

8000 PROPANE RIDE-ON SCRAPER

SERVICE MANUAL



Read Manual Before Servicing Machine

402974 Rev G

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Specifications



Product Specifications							
Width	Length	Height	Weight (Machine Only)	Weight	Speed	RPM	HP
30" (76.2 cm)	63" (160 cm)	61" (155 cm)	1,809 lbs (821 kg)	2,842 lb (1,289 kg)	Up to 200 ft/min. (61 m/min.)	2950	25 (18.6 kW)

Machine Variants			
Region	Serial Number	Body Panels	Slide Plate
Domestic (North America)	8000-10XXXX	Silver Vein	Dual Lift
	8000-12XXXX	Green	Dual Lift
	8000-23XXXX	Silver Vein	Dual Lift
International	8000-31XXXX	Silver Vein	Dual Lift
	8000-33XXXX	Silver Vein	Dual Lift

GENERAL RULES FOR SAFE OPERATION

Before use, anyone operating or performing maintenance on this equipment must read and understand this manual, as well as any labels packaged with or attached to the machine and its components. Read the manual carefully to learn equipment applications and limitations, as well as potential hazards associated with this type of equipment. Keep manual near machine at all times. If your manual is lost or damaged, contact National Flooring Equipment (NFE) for a replacement.

Personal

Dress properly and use safety gear.

Do not wear loose clothing; it may be caught in moving parts. Anyone in the work area must wear safety goggles or glasses and hearing protection. Wear a dust mask for dusty operations. Hard hats, face shields, safety shoes, etc. should be worn when specified or necessary. Wear the provided Carbon Monoxide (CO) lapel monitor when operating.

Maintain control; stay alert.

Keep proper footing and balance, and maintain a firm grip. Observe surroundings at all times. Do not use when tired, distracted, or under the influence of drugs, alcohol, or any medication that may cause decreased control.

Keep hands away from all moving parts and blades.

Wear gloves when changing blades. Remove blade when machine is not in use and/or lower cutting head to the floor.

Do not force equipment.

Equipment will perform best at the rate for which it was designed. Excessive force only causes operator fatigue, increased wear, and reduced control.

Environment

Avoid use in dangerous environments.

Do not use in rain, damp or wet locations, or in the presence of explosive atmospheres (gaseous fumes, dust, or flammable materials). Remove materials or debris that may be ignited by sparks. Keep work area tidy and well-lit - a cluttered or dark work area may lead to accidents. Extreme heat or cold may affect performance.

Protect others in the work area and be aware of surroundings.

Provide barriers or shields as needed to protect others from debris and machine operation. Children and other bystanders should be kept at a safe distance from the work area to avoid distracting the operator and/or coming into contact with the machine. Operator should be aware of who is around them and their proximity. Support personnel should never stand next to, in front of, or behind the machine while the machine is running. Operator should look behind them before backing up.

Guard against electric shock.

Prevent bodily contact with grounded surfaces, e.g. pipes, radiators, ranges, and refrigerators. When scoring or making cuts, always check the work area for hidden wires or pipes.

Equipment

Use proper parts and accessories.

Only use NFE-approved or recommended parts and accessories. Using any that are not recommended may be hazardous.

Ensure accessories are properly installed and maintained.

Do not permanently remove a guard or safety device when installing accessories.

Inspect for damaged parts.

Check for misalignment, binding of moving parts, loose fasteners, improper mounting, broken parts, and any other conditions that may affect operation. If abnormal noise or vibration occurs, turn the machine off immediately. Do not use if ignition switch does not turn machine on and off. For repairs, insist on identical NFE parts.

Maintain equipment and labels.

Keep handles dry, clean, and free from oil and grease. Keep cutting edges sharp and clean. Follow instructions for lubricating and changing accessories. Motor and switches should be completely enclosed at all times with no exposed wiring. Inspect cord regularly. Labels carry important information; if unreadable or missing, contact NFE for a free replacement.

Avoid accidental starting; store idle equipment.

