



OPERATOR'S MANUAL AND PARTS LIST PETROL LAWNMOWER - ST-R50ES

Spares & Support: 0845 123 5844

www.sherpatools.co.uk

Before use please read & understand this manual, paying particular attention to the safety instructions.

30/03/2012 v1

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SAFETY INSTRUCTIONS

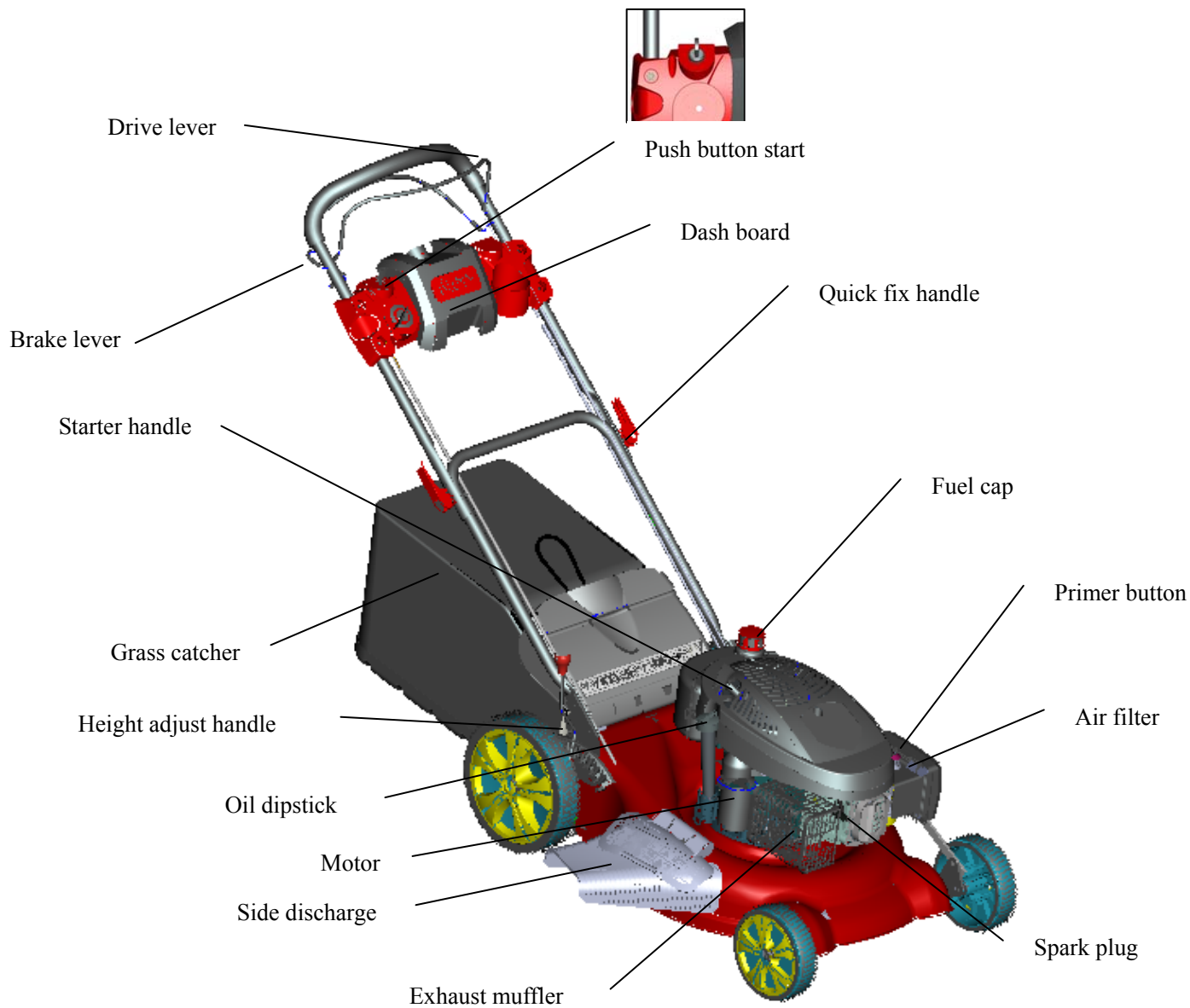
Read and understand the owner's manual and labels affixed to the lawn mower. Learn its application and limitations as well as the specific potential hazards. Retain these instructions for reference.



