



Tradição e Tecnologia



Manual do Conjunto para Pick-up

Manual del Conjunto para Pick-up

Pick-up Truck Fire Fighting Set Manual

INTRODUCTION

We thank you for choosing our pick-up truck fire fighting set.

Designed to fit to any pick-up models, it immediately converts it into a “tank vehicle” for many applications.

Built with long-lasting materials it is available in three versions: forestry, agricultural and public health uses with three tank capacities of 250L, 400L or 700L.

For better performance of your equipment read carefully this manual: you will find useful information for its correct use and periodic maintenance in order to have the best performance.

We are sure that this equipment will surprise you for its many applications, easy assembly as well as operation and low maintenance cost, making it the best investment as far as cost-benefit is concerned.

Would you have any further requests please contact our Technical Assistance department by phone **(5511) 2118-8408** or visit our website: **www.guaranyind.com.br**

SAFETY INSTRUCTIONS

1. Read carefully the safety instructions in this manual, so that you can operate it accordingly, obtaining the best technical results.
2. Be sure that only well instructed people qualified that comply with the safety instructions use this equipment.
3. When operating this equipment with fire suppressants and retardants, always use safety equipment.

APPLICATIONS

Pick-up truck fire fighting set: FORESTRY

The forestry pick-up truck fire fighting set is supplied with a flexible tank, a pump, a discharge hose and a water application lance for solid stream jet or sprayer.

This equipment was designed for medium intensity direct fire fighting, “Class A” fires (solid material: wood, paper, rubber), in rural and forestry areas, roadside and railroads, vacant lot, among others.

In addition to direct fire fighting, it can be used a supporting equipment for setting of prescribed burns, for cold line construction and mop-up.

Designed to be used in pick-ups, small trucks and carts it offers the big advantage of allowing the quick access to the fires, especially in difficult places to reach.

It can be easily assembled and operated, and has a good fight autonomy.

Available in 400L (code: 4924-00) and 700L (code: 4926-00).

Foam Inductor kit - optional

Guarany offers the accessory “Foam Inductor Kit”, with a 9-liter pack, an applicator and air-aspirating foam nozzle for the application of chemical suppressants and retardants (LGE).

Pick-up truck fire fighting set: AGRÍCULTURAL

Designed to be assembled in a medium size pick-up, this set can be installed in different pick-up models used in rural properties.

Comprised of a PVC flexible tank, a pump set, discharge hose and a spray gun.

This set can be used for agrochemical application in different crops, for equipment and vehicles washing, and warehouses cleaning, among others uses in the farm.

The best investment as far as cost-benefit is concerned, it can be easily installed and assembled.

Available in: 400 and 700 liters tank.

Pick-up truck fire fighting set: PUBLIC HEALTH

Designed to be installed in any type of pick-up, with the main objective of applying different products envisaging pest control, vector control of endemic diseases in urban areas.

Quick and simple to be assembled and disassembled, it can be removed from the pick-up at any moment, making it available for other uses.

It's light, easy to operate and simple of cheap maintenance.

Available in: 250 liters tank.

INSTRUCTIONS FOR USE

TANK ASSEMBLY ON THE PICK-UP TRUCK

1. Verify if there isn't any sharp material that can make a hole or damage the tank.
2. Open the tank inside the pick-up, accommodating it in the best way, avoiding that it stays folded or in a bad position.



3. After putting the tank in position, connect the Suction Hose (1" x 3,0 m, with blue color) in the exit register, certifying that the connection is perfectly done.



4. Connect the other Suction Hose end to the pump entrance.



5. Connect the Discharge Hose (½" x 30,0 m, with black color) to the pump exit.



6. Connect the other Suction Hose end to in the lance.



7. Open the filling top and start to fill the tank, using the filter to retain undesired particles.



Take care!

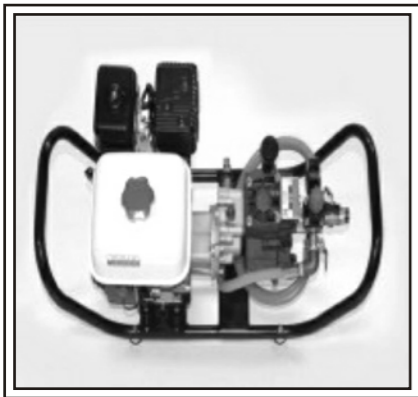
- ☐ Never drag or pull the ropes and the tank belt when it is filled with water. The water weight inside the tank can damage the belt and the tank.
- ☐ Never use tools to connect the hose to the tank, tight it manually.

