



163cc Reversible Plate Compactor

Owner's Manual



⚠ WARNING: Read and understand all instructions, warnings, and cautions before using this product. Failure to follow the instructions, warnings, and cautions may result in serious personal injury and/or property damage.

Item #49162

SAVE THESE INSTRUCTIONS

Thank you very much for choosing a Northstar product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code:

Purchase Date:

Save the receipt, warranty, and this manual.

This plate compactor is designed for certain applications only. Northern Tool and Equipment cannot be responsible for issues arising from modification or use of this product in an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call **1-800-222-5381**.

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Intended Use

The reversible plate compactor produces low amplitude high frequency vibrations, designed to compact granular soil, cable and water trenches, marginal strips as well as all those compaction jobs for which the use of large machines is not convenient. It is equipped with a water tank is used for compaction of asphalt pavement finishing and flatwork.

The compactor is not designed or intended for any use other than stated in the owner's manual.

The compactor is intended for use in confined areas and areas next to structures such as walls, curbs, and foundations. The plate is not recommended for compacting cohesive soils with a heavy clay content. For cohesive soil, use a vibratory rammer or sheeps-foot roller.

Power Source. The plate compactor is powered by a gasoline engine.

Supplies Required. Normal operation will require you to supply:

- Gasoline
- Engine oil
- Personal Protection Equipment

See "*Specifications*" section of this manual or Engine Manual for more detail.

Site Location. Intended for outdoor use only.

Technical Specifications

Compactor	
Weight	202.8 ~ 209.4 lbs. (92 ~ 95 Kg)
Centrifugal Force	4046 lbs. (1835 Kgf)
Vibration Frequency	100 Hz (6000 VPM)
Travel Speed (depending on soil)	82 ft./min (25 m/min)
Grade Ability	20%
Compacted Area (depending on soil)	6781.2 ft ² /hr (630 m ² /hr)
Power Take-Off	Centrifugal Clutch & V-Belt
Engine	
Engine Maker	HONDA
Engine Model	GX 160 / 163cc
Output Power(max)	5.5 Hp. (4.0 Kw)
Spark Plug	BPR6ES(NGK) W20EPR-U(DENSO)
Spark Plug Gap	0.028-0.031 in. (0.7-0.8 mm)
Engine Speed - Full Load	3,600±100 RPM
Engine Speed - Idle	1,400±100 RPM
Air Cleaner Type	Dual Element
Engine Oil Type	SAE 10W-30
Engine Oil Capacity	20 oz. (600 ml)
Fuel Type	Unleaded Gasoline
Fuel Tank Capacity	3.8 qt. (3.6 l)

Important Safety Information

⚠ WARNING

- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this tool. Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- DO NOT allow persons to assemble or operate this product until they have read this manual and have developed a thorough understanding of how the product works.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will do the job better and more safely at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements.

⚠ WARNING

- Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:
 - lead from lead-based paints,
 - crystalline silica from bricks and cement and other masonry products, and
 - arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

- Handling the power cord on corded products may expose you to lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. Wash your hands after handling.

⚠ WARNING

WORK AREA SAFETY

- Inspect the work area before each use. Keep the work area clean, dry, free of clutter, and well lit. Cluttered, wet, or dark work areas can result in injury.
- Do not use the tool where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The tool can create sparks, which may ignite the flammable liquids, gases, or dust.
- Do not allow the tool to come into contact with an electrical source. The tool is not insulated and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the tool. Do not allow children to handle the tool.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.

⚠ WARNING

PERSONAL SAFETY

- Stay alert, watch what you are doing, and use common sense when operating the tool. Do not use the tool while you are tired or under the influence of drugs, alcohol, or medication.
- 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 on the tool often cover moving parts and should be avoided.
- Use safety apparel and equipment. Use ANSI Z87.1-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.
- Do not overreach. Keep proper footing and balance at all times.
- Remove keys or wrenches before connecting the tool to the power supply or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may cause personal injury.
- Secure the work with clamps or a vise instead of your hand when practical. This safety precaution allows for proper tool operation using both hands.
- No smoking, matches, or open flames around the machine. Fuel is flammable.
- Do not touch hot surfaces.
- Equipment can tip over when moving, causing injury.
- Persons not operating should be at least 10 feet away while equipment is in use.
- Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell. NEVER use indoors.
- Do not operate without guards in place.

⚠ CAUTION

COMPACTOR USE AND CARE

- Do not force the product. Products do a better and safer job when used in the manner for which they are designed. Plan your work, and use the correct product for the job.
- Check for damaged parts before each use. Carefully check that the product will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the product with a damaged part.
- Disconnect the power supply from the tool and place the power switch in the locked or off position before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- Store the product when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the product for good working condition prior to storage and before re-use.
- Use only accessories that are recommended by the manufacturer for use with your product. Accessories that may be suitable for one product may create a risk of injury when used with another product.
- Keep guards in place and in working order. Never operate the product without the guards in place.
- Do not leave the product running unattended.
- Shut off the fuel valve when the engine is not in use.
- Only use the recommended fuel to avoid damaging the equipment.
- Oil does not come with the machine. Add oil to engine before the first use.
- Check oil levels before operating the machine.
- DO NOT refuel the engine while it is still hot. Fuel is flammable.
- DO NOT service engine while it is still hot.

Specific Operation Warnings

⚠ WARNING

To avoid fatal accident

- Stop the engine before refueling and be careful not to spill fuel. Spilled fuel may ignite.
- Do not refuel the engine near flammable objects to avoid fire.
- Do not run the engine in enclosed areas to prevent carbon monoxide poisoning.

To protect the operator

- When fatigued from operation, stop the machine and take break.
- Hearing protection is required as this machine creates a noise emission while 1 m (3 feet) away from the equipment.

