasionally use this email address to make you aware of news, technical advice and special offers. If you do not wish to receive such emails please tick this ☐ box.



Lumag Servicing and Maintenance Schedules

To maximise the life of your Lumag machine it needs to be serviced and maintained at every indicated month or operating hour interval, whichever comes first, in accordance with the below Schedules. Please note that failure to service your machine on schedule or use genuine Lumag parts and consumables will result in your warranty being void.

Engine Service & Maintenance Schedule

Gearbox Oil	25litres	Lumag Hyd 1
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Machine Service & Maintenance Schedule

Item	Checks/Work	Each Use	Weekly	20hrs (1st Month)	50hrs (2nd Month)	100hrs (6th Month)	300hrs (Yearly)
Gearbox Oil	Check Level	X					
	Change				X (1) (2)		X (2)
Fasteners Tension	Check	X					
Clean Machine	Clean	X					
All Other Moving Parts & Cables	Lubricate			X			X (2)

1 – First service only, 2 = Should be carried out by your Lumag Dealer, 3 = May need to be done more often in dusty areas &
4 = Replace paper element only

Service & Maintenance Record

Product Details:	Model: _____ Serial number: _____ Purchase Date: _____							
Date:	Description of checks/work carried out:	Parts Used? Y/N	Parts Invoice Number:	Dealers Name:	Engineers Name:	Engineers Signature:		

Please note that failure to service your machine on schedule or use genuine Lumag parts and consumables will result in your warranty being void

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About operator manual

Thank you for buying our product.

In order to keep you safe when you using our product, please read the operator manual carefully before using.



- ▲ This product has potential danger, following the operator manual for right operation. maintenance and check.
- ▲ This product is used for goods transportation, other usage are not allowed.
- ▲ This product is forbidden to use on road. Any traffic accident caused by using on road, the manufacturer shall not bear the responsibility.
- ▲ Do not change any parts of this machine and keep the cover on.
- ▲ Any violation of above terms which cause the human injured and machine damaged, the manufacture shall not bear the responsibility and stop the warranty.

Safety information

We provide the important information on manual and machine, and read the manual carefully before using.

The safety information may warn you the potential danger. Every single phase  will match with: ANGER, WARNING, ATTENTION.



DANGER: will cause human injured or death if not following manual



WARNING: will cause machine damaged or human injured if not following manual



ATTENTION: will cause machine damaged and human injured if not following manual.

Safety protection



Following the manual to operate machine, then it will run as the design safety and reliable. Read the manual carefully to avoid human injure and damaged.

Safety items

- All parts should be ready before start machine.
- Check all wiring for short circuits.
- Lub oil shall be stick to its model!
- Turn the switch to minimum position before start running, when holding the clutch, turn the switch slowly to ideal position.

- Do not let people stand around when machine running !
- Release the clutch first before shifting. After the motor fully stopped, the shift can be started
- ◇ The photo maybe different with the real thing considering the machine is keep improving

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One. Safety warning

◆1. Train

- 1) Read the manual carefully before using, know how to start and stop machine.
- 2) Children are not allowed to use this machine.
- 3) Keep the working area empty.

◆2. Preparation

- 1) Checking the working area, and moving all the obstacle.
- 2) Checking the wiring and circuits.
- 3) Release the clutch and keep the speed switch to the minimum position.
- 4) Wearing suitable cloth.
- 5) Do not change any parts of machine.
- 6) Do not drink before use.

◆3. Operation

- 1) Do not put hand or foot under track。
- 2) Adjust the speed switch slowly when machine started running
- 3) Passenger are not allowed。
- 4) Check the machine when hitting the obstacle。
- 5) Avoid falling and slipping。
- 6) Pay attention to the strange vibration when machine running. Once it happened, the machine should be stopped immediately.
- 7) Release the clutch before shifting
- 8) Release the clutch, adjust the speed switch to minimum position, shut down the motor, and take off the key from machine。
- 9) When cleaning, repairing or examine the machine, confirm the machine are fully stopped and the power was cut.
- 10) Do not use water to clean the inner parts of machine.
- 11) Keep away from children and pets.
- 12) Do not over load the machine.
- 13) Keep the low speed when running on a slope ground.
- 14) Do not run the machine on a slipping ground, when reverse the machine, watch out the around.
- 15) Do not cross nor turning on the slope ground.
- 16) Do not stop, accelerate, turning, or start the machine urgently.
- 17) Keep away from people.
- 18) Following the instructor when running in a bad road or watching conditions

- 19) Put the goods average in the cargo and fastened by rope, make sure the goods height will not block the operator's sight
- 20) The loading weight should be under 220KG when ground inclination is less than 15° , The loading should be empty when ground inclination is more than 20° . Do not turn or shifting when machine running on a slope ground.
- 21) Do not lifting the cargo when machine on a slope ground.
- 22) Do not stop the machine on a slope ground.

