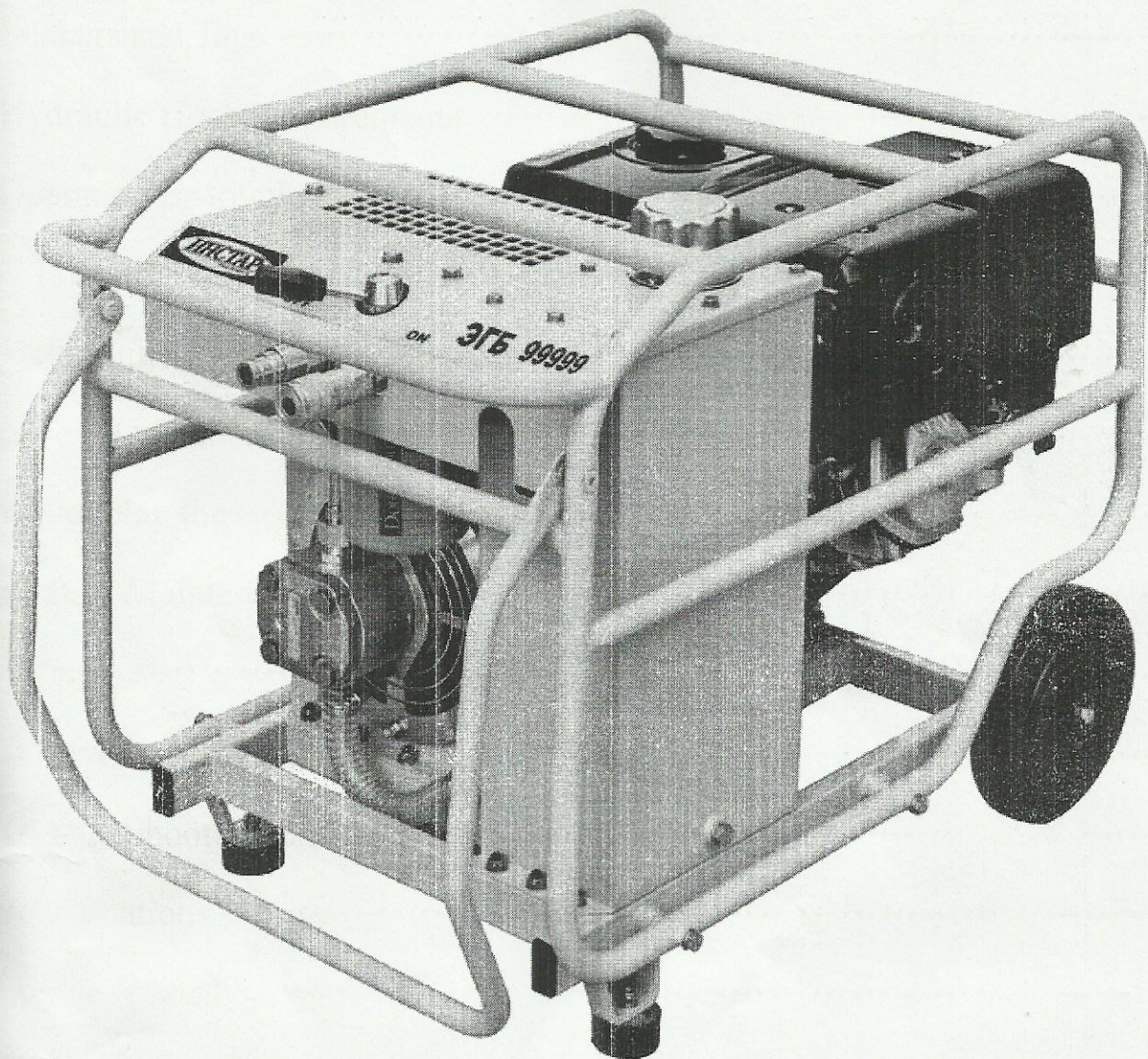

Hydraulic Power Unit

Safety, Operation and Maintenance Manual

ЭГБ 99999



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SAFETY PRECAUTIONS

DANGER

Do not operate this equipment or associated equipment until the following safety instructions have been thoroughly read and understood! Read this manual before installing, operating or maintaining this equipment.

Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the equipment.

These safety precautions are given for your safety. Review them carefully before operating the tool and before performing general maintenance or repairs.

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided on page 3.

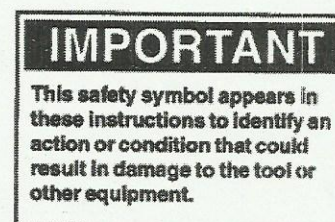
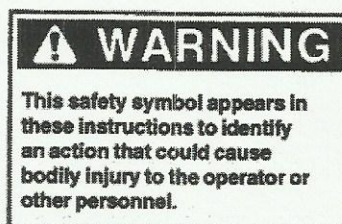
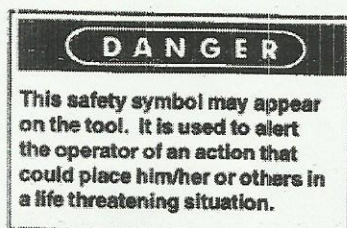
GENERAL SAFETY PRECAUTIONS

The ЭГБ 99999 hydraulic power unit will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the Power Unit. Failure to do so could result in personal injury or equipment damage.

- Operators must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Establish a training program for all operators to ensure safe operation. Do not operate the power unit unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, ear and head protection, and safety shoes at all times when operating the power unit and a hydraulic tool.
- Always use hoses and fittings rated at 170bar with a 4 to 1 safety factor. Be sure all hose connections are right.
- Do not inspect hoses and fitting for leaks by using bare hands. "Pin-hole" leaks can penetrate the skin.

- Never operate the power unit in a closed space. Inhalation of engine exhaust can be fatal.
- Never wear loose clothing that can get entangled in the working parts of the power unit.
- Keep all parts of your body away from the working parts of the power unit.
- Keep clear of hot engine exhaust.
- Do not add fuel to the power unit while the power unit is running or is still hot.
- Do not operate the power unit if gasoline odor is present.
- Do not use flammable solvents around the power unit engine.
- Do not operate the power unit with 1 m of buildings, obstructions, or flammable objects.
- Allow the engine to cool before storing the power unit in an enclosure.

SAFETY SYMBOLS



Safety symbols are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.

