

Please, read this manual  
before use!

Manual



## GASOLINE TILLERS

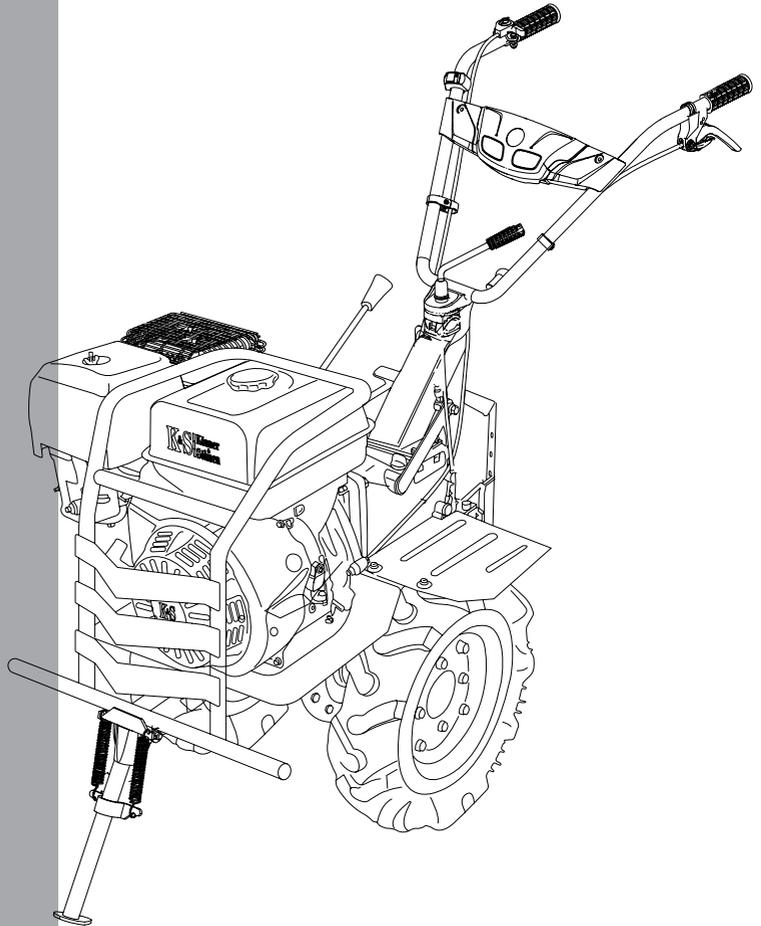
**KS 7HP-850A**

**KS 7HP-950A**

**KS 7HP-950S**

**KS 7HP-1050G**

**KS 9HP-1350G-3**



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## SYMBOL EXPLANATIONS:

KS	Könner & Söhnen production
850, 950, 1050, 1350	model name
7HP, 9HP	power of the tiller, HP

Read this manual carefully. Pay special attention to information starting with characters / words:



**Failure to observe the recommendation marked with this sign may result in serious injury or death to the operator or third parties.**



**Useful information on using the machine**

# 1. PREFACE

We are grateful to you for your purchase of **TM Könnner & Söhnen** series gasoline tiller. This manual contains safe working recommendations, operation and adjustment description of these tillers and maintenance instructions.

All data, specified in this operation manual is the most up to date for the moment of its publishing. At the end of this manual, you may find contact information which you are free to use in case of any issues occurrence.



We care about the environment, therefore, we consider it expedient to save paper and leave in print a short description of the most important sections.



**Be sure to read the full version of the manual before getting started!**



Manufacturer reserves the right to make alterations into the tillers, which may not be reflected in this manual. Pictures and photos of the product may vary from its actual appearance.

More information and contacts can be found on the website: [www.ks-power.de/en](http://www.ks-power.de/en)

## 2. SAFETY SYMBOLS DESCRIPTION

**K&S Köhner Söhne** **CE**

**GASOLINE TILLER**  
GLEBOGYZARKA BENZYNOWA

Model: **KS 7HP-850A**

MAX. ENGINE POWER, HP MOC SILNIKA MASZYNY	<b>7.0</b>
RATED POWER OF TILLER, kW MOC ZUAMONOWA GLEBOGYZARKI kW	<b>4.0</b>
ENGINE MODEL MODEL SILNIKA	<b>KS 240</b>
FORWARD SPEED SPEED DO PRZODU	<b>1</b>
WORKING WIDTH CZESKOŚĆ OBRÓDKI	<b>80 cm</b>
WORKING DEPTH GLEBOKOŚĆ OBRÓDKI	<b>&lt; 31 cm</b>
WEIGHT WAGA	<b>52 cm</b>
YEAR OF ISSUE ROK WYDANIA	<b>2020</b>
SERIAL NUMBER NUMBER SERWISNY S/N	

«Köhner & Söhne» TM, manufactured under license and control of Dimax Int. GmbH, Hauptstr. 134, 51143 Cologne, Germany. www.ko-power.de/en. «Köhner & Söhne» TM, hergestellt unter Lizenz und Kontrolle von Dimax Int. GmbH, Deutschland. Importeur und Vertreter in Deutschland: Dimax Int. GmbH, ul. Sapers 134, 51143 Köln, Deutschland, www.ko-power.de. «Köhner & Söhne» TM, wyprodukowano na licencję Dimax Int. GmbH, ul. Hauptstr. 134, 51143 Kolonia, Niemcy. Importer do Polski: Dimax International Poland Sp. z o.o., ul. Warszawańska, 306B, 05-080 Skarżysko, Polska. www.ko-power.pl

**Köhner & Söhne, Germany**

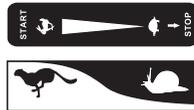
- Engine power
- Rated power of tiller
- Engine model
- Forward speed
- Tilling width
- Max. tilling depth
- Weight
- Year of issue

(The appearance may vary depending on the rotary tiller model)

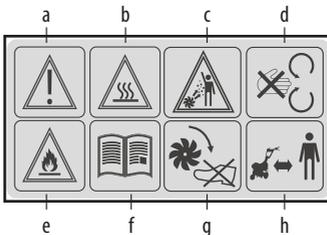


Do not touch!  
The generator damper becomes hot during operation

Speed regulation mark



MAX-MIN



- a. Warning! Important information!
- b. Caution! Hot surface!
- c. It is prohibited to stay in a working area of tiller.
- d. It is dangerous to touch tiller rotating blades.
- e. Observe fire safety regulations, do not operate the tiller near open flame!
- f. Read this owner's manual carefully before operating the device.
- g. Keep your legs away from the rotating cutters.
- h. Other people should keep a distance from the operating device.



Transmission  
(configuration depends from the tiller model)



- Crankcase volume (varies from model to model)
- Oil recommendations



Clutch

Reverse gear



- Position of the air valve (to start position «Closed» in the direction of the arrow)
- Fuel valve (change position to «Open» in the direction of the arrow)



Fuel warnings



Noise level is indicated. The noise level varies with the model. For more information.

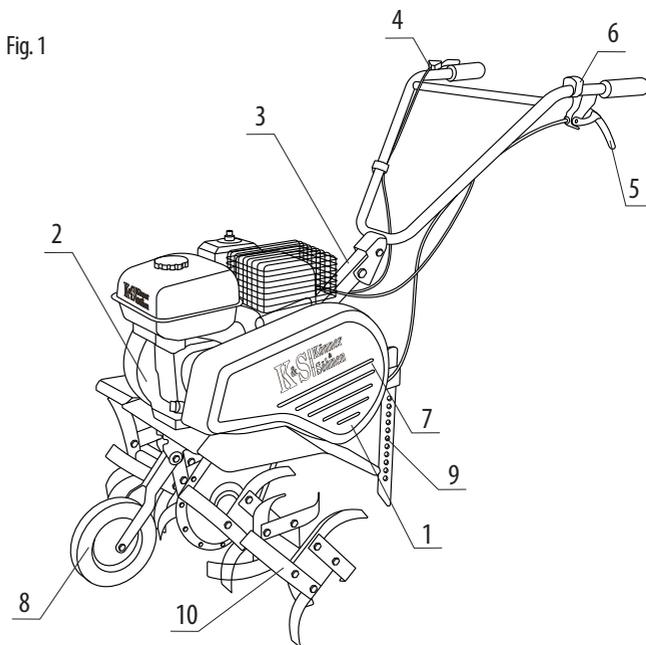


- Operating position
- OFF position

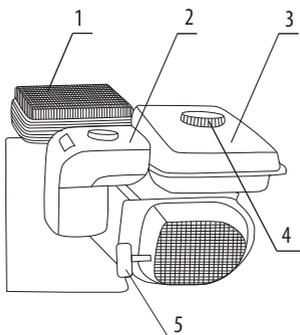


Indicates the required oil level in the crankcase

### 3.OVERVIEW AND COMPONENTS OF THE TILLER KS 7HP-850A



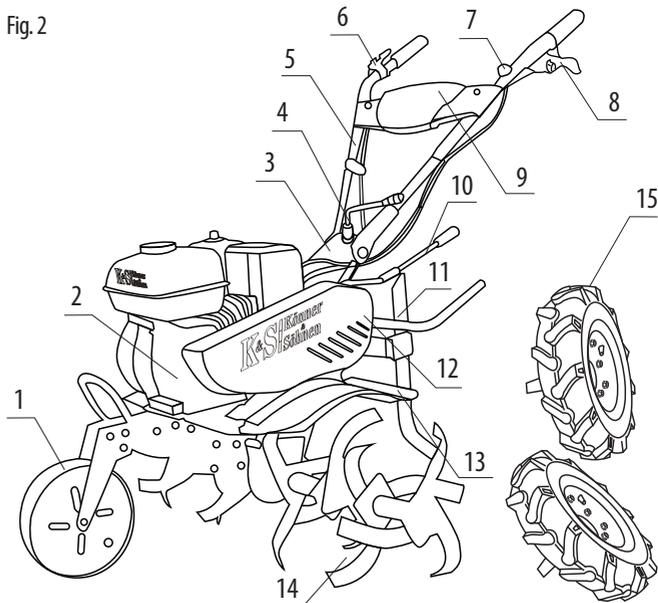
- |                         |                     |
|-------------------------|---------------------|
| 1. Wing                 | 7. Gear housing     |
| 2. Powerful engine      | 8. Transport wheels |
| 3. Panel Operator       | 9. Coulter          |
| 4. Engine speed control | 10. Blade (24 pcs)  |
| 5. Clutch handle        |                     |
| 6. On/off switch        |                     |



