INSTRUCTIONS

It is important that you read and understand this instruction manual before using this product. You will need this manual for the safety warnings and precautions, assembly, operating, parts list and assembly diagram. Failure to follow instructions and safety warnings may result in personal injury or property damage.
Declaration of Conformity

We the importer

CANNON TOOLS LTD
Add: 20 station road, Rowley Regis, west midlands, B65 0JU.U.K.

Declare that the product dump truck CT2816

Are in conformity with the following Directives to the specification Under which conformity is declared.

The Machinery Directive (2006/42/EC)

CANNON TOOLS LTD

sign G. S.
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1 Introduction

Thanks for choose this product.

Please read this manual to understand the safety operation before drive this machine.
2 Safety

2.1 Safety Tips

1. Loading of corrosive, poisonous material is prohibited; Over loading is prohibited (rated load 500 kg); Non-Manned.

2. Keep distance with machine at 500 mm when operation, to avoid crush by the rubber track.

3. When the machine work in slope, the Grade exceed 15° is prohibited, to avoid rollover accident.
4. There have vibration (3.6 m/s²) take place when the machine on working status, noise at 101dB, please wear ear device when long time continuous working, to avoid damage of hearing. There have harmful gases come out after start of engine, the standard, element and displacement is:

   Emission results on the test cycle: Emissions comply with Stage II requirements
   
   CO: 449.46 g/kWh
   
   HC: 8.29 g/kWh
   
   NOx: 1.86 g/kWh
   
   NOx + HC: 10.16 g/kWh
   
   Deterioration Factor (Stage II Engines Only)
   
   CO DF: 1.00
   
   NOx + HC DF: 1.24
   
   EDP Category: 1

5. Before loading the cargo, please put the machine at flat land, overload is not allowed (500kg). Average loading when transport the Scattered granular material. Tied firmly when transport the solid big items which excess the bucket size.

6. Do not let the body touch surface of track or gas of track and supporting wheel when the machine is travelling, to avoid Physical injury.

7. People stand in Operation radius is prohibited when the machine is loading, travelling, or unloading. Put the machine in flat place when it lifting
and dumping, to avoid rollover accident.

8. Work in muddy or slippery road is not allowed, to avoid bog or rollover as well as dangers of machine out of control.

9. Do not work at environment with fireworks, to avoid fire accident. In case accident take place, machine body on fire, please use dry powder fire extinguishers.

10. Working under condition of damage/corrodent track not allowed, otherwise, it will caused danger for the user and shorten the machine life.

11. Fill in gasoline
   a. Off the engine, let the engine cooling at least 2 minutes, then remove the tank cover.
   b. Fill the gasoline into oil tank in the open air or well-ventilated area.
   c. Do not let the gasoline spill over the tank.
   d. Check-up regularly the oil pipes, tank, cover as well as any place which is possible to leak.

12. Start the engine
   a. Ensure the spark plug, Muffler, fuel tank cap of air filter in a normal position.
   b. Do not start the engine when spark plug is removed.
   c. Once gasoline is spill over the oil tank, please wait it volatility before start the engine.
   d. Once gasoline enter into engine, please set the choke in the position of
'OPEN/RUN', and set the throttle in the position of 'FAST', then rotate the crankshaft till the engine startup.

13. Operate the machine

Do not block carburettor which will cause engine stop running.

14. Transport the machine

Ensure there is no gasoline in oil tank.

15. Store the machine when there have gasoline in oil tank.

Keep the machine far away from furnaces, stoves, water heaters and other fire apparatus, because these apparatus may possible to ignite gasoline vapor.

16. There will have sparks take place when start the engine. It may ignite flammable gases nearby when start the engine, which caused to explosion or fire. Do not start the engine if there have leaking of natural gas or liquefied petroleum gas.

17. When start engine, please drag slowly before feel the resistance, then driving quickly.

18. Do not start or run the engine in closed area, even the window and door is opened. Please start the engine outdoor, because engine release carbon monoxide, this is a colorless, odorless toxic gas.

19. Please touch the engine till the muffler, engine cylinder and radiator cool down. Eliminate the tinder beside muffler and cylinder. There have heat take place when the engine is working. The temperature of engine parts
especially muffler is very high which will caused burning if tough this parts. Further to caused a fire when these part get in contact with leave, grass, brush etc.

