

# SAFETY, OPERATION &

# MAINTENANCE INSTRUCTIONS

# MODEL - CHPD78-1 SN 3950 +





# SAFETY, OPERATING & MAINTENANCE INSTRUCTIONS



Thank you for purchasing the **Easy Petrol Post Driver**. We are proud of the quality engineering and construction of this product and hope that you will enjoy many years of productive use from your machine.



Christie Engineering Pty Ltd are a family owned and operated Australian business.

They are the designers and manufacturers of the very first petrol engine driven post driver on the market.

Easy Petrol Post Driver are proud to work with them as the distributors of their Post Drivers throughout Europe. For more information please visit:

#### www.christieengineering.com.au

www.petrolpostdriver.com



Read these 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 way.



Read these instructions in conjunction with the supplied Honda Owner's Manual GX35. This manual also contains important safety information and engine maintenance information.

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	Cŀ	IPD 78-1 PARTS	LIST: SN 3950+
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	GX35	HONDA MOTOR
2	1	17850VL1741	THROTTLE LEVER ASSEMBLY
3	2	CEPD BS222	O RING
4	2	CEPD BS326	DAMPER O RING
5	1	CEPD 6000-2RS	DEEP GROOVE BALL BEARINGS
6	2	CEPD 6004-2RS	DEEP GROOVE BALL BEARINGS
7	1	CEPD 6201-2RS	DEEP GROOVE BALL BEARINGS
8	1	CEPD 20	HAMMER GUIDE
9	1	CEPD 22	DAMPER WASHER
10	1	CEPD 24-1	STEEL CYLINDER LINER
11	1	CEPD 27	TOP HAMMER
12	1	CEPD 30	PISTON
13	1	CEPD 31	CONNECTING ROD
14	1	CEPD 31-A	GUDGEON PIN 12 × 40
15	1	CEPD 37	COVER PLATE
16	1	CEPD 38	CRANK SHAFT
17	1	CEPD 38 PIN	CRANK PIN LH S1214
18	1	CEPD 54-58	58T DRIVEN GEAR
19	1	CEPD 60-13	
20	1	CEPD 67-2	
20	1	CEPD 970	
21	4	CEPD 921-S	
22	1	CEPD 921-0	
23	2		
27	1	CEPD 922	
25	1	CEPD 924	
20	- T	CEPD CC 20x1.20	
27	2	CEPD 00 42X1.75	
20	1		
29	1	CEPD 925	
21	1	CEPD 03C 1	U RING
22	1	CEPD 930-1	HAMMER HOUSING (CEPD 78)
32	1	CEPD 937	STO HAMMER (CEPD 78)
33	1	CEPD 934	BUTTOM GUIDE TOBE (CEPD 78)
34	1	CEPD 938-1	FLANGED ADAPTER (CEPD 78)
35	1	CEPD 930	REDUCER 78-54 mm
36	1	CEPD GUARD	CEPD GUARD
3/	5	CEPD SPACER 8x5x10	SPACER 8x5x10
38	2	CEPD SPACER 8x5x14	SPACER 8x5x14
39	2	CEPD BS334	REDUCER O RING
40	12	CEPD M816 SHCS (M818)	M8 x 16 SHCS (M8x18)
41	4	CEPD M410 SHCS	M4 × 10 SHCS
42	11	CEPD M530 SHCS	M5 × 30 SHCS
43	4	CEPD M880 SHCS	M8 × 80 SHCS
44	2	CEPD M525 SHCS	M5 x 25 SHCS
45	2	CEPD M516 BHCS	M5 x 16 BHCS
46	2	CEPD M5 HEX NUT	M5 HEX NUT
47	3	CEPD M520 SHCS	M5 × 20 SHCS
48	2	CEPD PIN 8x36	PIN 8 × 36
49	1	CEPD BS040	O RING
50	2	CEPD BS035	O RING
51	1	CEPD DAMPER 3MM	PU FLAT WASHER
52	3	CEPD M5 WASHER	FLAT WASHER 10.9 x 5.7 x 1.3

# Points of caution

This machine operates using a Honda GX35T, 4 Stroke Engine. Read both manuals **thoroughly before** operation. **IMPORTANT:** Warranty will not be valid if operating methods are not followed. In particular please note the following points of caution:

#### **Dry Firing**



**ONLY** operate the throttle while the Christie Post Driver is on a post and between 5-10kg pull down force is exerted on the handles. Pressing the throttle without load is known as 'dry firing'.

Failure to follow this instruction can result in danger to the operator and damage to the machine.

Further, never drive a post/rod in to the ground until the receiver barrel touches the ground as this can result damage to the post driver. See full instructions in section "Operating Instructions".



#### **Bolt Tightening**



As a vibrating machine, bolts will on occasion require re-tightening. Visually inspect all fasteners as part of your Pre-Start Checklist. If bolts repeatedly come loose; remove bolt entirely, clean both machine thread and bolt thread with degreaser/solvent, apply Oil Tolerant Locking Compound & re-affix the bolt.

#### Engine Oil Levels & Fuel Use



**ENGINE OIL –** Your machine is delivered with engine oil inside. Carefully monitor the oil levels of the Honda GX35T engine, especially over your first few uses. a. Stand the driver & machine upright.

b. Fill oil level up to the edge of the screw thread, as if just about to overflow. DO NOT lay the engine on its side to fill, this will over-fill the engine. **Oil Specification**; 10W30 mineral engine oil.



Unscrew cap and fill oil to this point

Check oil level regularly. Refer also to the 'Troubleshooting' section of this manual. Damage caused by failure to maintain oil level is not covered by the warranty.



FUEL – Use Regular Unleaded Petrol.

If your Post Driver use will be intermittent (e.g. more than 4 weeks between use) either use a fuel stabiliser, or drain the fuel tank and carburettor between uses. Use fresh, clean Petrol. Petrol will start to deteriorate if stored for more than 1 month.

# 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 shoulders width apart. Keep body weight balanced.
- Stand firmly and always hold the Post Driver with both hands.
- Operate the Post Driver with both feet in contact with the ground. Never stand on a ladder, chair, trailer, truck bed, or any other surface other than stable ground.
- Ensure the handles are free from grease and oil.
- Start the engine with the Post Driver upright. Do not start the Post Driver when it is lying on the ground.

