



MD-400 MINI DUMPER

Owner's Manual

Instructions for Safety, Operation and Maintenance



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I. ABOUT YOUR DUMPER

1. Owner/Operator/Renter Training

Read and follow all instructions and safety precautions presented throughout this manual. A summary of important safety information can be found at the end of the manual. Keep this manual for reference and review. *If the owner of this unit is different than the operator, give a copy of this manual to any operator to read.*

2. Rental Companies

All persons to whom you rent/loan this dumper must have access to this manual and read it. Check the tube on the side of the unit to make sure a manual is inside. Advise all persons who will operate the machine to read it. You should also provide personal instruction on how to safely operate the dumper and remain available to answer any questions a renter/borrower might have. If videos are available, have renter watch training video.

3. Engine Instructions

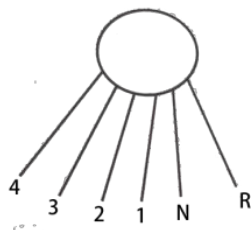
For detailed engine operation and maintenance information, always refer to the engine Owner's Manual furnished with the dumper.

4. Product Introduction

This machine is a kind of small dump-truck, change traditional mode of human pushing walking and adopt unique four-wheel-drive form by power. All these advance its working ability in the field.

Its body adopts sheet metal structure, not only reduce gross weight, but also increase its loading capacity.

There are four forward gears and 1 reverse gear. The operator has more choices under different work environment.



It uses reverse control to brake, which is easy to operate. It also use an emergency button on the engine, so that the power can be cut off at any moment. The protection for tire is reasonable, not only safe, but also beautiful. According to different configuration, the machine can be used in loading sand, soil, stone, mud, wood, fodder and brick, etc., it is prohibited to load hot materials such as hot steel plates, hot asphaltum etc.

5. Warranty Registration

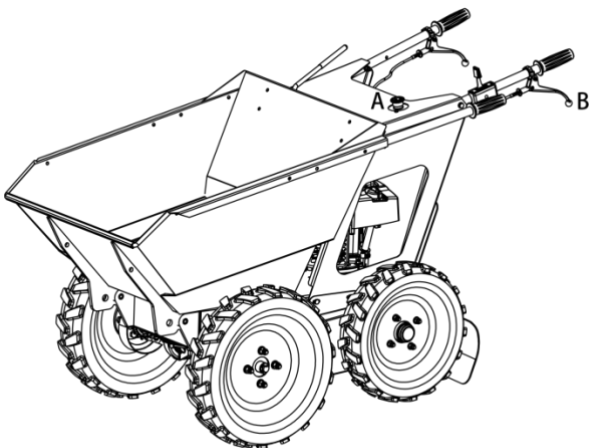
Please fill out and submit the warranty registration card so that we have your contact information for any future product literature or replacement parts you may need.

There may be technical or typesetting errors, so our company will update the manual regularly, and put revised content in new version. Our company have the right of improving & updating product at any time. It is (these are) subject to change without notice.

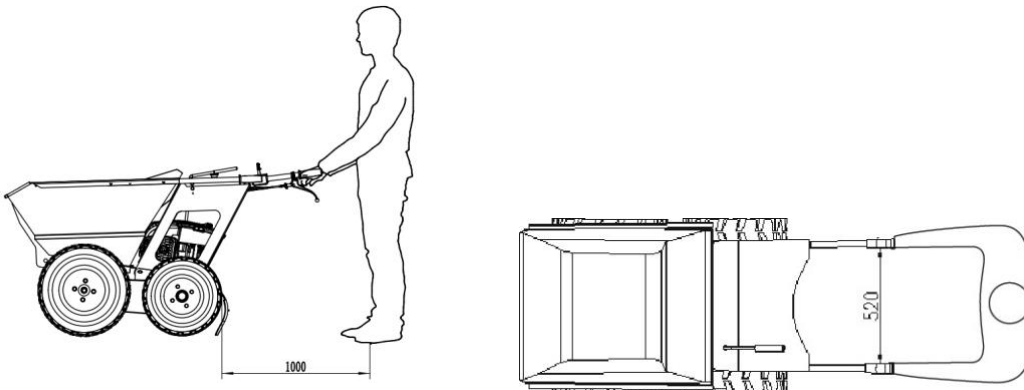
In writing manual, there is errors and omissions inevitably, please forgive us and your correction is welcomed. However, our company will not take responsibility. If you did not show any written disagreement on the manual, so we think that you agree to all the contents of the manual.