◆ 4.Storage and maintenance

- 1) Make sure the machine, attachment and device in a safety situation.
- 2) Check the bolt for torque every once a while.
- 3) The machine should be storage indoor, and get away of fire.
- 4) If the machine will be stored for long time, keep the manual properly
- 5) Do not assemble the machine casually unless operator has proper tools.

◆ 5.Safety warning sign



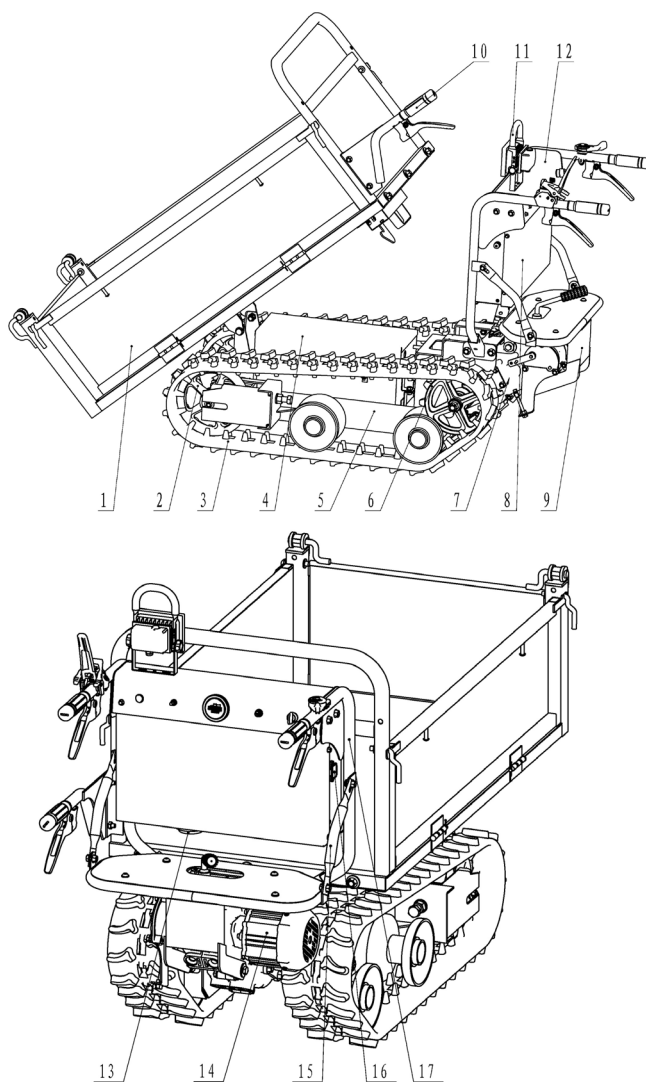
◆ 6.Safety warning decal location indication

2. Main parameter and structure drawing

◆ 1. Main parameter:

	ITEM			Model
1	Machine model		/	
2	Controller		/	KD26-001
3	Motor	Model	/	Brushless DC motor
		Rated power	kW	0.8
		Max power	kW	2.4
		Voltage	V	60
		Rated RPM	r/min	3200
4	Machine dimensions		mm	1745*770*930
5	Packaging dimensions		mm	1110*630*490
6	Machine weight		KG	220
7	Transmission type		/	Motor-transmission case-track
8	Rated loading weight		KG	220
9	Max loading weight		KG	450
10	Track	Model	mm	
		Central distance	mm	410
		Length	mm	640
11	Distance to ground		Mm	130
12	Maximum working slope		Degree	20
13	Shifting	Transmission box	/	High&Low speed
		motor	/	Forward&reverse
14	Brake		/	Arrester
15	Battery		/	Lead-acid cell
16	Battery capacity		Ah	20
17	Charging type		/	External charging port (220V/500W)

