



DLEU 9-18 Owner's Manual



DL TRUCK LOADER VACUUM Owner's Manual

DL901HEU, DL1301HEU, DL1401SEEU, DL1801VEU, DL1801VEEU

Beginning Serial #: 102715001

Accessories

INTAKE

HOSE REPLACEMENT KIT



Standard on DL units. 8" x 10' (203mm x 3.0m) 10" X 10' (254mm x 3.0m)]

(DL901HEU ONLY)
8" X 16.5' Hose P/N 812390
(OTHER MODELS)
8" Hose P/N 811244
10" Hose P/N 791033

EXHAUST

EXHAUST HOSE KIT



7" x 5' (203mm x 1.5m) flexible hose increases exhaust distance.

7" Flexible Hose P/N 812300

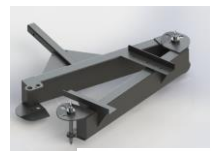
HANGING EXTENSION KIT



Allows the Debris loader to hang from a vertical side panel. (Not for use in transport)

P/N 812260

SWING AWAY HITCH



Allows the DL to be attached to a hitch and swung out for easier cleanup

Swing away-SAH34
Stake body swing away-SBSA6

Original Instructions

IMPORTANT- READ CAREFULLY BEFORE USE AND KEEP FOR FUTURE REFERENCE



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ABOUT THIS MANUAL

THANK YOU for purchasing a BILLY GOAT® DL Vacuum. Your new machine has been carefully designed and manufactured to provide years of reliable and productive service. This manual provides complete operating and maintenance instructions that will help to maintain your machine in top running order. Read this manual carefully before assembling, operating, or servicing your equipment.

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SERIAL PLATE DATA

Record the model number, serial number, date of purchase, and where purchased.

Purchase Date: _____

Purchased From: _____

CE

BILLY GOAT
INDUSTRIES, INC.

1803 S.W. Jefferson
Lee's Summit, MO 64063 / USA
Tel (816) 524-9666
Fax (816) 524-9663

Model

Serial No.

Unit(Weight)
 lbs. kg

Engine Power
 kW rpm

SPECIFICATIONS

	DL901HEU	DL1301HEU	DL1401SEEU	DL1801VEU	DL1801VEEU
Engine: HP	9 (6.7 kW)	13 (9.69 kW)	14 (10.4 kW)	18 (13.4 kW)	18 (13.4 kW)
Engine: Model	GX270UTQA2	GX390UTQA2	EX400DS6030*1	3564420298F1	3564470299F1
Engine: Type	HONDA	HONDA	SUBARU	BRIGGS AND STRATTON	BRIGGS AND STRATTON
Engine: Fuel capacity	5.6 qt. (5.35 L)	6.9 qt. (6.5 L)	7.4 qt. (7.0 L)	9 qt. (8.52 L)	9 qt. (8.52 L)
Engine: Oil capacity	1.16 qt. (1.1 L)	1.16 qt. (1.1 L)	1.3 qt. (1.2 L)	1.75 qt. (1.66 L)	1.75 qt. (1.66 L)
Total Unit weight:	204 lbs (92.5 kg)	207 lbs (93.9 kg)	267 lbs (93.9 kg)	267 lbs (121.1 kg)	267 lbs (121.1 kg)
Max operating slope	25°	25°	25°	25°	25°
Overall height	48" (1.2m)	48" (1.2m)	48" (1.2m)	48" (1.2m)	48" (1.2m)
Overall width	27" (0.69m)	27" (0.69m)	27" (0.69m)	27" (0.69m)	27" (0.69m)
Overall length	31" (.79 m)	31" (.79 m)	31" (.79 m)	31" (.79 m)	31" (.79 m)

Battery (Electric Models Only)

	Model	CCA @ 0° F	AH Rating	Length	Width	Height
DL14	ETX12	180	10	5.9" (150mm)	3.4" (86mm)	5.2" (132mm)
DL18	EXT16	325	19	6.9" (174.6mm)	4" (101.6mm)	6.13" (155.6 mm)
Battery not included with machine						



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INTENDED USE

INTENDED USE: 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.

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 "TROUBLE SHOOTING" section on page 13).



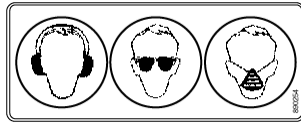
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INSTRUCTION LABELS

The labels shown below were installed on your BILLY GOAT® DL 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.



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



EAR EYE BREATHING
ITEM# 31 P/N 890254



WARNING SECURE
ITEM#62 P/N 790232



DANGER FLYING DEBRIS
ITEM #61 P/N 810736



READ OWNERS MANUAL
ITEM #30 P/N 830301



EXPLOSIVE FUEL
ITEM #32 P/N 400268



LABEL SPARK ARRESTOR
ITEM #15 P/N 100252



DL INSTRUCT/WARN
ITEM #28 P/N 790142



WARNING ENGINE OVERHEAT
ITEM #14 P/N 811215



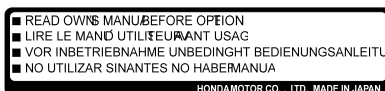
SECURE NOZZLE
ITEM #59 P/N 790301



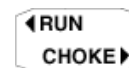
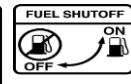
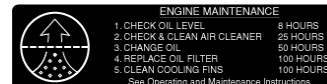
LABEL WARNING LINER
ITEM #88 P/N 100330

ENGINE LABELS

HONDA



B&S VANGUARD





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PACKING CHECKLIST

Your Billy Goat is shipped from the factory in one carton and is completely assembled except for the exhaust elbow, nozzle, handle loop for nozzle, hose booms, hose bands, hose coupler, hose clamps and related hardware.



