

### PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Pneumatic oil extractor HC-2198

**Product Use:** Pneumatic oil extractor

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### Safety Warnings and Precautions

**WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.**

1. Keep work area clean. Cluttered areas invite injuries.
2. Observe work area conditions. Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. Keep children away. Children must never be allowed in the work area. Do not let them handle machines, tools or extension cords.
4. Store idle equipment. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. Avoid Unintentional Starting. Be sure the air pressure is in the off position when not in use and before making hose connection.
6. Stay alert. Watch what you are doing, use common sense. Do not operate any tool when you are tired.
7. Check for damaged parts. Before using any tool, any part that appears damaged should be carefully checked to determine that it would operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any control or switch does not operate properly.
8. Replacement parts and accessories. When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool.
9. Do not operate tool if under the influence of alcohol or drugs. Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
10. Maintenance. For your safety, service and maintenance should be performed regularly by a qualified technician.

**Note:** Performance of this tool may vary depending on variations in air pressure and compressor capacity.

### **PRODUCT SPECIFIC SAFETY PRECAUTIONS**

This equipment is designed be operated by qualified personnel. It should only be operated after reading and understanding the safety warnings and operating procedures in this instruction manual.

1. Do not smoke near this equipment.
2. Firework is strictly prohibited during operation, keep away from heat, high voltage, flammable and explosive place
3. Use in a well ventilated area.
4. When leaks are found in the equipment or hoses, immediately turn the air pressure off and repair the leaks.
5. Once leakage is found in the hose or other components during operation, turn off air compressor immediately, conduct a detailed inspection and proceed with troubleshooting.
6. Do not exceed the recommended operating air pressure. This could damage equipment. See specification on Page 5.
7. Keep a type ABC fire extinguisher nearby in case of fires.



8. Always protect your skin and eyes from contact with oil and solvents.



9. Do not start engine during the time of oil extraction. Otherwise it will cause the damage of extraction probes and injuries of people.
10. Be careful for the oil extracted out from the vehicle, as temperature of oil is high, always between 40~60°C
11. Used oil should be properly disposed or recycled. Please contact with your local waste liquid/solid authority for information on recycling.

**Product description**

1. Fast vacuum speed, capable of high negative pressure, multi-purpose equipment.
2. High quality cylinder, higher intensity, high grade of transparency as well as high temperature resistance (able to withstand 80°C & negative pressure without deforming). Transparent cylinder allows oil observation and measurement.
3. Use compressed air as power source; guarantee the safety in use, Eco friendly and low power consumption.
4. Vacuum cylinder and oil tank at a same time, increase oil extraction speed
5. Different diameter of oil suction probes to meet the need of different type of cars
6. Height adjustable Oil tray lift, can be fix to desirable height
7. Can be used with other mechanical engine oil, lubricants as well as temporary storage. Brake fluid, gasoline, diesel and other liquid contains methanol and ketones or flammable is strictly prohibited.

**SPECIFICATION:**

Functions: Remove and extract waste fluids or oil out from engine and etc. with flexible PVC tube and robust CU probe. Power from compressed air.

Air Inlet Pressure::	6~8bar/ 87~116PSI
Ejection pressure:	0.6~0.8 bar/ 8.7~11.6PSI
Air Consumption::	150L/Min
Vacuum Degree:	0~-1 bar /-14.5PSI
Tank Capacity:	76L
Cylinder Capacity::	9L
Oil tray volume:	16L
Working Temperature:	40~60°C
Package:	Cylinder/box, Oil tank/box
Carton size:	255*255*540mm/490*440*1000mm
<b>Suction probes:</b>	
Φ5*L800mm,(Cu,1 PCS)	1.9 L/Min.
Φ6*L800mm,(Cu,1 PCS)	3.7 L/Min.
Φ5*L800mm,(PVC,1PCS)	1.0 L/Min.
Φ6*L800mm,(PVC,1PCS)	2.0L/Min.
Φ8*L800mm,(PVC,1PCS)	6.5 L/Min.
Φ7*L1000mm,(PVC,1PCS)	3.7 L/Min.