II. SAFETY TIPS

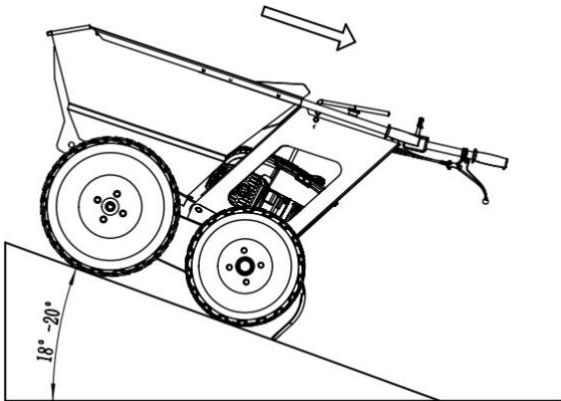
1. No loading with corrosive, toxic objects; No overloading (rated load 260 kg); No carrying people.
2. During the course of operation, any emergency, please release brake handle(B) on left hand immediately, then press emergency stop switch(A) quickly.



3. During working, people should stand in the middle of the two handles, and keep a certain space from engaged wheel, so that avoid injuries of foot touching engaged wheel during walking.



4. When the gradient of 18~20°, and running downgrade under rated load, only running backward is allowed to prevent overturning accidents.



5. There is some vibration (T25:6.49m/s²; T25X:3.68m/s²) and noise(T25:83.8dB; T25X:82.8dB) when working. If work for a long-term continuous, please wear appropriate ear-protector, so as not to cause hearing damage. There would be some harmful emissions gas when start gasoline engine.

6. Before loading, machine should be placed in flat place. No overloading (rated load 260 kg). When loading scattered granular objects, please loading averagely. Not allow filling to one side, so as to avoid overturning. When loading solid or larger than volume of bucket, it should be tied up firmly.

7. When machine is working, any part of your body don't touch the surface or gap between tire and machine body, so as to avoid body injury.

8. When working or unloading, please confirm there is no people in the front or side of machine. Also obstructions of easy collision and friction are not allowed.

9. Not allowed running or unloading in the soft muddy road, so as to avoid quagmire and overturning. Don't work in slippery road to avoid danger out of control.

10. Not allowed running or working in the place with fireworks to prevent fires. If body of machine is on fire, please use dry powder fire extinguisher.

11. Don't working under tire pressure below the rated pressure (drive wheel: 25~30 psi, engaged wheel: 25~30 psi, transition wheel: 10~15 psi) and tire burst, otherwise it will cause danger to people and affect useful-time of machine.

12. Adding gasoline

- a. close engine, let engine cooling for two minutes at least, then remove fuel tank cover.
- b. inject gasoline in outdoors or in well-ventilated area.
- c. do not make gasoline spill.
- d. check equipment which easy to crack or leak , such as tubing, fuel tanks, fuel tank cover. If necessary, replace easy-damaged parts.

13. Starting engine

- a. ensure spark plug, muffler, air filter of fuel cover to a normal position.
- b. do not start engine by rotating crankshaft under spark plug removed.
- c. If gasoline overflows, please wait its volatilization and then restart.
- d. If gasoline comes into engine, please set choke as OPEN/RUN, and air throttle as FAST, then rotating crankshaft till engine started.

14. Operating equipment

Do not block carburetor prevent engine stop working.

15. Transit equipment

Please confirm no gasoline in oil tank.