2.2 Symbol Description

Before operating the machine, we must understand the specific meaning of the following symbols, in order to prevent accidents.

**Warning Signs!**

Pay attention, if you see the sign on machine body. It reminds there may be some risk. Please observe all safety rules and advice.

**Risk**

Risk & Warning Signs, for Safety Warning. Risk means potential danger. If not avoided, may result in injury or even death.

**Attention**

Attention & Warning means potential risk. If not avoided, may result in minor damage or injury. Besides, it also means damaging the machine.
It is used for reference. In non-compliance with instructions or read the operation manual, operating may cause shorten machine’s life.

Gland Machines have been carefully inspected and maintained, and considered all risks under normal operating. But it does not mean that users or technical workers can use improperly and not follow the rules.

2.3 Warning Signs Notes

1) Carefully read operation manual before handling the machine.

2) Do not approach machine, when working, lifting or tilting.

3) Safe distance

The min. distance allowed is 500mm, when you handle machine.
4) Personal protection
   Please wear helmet, safety glasses, safety shoes, gloves and earmuffs, and check all safety equipment in advance.

5) Oil back filter
   Place of oil back filter located.

6) Hydraulic oil level indicator
   Hydraulic oil level indicating

7) Engine air filter
   Place of engine air filter located.

8) Lifting point
   Place of lifting point located.
   Note: Keeping balance when lifting
9) Burning
Do not touch.

Note: Engine & Hydraulic tank may hot, to avoid burning.

10) Warning
The label shows petrol is highly flammable and explosive. Not start engine in closed space, because engine exhaust toxic gases when start up. Besides, please read instructions carefully, when operating and maintaining the machines.

11) Fuel
Where the fuel is injected.

Note: Petrol injected.

12) Warning!
When machine running, the marked position may cause upper limbs’s injury.

Note: Do not approach the machine when running.
2.4 safety and accident protection

Safety

2.4.1 read through safety regulations

Before working or operating, read through all of safety regulations and safety manual indication, then operate it.

2.4.2 understanding mark

Read and obey the guide of safety indication, know more about the safety introduction, icon and mark of the machine, make sure the machine is in good condition. If it is broken, please replace it immediately.

Know more about how to correct operating machine.

Do not let the people who have not been authorized or trained to operate the machine.

2.4.3 fatigue dress and individual protection

It is not permitted to wear loose clothes, rings, watches when the machine is working, due to it may be engulfed by the operating machine. Prohibit to wear
the clothes with the easy fired gasoline liquid on it, before operating the machine, make sure to adorn the armet, blinkers, safety shoes, glove, ear covering.

2.4.4 Don’t change any parts without Authorized by Manufacture.

Prohibit anyone who modification the machine without Authorized, it is probably influence machine function, and cause safety hidden trouble.

2.4.5 Safety valve

Prohibit to modification of safety valve and hydraulic equipment which have been assembled. If there is any person and belonging loss or machine broken, it is not the responsibility of gland machinery in case the customer who rejigger the equipment personally.

2.5 Safety use

2.5.1 Engine start

Scene safety

Checking spot situation of ground before the engine start, otherwise, it would be engender dangerous of uncertain elements.

Make sure other people apart from the working area and then star and
operating the machine.

2.5.2 Fireproofing measure

Make sure to clear up wood, paper, and other easy fire matter of the working spatial. Some matter configuration should be carefully checking the cleanliness, otherwise, there would be potential dangerous, and the configuration should be recycling.

Gasoline liquid is flammability and burstarticle, so when add the oil, please make sure in the draughty.

There would be spark when the engine star, therefore, it is permitted to start the engine in gas station and fuel stock warehouse.

When the oil fulled, please carefully check the fastness of oil cylinder, make sure to close the cover of engine oil cylinder correctly.

When finished input the oil, make sure there is no fuel leakage or gasoline liquid steam overflow, and the engine star on the dryly area.

To avoid burning, please do not touch the displacement pipe, even if the engine closed.

2.5.3 Protection to avoid the forg harmfue

Please make sure enough draughty when the machine working in the building, otherwise, please use the exhause extend displacement equipment. Due to the exhause of engine maybe deadly.

2.6 Working safety
2.6.1 safety items before the machine working.
Checking the machine running situation after machine working.
Evacuate around of stander-by, donot let anybody on the machine working area.

