

# INSTRUCTION MANUAL

## PORTABLE DOUBLE ACTION HYDRAULIC PUMP

Please read this manual carefully before you attempt to use your tool so that you may use it properly and safely.

### PUMP Model HPD-05 115V/230V PROFESSIONAL TOOL



Tài liệu được tổng hợp bởi đội ngũ kỹ thuật của **NPOWER** Bản quyền nội dung thuộc về **NITTO KOHKI**  
**www.npower.com.vn** Powered by **NAVITECH** | [www.navitech.co](http://www.navitech.co)

### Specifications

Model			HPD-05 115V/230V
Output	At No Load	50Hz	1.20 ℓ /min
		60Hz	1.44 ℓ /min
	At 68.65MPa	50Hz	0.55 ℓ /min
		60Hz	0.66 ℓ /min
Motor			0.4KW 4P
Power Source (Single Phase)			115V/230V ~ 50/60Hz
Power Input	115V	50Hz	6.7A
		60Hz	5.3A
	230V	50Hz	3.7A
		60Hz	2.7A
Reservoir Capacity			4.0 ℓ
Thread Size of Discharge Port, Return Port			Rc3/8
Solenoid Valve			4 Way 3 Position Valve
Mass (Weight)			32.5Kg
Max. Output Pressure			68.65MPa
Airborne noise levels			< 70dB(A)

Due to continuous product development/improvement the specifications and configurations in this document are subject to change without prior notice.



Manufactured by :

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**Keep the manual handy – so you can use it whenever necessary.**

Original Instructions

TQ12862-5

Thank you very much for your purchase of this **Nitto Kohki product**.

Before using your tool, please read this manual carefully so that you may use it properly to get the most out of it.

**Please keep the manual handy - so you can use it whenever necessary.**

- **English** : Please ask your dealer or distributor for instruction manual in local language(s).
- **German** : Bitte fragen Sie Ihren Händler nach eine Betriebsanleitung in Landessprache.
- **French** : S'il vous plait, veuillez demandez à votre fournisseur de manuel instruction en langue locale.
- **Spanish** : Por favor, contacte con su distribuidor para el manual de instrucciones en español.
- **Portuguese** : Por favor pessa ao seu agente ou distribuidor o manual de instruções em linguagem local.
- **Italian** : Per Manuale Istruzioni in lingua locale Vi preghiamo di rivolgervi al rivenditore o distributore.
- **Dutch** : Vraag uw handelaar om een nederladstalige gebruiksaanwijzing.
- **Swedish** : Be er lokala Åtreförsäljare eller distributör om manualer på svenska.
- **Danish** : Venligst henvend Dem til den danske distributør for instructions manualer.
- **Polish** : Proszę pytać swojego dealera lub dystrybutora o instrukcje obsługi w języku lokalnym.
- **中文** : 請向當地供應商或經銷商詢問中文使用說明書

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## PICTOGRAM



Warning: It might be dangerous to operate the tool if the instructions supplied are not followed.



Using this tool improperly could result in serious injury. Read the instruction manual before using.



Always wear suitable eye protection.



Always wear suitable hearing protection.



Always wear respiratory protective equipment (PPE).



Always wear protective gloves for protection of hands from Vibration and Shock.

The following Safety notations are used throughout the manual to highlight safety precautions for the user and for the tool.



### WARNING:

Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in death or serious injury.



### CAUTION:

Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in injury or material damage.

Please note, however, that failure to observe safety precautions under the “**Caution**” category could result in a serious occurrence depending on the situation: please observe all safety precautions in the manual.

**Caution:** Important precautions for tool setup, operation and maintenance.

## IMPORTANT SAFETY INSTRUCTIONS FOR ALL ELECTRIC TOOLS

### **WARNING**

When using electric tools, basic safety precautions should always be followed to reduce risk of fire, electric shock, personal injury and the like, including the following.

#### **(1) Keep work area clean.**

- Cluttered work areas and benches invite accidents and injuries.

#### **(2) Consider work area environment.**

- Do not expose tools to rain. Do not use tools in damp or wet locations.
- Keep work area well lit.
- Do not operate near flammable liquids or in gaseous or explosive atmospheres.

#### **(3) Be cautious about electric shock.**

- When using electric tools, do not touch any which is earthed. (Ex. Pipe, heating apparatus, microwave oven, outside frame of refrigerator)

#### **(4) Keep children away.**

- Also all visitors should be kept away from work area.
- Do not let visitors contact the tool, compressor or connecting hoses.

