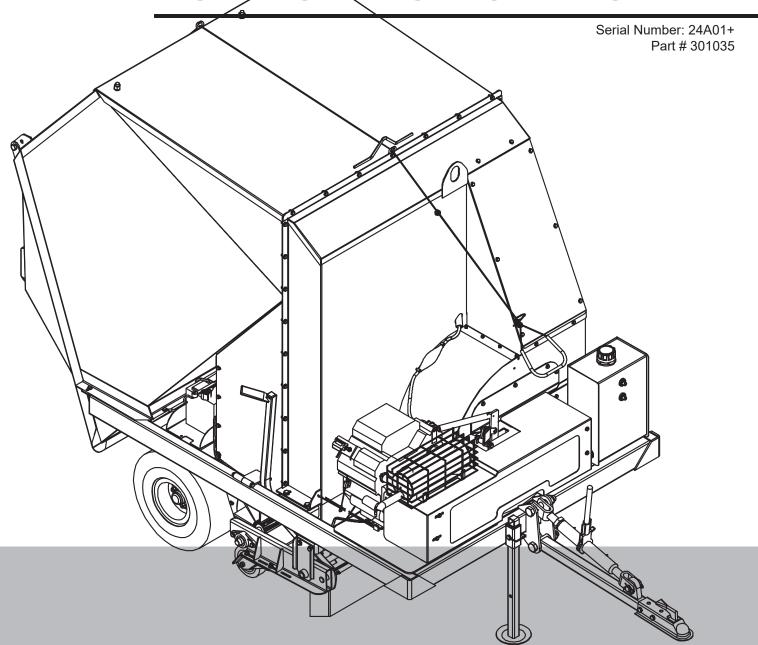
TURBO VAC 40RE-CARB



OPERATOR'S & PARTS MANUAL



Thank you for purchasing a Harper Turbo Vac.

As with all Harper products, the Harper Turbo Vac has been developed through tough design and testing procedures to produce a machine that can be relied on. This manual gives assembly, operating, and service information for Model TV40RE Turbo Vacs. Please read and understand all instructional material included with the Turbo Vac or its components before assembling and operating the equipment.

A Turbo Vac can present hazards to an operator who follows unsafe procedures in either the operation or maintenance of the unit. Therefore, SAFETY WARNINGS are presented at certain locations in the text.

THIS SYMBOL:



SAFETY WARNING!



MEANING: Failure to understand and obey this warning may result in injury to you or others. Whenever this symbol is used, please pay very close attention to the information presented, and make sure you fully understand. If you do not, contact your dealer or Harper Industries, Inc. for clarification.

SAFETY WARNING!



ALL SHIELDS AND GUARDS MUST BE IN PLACE FOR PROPER AND SAFE OPERATION OF THIS EQUIPMENT. WHERE THEY ARE SHOWN REMOVED IN THIS MANUAL, IT IS FOR PURPOSES OF ILLUSTRATION AND INSTRUCTION ONLY. DO NOT OPERATE THIS EQUIPMENT UNLESS ALL SHIELDS AND GUARDS ARE IN PLACE.

Harper Industries, Inc. is continually striving to improve the design and performance of its products. We reserve the right to make changes in specifications and design without thereby incurring any obligation relative to previously manufactured products.

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The Harper name is a registered trademark of Harper Industries, Inc. All other brand and product names are trademarks or registered trademarks of their respective companies.



LIMITED WARRANTY

Harper Industries, Inc. (HII) warrants to each purchaser of a new Harper Turbo Vac from an authorized dealer or representative, that such equipment is free of manufacturer's defects in workmanship and materials which appear while in normal service for a period of ONE YEAR commencing with delivery to the original user.

The obligation of HII under this warranty is expressly limited, at our option, to replacement or repair at a service facility designated by Harper Industries or at the manufacturing plant in Harper, KS. A part will be replaced after inspection discloses it to have been defective. This warranty does not apply to defects caused by damage or unreasonable use (including failure to provide reasonable and necessary maintenance, or by performing functions without genuine Harper Turbo Vac accessories) while in the possession of the consumer.

Warranty is limited to parts, labor and ground freight delivery of replacement parts. HII shall not be liable for the consequential damages of any kind, including but not limited to consequential labor costs or transportation charges in connection with replacement or repair of defective parts.

This warranty does not apply to parts subjected to misuse, abuse, alteration, improper or inadequate maintenance, or normal wear (including belts, battery, chains, filters, knives, brush and broom).

Engines are not covered under this warranty. Refer to manufacturer's warranty for specific warranty information. Harper Industries, its agents or representatives, make or imply no other warranties.

Harper Industries makes no warranty with respect to trade accessories. They are subject to the warranties of their respective manufacturers.

ANY IMPLIED OR STATUTORY WARRANTIES, INCLUDING ANY WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. HII makes no other express warranty, nor is anyone authorized to make any on behalf of HII.

For further information please contact your nearest Harper Turbo Vac dealer.

CALIFORNIA EVAPORATIVE EMISSION CONTROL WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Harper Industries is pleased to explain the evaporative emission control system's warranty on your 2025 Harper Turbo Vac. In California, new equipment that use large off-engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. Harper Industries must warrant the evaporative emission control system on your small Turbo Vac for the period listed below provided there has been no abuse, neglect or improper maintenance of your equipment.

Your evaporative emission control system may include parts such as: carburetors, fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, and other associated components.

MANUFACTURER'S WARRANTY COVERAGE:

This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your equipment is defective, the part will be repaired or replaced by Harper Industries.

OWNER'S WARRANTY RESPONSIBILITIES:

- 1. As the Turbo Vac's owner, you are responsible for performance of the required maintenance listed in your owner's manual. Harper Industries recommends that you retain all receipts covering maintenance on your Turbo Vac, but Harper Industries cannot deny warranty solely for the lack of receipts.
- 2. As the Turbo Vac owner, you should however be aware that Harper Industries may deny you warranty coverage if your fuel tank has failed due to abuse, neglect, or improper maintenance or unapproved modifications.
- 3. You are responsible for presenting your Turbo Vac to a Harper Industries dealer as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact your authorized Harper Turbo Vac dealer or Harper Industries at (620) 896-7381.



General Evaporative Emissions Warranty Coverage

- 1. Any warranted part that is not scheduled for replacement as part of the regular maintenance program, shown in the operator's manual, provided with the mower, is warranted for the warranty period stated above. If the part fails during the period of warranty coverage, the part will be repaired or replaced by Harper Industries. Any such part repaired or replaced under the warranty will be warranted for the remainder of the period.
- 2. Any warranted part that is scheduled only for regular inspection in the written instructions supplied is warranted for the warranty period stated above. Instructions that state "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under the warranty will be warranted for the remainder of the period.
- 3. Any warranted part that is scheduled for replacement as part of the regular maintenance program, shown in the operator's manual, provided with the mower, is warranted for the period of time prior to the first scheduled replacement date for that part. If the part fails before the first scheduled replacement, the part must be repaired or replaced by Harper Industries. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement date for the part.
- 4. Repair or replacement of any warranted part under the warranty provisions herein must be performed at an Authorized Harper Industries Dealer at no charge to the owner.
- 5. Notwithstanding the provisions of subsection (4) above, warranty service or repairs will be provided at an Authorized Harper Industries Dealer.
- 6. The Turbo Vac's owner will not be charged for diagnostic labor that is directly associated with diagnosis of defective, emission-related warranted part, provided that such diagnostic work is performed at an Authorized Harper Industries Dealer.
- 7. Harper Industries is liable for damages to other engine or equipment components proximately caused by a failure under warranty of warranted part.
- 8. Throughout the evaporative emission control system's warranty period stated above, Harper Turf Equipment will maintain a supply of warranted parts sufficient to meet the expected demand for such parts.
- 9. Only Harper Industries approved replacement parts may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of Harper Industries.
- 10. Add-on or modified parts that are not exempt by the Air Resources Board may not be used. The use of a non-exempted add-on or modified part by the purchaser will be grounds for disallowing a warranty claim. Harper Industries will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

EMISSION WARRANTY PARTS LIST

The following emission warranty parts are covered: fuel tanks, fuel lines, fuel line fittings, fuel caps, carbon canisters, canister mounting brackets, carburetor purge port connections, filters*, vapor hoses, clamps, control valves*, control solenoids*, electronic controls*, vacuum control diaphragms*, purge valves, liquid/vapor separators.

* As they relate to the installed equipment evaporative control system.

	RECORDS
Date of Purchase///	Serial Number Machine
Dealer's Name	Serial Number Engine
Dealer's Phone	



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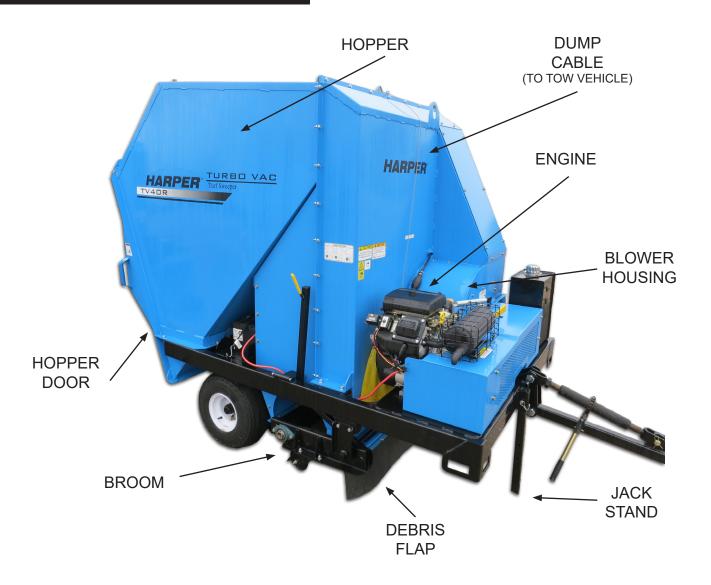
Specifications

Safety Features	Minimal dust generated, quiet operation - 90 dB
Blower Drive	Double V-belt drive with electric clutch
Blower Fan	25" diameter abrasion resistant steel with replaceable poly-liner
	1 1/2" shaft with self-aligned bearings
Blower Discharge	Access plate for inspection and easy liner replacement
Airflow	Re-circulated air system
Brush Drive	Hydraulic motor direct drive
Engine	26.5 HP Kohler EFI gasoline
Hydraulics	Belt driven hydraulic pump
Hydraulic Oil	Crown AW 46; ISO 46 Hydraulic Oil
	See service schedule
Main Frame	11 gauge welded and reinforced steel tubing
Bearings	Greaseable sealed bearings
Hopper Capacity	4 cubic yards
Wheels/Tires	4-bolt wheels, 18.5 x 9.5 tires
Controls	Engine, blower & brush controls on machine
Sweeper	52" single sweeping head that follows the terrain with side mount-
	ed gauge wheels, rises to transport position, and lowers to oper-
	ating position by handle located on the side; Brush and Rubber
	Fingers
Options	Curb brush and remote hose attachments.
Discharge	Mechanical trip and latch system
Tongue and Hitch	Adjustable tongue functions as pick-up height controller
Paint	Durable 2-part polyurethane
Dimensions	135" L x 64" W x 82" H
Weight	1600 lbs 730 kg
Fuel	6 gallon capacity - Gasoline

NOTE: Following publication of this manual, certain changes in standard equipment and/or options may have occurred which would not be included in these pages. Your Harper dealer is the best source for up-to-date information.



TV40RE



Hopper – The hopper stores up to 4 yards of material.

Engine – 26.5 HP Kohler EFI engine powers the blower and broom.

Hopper Door – Opens when the dump cable is pulled to release the material collected in the hopper.

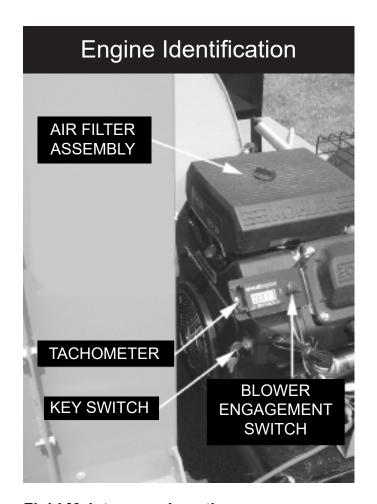
Debris Flap – Helps to keep vacuum concentrated to the ground and to direct the material from the broom into the suction.

Blower Housing – Surrounds the fan and is covered on the inside by a plastic liner.

Broom (optional) – Assists material from the turf into the suction of the blower.

Dump Cable – Releases the hopper door.

Jack Stand – Supports the front of the Turbo Vac when it is not connected to a tractor. During operation, the jack stand must be up, with the wheel removed and in the transport location.



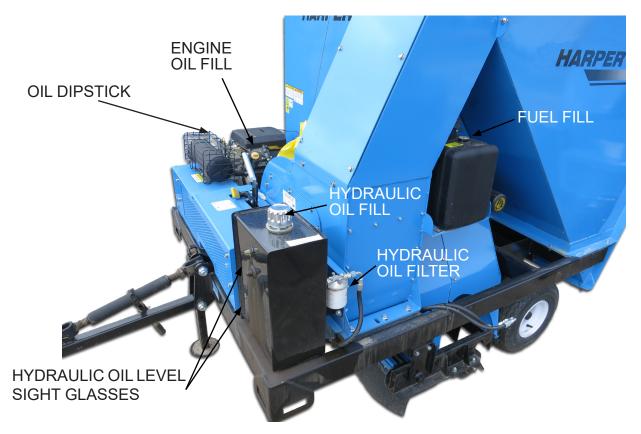
Air Filter Assembly – See service section for care information.

Tachometer – Shows the speed of the engine when running. Shows hours whenengine is not running.

Key Switch – Used to start the engine

Blower Engagement Switch - Turns the blower on and off.

