



MVSP Owner's Manual



Self-Propelled Multi-Vac Owner's Manual

MV650SPH, MV601SPE, and MV650SPHDS

Beginning Serial #: 020516001

Accessories

| CASTER KIT | HOSE KIT | BAG LINER KIT | FELT BAG KIT | LINER KIT |
|--|------------------------------------|---------------------------------------|------------------------------|--|
| Use on hard surface for maneuverability. | For vacuuming hard to reach areas. | To collect leaves, thatch, and grass. | Use on all dusty conditions. | Interior housing liner to decrease housing wear. |
| P/N 840129 | P/N 840116 | P/N 840134 | P/N 840194 | P/N 840201 |

Original Instructions

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



MVSP Owner's Manual

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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

| | MV650SPH | MV601SPE | MV650SPHDS |
|--|------------------------------------|--|------------------------------------|
| Engine Type | Honda GSV190LN1L | Briggs and Stratton Professional Series 121S02-0110-F1 | Honda GSV190LN1L |
| Horsepower | 6.5 (4.85 kW) | 5.0 (3.73 kW) | 6.5 (4.85 kW) |
| Fuel Capacity | 1.6 qt (1.5 L) | 1.2 qt. (1.14 L) | 1.6 qt (1.5 L) |
| Oil Capacity | 0.58 qt (0.54L) | 0.56 qt. (0.53 L) | 0.58 qt (0.54L) |
| Unit Weight | 179 lbs (81.2 kg) | 204 lbs (92.5 kg) | 179 lbs (81.2 kg) |
| Overall Dimensions | 28" Wide x 62.5" Long x 45.5" High | 28" Wide x 62.5" Long x 45.5" High | 28" Wide x 62.5" Long x 45.5" High |
| Maximum Operating Slope | 20° | 20° | 20° |
| In compliance with 2000/14/EEC standards | 103 dB(a) at 3320 rpm | 105.5 dB(a) | 103 dB(a) at 3320 rpm |
| Sound at Operators Ear | 83 dB(a) at 3320 rpm | 89 dB(a) | 83 dB(a) at 3320 rpm |
| Vibration at operator position | 1.43g(14.00 m/s ²) | 1.28g (12.57 m/s ²) | 1.43g(14.00 m/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.



INSTRUCTION LABELS

The labels shown below were installed on your BILLY GOAT® MV 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 FUEL WARNING
ITEM 55 P/N 400268



LABEL EAR EYE BREATHE READ
ITEM 162 P/N 100346



LABEL HEIGHT ADJUST
ITEM 34 P/N 840054



LABEL CLUTCH
ITEM 120 P/N500176



LABEL DANGER
ITEM 11 P/N 400424



LABEL DANGER
ITEM 174 P/N 810736



LABEL DOOR OPENING
ITEM 175 P/N 840080



LABEL GUARDS
ITEM 118 P/N 900327

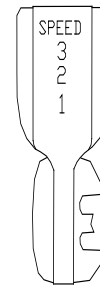
ENGINE LABELS



CONTROLS



Throttle
P/N 840045



Drive
P/N 510127



ASSEMBLY INSTRUCTIONS

Your BILLY GOAT® MV Vacuum was shipped in one carton, completely assembled except for the Hood/Upper Handle Assembly. Mounting hardware for the Hood/Upper Handle Assembly is temporarily installed on the lower handle and the Housing Assembly.



READ all safety instructions before assembling unit.

TAKE CAUTION when removing the unit from the box. The Hood/Upper Handle Assembly is attached to the unit by cables.

PARTS BAG & LITERATURE ASSY

Warranty card P/N- 400972, Owner's Manual P/N-840245, General Safety and Warnings Manual P/N-100294, Declaration of Conformity P/N-840204

PARTS BAG HARDWARE

| ITEM NO. | PART NO. | DESCRIPTION | QTY |
|----------|----------|--------------------------------|-----|
| 139 | 840061 | ROD LIFT NOZZLE DOOR | 1 |
| 150 | 900407 | TY- WRAP | 2 |
| 152 | 8171003 | WASHER 5/16" FLAT ZP | 4 |
| 153 | 8160002 | NUT LOCK 5/16"-18 | 2 |
| 158 | 8041006 | SCREWCAP 1/4"-20 X 1" ZP | 2 |
| 159 | 8041031 | SCREWCAP 5/16" X 1 3/4" ZP | 2 |
| 160 | 8171004 | WASHER 3/8 FLAT | 4 |
| 161 | 8172007 | WASHER 1/4" SAE ZP | 5 |
| 164 | 400886 | ROD END BALL JOINT 3/8" NF | 2 |
| 165 | 8041052 | SCREWCAP 3/8"-16 X 1 1/2" ZP | 1 |
| 166 | 8160003 | NUT LOCK 3/8"-16 | 2 |
| 167 | 8041056 | SCREWCAP 3/8"-16 X 2 1/2" ZP | 1 |
| 170 | 8041004 | SCREWCAP 1/4"-20 X 3/4" HCS ZP | 1 |
| 171 | 8172019 | WASHER FENDER 1/4" ZP | 2 |
| 173 | 840071 | NUT ACORN 1/4"-20 | 2 |

Boxing Parts Checklist

- Honda 6.5 Engine
- B&S 6 Engine
- Parts bag P/N-840187
- Ty-wraps (2 ea)

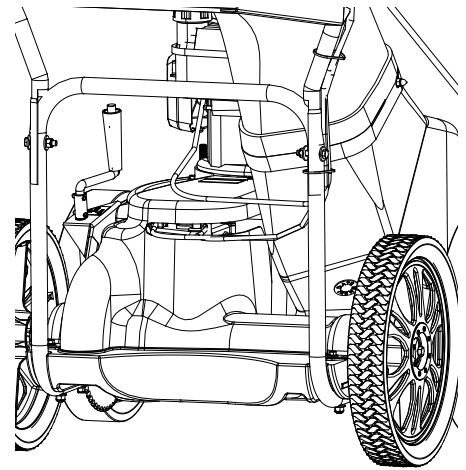


Fig. 1

DISCONNECT spark plug wire before assembling unit.

- Attach hood assembly to the housing then hold in place during step 2.
NOTE: be sure all cables are routed on the underside of the hood and housing. (See Fig. 1)
- Install (item 170) center bolt first when aligned with a nut on the housing. (See Fig. 2)
- Attach rest of hood assembly to the housing using corresponding hardware. *NOTE:* You will have to insert the bolt/washer from the inside by reaching through the hood. (See Fig. 2)
- Attach upper handle brace to lower handle using corresponding hardware. Then repeat this step on the other side. (See Fig. 3 next page)
- Attach rod end (item 164) to the nozzle door rod then secure in place by tightening jam nut. (See Fig. 4 next page)
- Attach nozzle door rod to the nozzle door using corresponding hardware. *NOTE:* It is easier to do this with nozzle door closed.
- Attach rod end to rod (See Fig. 5 next page).
- Attach nozzle door rod to the lever with nozzle door closed and lever in hose kit position. *NOTE:* Check to see that the nozzle door opens and closes all the way (see page 15). Tighten or loosen the rod end (item 164) for any adjustments. (See Fig. 4 and 5 next page)
- Install cable ty wraps.
- Reconnect spark plug wire.
- Attach the bag. (See Fig. 7)