- |                                     |
|-------------------------------------|
| 1. Silencer with a protective grill |
| 2. Air filter                       |
| 3. Fuel tank                        |
| 4. Fuel tank cap                    |
| 5. Manual starter                   |

# OVERVIEW AND COMPONENTS OF TILLERS KS 7HP-950A, KS 7HP-950S

Fig. 2



1. Transport wheel  
for the model KS 7HP-950A  
(support leg for the model  
KS 7HP-950S)

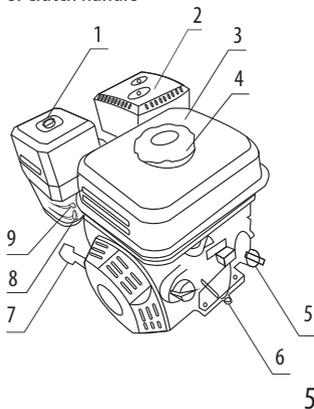
2. Engine  
3. Steering column  
4. Operator panel position  
adjustment lever about 360°  
(for the model KS 7HP-950S)

5. Operator panel  
6. On / off switch  
7. On / off switch  
8. Clutch handle

9. Tool case  
(for the model KS 7HP-950S)

10. Gear lever  
11. Coulter  
12. Gear housing  
13. Wing

14. Blades – 32 pcs.  
15. Pneumatic wheels  
(only for model KS 7HP-950S;  
included for model KS 7HP-950S;  
optional accessory for model KS  
7HP-950A)



1. Air filter  
2. Silencer with a protective grill  
3. Fuel tank  
4. Fuel tank cap  
5. Oil filler cap  
6. Oil drain screw  
7. Manual starter  
8. Fuel valve  
9. Air damper

# OVERVIEW AND COMPONENTS OF THE TILLERS KS 7HP-1050G, KS 9HP-1350G-3

KS 7HP-1050G

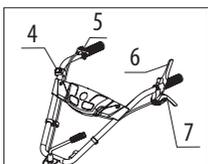
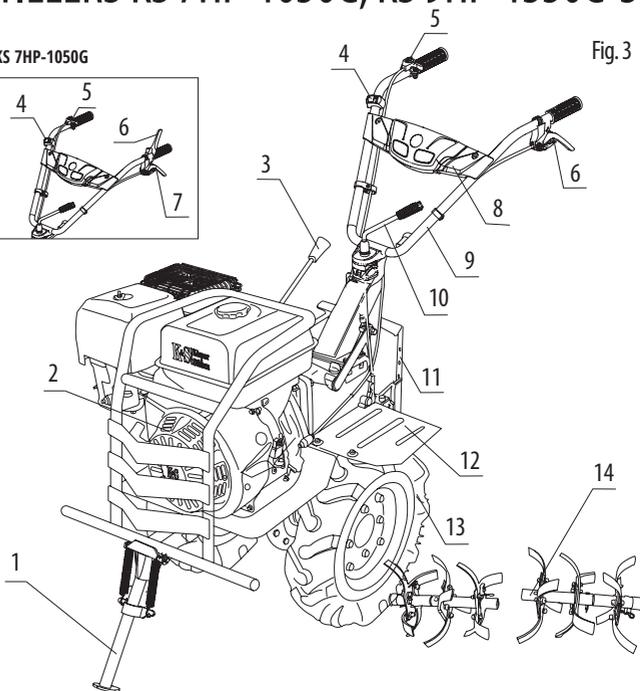
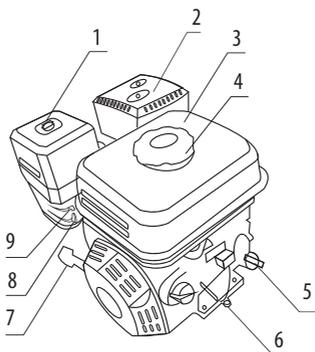


Fig. 3



- |  |                                     |
|--|-------------------------------------|
| 1. Parking leg bracket                             | 8. Tool case                        |
| 2. Engine  | 9. Operator panel                   |
| 3. Gear lever                                      | 10. Operator panel adjustment lever |
| 4. On / off switch                                 | 11. Coultter                        |
| 5. Adjusting the engine speed                      | 12. Wing                            |
| 6. Clutch handle                                   | 13. Pneumatic wheels                |
| 7. Additional clutch handle for model KS 7HP-1050G | 14. Blade                           |



- |                                     |
|-------------------------------------|
| 1. Air filter                       |
| 2. Silencer with a protective grill |
| 3. Fuel tank                        |
| 4. Fuel tank cap                    |
| 5. Oil filler cap                   |
| 6. Oil drain screw                  |
| 7. Manual starter                   |
| 8. Fuel valve                       |
| 9. Air damper                       |

*Illustrations are for reference only and may vary with the cultivator model.*

## 4. SPECIFICATIONS OF GASOLINE TILLERS WITH BELT DRIVE

Tiller	KS 7HP-850A	KS 7HP-950A	KS 7HP-950S
Engine model	KS 240	KS 240	KS 240
Engine power, HP	7,0	7,0	7,0
Nominal power, kW	4,0	4,0	4,0
Engine capacity, cm <sup>3</sup>	212	212	212
Engine type	Gasoline		
Tilling width, cm	≤ 80	≤ 108	≤ 108
Tilling depth, cm	≤ 31	≤ 31	≤ 31
Fuel tank volume, l	3,6	3,6	3,6
Crank case volume, cm <sup>3</sup>	0,6	0,6	0,6
Transmission case volume (l)	-	1,2	1,2
Engine start	hand	hand	hand
Transmission system	belt-driven		
Forward speed	+1 0	+2 +1 0 -1	
Blades (sets/psc)	2x3x4 / 24	2x4x4 / 32	2x4x4 / 32
Reverse	-	+	+
Adjustable handles	-	vertical	vertical/horizontal
Noise level Lpa (7m)/Lwa, dB	73/98	73/98	73/98
Gross dimensions (L*W*H), mm	690*380*770	845*460*660	780*460*780
Net weight, kg	52	62	80
Gross weight, kg	56	71	89

## SPECIFICATIONS OF GASOLINE TILLERS WITH DIRECT DRIVE AND GEARBOX

Tiller	KS 7HP-1050G	KS 9HP-1350G-3
Engine model	KS 240	KS 290
Engine power, max. (HP)	7,0	9,0
Nominal power, kW	4,0	6,0
Engine capacity, cm <sup>3</sup>	212	270
Engine type	Gasoline	
Tilling width, cm	≤ 108	≤ 134
Tilling depth, cm	≤ 35	≤ 35
Fuel tank volume, l	3,6	6,0
Crank case volume, cm <sup>3</sup>	0,6	1,1
Transmission case volume (l)	1,2	1,5
Engine start	hand	hand
Transmission system	conical	
Drive type	direct drive with gearbox	
Forward speed	+2 +1 0 -1	+3 +2 +1 0 -1
Blades (sets/psc)	2x4x4 / 32	2x5x4 / 40
Reverse	+	+
Adjustable handles	vertical/horizontal	
Noise level Lpa (7m)/Lwa, dB	73/98	73/98
Gross dimensions (L*W*H), mm	880*460*660	910*570*750
Net weight, kg	83	94
Gross weight, kg	92	110

The optimum operating conditions are ambient temperature of 17°C – 25°C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50 – 60%, Altitude (MAX), ≤ 300 m. Under such ambient conditions, the generator can guarantee maximum performance in terms of the stated specifications. In case of deviations from the above ambient values (in the event of deviations from these environmental indicators (altitude above sea level, temperature, pressure) the performance of the generator can be different.

## 5. SAFETY TECHNIQUE

Before operating the tiller, please read carefully the operating instructions. Do not allow other people and children to use the device. Do not use the appliance in close proximity to the work area of adults, children and animals - the responsibility for accidents and property is borne by the tiller user. The Könnner & Söhnen gasoline tiller meets the safety requirements of the current European standards. In no case do any changes to the design of the appliance.

### **WARNING THESE REQUIREMENTS FOR WORKING WITH THE TILLER:**

1. Read this manual before starting to work with equipment. Keep it for the future, follow the recommendations contained in it, as this will help prevent injury and damage to the device.
2. Familiarize yourself with the tiller management and its functions. In the event of unforeseen circumstances, the operator must know how to stop the tiller's working parts and its engine.
3. The operator of the device must be in good physical and mental state, must be able to quickly make decisions if necessary. It is forbidden to work with a tiller after drinking alcohol, drugs or taking medications that can slow down the reaction.
4. The tiller is intended for use with soil during sowing, as well as for the care and treatment of plants. The use of a tiller for other purposes is forbidden.

### **WORKING WITH THE TILLER**

The device must be turned on according to the instructions in this manual. Ensure that the tiller is safely spaced from the legs. Do not place your feet or hands on rotating items or underneath them. In order to lift the device, two people have to take up the handle and the tiller shafts. Wear special gloves for protection of hands and protective shoes, do not work with a tiller in an open shoe.

