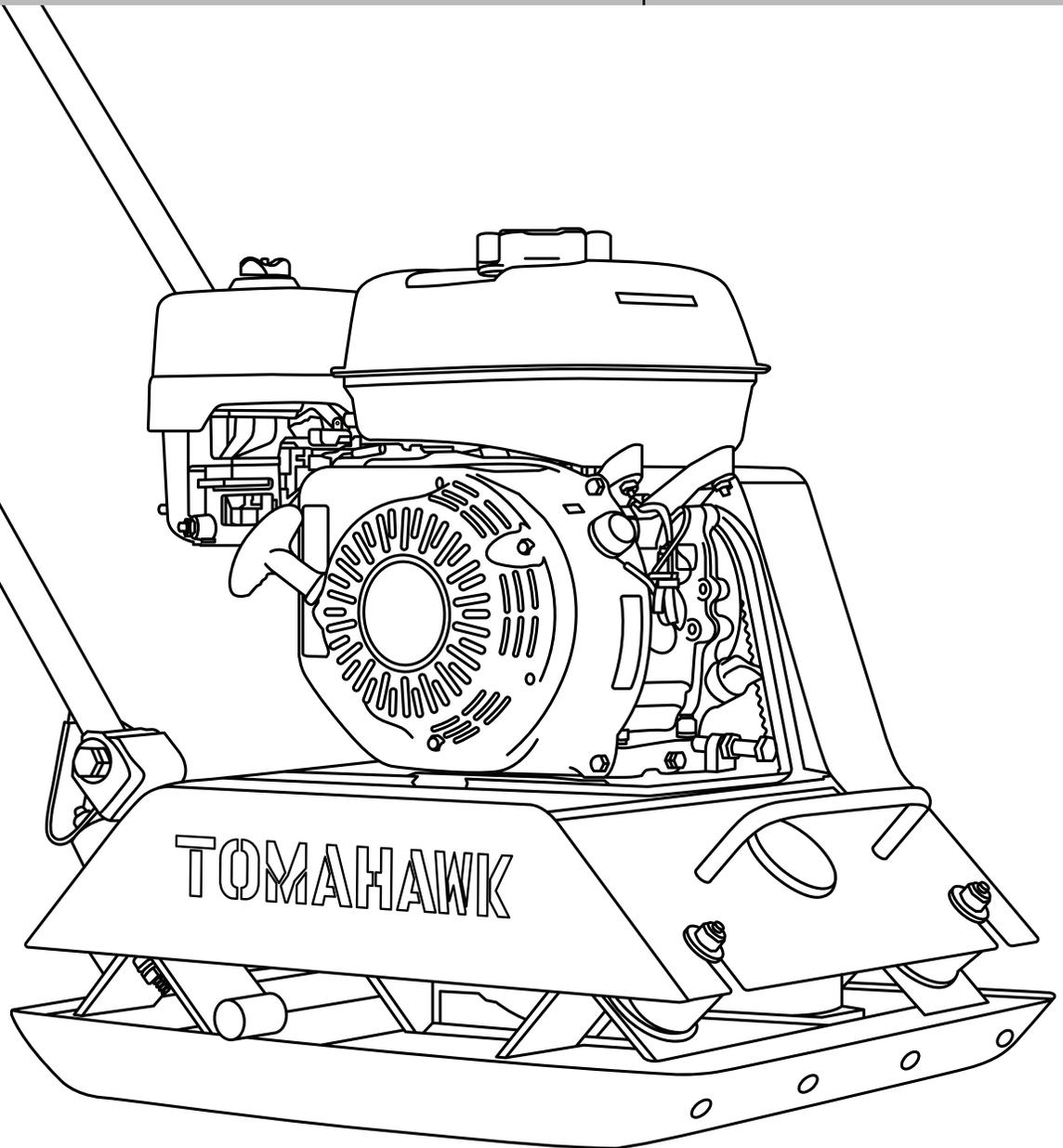
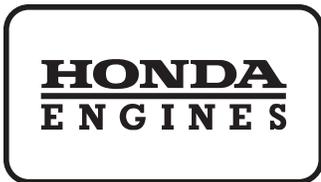


TOMAHAWK

PLATE COMPACTOR

MODEL NUMBER: TPC80, TPC80H

Operation Manual



To reduce the risk of injury, the user must read and understand the Operator's Manual before using this product. Save these instructions for future reference.

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Register Your Equipment

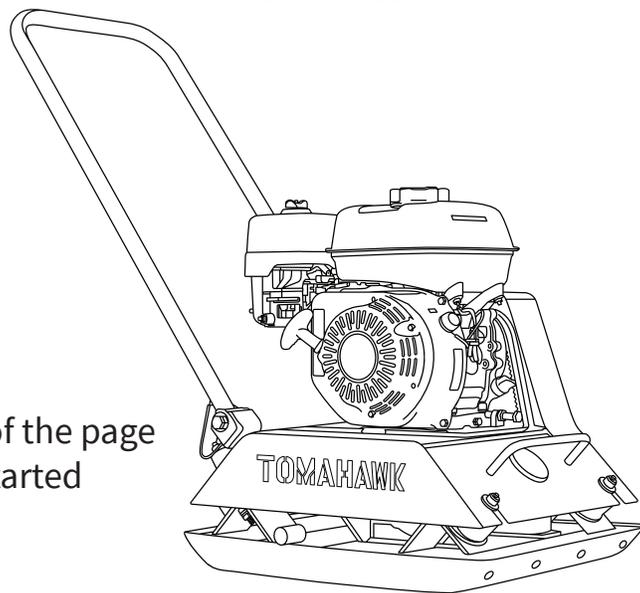
Thank you for purchasing TOMAHAWK® equipment! Your product is covered by the TOMAHAWK® Warranty policy, but in order to activate your warranty, we need you to register your product. In addition to activating your equipment warranty, product registration will grant you access to important product updates, streamlined customer service and more.

INCLUDED WITH YOUR REGISTRATION

- ✓ Equipment Warranty Activation
- ✓ Product Updates
- ✓ Streamlined Customer Service
- ✓ Exclusive Discounts and Sales

STEPS TO REGISTER YOUR EQUIPMENT

1. Visit www.tomahawk-power.com
2. Choose “Product Registration” at the bottom of the page
3. Enter your equipment’s serial number to get started
4. Provide all required information
5. Submit Registration



Equipment Resources

TOMAHAWK® Customer Service doesn't stop at checkout. We understand to keep a job-site running smoothly - the proper equipment, spare parts, instruction manuals, and more are needed at the drop of a hat. Visit www.tomahawk-power.com to gain access to the incredible resources below.

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More of a visual person? Visit our Video Library for equipment assembly instructions, troubleshooting tips, and more!

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Choose “Service Request” at the bottom of www.tomahawk-power.com



This manual provides information and procedures to safely operate and maintain this equipment. For your own safety and protection from injury, carefully read, understand and observe the safety instructions described in this manual.