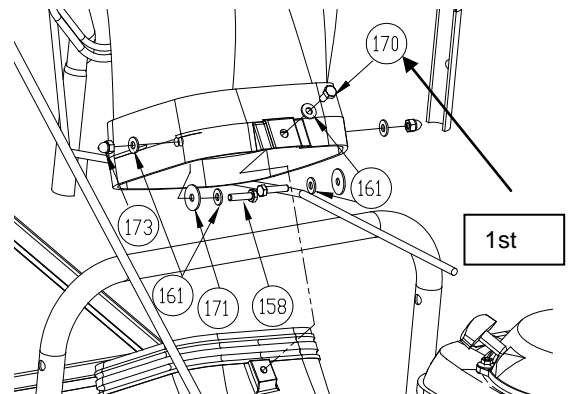


Fig. 2

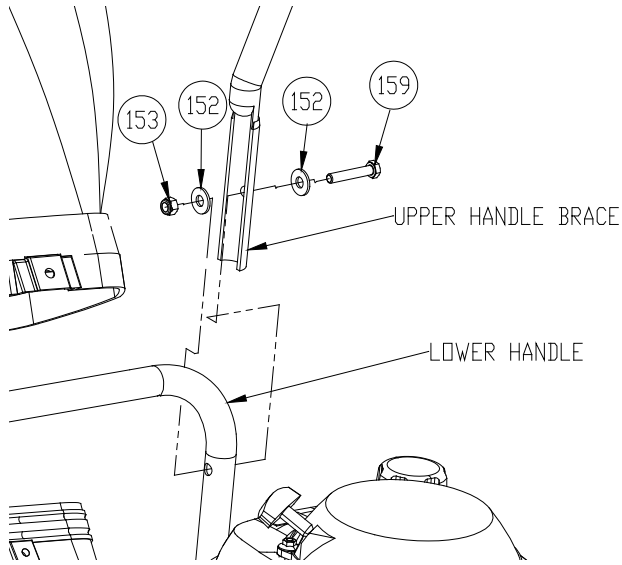


Fig. 3

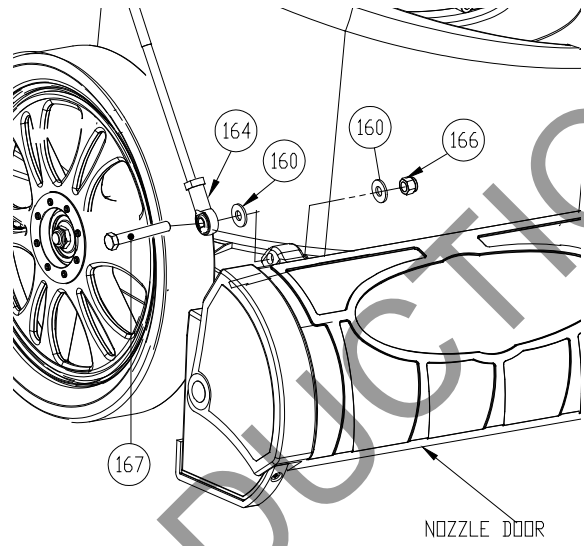


Fig. 4

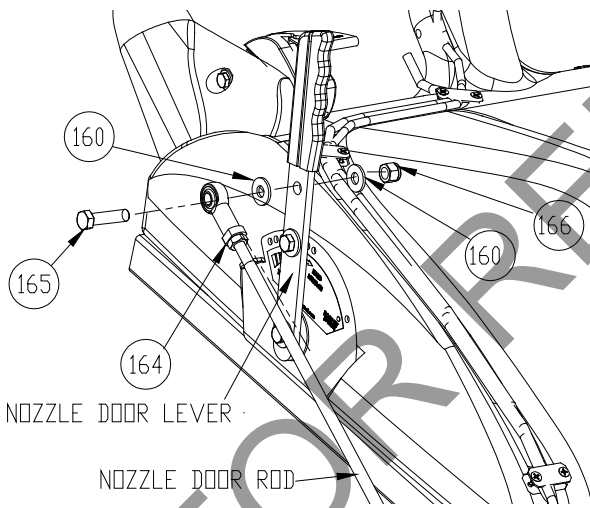


Fig. 5

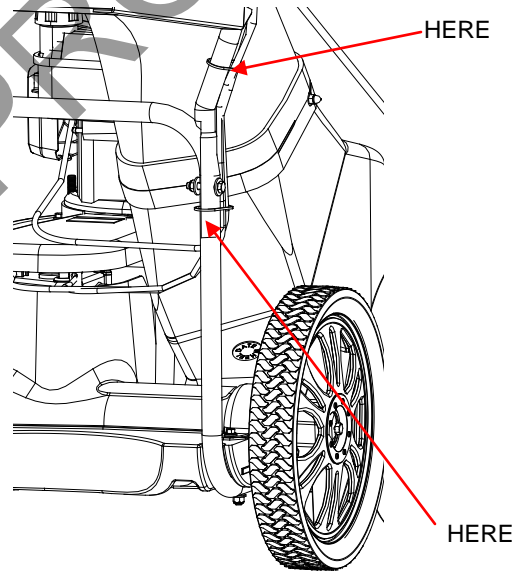


Fig. 6

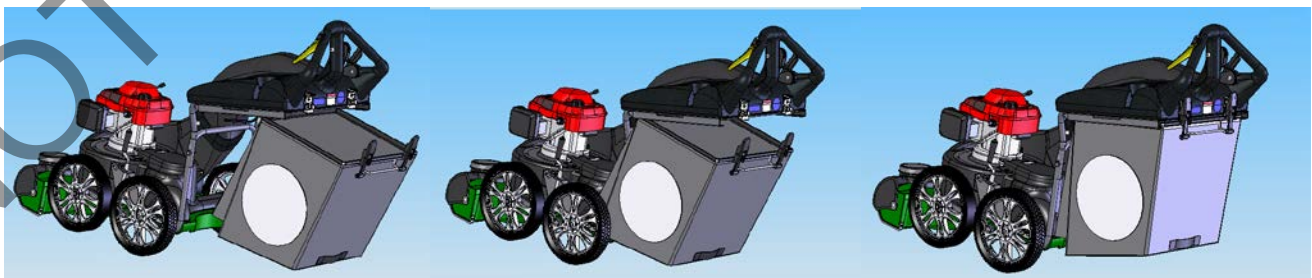


Fig. 7

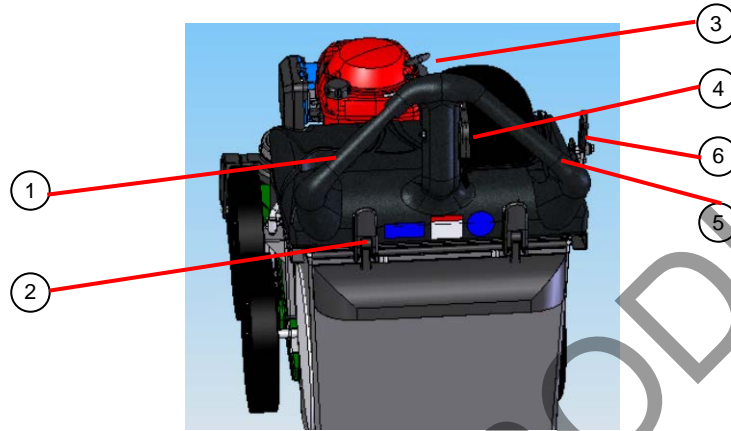


OPERATION

This vacuum is designed for picking up trash, organic material and other similar debris. It should not be used for other purposes than what is intended.

OPERATOR CONTROLS


The operator's position is at the rear of the machine between the handlebars. The operator should STAND in a position to allow both handlebars to be grasped firmly, which allows sufficient leverage to steer the machine. Operator's controls are shown below.



Operator Control Locations

- 1 Drive Clutch Lever
- 2 Bag Latch
- 3 Pull Starter
- 4 Throttle Control
- 5 Drive Shifter Control
- 6 Nozzle Door Adjuster

STARTING

 **CHECK** engine oil level before operating machine.

DO NOT START equipment without the debris bag in place.

1. Place equipment on a level, firm surface that is free of rocks or other debris.
2. Place throttle in START position.
3. Secure the unit with left hand at the handle then pull starter rope with right hand to start engine. **NOTE:** Pull starter cord slowly until resistance is felt. Then pull cord rapidly to avoid kickback.
4. Move throttle control back to FAST position and allow engine to reach correct operating speed.
5. **For Electric models:** Set the throttle to the fast position, then pull up and push forward on the start switch. Choke if needed.



Fig. 8

SHUT DOWN

1. Release the drive clutch lever to disengage the drive.
2. Pull the throttle control all the way back to the STOP position.

Secure unit at the handle with left hand during start.

On Electric models only.



Pull rope starter with right hand.

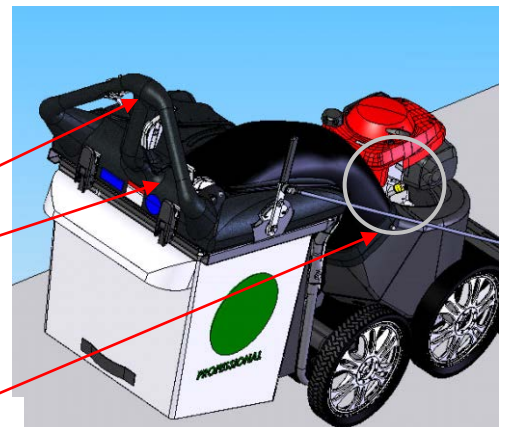


Fig. 9



VACUUM NOZZLE HEIGHT ADJUSTMENT

For maximum pickup: Adjust nozzle height as close to debris as possible, but without blocking airflow into the nozzle. **NOTE:** Never bury nozzle into debris. The vacuum nozzle is raised and lowered by turning the crank handle clockwise and counter-clockwise. (See Fig. 10)

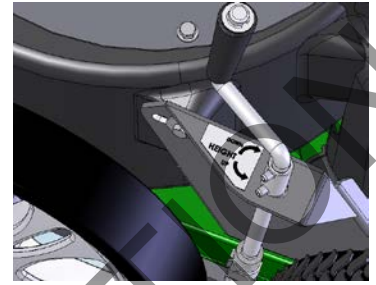


Fig. 10

VACUUM NOZZLE DOOR ADJUSTMENT

The vacuum nozzle door adjusts for the maximum performance under various applications.

- With the handle fully back the nozzle is fully opened. This is ideal for turf application. (See Fig. 11)
- For hard surface applications, set the handle midway. (See Fig. 12)
- Close nozzle for use with the Optional Hose Kit (P/N 840116). This adjustment is ideal to use with the Hose Kit. (See Fig. 13)



Fig. 11



Fig. 12



Fig. 13

VACUUMING OPERATION

This machine is designed for vacuuming leaves, grass clippings, and other types of organic litter. Debris mixed with cans, bottles, and small amounts of sand can be vacuumed; however, it is not this machine's primary purpose. Vacuuming cans, bottles, and sand will affect the longevity of your machine. In dusty conditions it may be necessary to purchase Felt Bag Kit (P/N 840022).

Do not operate if excessive vibration occurs. If excessive vibration occurs, shut engine off immediately and check for damaged or worn impeller, loose impeller bolt, loose impeller key, loose engine or lodged foreign objects. Note: See parts list for proper impeller bolt torque specifications. (See page 13 Impeller removal).

1. Move shift lever (right side) to correct position (1, 2, or 3) for desired gear. (See Fig. 14)
2. Squeeze the drive clutch lever against the handle to engage the drive. (See Fig. 15)

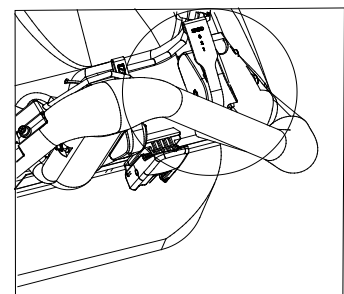


Fig. 14

CLEARING A CLOGGED NOZZLE

⚠ DISCONNECT spark plug wire before servicing unit.

1. Shut engine off and wait for impeller to stop completely.
2. Disconnect spark plug wire.
3. Wearing durable gloves, remove clog. Caution: clog may contain sharp materials.
4. Reconnect spark plug wire.

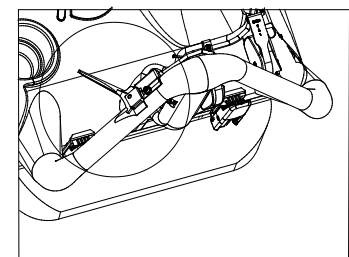


Fig. 15



DEBRIS BAG

Debris bags are normal replaceable wear items.

Bag liners are available for use in various conditions where debris will be vacuumed. (See Bag Liner Accessories shown on pg 1).

MV650SPHDS Only – The dust sock provided will trap dust when vacuuming up **dry debris only**. The dust sock will need to be removed periodically and the dust will need to be dumped out as it will accumulate over time. The dust sock can be easily removed and reattached by separating it from the Velcro strip on the bag underneath.