## PACKAGE CONTENTS

Please inspect and look for damages from shipping when package is first received. If the unit is damaged in any way, please contact customer service and include pictures if possible. In the package, you will find:

1. English manual
2. One Complete Oil Tank/Reservoir
3. One Complete Measuring Glass/Cylinder
4. One Oil Collecting Bowl/tray
5. One Strain
6. Extension Funnel (plastic) , 3pc/set
7. Probes 6 pcs with sleeve
8. BMW, Mercedes, Volkswagen connector
9. Hexagonal screw (gasket) 3 pcs

## 1. OPERATION INSTRUCTION

### Setup (Refer below instruction and figure)

1. Insert the funnel pieces into its bump slot one by one, push it to the button till each pieces are even.
2. FIG.1 Install and fix the oil tray, strain, extensions funnel together.
3. FIG.2 With air gauge face with support handle position, connect the cylinder into the oil tank base, while ensure the cylinder in the right direction, fix with screws. Please lift up the oil tray above cylinder with 1cm height during installation of cylinder. Fix the lifting pole to position to avoid rubbing against each other.
4. Turn off all valves

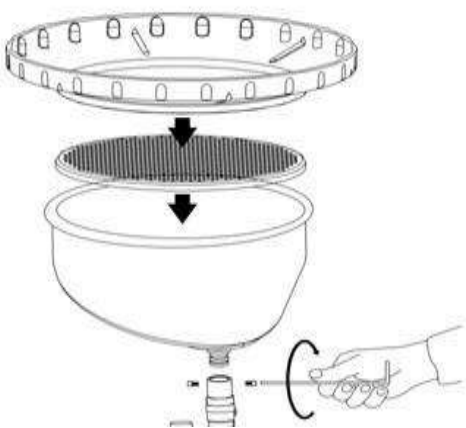


FIG.1

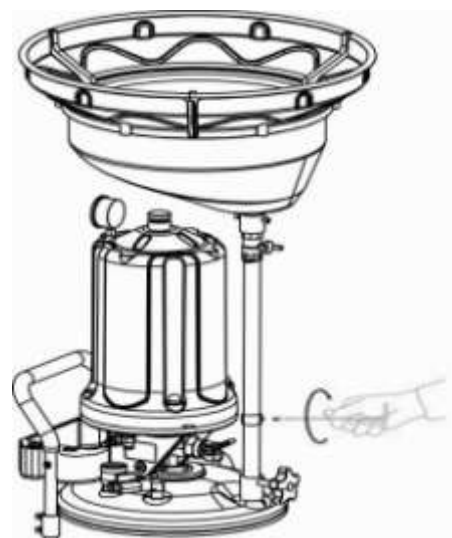


FIG.2

## 2. VACUUM GENERATION WITH CYLINDER

1. Operating air pressure: 7~9 bar/101.5~ 130.5 PSI
2. Make sure all valves are close. (FIG.3) connect air source with air inlet (Part No.026), turn on air valve for vacuum extraction, When finger reaching to the MAX area on the vacuum gauge, turn off air inlet valve (Part No.026).

**Notice: Under a working condition without air source. Please pump with vacuum air before use.**

## 3. EXTRACTION

1. Ensure the oil tank is under negative pressure, FIG.4 remove engine oil case., choose suitable probe (which is the largest diameter one can be inserted into the engine) and tightly connect it to the extraction pipe connector. Insert the end of the probe into the engine oil inlet hole, FIG.6 Turn on the ball valve (Part NO. 075) for oil extraction.

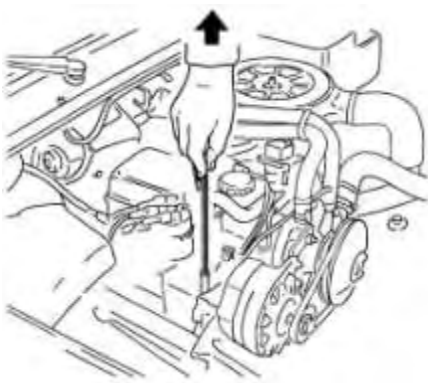


FIG. 4

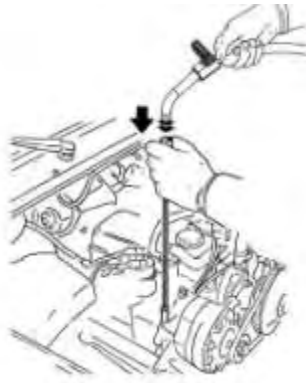


FIG. 5

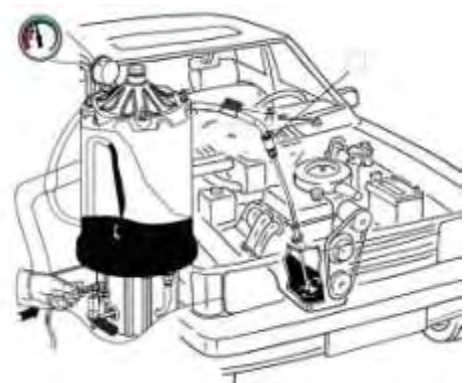


FIG. 6

### NOTICE:

Do not exceed maximum oil extraction temperature 60°C. Hold the hose protection sheath during extraction to avoid scald. Place the machine in a flat ground to avoid sliding under working condition. Oil temperature higher than 80 ° C will cause seriously damage to the components, in worst case it could lead to machine failure.