◆ 2. Structure drawing:



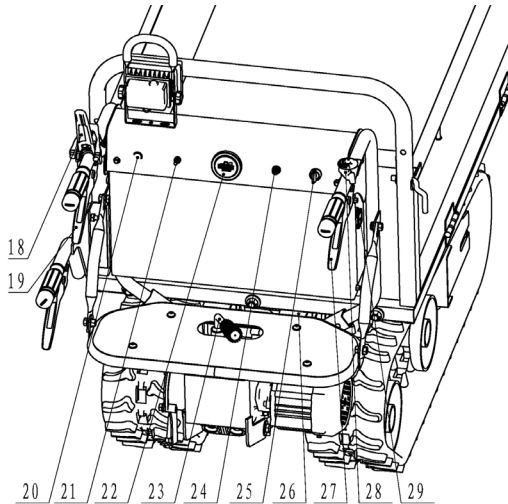
- (1) Cargo comp
- (2) Tension pulley
- (3) Track
- (4) Battery
- (5) Chassis comp

- (10) Cargo handle
- (11) Light
- (12) Panel
- (13) Horn
- (14) Motor

- (6) Driving wheel
- (7) Transmission box
- (8) Electric device
- (9) Bumper

- (15) Studdle
- (16) Charging port
- (17) Handle comp

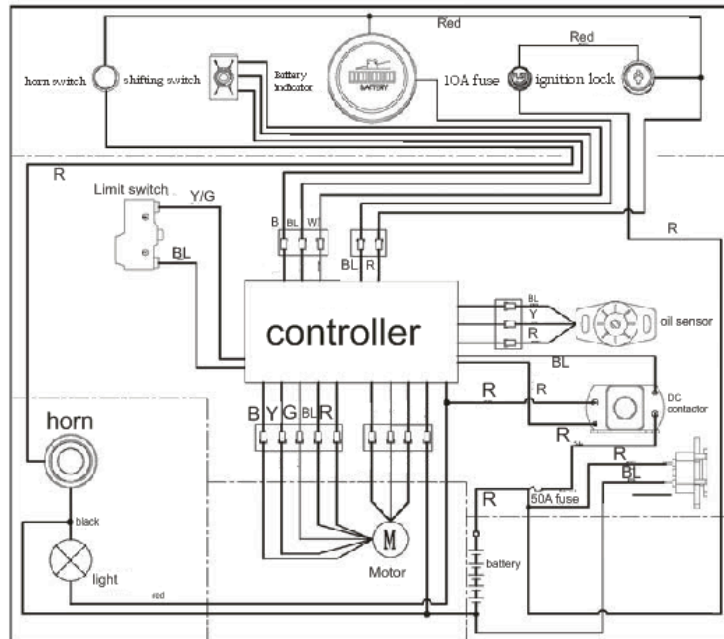
◆ 3. Controlling parts drawing



- (18) Clutch handle
- (19) Left turning handle
- (20) Horn switch
- (21) Shifting switch
- (22) LED battery indicator
- (23) speed shifting rod

- (24) 10Ah fuse
- (25) electric lock
- (26) Plug
- (27) Right turning handle
- (28) Speed switch
- (29) charging port

◆ 4. circuit diagram



WIRE COLOR

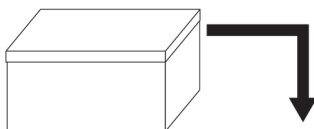
BL= Black R= Red
 B= Blue W= White
 Y= Yellow G= Green

