



KVSP Owner's Manual



Image shown with optional accessories

KV VACUUM Owner's Manual

KV601SP, KV650SPH, TKV650SPH, KV601SPFB, KV650SPHFB, TKV650SPHFB
Beginning Serial #: 102515001

Accessories

ON BOARD VACUUM HOSE KIT	OPTIONAL FELT/MESH DEBRIS BAG	NOZZLE WEAR GUARD KIT	CASTER KIT	SHREDDER KIT	KV LINER KIT	PROTECTIVE COVER
4" x 7.5' (102mm x 2.13m) For vacuuming in hard to reach areas.	For use in leaves and grass in dusty conditions.	For use in increasing the life of your nozzle by protecting it from damage	To allow for easy rolling and maneuverability on smooth surfaces.	Shreds leaves, reducing total volume.	Increases the life of the housing by protecting it from damage.	Protects the machine from the environment when not in use.
P/N 891125	P/N 891126 FELT BAG P/N 891132 MESH BAG	P/N 891127	P/N 891128	P/N 891153	P/N 891134	P/N 891137

Original Instructions

IMPORTANT- READ CAREFULLY BEFORE USE AND KEEP FOR FUTURE REFERENCE.



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Go to <http://www.billygoat.com> for French-Canadian translations of the product manuals.

Visitez <http://www.billygoat.com> pour la version canadienne-française des manuels de produits.



SPECIFICATIONS

	KV601SP	KV650SPH	TKV650SPH	KV601SPFB	KV650SPHFB	TKV650SPHFB
Engine HP	4.95 (3.69 kW)	6.5 (4.85kW)	6.5 (4.85kW)	4.95 (3.69 kW)	6.5 (4.85kW)	6.5 (4.85kW)
Engine type	B&S Professional Series	HONDA	HONDA	B&S Professional Series	HONDA	HONDA
Engine model	121R	GSV190LN1L	GSV190LN1L	121R	GSV190LN1L	GSV190LN1L
Engine fuel capacity	1.2 qt. (1.14 L)	1.6 qt. (1.5 L)	1.6 qt. (1.5 L)	1.2 qt. (1.14 L)	1.6 qt. (1.5 L)	1.6 qt. (1.5 L)
Engine oil capacity	0.56 qt. (0.53 L)	0.58 qt. (0.54 L)	0.58 qt. (0.54 L)	0.56 qt. (0.53 L)	0.58 qt. (0.54 L)	0.58 qt. (0.54 L)
Total unit weight	#133 (60.3 kg)	#132 (58.9 kg)	141# (64 kg)	#133 (60.3 kg)	#132 (58.9 kg)	141# (64 kg)
Overall length	59" (1.5m)	59" (1.5m)	59" (1.5m)	59" (1.5m)	59" (1.5m)	59" (1.5m)
Overall width	25.5" (.6m)	25.5" (.6m)	25.5" (.6m)	25.5" (.6m)	25.5" (.6m)	25.5" (.6m)
Overall height	42.75" (1.1m)	42.75" (1.1m)	42.75" (1.1m)	42.75" (1.1m)	42.75" (1.1m)	42.75" (1.1m)
Max. operating slope	20°	20°	20°	20°	20°	20°
Sound in accordance with 2000/14/EEC standards	104 dBa	109 dBa	112 dBa	104 dBa	109 dBa	112 dBa
Sound at operator's ear	88.4 dBa	89 dBa	91 dBa	88.4 dBa	89 dBa	91 dBa
Vibration at operator position	0.29g (2.83m/s ²)	0.32 g (3.16m/s ²)	0.43 g (4.25m/s ²)	0.29g (2.83m/s ²)	0.32 g (3.16m/s ²)	0.43 g (4.25m/s ²)

SAFETY



WARNING



This product can expose you to chemicals including gasoline engine exhaust, which is known to the State of California to cause cancer, and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



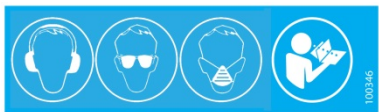
KVSP Owner's Manual

INSTRUCTION LABELS

The labels shown below were installed on your BILLY GOAT® KV Vacuum. If any labels are damaged or missing, replace them before operating this equipment. For your convenience in ordering replacement labels, part numbers are included in the Illustrated Parts List. The correct position for each label may be determined by referring to the Figure and Item numbers shown.



LABEL DANGER KEEP HANDS AND FEET AWAY
ITEM #18 P/N 400424



LABEL SAFETY PROTECT ITEM #20
P/N 100346



DANGER FLYING DEBRIS
ITEM #19 P/N 810736



LABEL SPARK ARRESTOR
P/N 100252



LABEL EXPLOSIVE FUEL
ITEM # 16 P/N 400268



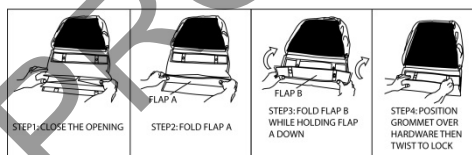
CHIPPER WARNING LABEL
ITEM #82 P/N 890152 (TKV ONLY)



LABEL DANGER GUARD
ITEM #39 P/N 900327

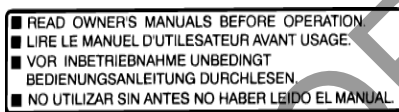
BAG ENCLOSURE INSTRUCTION:
NOTE: IT IS IDEAL TO DO THIS PROCEDURE WITH THE BAG ON THE GROUND WITH BOTTOM PAD FACING UP.

BAG FOLDING INSTRUCTIONS LOCATED ON BAG



ENGINE LABELS

HONDA



BRIGGS & STRATTON

Read Owner's Manual Before Operating.
Lire le manuel d'utilisation avant la mise en route.
Vor Inbetriebnahme Bedienungs- und Wartungsanleitung lesen.
Favor leer las instrucciones de operacion antes de operar el motor.
Consultare il Manuale Uso e Manutenzione prima dell'utilizzo.
Las Skotselinstruktionen Innan Start.

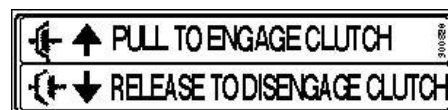
ENGINE AND TRANSMISSION CONTROLS



Honda Throttle Control



Briggs Throttle Control



Bail Drive Engage/Disengage label



KVSP Owner's Manual

PACKING CHECKLIST

Your Billy Goat KV Vacuum is shipped from the factory in one carton, completely assembled except for the upper handle, debris bag, and bag quick disconnect.



READ all safety instructions before assembling unit.



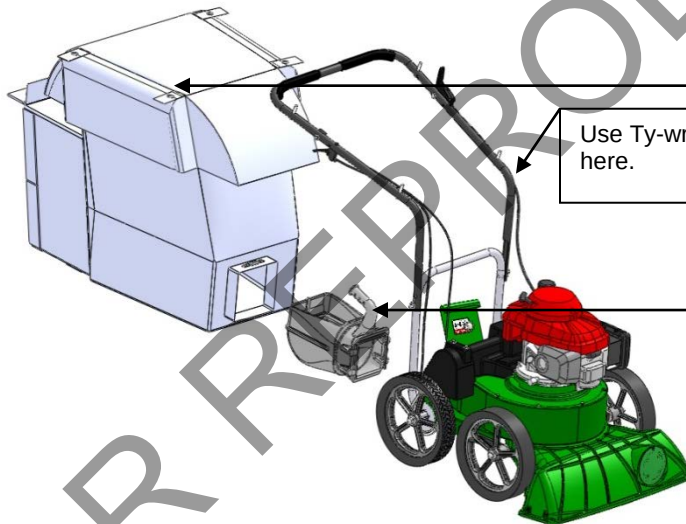
TAKE CAUTION when removing the unit from the box, the Handle Assembly is attached by cables and folded over.