16. Store gasoline or equipment under the condition of oil tank without gasoline

Keep gasoline or equipment far away from melting pot, stove, water heater or other pilot flame even fire source, because they may ignite gasoline vapour

17. There may be spark phenomenon when start engine. When start engine, flammable gas nearby may be ignited and cause an explosion or fire. If there is leakage of natural gas or liquefied petroleum gas, do not start engine there.

18. When start engine, please pull start rope slowly before feeling resistance, then pull start rope quickly. If take start rope back too quickly (rebound), there may lead to your arm towards to engine and can't release rope in time, then resulting in bone fragmentation, fracture, bruise or sprain.

19. Don't start or operate engine in a closed area, even if the window is open. When start engine, it releases carbon monoxide that is colorless, odorless toxic gas. Inbreathing carbon monoxide may lead to nausea, syncope or even death.

20. Touch engine just after cooling of muffler, engine cylinder and heat sink and clear flammable materials accumulated in cylinder near muffler region. Engine under working can emanate heat, especially muffler's

temperature is very high. Touching with parts with high temperature will lead to serious thermal burns. Debris objects like leave, grass, brush and others will be easy to get fire.

III. SAFETY DECALS & DECAL LOCATIONS

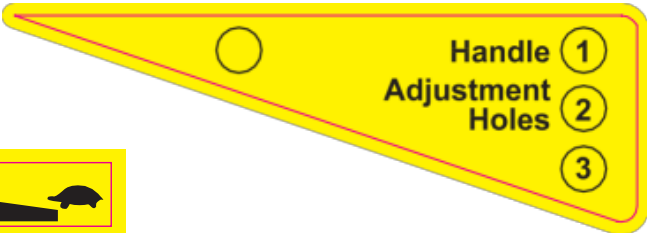
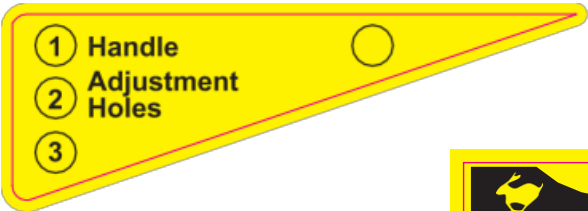
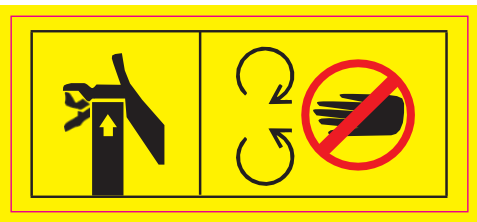
Here below are the safety labels and locations, **ALWAYS** make sure safety labels are in place and in good condition, If a safety label is missing or not legible, order new labels.

⚠ ATTENTION

- Be sure to read the instruction manual before use or maintenance of the machine.
- Discard any unauthorized person, inexperienced or not trained in the use of this machine.
- Before use, check that all protective and safety devices are operational.
- Check that the engine is off and the spark plug wire is disconnected before working on the machine or contact with a mobile element.
- Never leave the machine running unattended.
- Always stop the engine when you leave the workstation.
- Always let the engine cool before refueling or oil.

MAINTENANCE NEEDED EVERY WEEK PROLONGED OR AFTER EACH USE

- CLEAN MACHINE
- ADJUST THE BELT TENSION UNDER INSTRUCTION MANUAL
- CHECK TYRE PRESSURE (PSI 30-2 bar)
- CHECK AND CLEAN THE AIR FILTER
- CHECK THE LUBRICATION POINTS



Getting Started

1. Fill tank with unleaded gasoline
2. Set machine on firm ground and check oil levels.
3. To start the engine, push the throttle lever (a) fully backward to engage the choke.
Check if the emergency button is released.
4. Move throttle lever (a) forwards slightly to disengage the choke and set the engine speed to fast.
Allow the engine to warm up.