2.6.2 safety driving.
To avoid suddenness and break out case, make sure the operator between the working parts at least 500mm distance. Children and pets should apart from the machine working area in order to avoid touch the machine induce bruised.

It is not permit that SFC400 hydraulic dumper working without enough illuminating at night.

2.6.3 safety transport cargos.
The maximum loading capacity is 500kg, donot exceed the loading capacity of the machine in order to avoid the machine damager and bring the dangerous.

Prohibit to shelter from the operator’s line of sight when lifting the cargos.
In order to prevent turn over, please donot let the machine travelling on the slop more than 15° or change the travelling direction.

2.6.4 transport goods
Obey the ordinance all along, make sure loading the cargos on the
smooth road.

If the machine direction changed during loading or unloading the goods, please change the direction of the original first and then loading and unloading the goods again.

Make sure there is no barrier on the roadway when the machine travelling on the slop, otherwise, it will result in dangerous after the machine loose balance.

Pay more attention when the the machine change the travelling direction on the lengthen slop.

2.6.5 safety park

park the machine on the firmly, flat surface.

Make sure to prevent the machine slip when the machine working on the park or other area which have the slop.

Attention
Since the machine install the hydraulic brake, but do not keep the machine knock on the slope for long time.

2.6.6 Emergency measure.

Guard against fire

Before the machine working, make sure to find out first-aid-kit and fire extinguisher firstly and actual effect of these items after fire.

Make sure have contact information about the emergency service, medical treatment service, hospital fire control department.

2.6.7 Dungaree

Wear the suitable clothes and personal defend equipment.

2.6.8 Noise defend equipment.

Long time to expose under the noise environment will cause the hearing damage and even if lose the hearing, in order to protect operator hearing ability, make sure to wear the suitable earplug.

Operator must particular read the operating introduction manual before operate the machine, we try our best to make sure our design much more safety for use on the roadway or the problem would be happen. But if it because the operator who do the incorrect operating and make the person casualty, gland machinery donot bear any responsibility.
3 product introduce

This machine is a mini hydraulic dumper, not only can work on complicated building site, also can work in mud road. This machine is superior, with a multi-function, scraping, loading, lifting. Hydraulic operation, simple, safe, and high efficiency.

The machine with mini structure can work in narrow road smoothly, move flexible, high loading capacity, been a good helper both in building site and garden.

It use hydraulic brake lock braking, operation more simple and safe. it can filled with sand, soil, stone, mud, wood, forage, bricks, and snow removal, earth moving, etc., which is widely used in gardens, parks, and disaster recovery site, garden, construction sites, farms, rental companies, repair plants and other places.
4 operating manual

4.1 joystick introduce

Picture ● show joystick  ↑↓ show: impel the joystick by the arrowhead

①↑ show front shovel move adown, can shovel, ↓ show
front shovel move upwards, can put the substance to the bucket.

②↑ show left track move ahead, can turning left, ↓ track move backward, can turning right.

③↑ show right track move ahead, can turning right, ↓ track move backward, can turning left.

④↑ lifting, ↓ falling.

⑤↑ bucket tipping, ↓ revert

Operate ②③ can move forward and backward straight at one time.

Note: when impel joystick forward and backward hand should rely to the handrail.
4.2 engine start /stop

   See detail from engine operating manual

4.3 avoid driving on incline

   Work note: dangerous driving on incline. If need, drive slow to avoid sliping

   Avoid turning, if need, turning in the stability area slowly

   No move landscape orientation, for fear sliping.

4.4 stop on incline

   Dangerous for stoping in incline, if go down the incline, should obey the safe rule.

   1) Always check the ground is strong enough to ensure the stability of the machine running.

   2) If the operator had to leave, even in the hillside residence time is very short, you must install anti-skid devices.

   3) Upgrade the machine, check the engine and hydraulic oil temperature, the temperature is too high or they will lead to slow uphill.

4.5 tow machine

   avoid drag machine
Only when the machine is damaged, and the threat to the environment, just allowing the machine in a short period dragging, also should in the condition of accelerograph control, hydraulic control operable. If the conditions not allow, the machine will be loaded to other vehicles to pull it out to protect other components from damage.

4.6 Machine Loading and unloading

When machine load to a lower trailer, loading plane must be firmly

Maximum angle 15°

Notes: Using the appropriate place.

