

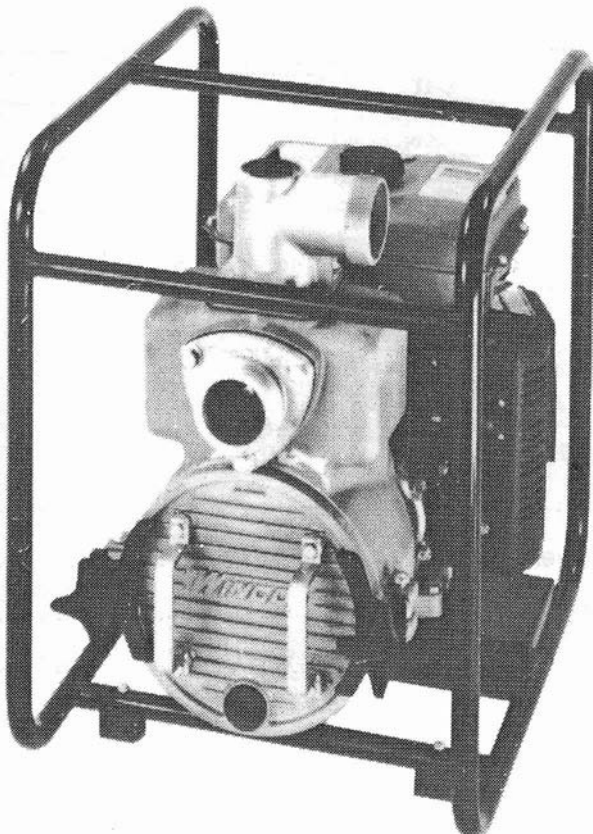
WINCO[®]

Made by
Koushen

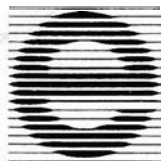
Hoo. seals
Daleys Rental
Ed Daley
804-973-5344

MODELS TP-2, TP-3 AND TP-4 TRASH PUMPS

OPERATION AND MAINTENANCE INSTRUCTIONS



**Earth
Energy
Systems
Inc.**



INTRODUCTION

Thank you for buying a Winco trash pump. This manual tells you how to use and maintain it to assure long and trouble-free operation. We strongly recommend that you read these instructions completely before putting the pump to use.

We also suggest that you fill in the blanks below and retain this manual for ready reference. If you have questions or require service, the dealer who sold you the pump will need this information to give you parts or service.

Pump Model _____

Serial Number _____

Date Purchased _____

Where Purchased _____

TABLE OF CONTENTS

Introduction	2
Uses and Features	3
Specifications	3
Performance Curves	3
Safety Precautions	4
Setup Procedures	4
Operation	5
Care and Storage	5
Parts Drawings TP-2 & TP-3	6
Parts Lists TP-2 & TP-3	7
Parts Drawings TP-4	8
Parts List TP-4	8
Troubleshooting Guide	10
Maintenance Record	11
Warranty	12

USES AND FEATURES

Winco trash pumps are designed to handle fluids mixed with solid materials. This includes use at construction sites, on farms or other areas where you need to pump water or other liquids mixed with pebbles, sludge, sand, mud or other debris. All models include the following high-quality features that assure top performance, durability and simple maintenance:

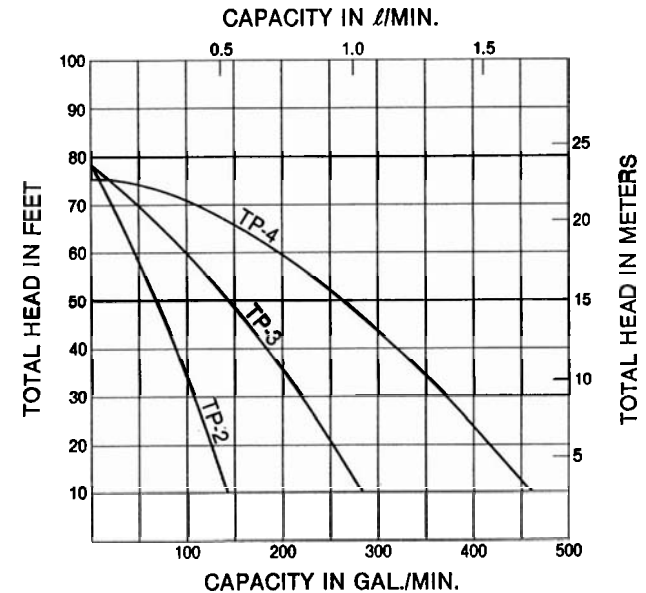
- Low oil level shutdown
- Large fuel tank
- Die cast aluminum pump casing
- Chrome alloy impeller
- Silicon carbide mechanical seal
- Quiet, Kawasaki 4-cycle engine
- Easily removable covers and volutes

