

# 595449 CONCRETE VIBRATOR DRIVE UNIT

**TOOLEX<sup>®</sup>**  
**Industrial**



## INSTRUCTION MANUAL

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Made in P.R.C.

## FOREWORD

Thank you for using our company's products. This manual contains necessary maintenance information for you to ensure proper operation and care for this machine.

## APPLICATION

A concrete vibrator is used to consolidate cement and remove all the trapped air bubbles to give you the toughest cement possible, widely used in construction, transportation, water conservancy, port, mine and metallurgy, etc. It can be adapted to every type of application, vibrator Heads and shafts can be easily combined and rapidly exchanged to match the engine or motor to the job.

## TECHNICAL DATA

### Driving Unit

Model	Honda GX160	Model	595449
Power(HP)	5.5		
Engine Type	Air-cooled, single cylinder, 4 -stroke, gasoline.		
Vibration Speed( VPM)	12000		
Rotation speed (RPM)	Max. 3600		
Coupling Type	Australian 3 Drive Coupling		
Weight(kg)	23.85		
Packing Size(mm)	520*300*320		

### Vibrator

Model	595592	595593	595586	595587	596231
Dia.of vibrator head(mm)	25	28	32	35	38
Power(HP)	Driven by Electric Motor ,Gasoline Engine				
Dia.of Flexible Hose (mm)	30				
Dia.of Flexible Shaft (mm)	10				
Length (m)	6MTR				
Coupling	Australian 3 Drive Coupling				
Packing Way	Carton				
Packing Size(mm)	810*650*55				

Model	597980	597983	595589	595590
Dia.of vibrator head(mm)	45	50	60	70
Power(HP)	Driven by Electric Motor ,Gasoline Engine			
Dia.of Flexible Hose (mm)	32	36		
Dia.of Flexible Shaft (mm)	12	13		
Length (m)	6 MTR			
Coupling	Australian 3 Drive Coupling			
Packing Way	Carton			
Packing Size(mm)	810*650*55		810*650*60	810*650*70

## CHECK BEFORE STARTING

- Check for loose parts. Tighten all loose parts before operating the unit.
- Make sure flexible hose is in good condition. Do not operate vibrator with torn hose.

## SAFETY INFORMATION

**WARNING:** Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire or serious injury.

**WARNING:** The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

**WARNING:** Only operate the engine in a well-ventilated, outdoor area. Carbon Monoxide produced by the engine during use can kill. Do not use indoors, near windows or in other sheltered areas.

**CAUTION:** Wear safety boots, helmet, safety glasses and other protective devices required by job conditions.

## WORK AREA

- Keep work area clean, free of clutter and well lit. Cluttered and dark work areas can cause accidents.
- Do not use your concrete vibrator where there is a risk of causing a fire or an explosion; e.g. in the presence of flammable liquids, gasses, or dust. Some power tools create sparks, which may ignite the dust or fumes.
- Keep children and bystanders away while operating the concrete vibrator. Distractions can cause you to lose control, so visitors should remain at a safe distance from the work area.
- Be aware of all power lines, electrical circuits, water pipes and other mechanical

hazards in your work area, particularly those hazards below the work surface hidden from the operator's view that may be unintentionally contacted and may cause personal harm or property damage.

- Be alert of your surroundings. Using the concrete vibrator in confined work areas may put you dangerously close to cutting tools and rotating parts.

## ***INTERNAL COMBUSTION ENGINE SAFETY***

**WARNING:** Internal combustion engines present special hazards during operation and fueling. Read and follow the warning instructions in the engine Owner's Manual and the safety guidelines below. Failure to follow the warnings and safety standards could result in severe injury or death.

- **DO NOT** run the machine indoors or in an enclosed area such as a deep trench unless adequate ventilation, through such items as exhaust fans or hoses, is provided. Exhaust gas from the engine contains poisonous carbon monoxide gas; exposure to carbon monoxide can cause loss of consciousness and may lead to death.
- **DO NOT** smoke while operating the machine.
- **DO NOT** smoke when refueling the engine.
- **DO NOT** refuel a hot or running engine.
- **DO NOT** refuel the engine near an open flame.
- **DO NOT** spill fuel when refueling the engine.
- **DO NOT** run the engine near open flames.
- **ALWAYS** refill the fuel tank in a well-ventilated area.
- **ALWAYS** replace the fuel tank cap after refueling.
- **ALWAYS** check the fuel lines and the fuel tank for leaks and cracks before starting the engine. Do not run the machine if fuel leaks are present or the fuel lines are loose.

**NOTE:** All Federal and State laws and any regulation having jurisdiction covering the safety requirements for use of the machine take precedence over the statements in this manual. Users of this machine must adhere to such regulations.