### **BE CAREFUL!**

- Keep clean engine and exhaust pipe in order to avoid burning. Carefully check them for the absence of leaves, grass and leaks of oil or fuel.
- Be careful with the rotating parts. Do not touch the mill when rotated.



**Drain the waste oil into a tight container.  
Allow waste oil to the point of recovery of waste oil.**

**OPERATION OF THE DEVICE AT THE GOOD LOCATION**

1. Keep track of the correct location of the appliance on the slopes. The angle of inclination of 10% corresponds to 10 cm, a rise of 100 cm to the horizontal plane. Do not apply soil plowing on steeper slopes, in order not to lose control of the device.
2. When working on slopes or hilly terrain, reinstall all mills.
3. The person working with the tiller is prohibited from standing below the device in order to avoid getting into the working tiller in case of loss of control over it.
4. It is prohibited to operate the device across the slope. Only move forward, do not pull the tiller back and forth.
5. Be careful when changing the direction of the tiller.
6. Reduce speed on rocky soil.
7. Work with the tiller should occur only in the pace of the step, as there is a risk of stumbling, slipping, etc. when moving fast.
8. To adjust the depth of the device, change the force of pressing on the handle, pressing the coulter in the ground more or less.
9. Do not turn engine, do not change its main position!

**STORAGE AND USE OF GASOLINE**

Petrol is extremely toxic and combustible, so observe the following rules for its storage and use:

1. Only store fuel in hermetically sealed containers specially designed for this purpose. Hold the canister with gasoline in the cool dark place as far away from sparks and open flames.
2. During operation of the engine, the tiller allocates exhaust gases CO<sub>2</sub> that can cause poisoning. Do not use the device in closed, badly ventilated areas.
3. Fill the tiller in the open air before starting the engine. Do not squeeze the gas tank cover and do not fill the fuel if the tiller is still hot after work.
4. Leave the place to expand the fuel after refueling. Pour fuel to the edge of the filling pipe (about 4 cm from the top of the tank). Do not fill the tank completely.
5. If there is too much gasoline, thoroughly wipe excess from the surface if it is filled with fuel. In no case do not start the engine until the surface is cleaned up and until steam of gasoline evaporates.
6. Always close the gasoline tank cover tight.
7. To empty the fuel tank, start the tiller engine out of the room until complete fuel production.
8. The tiller should only be transported empty. A fuel tank and a closed fuel tap.
9. Wait until the device cools down before putting it on storage.
10. For safety reasons, do not leave the fuel in a fuel tank. Gasoline vapors can come in contact with sparks or open flame, which may lead to vaporization.
11. Regularly check the device for damage and imperfection of the fuel line, tank and fuel tank plugs, as well as damage to the muffler and protective plates. In time, replace the parts if necessary.

**MAINTENANCE AND REPAIR**

When using a tiller on slopes, lifting must not exceed 10% (5.7°). Operation of the device is possible only in daylight or good artificial lighting to avoid injury and damage.

Use only original spare parts, replace worn or damaged parts on time, tighten all bolts, screws and nuts all the way.

Follow the maintenance instructions listed in the instruction manual yourself. Before starting work on the device, disconnect the plug of the spark plug wire. Works that are not foreseen for self-fulfillment must be performed at an authorized Könnner & Söhnen Service Center. The addresses of the service centers can be found on our official website [www.ks-power.de/en/](http://www.ks-power.de/en/)



**The fuel contaminates the earth and groundwater.  
Do not allow gasoline to run out of the tank!**

## 6. COMPOSITION

1. Tiller	1 pc.
2. Number of blades for mills:	
KS 7HP-850A	24 pc.
KS 7HP-950A	32 pc.
KS 7HP-950S	32 pc.
KS 7HP-1050G	32 pc.
KS 9HP-1350G-3	40 pc.
3. Coultter	1 pc.
4. Support leg (for model KS 7HP-950S, KS 7HP-1050G, KS 9HP-1350G-3)	1 pc.
Transport wheel (for model KS 7HP-850A, KS 7HP-950A)	1 pc.
5. Gear housing (for model KS 7HP-850A, KS 7HP-950A, KS 7HP-950S)	1 pc.
6. Console	1 pc.
7. Side protectors	2 pc.
8. Control panel	1 pc.
9. Pneumatic wheels (for model KS 7HP-950S, KS 7HP-1050G, KS 9HP-1350G-3)	2 pc.
10. A set of fasteners and tools	1 pc.
11. Manual	1 pc.
12. Packing	1 pc.
13. Reflective stickers for front grille (for model KS 9HP-1350G-3) - 6 pcs.	



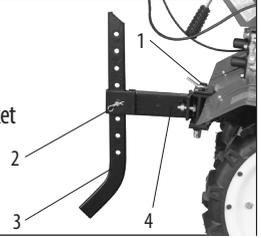
## 7. COLLECTING THE TILLER

### COULTER (for models: KS 7HP-850A, KS 7HP-950A, KS 7HP-950S) Fig. 4

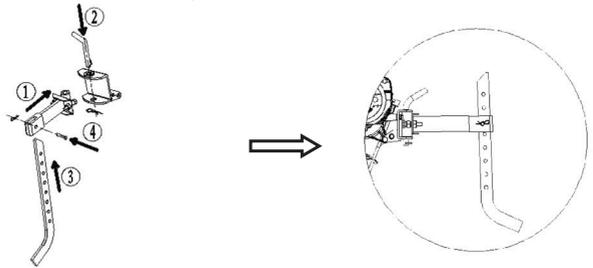
To adjust the depth of the plow in the tiller there is a coultter. It is regulated by moving it up and down with an elongated clamp. The more depth the coultter gets, the greater the depth of processing the earth.

Secure the coil holder (4) with the vertical pin (1), insert the coil (3) into the bracket, adjust the height using a bolt (2).

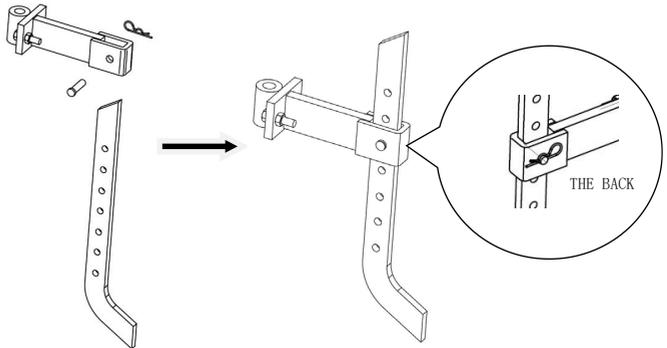
1. Vertical finger
2. Bolt
3. Coultter
4. Mounting bracket

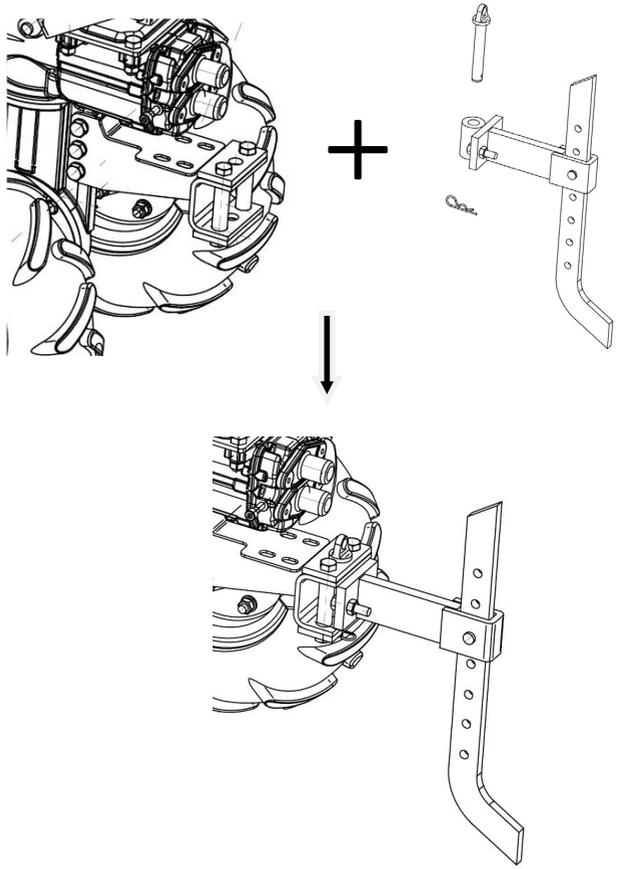


### KS 7HP-850A KS 7HP-950A, KS 7HP-950S



### KS 7HP-1050G, KS 9HP-1350G-3

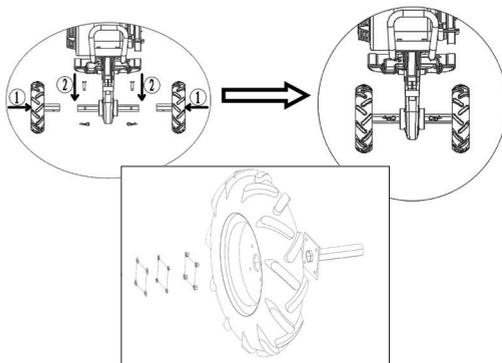




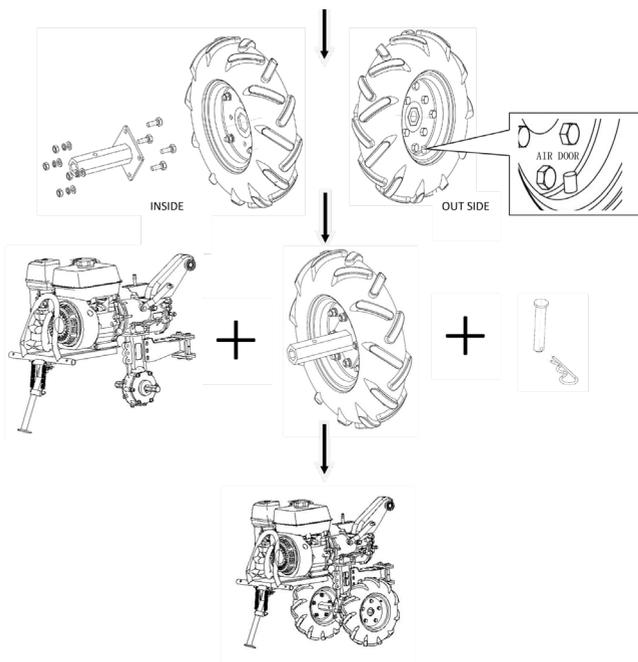
### MOUNTING THE RUBBER WHEELS

Attach the wheels to the tiller by inserting the fasteners into the corresponding axle holes.

