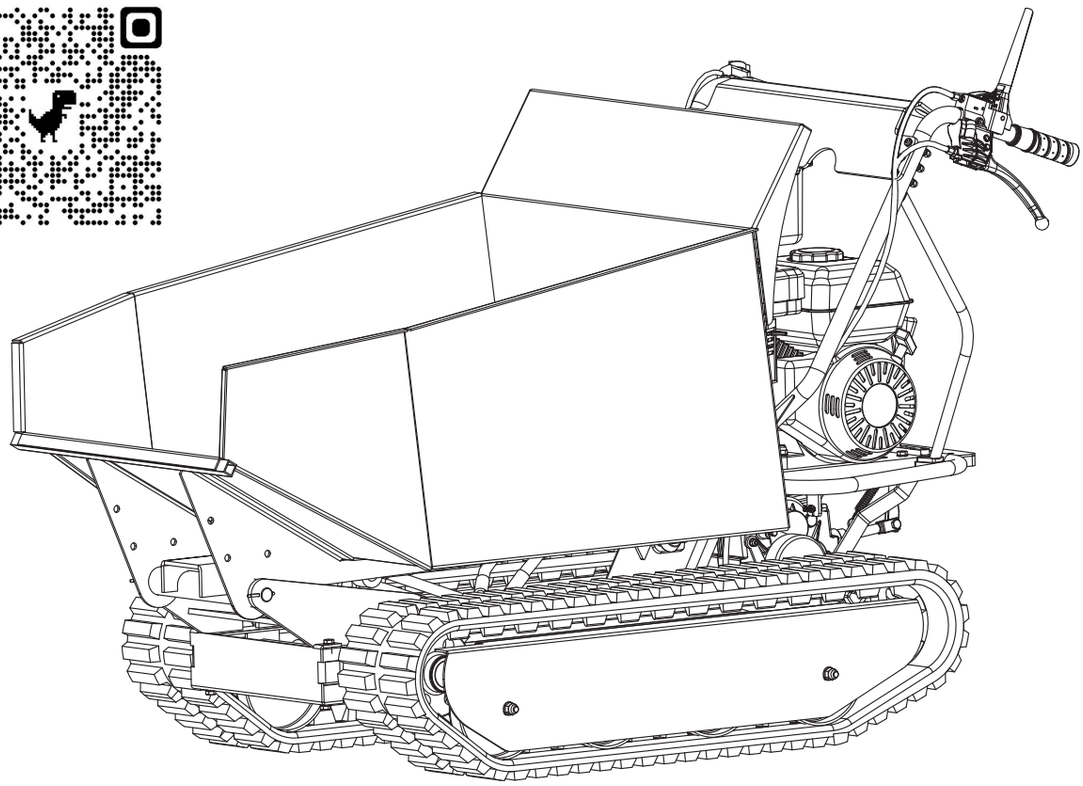
BILT HARD

Save This Manual for Future Reference

Original Instruction

Using tips:
Video on Youtube



Gas Engine Tracked Dumper

Operator's Manual

MODEL NUMBER : TMC-1304

SERIAL NUMBER :

Both model number and serial number may be found on the main label. You should record both of them in a safe place for future use.

FOR YOUR SAFETY

READ AND UNDERSTAND THE ENTIRE MANUAL BEFORE OPERATING MACHINE

Customer Support:(888) 680-2849, inquiry@bilthardusa.com

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INTRODUCTION

Your new gas engine tracked dumper will more than satisfy your expectations. It has been manufactured under stringent quality standards to meet superior performance criteria. You will find it easy and safe to operate, and with proper care, it will give you many years of dependable service.

Carefully read through this entire operator's manual before using this unit. Take special care to heed the cautions and warnings.

The four-speed gearbox, three forward and one reverse, lies at the heart of the unit. It is oversized so as to manage safely the huge torques generated by the engine. Thanks to its efficient reduction gearing, it is capable of moving around in every situation and bearing any load.

The **Engine manufacturer** is responsible for all engine-related issues with regards to performance, power rating, specifications, warranty and service. Please refer to the **Engine Manufacturer**'s owner's/operator's manual, packed separately with your unit, for more information.

Specifications

Item No.		TMC-1304
Engine		209cc
Transmission		3 Forward / 1 Reverse
Load Capacity		1100 lbs
Box Length		37.4 inch
Box Width		26.8 inch
Box Depth		18.3 inch
Track Width		7 inch
Pump Flow		10.8 L/min
Sound power level		101 dB(A)
Sound pressure level		81.5 dB(A)
Vibration level on handlebar grips	Left	10.1 m/s² k=1.5 m/s²
	Right	11.3 m/s² k=1.5 m/s²
Weight		556.7 lbs

RECYCLING AND DISPOSAL



This marking indicates that this product should not be disposed of with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or check with your local authority or local stores for advice of environmentally safe recycling.

SYMBOLS

The rating plate on your machine may show symbols. These represent important information about the product or instructions on its use.



Read these instructions carefully.



Wear eye protection.
Wear hearing protection.



Wear protective gloves.



Wear safety footwear.



Do not remove or tamper with the protection and safety devices.



No smoking, sparks, or flames



Do not touch parts that are hot from operation. Serious burns may result.



Keep your hands clear from all rotating parts.



Never start or run the engine inside a closed area.



Do not operate on slopes with angle over 20° or tip loading at an inclined position.



Be aware, objects may be thrown while in use.



The exhaust fumes are dangerous, containing carbon monoxide. Staying in the environment can lead to unconsciousness and death.



Tipping hazard!





Keep your feet and hands away from moving parts. Moving parts can crush or cut.



Always turn off the engine before starting maintenance.



Do not allow anyone sitting or standing in the hopper while driving.



Keep children and bystanders off and away.

SAFETY

General Safety Rules

Understand Your Machine

Read this manual and labels affixed to the machine to understand its limitations and potential hazards.

Be thoroughly familiar with the controls and their proper operation. Know how to stop the machine and disengage the controls quickly.

Make sure to read and understand all the instructions and safety precautions as outlined in the Engine Manufacturer's manual packed separately with your unit. Do not attempt to operate the machine until you fully understand how to properly operate and maintain the engine and know how to avoid accidental injuries and/or property damage.

If the unit is to be used by someone other than original purchaser, or is to be loaned, rented, or sold, always provide this manual and any needed safety training before operation. The user can prevent and is responsible for accidents or injuries that may occur to themselves, to other people, or to property.

Do not force the machine beyond its limits. Use the correct machine for your application.

Personal Safety

Do not permit children to operate this machine at any time.

Keep children, pets, and other people not using the unit away from the work area. Be alert and shut off the unit if anyone enters work area. Keep children under the watchful care of a responsible adult.

Do not operate the machine while under the influence of drugs, alcohol, or any medication that could affect your ability to use it properly.

Dress properly: Wear long, heavy pants, work boots, and work gloves. Do not wear loose clothing, short pants, or jewelry of any kind. Secure long hair so it is above shoulder level. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.

Protect eyes, face, and head from objects that may be thrown from the unit. Always wear safety goggles or safety glasses with side shields when operating.

Wear appropriate hearing protection.

Always keep hands and feet away from all moving parts during operation. Moving parts can cut or crush body parts.

Always keep hands and feet away from all pinch points.

Do not touch parts that might be hot from operation. Allow parts to cool before attempting to maintain, adjust, or service.

Stay alert, watch what you are doing, and use common sense when operating the machine.

Do not overreach. Do not operate the machine while barefoot or when wearing sandals or similar lightweight footwear. Wear protective footwear that will protect your feet and improve your footing on slippery surfaces. Keep proper footing and balance at all times. This enables better control of the machine in unexpected situations.

Inspect Your Machine

Check your machine before starting it. Keep guards in place and in working order. Make sure all nuts, bolts, etc., are securely tightened.

Never operate the machine when it is in need of repair or is in poor mechanical condition. Replace damaged, missing, or failed parts before using it. Check for fuel leaks. Keep the machine in safe working condition.

Do not use the machine if the engine's switch does not turn off the engine when running. Any gasoline powered machine that can't be controlled with the engine switch is dangerous and must be replaced.

Regularly check to see that keys and adjusting wrenches are removed from the machine area before starting it. A wrench or a key that is left attached to a rotating part of the machine may result in personal injury.

Avoid accidental starting. Be sure the engine's switch is off before transporting the machine or performing any maintenance or service

on the unit. Transporting or performing maintenance or service on a machine with its switch on invites accidents.

If the machine should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning sign of trouble.

Engine Safety

This machine is equipped with an internal combustion engine. Do not use on, or near, forest-covered or brush-covered land unless the exhaust system is equipped with a spark arrester meeting applicable local, state, or federal laws.

In the state of California, a spark arrester is required by law. Other states have similar laws. A spark arrester, if used, must be maintained in effective working order by the operator.

Never start or run the engine inside a closed area. The exhaust fumes are dangerous, containing carbon monoxide, an odorless and deadly gas. Operate this unit only in a well-ventilated outdoor area.

Do not tamper with the engine in an effort to get it to run at higher speeds. The maximum engine speed is preset by the manufacturer and is within safety limits. See engine manual.

Keep a Class B fire extinguisher on hand when operating this machine in dry areas as a precautionary measure.

Fuel Safety

Fuel is highly flammable, and its vapors can explode if ignited. Take precautions when using to reduce the chance of serious personal injury.

When refilling or draining the fuel tank, use an approved fuel storage container while in a clean, well-ventilated outdoor area. While adding fuel or operating the unit, do not smoke, and stay away from sparks, open flames, or other sources of ignition near the area of operation. Never fill the fuel tank indoors.

To avoid sparking or arcing, keep grounded conductive objects – such as tools – away from exposed, live electrical parts and connections. These events could ignite fumes or vapors.

Always stop the engine and allow it to cool before filling the fuel tank. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot. Do not operate the machine with known leaks in the fuel system.

Loosen the fuel tank cap slowly to relieve any pressure in the tank.

Never overfill the fuel tank. Because engine heat can cause fuel to expand, never fill the tank to more than 12 mm below the bottom of the filler neck. This will provide space for fuel expansion.

Replace all fuel tank and container caps securely and wipe up spilled fuel. Never operate the unit without the fuel cap securely in place.

Avoid creating a source of ignition for spilled fuel. If fuel is spilled, do not attempt to start the engine. Instead, move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated.

When fuel is spilled on yourself or your clothes, wash your skin and change clothes immediately.

Store fuel in containers specifically designed and approved for fuel storage.

Store fuel in a cool, well-ventilated area, safely away from sparks, open flames, or other sources of ignition.

Never store fuel – or a machine with fuel in the tank – inside a building where fumes may reach a spark, open flame, or any other source of ignition (such as a water heater, furnace, or clothes dryer). Allow the engine to cool before storing in any enclosure.