READ all safety instructions before assembling unit.

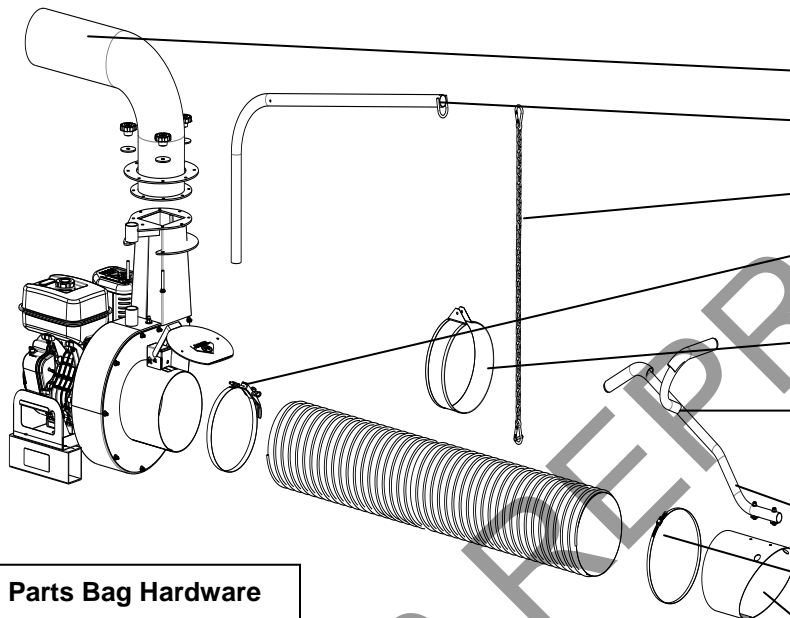
TAKE CAUTION when removing the unit from the box.



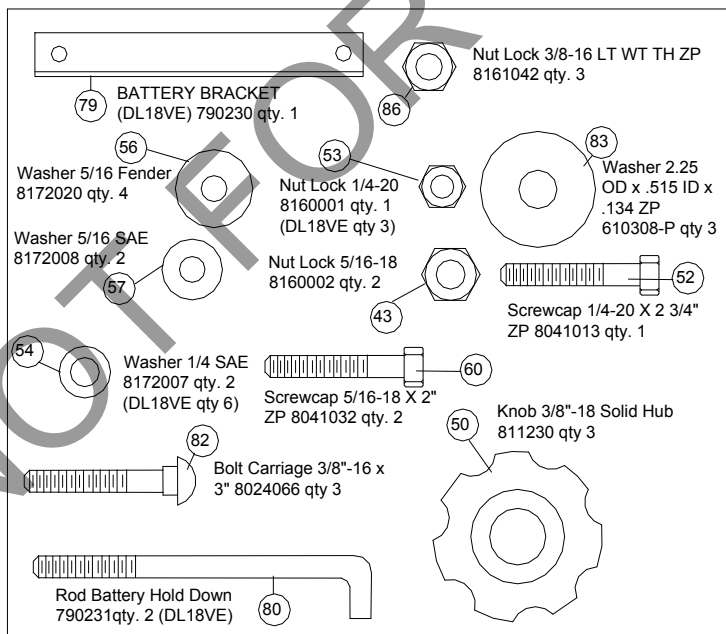
PUT OIL IN ENGINE BEFORE STARTING

PARTS BAG & LITERATURE ASSY

Warranty card P/N- 400972, Owner's Manual P/N-812378, General Safety and Warnings Manual P/N-100294, Declaration of Conformity P/N-812406.



Parts Bag Hardware



Boxing Parts Checklist

- ☐ Exhaust Elbow PN# 811192-S qty 1
- ☒ Hose Boom Assembly PN# 812245 qty 1
- ☒ Boom Chain PN# 791117
- ☐ Hose quick clamp 8" PN# 812254 qty 1 or Hose quick clamp 10" PN# 791064 qty 1
- ☐ Band hose boom 8" PN# 810880 qty 1 or Band hose boom 10" PN# 810868 qty 1
- ☐ Hose 8"x 10' DL PN# 811244 qty 1 or Hose 10"x 10' DL PN# 791033 qty 1 or Hose 8" x 16.5' DL PN# 812390 qty 1
- ☐ Handle Nozzle PN# 791116 qty 1
- ☐ Hose clamps 8" PN# 810566 qty 1 or Hose clamps 10" PN# 810706-01 qty 1
- ☐ Nozzle DL 8" PN# 811007 qty 1 or Nozzle DL 10" PN#811005 qty 1
- ☐ Parts and literature bag (DL9-18) P/N# 812385
- ☐ Parts and literature bag (DL1801VEEU) P/N# 812377
- Engine**
 - ☐ Honda 9 HP
 - ☐ Honda 13 HP
 - ☐ Subaru Electric 14 HP
 - ☐ Vanguard Electric 18 HP
 - ☐ Vanguard 18 HP