# Personal Protective Equipment (PPE)

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

- Steel capped boots
- Gloves suited to manual handling leather or other abrasion resistant material, or antivibration gloves are all suitable
- Hearing protection
- Safety glasses to AS/NZS1337 medium impact rating



## Noise hazard



Noise emitted from the tool while working exceeds the exposure limit level of 87dB, which can also harm others nearby.

Both the operator and bystanders are to wear hearing protection to reduce the noise level below 70dB(A) attenuation.

Noise level (full operation – worst case material)	108.54 dB(A)
Noise level (idle state)	92.67 dB(A)

# Electrical/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.

#### **Vibration hazard**

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Vibration levels9.24 m/s2<br/>(Data from 100mm diameter wooden post)

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.

#### Reducing the risk of hand-arm vibration

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

- To control the risk of Hand Arm Vibration the operators and employers should focus on the elimination or control of vibration exposure. It is recommended to work below the Exposure Limits set by your local government or region.
- It is recommended that 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 Driver 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 Driver 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.

# Extreme temperature hazard



Temperatures of the Post Driver crank housing can increase to dangerous

temperatures after extended use and could cause burns to the operator.

• Tested from an ambient temperature of 25°C to maximum of 60°C in the table below with continuous running:

Elapsed time	Measured crank housing surface
	temperature
Omins	25°C (ambient)
1 mins	30°C
5mins	48°C
10mins	60°C (Maximum recommended)

#NOTE – maximum of 60 degrees recommended before cooling required for mechanism and possibility of internal damage.

#### Reducing the possibility of operator burns and scalds.

- Always wear protective gloves and long sleeves and long trousers to prevent possible contact with body parts.
- Recommended 50% duty cycle maximum in warmer weather (2min on/2min off) to prevent high running temperatures.

#### **Carbon Monoxide Poisoning**



Carbon monoxide can cause unconsciousness or death. The exhaust contains poisonous carbon monoxide gas that can build up to dangerous levels in closed areas.

The engine should never be run in a closed or even partially closed area.

#### Service and Maintenance



Read these 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 inspections as per Pre-start checklist are required.
- If parts are damaged or worn, immediately cease using the Post Driver until they have been serviced or replaced.
- When cleaning mechanical parts with solvent, make sure to comply with occupational health and safety regulations, and make sure that there is satisfactory ventilation. Ensure 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. Do not continue to operate a machine with worn or damaged components.

#### Driving smaller posts - use of Reducing Bush

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

Ensure there is minimal 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 (with the supplied CEPD 930 for CHPD78 models, 52-20mm reducer is an optional extra with CHPD52).

#### **European Accessories Supplement**

Some applications in Europe require additional accessories, see the European Accessories Supplement.

# **Operating Instructions**

# **Design and function**

The Christie Post Driver / Easy Petrol Post Driver was designed for driving steel fence pickets (star/Y or T pickets) 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 Driver operates a pneumatic hammer system with a Honda GX35 engine to drive material into the ground with the hammering action.

## **Specification**

Machine model	CHPD78-1
Engine model	Honda GX35T 4-Stroke
Blows per minute	1720
Joules	26
KW / hp	1.0 KW (1.3HP) at 7,000 rpm
Vibration levels	9.24 m/s <sup>2</sup> (Data from 100mm diameter wooden post)
Fuel consumption	0.71 L/h at 7,000 rpm
Starting system	Recoil (pull start)
Weight	15.6kg (dry, with single adapter)
Noise level	Noise level (full operation – worst case material) 108.54 dB(A) Noise level (idle state) 92.67 dB(A)

# **Applications**

#### Types of posts

The Post Driver will drive a wide range of posts, the below table is not exhaustive but provides a guide to what applications this machine is suitable for.

Some European applications will require additional accessories. See the European Accessories Supplement.

Post
Earth rod stakes
Standard star/Y or T pickets and posts
Diameter up to 52mm ^
Timber stakes
Pipe up to 50mm OD
Such as 32NB pipe for sign posts
40NB pipe
Waratah® Gripfast® Trellis Posts
Square steel sections and angle
Up to 35mm square / 52mm diameter
Clipex® Beefy® Posts
Waratah® Galstar MaxY® posts
Pipe up to 76mm OD
Such as 50 to 65NB pipe for strainer posts, sign posts and guide posts
Square steel sections and angle to
Up to 50mm square / 76mm diameter

#### **Ground conditions**

The Post Driver has excellent performance in most ground conditions. 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 Driver will not drive a post through solid rock. This is beyond the limits of a small, lightweight machine and most posts.

**Large Diameter Posts**; for posts larger than 85mm diameter a Pilot Hole is sometimes required. This can be achieved by hand using a standard Pointed Steel Bar. This creates a guide for the post and displaces some of the soil, making the work easier for the Post Driver.

**Dry or Compacted/Hard Ground;** if the ground is very dry, compacted, or hard composition (e.g. clay / chalk) a larger pilot hole may be required for posts larger than 80mm. Use the <u>Pilot Core Tool</u> to achieve a 50mm pilot hole. Fill this hole with water and leave to soak. This will greatly improve the post driving results.

# Operating instructions

## Pre-start checklist

Check point	Remedy	
Check engine oil Honda GX35	<ul> <li>Fill to the top thread of the filler while the motor is in a vertical position</li> <li>! Overfilling will damage the engine</li> <li>Refer to Honda Owner's Manual GX35</li> <li>Use 10W30 mineral engine oil</li> </ul>	
Check fuel level	Fill with regular unleaded fuel only	
Visually inspect striker and barrel	<ul> <li>Look in the receiver guide of the Post Driver to check for damage to the striker or tube, repair/replace if damaged</li> <li>Dislodge any debris (such as tar, timber picket splinters with a WD spray into the receiver barrel</li> </ul>	
Visually inspect all fasteners	<ul> <li>Tighten as necessary:</li> <li>Cover plate screws.</li> <li>Receiver guide screws.</li> <li>Screws in engine guard.</li> <li>Screws in body castings.</li> <li>If screws repeatedly come loose;</li> <li>remove screw entirely,</li> <li>clean both thread and screw with degreaser/solvent</li> <li>apply Oil Tolerant Locking Compound &amp; re-affix screw (such as Bondloc B243).</li> </ul>	

#### Safe handling

Correct manual handling techniques should be followed when the operator is lifting the machine.

#### Picking up the Post Driver

The Post Driver has three handles for lifting.