Specific Safety Rules

Thoroughly inspect the area to be worked. Keep the working area clean and free of debris to prevent tripping. Operate on flat, level ground.

Never place any part of your body where it would be in danger if movement should occur during assembly, installation, operation, maintenance, repair, or relocation.

Keep all bystanders, children, and pets at least 23m away. If you are approached, stop the unit immediately.

Do not mount anything on the hopper and never carry passengers.

Never park the machine in a place with unstable ground that could give way, particularly when it is full.

Disengage clutch lever before starting the engine.

Start the engine carefully according to instructions and with feet away from the moving parts.

Never leave the operating position when the engine is running.

Always hold the unit with both hands when operating. Keep a firm grip on the handlebars. Be aware that the machine may unexpectedly bounce upward or jump forward if the machine should strike buried obstacles such as large rocks or roots.

Walk, never run with the machine.

Do not overload the machine capacity. Always drive at a safe speed, and adjust the speed to the slope of the land, the surface conditions of the road, and the weight of the load.

Use extreme caution when in reverse or pulling the machine towards you.

Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.

On soft ground, drive at the first forward/ reverse gear. Do not rapidly accelerate, turn sharply or stop.

Pay the utmost attention when working on frozen ground, as the machine may tend to skid.

Do not operate the machine in confined areas where there may be a risk of crushing the operator between the machine and another object.

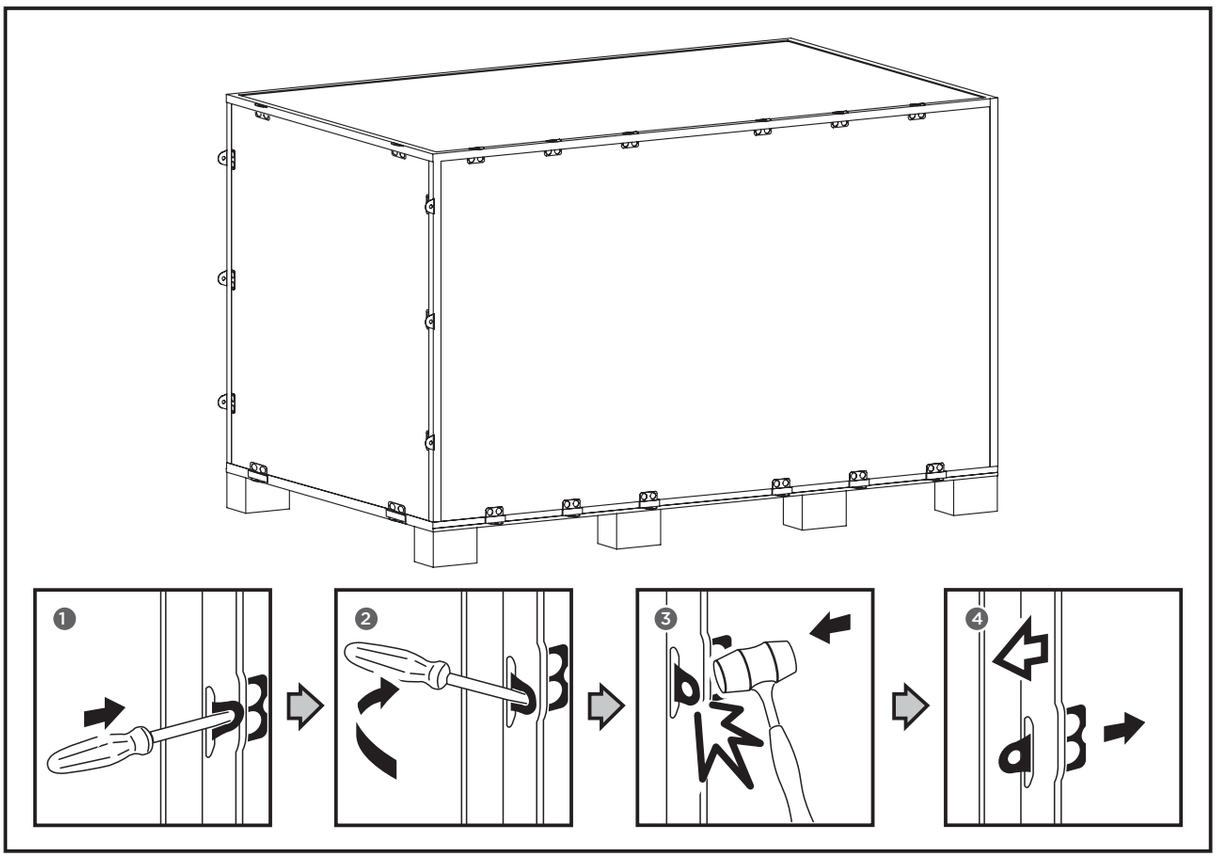
Never operate the machine on slopes where angle is over 20°.

When operating on a slope, whether moving forward or in reverse, always make certain that the weight is evenly balanced. Always operate the machine straight up or down slopes, never drive sideways or across the slope. Do not shift gears on slopes.

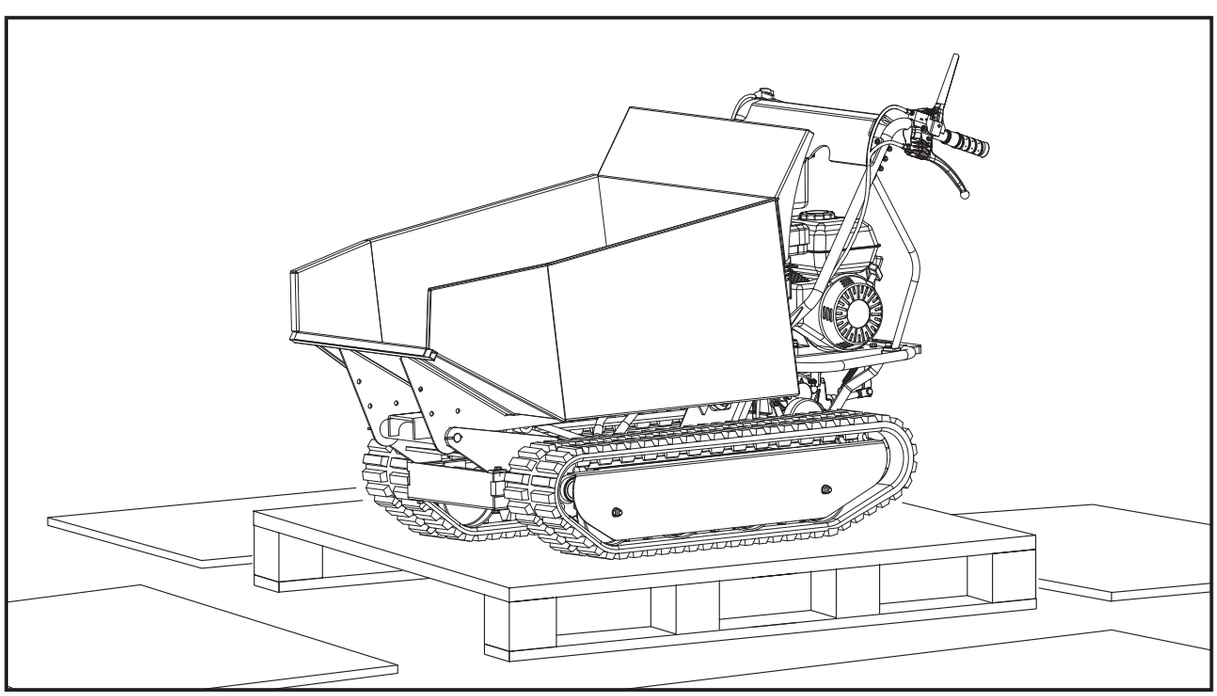
When dumping the contents of the hopper, the center of gravity will change continuously and the ground conditions will be essential for the stability of the machine. Use extra caution and control when dumping the hopper on unstable ground, such as wet clay or soil.

UNPACKING THE CONTAINER

Use the screwdriver and hammer to open all the side locks.

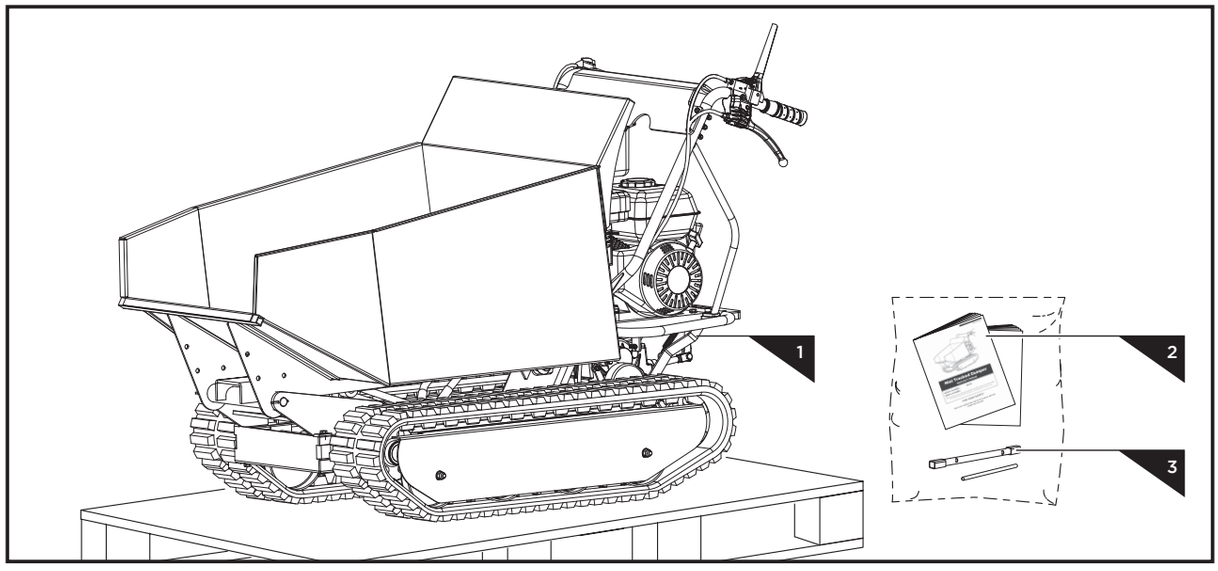


Remove all the plywood plates, and remove all the loose parts on the bottom pallets.