SPECIFICATIONS

Pump	TP-2	TP-3	TP-4
Suction and discharge	2 in. (50mm) NPT	3 in. (80mm) NPT	4 in. (100mm) NPT
Max. solid size	3/4 in. (20mm)	1 1/2 in. (40mm)	1 1/2 in. (40mm)
Max. pumping cap.	132 gpm (500ℓ/min.)	290 gpm (1,100ℓ/min)	450 gpm (1,700ℓ/min)
Head	78 ft. (24m)	78 ft. (24m)	75 ft. (23m)
Engine:			
Brand and model	Kawasaki FA210	Kawasaki FG270	Kawasaki KF100
Type	4 cycle, air cooled	4 cycle, air cooled	4 cycle, air cooled
Fuel	Gasoline (Reg. leaded)	Gasoline (Reg. leaded)	Gasoline (Reg. leaded)
Fuel tank capacity	1.2 gal. (4.5ℓ)	1.6 gal. (6ℓ)	2.1 gal. (8ℓ)
Running time, full load	2 hrs.	2.2 hrs.	2 hrs.
Running time, 1/2 load	3.5 hrs.	3.5 hrs.	3.5 hrs.
Starting system	Recoil	Recoil	Recoil

Earth Energy Systems, Inc. continually improves its products and therefore reserves the right to change the design, materials and/or specifications without notice.

PERFORMANCE CURVES



SAFETY PRECAUTIONS

Read this manual **and** the engine manual thoroughly and follow instructions carefully. Failure to do so could result in personal injury or cause serious damage to the equipment.

- Check oil level.
- Clean debris from around engine cooling inlet.
- Never refuel the engine while it is hot.
- Never refuel the engine while it is running.
- When refueling, be extremely careful not to spill fuel on or around the unit.
- Operate only in a well-ventilated area to prevent collection of dangerous fumes.
- When replacing parts, use only WINCO parts for the pump, KAWASAKI parts for the engine.

SETUP PROCEDURES

Check to be sure the type, head and capacity described on the pump nameplate you received conform to the specifications of your order.

- Be sure the unit has not been damaged in shipment.
- Locate the pump to make the suction hose or suction pipe as short as possible, and keep bends to a minimum. Do not use a hose or pipe with a diameter smaller than that of the pump inlet.
- Fit the suction hose or pipe to the pump inlet carefully to prevent air leaks.
- The pump inlet must be rigid or reinforced with heavy wire to prevent collapse due to suction.
- When a hose is used for the suction line, use at least two strong, tightly-fitted clamps to prevent leakage.
- Fit the strainer to the suction hose.
- Install the pump on a solid, level surface, as shown in Figure 1 below, to be sure the pump is free from the weight of the suction hose or pipe, and to prevent the pump from being dragged down into the fluid by suction. This method will also help prevent collapse of the hose or kinks in the hose.
- Support a long suction or discharge hose to prevent pump damage caused by the weight of the hose or fluid inside the hose as shown in Figure 1.
- It is recommended that whenever possible the strainer be protected within a bucket or surrounded by stones as shown in Figure 2 to prevent it from being buried in mud or sand.
- When the hose must be laid across a traffic area, always protect it with planks of sufficient length and thickness to prevent damage from passing vehicles. See Figure 3.
- Submerge the strainer in a position sufficiently below the lowest water level to prevent air from entering the suction line.