When not in use, ensure that the machine's propane valve is closed. Store in a dry, secured place. Remove blades when storing, and keep away from children.

Wear CO lapel monitor (NFE # 75007) when operating.

The presence of CO will change the impregnated silica color from red to burgundy, then to gray or black as the concentration levels increase. Once the detector is exposed to fresh air, it will return back to red. An unopened pack will last 2-3 years (expiration date is visible through unopened package on the back). Once opened it should be replaced approximately every 90 days.

Maintenance & Repairs

Begin maintenance work only when the machine is shut down, the propane valve is closed, and the engine has cooled.

Use proper cleaning agents.

Ensure that all cleaning rags are fiber-free; do not use any aggressive cleaning products.

Ensure machine is properly cleaned and serviced.

Remove all traces of oil, combustible fuel, or cleaning fluids from the machine and its connections and fittings. Retighten all loose fittings found during maintenance and repair work. Loose or damaged parts should be replaced immediately; use only NFE parts.

Do not weld or flame-cut on the machine during repairs without authorization from NFE.

Safety

RIDE-ON SCRAPER SAFETY GUIDELINES

Before use, anyone operating this equipment must read and understand these safety instructions.

Scraping

Do not drive machine along hills or uneven surfaces.

The weight of the machine may become distributed differently if on an uneven surface. Too much of an angle could make the machine unsafe or cause it to tip over. Always keep the front of the machine facing downward while traveling up or down ramps or inclines. Do not run the machine in unsafe environments.

Observe location of electrical supplies and extension cords.

Do not allow cutting heads to come into contact with any electrical supply or extension cord.

Operator must be seated before starting machine and should stay seated until motor has stopped running.

This machine is equipped with a safety switch under the seat, which requires the operator to be seated before the machine can be operated. Do not attempt the start-up procedure without first being seated on the machine.

Be aware of protrusions (stud anchors, re-bar, threaded rod, etc.), cracks, and expansion joints.

Battery

Remove personal metal items when working with batteries.

A battery can produce a short circuit current sufficient enough to weld metal objects, causing severe burns. Be careful to not drop metal tools on the battery, as a spark or short circuit could cause an explosion.

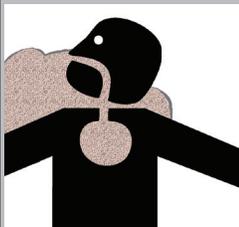
Never smoke or allow a spark or flame near the battery.

Do not block the machine's air flow.

Blocking ventilation slots or air flow will result in damage to the machine. Leave space for air to flow freely during operation.



WARNING: BE CAUTIOUS WHEN WORKING WITH BATTERY. IF ELECTROLYTIC ACID GETS IN THE EYES, IMMEDIATELY FLUSH OUT WITH COLD, FRESH WATER FOR AT LEAST 10 MINUTES AND GET MEDICAL HELP.



WARNING: GRINDING/CUTTING/DRILLING OF MASONRY, CONCRETE, METAL AND OTHER MATERIALS CAN GENERATE DUST, MISTS AND FUMES CONTAINING CHEMICALS KNOWN TO CAUSE SERIOUS FATAL INJURY OR ILLNESS, SUCH AS RESPIRATORY DISEASE, CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. IF YOU ARE UNFAMILIAR WITH THE RISKS ASSOCIATED WITH THE PARTICULAR MATERIAL BEING CUT, REVIEW THE MATERIAL SAFETY DATA SHEET AND/OR CONSULT YOU EMPLOYER, THE MATERIAL MANUFACTURER/SUPPLIER, GOVERNMENTAL AGENCIES SUCH AS OSHA AND NIOSH AND OTHER AUTHORITIES ON HAZARDOUS MATERIALS. CALIFORNIA AND SOME OTHER AUTHORITIES, FOR INSTANCE, HAVE PUBLISHED LISTS OF SUBSTANCES KNOWN TO CAUSE CANCER, REPRODUCTIVE TOXICITY, OR OTHER HARMFUL EFFECTS. CONTROL DUST, MIST AND FUMES AT THE SOURCE WHERE POSSIBLE. IN THIS REGARD USE GOOD WORK PRACTICES AND FOLLOW THE RECOMMENDATIONS OF THE MANUFACTURER/SUPPLIER, OSHA/NIOSH, AND OCCUPATIONAL AND TRADE ASSOCIATIONS. WHEN THE HAZARDS FROM INHALATION OF DUST, MISTS AND FUMES CANNOT BE ELIMINATED, THE OPERATOR AND ANY BYSTANDERS SHOULD ALWAYS WEAR A RESPIRATOR APPROVED BY OSHA/MSHA FOR THE MATERIAL BEING CUT.

