PL2501SPH & PL2501SPV
Owner's Manual



Aerator Owner's Manual
PL2501SPH & PL2501SPV

Beginning Serial #: 0032618001

U.S. Patent #: 6892821

Original Instructions

IMPORTANT- READ CAREFULLY BEFORE USE AND KEEP FOR FUTURE REFERENCE

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Specifications

	PL2501SPH	PL2501SPV
Engine	Honda GX160 w/Gearbox	Briggs and Stratton Vanguard
Engine Model No.	GX160UT2HX2	12V3
Engine Fuel Capacity	3.3 qt. (3.1 L)	3.3 qt. (3.1 L)
Engine Oil Capacity	0.63 qt. (0.58 L)	0.63 qt. (0.58 L)
Total Unit Weight	435lb (197.3kg)	435lb (197.3kg)
Length	67” (1.7 m)	67” (1.7 m)
Width	35” (0.89 m)	35” (0.89 m)
Height	38” (0.97 m)	38” (0.97 m)
Maximum Operating Slope	15°	15°

Intended Use

This machine is designed for aerating established lawns and large grass covered areas. The machine should not be used for any other purpose than that stated above.

DO NOT OPERATE IF EXCESSIVE VIBRATION OCCURS! If excessive vibration occurs, shut engine off immediately and check for damaged or worn tine crank, loose crank bearnings or tines, loose engine or lodged debris. To remove debris from the machine, see the machine specific trouble shooting section.

Note: See parts list for proper bolt torque and specifications.

Safety

PROPOSITION 65 STATEMENT

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.

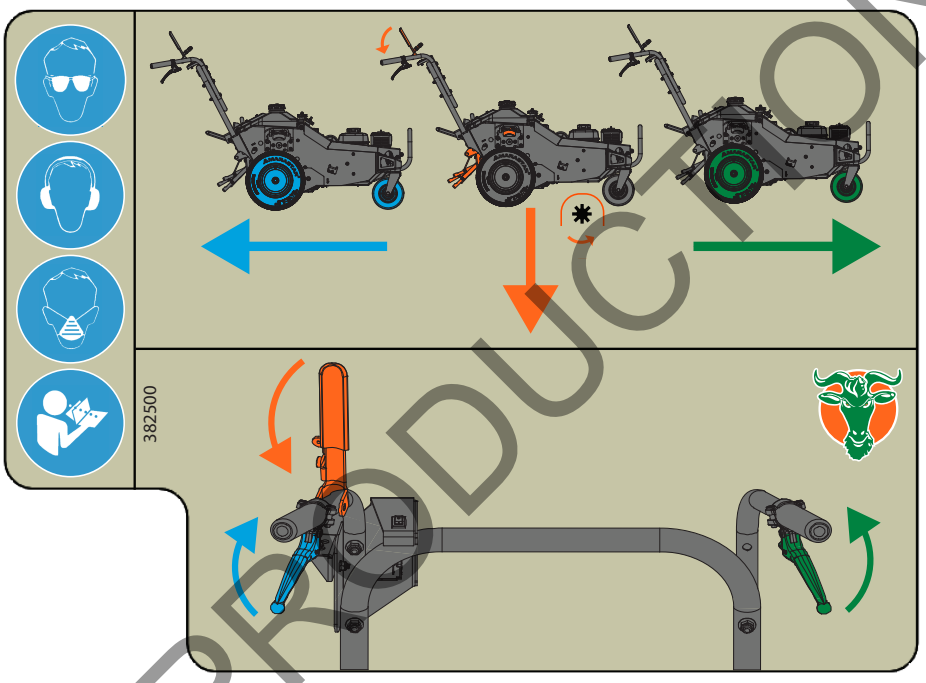
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Warning and Instruction Labels

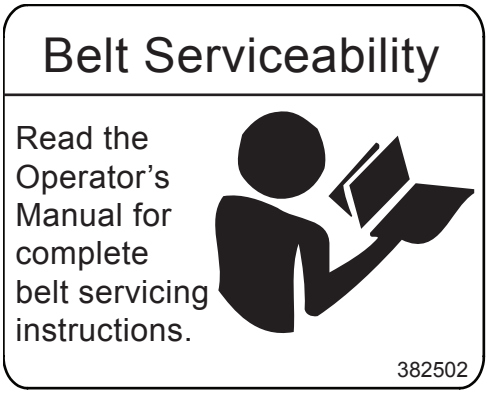
The labels shown below were installed on your BILLY GOAT® Aerator. If any labels are damaged or missing, replace them before operating this equipment. Item numbers from the Illustrated Parts List and part numbers are provided for convenience in ordering replacement labels. The correct position for each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



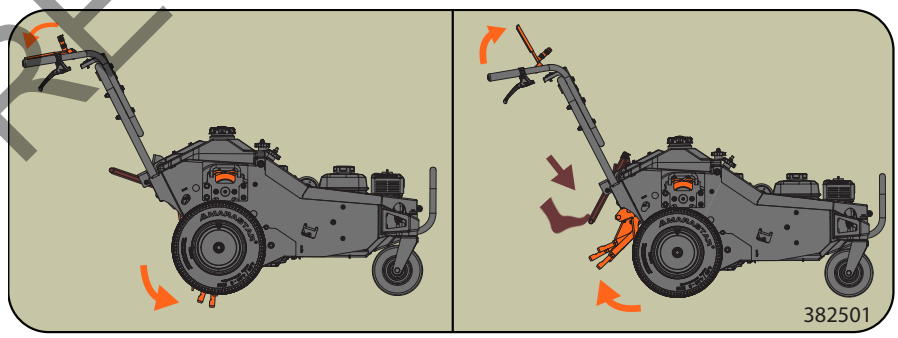
DECAL, WARNING, HAND IN BELT,
ENG. ONLY P/N 5103184



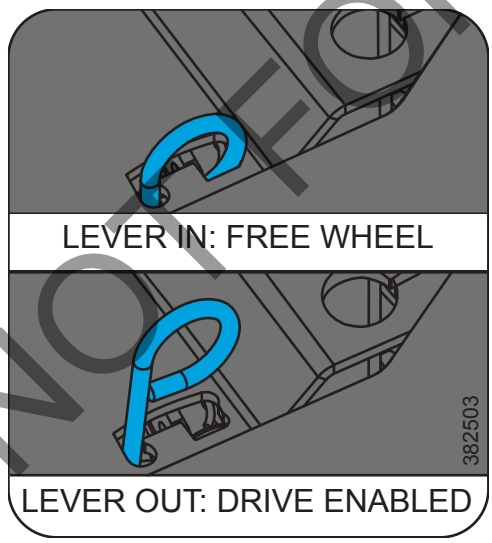
DECAL, OP INFO LEFT P/N 382500



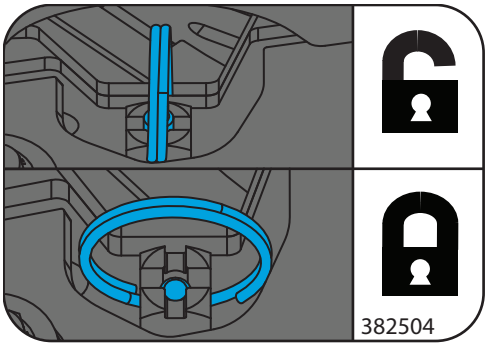
DECAL, BELT SERVICE P/N 382502



DECAL, OP INFO RIGHT P/N 382501



DECAL, BI PASS FUNCTION
P/N 382503



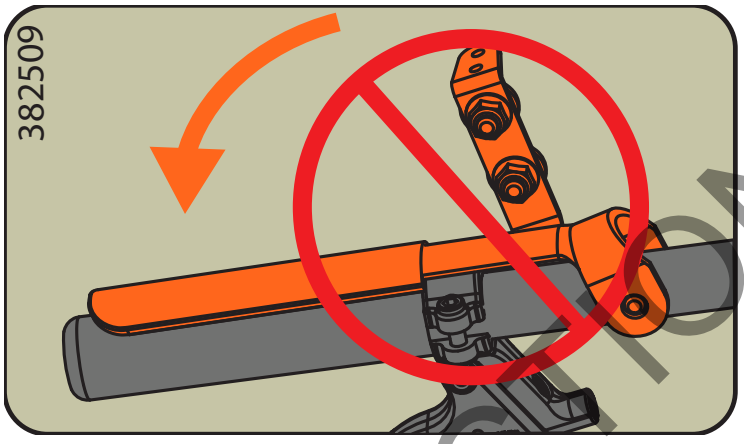
DECAL, CASTER LOCK FUNCTION
P/N 382504

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Warning and Instruction Labels Continued



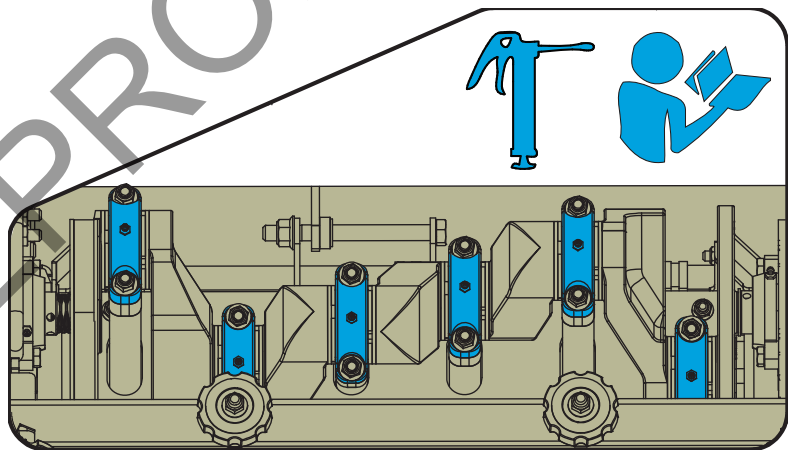
DECAL, ADJUST CHAIN TENSION
P/N 382505



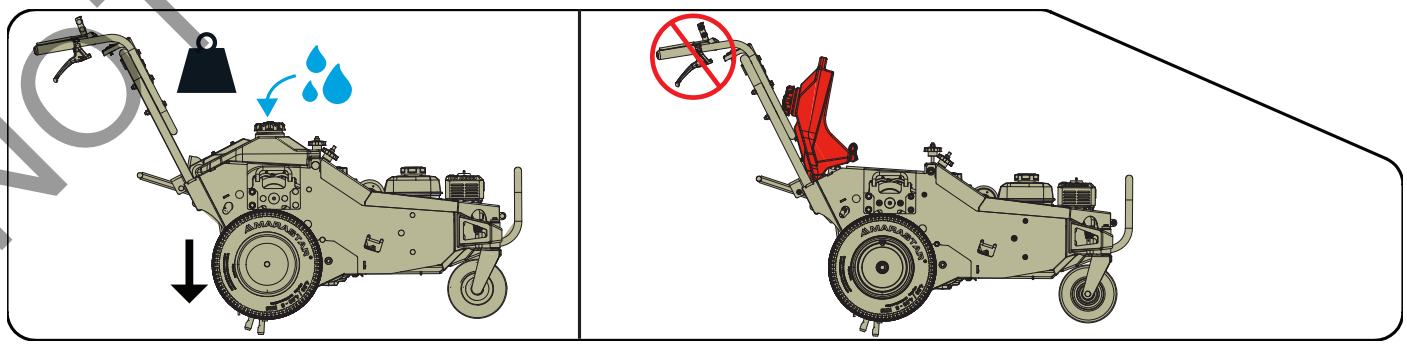
DECAL, NO CLUTCH P/N 382509



DECAL, T2V PLUG & SOIL
P/N 382508



DECAL, MOLD IN WATER TANK LEFT



DECAL, MOLD IN WATER TANK RIGHT

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Engine Labels - Honda







Engine Labels - Vanguard

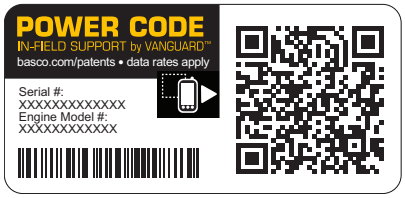


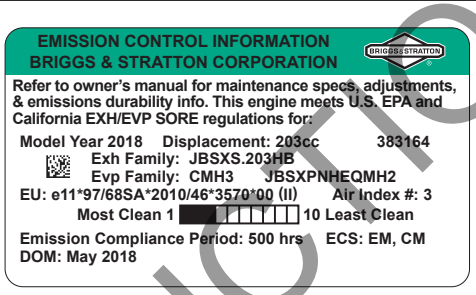








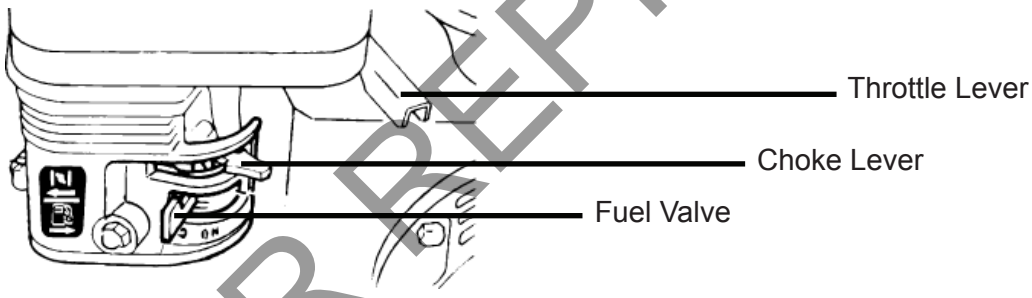








Engine Controls



Packing Checklist

Your Billy Goat is shipped from the factory in one carton with the handles and cables detached.