PUMP SET OPERATING INSTRUCTIONS

1. Fill the engine oil tank with regular gas.
2. Engine: check the oil level that is recommended by the manufacturer.
3. Pump Reducer: check the oil level and refill it, if necessary.
4. Pump: check the oil level through a level glass and refill it, if necessary, with SAE 40 oil.
5. Turn on the switch (ON-OFF) putting it in the position ON.
6. Open the fuel register.
7. Move the accelerator lever putting it at 1/3 of acceleration.
8. Move the choke lever to the position "CLOSED" if the engine is cold.
9. Check if the hoses aren't obstructed or strangled and that there is no air aspiration, checking the connections.
10. Move the pump operation lever anticlockwise (pressure relief)
11. To turn around the engine, pull the rope starter lightly until you feel resistance and **then pull it firmly.**
12. Move the choke lever to the position "OPEN" as soon as the engine is warm.
13. As soon as the engine starts working, open the discharge and return the pump operation lever to the working position (clockwise).

Take care!

- This engine is equipped with oil alert system. If the engine stops and does not start again, check the oil level before checking other components.
- We recommend to operate with the pre-established pressure (300PSI).



STOPPING THE PUMP SET

1. Slow down, moving the accelerator lever totally to the right;
2. Put the engine switch on the position “OFF”;
3. Put the fuel register in the position “OFF”.

IMPORTANT CARE WITH THE SET

1. Never start the engine with the pump dry.
2. Never move the pump set with the engine working.
3. Never touch the warm parts of the engine (pipe, cylinders and paddles).
4. Never use the engine in closed areas or in areas without ventilation, because the gases from the pipe are toxic and lethal for people.
5. **Never start the pump set with the discharge closed for more than 3 min, to avoid overheating.**
6. Never drive with a speed superior to 45 km/h, with the tank full over the pick-up.
7. It's essential that the vehicle to be used has a weight capacity 30% higher than the weight of the tank completely full.
8. For more details about the pump and the engine, please refer to the manufacturers' manuals that come doing with the machine.
9. Verify periodically the engine oil level, the pump oil level and the reduction oil level.

TECHNICAL SPECIFICATION

Engine:

Honda GX 160 4-stroke head, valve, 1 cylinder, 163 cm³, 5,5 HP
Consumption/maximum hour 1,52 litres/hour
Tank capacity 3,6 litres
Crankcase oil/Capacity SAE 20W-50 / 0,6 litres

Pump:

Imovilli Pompe M 35 membrane, maximum pressure 40 BAR, maximum flow 39 L / min
Pump oil/Capacity SAE 40/ 0,34 litres

Reduction:

Imovilli Pompe with 1:5 gear
Reduction oil/Capacity SAE 90/ 0,15 litres

Flexible Tank PVC 250, 400 and 700 litres

Discharge Lance Braglia - Turbine Standard model 3,5 mm *

Suction Hose spirally translucent 1'x 3,0 m

Discharge Hose in PVC with polyester texture ½” x 30 m **

Quickly connections in brass.

Repair Kit:

Vinyl glue tube and PVC patch.

Liquid Reach/Flow full jet: 15 m - 30L/min
..... mist jet: 6 m - 22L/min

Total weight 250 L tank model: 52 Kg
..... 400 L tank model: 54 Kg
..... 700 L tank model: 57 Kg

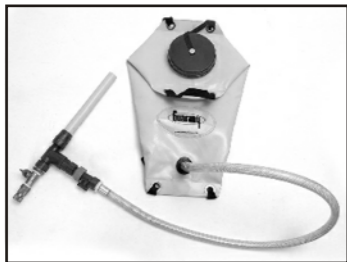
Package Dimensions:

Pump 840 x 395 x 450 mm
Tank, Hoses and Discharge 580 x 495 x 505 mm

Optional Accessories Available:

Foam Induction Kit
Tank for LGE 9 litres
Air-aspirating nozzle 8 GPM
30m foam roll

* Other tip models available with holes of: ... 1,0 - 1,2 - 1,5 - 1,8 - 2,0 - 2,3 - 2,5 and 3,0 mm
** The pump can work with up to 2 extensions of 30 m