CONTENTS SUPPLIED

The gas engine tracked dumper comes partially assembled and is shipped inside a carefully packed crate. After all the parts have been removed from the package, you should have:



1. Machine
2. Operator's Manual & Engine Manual
3. Tools for Spark Plug Assembly

Engine Oil

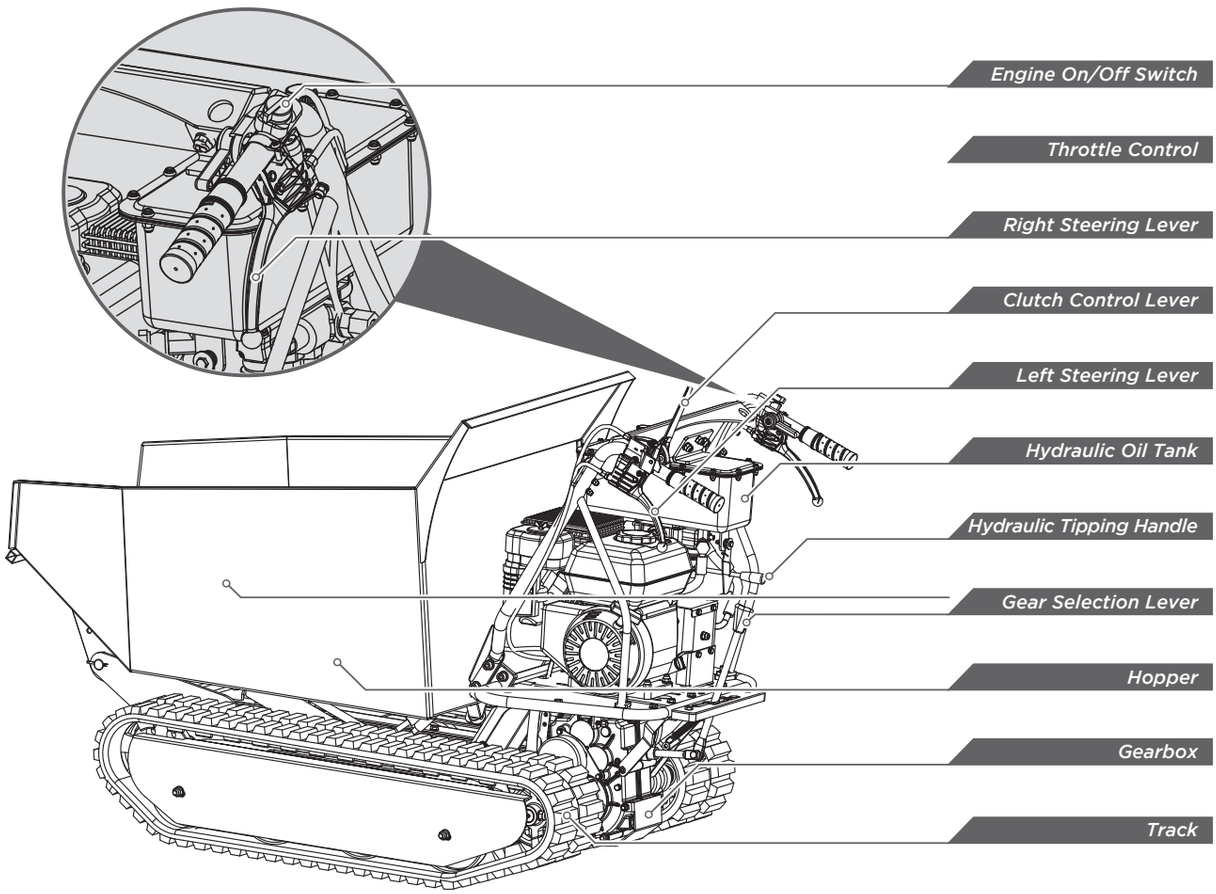
OIL HAS BEEN DRAINED FOR SHIPPING.

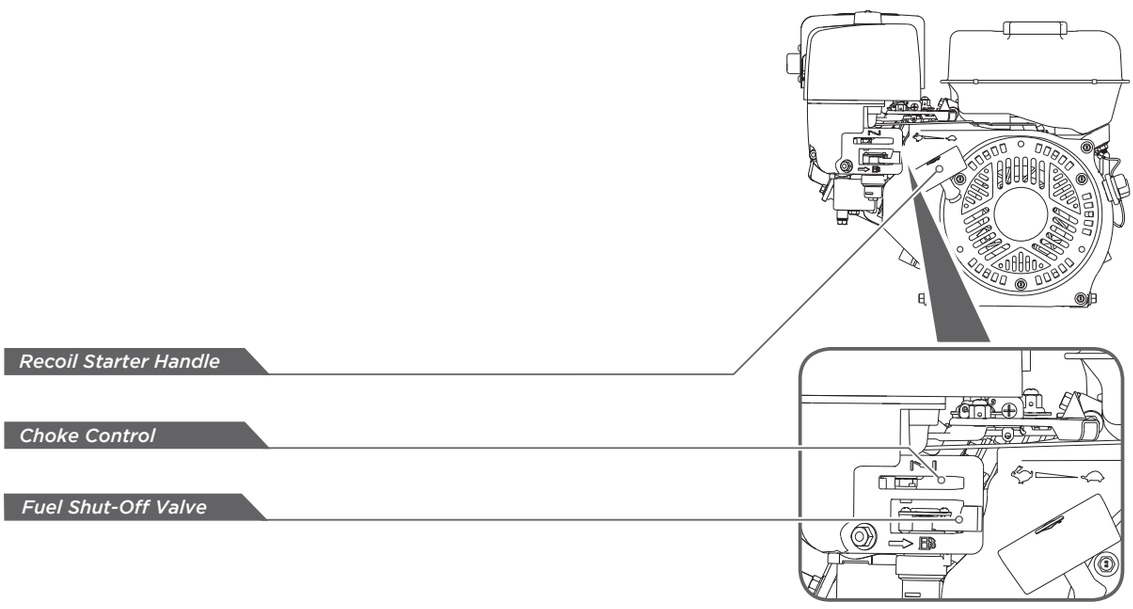
Failure to fill engine sump with oil before starting engine will result in permanent damage and void engine warranty.

Add oil according to **Engine Manual** packed separately with your dumper.

KNOW YOUR MACHINE

Features and Controls





Gear Selection Lever

The gear selection lever has 4 positions: 3 forward speeds and 1 reverse. To change speeds, move the speed shift lever to the desired position. The lever locks in a notch at each speed selection.



Slower speeds are for heavier loads, while faster speeds are for transporting light loads or an empty hopper. It is recommended that you use a slower speed until you are familiar with the operation of the gas engine tracked dumper.

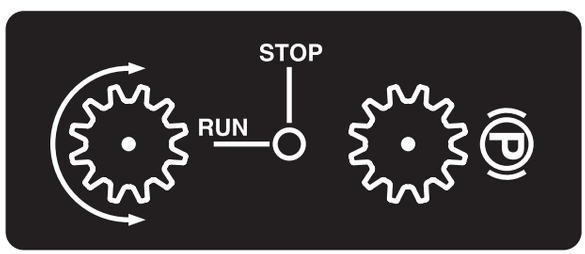
If the engine slows down under a load or the tracks slip, shift the machine into a lower gear.

If the front of the machine rides up, shift the machine into a lower gear. If the front continues to ride up, lift up on the handles.

Left/Right Steering Lever

Operate the lever to turn left/right.

> ***Operate the steering levers only at a reduced speed.***

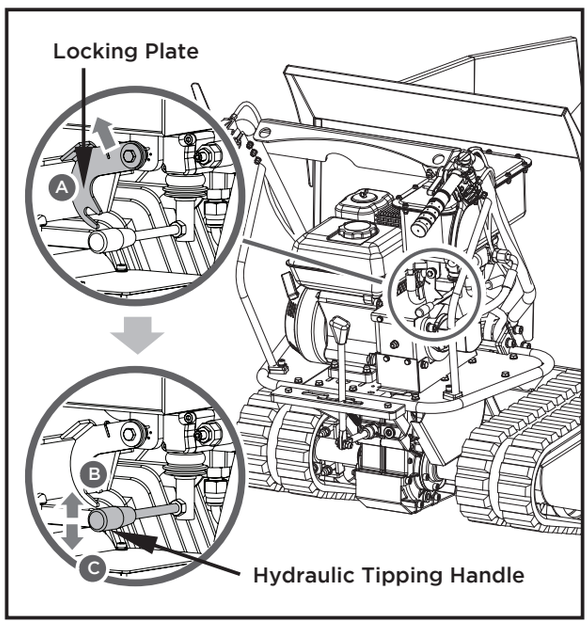


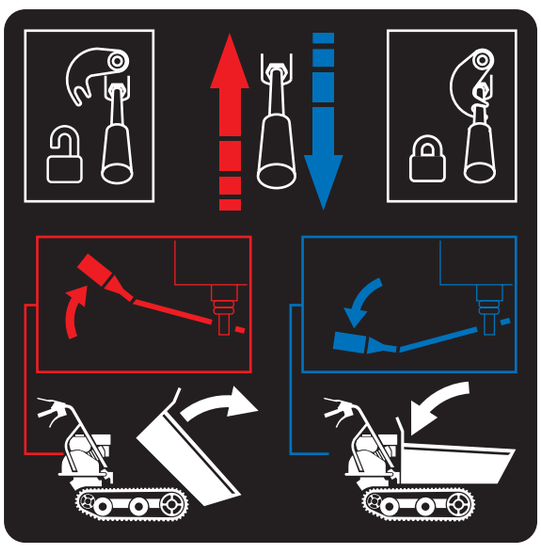
Hydraulic Tipping Handle

Using your left hand, pull the locking plate up to release the tipping handle, and hold in position.

To raise the hopper, pull the tipping handle upwards until the hopper has reached the desired position. To stop raising the hopper, simply release the tipping handle and return the locking plate to its original position.

To lower the hopper, first pull the locking plate up with your left hand to release the tipping handle, and then pull the tipping handle down with the right hand. When the hopper is lowered to the original position, release the tipping handle back to its original position and lock securely with the locking plate.





Engine On/Off Switch

The engine switch has two positions. OFF - engine will not start or run. ON - engine will start and run.

Recoil Starter Handle

The Recoil Starter Handle is used to start the engine.

Fuel Shut-Off Valve

The fuel shut-off valve has two positions.

CLOSED ( ) - use this position to service, transport, or store the unit.

OPEN ( ) - use this position to run the unit.

Throttle Control

The throttle control regulates the speed of the engine, and moves between FAST, SLOW , and STOP positions.

The throttle control will shut off the engine when it is moved to the STOP position.

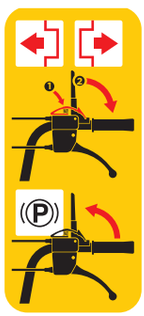
Choke Control

The choke control is used to choke the carburetor and assist in starting the engine. The choke control slides between the CHOKE CLOSED and CHOKE OPEN positions.

> ***Never use choke to stop engine.***

Clutch Control Lever

Squeeze the control lever, clutch engaged. Release the lever, clutch disengaged.

