Deer Fence Canada Inc

Post Pounder Safety and Operating Instructions

Thank you for choosing our Honda gas powered Post Pounder.

Deer Fence Canada Inc. assembles and services the driver for all of Canada. For more information please visit www.deerfencecanada.ca or 1 866 914 3337

Warning: ONLY operate the throttle while the Post Pounder Driver is on a post and between 5-10kg (10 to 12 pounds) pull down force is exerted on handles. Failure to do so can result in danger to the operator and damage to the machine. **Further, never drive a post/ rod in to the ground until the barrel touches the ground as this can result damage to the post driver.**

Read the Post Pounder Safety and Operating Instructions carefully and understand all safety and operating instructions prior to using the machine. The Instructions contain essential safety information and provide knowledge on how use and maintain the machine in a safe and efficient

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Safety

This section provides safety information and hazards of a general nature. Further safety warnings and information are provided where relevant, in the *Operating instructions*, and *Maintenance and servicing* sections of this document.

Unexpected movement

Warning: Sudden or unexpected movement of the machine may occur during operation, which may result in injury to the operator and/or damage to the machine.

- Ensure the operator maintains a stable standing position with feet as far apart as the width at shoulders. Keep body weight balanced.
- Stand firmly and always hold the Post Pounder with both hands.
- Never operate the Post Pounder unless both feet are in contact with the ground, never stand on a ladder, chair, trailer, pickup tray, or any other surface other than stable ground.
- Ensure the handles are free from grease and oil.
- Do not start the engine while the Post Pounder is lying on the ground, start when the pounder is vertical position.
- Never allow children or persons who have not read the operating instructions to operate the machine.
- Never let your post pounder run unattended.

Personal Protective Equipment (PPE)

Ensure the operator and all other persons nearby wear, at a minimum, the following PPE:

- Class 4 hearing protection, greater than 22dB attenuation CSA approved. http://www.ccohs.ca/oshanswers/prevention/ppe/ear_prot.html
- Safety glasses to CSA medium impact rating (http://www.ccohs.ca/oshanswers/prevention/ppe/glasses.html)
- Gloves suited to manual handling - leather or other abrasion resistant material, anti-vibration gloves are recommended
- CSA approved Safety boots /shoes http://www.ccohs.ca/oshanswers/prevention/ppe/footwear.html



Noise hazard

High sound levels may cause permanent hearing loss. Noise emitted from the tool while working can reach above 100dB which can also harm others nearby, both the operator and bystanders are to wear Class 4 hearing protection greater than 22dB attenuation.

Electrical,Gas ,Utilities ,concealed object hazards

Whilst driving posts, concealed electrical services, wires and pipes constitute a danger that can result in serious injury or death. Before you start using the tool, check the composition of the material you are to work on. Identify and avoid concealed cables and pipes e.g. electricity, telephone, water, gas and sewage lines etc.

If the tool seems to have hit a concealed object, switch off the machine immediately. Make sure that there is no danger before continuing.

Dial Before You Dig if you are using the post pounder and are unsure of the location of services.

Vibration hazard

Hand-arm vibration (HAV)

Exposure to HAV can result in disrupted circulation in the hand and forearm and/or damage to nerves and tendons, muscles, bones and joints of the hand and arm. It can cause a range of conditions collectively known as hand–arm vibration syndrome (HAVS) and specific disorders such as carpal tunnel syndrome, 'tennis elbow' and 'vibration white finger'. Workers with exposure to vibration while performing other hazardous manual tasks may also experience pain in the hands and arms and diminished muscle strength.

See Canadian fact sheets English http://www.ccohs.ca/oshanswers/phys_agents/vibration/vibration_effects.html or Francais

http://www.cchst.ca/oshanswers/phys_agents/vibration/vibration_effects.html

Reducing the risk of hand-arm vibration

Normal use of the Post Pounder exposes the operator to vibration. Vibrations from handheld machines are transmitted into the hands via the handles. The spring dampened handles on the Post Pounder are designed to dampen a large part of the initial vibrations. Further measures are required as vibrations are not eliminated completely.