Foam Induction Kit
code: 4957



Discharge Hose
code: 4960

PERIODIC MAINTENANCE

1. FLEXIBLE TANK

To ensure the flexible tank durability, it is important to take the following cares :

- Avoid to let the tank exposed to bad weather conditions (sun, rain, etc) for a long time, to avoid damages to the vinyl because of the dryness and loss of the original color;
- After using the tank, always clean it with water and soap;
- Let the tank dry well in the vertical position for better water flowing;
- Fold the tank carefully, involving it into the protection cover and store it in a safe area until the next use.
- Apply silicone (liquid glycerin) in the outside surface of the tank, for better protection and conservation;
- Avoid dragging the tank in the floor and putting it in areas with sharp materials.

2. HONDA GX 160 ENGINE

See the manufacturer manual: page 18.

3. IMOVILLI POMPE M 35 PUMP

See the manufacturer manual.

4. IMOVILLI POMPE M 35 REDUCER

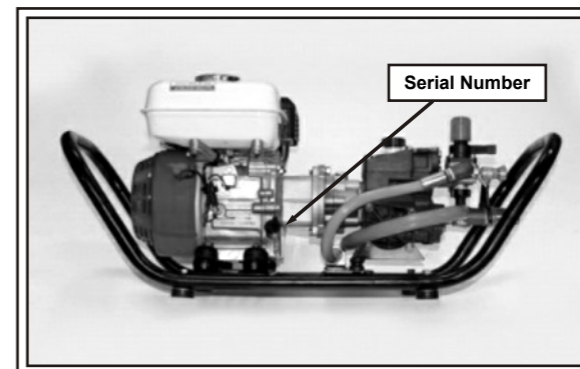
To verify the oil level, remove the lateral paw, and observe if the oil is at the top of the orifice.

To complete the oil, use the superior paw, keeping the lateral orifice open, until the oil flows.

SPARE PARTS

Honda Engine

Attention: before requesting a spare part, it is necessary to inform the engine serial number.
To identify the engine serial number:



TROUBLE SHOOTING

TROUBLE	POSSIBLE CAUSES	SOLUTION
The water supply to the pump isn't enough or doesn't exist.	<ol style="list-style-type: none"> There isn't water in the tank. There isn't water in the suction hose. 	<ol style="list-style-type: none"> Supply it. Open the tank valve.
The engine does not work or starts and immediately stops.	<ol style="list-style-type: none"> The engine switch is turned off. The fuel tank is empty or with small quantity of fuel. The fuel register is closed. The engine oil level is low. The gas doesn't reach the carburetor. The spark plug gap is dirty or fault. The spark plug is not working. 	<ol style="list-style-type: none"> Turn it on. Fill it. Open it. Complete it. Verify by releasing the drainage screw with the fuel register in the position ON. Clean it or replace it. Verify and replace it if necessary.
The pump works with insufficient pressure, is without pressure or doesn't aspirate.	<ol style="list-style-type: none"> It is aspirating air. The suction filter is clogged. Clogged or wear valves. Aspiration line bad tightened. There is a broken membrane. 	<ol style="list-style-type: none"> Check the aspiration line and the aspiration elbow junction. Clean it. Remove obstruction or replace them. Tighten. Stops the pump immediately and take it to a technical assistance.

WARRANTY

1- GUARANY INDÚSTRIA E COMÉRCIO LTDA., also Known as GUARANY, guarantees this product against manufacturing failures for ONE YEAR.

1.1 WARRANTY TERMS

GUARANY, guarantees its own products, sold directly from the factory or from our dealers, against confirmed material or manufacturing failures during the period indicated above, from the date of dealer's invoice to customer, according to the **INVOICE** issued by the dealer.

Possible random warranty services, may be executed at dealers previously indicated by **GUARANY**, with the exception to the **HONDA® ENGINE**, thar can be serviced at its own technical assistance net, where the product should be delivered always complete, never in parts.

1.2 WARRANTY EXCLUSIONS:

- A) Components of normal wearing such as: spark plugs, pistons, rings, filters, belts, membranes, valves, cushions, electrical parts and hoses etc., or for corrosion as a result of constant contact with chemical products.
- B) Damages originated by using adulterated, contaminated or add gasoline.
- C) Expenses originated by sending the product for the technical assistance.
- D) Damages originated by overloading or by using the product over the specified capacity.