#### **(5) Store idle tools.**

- When not in use, tools should be stored in dry, and locked-up places out of reach of children.

#### **(6) Do not force tool.**

- It will do the job better and safer at the rate which it was designed.

#### **(7) Use right tool.**

- Do not force a small tool of attachment to do the job of a heavy-duty tool.
- Do not use tool for a purpose not intended.

#### **(8) Dress properly.**

- Do not wear loose clothing or accessories. They can be caught in moving parts.
- Non-skid footwear is recommended.
- Wear protective hair covering to contain long hair.

#### **(9) Always wear eye protection.**

- Everyday eyeglasses only have impact resistant lenses. They do not protect eyes. Also use face or dust mask, if operations create dust.

#### **(10) Do not abuse cable.**

- Never carry tool by connecting cable or yank on hose to disconnect.
- Do not place a cable near a place with high heat, oil, and sharp edge.

#### **(11) Secure work.**

- Use clamps or a vise to hold workpieces when practical. It is safer than using your hand and it frees both hands to operate tool.

#### **(12) Do not overreach.**

- Keep proper footing and balance at all times.

#### **(13) Cautious maintenance is necessary for electric tools.**

- Always maintain blades and keep it work well so that safe and efficient work can be done.
- Follow the instruction manual for oiling or change of accessories.
- Check the cable regularly. Contact the sales agents to repair it when it is defective.
- When an extension cable is used, check regularly and change it when it is damaged.
- The grip should be kept dry and clean. Maintain it so well that it does not carry oil or grease.

#### **(14) Switch off and take off the plug for the following:**

- Not in use.
- When you change blades, grinding stone and bit.
- Any danger is anticipated.

#### **(15) Remove spanners, wrenches etc., after adjustment.**

- Make sure that spanners, wrenches etc., which are used for adjustment are removed before switching on.

#### **(16) Always avoid unexpected start.**

- Do not carry the tool with a finger on the switch when the power supply is on.
- Make sure that the switch is off before plugging in.

#### **(17) Use a cabtyre cable or a cabtyre extension cable when it is used outside.**

#### **(18) Stay alert.**

- Watch what you are doing.
- Bear in mind the way of handling/operation and the circumstances of the surrounding area.
- Use common sense.
- Do not operate tool when you are tired.

#### **(19) Check damaged parts.**

- Before further use of the tool, an accessory or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended functions.
- Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation.
- An accessory or other part that is damaged or inoperable should be properly repaired or replaced. When a switch becomes out of order, repairs should be performed only by the sales agent from whom you purchased the tool or an authorized dealer.
- Do not use electric tools which cannot be activated or stopped with a switch.

#### **(20) Use recommended accessories.**

- Consult this manual or the sales agent from whom you purchased the tool or an authorized dealer for recommended accessories. The use of improper accessories may cause risk of injury to persons.

#### **(21) Repairs by authorized personnel.**

- This tool should not be modified as it meets safety requirements.
- Any repairs to the tool or installation of replacement parts should be performed only by the sales agent from whom you purchased the tool or an authorized dealer.
- Failure to utilize the expertise of the sales agent from whom you purchased the tool or an authorized dealer or, failure to use genuine replacement parts, may result in an increased risk of injury to the user and may invalidate your warranty.

### **IMPORTANT SAFETY INSTRUCTIONS FOR PORTABLE DOUBLE ACTION HYDRAULIC PUMP**

## **WARNING**

- **Use of power is limited to the power source specified by the rating plate.**

- **Warning this machine must be earthed.**

- **Check the earth leakage breaker.**

Prior to use, check whether the power source is provided with earth leakage breakers to prevent electric shocks as prescribed in industrial safety and health regulations and electrical installations technical standards.

- **The earth lead must not be connected to a gas pipe. This may cause an explosion.**

- **Make sure the Earth Clip and earth lead are not faulty.**

If you have a tester or insulation resistance meter, check for continuity between the Earth Clip and the metal part of the body. Burying an earth rod or earth plate in the ground and connecting the earth lead is a job for a qualified electrician so you should consult a nearby electrical contractor.

- **Do not modify the power plug.**

If the power plug does not suit the power outlet, have a qualified electrician install a suitable outlet. Never modify the power plug which is connected to the tool. Mistaking the earth lead to electrocution. With or without yellow stripes, a lead with green insulation is an earth lead.