Stop

1. Release the clutch lever (b).
2. Push the throttle lever (a) fully forward to power off the engine.

Emergency Stop

Press the Emergency Button (Red Button) to stop engine when emergency.

Note:
After engine power off, please release the emergency button (Turn it as the direction shows on the button.)

CAUTION
Please check operational engine before starting working.

Engine oil: 10W-30

Type Pressure: 29-30 PSI

NO CARRYING PEOPLE

DO NOT SHIFT GEARS WHEN MOVING

Move

To Move Forward:

1. Select required speed with gear change lever (d) from position 1 to position 4
2. Gently engage clutch lever (b).
3. Control engine speed with throttle lever

To Reverse:

1. Move gear change lever (d) to position R (reverse).
2. Gently engage clutch lever (b).

Skip Operation

To Empty Skip:

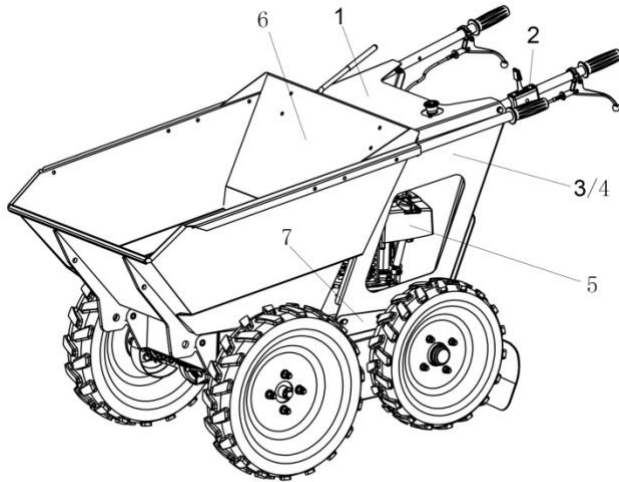
1. Disengage the skip release lever (c) with right hand.
2. Lift up the tipping bucket handle (e) with left hand to dump the load.

To Reset Skip:

1. Manually pull the skip back into the machine.
2. The locking catch will automatically engage.

Note: Check that the locking catch has engaged before moving off.

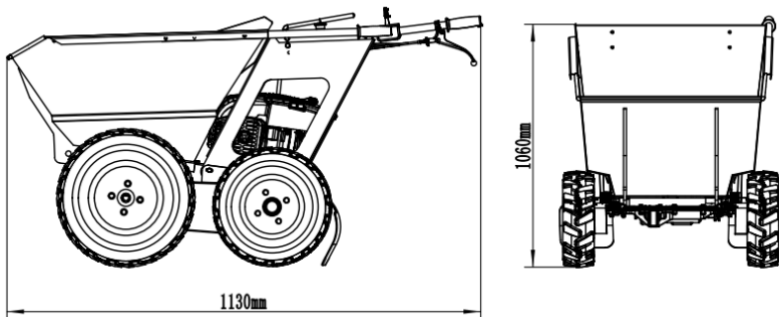
a: Throttle lever c: Skip release lever
b: Clutch lever d: Gear change lever
e: Tipping bucket handle

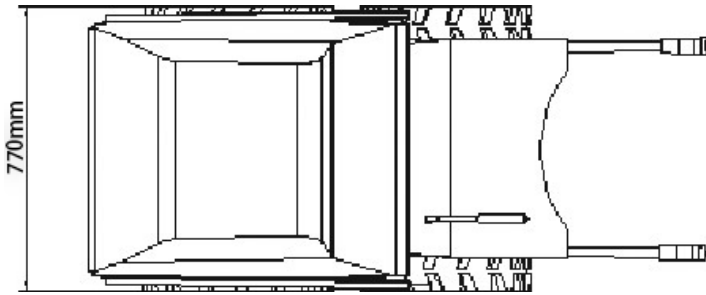


Reference#	Description
1	Caution
2	Throttle Lever Identification
3/4	Handle Adjustment Holes
5	Scald Hazard
6	Attention
7	Wring Hand Hazard