1.3 WARRANTY EXTINCTION:

- A) When the original product features are submitted to any kind of modification, parts adaptation or no original accessories.
- B) When any repair has been made or revised out of the **GUARANY or HONDA®** dealers net.
- C) When the product is delivered **disassembled** for warranty repairs.

1.4 WARRANTY SERVICE

For any **Honda engine** warranty service, it is necessary to show the warranty certificate enclosed with the manual, as well as the product invoice, with the engine serial number.

As for Guarany dealers/ technical assistance service warranty, it is only necessary the presentation of the invoice. The replacement or repair under warranty, in any circumstance, will only be for the faulty part.

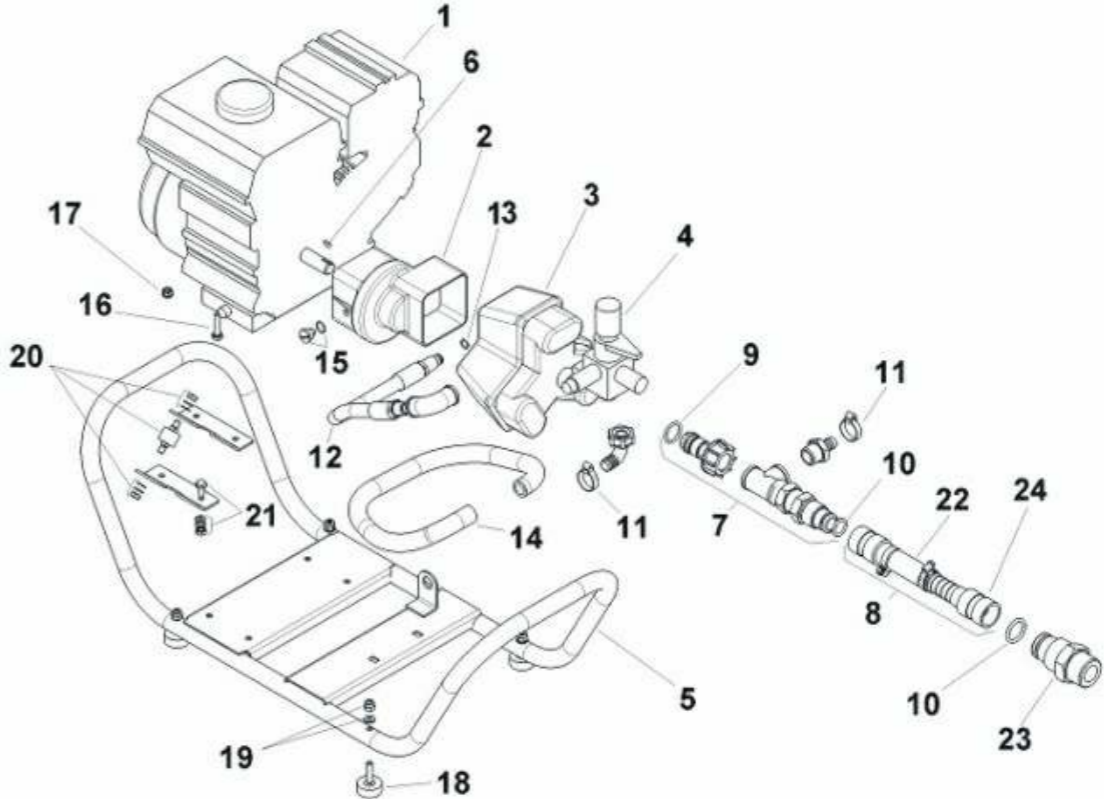
Under no circustances **GUARANY** would authorize the resale or technical assistance to replace the complete product or components sets. Warranty will only be given to the faulty components when the equipment is complete and never the faulty part separately.

The faulty parts under warranty are Guarany's property.

GUARANY reserves the right to change the warranty terms as well as its products at any time, without prior notice.