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!

*****TIPS*****

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

Many vacuums are used where dust is mixed with trash. Your unit can intermittently vacuum in dusty areas. However, following these rules will help maintain your machine's ability to vacuum in dusty conditions:

- Run machine at idle to quarter throttle.
- Machine or pressure-wash debris bag if normal cleaning does not fully clean bag. Bag should be thoroughly dry before use.

Having one or more spare bags (P/N 840189) is a good way to reduce down time while dirty bags are being cleaned.

Felt Bag (P/N 840194) accessory is great when used in dusty conditions.

DUST SOCK CARE AND MAINTENANCE (MV650SPHDS only)

Purpose: The dust sock acts as a secondary filter lowering the amount of dust that escapes the bag.

Dust socks are to be used in dry and dusty conditions **ONLY**. Using the dust sock in damp or wet conditions may damage the dust sock and decrease the effectiveness of the filter.

The dust sock may be installed by simply attaching the mating Velcro strips between the bag and the dust sock. Over time the dust sock will begin to fill with dust during use. Periodically remove the dust sock, empty the loose dust out and clean the sock. For a light clean, simply shake the sock, for a deep clean, see below. To remove the sock, simply separate the Velcro.

Dust Sock Care Information:



DO NOT STRIKE THE BAG WITH OR AGAINST OBJECTS



DO NOT SNAG THE BAG



LIGHTLY CLEAN WITH COMPRESSED AIR ONLY, FROM THE OUTSIDE IN. KEEP THE NOZZLE 6-12 INCHES FROM FABRIC



DO NOT GET WET

Dust Socks are normal replaceable wear items. Replacement P/N 840261



MAINTENANCE

PERIODIC MAINTENANCE

Periodic maintenance should be performed at the following intervals:

| Maintenance Operation | Every Use | Daily or Every 5 Hours | Every 25 Hours | Every 50 Hours | Every 100-150 Hours |
|--|-----------|------------------------|----------------|----------------|---------------------|
| Inspect for worn or damaged parts | • | | | | |
| Check for excessive vibration | | • | | | |
| Inspect for loose parts | | • | | | |
| Clean debris bag | • | | | | |
| Lubricate clutch control lever. <i>NOTE: Use white lithium grease or equivalent. (See Fig. 16)</i> | | | • | | |
| Lubricate height adjuster. (See Fig. 17) | | | • | | |
| Check drive clutch cable tension | | | | • | |
| Replace drive belts | | | | | • |

Apply lubricant on the zinc die cast barrel.

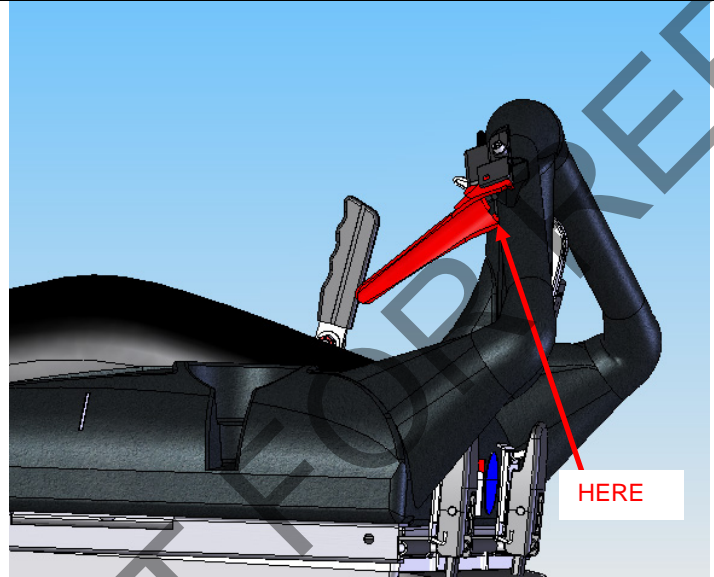


Fig. 16

Apply lubricant on the thread.

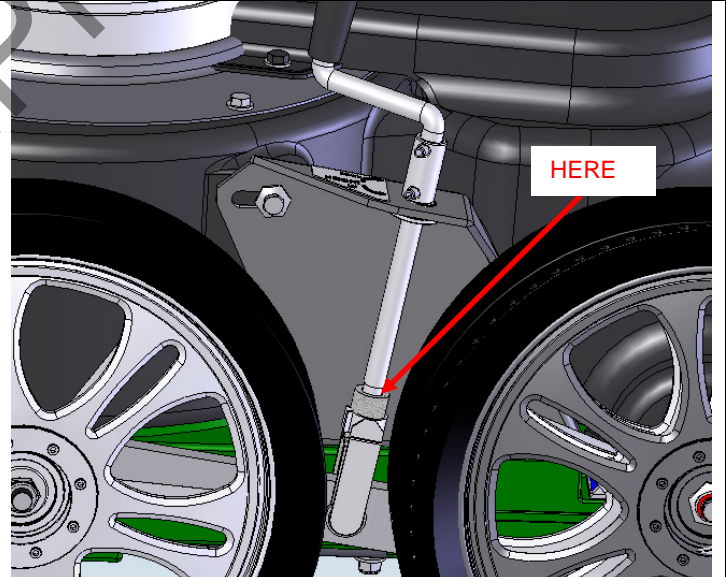



Fig. 17


COMMON REPLACEMENT PARTS

- Bag; P/N 840189 Original Equipment Replacement Bag.
- (MV650SPHDS) Bag P/N 840260
- (MV650SPHDS) Dust sock P/N 840261
- Skid; P/N 840041 Nozzle Wear Guard Skid.
- Drive Belt; P/N 840066 Original Equipment Replacement Belt.





IMPELLER REMOVAL


  **READ** all safety instructions before servicing unit.

 **DISCONNECT** spark plug wire before servicing unit.

1. Wait for engine to cool and disconnect spark plug.
2. Drain fuel and oil from the engine.
3. Remove belt cover by removing 5 screws.
4. Detach drive belt from the transmission pulley by rotating the transmission assembly to relieve belt tension.
5. Remove engine, impeller and mounting plate by removing bolts around outside of housing.
6. Leaving engine fastened to plate, remove impeller bolt and lock washer and slide impeller off crankshaft (A puller may be required). **CAUTION:** Do not drop impeller.
7. If impeller does not slide off crankshaft, place two crowbars between impeller and housing on opposite sides. Pry impeller away from engine until it loosens. Using a penetrating oil can help loosen a stuck impeller.
8. If the impeller cannot be loosened, obtain a 1" (25.4mm) longer bolt of the same diameter and thread type as the impeller bolt. Invert engine and impeller and support engine above ground to prevent recoil damage. Thread longer bolt by hand into the crankshaft until bolt bottoms. Using a suitable gear or wheel puller against the bolt head and the impeller back-plate (near the blades), remove impeller from shaft.
9. To reinstall impeller, use a new impeller bolt and lockwasher
10. Tighten impeller bolt. Torque impeller bolt to 33-38 Ft. Lbs. (45-52 N.m).
11. Reinstall engine, impeller, and mounting plate onto housing in reverse order of removal.
12. Before connecting spark plug wire, slowly pull engine starting rope to insure that impeller rotates freely.
13. Reconnect spark plug wire.

DRIVE CLUTCH CABLE ADJUSTMENT

  **READ** all safety instructions before servicing unit.

 **DISCONNECT** spark plug wire before servicing unit.

1. Wait for engine to cool and disconnect spark plug.
2. Engage the clutch lever then pull the unit back until it stops freewheeling. The clutch lever should engage around 2 5/16" of travel or 4 inches from tip of lever to handle.
3. Tighten or loosen adjuster nut next to the clutch lever until drive engages at 4" from handle. (See *Fig. 19* next page)
4. Holding the adjuster nut in place with one wrench tighten cable lock nut firmly.
5. Readjust as needed.
6. Reconnect spark plug.
7. Test run unit to insure proper operation after this or any other maintenance procedure.
8. If clutch still will not engage at 4" from handle, remove guard retaining screws and guard.
9. Measure the amount of spring stretch. Spring should measure 1 1/8" when engaged (Lever 4" from handle). (See *Fig. 18* next page.)
10. Release clutch lever and then move it to engagement position again and hold it, check the spring length to assure it stayed in adjustment.
11. Re-install guard and fasteners.

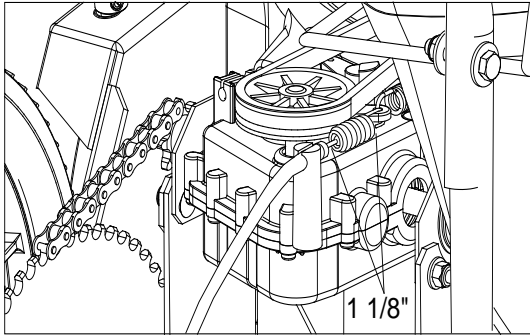


Fig. 18

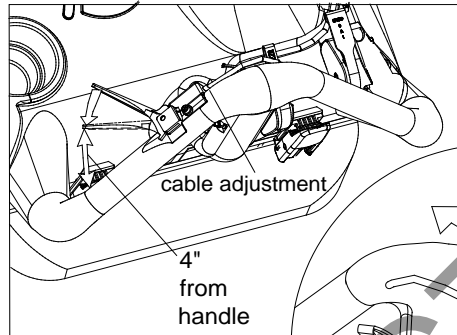
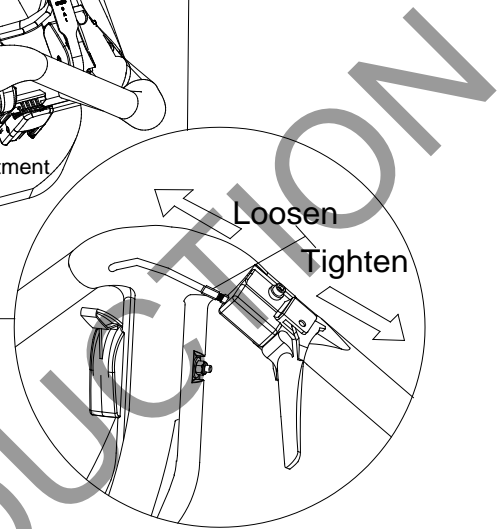


Fig. 19



DRIVE BELT REMOVAL AND REPLACEMENT

READ all safety instructions before servicing unit.