- Use sturdy footwear - do not operate when barefoot or wearing open sandals.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Do NOT operate the lawn mower if you are tired, ill or under the influence of alcohol or drugs.
- Do NOT smoke when using the lawn mower and ensure caution when handling fuel. We recommend you fuel the machine away from where you wish to work to prevent any spilt fuel igniting when you start the engine.
- Ensure that bystanders, children and pets keep well away when mowing and only allow persons familiar with these instructions to use the lawn mower.
- Inspect the lawn mower, and in particular the blade, before use for any worn or damaged parts. Do not use until the parts are repaired or replaced with parts approved by the manufacturer.
- Before starting the engine make sure the lawn is clear of obstacles such as stones, branches or children's toys.
- Always stop the engine when crossing gravel drives, walks or roads. Stop the engine and allow the blade to stop rotating before removing the grass bag for emptying.
- Stop the engine and disconnect the spark plug before clearing blockages, cleaning or inspecting the mower.
- Do not operate when raining and take particular care on damp grass which can prove slippery, particularly on slopes.
- When mowing on a slope always mow across the slope, not up and down. Take care when changing direction. The slope should not exceed 20 degrees.
- Clean the mower after each use and, if storing for a prolonged period, drain down the fuel in the tank. Remove the spark plug and put a few drops of oil into the cylinder before pulling the starter a couple of times to distribute the oil evenly. Replace the spark plug. If you need to tilt the mower while cleaning always tip it backwards, towards the handles, do not tip it on its side as this will cause oil to enter the carburettor or exhaust.



MAJOR PARTS

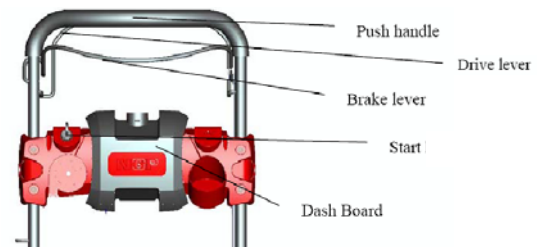


ASSEMBLY AND OPERATION

The lawn mower is shipped without oil or petrol in the engine.

The mower has been assembled and tested in the factory and only needs a small amount of assembly.

- Remove the mower carefully from the box - it may be easier to remove one side of the box and roll the machine out.
- Depress the Operator Presence Control Bar Unfold handles carefully so as not to pinch the cables then raise the lower handles. Fit the two bolts and wingnuts from the parts bag, which will lock the lower handle into place. Raise with the upper handle section so that it lines up with the lower lower handle section. Tighten the wingnuts.
- Fit the dashboard using the four bolts and nuts as shown in the diagram.
- The diagram shows the position of the three parts of the upper handle.
- The brake lever (sometimes called the operator presence control lever) must be pulled back towards the handle to start the engine and during operation. If the lever is released it will automatically stop the engine.
- The drive control lever - pull this lever up towards the handle to engage the self-propelled mode. If this is not engaged the mower can be used in 'push' mode.
- The engine speed has been set at the factory for optimum performance - it is not adjustable.
- **Before your initial use of the mower and at the beginning of every season, charge the battery for 5-6 hours.**
- The cutting height can be adjusted by a single lever through 5 positions from 25-75mm. The medium position is best for most lawns. Under certain conditions, such as very tall grass, it may be necessary to cut the grass twice, once on the highest setting and then again on medium.



Operation:

- Fill the engine with SAE30 oil to the 'full' mark on the dipstick. Check the level of the oil.
- Fill the fuel tank with unleaded petrol.
- For a cold start press the primer bulb 3-5 times to allow fuel into the engine.
- Pull the brake lever back to the push handle and press the start button until the engine starts and runs.
- The machine can also be started using the pull cord (if the battery is flat). Pull the brake lever back to the push handle and pull starter cord until resistance is felt, then pull rapidly to start the engine.

Note: if the brake lever is released the engine will stop.

- Pull the drive control lever up towards the handle and the lawnmower will self-propel.



OPERATION cont'd

The mower has four different operating modes.

1. Collecting:

- Ensure that the side cover is closed.
- Fit the grassbox by lifting the rear flap on the mower and hook the front of the box to the shaft on the mower.
- Lower the flap to lock the grassbox in position.
- When the box is full, the grass will be visible through the viewing window in the top of the box.
- Stop the engine before emptying the grassbox.