Peças de Reposição / Piezas de Reposición / Spare Parts

CONJUNTO MOTO-BOMBA COMPLETO / COMPLETE PUMP SET

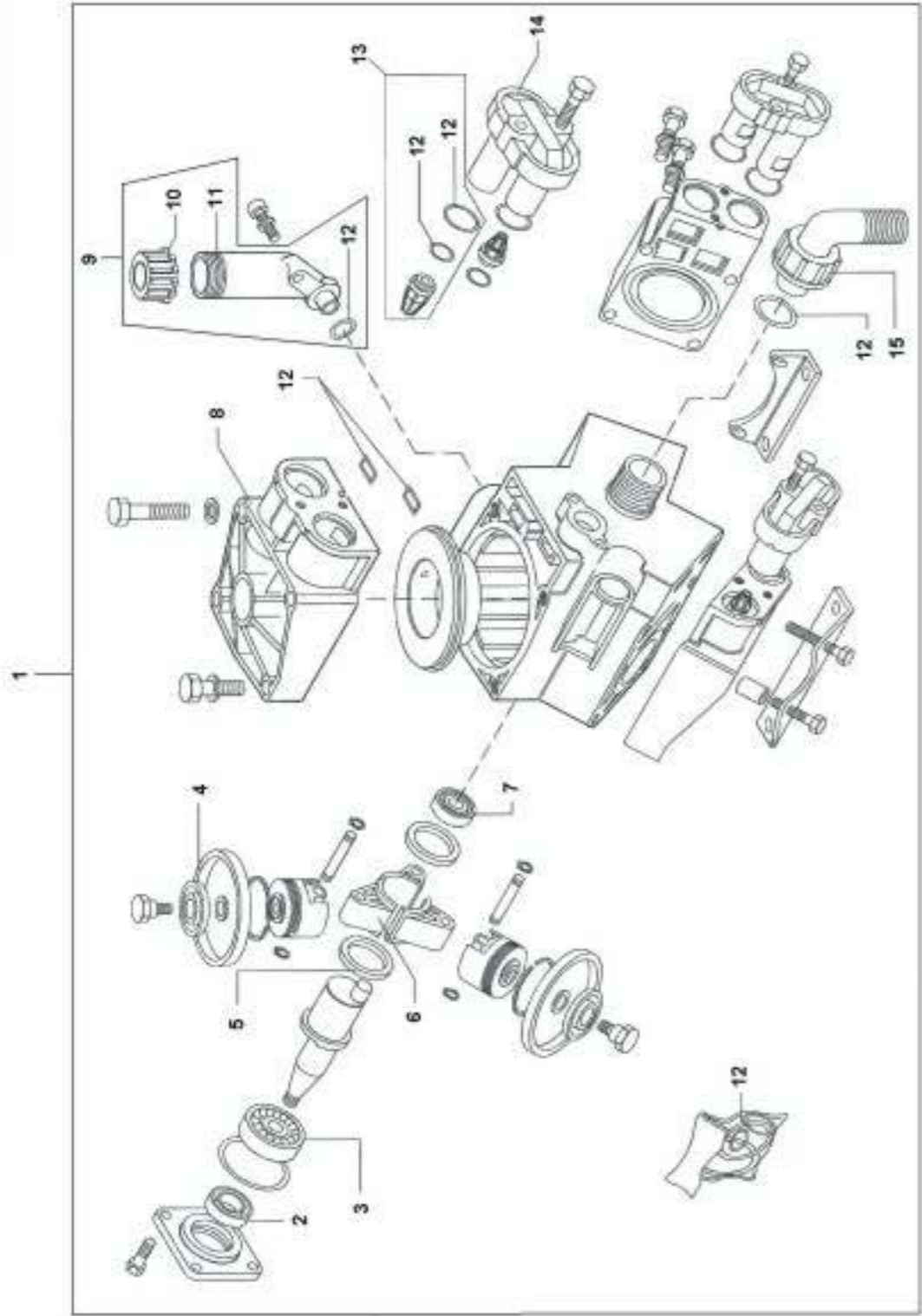


ITEM	DESCRIÇÃO	CÓDIGO
1	Motor GX 160	6890
2	Redutor Completo	4971
3	Bomba Completa	4973
4	Comando Completo	4969
5	Conjunto da Estrutura	4948
6	Chaveta	7169
7	Conexão de Saída Completa	4977
8	Mangueira de Sucção Completa	4978
9	O-ring Buna	7170
10	O-ring Buna	7171
11	Abraçadeira	2451
12	Mangueira de Descarga	4960
13	O-ring Buna	7172
14	Mangueira de Retorno	7175
15	Bujão de Óleo	7154
16	Parafuso M8x35	7017
17	Porca Auto-Frente M8	7168
18	Sapata	7134
19	Kit de Porca e Arruela M8	4979
20	Coxim Completo	4980
21	Kit do Paraf. de Fix. da Bomba	4981
22	Mangueira de Sucção	2757
23	Plug	7173
24	Bucha Recartilhada	7174