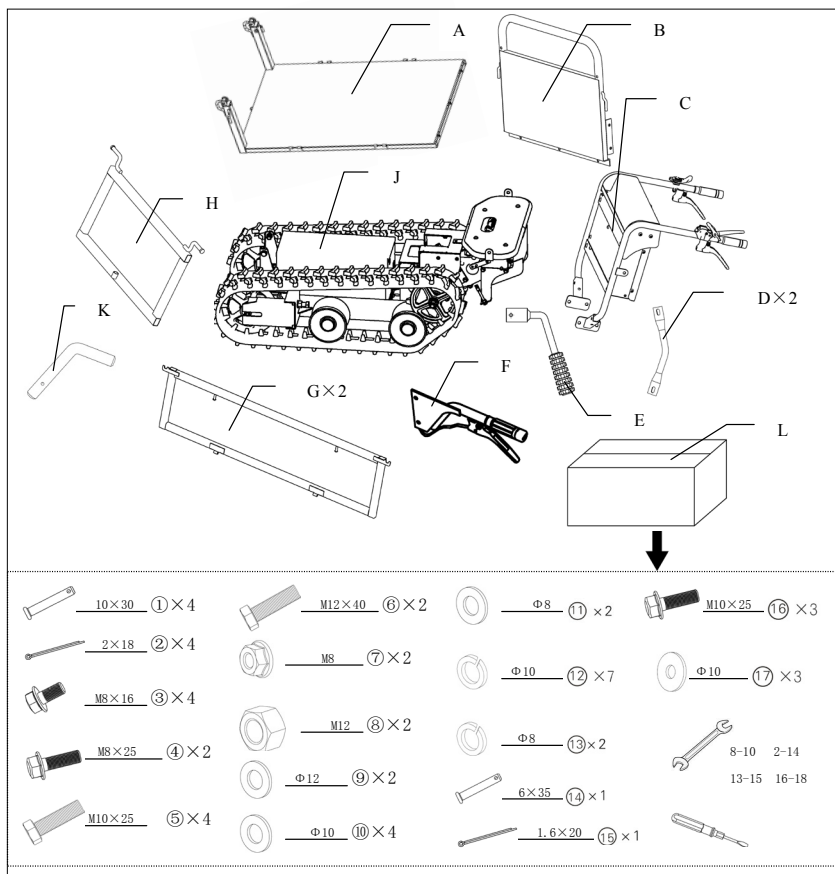
One. Range of application

This machine is suit for mountain, and hilly land, for short distance transportation

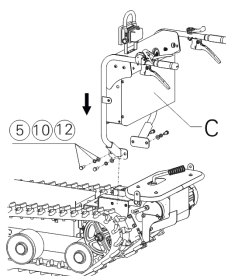
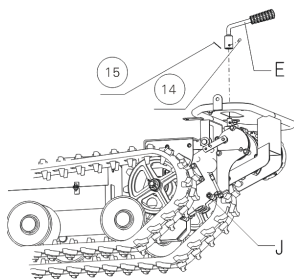
1. Assembling instruction

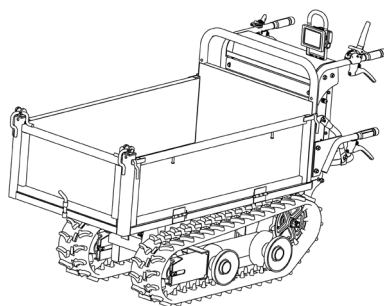
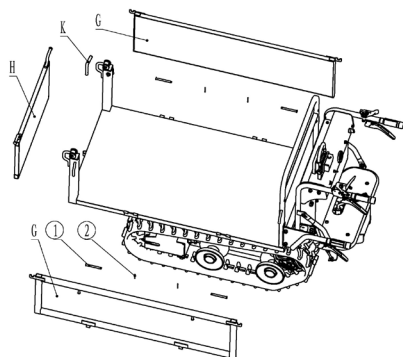
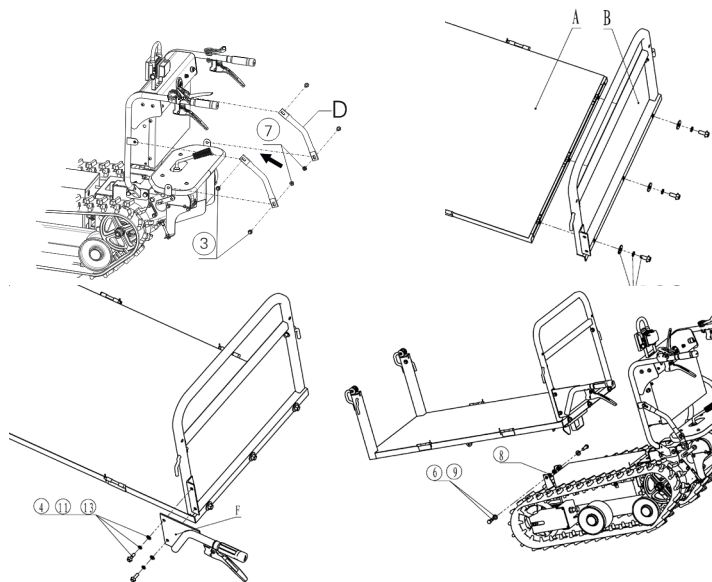
◆ 1.1 out of box:





2. Assembling:





Operating instruction

◆ 1. Checking and fueling

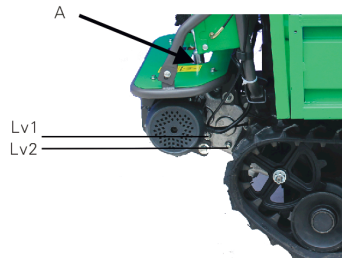
◇ 1.1 Checking the bolt if loosen or not, also the electric device and wire needs to be checked before using.

◇ 1.2 Checking the brake system, like turning handle, clutch handle, and speed switch.

◇ 1.3 Checking the speed shifting rod, and keep it at low speed level.

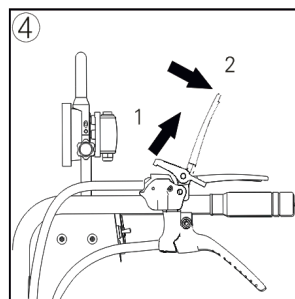
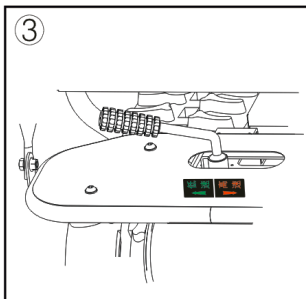
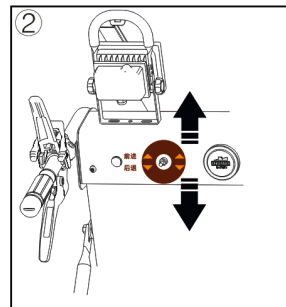
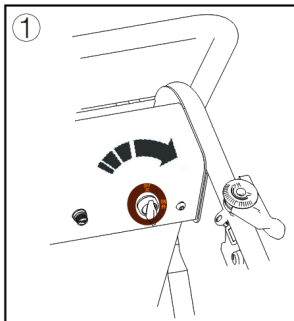
◇ 1.4 Inject the GL-4 lub oil via hole A for 2L, make sure the oil level is betweenLv1 and Lv2 .

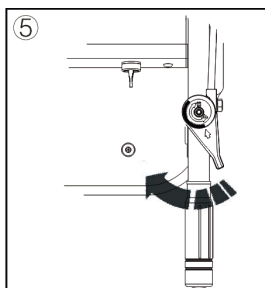
。



ATTENTION: Checking the oil level by unscrewing the drain bolt

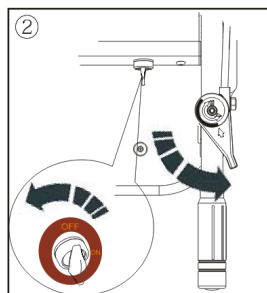
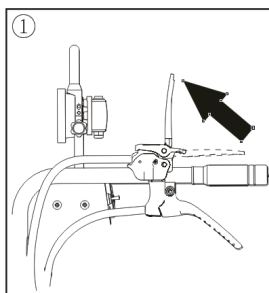
◆ 2. Starting



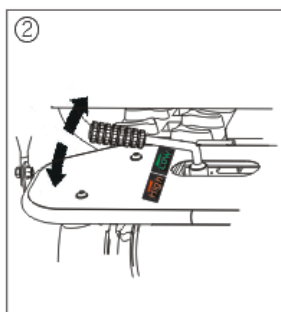
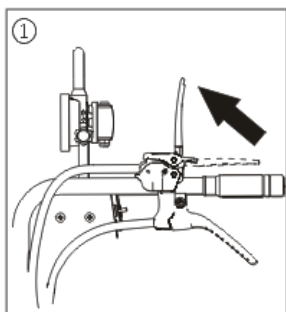


⚠ATTENTION: Please make sure the around is clear when starting the machine, high speed for reversing is absolutely not allowed