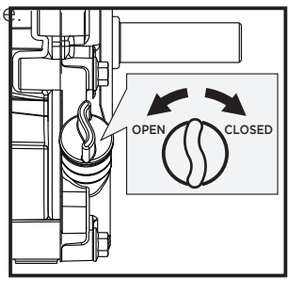


Operation

Add Oil To Engine

> ***No oil in the engine originally, but a bottle of engine oil is in scope of delivery. Don't start the engine before adding oil.***

1. Make sure the gas engine tracked dumper is on a flat, level surface.
2. Remove the oil fill cap/dipstick to add oil.



3. Using a funnel, add oil up to the **FULL** mark on the dipstick. (See engine manual for oil capacity, oil recommendation, and location of fill cap.)

> ***DO NOT OVERFILL. Check engine oil level daily and add as needed.***

Add Oil To Engine

> ***Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel. Use extreme care when handling gasoline.***

> ***Fill the fuel tank outdoors, never indoors. Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.***

1. The engine must be off and allowed to cool at least two minutes before adding fuel.
2. Remove the fuel filler cap and fill the tank. (See engine manual for fuel capacity, fuel recommendation, and location of fuel cap.)

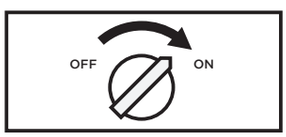
IMPORTANT: DO NOT OVERFILL!

This equipment and/or its engine may include evaporative emissions control system components, required to meet EPA, CARB and/or EURO V regulations, that will only function properly when the fuel tank has been filled to the recommended level. Overfilling may cause permanent damage to evaporative emissions control system components. Filling to the recommended level ensures a vapor gap required to allow for fuel expansion. Pay close attention while filling the fuel tank to ensure that the recommended fuel level inside the tank is not exceeded. Use a portable gasoline container with an appropriately sized dispensing spout when filling the tank. Do not use a funnel or other device that obstructs the view of the tank filling process.

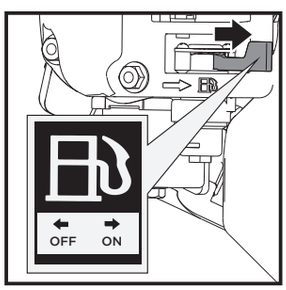
3. Reinstall the fuel cap and tighten. Always clean up spilled fuel.

Starting Engine

1. Move the engine switch to the ON position.

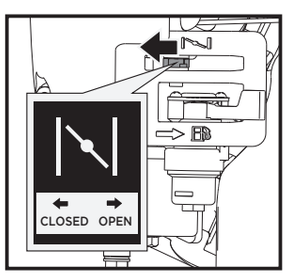


2. Open the fuel shut-off valve.

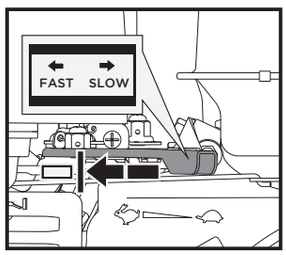


3. Move the choke lever to the CLOSED position.

   If the engine is hot, closing the choke is not necessary.



4. Move the throttle lever slightly to the FAST speed.



5. Pull the recoil starter until the engine starts. Return the recoil to the home position after each pull. Repeat the steps as needed. Once engine has started, set the throttle to the FAST position before you operate the unit.

Rapid retraction of the starter cord (kickback) will pull your hand and arm toward the engine faster than you can let go. Broken bones, fractures, bruises, or sprains could result.

Operating

After the engine warms up, move the throttle lever to accelerate engine speed.

Engage the required gear and slowly squeeze the clutch control lever. If the gear does not engage immediately, slowly release the clutch lever and try again. In this way the gas engine tracked dumper will start moving.

The gas engine tracked dumper has the steering levers on the handlebars, which makes steering very easy. To turn right or left, simply pull the corresponding right or left steering lever.

The sensitivity of the steering increases in proportion to the speed of the machine and the load. With an empty machine, a light pressure on the lever is all that is needed to turn. When the machine is fully loaded, more pressure is required.

The gas engine tracked dumper has a maximum capacity of 1100 LBS. However, it is advisable to assess the load and adjust it according to the ground on which the machine will be used.

It is therefore advisable to cover such stretches using low gear and taking extra care. In such situations, the machine should be kept in low gear for the whole stretch.

Avoid sharp turns and frequent changes of direction while driving on rough, hard terrains full of sharp, uneven points with a high degree of friction.

Even though the unit has rubber tracks, remember to be careful when working in adverse weather conditions (ice, heavy rain and snow) or on types of ground that could make the gas engine tracked dumper unstable.

Please note that as this is a tracked vehicle, it is subject to a considerable pitching movement when passing over bumps, holes and steps.

When the clutch control lever is released, the machine will stop and brake automatically.

If the machine is stopped on a steep slope, a wedge should be placed against one of the tracks.

Idle Speed

Set the throttle control lever to the SLOW position to reduce stress on the engine when work is not being performed. Lowering the engine speed will help extend the life of the engine, as well as conserve fuel and reduce noise level.

Stop Engine

To stop the engine in an emergency, simply turn the engine switch to the OFF position. Under normal conditions, use the following procedure:

1. Move the throttle lever to the SLOW ( ) position.
2. Let the engine idle for one or two minutes.
3. Turn the engine switch to the OFF position.
4. Turn the fuel valve lever to the OFF ( ) position.

Sudden stopping at a high speed under a heavy load is not recommended. Engine damage may result.

Do not move the choke control to CLOSE to stop the engine. Backfire or engine damage may occur.

MAINTENANCE

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Maintaining your gas engine tracked dumper will ensure long life to the machine and its components.

Preventive Maintenance

1. Turn off the engine and disengage all command levers. The engine must be cool.
2. Keep the engine's throttle lever in its SLOW position and remove the spark plug wire from the spark plug and secure.
3. Inspect the general condition of the gas engine tracked dumper. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, and any other condition that may affect its safe operation.
4. Use a soft brush, vacuum or compressed air to remove all contaminants from the machine. Then use high quality light oil to lubricate all moving parts.
5. Replace the spark plug wire.

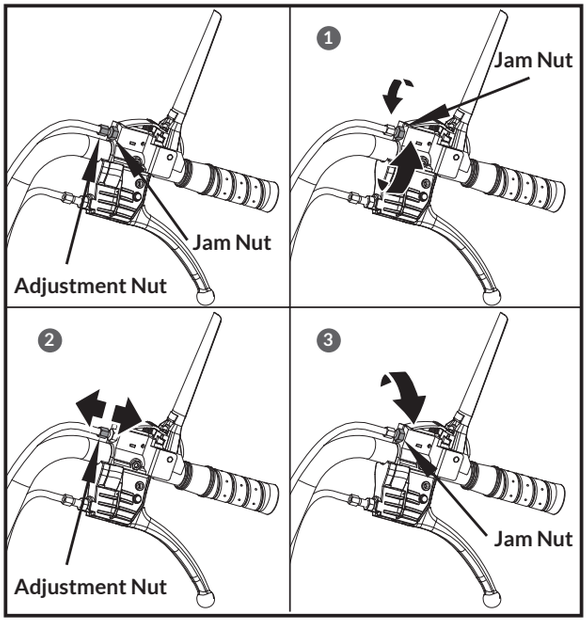
Never use a "pressure washer" to clean your unit. Water can penetrate tight areas of the machine and its transmission case and cause damage to spindles, gears, bearings, or the engine. The use of pressure washers will result in shortened life and reduce serviceability.

Adjusting Clutch

When the clutch begins to show wear, the handle reach will become wider, making it more difficult to reach. Follow these steps to return the clutch lever back to its original position.

1. Loosen the jam nut by turning it counter clockwise with 10 mm wrench.
2. Tighten or loosen the cable by turning the cable adjustment nut clockwise or counter clockwise with 10 mm wrench until you have reached your required tightness.

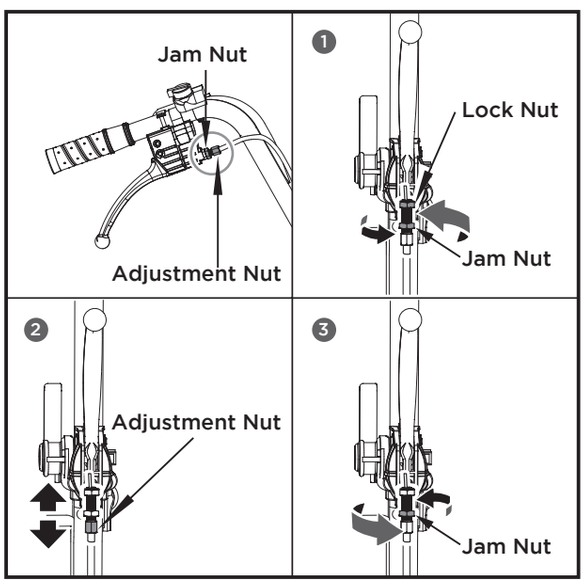
3. Once tightness is set, return the jam nut against the handle to hold the cable in place.



Adjusting Steering

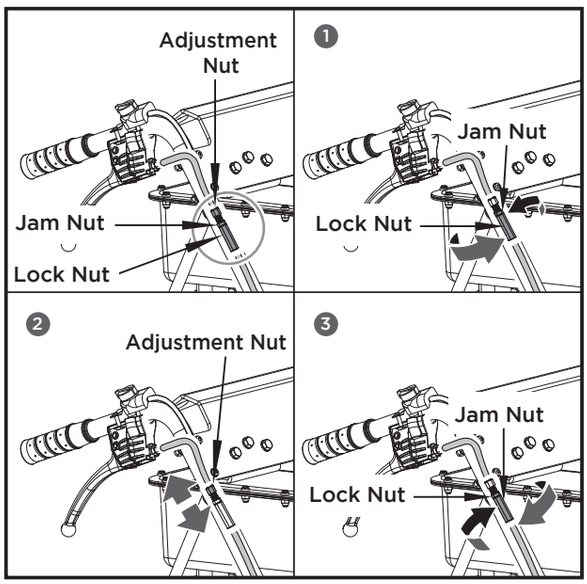
If steering becomes difficult to engage follow these steps to adjust the cable tension.

1. Loosen the jam nut by turning it counter clockwise with 10 mm wrench.
2. Tighten or loosen the cable by turning the cable adjustment nut clockwise or counter clockwise with 10 mm wrench until you have reached your required tightness.
3. Once tightness is set, return the jam nut against the handle to hold the cable in place.