2. Rear Discharge:

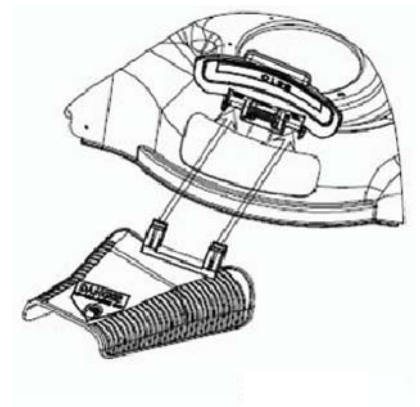
- Ensure that the side cover is closed.
- With the grassbox removed and the rear flap in the down position, the mower will cut and discharge the grass from the rear of the machine.

3. Side Discharge:

- Fit the mulch plug to the rear discharge opening of the mower and close the rear flap.
- Lift the cover on the side of the mower and attach the side discharge chute as shown in the diagram.
- The mower will now eject grass from the side discharge chute.

4. Mulching:

- Fit the mulch plug to the rear discharge opening of the mower and close the rear flap.
- Ensure that the side cover is in the closed position (with the discharge chute removed).
- The mower will now recycle the chopped grass into the lawn surface.
- To mulch efficiently only cut one third of the length of the grass.



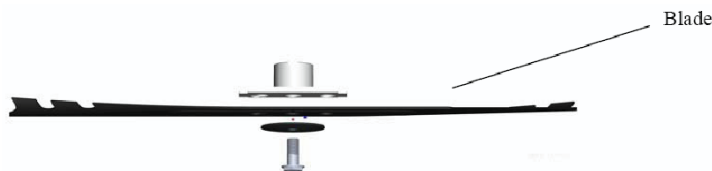
MAINTENANCE

Regular careful maintenance is essential for keeping the lawnmower in good condition.

- Before each use, ensure that all bolts, nuts and screws are tight.
- After each use, allow the mower to cool down before cleaning off any grass and other debris. Use a brush or compressed air and avoid getting water into the engine.
- Never store the mower with petrol in the tank within an enclosed area where it is possible for fumes to reach an open flame or spark.
- When storing for a long period drain the mower of fuel after the engine has cooled down. Do this outside to reduce any risk of fire from spilt fuel.
- Change the oil after the first 5 hours of use and after every season or every 50 hours of use. Dispose of waste oil at your local recycling centre.
- Clean the spark plug regularly and change every season.

To change the blades:

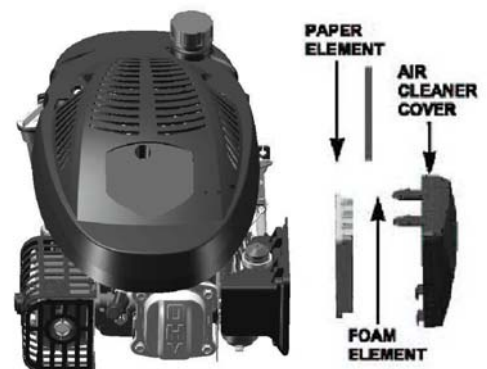
- Drain the fuel tank by running the mower until the fuel tank is empty and the engine stops.
- Allow the engine to cool and then tip on to its left hand side (air cleaner side uppermost).
- Using gloves to protect your hands, undo the screw and remove the old blade and replace with a new one in the order shown on the diagram below.
- Tighten the screw.