#### 4. OIL EJECTION

##### Oil ejection from cylinder to oil tank

When the oil level reached cylinder 'STOP' warning line, please empty the cylinder with oil ejection. Turn on oil extraction valve (Part No. 062), at the same time turn on the hose ball valve (Part No. 075) to release cylinder pressure and drain oil into the tank. Turn off oil extraction valve (Part No. 062) and hose ball valve (Part No. 075) after completion of oil ejection.

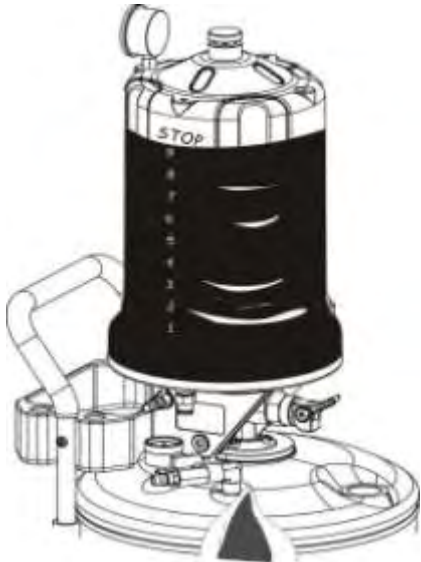


FIG. 7

#### 5. OIL COLLECTION

Lift the vehicle to proper height.

Move the oil extractor below the car engine, oil tray position right under the vehicle oil drain hole. Release plum knob (Part No.056) to adjust lifting pole (Part No.084), tighten plum knob (Part No.056) to fix its height, open wing valve (Part No.086), release oil drain bolt for oil collection from vehicle.

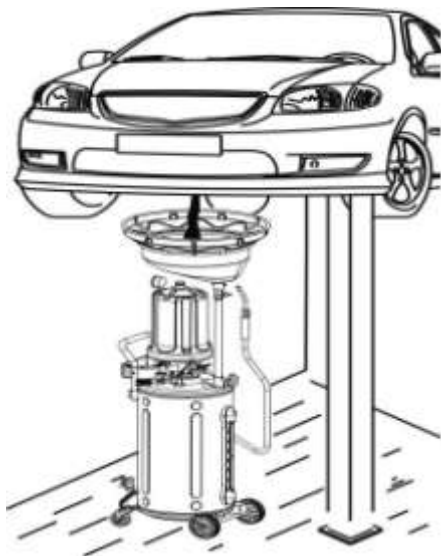


FIG. 8

## 6. TANK EMPTYING

- 1) As FIG.11 shows oil level reached STOP sign, stop oil extraction immediate.
- 2) turn off all valves for tank emptying. FIG.9
- 3) insert ejection hook into the external disposal tank.
- 4) connect air compressor with the air inlet (Part No. 037).
- 5) release air inlet valve (Part No. 037).
- 6) adding tank pressure, turn off air inlet valve (Part No. 037) when it reach to desired pressure. (The valve will automatically release pressure when the tank pressure reach 1.0 bar/15.4PSI).
- 7) turn off the air compressor immediately and quickly drop the tank pressure below 0.8bar/11.6PSI, otherwise it could lead to serious incident.
- 8) turn on wing valve (Part No.1039) for oil draining.
- 9) cut off air source.
- 10) empty tank pressure and close all valve for completion.

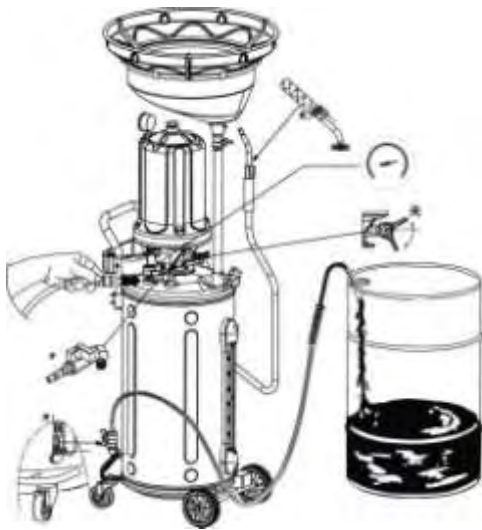


FIG. 9

As FIG.10 shows, discharge Residual oil from Residual oil cup when it reach STOP sign.