PUT OIL IN ENGINE BEFORE STARTING

PARTS BAG & LITERATURE ASSY

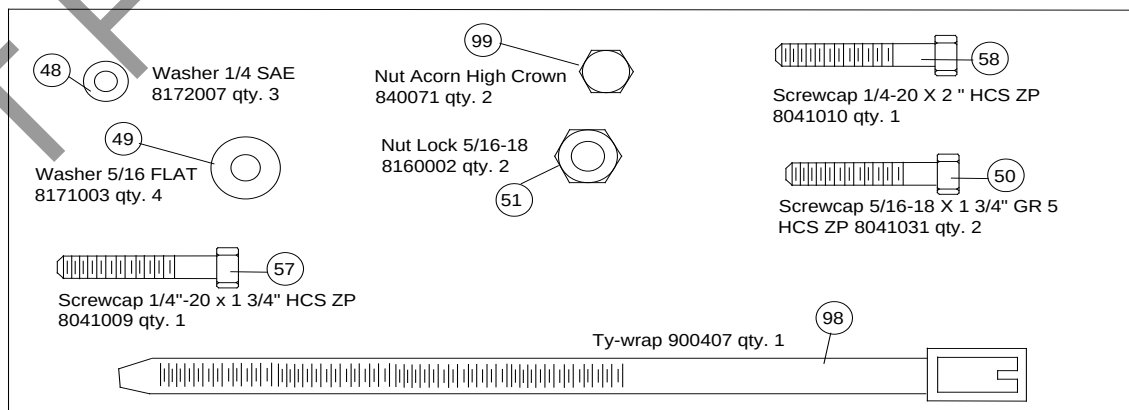
Warranty card P/N- 400972, Owner's Manual P/N-891204, General Safety and Warnings Manual P/N-100294, Declaration of Conformity P/N-891057, Ty-wraps 900407 qty 2.



Boxing Parts Checklist

- ☐ Debris Bag
P/N-891132
OR
Felt Bag
P/N-891126
- ☐ Literature Assy
P/N-891121
- ☐ Connector Quick
Disconnect
P/N-890630
- ☐ Honda 6.5
GSV 190
- ☐ Briggs & Stratton
Professional Series

KVSP hardware





ASSEMBLY

NOTE: Items in () can be referenced in the Parts Illustration and Parts List on pages 13-15.

1. **ASSEMBLE** the upper handle (item 11), with the hardware from the parts bag (items 50, 49, and 51) to the lower handle (item 10). Tighten the hardware securely. (See Fig. 1.)
2. **ATTACH** the throttle lever (item 22) to the handle (Left hand side for Honda. Right side for Briggs and Stratton.) with the hardware from the parts bag (items 58, 48, and 99). Secure the cable with the Ty-Wrap (item 98).
3. **ATTACH** the clutch cable (item 24) to the inner right side of the handle with the hardware (items 99, 48, and 57). Then attach the end of the cable to the bail. After it is attached, check to make sure it is functioning properly.
4. **UNFOLD** the debris bag (item 21) and fasten bag neck to bag quick disconnect (item 12). Attach firmly to housing exhaust (item 1). (See Fig. 2 and 3.)
5. **ATTACH** bag to four posts (item 13), preassembled to upper handle.
6. **CONNECT** spark plug wire.

Insert the quick disconnect from the inside of the bag, tilt the handle so it can be fed through first. Then slide the connecting end through and tighten the strap.

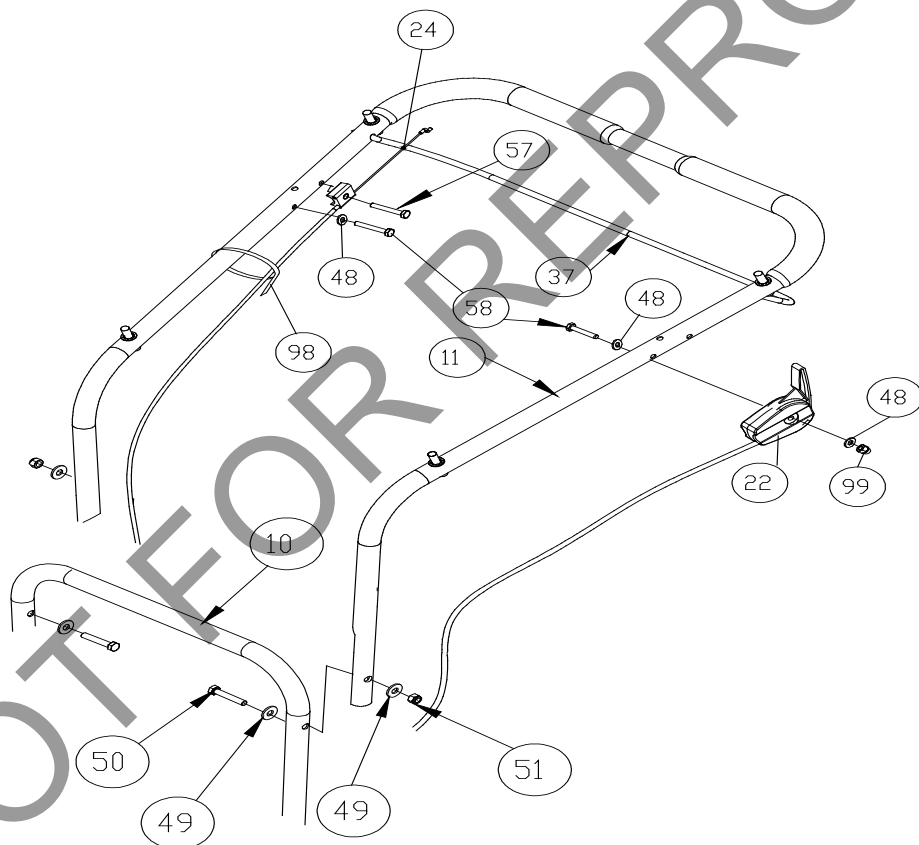


Fig. 1

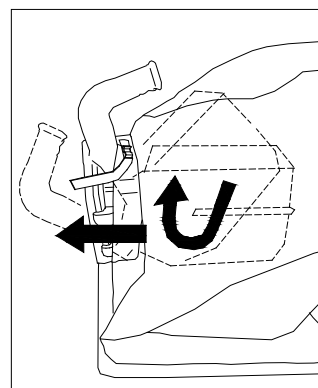


Fig. 2

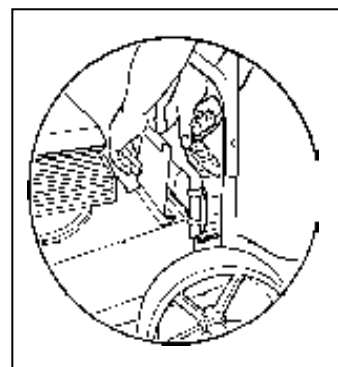


Fig. 3



OPERATION

VACUUMING OPERATION

VACUUM NOZZLE HEIGHT ADJUSTMENT: Nozzle height is raised and lowered by rotating the red knob near the left rear wheel. Nozzle height should be adjusted based on the task being performed (see Fig. 4).

FOR MAXIMUM PICKUP: Adjust nozzle close to debris, but without blocking airflow into the nozzle. **NOTE:** Never bury nozzle into debris.

CLEARING A CLOGGED NOZZLE & EXHAUST: Turn the engine off and wait for impeller to stop completely and disconnect the spark plug wire. Wearing durable gloves, remove clog. **Danger,** the clog may contain sharp materials. Reconnect spark plug wire.