Read all safety instructions before assembling unit.
Take caution when removing the unit from the box.

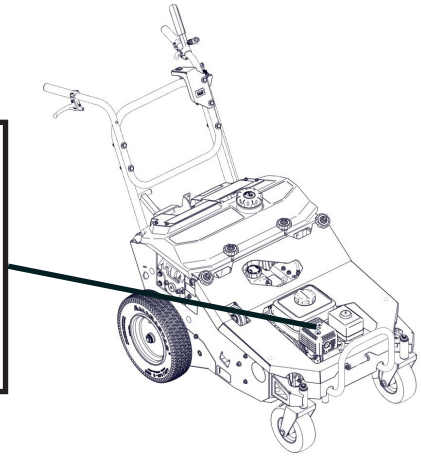
PUT OIL IN ENGINE BEFORE STARTING

PARTS BAG & LITERATURE ASSY

- Warranty card P/N- 400972
- Owner's Manual P/N- 382506
- Declaration of Conformity P/N-381503
- General Safety and Warnings Renovation Manual P/N-100295

Boxing Parts Checklist

- ☐ Owner's Manual (P/N 382506)
- ☐ Engine Manual (Honda) OR
- ☐ Engine Manual (Briggs and Stratton)



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Operation

STARTING ENGINE

See engine manufacturer's instructions for type and amount of oil and gasoline used. Engine must be level when checking and filling oil and gasoline.

ENGINE SPEED	Controlled by lever on the engine. Under normal conditions, operate at the minimum throttle speed to accomplish your task.
ON/OFF SWITCH	Set the On/Off switch to the on setting.
FUEL VALVE	Move fuel valve to "ON" position. (Honda: Located below the air cleaner on the engine.)
CHOKE	Engage the choke when starting a cold engine. (Honda: Located below the air cleaner on the engine.)
THROTTLE	Move the throttle control lever on the engine to fast position. Pull starting rope to start engine

If your unit fails to start, check trouble shooting section in operator's manual and also see engine manual.

NOTE: Honda engines are equipped with a low oil sensor to prevent engine damage. When it senses a low oil condition (i.e. unit is operating or sitting on a steep slope) the engine shuts down. The low oil condition must be corrected before the engine can be restarted. See the engine owner's manual for more information.

AERATING OPERATION

NOTE: NEVER PARK THIS UNIT ON A SLOPE OF ANY KIND. Always keep tines in the up position when parking the unit.

ENGAGING DRIVE	Squeeze the right-hand speed control lever for forward motion and the left-hand speed control lever for reverse. The harder you squeeze, the faster the machine will go. Remember to only engage in reverse with the tines up.
TURNING	This machine has in-ground turning. At the end of an aerating run, turn the machine around while keeping the forward speed control and clutch lever engaged to make the next run. If a 3-point turn is desired, disengage the clutch lever and depress the foot pedal to return the tines to the transport (ensure tines are completely out of the ground before lifting), then squeeze the left-hand speed control lever to reverse the machine into position to make the next run. Re-engage the clutch and forward speed control to continue aerating.
TRANSPORTING	Be sure to raise tines out of the ground (disengage the clutch and depress the foot pedal) before transporting away from the work area.

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Operation

TIPS

• **MOW** - Mow the lawn to its normal cut height.

• **WATER** - For the best performance and maximum tine penetration the lawn should be thoroughly watered the day before aeration.

• **INSPECT** - Check the lawn before beginning work. Remove all rocks, wire, string, or other objects that can present a hazard during work prior to starting.

• **IDENTIFY** - Mark all fixed objects to be avoided during work, such as sprinkler heads, water valves, buried cables, or clothes line anchors, etc.

• **SLOPES** - Do not operate the aerator on steep slopes (exceeding 15°). Use extreme caution when operating on any sloped surface. For lesser sloped areas operate the unit, traversing up and down at a 45° angle to the slope rather than straight across. Extended operation on steep slopes can cause engine damage.

NOTE: Honda engines are equipped with a low oil sensor to prevent engine damage. When it senses a low oil condition (i.e. unit is operating or sitting on a steep slope) the engine shuts down. The low oil condition must be corrected before the engine can be restarted. See the engine owner's manual for more information. For increased wheel traction, fill the on-board tank with water (approximately five gallons).

Maintenance

PERIODIC MAINTENANCE

Periodic maintenance should be performed at the following intervals:

Maintenance Operation	Every Use (daily)	Every 10 Hrs	Every 50 Hrs	Every 100 Hrs
Inspect for loose, worn or damaged parts	•			
Check engine oil*	•			
Inspect belt for wear			•	
Engine (See engine manual)	•			
Grease Cam bearings (recommend using Almagard #3752)		•		
Thoroughly clean all debris from unit and tines	•			
Replace tine bushings				•
Grease shaft bearings and caster wheel bearings				•

*ENGINE MUST BE LEVEL WHEN CHECKING OR FILLING OIL

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Maintenance

INDIVIDUAL TINE REPLACEMENT

1. Wait for engine to cool and disconnect spark plug.
2. Loosen the jam nut then unscrew the tine.
3. Replace the tine making sure to use the maximum amount of threads on the tine.
4. Use a torque wrench to tighten to 100 ft-lbs.

NOTE: Tines are a normal wear item and should be inspected regularly for signs of wear or damage.

ADJUSTING DRIVE BELT TENSION

1. The drive belt tension can be adjusted with the eyebolt that is connected to the spring. Loosen the eyebolt with two 9/16” wrenches. Spin the forewardmost nut towards the eyebolt. Tighten the rearmost nut to stretch the spring which will increase the belt tension. Tighten the forwardmost nut down once proper tension is achieved.

DRIVE BELT REPLACEMENT

1. Disconnect the spark plug.
2. Slide the tine drive belt off of the engine pulley and tuck it back toward the rear of the machine
3. Using a 3/8” ratchet and 6” extension or 3/8” break-over bar, insert the end of the extension into the square hole on the idler arm. Push counterclockwise to stretch the spring and free the belt from the idler pulley.
4. Disconnect the spring from the eyebolt and slide the idler arm toward the engine.
5. Walk the worn out/damaged belt off of the engine and transmission pulley and remove from machine. (Note how the belt is routed before complete removal for ease in Step 6).
6. Re-install the new belt (Note: twist drive, make sure the “V” side of the belt in seated into each pulley to ensure proper operation).
7. Reconnect spring to eyebolt
8. Use square hole to stretch spring and set the belt back into the pivoted idler.
9. Re-install tine drive belt on engine pulley.

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SWING ARM BUSHING REPLACEMENT

1. Disconnect the lift link from swing arm support bar. Use an impact/socket wrench fitted with a 3/4” socket to remove the 1/2” bolt (see Figure A, circled in yellow). Set hardware aside to be reattached later.

2. Detach the swing arm support bar. Use an impact/socket wrench fitted with a 1/2” socket to remove the four 5/16” bolts and associated hardware (see Figure A, circled in orange). Set hardware aside to be reattached later. Remove the swing arm support bar. At this stage, your machine should appear as in Figure B.

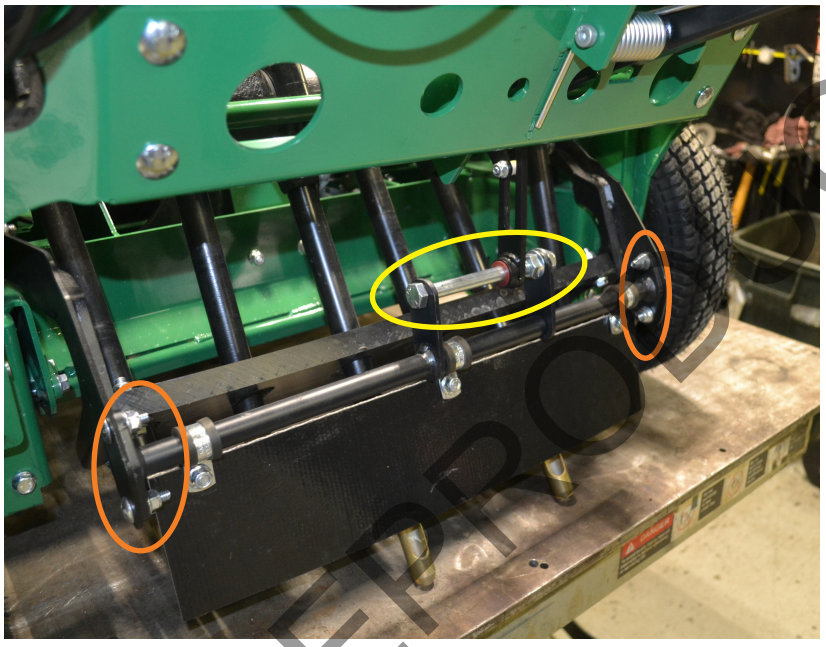


Figure A

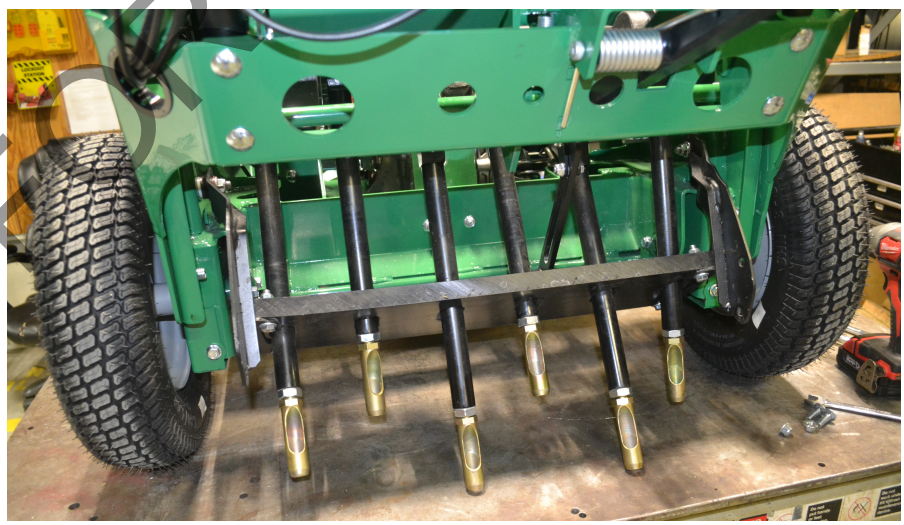


Figure B

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SWING ARM BUSHING REPLACEMENT CONTINUED

3. Detach the tine plate. Use an impact/socket wrench fitted with the 1/2” socket to remove the four bolts and associated hardware that secure the tine plate (see Figure C). Set hardware aside to be reattached later. Using your hands, gently maneuver the plate down off of the tines (see Figure D). Set the plate aside to reattach later.



Figure C



Figure D

4. Remove the swing arm (see Figure E, circled in blue). Use an impact/socket wrench fitted with a 9/16” socket OR a 9/16” wrench to remove the bolt securing the swing arm. Repeat this step to detach the second swing arm.



Figure E

5. Remove the old and/or broken bushing from swing arm. Securely clamp down the swing arm. Use a punch and hammer to tap out the old and/or broken bushing from the swing arm. See Figure F.

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SWING ARM BUSHING REPLACEMENT CONTINUED



Figure F

6. Place new bushings in swing arms. Use 1/2” pin or shoulder bolt to position the new bushing into the swing arm. Use a hammer to gently tap on the pin/shoulder bolt to drive the new bushing into the swing arm. Remove the 1/2” pin or shoulder bolt.

7. Repeat steps 5 & 6 on the second swing arm.

8. Reverse steps 1-4. Reattach the swing arms, then reattach the tine plate. Proceed to reattach the swing arm support bar. Finally, reconnect the link lift to the swing arm support bar.

9. Tighten all joints. Use an impact wrench with correct sockets to ensure the all joints are secure before operation. Ensure hardware orientation is the same as before disassembly.

TINE PLATE REPLACEMENT

1. Disconnect the link lift from swing arm support bar. Use an impact wrench fitted with a 3/4” socket to remove the 1/2” bolt (see Figure A, circled in yellow). Set hardware aside to be reattached later.

2. Detach the swing arm support bar. Use an impact wrench fitted with a 1/2” socket to remove the four 5/16” bolts and associated hardware (see Figure A, circled in orange). Set hardware aside to be reattached later. Remove the swing arm support bar. At this stage, your machine should appear as in Figure B.

3. Detach the tine plate. Use an impact wrench fitted with the 1/2” socket to remove the four bolts and associated hardware that secure the tine plate (see Figure C). Set hardware aside to be reattached later. Using your hands, maneuver the plate down off of the tines (see Figure D).

4. Attach new tine plate. Maneuver the new plate over the tines. Secure into place with original hardware from Step 3.

5. Reverse Steps 1 & 2. Reattach swing arm support bar then reconnect the link lift to the swing arm support bar.

6. Tighten all joints. Use the impact wrench with correct sockets to ensure the all joints are secure before operation. Ensure hardware orientation is the same as before disassembly.

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ADJUSTING CHAIN TENSION

Note: Text “PLUG” to 33988 for a helpful video tutorial about adjusting the chain tension on your aerator.
Note: If possible, lift up the rear of the machine for easier access to undercarriage during this procedure.

1. Remove the bolts holding shield into place. Use an impact/socket wrench fitted with a 1/2” socket to remove the three bolts which secure the shield. For ease, remove each bolt in the following “ABC” order. **Note:** Pictures are of operator’s righthand side shield.

   A. The first bolt is circled in orange. See Figure G.

   B. The placement of the second bolt is circled in blue. See Figure H. (Note that in Figure H the bolt has already been removed).