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ASSEMBLY

1. **SECURELY ATTACH** unit to the bed of a truck, trailer, or use the hanging brackets, so that the exhaust discharges into an enclosed container. *NOTE:* This unit must be securely mounted to the bed of a truck or to a trailer before operating. (See Parts Drawing on page 13 to assemble.)
2. **ATTACH** hose to housing intake, using hose quick clamp (item 8) making sure to place the safety switch under the clamp (see Interlock System page 9). Then slide the hose onto the housing intake and place the shut off switch under the clamp. Make sure the shut off switch is pressed in or the vacuum will not start, and clamp the hose to the intake.
3. **ASSEMBLE** nozzle handle (item 11), to nozzle (item 10), using screws (item 60), fender washers (item 56), washers (item 57) and lock nuts (item 43).
4. **ATTACH** assembled nozzle to hose using hose clamp (item 9). Before tightening hose clamp, position nozzle handle upward when hose is stretched to prevent twisting the load on hose assembly during operation.
5. **ATTACH** the hose boom (item 5) by sliding the boom through the ring on the top of the housing and resting it in the cup on the top of the housing.
6. **ASSEMBLE** hose band (item 13) around hose and secure chain between flanges of the hose band using capscrew (item 52), washers (item 54), and lock nut (item 53). To adjust the hose boom height see page 11.
7. **SECURELY ATTACH** exhaust elbow (item 4) to the housing (see "MOUNTING EXHAUST ELBOW" below) with the hardware located on the exhaust chute.
8. **INSTALL BATTERY (Electric Models Only)** ⚠ Due to the location of the battery it is recommended that only the specified battery be used on the DL1401SEEU and DL1801VEEU. This is due to the heat generated by the muffler and the location of the battery. Using the wrong size battery could result in premature failure, damage to unit or personal injury. The battery needs to be within the specification listed on page 3. The EXT 12 or equivalent is recommended for the DL14, and the EXT 16or equivalent for the DL18VE (see page 3 for battery specifications).
9. **(Electric Models Only)** Attach the battery cables to the battery and secure it to the unit with the hold down bracket. The positive terminal should be closest to the housing to ensure cable attach properly.

MOUNTING MAIN UNIT

GENERAL: Unit must be securely mounted to a trailer, truck bed, hanging brackets, or other similar surface before use. Do not use this unit in a freestanding position. Unit is not stable until it has been secured in place. Secure unit by bolting through the base of the unit and through the mounting surface using 3/8" dia. bolts, with washers and locking nuts (See Fig. 1).

MOUNTING EXHAUST ELBOW (See Fig. 2)

NOTE: This process is easier with two people, one to support the exhaust elbow and one to attach plates and hardware.

1. Remove the carriage bolts (item 82), knobs (item 50), lock nuts (item 86), and washers (item 83) from the parts bag. Then slide the flange (item 37) down the exhaust elbow (item 4) so that it sits on the base flange.
2. Place the elbow on top of the housing chute and then put the lower flange on the bottom side of the transition then run the carriage bolts up through the lower flange and then place the washer and knobs on the ends of the carriage bolts then place the nut on but only tighten it until it breaks the nylock.
3. To adjust the direction of the chute, loosen the knobs and then position to the desired direction. Then tighten the knobs securely to make sure the exhaust does not move while in operation.

HANDLING & TRANSPORTING:

HOSE: **DO NOT** drag the hose with vehicle.



Never lift the machine while the engine is running.



Always secure the nozzle before transporting unit.

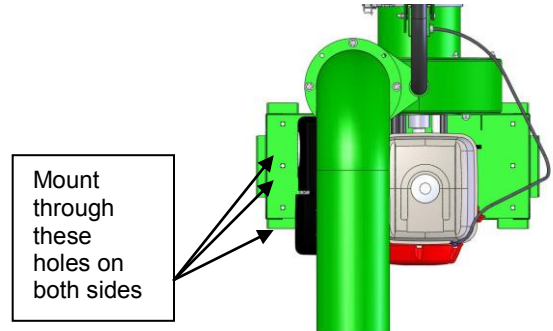


Fig. 1

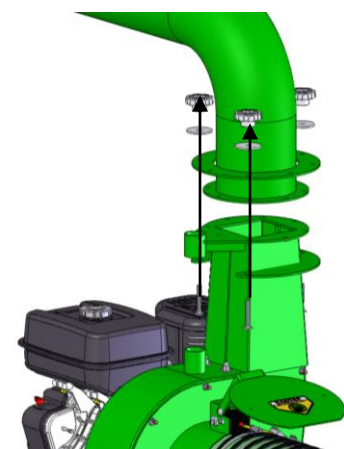


Fig. 2



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OPERATION

VACUUMING OPERATION

SECURE LOADER OR MOUNT BEFORE STARTING

IMPORTANT: With the machine off and spark plug disconnected check the condition of the replaceable liner before every use and replace if necessary.

EXHAUST DIRECTION & DISTANCE: Exhaust direction and distance are controlled by the rotation of the exhaust elbow. Typically debris is aimed to discharge to the rear of the container. The direction of discharge is adjusted by rotating the exhaust elbow on the housing and securing with the hardware provided. *NOTE:* Elbow is heavy. Use caution when adjusting. Never stand directly under the elbow while adjusting direction of exhaust. Never direct exhaust into an area where bystanders may cross the path of the debris.

INTAKE OPERATION: With fully assembled machine running, move the nozzle in sweeping motions over debris. Always allow air to flow into the nozzle along with the debris. Do not completely block the nozzle when vacuuming, it will reduce performance, and increase clogging (See Fig. 3). For removal of heavier debris, or debris that is stuck to the ground, rock nozzle forward to concentrate suction power around the debris (See Fig. 4)

ADJUSTING HOSE BOOM

Properly adjusting the boom will prevent most hose clogs from occurring and will maximize vacuum performance by keeping the hose straight and perpendicular to the housing (see Fig. 5). Height adjustments are made by raising or lowering one of the attachment links to a different area on the chain.