HYDRAULIC SAFETY

Maintaining a Safe Work Environment

Establishing a safe work environment in and around your hydraulic equipment is extremely important. The easiest and most effective way to avoid problems is to make sure associates understand their equipment, know how to operate the machines safely, and recognize the dangers if handled carelessly. A few things to be aware of are:

- **Pressure:** Hydraulic fluid under pressure is dangerous and can cause serious injury. Never look for a leak when unit is under pressure. Using your hand could cause serious injury. A few common ways to encounter hydraulic fluid under pressure include:
 - Pinhole: Fluid under pressure can cause serious injury. It can be almost invisible escaping from a pinhole, and it can pierce the skin into the body.



DANGER: DO NOT TOUCH A PRESSURIZED HYDRAULIC HOSE ASSEMBLY WITH ANY PART OF THE BODY. IF FLUID PUNCTURES THE SKIN, EVEN IF NO PAIN IS FELT, A SERIOUS EMERGENCY EXISTS. OBTAIN MEDICAL ASSISTANCE IMMEDIATELY. FAILURE TO DO SO COULD RESULT IN LOSS OF THE INJURED BODY PART OR DEATH.

- Leak: Keep fittings and hoses tight. Only check and service when not under pressure. Leaking hydraulic fluid is hazardous; in addition to making workplace floors slippery and dangerous, it also contaminates the environment. Before cleaning an oil spill, always check EPA, state, and local regulations.
- Burst: Whether due to improper selection or damage, a ruptured hose can cause injury. If it bursts, a worker can be burned, cut, injected, or may slip and fall.
- Coupling Blow-Off: If the assembly is not properly made or installed, the coupling could come off and hit or spray a worker, possibly resulting in serious injury. Never operate machine without guards.
- **Flammability:** When ignited, some hydraulic fluids can cause fires and/or explode. With the exception of those comprised primarily of water, all hydraulic fluid is flammable (including many “fire-resistant” hydraulic fluids) when exposed to the proper conditions. Leaking pressurized hydraulic fluids may develop a mist or fine spray that can flash or explode upon contact with a source of ignition. These explosions can be very severe and could result in serious injury or death. Precautions should be taken to eliminate all ignition sources from contact with escaping fluids, sprays or mists resulting from hydraulic failures. Sources of ignition could be electrical discharges (sparks), open flames, extremely high temperatures, sparks caused by metal-to-metal contact, etc.



CAUTION: NEVER USE YOUR HANDS TO CHECK FOR LEAKS OVER HOSE OR HYDRAULIC CONNECTIONS. USE A PIECE OF CARDBOARD TO LOCATE A PRESSURIZED LEAK. FOR LOW PRESSURE LEAKS (DRIPS), USE A RAG TO CLEAN THE AREA AND DETERMINE WHERE THE LEAK ORIGINATES.

- **Mechanical:** Hydraulic fluid creates movement, which means some equipment may move. Observe surroundings and equipment at all times.
- **Moisture:** Do not use in wet or high moisture conditions.
- **Electrical:** Faulty wiring can be an electrical hazard. A regular preventive maintenance program should always include a wiring check. If applicable, disconnect battery before servicing.
- **Temperature:** Because this machine operates at a relatively low pressure, overheating is not common. If surface of tank becomes too hot to touch by hand (above 130°F or 55°C), shut off machine and allow it to cool.