   C. The third bolt is circled in yellow. See Figure G.



Figure G



Figure H

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ADJUSTING CHAIN TENSION CONTINUED

2. Remove shield covering the chain. Use your hands to gently slide the shield out of place (downwards and towards the center of the machine). See Figure I. Set aside the shield to reattach once the chain is adjusted. You now have access to the chain to adjust its tension.



Figure I

3. Adjust chain tension. Use two 3/4” wrenches on the bolt in the idler sprocket slot. Loosen bolt to adjust tension. For tighter chain tension, push the bolt up and tighten. For looser tension, pull the bolt down and tighten. See Figures J and K.



Figure J

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ADJUSTING CHAIN TENSION CONTINUED

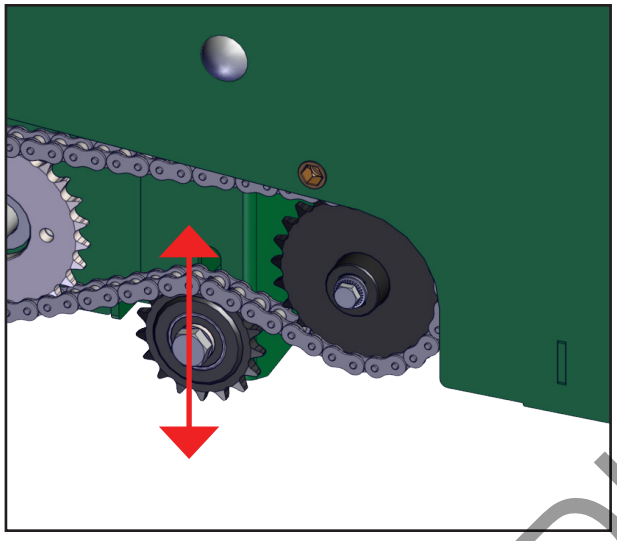


Figure K

4. Reverse steps 1 & 2 to reassemble your machine.

5. Tighten all joints. Use an impact/socket wrench with the 1/2" socket to ensure the all joints are secure before operation.

Note: There are chain drives on both the right and lefthand sides of this machine. Be sure to adjust BOTH chains for proper functionality and operation.

REPLACING THE BELT

Note: Text "PLUG" to 33988 for a helpful video tutorial about replacing the belt on your aerator.

1. Open up the machine. Use your hands to loosen the knobs holding down the water tank and hood. See Figure L. Lift up the water tank, and then lift up the hood to access the belt system. See Figure M.



Figure L



Figure M

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REPLACING THE BELT CONTINUED

2. Loosen tine crank mounting plate from frame.

   2.1 Use an impact/socket wrench fitted with a 9/16” socket to remove the 3/8” bolts and associated hardware connecting the plate to the frame. See Figure N (the bolts to be removed are circled in yellow). Set one of the bolts and its associated washer aside to reattach later.



Figure N

   2.2 Take the remaining bolt and washer and start the threads into the tine shaft through the center hole on the mounting plate. DO NOT TIGHTEN. See Figure O (the hole is circled in orange).



Figure O

   2.3 Proceed to remove the carriage bolts from the right side of the plate. See Figure P.



Figure P

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REPLACING THE BELT CONTINUED

2.4 Finally, tighten the bolt in the center hole to shift the mounting plate forward. See Figure Q. At this stage, your machine should appear as shown in Figure R.

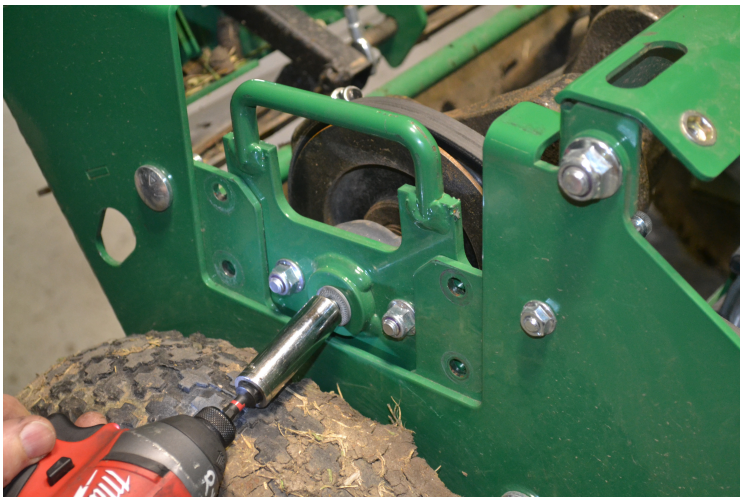


Figure Q



Figure R

3. Remove worn/broken belt. Take the belt loose from the engine pulley and idler pulley. Then pull up on the handle of the tine crank mounting plate as shown in Figure S. You may need to rotate the crank mounting plate forward and backward to completely clear the belt. Gently pull the old belt off the tine crank pulley and feed out of machine. See Figure T.



Figure S



Figure T

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REPLACING THE BELT CONTINUED

4. Install new belt. Pull up on the handle of the tine crank mounting plate and feed the belt into the machine as shown in Figure U. Ensure the belt is positioned correctly. See Figures V, W, and X. Engage the clutch to ensure belt functions properly.



Figure U



Figure V

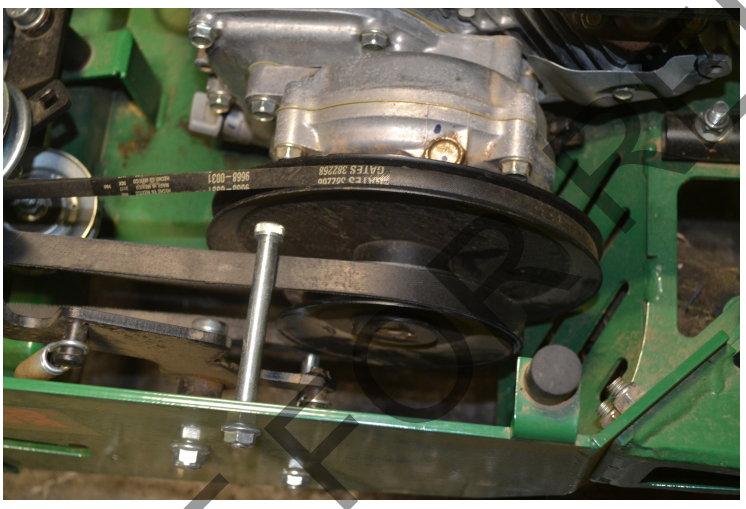


Figure W

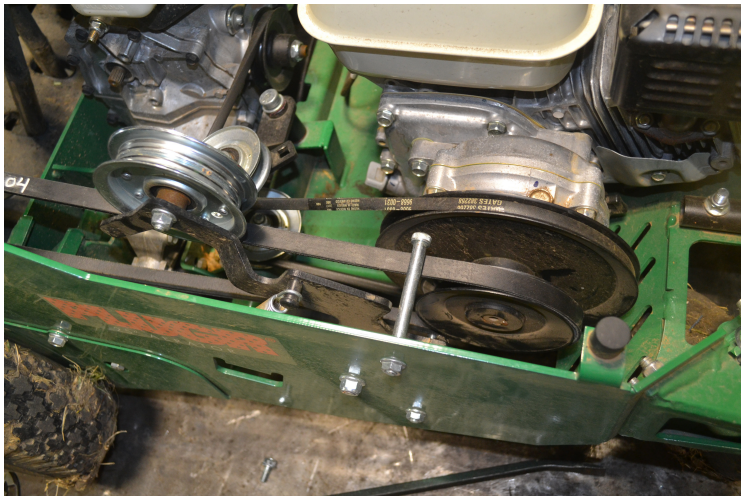


Figure X

5. Reverse steps 1 & 2 to reassemble machine. Be sure to tighten all joints for safe operation.

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BURPING THE TRANSMISSION

1. Lift the rear of the machine off the ground using a floor jack, jack stands, or similar tool of your choice.

2. Remove the cap on the expansion tank to add oil (10W-30 or 20W-50). Add oil to the “FULL COLD” line at the bottom of the tank. See Figure Y. Keep the cap off the tank.

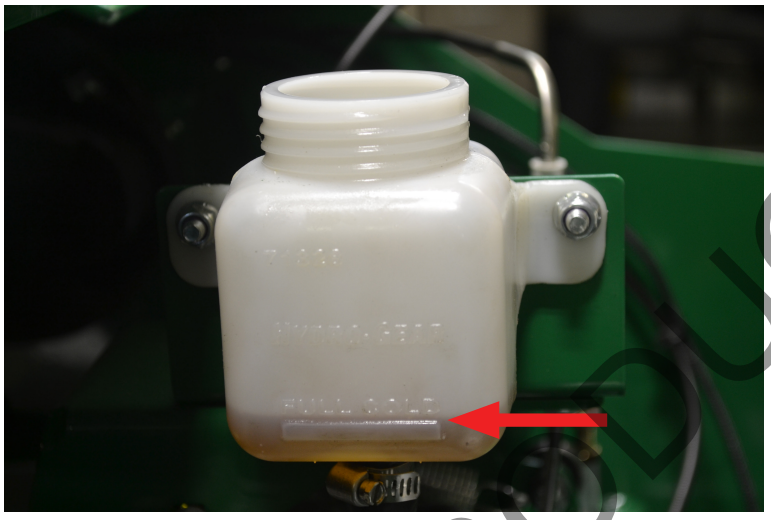


Figure Y

3. Push the bypass lever into “FREE WHEEL” position (see Figure Z) and start the engine.

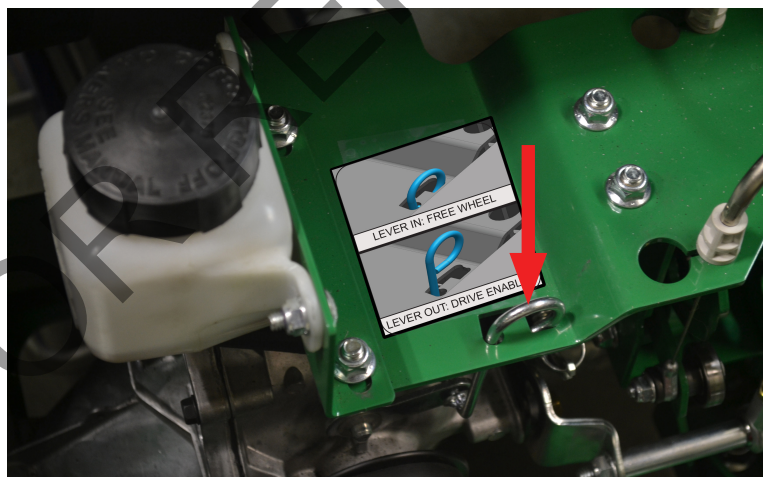


Figure Z

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BURPING THE TRANSMISSION CONTINUED

4. From the operator's position, engage the forward lever, hold for about five seconds, and then disengage (See Figures AA and AB). Proceed to engage the reverse lever, hold for five seconds, and then disengage (See Figures AC and AD). Next, cycle this procedure 4-5 times.



Figure AA



Figure AB



Figure AC



Figure AD

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BURPING THE TRANSMISSION CONTINUED

5. Next, move the bypass lever to “DRIVE ENABLED” position (See Figure AE). Add more oil to transmission tank if necessary. Return to the operator’s position and repeat Step 4.

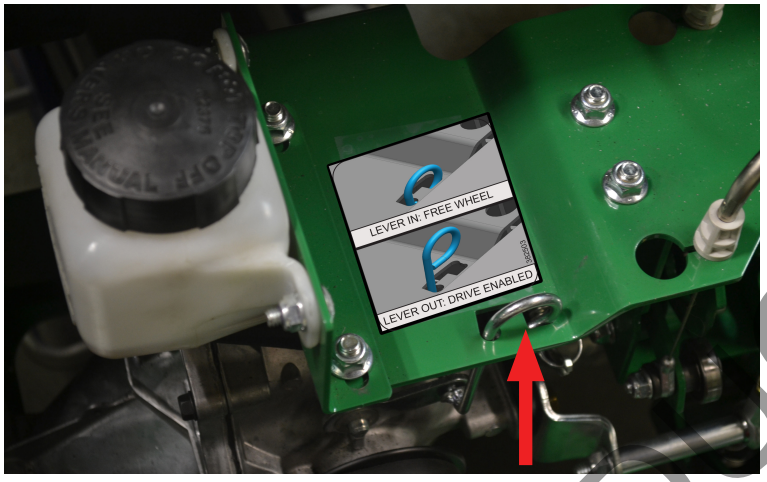


Figure AE

6. Repeat steps 2-5 until:
   a. Oil no longer releases bubbles.
   b. Wheels successfully move in reverse at full speed when reverse lever is engaged.
   c. Wheels successfully move forward at full speed when forward lever is engaged.

Note: This procedure will be easier to complete with two people. One person should remain in the operator’s position, engaging levers. Simultaneously, the second person should watch for the air bubbles to cease.