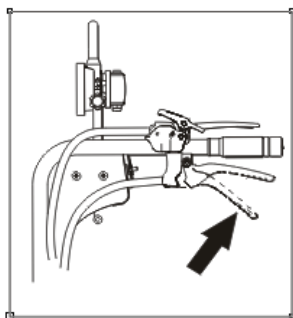
◆ 3. Operating
STOP MACHINE



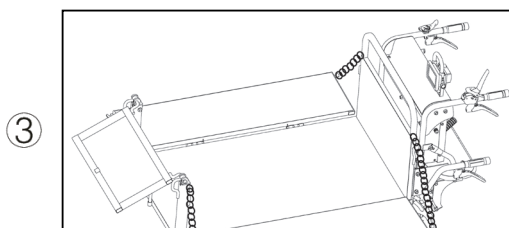
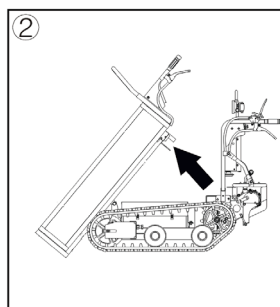
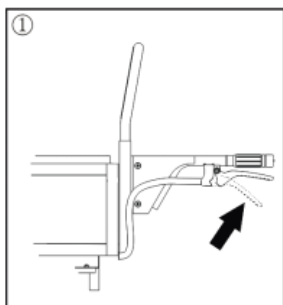
GEAR SHIFTING



⚠ATTENTION: The shifting is not allowed when the machine is running,
TURNING



CN type cargo



Usage and maintenance of battery

◆1.Charging

- ◇1.1 Please charge the battery before the first time using.
- ◇1.2 Use the original charger to charge the batter to avoid broken or cause any fire.
- ◇1.3 The clients were suggested to use and charge the batter for each time, better full charge before every time using. And that would be better to battery.
- ◇1.4 Close the electric lock door when charging, the charger's plug should be insert 220V AC socket.
- ◇1.5 When the LED battery indicator shows red, means the charging is undergoing, while indicator turns green, it means fully charged.



ATTENTION:

- a.After finishing charging, take off the 220V AC input plug, then take off the output plug, and the hands should be kept dry.
- b.Do not cover anything on the charger when machine is under charging. Do not disassemble any part of the the charger and battery box.
- c.When the machine is under charging, please keep the children away from it.
- d.When the machine is under charging, if there is any abnormal situation like over heat or smell, stop the charging immediately.
- e.Please keep the charge far away from any heat or explosive.

◆2. Usage of battery

- ◇2.1 It would be better for the battery that keep the battery fully charged after every time using.
 - ◇2.2 Avoid deep discharge, the charger do not have the voltage protection, and when the battery in a low level, it means the battery is close to empty, and while in this situation, the frequently repeat start is not allowed.
 - ◇2.3 When the battery is not capable for using, client should come to the distributor or manufacturer to get a new battery. Users must not be disposed of without authorization and used batteries, avoid to cause secondary pollution.
 - ◇2.4 While changing the battery, the whole battery group needs to be changed together, the single cell battery is not allowed to changed.
 - ◇2.5 Do not mix the charged and un-charged battery together, otherwise will weaken the performance of battery.
 - ◇2.6 Do not use the battery for other purpose.
- ## ◆3. Storage of battery

- ◇3.1 The battery needs to be fully charged if the machine is going to be storage for a long time。
- ◇3.2 The main plug needs to be take off.
- ◇3.3 The battery need to be charged once a month when storage, It is strictly prohibited to lose electricity when storage battery

Maintenance

◆ 1.Regular check

		Item	Period		
			Before using	Monthly	Yearly
Walking device	Track	Any visual defect	☐	☐	☐
		Losseness is suitable	☐	☐	☐
		Any bolt is out of shaped	☐	☐	☐
	Transmission box	Any gear dropping, strange noise, heat	☐	☐	☐
		Any oil leak	☐	☐	☐
	Electric device	Any strange noise or heat from motor	☐	☐	☐
		Any wire broken	☐	☐	☐
	Brake	Any brake broken	☐	☐	☐
		Can the machine be stopped on 25° slope	☐	☐	☐
	Turning clutch	No strange noise while running	☐	☐	☐
		Shifting rod is smoothly moved	☐	☐	☐
		Any wire is unfasten or broken	☐	☐	☐
Chassis, cargo, lable	Driving wheel and tensioning wheel	Any visual defect	☐	☐	☐
		Any bolt is broken or loosen	☐	☐	☐
		Shaft is not out of shaped	☐	☐	☐
		Any oil leak on shaft	☐	☐	☐
	Chassis	Any crack or out of shaped	☐	☐	☐
		Any bolt loosen or broken	☐	☐	☐
	Cargo	Cargo dumping smoothly	☐	☐	☐
		The door of cargo can be open and closed	☐	☐	☐
		Any crack or out of shaped	☐	☐	☐
		Any bolt loosen or broken	☐	☐	☐
	Lable	Any decal missing or damaged	☐	☐	☐