Fluid Maintenance Locations



Safety Guidelines

- Use genuine factory parts or parts with equivalent characteristics, including type, strength and material. Failure to do so may result in product malfunction and possible injury to the operator and/or others.
- If hardware is not secure, or if some of the hardware is over-tightened, equipment failure may result, posing possible safety hazards.
- To prevent possible eye injury, always wear SAFETY GLASSES while operating equipment.
- Replace locknuts and locking screws if you can tighten them without feeling considerable resistance for several turns before they are completely tight.
 Replace them with factory authorized parts or their equivalent.

Gasoline



SAFETY WARNING!



Gasoline is extremely flammable and can be highly explosive.

- Always use an approved container for gasoline.
- Do not allow open flames or sparks while performing maintenance or refueling.
- Never remove the fuel tank cap or add gasoline when the engine is running or while it is hot.
- Never fill the fuel tank indoors (fumes can collect).
- Wipe up spilled gasoline immediately and completely.
- Do not store gasoline in a room with an appliance that has a pilot light to where electrical appliances or switches may cause sparks.
- Always store gasoline outside, in a safety can (a can which has a flame

- arrestor and pressure relief valve in pour spout).
- Gasoline fumes are heavy and will sink to the lowest point, collecting and becoming more and more hazardous.
 1 part gasoline in 20 parts air will explode easily and violently.
- Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
- Be certain to provide adequate ventilation if an engine must be run indoors - exhaust fumes are dangerous.

Guards & Shields

- Keep all safety devices in place.
- Replace all worn, damaged, unusable, missing or lost safety shields and guards before operating the equipment.
- Keep the equipment in good operating condition.

Safety Decals

- If safety related or instructional decals become illegible or are removed, replace them immediately. New decals may be obtained from your local Harper Dealer.
- If you replace parts that have such decals attached to them, make sure the decals are replaced with current versions, and are on the replacement parts before the machine is operated again.



Safety Decals

- If safety decals become illegible or damaged, replace immediately. You can purchase new decals through your Harper dealer.
- If parts with decals are replaced, ensure the most current decals are attached to the new parts before operating the machine.



5. Tie Down Point



6. Please read the manual before operation

Safety Symbols

▲ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

1. P65 Warning



2. Recycle Battery



3. Engine Primer Bulb



4. Fuel Tank



7. Safety Alert



8. Hand can get caught in moving parts



9. Contact with moving parts will cause injury



10. Turn off equipment before performing maintenance





11. Don't enter machine during operation



12. Don't remove guards during operation



13. Hand can contact impeller if inserted into the shoot



14. Hot surfaces will burn hands



15. Turn off equipment before performing maintenance



16. High pressure liquid can be injected into the body



17. High pressure spray can erode skin



18. Stay at safe distance when machine is in use.



19. Swinging door is a crush hazard



20. Don't stand behind the machine



21. Not a lift point



22. Don't tilt the machine on soft or uneven surface



TV 40RE

Battery

A

SAFETY WARNING!



Batteries can produce explosive gas. Use extreme caution when working on the battery.

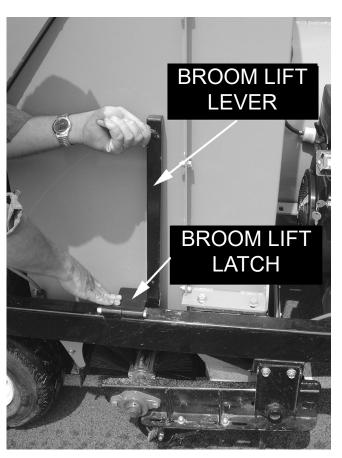
- Ventilate when charging battery or using in an enclosed space.
- DO NOT produce sparks from cable clamps, tools, or other sources; and DO NOT allow flames or smoking in the vicinity of the battery.
- Shield eyes when working near the battery.

Equipment & Controls

- Read and understand this manual.
- Altering this equipment in any manner which adversely affects its operation, performance, durability, or use will void the warranty and may cause hazardous conditions.
- Know the location and function of all controls and how to stop this equipment quickly in an emergency before you operate the equipment.
- Keep all nuts, bolts and screws tight to help ensure safe operation of this equipment.

Towing

- If towing on the highway, tail lights and turn signals must be attached before towing.
- Use a safety chain when towing.
- Make sure jack stand is up.
- Tire pressure should be 20 psi.
- Make sure lug nuts are tight.
- Broom should be locked up so that it does not rub on the ground.



Broom is locked up when the lift handle is in the vertical position and the latch is in place.

Hydraulics

Λ

SAFETY WARNING!



Escaping fluid under pressure can penetrate skin causing serious injury. To prevent serious injury or death:

- Relieve pressure on system before repairing, adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks.
- Use wood or cardboard instead of hands when looking for leaks.
- Keep all components in good repair.
- Do not use any type of heat, (welding, soldering, cutting torch, etc) near pressurized lines.



Before Operation

- Before operating this equipment, read and understand the Owner's Manual.
- Do not allow children to operate this machine.
- Tire pressure should be 20 psi.
 Make sure both tires have equal pressure.
- Wear approved eye and ear protection and other appropriate safety equipment while operating the machine.
- Make sure bolts holding tongue are secure and the jack is in the transport position. Use a safety chain.
- Engine governor settings are preset and should not be changed; any change can damage moving parts and void the warranty.
- Before starting the machine, visually inspect all nuts, bolts and other fasteners to see that they are properly secured. Nuts, bolts and other fasteners should be checked every 8 to 10 hours of operation for proper alignment and tightness.
- Replace damaged or missing safety decals.
- Replace locknuts and locking screws if you can tighten them without feeling considerable resistance for several turns before they are completely tight.
 Replace them with factory authorized parts or their equivalent.
- Make sure that all bearings or hinging parts are greased and or oiled properly. (See Service & Maintenance Section for more information)

During Operation

- Always keep a fire extinguisher near the Turbo Vac during operation.
- Keep clothing and all body parts away from rotating parts.
- Engine governor should not be changed; any change can damage moving parts and void warranty.

- When sweeping material into the machine, make certain there are no foreign materials such as rocks, cans, bottles or other hard materials included. Sweeping hard materials will reduce the life of the plastic liner in the blower housing.
- If a foreign object should strike the broom or blower mechanism and cause an unusual noise or vibration, shut the engine off immediately and allow it to come to a complete stop. Disconnect the spark plug wire from the spark plug from the power unit.

Do the following:

- 1. Inspect for damage.
- 2. Repair or replace any damaged parts.
- 3. Check for and tighten any loose bolts, nuts, fasteners or parts.
- Keep the engine area clean from debris and other accumulations to lessen the possibility of fire.
- Keep all safety shields and guards in place and in good working condition.
- If the Turbo Vac should become clogged, shut off the engine and allow it to come to a complete stop.
- Be sure to provide adequate ventilation if the engine must be run indoors – exhaust fumes are very dangerous.
- Hydraulic system operates under high pressure. Disable system prior to service.



TV 40RE

Operations

Stopping Operation

- Obtain and wear safety goggles before operating.
- 2. Fill the tank with gasoline. (Refer to engine manual for gasoline specifics.)

SAFETY WARNING!

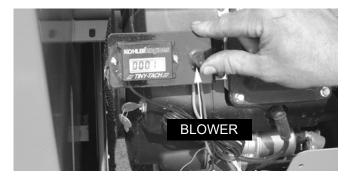
Gasoline is extremely flammable and can be highly explosive. See Safety Guidelines for more information.

3. Make sure the vent valve on the gas cap is open. (If the cap is closed the engine will vapor lock and will not run.)

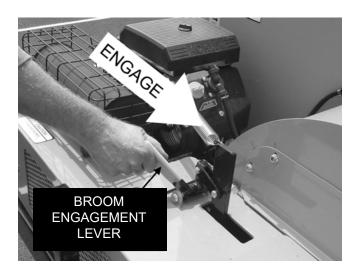


- 4. Attach the Turbo Vac to the tow vehicle. Be sure that the Turbo Vac is adjusted to the correct height. (Refer to adjustment section for setting the height.)
- 5. Run the dump cable to the tow vehicle to allow for convenient dumping. Attach with the pin provided to allow cable to break away from tow vehicle if it is not removed when unit is disconnected. This will help prevent any damage if the cable is forgotten.
- 6. Make sure that the blower and broom are disengaged.
- 7. Turn the key switch to the start position and release as soon as the engine starts. Do not turn the starter for more than 10 seconds.

8. Move the blower switch located beside the engine tachometer to the "on" position



9. If the unit has a broom, lower it and slowly engage broom lever.



10. Begin normal operation.



Stopping Operation



SAFETY WARNING!



Do not leave machine unattended, or attempt any service or inspection unless the machine has come to a complete stop, the engine has been shut off, and the spark plug has been disconnected.

- 1. Shut off tow vehicle and set the park brake.
- 2. Turn off the blower switch and disengage the broom lever.
- 3. Shut off the engine and allow the machine to come to a complete stop.

Unloading



SAFETY WARNING!



To reduce the risk of injury, do not stand near the back of the Turbo Vac while unloading.

- 1. Find a suitable place to dump the collected material.
- 2. Pull dump cable. Hopper door will open and material will slide out.
- 3. Drive forward to allow all the collected material to escape hopper.



4. Door will swing shut and latch when it clears the collected material.

Adjustments

Broom height

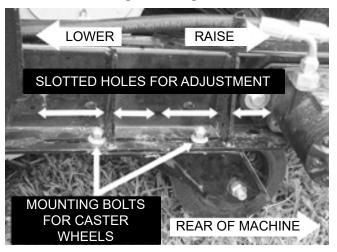
The broom height needs to be adjusted so that the broom is touching the top of the grass.



The broom height is determined by the caster wheels that it rides on. The caster wheel is attached with bolts located in slotted adjustment holes.

To adjust:

- Remove caster wheel mounting bolts.
- Adjust caster wheel to achieve desired broom height and tighten bolts.

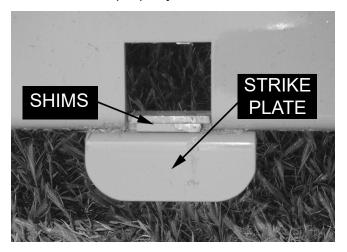


Note: Brooms are originally 12" in diameter. When the broom wears to 10" the adjustment will not lower the broom enough for it to perform adequately and needs to be replaced. Part # 973001



Hopper Door Latch

Adjustment of the hopper door latch should never be necessary. If the hopper door won't latch or the hopper door does not seal against the hopper there are adjustments that can be made. There are shims that bolt on with the strike plate that can adjust the depth of the latch. It is possible to add or remove shims to make the door close properly.



Height Adjustment

For best performance the Turbo Vac must be operating at the correct height. At the correct height the debris flap touches the top of the grass.



The height can be easily adjusted up or down by using the ratchet jack.



Blower Drive Belt Tension

The blower drive belt is adjusted by sliding the motor.

To Adjust:

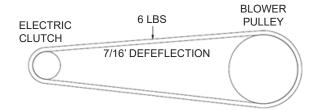
- Loosen engine mounting bolts from underneath.
- Adjustment bolts are tightened to slide motor and increase belt tension



- Apply 6 lbs. of pressure to the midpoint between the electric clutch and blower pulley. The belt should deflect 7/16 in.
- Tighten engine mounting bolts.
- Too much tension (minimal deflection)
 can damage the belt and bearings.
 Too little tension (excessive deflection)
 will allow belt to slip and decrease
 blower performance.



- To replace the drive belt, loosen the belt tensioner and remove the old belt. Install the new belt, and follow the same procedure for adjusting tension as described previously.
- Inspect the belts frequently and maintain the correct tension and alignment.

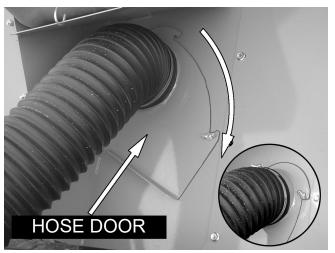


Electrical Wiring

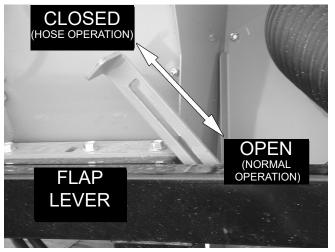
A 30 AMP fuse is located in-line between the blower switch and electric clutch.

Hose Option (900217)

 Open the Hose Door by loosening the wing nut and swiveling the door down to the next notch.



2. Close the Flap. This blocks off air intake from underneath and creates suction in the hose.



3. Begin using hose.





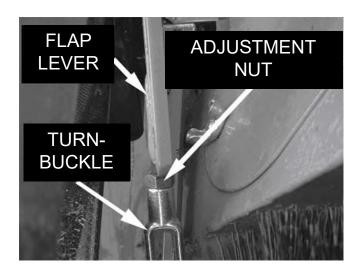
Stopping Operation

- 1. Move the flap lever to the open position.
- 2. Close the hose door.
- 3. Store hose in cavity between hopper and frame.



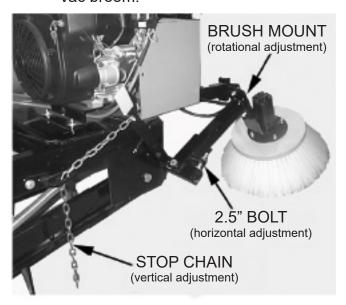
Flap Adjustment

• If there is not adequate suction at the hose make sure the flap is closing completely (a small gap will work because the vacuum will suck it shut). If there is a big gap, the flap may need adjusted. Loosening the adjustment nut will shorten the flap lever causing the flap to close tighter.



Edge Brush Option (900216)

- Follow instructions in Parts Section for installation of Edge Brush Option.
- The edge brush kit is used for cleaning areas along fences and curbs, etc., that are difficult to reach with the Turbo Vac broom.



- The edge brush can be adjusted vertically and horizontally, as well as rotated at an angle, so that debris is thrown into the Turbo Vac broom.
 For best results, angle the front edge of the brush downward.
- The stop chain is used to adjust the height of the brush during operation and to hold it up during transport.
- Never allow the brush to rest com pletely on the ground during operation.



SAFETY WARNING!



The Turbo Vac should never be transported with the edge brush in operating position. Always use the stop chain to suspend the brush during transport.