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ADJUSTING THE CLUTCH CABLE

1. Locate the clutch cable on your machine as shown in Figure AF. The clutch cable is circled in red.

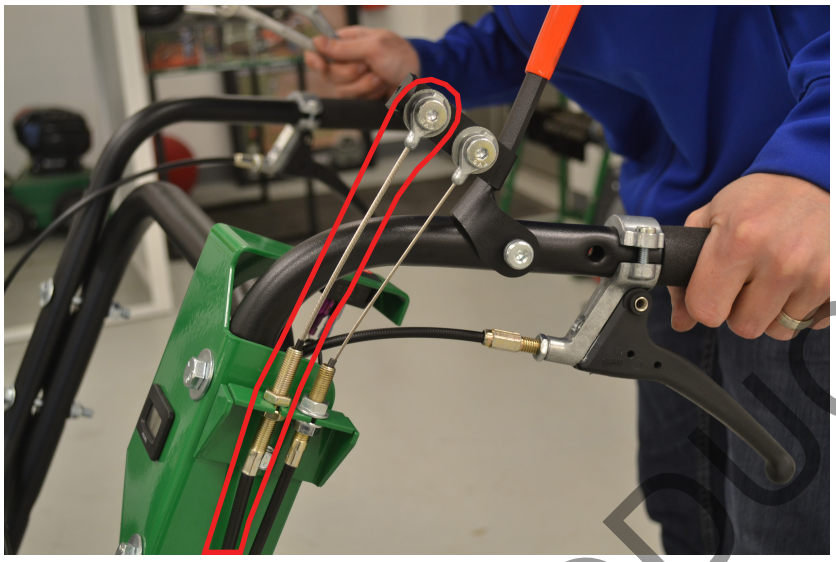


Figure AF

2. Simultaneously use two 1/2” wrenches to loosen the two lock nuts which secure the clutch cable. See Figure AG.



Figure AG

3. The cable should now be loose enough to move in the vertical direction. Gently pull down on the cable to increase the belt tension.

4. Reverse Step 2 to tighten the lock nuts and secure the cable back in place.

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ADJUSTING THE AUTO-ENGAGE CABLE

1. If the tines on your aerator do not drop with ease when the clutch lever is engaged, you may need to adjust the auto-engage cable. Locate the cable on your machine as shown in Figure AH. The auto-engage cable is circled in red.

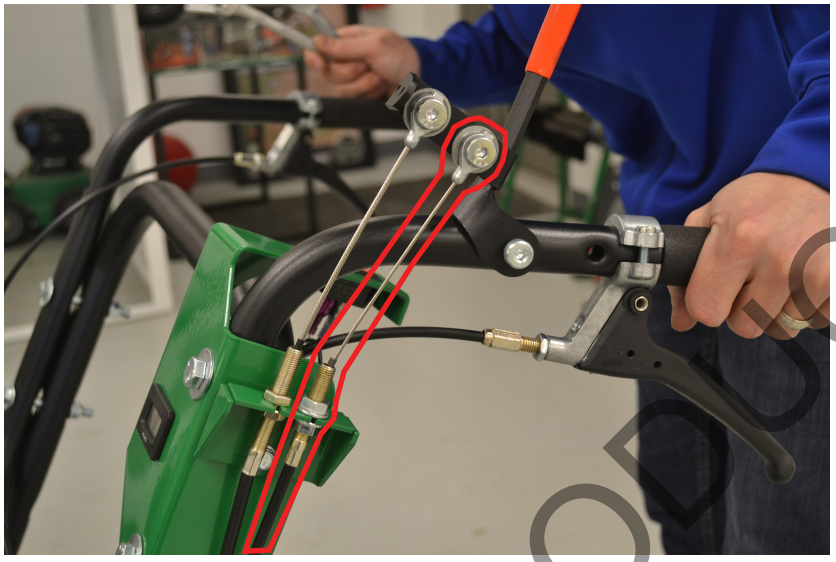


Figure AH

2. Simultaneously use two 1/2” wrenches to loosen the two lock nuts which secure the auto-engage cable. See Figure AI.

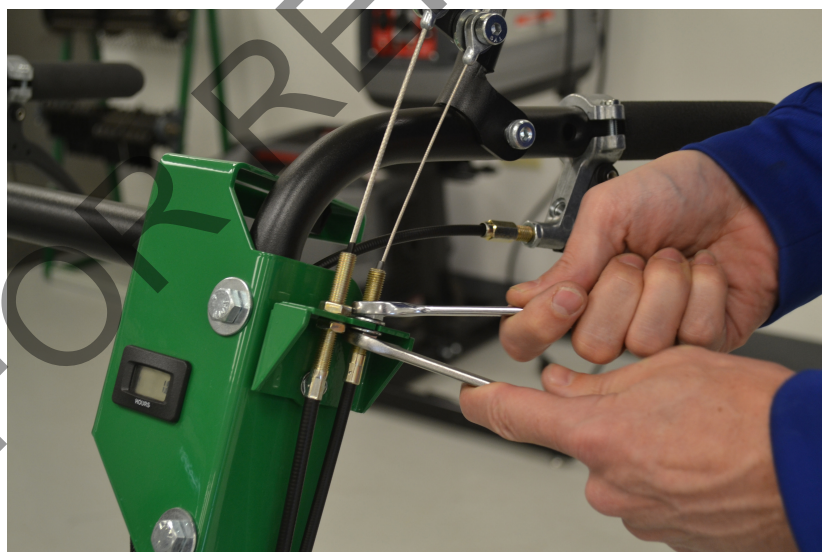


Figure AI

3. The cable should now be loose enough to move in the vertical direction. Gently pull down on the cable to allow tines to drop with ease.

4. Reverse Step 2 to tighten the lock nuts and secure the cable back in place.

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Troubleshooting

Problem	Possible Cause(s)	Solution(s)
Engine will not start.	• Stop switch off. • Throttle in off position. • Engine not in full choke position. • Out of gasoline. • Bad or old gasoline • Spark plug wire disconnected. • Dirty air cleaner. • Engine oil level too low (Honda only)	• Check stop switches, throttle, choke position, and gasoline. • Connect spark plug wire. • Clean or replace air cleaner or contact a qualified service person. •Check and fill engine oil.
Abnormal Vibration	• Damaged or missing tines. • Loose handle bolts. • Loose engine bolts. • Loose engine pulley	• Stop work immediately! • Replace any damaged or missing tines. • Tighten all loose bolts and nuts.
Engine stalls or labors when aerating	• Working on too steep of a slope. • Not enough oil in the engine.	• Work at 45 degrees to the slope. Move up and down instead of across the slope. • Check engine and add engine oil.
Engine is locked, will not pull over	• Tension on tine drive belt. • Engine problem.	• Pull spark plug wire and remove debris. • Inspect clutch cable for loose connection or damage. • Contact an engine servicing dealer for engine problems.
Unit does not move when clutch is engaged.	• Transmission in bypass position. • Belt drive out of adjustment. • Worn drive belt. • Loose or damaged pulleys. • Damaged, loose, or broken clutch cable.	• See maintenance on pages 9-21 of this manual. • Contact a qualified servicing dealer.

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Spare Parts List

Please refer to this list of spare parts you may need to service your BILLY GOAT® Aerator. You can order these parts through our customer service team. Please refer to our website at www.billygoat.com.

Part Number	Description	Application
382244	TINE, PLUGR .625"-11 BLACK	Aerator Tine
382227	GATE, 6 TINE	Plastic Tine Plate
382273	BELT, V, 5L 61.82EL OHR ETH, AMD CD	Tine Drive Belt
380213	BEARING JOURNAL 2” DIA	Tine Rod Cap Bearing
373300	WHEEL, 8” X 3” HEAVY DUTY	Caster Wheel
382268	BELT, V, 3V 53.00EL OHR CL, PLY CD	Drive Belt
382239	ASM, WHEEL & TIRE PLUGR TURF	Rear Wheel and Tire

Warranty Information

When servicing engine refer to specific manufacturer’s engine owner's manual. Engine warranty is covered by the specific engine manufacturer. If your engine requires warranty or other repair work contact your local servicing engine dealer. When contacting a dealer for service it is a good idea to have your engine model number available for reference (See table page 3). If you cannot locate a servicing dealer in your area you can contact the manufacturer’s national service organization.

American Honda: 800-426-7701
Briggs and Stratton: 414-479-8008

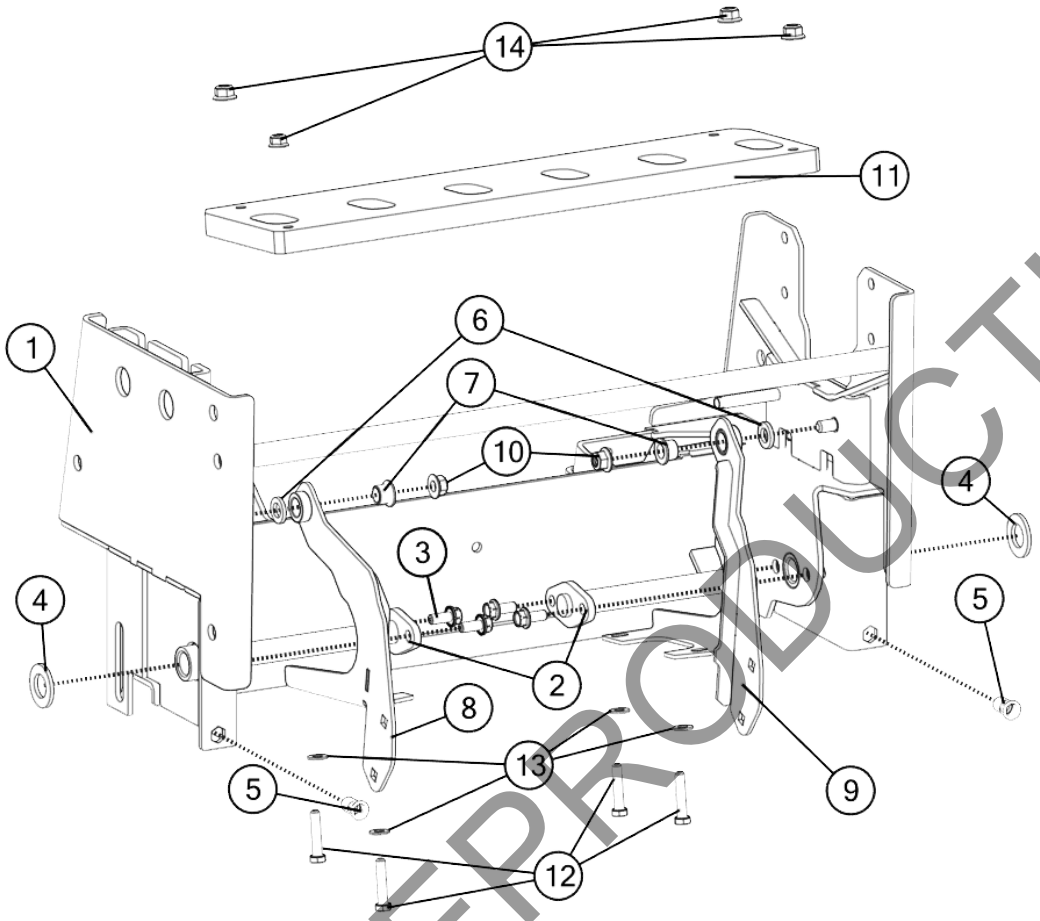
Warranty Claim Procedure
Should a BILLY GOAT® machine fail due to a defect in material and/or workmanship, the owner should make a warranty claim as follows:

- The machine must be taken to the dealer from whom it was purchased or to an authorized Servicing BILLY GOAT Dealer.
- The owner must present the remaining half of the Warranty Registration Card, or, if this is not available, the invoice or receipt.
- The Warranty Claim will be completed by the authorized BILLY GOAT Dealer and submitted to their respective BILLY GOAT Distributor for their territory Attention: Service Manager. Any parts replaced under warranty must be tagged and retained for 90 days. The model number and serial number of the unit must be stated in the Warranty Claim.
- The distributor service manager will sign off on the claim and submit it to BILLY GOAT for consideration.
- The Technical Service Department at BILLY GOAT will study the claim and may request parts to be returned for examination. BILLY GOAT will notify their conclusions to the distributor service manager from whom the claim was received.
- The decision by the Technical Service Department at BILLY GOAT to approve or reject a Warranty Claim is final and binding.