To avoid injury or damage

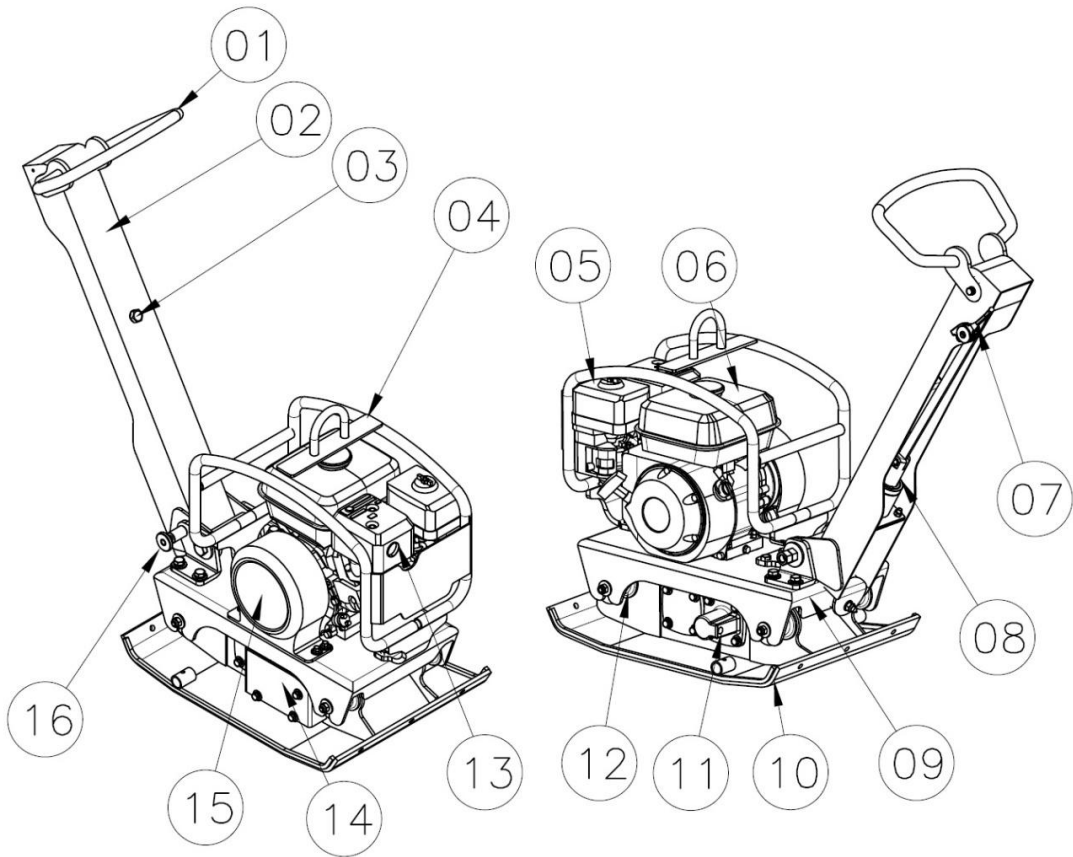
- The compactor is only to be operated by authorized persons who:
 - are at least 18 years of age.
 - are physically and mentally able to operate the plate compactor.
 - are properly trained in the operation and the maintenance of the compactor by the owner or its authorized representative.
 - are assessed to be able to carry out their duties reliably.
- Do not operate the compactor when any condition endangers the safety of the operator. Correct the condition before operating the compactor.
- Do not operate the compactor while under the influence of medication or alcohol.
- The operator must monitor the immediate area all the times. Do not operate the compactor if a person is in the immediate area because cracked and bounced rock may cause injury. Also monitor other objects within 20m in case of lighting.
- The compactor can only be operated under adequately stable conditions.
- The operator must turn off the compactor completely as described in this manual before leaving the operating position. Also, the compactor must be secured against unauthorized use.
- The engine must be turned off and secured against re-starting by pulling out the spark plug before maintenance and servicing.
- The compactor has to be inspected by an authorized service technician on a regular basis (at least once a year). The compactor generates mechanical heat so do not touch the engine, muffler or other parts during the operation, which may cause a burn. Please wait until the compactor cools down before inspecting components.
- The operator must be fully equipped with safety equipment including a helmet, safety gloves, safety shoes, safety glasses, a mask, and hearing protection before operating the compactor.
- Do not insert a hand or finger between the pulley cover and engine during operation as it will break the hand or finger.
- Sprinkle the water on the working area to avoid dust before operating but NEVER operate the compactor if the working area is too wet because it may damage the life cycle of the product.
- Lift the plate compactor by a proper lifting crane when moving it on and off a truck. Lifting the compactor by hand may cause personal injury due to its heavy weight.
- Securely fasten the compactor for transportation. Insecure fastening of the compactor

may cause damage or injury during transportation.

- Do not transport the plate compactor by motor vehicle with fuel in its fuel tank.

Note: Refer to the instruction manual of the engine if there is a problem or a question about it before or during its operation.

Main Parts of Plate Compactor



01	Handle
02	Handle Bar
03	Hydraulic Oil Refill Bolt
04	Frame
05	Engine Air Filter
06	Engine Fuel Tank
07	Accelerator lever
08	Hand Pump Piston
09	Engine Base Plate
10	Vibrator Plate
11	Hydraulic Hose
12	Isolated Rubber
13	Engine Muffler
14	Pulley Cover
15	Belt Cover
16	Handle Position Grip

Before Each Use

Engine

Recommended Fuel

- The compactor engine requires fresh, clean, regular, unleaded gasoline. Fuel containing water or dirt will damage the fuel system. Consult to engine owner's manual for complete fuel specifications

▲ WARNING

DANGER: Adding fuel to the tank should be done only when the engine is stopped and has had an opportunity to cool down to avoid a risk of an explosion or fire from a fuel spill. In the event of a fuel spill, **DO NOT** attempt to start the engine until the fuel residue has been completely wiped up, and the area surrounding the engine is dry.

Before starting

- Read and understand the safety and operating instruction manual of the engine.
- Check:
 - Oil level in engine.
 - Fuel level.
 - Condition of air cleaner.
 - Tightness of external fasteners.
 - Condition of fuel lines.

Compactor

Check all the bolts, nuts and belts and tighten any if necessary.

Check the general condition of the compactor and its components and clean any foreign material (dirt, fragments, etc.) from the compactor that may be thrown off and cause injury.