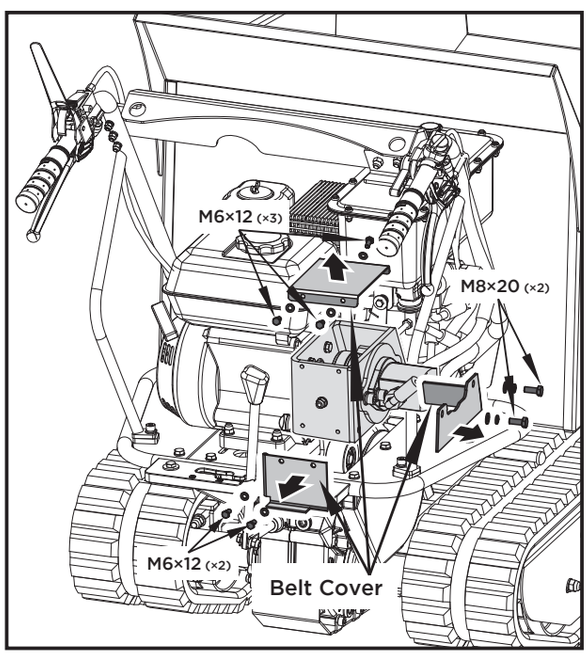
If the above adjustment does not create enough cable tension, follow the steps below:

1. Loosen the jam nut by turning it counter clockwise with 12mm wrench.
2. Tighten or loosen the cable by turning the cable adjustment nut clockwise or counter clockwise with 10 mm wrench until you have reached your required tightness.
3. Once tightness is set, return the jam nut against the handle to hold the cable in place.

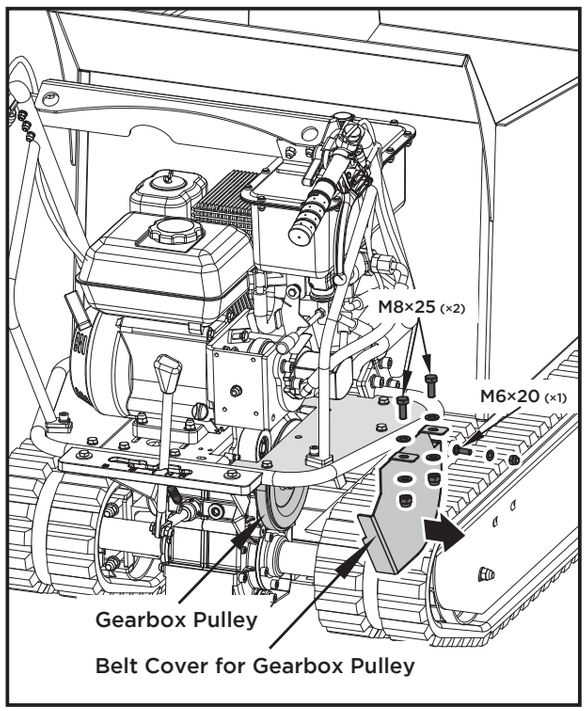


Replacing Drive Belt

Remove three belt covers as shown.

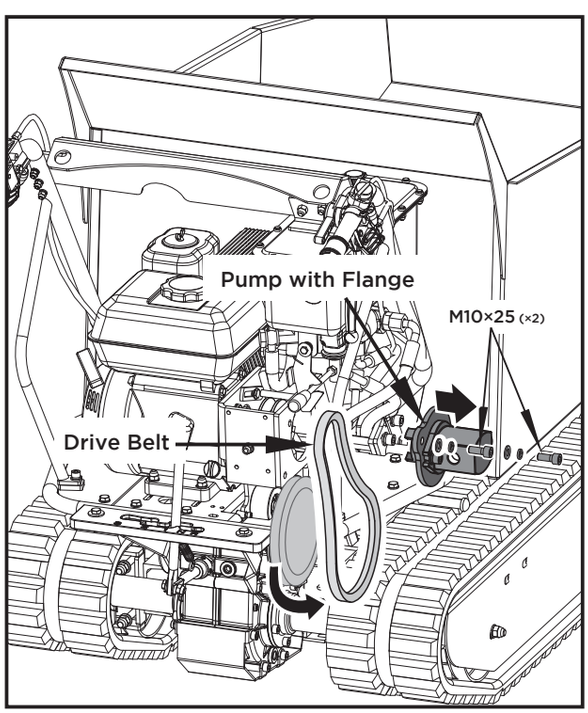


Remove the belt cover for gearbox pulley.



Disassemble the two M10×25 bolts, spring washers and flat washers, remove the pump with flange.

Turn the gearbox pulley and pull out the belt.



Lubrication

General Lubrication

Lightly lubricate all moving parts of the machine at end of the season or every 25 operating hours.

Gearbox Lubrication

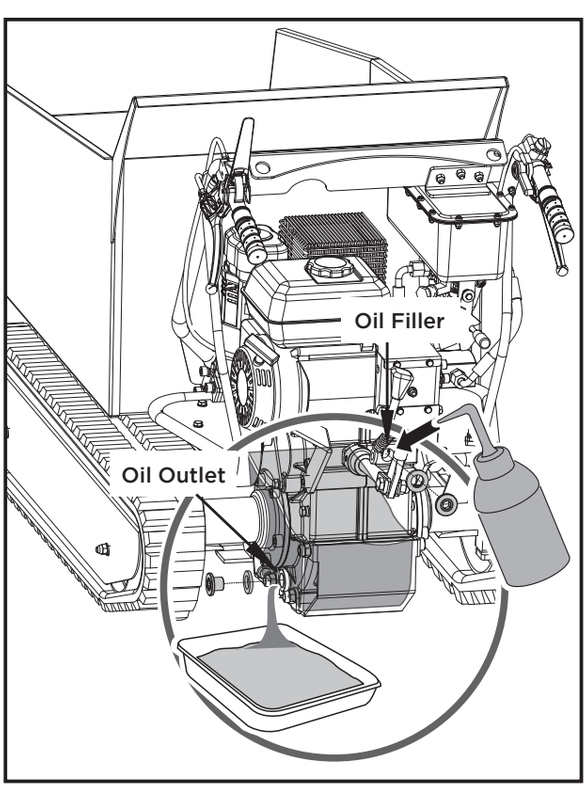
The gearbox is pre-lubricated and sealed at the factory. Unless there is evidence of leakage or service has been performed on the gearbox, no additional lubricate should be required until 50 hours use.

After first 50 hours use, change all the gear oil. Capacity is 1.5L.

For future use, check the oil level after every 50 hours of use. If you remove the oil level plug and no oil flows out, please add oil and then screw the oil level plug.

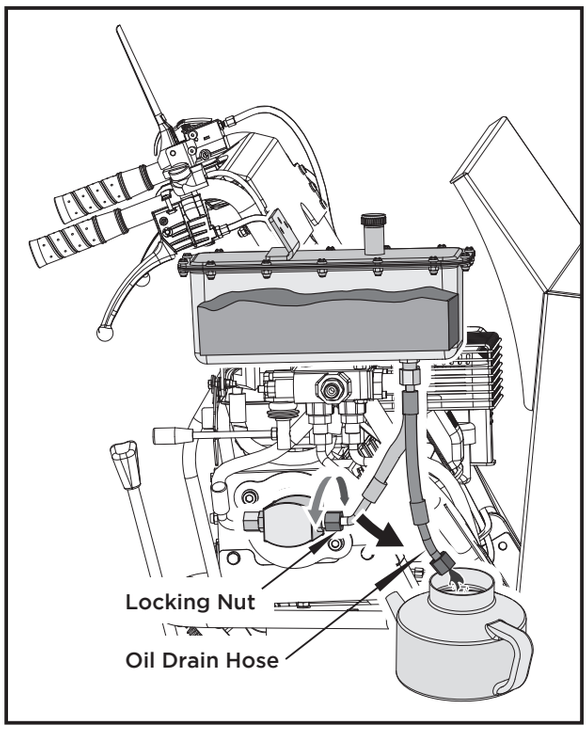
Gear oil GL-5 or GL-6, SAE80W-90 is recommended. Do not use synthetic oil.

When replacing gear oil, the engine must be stopped and still warm. Unscrew the filter cap and the drain plug. When oil is drained, replace the drain plug, fill up with fresh oil, and then replace the filter cap.

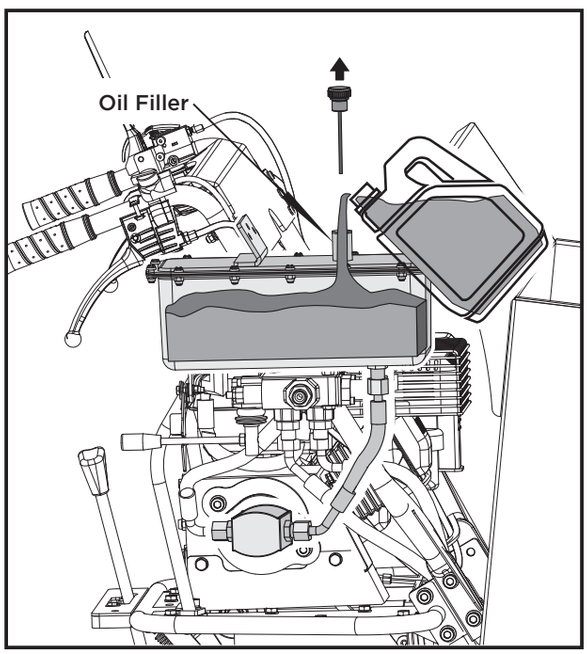


Hydraulic Oil

Unscrew the locking nut to drain the oil into the pan.



Remove the oil dipstick and add the oil. The recommended hydraulic oil is 10W AW32, ASLE H-150, or ISO 32. Tank Capacity is 3L.

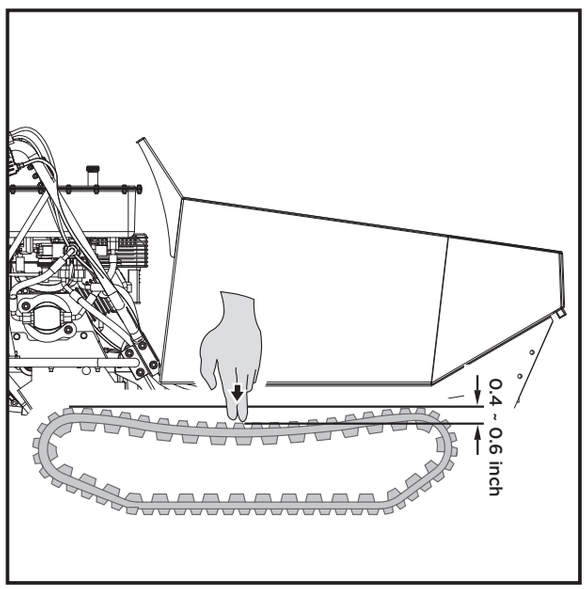


Tightening Tracks

With use, tracks tend to loosen. When operating with loose tracks, they tend to slip over the driving wheel causing it to jump its housing, thus damaging wear to the housing.