UNCLOGGING A CLOGGED HOSE

With engine running and unit secured to a trailer, truck bed, or other similar surface, fully stretch hose in a straight line to dislodge the clog. If the clog will not clear, turn unit off, and allow engine to come to a complete stop. Remove hose and manually clear the hose clog. *NOTE:* The clogged debris may be sharp. Always wear durable gloves when removing clogs.

UNCLOGGING A CLOGGED HOUSING OR EXHAUST ELBOW

Turn engine off and wait for impeller to come to a complete stop. Disconnect spark plug wires and battery cables. Remove the hose from the housing and determine where the clog is located. If possible clear the clog through the intake opening. It may require removal of the intake adaptor (item 16) to allow access to clear the housing. If clog is in the elbow, carefully remove the elbow. Remove elbow by removing the bolts and nuts on the elbow clamp so that the plates can be removed. *NOTE:* Elbow is very heavy. Do not stand directly under elbow during removal. **Danger**, the clog may contain sharp materials. Wearing durable gloves, clear the clog. Reconnect spark plug wire.

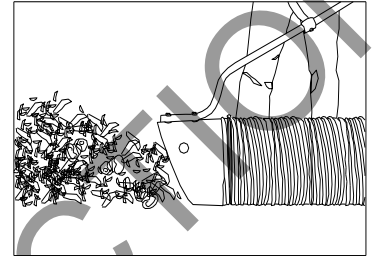


Fig. 3

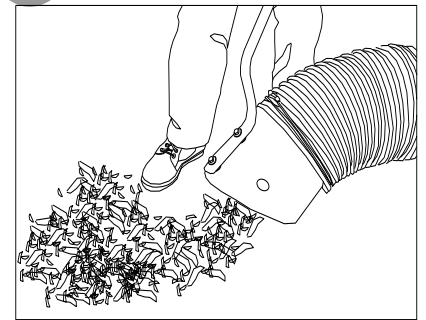


Fig. 4

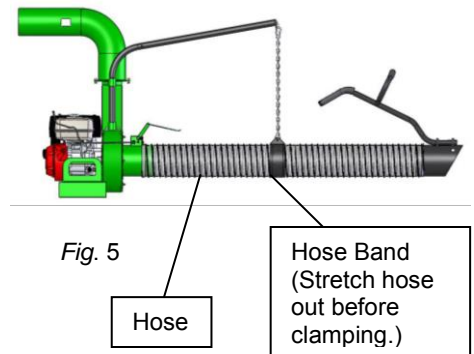


Fig. 5

*****TIPS*****

HOSE CARE

To increase hose life, periodically rotate hose and reposition nozzle and coupler on front plate of unit. This increases hose life by keeping hose from wearing only on one side.

Keep hose as straight as possible and avoid sharp bends during operation for best pick-up and to avoid clogs. Never drag hose. Always remove and store hose before transporting unit. Store hose straight and flat to maintain flexibility for next use.

THE HOSE IS A REPLACEABLE WEAR ITEM.



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MAINTENANCE

PERIODIC MAINTENANCE

Periodic maintenance should be performed at the following intervals:

Maintenance Operation	Every Use	Every 5 Hours (daily)	Every 10 Hours	Every 25 Hours
Inspect for loose, worn or damaged parts.		•		
Check replaceable liner	•			
Check engine oil and air filter	•			
Clean hose	•			
Engine (See Engine Manual)				
Inspect battery for damage or leak			•	
Keep engine free of debris	•			
Check battery terminal for corrosion				•
Check for excessive vibration		•		

IMPELLER REMOVAL

1. Wait for engine to cool and disconnect spark plug wires from the engine.
 2. Remove the hose from the unit.
 3. Unattach the hose from boom assembly.
 4. Remove the intake housing assembly (item 16) by removing six locknuts (item 44). Be careful to place intake assembly to the side without putting excess strain on safety switch wire harness.
 5. Remove impeller bolt (item 34), lock washer (item 35), and spacer (item 37) using 5/8" socket and impact wrench (see Fig. 6).
 6. Once bolt is removed impeller should slide out freely. If the impeller doesn't slide off freely use penetrating oil and work the hub off using a pry bar. Do not use the pry bar on the impeller plate.
 7. When impeller is free of the engine shaft, align impeller with the opening and pull it straight out of the housing.
 8. Using a new impeller bolt, washer, and lock washer, install new impeller in reverse order.
- NOTE:** Be sure that the key is in place on the engine shaft before installing impeller.
9. Tighten impeller bolt. Torque the impeller bolt to [33-38 Ft. Lbs. (45-52 N.m)].
 10. Repeat steps 2 through 5 in reverse order.
 11. Reinstall spark plug wires.

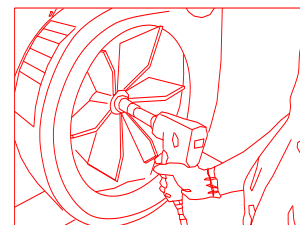


Fig. 6

INTERLOCK SYSTEM

With hose coupler installed (See Fig. 8) the switch is open and engine is not grounded out, allowing engine to run.

Hose must be installed and switch lever must engage switch for engine to start.