Keep this manual or a copy of it with the equipment. If you lose this manual or need an additional copy, please contact Tomahawk Power LLC or visit www.tomahawk-power.com. This equipment is built with user safety in mind; however, it can present hazards if improperly operated and serviced. Follow operating instructions carefully. If you have questions about operating or servicing this equipment, contact Tomahawk Power.

The information contained in this manual is based on equipment's production at the time of publication. Tomahawk Power reserves the right to change any portion of this information without notice.

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1. SAFETY INFORMATION

This manual contains DANGER, WARNING, CAUTION, and NOTE callouts which must be followed to reduce the possibility of personal injury, damage to the equipment, or improper service.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

1.1 Laws Pertaining to Spark Arresters

Notice: State Health Safety Codes and Public Resources Codes specify that in certain locations spark arresters be used on internal combustion engines that use hydrocarbon fuels. A spark arrester is a device designed to prevent accidental discharge of sparks or flames from the engine exhaust. Spark arresters are qualified and rated by the United States Forest Service for this purpose.

1.2 Operating Safety



WARNING

Familiarity and proper training are required for the safe operation of equipment! Equipment operated improperly or by untrained personnel can be dangerous! Read the operating instructions contained in both this manual and the engine manual and familiarize yourself with the location and proper use of all controls. Inexperienced operators should receive instruction from someone familiar with the equipment before being allowed to operate the machine.

- 1.2.1 NEVER** allow anyone to operate this equipment without proper training. People operating this equipment must be familiar with the risks and hazards associated with it.
- 1.2.2 NEVER** touch the engine or muffler while the engine is on or immediately after it has been turned off. These areas get hot and may cause burns.
- 1.2.3 NEVER** use accessories or attachments that are not recommended by Tomahawk Power. Damage to equipment and injury to the user may result.
- 1.2.4 NEVER** leave machine running unattended.
- 1.2.5 ALWAYS** be sure operator is familiar with proper safety precautions and operation techniques before using machine.
- 1.2.6 ALWAYS** wear approved safety goggles or safety glasses with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- 1.2.7 ALWAYS** close fuel valve on engines equipped with one when machine is not being operated.
- 1.2.8 ALWAYS** store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children.
- 1.2.9 ALWAYS** operate machine with all safety devices and guards in place and in working order. DO NOT modify or remove safety devices. DO NOT operate machine if any safety devices or guards are missing or inoperative.
- 1.2.10 ALWAYS** read, understand, and follow procedures in Operator's Manual before attempting to operate equipment.

1.3 Safety While Using Combustion Engines



WARNING

Internal combustion engines present special hazards during operation and fueling! Read and follow warning instructions in engine owner's manual and safety guidelines below. Failure to follow warnings and DANGER safety guidelines could result in severe injury or death.

- 1.3.1 DO NOT** run machine indoors or in an enclosed area such as a deep trenches unless there is adequate ventilation, through such items as exhaust fans or hoses are provided. Gasoline exhaust from the engine contains poisonous carbon monoxide gas; exposure to carbon monoxide can cause loss of consciousness and may lead to death.
- 1.3.2 DO NOT** smoke while operating machine.
- 1.3.3 DO NOT** smoke when refueling engine.
- 1.3.4 DO NOT** refuel hot or running engine.
- 1.3.5 DO NOT** refuel engine near open flame.
- 1.3.6 DO NOT** spill fuel when refueling engine.
- 1.3.7 DO NOT** run engine near open flames.
- 1.3.8 ALWAYS** refill fuel tank in well-ventilated area.
- 1.3.9 ALWAYS** replace fuel tank cap after refueling.

- 1.3.10 ALWAYS** check fuel lines and fuel tank for leaks and cracks before starting engine.
1.3.11 DO NOT run machine if fuel leaks are present or fuel lines are loose.

1.4 Service Safety



DANGER

Poorly maintained equipment can become a safety hazard! In order for the equipment to operate safely and properly over a long period of time, periodic maintenance and occasional repairs are necessary.

1.4.1 DO NOT attempt to clean or service machine while it is running. Rotating parts can cause severe injury.

1.4.2 DO NOT crank a flooded engine with the spark plug removed on gasoline-powered engines. Fuel trapped in the cylinder will squirt out the spark plug opening.

1.4.3 DO NOT test for spark on gasoline-powered engines, if engine is flooded or the smell of gasoline is present. A stray spark could ignite fumes.

1.4.4 DO NOT use gasoline or other types of fuels or flammable solvents to clean parts, especially in enclosed areas. Fumes from fuels and solvents can become explosive.

2. TECHNICAL DATA

2.1 Product Features

TOMAHAWK® plate compactors are robust and versatile construction tools designed for compacting various types of soil, gravel, and asphalt surfaces. The primary intended use is to achieve maximum compaction efficiency and stability in a wide range of construction and landscaping projects. Building a solid foundation enhances the durability and longevity of roads, parking lots, driveways, sidewalks, and other paved areas. Its ergonomic design and maneuverability enable it to navigate tight spaces and uneven terrain, making it suitable for both residential and commercial applications.

2.2 Engine Data

Model	TPC80 - 5.5HP Kohler Model	TPC80 - 6HP Kohler Model	TPC80H - 5.5HP Honda Model
Engine Make	Kohler CH255	Kohler CH260	Honda GX160
Engine Type	Air-cooled 4-stroke OHV	Air-cooled 4-stroke OHV	Air-cooled 4-stroke OHV
Start Type	Pull	Pull	Pull
Horsepower	5.5	6	5.5
Engine Displacement	177cc	208cc	163cc
Peak Torque	11.2 ft-lb	10.42 ft-lb	7.6 ft-lb
Engine Rated Speed	4,000 RPM	4,000 RPM	4,000 RPM
Bore	68 mm	70 mm	68 mm
Stroke	49 mm	54 mm	45 mm
Engine Lubrication	SAE 10W30 SG / SF	SAE 10W30 SG / SF	SAE 10W30 SG / SF
Oil Capacity	0.63 US qt. (0.6 L)	0.625 US qt. (0.6 L)	0.61 US qt. (0.58 L)
Fuel Type	91 Octane Gasoline	91 Octane Gasoline	91 Octane Gasoline
Fuel Tank Capacity	3.8 U.S. qts (3.6 liters)	3.8 U.S. qts (3.6 liters)	3.3 U.S. qts (3.1 liters)
Engine Dimensions	12.7" x 15.2" x 14.2" (L x W x H)	12.7" x 15.2" x 14.2" (L x W x H)	12.2" x 14.3" x 13.6" (L x W x H)
Engine Dry Weight	38.7 lbs	38.7 lbs	33 lbs
Engine Warranty	3 Year	3 Year	3 Year
Spark Plug	NGK BPR 6ES	NGK BPR 6ES	NGK BPR 6ES

2.3 Machine Data

Model	TPC80 - 5.5HP Kohler Model	TPC80 - 6HP Kohler Model	TPC80H - 5.5HP Honda Model
Centrifugal Force	13 Kn	13 Kn	13 Kn
Max Exciter Speed	5800 RPM	5800 RPM	5800 RPM
Compaction Force	3000 lb/ft	3000 lb/ft	3000 lb/ft
Compaction of Cohesive Soils	22 inches	22 inches	22 inches
Vibration Frequency	100 Hz	100 Hz	100 Hz
Vibrations per Minute	6400	6400	6400
Max Travel Speed	79 ft/min	79 ft/min	79 ft/min
Plate Depth	21 inches	21 inches	21 inches
Package Dimensions	17 inches	17 inches	17 inches
Weight	176 lbs	176 lbs	170 lbs
Product Warranty	1 Year	1 Year	1 Year
CA (CARB) Compliant	Yes	Yes	Yes
EPA Compliant	Yes	Yes	Yes

3. OPERATION

3.1 Recommended Fuel

The engine requires regular grade unleaded gasoline, 87 octane or higher. Use only fresh, clean gasoline.