Contact your Harper Dealer for more information about optional equipment, or see the Harper Industries website at:

www.harperindustries.com

Transporting

Transporting Machine on a Trailer

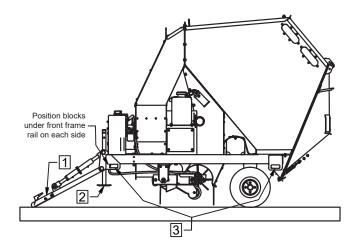
- Use the ratchet jack to lower the hitch to support the front end of the machine. For extra stability, block up the outside edges of the front of the frame.
- 2. Raise the jack stand support so that it does not contact the trailer.
- Use the front and rear tie down locations to secure the machine on the trailer.



IMPORTANT!



If the machine is secured with the jack stand support down, there is a risk of damage occurring to frame.



Service & Maintenance



SAFETY WARNING!



- Before servicing or inspecting the Turbo Vac, make sure the power source is shut off and all moving parts have stopped.
- Disconnect the spark plug wire from the spark plug or the negative battery cable to prevent the engine from being turned on accidentally during service.
- Always wear safety glasses and protective gloves when servicing the Turbo Vac.

Blower Liner



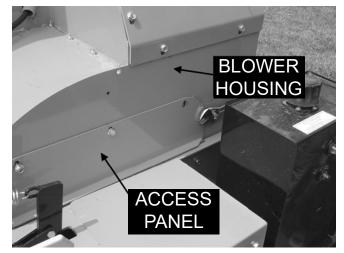
IMPORTANT!



Regularly check the BLOWER LINER in the blower housing for wear. Failure to maintain blower liner may result in damage to the blower housing.

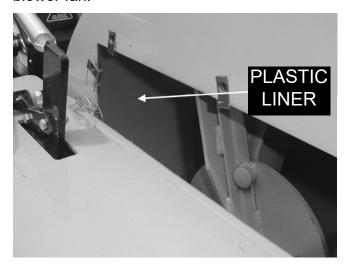
To check Blower Liner:

Remove access panel.





Check white plastic liner located around the inside walls of the blower housing around the blower fan.



If liner is damaged or worn through; replace to avoid damage to blower housing. Part # 972010 or 972021 for a heavy duty urethane liner.

NOTE: Blower liner is a wear item and is not covered under warranty. Sandy conditions may shorten the life of the blower liner.

Screens

Periodically check the return air screens located in the hopper for excess buildup. Excess buildup can reduce performance and or negate the return air system causing an increase of dust.



To Clean Main Screen: Remove the two pins holding it in place. The screen will then swing down and can easily be cleaned out.

Hydraulic System

- The hydraulic system of the TV40RE is filled at the factory with Crown AW 46 hydraulic oil that has an ISO of 46.
- The TV40RE has a 10 micron, beta rated hydraulic oil filter designed for long life.

The following list of hydraulic fluids are compatible and can be mixed with Terresolve hydraulic fluid. However, mixing these hydraulic oils could reduce the biodegradability of the oil in the system. For warm environments, it is suggested that a fluid with a viscosity of ISO 68 be used. MIXING OTHER OILS THAT ARE NOT INCLUDED ON THIS LIST COULD CAUSE GELLING AND DAMAGE TO THE HYDRAULIC COMPONENTS. If another type of oil is desired, then the system must be completely drained and flushed first.

Appropriate replacements:

ISO 46: Recommend for running in ambient air temperatures of 32°F-110°F, and it contains a kinematic viscosity rating around 46 cSt at 40°C. (1cSt = 1mm²/s)

- Mobil DTE 25
- Mobil DTE 15M
- Amoco Rykon Premium Oil ISO 46
- Chevron Rykon Premium Oil ISO 46
- Conoco Hydroclear AW MV 46
- Exxon Univis N 46
- Pennzoil AWX MV 46
- Shell Tellus 52 M46
- Shell Tellus 52 V46
- Texaco Rando HDZ 46



Grease Locations



1. Hopper Door Latch Mechanism

The two latches and three shoulder bolts should be periodically oiled to prevent rusting and ensure proper operation.

2. Blower Shaft

The two grease zerks located on the shaft bearings should be greased every 10 hours. To access these bearings the front safety shield must be removed.

3. Broom Bearings, Pivot Arms & Wheel

The grease zerks located on the ends of the broom shaft, the pivot arms and the caster wheel should be greased every 10 hours. The pivot arm grease zerks are accessed through a hole in the frame.

4. Ratchet Jack

There are two grease zerks on the ratchet jack that should be greased annually.



Service Schedule

*Refer to engine manual for more information on engine servicing
**Disclaimer – On engine applications KOHLER Engine Co. recommends the following:

Daily	or E	3efore	Startin	g Engine

Check engine oil level...... SAE 10W-30

Check hydraulic oil level...... Crown AW 46 or appropriate replacement

- oil has shelf life of two years

Check air intake and cooling areas...... Clean if necessary

Visually inspect machine...... Check for loose bolts, fitting and hoses

Grease...... Refer to service section

25 Hour Service (including previous items)

Check plastic liner (replace if necessary)......DewEze part # 972010

50 Hour Break-in Service (perform after first 50 hours of use)

100 Hour Service (including previous items)

Change oil......SAE 10W-30

Clean cooling areas by removing cooling shrouds

Check serviceability of battery

200 Hour Service (including previous items)

Check spark plug condition and gap...... Gap to .76 mm (.030 in.)

Kohler part # 12 132 02-S

Spark Plug – Champion RC12YC

Change oil filter...... Kohler part # 12 050 01-S

250 Hour or Annually Service (including previous items)

Change hydraulic filter...... DewEze part # 220559

Change outer air cleaner element......Kohler part # 25 083 01-S

Check inner air cleaner element (change if dusty from severe conditions)

Kohler part # 25 083 04-S

500 Hour or Annually Service (including previous items)

Have Bendix starter drive serviced***

Have solenoid shift starter disassembled and cleaned***

Have crankshaft spline lubricated***

Change inner air cleaner element......Kohler part # 25 083 04-S



^{***}Should be serviced by an authorized Kohler Dealer

Troubleshooting

Engine:

Problem:	What to Check:
Engine will not start	 Improper control settings Engine may be low on fuel Engine may be low on oil Battery charge may be too low Possible internal problems Make sure engine is primed with gas from the manual primer bulb
Problem: What to Check:	
Engine shuts off during operation	Engine may be low on fuelEngine may be low on oilAir filter may be clogged

Vacuum:

Problem:	What to Check:
Turbo Vac won't sweep up material	 Hopper may be full Turbo Vac may not be close enough to the ground Air screens in hopper may be plugged Nozzle may be plugged Door for hose option may be closed



Parts Section



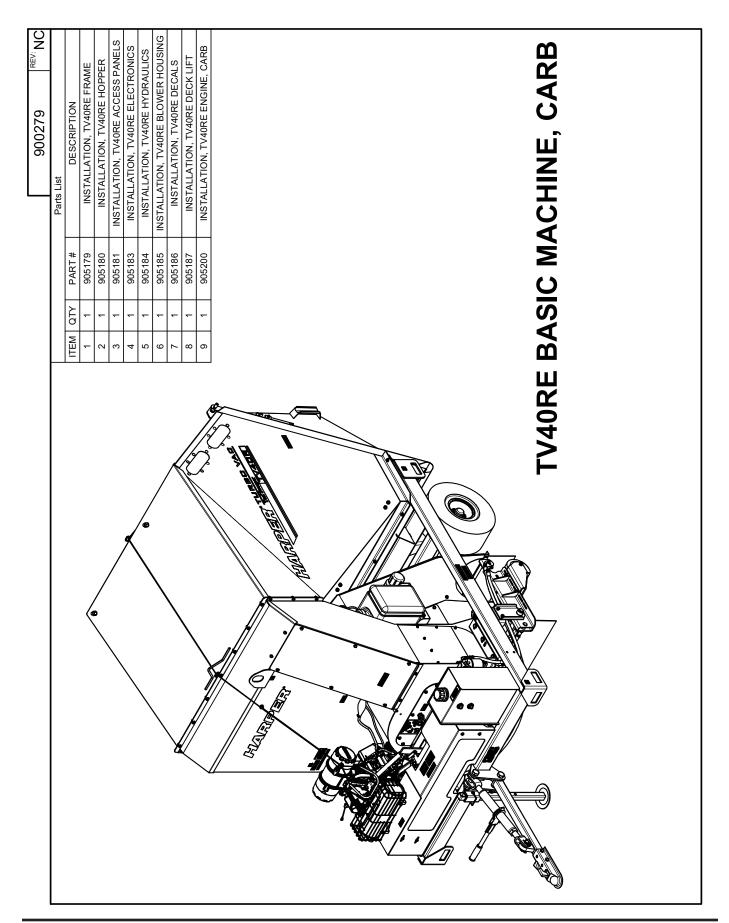
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Curb Brush Option.....59-60



TV 40RE



	Item			1Darts List	
	Item				
		Qty	Part #	DESCRIPTION	
	1	1	102141	Pin, Lock .1875 x 1.625	
	2	1	110304	Pin, Lock 3/8 X 2.5 Sq	
	3	2	110361	Bolt, 1-8 X 5.5	
	4	2	110428	Bolt, 1/2-13 X 3.0	
	2	2	110602	Nut, 1-8 Lock Nylon Insert	
	9	2	110613	Nut, Castle 3/4-16	
	7	2	110615	Nut, 1/2-13, Unitorque Lock	
	8	2	110678	Washer, 3/4 Flat SAE	
	6	2	510235	Hub Assembly	
	10	2	510463	Cotter Pin, 1/8 X 1.25	
	1	-	902175	Grip, Handle 7/8" Rnd X 4.56"	
	12	-	912100	Ball Coupler, 2"	
	13	-	942160	Ratchet Jack	
	14	2	943051	Tire & Wheel Assy, 9.5-8 X 18 Turf	
	15	-	975189	Frame, TV40	
	16	1	975601	Hitch Assy Wldmnt	
	17	1	975610	Jack Stand Widmnt	
TV40RE FRAME INSTALLATION	Z	Ë	Z		

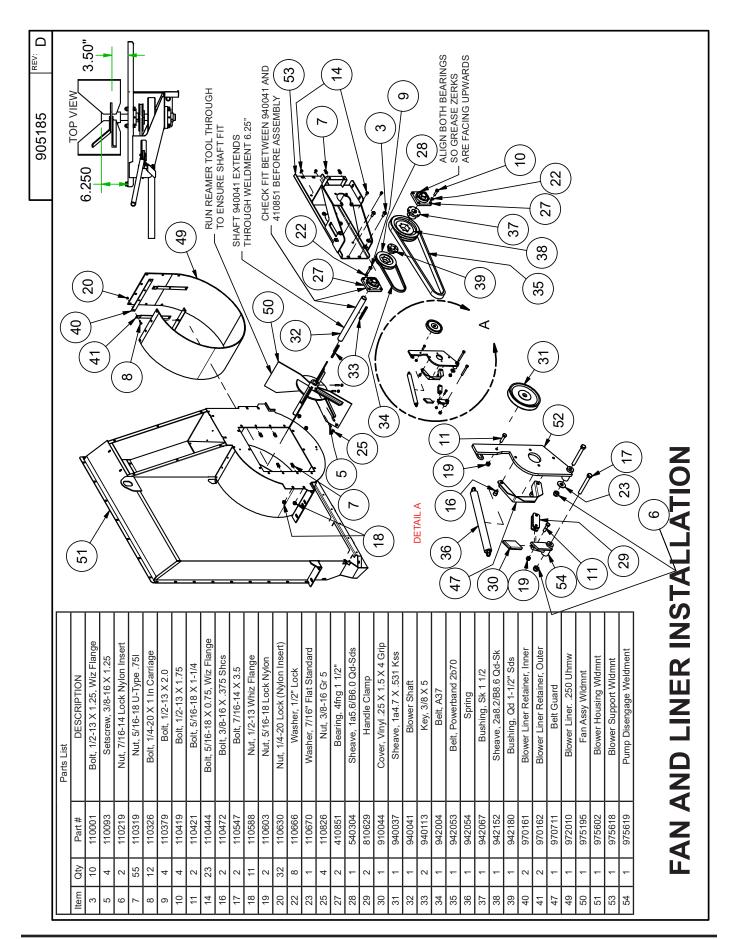
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REV:		z	Grip, Handle 7/8" Rnd X 4.56"	2"	>	Tire & Wheel Assy, 9.5-8 X 18 Turf	0	mnt	lmnt					HOLE 41	
179		DESCRIPTION	e 7/8" Rn	Ball Coupler, 2"	Ratchet Jack	Assy, 9.5-	Frame, TV40	Hitch Assy Widmnt	Jack Stand Widmnt		L)LE	l BS	BACK OFF NUT UNTIL FIRST CASTELLATION ALIGNS WITH HOLE INSTALL COTTER PIN IN HOLE 9.2 9.1 8 6 11 8 6 11 12 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	
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Ц	1Parts List		Gri			Tire 8					HUB INSTALLATION	VALII E BOTATING HIB		CASTELLATION ALIGNS WITH I INSTALL COTTER PIN IN HOLE 10.2 9.1 8 6 6 10 9.5 10	
		Part #	902175	912100	942160	943051	975189	975601	975610		INSTA	JHIEN	ROLF	STALL O	
		H	Н	\dashv	\dashv	2 9	\dashv		Н		HUB	7.			
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		Item	.58 11		1			_	17					TORQUE TO 100 9.6	
		N	BEARING CONE, TAPER 1.0 X	±07			1.25		(15	2)				
		DESCRIPTION	NE, TAPI	SEAL, CR 12407	DUST CAP	HUB	Cotter Pin, 1/8 X 1.25		'	(ス	\	/		
	ist	DES	ING CO	SEAL	ם		Cotter F	Q		7		/.	K		
	1Parts List		H						/		\nearrow	λ	7		
		Part#	510466	510467	510469	511073	510463			\	\langle	/ /%/	T_{\parallel}		
		Qty	2	_	1	_	2					1	$\langle \! $		
		Item	9.3	9.4	9.5	9.6	10								
		z	1.625	.5 Sq	5	3.0	n Insert	-16	ue Lock	SAE	۱y	GR 5	38 X .42		
		DESCRIPTION	1875 x	Pin, Lock 3/8 X 2.5 Sq	Bolt, 1-8 X 5.5	Bolt, 1/2-13 X 3.0	ock Nylo	Nut, Castle 3/4-16	, Unitorq	Washer, 3/4 Flat SAE	Hub Assembly	LUGNUT, 1/2-20 GR 5	CUP, 1.9		
	st	DES	Pin, Lock .1875 x 1.625	Pin, Loc	Bolt,	Bolt, 1	Nut, 1-8 Lock Nylon Insert	Nut, C	Nut, 1/2-13, Unitorque Lock	Washer,	Hub	LUGNU	BEARING CUP, 1.98 X .42	AND CURE	
	1Parts List		-				z		N				BI	DISCARD PIN AND USE 110361 & 110602 TO SECURE 5	
	1	t#	141	304	361	128	302	313	315	378	235	317	165	DISCARD PIN USE 110361 & 110602 TO SE	
		Part#	102141	110304	110361	110428	110602	110613	110615	110678	510235	110617	510465		
		Qty	7	_	2	2	2	2	2	2	2	4	2	(13) Comes with rubber grip, (11) is grip service part. (1) (1) (1)	
		Item	-	2	လ	4	2	9	7	8	6	9.1	9.2	(13) C rubber grip se grip se (11) (12) C	