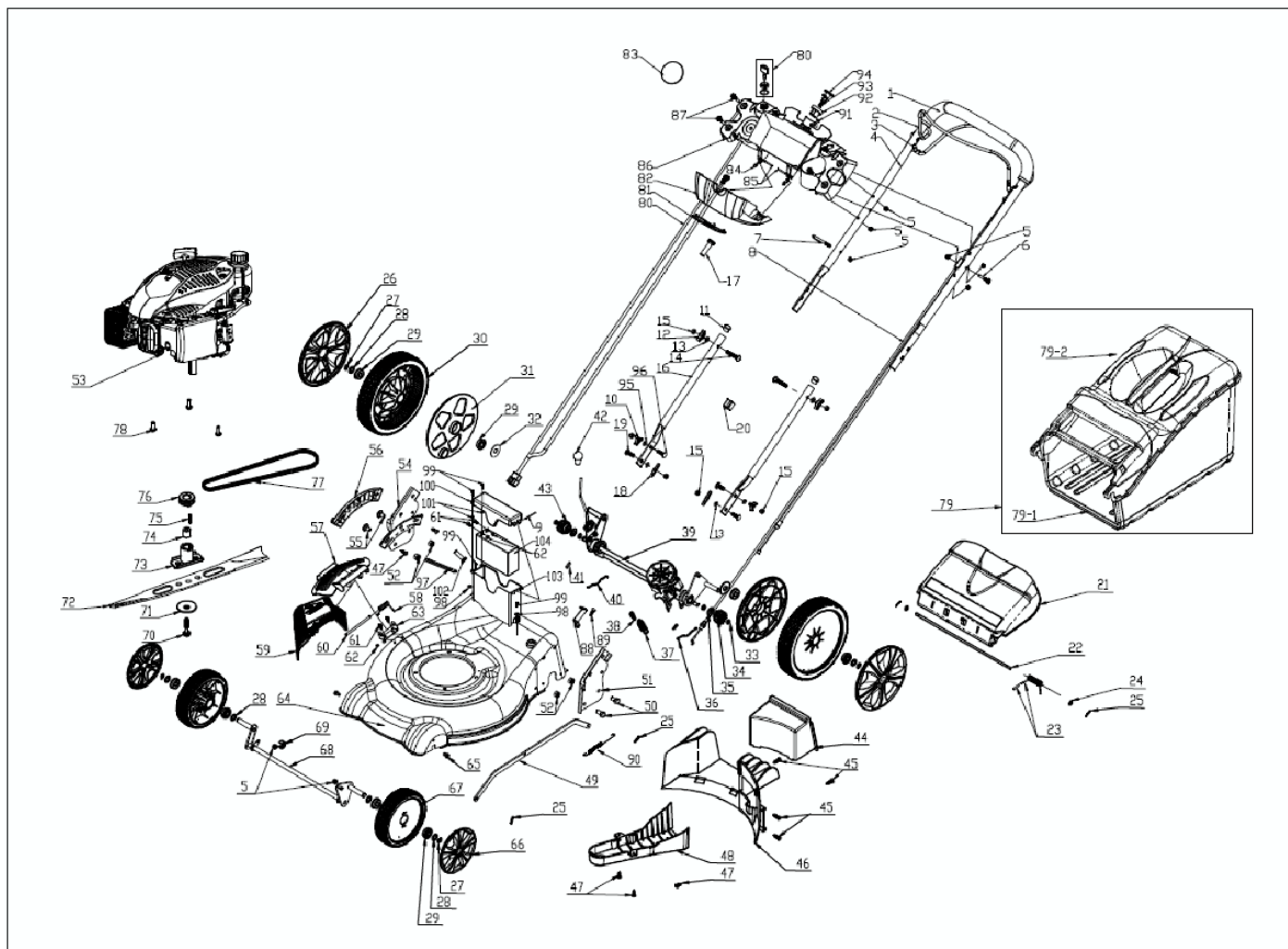
A damaged blade that is out of balance will cause the mower to vibrate and may break. Check the condition of the blade regularly.

To change the air filter:

- Unclip the filter cover and remove the sponge and paper elements.
- The sponge can be washed in soapy water, dried and refitted.
- If the paper element is heavily contaminated it should be replaced using a genuine part from your local dealer.