1) Lifting capacity must be consistent with the machine weight at loading dock.

   make sure the inclination of the ramp less than 15°

2) Driven on the ramp, must ensure that the ramp has sufficient width and capacity.

   In addition, the slope can’t be too high to ensure that no sliding down driving.
3）Before loading the machine, must clean the ramp and the vehicle loading area.

Note:

1）If machine operation delay. Must carry out the machine return to the ground and inspection firstly, and then calibrate the machine, and finally start loading and unloading.

2）Ensure that the driving road hasn’t other goods, prevent loss of balance to happened dangerous.

3）Pay special attention to operating conditions within a radius when machine Loading and unloading the cargo.

4）Please follow slow loading and unloading principles.

5）The machine centerline must be in accordance with the centerline of lower loader or trailer.

**Important Tip: when the machine lay on the trailer, must use safety chain or string fixed in the chassis frame of trailer.**

6）Install the front and rear anti-skid devices.

   When transportation ensure the oil tank valve was tightened.

   And check the engine oil tank cover is closed, so no fuel can leak.

4.7 Lifting.

   If lifting the machine, must observe following safety rules:
Lay the machine on flat ground

When lifting forbidden to stand beside the machine.

When lifting is prohibited loading the goods in bucket.

Lifting spot design under the engine base (A) 2 pc,
Between lifting rack and loading bucket (B) 2pc.

4.8 The use of rubber track.

Protection of install rubber track machine is very important

1 Avoid to working under high temperature and PH conditions.

2 Avoid direct sunlight rubber track over 3 months.

3 Avoid the machine do suddenly turned on asphalt or concrete road, as this will over-wear rubber track. Against the machine drive on a temperature higher than 60 °C of asphalt roads, as this will damage the rubber tracks and roads.

4 Often check the tension of rubber track conditions. If the track tension is not enough, will track loose, causing the destruction of track in moving.

5 Avoid rubber track touch other sharp edges in the run-time.

6 Rubber track cannot touch with other fuel, synthetic substance. If you
can not avoid, please clean the rubber track after finished.

7 When using the rubber track. Avoid working in similar marine environment, as that will track the corrosion of rubber and attached to the metal surface.

5 maintenance

5.1 Preparing work

Preparing work

1. stop the machine on the flat ground
2. run the engine for 3 minutes at low speed
3. Turn off engine

If you need to repair the machine rose in the air, to ensure the absolute safety of the machine to prevent damage to the machine fall.

5.2 Inspection and repair of machinery

1. Operator need to learn the relevant maintenance manuals of dump truck, to get relevant basic knowledge;
2. keep the machine at level state when do the maintenance;
3. When the machine is running, banning all maintenance actions, including potty acts like adding lubricationg grease;
4. If the machine have to be repaired, please stop the engine first;
5. Pay special attention to hyfraulic system, because the hydraulic oil is at a high temperature after repairs;
6. During work, there will be high-pressure loop;
7. Ensure that all parts are in good condition and installed correctly;
8. When the machines have biggish wear or damage, we must immediately replace worn out and damaged parts
9. Clear up the remained dirt and grease;
10. Use only recommended lubricants, do not mix lubricants of different manufacturers;
11. Use only original parts;
12. keep hydraulic cylinder and engine nozzle clean all the time;
13. Lubricants must be managed properly. Because of improper disposal of oil may lead to destruction of the environment, deal with waste oil according to the local laws and regulations.

5.3 Engine maintainance

<table>
<thead>
<tr>
<th>code</th>
<th>lubricant</th>
<th>maintainance alternation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>daily</td>
</tr>
<tr>
<td>1</td>
<td>engine</td>
<td>oil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>adjust</td>
</tr>
<tr>
<td>2</td>
<td>Air filter</td>
<td>check</td>
</tr>
<tr>
<td></td>
<td></td>
<td>clean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>adjust</td>
</tr>
</tbody>
</table>
5.3.1 Check oil level
See Engine Manual

5.3.2 Change engine oil
See Engine Manual

5.3.3 Check air filter
See Engine Manual

5.4 Hydraulic system

<table>
<thead>
<tr>
<th>code</th>
<th>Name</th>
<th>Quantity</th>
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<tr>
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<tr>
<td>1</td>
<td>Hydraulic hose joint adjust</td>
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</tr>
<tr>
<td>2</td>
<td>Hydraulic filter  adjust</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

5.4.1 hydraulic oil check
To ensure normal operation of hydraulic system, must check the oil level of hydraulic oil if it is higher than the red dot, through the oil standard every day.