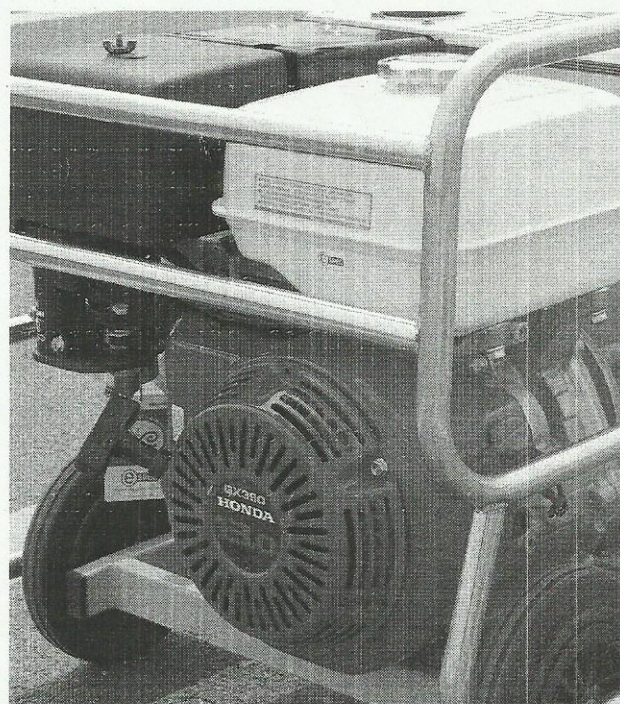
Always observe safety symbols. They are included for your safety and for the protection of the tool.

SAFETY STICKERS AND TAGS

- The safety related stickers and tags attached to the saw prior to shipment from the factory are shown below and on the next page.
- The pressure and flow rates specified must never be exceeded. All stickers and tags must be read and understood prior to operating the tool.
- If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained at no charge from your IHCTAP distributor.
- Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the tool when not in use.

DANGER

- 1、 Make sure hydraulic hoses are properly connected to the tool before pressuring system, system pressure hose must always be connected to tool “in” port. system return hose must always be connected to tool “out” port. Reversing connections may cause reverse tool operation. Which can result in severe personal injury.
- 2、 Do not connect open-center tools to closed-center hydraulic systems. This may result in loss of other hydraulic functions powered by the same system and / or severe personal injury.
- 3、 Bystanders may be injured in your work area. Keep bystanders clear of your work area.
- 4、 Wear hearing, eye, foot, hand and head protection.
- 5、 To avoid personal injury or equipment damage, All tool repair maintenance and service must only be performed by authorized and properly trained personnel.



HYDRAULIC HOSE REQUIREMENTS

Hose types

Hydraulic hose types authorized for use with IHCTAP hydraulic tools are as follows:

- ① Certified non-conductive
- ② Wire-braided (conductive)
- ③ Fabric-braided (not certified or labeled non-conductive)

Hose ① listed above is the only hose authorized for use near electrical conductors.

Hoses ② and ③ listed above are conductive and must never be used near electrical conductors.

Hose safety tags

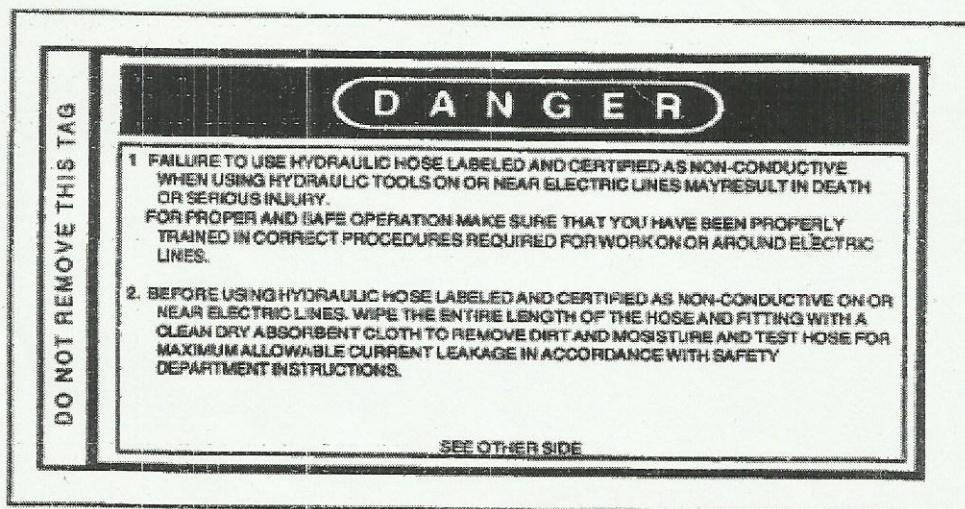
To help ensure your safety, the following DANGER tags are attached to all hose purchased from IHCTAP hydraulic tools.

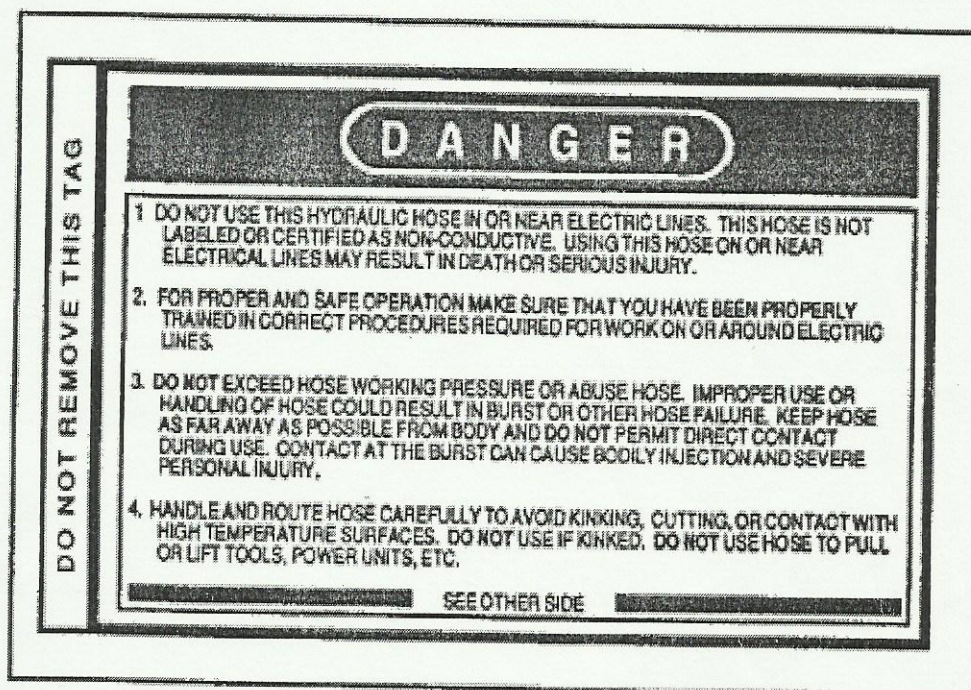
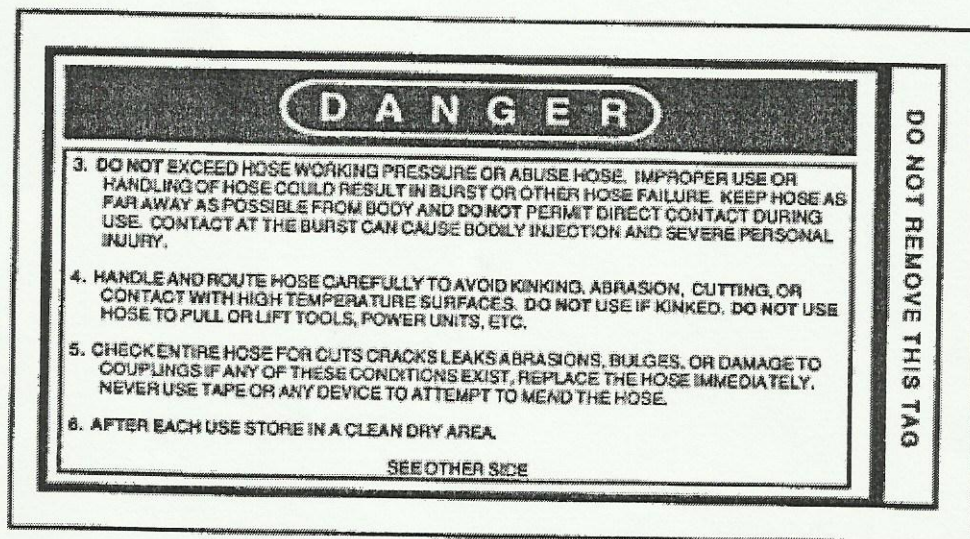
DO NOT REMOVE THESE TAGS.