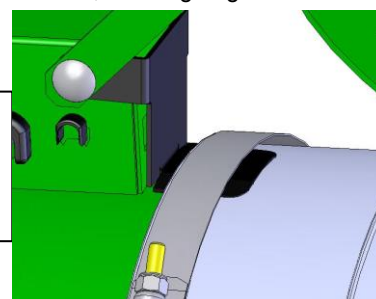
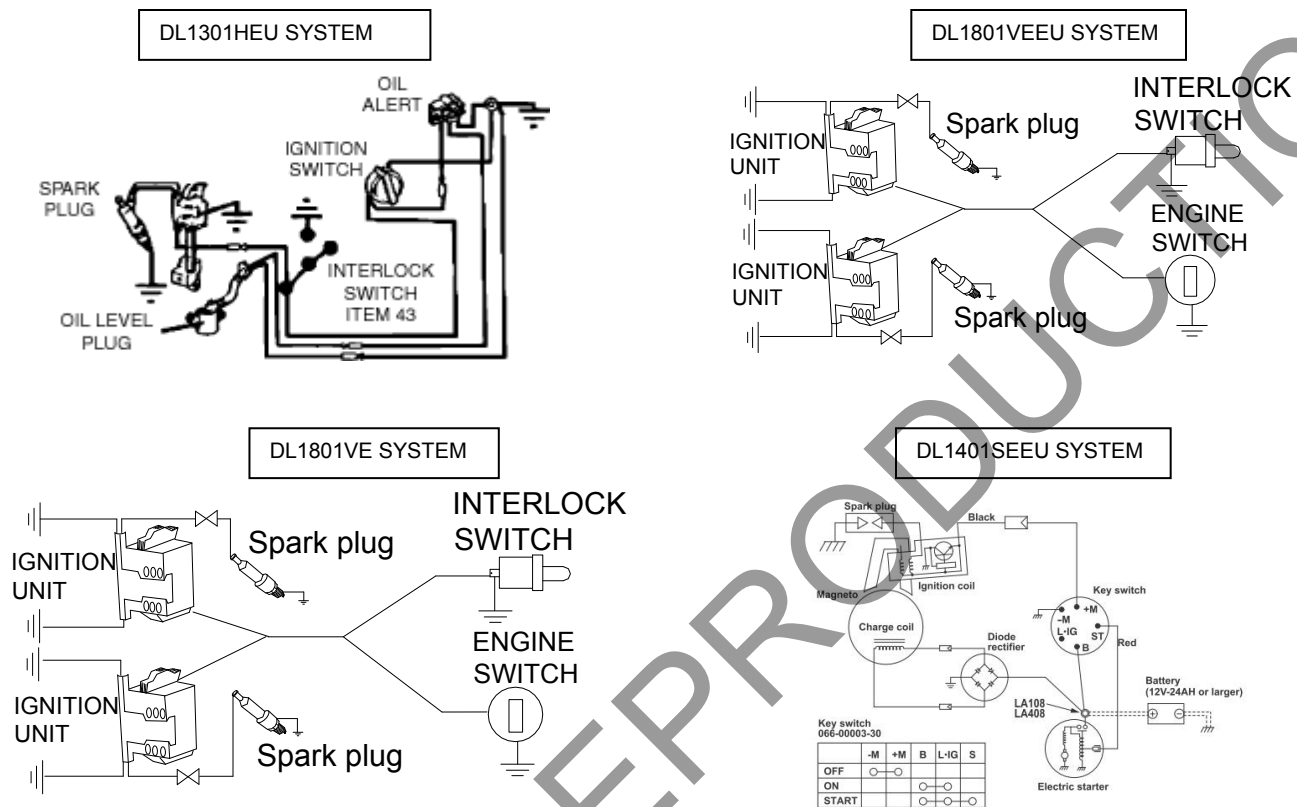


Fig. 8



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WIRING 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.

NOTE: When you are finished charging the battery, disconnect the charger from the outlet first, 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.