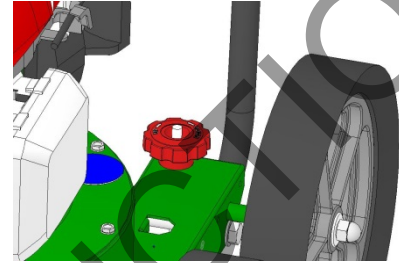
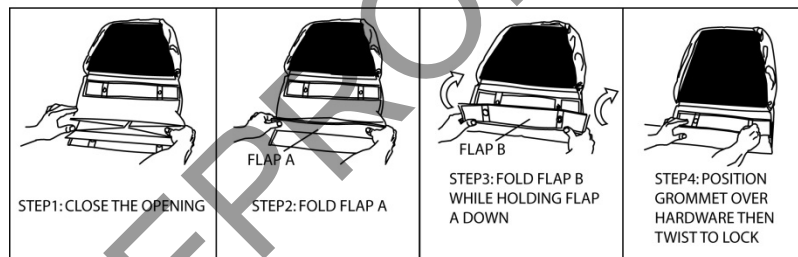


Fig. 4



BAG ENCLOSURE INSTRUCTION:

NOTE: IT IS IDEAL TO DO THIS PROCEDURE WITH THE BAG ON THE GROUND WITH BOTTOM PAD FACING UP.



DEBRIS BAG

Optional debris bags are available for changing conditions.

Debris bags are normal replaceable wear items.

NOTE: Frequently empty debris to prevent bag overloading with more weight than you can lift.

An optional felt bag is available for use where debris will be vacuumed in dusty conditions (see "Accessories" shown on page 1).

DO NOT place bag on or near hot surface, such as engine. Be sure engine has come to a complete stop before removing or emptying bag.

This vacuum is designed for picking up trash, organic material and other similar debris (see "Safety and General Operation" manual).

However, many vacuums are used where dust is mixed with trash. Your unit can intermittently vacuum in dusty areas. Dust is the greatest cause of lost vacuum performance. Following these rules will help maintain your machine's ability to vacuum in dusty conditions:

- Run machine at idle to quarter throttle.
- The debris bag must be cleaned more frequently. A vacuum with a clean, pillow soft bag will have good pickup performance. One with a dirty, tight bag will have poor pickup performance. If dirty, empty debris and vigorously shake bag free of dust.
- Pressure-wash debris bag if normal cleaning does not fully clean bag. Bag should be thoroughly dry before use.

NOTE: Having one or more spare debris bags is a good way to reduce down time while dirty bags are being cleaned.

DO NOT leave debris in bag while in storage.

COMPOST

Vacuumed leaves, grass and other organic material from your own yard can be emptied into a pile or composter to provide enriched soil for later use as fertilizer in gardens and flower beds. **NOTE:** Allow green chips to dry before spreading around living plants.



MULCH

Wood chips made from branches in your own yard make excellent mulch. A thick blanket of wood chips around plants and flowers to keeps weeds out and moisture in.

CHIPPER OPERATION (TKV only)

Your **TKV** chipper is designed to process tree branches and limbs up to 2" (50.8mm) diameter (see Fig. 5).

Several small branches can be grouped together and fed together into the chipper (see Fig. 6).

When feeding forked branches, squeeze forks together and feed into chipper entrance. **DO NOT** overload. If forks are too large, use a pair of loppers to trim forks down to size.

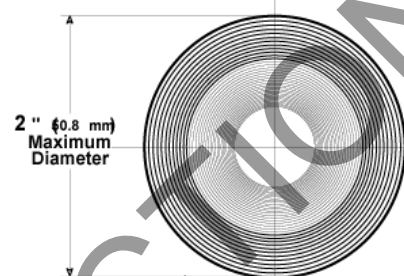


Fig. 5

CLEARING A CLOGGED CHIPPER (TKV only)

Under normal circumstances, allow time for machine to clear all wood from chipper hopper before stopping engine. Otherwise, remaining pieces of wood will jam inside of chipper when engine stops. (See "TAMPER" below.)

Disconnect spark plug wire.

Remove debris bag quick disconnect from debris outlet on machine. Wearing durable gloves, access impeller through debris outlet on fan housing and rotate impeller counter clock wise to dislodge and remove jam and remove debris from hopper with tongs or equivalent. Reconnect debris bag quick disconnect to machine and then reconnect the spark plug wire.



Fig. 6

TAMPER (TKV only)

Before turning machine off, use the tamper to slowly push remaining pieces of wood through the chipper. This can prevent any remaining wood from jamming in the chipper when machine is turned off (see Fig. 7).

Do not leave tamper on the ground, store tamper in the chipper hopper.

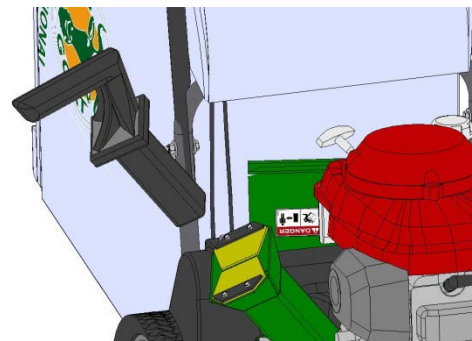


Fig. 7



MAINTENANCE

PERIODIC MAINTENANCE

Periodic maintenance should be performed at the following intervals:

Maintenance Operation	Every Use (Daily)	Every 5 Hrs (Daily)	Every 25 Hours
Inspect for loose, worn or damaged parts		•	
Clean debris bag	•		
Check bag strap tightness	•		
Engine (See Engine Manual)			
Check for excessive vibration		•	

IMPELLER REMOVAL

1. Wait for engine to cool and disconnect spark plug.
2. Drain fuel and oil from the engine.
3. Remove bag, quick release and upper handle. Do not kink, stretch, or break control cables, control housings, or end fittings while removing handles.
4. Remove the transmission cover, idler pulley, transmission and the belt from the transmission.
5. Remove the transmission plate and the housing top plate by removing bolts around outside of housing.
6. Leaving engine fastened to top plate; turn it upside down so the impeller is on top.
7. Remove impeller bolt and lock washer.
8. Lift impeller upward. If impeller slides freely, proceed to step 10.
9. If the impeller does not loosen, obtain a 3/4-16x3" (Billy Goat P/N 440192) or longer bolt. Thread bolt by hand into nut until bolt rests against the shaft. Tighten the bolt slowly, which will pull the impeller away from the shaft, remove impeller from shaft. Using a penetrating oil can help loosen a stuck impeller.
10. Using a new impeller bolt, lockwasher, and washer, reinstall new impeller in reverse order.
11. Tighten impeller bolt. Torque impeller bolt to 33-38 ft. lbs. (44-51 N.m) (see item 45 on page 14).
12. Reinstall engine onto housing in reverse order of removal. Make sure the belt is inside the two fingers on the belt plate and that the belt is on the transmission pulley before securing the transmission.
13. Gas and oil engine.
14. Reconnect spark plug wire.

DRIVE CHAIN REPLACEMENT AND ALIGNMENT

1. Wait for engine to cool and disconnect spark plug.
2. To replace a chain, first prop up the rear of the machine with small blocks to get the rear wheels off of the ground.
3. Remove the transmission cover, and the belt from the transmission.
4. Remove the bolts on both sides of the transmission holding the flange bearings; this should give enough slack to slip the chain off.
5. Replace the old chain with a new one.
6. Once the chain is on, put the bolts back into the flange bearings and tighten.
7. Finally, make sure the wheels rotate freely. If not, loosen the bearings and shift them to get the chain running straight up and down.
8. Reassemble the transmission components removed in steps 1-3 in reverse order.



BELT TENSION ADJUSTMENT

DO NOT ADJUST WHILE THE MACHINE IS RUNNING!