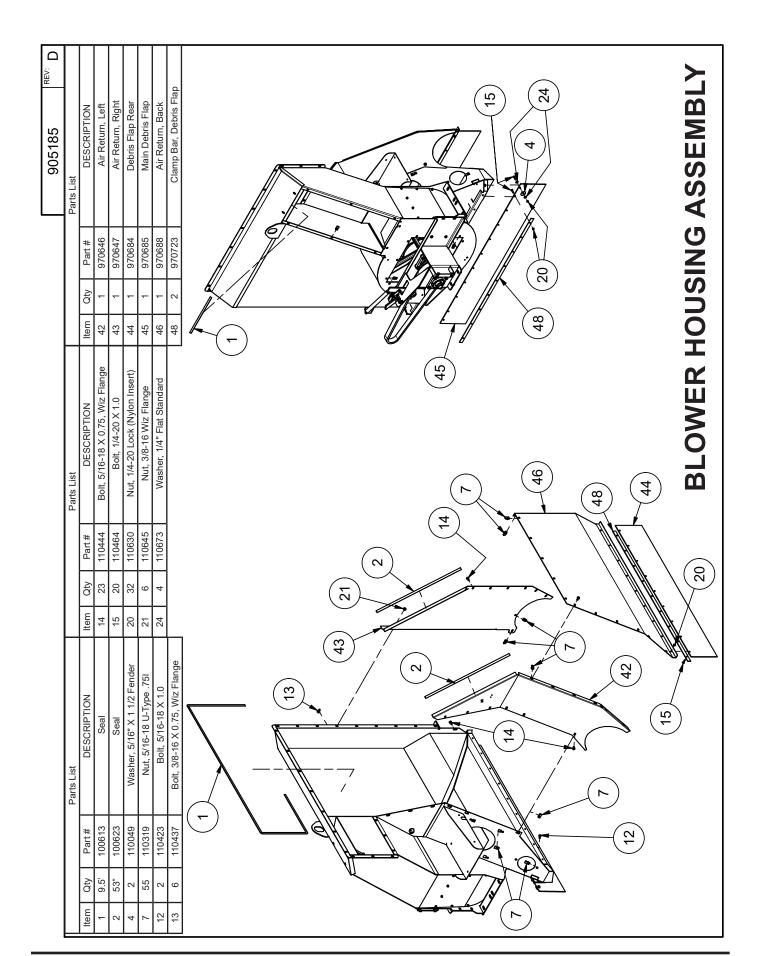
			905187	REV: B
			Parts List	
ITEM	M QTY		DESCRIPTION	z
	2	110004	BOLT, 1/2-13 X 4.5	4.5
		110155	WASHER, 3/8" FLAT SAE	AT SAE
	+	110219	NUT, 7/16-14 LOCK NYLON INSERT	ON INSERT
4	+	110313	1-1/4 SQ PLUG	9
9	+	110433	BOLI, 3/8-16 X . 75	.75
9	4 2	110528	BOL1, 7/16-14 X 1.0 NUT: 1/2-13 HEX JAM GR 2	K 1.0
8	+	110672	WASHER, 3/8" LOCK	OCK
		110710	BOLT, 7/16-14 X 5.0	(5.0
2) 2	500231	GREASE ZERK, 1/4-28 45deg	28 45deg
12	_	910044	COVER, VINYL .25 X 1.5 X 4 GRIP	.5 X 4 GRIP
	2	910050	ENGAGING CHANNEL SPACER	SPACER
13		940043	CASTER WHEEL ASSY	ASSY
4	1 2	975188	Weldment, TV40 Caster Wheel Bracket	Vheel Bracket
	-	975614	LEFT BROOM ARM WLDMNT	VLDMNT
	-	975615	BROOM LIFT WLDMNT	DMNT
	-	975616	RIGHT BROOM ARM WLDMNT	WLDMNT
		975617	BROOM PIVOT WLDMNT	DMNT
	1	975623	BROOM LATCH WLDMNT	LDMNT
DECK LIFT INSTALLATION				

905187 REV: B		DESCRIPTION	BOLT, 1/2-13 X 4.5	WASHER, 3/8" FLAT SAE	NUT, 7/16-14 LOCK NYLON INSERT	1-1/4 SQ PLUG	BOLT, 3/8-16 X .75	BOLT, 7/16-14 X 1.0	NUT, 1/2-13 HEX JAM GR 2	WASHER, 3/8" LOCK	BOLT, 7/16-14 X 5.0	GREASE ZERK, 1/4-28 45deg	COVER, VINYL .25 X 1.5 X 4 GRIP	ENGAGING CHANNEL SPACER	CASTER WHEEL ASSY	CASTER WHEEL 6"	RETAINING SEAL	ROLLER BEARING	SPANNER BUSHING, .75X.5X2.437	Weldment, TV40 Caster Wheel Bracket	LEFT BROOM ARM WLDMNT`	BROOM LIFT WLDMNT	RIGHT BROOM ARM WLDMNT	BROOM PIVOT WLDMNT	BROOM LATCH WLDMNT	
	Parts List		8	WAS	NUT, 7/16			ā	NUT,	W,	ā	GREA	COVER,	ENGAG	CAS	O		Ψ.	SPANNEF	Weldment,	LEFT B	BR	RIGHT	BRO	BRO	
		PART#	110004	110155	110219	110313	110433	110528	110642	110672	110710	500231	910044	910050	940043	942071	942115	942116	942164	975188	975614	975615	975616	975617	975623	
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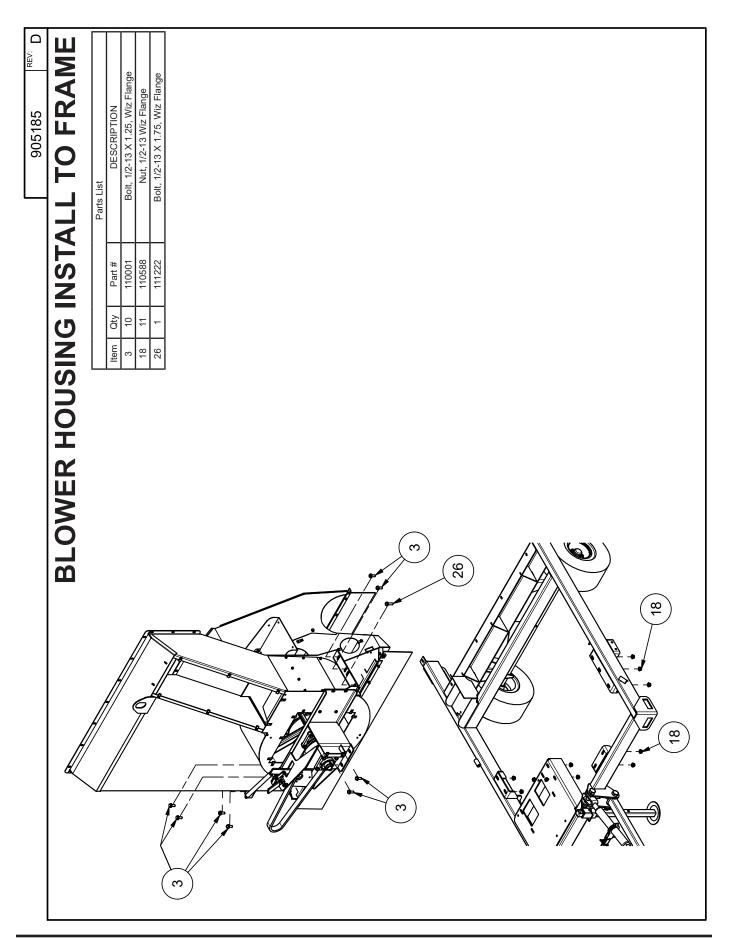
		Τ	T																						
	z				2b70		1/2	Sheave, 2a8.2/B8.6 Qd-Sk	2" Sds	Blower Liner Retainer, Inner	Blower Liner Retainer, Outer	eff	ght	ear	lap	tck		is Flap	Uhmw (Mdmnt	dmnt	/Idmnt	Pump Disengage Weldment	
	DESCRIPTION	Kev 3/8 X 5	y, 0,0 y,	Belt, A37	Belt, Powerband 2b70	Spring	Bushing, Sk 1 1/2	a8.2/B8.	Bushing, Qd 1-1/2" Sds	er Retair	er Retain	Air Return, Left	Air Return, Right	Debris Flap Rear	Main Debris Flap	Air Return, Back	Belt Guard	Clamp Bar, Debris Flap	ner250	Fan Assy	Blower Housing Wldmnt	Pump Mount Widmnt	upport V	ngage M	Ö
		N A			Belt, Po		Bushi	heave, 2	Bushing,	ower Lin	ower Line	Air F	Air R	Debri	Main	Air R	Be	Clamp B	Blower Liner250 Uhmw	Ä	Blower F	Pump №	Blower Support Widmnt	ımp Dise	F
Parts List	L							S		<u> </u>	B													Pı	\vdash
	Part #	940113	2 2	942004	942053	942054	942067	942152	942180	970161	970162	970646	970647	970684	970685	970688	970711	970723	972010	975195	975602	975605	975618	975619	BLOWER HOUSING INSTALLATION
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	m Otv	╀	\downarrow	-	2	3 1	7 1	3 1	1	2	L	7	3 1	1 1	5 1	3 1	7 1	3 2	9 1	0 1	1 1	2 1	3 1	1 1	
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		1/4	<u> </u>	0.	Bolt, 3/8-16 X 0.75, Wiz Flange	Bolt, 5/16-18 X 0.75, Wiz Flange	0	Shcs	.5	nge	lylon)	lnsert)	nge	×	andard	ndard	-5	Flange	.5"	sps-p		√ 4 Grip	1 Kss		<u>S</u>
	DESCRIPTION	Bolt 5/16-18 X 1-1/4		Bolt, 5/16-18 X 1.0	.75, Wiz	0.75, Wi	Bolt, 1/4-20 X 1.0	Bolt, 3/8-16 X .375 Shcs	Bolt, 7/16-14 X 3.5	Nut, 1/2-13 Wiz Flange	Nut, 5/16-18 Lock (Nylon)	Nut, 1/4-20 Lock (Nylon Insert)	Nut, 3/8-16 Wiz Flange	Washer, 1/2" Lock	Washer, 7/16" Flat Standard	Washer, 1/4" Flat Standard	Nut, 3/8-16 Gr 5	Bolt, 1/2-13 X 1.75, Wiz Flange	Bearing, 4fng 1 1/2"	Sheave, 1a5.6/B6.0 Qd-Sds	Handle Clamp	Cover, Vinyl .25 X 1.5 X 4 Grip	Sheave, 1a4.7 X .531 Kss	Blower Shaft	<u>o</u>
	DESCE	olt 5/16	2, 2, 10	Bolt, 5/16	/8-16 X (16-18 X	Bolt, 1/4	t, 3/8-16	Bolt, 7/16	ıt, 1/2-13	, 5/16-18	/4-20 Lo	ıt, 3/8-16	Washer,	ner, 7/16	her, 1/4"	Nut, 3/8	2-13 X 1	searing,	ive, 1a5.	Handle	, Vinyl .2	ave, 1a4	Blowe	
Parts List		ľ	1		Bolt, 3	Bolt, 5/		Bo		ž	Nut	Nut, 1	ž		Wasl	Was		Bolt, 1,		Shea		Cover	She		ļ j
Pa	Г	2	1 5	53	37	44	64	72	47	88	03	30	45	99	02	73	56	22	51	04	29	44	37	41	S
	Part #	110421	2 2	110423	110437	110444	110464	110472	110547	110588	110603	110630	110645	110666	110670	110673	110826	111222	410851	540304	810629	910044	940037	940041	3L(
	₽	٥	۱ ،	.7	9	23	20	2	2	7	2	32	9	8	1	4	4	1	2	1	2	1	1	1	
L	Item	7	- 5	15	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	59	30	31	32	
					ange	nder	2	nsert	51	ige															
	NOIL				5, Wiz Fl	Washer, 5/16" X 1 1/2 Fender	Setscrew, 3/8-16 X 1.25	k Nylon I	Nut, 5/16-18 U-Type .75I	Bolt, 1/4-20 X 1 In Carriage	3 X 2.0	1/2-13 X 1.75							P			_	<u>~</u>	<	
	DESCRIPTION	S. S	000	Seal	13 X 1.2	5/16" X	rew, 3/8-	3-14 Lock	/16-18 L	1-20 X 1	Bolt, 1/2-13 X 2.0	lt, 1/2-13					//		//				\	\	
List					Bolt, 1/2-13 X 1.25, Wiz Flange	Washer,	Setsc	Nut, 7/16-14 Lock Nylon Insert	Nut, 5	Bolt, 1/	Bc	Bolt,				H		l	5/		<u> </u>	<u> </u>	_	\	
Parts List	-	+	+	+	_	_	_				L			/		//	,		7			~	7	<u> </u>	
	Part #	100613	2000	100623	110001	110049	110093	110219	110319	110326	110379	110419	L	<i> </i>	/	//		,							
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			905184 REV: A
			Parts List
ITEM	A QTY	PART#	DESCRIPTION
	2	110001	BOLT, 1/2-13 X 1.25, WIZ FLANGE
2	7	110395	BOLT, 3/8-16 X 1.0 SHCS
<u> </u>	-	110440	BOLT, 3/8-16 X 1, WIZ FLANGE
4	7	110588	NUT, 1/2-13 WIZ FLANGE
<u>.</u>	-	110645	NUT, 3/8-16 WIZ FLANGE
9	2	110672	WASHER, 3/8" LOCK
	-	110727	CLAMP, ADEL .75WX.75IDX.406HOLE
8	2	112008	CLAMP, 1.25", T-BOLT
6	_	120184	ADAPTER, 12BH-10MB90
	-	120218	ADAPTER, 6MJ-6FJX90
	-	120227	ADAPTER, 12BH-12MP
	_	120239	ADAPTER, 6MJ-8MB
	1	120500	ADAPTER, 6MJ-6MP90
	1	220121	FITTING, NIPPLE 3/8 X 1
21	1	220558	SPIN ON FILTER HEAD
91	7	220559	FILTER ELEMENT
	-	720214	PUMP, .43 CI, AA
2	-	920002	HOSE, .75-124 HWR X 20
	-	920033	HOSE, .375 X66" 6FJX90M-6FJX90M
	-	920034	HOSE, .375 X 48" 6FJX90M-6FJX90M
	-	975620	HYDRAULIC TANK ASSY
HYDRAULICS INSTALLATION			