Operating Instructions

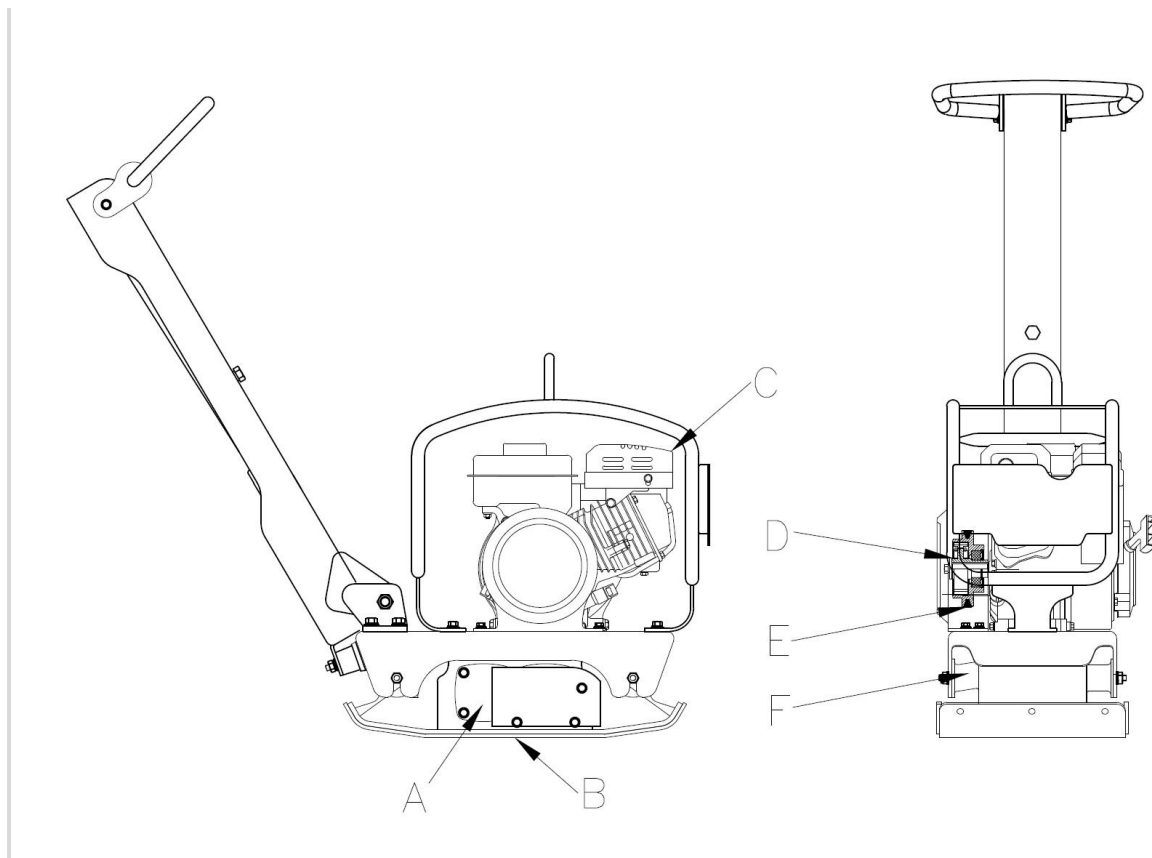
Operation Principle

Vibrating for ground compacting is accomplished by a vibrator (A) that is installed on the bottom plate (B) for tamping. There are two shafts in the vibrator for forward and reverse. One shaft has two centrifugal vibrators. One of these two shafts receives hydraulic force and changes the angle of the centrifugal vibrator. It makes the compactor move forward and reverse,

The air-cooled 4-stroke engine (C) is attached to the engine plate which interacts with the vibrator. Torque is delivered through the V - belt (E) that connects the Pulley (D) and the centrifugal clutch that is attached to the engine.

When the engine operates at low speed, the centrifugal clutch cuts off power to the vibrator. The speed of the engine is changed by the throttle control lever on the left-side of the handle (A14 in the parts list).

Four shock absorbers (F) are between the engine plate (A24) and the vibrator plate (A01). This decreases the system vibration delivered with the engine plate.



Engine Speeds and Machine Performance

The engine speed influences to the centrifugal force produced by the vibrator and therefore the vibration produced. A fast engine speed results in a strong centrifugal force. A slow engine speed greatly reduces the centrifugal force.

Operating on a Slope

When compacting on a slope, it is easiest to operate the equipment from the top to the bottom of the slope.

Never stand on the downslope side of the compactor, whether operating from top to bottom of a slope or sideways on a slope. Do not operate the compactor on a slope of more than maximum of 20%. On a steeper slope, the engine will dribble oil and can break down.

Fuel Recommendations

Refuel the engine with fresh, clean, regular grade unleaded gasoline. Gasoline that contains water or dust causes problems in the engine. Refer to the engine owner's manual fuel specifications.

Operating the Compactor

Operate the engine at full speed so that the compactor can compact properly at normal speed. When going uphill, the operator may have to push a little to move the compactor forward. When going downhill, the operator may decrease the speed to adjust to the situation. Compact the soil 3-4 times according to the material.

A certain amount of moisture in the soil is needed, but excessive moisture disturbs compacting: soil molecules may clump together. If the soil is very wet, dry it out before compacting.

If soil is dry enough to create dust while compacting, sprinkle some water on the ground to improve compatibility. Also, this increases the life of the air filter.

⚠ WARNING

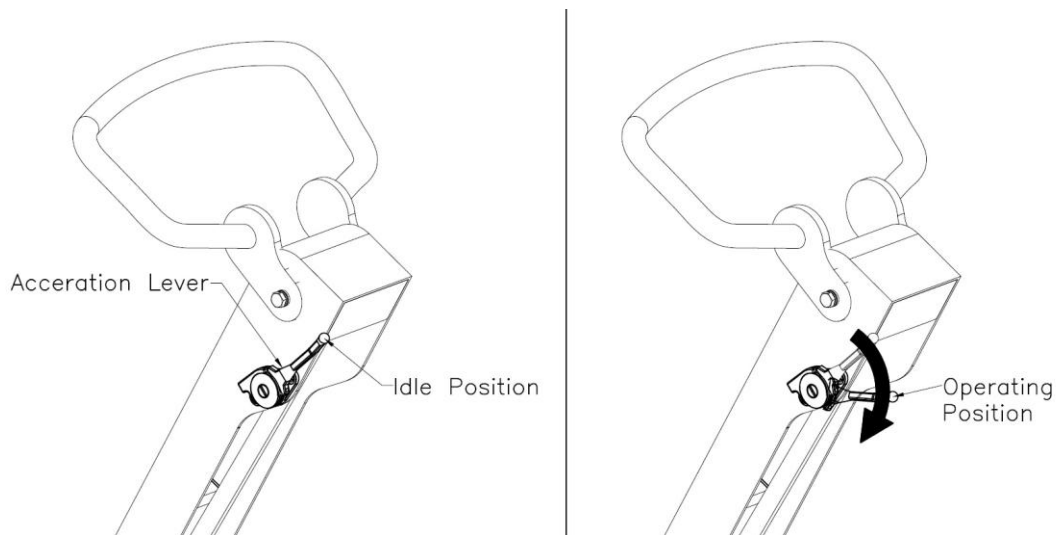
Read all the safety information in this manual before operating the compactor.