- The left handle is made from a rubber which gives a non-slip surface to grip using the left hand.
- The right handle is a moulded piece designed to match the shape of the operator hand. The handle incorporates the throttle trigger and on-off switch which determines where the handle is held.
- The top handle is a moulded piece of metal, which can be used for carrying the machine.

#### Setting down the Post Driver

- During use it is most convenient to rest the machine on the Engine Guard, with the Guide Tube and Engine Guard resting on the ground. This is the most ergonomic position, preventing unnecessary bending down when between posts.
- During transport it recommended the machine is lain with the crank Cover Plate facing the ground, and is secured to avoid overturning.

# **Operating position**

#### How to hold the machine when driving posts

- The operator should be facing the crank Cover Plate when driving in posts, with the engine facing away from the operator, and any bystanders.
- Place the right hand on the throttle trigger.
- Place the left hand on the rubber grip.

#### How to stand when driving posts

The operator will use the machine on a variety of outdoor surfaces; grass, mud, woodland, inclined surfaces etc. The operator is to wear sturdy boots with an aggressive tread to give the best traction outdoors. The operator should maintain a stable standing position and keep body weight balanced whilst using the machine.

# Safe starting



- Start and operate the Christie Post Driver unit outdoors, and in a ventilated area.
- 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
- 1. Ensure the ground is firm or select a solid surface, in an open well-ventilated area.
- 2. Maintain good balance and secure footing on both feet, with feet shoulders width apart.
- 3. Place the Post Driver, resting on the receiver barrel on firm ground with the top handle in left hand to stabilize machine.
- 4. Turn On/Off switch to On (I). Prime the fuel bulb, and engage the choke.
- 5. Grasp the pull cord toggle; pull up and out. Excessive force or speed is not required.
- 6. Guide the starter rope back slowly to permit the rope to rewind properly.
- 7. Once started, dis-engage the choke.
  - Should the engine not start easily, or the pull starter offer resistance, refer to the Troubleshooting section.

#### Switching off the machine

- Release the throttle trigger completely.
- Turn the On/Off switch to Off (O).

## **Driving posts**



- Dry firing of the Post Driver is the leading cause of problems with, and damage to, the Post Driver. Read the sections Driving posts and Dry firing and adhere to operating instructions.
- 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.
- Only operate the Christie Post Driver in light conditions with good visibility.

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

- Steel capped boots
- Gloves suited to manual handling leather or other abrasion resistant material, antivibration gloves are recommended
- Hearing protection
- Safety glasses to AS/NZS1337 medium impact rating



#### Safely Driving in a Post

1) Start motor safely as described in Safe Handling.

Stab the post in the required position into the ground by hand.

- 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.
- 2) Lift the Post Driver over and on to the post.
- 3) Ensure the post is in a vertical position and the Post Driver is on in a parallel plane to the post. Correct alignment is depicted on the safety label on the receiver barrel.
- 4) Ensure the operator maintains a stable standing position with feet shoulders width apart. Keep the body weight balanced.
- 5) 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.
- 6) Gently pull the throttle trigger until the hammer action is felt.
- 7) Once the post has been observed as being driven into 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.
- 8) 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.
- 9) Move to the next post and repeat.

#### **Dry Firing**

Dry firing occurs where the throttle is engaged and the hammer is moving, but no load is placed on the machine. This is the leading cause of problems and damage to Post Drivers, but is avoidable with correct use. Common causes of dry firing to be avoided:

- Not engaging enough down pressure on the handles while operating, 5-10kg, refer
   "Driving in a post".
- Post Driver not following a post down due to netting or wire snagging the machine.
- Engaging the throttle without a post inserted.
- Driving post into the ground until the receiver is in contact with the ground.
- Post is jammed in the receiver barrel and not driving into the ground.
- Attaching the Post Driver to a jib or spring balance. This is NOT recommended due to the increased pull required to operate the machine in accordance with instructions of a total of 10kg downward force, and increases the risk of damage to the machine.

#### Using the Reducing Bush – CHPD78

#### To insert the Reducing Bush

! DO NOT use grease or lubricant, the Bush is friction fit and additional lubrication will compromise the stability and fit. A <u>light</u> spray of WD onto a rag, and wiped into the guide tube, is acceptable.

- 1. Place the Reducing Bush partially inside the receiver barrel, ensuring the logo and drill holes are facing out.
- 2. Place the Christie Post Driver on the ground with the Reducing Bush / receiver barrel touching the ground and the Post Driver directly above at 90 degrees to ground.
- 3. Push the Post Driver gently on to the Reducing Bush. The weight of the machine will assist in pushing the Reducing Bush in.
- 4. Reducing Bush should be pushed in as far as the ridge above the logo.

#### To remove the Reducing Bush

- 1. Place a thin, strong object through the drill holes at the bottom of the Reducing Bush, such as a screw driver or rod.
- 2. Stand astride each side of the object so one foot is holding each side of the object.
- 3. Using correct manual handling techniques, pull the Christie Post Driver up and off the Reducing Bush.

#### Troubleshooting: Reducing Bush slips out

Lubricant may have been applied, or small amounts of lubricant may have displaced into the Receiver Barrel from the operation of the machine (this is considered normal operation).

- 1. Remove the Reducing Bush.
- 2. Remove O rings from Reducing Bush.
- 3. Clean O ring grooves, Reducing Bush and Receiver Barrel with a displacing compound (such as carb cleaner) and wipe with a clean rag.
- 4. Re-assemble O rings and Reducing Bush is ready to use.

#### 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.
- Ensure refuelling takes place in a well-ventilated area with the engine stopped.
- The machine must never be refuelled in an area where the fumes may reach sparks or flames.

#### What to do in the event of a spillage?

In the event of a spillage you must

- Eliminate all ignition sources no smoking, flares, sparks or flames in immediate area.
- Absorb or cover the spillage with dry earth, sand or other non-combustible material and transfer to containers.
- Dispose of the spillage as hazardous waste (contact your Local Authority for your nearest location).

#### **Maximum Operating Conditions**

If driving posts in without stopping and very short duration between posts, there is a chance in hot weather that the machine can temporarily seize.

A maximum of 10-15 minutes of continuous running in 25 degree + ambient temperature will be achievable before seizing. This unfortunately is a limit of the machine and operators may need to rest the machine between posts when driving in hot weather. The same limitation applies when the ground is very hard, resulting in posts taking a long time to drive in.