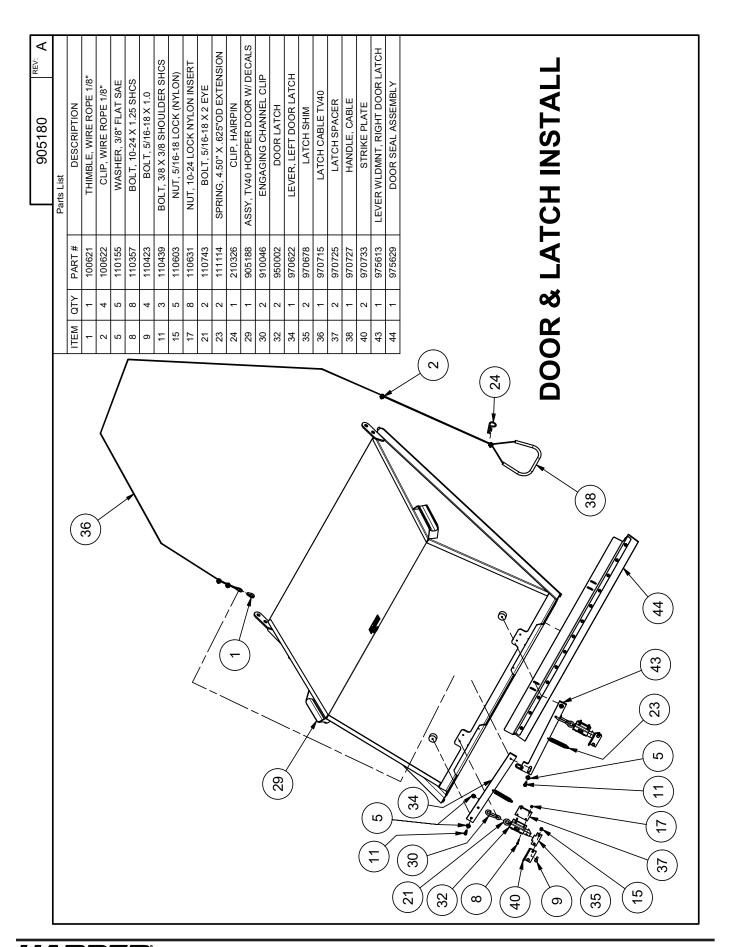


Company Part # Part List Company Part # Part List Company Part # Part List Company Part # Part #	10000	- 1	DESCRIPTION	Hose . 75-124 Hwr X 20	Hose, .375 X66" 6fjx90m-6fjx90m	Hose, .375 X 48" 6fjx90m-6fjx90m	Hydraulic Tank Assy	Fitting, Plug 3/8" Pipe	Sight Glass, Hydraulic Tank	Breather/Filler Cap	Decal, ISO 46 Hydraulic Oil	20 ZO
Columb		1	Part #	920002	920033	920034	975620	720108	922142	923001	902204	99
Columb	١	[ČÍ		-	_	1	_	1	1	_	
Columb			tem 41	- @	19	20	21	21.1	21.2	21.3	21.4	
DESCRIPTION	100		DESCRIPTION	Adapter, Izbir-Tullibao Adapter, 6mi-6fix90	Adapter, 12bh-12mp	Adapter, 6mj-8mb	Adapter, 6mj-6mp90	Fitting, Nipple 3/8 X 1	Spin On Filter Head	Filter Element		7 - 0
Oth	l	1	Part #	120218	120227	120239	120500	220121	220558	220559		USE TEI ON THE
Oth	١	2	Š,		-	_	1	_	1	1		22 HREAD THE ALL THE A
Oth	١		Item	° 6	=	12	13	14	15	16		NO NO THE TOTAL PROPERTY OF THE PROPERTY OF TH
am Qty Part# 1	40.00		T	Bolt, 3/8-16 X 1.25, Wiz Flatige	Bolt, 3/8-16 X 1, Wiz Flange	Nut, 1/2-13 Wiz Flange	Nut, 3/8-16 Wiz Flange	Washer, 3/8" Lock	Clamp, Adel .75wx.75idx.406hole	Clamp, 1.25", T-Bolt		FILTER FITTING ORIENTAT
10 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			Part #	110395	110440	110588	110645	110672	110727	112008		LGS ORIENT 17 10
00 (10)		1) S	2 2	-	2	-	2	-	2		
		H	٦	- 2	8	4	2	9	7	8		90 60 (10)

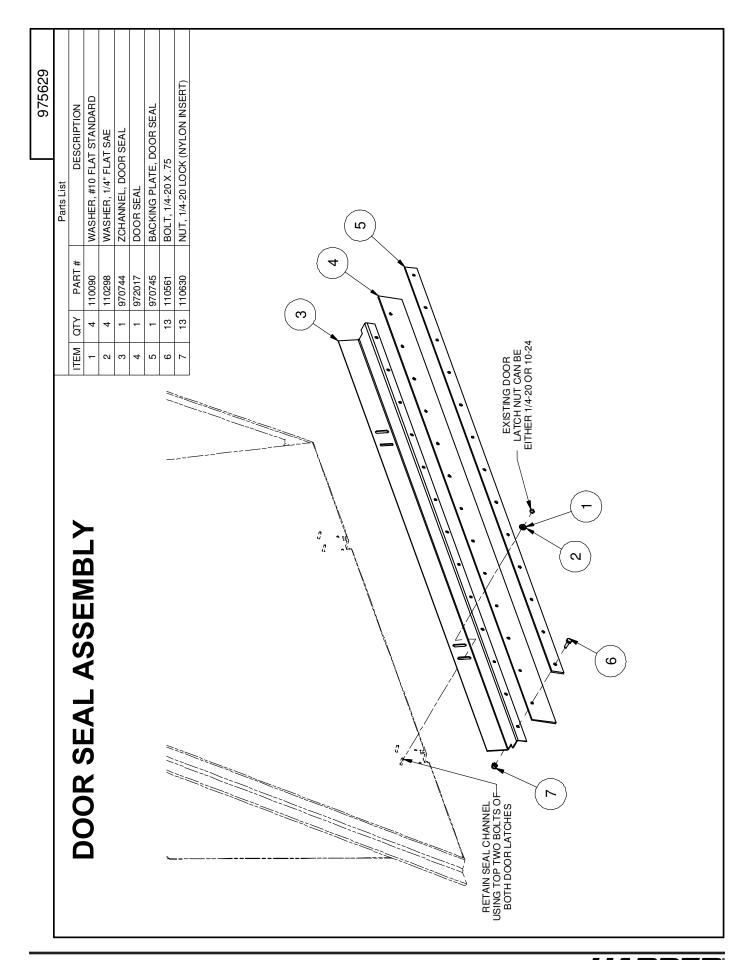
905180 KEVE A													/	/	<u> </u>										→ //	<u> </u>	<u> </u>	//	K)				
Parts List	DESCRIPTION	HANDLE, CABLE	DEBRIS FLAP-RETURN SCREEN	STRIKE PLATE	HOPPER	RETURN SCREEN WLDMNT	LEVER WLDMNT, RIGHT DOOR LATCH	DOOR SEAL ASSEMBLY	(1)		<i></i>			\	\																,						
	Y PART#	970727	970729	970733		975606	975613	975629						`	¥	<u></u>	•							\	\	>	/)								
	ITEM QTY	38 1	39 1	40 2	41 1	42 1	43 1	44																													_
Parts List	DESCRIPTION	THIMBLE, WIRE ROPE 1/8"	CLIP, WIRE ROPE 1/8"	SEAL	Bolt, 5/16-18 X 0.75 in Carriage	WASHER, 3/8" FLAT SAE	Pin, Lynch 7/16 x 1 3/4	BOLT, 5/16-18 X 1 FLT HD SKT	BOLT, 10-24 X 1.25 SHCS	BOLT, 5/16-18 X 1.0	BOLT, 3/8-16 X 0.75, WIZ FLANGE	BOLT, 3/8 X 3/8 SHOULDER SHCS	BOLT, 3/8-16 X 1, WIZ FLANGE	BOLI, 9/16-18 A U.73, WIZ FLANGE	NIIT 5/16-18 I OCK (NYI ON)	NUT. 5/16-18 WIZ FLANGE	NUT. 10-24 LOCK NYLON INSERT	NUT, 5/8-11, UNITORQUE LOCK	NUT, 3/8-16 WIZ FLANGE	WASHER, 1/4" FLAT STANDARD	BOLT, 5/16-18 X 2 EYE	NUT, 3/8-16 GR 5	SPRING, 4.50" X .625"OD EXTENSION	CLIP, HAIRPIN	SIGHT GLASS, HOPPER	Backing Plate, Sight Glass	PIN WELDMENI, HOPPER DOOK	ASSV TVA0 HOBBER DOOR W/ DECALS	ENGAGING CHANNEL CLIP	PIN, STABILIZER	DOOR LATCH	BAR, PROP	LEVER, LEFT DOOR LATCH	LATCH SHIM	LATCH CABLE TV40	LATCH SPACER	HOPPER INSTAL
	PART #	100621	100622	100623	110020	110155	110305	110328	110357	110423	110437	110439	110440	110444	110603	110606	110631	110639	110645	110673	110743	110826	111114	210326	311691	311692	315257	00517	910046	942161	950002	970211	970622	970678	970715	970725	
	ΔTΥ	-	4	31.5 FT	12	2	2	-	8	4	16	3	ω L	n (7 4	12	8	2	22	8	2	2	2	-	2	2 0	7 0	• -	- 2	2	2	-	1	2	1	2	
	ITEM	-	2	3	4	2	9	7	8	6	9	7	12	2 5	<u>τ</u>	5 6	17	18	19	20	21	22	23	24	22	26	/7	0 %	300	31	32	33	34	35	36	37	



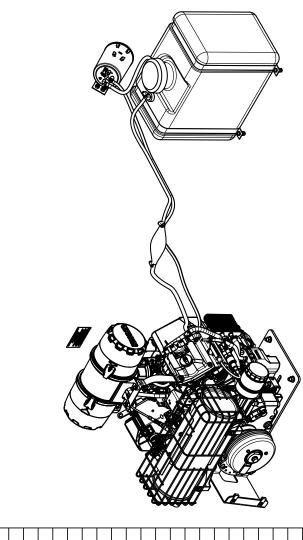
Parts List	DESCRIPTION	SEAL	Bolt, 5/16-18 X 0.75 in Carriage	Pin, Lynch 7/16 x 1 3/4	BOLT, 5/16-18 X 1 FLT HD SKT	BOLT, 3/8-16 X 0.75, WIZ FLANGE	BOLT, 3/8-16 X 1, WIZ FLANGE	BOLT, 5/16-18 X 0.75, WIZ FLANGE	BOLT, 5/8-11 X 1.5 GR 5	NUT, 5/16-18 LOCK (NYLON)	NUT, 5/16-18 WIZ FLANGE	NUT, 5/8-11, UNITORQUE LOCK	NUT, 3/8-16 WIZ FLANGE	WASHER, 1/4" FLAT STANDARD	NUT, 3/8-16 GR 5	SIGHT GLASS, HOPPER	Backing Plate, Sight Glass	PIN WELDMENT, HOPPER DOOR	SCREW, 1/4 X 1 TEK SELF-TAP	PIN, STABILIZER	BAR, PROP	DEBRIS FLAP-RETURN SCREEN	HOPPER	RETURN SCREEN WLDMNT	HOPPER & RETURN SCREEN
Parl		=T 100623		110305	110328	110437	110440	110444	2 110576	5 110603		110639			2 110826				8 710586 S	2 942161			1 975600	1 975606	MOUNT SIGHT GLASS INSIDE OF HOPPER R & RETU
	ITEM	(31)	4	9	<u>~</u>	10	12	13	14	15	(6))	19	20	22	25) 26	$26)$ $\binom{7}{4}$		31	33	36	41	% % 42 X	33 33 HOPPE
		747										\	\				(4)) (oL) ((27))			\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\		
	\															7		18) .					2	
		90)		C	20)	<u>`</u>	\ /				707)	\ \			` \	\						
													(41)	` 	/		(19)	\)	\	\	\	/	<i>[</i>		