ITEM	DESCRIPCIÓN	CÓDIGO
1	Motor GX 160	6890
2	Reductor Completo	4971
3	Bomba Completa	4973
4	Comando Completo	4969
5	Conjunto de la Estructura	4948
6	Chaveta	7169
7	Conexión de Salida Completa	4977
8	Manguera de Succión Completa	4978
9	O-ring Buna	7170
10	O-ring Buna	7171
11	Abrazadera	2451
12	Manguera de Descarga	4960
13	O-ring Buna	7172
14	Manguera de Retorno	7175
15	Tanque de aceite	7154
16	Tornillo M8x35	7017
17	Tuerca Auto-ajustable M8	7168
18	Zapata	7134
19	Kit de Tuerca y arandela M8	4979
20	Cojim Completo	4980
21	Kit de tornillo de Fij. de la Bomba	4981
22	Manguera de Succión	2757
23	Plug	7173
24	Buje Recartilhada	7174

ITEM	DESCRIPTION	CODE
1	GX 160 Engine	6890
2	Reduction Gearing Assembly	4971
3	Complete Pump	4973
4	Control Unit Assembly	4969
5	Chassis	4948
6	Key	7169
7	Complete Outlet Connection	4977
8	Complete Suction Hose	4978
9	O-ring	7170
10	O-ring	7171
11	Clamp	2451
12	Discharge Hose	4960
13	O-ring	7172
14	Return Hose	7175
15	Oil paw	7154
16	M8x35 Screw	7017
17	M8 Locknut	7168
18	Skid	7134
19	M8 Nut and Washer Kit	4979
20	Complete Vibration Damper	4980
21	Fixing pump screw kit	4981
22	Suction Hose	2757
23	Plug	7173
24	Knurled Bushing	7174