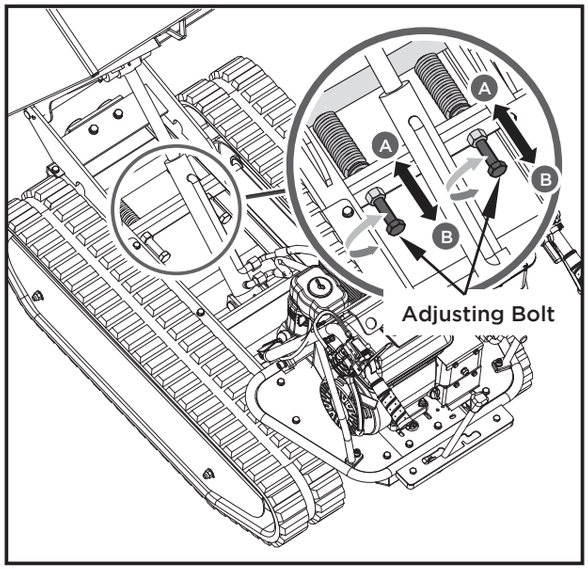
To check track tightness, proceed as follows.

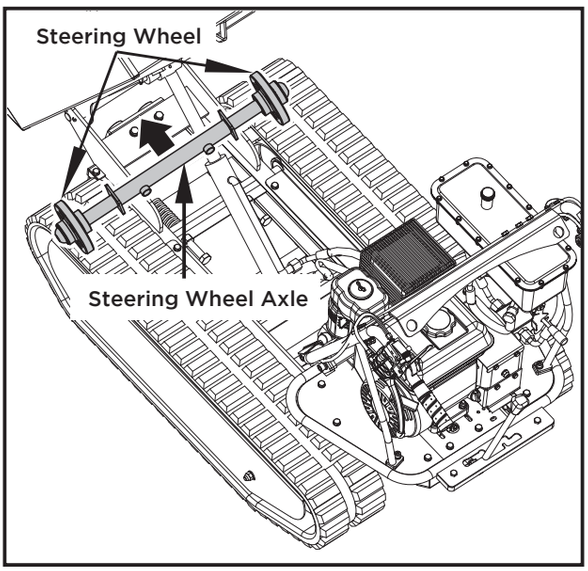
1. Set the machine on a flat surface with compact ground, or on asphalt or pavement.
2. Lift the machine and set it on blocks or supports rated for the weight of the machine so that the tracks are approximately 3.9″ off the ground.
3. Measure the track midline vs. the horizontal line. The reading must not be more than 0.4″~0.6″.



If the distance is greater, proceed as follows.

1. Use the tipping handle to tip the hopper and set it on blocks or supports rated for the weight of the box.
2. Loosen locknut A.
3. Tighten bolt B until the correct tightness is restored.
4. Secure bolt B by tightening locknut A thoroughly.
5. Return the hopper to its original position.





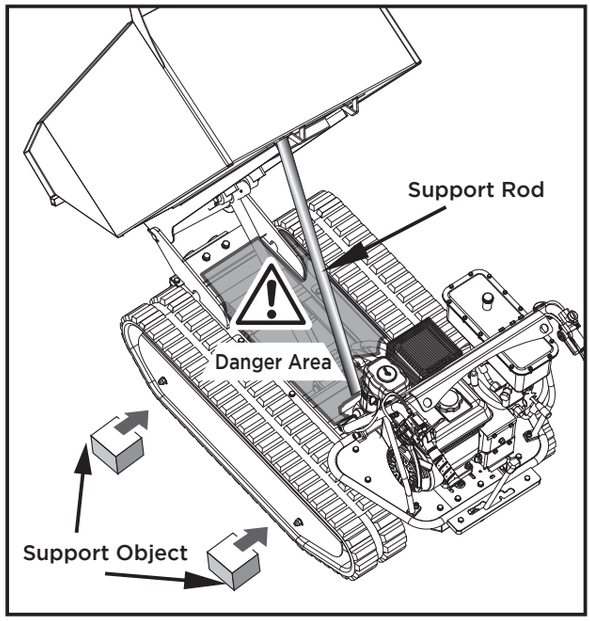
> ***Caution: Do not over-tighten your track. The adjustment of the track and the brakes are linked. The braking power will lessen the more the track is tightened.***

> ***If the adjustment bolt has no more adjustment left, the tracks may have to be replaced.***

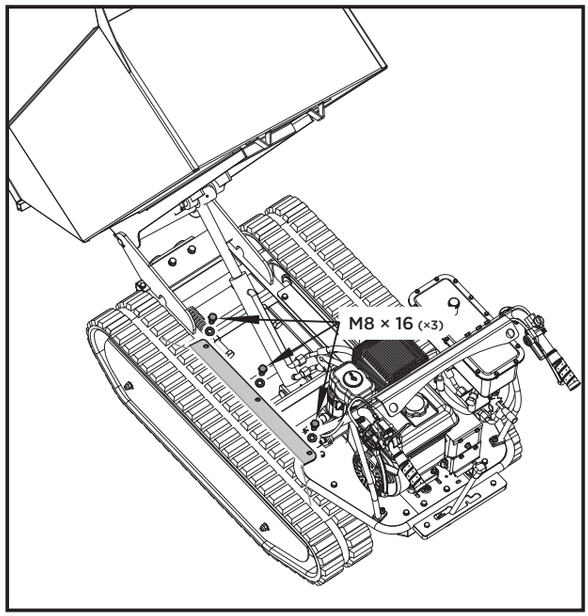
Replacing Tracks

Check the condition of the tracks periodically. If any track is cracked or frayed, it should be replaced as soon as convenient.

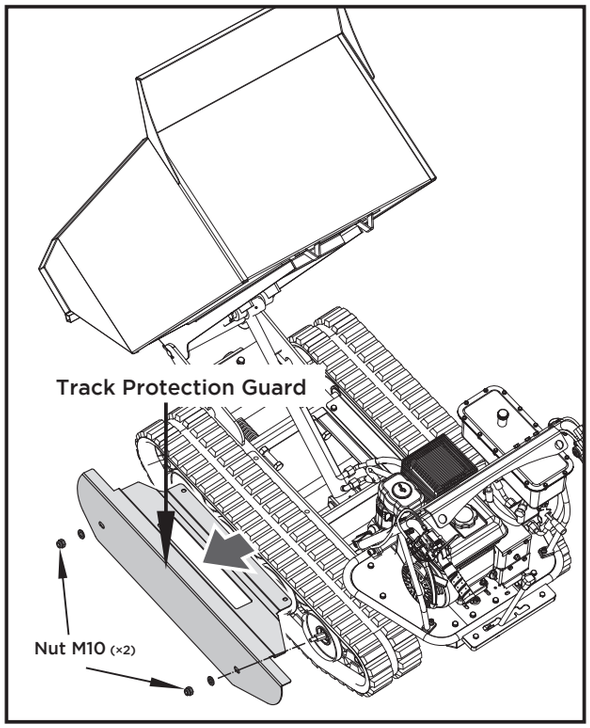
1. Lift up the hopper and insert a support rod for safety purposes.
2. Lift the machine and set it on blocks or supports rated for the weight of the machine so that the tracks are approximately 3.9″ off the ground.



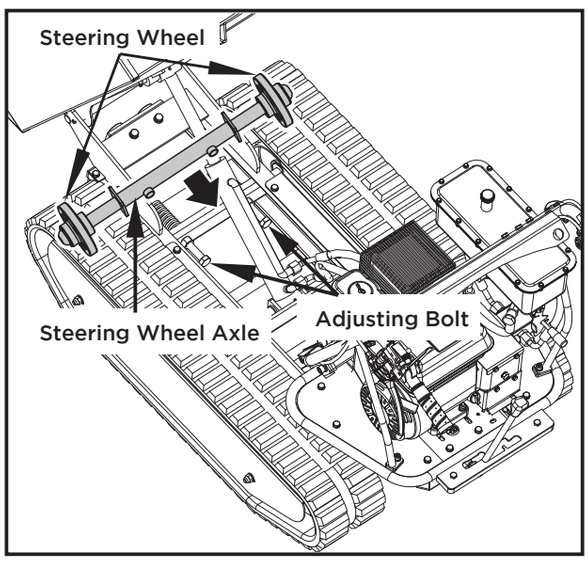
3. Remove the three M8×16 bolts and washers that fix the track protection guard.



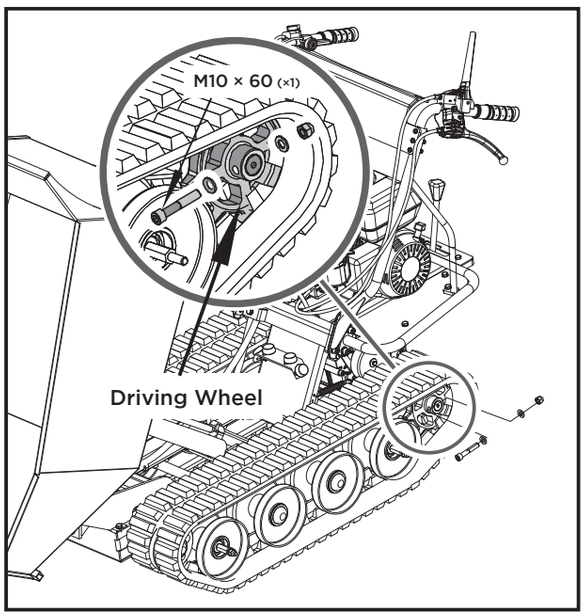
4. Remove the two M10 nuts and washers from the side of track protection guard.



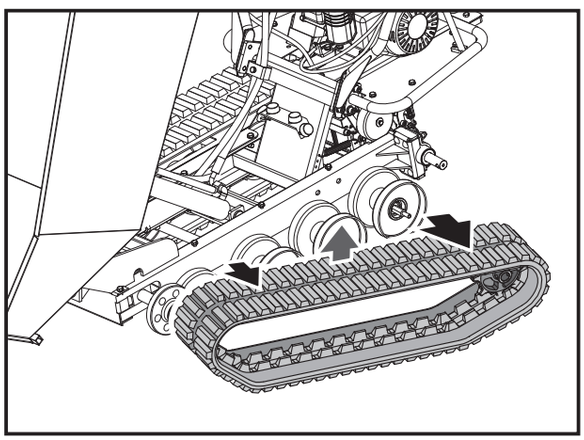
5. Loosen the adjusting bolts and pull the steering wheel axle toward the engine, then track will be loosen.



6. Remove the M10×60 bolt, washers and nut from the driving wheel.



7. Pull out the whole track with driving wheel.



When removing or installing the tracks, be careful not to get your fingers caught between the track and pulley.

ENGINE MAINTENANCE

Refer to the Engine Manual included in your unit for the information on engine maintenance. Your engine manual provides detailed information and a maintenance schedule for performing the tasks.