Fig. 5



For model KS 7HP-1050G, KS 9HP-1350G-3



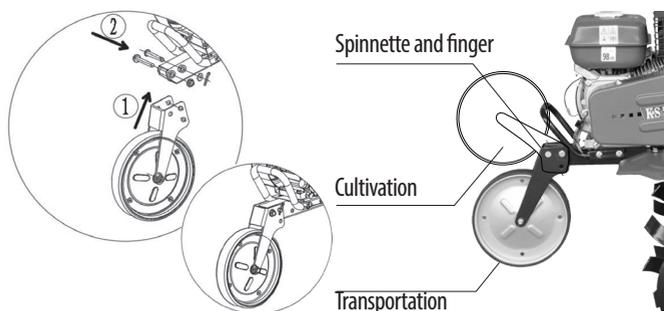
**ASSEMBLY OF THE TRANSPORT WHEEL  
(FOR MODELS KS 7HP-850A, KS 7HP-950A)**

For cultivator models equipped with a front caster, attach the caster to the cultivator frame using bolts (Fig. 6).

For the KS 7HP-850A cultivator model, connect the two pins with a spring.

To move, lower the wheel down and fix it with the mounting pin. Raise the steering wheel so that the tiller is easy to roll on the ground. Before starting ground treatment turn the wheel in the raised position and lock it with a pin.

Fig. 6



**BLADES ASSEMBLING**

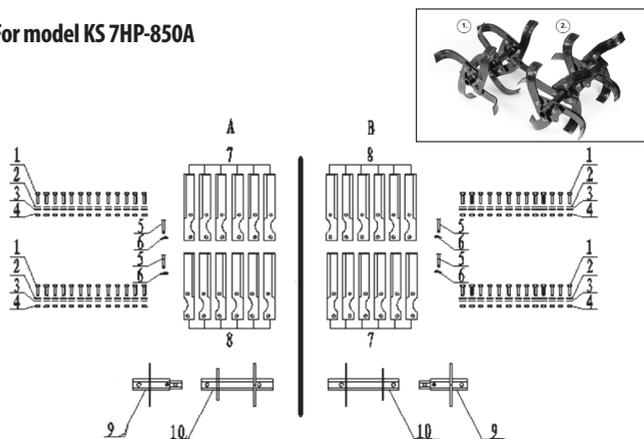
The product comes with the blades.

The number of blades (24 pcs, 32 pcs, 40 pcs) varies with the tiller model.

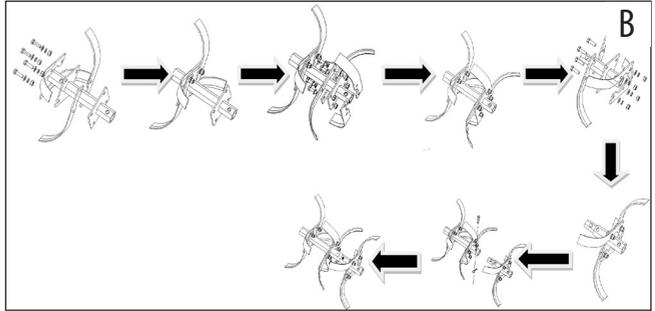
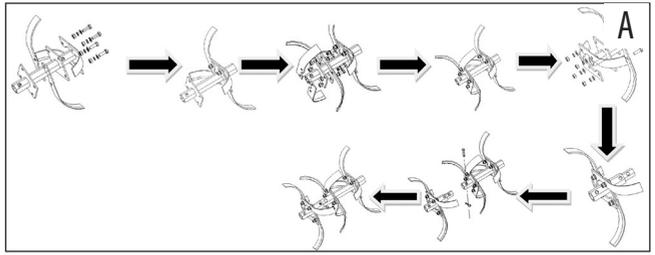
1. For model KS 7HP-850A, cutters are assembled in three sections with four blades each.
2. For model KS 9HP-1350G-3, cutters are assembled in five sections with four blades each.
3. For all other models, cutters are assembled in four sections with four blades each.

Fig. 7

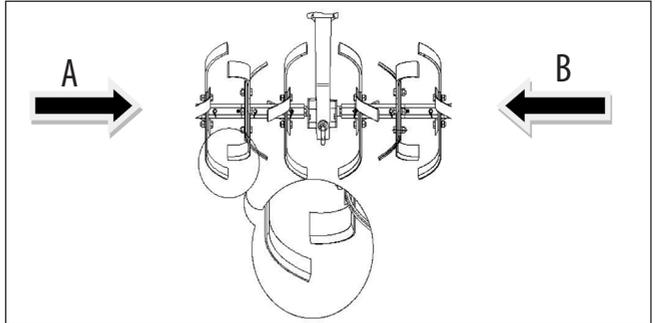
**For model KS 7HP-850A**



- 1 = 24    2 = 24    3 = 24    4 = 24    5 = 4    6 = 4    7 = 12  
 8 = 12    9 = 2    10 = 2



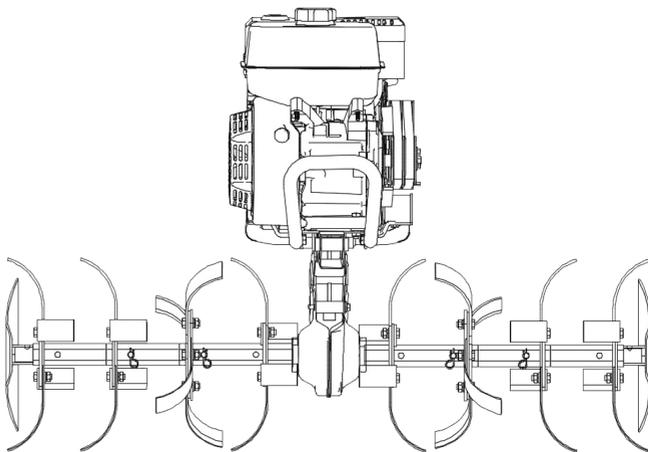
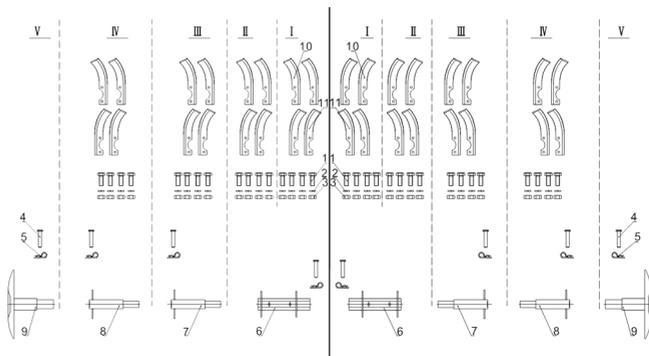
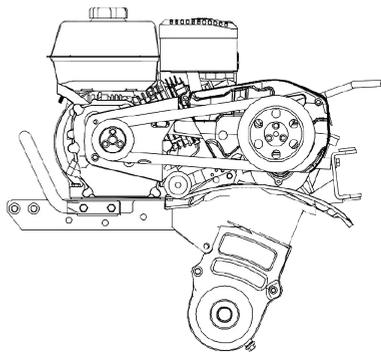
When attaching the blades, always pay attention to the position of the cutting edge of the blades. It should face the direction of travel of the tiller. Cutters are secured with bolts. The disk is connected to the main structure using a bolt.