NOTE: Gasoline containing water or dirt will damage fuel system. Consult engine owner's manual for complete fuel specifications.

3.2 Before Starting

3.2.1 Read and understand safety and operating instructions at beginning of this manual.

3.2.2 Check:

- Oil level in engine
- Fuel level
- Condition of air cleaner
- Tightness of external fasteners
- Condition of fuel lines



If you have just unboxed this plate compactor, oil will need to be added. This plate compactor's engine does not ship with oil. Add .6L of 10W-30 oil before starting the engine.

3.3 Starting the Engine

3.3.1 Adjust the fuel valve lever **(1)** to the ON position.

3.3.2 When starting a cold engine, position the choke lever **(2)** to the CLOSED state.

NOTE: If restarting a warm engine, keep the choke lever **(2)** in the OPEN position.

3.3.3 Shift the throttle lever **(3)** away from the MIN position, moving it about 1/3 of the way towards the MAX position.

3.3.4 Set the engine switch **(4)** to the ON position.

3.3.5 Gently pull the recoil starter grip **(5)** until you encounter resistance, then briskly pull it in the direction indicated by the arrow. Afterwards, release the starter grip gently.

NOTE: To prevent any damage to the starter, avoid allowing the starter grip to snap back forcefully against the engine. Instead, gently return it to its original position.

3.3.6 If the choke lever **(6)** was initially set to the CLOSED position for starting, gradually transition it to the OPEN position as the engine begins to warm up.

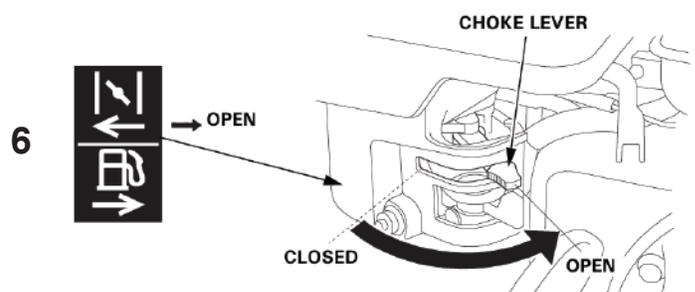
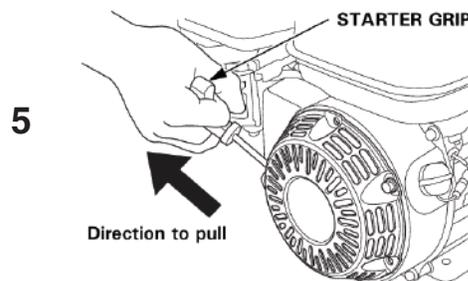
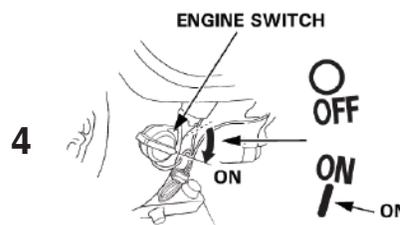
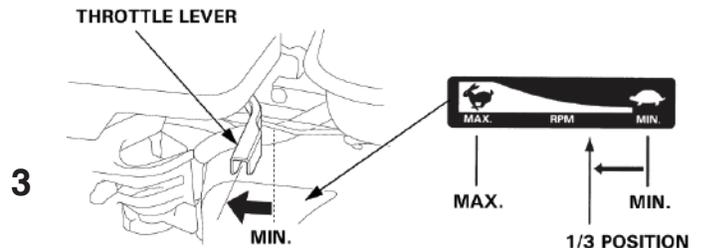
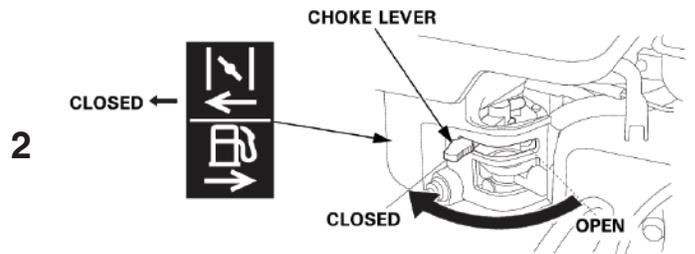
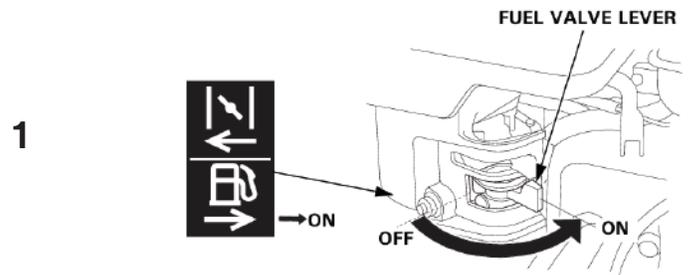
3.4 Stopping the Engine

3.4.1 Adjust the throttle lever **(3)** to the minimum (MIN) position.

3.4.2 Switch off the engine by turning the engine switch **(4)** to the OFF position.

3.4.3 Move the fuel valve lever **(1)** to the OFF position.

Note: In case of an emergency, promptly turn the engine switch **(4)** to the OFF position to stop the engine. For regular shutdowns, follow the procedure mentioned earlier.



3.6 Using the Equipment

Run engine at full throttle and allow plate to pull itself along at its normal speed. When operating on an incline it may be necessary to assist plate by pushing it forward slightly. Depending on the material being compacted, three or four passes are recommended to achieve the best compaction.

While a certain amount of moisture in the soil is necessary, excessive moisture may cause soil particles to stick together and prevent good compaction. If soil is extremely wet, allow it to dry somewhat before compacting.

If soil is so dry as to create dust clouds while operating plate, some moisture should be added to the ground material to improve compaction. This will also reduce service to the air filter.

NOTE: When using the plate on paving stones, attach a pad to the bottom of the plate to prevent chipping or grinding surface of the stones. A special polyurethane pad designed for this purpose is available as an optional accessory. See Page 20 for a installation guide.



DO NOT operate plate on concrete or on extremely hard, dry, compacted surfaces. The plate will jump rather than vibrate and could damage both plate and engine.