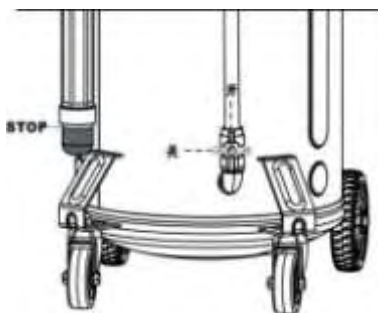


FIG. 10

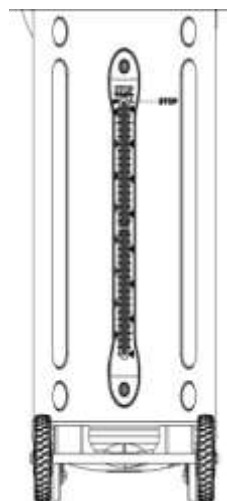
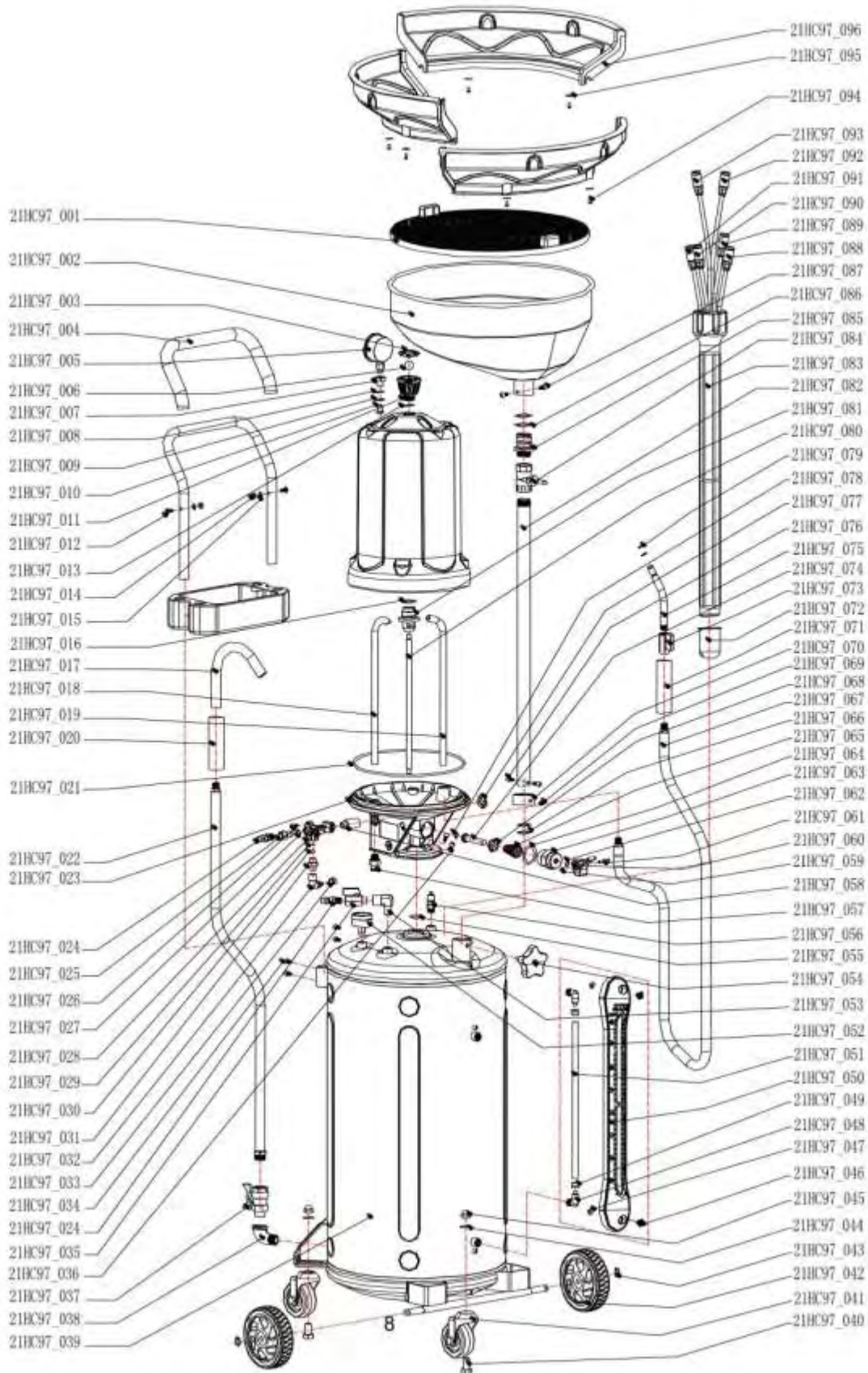