DISCONNECT spark plug wire before servicing unit.

1. Wait for engine to cool completely and disconnect spark plug.
2. Remove guard fasteners and guard.
3. Remove throttle control cable from engine.
4. Unplug wiring harness wire at engine.
5. Tilt transmission input pulley toward engine and remove the belt by pulling it upward.
6. Remove all six screws fastening the engine base plate to the housing.
7. Lift engine assembly from housing.
8. Slide belt inward under the engine and off downward around impeller.
9. Install new belt in reverse order of belt removal. *NOTE:* before placing new belt on transmission pulley look under the engine to insure the belt is properly in the groove of the engine pulley.
10. Install engine assembly in reverse order of removal.
11. Reconnect the spark plug

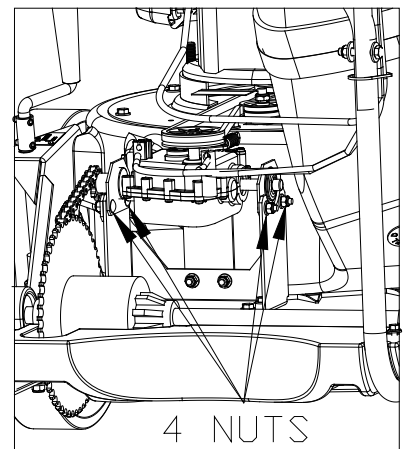


Fig. 20

INSTALLING NEW DRIVE CHAIN/ALIGNMENT/TENSION

READ all safety instructions before servicing unit.

DISCONNECT spark plug wire before servicing unit.

Allow the engine to cool completely and disconnect the spark plug.

1. Unfasten and remove the guard.
2. Rotate left rear wheel to bring the chain "master link" into view on the axle sprocket.
3. Using the needle nose pliers carefully remove master link retaining spring clip.
4. Slide the master link from the chain and remove the chain.
5. Thread the new chain onto the sprockets, place the ends of the chain on the axle sprocket, this makes it easier to hold the chain in place when you slide the new master link in place.
6. Install the new master link and CAREFULLY install the retaining clip.
7. Rotate left rear wheel to find the location where the chain is tightest (there are always slight variations in the sprockets that make the chain tighter at places in its rotation).

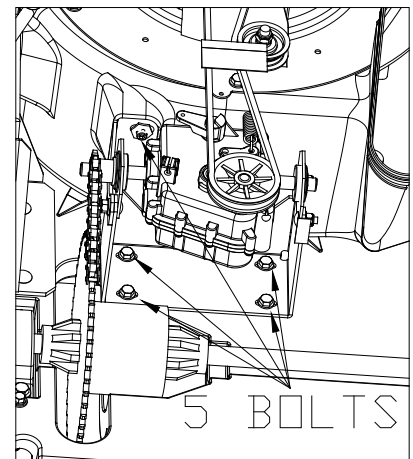


Fig. 21

Continued next page



8. Rotate the axle several times and listen for “popping” or “clacking”. This indicates too much tension on the chain or misalignment of the chain. Skip to Step 12 if no “popping” or “crackling” occurs.

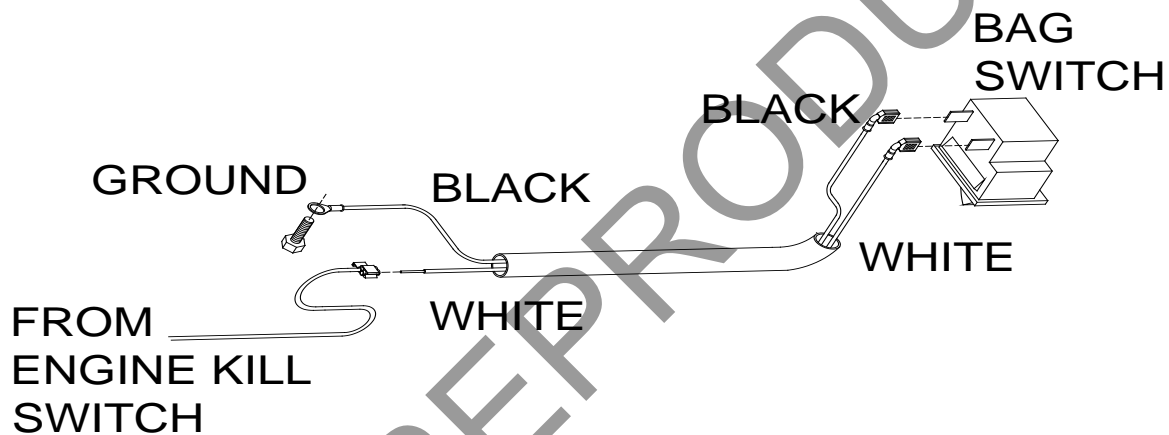
Improper Chain Tension

9. At the point where the chain is tightest, check the chain for $\frac{1}{4}$ " to $\frac{1}{2}$ " total slack halfway between the axle sprocket and the transmission sprocket. Skip to Step 11 if the deflection is correct.
10. Loosen 4 nuts holding the bearing bracket (see Fig. 20, previous page) slide it very slightly forward to tighten the chain or slide backward to loosen. Tighten 4 nuts back then check the chain deflection. Repeat this step if necessary.

Improper Chain Alignment

11. Loosen 5 bolts securing the drive system (see Fig 21, previous page). Slide it left or right then check the alignment using straight edge. Tighten 5 bolts then repeat Step 8.
12. Reinstall the guard and all of its fasteners.
13. Reconnect the spark plug.

WIRING DIAGRAMS



Bag Switch Circuit Schematic Diagram

Battery Care (For Electric-Starting Models)

Proper care can extend the life of a battery. Follow these recommendations to ensure your battery's best performance and long life:

- Do not allow the battery charge to get too low. If the machine is not used, charge the battery every 4 – 6 weeks. Operate the engine for at least 45 minutes to maintain proper battery charge.
- Store an unused battery in a dry area that does not freeze.
- Do not charge an already charged battery. In theory, you cannot overcharge our battery with a trickle charger; however, when a battery is fully charged and the charger is still on, it generates heat that could be harmful to the battery. A fully charged battery will read 12V-13.2V with a voltmeter.
- Do not continue to crank your engine when the battery charge is low.

Charging the Battery

Operate the engine for at least 45 minutes to maintain proper battery charge. If the battery loses its charge, you will need to use a trickle charger to recharge it. **Caution:** The charger should have an output of 12 volts at no more than 2 amps. Using a charger with higher amps will cause significant damage to the battery.

- At 1 amp, the battery may need charging for as long as 48 hours.
- At 2 amps, the battery may need charging for as long as 24 hours.

NOTE: Using the Recoil Starter and then running the engine will not recharge a dead or significantly discharged battery.

When you are finished charging the battery, disconnect the charger from the outlet first, and then disconnect the battery charger wires from the battery. If you leave the battery charger wires connected to the battery, the battery will discharge itself back into the charger.