ENGINE INSTALLATION, CARB

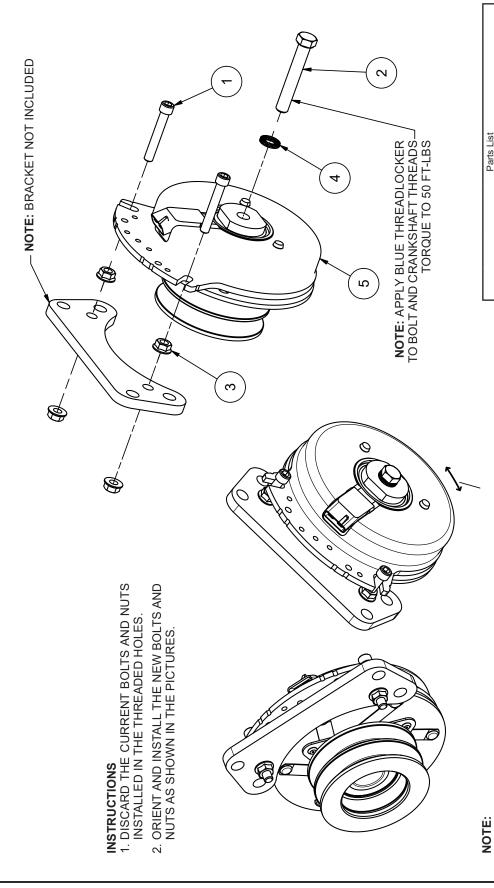


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ITEM	QTY	PART #	SCRIPTIC
-	7	100361	CLAMP, HOSE #4 .25 MINI
2	4'	100644	HOSE, 1/4, LOW PERM
3	3.75'	100708	HOSE, 3/16 LOW PERM
4	2	110168	BOLT, 5/16-18 X 2.0 SHCS
5	2	110219	NUT, 7/16-14 LOCK NYLON INSERT
9	9	110299	BOLT, 1/4-20 X .625 HEX GR 5
7	2	110319	NUT, 5/16-18 U-TYPE .75L
8	9	110400	BOLT, 3/8-16 X 2.0
6	4	110425	BOLT, 3/8-16 X 1.25
10	1	110443	BOLT, 7/16-20 X 2.75
11	2	110527	BOLT, 7/16-14 X 4.0
12	2	110528	BOLT, 7/16-14 X 1.0
13	4	110606	NUT, 5/16-18 WIZ FLANGE
14	9	110630	NUT, 1/4-20 LOCK (NYLON INSERT)
15	4	110643	Hex Nut M8 X 1.25
16	10	110645	NUT, 3/8-16 WIZ FLANGE
17	2	110671	WASHER, 7/16" LOCK
18	10	110676	WASHER, 3/8" FLAT STANDARD
19	1	111272	WASHER, 7/16, NORD LOCK
20	2	112120	BOLT, M8x1.25 x 90 Gr 8.8
21	1	902162	FUEL TANK ASSY, 6 GAL
22	2	902163	STRAP, HOLD DOWN
23	1	902248	DECAL, EMISSIONS COMPLIANCE, CARB
24	1	902256	CARBON CANISTER, 650CC
25	1	902257	BRKT, 650CC CARBON CANISTER
26	1	932065	CLUTCH, ELECTRIC
27	1	932081	HARNESS, TV40 CARB IDLE CONTROL
28	1	943062	Engine, 26.5 hp, Kohler, EFI
29	1	952030	Primer Bulb, CARB
30	2	970284	SPACER, .75 X .50 X 2.75
31	1	009026	SPACER, 1.625 X 1.13
32	1	970680	CLUTCH BRACKET
33	1	970722	MOUNT, BELT GUARD
34	1	970892	BLOCK, PULL BELT TENSIONER
35	1	970895	ENGINE MOUNT, TOP PLATE
36	1	970964	SPRING HOOK

905200 REV: C DESCRIPTION CLAMP, HOSE #4.25 MINI HOSE, 1/4, LOW PERM	BOLT, 5/16-18 X 2.0 SHCS NUT, 7/16-14 LOCK NYLON INSERT BOLT, 1/4-20 X .625 HEX GR 5 NUT, 5/16-18 U-TYPE .75L BOLT, 3/8-16 X 1.25 BOLT, 3/8-16 X 1.25 BOLT, 7/16-20 X 2.75 BOLT, 7/16-20 X 2.75 BOLT, 7/16-14 X 1.0 BOLT, 7/16-14 X 1.0 NUT, 5/16-18 WIZ FLANGE NUT, 5/16-14 WIZ FLANGE NUT, 3/8-16 WIZ FLANGE WASHER, 7/16" LOCK BOLT, MBX1.25 x 90 Gr 8.8 FUEL TANK ASSY, 6 GAL SPACER, 7.5 X .50 X 2.75 SPACER, 7.5 X .50 X 2.75 SPACER, 1.625 X 1.13 CLUTCH BRACKET MOUNT, BELT GUARD BLOCK, PULL BELT TENSIONER ENGINE MOUNT, TOP PLATE SPRING HOOK	
PART # 100361 100644	110168 110219 110299 110319 110400 110425 110425 110628 110628 110630 110645 110671 110671 110676 11	
QTY 7 4.	0 0 0 0 0 4 - 0 0 4 0 4 0 0 0 0 - 0 - 0	
2 - Z	4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
(16)	15 16 16 17 16 17 17 17 17	SWI DELFE GUARE

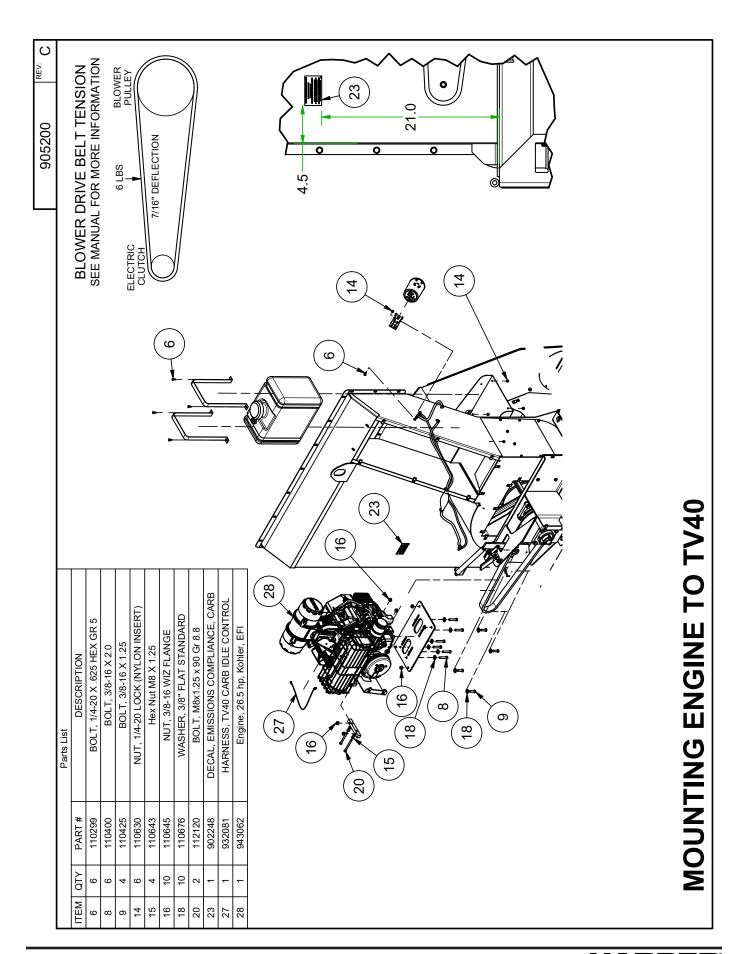
ELECTRIC CLUTCH REPLACEMENT

ALL SERIAL NUMBERS

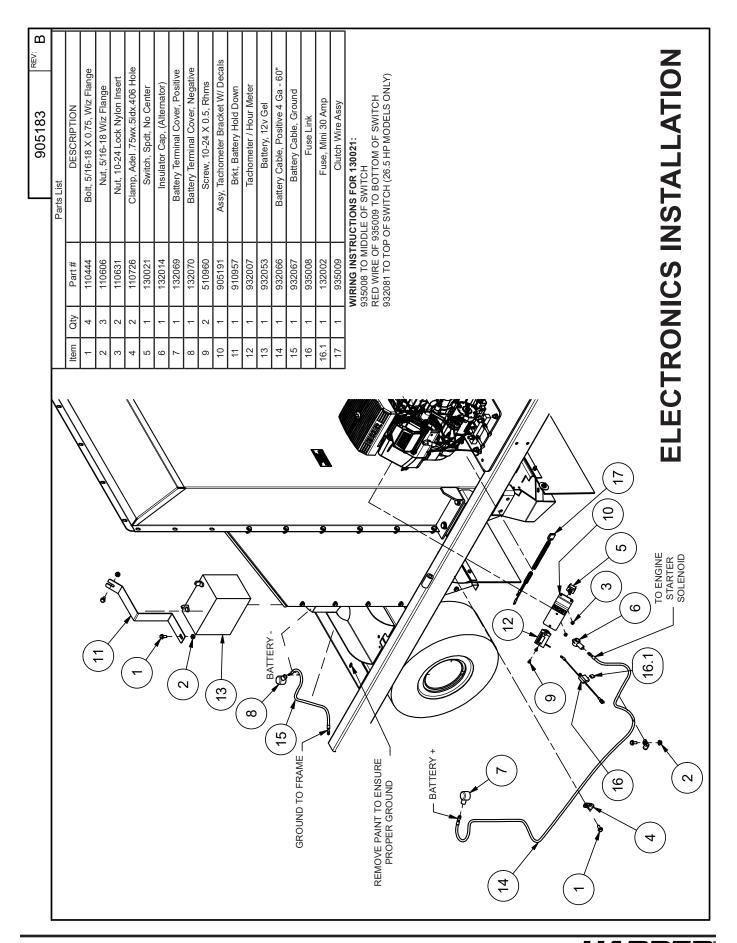


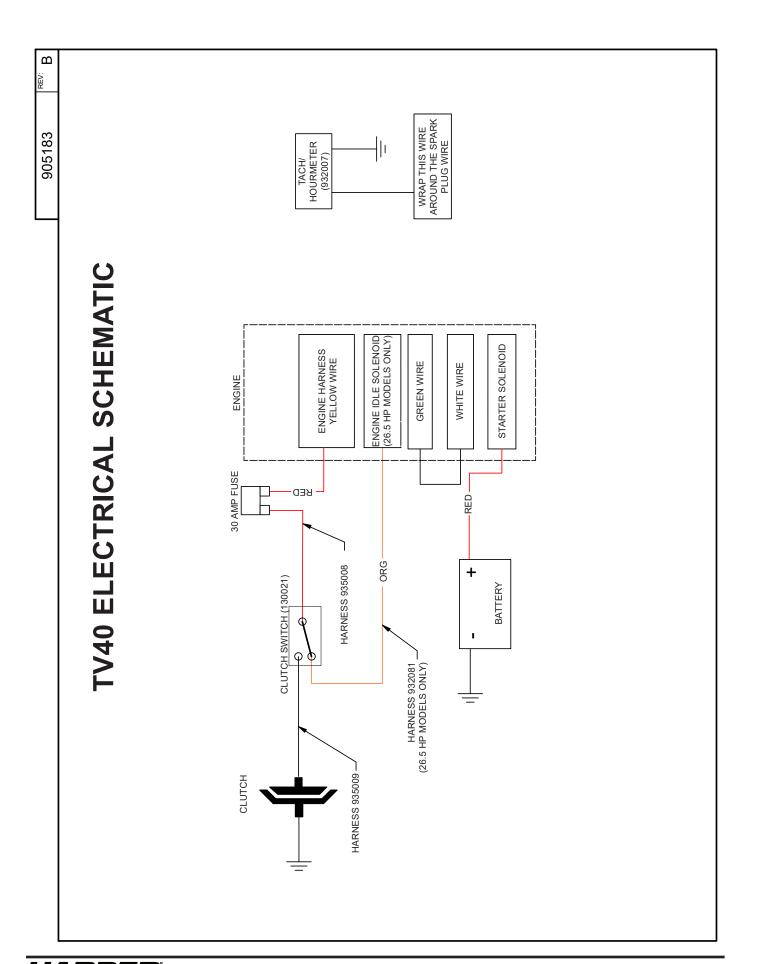
AFTER INSTALLATION IS COMPLETE, ENSURE THAT THE CLUTCH HOUSING CAN SLIGHTLY ROTATE FREELY ABOUT IT'S CENTER AXIS (MOVE BACK & FORTH). THIS WILL PREVENT THE CLUTCH FROM BINDING.