FIG. 11



## 7. EXPLOSIVE DRAWING





## 8. SPARE PART LIST

Parts No.	Description	Qty	Parts No.	Description
21HC97_001	inside metal strainer	1	21HC97_049	Hexagonal screw
21HC97_002	Oil tray	1	21HC97_050	Level pipe protector
21HC97_003	End cup	1	21HC97_051	Level pipe
21HC97_004	protection sheath	1	21HC97_052	Pressure meter
21HC97_005	Vacuum gauge	1	21HC97_053	quarter bend
21HC97_006	Steel ball	1	21HC97_054	Plum knob
21HC97_007	Sealing base	1	21HC97_055	O seal
21HC97_008	O ring	1	21HC97_056	Safety valve
21HC97_009	gasket	1	21HC97_057	Quick connector
21HC97_010	connection	1	21HC97_058	Silencer
21HC97_011	Anti-explosion valve	1	21HC97_059	Snap spring
21HC97_012	Inside hexagonal screw	2	21HC97_060	trigger
21HC97_013	O ring	1	21HC97_061	Nail
21HC97_014	hexagonal screw	2	21HC97_062	O seal
21HC97_015	gasket	2	21HC97_063	Seal base
21HC97_016	O ring	1	21HC97_064	O seal
21HC97_017	Ejection heek	1	21HC97_065	conical spring
21HC97_018	Cylinder oil pipe	1	21HC97_066	O seal
21HC97_019	Cylinder vacuum pipe	1	21HC97_067	Oil hose
21HC97_020	Handle	1	21HC97_068	Position ring
21HC97_021	O seal	1	21HC97_069	Hexagonal screw
21HC97_022	oil hose	1	21HC97_070	Position ring
21HC97_023	Cylinder base	1	21HC97_071	Handle
21HC97_024	Wind nozzle	2	21HC97_072	Oil cup
21HC97_025	Flat head hexagonal screw	1	21HC97_073	Mini valve
21HC97_026	Inside hexagonal screw	1	21HC97_074	Expansion link
21HC97_027	O seal	1	21HC97_075	Hose
21HC97_028	Vacuum generator	1	21HC97_076	inside hexagonal screw
21HC97_029	Snap spring	1	21HC97_077	Wire
21HC97_030	bead	1	21HC97_078	O seal
21HC97_031	Bead valve	1	21HC97_079	O seal
21HC97_032	angle coupling	1	21HC97_080	position handle
21HC97_033	Hexagonal screw	1	21HC97_081	connection
21HC97_034	Inside hexagonal screw	4	21HC97_082	Lifting handle
21HC97_035	G1/4` mini ball valve	1	21HC97_083	Probe sleeve
21HC97_036	Inside hexagonal screw	3	21HC97_084	Wing valve
21HC97_037	Wing valve	1	21HC97_085	Universal loose joint
21HC97_038	Elbow Connector	1	21HC97_086	O seal
21HC97_039	Oil tank	1	21HC97_087	Hexagonal screw
21HC97_040	Hexagonal screw	2	21HC97_088	oil extraction probe
21HC97_041	Universal wheel	2	21HC97_089	oil extraction probe
21HC97_042	directional wheel	2	21HC97_090	oil extraction probe
21HC97_043	Snap spring	2	21HC97_091	oil extraction probe
21HC97_044	gasket	2	21HC97_092	oil extraction probe
21HC97_045	Nut	2	21HC97_093	oil extraction probe

21HC97_046	Flat head hexagonal screw	2	21HC97_094	triangular screw
21HC97_047	gasket	2	21HC97_095	gasket
21HC97_048	Outer quarter bend	2	21HC97_096	Extension funnel