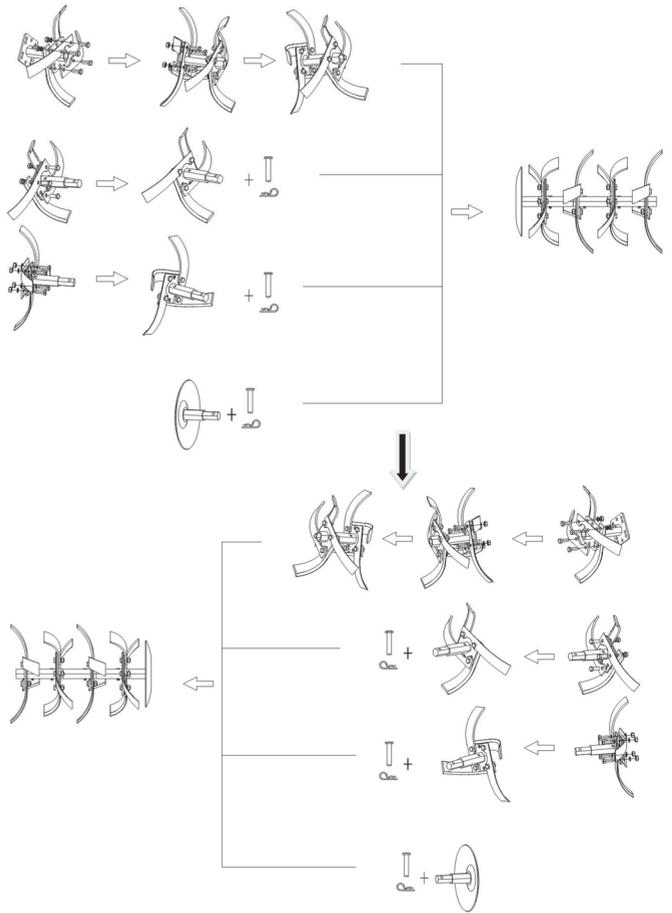


For model KS 7HP-950A

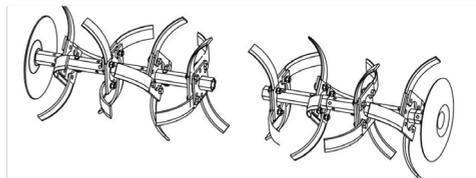
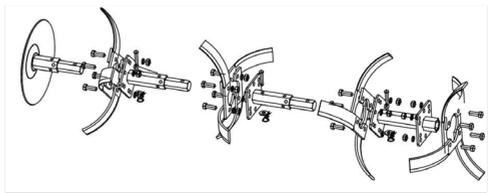
Series No. / pcs

- |        |         |
|--------|---------|
| 1 = 24 | 7 = 2   |
| 2 = 24 | 8 = 2   |
| 3 = 24 | 9 = 2   |
| 4 = 4  | 10 = 16 |
| 5 = 4  | 11 = 16 |
| 6 = 2  |         |





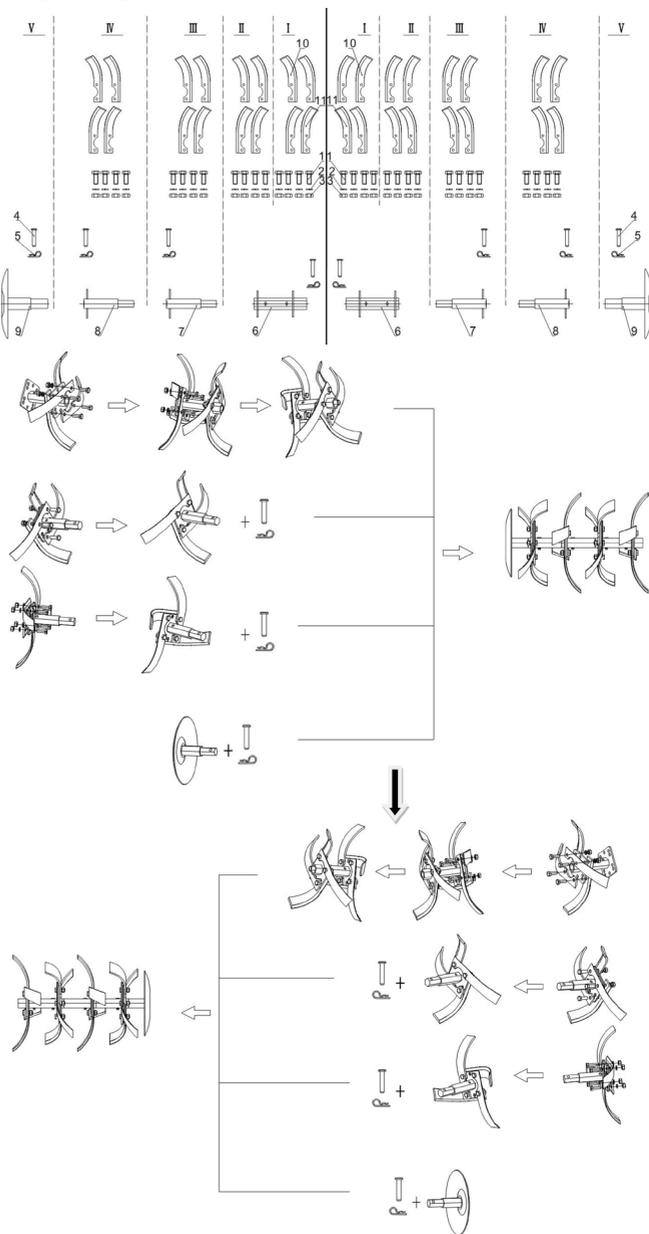
For model KS 7HP-1050G, KS 9HP-1350G-3



**For model KS 7HP-950S**

Series No. / pcs

- 1=24    2=24    3=24    4=4    5=4    6=2    7=2  
 8=2    9=2    10=16    11=16



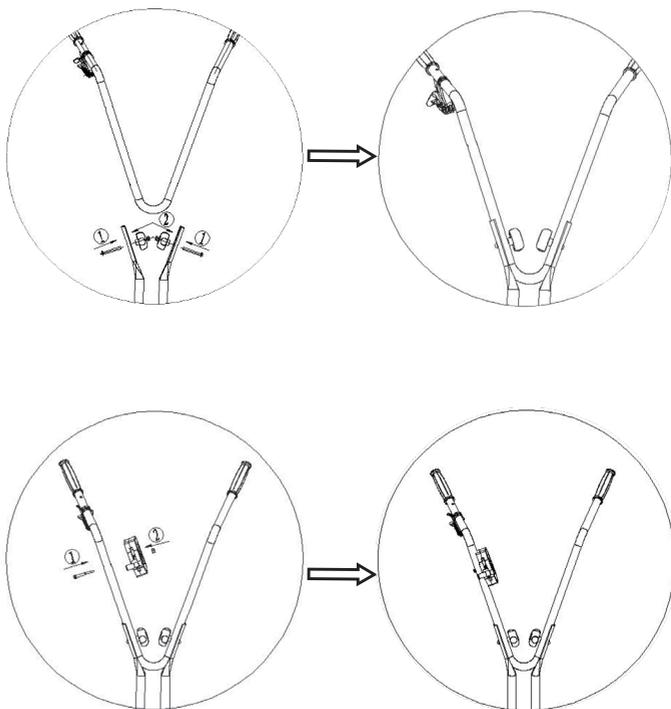
**Be sure to read the full version of the manual before getting started!**



**OPERATOR'S PANEL**

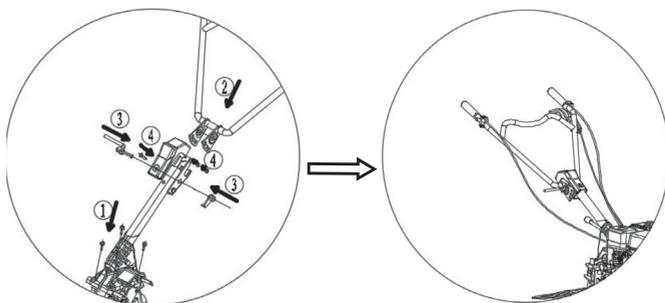
For model KS 7HP-850A, first attach the operator's panel to the steering column using the fixing bolts, then attach the engine speed control, as shown in Fig. 8a

Fig. 8a



**For model KS 7HP-950A**

Fig. 8b



For models KS 7HP-950S, KS 7HP-1050G, KS 9HP-1350G-3

Attach the operator's panel to the steering column using the fixing bolt as shown in Fig. 8c

Fig. 8c

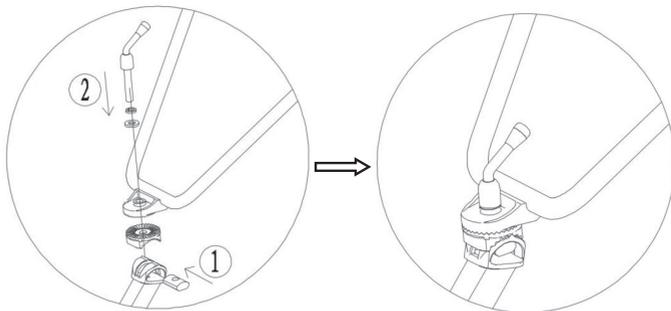
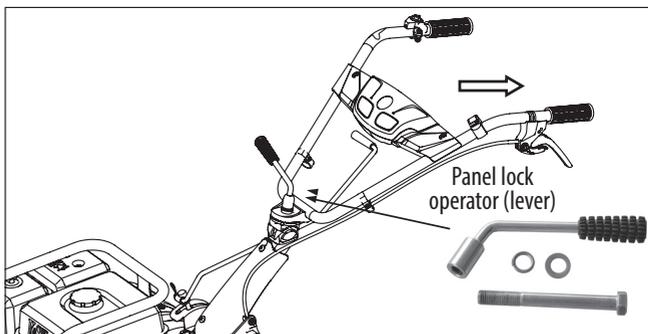


Fig. 9



For KS 7HP-950S, KS 7HP-1050G, and KS 9HP-1350G-3, first assemble the steering column and then connect the operator's panel as shown in Fig. 9a.

Fig. 9a



Be sure to read the full version of the manual before getting started!