- We recommend operators/employers implement a program of health surveillance to detect early symptoms that may relate to vibration exposure, so that management procedures can be modified to help prevent significant disability.
- If numbness, tingling, pain, clumsiness, weakened grip, whitening of the skin, or other symptoms occur at any time, when operating the machine or when not operating the machine, do not resume operating the machine and seek medical attention.
- Let the tool do the job. Use a firm, but minimum hand grip, consistent with proper control and safe operation.
- When the impact mechanism is activated, the only body contact with the Post Pounder should be hands on the spring dampened handles. Avoid any other contact, e.g. supporting any part of the body against the machine or leaning onto the machine trying to increase the feed force.
- Never keep the trigger engaged while removing the Post Pounder from the post.
- Immediately stop working if the machine suddenly starts to vibrate strongly. Before resuming the work, find and remedy the cause of the increased vibrations.

Service and maintenance

Read the Post Pounder Safety and Operating Instructions carefully and ensure maintenance and servicing are completed according with requirements. Perform engine maintenance in accordance with the supplied Honda Owner's Manual GX35.

- Regular maintenance is a prerequisite for keeping the machine safe and effective.
- If parts are damaged or worn, immediately cease using the Post Pounder until they have been serviced or replaced.
- When servicing, if parts are cleaned with solvent, ensure there is satisfactory ventilation, and PPE such as respiratory mask, gloves, and safety glasses are worn, and the manufacturer supplied Safety Data Sheet (SDS) for the solvent used is read and understood.
- Replace worn components in good time. When cleaning mechanical parts with solvent, make sure to comply with occupational health and safety regulations, and make sure that there is satisfactory ventilation.

Smaller posts - use of reducing bush

Warning: Pounding posts that are significantly smaller than the receiver barrel will result in instability while operating the Post Pounder. This may result in injury to the operator and will result in damage to Post Driver.

Ensure there is minimum clearance on either side of the post so it fits neatly in the receiver barrel. Where there is too much clearance on each side, use a reducing bush.

Operating instructions

Function

The Post Pounder was designed for driving steel fence posts ,T Posts, rebar into the ground. A range of other materials can be driven, however, success and performance will depend on the quality of the material used and the ground conditions.

The Post Pounder operates a pneumatic hammer system with a Honda GX35 engine to drive material into the ground with the hammering action.

Differences between PP52 and PP83

Post	**PP52**	**PP83**
Weight dry Weight wet	13.5kg (29.7lb) 14kg (30.8lb)	17.4 kg (40 lb) 18kg (41.1lb)
Internal guide tube diameter	52mm	83mm
Reducing bush	optional	optional
Internal differences	52mm striker	83mm striker
Visual differences	ABS carrying handle	Pressed steel carrying handle
Engine	Honda GX35	
What's in the box	Post Pounder Safety and Operating Instructions Honda Owner's Manual GX35 EP 0 Grease for servicing Safety Glasses Earplugs	

Applications

Types of posts

The Post Pounder will drive a wide range of posts, the below table is not exhaustive but provides a guide on which model may suit.

Post	**PP52**	**PP83**
Earth rod stakes,rebar	Yes *	Yes#*
Standard star/Y or T pickets and posts Diameter up to 52mm	Yes	Yes #
Timber stakes up to 35mm square / diameter less than 52mm	Yes	Yes #
Pipe/Tubing up to 50mm OD Such as 32NB pipe for sign posts 40NB pipe	Yes	Yes #
Waratah	Yes	Yes#
Square steel sections and angle Up to 35mm square / 52mm diameter	Yes	Yes#
Clipex	No	Yes
Waratah	No	Yes
Posts up to 76mm diameter Pipe up to 76mm OD Such as 50 to 65NB pipe for strainer posts, sign posts and guide posts	No	Yes
Square steel sections and angle to Up to 50mm square / 76mm diameter	No	Yes

* With optional GRND Earth Rod Reducing Bush

With optional Reducing BUSH(83-52mmm Reducing Bush)

Ground conditions

The Post Pounder has excellent performance in most ground conditions. In aggregate soils with stones small to medium stones will generally displace. If a larger stone is struck and the post is not progressing, cease driving, remove the post and move along a short distance and retry.