1. Wait for engine to cool and disconnect spark plug.
2. Remove the transmission cover.
3. Using two 1/2" wrenches, loosen the two nuts on the cable that connects to the idler arm.
4. The setting of the tension on the belt is controlled by the distance on the threads of the cable. To loosen tension, move the position towards the end of the threads. Move in the opposite direction to tighten.
5. Check the travel of the idler arm by engaging the bail. The drive should start to engage when the bail is 2 1/2 inches away from the handle. The spring, at a relaxed state should be 1 1/2 inches long on the coil, and when the bail is in contact with the handle it should be 1 3/4 inches long. If the belt is too tight it can cause premature failure and if it is too loose it can come off of the pulley. (See Fig. 8 below.)
6. When satisfied with the position, place the transmission cover back into place and secure. Then run the machine to make sure the transmission is engaging properly. If the drive will not engage or will not disengage, repeat the previous steps.

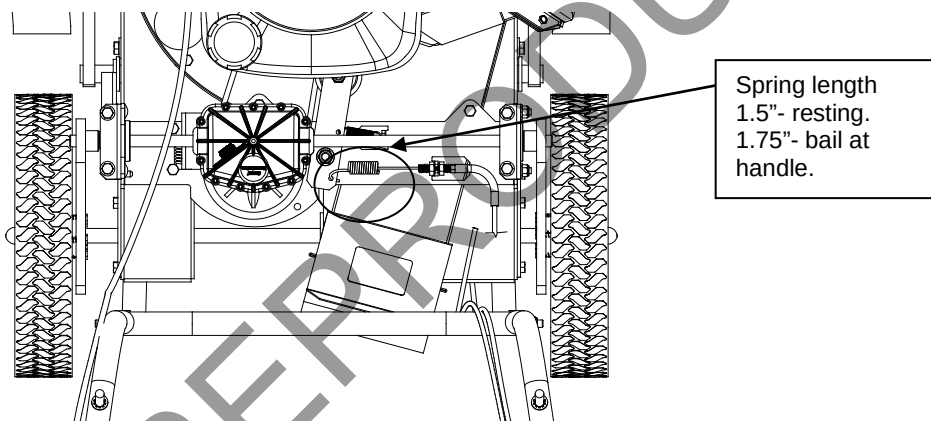


Fig. 8

BELT REPLACEMENT

1. Wait for engine to cool and disconnect spark plug.
2. Drain fuel and oil from the engine.
3. Remove bag, quick release and upper handle. Do not kink, stretch, or break control cables, control housings, or end fittings while removing handles.
4. Remove the transmission cover, idler pulley, transmission and the belt from the transmission.
5. Remove the transmission plate and the housing top plate by removing bolts around outside of housing.
6. Leaving engine fastened to top plate, turn it upside down so the impeller is on top.
7. Remove impeller bolt and lock washer.
8. Lift impeller upward. If impeller slides freely, proceed to (step 10.)
9. If the impeller does not loosen, obtain a 3/4-16x3" (Billy Goat P/N 440192) or longer bolt. Thread bolt by hand into nut until the bolt rests against the shaft. Tighten the bolt slowly, which will pull the impeller away from the shaft. Remove the impeller from the shaft. If necessary, use a penetrating oil as it can help loosen a stuck impeller.
10. Place the new belt on the shaft.
11. Using a new impeller bolt and lockwasher, reinstall new impeller in reverse order.
12. Tighten impeller bolt. Torque impeller bolt to 33-40 Ft. Lbs. (44-54 N.m). (See item 45 on page 15.)
13. Make sure the belt is in the groove on the impeller and feed it through the hole in the top plate.
14. Reinstall engine onto housing in reverse order of removal. Make sure the belt is inside the two fingers on the belt plate and that the belt is on the transmission pulley before securing the transmission.
15. Gas and oil engine.
16. Reconnect spark plug wire.



CHIPPER BLADE REMOVAL AND SHARPENING (TKV ONLY)

Chipper blades are normal replaceable wear items.

⚠ DANGER Chipper blade is sharp. Replace any damaged blade.

Depending on the type and amount of wood being chipped, the chipper blade will eventually get dull, losing its cutting ability. Evidence of a dull blade is a noticeably reduced chipping ability or a rough cut on end of a branch. **NOTE:** The chipper blade gap is factory set and should be checked each time impeller is removed from engine crankshaft and reset if required. If reassembly requires a different quantity of shim washers, a Billy Goat® shim washer must be used (P/N 890130 or P/N 890131, whichever is required).

1. Follow the steps 1-6 on the impeller removal instructions.
2. Using a 3/16" Allen wrench and 1/2" open end wrench, remove chipper blade from impeller.
3. Sharpen blade by lightly grinding the cutting edge of the blade at **40 degrees** (see *Fig. 9* below). It is not necessary to remove all nicks from the cutting edge. **CAUTION:** Be careful to avoid heat buildup in the blade during sharpening. This will reduce its heat-treated hardness properties and will reduce blade life. Evidence of too much heat build-up is a change of color along the sharpened edge.
4. The same chipper blade can be sharpened several times. However, blade replacement is required when blade no longer overhangs the chip relief hole in the impeller back plate, or if increased vibration occurs (see *Fig. 9*).
5. Chipper blade installation is in reverse order of removal.

For Shim Washers: If gap is less than 0.040"(0.51mm), add 0.060"(1.52mm) thick shim washer (P/N 890130) and/or 0.020" (1.02mm) thick shim washer (P/N 890131), whichever is required. If gap is more than 0.080"(2.03mm), remove one or more shim washers as needed to obtain correct gap. The chipper will function up to a maximum of 0.125"(3.18mm) gap.