For online product registration go to www.billygoat.com

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PL2501SP Parts Drawings & Lists

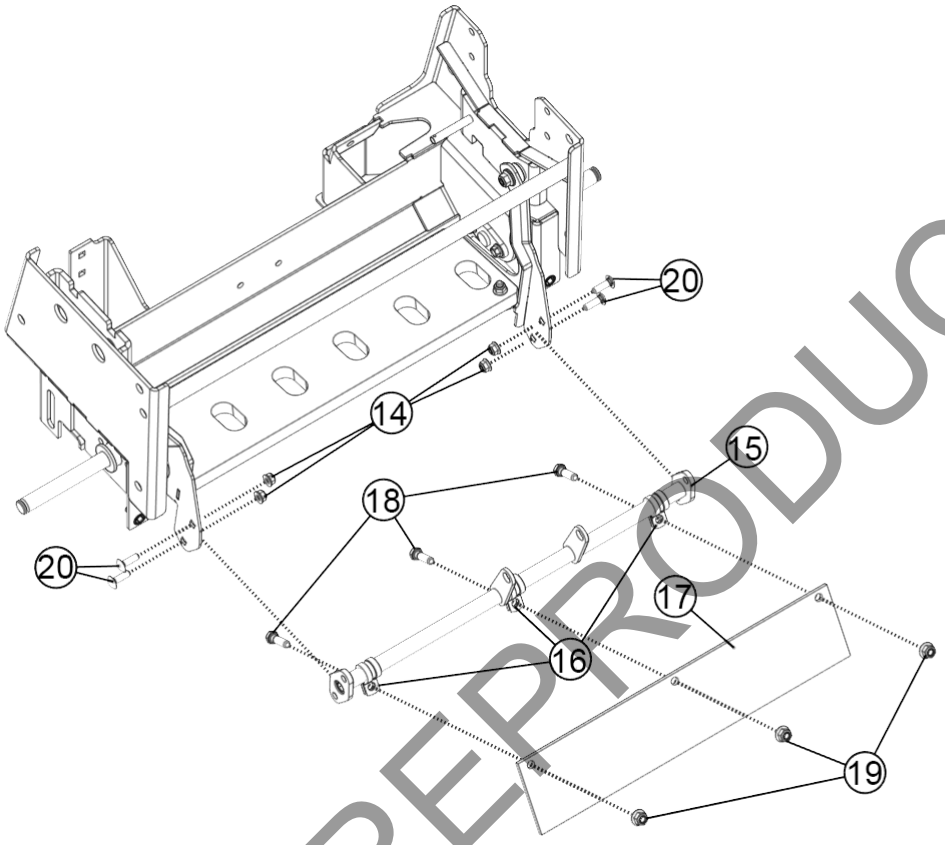


PL2501SPH & PL2501SPV

Item No.	Description	Part No.	QTY
1	WLDMT, SUB FRAME 2501SP	382102-S	1
2	WA, AXLE REAR	382103	2
3	SER. HEX WSHR FLNG SCREW 5/16” - 18 x 0.75”	351264	4
4	WSHR-STL, FLT, .812”X1.469”X.134” SAE ZP	8172015	2
5	NUT INSERT HEX 5/16”-18, .150-.312 GRIP RANGE	REF	2
6	WSHR-NYL, FLT, .500” X .875” X .125”	382258	2
7	BUSHING, .500” I.D.	362254	2
8	WA, TINE GATE ARM LH	382101	1
9	WA, TINE GATE ARM RH	382104	1
10	NUT-HEX-NYLK, FLG .375-16 ZP	8165003	2
11	GATE, TINE	382227	1
12	SCR-CAP, HEX .3125”-18 X 1.500” G5 ZP	8041030	4
13	WSHR-STL, FLT, .344”X.688”X.065” SAE ZP	8172008	4
14	NUT-HEX-NYLK, FLG .3125-18 ZP	8165002	4

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PL2501SP Parts Drawings

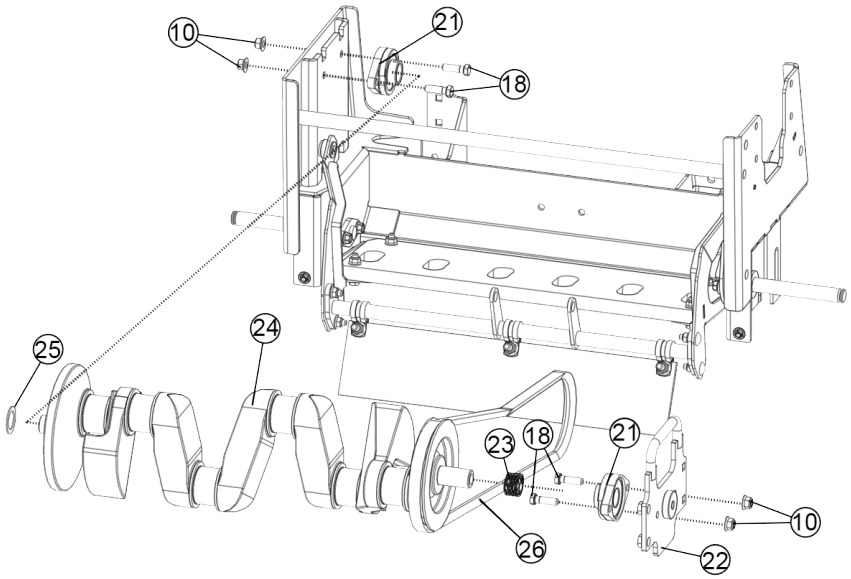


PL2501SPH & PL2501SPV

Item No.	Description	Part No.	QTY
14	NUT-HEX-NYLK, FLG .3125-18 ZP	8165002	4
15	WA, TINE GUARD	382118	1
16	CLAMP, P LOOM Ø.750, .406” MH	382203	3
17	SKIRT, TINE RUBBER	382280	1
18	SCREWCAP 3/8”-16 X 1 1/4” HCS ZP	8041051	3
19	NUT-HEX-NYLK, FLG .375”-16 ZP	8165003	3
20	BOLT, CARRIAGE 5/16-18 X 1” ZP SHORT NK	362362	4

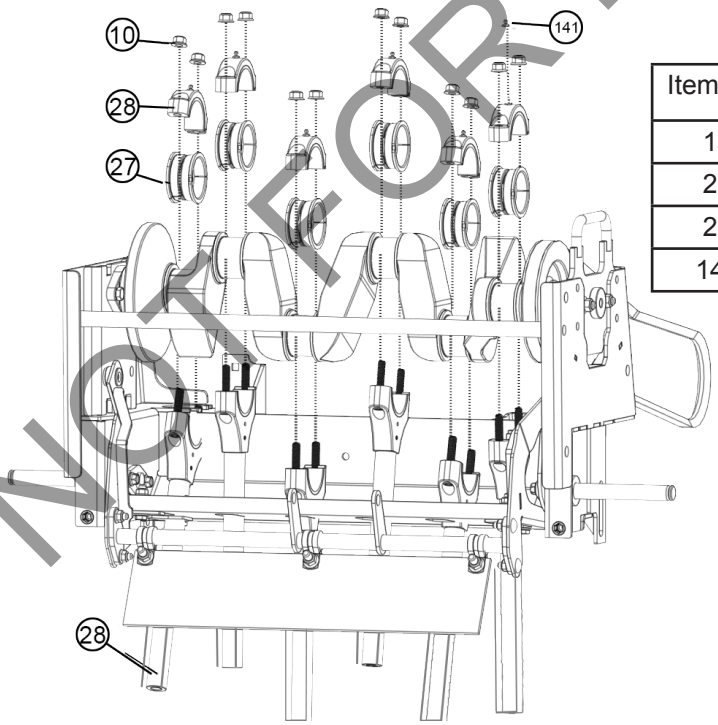
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PL2501SP Parts Drawings



PL2501SPH
&
PL2501SPV

Item No.	Description	Part No.	QTY
10	NUT-HEX-NYLK, FLG .375-16 ZP	8165003	4
18	SCREWCAP 3/8”-16 X 1 1/4” HCS ZP	8041051	4
21	BRG, 2-SQ.HOLE MNT, 1.00 BORE, DCT. IRON	382236	2
22	WA, CRANK BEARING MNT	382112	1
23	SPRING, WAVE 1.000” X .700”	382220	1
24	CRANK, 6 TINE	382242	1
25	MACHINERY BUSHING 1” X 1 1/2 X 14 GA	362205	1
26	BELT, V, 5L 61.82EL OHR ETH, AMD CD	382273	1

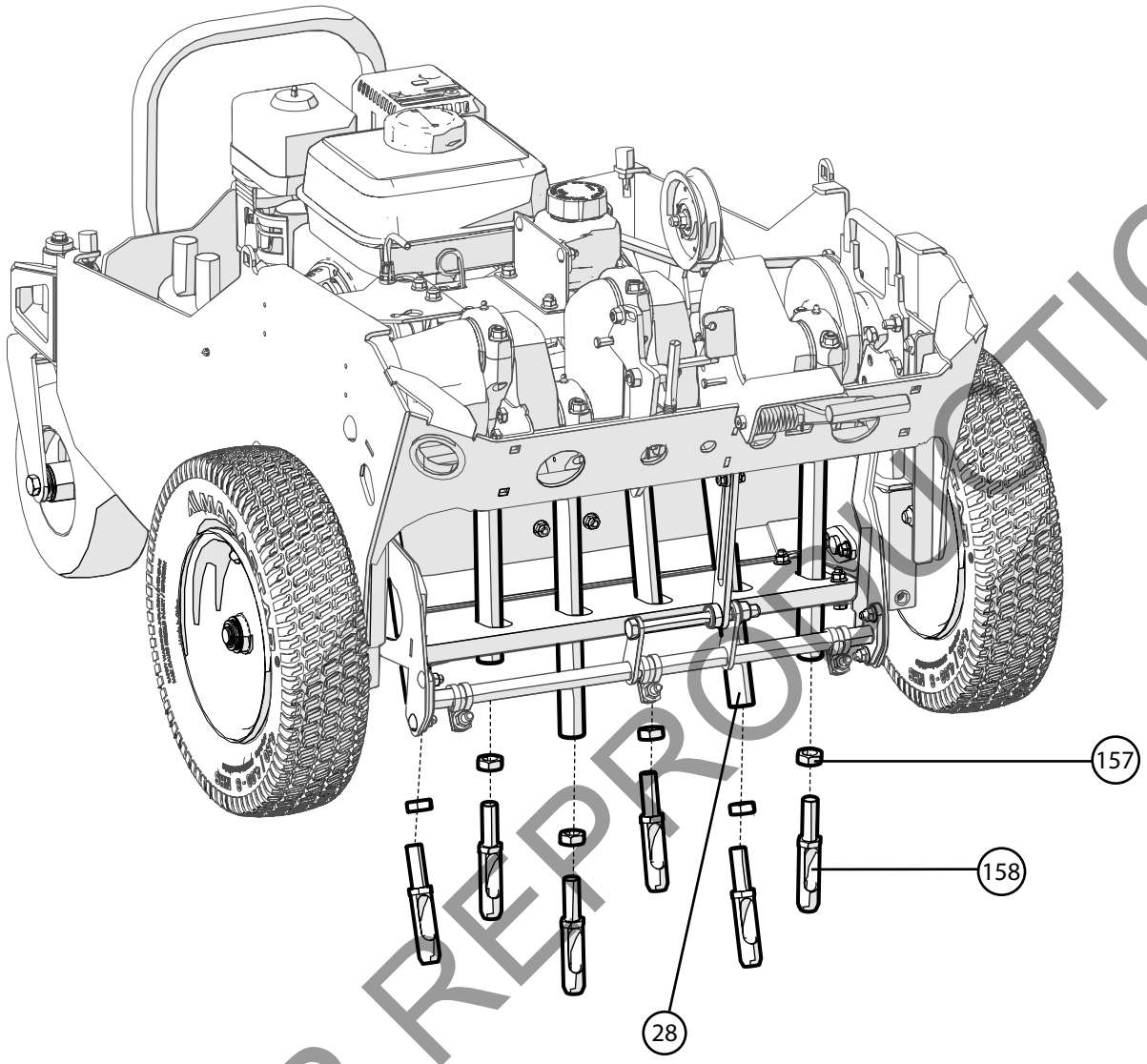


PL2501SPH
&
PL2501SPV

Item No.	Description	Part No.	QTY
10	NUT-HEX-NYLK, FLG .375-16 ZP	8165003	4
27	BEARING JOURNAL 2” DIA	380213	12
28	ASM, TINE ROD AND CAP	382264	6
141	ZERK, GREASE STR .250”-28 X .359” TPR	382341	6

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PL2501SP Parts Drawings

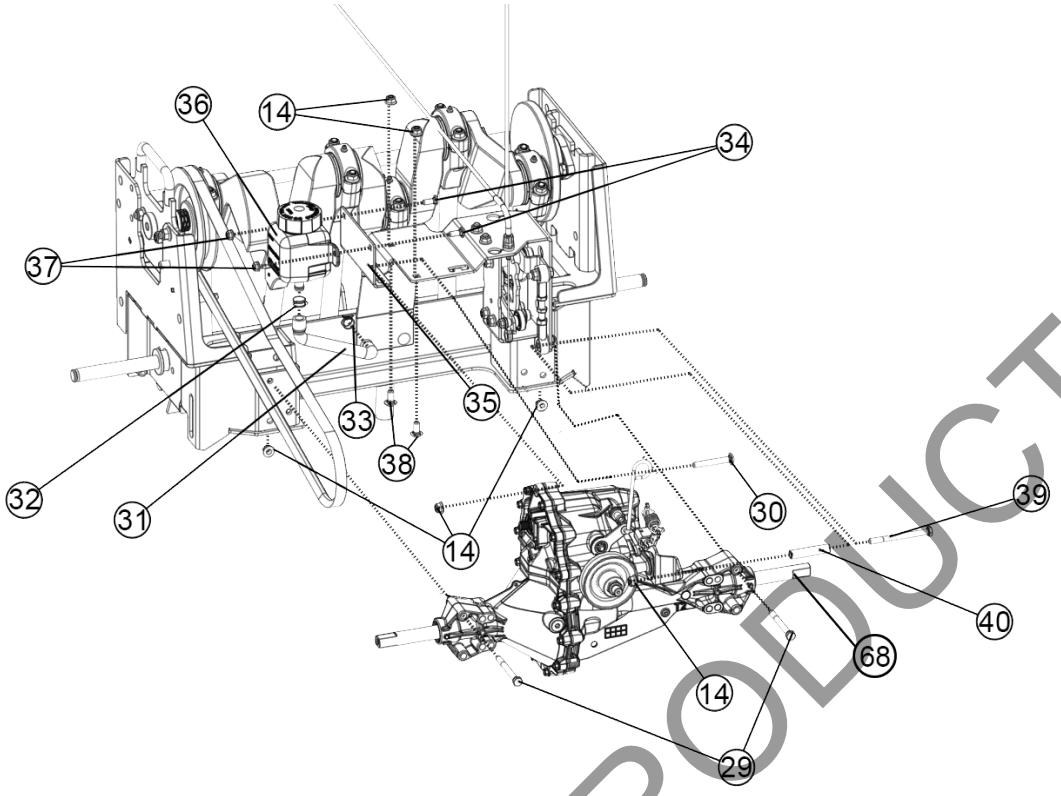


PL2501SPH & PL2501SPV

Item No.	Description	Part No.	QTY
28	ASM, TINE ROD AND CAP	382264	6
157	NUT JAM, 5/8-11 ZP	8143007	6
158	TINE, PLUGR .625”-11 BLACK	382244	6