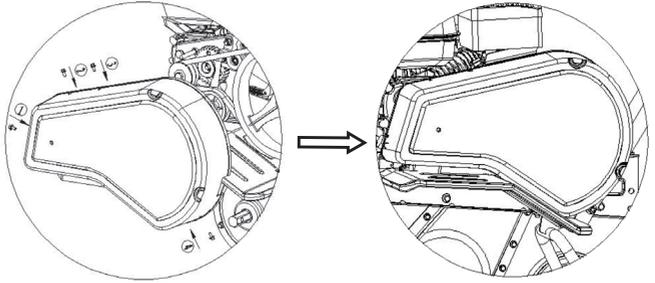


**TRANSMISSION COVER**

Attach the transmission cover to the tiller by inserting the fasteners into the corresponding holes.. Fig. 10

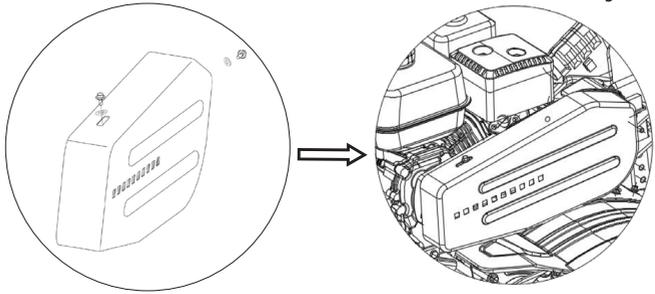
**Model KS 7HP-850A**

Fig. 10a



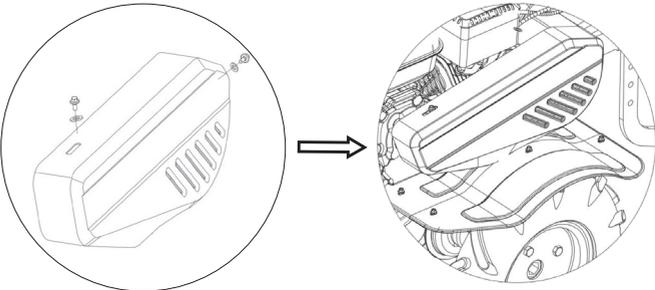
**Model KS 7HP-950A**

Fig. 10b



**Model KS 7HP-950S**

Fig. 10c

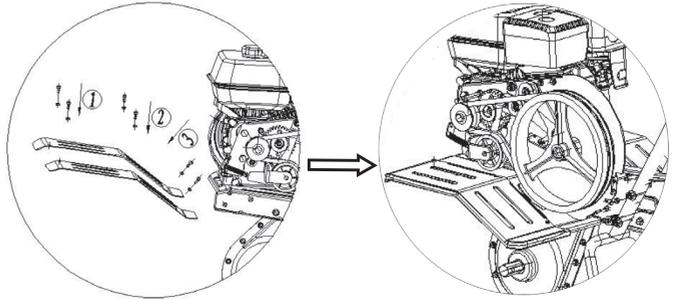


**FENDERS**

Attach the fenders to the tiller frame by inserting the fasteners into the corresponding holes. Fig. 11

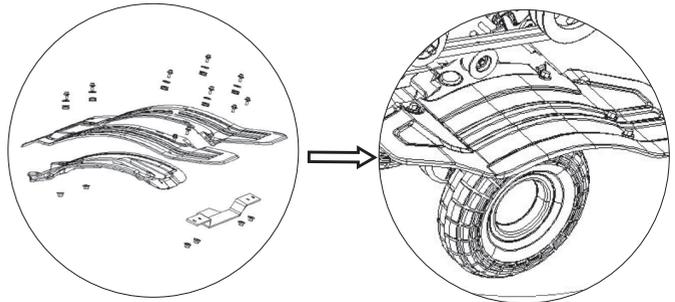
**Model KS 7HP-850A**

Fig. 11a



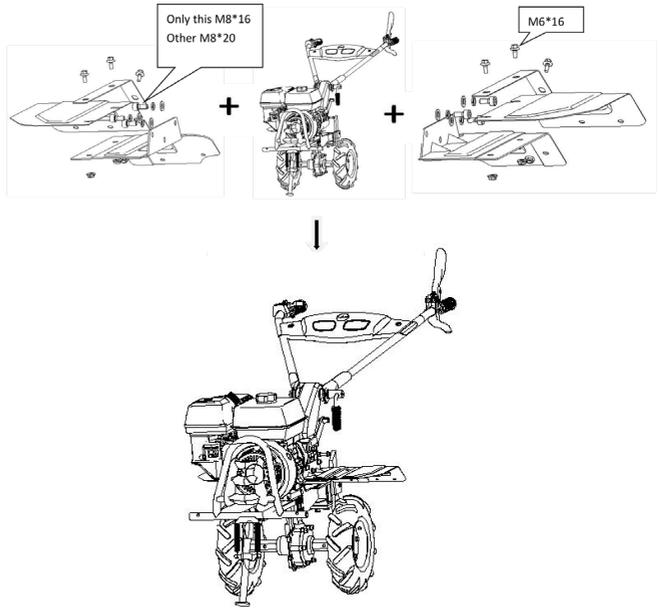
**Model KS 7HP-950A, KS 7HP-950S**

Fig. 11b



For model KS 7HP-1050G, KS 9HP-1350G-3

Fig. 12

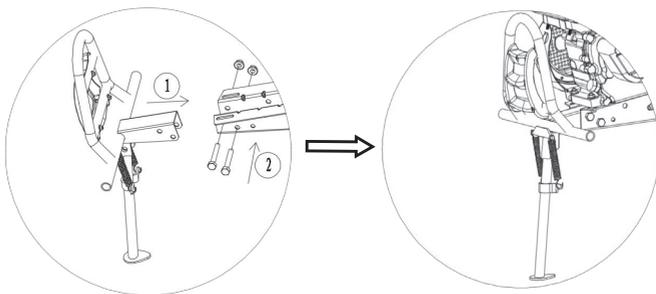


**SUPPORT LEG**

Attach the tiller's support leg to the bracket by inserting the fasteners into the corresponding holes. Fig. 13

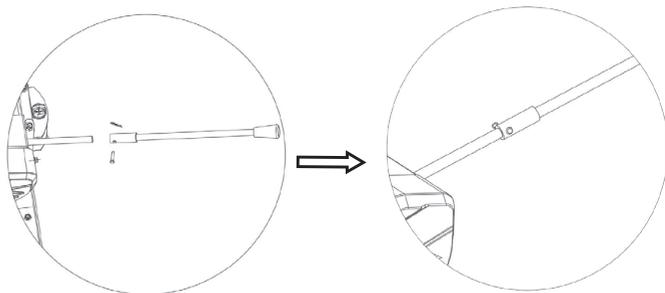
**Model KS 7HP-950A**

Fig. 13a



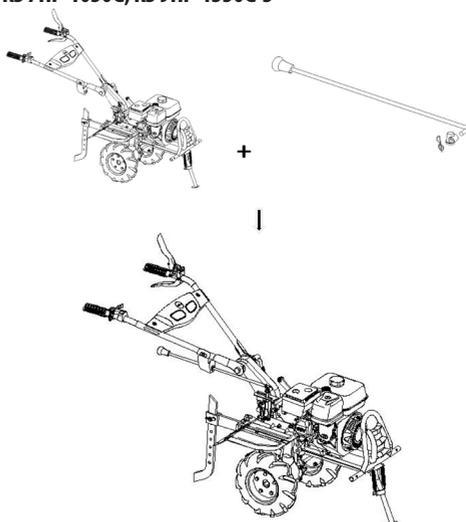
**Model KS 7HP-950S**

Fig. 13b



**For model KS 7HP-1050G, KS 9HP-1350G-3**

Fig. 14



## 8. OPERATION INSTRUCTION



**ATTENTION - DANGEROUS!**

The tiller is supplied without oil and fuel.  
**Before first start-up, be sure to fill in the oil and refuel the device!**  
**Use a funnel to refuel. Do not change the engine speed regulation settings and do not use the engine in overspeed.**



Fig. 15

### COMMISSIONING

During the commissioning:

1. Fill the crankcase with engine oil SAE 10W-30 or SAE 10W-40.
2. Fill the transmission case with SAE 75W-90, SAE 80W-90 or SAE 85W-90 grade oil to the level specified for a given model. Be sure to check the oil level with an oil dipstick, as the device may contain residual oil after a production check. Do not exceed the recommended amount of oil!
3. Fill the fuel tank with gasoline.
4. Unscrew the air filter cover (Fig. 16) and fill 50-100 ml of engine oil into the air filter separator. Package contents may vary. For an engine with a paper filter, there is no need to fill the separator with engine oil.

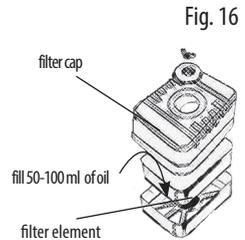


Fig. 16

### USEFUL TIPS

1. To determine the tilling depth, use the coulter at different heights. With the coulter driven deeper into the soil, the cutters also go deep into the soil and the movement of the device forward slows down considerably.
2. The tiller speed is determined by adjusting the engine speed. The cutters go deep into the soil with the device in the fixed position.
3. To speed up the tiller movement, adjust the coulter higher to lift the cutters.
4. Immediately release the clutch lever when the tiller is blocked by foreign objects. Stop the engine, remove obstacles and check the tiller for deformation and damage. Replace damaged parts as necessary.

**FUEL AND ENGINE OIL**

Only unleaded gasoline is recommended for the tiller. Gasoline should be fresh. Use a funnel (not supplied) for best device filling. The tiller also can not run without oil, so fill it before the first launch. Set the device on a flat horizontal surface, open the tank with oil and pour oil to the minimum mark and add fresh oil to the mark between MIN and MAX. Use the probe to check the oil level. Oil level must be constantly monitored. Do not let excess of oil and its lack. Information on used motor oil can be found in the technical characteristics of the tiller.

**STARTING THE ENGINE**

Before starting the engine, make sure the switch is in position I (on) (see Fig. 19). Turn the rotary engine speed dial to MAX (see Fig. 18). Damper motor switch to position CHOKE (see Fig. 17). Grasp the starter handle (see Fig. 20) and slowly pull it to the emergence of resistance, then sharp fast motion pull starter all the way. Repeat the operation until the engine starts. After starting the engine let the rope to entangle on trigger without throwing the starter handle. Put the flaps in position RUN.