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TROUBLESHOOTING

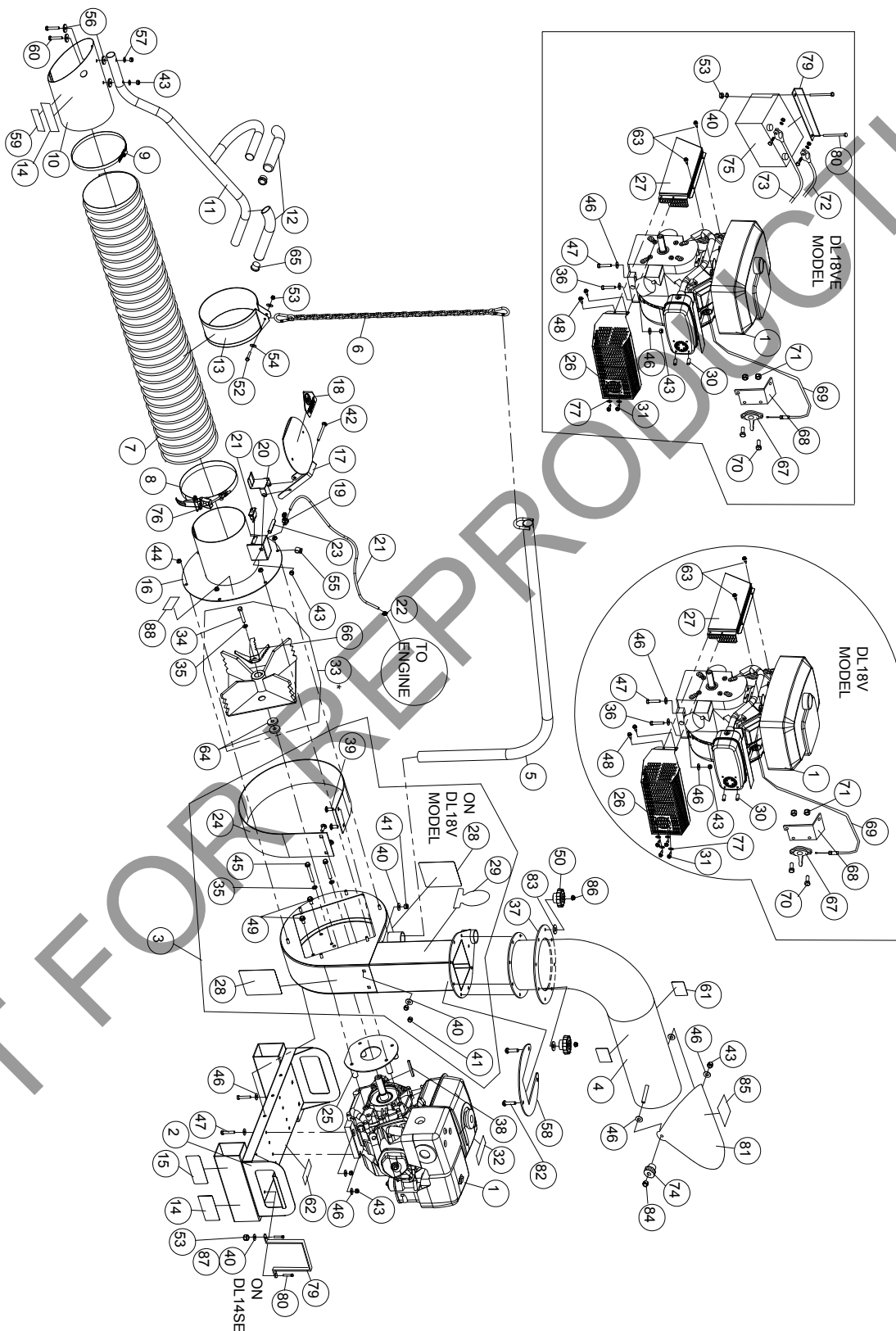
Problem	Possible Cause	Solution
Abnormal vibration	Loose or out of balance impeller or loose engine.	Check impeller and replace if necessary. Check engine.
Will not vacuum or has poor vacuum performance	Nozzle buried in debris. Clogged hose or exhaust. Excessive quantity of debris.	Withdraw nozzle from debris pile. Unclog hose or exhaust (see pg. 8). Allow air to feed debris.
Engine will not start	Throttle & / or stop switch in off position. Out of gasoline. Bad or old gasoline. Spark plug wire disconnected. Harness wire is bad or disconnected from interlock switch. Hose not installed, allowing interlock wire to ground. Dirty air cleaner.	Check stop switches, throttle, and gasoline. Connect spark plug wire. Clean or replace air cleaner. Install hose coupler securely to the unit and check whether interlock switch is engaged by lever. Check harness wire connection and replace if necessary.
Engine is locked, will not pull over	Debris locked against impeller. Engine problem.	See pg.8, "CLEARING A CLOGGED IMPELLER". Contact an engine servicing dealer for engine problems.

[illegible]