3.7 Building a Brick Patio

A plate compactor is essential for building a brick patio as it ensures a firm and stable base by compacting the soil and base materials, preventing future settling and ensuring the longevity of the patio. Having a brick patio is a true delight. Its durable and low-maintenance nature allows for long-lasting beauty and the perfect spot to create wonderful moments with family and friends.

3.7.1 Steps for Laying a Brick Patio

1. If there is an existing patio – remove the old bricks, paving stones, or concrete.
2. Excavate 7 inches of soil using a shovel, then compact the ground with the plate compactor.
3. Apply 2 inches of graded base and compact it.
4. Place nylon lines 3 inches above the graded base and lay steel pipes (screed rails) 2 inches below the lines.
5. Spread sand across the entire area and use a screed to level it.
6. Fill any low spots with additional sand and re-screed as needed.
7. Start placing pavers in one corner, being careful not to slide them, and continue installing them, ensuring staggered joints.
8. Install plastic edging around the patio perimeter.
9. Spread a ½-inch layer of sand over the bricks and vibrate it into the paver joints using the plate compactor.
10. Install a protective paver pad to prevent breaking or scuffing the bricks.
11. Sweep away excess sand with a push broom.

4. MAINTENANCE

4.1 Maintenance Schedule

The chart below lists basic engine maintenance. Refer to engine manufacturer's Operation Manual for additional information on engine maintenance.

	Daily before starting	After first 20 hours	Every 2 weeks or 50 hours	Every month or 100 hours	Every year or 300 hours
Check fuel level.	●				
Check engine oil level.	●				
Inspect fuel lines.	●				
Inspect air filter. Replace as needed.	●				
Check and tighten external hardware.	●				
Check and adjust drive belt.		●	●		
Clean air cleaner elements.			●		
Inspect shockmounts for damage.			●		
Change engine oil.		●		●	
Clean engine cooling fins.				●	
Clean sediment cup / fuel filter.				●	
Check and clean spark plug.				●	
Check and adjust valve clearance.					●
Change exciter oil.					●

4.2 Cleaning Plate

Clean the plate after use to remove dirt, stones, and mud caught under the engine console. If plate is being used in a dusty area, check engine cylinder cooling fins for heavy dirt accumulation. Keep engine cylinder fins clean to prevent engine from overheating.

4.3 Drive Belt (Fig.3)

On new machines or after installing a new belt, check belt tension after first 20 hours of operation. Check and adjust belt every 50 hours thereafter.

To change the belt:

4.3.1 Remove the four hex nuts securing the belt cover. (B-C)

4.3.2 Remove the 1st belt. Use a screddriver to ease the 1st belt off by placing under the belt and on the lip of the pulley, then pulling up. Remove the 2nd belt using the same technique and shifting the 2nd belt from the inner groove to the outer groove and then off of the pulley. (D-F)

4.3.3 Install a new belt on pulley. Place around the inner groove of the lower pulley and the inner groove of the upper pulley. (G) Holding the belt firm, turn the pulley clockwise. (H) Repeat for the 2nd belt.

4.3.4 Replace Belt

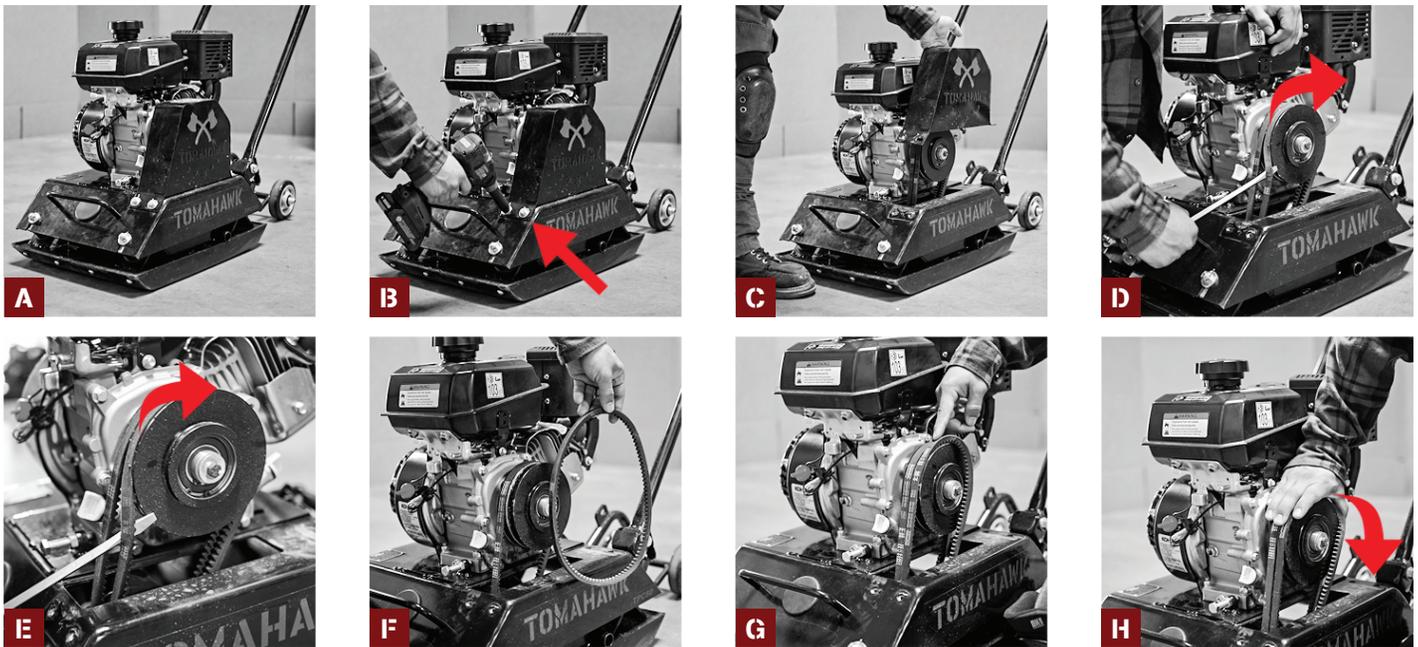


Fig. 3

4.4 Exciter Lubrication (Fig. 4)

The exciter assembly is a self-contained, sealed unit. The bearings are lubricated using automatic transmission fluid (see Technical Data for type). Change fluid once every year or 300 hours of operation. When changing fluid, replace O-ring.

To change fluid:

4.4.1 Remove the rubber cap from the front of the compactor's housing. (A)

4.4.2 Remove the drain nut from the compactor's exciter box with a 19mm socket. (B)

4.4.3 Tip baseplate up and drain fluid from exciter assembly. Dispose of used fluid in an appropriate manner. Contact local recycling center.

4.4.4 Add 150 ml (5 ounces) of automatic transmission fluid to exciter housing and fasten end cover to exciter. Do not overfill exciter or bearings may overheat.