If the cord or power plug is replaced, do not connect the earth lead to a terminal which is carrying an electric current.

If you do not understand this explanation, or if you do not know whether your tool is properly earthed, please consult a qualified electrician.

- **Extension cord should be selected after ensuring the diameter is compatible with the length of the extension.**

Beware of extremely long power cord (particularly wound up thin cords) as they may cause drops in voltage which weaken the magnetism, adversely affecting the performance and function of the tool, Do not share the extension cord with any other

electric machine tools.

### ● 115V

Extension Cable	
Max. Length	Nominal cross-sectional areas
10 m	2.0mm <sup>2</sup> or more
20 m	3.5mm <sup>2</sup> or more
35 m	5.5mm <sup>2</sup> or more
50 m	8.0mm <sup>2</sup> or more

### ● 230V

Extension Cable	
Max. Length	Nominal cross-sectional areas
20 m	2.0mm <sup>2</sup> or more
40 m	3.5mm <sup>2</sup> or more
50 m	5.5mm <sup>2</sup> or more

### ● Do not leave the tool while it is operating.

If you leave the workplace, switch off the tool and remove the power plug from the supply. Do not leave the area until the tool comes to a complete stop.

### ● Do not remove any labels or name plates from the tool.

If a label or name plate has been damaged or is missing, contact the sales agent from whom you purchased the tool or an authorized dealer to obtain a replacement.

### ● The maximum output pressure.

The maximum usage pressure of the Pump is 68.65MPa (700kgf/cm<sup>2</sup>). Use the actuator, the allowable maximum pressure of which is 68.65MPa (700kgf/cm<sup>2</sup>) or more.

### ● Temperature control

After continuous use for an extended period, the unit will become hot and the oil in the Pump will also be heated. The oil temperature should not be allowed to exceed 70°C (158°F) .

### ● Replacement of hydraulic oil according to ambient temperature.

In the case that the standard hydraulic oil, V.G.(viscosity index) 32, cannot work properly due to the ambient temperature, replace with the suitable hydraulic oil in accordance with the table below.

V.G. 84	_____	
V.G. 32	_____	
V.G. 22	_____	
Temperature	-20 -10 0 10 20 30 40 50 (°C)	-4 14 32 50 68 86 104 122 (°F)

## 1. USAGE

The Pump is the hydraulic power supply device generated by our own double action hydraulic actuator. The suitable actuator is SELFER ACE series.

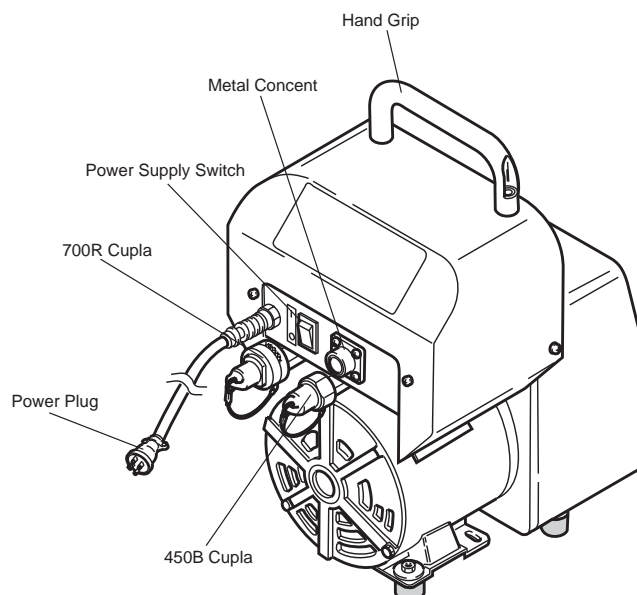
## 2. CHECK THE CONTENTS OF THE PACKAGE

Check the contents and make sure that the tool does not have any damage due to an accident during the transportation, if any. The contents should correspond to the list as follows. Just in case there are some damages or missing parts, contact the sales agent from whom you purchased the tool or an authorized dealer.

### HDP-05

Package Contents	Qty	Check
PUMP HPD-05	1set	
Oil Cap	1	
Hand Grip	1	
Hex. Socket Head Cap Screw 6X20	2	
Hex. Socket Screw Key 8	1	
Hex. Socket Screw Key 5	1	
Instruction Manual	1	
How to mount the Hand Grip	1	
Declaration of Conformity	1	

## 3. NAME OF PARTS



(Fig. 1)

## 4. PREPARATION

### 4-1. ATTACHING ACCESSORIES

(1) Fix the Hand Grip (TQ03239).