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DLEU 9-18 PARTS DRAWING





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DLEU 9-18 PARTS LIST

ITEM NO.	DESCRIPTION	DL901HEU PART NO.	QTY	DL1301HEU PART NO.	QTY	DL1401SEEU PART NO.	QTY	DL1801VEU PART NO.	QTY	DL1801VEEU PART NO.	QTY
	ENGINE HONDA 9HP	430287	1	-	-	-	-	-	-	-	-
	ENGINE HONDA 13HP	-	-	430366	1	-	-	-	-	-	-
	ENGINE VANGUARD ELECTRIC	-	-	-	-	-	-	-	-	812241	1
	ENGINE VANGUARD ELECTRIC	-	-	-	-	-	-	812240	1	-	-
	ENGINE SUBARU ELECTRIC	-	-	-	-	812369	1	-	-	-	-
2	BASE ENGINE WA	812100-S	1	812100-S	1	812100-S	1	812100-S	1	812100-S	1
3	HOUSING WA DL12/13 W/LABELS	812216-S	1	812216-S	1	-	-	-	-	-	-
	HOUSING WA DL18 W/LABELS	-	-	-	-	812101-S	1	812101-S	1	812101-S	1
4	ELBOW ASSY 7" DL	811191-S	1	811191-S	1	811191-S	1	811191-S	1	811191-S	1
5	BOOM WA DL	812245	1	812245	1	812245	1	812245	1	812245	1
6	CHAIN HOSE HANG DL	791117	1	791117	1	791117	1	791117	1	791117	1
7	HOSE 8"X10"	-	-	811244	1	-	-	-	-	-	-
	HOSE 8" X 16.5'	812390	-	-	-	-	-	-	-	-	-
	HOSE 10" X 10"	-	-	-	-	791033	1	791033	1	791033	1
8	CLAMP QUICK RELEASE 8"	812254	1	812254	1	-	-	-	-	-	-
	CLAMP QUICK RELEASE 10"	-	-	-	-	791064	1	791064	1	791064	1
9	CLAMP HOSE 8"	810566	1	810566	1	-	-	-	-	-	-
	CLAMP HOSE 10"	-	-	-	-	810706-01	1	810706-01	1	810706-01	1
10	NOZZLE 8" STEEL FORMED W/LABELS	811007-S	1	811007-S	1	-	-	-	-	-	-
	NOZZLE 10" STEEL FORMED W/LABELS	-	-	-	-	811005-S	1	811005-S	1	811005-S	1
11	HANDLE NOZZLE WA DEBRIS LOADER	791116	1	791116	1	791116	1	791116	1	791116	1
12	GRIP 1 1/4 I.D. X 9.5 LONG	440146	2	440146	2	440146	2	440146	2	440146	2
13	BAND HOSE BOOM 8" FORMED	810880	1	810880	1	-	-	-	-	-	-
	BAND HOSE BOOM 10" FORMED	-	-	-	-	810868	1	810868	1	810868	1
14	LABEL WARNING ENGINE OVERHEAT	811215	2	811215	2	811215	2	811215	2	811215	2
15	LABEL SPARK ARRESTOR	100252	1	100252	1	100252	1	100252	1	100252	1
16	PLATE FRONT WA DL 8"	812104-S	1	812104-S	1	-	-	-	-	-	-
	PLATE FRONT WA DL 10"	-	-	-	-	812103-S	1	812103-S	1	812103-S	1
17	FLAPPER WA 8" W/LABELS	812230-S	1	812230-S	1	-	-	-	-	-	-
	FLAPPER WA 10" W/LABELS	-	-	-	-	791102-S	1	791102-S	1	791102-S	1
18	LABEL WARNING OPEI	400424	1	400424	1	400424	1	400424	1	400424	1
19	STRAIN RELIEF HEYCO 1244	500282	1	500282	1	500282	1	500282	1	500282	1
20	LEVER HOSE SWITCH	791068	1	791068	1	791068	1	791068	1	791068	1
21	SWITCH AND HARNESS DL ASSY	791130	1	791130	1	791130	1	791130	1	791130	1
22	CONNECTOR TAP IN SQUEEZE	810673	1	810673	1	810673	1	-	-	-	-
23	SPACER 3/8" X 2 1/2"	900503	1	900503	1	900503	1	900503	1	900503	1
24	LINER PLASTIC DL13	812394	1	812394	1	-	-	-	-	-	-
	LINER SMALL HOUSING DL18 (PLASTIC)	-	-	-	-	812391	1	812391	1	812391	1
25	PLATE ENGINE MOUNT DL12/13	812235	1	812235	1	-	-	-	-	-	-
	PLATE ENGINE MOUNT DL18	-	-	-	-	812320	1	812238	1	812238	1
26	GUARD MUFFLER DL18	-	-	-	-	-	-	812410	1	812410	1
27	GUARD MANIFOLD DL18 SW	-	-	-	-	-	-	812243	1	812243	1
28	LABEL DL INSTRUCTION/WARNING	790142	1	790142	1	790142	1	790142	1	790142	1
29	LABEL LOGO DL12/13/18	812213	1	812213	1	812213	1	812213	1	812213	1
30	SPACER CONTROL LIFT	-	-	-	-	-	-	850198	4	850198	4
31	SCREW SN #10 X 1" TYPE A SLOT HWH	-	-	-	-	-	-	8122066	4	8122066	4
32	LABEL WARNING FUEL EN/SP	-	-	-	-	-	-	100261	1	100261	1
33*	IMPELLER ASSY (ITEM 66 NOT INCLUDED)	812257-S	1	812257-S	1	-	-	-	-	-	-
	IMPELLER ASSY (ITEM 66 NOT INCLUDED)	-	-	-	-	810930	1	810930	1	810930	1
34	SCREWCAP 3/8-24 X 2 3/4 GR 8. W/PATCH	790167	1	790167	1	-	-	-	-	-	-
	SCREWCAP 3/8-24 X 2 1/4 GR 8.	-	-	-	-	-	-	810932	1	810932	1
	SCREWCAP 3/8"-24"X3" GR 8 W/PATCH	-	-	-	-	440237	1	-	-	-	-
	TORQUE 33-38 FT LBS. (45-52 N.m)	-	-	-	-	-	-	-	-	-	-
35	WASHER LOCK 3/8"	8177012	5	8177012	5	8177012	5	8177012	5	8177012	5