If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained at no charge from your IHCTAP distributor.

CERTIFIED NON-CONDUCTIVE HOSE

This tag is attached to all certified non-conductive hose.

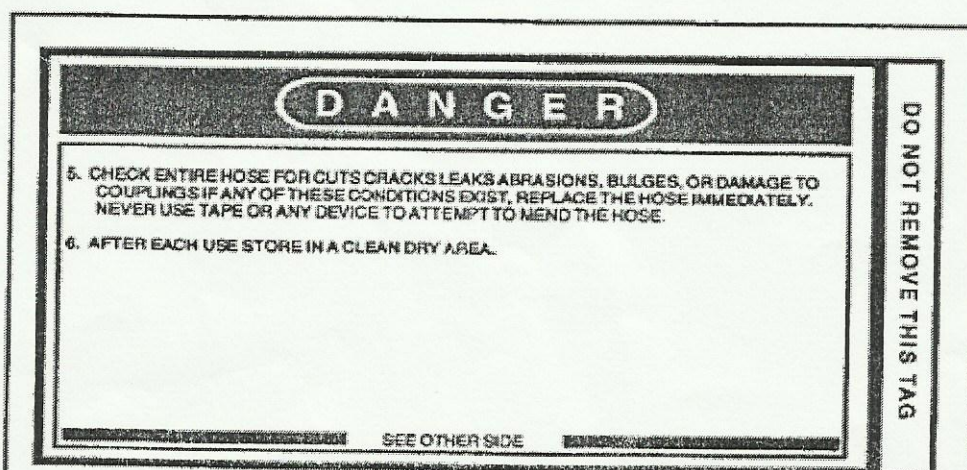




②and③wire-braided and fabric-braided(not certified or non-conductive)hose.

HOSE PRESSURE RATING

The rated working pressure of the hydraulic hose must be equal or higher than



the relief valve setting on the hydraulic system.

OPERATING INSTRUCTIONS

PREPARATIONS FOR USE

Do not operate the power unit until you have read the engine operating and maintenance instructions manual furnished with unit.

1、 ENGINE CRANKCASE OIL LEVEL.

IMPORTANT

The engine oil sump must never be overfilled. Overfilling can cause the engine to over-heat and cause crankshaft seal damage.

Always check the oil level before starting the engine. Make sure the oil level is at the FULL MARK on the dipstick. Do not overfill. Use detergent oil classified "For Service SAE15W40" as specified in the engine operating and maintenance manual.

2、 ENGINE FUEL LEVEL

Check the fuel level. If low , Fill with un-leaded gasoline with a minimum of 93 octane.

DANGER

Shut the engine off before attempting to add fuel to the fuel tank. Do not remove the fuel cap while the engine is running. Do not add fuel to the engine while the engine is hot. Do not fill the fuel tank to a point of overflowing.

Never use an oil/gasoline mixture or dirty gasoline: Avoid getting dirt, dust or water in the fuel tank.

Caution: Gasoline substitutes are not recommended, they may be harmful to the fuel system components.

3、HYDRAULIC FLUID

Check the sight pipe in the hydraulic fluid reservoir for the proper fluid level is indicated when the center section of the sight pipe is dark. If the center section of the sight pipe is not dark, add hydraulic fluid. Use fluid meeting the following specifications.

U.S	METRIC
50°F 450 SSU Maximum	10°C 95 Centistokes
140°F 85 SSU Minimum	60°C 16.5 C.S. Minimum
Pour Point -10°F	-23°C (For cold startup)
Viscosity Index	140 Minimum
Demulsibility	30 Minutes Maximum
Flash Point	340°F / 171°C Minimum
Rust Inhibition	Pass
Oxidation	1000 Hours Minimum
Pump Wear Test	60mg Maximum

The following fluids work well over a wide temperature range, allow moisture to settle out and resist biological growth that may occur in cool operating hydraulic circuits. These fluids are recommended by ***IHCTAP***. Other fluids that meet or exceed the specifications of these fluids may also be used.

Exxon "Univis" J-26 Mobil D.T.E.13 SHELL "Tellus" T-32、T-46

4、AIR FILTER SYSTEM

Check to see that the air filter inserts and the cyclone housing are clean and undamaged. Clean and replace inserts if necessary.

5、HYDRAULIC CONNECTIONS

The recommended hose length is 6m with a 12.7mm inside diameter. The hoses must have a working pressure rating of at least 175 bar. Each hose end must have male thread ends compatible with H.T.M.A. Longer hoses may be used when necessary.

Automatic throttle due to fluid resistance in the hose. If small

diameter or long hoses are used, or if restrictive fittings are connected to the supply and return ports, The pressure required to push the fluid through the system and back to the hydraulic tank will be higher.