IV. SPECIFICATIONS

Machine's overall dimension and main parameter, please check table below:





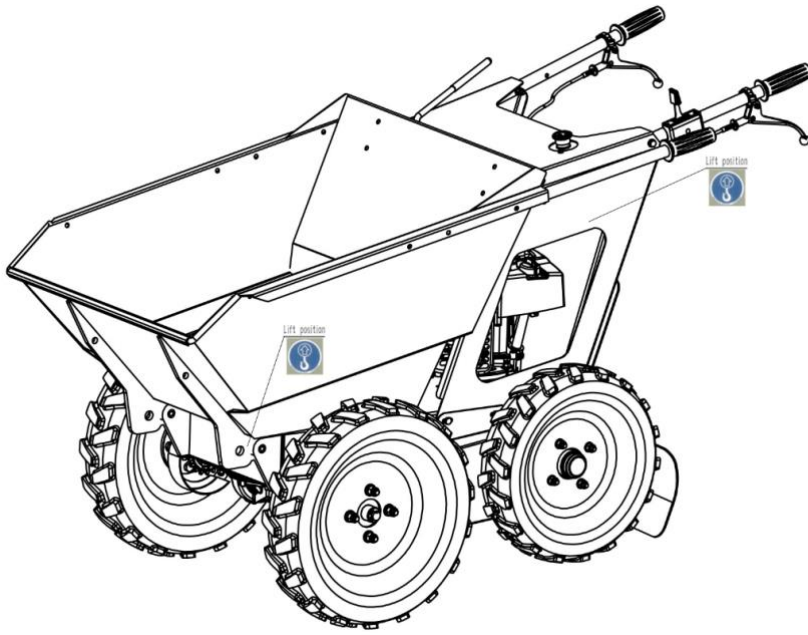
Item/Model	MD-400
Overall Dimensions(mm)	1330*770*1060
Weight(kg)	119
Rated Load(kg)	260
Capacity(m ³)	0.2
Maximum Forward Speed(km/h)	3.78
Maximum Reverse Speed(km/h)	1.88
Tyre Pressure(psi)	30
Main Function	Loading, transporting scattered objects
Store Condition	Ventilated, dry, away from fire source

V. TRANSPORTING & STORING

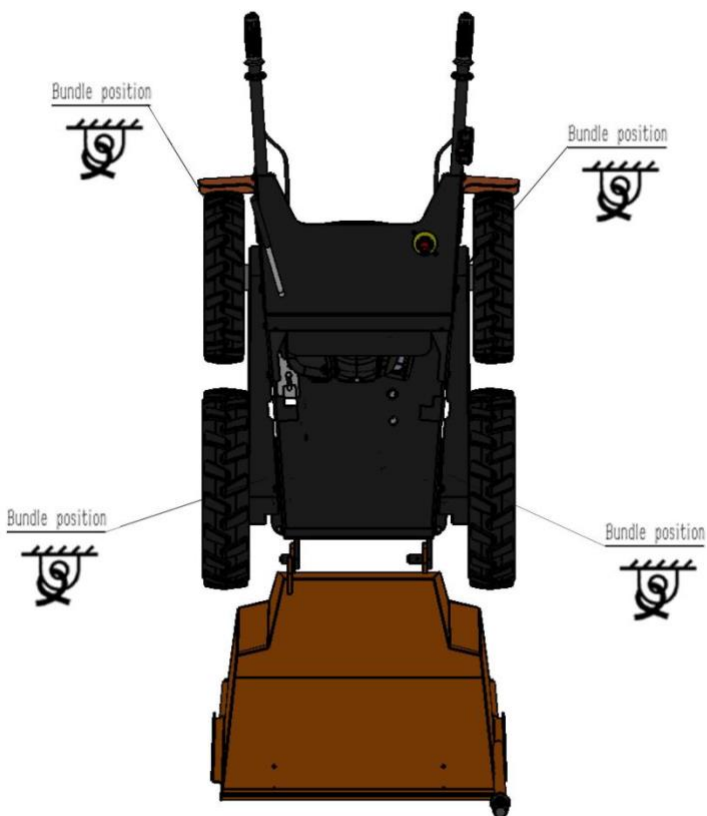
1. Transporting

The mini dumper is designed to be transported via a van or small trailer. The machine is equipped with grab bars that are to be used for both lifting the machine, and strapping it down. This machine weighs approximately 119kg and should only be lifted using correct apparatus.