## ***TOOL USE AND CARE***

- **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.
- **Never use accessories** or attachments that are not recommended by the manufacturer. Damage to equipment and injury to the user may result.
- **Never operate** the machine with the belt guard missing (if applicable). Exposed drive belt and pulleys create potentially dangerous hazards that can cause serious injuries.
- **Never** leave the machine running unattended.
- **Always** be sure operator is familiar with proper safety precautions and operation techniques before using machine.
- **Always** close fuel valve on engines equipped with one when machine is not being

operated.

- **Always** operate machine with all safety devices and guards in place and in working order. DO NOT modify or defeat safety devices. DO NOT operate machine if any safety devices or guards are missing or inoperative.
- **Do not force the concrete vibrator.** Concrete vibrators do a better and safer job when used in the manner for which they are designed. Plan your work, and always use the correct tool for the job.
- **Never use** the concrete vibrator with a malfunctioning switch. Any machine that cannot be controlled with the switch is dangerous and must be repaired by an authorized service representative before using.
- **Store idle machines.** When machine is not in use, store it in a dry, secure place out of the reach of children. Inspect machine for good working condition prior to storage and before re-use.
- **Use only accessories** that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may create a risk of injury when used on another tool.

**Always** make sure the engine's power switch is in the "OFF" position, the spark plug wire is disconnected from the engine, and the engine is completely cool performing any inspection, maintenance, or cleaning of the plate compactor and/or engine.

- **Maintain your concrete vibrator.** It is recommended that the general condition of any tool be examined before it is used. Keep your concrete vibrator in good repair by adopting a program of conscientious repair and maintenance in accordance with the recommended procedures found in this manual. If any abnormal vibrations or noise occurs, turn the concrete vibrator off immediately and have the problem corrected before further use. Have necessary repairs made by qualified service personnel.
- **Keep all co-workers** at least six feet from the concrete vibrator during operation.
- **Cleaning.** Use only soap and a damp cloth to clean your tools. Many household cleaners are harmful to plastics and other insulation. Never let liquid get inside the engine.

## ***PERSONAL SAFETY***

- **Stay alert,** watch what you are doing and use common sense when operating the concrete vibrator. Do not use the concrete vibrator while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention may result in serious personal injury.
- **Dress properly.** Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts. Air vents often cover moving parts and should be avoided.
- **Use safety apparel and equipment.** Use safety goggles or safety glasses with side shields which comply with current national standards, or when needed, a face shield. Use as dust mask in dusty work conditions. This applies to all persons in the work area. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing

protection when appropriate.

- **Do not overreach.** Keep proper footing and balance at all times.
- **This tool vibrates during use.** Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. Include vibration-free periods throughout the work day.

## OPERATION

**WARNING:** Make sure the engine is filled with oil prior to each use. Never run the engine with low or no engine oil. Running the engine with insufficient oil will permanently damage the unit.

1. Insert hose connector into coupling. Lock hose connector with locking pin.
2. Fill Engine (#1) gas tank with quality gasoline and make sure the engine is filled with oil.
3. While wearing the anti-vibration gloves, spin the cover on the Fixing Plate (#7) with one hand until the Sheath (#13) is fastened and cannot move. With the other hand, insert the Flexible Shaft Plug (#23) into the Driving Shaft (#5) inside the hole of the Fixing Plate (#7). Then Loosen the Sheath (#13) and make sure the Steel Ball (#11) is locked in the arc slot of the Connector (#24) and the connector (#24) will not fall off.
4. Place the Vibrator Head (#39) vertically in the center of the construction where the concrete needs to be compacted.
5. Put vibrator into concrete and slowly move vibrator around concrete. Air bubbles and water will rise to concrete surface.
6. Start the Engine and adjust the engine speed. Moving the throttle lever to the far left increases engine speed and is best for operating the concrete vibrator. Moving the throttle lever to the far right slows the engine to low idle speed.
7. To stop the engine completely, turn the stop switch to the "OFF" position.
8. During operation, one hand should hold the Outer Tube (#26) and make sure the Vibrator Head works in the concrete. make sure flexible hose does not bend more than 60 degree. Over bending of hose during operation will increase stress and friction of inner shaft, causing damage to both inner shaft and hose.
9. When the work is finished, air bubbles and water stop emerging and concrete surface is smooth and level, first remove the Vibrator Head from the concrete, and then turn off the Engine.
10. Remove the Flexible Shaft Plug from the Fixing Plate and clean the Vibrator Head.