The Post Pounder will not drive a post through solid rock. This is beyond the limits of a small, lightweight machine and most posts.

Pre-start checklist

Check point	**Remedy**
Check engine oil Honda GX35	• Fill only to the top thread of the filler while the motor is in a vertical position •  **Overfilling will damage the engine** • Refer to Honda Owner's Manual GX35 • Use SAE10W 30 oil
Check fuel level	• Fill with regular unleaded fuel only
Visually inspect striker and barrel	• Look in the receiver guide of the Post Pounder to check for damage to the striker or tube, repair/replace if damaged • Dislodge any debris (such as tar, timber picket splinters with a WD spray into the receiver barrel
Visually inspect all fasteners	Tighten as necessary: • Cover plate screws • Carrying handle screws • Screws in engine guard, and body castings

Safe starting

- Start and operate the Post Pounder unit outdoors, and in a ventilated area
- Place the Post pounder on a secure even surface
- Maintain a good safe stance.
- Press the priming bulb until fuel is seen in the return line.
- Close the choke.
- Slide the thumb switch on the throttle handle to "ON" position.
- Grasp the Honda GX35 engine pull starter grip and pull up and out. Excessive force or speed is not required.
- Never wrap the Honda GX35 pull starter rope around the hand
- Do not quick release the Honda GX35 starter grip, guide the starter rope back slowly to permit the rope to rewind properly
- Failure to observe instructions regarding the pull starter may result in injury to the operator's hand and damage to the starter
- Let the engine warm up and then open the choke.

- **Do not press the throttle lever until the Post Pounder is on a post.**

- Guide the starter rope back slowly to permit the rope to rewind properly.
- Should the engine not start easily, or the pull starter offer resistance, refer to the Troubleshooting section.

Driving posts

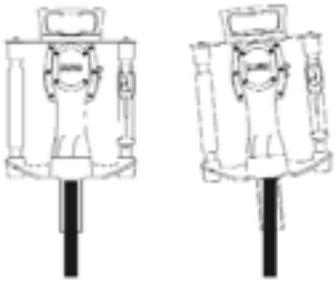
- Ensure there is plenty of clearance behind and next to the Honda GX35 engine, to allow for the escape of hot and toxic exhaust fumes.
- Maintain good balance and secure footing on both feet, with feet far apart.
- Only operate the Post Pounder in daylight conditions with good visibility
- Ensure the operator and all other persons nearby wear, at a minimum, the following PPE:



Stand the post in the required position and push into the ground. Ensure the post is stable enough to take the weight of the Post Pounder.

- Where many posts are to be driven, doing this in batches will save time.
- A guide wire can be used to assist in maintaining a straight fence line.
- Lift the Post Pounder over and on to the post.
- Ensure the post is in a vertical position and the Post Pounder is on in a parallel plane to the post.
- Correct alignment is depicted on the safety label on the receiver barrel.

Correct



Incorrect

- **Pull down on the Post Driver with 5-10kg of downward force.**
- This is mandatory to ensure the internal hammer mechanism is engaged in the correct operating position, and reduce unexpected movement while driving.
- Gently pull the throttle trigger until the hammer action is felt.
- Once the post has been observed as being driven in to the ground, then fully depress the throttle trigger and drive the post to the desired depth.
- If the post does NOT drive into the ground cease driving, remove the post and move along a short distance and retry.

- **Never drive a post until the receiver barrel touches the ground.**
- Once the desired depth is reached, release the throttle fully so the Honda GX35 Engine is idling, and the hammer action has stopped.

- **Never operate the throttle unless the Post Driver is on a post, and between 5-10kg downward force is exerted on the handles.**

- Move to the next post and repeat.