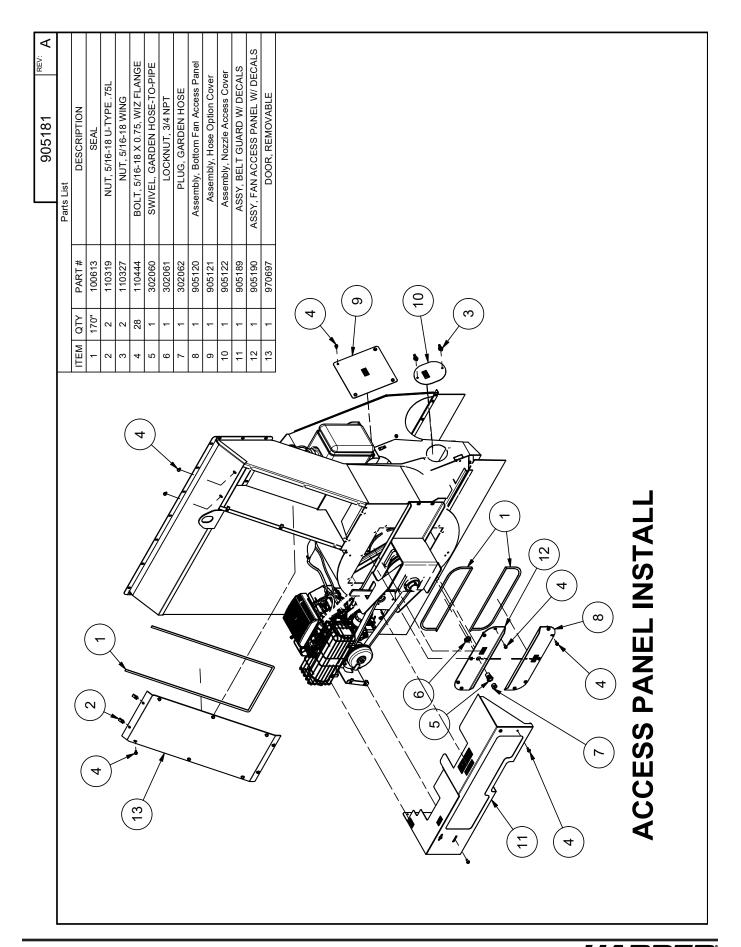
DESCRIPTION	BOLT, 5/16-18 X 2.0 SHCS	BOLT, 7/16-20 X 2.75	NUT, 5/16-18 WIZ FLANGE	WASHER, 7/16, NORD LOCK	CLUTCH, ELECTRIC
PART#	110168	110443	110606	111272	932018
QTY	2	1	4	1	_
ITEM QTY	-	2	3	4	2

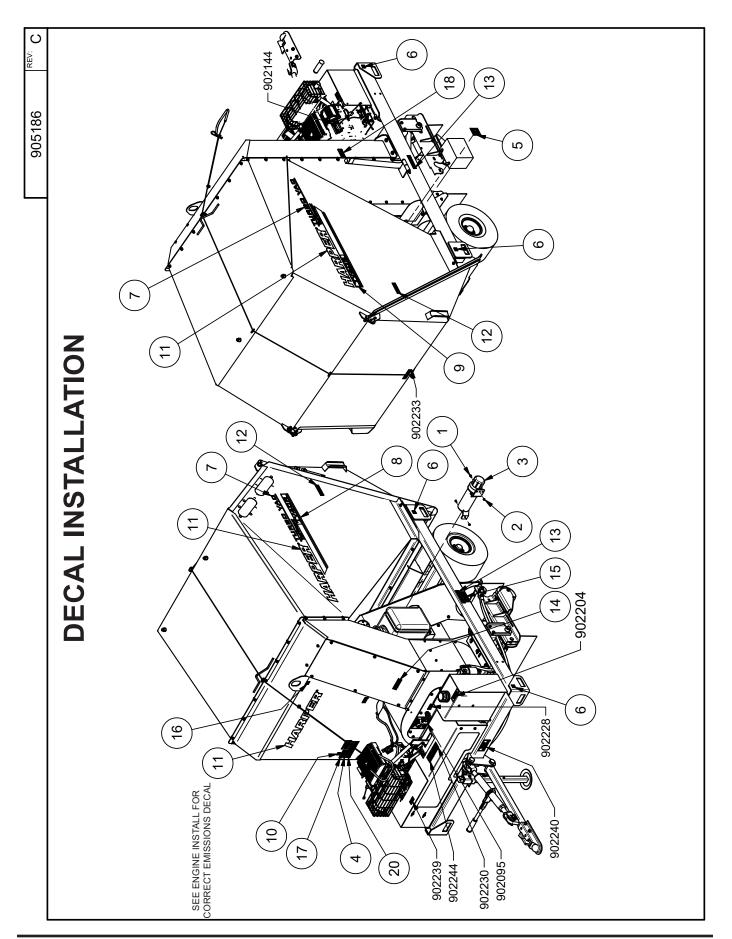


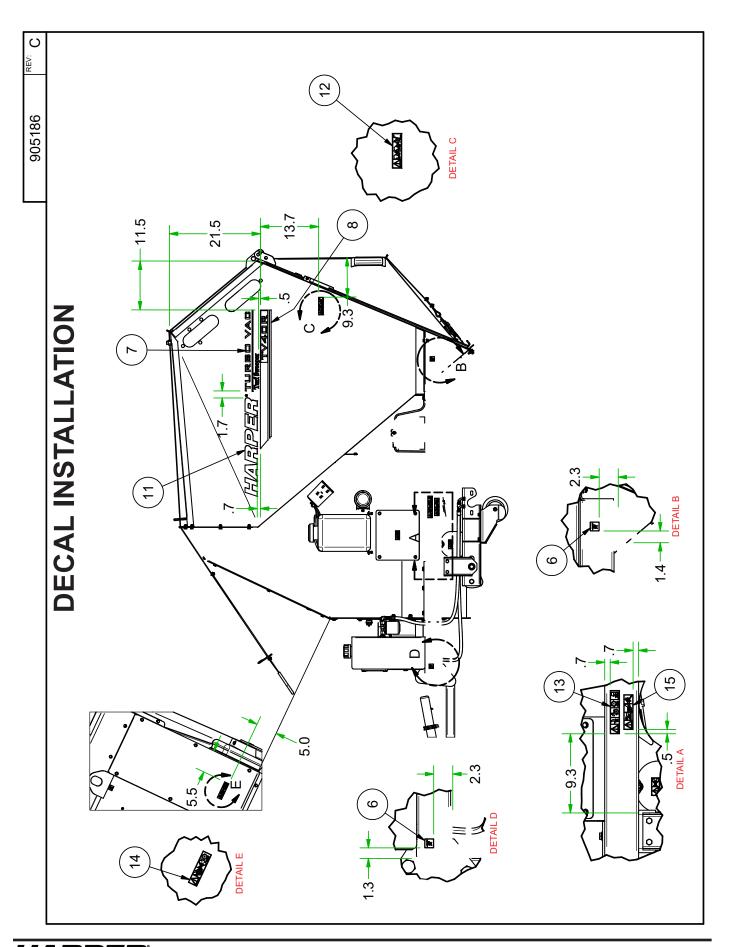
Item Qiy Part# 1	$ \mid$	lot lot
tem Qty 1 1 4 4 4 4 5 2 2 3 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Part#	
4 6 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		DESCRIPTION
2 2 3 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	110444	Bolt, 5/16-18 X 0.75, Wiz Flange
2 2 7 1 1 1 2 2	110606	Nut, 5/16-18 Wiz Flange
0	110631	Nut, 10-24 Lock Nylon Insert
	110726	Clamp, Adel .75wx.5idx.406 Hole
	130021	Switch, Spdt, No Center
	132014	Insulator Cap, (Alternator)
_	132069	Battery Terminal Cover, Positive
	132070	Battery Terminal Cover, Negative
2	510960	Screw, 10-24 X 0.5, Rhms
10 1 905191	905191	Assy, Tachometer Bracket W/ Decals
_	910957	Brkt, Battery Hold Down
12 1 932007	932007	Tachometer / Hour Meter
13 1	932053	Battery, 12v Gel
-	932066	Battery Cable, Positive 4 Ga - 60"
-	932067	Battery Cable, Ground
-	932008	Fuse Link
17 1 935009	932009	Clutch Wire Assy
ELECTRONICS INSTALLATION		