6、 Control lever

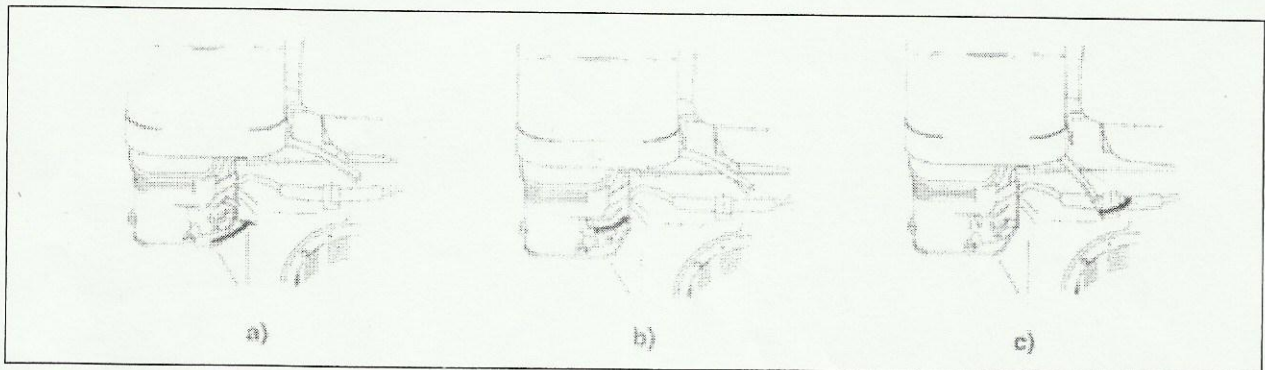
Engine check before starting, must be set control lever to “OFF”

STARTING THE ENGINE

- a) Turn the fuel valve to the ON position.
- b) Move the choke lever to the CLOSE position.

NOTE: If the engine is warm or the air temperature is high, move the control lever away from the Choke position as soon as the engine starts.

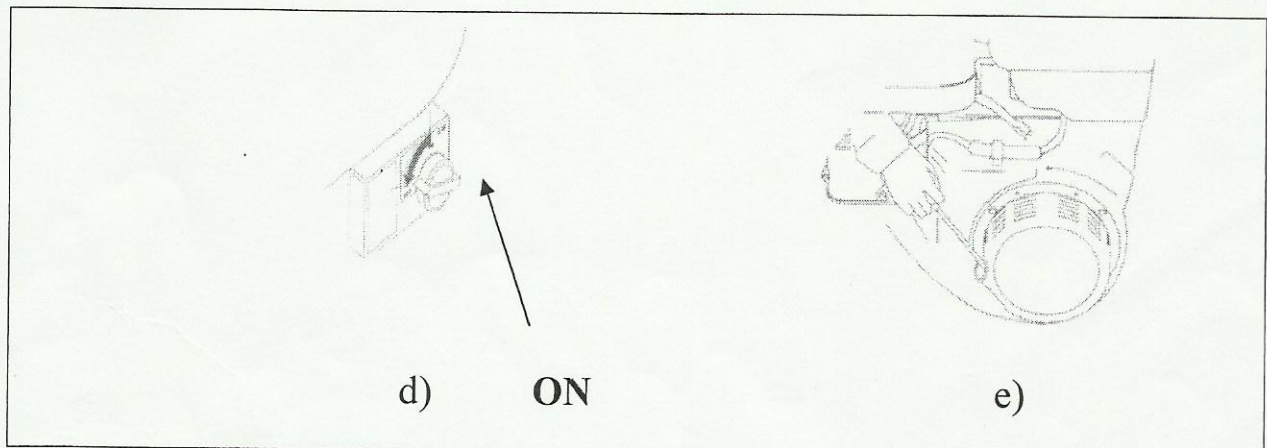
- c) Push throttle lever slightly forward.



- d) Turn main switch to the ON position.
- e) Pull starter handle out slowly until a slight resistance is felt, then pull handle with strength.

Caution: Return it gently to prevent damage to the starter.

- f) As the engine warms up, gradually move the choke lever to the OPEN position.



TOOL OPERATE

Starting the engine after, as the engine warms up, gradually move the chock lever to the OPEN position. Set required engine speed with throttle lever. Set control lever to "TOOL ON".

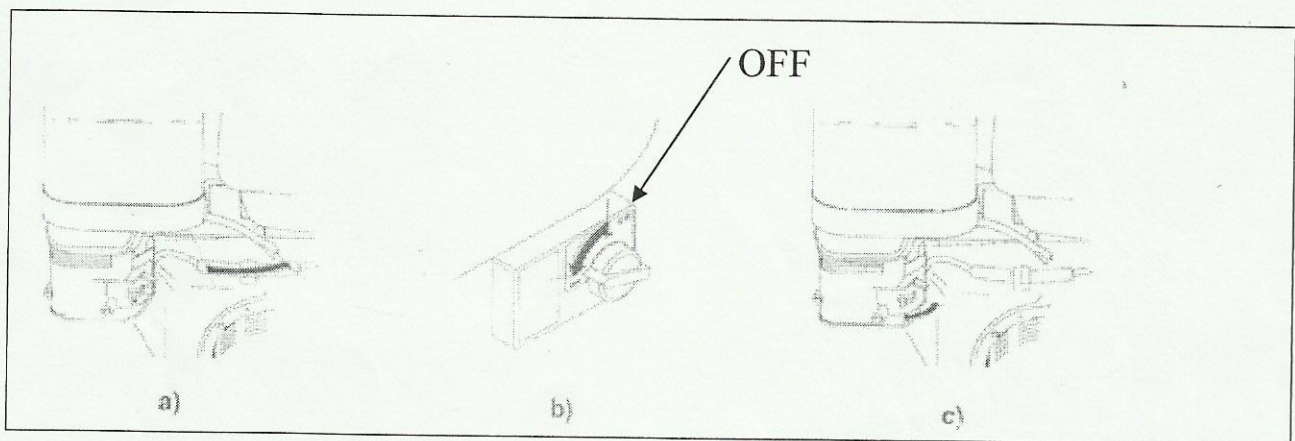
STOPPING THE ENGINE

Proceed as follows under normal working conditions:

Set control lever to "TOOL OFF" .

Stopping the engine:

- a) Pull the throttle lever all the way back to the stop position.
- b) Turn main switch to the OFF position.
- c) Turn the fuel valve to the OFF position.



Turn main switch to the position OFF to stop the engine in an emergency.

MAINTENANCE

Maintenance

Oil change

Drain the while the motor is still warm to assure rapid and complete draining.

1. Remove the oil filler cap drain plug to drain the oil.
2. Install the drain plug, and tighten it securely.
3. Refill with the recommended oil and check oil level.
4. Install the oil filter cap. (Motor oil capacity: 1.1L)

Air cleander service

A dirty cleaner will restrict air flow to the carburetor, To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the motor in extremely dusty areas.