BOMBA M 35 / BOMBA M 35 / M 35 PUMP

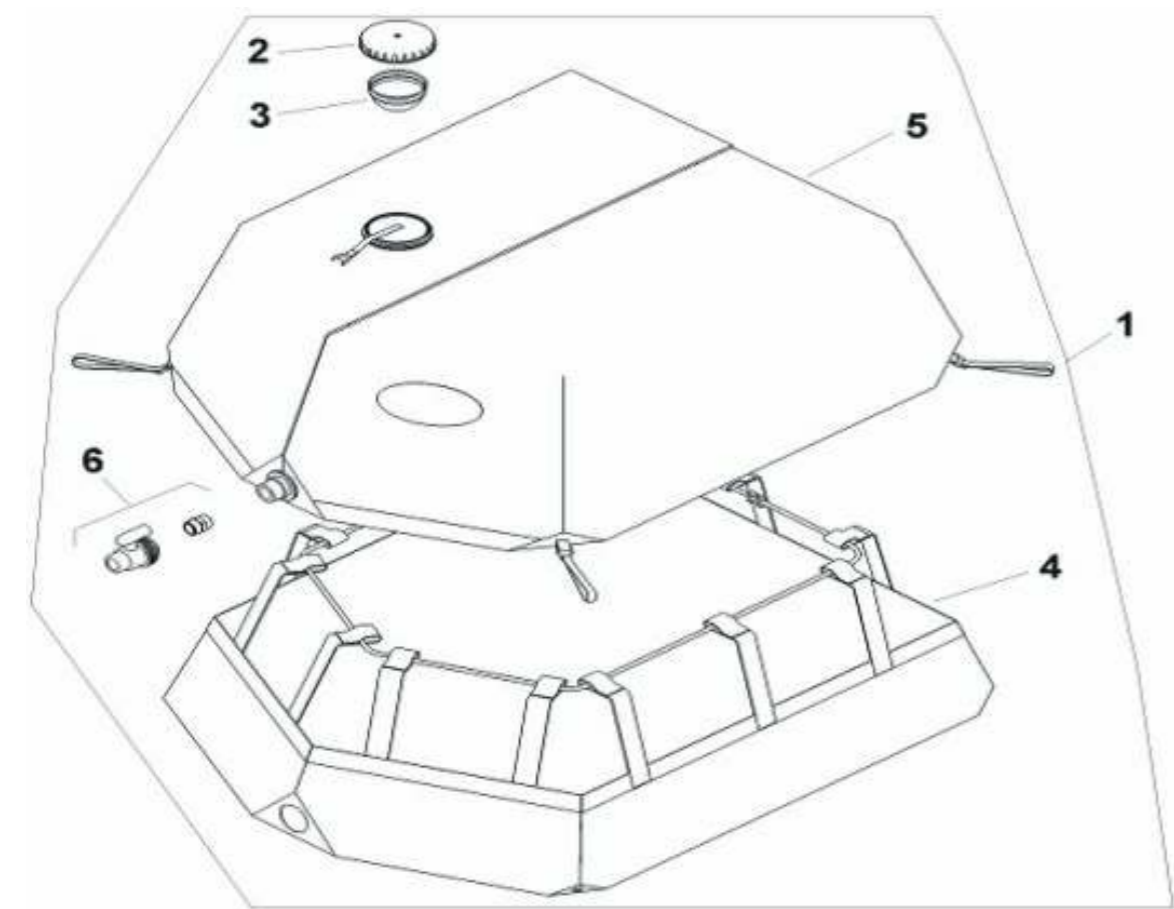


ITEM	DESCRIÇÃO	CÓDIGO
1	Bomba Completa IPM 35	4973
2	Anel Radial	7157
3	Rolamento de Esferas 6304	7158
4	Membrana de Borracha	7159
5	Anel de União	7160
6	Biela	7161
7	Rolamento de Esferas 6302	7162
8	Cabeçote SX	7163
9	Reservatório Completo	4974
10	Tampa do Reservatório de Óleo	7164
11	Reservatório de Óleo	7165
12	Kit de Juntas	4975
13	Kit de válvulas	4976
14	Tampa da Válvula SX	7166
15	Porca Diâmetro 1" RS	7167

ITEM	DESCRIPCIÓN	CÓDIGO
1	Bomba Completa IPM 35	4973
2	Anillo Radial	7157
3	Rodamiento de Esferas 6304	7158
4	Membrana de caucho	7159
5	Anillo de Unión	7160
6	Biela	7161
7	Rodamiento de Esferas 6302	7162
8	Cabezote SX	7163
9	Reservorio Completo	4974
10	Tapa del Reservorio de Aceite	7164
11	Reservorio de aceite	7165
12	Kit de Juntas	4975
13	Kit de válvulas	4976
14	Tapa de Válvula SX	7166
15	Tuerca Diámetro 1" RS	7167

ITEM	DESCRIPTION	CODE
1	Complete Pump IPM 35	4973
2	Radial Seal Ring	7157
3	6304 Ball Bearing	7158
4	Diaphragm	7159
5	Connection Ring	7160
6	Piston rod	7161
7	6302 Ball Bearing	7162
8	Head SX	7163
9	Oil Tank Assembly	4974
10	Oil Filler Cap	7164
11	Oil Tank	7165
12	Gasket kit	4975
13	Valve Kit	4976
14	Valve Cover	7166
15	1" RS Union Nut	7167