- 1) When the mini dumper is packaged in the plywood case, we can carry machine by forklift.
- 2) Without package, we can lift the machine at the point of lift label shown.
- 3) Tie the machine at the point of tying label when transport for long distance to keep the machine stable.



Remark: Please note there are two more lifting labels at the same position on the other side.



Note: There are legal road requirements for transiting mini machines. It is the owner's responsibility to be aware of these laws and to adhere to them.

2. Storing

When you finished using the dumper and it has cooled, you must:

- 1) Cool engine before storage.
- 2) Clean the dumper.
- 3) Inspect for worn or damaged parts.
- 4) Choose covered storage location.
- 5) Prevent accidental starting.
- 6) Plan on exercising the engine at least monthly unless the dumper is prepared for long term storage.

Detailed instructions are provided below:

Cool Engine	Let engine cool for at least 30 minutes before storing. A hot engine can be a fire hazard.
Clean Dumper	Clean all grease, dirt, mud and other foreign matter from the machine. Touch up paint damage to prevent rust.
Inspect Dumper	Inspect the machine for worn or damaged parts and tighten any nuts or screws that may have become loose. Pay particular attention to the tipping bucket.
Choose a Storage Location	Store the dumper in a location that is: <ul style="list-style-type: none">● Clean and dry● Away from sources of heat, open flames, sparks, or pilot lights, even if the dumper's gas tank is empty. Residual gasoline could ignite.● Away from extreme high or low temperatures.● Cover it for extra protection.
Remove Spark Plug	Remove spark plug, in order to ensure the dumper cannot be started in a storage location or untrained persons or children.
Start dumper Every 4 Weeks	The dumper should be started regularly. At least every 4 weeks, start the engine and let it run for 10 to 15 minutes.

	<p>Monthly exercising of the dumper will dry out any moisture that has accumulated, lubricate cylinders, and clean out old gas in the carburetor. Moisture, old gas, and dry mechanical parts cause deterioration in stored engines.</p>
<p>Prepare Engine for Long Term (Seasonal) Storage if needed</p>	<p>If you will not be able to start the dumper regularly, you must prepare the engine for long term storage to prevent gum deposits from forming and causing malfunction of the engine.</p> <p>Prepare engine for long term storage by:</p> <ul style="list-style-type: none"> ● Removing all gasoline from the tank and carburetor <p><u>OR</u></p> <ul style="list-style-type: none"> ● Adding fuel stabilizer to the gasoline (following manufacturer's instructions) <p>Fuel stabilizer steps:</p> <ol style="list-style-type: none"> 1. Ensure gas tank is full. 2. Add fuel stabilizer to fuel tank. 3. Run engine at least 10 minutes after adding stabilizer to allow it to enter the fuel system. 4. Shut off engine. 5. Disconnect spark plug wire and remove spark plug. 6. Add one teaspoon oil through spark plug hole. 7. Place rag over spark plug hole and turn starter (or pull the recoil) a few times to lubricate the combustion chamber. 8. Replace spark plug, but do not reconnect the spark plug wire. <p>▲WARNING: Gasoline fire / explosion hazard</p> <p>Gasoline is highly flammable and explosive. Drain the fuel into an approved container OUTDOORS and far away from open flame. NEVER store an engine with fuel</p>