1. Remove the wing nut and the air cleaner cover. Remove the elements and sparate them. Carefully check both elements for holes or tears and replace if damaged.
2. Foam insert: Wash the insert in warm soap water, rinse and dry thoroughly. Alternatively wash the insert in a cleaning agent with a high flashing point and then let dry. Then impregnate the insert with clean engine oil and press out excess oil. The engine will smoke during inial start-up if too much oil is left in the foam.
3. Paper element: Tap the element lightly several times on a hard surface to remove excess dirt, or blow compressed air through the filter from the inside out. Never try to brush the dirt off; brushing will force dirt into the fibers.

Warning: Never use gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.

Caution: Never run the engine without the air cleaner. Rapid engine wear will result.

Cleaning the fuel filter cup

Close the fuel tap. Remove the cup with the O-ring and clean with non-inflammable or hardly-inflammable solvent. Let dry thoroughly, then reassemble and tighten well. Turn the fuel valve on, and check for leaks.

Spark plug

Recommended spark plug: BP6ES-11, BPR6ES-11(NGK), W20EP-U11, W20EPR-U11(ND).

Caution: Never use a spark plug of incorrect heat range.

To ensure proper motor operation, the spark plug must be properly gapped and free of deposits.

1. Remove the spark plug cap, and use a spark plug wrench to remove the plug.
Warning: If the motor has been running, the muffler will be very hot. Be careful not to touch the muffler.
2. Visually inspect the spark plug. Discard it if the insulator is cracked. Clean the spark plug with a wire brush if it is to be reused.
3. Measure the plug gap with a feeler gauge. The gap should be 0.7-0.8mm(0.039-0.043in). Correct as necessary by bending the side electrode.
4. Check that the spark plug washer is in good condition, and thread the spark plug in by hand to prevent cross-threading.
5. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.

Note: If installing a new spark plug, tighten 1 / 2 turn after the spark plug seats to compress the washer. If reinstalling a used spark plug, tighten 1 / 8-1 / 4 turn after the spark plug seats to compress the washer.

Caution: The spark plug must be securely tightened. An improperly tightened spark plug can become very hot and may damage the motor.

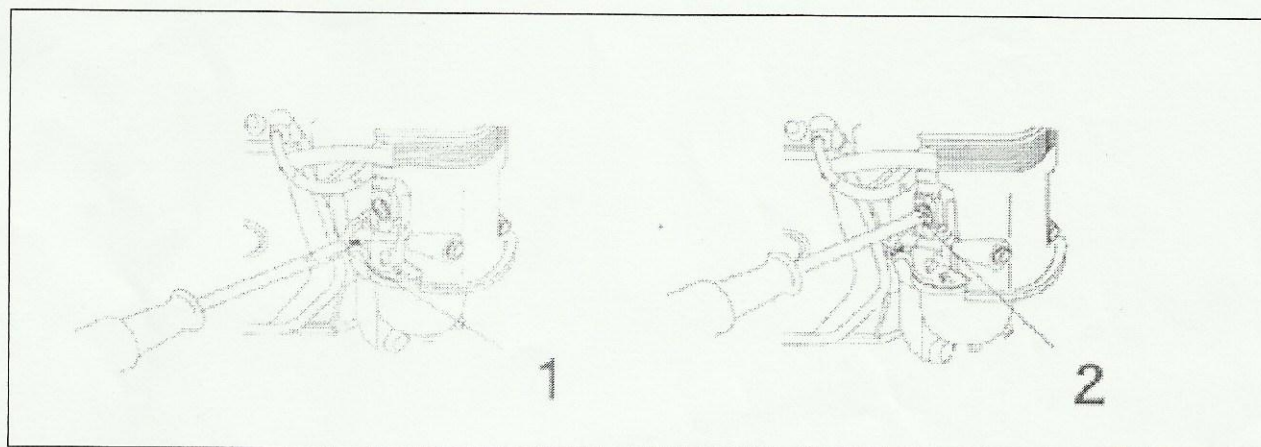
Carburettor adjustment

Start the motor and allow it to warm up to normal operating temperature.

With the motor idling, turn the pilot screw in or out to the setting that produces the highest idle rpm. The correct setting will usually be approximately $2 \frac{1}{4}$ turns from the fully closed position.

Caution: Do not tighten the pilot screw against its seat, this will damage the pilot screw or seat.

After the pilot screw is correctly adjusted turn the throttle stop screw to obtain the standard idle speed. Standard idle speed: 1400 ± 150 rpm.



1. Pilot screw

2. Throttle stop screw

Routine maintenance

Engine maintenance

Follow the maintenance schedule and general maintenance instructions in the engine maintenance and operation manual furnished with the power unit. Normal maintenance includes:

Service foam air pre-cleaner every 25 hours of operation.

Service air paper cartridge every 100 hours of operation.

Replace in-line fuel filter every 100-300 hours or sooner if required.

Replace spark plugs every 100 hours of operation.

Change engine oil after first 5 hours of operation, then after every 50 hours of operation. If engine has been operating under heavy load or in high ambient temperature, change the oil every 25 hours of operation.

Change oil filter when engine oil is changed.

Check oil level daily.

Remove dirt and debris from engine with a cloth or brush daily. Do not use water spray.

Clean air cooling system every 100 hours of operation.

Hydraulic system maintenance

Observe the following for maximum performance and service life from the hydraulic system.

Always keep hydraulic system and fluids clean. Keep water out of fluid. Keep air out of hydraulic lines. Hydraulic system overheating and foam at the hydraulic tank breather indicate air is present in the lines. Keep all suction line fittings and clamps tight. Hydraulic system wear is noted by increased heat during tool operation, reduced tool performance and eventual system breakdown. Operate with the fluid temperature at 50-140F/10-60°C for improved seal and hose life, and maximum efficiency.

a. Check hydraulic fluid level daily. The center of the sight pipe on the reservoir must be dark. If it is not dark, fluid must be added. Add fluid per specifications in this manual. (See “HYDRAULIC FLUID” under the section titled “OPERATING INSTRUCTIONS”).

b. Condensation is a frequent problem with cool mobile hydraulic circuits. This condition occurs in moist or cold climates. When warm air in the hydraulic tank draws moisture from the cooler air outside, water accumulates in the tank.

To remove water from the hydraulic system, use the “PRESSURE” hose without the quick-disconnect coupler attached. Run the engine at the idle setting and pump the fluid into a clean 5gal./20ltr container.

Turn the engine “OFF” as soon as the hydraulic tank (reservoir) is empty.

DO NOT operate the engine with an empty hydraulic tank as pump damage may occur.

Allow the fluid to sit long enough for the water to settle to the bottom of the container. Slowly pour the fluid back into the hydraulic tank, avoiding the water at the bottom of the container.