# 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 Christie Post Driver, and Honda GX35 engine, may result in non-warranty machine failures.

After many years of experience, it is the recommendation of Christie Engineering to NOT service the Post Driver mechanism for domestic/light use, and a minimal service schedule for commercial use.

Service matrix	Crank lubrication service	Hammer section service
Domestic/farm/light use	Not recommended, unless performance is deteriorated	Not recommended, unless performance is deteriorated
Commercial use	500 hours or 12 months Whichever occurs first	Only if grease is visible externally to hammer section, or performance is substantially reduced

#### End user servicing

A service kit is available to purchase from Easy Petrol Post Driver or any retail distributor, containing grease, spark plug, bolts, locking washers, and all O-rings.



Part Code; SERVICEKIT-CHPD78

#### Manufacturer/Distributor servicing

Should assistance be required, Easy Petrol Post Driver can perform servicing at a cost.

For technical advice, please contact Easy Petrol Post Driver or your local stockist.

# Crank lubrication service - commercial use

This service is to be performed at 500 hours use, or annually, for commercial use only, or unless performance is deteriorated.

#### Tools/materials required

- Allen key set, of good quality
- Thread locking compound medium strength
- Degreaser solvent
- Mobilux EP1 grease

#### Performing the crank lubrication service



Figure 1 Cover plate.



Figure 2 Crank area with sufficient grease. Colour is yellow prior to use as above, and will tend to brown with age and use.

During the servicing process, ensure to remember which orientation each removed part is positioned in the machine. Some pieces must be returned a certain orientation to ensure correct re-assembly.

- 1. Remove the 4 screws from the crank Cover Plate (CEPD37), using a 2.5mm 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.
  - The colour of the grease can be yellow to dark brown.
  - It is highly unlikely additional grease will be required. Generally this would only occur if there has been substantial external leakage of grease.
  - If the grease looks to be low, add a small amount of Mobilux EP1 grease. 20ml to 40ml is generally sufficient. Do not over grease.
  - If the grease is very dark, this may be due to residue from the posts entering the machine. The Post Driver may will need further stripping as described at Hammer Section, and is recommended if reduced performance has been noted.
- 3. Clean the cover plate screws, O-ring and thread holes carefully with degreaser solvent. Apply Oil Tolerant Threadlock Compound, of medium strength (such as Bondloc B243).
- 4. Replace the O-ring carefully, and align the cover plate. 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**.

## Hammer section service

This service is to be performed only if grease is visible externally to hammer section, or performance is substantially reduced.

#### Tools/materials required

- Allen key set, of good quality
- 6-7mm punch for dowels
- Small engineers hammer
- 13/16" (21mm) socket and ratchet
- Thread locking compound medium strength
- Degreaser solvent
- Mobilux EP 1 grease
- Service Kit SERVICEKIT-CHPD78, where O-rings are worn and require replacing

#### Performing the hammer section service



During the servicing process, ensure to remember which orientation each removed part is positioned in the machine. Some pieces must be returned a certain orientation to ensure correct re-assembly.

- 1. Remove the 8x Allen head bolts joining the bottom guide tube or fitted adapter to the Flanged Adapter section (CEPD 938-1) using a 6mm Allen key, and carefully slide the bottom guide tube from the Flanged Adapter.
- 2. Remove the 4x Allen head bolts (CEPD M880) from the Cast Bottom Housing (CEPD925) using a 6mm Allen key, and carefully slide the bottom hammer section from the Cast Bottom Housing.
- 3. Remove the damper section, taking note of the orientation of these pieces, and inspect for wearing on the damper O rings, damper washer, and steel components.
- 4. If significant wear is seen in the Hammer Housing (CEPD936-1), the operator may not be holding the driver square on the post Please see 'Driving in a Post' earlier in this manual.
- 5. Remove the bottom hammer assembly from the Cast Bottom Housing (CEPD 925). Remove the 3<sup>rd</sup> Hammer (CEPD 937) using a 6mm punch to carefully push the two retaining dowel Pins (CEPD PIN 8x36) from the Hammer Housing.
  - A vice and some soft jaws may aid in holding the round hammer guide and hammer in place.
- 6. Inspect the internal Viton O ring seal (BS220) inside the hammer guide for wear or damage, replace if necessary.
- 7. Inspect the Damper Washer (CEPDDAMPER3MM) for wear. This sits on the Hammer Housing CEPD936-1 between the Flange Adapter CEPD938-1. Replace if required.
  - The 3<sup>rd</sup> Hammer (CEPD 937) is made from high quality steel and should not be a wearing component, but ensure a visual inspection is carried out after cleaning for wear or damage and replace if necessary.
- 8. To remove the Top Hammer (CEPD27), gently tap the main Crank Housing (CEPD924) vertically down on a soft bench top and it should slide out of the inner Steel Cylinder Liner (CEPD 24-1).
  - Take note of the orientation of the components as in the parts diagram.
- 9. If the Top Hammer (CEPD27) O-ring (BS222) shows obvious signs of wear, the top Piston (CEPD30) can be removed from the crank by:
  - Remove the Cover Plate (CEPD37) to gain access to the crank assembly.
  - Remove the Left-Hand thread Crank Pin (CEPD 38 PIN) from the crank.
  - Jam the Connecting Rod (CEPD31) with a round metal bar, and gently push the Piston and Connecting Rod through the bottom of the housing using a soft metal rod. **DO NOT USE A SQUARE OR SHARP OBJECT TO JAM THE CONNECING ROD**.

- Orientation is not critical on the piston or connecting rod.
- Check the Piston (CEPD 30) and Viton O ring (BS222) for any signs of wear, and replace along with top hammer O ring (BS222) if necessary.
- Wash all grease from the housing and components using a degreaser solvent and inspect the inner barrels for wear and deep scores.
- If the Steel Cylinder Liner is scored or too badly worn the entire Post Driver should be sent back to Easy Petrol Post Driver for repair or replacement of the inner liner.

#### Reassembling the hammer

After thoroughly cleaning and drying the components and checking for excessive wear, reassembly can occur.