	<p>in the tank indoors or in poorly ventilated spaces where fuel vapor can come in contact with</p> <ul style="list-style-type: none">● Static electric sparks.● Sparks from electric wiring, batteries, or running engines.● Sources of heat (such as a hot engine or exhaust).● Open flames, including pilot lights.
<p>Warning:</p> <p>ALWAYS shut off the engine, make sure the engine is cool, and disconnect the spark plug before cleaning, adjusting, or servicing the dumper. Make sure all guards and shields are replaced before using.</p>	

VI. MACHINE OPERATING

1. Pre-Start Check List & Procedures

A new engine is shipped without oil. You must add the correct amount of oil to engine crankcase otherwise the engine will be damaged beyond repair. (Note: **#92** gasoline fuel and **10w-30** engine oil.)

Before starting the engine, you have to complete the following procedures:

1. Checking Controls.
2. Checking Tipping Bucket.
3. Checking Bucket Catch Lever.
4. Checking Belts and Tires.
5. Checking/Adding Oil.
6. Filling mini dumper Gasoline Tank.
7. Inspecting Fuel System for Leaks.
8. Wearing Personal Protection.

9. Clearing Area of People and Objects.

10. Working During the day or above 500lux in lighting conditions.

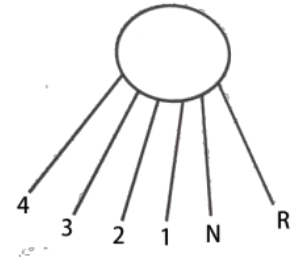
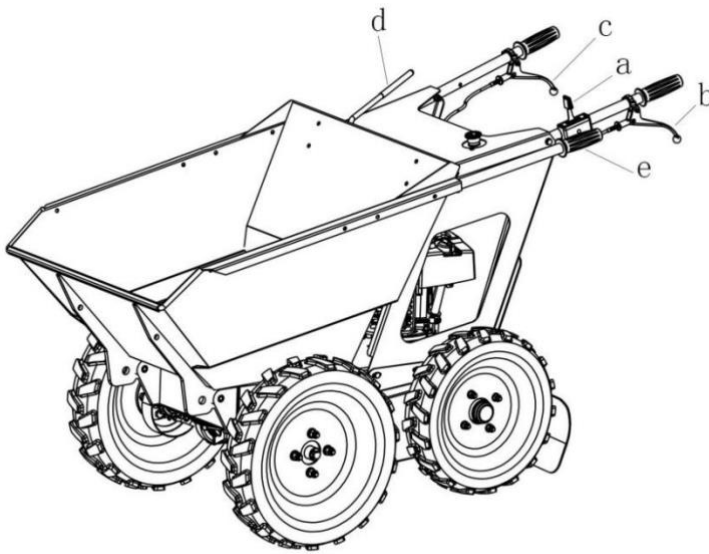
Each of these procedures is discussed in detail below:

Check Controls	<p>All guards are in place and tight.</p> <p>Operator presence bar switch is free moving.</p> <p>Inspect tires and rims for looseness, damage, and tire inflation.</p>
Check Tipping Bucket&Bucket Catch Lever	<p>Inspect tipping bucket for tightness and the bucket catch lever can work normally. Only use factory-approved parts for repair.</p>
Checking Belts and Tires	<p>Check the tension of the belts and check the tire pressure.</p>
Check/Add oil	<p>Check the oil level using the dipstick and add oil as needed.</p> <p>Using a funnel, add oil up to the FULL mark o the dipstick with the recommended oil type for your engine and expected ambient conditions.</p> <p>(See engine Owner's Manual for oil type and capacity, and more detailed oil check/fill instructions).</p> <p>▲WARNING: Burn Hazard</p> <p>Never open oil fill port while engine is running. Hot oil can spray over face and body.</p>
Fill mini dumper gasoline tank	<p>Check the gasoline level in the engine's fuel tank. If needed, fill tank with fresh unleaded gasoline from a portable container, after first reading the warnings and instruction below.</p> <ul style="list-style-type: none"> - DO NOT fill the gas tank to the top. Gasoline may spill when operating on a slope. - DO NOT overfill the gasoline tank. Allow at least 1" (2.54cm) of empty space below the fill neck to allow for fuel expansion. <p>#92 gasoline fuel and 10w-30 engine oil</p> <p>▲WARNING: Gasoline fire/explosion hazard</p>