## IMPORTANT:

1. Operator should wear anti-vibration gloves, and ear plugs.
2. Place the main body on flat, level surface especially when operating on a high building, preventing the chance of the main body tipping over or falling off.
3. Make sure the work area is well ventilated and there are no explosive or flammable

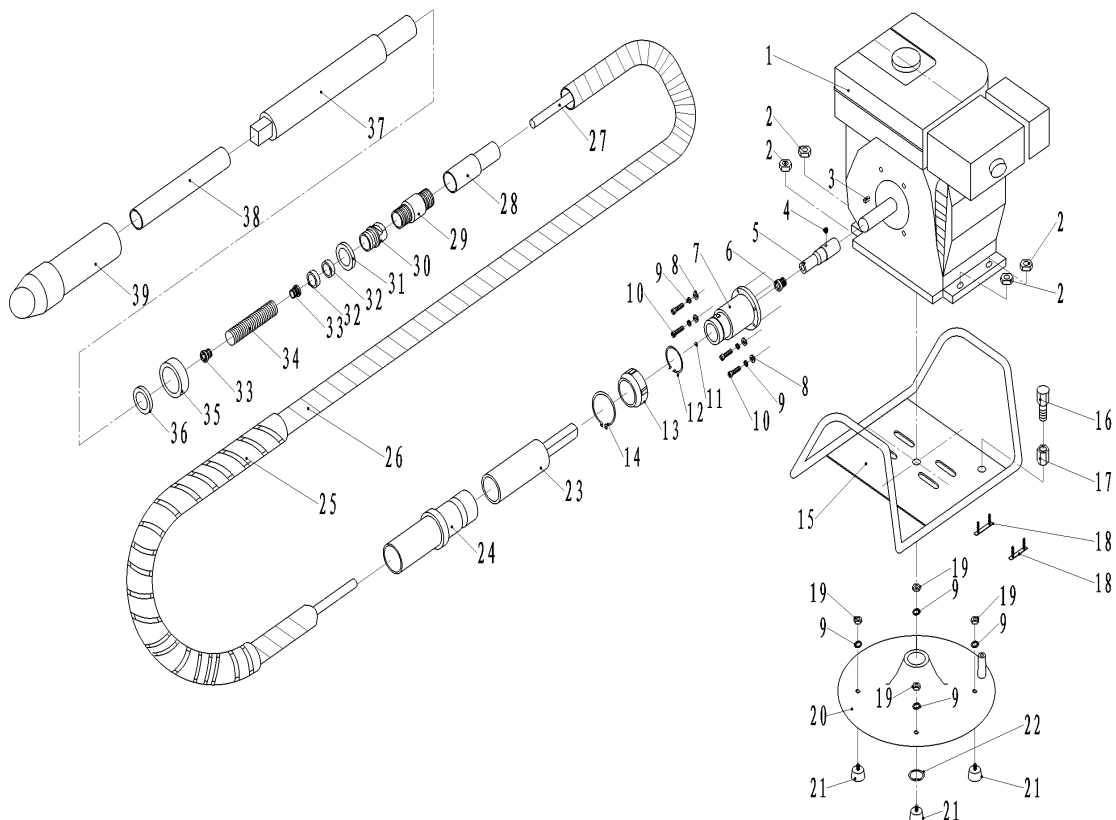
materials nearby.

4. Before adding gas to an engine that has been in operation, you must first wait for the engine cool down. Do not spill gasoline on the hot engine during refueling.

## MAINTENANCE & STORAGE

- Clean units right after every operation. Wash any concrete residue off Vibrator Head with water. Wipe clean the Vibrator Head and all other parts of the machine with a soft cloth. Wipe the vibrator with oil to prevent rusting.
- Periodically check any loose parts.
- If concrete vibrator unit is to be stored alone (detach from driven unit), wrap hose connector with a plastic bag to prevent dust and water from getting in.
- Never stack heavy objects on top of concrete vibrator unit prevent damage of flexible hose.

## DIAGRAM & PARTS LIST



Part#	Description	Qty.	Part#	Description	Qty.
1	Engine	1	21	Support Rubber Stick	4
2	Nut M8	4	22	Shaft Circlip $\phi 28$	1
3	Key 6×35	1	23	Flexible Shaft Plug	1
4	Screw 6×1	1	24	Connector	1
5	Driving Shaft	1	25	Protecting Tube	1
6	Inner Hex Connector	1	26	Outer Tube	1
7	Fixing Plate	1	27	Flexible Shaft	1
8	Flat Washer $\phi 8$	4	28	Shaft Connector	1
9	Spring Washer $\phi 8$	8	29	Double Connector	1
10	Whorl Rod 5/16"-24	4	30	Single Connector	1
11	Steel Ball	1	31	Small Oil Seal	2
12	Spring	1	32	Small Bearing	2
13	Sheath	1	33	Nut	2
14	Shaft Circlip $\phi 54$	1	34	Spring	1
15	Turning Frame	1	35	Big Bearing	1
16	Pole	1	36	Big Oil Seal	1
17	Nut	1	37	Stick	1
18	Engine Fixing Plate	2	38	Cover Tube	1
19	Nut M8	4	39	Vibrator Head	1
20	Base Plate	1			