4.4.5 Set up console assembly to baseplate and install belt, beltguard, and hose to water tank.

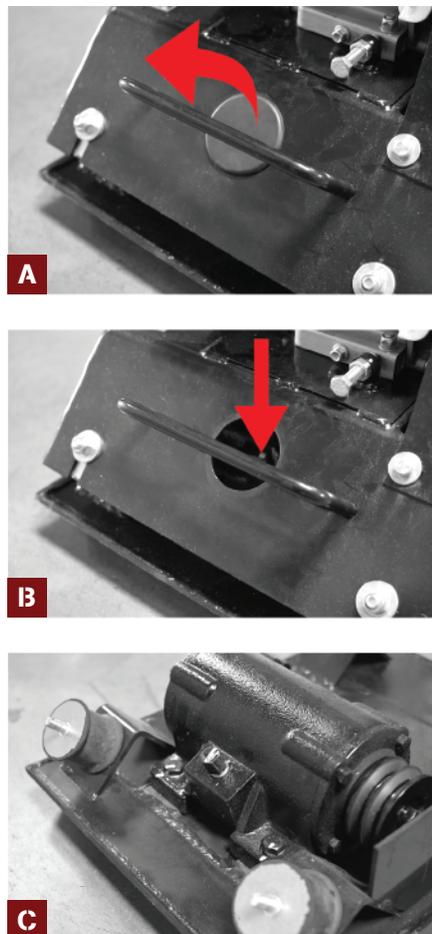


Fig. 4

4.5 Spark Plug (Fig. 5)

Clean or replace spark plug as needed to ensure proper operation. Refer to the engine owner's manual.

The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Do not touch the muffler while it is hot.

Note: Refer to the Technical Data for the recommended spark plug type and the electrode gap setting (page 6).

4.5.1 Remove spark plug and inspect it.

4.5.2 Replace plug if the insulator is cracked or chipped.

4.5.3 Clean spark plug electrodes with a wire brush.

4.5.4 Set the electrode gap (a).

4.5.5 Tighten spark plug securely.

CAUTION: A loose spark plug can become very hot and may cause engine damage.

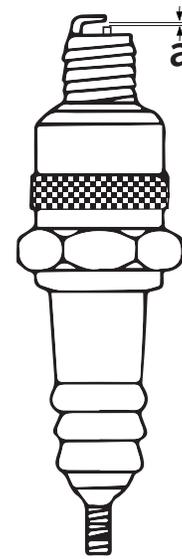


Fig. 5

4.6 Engine Oil (Fig. 6)

4.6.1 Drain oil while the engine is still warm.

4.6.2 Remove the oil fill plug (a) and drain plug (b) to drain oil.

4.6.3 Install drain plug.

4.6.3 Fill the engine crankcase through the oil opening (b), to the upper mark on the dipstick (c). Do not thread in the dipstick to check the level. See Technical Data for oil quantity and type (page 6).

4.6.4 When the crankcase is full, reinstall the dipstick.

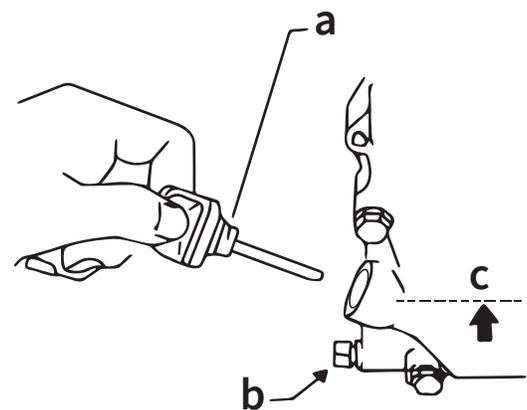


Fig. 6

Note: In the interests of environmental protection, place a plastic sheet and a container under the machine to collect any liquid which drains off. Dispose of this liquid in accordance with environmental protection legislation.

4.7 Air Filter (Fig. 7)



NEVER use gasoline or other types of low flash point solvents for cleaning the air cleaner. A fire or explosion could result.



NEVER run engine without air cleaner: Severe engine damage will occur.

The engine is equipped with a dual element air cleaner. Under normal operating conditions, elements should be cleaned once every week. Under severe, dry and dusty conditions, the elements should be maintained daily. Replace an element when saturated with dirt that cannot be removed.

4.7.1 Remove the air cleaner cover (a). Remove both elements and inspect them for holes or tears. Replace damaged elements.

4.7.2 Wash the foam element (b) in a solution of mild detergent and warm water. Rinse it thoroughly in clean water. Allow the element to dry thoroughly.

4.7.3 Tap the paper element (c) lightly to remove excess dirt or blow compressed air through the filter from the inside out. Replace the paper element if it appears heavily soiled.