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PL2501SP Parts Drawings



PL2501SPH & PL2501SPV

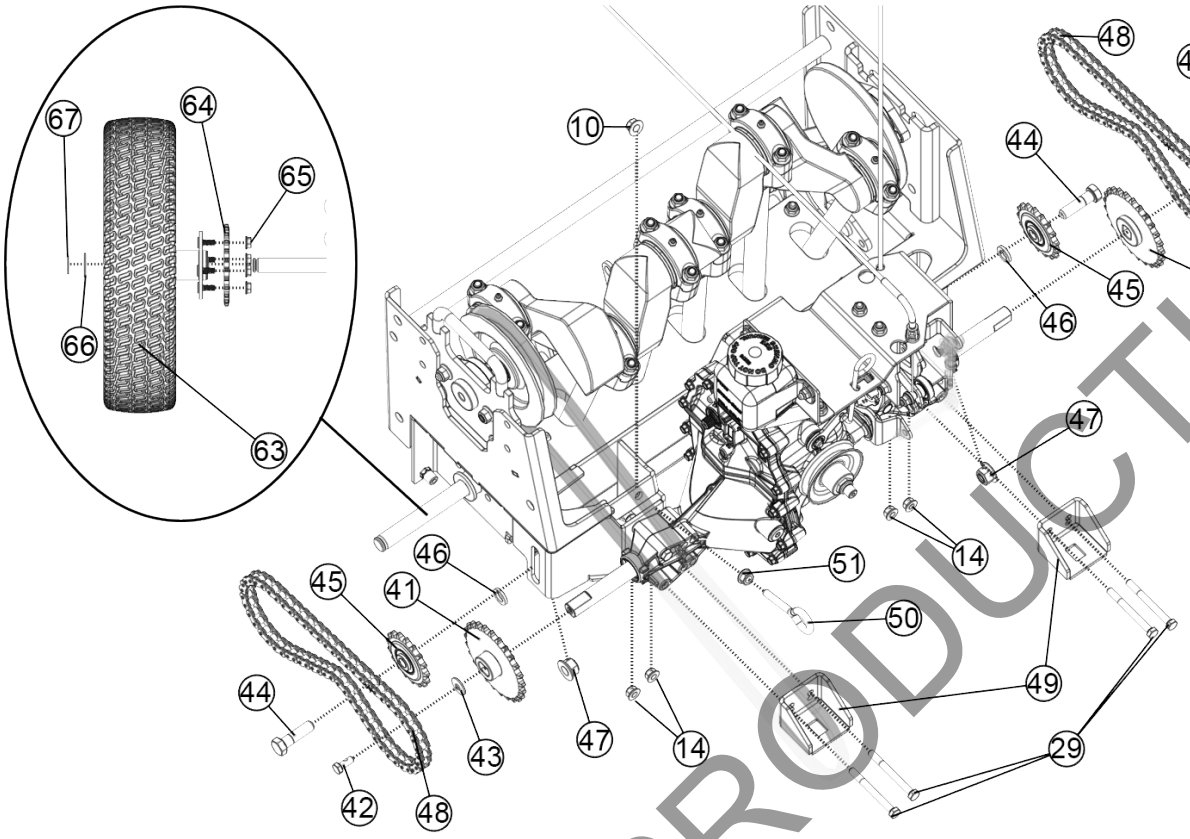
Item No.	Description	Part No.	QTY
14	NUT-HEX-NYLK, FLG .3125”-18 ZP	8165002	2
29	SCREWCAP 5/16”-18 X 3” GR 5 HCS ZP	8041036	2
30	BLT-RDHDSSQNK, .3125”-18 X 2.250 G5 YZ	8024057	1
31	HOSE, EXPANSION TANK	382293	1
32	CLAMP, HOSE CTL Ø.645” ID X .030” THICK	382283	1
33	CLAMP, HOSE CTL Ø.583” ID X .030” THICK	382281	1
34	BOLT CARRIAGE 1/4-20 X 3/4” ZP	8024021	2
35	PLATE, EXPANSION TANK MNT	382299	1
36	TANK, EXPANSION	5100473	1
37	NUT-HEX-NYLK, FLG .250”-20 ZP	8165001	2
38	BOLT CARRIAGE 5/16-18 X 3/4” ZP SHRT NK	362224	2
39	SCREWCAP 5/16”-18 X 3 1/2” GR 5 HCS ZP	8041038	1
40	SPACER, .500” OD X 2.313” ZP	382229	1
68	ASM, TRANSAXLE REPLACEMENT	382603	2

Note: Item 68 (P/N 382603 - ASM, TRANSAXLE REPLACEMENT) includes:

- Item 31 (P/N 382293)
- Item 32 (P/N 382283)
- Item 33 (P/N 382281)
- Item 36 (P/N 5100473)

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PL2501SP Parts Drawings

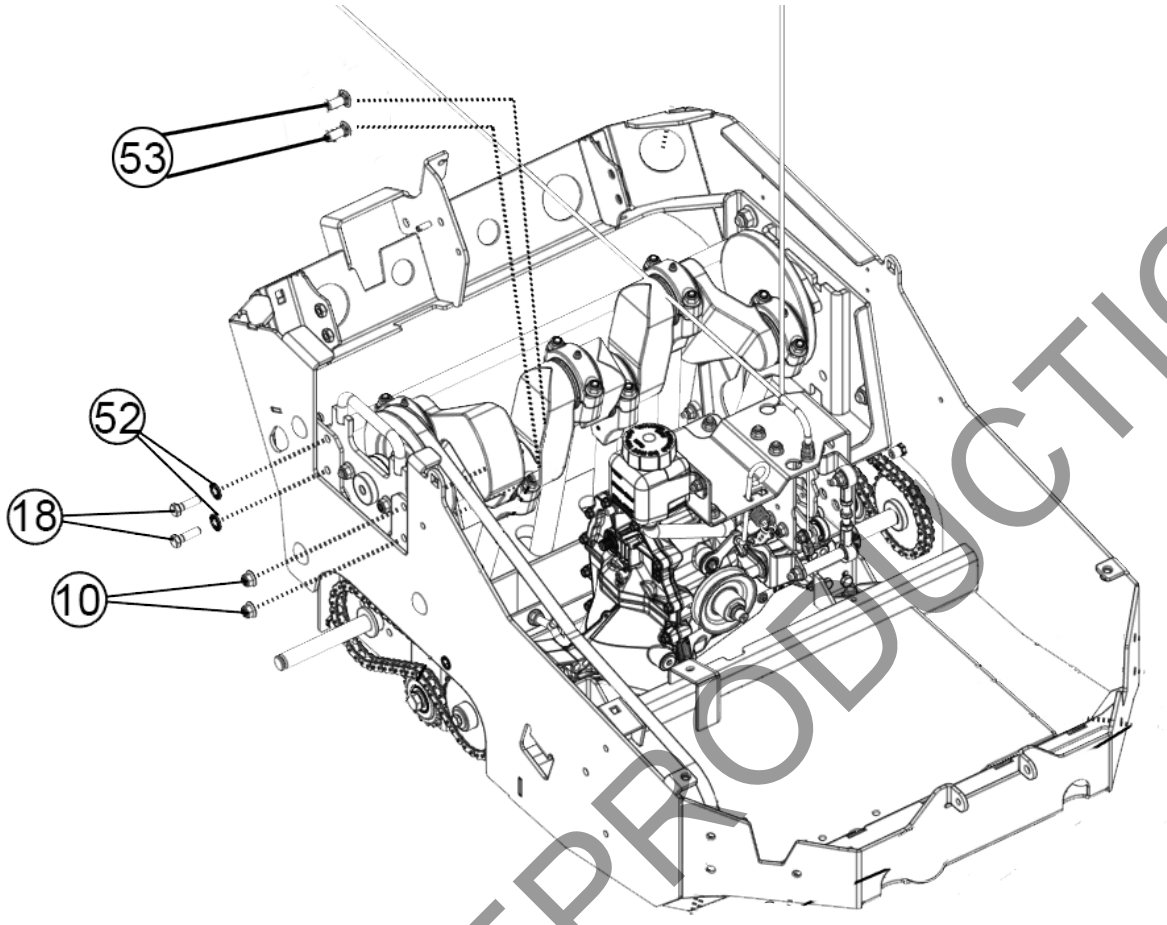


PL2501SPH & PL2501SPV

Item No.	Description	Part No.	QTY
10	NUT-HEX-NYLK, FLG .375”-16 ZP	8165003	1
14	NUT-HEX-NYLK, FLG .3125”-18 ZP	8165002	4
29	SCREWCAP 5/16”-18 X 3” GR 5 HCS ZP	8041036	4
41	WA, SPROCKET WHEEL DRIVE	382105	2
42	SCR-CAP, HEX .3125”-24 X .750” EP42 G5ZP	8042026	2
43	WSHR-STL, BLV .322" X .938" X .072" MZ	8181014	2
44	SCREWCAP 1/2”-13 X 1 3/4” HCS ZP GR. 5	8041097	2
45	SPROCKET, IDLER 17T X 1/2” BORE	373229	2
46	WSHR-STL,FLT .500”X.875”X.134” MAB ZP	382277	2
47	NUT-HEX-NYLK, FLG .500”-13 ZP	8165005	2
48	CHAIN, #40 X 61 PITCHES	371297	2
49	WA, FRONT TRANS MNT	382120	2
50	BLT-HOOK, .375”-16 X 3.75” OAL W/NUT	382340	1
51	NUT 3/8-16 SER. HEX WSHR FLNG	791079	1
63	ASM, WHEEL & TIRE PLUGR TURF	382239	2
64	SPROCKET, RWD 25T 40	382253	2
65	NUT 5/16”-18 SER. HEX WSHR FLNG ZP	350346	8
66	WASHER .765” IDX1.25”ODX.06”	850238	2
67	RING RETAINING “E” 3/4”	850230	2

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PL2501SP Parts Drawings

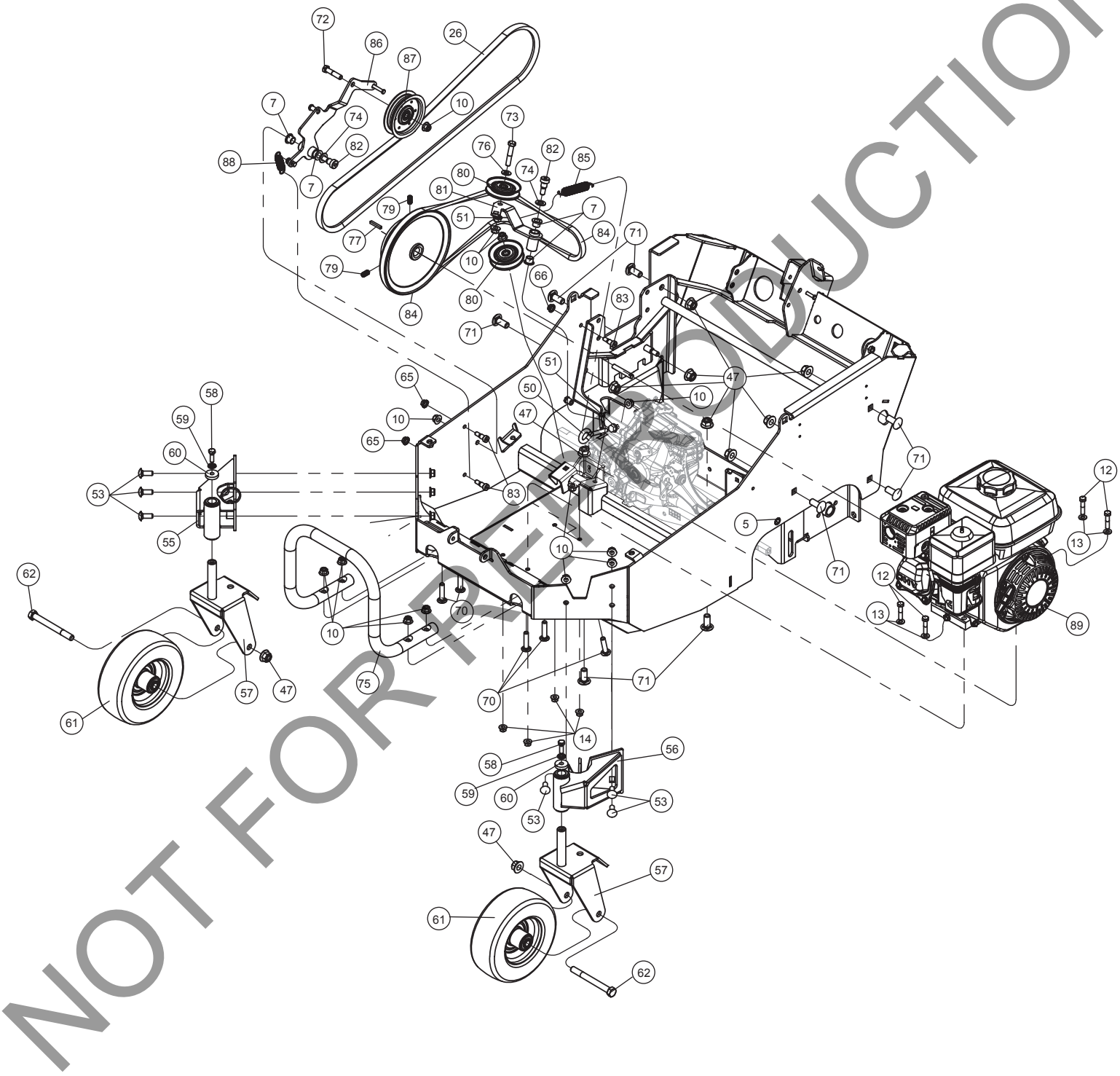


PL2501SPH & PL2501SPV

Item No.	Description	Part No.	QTY
10	NUT-HEX-NYLK, FLG .375”-16 ZP	8165003	2
18	SCREWCAP 3/8”-16 X 1 1/4” HCS ZP	8041051	2
52	WSHR-STL, BLV, .402 X .877 X .063 CN MZ	8181011	2
53	BLT-RDHDSSQNK, .375”-16 X 1.000 G5 ZP	8024058	8