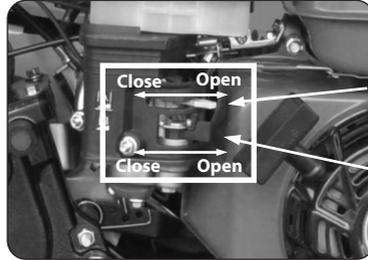


Fig. 17  
Air damper  
Fuel valve

Fig. 18

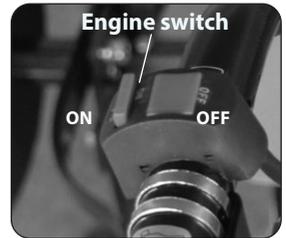
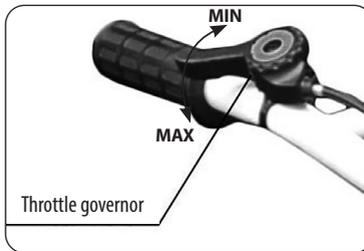


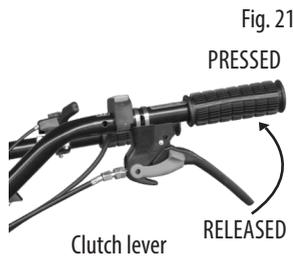
Fig. 19  
The engine switch is located on the control panel handle.



Fig. 20

### FORWARD MOVEMENT

1. Set the gearshift lever to the “+1” or “+2” or “+3” position.
2. Gently press the red fuse (near the clutch lever), press and hold down the clutch lever. (see Fig. 21) (for model KS 7HP-1050G, see Fig. 3 on Section 7).



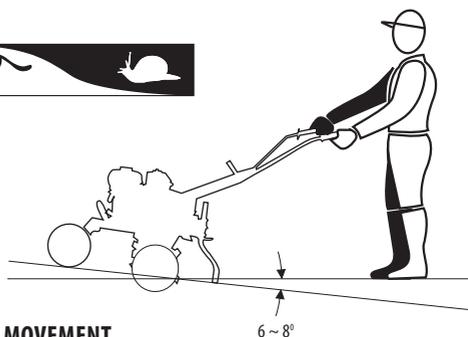
### NEXT STEPS

Gradually increase the depth of plowing when tilling the solid ground. Press on the steering wheel to facilitate turning of the machine, transfer the weight of blade back when turning on the soil blade. To adjust the forward speed, press the left handle grip. To move backwards which facilitates the work with the tiller, use the right handle grip (Fig. 23) Lower the front wheel for device transportation. After work or during a break at work, release the clutch and turn off the engine.

Fig. 22



Fig. 23



### REVERSE MOVEMENT

Cultivator models are equipped with a reverse function for better maneuvering (except for model KS 7HP-850A).

In order for the cutters or wheels to start reverse rotation, set the gearshift lever to the “-1” position (R) and then press and hold down the clutch lever.



**Caution! Don't use reverse mode for ground tilling!**

### STOPPING THE ENGINE

To eliminate the engine turn the switch to 0 (Off) position (Fig. 19).

Stop the engine:

Reduce throttle to minimum rpm before shutting off the engine. For long-term storage, before stopping the engine, close the fuel valve to cut off the fuel supply and let the engine stop.

## 9. MAINTENANCE

In order to prevent unintentional inclusion of the engine, disconnect the spark plug of the engine when storing device, transportation and all the works on cleaning and maintenance (such work is permitted only with cooled engine).

The use, storage and maintenance of **Könner & Söhnen** tillers must be made according to this manual. For all the damage and malfunctions, which were caused by mishandling of service, safety and working with the machine manufacturer is not responsible.

### THE MANUFACTURER IS NOT LIABLE FOR:

- Using of lubricants, gasoline and motor oil, which are prohibited by supplier;
- Using the device for other purposes;
- Losses due to further use of faulty tiller parts;
- Technical changes of the device.

### MAINTENANCE WORK

All works shown in «maintenance» section should be done regularly. If you can not perform work, tiller user should contact the service center to complete an application for technical works execution. In case of losses due to injury, acquired as a result of outstanding maintenance, the manufacturer is not responsible.

### MANUFACTURER IS NOT RESPONSIBLE FOR DAMAGES:

- Damage and losses resulting from the use of non-original spare parts;
- Corrosive damage and other consequences of invalid storage;
- Damage caused by the maintenance works that were carried out by unauthorized personnel.

### TILLER CLEANING

Thorough cleaning and care of the device extends its life and protects it from damage. After each use, clean the tiller blades of the land, dust and grass straw. Keep under control the state of the product – damaged parts, landing threaded elements.

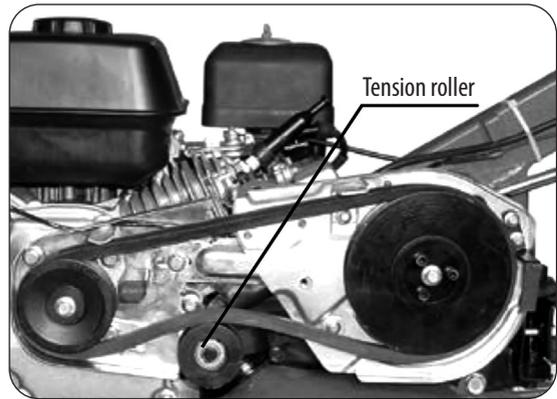
It is forbidden to send jets of water on the seals, engine components and bearing seats. Otherwise the tiller may need an expensive repair.

### CHAIN TRANSMISSION REGULATION

From time to time, after extended tiller use, regulation of chain transmission is necessary. To do this, follow these steps:

1. Remove the chain transmission, previously removing its screw.
2. Grip the handle grip. Check the distance between the upper point of the belt and upper-point of roller – it should be 60-65 mm (2.4-2.5 inches).

Fig. 24



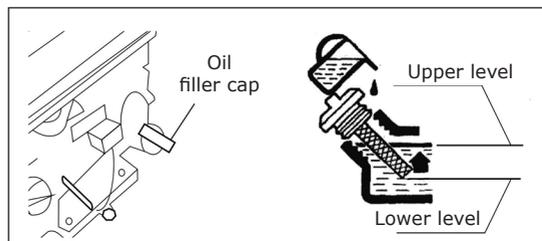
3. Remove four engine mounting bolts for work on regulation. Move engine forward or backward the required belt tension and make sure that the external surfaces of driving and driven pulleys are in the same plane.

### CHANGING AND ADDING FUEL TO THE ENGINE

Follow the maintenance schedule and regularly check the oil level in the engine. By reducing the oil level is necessary to add new oil to ensure proper operation of the engine. To replace the oil, follow these steps:

1. Make sure that the tiller is placed on a flat surface.
2. Place the capacity to drain the oil under tiller engine.
3. Unscrew the drain cover, located under the hood oil probe, using allen key 10 mm.
4. Wait until the oil drains.
5. Replace the cover and tighten the drain.

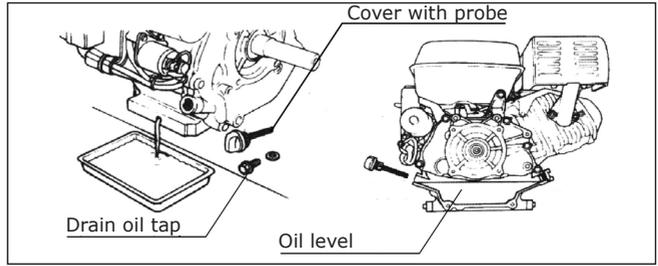
Fig. 25



### FOLLOW THESE STEPS TO ADD OIL:

1. Make sure that the tiller is placed on a flat surface.
2. Remove the probe tap on the engine.
3. Pour the oil into the carter.
4. Level should be close to the maximum probe level.

Fig. 26



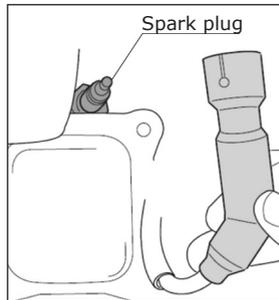
**Oil pollutes soil and groundwater. Do not allow oil to leak out of the crankcase. Drain used oil into a sealed container. Return used oil to your local used oil collection point.**

**SPARK PLUG MAINTENANCE**

Spark plug is an important part which provides correct and long work of the engine. It is important to keep an eye on the plug – it should not have cracks, must be installed in a right way and have no soot.

**SPARK PLUG CHECKING**

Fig. 27



Recommended for use are spark plugs F6RTC, for example NGK BPR6ES.

Follow this steps to check the spark plug:

1. Take off the cap from the spark plug.
2. Loosen the plug with the help of candle brace.
3. Carefully check if the plug is damaged. Remove if it has any damage.
4. Measure the gap – it should be within 0,6-0,8 mm.
5. Carefully clean the spark plug with the metal brush and remove the dust before reuse of the unit. Please don't forget to measure the gap.

6. Plug in the spark plug to its place.

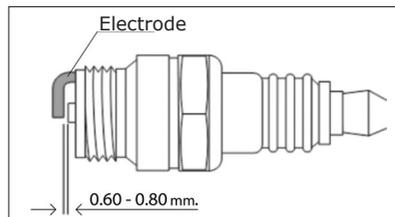


Fig 28

### INTERNAL COMBUSTION ENGINE

For the most long-term use of the engine it is important to watch the condition of an oil and air filter, oil level. Cooling fins should always be in a clean condition - this provides the best cooling for the engine.