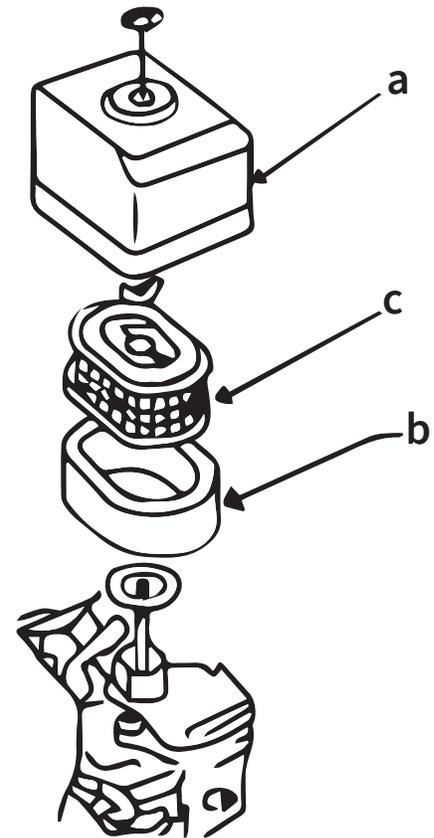


Fig. 7

4.8 Cleaning Sediment Cup (Fig. 8)

4.8.1 Turn fuel valve off.

4.8.2 Remove sediment cup (a) and O-ring (b).

4.8.3 Wash both thoroughly in a nonflammable solvent. Dry and reinstall them.

4.8.4 Turn fuel valve on and check for leaks.

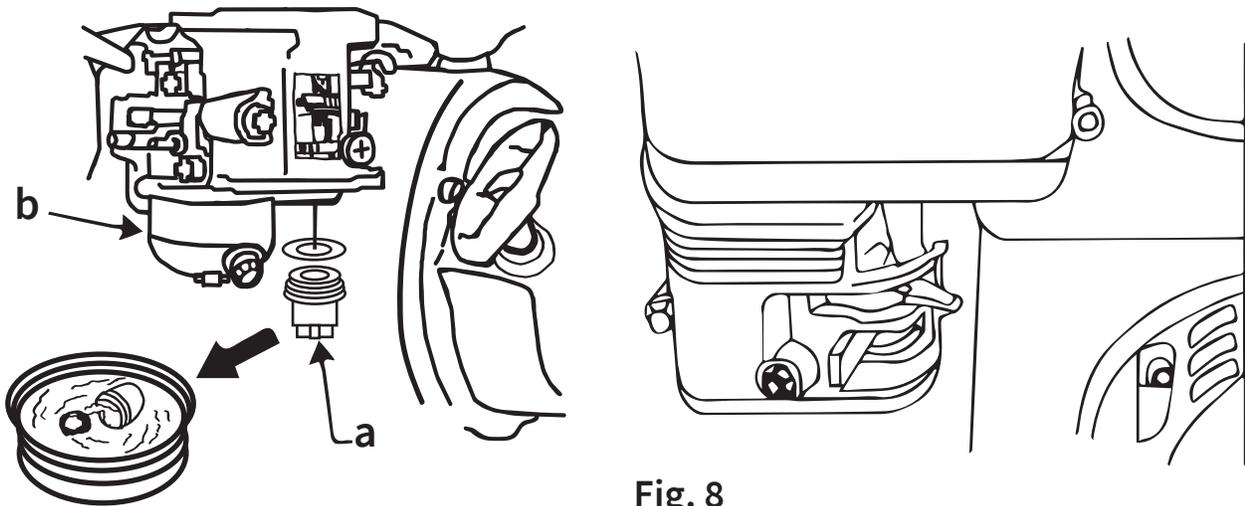


Fig. 8

4.9 Carburetor Adjustment (Fig. 9)

4.9.1 Start the engine and allow it to warm up to operating temperature.

4.9.2 Set the pilot screw (a) 2 turns out. See Note.

4.9.3 With the engine idling, turn the pilot screw (a) in or out to the setting that produces the highest rpm.

4.9.4 After the pilot screw is adjusted, turn the throttle stop screw (b) to obtain the standard idle speed. See Technical Data.

Note: On some engines the pilot screw is fitted with a limiter cap (c) to prevent excessive enrichment of the air-fuel mixture in order to comply with emission regulations. The mixture is set at the factory and no adjustment should be necessary. Do not attempt to remove the limiter cap. The limiter cap cannot be removed without breaking the pilot screw.

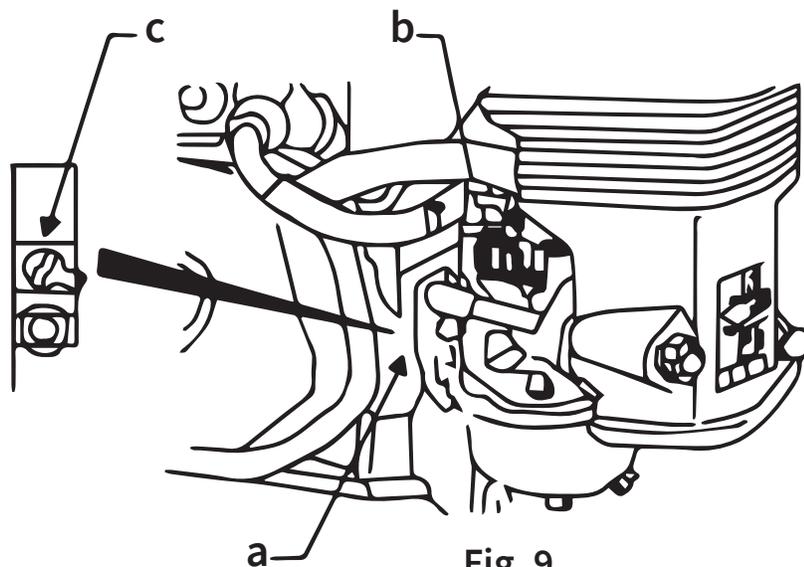


Fig. 9

4.10 Troubleshooting

Problem / Symptom	Reason / Remedy
<p>-Plate does not develop full speed.</p> <p>-Poor compaction.</p>	<ul style="list-style-type: none"> • Engine throttle control is not completely open. • Throttle control is not adjusted correctly. • Ground is too wet, plate sticking. Allow soil to dry before compacting. • Drive belt is loose or worn, slipping on pulleys. Adjust or replace belt. Check that the engine mounting bolts are tight. • Exciter bearings binding. Check condition and level of oil in exciter. Add or change oil. • Air filter is clogged with dust, reducing engine performance. Clean or replace air filter. • Engine speed is too low. Check the engine speed with tachometer. Adjust or repair engine to run at correct the speed. Refer to engine manual.
<p>-Engine running, no vibration.</p>	<ul style="list-style-type: none"> • Engine throttle is not open. • Drive belt is loose or broken. Adjust or replace. • Clutch is damaged. Inspect and replace clutch. • Engine speed is low. Check engine speed. • Too much oil in exciter. Adjust oil to the correct level.
<p>-Plate jumps or compacts unevenly.</p>	<ul style="list-style-type: none"> • Ground surface is too hard. • Shockmounts loose or damaged.

4.11 Storage

If plate is being stored for more than 30 days:

4.11.1 Remove loose stones and dirt from plate.

4.11.2 Clean engine cylinder cooling fins.

4.11.3 Clean or replace air filter.

4.11.4 Change exciter oil.

4.11.5 Change engine oil and follow procedures described in engine manual for engine storage.

4.12 Lifting Machine

See Technical Data for the weight of the machine.

To lift machine manually:

4.12.1 Stop the engine.

4.12.2 Obtain help from a partner and plan the lift.

4.12.3 Grasp the machine by its cage and lifting slot.

4.12.4 Lift the machine.



To reduce risk of back injury while lifting, keep your feet flat on ground and shoulder width apart. Keep your head up and back straight.

To lift machine mechanically:

CAUTION: Before attempting to lift, be sure that all lifting devices can safely handle the weight of the machine. See Technical Data (page 7) for the weight of the machine.

Attach hook, harness, or cable to the machine as shown and lift as desired.

CAUTION: DO NOT lift the vibroplate by its guide handle. The vibroplate can shift, causing it to fall.

4.13 Transporting the Machine



To avoid burns or fire hazards, let the engine cool before transporting the machine or storing indoors.

4.13.1 Turn the fuel valve to the off position and keep the engine level to prevent fuel from spilling.

4.13.2 Tie down the machine on vehicle to prevent the machine from sliding or tipping over.

5. COMPACTION TIPS

5.1 Soil Drop Test: Soil preparedness refers to the “wetness” of the dirt or soil. Soil needs to be 50% dry and 50% wet, before starting compaction. A simple “hand test” can determine this. Pick up a handful of soil with your hand and squeeze the dirt. Observe whether the soil is powdery or if it breaks apart when dropped. If the soil does break apart, it means that it is too dry. If the soil keeps together in one piece when dropped, it is ready for compaction.

5.2 Soil Testing: Testing: The function of this step is to measure the density of an aggregate material to ensure the increase of density when driving out air. At a low moisture content level, there are more soil particles assembling together. In order to determine if the soil is compacted properly, there are several methods.

5.2.1 Soil Testing: Test strips are useful to determine the method of compaction and understand how many passes of your plate compactor are needed to achieve the optimum compaction. Every layer of compacted soil meets a specific percentage on the proctor curve. Through soil testing, it is possible to identify optimum moisture. Soil testing measures the soil density compared to the degree of compaction specifications, as well as the effect of the moisture.