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PL2501SP Parts Drawings



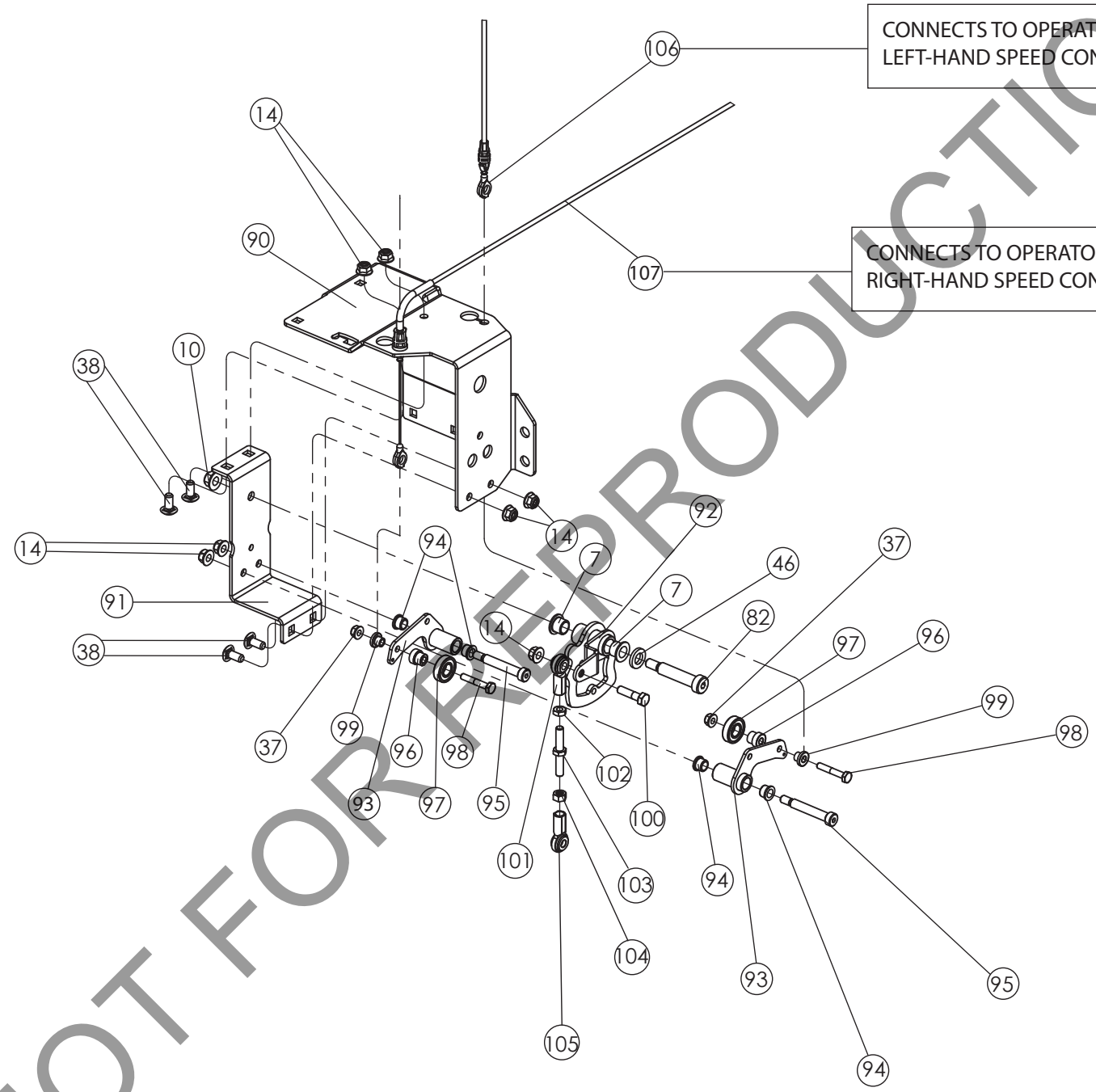
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PL2501SP Parts Drawings

		PL2501SPH		PL2501SPV	
Item No.	Description	Part No.	QTY	Part No.	QTY
5	NUT INSERT HEX 5/16-18	REF	4	REF	4
7	BUSHING, .500” I.D.	362254	8	362254	8
10	NUT-HEX-NYLK, FLG .375”-16 ZP	8165003	16	8165003	16
12	SCREWCAP 5/16”-18 X 1 1/2” GR 5 HCS ZP	8041030	4	8041030	4
13	WASHER 5/16 SAE Z/P	8172008	4	8172008	4
14	NUT-HEX-NYLK, FLG .3125”-18 ZP	8165002	4	8165002	4
26	BELT, V, 5L 61.82EL OHR ETH, AMD CD	382273	1	382273	1
47	NUT-HEX-NYLK, FLG .500”-13 ZP	8165005	10	8165005	10
50	BLT-HOOK, .375”-16 X 3.75” OAL W/NUT	382340	1	382340	1
51	NUT-HEX-FGLK, .375”-16 G5 ZP	791079	2	791079	2
53	BLT-RDHDSSQNK, .375”-16 X 1.000 G5 ZP	8024058	6	8024058	6
55	ASM, SUB CASTER WHEEL RH	382011-S	1	382011-S	1
56	ASM, SUB CASTER WHEEL LH	382012-S	1	382012-S	1
57	WA, CASTER WHEEL	382125	2	382125	2
58	SCREWCAP 5/16”-18 X 1” GR 5 HCS ZP	8041028	2	8041028	2
59	WASHER, BELLEVILLE CONTACT .323X.717X.05	8181010	2	8181010	2
60	WASHER 1.125 OD x 0.344 ID x .25 THK ZP	441150	2	441150	2
61	WHEEL, 8” X 3” HEAVY DUTY	373300	2	373300	2
62	SCREWCAP 1/2”-13 X 4 3/4 HCS ZP GR. 5	8041108	2	8041108	2
65	NUT 5/16”-18 SER. HEX WSHR FLNG ZP	350346	3	350346	3
70	BLT-RDHDSSQNK, .375”-16 X 1.750” G5 ZP	8024067	5	8024067	5
71	BLT-RDHDSSQNK, .500”-13 X 1.250” G5 ZP	8024097	8	8024097	8
72	SCREWCAP 3/8”-16 X 1 3/4” HCS ZP	8041053	1	8041053	1
73	SCREWCAP 3/8”-16 X 2” HCS ZP	8041054	1	8041054	1
74	WSHR-STL,FLT .500”X.875”X.0747” MAB ZP	382252	2	382252	2
75	GUARD, FRONT	382401	1	382401	1
76	WASHER 3/8 SAE 13/32 X 13/16 X 1/16	8172009	1	8172009	1
77	KEY 3/16” SQ X 1 1/4”	9201080	1	9201080	1
79	SCREW SET 3/8-16 X 3/4 CUP POINT	380218	2	380218	2
80	PULLEY 3V GROOVE IDLER	351216	2	351216	2
81	WA, MULE DRIVE	382109	1	382109	1
82	BLT-SLDR,SH.500”X2.00”,.375”-16X.63”G8ZP	382295	2	382295	2
83	BLT-SLDR,SH.375”X3.25”,.313”-18X.50”G8ZP	351316	3	351316	3
84	BELT, V, 3V 53.00EL OHR CL, PLY CD	382268	1	382268	1
85	SPRING, EXT 4.090” X Ø.701 X 14LBF/IN	382338	1	382338	1
86	WA, IDLER ARM	382107	1	382107	1
87	PULLEY IDLER 4.00” OD X 3/8” BORE	500113	1	500113	1
88	SPRING IDLER UPPER OS900SP	351275	1	351275	1
89	ENGINE 5.5 HP HONDA GX160UT2HX2 W/GRBOX	360126	1	-	-
	ENGINE, VANGUARD 203CC W/6:1 3 AT 3	-	-	382323	1

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PL2501SP Parts Drawings



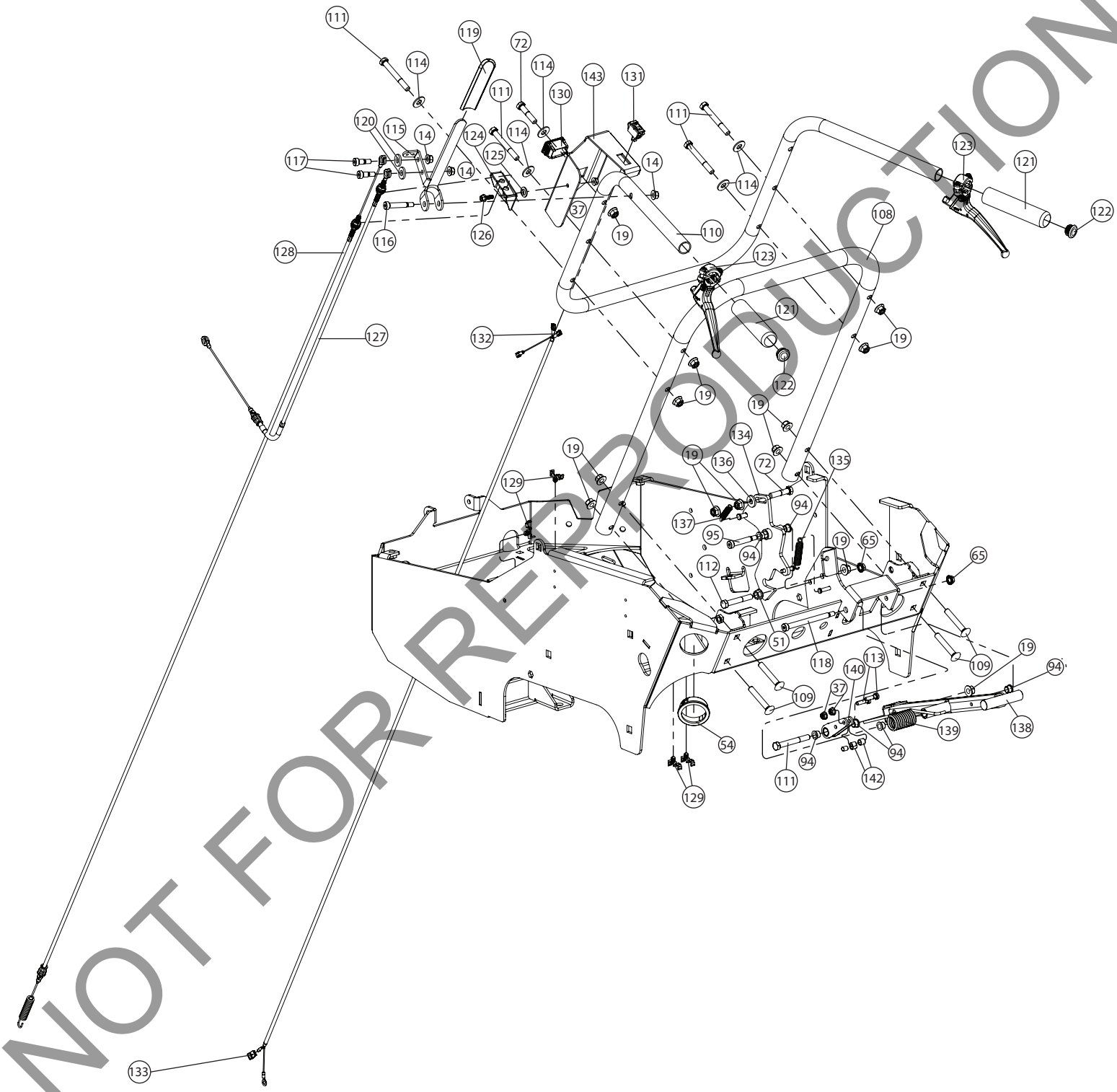
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PL2501SPH & PL2501SPV

Item No.	Description	Part No.	QTY
7	BUSHING, .500” I.D.	362254	2
10	NUT-HEX-NYLK, FLG .375”-16 ZP	8165003	1
14	NUT-HEX-NYLK, FLG .3125”-18 ZP	8165002	7
37	NUT-HEX-NYLK, FLG .250”-20 ZP	8165001	2
38	BOLT CARRIAGE 5/16-18 X 3/4” ZP SHRT NK	362224	4
46	WSHR-STL,FLT .500”X.875”X.134” MAB ZP	382277	1
82	BLT-SLDR,SH.500”X2.00”,.375”-16X.63”G8ZP	382295	1
90	ASM, PAINTED CABLE GUIDE W/DECAL	382122-S	1
91	PLATE, LONGMEYER BOX MNT	382208	1
92	WA, EQUAL SPEED CAM	382140	1
93	BELLCRANK BC2600 WA	501114	2
94	BUSHING 3/8 ID x 1/2 OD x 3/8	840078	4
95	BLT-SLDR,SH.375”X1.75”,.313”-18X.50”G8ZP	351258	2
96	SPACER, SPEED CONTROL STEPPED PM	351347	2
97	BEARING .500 ID x 1.125 OD X .313 THK	351257	2
98	SCREWCAP 1/4”-20 X 1 1/2” HCS ZP	8041008	2
99	SPACER, SPEED CONTROL EYELET PM	351348	2
100	SCREWCAP 5/16”-18 X 1 1/4” GR 5 HCS ZP	8041029	1
101	SPHERICAL ROD END MSF-5	351278	1
102	NUT-HEX, JAM, .3125”-24 G2 YZ	8150002	1
103	JACKSCREW, 5/16”-24 RT AND LFT	362266	1
104	NUT 5/16-24 LFT HAND FIN HEX ZP	362322	1
105	SPHERICAL ROD END, FEMALE 5/16”-24 LFT	362269	1
106	CABLE, SPEED CONTROL RT	351219	1
107	CABLE, SPEED CONTROL ASSY PL	382274	1