	Action	Each time you start	Commissioning	First month (or every 20 hours)	Every 3 month (or every 50 hours)	Every 6 month (or every 100 hours)	Every year (or every 200 hours)
Oil	Level check	✓					
	Replacement		✓		✓		
Engine oil	Level check					✓	
	Replacement		✓				✓
Air filter	Check	✓					
	Cleaning		✓	✓	✓		
	Replacement						✓
Spark plug	Cleaning		✓		✓		
	Replacement					✓	
Fuel tank	Fuel level check	✓					
	Cleaning						✓

### AIR FILTER

To ensure proper airflow in the carburetor regular maintenance of the air filter should be conducted. From time to time it is important to check for contamination:

1. Loosen the clamp on the top cover of the air filter.
2. Remove the casing from the sponge filter element.
3. Remove dirt inside the filter casing.
4. Rinse sponge filter element in warm water, then dry it.
5. Dip a dry filter with clean engine oil and squeeze it to remove excess oil.
6. Air filter cleaning is to be performed each 50 hours of the generator operation (every 10 hours in unusually dusty conditions).

# 10. TROUBLESHOOTING

Malfunktion	Possible trouble	Troubleshooting
The engine does not start	Engine circuit breaker is in the OFF position	Bring the engine circuit breaker to ON position
	There is no fuel in the tank	Add fuel, clean the fuel line
	Clogged fuel line	Always use fresh fuel of branded varieties, good unleaded gasoline
	Pool, old or contaminated fuel in the tank	Clean fuel tank, fuel line to the carburetor
	The air filter is dirty	Clean the air filter
	Spark plug wire disconnected from spark plug; high voltage wires badly loosen in plug	Insert the plug wire to the spark plug; check the connection between the high voltage wire and plug
	Spark plug is blacken with smoke or damaged; wrong distance between the electrodes	Clean or replace the spark plug; set the distance between electrodes
	Engine «drowned» after several attempts to launch	Unscrew and dry the spark plug, pull the rope several times when spark plug is off; fuel supply controller is in STOP position
Low crankcase oil	Add oil to the crankcase	
Hard start or decreased engine power	The fuel tank is dirty	Clean fuel tank
	The air filter is dirty	Clean the air filter
	Sparkplus is sooted	Clean the cooling ribs
	Water in the fuel tank and carburetor; carburetor is occluded	Empty the fuel tank; clean the fuel line and carburetor
Engine overheating	Wrong distance between spark plug electrodes	Set the right distance between spark plug electrodes
	The air filter is dirty	Clean the air filter
	Cooling ribs are dirty	Clean the cooling ribs
	Too low level of engine oil	Add engine oil
No draft when pressed on clutch lever	Improperly installed clutch cable	Adjust the clutch rope
Increased vibration when working	Weakened engine mounts	Tighten the engine screws

## 11. TRANSPORTATION

Before moving or transporting the tiller, make sure the ignition switch ON / OFF valve and fuel are in the «OFF» (OFF). Set the tiller horizontally to avoid fuel spillage. Steam of gasoline or spilled gasoline can cause fire or explosion!

For the convenience of transporting the tiller, use the packaging in which it is sold. Fix the box to avoid overturning the tiller sideways during transportation. Drain / run fuel before moving.

Use the transport wheels to move the tiller on-site from place to place. Be careful – the tiller is heavy. Move carefully, do not put your feet under the tiller.



**A collision with parts of the system of release or a touch of a hot engine can provoke a strong burn or flash. Allow the engine to cool completely before moving, transporting or storing the tiller.**

## 12. STORAGE

Before placing the tiller in storage, carefully inspect the device for possible malfunctions - the machine always has to be ready for operation. Keep the device in a dry, dust-free place, out of the reach of children. The tiller should be stored at a temperature of -20 to +40 °C. The tiller must be protected from direct sunlight and precipitation.

If the tiller is to be placed in long-term storage (for example, during winter), the following storage conditions must be observed:

- External engine parts, devices, cooling fins must be thoroughly cleaned from soil.
- All moving parts of the tiller must be oiled or greased.
- The fuel tank and carburetor must be drained. To do this, work out fuel at idle outdoors.
- Unscrew the spark plug and fill the engine with 3 cm<sup>3</sup> of oil.

## 13. WASTE

When disposing the product please keep in mind that the tiller packaging, accessories and the device is made of suitable to the secondary use materials.

# 14. WARRANTY SERVICE TERMS

## **TERMS AND CONDITIONS:**

The international manufacturer warranty is 1 year. The warranty period starts from the date of purchase. In cases when warranty period is longer than 1 year according to local legislation please contact your local dealer. The Seller which sells the product is responsible for granting the warranty. Please contact the Seller for warranty. Within the warranty period, if the product fails because of defects in the production process, it will be exchanged on the same product or repaired.

The warranty card should be kept throughout the warranty period. In case of warranty card loss, a second one will not be provided. The customer must provide the warranty card and buyer's check during request for repair or exchange. Otherwise, the warranty service will not be provided. The warranty card, attached to the product during sale, should be correctly and fully completed by the retailer and customer, signed and stamped. In other cases, warranty is not considered as valid.

Provide clean product to the service center. Parts, that must be replaced, are the property of the service center.

## **WARRANTY EXCLUSIONS:**

- If the user has failed to comply with the instructions in this manual.
- If the product features damaged or missing identification stickers or labels, serial numbers, etc.
- If product malfunction was due to improper transportation, storage and maintenance.
- In case of mechanical damages (cracks, chips, impact and fall marks, deformation of housing, power cord, plug or any other components), including those resulting from the freezing of water (ice formation), provided there are foreign objects inside the unit.
- If the product has been improperly installed and connected to the mains supply or misused.
- If the claimed malfunction cannot be diagnosed or demonstrated.
- If proper operation of the product can be restored following cleaning from dust and dirt, appropriate adjustment, maintenance, oil change, etc.
- If the product is used for business related purposes.
- If faults are detected, which have been caused by product overload. Signs of overload are molten or discolored parts as a result of high temperatures, damaged cylinder or piston surfaces, degraded piston rings or connecting rod bushes.
- The warranty does not cover the failure of the product automatic voltage regulator due to careless handling or mishandling.
- If faults are detected, which have been caused by instability of the user's power grid.
- If there are faults caused by contamination or fouling such as contamination of the fuel, oil or cooling system.
- If electrical cables or plugs show signs of mechanical or thermal damage.
- In the event of foreign liquids and objects, metal chips, etc. inside the product.
- If the malfunction is caused by the use of non-original spare parts and materials, oils, etc.
- If there are two or more faulty units that are not interconnected.
- If the damage was caused by natural factors such as dirt, dust, humidity, high or low temperature, natural disasters.
- To quick-wear parts and components (spark plugs, nozzles, pulleys, filter and safety elements, batteries, removable devices, belts, rubber seals, clutch springs, axles, manual starters, oils, gear).
- To preventive maintenance (cleaning, greasing, washing), installation and adjustment.
- If the product was tampered with, independently repaired or modified.
- In case of malfunctions resulting from normal wear and tear as a result of longterm use (end of life).
- If product operation was not stopped and continued after detecting a malfunction.
- Batteries supplied with equipment are covered by a warranty of three months.



# EC Declaration of Conformity

Nr. 091

The following products have been tested by us with the listed standards and found in compliance with the European Community Machinery Directive 2006/42/EC, Electromagnetic compatibility Directive (EMC) 2014/30/EC, Noise Directive 2000/14/EC.

Manufacturer: DIMAX INTERNATIONAL GmbH  
Address: Hauptstr. 134, 51143 Cologne, Germany

Product: Gasoline tillers "Könner & Söhnen"

Type / Model: KS 7HP-850A, KS 7HP-950A, KS 7HP-950S,  
KS 7HP-1050G, KS 9HP-1350G-3.

The statement is based on a single evaluation of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab. logo. The manufacturer should ensure that all product in series production are in conformity with the product sample detailed in this report. The applicant should hold the whole technical report at disposal of the competent all the right.

Applied EC Directives: 2006/42/EC Machinery Directive  
2014/30/EC Electromagnetic compatibility Directive (EMC)  
2000/14/EC Noise Directive  
(EU) 2016/1628 Non-Road mobile machinery emissions

Applied Standards: EN 709:1997+A4 2009  
EN ISO 3744: 1995, ISO 8528-10:1998  
EN ISO 14982:2009

Gasoline engines KS 240, KS 290 correspond to European Emission Standard Euro V. This is confirmed by EU TYPE-APPROVAL CERTIFICATE issued by department of transport of Luxembourg, L-2938. Technical service responsible for carrying out the test -TÜV Rheinland Luxembourg GmbH.  
Date of issue 09/10/2018

## 2000/14/EC\_2005/88/EC Annex VI

For models KS 7HP-850A, KS 7HP-950A, KS 7HP-950S, KS 7HP-1050G, KS 9HP-1350G-3:  
Noise: measured  $L_{wa}$  = 96 dB (A), guaranteed  $L_{wa}$  = 98 dB (A)



**Issued Date:** 2019-11-25  
**Place of issue:** Warsaw city  
**Technical expert:** Homenco A.

DIMAX  
International  
GmbH

Street/No: 103 5722 2493  
USt-IdNr: DE29617274

We DIMAX INTERNATIONAL GmbH hereby declare that specified above conforms covering European Parliament and Council Directives, 2006/42/EC of 17 May 2006 Machinery Directive, Electromagnetic compatibility Directive (EMC) 2014/30/EC of 26 February 2014, Noise Directive 2000/14/EC of 8 May 2000. The CE mark above can be used under the responsibility of manufacturer. After completion of an EC declaration of Conformity and compliance with all relevant EC directives.

## CONTACTS

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