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ITEM NO.	DESCRIPTION	DL901HEU PART NO.	QTY	DL1301HEU PART NO.	QTY	DL1401SEEU PART NO.	QTY	DL1801VEU PART NO.	QTY	DL1801VEEU PART NO.	QTY
36	SCREWCAP 5/16-18 X 2" HCS ZP	-	-	-	-	-	-	8041032	2	8041032	2
37	FLANGE UPPER EXHAUST ROTATE	812331	1	812331	1	812331	1	812331	1	812331	1
38	KEY 1/4 SQ X 2 3/4"	9201125	1	9201125	1	-	-	9201125	1	9201125	1
	KEY 1/4 SQ X 3 1/4"	-	-	-	-	9201128	1	-	-	-	-
39	BOLT CARRIAGE 3/8 -16 X 1" ZP	8024058	4	8024058	4	8024058	4	8024058	4	8024058	4
40	WASHER 3/8 FLAT CUT	8171004	4	8171004	4	8171004	6	8171004	4	8171004	4
41	NUT LOCK 3/8-16 HEX ZP	8160003	4	8160003	4	8160003	4	8160003	4	8160003	4
42	BOLT CARRIAGE 5/16" - 18 X 3 1/2" ZP	8024050	1	8024050	1	8024050	1	8024050	1	8024050	1
43	NUT LOCK 5/16-18 HEX ZP	8160002	8	8160002	8	8160002	8	8160002	8	8160002	8
44	NUT FLANGE 5/16-18 HEX ZP	350346	6	350346	6	350346	6	350346	10	350346	10
45	SCREWCAP 3/8-16 X 3" HCS ZP	8041058	4	8041058	4	8041058	4	-	-	-	-
	SCREWCAP 3/8-16 X 1 3/4" HCS ZP	-	-	-	-	-	-	8041053	4	8041053	4
46	WASHER 5/16 FLAT ZP	8171003	11	8171003	11	8171003	11	8171003	11	8171003	11
47	SCREWCAP 5/16-18 X 1 3/4" HCS ZP	8041031	4	8041031	4	8041031	4	8041031	2	8041031	2
48	SCREW SM 1/4 X 3/4" TYPE AB HX WF	-	-	-	-	-	-	890359	2	890359	2
49	HEX WASHER FACE BOLT 3/8-16 X 3/4	791080	3	791080	3	791080	3	791080	3	791080	3
50	KNOB 3/8"-16	811230	3	811230	3	811230	3	811230	3	811230	3
51	WASHER 3/8 SAE	8172009	8	8172009	8	8172009	8	8172009	8	8172009	8
52	SCREWCAP 1/4"-20 X 2 3/4" HCS ZP	8041013	1	8041013	1	8041013	1	8041013	1	8041013	1
53	NUT LOCK 1/4-20 HEX ZP	8160001	1	8160001	1	8160001	3	8160001	3	8160001	3
54	WASHER 1/4-20 HEX ZP	8172007	2	8172007	2	8172007	2	8172007	2	8172007	2
55	CLAMP HOSE FUEL LINE	791070	2	791070	2	791070	2	791070	2	791070	2
56	WASHER FENDER 5/16	8172020	4	8172020	4	8172020	4	8172020	4	8172020	4
57	WASHER 5/16 SAE	8172008	2	8172008	2	8172008	2	8172008	2	8172008	2
58	FLANGE LOWER EXHAUST ROTATE	812330	1	812330	1	812330	1	812330	1	812330	1
59	LABEL SECURE NOZZLE	790301	1	790301	1	790301	1	790301	1	790301	1
60	SCREWCAP 5/16" - 18 X 2"	8041032	2	8041032	2	8041032	2	8041032	2	8041032	2
61	LABEL FLYING DEBRIS	810736	2	810736	2	810736	2	810736	2	810736	2
62	WARNING SECURE	790232	1	790232	1	790232	1	790232	1	790232	1
63	BOLT 1/4"-20 X 1/2" SER FLANGE	-	-	-	-	-	-	812381	2	812381	2
64	SPACER 1" ID X 2" OD X 0.265 THK	830113	2	830113	2	-	-	-	-	-	-
	SPACER 1" ID X 2" OD X .890 THK	-	-	-	-	830112	1	-	-	-	-
65	PLUG TUBE INSERT 1.25 OD	791056	2	791056	2	791056	2	791056	2	791056	2
66	DEBRIS REDUCER DL12/13/18	812283	1	812283	1	812283	1	812283	1	812283	1
67	THROTTLE CONTROL BLOWER	-	-	-	-	-	-	440013	1	440013	1
68	BRACKET MOUNT THROTTLE CONTROL	-	-	-	-	-	-	812280	1	812280	1
69	CABLE THROTTLE DL18	-	-	-	-	-	-	812281	1	812281	1
70	SCREW MACH FLAT HD PHIL #10-24	-	-	-	-	-	-	830514	2	830514	2
71	NUT LOCK #10-24 HEX	-	-	-	-	-	-	8164005	2	8164005	2
72	CABLE BATTERY RED 36"	-	-	-	-	-	-	-	-	812282	1
73	CABLE BATTERY BLACK 20"	-	-	-	-	-	-	-	-	812341	1
74	KNOB	400339	1	400339	1	400339	1	-	-	400339	1
75	BATTERY 12 V (NOT SUPPLIED ON DL18, SEE PAGE 3 FOR BATTERY MODEL AND SPECIFICATIONS)	-	-	-	-	812372	1	-	-	REF	REF
76	PIN SAFETY	800365	1	800365	1	800365	1	800365	1	800365	1
77	WASHER LOCK 1/4" EXTERNAL TOOTH	-	-	-	-	-	-	8181007	4	8181007	4
78	TERMINAL PIGGY BACK 3/16"	-	-	-	-	-	-	-	-	890010	1
79	BRACKET BATTERY DL	-	-	-	-	812372	1	-	-	790230	1
80	SCREWCAP 1/4"-20 X 1 1/2" HCS ZP	-	-	-	-	-	-	-	-	8041002	2
	BOLT CARRIAGE 3/8-16 X 1" ZP	-	-	-	-	8024058	2	-	-	-	-
81	DEFLECTOR EXHAUST 7"	811111	1	811111	1	811111	1	-	-	-	-
82	BOLT CARRIAGE 3/8"-16 X 3"	8024066	3	8024066	3	8024066	3	8024066	3	8024066	3
83	WASHER 2.25" OD X .515" ID X .134 ZP	610308-P	3	610308-P	3	610308-P	3	610308-P	3	610308-P	3
84	NUT LOCK 5/16"-18 THIN HT	8161041	1	8161041	1	8161041	1	8161041	1	8161041	1
85	LABEL DANGER	400424	2	400424	2	400424	2	400424	2	400424	2
86	NUT LOCK 3/8"-16 LT WT TH ZP	8161042	3	8161042	3	8161042	3	8161042	3	8161042	3
87	WASHER 1/4" ZP	-	-	-	-	8171002	2	-	-	-	-
88	LABEL WARNING LINER DL	100330	1	100330	1	100330	1	100330	1	100330	1