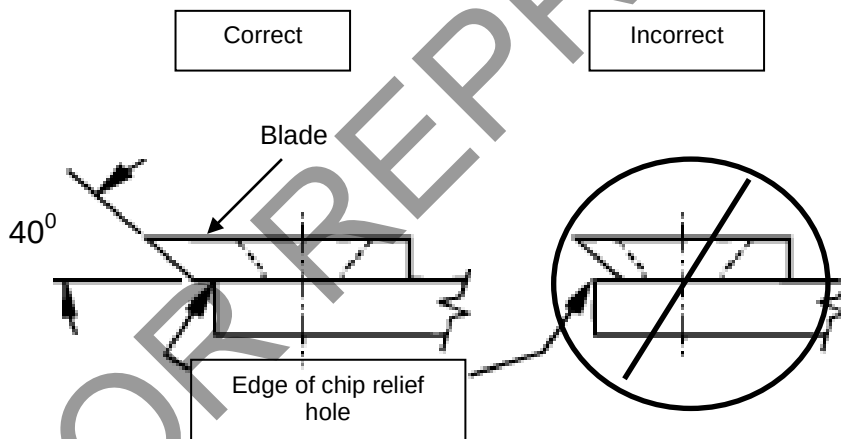


Fig. 9

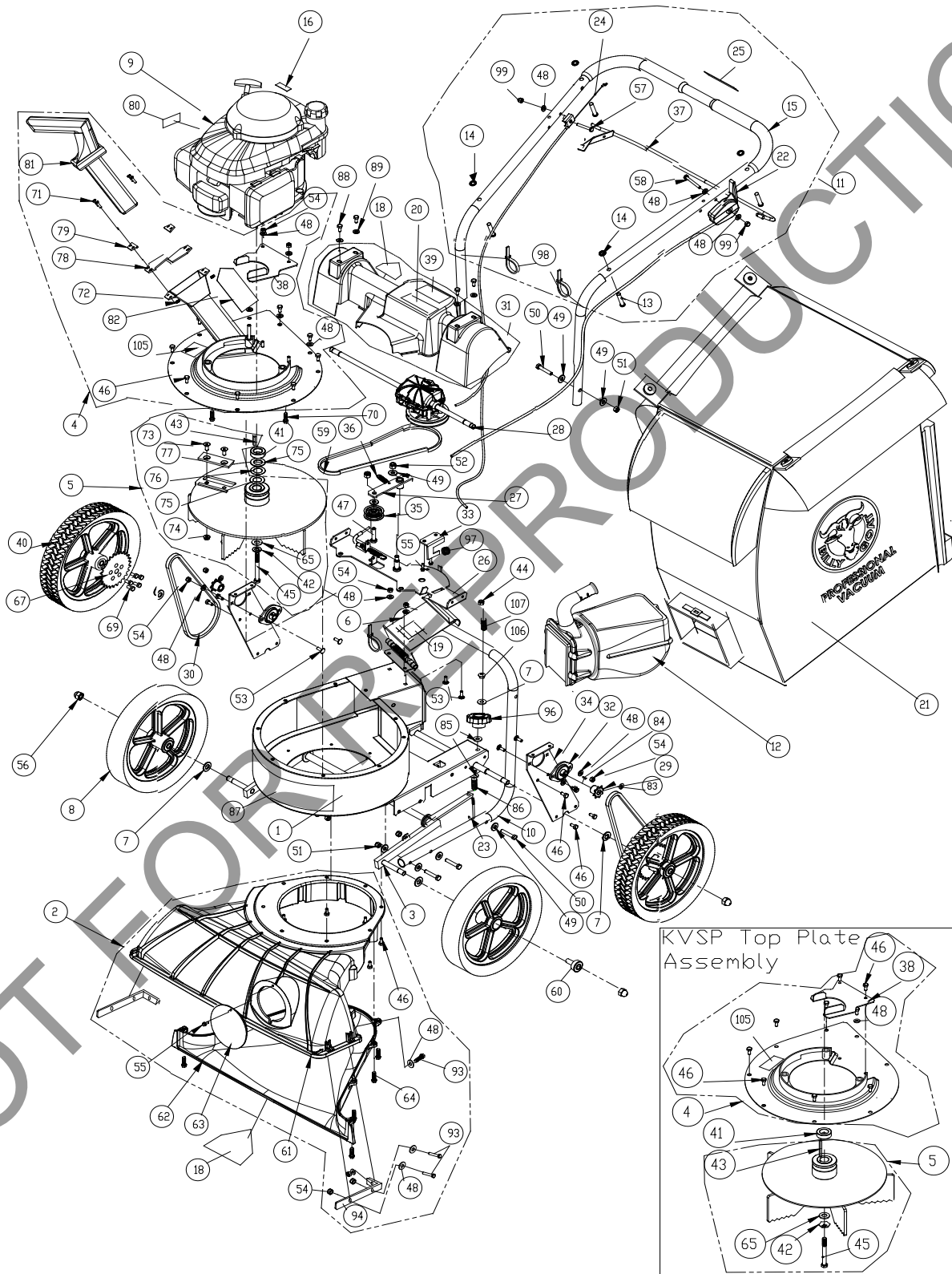


TROUBLESHOOTING

Problem	Possible Cause	Solution
Abnormal vibration	Loose or out of balance impeller or loose engine.	Check impeller and replace if required. Check engine.
Will not vacuum or has poor vacuum performance	Dirty debris bag. Hose kit cap missing. Clogged nozzle or exhaust. Excessive quantity of debris. Improper nozzle height.	Clean debris bag. Shake bag clean or wash. Check for hose kit cap. Unclog nozzle or exhaust. Allow air to feed with debris. Adjust nozzle height so that it is closer to the debris.
Engine will not start	Throttle in off position. Engine not in full choke position. Out of gasoline. Bad or old gasoline. Sparkplug wire disconnected. Dirty air cleaner.	Check stop switches, throttle, choke position and gasoline. Connect spark plug wire. Clean or replace air filter. Or contact a qualified service person.
Engine is locked, will not pull over	Debris locked in impeller. Engine problem.	See page 7. Contact an engine service dealer for engine problems.
Nozzle scrapes ground in lowest height setting	Nozzle height out of adjustment.	Adjust nozzle height (See "NOZZLE HEIGHT ADJUSTMENT" for hard surfaces on page 7).
No self-propelling	Drive bail not engaged. Drive belt worn or broken. Drive clutch cable out of adjustment or broken. Drive chain off the sprocket.	Engage the drive bail. Check the drive belt. Check the drive clutch cable (see page 10). Check the drive chain (see page 9).
Self propelled drive will not release	Improper drive clutch cable adjustment or cable is kinked.	Check the drive clutch cable (see page 10).
Noisy or broken chain	No chain lubrication. Chain misalignment or tension.	Lubricate chain. Check the drive chain (see page 9).
Unit does not free-wheel backwards	None.	Push the unit slightly forward then the unit will free-wheel.
Too much dust coming from bag	Vacuuming very dry, brittle or small debris.	Switch to felt bag (see "Accessories" page 1).



KVSP/TKVSP PARTS DRAWING





KVSP Owner's Manual

KVSP/TKVSP PARTS LIST

ITEM NO.	Description	KV601SP/KV601SPF B PART NUMBER	QTY	KV650SPH/KV650SPHFB PART NUMBER	QTY	TKV650SPH/TKV650SPHF B PART NUMBER	QTY
1	MAIN FRAME HOUSING KV	891100-S	1	891100-S	1	891100-S	1
2	NOZZLE ASSEMBLY TKV	891110-S	1	891110-S	1	891110-S	1
3	AXLE WA KV MICRO	891138	1	891138	1	891138	1
4	PLATE TOP WA KVSP	891101-S	1	891101-S	1	891107-S	1
5	IMPELLER SERRATED 14.25 WA KVSP	891104-S	1	891104-S	1	891109-S	1
6	DOOR EXHAUST ASSY RAW	890148-01	1	890148-01	1	890148-01	1
7	WASHER 1/2" SAE Z/P	8172011	5	8172011	5	8172011	5
8	WHEEL ASSY 12" X 2.5" TREAD	900509	2	900509	2	900509	2
9	ENGINE 6.5 HP HONDA GSV190AN1L	-	-	840069	1	840069	1
	ENGINE B&S PRO SERIES 875	891218	1	-	-	-	-
10	LOWER HANDLE KV	891050	1	891050	1	891050	1
11	HANDLE UPPER KVSP	891054-S	1	891054-S	1	891054-S	1
12	QUICK DISCONNECT	890630	1	890630	1	890630	1
13	PIN CLEVIS 3/8" x 2.125" LONG	520120	4	520120	4	520120	4
14	RETAINER	360279	4	360279	4	360279	4
15	GRIP HANDLE 1"X 9.5" LG	430342	2	430342	2	430342	2
16	LABEL HOT ENGINE EN/SP	100261	1	-	-	-	-
17							
18	LABEL WARNING DANGER	400424	2	400424	2	400424	2
19	LABEL DANGER FLYING DEBRIS	810736	1	810736	1	810736	1
20	LABEL SAFETY PROTECT READ MANUAL	100346	1	100346	1	100346	1
21	BAG DEBRIS NO ZIPPER KV	891132	1	891132	1	891132	1
	BAG FELT W/SKIRT KV (FB MODELS)	891211	1	891211	1	891211	1
22	CABLE THROTTLE ASSY 42" W/CHOKE	891036	1	891027	1	891027	1
23	J BOLT 3/8-16 X 6"	891071	1	891071	1	891071	1
24	CABLE CLUTCH DRIVE ASSY 40" KVSP	891032	1	891032	1	891032	1
25	LABEL CLUTCH VQ	900328	1	900328	1	900328	1
26	BRACKET TRANS MOUNT WA KV	891106	1	891106	1	891106	1
27	ARM IDLER DRIVE WA KV	891105	1	891105	1	891105	1
28	TRANS SINGLE SPEED W/DIFF	891020	1	891020	1	891020	1
29	SPROCKET 8 TOOTH #43 OR #65	891022	2	891022	2	891022	2
30	CHAIN #43 X 58 PITCHES	891023	2	891023	2	891023	2
31	GUARD DRIVE KV	891004-S	1	891004-S	1	891004-S	1
32	BEARING 1/2" PRESSED STEEL HOUSING	891025	2	891025	2	891025	2
33	BRACKET TRANS FIX KV	891012	1	891012	1	891012	1
34	PLATE CHAIN REINFORCE KV	891014	2	891014	2	891014	2
35	PULLEY IDLER 2" OD X 3/8" ID	840087	1	840087	1	840087	1
36	SPRING TENSION	800242	1	800242	1	800242	1
37	BAIL CLUTCH WA KVSP	891102	1	891102	1	891102	1
38	BRACKET IDLER BELT FINGER KV	891028	1	891028	1	891028	1
39	LABEL DANGER GUARD	900327	1	900327	1	900327	1
40	WHEEL ASSY SP 26T SPROCKET	890242	2	890242	2	890242	2
41	SPACER 1.500D X .890ID X .5 THK	-	-	840083	1	840083	1
42	WASHER LOCK 3/8 ST MED	8177012	1	8177012	1	8177012	1
43	SQ KEY 2.125 X .187	9201087	1	9201087	1	9201087	1
44	NUT LOCK 3/8-16 THIN	8161042	1	8161042	1	8161042	1
45	SCREWCAP 3/8-24 x 3 1/2 GR. 8 W/PATCH	440151	1	440151	1	440151	1