A common laboratory method called the Proctor Compaction Test can be used to determine the optimal moisture content for a given soil type. The goal of this method is to understand the soil’s maximum dry density. A second method of soil testing is known as the California Test 216 and is used to find the relative compaction of untreated and treated soils.

Four factors account for optimum compaction including lift thickness, pressure, and soil moisture content. During the compaction process, the soil's moisture adds density and lubricates soil particles, until there is a maximum dry unit weight without voids in the soil. The table below explains the different outcomes and properties of fill materials.

Properties of Different Fill Materials			
	Foundation Support	Permeability	Compaction Difficulty
Gravel	Excellent	Very High	Very Easy
Sand	Good	Medium	Easy
Silt	Poor	Medium Low	Somewhat Difficult
Clay	Moderate	None	Very Difficult

5.3 Compaction Terms

5.3.1 Cohesive soils: Clays and mixes have a particular particle size of less than .003” or .002” and are typically classified as cohesive soils. This type of soil is primarily used for retaining pond beds and mound fills. These soils are dense due to the strongly bound molecular attraction. Cohesive soils and water will not mix easily, but only once the soils are moist it will feel sticky.



5.3.2 Granular soils: These soils have particle sizes of .003” or greater, like sand. Water drains easily through the soils particles of granular soils. The larger the particles, the larger the equipment needed to achieve lower frequencies and higher compaction force. Plate compactors are typically the best option for compacting granular soils - however, depending on the vibration frequency and particle size, reversible plate compactors and double drum rollers may be more appropriate for this type of work.



5.3.3 Mixed soils: Sometimes soils can be a mixture of both types, cohesive and granular. Thus choosing the appropriate compaction equipment is more difficult. We recommend testing your equipment to match the best machine to the desired job.



5.3.4 Static force: Found in the deadweight of machines, static force applies pressure downward on soil surfaces. As a result, soil particles compress in the topsoil layer.

5.3.5 Vibratory force: This force is engine-driven, creating a downward force, in addition to the machine's static weight. Vibrations compress the soil material closer together to increase density.

5.3.6 Types of compaction: There are four types of compaction that can be applied to soils or asphalt. Each one takes place using one of the two types of the forces explained above (static or vibratory).

- A. Vibration: Periodic motion of particles with rotating weight in opposite directions from a position of equilibrium.

- B. Impact: An action of one object coming into contact with another.
- C. Kneading: Force is applied by alternating movement in adjacent positions.
- D. Pressure: The process of continuous physical force against solid materials.

6. HANDLE ASSEMBLY

- 6.1 Remove the bolts and isolation mounts from the back of the compactor. (Fig. 10)
- 6.2 Fit the isolation mounts into the bottom of the handles. (Fig. 11)
- 6.3 Align the base of the handles to the back of the compactor and fit into the brackets. (Fig. 12)
- 6.4 Fit the bolts back into the isolation mounts on either side of the handles. (Fig. 13)
- 6.5 Fasten in place the nuts. (Fig. 14)
- 6.6 Securely tightly. (Fig. 15)