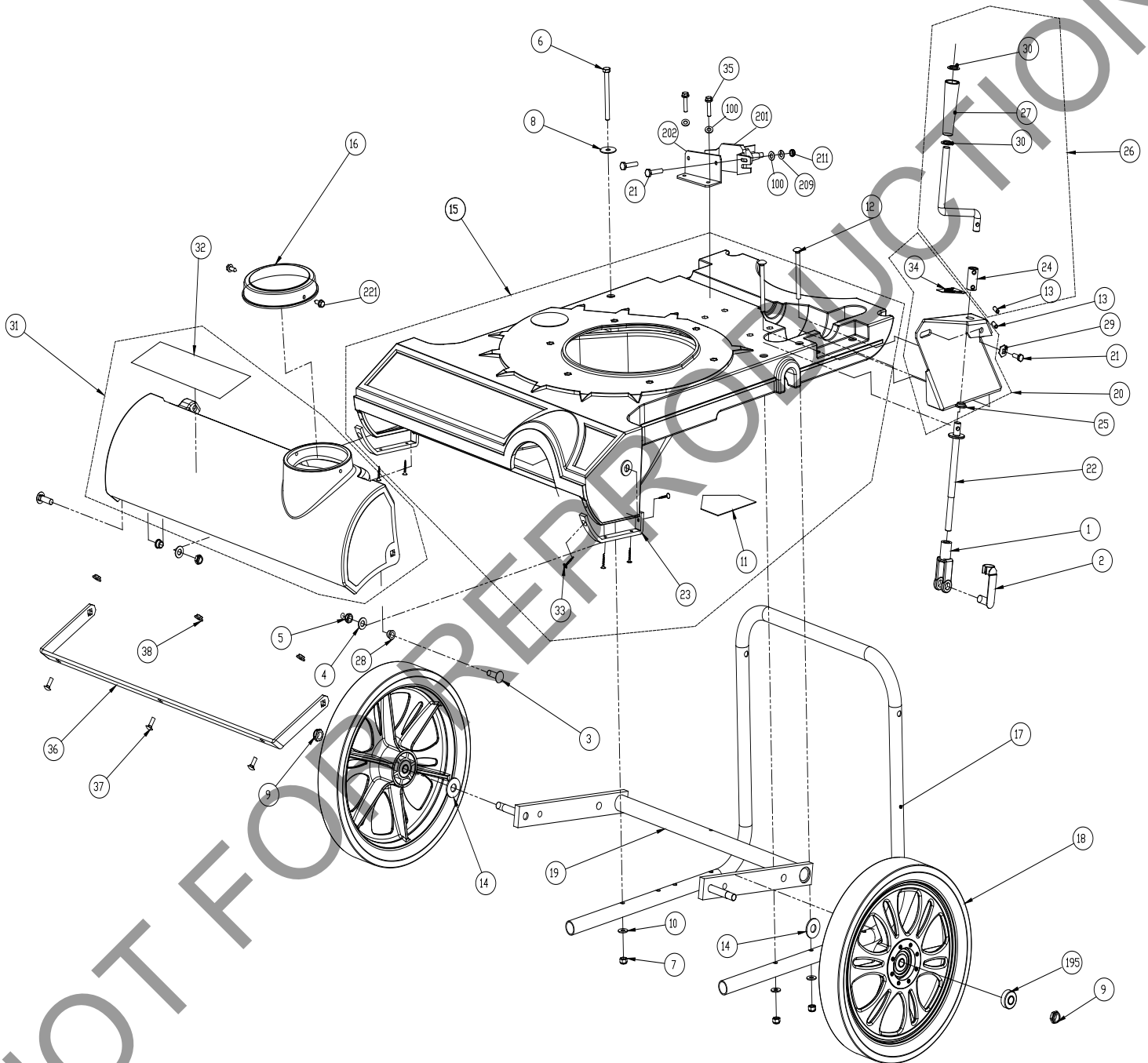


TROUBLESHOOTING

| Problem | Possible Cause | Solution |
|--|--|---|
| Will not vacuum or has poor vacuum performance | Dirty or full debris bag or filter. Nozzle height set too high or too low. Hose kit cap missing. Clogged nozzle or exhaust. Excessive quantity of debris. | Clean debris bag and filter. Shake bag clean or wash. Adjust nozzle height (see page 8). Check for hose kit cap. Unclog nozzle or exhaust (see page 8). Allow air to feed with debris. |
| Abnormal vibration | Loose or out of balance impeller. Loose engine. | Check impeller and replace if required. Check engine. |
| Engine will not start | Throttle in off position. Engine not in full choke position. Out of gasoline or bad, old gasoline. Spark Plug wire disconnected. Gas valve off. Dirty air cleaner. Safety Interlock disengaged on bag plate. | Check throttle control (see page 7). Check throttle, choke position (see page 7). Check gasoline. Connect spark plug wire. Turn on gas valve. Clean or replace air cleaner. Contact a qualified service person. Latch the bag properly or check the bag rod to see if it is bent. |
| Engine is locked, will not pull over | Impeller plugged or clogged. Engine problem. | Remove debris (see page 8). Contact an engine servicing dealer for engine problems. |
| No self-propelling | Drive clutch not engaged. Transmission not in gear. Drive belt worn or broken. Drive clutch cable out of adjustment or broken. Spring tension too loose. Drive chain off the sprocket. | Engage the drive clutch lever. Check transmission shift control (see page 8). Check the drive belt. Check the drive clutch cable (see page 11). Check spring length (see page 11). Check the drive chain (see page 13). |
| Self propelled drive will not release | Improper drive clutch cable adjustment or cable is kinked. | Check the drive clutch cable (see page 20). |
| Noisy or broken chain | No chain lubrication. Chain misalignment or tension. | Lubricate chain. Check the drive chain (see page 22). |



MVSP NOZZLE PARTS DRAWING



Nozzle Assembly

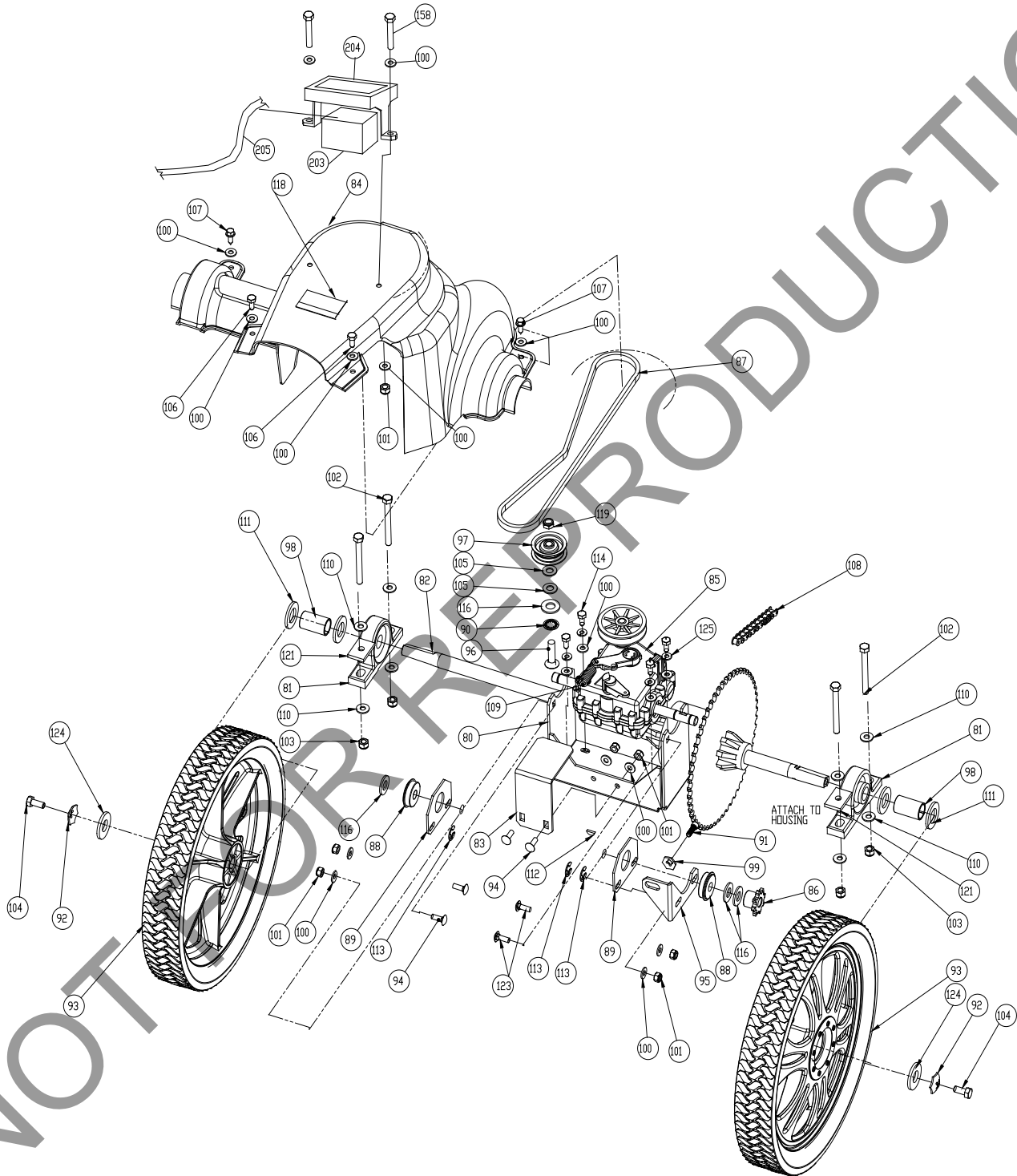


MVSP NOZZLE PARTS LIST

| ITEM NO. | PART NUMBER | DESCRIPTION | MV650SPH QTY. | MV601SPE QTY. | MV650SPHDS QTY. |
|----------|-------------|--|---------------|---------------|-----------------|
| 1 | 350127 | YOKE 1/2 - 20 | 1 | 1 | 1 |
| 2 | 350128 | PIN YOKE 1/2" | 1 | 1 | 1 |
| 3 | 840243 | SCREWCAP BUTTON HEAD 3/8"-16 X 1 1/4" PL | 2 | 2 | 2 |
| 4 | 8172009 | WASHER 3/8" SAE ZP | 2 | 2 | 2 |
| 5 | 8161042 | NUT LOCK 3/8-16 LT WT THIN ZP | 2 | 2 | 2 |
| 6 | 8041038 | SCREWCAP 5/16 -18 x 3 1/2 | 1 | 1 | 1 |
| 7 | 8160002 | NYLON INSERT LOCKNUT 5/16-18 UNC | 3 | 3 | 3 |
| 8 | 8172020 | WASHER FLAT FENDER 5/16 | 1 | 1 | 1 |
| 9 | 8161044 | NYLON INSERT LOCKNUT 1/2-13 UNC THIN | 2 | 2 | 2 |
| 10 | 8171002 | WASHER 1/4" FC ZP | 3 | 3 | 3 |
| 11 | 400424 | LABEL WARNING OPEI | 1 | 1 | 1 |
| 12 | 8024050 | BOLTCARRIAGE 5/16-18X3 1/2 | 2 | 2 | 2 |
| 13 | 520156 | ROLL PIN 1/4 X 1 LONG | 2 | 2 | 2 |
| 14 | 8172011 | WASHER 1/2" SAE ZP | 2 | 2 | 2 |
| 15 | 840118 | NOZZLE MV VAC ASSEMBLY | 1 | 1 | 1 |
| 16 | 840019 | CAP 5 IN HOSE VAC | 1 | 1 | 1 |
| 17 | 840024 | HANDLE LOWER MV VAC | 1 | 1 | 1 |
| 18 | 840101 | WHEEL 14" ASSEMBLY WITH BEARING AND TIRE | 2 | 2 | 2 |
| 19 | 840104 | AXLE FRONT WA MV VAC | 1 | 1 | 1 |
| 20 | 840155 | BRACKET HGT ADJ WA W/LABEL MV VAC | 1 | 1 | 1 |
| 21 | 8041004 | SCREWCAP 1/4 - 20 x 0.75 HWH | 1 | 3 | 1 |
| 22 | 840034 | LINK HGT ADJ MV VAC | 1 | 1 | 1 |
| 23 | 840041 | BRACKET NOZZLE WEAR GUARD MV VAC | 2 | 2 | 2 |
| 24 | 840029 | ROD CONNECT HGT ADJ | 1 | 1 | 1 |
| 25 | 840073 | BUSHING 0.5" ID 0.625 OD X X 0.250 | 1 | 1 | 1 |
| 26 | 840119 | ROD HANDLE CRANK ASSEMBLY | 1 | 1 | 1 |
| 27 | 840057 | HANDLE CRANK 0.5 ID X 3.72 LONG | 1 | 1 | 1 |
| 28 | 840078 | BUSHING 3/8" ID 1/2" OD X 3/8" LONG | 2 | 2 | 2 |
| 29 | 840158 | WASHER LOCK 1/4" TWISTED TOOTH | 1 | 1 | 1 |
| 30 | 840207 | NUT PAL 0.5" ID x 0.75 OD | 2 | 2 | 2 |
| 31 | 840135 | NOZZLE COVER MV VAC | 1 | 1 | 1 |
| 32 | 840259 | LABEL MV BADGING | 1 | 1 | 1 |
| 33 | 840035 | SCREW PLASTIC 5/8 | 8 | 8 | 8 |
| 34 | 840054 | LABEL HGT ADJ MV VAC | 1 | 1 | 1 |
| 35 | 8122082 | SCREW SELF-TAP 5/16 NC X 3/4 HEX | - | 4 | - |
| 36 | 840088 | BRACKET NOZZLE COVER REINFORMENT MV | 1 | 1 | 1 |
| 37 | 8024021 | BOLT CARRIAGE 1/4-20X0.75 | 3 | 3 | 3 |
| 38 | 900455 | NUT FLANGE 1/4-20 | 3 | 3 | 3 |
| 100 | 8172007 | WASHER 1/4" SAE ZP | - | 4 | - |
| 195 | 840017 | MV WHEEL BEARING | 2 | 2 | 2 |
| 201 | 840117 | SOLENOID ELEC START | - | 1 | - |
| 202 | 840198 | BRACKET SOLENOID MOUNT MV | - | 1 | - |
| 209 | 8181007 | WASHER LOCK 1/4" EXT TOOTH | - | 2 | - |
| 211 | 8142001 | NUT 1/4" FIN HEX ZP | - | 2 | - |
| 221 | 840082 | SCREW PLASTITE 1/4"-10 X 3/4" | 2 | 2 | 2 |