- 1. Apply a coating of the supplied EP 1 grease around the Piston O ring (BS222) 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 (CEPD 38 PIN) and reassemble remembering it is **Left Hand thread**. Do not over tighten this pin; not more than 30Nm.
- 3. Apply a light coating of EP 1 Grease to the outside of Top Hammer (CEPD 27), and gently push into the housing. The O ring will be at the top.
- 4. For the bottom hammer section, slide the Damper Washer (CEPD DAMPER 3MM) back onto the Hammer Housing (CEPD936-1). Then add a light coating of EP1 Grease to the 3<sup>rd</sup> Hammer (CEPD 937) and push through the Flanged Adapter (CEPD938-1). Push this into the Hammer Housing (CEPD936-1).
- 5. Align the two flat faces of the 3<sup>rd</sup> Hammer (CEPD937-1) with the two holes in the Hammer Housing (CEPD936-1) for the retaining dowel pins and gently tap the dowels (CEPDPIN 8X36) into place. **Note the dowels can only be driven from one direction.**
- 6. Reassemble the damper components with a small amount of EP 1 Grease to all components. (CEPD 22, CEPD20 & 2xBS326).
- 7. For the damper assembly:
  - Place the Hammer Housing (CEPD936-1) on a bench and place one of the damper O rings (BS326) in the cup.

Place the Hammer Guide (CEPD 20) inside the cup on top of the first O ring with internal radius facing down. Once assembled the Flat side needs to be to the top of machine. The curved side to bottom of the machine. **This is important** – if assembled incorrectly this could cause damage to the hammer.

- Place the second Damper O ring (BS326) on top of the hammer guide, inside the cup.
- Place the Damper Washer (CEPD 22) on top of the O ring, ensuring the small diameter spigot is facing up. This spigot aligns inside the cylinder liner.
- Fit the damper assembly in the bottom guide tube over the bottom hammer.
- 8. Install the bottom guide section back into the main housing and insert handlebars and springs back into the bottom housing in this process, ensuring the thin section O ring is not damaged between the housings.
- 9. Apply medium strength thread locking compound to the 4 socket screws (M8x80) in the Flanged Adapter (CEPD938-1) and tighten to 20Nm.
- 10. Apply medium strength thread locking compound to the 8 guide tube retaining bolts (M8X18) and ensure lock washers are fitted to the screws. Insert all screws finger tight into the respective holes and then tighten in an alternate pattern.
- 11. Apply 75ml of the supplied grease to the crank area, and reinstall the 4 socket screws (M4x10) using medium strength thread locking compound.

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



# Troubleshooting and FAQ

#### Troubleshooting

#### Recoil starter offering resistance

- Something caught in fan -Remove top red cover and check fan area for debris.
- Engine damaged from impact Repair as necessary.
- Engine overfilled with oil Drain out oil and see filling 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 cog -Requires replacement part, either whole recoil starter, or starter drive cog.

#### Engine does not start

- Check tank breather in cap is open.
- Check fuel level and quality.
- Check On/Off switch.
- Prime fuel bulb and engage choke.
- Check spark plug and spark present.
- Check the filter in the fuel tank.

#### Post driver not hammering

- Striker may be disengaged, commonly caused by dry firing -Place unit on a post. Lift and give a gentle drop onto the post, this will re-engage the striker. Do not operate unless on a post and exerting 5-10kg downward pressure (pulling down on the handles).
- If using tar coated steel or coated timber stakes, residue may be left in the guide tube causing the bottom striker to foul -
  - This can be dissolved by spraying inside the guide tube with a WD spray.
    - If the hammer will not engage after trying WD spray procedure, further servicing of the machine may be required.
- Mud clogging the hammer section -Remove adapter & clean out any foreign bodies clogging the hammer. Hammer section service may be required.

#### Loss of power when pressing throttle

- Dirty or stale (old) fuel -
  - Empty all fuel, start engine & run until it cuts out. Refill with fresh fuel.

**N.B.** Fuel turns stale within 4 weeks of purchase, even if stored correctly. If your engine will be used intermittently (i.e. more than 2-3 weeks between each use) use petrol which has been treated with fuel stabiliser, when fresh.

If problems persist, the Fuel Filter may require changing, and the Carburettor may require cleaning. Also refer to the Honda recommendation page at the end of this manual.

For periods of un-use (greater than 2-3 weeks) it is recommended to empty the fuel entirely, then restart the engine and allow to run dry. The engine can now be stored indefinitely.

• Machine has been overworked in hot weather -Refer to section: OPERATING INSTRUCTIONS>MAXIMUM OPERATING CONDITIONS.

#### Post isn't driving in

The Post Driver has excellent performance in most ground conditions. 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 Driver will not drive a post through solid rock. This is beyond the limits of a small, lightweight machine and most posts.

Large Diameter Posts; for posts larger than 85mm diameter, a Pilot Hole is sometimes required. This can be achieved by hand using a standard Pointed Steel Bar. This creates a guide for the post and displaces some of the soil, making the work easier for the Post Driver.

Dry or Compacted/Hard Ground; if the ground is very dry, compacted, or hard composition (e.g. clay / chalk) a larger pilot hole may be required for posts larger than 80mm. Use the Pilot Core Tool to achieve a 50mm pilot hole. Fill this hole with water and leave to soak. This will greatly improve the post driving results.

#### Frequently asked questions (FAQ)

#### 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: Fresh, regular unleaded petrol. Refer to the Honda GX35 manual.

#### Q: What type of Engine oil is recommended?

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

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

A: Mobilux EP1 grease, used in accordance with the Maintenance and servicing instructions.

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

A: As per the Maintenance and servicing instructions in this manual, it should only be required if there is substantial reduction of performance determined not to be an engine problem.

#### Q: How long do the hammer components last?

A: The hammer components are made from the highest quality material and are intended to give a long-lasting lifespan for this commercial machine, when used and serviced in accordance with the recommended schedule.

# Warranty - Easy Petrol Post Driver – Christie Post Driver

# Conditions

The Christie Post Driver has a three (3) 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 at the discretion of Christie Engineering. 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 Orings and seals,
  - o lost, stripped or broken fasteners,
  - o Guide tube/Adapter/Receiver barrel,
  - Lubrication and grease;
- physical damage caused by accident, misuse, negligence, abuse or fire;
- unauthorised alteration, modification or substitution of any parts of the Post Driver, installation or use of the Post Driver 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 Drivers that have their serial number or model number label removed or defaced;
- failures or defects cause by or associated with use of the Post Driver in unsuitable physical or operating environment;
- damage caused by force majeure events such as acts of God and factors beyond reasonable human control;
- Post Drivers that have been used for a purpose other than for what was reasonably intended for the Post Driver,

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.