⚠ WARNING

Do not use the compactor on wet concrete as it is not designed for this purpose.

- 1) Move the throttle lever to fast position.

Setting the throttle lever to fast produces the proper engine speed and the centrifugal clutch grabs the engine pulley which transmits power to the vibrator.



- 2) To drive the compactor forward, push the travel lever to the forward position (see below).
- 3) To drive the compactor backward, pull the lever to the reverse position.

REVERSE



NEUTRAL



FORWARD



⚠ CAUTION

Do not move the travel lever with excessive force when engine is turn-off. The lever should move easily when the engine is started and the compactor is operating normally. If the lever does not move easily, see the troubleshooting section for the solution.

NOTE: If the compactor does not move in reverse, even when the travel lever is put in reverse, set the engine throttle lever to low, and repeat moving the travel lever between forward and reverse 15-20 times. When resistance in the lever is felt, move the throttle lever to the fast position and operate the compactor.

- 4) Grip the handle firmly as the compactor moves.
- 5) While compacting, look for debris that might damage the compactor or cause bodily harm.
- 6) Reduce travel speed when compacting clay so the compactor will not bounce off the ground if clay builds up underneath the compactor.

To correct this situation:

- (With the compactor turned off) check under the compactor to determine whether clay or other material has become stuck to the vibrator plate. If so, clean the plate/mechanism with water and remove the material.
- Remember that the compactor cannot do effective work on clay or very moist soil.
- If the soil is very moist, dry it to a suitable level or perform compaction twice.

After Each Use

- Remove foreign substances such as soil, stone or dirt from compactor and engine.
- Clean the engine cylinder cooling fins.
- Clean or replace the air filter.
- Check the general condition of the compactor.

Storage

In case of storing the plate compactor for a long period of time (for more than 30 days):

- Drain the fuel tank completely.
- Run the engine until the fuel in the carburetor is completely consumed.
- Drain the engine oil and follow procedures described in engine manual for engine storage.
- Cover the compactor completely with a dry cloth for storage.
- Store the compactor in a clean, dry place.

Maintenance

⚠ WARNING

Check that the plate compactor engine is turned off and cooled before attempting any maintenance, cleaning, or inspection. Performing maintenance on an operating compactor can cause injury.

Maintain the compactor by adopting a program of conscientious repair and maintenance in accordance with the following recommended procedures. Also refer to the engine manufacturer's instruction manual for additional information about engine maintenance. The following chart is based on a normal operation schedule.

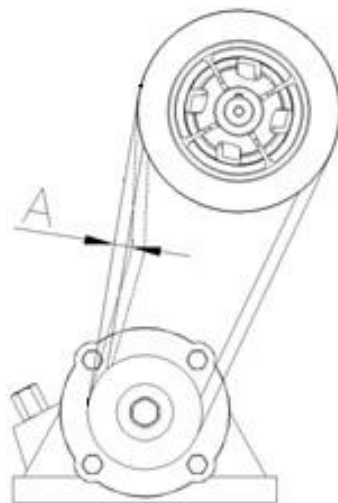
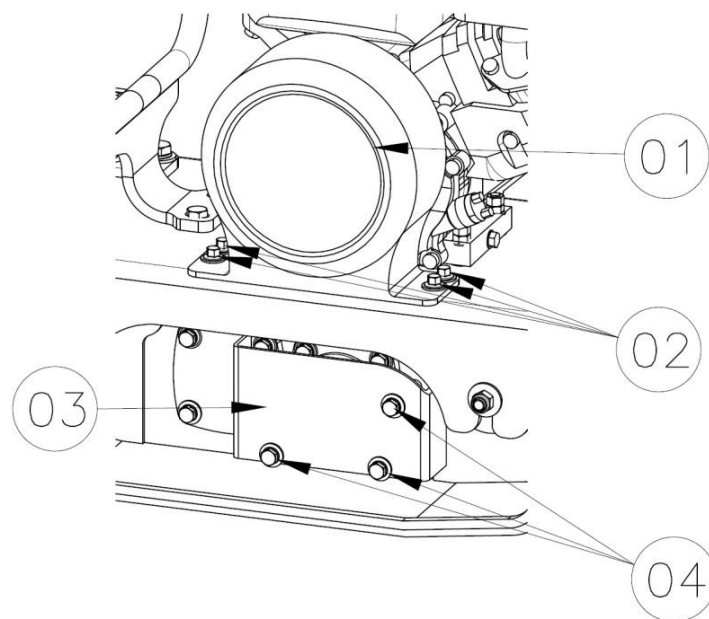
Maintenance Interval	Maintenance Point
Daily before operating	Check the fuel level. Check the engine oil level. Inspect the fuel lines. Inspect the air filter and replace it if needed. Check and tighten the external hardware.
After the first 20 operating hours	Check and adjust the drive belt. Change the engine oil.
After the first 50 operating hours or every week	Check and adjust the drive belt. Clean the air cleaner element. Change the engine oil. Check and clean the spark plug.
After the first 100 operating hours or every month	Clean the fuel strainer.
After the first 300 operating hours or every year	Check and adjust the valve clearance. Clean the cylinder head. Change the lubrication oil (SHELL OMALA #100 OR SAE 10W/30, 150CC)