MVSP TRANS PARTS DRAWING



Drive /Rear Axle Assembly

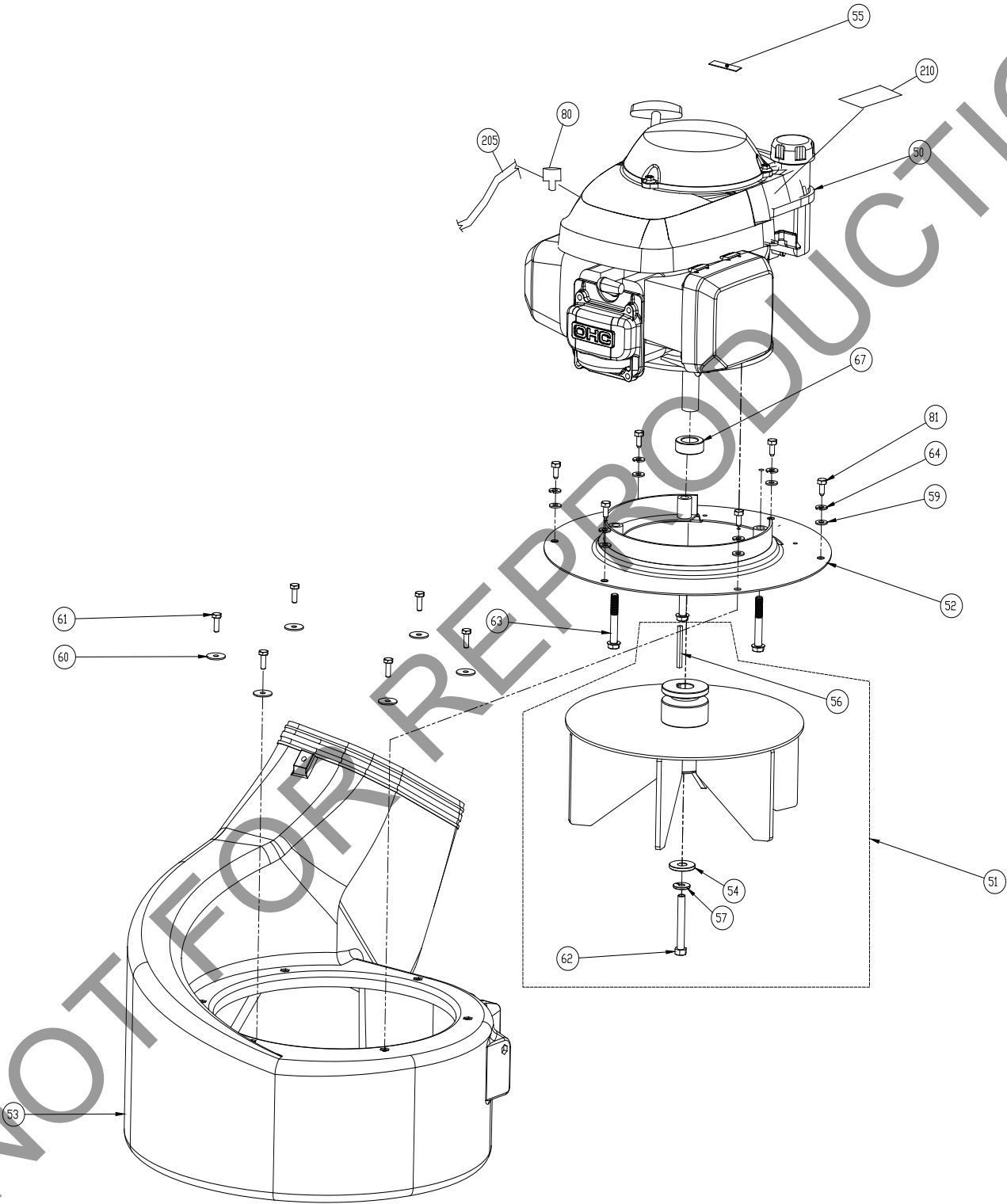


MVSP TRANS PARTS LIST

| ITEM NO. | PART NUMBER | DESCRIPTION | MV650SPH QTY. | MV601SPE QTY. | MV650SPHDS QTY. |
|----------|-------------|---------------------------------------|---------------|---------------|-----------------|
| 80 | 840110 | BRACKET TRANS MOUNT WA MV VAC | 1 | 1 | 1 |
| 81 | 350133 | BEARING 3/4" W/PILLOW BLOCK | 2 | 2 | 2 |
| 82 | 840009 | DIFFERENTIAL 54 TOOTH D-CUT | 1 | 1 | 1 |
| 83 | 840086 | BRACKET TRANS ANTI ROTATION MV | 1 | 1 | 1 |
| 84 | 840010 | GUARD DRIVE SP VAC | 1 | 1 | 1 |
| 85 | 840085 | TRANSMISSION 3 SPD GENERAL TRANS. | 1 | 1 | 1 |
| 86 | 510126 | SPROCKET 8 TOOTH | 1 | 1 | 1 |
| 87 | 840066 | BELT 3L34 | 1 | 1 | 1 |
| 88 | 510125 | BEARING 1/2" CLIP | 2 | 2 | 2 |
| 89 | 840011 | PLATE TRANS BEARING MOUNT MV VAC | 2 | 2 | 2 |
| 90 | 520025 | WASHER LOCK INTERNAL TOOTH 1/2" | 1 | 1 | 1 |
| 91 | 8041004 | 1/4 - 20 x 0.75 HWH | 1 | 1 | 1 |
| 92 | 430298 | WASHER 5/16 LOCK TWISTED TOOTH | 2 | 2 | 2 |
| 93 | 840102 | WHEEL 14" ASSEMBLY DRIVE MV VAC | 2 | 2 | 2 |
| 94 | 8024021 | BOLT CARRIAGE 1/4-20X0.75 | 4 | 4 | 4 |
| 95 | 840028 | BRACKET TRANS REINFORCE MV VAC | 1 | 1 | 1 |
| 96 | 8024060 | CARRIAGE BOLT 3/8 - 16 X 1 1/2 | 1 | 1 | 1 |
| 97 | 840087 | PULLEY IDLER 2" OD X 3/8" ID | 1 | 1 | 1 |
| 98 | 840027 | TUBE 0.75 ID WHEEL SPACER SP MV VAC | 1 | 1 | 1 |
| 99 | 840158 | WASHER LOCK 1/4 TWISTED TOOTH | 1 | 1 | 1 |
| 100 | 8172007 | WASHER 1/4" SAE ZP | 14 | 14 | 14 |
| 101 | 8160001 | NYLON INSERT LOCKNUT 1/4-20 UNC | 6 | 6 | 6 |
| 102 | 8041036 | SCREWCAP 5/16"-18X3" HCS ZP | 4 | 4 | 4 |
| 103 | 8160002 | NYLON INSERT LOCKNUT 5/16-18 UNC | 4 | 4 | 4 |
| 104 | 8041026 | SCREWCAP 5/16"-18 X 3/4" LONG ZP | 2 | 2 | 2 |
| 105 | 8172009 | WASHER 3/8" SAE ZP | 2 | 2 | 2 |
| 106 | 890359 | 1/4 - 20 x 5/8 HWH | 2 | 2 | 2 |
| 107 | 8122082 | SCREW SELF-TAP 5/16 NC X 3/4 HEX | 2 | 2 | 2 |
| 108 | 840072 | CHAIN #41 X 42 PITCH | 1 | 1 | 1 |
| 109 | 800242 | SPRING TENSION | 1 | 1 | 1 |
| 110 | 8171002 | WASHER 1/4" FC ZP | 8 | 8 | 8 |
| 111 | 8172015 | WASHER 3/4" SAE ZP | 2-6 | 2-6 | 2-6 |
| 112 | 510180 | WOODRUFF KEY 1/8 X 1/2 | 1 | 1 | 1 |
| 113 | 350146 | CLIP 1/2" | 3 | 3 | 3 |
| 114 | 840213 | SCREWCAP 1/4-20 X 5/8 GR. 5 | 4 | 4 | 4 |
| 116 | 8171006 | WASHER 1/2" FLAT CUT | 3 | 3 | 3 |
| 118 | 900327 | LABEL DANGER GUARD | 1 | 1 | 1 |
| 119 | 8161042 | NUT LOCK 3/8-16 LT WT THIN ZP | 1 | 1 | 1 |
| 121 | 840188 | BRACKET BEARING FIX | 2 | 2 | 2 |
| 123 | 8024022 | CARRIAGE BOLT 1/4 - 20 X 1 ZP | 2 | 2 | 2 |
| 124 | 8172020 | WASHER FENDER 5/16 | 2 | 2 | 2 |
| 125 | 8177010 | SPLIT LOCK WASHER 1/4" | 4 | 4 | 4 |
| 158 | 8041006 | SCREWCAP 1/4"-20 X 1" HCS ZP | - | 2 | - |
| 195 | 840017 | MV WHEEL BEARING | 2 | 2 | 2 |
| 203 | 840170 | BATTERY 12 V | - | 1 | - |
| 204 | 840095 | BATTER HOLD DOWN | - | 1 | - |
| 205 | 840228 | CABLE HARNES ELECTRIC START ONE PIECE | - | 1 | - |