Refuelling

Warning: Fuel vapours are extremely flammable and can cause severe injury or death, if ignited by a spark or excessive heat from a hot motor.

- Always switch off the Honda GX35 engine, and allow adequate time for it to cool down before refuelling.
- Use regular unleaded fuel only.
- Fill the tank on level ground avoiding spilling fuel on the motor. Allow any spilt fuel to evaporate before restarting the motor.
- Ensure fuel cap is tightened adequately before restarting the motor.

Maintenance and servicing

Read the supplied Honda Owner's Manual GX35 and perform engine maintenance as recommended by Honda.

Failure to follow the maintenance schedules for the Post Pounder, and Honda GX35 engine, may result in non-warranty machine failures.

Manufacturer servicing

Should assistance be required, Deer Fence Canada Inc. can perform servicing at a cost. For technical advice, please contact Deer Fence Canada Inc..

Maintenance schedule

Service	Domestic/farm/light use	Commercial use
Crank lubrication	Annually	250 hours or 3 months Whichever occurs first
Hammer section	Bi-annually	500 hours or 6 months Whichever occurs first
Gearbox Section	Every 2 years	Annually

Crank lubrication

Tools/materials required

- M3 Allen key, provided with rebuild kit.
- Blue Thread locking compound medium strength
- Degreaser solvent
- EP 0 grease.

Performing the crank lubrication.

1. Remove the 4 screws from the crank cover plate, using an M3 Allen key.

2. Inspect the amount and colour of grease in the crank area. There should be a liberal amount of grease coated around the outside of the crank about 6-8mm thick.
   - If the grease looks to be low, add a **small amount** of EP 0 grease. 20-30 ml is generally sufficient.
   - The colour of the grease can be yellow to brown or purple with some suppliers.
   - If the grease is very dark, and tar coated posts have been used, this may be due to residual tar entering the machine. The Post Driver may will need further stripping as described at Hammer Section(P14), and is recommended if reduced performance has been noted.

3. Clean the cover plate screws with degreaser solvent. Apply Blue thread locking compound medium strength.

4. Tighten the cover plate screws in an even pattern, to prevent pinching the cover plate o ring.

The amount and type of grease used is critical for the performance and service life of the Post Driver. Not enough grease will cause failure and too much grease will affect the striking power of the tool. **Do not over or under grease.**

If the ring of grease around the crank case wall measures less than 6-8 mm (1⁄4"), this is an indication the grease level is low. Add no more than a few tablespoons of EP 0 grease, you never want to exceed 12-13 mm (1⁄2")of grease ring around the crank case walls.

Anvil section

Tools/materials required

- M3 and M6 Allen key, of good quality
- 13/16 (21mm) socket and ratchet
- Thread locking compound medium strength
- Degreaser solvent
- EP 0 grease.
- O Rings

Anvil service procedure

Bottom assembly
with bolts and seal

Anvil assembly parts

1. Remove the 6 Allen head bolts from the bottom cast handle section, using an M6 Allen key, and carefully slide the bottom barrel section from the cast housing.
2. Remove the damper section , and inspect for wearing in the rubber dampers and steel components.

3. Remove the bottom anvil and inspect the Viton O ring for wear or damage, and replace if necessary. The anvil component is made from high quality tool steel and should not be a wearing component,clean off old grease.

Top Hammer with Viton O Ring

4. To remove the top hammer, gently tap the main cast housing vertically down on a soft bench top and it should slide out of the inner cylinder liner.
   - Take note of the orientation of the components as in the parts diagram
5. Check the crank pin bearing for wear, if it is worn replace both crank pin and piston assembly.
6. The top piston can be removed from the crank by:
   - Removing the **Left Hand thread** crank pin from the crank. Jam the connecting rod with a round metal bar to release the crank pin. **DO NOT USE A SQUARE OR SHARP OBJECT TO JAM THE CONNECtING ROD**.
   - Gently push the piston through the bottom of the housing.
   - Removing the **Left Hand thread** crank pin from the crank.