TANQUE FLEXÍVEL / TANQUE FLEXIBLE / FLEXIBLE TANK

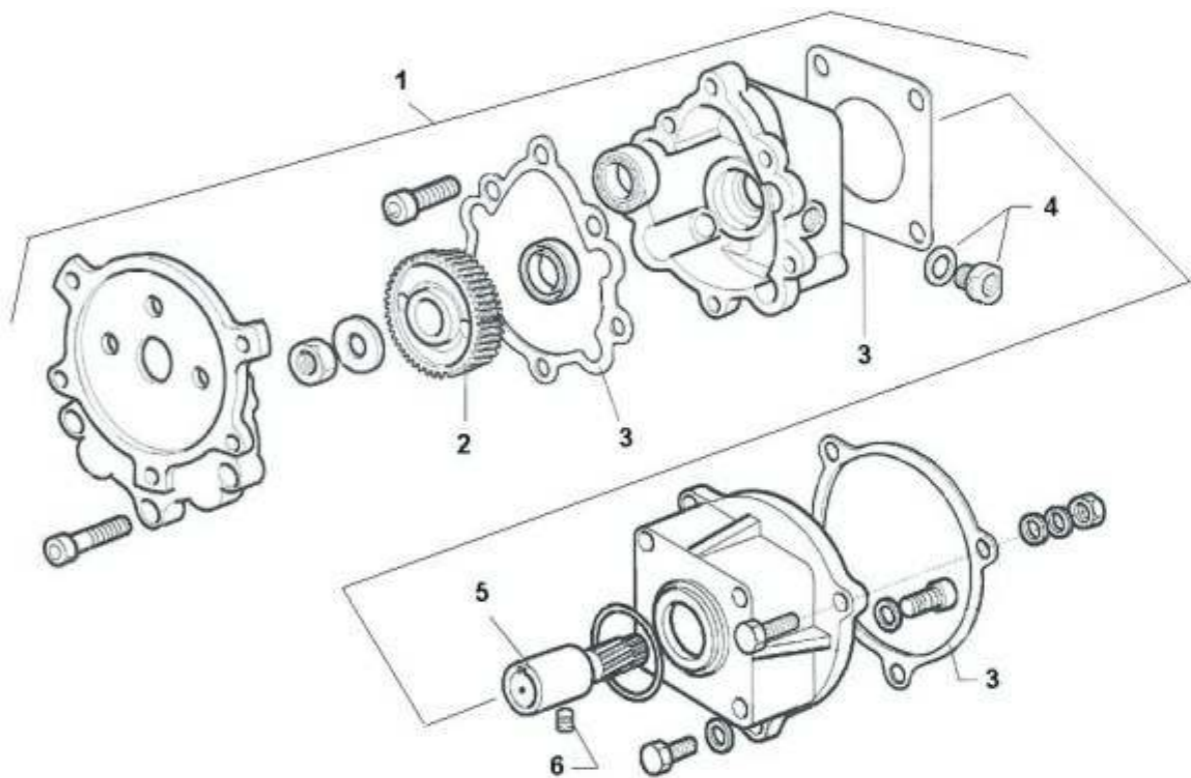


ITEM	DESCRIÇÃO	CÓDIGO
1	Tanque Completo 250L	4944
	Tanque Completo 400L	4942
	Tanque Completo 700L	4939
2	Tampa	9955
3	Peneira	4424
4	Reforço para Tanque 250L	7128
	Reforço para Tanque 400L	4942
	Reforço para Tanque 700L	7113
5	Tanque Flexível 250L	4946
	Tanque Flexível 400L	4918
	Tanque Flexível 700L	4945
6	Registro com niple	4968

ITEM	DESCRIPCIÓN	CÓDIGO
1	Tanque Completo 250L	4944
	Tanque Completo 400L	4942
	Tanque Completo 700L	4939
2	Tapa	9955
3	Malla o filtro	4424
4	Refuerzo para Tanque 250L	7128
	Refuerzo para Tanque 400L	4942
	Refuerzo para Tanque 700L	7113
5	Tanque Flexible 250L	4946
	Tanque Flexible 400L	4918
	Tanque Flexible 700L	4945
6	Registro con niple	4968

ITEM	DESCRIPTION	CODE
1	Complete Tank 250L	4944
	Complete Tank 400L	4942
	Complete Tank 700L	4939
2	Cap	9955
3	Filter	4424
4	250L Tank Reinforcement	7128
	400L Tank Reinforcement	4942
	700L Tank Reinforcement	7113
5	Flexible tank 250L	4946
	Flexible tank 400L	4918
	Flexible tank 700L	4945
6	Regulator Valve Assembly	4968

REDUÇÃO / REDUCCIÓN / REDUCTION



ITEM	DESCRIÇÃO	CÓDIGO
1	Redução Completa R 1.5	4971
2	Coroa Z45	7153
3	Kit de Juntas do Redutor	4972
4	Bujão do óleo	4949
5	Pinhão Z9	7155
6	Parafuso Sem Cabeça com Sextavado interno M6 x 6	7156

ITEM	DESCRIPCIÓN	CÓDIGO
1	Reducción Completa R 1.5	4971
2	Corona Z45	7153
3	Kit de Juntas del Reductor	4972
4	Tanque do aceite	4949
5	Piñón Z9	7155
6	Tornillo sin Cabeza con Sextavado interno M6 x 6	7156

ITEM	DESCRIPTION	CODE
1	Reduction Gearing Assembly	4971
2	Ring Gear	7153
3	Reduction Gearing Gasket Kit	4972
4	Oil Paw	4949
5	Bevel Gear	7155
6	M6 x 6 Hexagonal Screw	7156