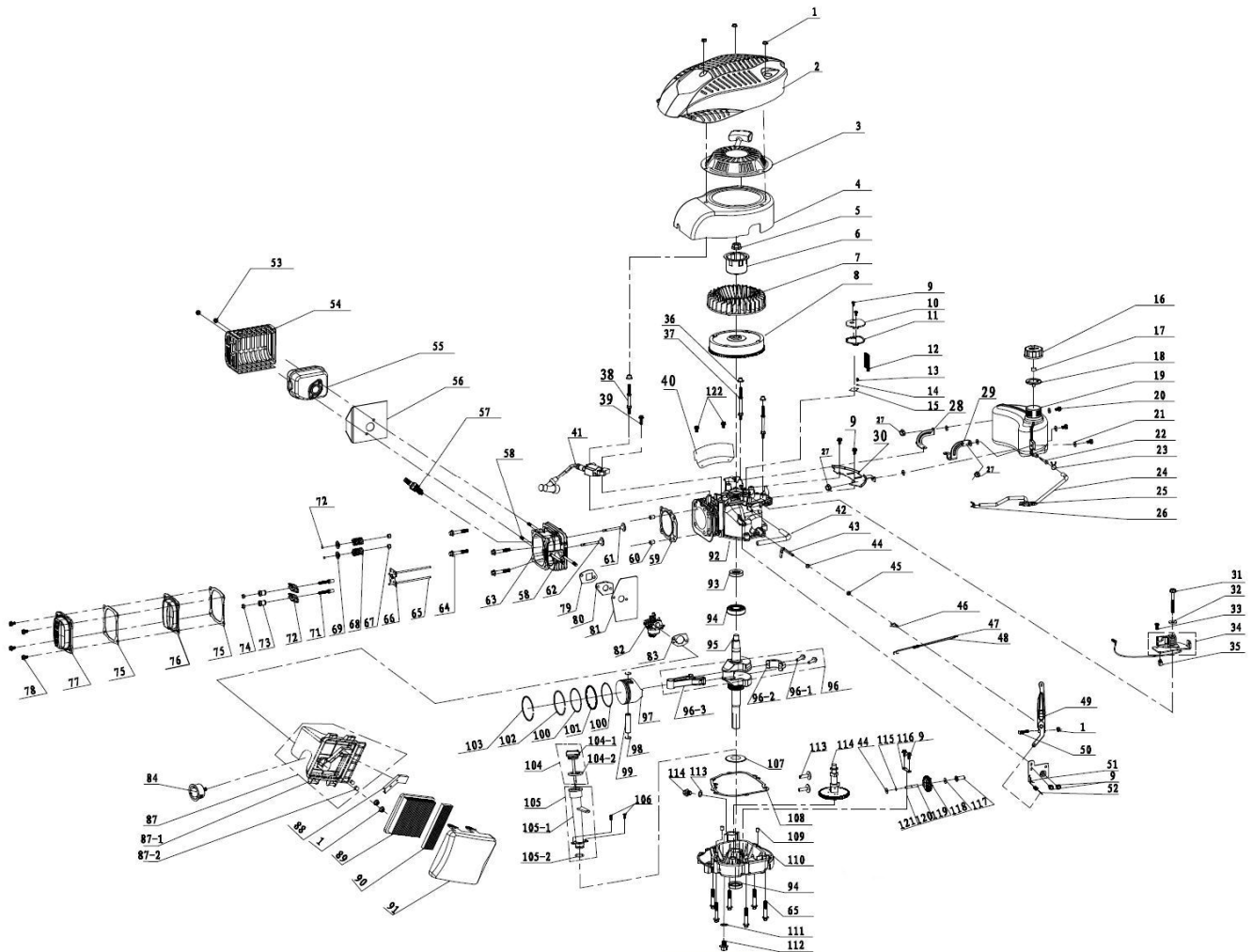
PARTS DIAGRAM



PARTS LIST

No.	Part No.	Description	QTY	No.	Part No.	Description	QTY	No.	Part No.	Description	QTY
1	TH169-1	Foam Pipe	1	36	TH169-36	Left Steel Wire Spring	1	71	TH169-71	Blade Washer	1
2	TH169-2	Stop Lever	1	37	TH169-37	Spring for Self-propelled Cable	1	72	TH169-72	510 Blade B	1
3	TH169-3	B Type Self-propelled Lever	1	38	TH169-38	Self-propelled Spring	1	73	TH169-73	Short Bush Blade Adapter	1
4	TH169-4	B1 Type Upper Handle for Dash Board	1	39	TH169-39	Rear Drive Shaft Assy for Self-propelled	1	74	TH169-74	Short Bush for Blade Adapter	1
5	TH169-5	II Type Hex Locknut M6/8.8	8	40	TH169-40	Right Steel Wire Spring	1	75	TH169-75	Long Key for Crankshaft	1
6	TH169-6	Hex Flange Face Bolt M6x35/8.8	1	41	TH169-41	Pin	2	76	TH169-76	Small Belt Wheel	1
7	TH169-7	Rope Guide	1	42	TH169-42	Height Adjustment Handle Ball	1	77	TH169-77	V Type Belt	1
8	TH169-8	Brake and Self-Propelled Cable	1	43	TH169-43	Small Straight Gear (Ratchet Wheel R)	1	78	TH169-78	Hex Flange Face Bolt M10x25/8.8	3
9	TH169-9	Shaft for Battery Box	1	44	TH169-44	Mulching Plug	1	79	TH169-79	Catcher Assy	1
10	TH169-10	Knob	2	45	TH169-45	Cross Recess Pan Head Tapping Screw	4	79-1	TH169-79-1	60L Plastic Bag	1
11	TH169-11	Plug for Handle	2	46	TH169-46	Rear Baffle	1	79-2	TH169-79-2	Cover for Plastic Bag	1
12	TH169-12	Knob	2	47	TH169-47	Cross Recess Pan Head Tapping Screw	5	80	TH169-80	Combined A for Control Cable	1
13	TH169-13	Flat Washer/Φ8.4xΦ16x1.6	4	48	TH169-48	B Type Belt Cover	1	81	WE102-81	Board With Logo	1
14	TH169-14	Carriage Bolt M8x50/8.8	2	49	TH169-49	Height Adjustment Pull Rod	1	82	WE102-82	Upper Cover for Dash Board	1
15	TH169-15	I Type Hex Nut M8/8.8	6	50	TH169-50	Coarse Thread Hex Bolt M8×16/8.8	2	83	WE102-83	Circle Cover for Board	1
16	TH169-16	B Type Lower Handle	2	51	TH169-51	Left Side Board	1	84	TH169-84	Flick Spring for Cover	2
17	TH169-17	Fastener	1	52	TH169-52	II Type Hex Locknut M8/8.8	4	85	TH169-85	Flick Shaft for Cover	2