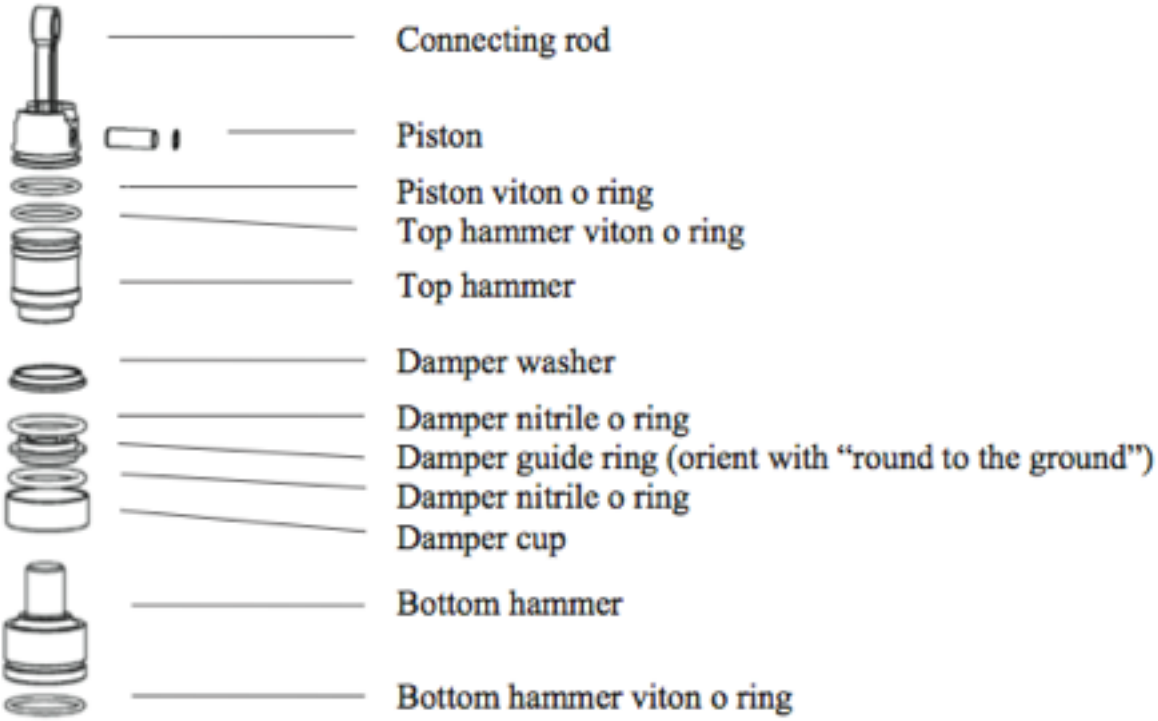
   - Orientation is not critical on the piston or connecting rod.
   - Check the piston and Viton O ring for obvious signs of wear, and replace along with top hammer O ring if necessary.
   - Wash all grease from the housing and components using a degreaser solvent and inspect the inner barrels for wear.

Reassembling the bottom assembly

After thoroughly cleaning and drying the components and checking for excessive wear, re-assembly can occur.

1. Apply a coating of EP0 grease around the O ring and outside of the piston, and gently push back into the housing using a soft dolly.
2. Add a small amount of grease to the crank pin and reassemble remembering it is **Left Hand thread**. Do not over tighten this pin, not more than 30Nm.
3. Add a coating of EP 0 grease to the outside of top hammer, and gently push into the housing. The O ring will be at the top.
4. Add a coating of EP0 grease to the bottom anvil parts, then push the bottom striker into the guide tube.
5. Reassemble the damper cup with a small amount of EP 0 grease to all components.

NOTE! The hammer "GUIDE RING" should be oriented correctly so the side with the large chamfer (slightly rounded edge) is facing down towards the bottom hammer. Remember: round to the ground!