(2) Disconnect the plug Rc3/8 from the Pump oiling port, and replace the Oil Cap with the new one supplied as an accessory.

Negligence of this procedure will cause abnormal heat, noise and other accidents, and the specified performance will not be obtained. (Fig. 2)

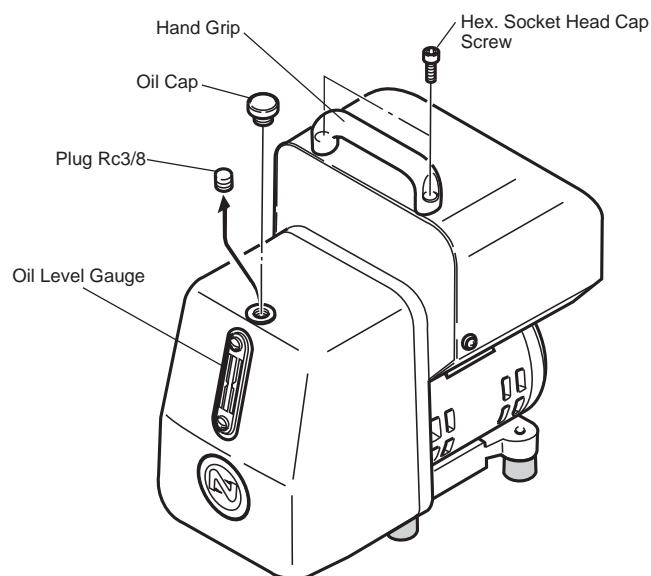
The plug Rc3/8 should be set to the original position during transportation.

### 4-2. INSTALLATION

Install the Pump in a well-ventilated level position, with low humidity and little dust.

### 4-3. CHECK THE OIL LEVEL

Check that the oil level is above the center on the Oil Level Gauge. If there is insufficient oil, top up to the "H" level with the Oil: ISO V.G. 32 (equivalent to #90 turbine oil)



(Fig. 2)

### 4-4. HOSE CONNECTIONS

(1) Connect the hoses between the Selfer Ace and the Pump. The 700R Cupla is used on the discharge side (high pressure) and the 450B Cupla goes to the return side (low pressure). Make the connections as follows. (Fig. 3)

#### To Prevent Malfunction

- Before connecting the Cuplas, ensure they are well cleaned and free of dust and foreign matter.
- When disconnecting always fit the supplied dust caps.

#### [ 700R ]

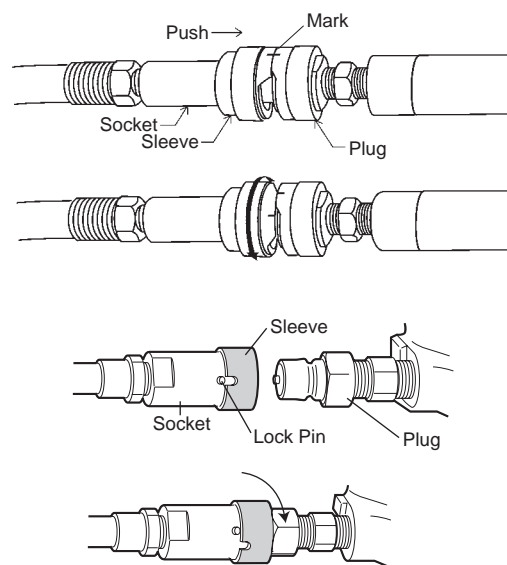
◎ Connection :Align the two—marks of both sleeves of Cupla, force inwards and once fully depressed rotate Cupla sleeve 90 degrees. This will fully lock the Cupla in position.

◎ Disconnection :To disconnect re-align the two—marks on the Cupla sleeves and the Cupla will disconnect.

#### [ 450B ]

◎ Connection :Align the slot on socket sleeve with the lock pins, draw back the sleeve and push over the plug. Release the sleeve and then rotate the sleeve 90 degrees.