	<p>Gasoline is highly flammable and explosive. Heat, sparks and flames can ignite gasoline vapors, which can become widespread during fueling. A flash fire ignition and/or explosion could result and cause serious injury or death. The following conditions could result in gasoline ignition/explosion:</p> <ul style="list-style-type: none"> ● Gas vapor collection inside enclosures. ● Static electric sparks. ● Sparks from electric wiring or running engines. ● Sources of heat (such as a hot engine or exhaust).
<p>Inspect Fuel System/Check for Leaks</p>	<p>Inspect fuel system & check for leaks BEFORE starting dumper.</p> <p>▲WARNING: Fuel leak hazard</p> <p>A leaking fuel line no matter how small can be the source of a fire or explosion when starting or operating the engine.</p> <ul style="list-style-type: none"> ● Inspect the entire fuel system. Look for: Signs of leaks or deterioration, chafed or spongy fuel hose, loose connections, loose or missing fuel hose clamps, damaged gasoline tank, or defective gasoline shut-off valve. <p>If dumper is in an enclosed area and you smell gas, DO NOT start engine! DO NOT light a match. DO NOT flip on an electrical switch.</p> <p>Exit area immediately leaving doors open and call fire department.</p>
<p>Personal Protection</p>	<p>Use approved protective clothing and approved protective equipment when using the machine.</p> <ul style="list-style-type: none"> ● Always wear safety shoes and a full-face shield. ● The use of ear plugs or other hearing protection device is also recommended for persons working longer than a few minutes. Hearing can be damaged from prolonged, close- range exposure to the type of noise produced by this dumper. <p>Remarks: Ear noise and vibration values</p> <p>1) T25: 83.8dB, 6.49m/s²</p> <p>2) T25X: 82.8dB, 3.68m/s²</p> <ul style="list-style-type: none"> ● Wear long pants to protect legs from sparks and hot engine. ● Never wear jewelry or loose-fitting clothing when starting or operating the dumper or any mechanical device. Loose or dangling apparel, jewelry or hair

	<p>can become entangled in moving parts.</p> <p>●Neither the machine as a whole nor its internal components are intended for use in potential explosive atmospheres.</p>
Clear Area	Move away barrier that may interfere with your work.
Working During Daylight Hours	Only use the machine in daylight or illuminance above 500lux. Never operate the dumper after dark.

2. Operating



1) To Start

- Fill tank with unleaded gasoline.
- set machine on firm ground and check oil levels.
- To Start the engine, push the throttle lever(a) fully backward to engage the choke. Check if the emergency button is released.
- Move throttle lever(a) forwards slightly to disengage the choke and set the engine speed to fast. Allow the engine to warm up.

Note:

- For additional engine starting instructions see your gasoline engine manual.
- For cold engine, move choke lever to the CLOSED position. To restart a warm engine, leave choke lever in OPEN position.

- Turn engine switch to the ON position.

2) To Move Forward

- Select required speed with gear change lever(d) from position 1 to position 4.
- Gently engage clutch lever(b).
- Control engine speed with throttle lever(a).

3) To Reverse

- Move gear change lever(d) to position R(reverse).
- Gently engage clutch lever(b).

4) To Empty Skip

- Disengage the skip release lever(c) with right hand.
- Lift up the tipping bucket handle(e) with left hand to dump the load.

5) To Reset Skip

- Manually pull the skip back into the machine.
- The locking catch will automatically engage.

6) To Stop

- Release the clutch lever(b).
- Push the throttle lever(a) fully backward to power off the engine.
- **Emergency Stop:** press the Emergency Button(Red Button) to stop engine when emergency.

Note:

After engine power off, please release the emergency button(Turn it as the direction show on the button).