6. Install the bottom guide section back into the main housing ensuring the thin section O ring is not damaged between the housings.

7. Insert the handlebars and springs back into the bottom housing. Apply medium strength thread locking compound to the 6 socket screws with lock washers in the bottom handle casting and tighten to 20Nm.

8. Apply 75ml of EP 0 grease to the crank area, and reinstall the socket screws using medium strength blue thread locking compound.

All screws must be correctly tightened in an alternate pattern, as machine damage can occur from loose or lost bolts.

Storage of Driver

The driver should be stored in a vertical position to allow the engine oil to drain into the sump of the engine. If the unit is stored horizontally oil can seep into the combustion chamber and cause damage to the engine

Troubleshooting and FAQ

Troubleshooting

Recoil starter offering resistance

- Engine overfilled with oil. Drain out and see fill instructions in the Honda GX35 manual. Place unit on a post so it is upright and level. Fill oil level with filler thread.

Pull starter rope pulling but engine is not cranking

- Damaged recoil starter or starter drive dog
- Requires replacement part either whole recoil starter or starter drive dog.

Engine does not start

- Check fuel level and quality
- Check On/Off switch
- Prime fuel bulb and engage choke
- Check spark plug and spark present

Post driver not hammering

- If your driver sounds like it is running fine, however the striker is not hammering as it should; make sure your striker is fully engaged. There is a safety feature which will disengage the striker if it is dry fired or misfired. To re-engage the striker, simply pick the driver up off the post and then place it back down on the post with a bit of force to hit the striker against the post.

- AVOID REPEATED DRY FIRE by maintaining 10 to 12 pounds of down pressure at all times!
- Check the type of grease in the crank; ONLY use the EP 0 grease which we recommend! EP 0 isa low viscosity grease for machinery with rapid moving parts which produce a lot of friction. If you use a different type of grease, you will inhibit the performance of your driver and possibly cause damage to your driver or your engine. If you have greased your driver with the wrong grease, you will need to follow the instructions in the maintenance section for replacing grease in the crank housing area.
- If you feel that the striker or hammer of the machine is not moving as freely as it should, you can spray WD-40 up into the barrel to lubricate and cleanse this area. Occasionally

you will get bits of debris which chip off the posts and then make their way up into the striker area.

- If the hammer will not engage after trying WD spray procedure, further servicing of the machine may be required as in previous chapters.
- If your engine seems to be overheating and not wanting to operate as it should; it may be starving for air or have too much pressure built up. You can remedy this by unscrewing the gas cap and make sure air is getting into the tank, The gas cap may need to be cleaned if the breather holes are blocked.
- Other wise consult the Honda service manual to remedy the engine issue.
- In the unlikely event that a driven posts badly flared and becomes lodged within the barrel follow these steps:

- Remove the six lower body bolts to separate the lower driver body from the upper driver body.
- Slide the lower driver body down the post to expose the flared top of the post. With a proper cutting tool for the type of post, cut the post off just below the flared top.
- Once the flared top is removed, slide the lower driver body off the post and re-assemble it to the upper driver body. Follow the bolt tightening and Loctite guidelines explained in the "servicing" section.

Frequently asked questions (FAQ)

Servicing

Q: Will servicing void warranty?

A: Warranty will be covered when performed in accordance with the instructions contained in this service manual.

Q: What type of fuel is recommended?

A: Regular unleaded petrol. Refer to the Honda GX35 manual.

Q: What type of Engine oil is recommended?

A: 10W30 engine oil. Refer to the Honda GX35 manual

Q: What type and quantity of grease is recommended for the post driver?

A: EP 0 grease or equivalent. Approximately 75ml is sufficient for a total strip and rebuild of the machine as per instructions in this manual.

Q: How often does the machine need stripping and rebuilding?

A: As per the servicing recommendations in this manual or if there is notice of performance reduction and determined not to be an engine problem.

Warranty

The Post Pounder has a one year warranty limited to defects in workmanship or parts, from the date of supply (by the distributor) when used in accordance with reasonable use and care. Please keep your proof of purchase to assist with any warranty claims.