Changing the V-belt

⚠ WARNING

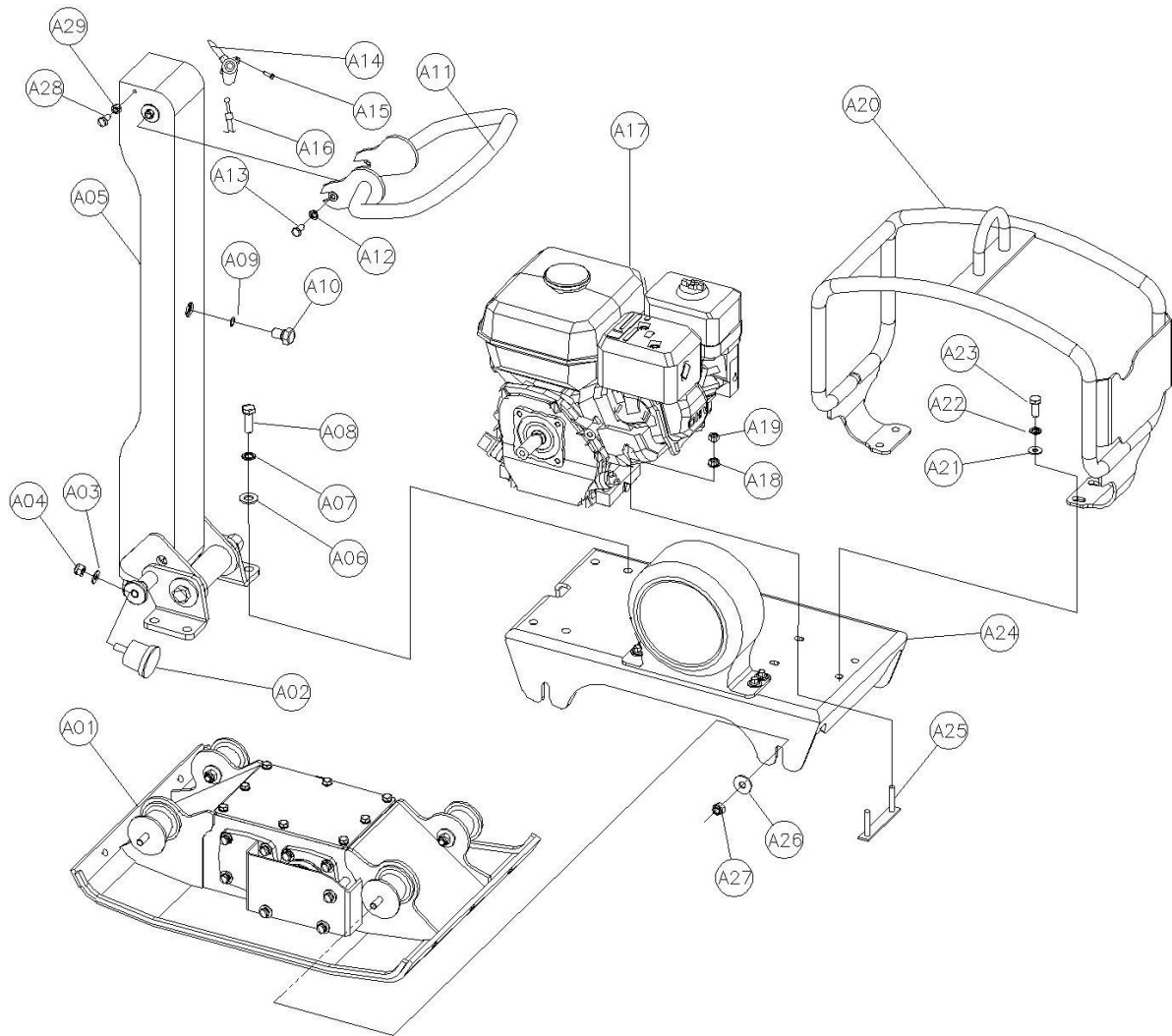
Check that the plate compactor engine is turned off and cool before attempting to change the V-belt. Changing the V-belt while the compactor is still operating may cause injury.

1. Loosen the four flange bolts (02) to remove the belt cover (01).
2. Loosen the three socket head bolts (04) to remove the pulley cover (03).
3. Remove the belt.
4. Prepare a new belt (D06 in the parts list).
5. When fitting the belt, fit it to the smaller pulley first, then the bigger pulley.
6. With the belt installed, check whether the distance of A (below) is $\frac{3}{8}$ " by pushing in on the belt.
7. Fasten the belt cover (01) with the flange bolts (02) and tighten the bolts.
8. Fasten the pulley cover (03) with the socket head bolts (04) and tighten the bolts.