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		KV601SP/KV601SPFB PART NUMBER	QTY	KV650SPH/KV650SPHFB PART NUMBER	QTY	TKV650SPH/TKV650SPHFB PART NUMBER	QTY
46	SCREWCAP 1/4 - 20 x 5/8 HWH	890359	26	890359	26	890359	24
47	BOLT IDLER 3/8-16 X 1 1/2	800888	1	800888	1	800888	1
48	WASHER 1/4" SAE ZP	8172007	17	8172007	17	8172007	17
49	WASHER 5/16 FLATWASHER Z/P	8171003	19	8171003	19	8171003	19
50	SCREWCAP 5/16-18 X 1.75 ZP	8041031	8	8041031	8	8041031	8
51	NUT LOCK 5/16-18	8160002	8	8160002	8	8160002	8
52	NYLON INSERT LOCKNUT, 3/8-16 UNC	8160003	2	8160003	2	8160003	2
53	SCREWCAP 1/4-20 X 3/4"	8041004	2	8041004	2	8041004	2
54	NYLON INSERT LOCKNUT, 1/4-20 UNC	8160001	12	8160001	12	8160001	15
55	SCREWCAP #10-14 X 3/4" HWH ZP	891043	3	891043	3	891043	3
56	1/2-13 CAP NUT NP W/PATCH	890530	4	890530	4	890530	4
57	SCREWCAP 1/4-20 x 1 3/4 HCS ZP	8041009	1	8041009	1	8041009	1
58	SCREWCAP 1/4-20x2"	8041010	1	8041010	1	8041010	1
59	BELT 3V315	891026	1	891026	1	891026	1
60	BEARING BALL FLANGED	900774	4	900774	4	900774	4
61	NOZZLE TOP HALF KV	891002	1	891002	1	891002	1
62	NOZZLE BOTTOM HALF KV	891003	1	891003	1	891003	1
63	PLUG HOUSING KD LB	900146-01	1	900146-01	1	900146-01	1
64	SCREW PLASTIC 1/4-20 X 1	891039	8	891039	8	891039	8
65	WASHER 1.5 OD X .453 ID X .25 THK	440153	1	440153	1	440153	1
67	SPROCKET 65A26 26 TOOTH	890238	2	890238	2	890238	2
69	SCREW SELF TAP 1/4 x 0.75	900505	10	900505	10	900505	10
70	SCREW TAPTITE 3/8 X 2 1/2	900564	3	900564	3	900564	3
71	SCREWCAP #10-24 X 5/8"	-	-	-	-	8059135	4
72	NYLON INSERT LOCKNUT 10-32 UNF ZINC	-	-	-	-	8164005	4
73	SCREW SOCKET HD 5/16-18 X 3/4 GR. 8	-	-	-	-	890103	2
74	NUT KEPS 5/16-18	-	-	-	-	890104	2
75	WASHER SHIM 0.875 ID X 0.060	-	-	-	-	891065	2
76	WASHER SHIM 0.875 ID X 0.020	-	-	-	-	891041	0-3
77	BLADE CHIPPER KD501	-	-	-	-	890101	1
78	GUARD FLAPPER	-	-	-	-	890119	2
79	PLATE FLAPPER ENTRANCE	-	-	-	-	890127	2
80	LABEL SPARK ARRESTOR EN/SP	-	-	100252	1	100252	1
81	TAMPER CHIPPER	-	-	-	-	890229	1
82	LABEL DANGER CHIPPER	-	-	-	-	890152	1
83	CLIP 1/2"	350146	4	350146	4	350146	4
84	WOODRUFF KEY 1/8 X 1/2	510180	2	510180	2	510180	2
85	WASHER 1/2" FC	8171006	2	8171006	2	8171006	2
86	SPRING COMPRESSION	891072	1	891072	1	891072	1
87	LABEL BADGING KV/TKV	891214	1	891214	1	891215	1
88	SCREW SM 1/4 X 3/4 DRILL PT	510208	4	510208	4	510208	4
89	WASHER 1/4" SAE BLACK OXIDE	510193	4	510193	4	510193	4
91							
92	CARRIAGE BOLT 1/4"-20 X 3/4"	8024021	4	8024021	4	8024021	4
93	SCREWCAP 1/4-20 X 1" HCS ZP	8041006	6	8041006	6	8041006	6
94	KV NOZZLE BRACKET	891208	2	891208	2	891208	2
96	KNOB 3/8-16 RED	891070	1	891070	1	891070	1
97	SPRING LEVER GZ	610429	1	610429	1	610429	1
98	TY WRAP	900407	4	900407	4	900407	4
99	NUT 1/4-20 ACORN	840071	2	840071	2	840071	2
105	LABEL MADE IN U.S.A.	520116	1	520116	1	520116	1
106	GROMMET FLANGE 1/2" MOLDED	830176	1	830176	1	830176	1
107	SPRING COMPRESSION	400332	1	400332	1	400332	1



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en	English	fi	Suomi	lv	Latviešu	ru	Русский
bg	български език	fr	Français	nl	Nederlands	sl	Slovenščina
cs	Čeština	el	Ελληνικά	no	Norsk	sk	Slovák
da	Dansk	hr	Hrvatski	pl	Polski	sv	Svenska
de	Deutsch	hu	Magyar	pt	Português	tr	Türkçe
es	Español	it	Italiano	ro	Română		
et	eesti keel	lt	Lietuvių				

en	EC Declaration of Conformity	el	Δήλωση συμμόρφωσης ΕΚ	pl	Deklaracja zgodności UE
bg	Декларация за съответствие с европейските стандарти	hu	EU Megfelelőségi nyilatkozat	pt	Declaração de Conformidade à CE
cs	ES Prohlášení o shodě	hr	EC Deklaracija o sukladnosti	ro	Declarație de conformitate C.E.
da	EC Overensstemmelseserklæring	it	Dichiarazione di conformità CE	ru	Заявление о соответствии стандартам и нормам ЕС
de	EG-Konformitätserklärung	lt	EB atitikties deklaracija	sl	ES izjava o skladnosti
es	Declaración de Conformidad de la CE	lv	EK Atbilstības deklarācija	sk	Vyhlasenie o zhode
et	Eü vastavustunnistus	nl	E.C. Conformiteitsverklaring	sv	EG-försäkran om överensstämmelse
fi	EC-vaatimustenmukaisuusvakuutus	no	CE konformitetserklæring	tr	EC Uygunluk Deklarasyonu
fr	Déclaration de conformité CE				