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15

7. PAVER PAD ASSEMBLY

7.1 Grab the poly pad hardware kit a 5mm allen wrench and a 13mm wrench to complete this assembly.

7.2 Flip the compactor over and begin removing the screw around the plate using a 5mm allen wrench. (Fig. 17)

7.3 Attach the pad using the larger screws found in the hardware kit. (Fig. 18)

7.4 Fasten the larger screws with a 13mm wrench. (Fig. 19)

7.5 Fasten the bottom screws. (Fig. 20)

7.6 Right-side the plate compactor gently. (Fig. 21)



Fig. 16



Fig. 17



Fig. 18

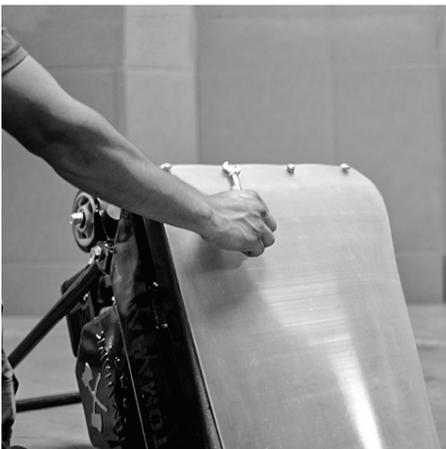


Fig. 19



Fig. 20



Fig. 21

8. WHEEL KIT ASSEMBLY

8.1 Remove the screw and washer from the base of the wheel kit (Fig. 22)

8.2 Remove the bar from the base of the wheel kit (Fig. 23)

8.3 Place the base of the wheel kit into the back of the compactor and secure in place with the bar (Fig. 24)

8.4 Replace the screw and washer on the right side of the wheel kit (Fig. 25)

8.5 Fasten the wheel kit in place using a 13mm socket wrench (Fig. 26)

8.6 To keep the wheels raised, lift up and secure in place with the pin (Fig. 27)



Fig. 22



Fig. 23



Fig. 24



Fig. 25

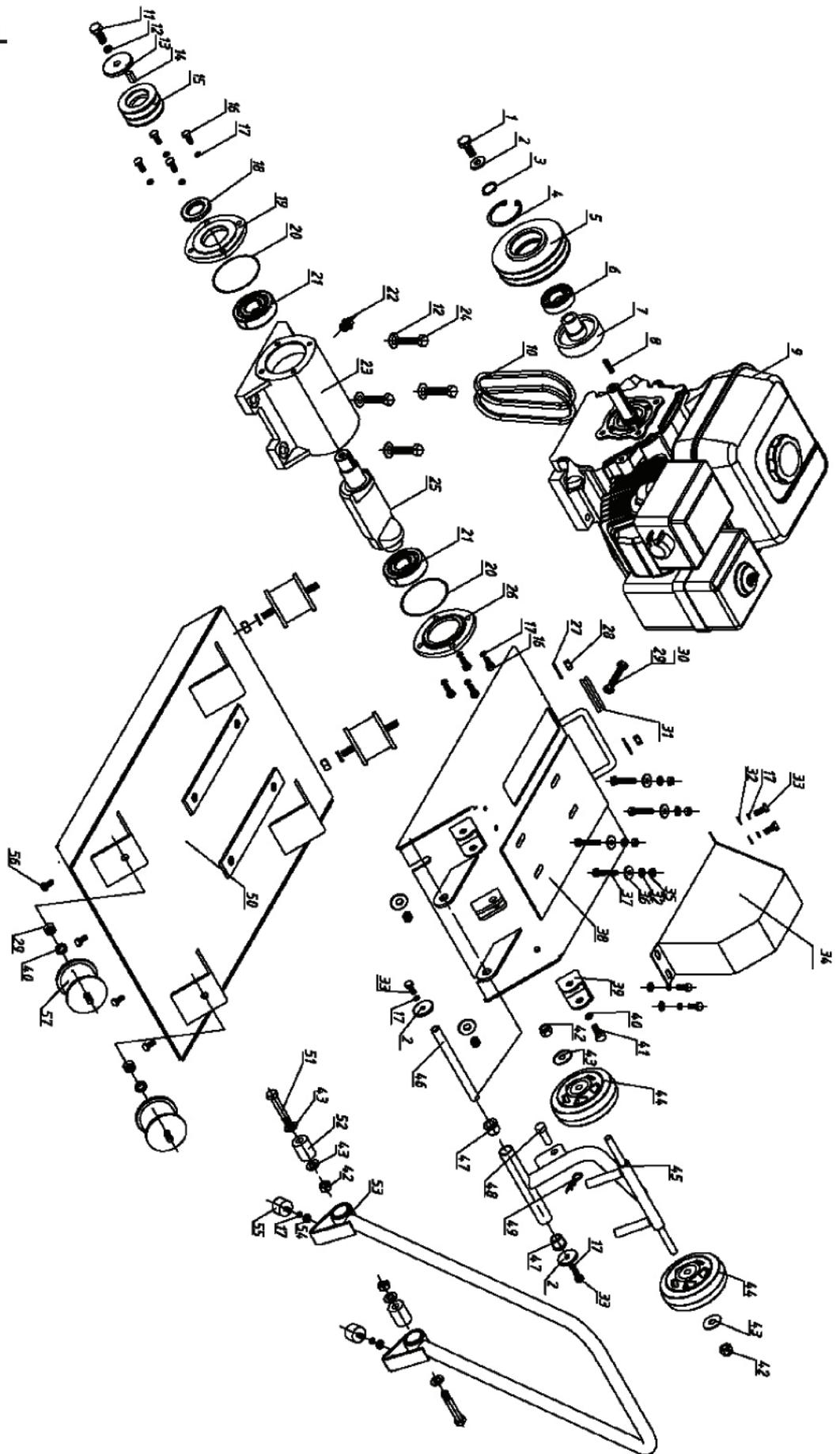


Fig. 26



Fig. 27

9. PARTS MANUAL



PARTS LIST

No.	Part No.	Part Name	Qty.
1	5/16-24*1-UNF-G5	Screw	1
2	GB/T5287-φ8	Washer	3
3	GB/T894.1-φ30	Retaining Ring	1
4	GB/T893.1-φ62	Ring	1
5	JPC80.5-1A	Clutch Drum	1
6	GB/T276-6206-2RS	Bearing	1
7	JPC80.5.1A	Clutch	1
8	HZR96-9	Key	1
9	CH260	Engine	1
10	A29	V Belt	2
11	GB/T5783-M12*30	Screw	1
12	GB/T93-φ12	Washer	5
13	JPC80.4-7	Washer	1
14	GB/T1096-A7*7*20	Key	1
15	JPC80.4-5	Pulley	1
16	GB/T5783-M8*25	Screw	8
17	GB/T93-φ8	Washer	19
18	GB/T13871-TC32*48*8	Oil Seal	1
19	JPC80.4-3	Bearing Holder	1
20	GB/T3452.1-φ80*3	O Sealing	2
21	NJ307EMC3	Bearing	2
22	JPC80.4-6	Drain Plug	1
23	JPC80.4-1	Exciter Housing	1
24	GB/T5783-M12*45	Screw	4
25	JPC80.4-2	Exciter Shaft	1
26	JPC80.4-4	Bearing Holder	1
27	GB/T96-φ10	Washer	4
28	GB/T889.1-M10	Nut	4
29	GB/T6170-M10	Nut	5
30	GB/T5783-M10*50	Screw	1
31	HZR80-4	Rubber Stopper	1
32	GB/T97.1-φ8	Washer	4
33	GB/T5783-M8*16	Screw	6
34	HZR80.4B	Kit-Upper Beltguard	1

PARTS LIST

No.	Part No.	Part Name	Qty.
39	TPC80-3	Handle Holder	2
40	GB/T93-φ10	Washer	8
41	GB/T5783-M10*25	Screw	2
42	GB/T889.1-M12	Nut	4
43	GB/T97.1-φ12	Washer	6
44	1WG2.0-60.29	Tire	2
45	TPC80.3.1	Support	1
46	HZR80B-1	Joint Shaft	1
47	HZR80B.6-1	Nylon Bushing	2
48	GB/T882-B-12*30	Pin	1
49	QC/T623-2.5*50	R-Pin	1
50	TPC80.1A	Baseplate	1
51	GB/T5782-M12*70	Screw	2
52	TPC80-2	Rubber Sleeve	2
53	TPC80.3B	Handle	1
54	GB/T6170-M8	Nut	2
55	HZR80.5.2	Shockmount	2
56	GB/T5789-M8*12	Screw	8
57	TPC80.7	Shockmount	4

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PRODUCT CATALOG

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3,550 lbs/ft Vibratory Rammer
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3.6 HP Honda GXR120 Engine
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3-in-One Fuel System with carburetor protection
13" x 11" plate for narrow trenches and corners
3 Year Engine Warranty & 1 Year Product Warranty



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22" x 20" cold, rolled steel beveled base plate
Includes 3.5 gallon water tank for asphalt compaction
3 Year Engine Warranty & 1 Year Product Warranty



HONDA
ENGINES

KOHLER
ENGINES

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Easily achieve a 100% compaction rating
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Achieve superior concrete finishes with even spraying
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HONDA
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360° adjustable handle placement
3 Year Engine Warranty & 1 Year Product Warranty



HONDA
ENGINES

6" Early Entry Green Concrete Saw
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5.5 HP Honda GX160 Engine
Maximum cutting depth of 1 3/16 inches
OSHA compliant vacuum port for dust collection
Includes 6" early entry concrete blade
3 Year Engine Warranty & 1 Year Product Warranty

FINISHING



HONDA
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3 Year Engine Warranty & 1 Year Product Warranty



HONDA
ENGINES

KOHLER
ENGINES

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60-115 RPM rotor speed for superior concrete finishes
Includes float pan and trowel blades
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HONDA
ENGINES

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Part#: TG2000i

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INVERTER SERIES



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Part#: TWG135Ai

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Suitable for welding rods from 6010 to 7024
2 Year Product Warranty



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Part#: TWG210A

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2000 Watt Inverter Generator
60% Duty Cycle for extended use
Suitable for welding rods from 6010 to 7024
2 Year Product Warranty

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Part#: TMD14

Turbo Boosted Pump with 40ft+ Horizontal Reach
Sprays 1 acre in 30 minutes
10X Faster than Manual Pump Sprayers
Converts to Leaf Blower with 200 MPH Air Velocity
1 Year Product Warranty



4.75 Gallon Battery Power Sprayer
Part#: eTPS18

Reach Up to 30ft Horizontal Reach
Sprays 6000 sq ft in 10 minutes
10X Faster than Manual Pump Sprayers
70 PSI Commercial Grade Pump
1 Year Product Warranty



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Part#: TPS25

Reach Up to 30ft Horizontal Reach
Sprays acres in 10 minutes
10X Faster than Manual Pump Sprayers
50-435 Adjustable PSI Commercial Grade Pump
1 Year Product Warranty

AND MORE



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Part#: TGS30

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8 HP engine protected by rugged all purpose frame
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Part#: TOS38

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