#### How to make a claim:

If the defect has appeared within the three (3) years 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;
- 2. Contact either the Retailer who supplied the goods, or contact Easy Petrol Post Driver (acting as distributors for Christie Engineering in Europe) and provide details of the

fault and details of purchase (invoice number & serial number) to obtain technical support;

Telephone: 0044 (0) 114 2699119

Email: info@petrolpostdriver.com

- 3. Provide details of the fault to obtain technical support;
- 4. 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 following address:

Easy Petrol Post Driver, 22 Orgreave Close, Sheffield, S13 9NP, ENGLAND

5. Ensure the product is packaged in a way that will not cause damage to the product during transport.

Christie Engineering contact details:

Christie Engineering 123 Delaware Road Horsley Park NSW 2175 (02) 96201208 enquiries@christieengineering.com.au

#### **Extent of Warranty**

Unless the fault with the product/good is major and the provisions of The Act 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.

The benefits conferred by this warranty are in addition to the rights and remedies the consumer has under the Competition and Consumer Act 2010 (The Act) and applicable state and territory laws of Australia. This warranty is not applicable outside of Australia.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

# Honda Warranty



# Conditions

The following warranty conditions are valid for machines sold to customers from 1 January 2012. For engines on the market before 1 January 2012 different warranty conditions apply. Please contact your nearest dealer on the **SERVICE NETWORK** (see below) for more information.

#### Warranty period in months

Engine Code	Non-commercial use	Commercial use Rental use
GX25 / GX35 / GXH50 / GXV50 / GXV57-engines	24	12

Commercial use is considered to be when the machine is purchased by a company. In cases where the machine is sold to another private person, the warranty lapses.

#### **Exclusions**

Please see the following website for Warranty Exclusions: http://www.honda-engines-eu.com/web/eec-public-site/warranty-exclusions

#### How to make a claim

In case you face a problem with the Honda engine on your machine, you can claim a repair or replacement under warranty if the following conditions are fulfilled:

- The problem is related to a manufacturing defect on the engine.
- The engine is within the warranty period (see above Warranty Conditions).
- The problem does not fall within the Warranty Exclusions (see above).

#### Procedure and rules:

- Go to <u>www.honda-engines-eu.com</u> This website includes the **SERVICE NETWORK** and **SPARE PARTS DIAGRAMS**.
- Using the **SERVICE NETWORK** selection, find your nearest dealer who offers **Warranty Handling**.
- Contact the dealer to discuss the problem. Authorized dealers are directly linked to the Honda subsidiary or distributor in your country. Independent dealers can forward your claim to a spare parts distributor or to the Honda distributor presuming that those are available in your country. If there is no Honda subsidiary or distributor in your country it is recommended to contact the dealer, importer or manufacturer of the machine in order to claim warranty.
- Present the invoice or another document proving the date of sales of the machine.
- In case of export, the warranty conditions of the country where the machine is imported are valid (not those of the country where the machine is produced).
- Honda Warranty applies on all Honda products.
- Honda General Purpose engines are used to power machines that are manufactured and sold by other companies than Honda.
- In this case the Honda warranty is only covering defects of the engine, not of the machine where it is incorporated into nor on the parts or equipment that are attached to the engine in order to fit the engine to the application.
- If you experience difficulties with making a claim, please contact the Dealership you purchased your Easy Petrol Post Driver from.

For full information on Honda Warranty please go to the Honda Engines website: <u>https://www.honda-engines-eu.com/en/support/warranty</u>

# Honda Fuel Advice





#### Problems caused by stale petrol can be avoided by following these simple tips.

#### WHICH KIND OF PETROL SHOULD YOU USE?

- Regular unleaded 98, 95, 95 E5 or E10 can be used in Honda products (E5 or E10 contains 5% or 10% ethanol).
- Do not use any petrol containing more than 10% ethanol. This will cause corrosion damage to fuel system components.
- Honda does not anticipate any negative effects from the use of Alkylate type petrol. However, due to the
  availability of different Alkylate fuels, no recommendation for their use can be provided at this time. Please
  refer to the instructions and data sheet provided by the Alkylate manufacturer for more information.
- If your **Honda** product is used intermittently (eg more than 4 weeks between each use) use petrol treated with fuel stabiliser, at the time of purchase.
  - > Honda fuel stabiliser has a shelf-life and its performance will deteriorate over time. Once the bottle is opened, it has a maximum life of 2 years.
  - Fuel stabiliser will not reconstitute or reinvigorate stale petrol. It must be added when the petrol is fresh.

## HOW SHOULD PETROL BE STORED?

- Petrol will start to deteriorate if stored for more than 1 month.
- Add Honda fuel stabiliser to fresh petrol which is likely to be stored for more than 1 month.
- Only use clean, sealed, approved fuel containers, designed to specifically carry or store petrol.
  - If petrol is stored in a steel container (eg a jerrycan) make sure there is no corrosion on the inside of the container.
  - Store petrol in a cool place away from direct sunlight.

# MAINTENANCE OF YOUR PRODUCT.

- If your Honda product will be used intermittently (eg more than 4 weeks between each use) use petrol which has been treated with fuel stabiliser, when fresh.
- Turn the fuel tap off, when the machine is not being used.
- Before use, check the engine oil level is correct and ensure the air filter is clean.
- Before winter storage:
  - Drain the petrol from the carburettor and fuel tank (refer to owner's manual for correct procedure). OR
  - >Add fuel stabiliser, which will extend the storage life of the petrol remaining in the fuel tank and carburettor. Fill the fuel tank to the recommended maximum level, using treated petrol. Run the engine for at least 5 minutes to allow treated petrol to enter the carburettor, prior to storage



HONDA RECOMMENDS

HONDA PART NUMBER: 08CXZFSC250

www.honda-engines-eu.com



# Contact

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Thank you for choosing the Christie Post Driver. We designed and manufactured the first petrol engine driven Post Driver on the market, right here in Australia, and now sold worldwide.

Christie Engineering is a family owned and run business, that prides itself on manufacturing OEM products for various industries including agriculture, mining and construction.

We are proud of the quality of our genuinely Australian made equipment, so every machine has our name on it. If it's not stamped Christie, it's not one of ours.