Defects that occur within the stated warranty period other than those components excluded below shall be repaired or replaced.

Any parts or goods repaired under this warranty is only warranted for the remainder of the warranty period commencing the original date of supply by the distributor.

Exclusions

This warranty does not cover:

- normal wear and tear,
- damage caused by the Customer failing to follow the Safety and Operating Instructions, including but not limited to seizures due to lack of maintenance and cleaning;
- components that may need replacement or repair due to normal wear and tear or lack of maintenance upkeep, including but not limited to:
  - O rings and seals,
  - lost, stripped or broken fasteners,
  - Broken throttle controls
  - Lubrication and grease.
- physical damage caused by accident, misuse, negligence, abuse or fire;
- unauthorized alteration, modification or substitution of any parts of the Post Pounder installation or use of the Post Pounder not in accordance with instructions supplied;
- damage due to faulty installation or operation or maintenance;
- overloading or transport damage; or damage as a result of improper packaging,
- Post Pounders that have their serial number or model number label removed or defaced;
- failures or defects cause by or associated with use of the Post Pounder in unsuitable physical or operating environment;
- damage caused by force majeure events such as acts of God and factors beyond reasonable human control;
- Post Pounder that have been used for a purpose other than for what was reasonably intended for the Post Pounder,

To the extent permitted by law, where the Company determines in its sole discretion that the warranty claim does not fall within the terms and conditions of this warranty and is not accepted by the Company, the Company is not required to repair or replace the Goods and is not liable to the Customer for any costs or expenses incurred. The Customer must, at its own cost, retrieve the Goods from the Company's premises or if the Company agrees, the Company will arrange for return of the Goods to the Customer at the Customer's cost.

To Make a Claim:

If the defect has appeared within 1 one year of supply by the distributor subject to the terms above, the consumer is entitled to claim a warranty. To make a claim the consumer must:

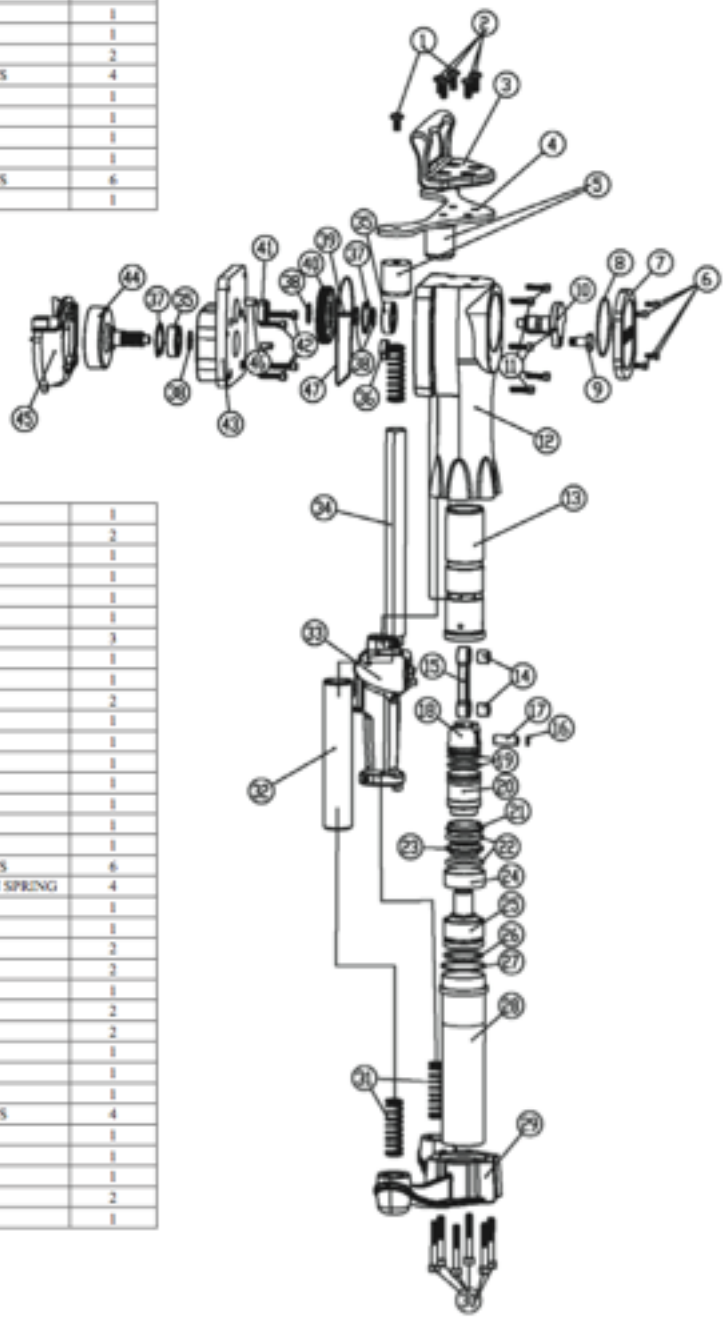
1. Immediately cease using the Goods as soon as the Customer suspects there is a fault and contact the supplier.
2. If technical support does not rectify the fault and the warranty claim is accepted by the Company, the Company will provide a return number for the consumer to return the product, at the customers own cost, with the details of the fault and any other details requested by the Company to the supplier.
4. Ensure the product is packaged in a way that will not cause damage to the product during transport.