Figure 1

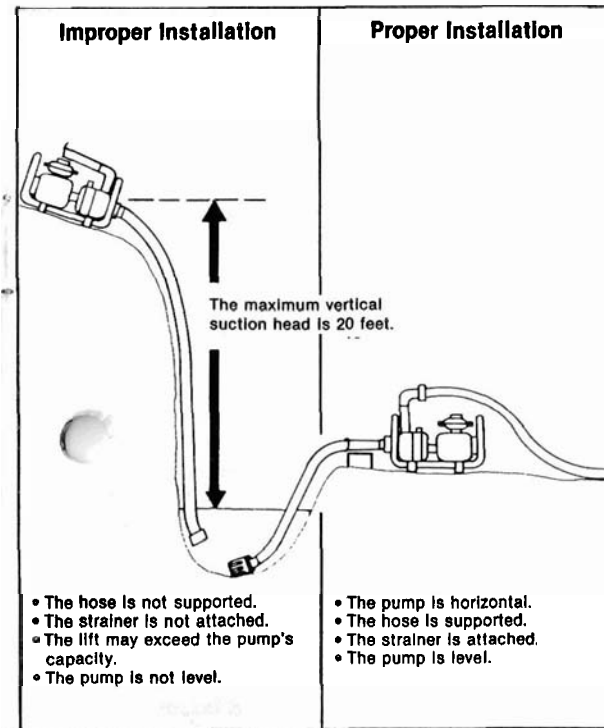
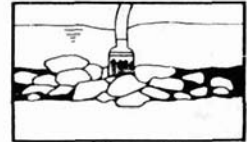


Figure 2

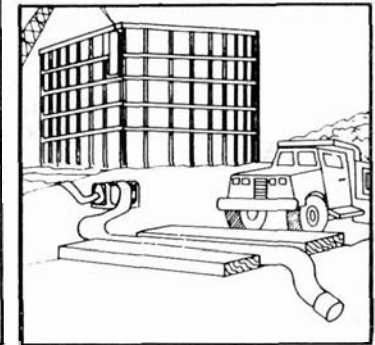


Using a bucket.



Using stones.