Christie Post Driver is branded Easy Petrol Post Driver in Europe, distributed by SPA Landscaping Limited.

<b>Contact us - Australia</b> www.christieengineering.com.au enquiries@christieengineering.com.au 123 Delaware Road, Horsley Park, NSW 2175 Australia Ph: 02 9620 1208	Find a retailer Please see our website for your nearest retail outlet <u>www.christieengineering.com.au/dealer-</u> <u>locations/</u>
Contact us – Europe www.petrolpostdriver.com info@petrolpostdriver.com Easy Petrol Post Driver 22 Orgreave Close Dore House Industrial Estate Sheffield, S13 9NP, Great Britain (c/o SPA Landscaping Limited) Registered in England. 04240438 Vat Registration. GB 390992020 Tel: +44 (0)114 269 9119	

# Australia, Asia, Rest of World – Manufacturers



Address:Christie Engineering, 123 Delaware Road, Horsley Park, NSW 2175, AustraliaTel:02 9620 1208Web:www.christieengineering.com.auEmail:enquiries@christieengineering.com.au

# **Europe**



Vat Registration:

**POST DRIVER**... Australian Engineering by Christie

 

 Address:
 Easy Petrol Post Driver, 22 Orgreave Close, Dore House Industrial Estate, Sheffield, \$13 9NP, Great Britain (by care of SPA Landscaping Ltd)

 Tel:
 0114 269 9119

 Web:
 www.petrolpostdriver.com

 Email:
 info@petrolpostdriver.com

 Company Registration:
 04240438

GB 390 9920 20

# North & South America



Address: Tel: Web: Email: RediDriver, 16408 S Curtis Road, Cheney WA 99004, USA (509) 235-2780 www.redidriver.com info@redidriver.com



# **UK CA DECLARATION OF CONFORMITY**

This declaration is issued under the sole responsibility of the manufacturer

Manufacturer's name and full address	Christie Engineering 123 Delaware Road, Horsley Park, New South Wales 2175 Australia
Authorised Representative and full address (based in the UK)	N/A
Description and identification of the ma	chinery
Product / Type	Petrol Post Driver
Model	CHPD78-1
Function	Petrol Post Driver
Serial No / Batch No	From SN 3950
Commercial Name	Easy Petrol Post Driver
Other identifying information	
This machinery fulfils all the relevant pr (SI 2008/1597) as amended (SI 2011/215	ovisions of the Supply of Machinery (Safety) Regulations 2008 7, SI 2019/696).
The following standards have been used	<ul> <li>EN ISO 12100:2010 Safety of machinery — General principles for design — Risk assessment and risk reduction</li> <li>EN 292 Safety of machinery – Basic concepts, general principles of design</li> <li>EN 614-1:2006+A1 Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles</li> <li>EN ISO 4414:2010 Pneumatic fluid power - General rules and safety requirements for systems and their components</li> </ul>
Name and address of the person authorised to compile the technical file (based in the UK)	SPA Power Machinery, 22 Orgreave Close, Dore House Industrial Estate, Sheffield, S13 9NR
Person authorised to make this declaration	Christie Engineering 123 Delaware Road, Horsley Park, New South Wales 2175 Australia
Name	Peter Christie
Function	Director
Signature	Part
Place of Declaration	Horsley Park, NEW SOUTH WALES
Date of Declaration	28 <sup>th</sup> February 2024



# EU CE DECLARATION OF CONFORMITY This declaration is issued under the sole responsibility of the manufacturer

	Christie Engineering		
Manufacturar's name and full address	125 Delawale Road,		
Manufacturer's flame and full address	Now South Wales 2175		
	Australia		
Authorised Representative and full address	N/A		
Description and identification of the mac	hinery		
Product/Type	Petrol Post Driver		
Model	CHPD78-1		
Function	Petrol Post Driver		
Serial No / Batch No	From SN 3950		
Commercial Name	Easy Petrol Post Driver		
Other identifying information			
This machinery conforms to all the requirements of the Machinery Directive 2006/42/EC			
The following standards have been used	<ul> <li>EN ISO 12100:2010 Safety of machinery — General principles for design — Risk assessment and risk reduction</li> <li>EN 292 Safety of machinery – Basic concepts, general principles of design</li> <li>EN 614-1:2006+A1 Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles</li> <li>EN ISO 4414:2010 Pneumatic fluid power - General rules and safety requirements for systems and their components</li> </ul>		
The technical file is compiled in accordance with part A of Annex VII of the Machinery Directive 2006/42/EC			
	SPA Power Machinery,		
Name and address of the person	22 Orgreave Close,		
authorised to compile the technical file	Dore House Industrial Estate,		
(based in the European Community)	Sheffield,		
	S13 9NR		
Person authorised to make this	Christie Engineering		
declaration	123 Delaware Road,		
	Horsley Mark, New South Wales 2175		
	Australia		
Name	Peter Christie		
Function	Director		
Signature	Part		
Place of Declaration	Horsley Park, NEW SOUTH WALES		
Date of Declaration	28 <sup>th</sup> February 2024		

# **EUROPEAN ACCESSORIES SUPPLEMENT**

These accessories are supplied by Easy Petrol Post Driver as options to be used with the Christie Post Driver.

These are adaptations which have been developed specifically for the European marketplace, due to different post types and sizes to those typically sold in Australia. This manual must always be used in conjunction with the Safety and Operating Instructions.

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#### Document version management

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Document Version: A1.0	Model: CHPD78-1
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Original instructions written in English	

# **Use of Adapters**

To get the most effective use from the Post Driver, the Adapter size must be a snug fit for your Posts. We recommend the Adapter must be 5-10mm larger than your Post. For shaped posts; squares / t-shapes etc, the outer corners need to be within this capacity.

<b>Warning</b> : Driving posts which are significantly smaller than the receiver barrel ('Adapter') will result in instability while operating the Post Driver. It will also affect the efficiency of the Post Driver. This may result in injury to the operator and will result in damage to Post Driver.
Solution: Ensure there is minimum clearance on either side of the post so it fits neatly in the Adapter. A maximum clearance of 10mm between POST and ADAPTER (5mm each side) is recommended. If the clearance between POST and ADAPTER is greater than 10mm use an Adapter to suit your post size.

# Fitting and Removing Adapters

Adapters are available in various shapes to meet the maximum clearance requirements.