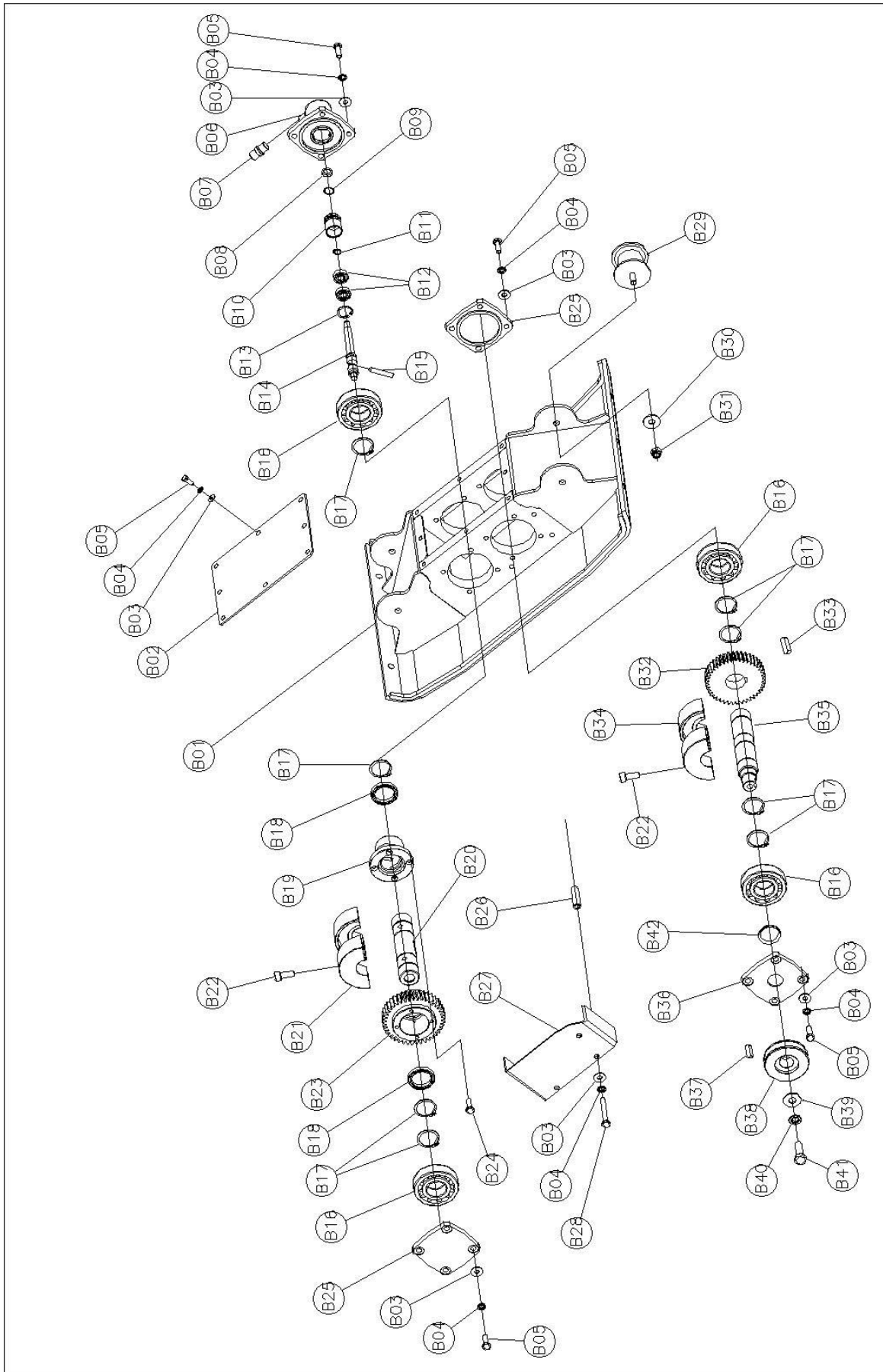
Parts Diagram

Compactor Assembly



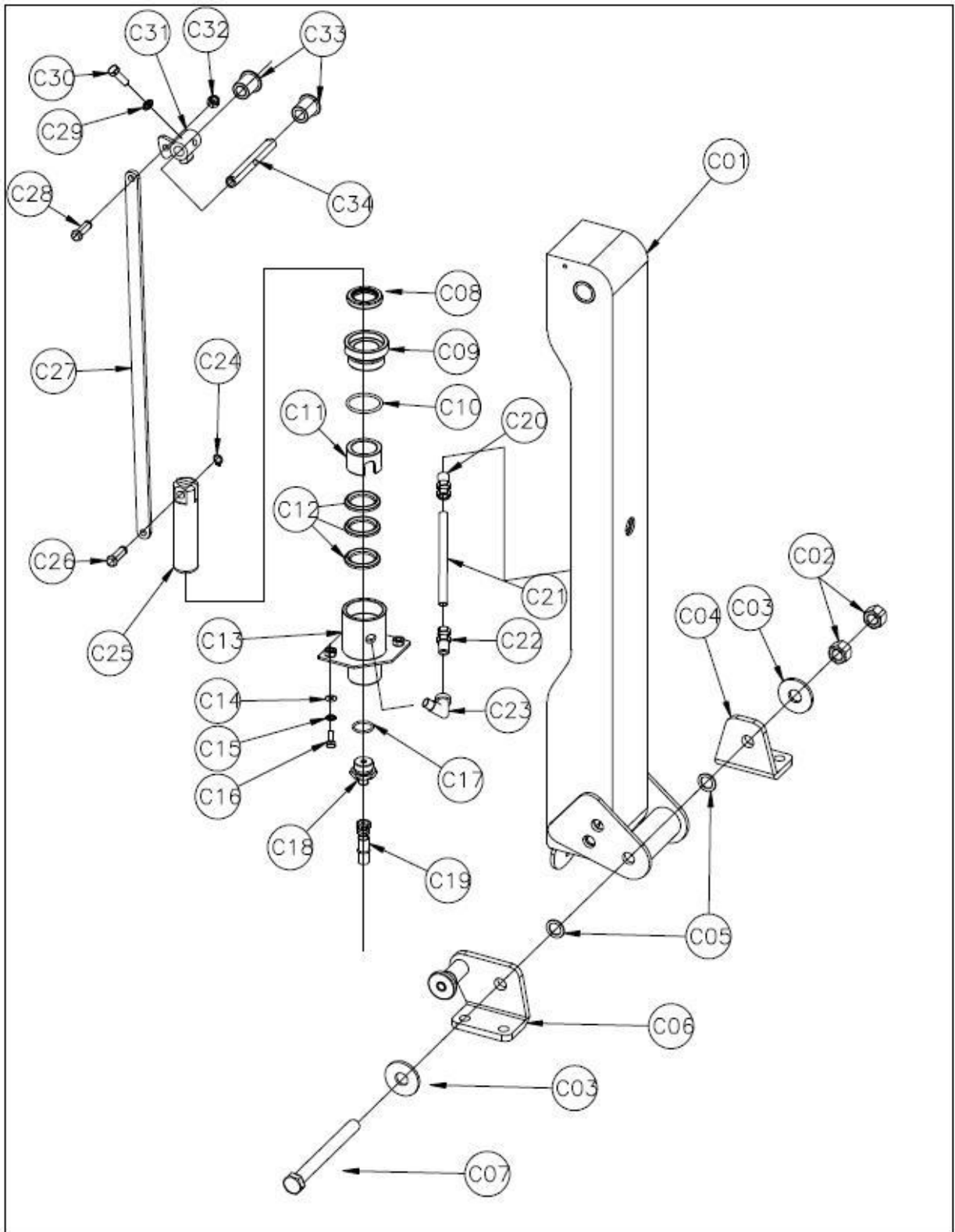
Compactor Assembly				
Ref.	Part No.	Description	Qty	Remark
A01	PM040-000	Vibrator Plate Assembly	1	JPC-940R
A02	PA130-002	Shock Absorber	1	
A03	QWS-PM10	Plain Washer	1	M10
A04	QNT-CM10	Cap Nut	1	M10
A05	PL070-000B	Handle Bar	1	
A06	QWS-PM12	Plain Washer	4	M12(10.9T)
A07	QWS-SM12	Spring Washer	4	M12(10.9T)
A08	QBL-HM12X35	Bolt	4	M12x35L(10.9T)
A09	QWS-CP14	Cupper Washer	1	M14
A10	PL080-007	Oil Cap Bolt	1	
A11	PL060-000	Travel Lever	1	
A12	QWS-SM8	Spring Washer	2	M8(10.9T)
A13	QBL-HM8X20	Bolt	2	M8x20L
A14	QTL-04	Throttle Lever	1	Magura
A15	QBL-FHM6X10	Flat Head Bolt	2	M6x10L
A16	QTC-S1300	Throttle Cable	1	1300L
A17	GX160-S	Engine	1	S type
A18	QNT-FM8	Flange Nut	4	M8
A19	QNT-M8	Nut	4	M8
A20	PL030-000	Frame	1	
A21	QWS-PM10	Plain Washer	4	M10(10.9T)
A22	QWS-SM10	Spring Washer	4	M10(10.9T)
A23	QBL-HM10X35	Bolt	4	M10x35L
A24	PL020-000B	Engine Base Plate Assembly	1	
A25	PL020-002	Engine Mount Bolt	2	
A26	QWS-PM10	Plain Washer	4	M10 Ø30
A27	QNT-NM10	Nylon Nut	4	M10
A28	QBL-BHCM6*15	S, Button Head Cap Bolt	1	M6*15
A29	QNT-M6	Nut	1	M6