Hydraulic Fluid

Only use Texaco Rando 46 Hydraulic Oil or compatible fluid like ISO or AW #46 from a brand name manufacturer. Non-compatible fluids could cause damage to unit or serious injury.

Maintenance Schedule

Maintenance to be performed	Interval									
	Daily	First 8 hrs	50 hrs	100 hrs	200 hrs	300 hrs	400 hrs	1000 hrs	After initial 100 hrs	After initial 500 hrs
Check all machine components for build up; clean if necessary	•									
Inspect all safety devices (e-stop, backup beeper, seat switch)	•									
Inspects for leaks (hoses and fittings)	•									
Grease front caster wheel								•		
Check hydraulic oil level					•				•	
Replace the spin-on hydraulic oil filter					•				•	
Change hydraulic fluid								•		•
Check engine oil level	•									
Change engine oil		•	•							
Clean air cleaner foam/paper elements		•	•							
Replace air cleaner paper element						•				
Inspect radiator and fan belt condition/tension					•					
Change coolant							•			
Clean and regap spark plug				•						

It is recommended to perform initial maintenance during the break-in period when first operating the machine. After the first 100 operating hours the hydraulic oil level should be checked and the spin-on hydraulic oil filter should be replaced, then every 200 hours thereafter. At the 500 operating hour mark the hydraulic fluid should be changed. Regular maintenance should be performed according to the schedule.

Note: For additional maintenance and repair information, reference this machine's Service Manual.

Troubleshooting Guide

Problem	Cause	Solution
The scraper does not work when the pump is generating pressure.	Severe blockage in wheel drive motor hoses.	Check for blockage and replace hose(s) if necessary.
	Wheel drive motors are defective.	Call NFE customer service for assistance.
The hoses are worn.	Hoses are rubbing on the components.	Replace and protect the hose.
	Hose has been exposed to poor environmental conditions.	Replace hose and protect equipment from poor conditions.
The machine makes an unusually loud hissing or whistling noise.	Fluid is passing over relief valves.	If noise is continuous, call NFE customer service for assistance.
	There is air in the hydraulic circuit.	Check all suction lines; tighten all hose connections and fittings.
Oil deposits are evident on the inner sides of the wheels.	Seal is worn.	Have shaft seals replaced by a specialist.
	Hose fitting is loose or worn.	Tighten hose fitting; replace hose or fitting if necessary
The machine has no power with the engine running at 2,950 RPM.	Valve adjustment or hoses might have leaks.	Contact NFE customer service immediately. Do not operate in this condition.
The scraper does not react when the motion control joystick is actuated.		
The hydraulic oil is very cloudy.	Water has entered hydraulic tank.	Drain and clean tank thoroughly, change oil, and repair tank if necessary.
	Oil is contaminated with dirt.	Drain and clean tank thoroughly, and change oil.
	Air has entered the circuit. Stop machine and repair immediately!	Check all suction lines; tighten all hose connections and fittings.
There is an excessive amount of oil on chassis.	Outside oil spilled on chassis.	Clean machine thoroughly and see if the problem persists.
	Loose hose connections.	Tighten loose hoses.
	Loose tank fittings.	Tighten loose fittings.
Hydraulic oil and/or oil foam leaking from oil tank.	Oil level is too high.	Drain tank to correct level.
	Oil level is too low.	Fill tank to correct level.
	Vent in return filter is blocked.	Check for blockage.
	Air has entered the circuit. Stop machine and repair immediately!	Check all suction lines; tighten all hose connections and fittings
Engine dies or cuts out.	Fuel tank is empty.	Change or fill fuel tank.
	Oil is low.	Fill oil to proper level.
	Operator is not seated properly.	Ensure operator is seated correctly.
Red ignition light stays on.	Oil is Low.	Fill oil to proper level.
	Machine is overheating.	Let engine cool; add coolant to proper level.
Machine doesn't start.	Machine needs to be primed.	Press primer button once, then restart machine.