en	Category	Vacuum	el	Κατηγορία	κενό	pl	Kategoria	Próżnia
bg	Категория	вакуум	hu	Kategória	vákuum	pt	Categoria	vácuo
cs	Kategorie	Vakuum	hr	Kategorija	Vakuum	ro	Categorie	vid
da	Kategori	vakuum	it	Categoria	vuoto	ru	Категория	вакуум
de	Kategorie	Vakuum	lt	Kategorija	Dulkių	sl	Kategorija	vakuumaska
es	Categoría	Aspiradora	lv	Kategorija	vakuumis	sk	Kategória	vakuumé
et	Kategooria	vaakum	nl	Categorie	vacuüm	sv	Kategori	vakuum
fi	Kategoria	tyhjiö	no	Kategori	vacuum	tr	Kategori	Vakum
fr	Catégorie	vide						

en	This is to certify that the products listed in this document meet the requirements of the European Community Law, and can carry the CE mark. These models comply with the following Directives and related Standards.
bg	Декларацията се издава в удостоверение на това, че изброените продукти съответстват на стандартите на правните норми на Европейския съюз и могат да носят знака CE. Моделите изпълняват директивите и техните стандарти, както следва.
cs	Tímto stvrzujeme, že výrobky uvedené v tomto dokladu splňují požadavky zákonů Evropského společenství a mohou být označeny značkou CE. Tyto modely splňují následující směrnice a související normy.
da	Det bekræftes hermed, at de produkter, der er nævnt i dette dokument, opfylder bestemmelserne i EU-lovgivningen og kan bære CE-mærkatet. Disse modeller er i overensstemmelse med følgende direktiver og relaterede standarder:
de	Hiermit wird bescheinigt, dass die in diesem Dokument aufgeführten Produkte mit den gesetzlichen Bestimmungen der Europäischen Gemeinschaft übereinstimmen und das CE- Zeichen tragen können. Diese Modelle erfüllen die folgenden Richtlinien sowie weitere anzuwendende Normen.
es	La presente certifica que los productos enumerados en este documento cumplen con los requerimientos de la Legislación de la Comunidad Europea, y que pueden portar la marca CE. Estos modelos cumplen con las siguientes Directrices y Estándares relacionados:
et	Kinnitame, et eespool nimetatud tooted vastavad Euroopa Ühenduse seadusandluse nõuetele ja kannavad CE-märgistust. Eespool nimetatud mudelid vastavad järgmistele direktiividele ja seotud standardile:
fi	Vakuutamme, että tässä asiakirjassa luetellut tuotteet täyttävät Euroopan Unionin lainsäädännön asettamat vaatimukset ja voi saada CE-merkinnän. Nämä mallit täyttävät seuraavien direktiivien ja niitä koskevien standardien vaatimukset:
fr	Nous déclarons par la présente que les produits mentionnés dans le document sont conformes à la législation de la Communauté européenne et peuvent porter le marquage CE. Ces modèles sont conformes aux directives suivantes et aux normes connexes :
el	Με την παρούσα δήλωση πιστοποιείται ότι τα προϊόντα που αναφέρονται στην παρούσα πληρούν τις απαιτήσεις της Ευρωπαϊκής Κοινωνικής Νομοθεσίας και μπορούν να φέρουν τη σήμανση CE. Τα μοντέλα αυτά συμμορφώνονται με τις ακόλουθες οδηγίες και τα σχετικά Πρότυπα.
hu	Ez annak tanúsítására szolgál, hogy a dokumentumban felsorolt termékek megfelelnek az Európai közösségi jog követelményeinek és viselheti a CE jelzést. Ezek a modellek eleget tesznek a következő irányelveknek és vonatkozó szabványoknak.
hr	Ovo je potvrda da proizvodi koji su navedeni u ovom dokumentu odgovaraju zakonima europske zajednice i da nose CE oznaku. Ovi modeli zadovoljavaju sljedeće direktive i odgovarajuće standarde.
it	Si certifica che i prodotti elencati nel presente documento soddisfanno i requisiti della legislazione della Comunità Europea e possono recare il marchio CE. Questi modelli sono conformi alle seguenti norme e direttive:
lt	Šiuo patvirtiname kad šiam dokumente paminėti produktai atitinka Europos Bendrijos įstatymų reikalavimus ir jie gali būti pažymėti CE ženklu. Šie modeliai atitinka sekancias direktyvas ir standartus.
lv	Ar šo tiek apstiprināts, ka šajā dokumentā uzskaitītie izstrādājumi atbilst Eiropas Kopienas Likuma prasībām un var tikt marķēti ar emblēmu CE. Šie modeļi atbilst sekojošajām Direktīvam un attiecīgajām Normām.
nl	Hiermee wordt gecertificeerd dat de producten die in deze lijst staan opgesomd, voldoen aan de wettelijke voorschriften van de Europese Gemeenschap en mogen worden voorzien van de CE markering. Deze modellen voldoen aan de volgende richtlijnen en bijbehorende normen:
no	Dette sertifiserer at produktene som er nevnt i dette dokumentet oppfyller kravene som stilles av EU, og at de dermed kan CE-merkes. Disse modellene tilfredsstiller følgende direktiver og relaterte standarder:
pl	Niniejszym zaświadcza się, że produkty wymienione w niniejszym dokumencie spełniają wymogi Prawa Wspólnoty Europejskiej i mogą nosić oznakowanie CE. Modele te spełniają wymogi następujących dyrektyw i powiązanych norm.
pt	O presente documento certifica que os produtos listados neste documento atendem aos requisitos das Leis da Comunidade Europeia e podem levar a marca CE. Esses modelos estão de acordo com as seguintes diretivas e padrões relacionados.
ro	Prin prezenta se atestă faptul că produsele menționate în acest document îndeplinesc cerințele de Drept Comunitar European și pot purta sigla C.E. Aceste modele sunt în conformitate cu următoarele directive și standarde asociate.
ru	Настоящим удостоверяется, что перечисленные в этом документе изделия соответствуют требованиям законов Европейского Союза и могут быть обозначены знаком CE. Эти модели отвечают требованиям следующих директив и соответствующих стандартов.
sl	To služi kot potrditev, da izdelki, ki so navedeni v tem dokumentu, ustrezajo zahtevam zakonodaje Evropske skupnosti in so lahko opremljeni z oznako CE. Ti modeli so v skladu z naslednjimi direktivami in povezanimi standardi.
sk	Týmto vyhlasujeme, že výrobky uvedené v tomto dokumente, splňajú požiadavky zákonov ES a môžu byť označené značkou CE. Tieto modely vyhovujú nasledujúcim smerniciam príslušným normám.
sv	Härmed försäkras att produkterna som finns listade i detta dokument uppfyller kraven i Europeiska gemenskapens lagstiftning och kan förses med CE-märket. Modellerna uppfyller följande direktiv och tillhörande normer.
tr	Bu belgede belirtilen ürünlerin Avrupa Birliği Yasası gereksinimlerini karşılayarak CE işareti taşıyabilmesini onaylamak içindir. Bu modeller aşağıdaki Direktif ve ilgili Standartlarla uyumludur