STORAGE

If the gas engine tracked dumper will not be used for a period longer than 30 days, follow the steps below to prepare your unit for storage.

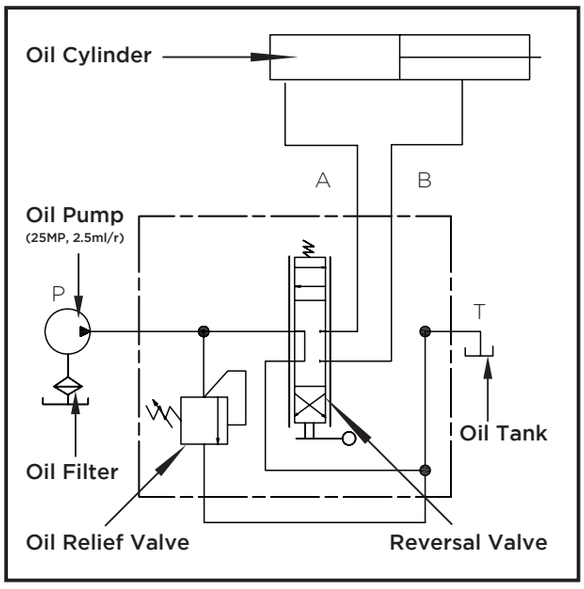
1. Drain the fuel tank completely. Stored fuel containing ethanol or MTBE can start to go stale in 30 days. Stale fuel has high gum content and can clog the carburetor and restrict fuel flow.
2. Start the engine and run until it stops. This helps prevent gum deposits from forming inside the carburetor and possible engine damage.
3. While the engine is still warm, drain the oil from the engine. Refill with fresh oil of the grade recommended in the Engine Manual.
4. Use clean cloths to clean off the outside of the machine and to keep the air vents free of obstructions.

Do not use strong detergents or petroleum based cleaners when cleaning plastic parts. Chemicals can damage plastics.

5. Inspect for any loose or damaged parts. Repair or replace damaged parts and tighten loose screws, nuts or bolts.
6. Store your unit on flat ground in a clean, dry building that has good ventilation.

Do not store the machine with fuel in a non-ventilated area where fuel fumes may reach flame, sparks, pilot lights or any ignition sources.

HYDRAULIC SCHEME



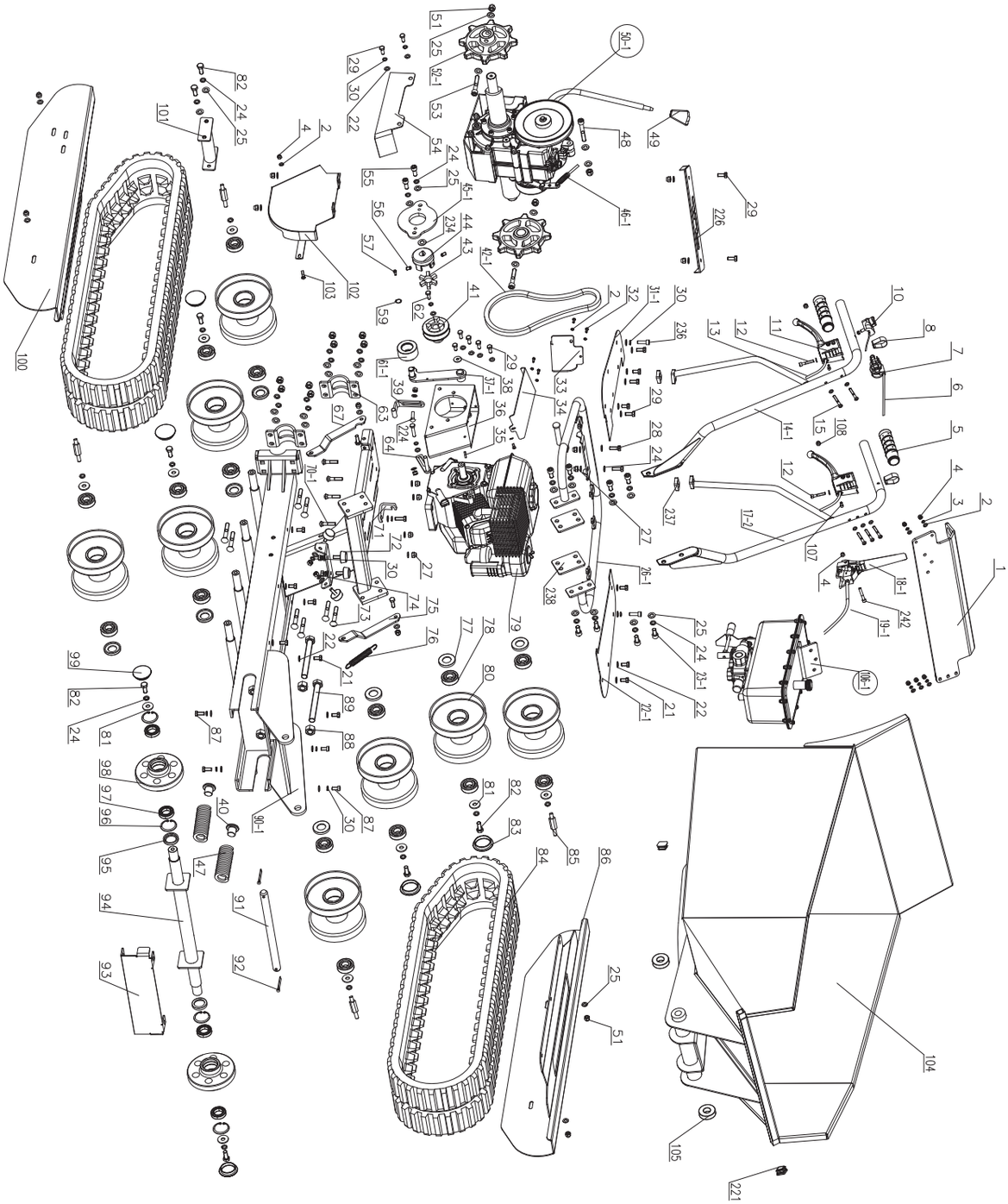
TROUBLE SHOOTING

Problem	Cause	Remedy
Engine fails to start	1. Spark plug wire is disconnected 2. Out of fuel or stale fuel 3. Engine and/or Fuel valve is not in ON position 4. Choke lever is not in CLOSE position 5. Blocked fuel line 6. Fouled spark plug 7. Engine flooding 8. Belt tension lever is engaged	**1. Attach spark plug wire securely to spark plug** **2. Fill with clean, fresh gasoline** **3. Engine and Fuel valve must be in ON position** **4. Choke level must be in CLOSE position for a cold start** **5. Clean fuel line** **6. Clean, adjust gap, or replace** **7. Wait a few minutes to restart, but do not prime** **8. Disengage the belt tension lever**
Engine runs erratically	1. Spark plug wire is loose 2. Unit running with Choke lever in CLOSE position 3. Blocked fuel line or stale fuel 4. Vent plugged 5. Water or dirt in fuel system 6. Dirty air cleaner 7. Improper carburetor adjustment	**1. Connect and tighten spark plug wire** **2. Move choke lever to OPEN position** **3. Clean fuel line. Fill tank with clean, fresh gasoline** **4. Clear vent** **5. Drain fuel tank. Refill with fresh fuel** **6. Clean or replace air cleaner** **7. Refer to engine manual**
Engine overheats	1. Engine oil level low 2. Dirty air cleaner 3. Air flow restricted 4. Carburetor not adjusted properly	**1. Fill crankcase with proper oil** **2. Clean air cleaner** **3. Remove housing and clean** **4. Refer to engine manual**
One of the two tracks is blocked	Foreign bodies have worked their way between the track and the frame	**Remove the foreign body**
Machine does not move while engine is running	1. Gear is not properly selected 2. Driving tracks not tight enough	**1. Ensure gear lever is not in-between two different gears** **2. Tighten driving tracks**