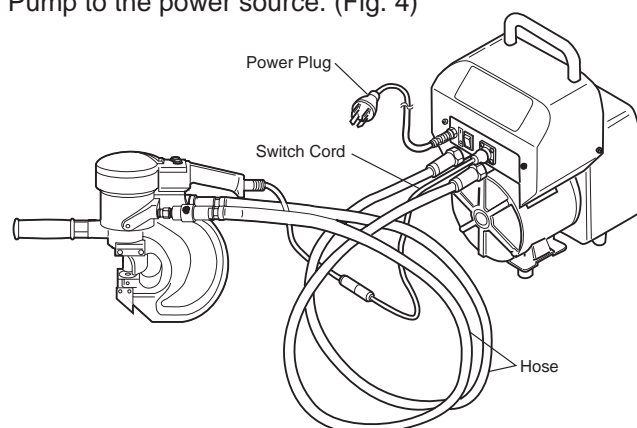
◎ Disconnection :To disconnect rotate the sleeve until slot and pins are aligned then simply pull back sleeve.



(Fig. 3)

(2) Connect the Switch Cord to the Selfer Ace and Pump. (Fig. 4)

(3) Connect the Power Plug which is coming from the Pump to the power source. (Fig. 4)



(Fig. 4)

## 5. HOW TO OPERATE THE TOOL

### WARNING

- **Don't pressurize the Pump independently.**

If the Pump is by itself, or the hoses are not connected to the Selfer Ace, the Pump must not be started. Otherwise the valves may be forced out of the Cuplas.

### START AND STOP

Use the switch on SELFER ACE to start and stop these operations. Refer to the instruction manual of SELFER ACE for details.

## 6. MAINTENANCE AND INSPECTION

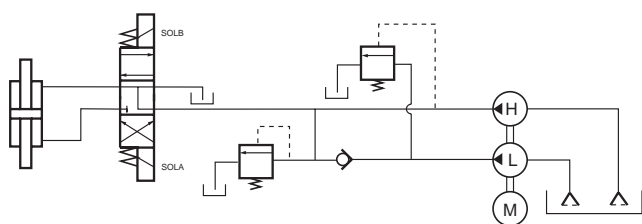
### WARNING

- **The Power Plug must be removed from the power supply during maintenance and inspection.**
- **All attached parts should be checked periodically for loose screws, etc. Any loose screws should be tightened securely.**

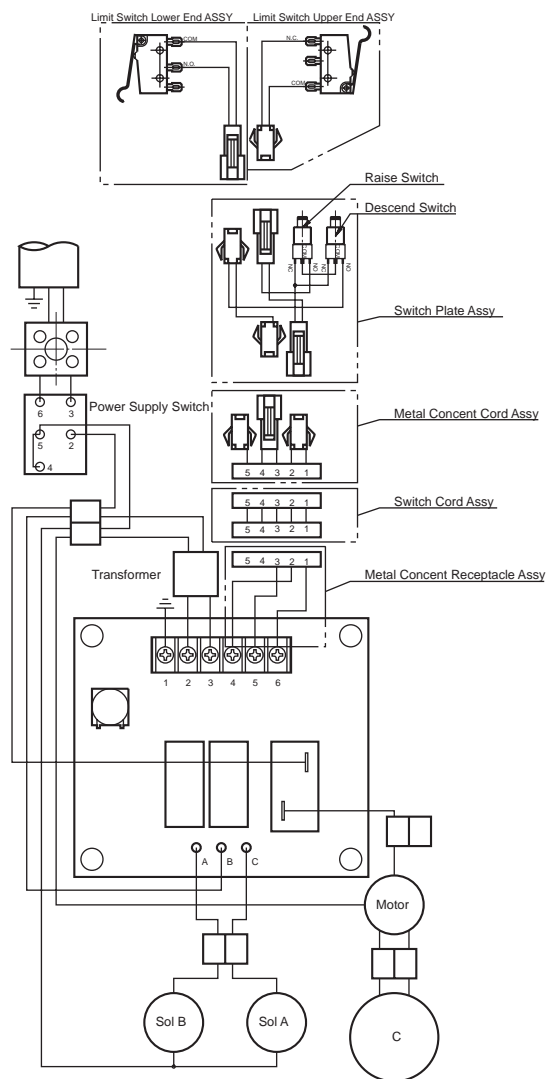
### 6-1. OIL CHANGE

Initial oil replacement should be done after operation for fifty hours. Subsequent replacement should be made at intervals of five hundred hours.

### 6-2. WIRING DIAGRAM AND OIL CIRCUIT DIAGRAM



(Fig. 5)



(Fig. 6)

## 7. ORDERING SERVICE PARTS

In ordering parts and components from the sales agent from whom you purchased the tool or an authorized dealer, give each part number, part name and quantity required.