Vibrator Plate



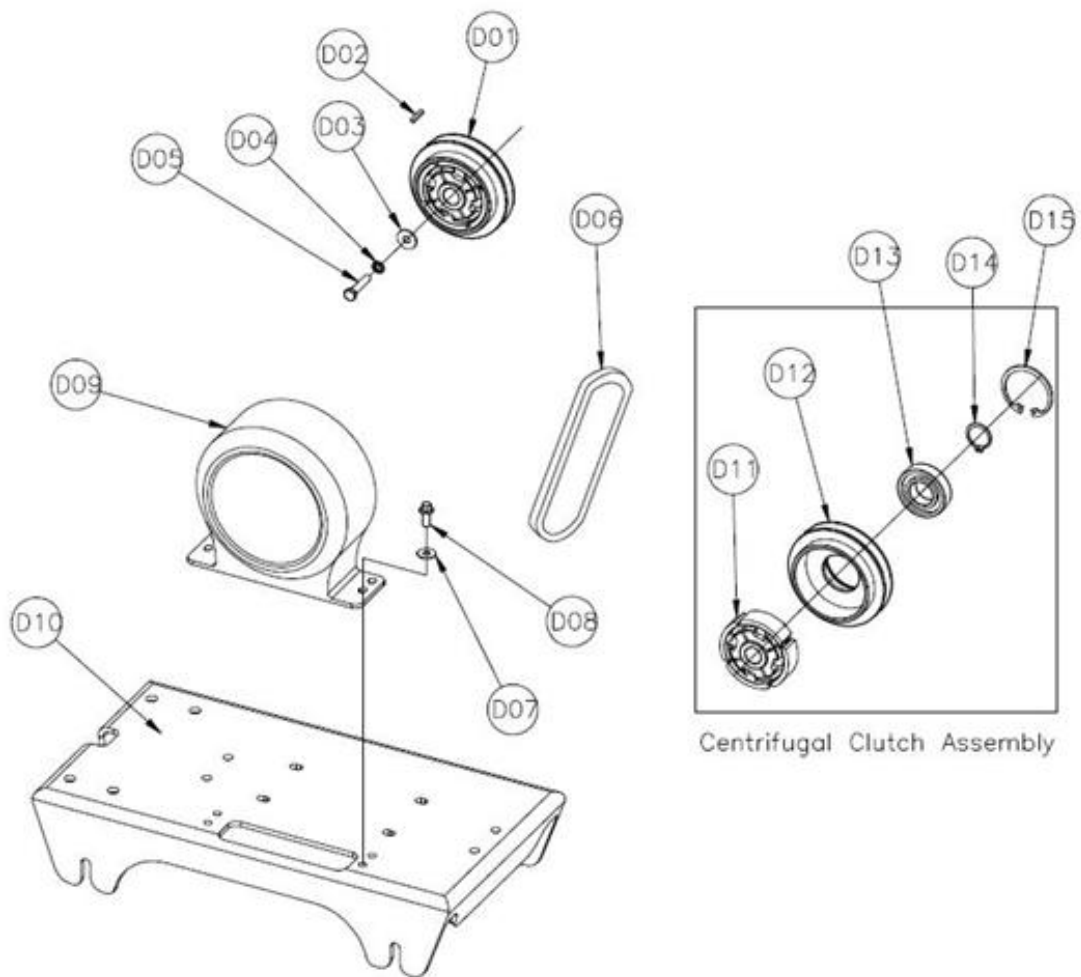
Vibratory Plate				
Ref.	Part No.	Description	Qty	Remark
B01	PL010-000	Vibrator Plate	1	
B02	PL040-002	Top Cover	1	
B03	QWS-PM8	Plain Washer	27	M8 (10.9T)
B04	QWS-SM8	Spring Washer	27	M8(10.9T)
B05	QBL-HM8X25	Bolt	24	M8x25L(10.9T)
B06	PL040-011	Vibrator Cylinder Cover	1	
B07	QFU-PT,PF 1/4	Hydraulic Nipple (Flare Union)	1	PT-PF1/4, 5type
B08	QUP-22.4X30X5	U-Packing	1	Viton-24
B09	QOR-P24	O-Ring	1	P24
B10	PG040-003	Piston	1	
B11	QSR-S10	Snap Ring	1	S10
B12	QBR-7000	Bearing	1	7000
B13	QSR-R26	Snap Ring	1	R26
B14	PG040-006	Piston Rod	1	
B15	PG040-008	Counter Eccentric Pin	1	
B16	QBR-NJ307	Bearing	4	NJ307
B17	QSR-S35	Snap Ring	8	S35
B18	QBR-6807	Bearing	2	6807
B19	PG040-007	Cam Ring	1	
B20	PL040-004	Counter Eccentric Shaft	1	
B21	PL040-005	Eccentric Weight	2	
B22	QBL-LM10X25H	Socket Bolt	4	M10x25L
B23	PG090-010	Counter Eccentric Shaft Gear	1	
B24	QBL-LM6X15	Bolt	4	M6x15L
B25	PL040-012	Vibratory Side Plate Cover 01	2	
B26	PL120-003	Busing	3	
B27	PL120-002	Pulley Cover	1	
B28	QBL-M8X65	Bolt	3	M8x65L
B29	PB130-002	Shock Absorber	4	
B30	QWS-PM10	Plain Washer	4	M10 (Ø30)
B31	QNT-NM10	Lock Nut	4	M10
B32	PL040-009	Vibrator Eccentric Shaft Gear	1	
B33	QKY-8X10X19	Key	1	8x10x19L
B34	PM040-004	Eccentric Weight	2	JPC-940R
B35	PL040-001	Vibrator Eccentric Shaft	1	
B36	PL040-014	Vibratory Side Seal Cover	1	
B37	QKY-7X7X23	Key	1	7x7x23L
B38	PL040-013	Pulley	1	
B39	QWS-PM10	Plain Washer	1	M10 (Ø30)
B40	QWS-SM10	Spring Washer	1	M10 (10.9T)
B41	QBL-M10X25	Bolt	1	M10x25L
B42	QOS-27x47x8	Oil Seal	1	27x47x8