Figure 3



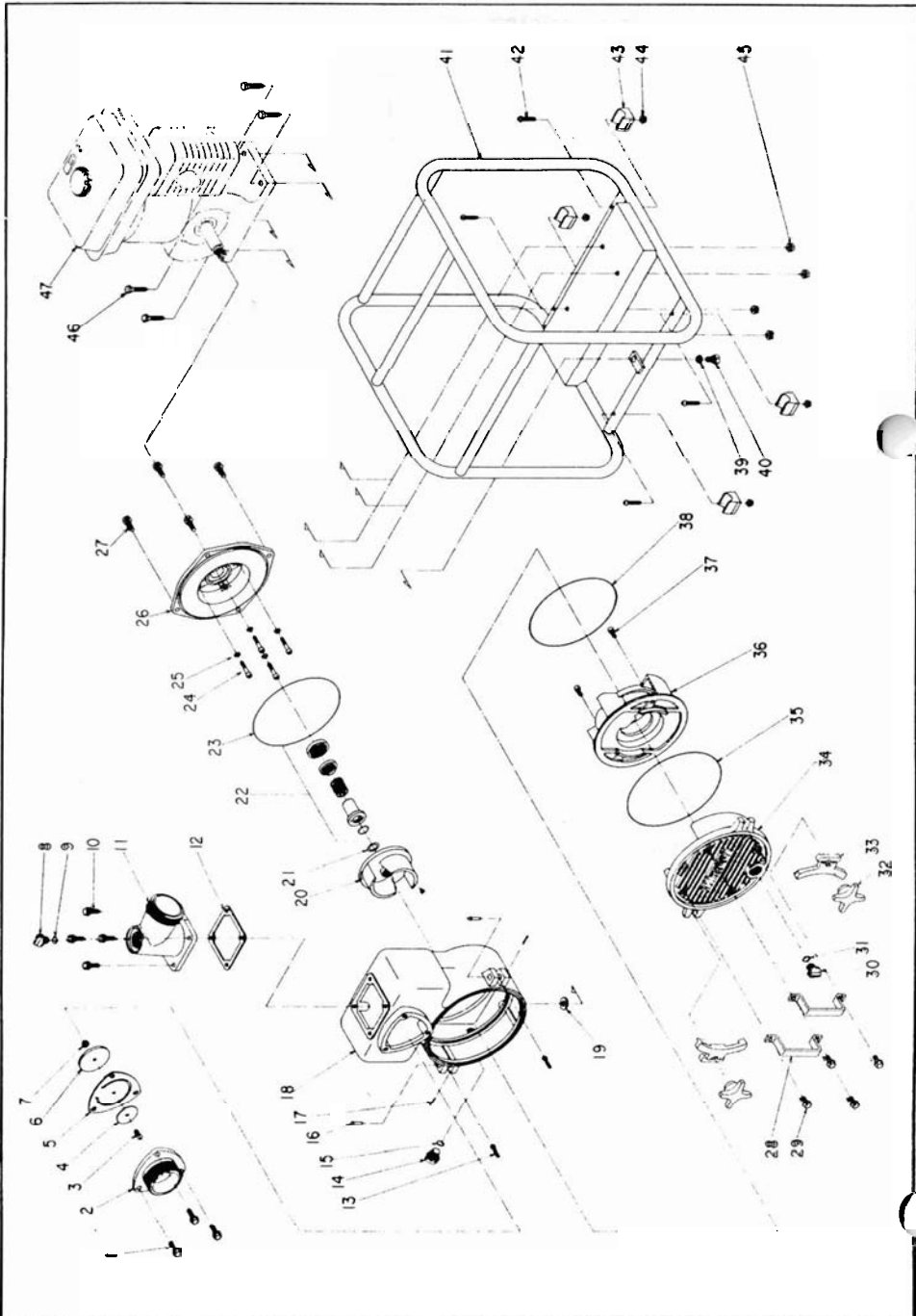
OPERATION

- Recheck to be sure the installation and piping are correct.
- Unscrew and remove the water priming plug and fill the pump housing with water. **CAUTION:** Starting the engine without filling the pump with water could damage the mechanical seal.
- Double check oil and fuel levels.
- Adjust the "accel" lever to the middle speed.
- Open the fuel cock and pull the choke lever.
- Pull the starting rope. When engine starts, reset the choke to the normal position.
- Adjust the "accel" lever to low speed, and keep it on low speed for about five minutes.
- Set the "accel" lever to high speed. The pump will normally begin to discharge water after a few minutes of operation.

CARE AND STORAGE

If freezing is likely to occur, remove the drain plug and drain the water completely from the pump casing to avoid damage due to expansion caused by freezing.