Each day, check hydraulic lines and fittings for leaks, kinks, etc. Do not use your hand to check for leaks.

c. Change the hydraulic filter element every 200 hours of operation. Change more often if cold, moist or dusty conditions exist.

1. Remove the fluid filler cap drain plug to drain the fluid.
2. Install the drain plug, and tighten it securely.
3. Refill with the recommended fluid and check fluid level.
4. Install the fluid filter cap.

d. Check hydraulic hoses

Be sure all hose connections are right.

e. Check hydraulic line and fitting

Storage

Clean the unit thoroughly before storage. Do not use water pressure. Always store the unit in a clean and dry facility.

If the unit will be stored for a prolonged period (over 30 days), add a fuel additive to the fuel tank to prevent the fuel from gumming. Run engine for a short period to circulate the additive.

Remove spark plugs and pour approximately 1 ounce (30 ml) of engine oil into each cylinder. Replace spark plugs and crank the engine slowly to distribute the oil.

Check hydraulic reservoir for water. If water is found, change the oil and circulate it through the tool hose and tool. (See "HYDRAULIC SYSTEM MAINTENANCE" earlier in this section).

Disconnect tool hoses

Allow the water to settle from the fluid overnight. Install a new filter (if dirty).

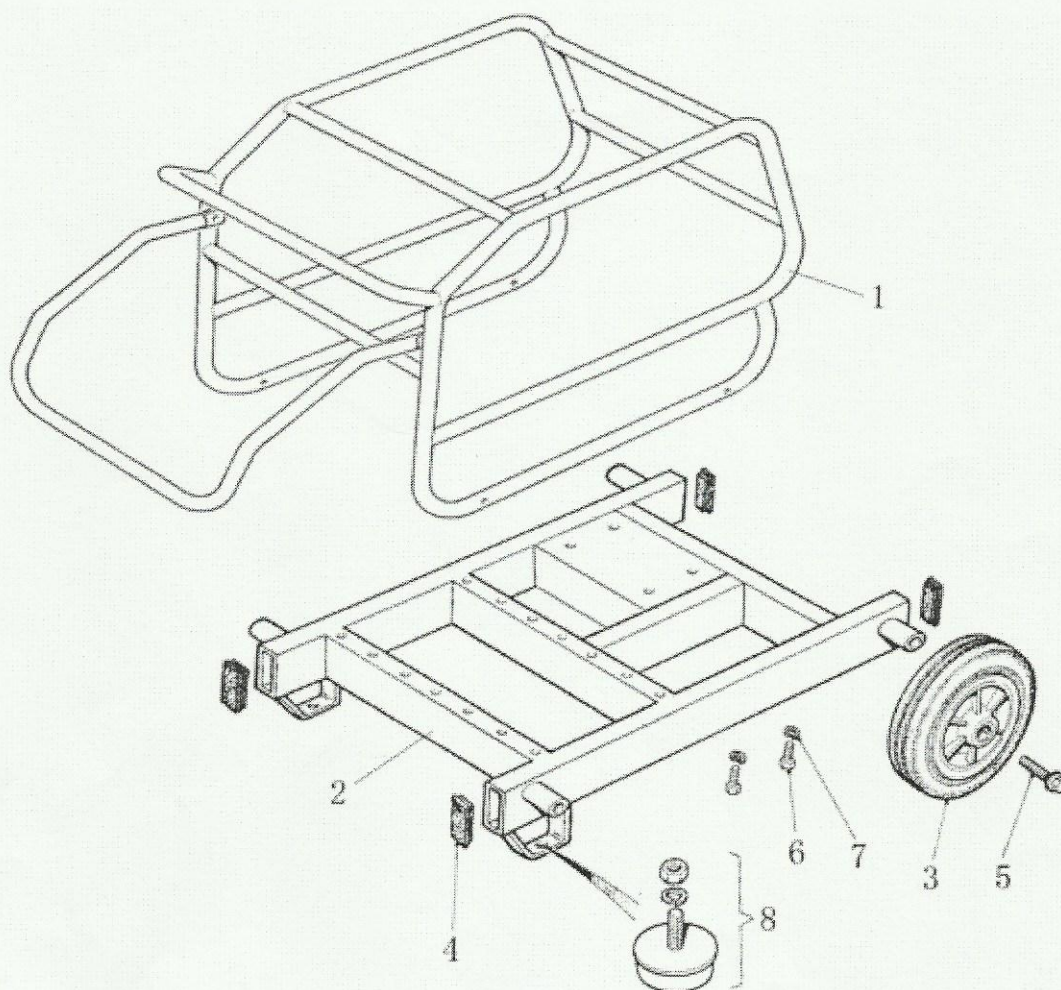
TROUBLE SHOOTING

SYMPTOM	POSSIBLE FAULT	ACTION
Engine stops or will not start	Fuel tap switch off	Switch on fuel tap
	Battery not connected	Attach battery cables, check wires
	Defective spark plugs.	Remove plugs, check gap, clean or replace
Fluid blowing out of fluid reservoir vent.	Defective pump seal.	Replace pump seal.
	Hydraulic tank overfilled	Correct the fluid level.
Hydraulic tool won't operate	Control lever setting incorrect.	Set control lever to "TOOL ON"
	Incorrect hose connection to tool.	Make sure the tool hose circuit goes from right (pressure) fitting to tool and back to the left fitting (return). Fluid always flows from the male to female fittings.
	Quick disconnect fittings defective	Detach from hose, connect set together and check for free flow.
	Hydraulic fluid level low.	Check for correct fluid level. Fill using the recommended fluid.
	Relief valve stuck open.	Adjust or replace valve.
	Suction hose kinked.	Make sure suction hose from fluid reservoir to pump inlet has a smooth curve.