Handle Bar



Handle Bar				
Ref.	Part No.	Description	Qty	Remark
C01	PL071-000B	Handle Bar Ass'y	1	
C02	QNT-M16	Nut	2	M16 (10.9T)
C03	QWS-PM16	Plain Washer	2	M16 (10.9T)
C04	PL050-002	Handle Bar Bracket(R)	1	
C05	QCWS-SM16	Conical Spring Washer	2	M16
C06	PL050-000	Handle Bar Bracket(L)	1	
C07	QBL-M16X180H	Bolt	1	M16x180L
C08	QOS-45X32X8	Oil Seal	1	Ø45XØ32X8t
C09	PL080-005	Cylinder Head	1	
C10	QOR-P40	O-Ring	1	P40
C11	PL080-006	Spacer	1	
C12	QVP-45X32X3	V-Packing	3	Ø45XØ32X3.2t
C13	PG081-000	Cylinder Pipe Ass'y	1	
C14	QWS-PM8	Plain Washer	3	M8 (10.9T)
C15	QWS-SM8	Spring Washer	3	M8 (10.9T)
C16	QBL-M8X25H	Bolt	3	M8x25L (10.9T)
C18	QFU-PT,PF 1/4	Hydraulic Nipple (Flare Union)	1	PT-PF 1/4, 5type
C19	QHH-450	Hydraulic Hose	1	450L
C20	QIF-PT1/4	Insert Fitting	1	PT1/4
C21	QPT-8X5X130	Polyurethane Tube	1	Ø8XØ5X130L
C22	QIF-PT1/4	Insert Fitting	1	PT1/4
C23	QSE-PT1/4	Service Elbow(90°)	1	PT1/4 90°
C24	QSR-S10	Snap Ring	1	S10
C25	PL080-001	Plunger	1	
C26	PL080-008	Cylinder Pin	1	
C27	PL080-002	Joint Plate	1	
C28	QBL-M10X35	Bolt	1	M10X35L
C29	QWS-SM8	Spring Washer	1	M8 (10.9T)
C30	QBL-M8X25H	Bolt	1	M8x25L (10.9T)
C31	PG082-000	Handle Cam	1	
C32	QNT-NM10	Lock Nut	1	M10
C33	PL080-003	Handle Bush	2	
C34	PL080-004	Handle Shaft	1	
C01	PL071-000	Handle Bar Ass'y	1	

Engine Base Plate



Engine Base Plate				
Ref.	Part No.	Description	Qty	Remark
D01	PL100-000	Centrifugal Clutch Assembly	1	
D02	QKY-5X5X50	Key	1	5x5x50L
D03	QWS-PM8	Plain Washer	1	M8 (Ø35)
D04	QWS-SM8	Spring Washer	1	M8 (10.9T)
D05	QBL-M8X40	Bolt	1	M8x40L
D06	QBT-A28	V-Belt	1	A28
D07	QWS-PM8	Plain Washer	1	M8
D08	QBL-FM8X25	Flange Bolt	1	M8x25L
D09	PL120-001	Belt Cover	1	
D10	PL020-000B	Engine Base Plate	1	
D11	PA080-001	Clutch Shoe	1	
D12	PL100-001	Clutch Pulley	1	
D13	QBR-6206ZZ	Bearing	1	6206zz
D14	QSR-S30	Snap Ring	1	S30
D15	QSR-R62	Snap Ring	1	R62

Troubleshooting

Use the table below to troubleshoot problems before contacting service personnel or your local dealer. If the problem continues after troubleshooting, call your local dealer for assistance.

Problem	Possible Cause	Solution
Travel Lever: No movement or hard switching	Blocked pressure.	Do not move travel lever while the compactor is not operating. Only move the lever while it is operating.
	Air in hydraulic oil system.	Bleed the hydraulic oil by pumping with travel lever.
Slow Travel: Speed and weak vibration	Slow engine speed	Reset the engine RPM appropriately.
	Clutch slips	Check the clutch, replacing any worn parts.
	V-belt slips	Check the V-belt, replacing it if worn.
	Overfull vibrator oil	Drain some to keep an appropriate level.
	Vibrator housing wear or damage	Check the vibrator, gear, and counterweight. Repair or replace worn or damaged parts.
Forward or reverse is possible but direction switching is impossible.	Travel lever parts wear or damage	Check all lever parts. See the handle bar section of the parts list.
	Oil hose cut	Repair or replace hose then refill system with oil.
	Air in the hydraulic oil system	Bleed the hydraulic oil by pumping with travel lever.
	Foreign substance in the travel lever mechanism	Check the travel lever mechanism; replace any worn or damaged parts.
	Piston or bearing damage in vibrator cylinder	Check the piston and bearing in the cylinder. Replace and worn or damaged parts.
No Forward or backward moving	V-belt slip	Replace the V-belt.
	Clutch slip	Check the clutch spring and shoes. Replace any worn or damaged parts.
	Vibrator lock	Check the vibrator housing (eccentric vibrator, gear, counterweight). Replace any worn or damaged parts.
	Cylinder piston or bearing damage	Check the cylinder piston and bearing. Replace any worn or damaged parts.
Too much resistance when Travel Lever works	Air in the hydraulic oil system	Bleed the hydraulic oil by pumping with travel lever.
	Cylinder piston or bearing damage	Check the cylinder piston and bearing. Replace any worn or damaged parts.
Slow Travel Speed	Mud or foreign material in vibrator plate	Clean the vibrator plate and mechanism.

Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-800-222-5381**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts.
- When ordering parts, the following will be required: model number, serial number/lot date code, and description.
- The distributor reserves the rights to make design changes and/or improvements to product lines and manuals without notice.

Limited Warranty

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the North Star product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of **two years** from date of purchase with the Honda GX engine having a period of three years from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace the product or product component without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-800-222-5381, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.

Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.



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