Routine maintenance of hydraulic oil
Keep the environment clean, proper operation, to prevent moisture, debris or air mixed with

Periodic replacement of hydraulic oil, Specific operation is as follows:
1. Remove protective cover (B);

2. Open the hydraulic oil tank cap;

3. Open the hydraulic oil tank bolt

4. Clean hydraulic oil tank after drain out hydraulic oil.

5. Use bolt block out the oil tank (D), then filling the oil from (C)

Note: Do not mix hydraulic oil of different manufacturers;

6. Install the protect cover (B).

Hydraulic oil type: atni-wear hydraulic oil L-HFC (water glycol)

5.4.2 Hydraulic oil filter

Hydraulic oil filter (A) is on the top of hydraulic oil tank

The following rule should observed when check or mainten the juik filter

1. Open the cover of the filter

2. Uninstall the spring (C)
3 check or exchange the juik fliter
4 install the spring(C) and the cover of fliter(B)

5.5 lubrication

Lubricate the machine at regular intervals, pay attention to the wear of the pin bolt and screw bolt

lubricate item

lubricate item: lubricate grease cup and bucket pin hunge component each 10 hours during continuous work

5.6 adjust the rubber crawler belt

Check the tension of crawler belt

Make sure the machine stand in the solid ground all the time during the maintenance

adjus the tension of the crawler belt by modulate the screw nut in M point

invalid form of crawler belt

the surface of crawler belt was damaged

Crack cause by Excessive tension may happen in the following situation

1. the machine traveling on sharp stone or other sharp goods
2 Suddenly swerve at a large friction
    metal core wear or crack

    As stated above, Transition chain tensioning and curve, metal core broke
out may occur when the surface of the crawler belt cracked

1 The rubber crawler belt and pulley was not meshing

2 Travel on the sand land

5.7 Temporary maintenance

1 Check the wear or damage part, exchange new component if necessary

2 Clear the air flter

3 lubricate the part which is necessary

4 Clean the engine

5 Painting the part which is necessary to avoid rust

    prepare work

Place the machine well ventilated space

1 Check fuel tank and hydraulic tank liquid level

2 Starting the engine, running that machine at medium speed

3 check all the hydraulic component carefully

4 Have a simple test to the function of the machine, make sure up to standard
before work
6 Specification

<table>
<thead>
<tr>
<th>Model</th>
<th>CT2816</th>
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<tbody>
<tr>
<td>Engine</td>
<td>B&amp;S 13H3gasoline engine</td>
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<tr>
<td>Power(HP)</td>
<td>6.5</td>
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<tr>
<td>Net weight(kg)</td>
<td>435</td>
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<tr>
<td>Bucket size (m3)</td>
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<tr>
<td>Max. load(kg)</td>
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<td>Max. width(mm)</td>
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<td>Noise(db)</td>
<td>101</td>
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<tr>
<td>Pump flux(L/1,)</td>
<td>2x10.5</td>
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<tr>
<td>Pressure(bar)</td>
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<tr>
<td>Speed(km/h)</td>
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<tr>
<td>Hydraulic tank capacity(L)</td>
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<tr>
<td>Oil tank capacity(L)</td>
<td>3.6</td>
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<tr>
<td>Dimension(mm)</td>
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</tr>
</tbody>
</table>

7 Engine failure

7.1 To ensure the durable operation of the machine, please do not disassemble it by yourself.

Please read engine manual if the engine can not start or appear failure.

Welcome to contact us if there is any quality problem take place.

7. 2 Troubleshooting of hydraulic system
7. 2. 1 system insufficient of pressure

Check connection of oil pipe, leaking or not

Check circular mark, whether the volume reaches the specified location

7. 2. 2 system cannot work due to pressure

Change hydraulic oil, cleaning valves, filters.

7. 3 Troubleshooting of travelling system

Check the tension of track

Spare parts list

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Model (one pc of each)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Took bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phillips screwdriver</td>
<td>5X200</td>
</tr>
<tr>
<td></td>
<td>Adjustable wrench</td>
<td>350mm</td>
</tr>
<tr>
<td>2</td>
<td>Grease Gun</td>
<td></td>
</tr>
</tbody>
</table>