TP-2 & TP-3



PARTS LISTS

MODEL TP-2

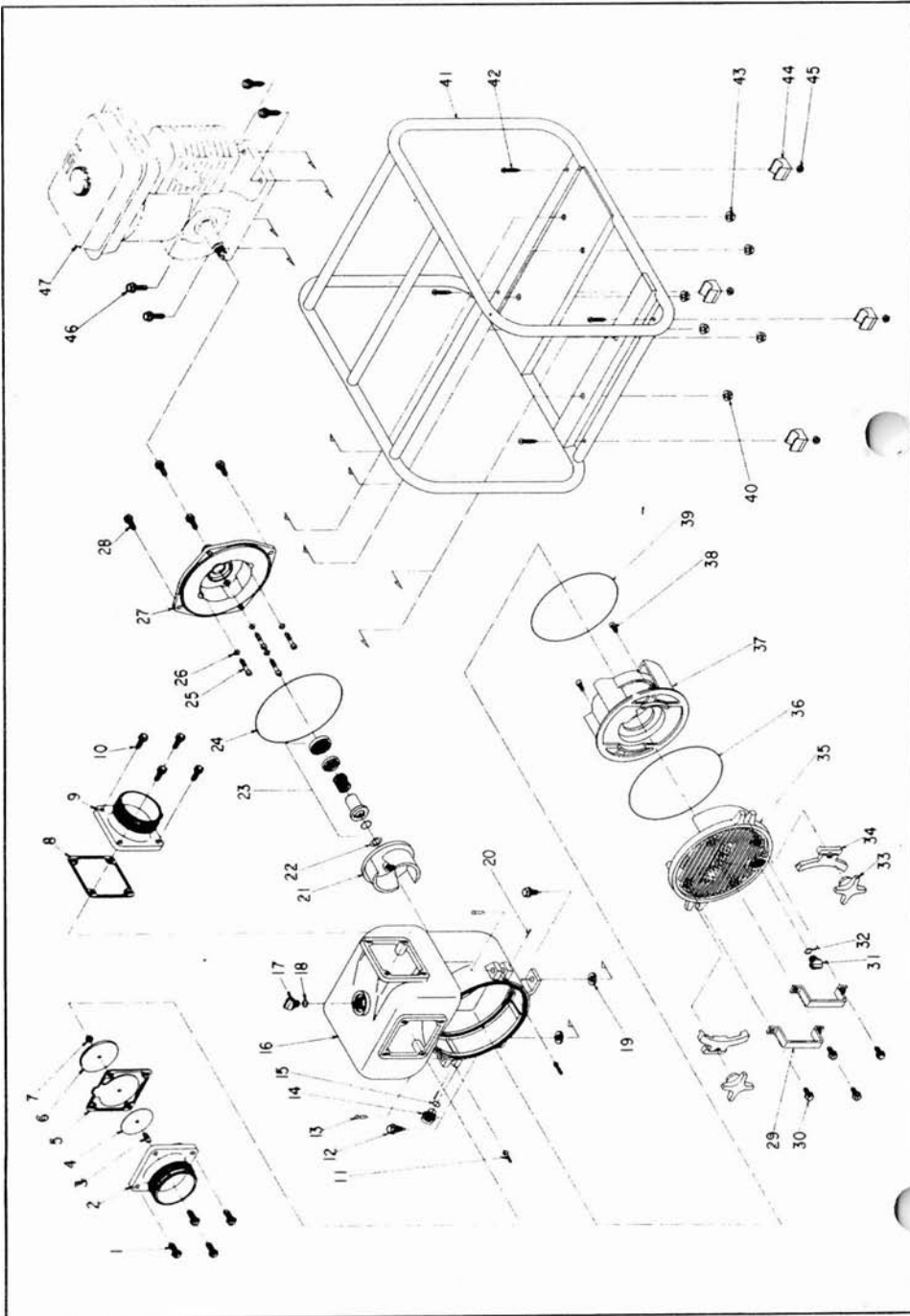
Ref. No.	Description	EESI P/N	Qty.
1	HH Flange Cap Scr	M8 x 20mm	3
2	Suction Flange—2"	60715.109	1
3	Machine Screw	M8 x 15mm	1
4	Washer/Weight	60715.113	1
5	Check Valve	60715.111	1
6	Weight	60715.112	1
7	Hex. Flanged Nut	M8	1
8	Priming Plug	60715.118	1
9	O-Ring	60715.143	1
10	HH Flanged Cap Scr	M8 x 25mm	4
11	Discharge Flange	60715.115	1
12	Gasket	60715.116	1
13	Eye Bolt	60715.237	2
14	Drain Plug	60715.142	1
15	O-Ring	60715.143	1
16	Hinge Pin	60715.234	2
17	Cotter Key	o3 x 20mm	2
18	Pump Casing	60715.226	1
19	Gasket	60715.235	1
20	Impeller	60715.209	1
21	Impeller Shim	60715.212	*
22	Mechanical Seal	60715.215	1
23	O-Ring	60715.221	1
24	Hex. Socket Bolt	M8 x 35mm	4
25	Seal Washer-m8	60715.103	4
26	Pump Adap. Bracket	60715.223	1
27	HH Flanged Cap Scr	M10 x 25mm	4
28	Handle	60715.208	2
29	HH Flanged Cap Scr	M10 x 20mm	4
30	Drain Plug	60715.142	1
31	O-Ring	60715.143	1
32	Knob	60715.214	2
33	Cover Clamp	60715.201	2
34	Inspection Cover	60715.213	1
35	O-Ring	60715.222	1
36	Volute	60715.230	1
37	Hex. Socket Bolt	M8 x 20mm	2
38	O-Ring	60715.220	1
39	Split Lock Washer	M12	1
40	HH Flanged Cap Scr	M12 x 20mm	1
41	Frame/Cradle	60715.202	1
42	Machine Screw	M8 x 40mm	4
43	Shock Absorb. Foot	60715.127	4
44	Hex. Flanged Nut	M8	4
45	Hex. Flanged Nut	M8	4
46	HH Flanged Cap Scr	M8 x 30mm	4
47	Engine	60715.144	1