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PL2501SP Parts Drawings



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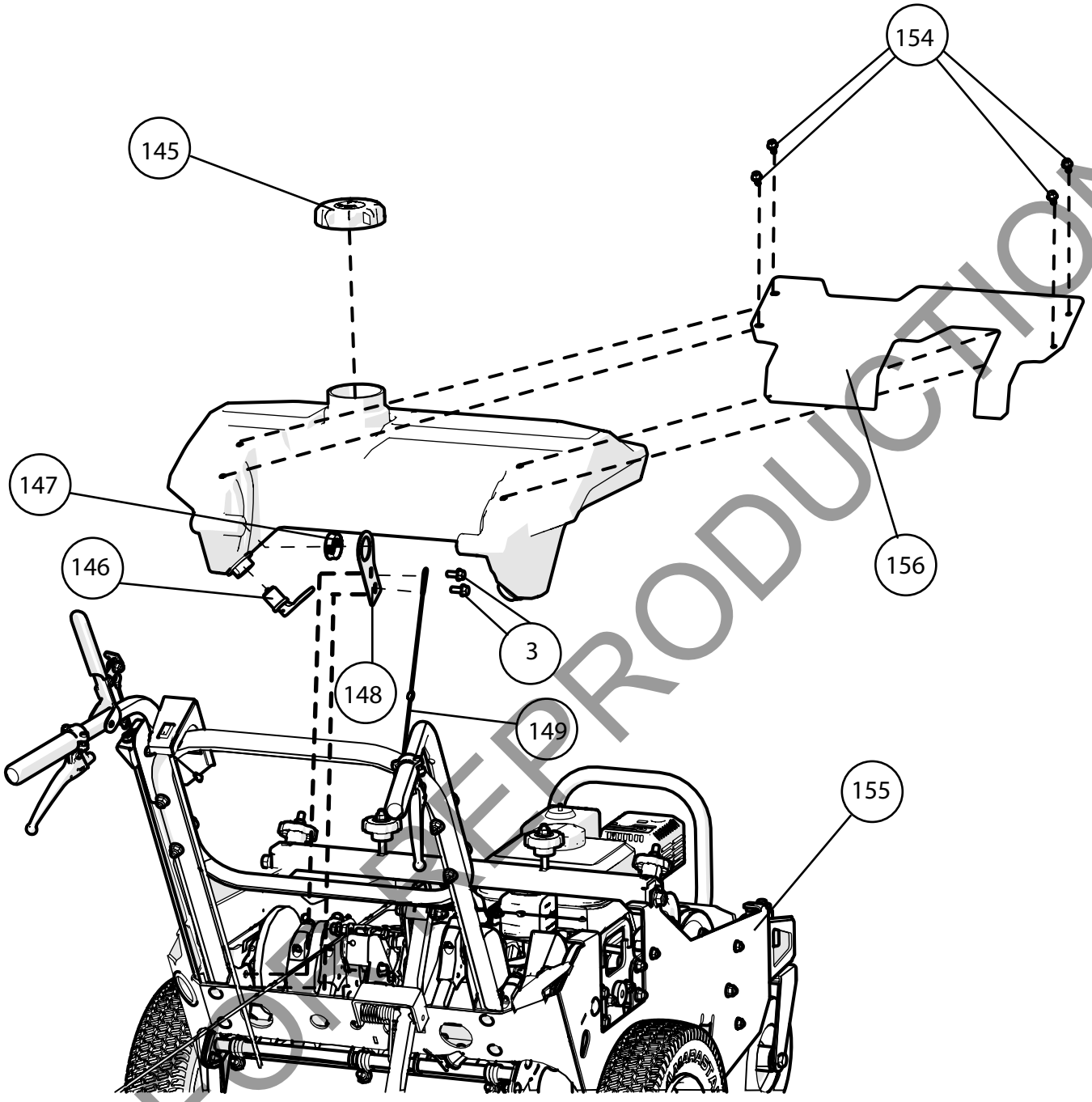
PL2501SP Parts Drawings

PL2501SPH & PL2501SPV

Item No.	Description	Part No.	QTY
14	NUT-HEX-NYLK, FLG .3125”-18 ZP	8165002	3
19	NUT-HEX-NYLK, FLG .375”-16 ZP	8165003	13
37	NUT-HEX-NYLK, FLG .250”-20 ZP	8165001	3
51	NUT-HEX-FGLK, .375”-16 G5 ZP	791079	1
54	BUSHING, SNAP 1.81” ID	382292	1
65	NUT 5/16”-18 SER. HEX WSHR FLNG ZP	350346	2
72	SCREWCAP 3/8”-16 X 1 3/4” HCS ZP	8041053	2
94	BUSHING 3/8 ID x 1/2 OD x 3/8	840078	6
95	BLT-SLDR,SH.375”X1.75”,.313”-18X.50”G8ZP	351258	1
108	HANDLEBAR, LOWER PL2501	382404	1
109	BOLT CARRIAGE 3/8-16 X 2 1/2” ZP	8024064	4
110	HANDLEBAR, UPPER PL2501	382403	1
111	SCREWCAP 3/8”-16 X 3” HCS ZP	8041058	5
112	SCREWCAP 3/8”-16 X 2 1/2” HCS ZP	8041056	1
113	SCREWCAP 1/4”-20 X 1” HCS ZP	8041006	2
114	SCR-CAP, HEX .250”-20 X 0.750” G8 YZ	8071004	5
115	LEVER CLUTCH/SEED DROP OS900SP	351212	1
116	BLT-SLDR,SH.375”X1.50”,.313”-18X.50”G8ZP	501313	1
117	BLT-SLDR,SH.375”X.50”,.313”-18X.50”G8ZP	382263	2
118	BLT-SLDR,SH.375”X4.00”,.313”-18X.50”G8ZP	382285	1
119	GRIP LEVER .125” X 1” X 5” ORANGE	500379	1
120	WSHR-STL, FLT, .406” X .875” X .125” ZP	382202	2
121	GRIP HANDLE 1” X 5.5”	500267	2
122	INSERT GLIDE 1 INCH 10-14 GA	890132	2
123	MAGURA CONTROL	351209	2
124	BRKT, CABLE MOUNT	382275	1
125	WASHER, SHOULDER .265”X.437”X.125” NYL	382232	1
126	SCR-MAC, HWH .250”-20 X .750” G2 ZP	8059134	1
127	CABLE, AUTO ENGAGE	382303	1
128	CABLE, CLUTCH	382304	1
129	CLIP CABLE - THICK PANEL	371222	4
130	HOURMETER, INDUCTIVE PANEL MOUNT	373305	1
131	SWITCH LKG RKR B&S #493521	500281	1
132	HARNESS, STOP SWITCH WIRE	373312	1
133	TERMINAL 18-14 BLUE T-TAP	840215	1
134	WA, TINE LATCH	382119	1
135	SPRING EXTENSION 1/2 OD, 3-5”	381663	1
136	WSHR-NYL, FLT, .385” X .880” X .125”	382241	1
137	SPRING EXTENSION	800242	1
138	WA, LIFT PEDAL	382117	1
139	SPRING,TOR,Ø.865IDX.180”WDX0.702#-IN/°	382294	1
140	WA, UPPER TINE LINK	382127	1
142	BRG, SLEEVE .250” X .4375” X .375” BNZ	382339	2
143	WA, SWITCH & HOUR METER MOUNT	382121	1

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PL2501SP Parts Drawings

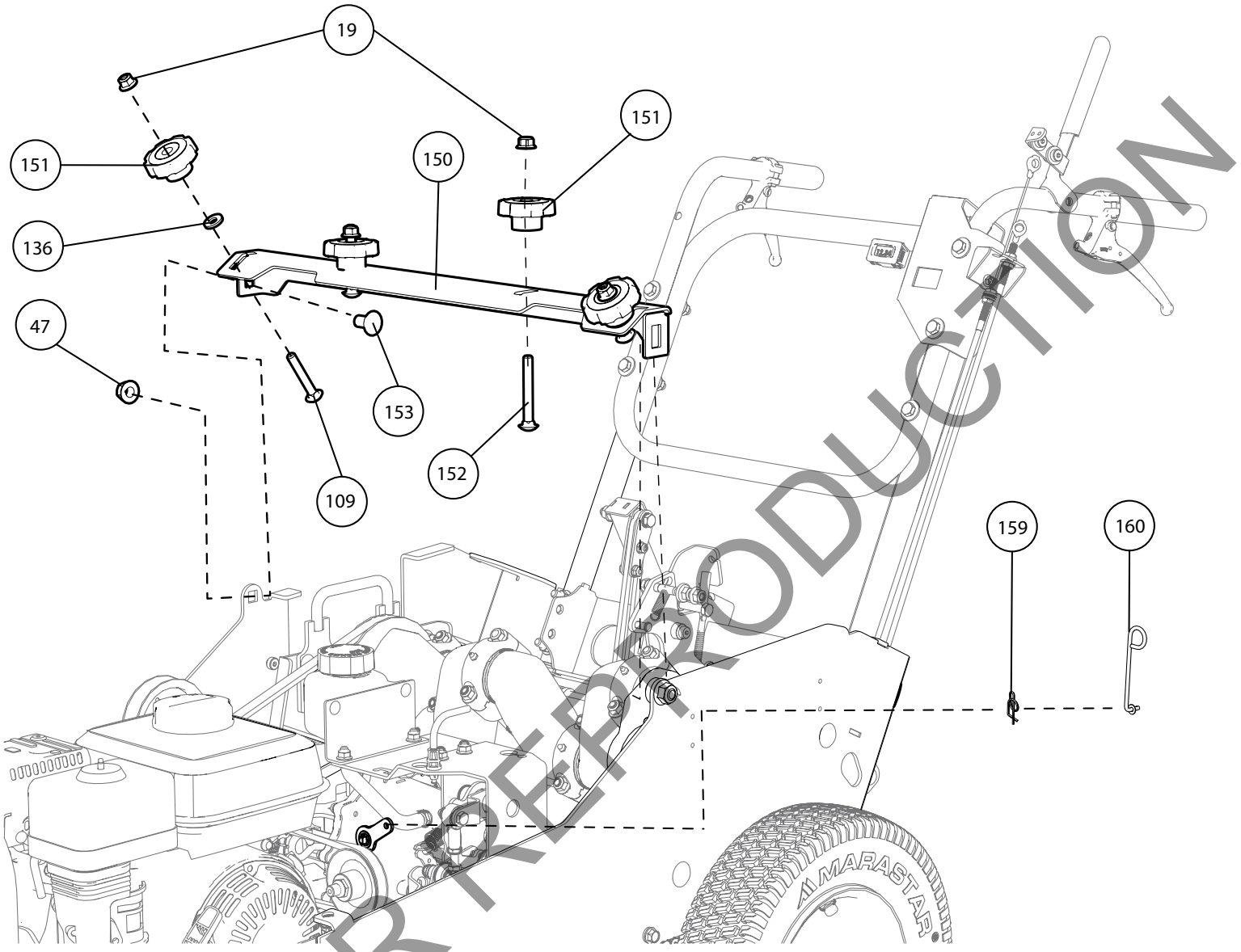


PL2501SPH & PL2501SPV

Item No.	Description	Part No.	QTY
3	SER. HEX WSHR FLNG SCR 5/16” - 18 x 3/4”	351264	1
144	TANK, WATER PL2501	382301	1
145	CAP KELCH 3.5” W/LANYARD	360256	2
146	PLUG DRAIN 1”	360293	2
147	BUSHING, SNAP 1.31” ID	382240	2
148	BRKT, PIVOT WATER TANK	382289	2
149	LANYARD PLASTIC 10"	360243	4
154	BOLT 1/4-20 x 1/2 SER FLANGE	812381	4
155	ASM, PAINTED BODY W/DECALS & INSERTS	382113-S	1
156	ASM, PAINTED COVER W/DECALS	382256-S	1

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PL2501SP Parts Drawings



PL2501SPH & PL2501SPV

Item No.	Description	Part No.	QTY
19	NUT-HEX-NYLK, FLG .375”-16 ZP	8165003	4
47	NUT-HEX-NYLK, FLG .500”-13 ZP	8165005	2
109	BOLT CARRIAGE 3/8-16 X 2 1/2” ZP	8024064	2
136	WSHR-NYL, FLT, .385” X .880” X .125”	382241	2
150	SUPPORT, SHIELD & TANK	382223	1
151	KNOB 3/8-18, SOLID HUB	811230	4
152	BOLT CARRIAGE 3/8-16 X 3” ZP	8024066	2
153	BLT-RDHDSQNK, .500”-13 X 1.000” G5 ZP	8024098	2
159	PIN, RUE RING 0.250”	371275	1
160	ROD, TRANSMISSION BYPASS	382324	1

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