MVSP ENGINE PARTS DRAWING



Engine Assembly

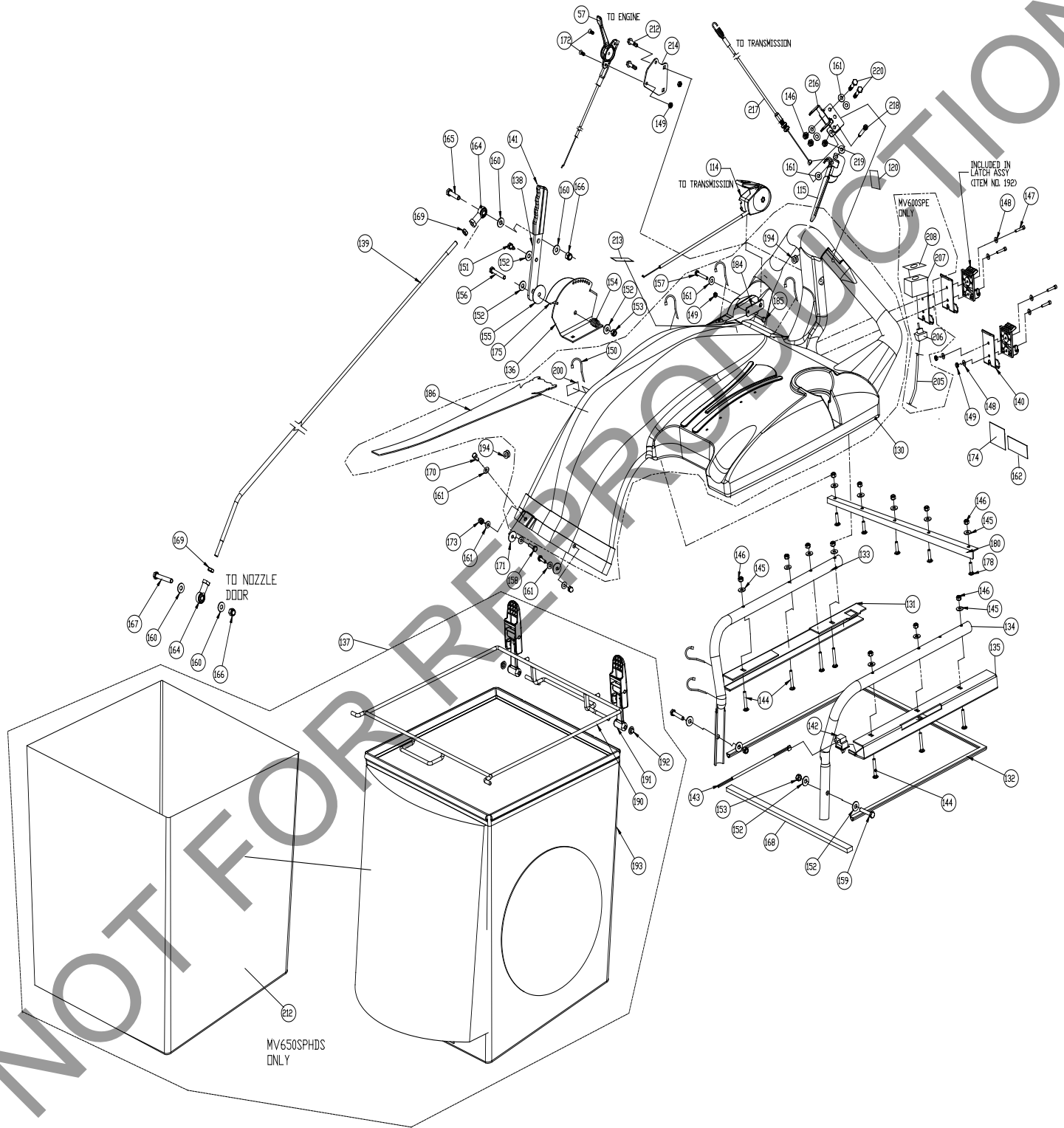


MVSP ENGINE PARTS LIST

| ITEM NO. | PART NUMBER | DESCRIPTION | MV650SPH QTY. | MV601SPE QTY. | MV650SPHDS QTY. |
|----------|-------------|--------------------------------------|---------------|---------------|-----------------|
| 50 | 840069 | ENGINE HONDA 6.5 VERTICAL GSV190 | 1 | - | 1 |
| | 840277 | ENGINE B&S PRO SERIES 875 ELEC START | - | 1 | - |
| 51 | 840136 | IMPELLER ASSEMBLY SP MV VAC | 1 | 1 | 1 |
| 52 | 840107 | PLATE TOP WA SP MV VAC | 1 | 1 | 1 |
| 53 | 840205 | HOUSING PLASTIC VAC | 1 | 1 | 1 |
| 54 | 440153 | WASHER 1.5 OD X .453 ID X .25 THK | 1 | 1 | 1 |
| 56 | 9201087 | SQ KEY 2.125 X .187 | 1 | 1 | 1 |
| 57 | 8177012 | WASHER LOCK 3/8" ST MED | 1 | 1 | 1 |
| 59 | 8172007 | WASHER 1/4" SAE ZP | 6 | 6 | 6 |
| 60 | 8172019 | WASHER FENDER 1/4 ZP | 6 | 6 | 6 |
| 61 | 8041004 | SCREWCAP 1/4 - 20 x 0.75 HWH | 6 | 6 | 6 |
| 62 | 790167 | SCREWCAP 3/8-24X2 3/4" W/PATCH LOCK | 1 | 1 | 1 |
| 63 | 900564 | SCREWCAP 3/8"-16X2 1/2" TAPTITE | 3 | 3 | 3 |
| 64 | 8177010 | WASHER SPLIT LOCK 1/4" | 6 | 6 | 6 |
| 67 | 840083 | SPACER 1.50OD X .890ID X .5 THK | 1 | 1 | 1 |
| 80 | 840215 | TERMINAL 18-14 BLUE T-TAP | 1 | 1 | 1 |
| 81 | 840213 | SCREWCAP 1/4-20X5/8 GR. 5 | 6 | 6 | 6 |
| 205 | 840228 | CABLE HARNESS ELECT START | - | 1 | - |
| 210 | 100261 | LABEL WARNING FUEL EN/SP | - | 1 | - |



MVSP HOOD PARTS DRAWING



Hood Assembly



MVSP HOOD PARTS LIST

| ITEM NO. | PART NUMBER | DESCRIPTION | MV650SPH QTY. | MV601SPE QTY. | MV650SPHDS QTY. |
|----------|-------------|--|---------------|---------------|-----------------|
| 57 | 440013 | CONTROL THROTTLE | 1 | 1 | 1 |
| 114 | 840023 | CONTROL SHIFT WESCON MV VAC | 1 | 1 | 1 |
| 115 | 840265 | HANDLE MV CLUTCH CABLE | 1 | 1 | 1 |
| 120 | 500176 | LABEL CLUTCH DRIVE | 1 | 1 | 1 |
| 130 | 840141 | HOOD ASSY W/ LABEL MV VAC | 1 | 1 | 1 |
| 131 | 840153 | BRACKET BAG CHANNEL RH W/SEAL MV VAC | 1 | 1 | 1 |
| 132 | 840196 | SEAL BAG MV VAC | 1 | 1 | 1 |
| 133 | 840037 | TUBE HANDLE BRACE RH MV VAC | 1 | 1 | 1 |
| 134 | 840038 | TUBE HANDLE BRACE LH MV VAC | 1 | 1 | 1 |
| 135 | 840274 | BRACKET BAG CHANNEL LH | 1 | 1 | 1 |
| 136 | 840152 | BRACKET NOZZLE DOOR ADJ W/LABEL MV VAC | 1 | 1 | 1 |
| 137 | 840195 | BAG ASSEMBLY MV VAC | 1 | 1 | 1 |
| 138 | 840138 | BAR LIFT NOZZLE DOOR W/ GRIP MV VAC | 1 | 1 | 1 |
| 139 | 840061 | ROD LIFT NOZZLE DOOR SP VAC | 1 | 1 | 1 |
| 140 | 840062 | PLATE BAG LATCH MV VAC | 2 | 2 | 2 |
| 141 | 840191 | GRIP LEVER LIFT | 1 | 1 | 1 |
| 142 | 840058 | SWITCH INTERLOCK VAC | 1 | 1 | 1 |
| 143 | 840276 | HARNESS WIRE ASSY MV VAC BAG SWITCH | 1 | - | 1 |
| | 840275 | WIRING HARNESS ELEC START MV | - | 1 | - |
| 144 | 8024025 | BOLT CARRIAGE 1/4-20 X 1.75 | 7 | 7 | 7 |
| 145 | 8171002 | WASHER 1/4" FC ZP | 12 | 12 | 12 |
| 146 | 8160001 | NYLON INSERT LOCKNUT 1/4-20 UNC | 14 | 14 | 14 |
| 147 | 520018 | SCREW HEX HEAD #10-24 X 1" | 4 | 4 | 4 |
| 148 | 8172005 | WASHER #10 SAE ZP | 8 | 8 | 8 |
| 149 | 8164005 | NYLON INSERT LOCKNUT 10-24 UNC | 4 | 4 | 4 |
| 150 | 900407 | Ty-Wrap | 6 | 6 | 6 |
| 151 | 610347 | PIN SCREW 1/4-28 | 1 | 1 | 1 |
| 152 | 8171003 | WASHER 5/16 FLATWASHER Z/P | 7 | 7 | 7 |
| 153 | 8160002 | NYLON INSERT LOCKNUT 5/16-18 UNC | 3 | 3 | 3 |
| 154 | 610429 | SPRING LEVER GZ | 1 | 1 | 1 |
| 155 | 610348 | FIBRE WASHER | 1 | 1 | 1 |
| 156 | 8041032 | SCREWCAP 1/4-20X2" | 1 | 1 | 1 |
| 157 | 8041011 | SCREWCAP 1/4"-20X2 1/4" ZP | 1 | 1 | 1 |
| 158 | 8041006 | SCREWCAP 1/4-20X1" ZP | 2 | 2 | 2 |
| 159 | 8041031 | SCREWCAP 5/16-18 X 1.75 ZP | 2 | 2 | 2 |
| 160 | 8171004 | WASHER 3/8 FC | 4 | 4 | 4 |
| 161 | 8172007 | WASHER 1/4" SAE ZP | 12 | 12 | 12 |
| 162 | 100346 | LABEL SAFETY PROTECT READ MANUAL | 1 | 1 | 1 |
| 164 | 400886 | ROD END BALL JOINT 3/8 NF | 2 | 2 | 2 |
| 165 | 8041052 | SCREW CAP 3/8-16X1 1/2 ZP | 1 | 1 | 1 |
| 166 | 8160003 | NYLON INSERT LOCKNUT 3/8-16 UNC | 2 | 2 | 2 |
| 167 | 8041056 | SCREWCAP 3/8"-16X2 1/2" ZP | 1 | 1 | 1 |
| 168 | 840197 | SEAL BAG FRONT HOOD 20.5 LONG | 1 | 1 | 1 |
| 169 | 8149003 | NUT REG 3/8-24 NF | 2 | 2 | 2 |
| 170 | 8041004 | SCREWCAP 1/4"-20X3/4" HCS ZP | 1 | 1 | 1 |
| 171 | 8172019 | WASHER FENDER 1/4 ZP | 2 | 2 | 2 |
| 172 | 830514 | SCREW MACH FLAT HD PHIL #10-24 HEX | 2 | 2 | 2 |
| 173 | 840071 | NUT ACORN 1/4-20 | 2 | 2 | 2 |
| 174 | 810736 | LABEL DANGER FLYING DEBRIS | 1 | 1 | 1 |
| 175 | 840080 | LABEL NOZZLE DOOR MV VAC | 1 | 1 | 1 |
| 178 | 8024021 | BOLT CARRIAGE 1/4-20 X 3/4" | 5 | 5 | 5 |
| 180 | 840214 | BRACKET HOOD FRONT STRAIGHTENER | 1 | 1 | 1 |
| 184 | 840180 | PLATE SHIFT CONTROL ANTI ROT | 1 | 1 | 1 |
| 185 | 8059140 | SCREWCAP #10-24X1 1/4" | 1 | 1 | 1 |
| 186 | 840179 | LABEL HOOD DECAL | 1 | 1 | 1 |