*As required

MODEL TP-3

Ref. No.	Description	EESI P/N	Qty.
1	HH Flange Cap Scr	M12 x 30mm	3
2	Suction Flange—3"	60715.135	1
3	Machine Screw	M8 x 20mm	1
4	Washer/Weight	60715.138	1
5	Check Valve	60715.136	1
6	Weight	60715.137	1
7	Hex. Flanged Nut	M8	1
8	Priming Plug	60715.142	1
9	O-Ring	60715.143	1
10	HH Flanged Cap Scr	M10 x 30mm	4
11	Discharge Flange	60715.139	1
12	Gasket	60715.140	1
13	Eye Bolt	60715.237	2
14	Drain Plug	60715.142	1
15	O-Ring	60715.143	1
16	Hinge Pin	60715.234	2
17	Cotter Key	o3 x 20mm	2
18	Pump Casing	60715.227	1
19	Gasket	60715.235	1
20	Impeller	60715.210	1
21	Impeller Shim	60715.212	*
22	Mechanical Seal	60715.216	1
23	O-Ring	60715.221	1
24	Hex. Socket Bolt	M8 x 35mm	4
25	Seal Washer-m8	60715.103	4
26	Pump Adap. Bracket	60715.224	1
27	HH Flanged Cap Scr	M10 x 25mm	4
28	Handle	60715.208	2
29	HH Flanged Cap Scr	M10 x 20mm	4
30	Drain Plug	60715.142	1
31	O-Ring	60715.143	1
32	Knob	60715.214	2
33	Cover Clamp	60715.201	2
34	Inspection Cover	60715.213	1
35	O-Ring	60715.222	1
36	Volute	60715.231	1
37	Hex. Socket Bolt	M8 x 20mm	2
38	O-Ring	60715.220	1
39	Split Lock Washer	M12	1
40	HH Flanged Cap Scr	M12 x 20mm	1
41	Frame/Cradle	60715.203	1
42	Machine Screw	M8 x 40mm	4
43	Shock Absorb. Foot	60715.127	4
44	Hex. Flanged Nut	M8	4
45	Hex. Flanged Nut	M10	4
46	HH Flanged Cap Scr	M10 x 45mm	4
47	Engine	60715.238	1

TP-4



PARTS LIST

MODEL TP-4

Ref. No.	Description	EESI P/N	Qty.
1	HH Flange Cap Scr	M10 x 30mm	4
2	Suction Flange—4"	60715.207	1
3	Machine Screw	M8 x 20mm	1
4	Washer/Weight	60715.229	1
5	Check Valve	60715.205	1
6	Weight	60715.233	1
7	Hex. Flanged Nut	M8	1
8	Gasket	60715.236	1
9	Discharge Flange	60715.206	1
10	HH Flanged Cap Scr	M10 x 30mm	4
11	Eye Bolt	60715.237	2
12	HH Flanged Cap Scr	M12 x 25mm	2
12	Hinge Pin	60715.234	2
13	Drain Plug	60715.142	1
15	O-Ring	60715.143	1
16	Pump Casing	60715.228	1
17	Priming Plug	60715.142	1
18	O-Ring	60715.143	1
19	Gasket	60715.235	2
20	Cotter Key	.03 x 20mm	2
21	Impeller	60715.211	1
22	Impeller Shim	60715.212	*
23	Mechanical Seal	60715.216	1
24	O-Ring	60715.221	1
25	Hex. Socket Bolt	M8 x 40mm	4
26	Seal Washer-m8	60715.103	4
27	Pump Adap. Bracket	60715.225	1
28	HH Flanged Cap Scr	M10 x 25mm	4
29	Handle	60715.208	2
30	HH Flanged Cap Scr	M10 x 20mm	4
31	Drain Plug	60715.142	1
32	O-Ring	60715.143	1
33	Knob	60715.214	2
34	Cover Clamp	60715.201	2
35	Inspection Cover	60715.213	1
36	O-Ring	60715.222	1
37	Volute	60715.232	1
38	Hex. Socket Bolt	M8 x 20mm	2
39	O-Ring	60715.220	1
40	Hex. Flanged Nut	M12	2
41	Frame/Cradle	60715.204	1
42	Machine Screw	M8 x 40mm	4
43	Hex. Flanged Nut	M12	4
43	Shock Absorb. Foot	60715.127	4
45	Hex. Flanged Nut	M8	4
46	HH Flanged Cap Scr	M12 x 40mm	4
47	Engine	60715.239	1