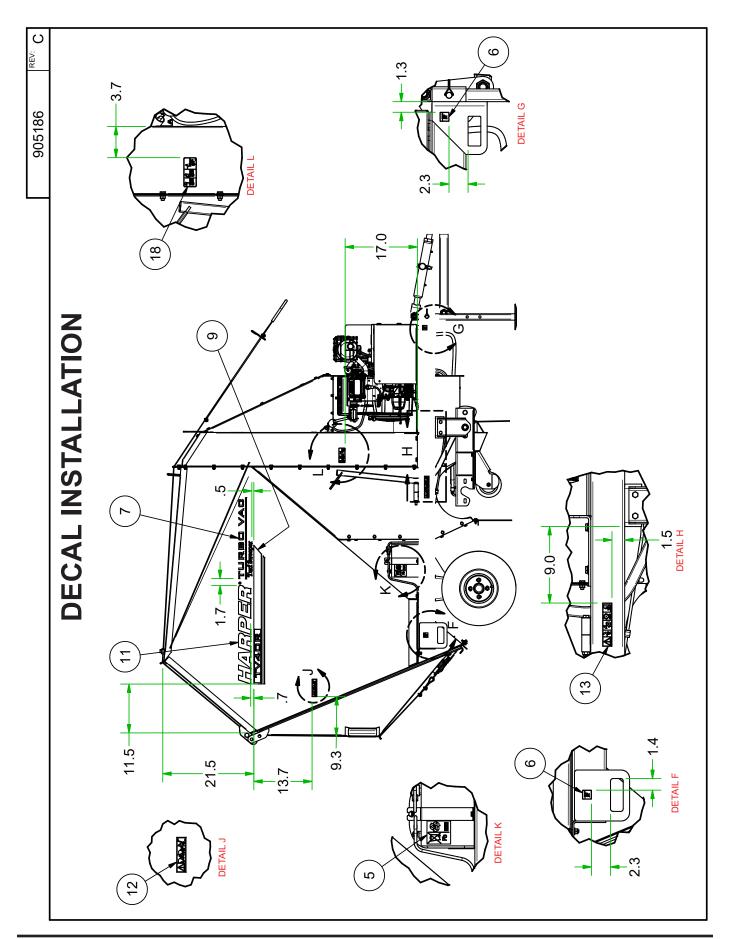


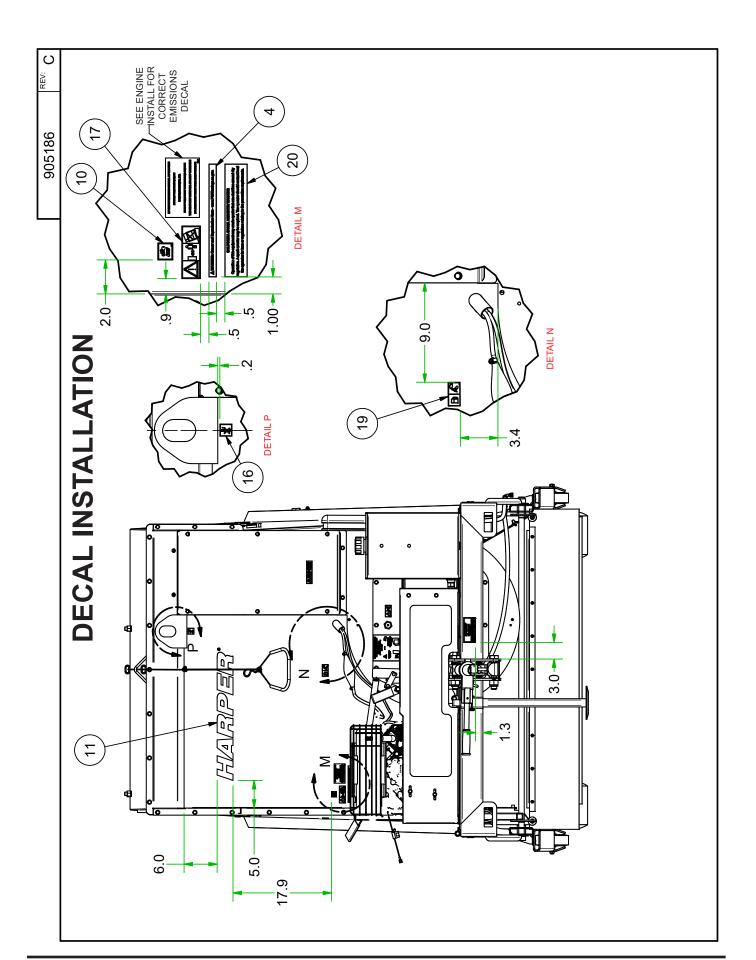


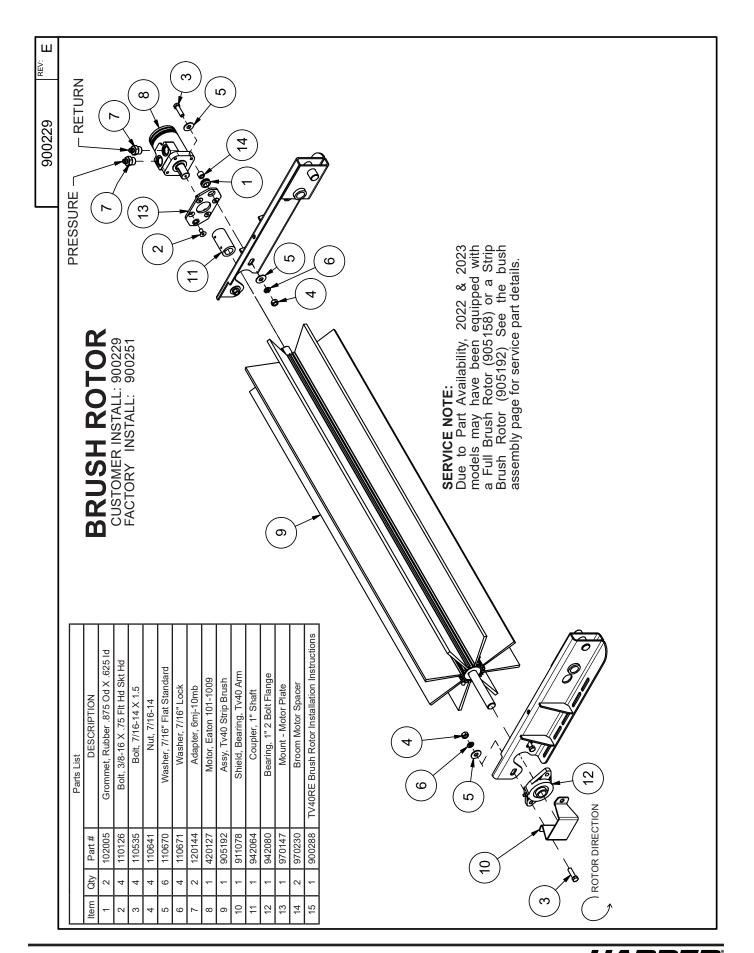


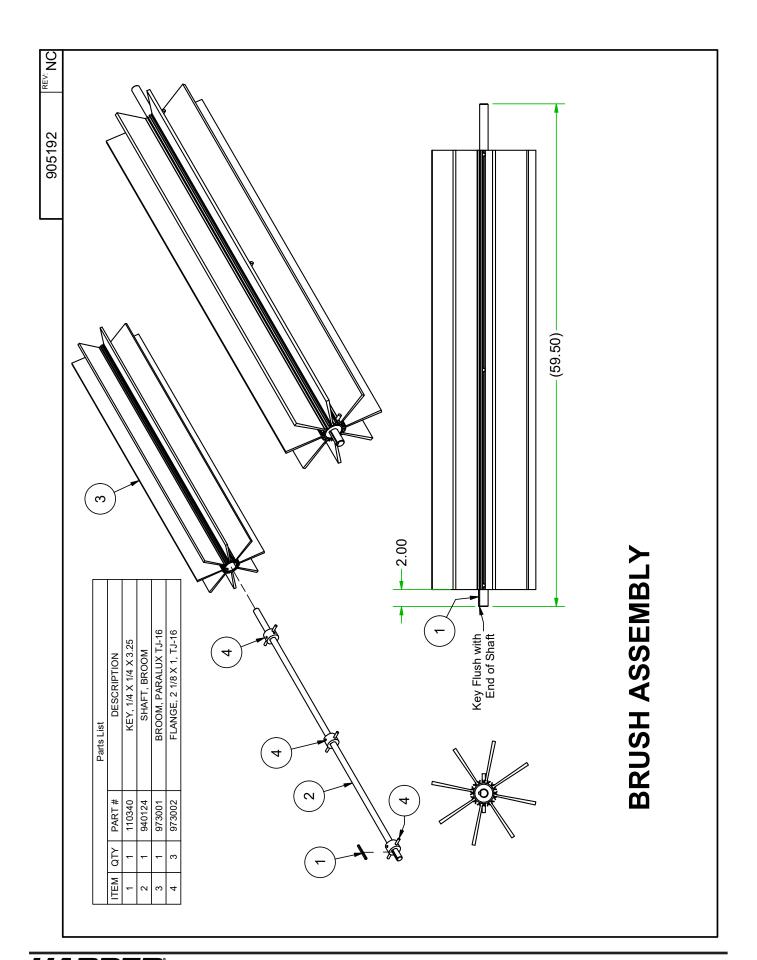


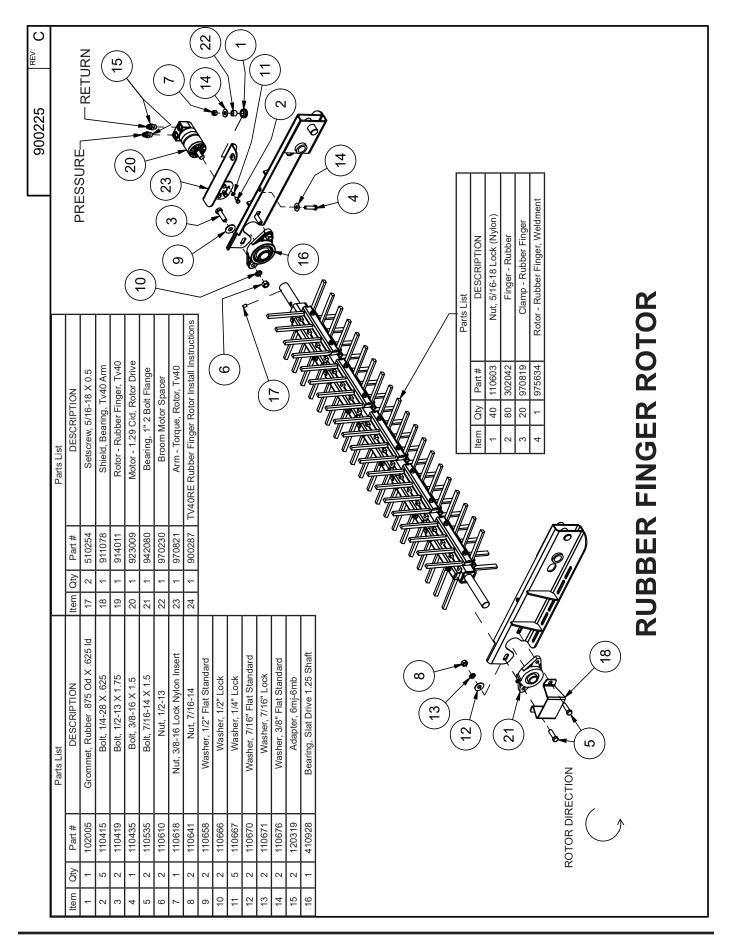


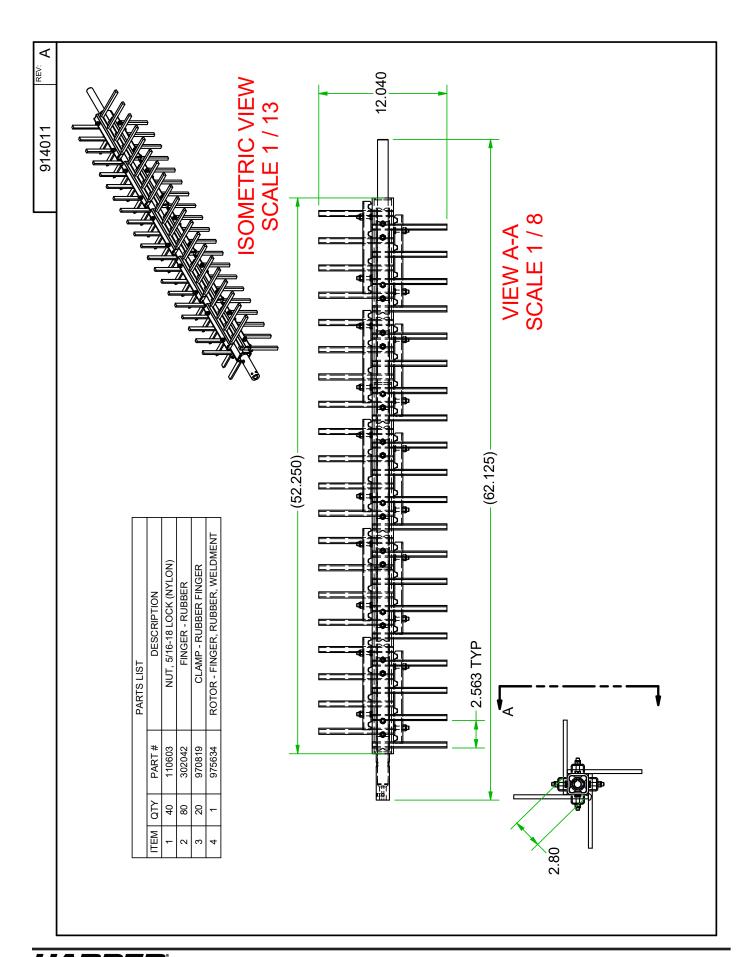




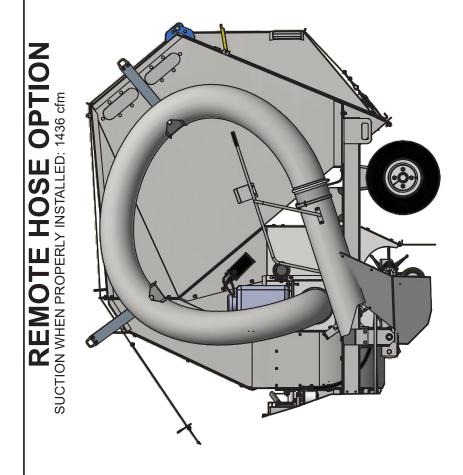






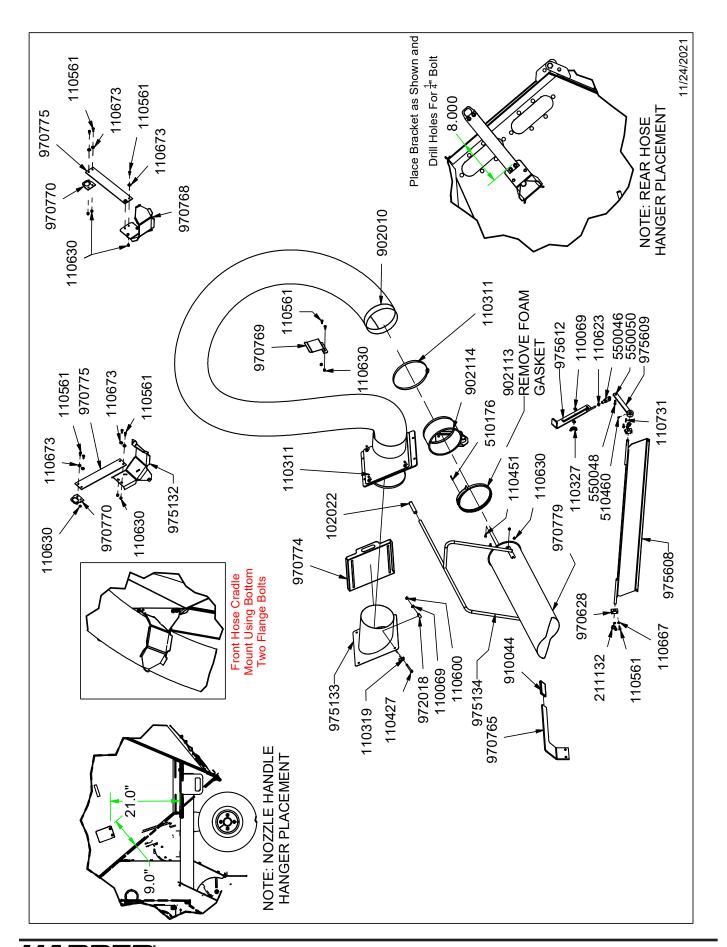


	900217 REV: B
905081: KIT,	SMALL PARTS, 8" HOSE OPTION
Part #	DESCRIPTION
102022	Cover, Vinyl 5/8" X 4 3/4"
110069	Washer, 5/16" Flat Sae
110311	Clamp, Hose #912 8.00"
110319	Nut, 5/16-18, U-Type
110327	Nut, 5/16 Wing
110427	Bolt, 5/16-18 X 2.5 Tap
110437	Bolt, 3/8-16 .75 Wiz Fing Zinc
110451	Bolt, 1/4-20 X .5, Machine Head
110539	Bolt, 7/16-14 X 1.25
110561	Bolt, 1/4-20 X .75 Hhcs Zinc
110561	Bolt, 1/4-20 X .75
110623	Nut, 5/16-24
110630	Nut, 1/4-20, Lock Nylon
110645	Nut, 3/8-16, Wiz Flng
110667	Washer, 1/4 Lock
110673	Washer, 1/4" Flat Standard
110731	1/8
211132	Bushing, .625 X .5
510176	Cotter Pin, 1/8 X 1
510460	Set Screw, 1/4-20
550046	Clevis Yoke, 5/16-24
550048	Clevis Pin, 5/16
550050	Cotter Pin, 3/32 X 1
910044	Cover, Vinyl .25 X 1.5 X 4 Grip
970628	Flap Pivot Block
970770	Ring, Hose Hanger
972018	Spring, Compression
902010	Hose & Hose
902113	Clamp, Nozzle Swivel
902114	; Hose
970765	Bracket, Nozzle Support
970768	Cradle, Rear Hose
970769	Hanger, Nozzle Handle
970774	Slide, Hose Option
970775	Hanger Strap
970779	Nozzle Tube
975132	Front Hose Cradle Weldment
975133	Side Hose Adapter Weldment
975134	Nozzle Handle Weldment
975608	Flap Weldment
975609	Flap Arm Weldment
975612	Flap Handle Weldment
	-

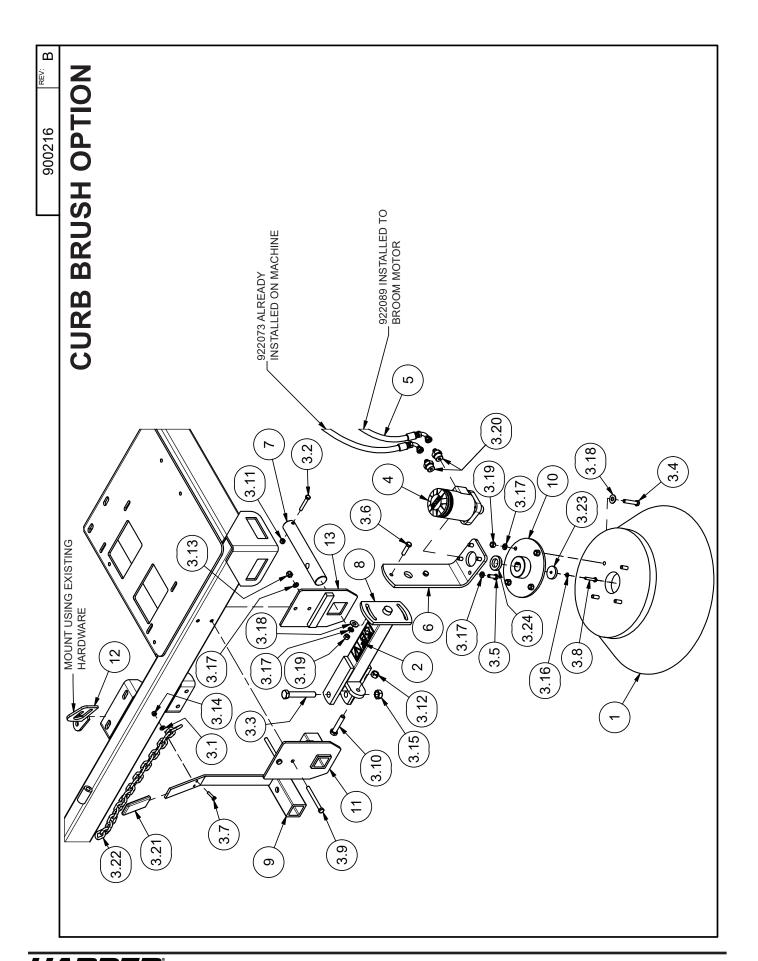


TV40RE Remote Hose Install Instructions

900286







NOTES

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