CONTINUED NEXT PAGE



MVSP Owner's Manual

| ITEM NO. | PART NUMBER | DESCRIPTION | MV650SPH QTY. | MV601SPE QTY. | MV650SPHDS QTY. |
|----------|-------------|--------------------------------------|---------------|---------------|-----------------|
| 190 | 840040 | ROD BAG WA MV VAC | 1 | 1 | 1 |
| 191 | 840139 | LATCH RUBBER ASSEMBLY MV VAC | 2 | 2 | - |
| | 840016 | LATCH RUBBER MV VAC | - | - | 2 |
| 192 | 360203 | PAL NUT 0.312 | 2 | 2 | 2 |
| 193 | 840189 | BAG DEBRIS MV VAC | 1 | 1 | - |
| | 840260 | BAG DEBRIS GRAY KNIT MV VAC | - | - | 1 |
| 194 | 840206 | GROMMET RUBBER 5/8" OD X 3/8" ID | 2 | 2 | 2 |
| 200 | 520116 | LABEL MADE IN U.S.A. | 1 | 1 | 1 |
| 205 | 840228 | CABLE HARNESS ELECT START | - | 1 | - |
| 206 | 500307 | SWITCH | - | 1 | - |
| 207 | 840096 | BRACKET START SWITCH MV VAC | - | 1 | - |
| 208 | 100262 | LABEL START STOP EN/SP | - | 1 | 1 |
| 212 | 840261 | DUST SOCK MV | - | - | 1 |
| 213 | 501314 | LABEL THROTTLE BC | 1 | 1 | 1 |
| 214 | 840267 | PLATE MV THROTTLE CONTROL | 1 | 1 | 1 |
| 215 | 840268 | CABLE THROTTLE CONTROL 52" | 1 | - | 1 |
| | 840272 | CABLE THROTTLE CONTROL 72" | - | 1 | - |
| 216 | 840264 | BRACKET MV CABLE MOUNT WA | 1 | 1 | 1 |
| 217 | 840266-S | CABLE DRIVE MV CLUTCH | 1 | 1 | 1 |
| 218 | 350178 | BOLT SHOULDER 1/4" X 1 3/4" | 1 | 1 | 1 |
| 219 | 8155007 | NUT LOCK #10-24 HEX | 1 | 1 | 1 |
| 220 | 8041009 | SCREWCAP 1/4-20 1 3/4 HCS ZP | 2 | 2 | 2 |
| 221 | 840082 | SCREW PLASTITE 1/4"-10 X 3/4" HWH ZP | 2 | 2 | 2 |



MVSP Owner's Manual



| | | | | | | | |
|----|----------------|----|----------|----|------------|----|-------------|
| 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 | lv | EB atbilstības deklarācija | sl | ES izjava o skladnosti |
| es | Declaración de Conformidad de la CE | nl | E.G. Conformiteitsverklaring | sk | Vyhľadanie o zhode |
| et | EÜ vastavustunnistus | no | CE konformitetserklæring | sv | EG-försäkran om överensstämmelse |
| fi | EC-vaatimustenmukaisuusvakuutus | | | 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 | Vakuové | hr | Kategorija | Vakuum | ro | Categorie | vid |
| da | Kategori | vakuum | it | Categoria | vuoto | ru | Категория | вакуум |
| de | Kategorie | Vakuum | lv | Kategorija | Dulkiņi | sl | Kategorija | vakuumska |
| es | Categoría | Aspiradora | lv | Kategorija | vakuums | sk | Katégoria | vákuové |
| et | Katëgoria | 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 stvrujeme, 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. |
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| 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 πλήρουν τις απαιτήσεις της Ευρωπαϊκής Κοινωνικής Νομοθεσίας και μπορούν να φέρουν το 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. |
| 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 soddisfano 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 šiame dokumente paminėti produktai atitinka Europos Bendrijos įstatymų reikalavimus ir jie gali būti pažymėti CE ženkle. Šie modeliai atitinka sekančias 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 atbilsts sekojošajām Direktīvām 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 belgele belirtilen ürünlerin Avrupa Birliği Yasası gereksinimlerini karşılayarak CE işareti taşıyabilmesinin onaylamak içindir. Bu modeller aşağıdaki Direktif ve ilgili Standartlarla uyumludur |



MVSP Owner's Manual

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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 Directiva: 2006/42/EC |
| da Direktiv: 2006/42/EF | it Direttiva: 2006/42/EF | sl Direktiva: 2006/42/EF |
| de Richtlinie: 2006/42/EG | lt Direktyva: 2006/42/EG | sk Smernica: 2006/42/EG |
| es Directriz: 2006/42/EC | lv Direktīva: 2006/42/EC | sv Direktiv: 2006/42/EC |
| et Direktiiviga: 2006/42/EÜ | nl Richtlijn: 2006/42/EÜ | tr Direktif: 2006/42/EÜ |
| fi Direktiivi: 2006/42/EC | no Direktiv: 2006/42/EC | |
| fr Directives : 2006/42/CE | pl Dyrektywy: 2006/42/CE | |

| 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 Модел | 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 | Vibrace rukou/paží (2) | Váha |
| da Model | Garanteret støjniveau | Målt støjniveau | Lydtrykkniveau 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 töötav | Võkumine 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 ηχηρής κίνησης | Μετρηθείσα στάθμη ηχηρής κίνησης | Στάθμη ηχηρής κίνησης στο αυτί του χειριστή (1) | Καθαρή ισχύς κινητήρα | Χειροβραχιακή δόνηση (2) | Μάζα |
| hu Model | Garantált hangteljesítmény szint | Mért hangteljesítmény szint | Hangnyomás szint a gépközlelő fülénél (1) | Motor hasznos teljesítménye | Kéz/kar vibráció (2) | Tömeg |
| hr Model | Zajamčena 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 | Garso spaudimo lygis (rangos naudotojų) (1) | Variklio bendras galingumas | Rankenos vibracija (2) | Masė |
| lv Modelis | Garantētais skaņas jaudas līmenis | Izmērītais skaņas jaudas līmenis | Skaņas spiediena līmenis pie operatora auss (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 lydstrykenivå | Målt lydstrykenivå | 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 ręki/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 | Zajamčena raven zvočne moči | Izmerjena raven zvočne moči | Raven zvočnega tlaka pri užusu 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 obsluhu (1) | čistý výkon motoru | Ruka/Rameno Vibrácia (2) | Masa |
| sv Modell | Garanterad ljudeffektnivå | Uppmått ljudeffektnivå | Ljudtrykknivå 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 |
| MV650 | 104 dB(A) | 103 dB(A) | 83 dB(A) | 4.85 kW | 14 m/s ² | 71.2 kg |
| MV650SPH | 104 dB(A) | 103 dB(A) | 83 dB(A) | 4.85 kW | 14 m/s ² | 81.2 kg |
| MV601SPE | 105.5 dB(A) | 104.5 dB(A) | 89 dB(A) | 3.73 kW | 12.6 m/s ² | 92.5 kg |
| MV650SPHDS | 104 dB(A) | 103 dB(A) | 83 dB(A) | 4.85 kW | 14 m/s ² | 81.2 kg |

(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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10/05/2015