SPECIFICATIONS

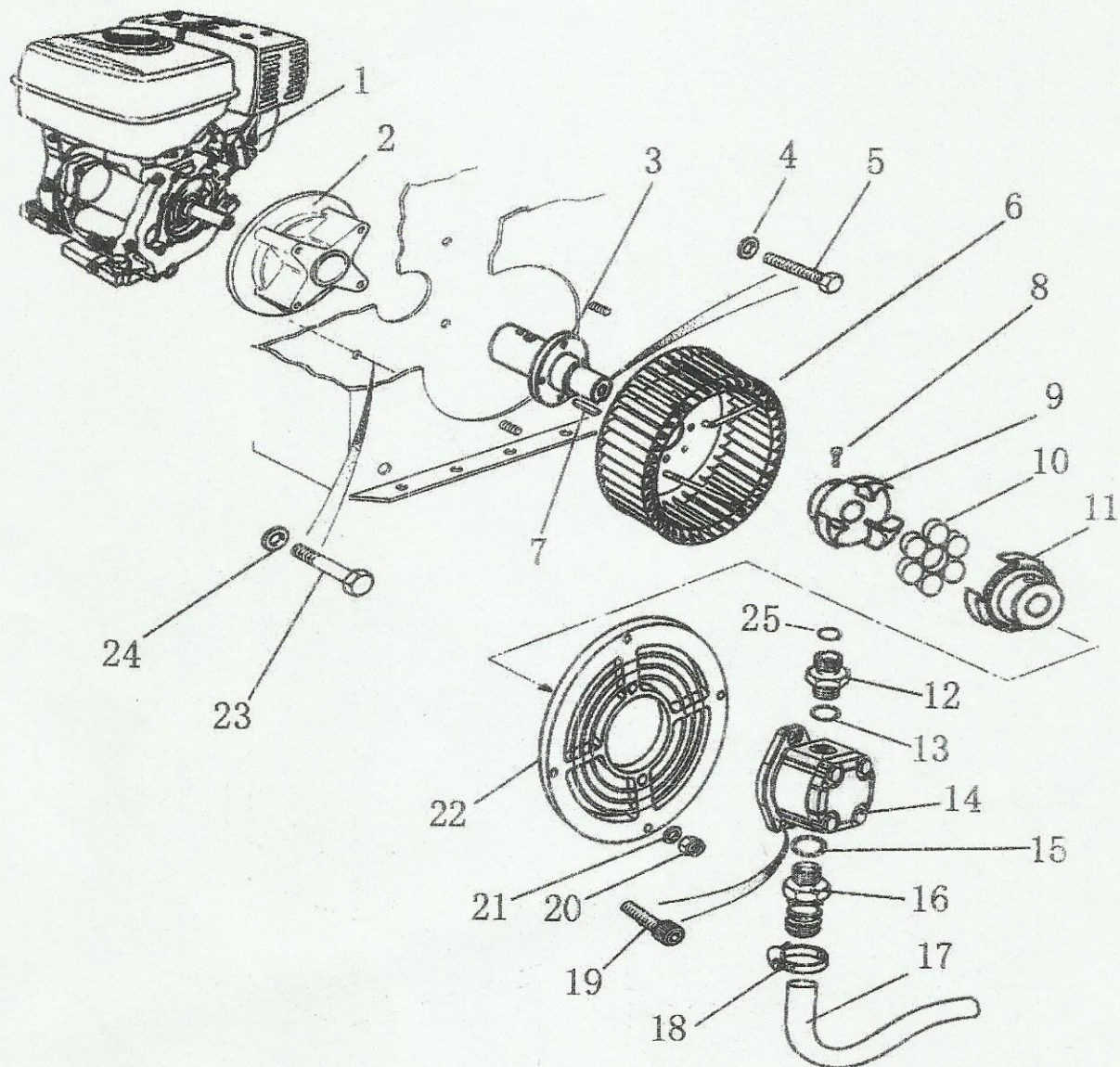
	ЭГБ 99999
Capacity	30L/min
Pressure Range	70~140bar
Couplers	HTMA Flush Face Type Male & Female
Weight	80kg
Overall Length	780mm
Overall Width	510mm
Overall Height	600mm
Engine	Honda13hp
Fuel Tank Capacity	12L
EHTMA Category	“D” (20L/min, 138bar)
Sound Power Level	101Lwa
Noise	81db

Frame Assembly



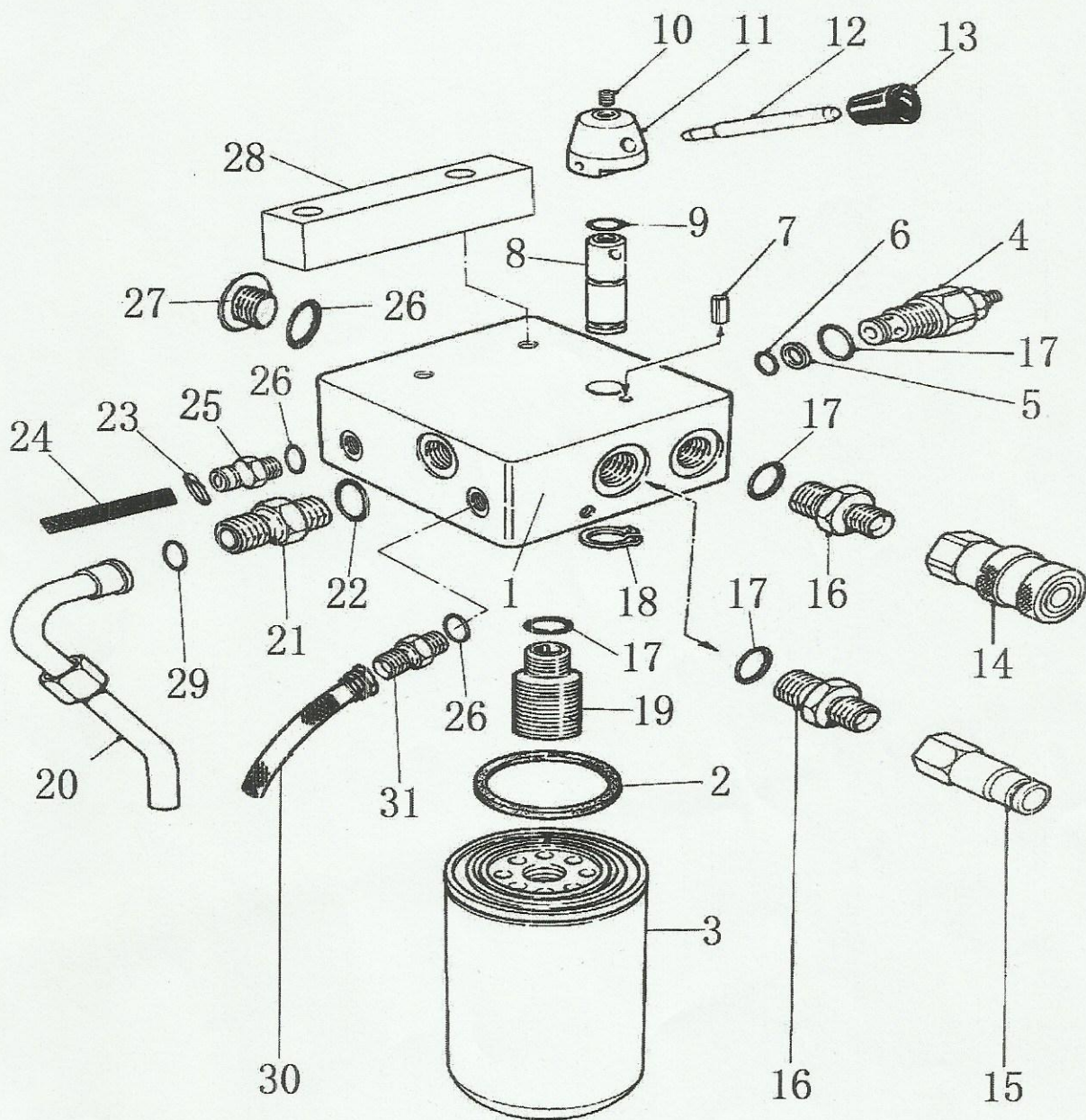
No.	Name	Part No.	QTY	Description
1	Frame	000901	1	
2	Engine floor	000903	1	
3	Rubber wheel	001304	2	
4	Rubber plug	001305	4	
5	Bolt	001306	4	
6	Bolt	001307	4	
7	Nut	001308	4	
8	Supporting components	001309	2	