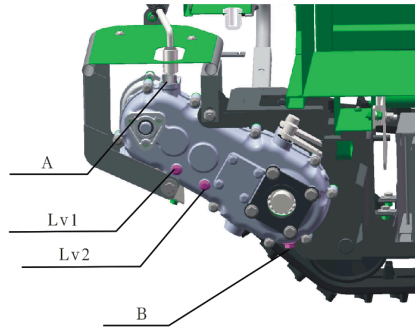
WARNING:

- ◆ Stop the machine and taking out off key before any maintenance
- ◆ The transmission box and electric device should be repaired by authorized dealer unless the user have proper tool, information and ability

WARNING:

Always using the original spare parts from the manufacturer

◆ 2. Replace the lubricant



Replacing the lub while the transmission box is still have some heat, so that the old lub will be released smoothly.

- 1.Loosen the plug A and drain bolt B, and release the lub.
- 2.Put the drain bolt B, and tighten it.
- 3.Inject the recommend lub, loosen the drain bolt and check the oil level, make sure it' s between Lv1 and Lv2.
- 4.Put the plug A(the capacity is 2L)

Trouble shooting

Problem	Cause	Trouble shooting
Can not walk	Battery is low	Charging
	Motor is broken	Change the motor
	Fuse is broken	Changing the fuse
	DV contactor is broken	Changing the DV contactor
	The shifting rod is not in its position	Move the shifting rod
	The brake is locking	Adjust the brake
	The limit switch is not on	Adjust the clutch cable
	The oil sensor is not back to position	Adjust the throttle cable
Brake	Clutch cable is not well adjusted	Adjust the clutch cable
	Water get in	Try brake repeatedly and make it dry
	Overloading	Reduce the loading
Track	Track broken	Change the belt
	Track tension is not enough	Adjust the tensioning, wheel
Turning	Turning handle is broken	Change the turning handle
	Turning cable is broken	Change the turning cable
	Turning arm disconnect with the cable	Connect with the cable
	Walking speed is high	Lowling down the speed

NINE. Transfer and storage

◆ 1. Transfer

- 1.1 Put the machine on flat ground road and fasten the driving wheel. .
- 1.2 Driving the track slowly.
- 1.3 Stop the machine according to the instruction, and use the rope to fasten machine

◆ 2. Storage

- 2.1 After finish working, the machine should be storage in a good condition. To avoid rusting aging.
- 2.2 Release the lub oil in the gearbox.
- 2.3 Disassemble the wire, and warp it with tape.
- 2.4 Use the gasoline to smear the contact point of electric device
- 2.5 Use the waterproof fabric to warp the machine

 **ATTENTION:**

Put the machine on flat ground road and fasten the driving wheel.To avoid rusting
Before seal the machine for storage, the machine has to be cleaned, and fasten all the part.
And do the regular check according to the operator manual.

 WARNING:

When cleaning the machine, do not use the water to flush the panel and electric device to avoid circuit

TEN. Wearing parts

Item	Part's Number	Description
1	GB/T3452.1-2005	O ring 65X2.65
2	GB/T3452.1-2005	O ring 10.6X1.8
3	GB/T9877-2008	Oil seal FB15×26×7
4	GB/T9877-2008	Oil seal FB25×47×7
5	GB/T9877-2008	Oil sealFB30×52×7
6	JB/T982-77	Gasket 10
7	JB/T982-77	Gasket 8
8	11.159.030.0001	Brake board (TB50)
9	11.120.074.2000	Oil seal 30×55×18
10	11.120.025.5000	Oil sealFB17×33×7
11	11.108.999.5000	Washer
12	11.101.005.0050	Clutch handle
13	11.101.005.0101	Turning clutch handle
14	11.159.088.0110	Horn
15	11.159.087.1010	Light
16	11.159.089.0310	Board
17	11.159.087.0610	Bumper



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