18	TH169-18	Thin Knob	2	53	TH169-53	T675 Engine	1	86	TH102-86	Dash Board Pedestal	1
19	TH169-19	Carriage Bolt M8X30/8.8	2	54	TH169-54	Right Side Board	1	87	TH169-87	Hex Flange Face Bolt M6X28/8.8	4
20	TH169-20	Fastener	1	55	TH169-55	Carriage Bolt M8X15/8.8	2	88	TH169-88	The Board of Rear Discharge	1
21	TH169-21	Rear Discharge Cover	1	56	TH169-56	Board for Height Adjuster	1	89	TH169-89	Cross Recess Pan Head Tapping	1
22	TH169-22	Shaft for Rear Discharge Cover	1	57	TH169-57	Mulching Board	1	90	TH169-90	Spring for Pull Rod	1
23	TH169-23	Spring for Rear Discharge Cover	1	58	TH169-58	Mulch Spring	1	91	TH169-91	Cross Recess Pan Head Tapping	1
24	TH169-24	Lock Washer	2	59	TH169-59	Side Discharge Cover	1	92	TH169-92	Button Pedestal	1
25	TH169-25	Pin	4	60	TH169-60	Mulch Shaft	1	93	TH169-93	Spring for Button	1
26	WE102-26	Outside Cover for B Type 10" Wheel Hub	2	61	TH169-61	Hex Flange Face Bolt M5X10/8.8	4	94	TH169-94	Button	1
27	TH169-27	Flexible Washer	6	62	TH169-62	II Type Hex Locknut M5/8.8	4	95	TH169-95	Flat Washer	2
28	TH169-28	Washer /Φ13xΦ20x1.5	6	63	TH169-63	Bracket Press Board	1	96	TH169-96	Carriage Bolt M8x25/8.8	2
29	TH169-29	Punching Bearing	8	64	WE102-64	Deck	1	97	TH169-97		1
30	TH169-30	B Type 10" Wheel Assy	2	65	TH169-65	Hex Flange Face Bolt M6X12/8.8	2	98	TH169-98	Flat Washer	2
31	TH169-31	Inner Cover for B Type 10" Wheel Hub	2	66	WE102-66	Outside Cover for B Type 7" Wheel Hub	2	99	TH169-99	Cross Recess Pan Head Tapping	4
32	TH169-32	Washer for Inner Cover of 10" Wheel Φ39.3xΦ13.1x1	2	67	TH169-67	B Type 7" Wheel Assy	2	100	TH169-100	Upper Cover for Battery	1
33	TH169-33	Flexible Washer	2	68	TH169-68	Front Drive Shaft Assy	1	101	TH169-101	II Type Hex Locknut M4/8.8	4
34	TH169-34	Small Straight Gear (Ratchet Wheel L)	1	69	TH169-69	Front Bracket Fastener	1	102	TH169-102	Fastener	1
35	TH169-35	Washer for Ratchet Wheel	2	70	TH169-70	Hex Flange Face Bolt A	1	103	TH169-103	Battery Pedestal	1
								104	TH169-104	Battery	1