Engine Assembly



No.	Name	Part No.	QTY	DESCRIPTION
1	Engine	000910	1	
2	Adapting flange	000911	1	
3	Drive shaft	000912	1	
4	Pad	001313	4	
5	Bolt	001314	4	
6	Fan impeller	001315	1	
7	Flat key	001316	1	
8	Bolt	001317	2	
9	The shaft coupling	001318	1	
10	Elastomer	001319	1	
11	The pump coupling	001320	1	
12	Output oil joint of pump	001321	1	
13	O-ring	001322	1	
14	Gear pump	001323	1	
15	O-ring	001325	1	
16	Input oil joint of pump	001326	1	
17	Oil inlet	001327	1	
18	Pipe strap	001328	2	
19	Bolt	001329	2	
20	Nut	001330	4	
21	Pad	001331	4	
22	Pump adapter flange	001332	1	
23	Bolt	001333	4	
24	Pad	001334	4	
25	O-ring	001335	1	

Valve Assembly



No.	Name	Part No,	QTY	Description
1	Valve	001336	1	
2	Seal ring	001337	1	
3	Back to the oil filter	001338	1	
4	Safe valve	001339	1	
5	Stop collar	001340	1	
6	O-ring	001341	1	
7	Inflation pin	001342	1	
8	Control valve	001343	1	
9	O-ring	001344	1	
10	Set screw	001345	1	
11	Handball	001346	1	
12	Bolt	001347	1	
13	Handle	001348	1	
14	3/8 "female Q.C.	001349	1	
15	3/8 "male Q.C.	001350	1	
16	Short joint	001351	2	
17	O-ring	001352	4	
18	Jump spring	001353	1	
19	Joint	001354	1	
20	Stainless steel pressure hose	001355	1	
21	Joint	001356	1	
22	O-ring	001357	1	
23	Pipe clamp	001358	1	
24	Rubble pipe	001359	1	
25	Joint	001360	1	
26	O-ring	001361	2	
27	Choke plug	001362	1	
28	Pad	001363	1	
29	O-ring	001335	1	
30	Feedback	001365	1	
31	Joint	001366	1	

WARRANTY

IHCTAP, subject to the exceptions contained below, warrants new hydraulic tools for a period of one year from the date of sale to the first retail purchaser, whichever period expires first, to be free of defects in material and/or workmanship at the time of delivery, and will, at its option, repair or replace any tool or part of a tool, or new part, which is found upon examination by **IHCTAP** authorized service center to be defective in material or workmanship.

10.1 Exceptions From Warranty

FREIGHT COSTS: Freight costs for any part or parts which are not approved for warranty credit will be the responsibility of the individual.

SEALS & DIAPHRAGMS: Seals and diaphragms installed in new tools are warranted to be free of defects in material and/or workmanship for a period of 6 months after the date of first usage.

ALTERATIONS & MODIFICATIONS: Alterations or modifications to any tool or part. All obligations under this warranty shall be terminated if the new tool or part is altered or modified in any way.

NORMAL WEAR: any failure or performance deficiency attributable to normal wear and tear such as tool bushings, retaining pins, wear plates, bumpers, retaining rings and plugs, rubber bushings, recoil springs, etc.

INCIDENTAL/ CONSEQUENTIAL DAMAGES: In no event will **IHCTAP** be liable for any incidental, consequential or special damages and/or expenses.

FREIGHT DAMAGE: Damage caused by improper storage or freight handling.

LOSS TIME: Loss of operating time to the user while the tool(s) is out of service.

IMPROPER OPERATION: Any failure or performance deficiency attributable to a failure to follow the guidelines and/or procedures as outlined in the tool's operation and maintenance manual.

MAINTENANCE: Any failure or performance deficiency attributable to not maintaining the tool(s) in good operating condition as outlined in the Operation and Maintenance Manual.

HYDRAULIC PRESSURE & FLOW, HEAT, TYPE OF FLUID: Any failure or performance deficiency attributable to excess hydraulic pressure, excess hydraulic back-pressure, excess hydraulic flow, excessive heat, or incorrect hydraulic fluid.

REPAIRS OR ALTERATIONS: Any failure or performance deficiency attributable to repairs by anyone which in IHCTAP's sole judgment caused or contributed to the failure or deficiency.

MIS-APPLICATION: Any failure or performance deficiency attributable to mis-application. "Mis-application" is defined as usage of products for which they were not originally intended or usage of products in such a manner which exposes them to abuse or accident, without first obtaining the written consent of IHCTAP.

WARRANTY REGISTRATION: IHCTAP ASSUMES NO LIABILITY FOR WARRANTY CLAIMS SUBMITTED FOR WHICH NO TOOL REGISTRATION

IS ON RECORD. In the event a warranty claim is submitted and no tool registration is on record, no warranty credit will be issued without first receiving documentation which proves the sale of the tool or the tools' first date of usage. The term "DOCUMENTATION" as used in this paragraph is defined as a bill of sale, or letter of intent from the first retail customer.

A WARRANTY REGISTRATION FORM THAT IS NOT ALSO ON RECORD WITH INTACA WILL NOT BE ACCEPTED AS "DOCUMENTATION".

PRODUCT RECORD

Tool Model Number.....

Tool Serial Number_____

Date Purchased _____

Dealer Purchased From _____

Dealer Address_____

Zip Code _____

Dealer Phone No._____ Dealer Fax No._____

Notes:_____

WARRANTY VALIDATION RECORD

Your Name or Company Name _____

Address _____

City _____ Zip Code _____

Phone No. _____

Tool Model Number _____

Tool Serial Number _____ - _____

Date Purchased _____

Dealer Purchased From _____

Dealer Address _____

City _____ Zip Code _____

Type of Power Source Tool is Operated

From (Power Unit, Tractor, Truck Circuit, etc.) _____

Equipment Name and Model No. _____