Extent of Warranty

Unless the fault with the product/good is major and the provisions of the law apply. The Company may, but is not obligated to, at its sole discretion reimburse the Customer for any reasonable delivery costs incurred in sending the Goods to the Company if the warranty claim is accepted by the Company.

Parts list

Part NO.	Part Name	Part QTY
PD-1	M8X15 BOLTS	2
PD-2	TOP HANDLE BOLTS M8X20	4
PD-3	UPPER HANDLE	1
PD-4	FIXED PLATE	1
PD-5	HANDLE CUP	2
PD-6	M5X15 HEXAGONAL BOLTS	4
PD-7	COVER FOR CRANKCASE	1
PD-8	O RING SEAL 75*1.8	1
PD-9	CRANK PIN	1
PD-10	CRANKSHAFT	1
PD-11	M6X25 HEXAGONAL BOLTS	6
PD-12	POST DRIVER BODY	1



PD-13	CYLINDER	1
PD-14	BUSH BEARING	2
PD-15	CONNECTING ROD	1
PD-16	12 RETAINER	1
PD-17	WRIST PIN 12X32	1
PD-18	PISTON	1
PD-19	O SEAL RING 37.5*3.5	3
PD-20	HAMMER	1
PD-21	ANVIL O RING RETAINER	1
PD-22	O SEAL RING 40*5.3	2
PD-23	BIG RETAINER	1
PD-24	ANVIL O RING CUP	1
PD-25	ANVIL	1
PD-26	O SEAL RING 45*3.5	1
PD-27	O SEAL RING 56*1.8	1
PD-28	CHUCK TUBE	1
PD-29	LOWER DRIVER BODY	1
PD-30	M8X60 HEXAGONAL BOLTS	6
PD-31	HANDLE ANTI-VIBRATION SPRING	4
PD-32	HANDLE TUBE	1
PD-33	SWITCH	1
PD-34	HANDLE TUBE	2
PD-35	6004-2RS BEARING	2
PD-36	6000-2RS BEARING	1
PD-37	42 RETAINER	2
PD-38	20 RETAINER	2
PD-39	KEY 4X4X12	1
PD-40	GEAR	1
PD-41	BEARING 6201-2RS	1
PD-42	M6X30 HEXAGONAL BOLTS	4
PD-43	CLUTCH HOUSING	1
PD-44	CLUTCH DRUM	1
PD-45	COVER	1
PD-46	PIN	2
PD-47	GAS KIT	1