#### To change an adapter:

- 1. Remove the socket head bolts retaining the fitted Adapter to the flanged adapter section (CEPD 938-1), and carefully slide the adapter from the machine.
- 2. Clean the thread holes and bolts of any residual locking compound.
- 3. Slide the new Adapter into place, carefully lining up the holes.
- 4. Apply medium strength thread locking compound to the 8 bolts and ensure serrated lock washers are fitted to the bolts. Insert all bolts finger tight into the respective holes and then tighten in an alternate pattern.

#### **Multi Adapters**

Multi Adapters are combination sets of round adapters, with the largest adapter fitted to the machine, and two smaller adapters which slide in and are held in place with bungee hooks.

These are suitable for users installing various sizes of round post in one job, where unscrewing bolts and applying locking compound could be problematic.



# **Pilot Core Tool**





The Pilot Core Tool allows you to drive posts into difficult ground conditions, and allows increased productivity when installing 90mm-100mm diameter posts.

It removes a core of earth out of the ground prior to driving in your stakes, using the Easy Petrol Post Driver. When the ground is hard, bone dry or rocky it enables the job to take place in any condition, and it speeds up the overall time of driving each post in.

#### Weight

Pilot Core Tool, Spacer Collar and Bungees	8kg
T-Bar	0.4kg

#### Instructions for Use

Pilot Core Tool is supplied with Spacer Collar (PCTC), Bungees and T-Bar.

- 1. Fit the 107ROUND adapter to the Easy Petrol Post Driver.
- 2. Slide the Spacer Collar into the 107ROUND and fix in place with the Bungees.
- 3. Drive the Pilot Core Tool in to the ground in the required location.
- 4. Drive to a depth of 150mm (6") less than the required post depth.

- 5. Insert the T-Bar horizontally into the Pilot Core Tool. Use a stake as a lever, then Twist & Pull to remove the Core of Earth.
- 6. The ground is now prepared to drive your stakes with the Easy Petrol Post Driver.
- 7. If the ground is exceptionally dry, fill the hole with water & allow to soak for a few minutes. An increased moisture content in the soil will enable stakes to drive much faster.
- 8. Empty each core of earth out the top of the Pilot Core Tool every time a new core is made. The design of the Pilot Core Tool has a narrower cutting head than the tube, allowing the core of earth to tip out freely.

# Extension handles for tall posts



**Warning:** Driving posts that are significantly taller than the operator may result in overreaching when positioning the Post Driver. This may result in injury to the operator and may result in damage to Post Driver.

**Solution:** Extension Handles are available as an accessory. These attach to the bottom (or the top to prevent bending over) of the Post Driver and prevent over-reaching. (Product Code; LONGHANDLE) With LONG HANDLES you can extend the handles on your post driver by an extra 60cm (2ft) on the top or the bottom. Suitable for Post Driver CHPD78 models.



#### Weight

Weight of LONGHANDLES	3.5 kg
Weight of CHPD78-1 fitted with LONGHANDLES	Dry 19kg, Wet 19.5kg

#### **Noise levels**

For full noise hazard information see section "Safety : Noise Hazard" in the Safety and Operating Instructions.

Noise level (full operation – worst case material)	105.07 dB(A)
CHPD78 models fitted with LONGHANDLE	
Noise level (idle state)	92.67 dB(A)
CHPD78 models fitted with LONGHANDLE	

#### **Vibration levels**

For full vibration hazard information see section "Safety : Vibration Hazard" in the Safety and Operating Instructions.

Vibration levels	11.77 m/s <sup>2</sup>

# Instructions for Assembly

- 1. Insert the Extension from below (or above if using in reverse) into the tubes of the handles of the Post Driver.
- 2. Connect the supplied screws M10x340 through the top of the handle tube and connect the screws and thread to be pinch tight.
- 3. Tighten the screws using a wrench.



- 4. Open the air filter cover to reach the screw connection of the throttle cable. Use an open-end wrench to loosen the throttle cable gland. Then unhitch the throttle cable.
- 5. Remove the electrical connections of the existing throttle.
- 6. Now connect the electrical connections of the throttle grip of your LONG HANDLE extension.
- 7. Run the throttle cable of your LONG HANDLE extension to the carburettor. Tighten the throttle release screw to the carburettor bracket and tighten with a wrench. Attach the throttle cable to the carburettor. The air filter cover is now reassembled.
- 8. Perform a function test. If necessary, adjust the throttle release screw.











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	11 10			В
				c
	Pos		DESCRIPTION	
	1	17850VL1741	THROTTLE GRIP	
	2	Mo-Ra-Ver-100	FOAM RUBBER HANDLE	1
	3	Mo-Ra-Ver-101	HEX HEAD BOLT M10x340	2
/	4	Mo-Ra-Ver-102	SPRUNG WASHER A10	2
Ч.	5	Mo-Ra-Ver-103	ROD 25x745	2
	6	Mo-Ra-Ver-104	BENT BAR 25x350	1 E
	7	Mo-Ra-Ver-105	CYLINDER SCREW M10x30	2
	8	Mo-Ra-Ver-106	BOWDEN CABLE	1
	9	Mo-Ra-Ver-108	CORRUGATED SLEEVE	1
	10	Mo-Ra-Ver-109	BLACK CABLE WITH CONNECTOR	1
	11	Mo-Ra-Ver-110	RED CABLE WITH CONNECTOR	1
	12	Mo-Ra-Ver-111	COLLAR	1. F
	13	Mo-Ra-Ver-112	SPANNER 17mm	1
2	14	Mo-Ra-Ver-113	SPANNER 10mm	2
	15	Mo-Ra-Ver-116	VELCRO CORD TIE	2
	17	Mo-Ra-Ver-118	WASHER 10.5X24X4	2
	18	Mo-Ra-Ver-119		2
6	19	Mo-Ra-Ver-120		2
	<b>F</b> 1 <b>(b)</b>	surfaces acc. to scale DIN-EN-ISO 1302	11:1material no.	
	+0,3 -0,	chamfered edges acc. to DIN-ISO 13715	26.09.2022 - material :	
		3 standard tolerances according to DIN-ISO 2768-mH-E releas	v. treatment :	
	old-ID:	old-nu:	Rammenverlänge	rung
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	index changes	date name	40	12

Notes: use me to record tips, servicing logs, or anything else			




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