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en	Directive:	2006/42/EC	hu	Irányelv:	2006/42/EC	pt	Diretiva:	2006/42/EC
bg	Директива:	2006/42/EC	el	Οδηγία:	2006/42/EC	ru	Директива:	2006/42/EC
cs	Směrnice č.	2006/42/EC	hr	Direktiva:	2006/42/EC	ro	Diretiva:	2006/42/EC
da	Direktiv:	2006/42/EC	it	Direttiva:	2006/42/EC	sl	Direktiva:	2006/42/EC
de	Richtlinie:	2006/42/EC	lt	Direktyva:	2006/42/EC	sk	Smernica:	2006/42/EC
es	Directriz:	2006/42/EC	lv	Direktīva:	2006/42/EC	sv	Direktiv:	2006/42/EC
et	Direktiiviga:	2006/42/EC	nl	Richtlijn:	2006/42/EC	tr	Direktif:	2006/42/EC
fi	Direktiivi:	2006/42/EC	no	Direktiv:	2006/42/EC			
fr	Directives :	2006/42/EC	pl	Dyrektywy:	2006/42/EC			

en Model	Guaranteed Sound Power Level	Measured Sound Power Level	Sound Pressure Level at Operator's Ear (1)	Engine Net Power	Hand/Arm Vibration (2)	Mass
bg Model	Гарантирано ниво на звука	Измерено ниво на звука	Налягане на звука, измерено на нивото на ухото на оператора (1)	Мощност на двигателя	Вибрация на дланта и на ръката (2)	Маса
cs Model	Garantovaná hladina akustického výkonu	Změřená hladina akustického výkonu	Hladina akustického tlaku naměřená u ucha obsluhující osoby (1)	Užitečný výkon motoru	Vibration rukou/paží (2)	Váha
da Model	Garanteret støjniveau	Målt støjniveau	Lydtryksniveau ved brugerens øre (1)	Maskine Netto kraft	Vibration af hånd/arm (2)	Vægt
de Modell	Garantierter Schalleistungspegel	Gemessener Schalleistungspegel	Schalldruckpegel am Ohr der Bedienungsperson (1)	Motornettoleistung	Vibrationen an Hand/Arm (2)	Masse
es Modelo	Nivel garantizado de potencia acústica	Nivel medido de potencia acústica	Nivel de presión acústica en el oído del operador (1)	Potencia neta del motor	Vibración mano / brazo (2)	Masa
et Mudel	Garanteeritud heliivõimsuse tase	Mõõdetud heliivõimsuse tase	Helirõhu tase kasutaja kõrva juures (1)	Masin puhas töotav	Võrkumise käsi / käsivars (2)	Massi
fi Malli	Taattu äänitehotaso	Mitattu äänitehotaso	Äänenpaine taso käyttäjän korvan tasolla (1)	Moottorin nettoteho	Käden/käsivarren värinä (2)	Paino
fr Modèle	Niveau de bruit garanti	Niveau de bruit mesuré	Niveau sonore au niveau de l'oreille de l'opérateur (1)	Puissance nette du moteur	Vibrations au niveau de la main/du bras (2)	Masse
el Μοντέλο	Εγγυημένη στάθμη ηχητικής ισχύος	Μετρημένη στάθμη ηχητικής ισχύος	Στάθμη ηχητικής πίεσης στο αυτί του χειριστή (1)	Καθαρή ισχύς κινητήρα	Χειροβραχίονα κ/δόνηση (2)	Μάζα
hu Model	Garantált hangteljesítmény szint	Mért hangteljesítmény szint	Hangnyomás szint a gépkezelő fülénél (1)	Motor hasznos teljesítménye	Kézkar vibráció (2)	Tömeg
hr Model	Zajnačena razina snage zvuka	Izmerjena razina snage zvuka	Razina zvučnog tlaka na uhu rukovatelja (1)	Neto snaga motora	Vibracije šake/ruke (2)	Masa
it Modello	Livello acustico garantito	Livello acustico misurato	Livello di pressione acustica all'orecchio dell'operatore (1)	Potenza netta motore	Vibrazioni a mani/braccia (2)	Massa
lt Modelis	Garantuotas triukšmo lygis	Pamatuotas triukšmo lygis	Garsas spaudimo lygis įrangos naudotojui (1)	Variklio bendras galingumas	Rankenos vibracija (2)	Masė
lv Modelis	Garantētais skaņas jaudas līmenis	Izmērītais skaņas jaudas līmenis	Skaņas spiediena līmenis pie operatora ausis (1)	Dzinēja neto jauda	Rokas/pleca vibrācija (2)	Masa
nl Model	Gegarandeerd geluidsdrukniveau	Gemeten geluidsdrukniveau	Geluidsdrukniveau bij het oor van de gebruiker (1)	Netto motorvermogen	Trilling van hand/arm (2)	Mass
no Modell	Garantert lydstyrkenivå	Målt lydstyrkenivå	Lydtrykk-nivå ved operatørens øre (1)	Motorens netto krefter	Hånd/arm-vibrasjon (2)	Masse
pl Model	Gwarantowany poziom mocy akustycznej	Zmierzony poziom mocy akustycznej	Poziom ciśnienia akustycznego w uchu operatora (1)	Moc netto silnika	Drgania ręk/ramienia (2)	Masa
pt Modelo	Nível de potência de som garantido	Nível de potência de som medido	Níveis de pressão do som no ouvido do operador (1)	Potência útil do motor	Vibração na mão/braço (2)	Massa
ro Model	Nivel de zgomot garantat	Nivel de zgomot măsurat	Nivel de presiune acustică la urechea operatorului (1)	Putere netă motor	Vibrație mână/braț (2)	Masă
ru Модель	Гарантированный уровень звуковой мощности	Измеренный уровень звуковой мощности	Уровень звукового давления на месте оператора (1)	Полезная мощность двигателя	Интенсивность вибрации на ладонях/руках (2)	Вес
sl Model	Zajnačena raven zvočne moči	Izmerjena raven zvočne moči	Raven zvočnega tlaka pri užesu uporabnika (1)	Izhodna moč motorja	Tresljaji na rokah (2)	Masa
sk Model	Zaručená hladina akustického výkonu	Nameraná hladina akustického výkonu	Hladina akustického tlaku pôsobiaceho na ucho obsluhy (1)	čistý výkon motora	Ruka/Rameno Vibrácia (2)	Masa
sv Modell	Garanterad ljudeffektivitet	Uppmätt ljudeffektivitet	Ljudtrycksnivå vid operatörens öra (1)	Motoreffekt netto	Hand-/armvibrationer (2)	Massa
tr Model	Garantili Ses Gücü Seviyesi	Ölçülen Ses Gücü Seviyesi	Operatörün Kulakındaki Ses Basıncı Seviyesi (1)	Makine Net Gücü	El/Kol Titre şimi (2)	Ağırlık
KV601	104.2 dB(A)	103.2 dB(A)	88.4 dB(A)	3.69 kW	2.83 m/s ²	60.3 kg
KV601FB	104.2 dB(A)	103.2 dB(A)	88.4 dB(A)	3.69 kW	2.83 m/s ²	60.3 kg
KV650H	110 dB(A)	109 dB(A)	89 dB(A)	4.85 kW	4.95 m/s ²	51.3 kg
KV650HFB	110 dB(A)	109 dB(A)	89 dB(A)	4.85 kW	4.95 m/s ²	51.3 kg
KV601SP	104.2 dB(A)	103.2 dB(A)	88.4 dB(A)	3.69 kW	2.83 m/s ²	60.3 kg
KV601SPFB	104.2 dB(A)	103.2 dB(A)	88.4 dB(A)	3.69 kW	2.83 m/s ²	60.3 kg
KV650SPH	110 dB(A)	109 dB(A)	89 dB(A)	4.85 kW	3.29 m/s ²	58.9 kg
KV650SPHFB	110 dB(A)	109 dB(A)	89 dB(A)	4.85 kW	3.29 m/s ²	58.9 kg
TKV650SPH	113 dB(A)	112 dB(A)	92 dB(A)	4.85 kW	3.29 m/s ²	64 kg
TK650SPHFB	113 dB(A)	112 dB(A)	92 dB(A)	4.85 kW	3.29 m/s ²	64 kg



KVSP Owner's Manual

- (1) ISO 5395-1:2013 F.7 (EN 4871:1996)
(2) ISO 5395-1:2013 G.8 (EN 12096:1997, D.1)

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