PARTS DIAGRAM - ENGINE



PARTS LIST - ENGINE

No.	Part No.	Description	QTY	No	Part No.	Description	QTY	No	Part No.	Description	QTY
1	TH184-1	Nut M6	6	42	TH184-42	Waste Air Pipe	1	82	TH184-82	Carburetor Assy	1
2	TH184-2	Engine Cover	1	43	TH184-43	Speed Regulator Rocker Spindle	1	83	TH184-83	Steel Gasket	1
3	TH184-3	Recoil Start Assy	1	44	TH184-44	Flat Washer	1	84	TH184-84	Prime Button	1
4	TH184-4	Blower Housing	1	45	TH184-45	Oil Seal 6x11x4	1	87	TH184-85	Air Filter Pedestal	1
5	TH184-5	Nut M14 X1.5	1	46	TH184-46	Springness Split Pin	1	87	TH184-86	Air Filter Bush	2
6	TH184-6	Start-up Hub	1	47	TH184-47	Handspike of Valve	1	88	TH184-87	Exhaust Gas Cover Board	1
7	TH184-7	Fan	1	48	TH184-48	Pull Spring of Valve	1	89	TH184-88	Paper Filter Element	1
8	TH184-8	Flywheel Assy	1	49	TH184-49	Speed Regulator Rocker	1	90	TH184-89	Foam Filter Element	1
9	TH184-9	BoltM6X12	8	50	TH184-50	T Type Bolt M6×23	1	91	TH184-90	Air Filter Upper Cover	1
10	TH184-10	Respirator cover plate	1	51	TH184-51	Speed Regulator Board	1	92	TH184-91	Crankcase Assy	1
11	TH184-11	Gasket of Respirator Cover	1	52	TH184-52	Speed Regulator Pull Spring	1	93	TH184-92	Oil Seal	2
12	TH184-12	Lubricate Filtering Net	1	53	TH184-53	Nut M6	2	94	TH184-93	Ball Bearing 6205	1
13	TH184-13	Bolt M3 X 6	1	54	TH184-54	Muffler Cover Assy	1	95	TH184-94	Crankshaft Assy	1
14	TH184-14	Spring gasket 3	1	55	TH184-55	Muffler Assy	1	96	TH184-95	Connecting Rod Assy	1
15	TH184-15	Valve Element of Respirator Cover	1	56	TH184-56	Heat Insulation Gasket of Muffler	1	97	TH184-96	Piston	1
16	TH184-16	Fuel Tank Cap	1	57	TH184-57	Spark Plug	1	98	TH184-97	Wrist pin ring	2
17	TH184-17	Sponge of Fuel Tank Cap	1	58	TH184-58	Two Stud Bolt M6x94	4	99	TH184-98	Piston Pin	1
18	TH184-18	Seal Gasket of Fuel Tank Cap	1	59	TH184-59	Gasket of Cylinder Head	1	100	TH184-99	Doctor-bar ring	2
19	TH184-19	Fuel Tank	1	60	TH184-60	Locating Pin of Cylinder Head	2	101	TH184-100	Bushing Ring	1
20	TH184-20	Bolt M6x22	3	61	TH184-61	Intake Valve	1	102	TH184-101	Piston Ring II	1
21	TH184-21	Cushion Blocking	6	62	TH184-62	Exhaust Valve	1	103	TH184-102	Piston Ring I	1
22	TH184-22	Filtering Net Duct of Fuel	1	63	TH184-63	Cylinder Head Assy	1	104	TH184-103	Lubricating Gauge Assy (Rubber Seal Gasket)	1
23	TH184-23	Oil Pipe Circlip I	1	64	TH184-64	Bolt M8x50	10	105	TH184-104	Lubricating Pipe ("O" Ring 20x2.6)	1
24	TH184-24	Oil Pipe	1	65	TH184-65	Handspike	2	106	TH184-105	Screw M4X12	2
25	TH184-25	Twisting clip	1	66	TH184-66	Guide Board of Handspike	1	107	TH184-106	Gear Gasket	1
26	TH184-26	Oil Pipe Circlip II	1	67	TH184-67	Oil Seal Assembled of Valve	2	108	TH184-107	Seal Gasket of Crankcase	1
27	TH184-27	II Type Locknut M6	3	68	TH184-68	Spring of Valve	2	109	TH184-108	Dowel Pin	2
28	TH184-28	Right Bracket of Fuel Tank	1	69	TH184-69	Spring Coil of Exhaust Valve	2	110	TH184-109	Crankcase Cover	1
29	TH184-29	Left Bracket of Fuel Tank	1	70	TH184-70	Valve hood	2	111	TH184-110	Flat Washer	2
30	TH184-30	Main Bracket of Fuel Tank	1	71	TH184-71	Rocker Support Bolt of Valve	2	112	TH184-111	Bolt	2
31	TH184-31	Bolt	1	72	TH184-72	Rocker of Valve	2	113	TH184-112	Pin	2
32	TH184-32	Flat Washer	1	73	TH184-73	Adjust Nut of Valve	2	114	TH184-113	Camshaft Assy	1
33	TH184-33	Bolt	1	74	TH184-74	Combined Nut	2	115	TH184-114	Circlip of Gear Shaft	1
34	TH184-34	Detent Assy	1	75	TH184-75	Gasket I of Cylinder Head Cover	2	116	TH184-115	Gear Shaft Hold-down Plate	1
35	TH184-35	Detent Bush	2	76	TH184-76	Cylinder Head Cover I	1	117	TH184-116	Sliding Sleeve	1
36	TH184-36	Blower Housing Bush	3	77	TH184-77	Cylinder Head Cover II	1	118	TH184-117	Flat Washer	1
37	TH184-37	Abnormity Two Stud Bolt II	2	78	TH184-78	Bolt M6x14	4	119	TH184-118	Gear Shaft Assy	1
38	TH184-38	Abnormity Two Stud Bolt I	1	79	TH184-79	Paper Gasket I of Air Inlet Pipe	1	120	TH184-119	Gear Shaft of speed limit	1
39	TH184-39	Bolt M6X25	1	80	TH184-80	Air Inlet Pipe	1	121	TH184-120	Columnar Pin 2x8	1
40	TH184-40	Baffle	1	81	TH184-81	Paper Gasket II of Air Inlet Pipe	1	122	TH184-121	Bolt M6x16	2
41	TH184-41	Ignition Assy	1								