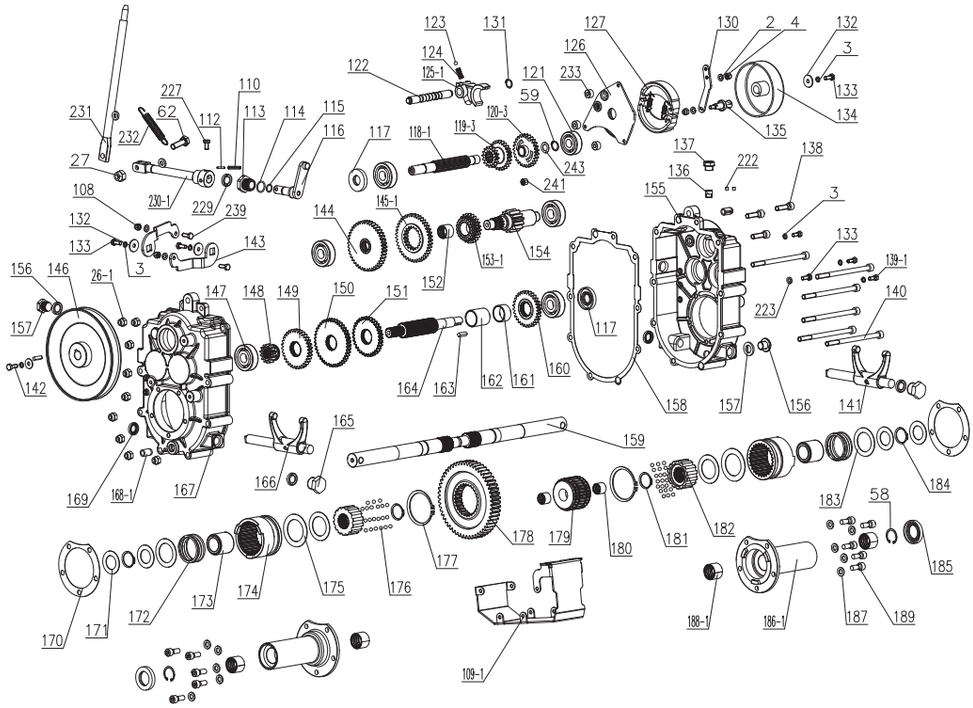
PARTS SCHEDULE

GB

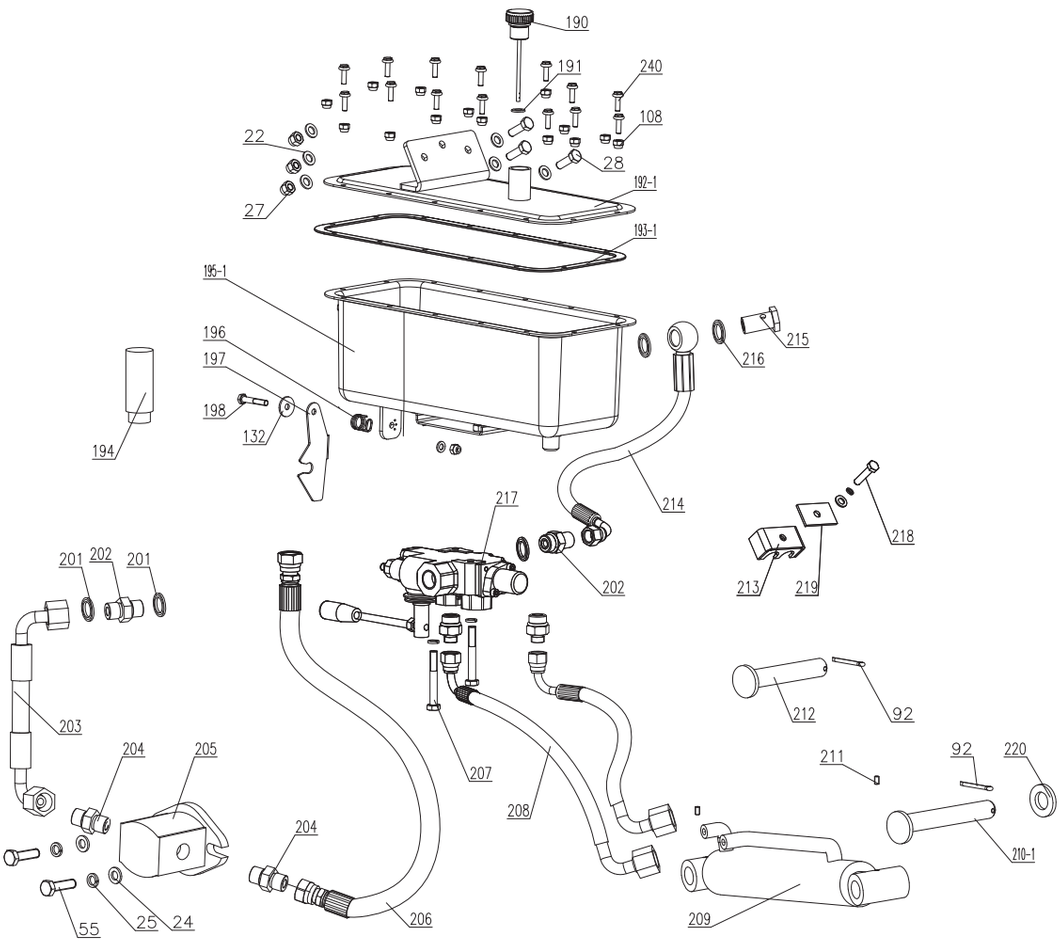
Machine



Gearbox (50-1)



Hydraulic Assembly (106-1)



Parts List

GB

No.	Description	Q'ty
1	Bend Plate	1
2	Washer ø6	29
3	Spring washer 6	12
4	Nut M6	17
5	Handle sleeve	2
6-1	Throttle Cable	1
7	Throttle Lever	1
8	Hoop	2
9	———	—
10	ON/OFF Switch	1
11	Right/Left Steering Lever	2
12	ON/OFF Switch	2
13	Right/Left Steering Lever Cable	2
14-1	Right Handle Frame Assembly	1
15	Screw M6x45	5
16	———	—
17-2	Left Handle Frame Assembly	1
18-1	Clutch Control Lever	1
19-1	Clutch Control Lever Cable	1
20-1	Soleplate (L)	1
21	Bolt M8x16	13
22	Washer ø8	50
23-1	Screw M10x20	8
24	Washer ø10	32
25	Washer ø10	28
26-1	Handle Mounting Frame	1
27	Nut M8	25
28	Bolt M8x25	9
29	Bolt M8x20	7
30	Washer ø8	16
31-1	Soleplate (R)	1
32	Bolt M6X12	6
33	Small Belt Pulley Cover 1	1
34	Cover Plate	1
35	Key5x35	1
36-1	Fixed Bracket	1
37-1	Tensioner Pulley Bracket	1
38	Washer ø8	2
39	Belt Plate	1
40	Locating Sleeve	2

No.	Description	Q'ty
41	Small Belt Pulley	1
42-1	Belt B32	1
43	Rubber Gasket	1
44	Coupler Sleeve (R)	1
45-1	Pump Mounting Flange	1
46-1	Brake Cable	1
47	Tension Spring	2
48	Screw M10X70	1
49	Lever	1
50-1	Gear Box Complete	1
51	Lock Nut M10	15
52-1	Driving Wheel	2
53	Screw M10X60	2
54	Small Belt Pulley Cover 2	1
55-1	Screw M10X25	4
56	Screw M8x10 w/glue	2
57	Screw M5x12	1
58	Circlip 35	2
59	Circlip 15	2
60	———	—
61-1	Tensioner Pulley	1
62	Bolt M8x30	2
63	Wheel Shaft Press Plate	2
64	Belt Plate	1
65	———	—
66	———	—
67	Support Plate	1
68	———	—
69	———	—
70-1	Bolt M8X40	4
71	Cable Fixing Bracket	1
72	Rubber Mat	4
73	Bolt M10x65 w/glue	8
74	Nut M8	4
75	Support Plate (L)	1
76	Long Extension Spring	1
77	Gasket 25x47x7	8
78	Bearing 6204-2RS	16
79	Engine(6.5HP)	1
80	Supporting Wheel weldment	8

No.	Description	Q'ty
81	Washer ø10	14
82	Bolt M10X25	8
83	ø47 Axle Head Cover (Support Wheel)	4
84	Track 180x60	2
85	Two-head Stud	4
86	Guard Plate (L)	1
87	Screw M8x20	4
88	Nut M16	2
89	Guide Bolt	2
90-1	Chassis Weldment	1
91	Optical Axis	1
92	Cotter Pin ø4X35	4
93	Rear Cover	1
94	Guide Wheel Axle	1
95	Gasket 42x30x7	2
96	Circlip 42	4
97	Bearing 61905-2RS	4
98	Guide Wheel	2
99	ø47 Axle Head Cover (Guide Wheel)	2
100	Guard Plate (R)	1
101	Supporting Bracket Weldment	1
102	Large Belt Pulley Cover	1
103	Bolt M6X20	1
104	Dumper Box	1
105	Spring Washer	2
106-1	Hydraulic System	1
107	Screw M5x20	2
108	Nut M5	18
109-1	Guard Cover	1
110	Cylindrical Pin 5X30	1
—	————————	—
112	Cylindrical Pin 3X30	1
113	Locating Nut	1
114	Washer Groupware 20	1
115	O-ring 11.2X1.8	1
116	Lever Mount Bracket	1
117	Seal FB17X40X7	2
118-1	Spline Shaft I	1
119-3	Duplex Slip Gear	1
120-3	Gear	1

No.	Description	Q'ty
121	Bearing 6302	1
122	Gearshift Fork Guide Pin	1
123	Small spring	1
124	Steel Ball 6	1
125-1	Gearshift Fork	1
126	Brake Drum Fixing Plate	1
127	Brake Disk Assy.	1
—	————————	—
—	————————	—
130	Brake Pull Plate	1
131	Circlip 12	1
132	washer 6	4
133	Bolt M6x16	4
134	Expansion Brake Cover	1
135	Stud	1
136	Vent-Plug Joint sleeve	1
137-1	Vent-Plug	1
138	Screw M8x30	3
139-1	Bolt M6x30	3
140	Screw M8x130	6
141	Clutch Fork Shaft (L)	1
142	Bolt M6x20	3
143	Swing Plate	2
144	Gear III-4	1
145	Gear III-3	1
146	Large Belt Pulley	1
147	Bearing 6303	5
148	Gear II-5	1
149	Gear II-4	1
150	Gear II-3	1
151	Gear II-2	1
152	Gear III-2 Bush	1
153	Gear III-2	1
154	Gear Shaft III	1
155	Gear Box Case (L)	1
156	Plug M14x1.5	2
157	Washer Groupware 14	2
158	Gear Box Case Paper Spacer	1
159	Output Shaft	2
160	Gear II-1	1

No.	Description	Q'ty
161	Bush 2	1
162	Bush 1	1
163	Key C5x20	2
164	Spline Shaft II	1
165	Plug M18x1.5	2
166	Clutch Fork Shaft (R)	1
167	Gear Box Case (R)	1
168-1	Pin 12x20	2
169	Seal FB16x24x4	2
170	Output Gear Bush Paper Spacer	2
171	Gasket 1	4
172	Clutch Spring	2
173	Spring Guide Bush	2
174	Clutch Bush	2
175	Spring Gasket	2
176	Steel Ball 5	70
177	Circlip 58	2
178	Output Gear	1
179	Intermediate Joint Bush	1
180	Intermediate Joint Bush Composite Bushing	2
181	Circlip 26	2
182	Joint Bush	2
183	Spring Gasket	4
184	Circlip 25	2
185	Washer ø8	10
186-1	Output Gear Bush Weldment	2
187	Seal FB42x25x7	2
188-1	Output Shaft Composite Bushing	4
189	Bolt M8x25 w/glue	12
190	Oil dipstick Assy	1
191	O -Ring 16x1.8	1
192-1	Tank Cover	1
193-1	Asbestos Cushion	1
194	OIL FILTER	1
195-1	Tank	1
196	Torsion Spring	1
197	Returning Plate	1
198	Bolt M6x30	1
—	———	—
—	———	—
201	Washer Groupware 18	4

No.	Description	Q'ty
202	Connector	4
203	Oil Outlet Pipe	1
204	NPT3/8-M18X1.5	2
205	Pump	1
206	Oil Inlet Pipe	1
207	Bolt M8x55	2
208	Rubber hose	2
209	Welding Cylinder	1
210-1	Spindle 2	1
211	Oil Cup 6X1	2
212	Spindle 1	1
213	Pipe Clamp	1
214	Oil Return Pipe	1
215	Bolt M14x1.5	1
216	Washer Groupware 14	2
217	Reversing Valve	1
218	Bolt M8x40	1
219	Pipe Clamp Plate	1
220	Washer 20	2
221	Pipe Plug 19x19	2
222	Combinded Sealing Washer	1
223	Washer Groupware 6	1
224	Bolt M8x25	1
—	———	—
226	Gearshift Panel	1
227	Bolt M8x12	1
—	———	—
229	Seal FB14x24x7	1
230-1	Gearshift Lever I	1
231	Gearshift Lever I	1
232	Spring	1
233	Bush	3
234	Adjusting Washer	1
—	———	—
236	Bolt M8X35	2
237	Handle Shock Pad	2
238	Handle Shock Pad 2	2
239	Hinge Bolt	2
240	Bolt M5x16	14
241	Gear Bushing	1
242	Screw M6x40	1
243	Wearing Pad	1