SPECIFICATION

Model	ST-R50ES
Engine	T675 - 200cc OHV
Engine Speed	2950rpm
Cutting Width	501mm
Cutting Height	25-75mm
Grassbag Capacity	60 litre
Deck	Steel High Wheel
Sound Pressure Level	82.4 dB(A) (K=3)
Guaranteed Sound Power Level	96 dB(A)
Vibration	5.86m/s ² (K=1.5)
Spark Plug	NGK BPR6ES or Champion RN9YCC



EC Declaration of Conformity

We, Importer
Mower Magic
LN6 9AL

Declare that the product
Model: ST-R50ES

Complies with the following directives:
2006/42/EC- Machinery Directive
2004/108/EC- Electromagnetic Compatibility Directive
2000/14/EC amended by 2005/88/EC- Noise Emission in the Environment by Equipment for Use Outdoors Directive.

The conformity assessment procedure followed was in accordance with
Directive 2006/42/EC Annex VI

Name of the Notified Body: **TUV Product Service**
Address: No. 88 Heng Tong Road, **Shanghai 200070**, CHINA

-Measured Sound Pressure Level: 95.4 dB (A)
-Guaranteed Sound Power Level: 96 dB (A)

Standards and technical specifications referred to:

EN 836/A3:2004
ZEK01.2-08.2008
EN ISO 14982:2009
EN ISO 3744:1995
ISO 11094:1991

Authorised signatory and technical file holder

Date: 11/10/2012

Signature: 

Name / title: Mr. Jonathan Hall/ Director
Magic House, Station Road, North Hykeham, Lincoln, LN6 9AL.

To order spare parts and see the complete range of garden machinery and garden equipment from Sherpa, visit:

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