Maintenance

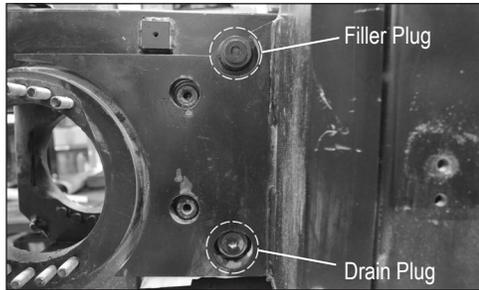


FIG. 1



CAUTION: LET ENGINE COOL BEFORE ANY MAINTENANCE. FAILURE TO DO SO COULD CAUSE SERIOUS BODILY INJURY.

DUAL SLIDE PLATE REMOVAL

1. Lower the slide plate to the floor and place a wood block under the assembly.
2. Remove the front cylinder by taking the 1/2" bolt out of the bottom and removing the hitch clips and pin from the top of the cylinder.
3. Remove the E-clips from the pin at the bottom of the internal cylinder, then remove the pin.
4. Remove the pin from the top of the internal cylinder and then remove the cylinder from the machine.
5. Loosen the pinch bolt from the lower right side of the frame.
6. Remove the lock nut from securing bolts at the top of the slide plate.
7. Remove the socket head screws at the top of the dual slide from both sides of the assembly.
8. Install 3/8-16x5" bolts into the holes the socket head screws were removed from. Once installed the bolts should be used as lifting handles.
9. Lift the frame out of the machine, use team lift or forklift (Caution: very heavy).

LEAK MAINTENANCE

Most fittings on this machine are O-ring style.

1. Disconnect machine from power.
2. If a leak is detected, tighten fitting with the proper wrench size. Do not over-tighten.
Note: Most fittings on this machine are O-ring style. Over-tightening could damage to O-rings.

HYDRAULICS

Check Fluid Level

1. Remove filler plug (Figure 1).
2. Oil should be visible 1" below hole.
3. Reinsert plug.

Change Fluid

1. Let hydraulic fluid cool before maintenance. Disconnect machine from battery.
2. Drain fluid by removing the drain plug from side of tank (Figure 1). This unit contains 6 gallons (22.7 liters) of fluid. Ensure the container size is adequate to catch fluid.
3. Replace drain plug.
4. Remove filler plug (Figure 1).
5. Add oil into filler plug hole. Total tank capacity is 6 gallons (22.7 liters). Due to a certain amount of retained oil, the oil change refill amount is 5.5 gallons (20.8 liters).
NOTE: Adding more than this amount could cause the oil to overflow from the vent tube.

Replace Cylinder

1. Follow shut-down procedure.
2. Disconnect cylinder lines. Have a container ready to catch oil from lines.
3. Remove cylinder securing hexhead bolt from lower cutting head support.
4. Remove clips and pin from cylinder and slide plate.
5. Remove cylinder upper pin.
6. Remove cylinder.

Remove or Replace Hose

1. Follow shut-down procedure.
2. Remove hood.
3. Using proper wrench size, turn the swivel nut while using a second wrench to keep the hose from turning.
4. When replacing, make sure O-ring is properly seated on hose fitting.

REMOVE/REPLACE FOOT PEG

1. Insert a socket wrench into foot peg and secure bolt head.
2. Remove nut.
3. Remove bolt and foot peg.
4. Replace foot peg before operating machine. Do not operate machine without foot pegs.

Maintenance

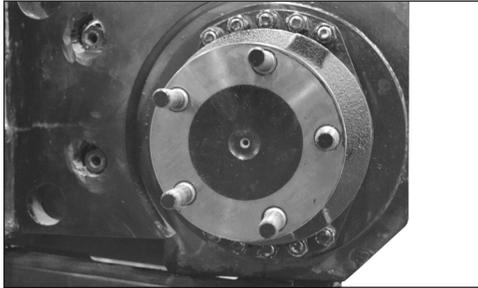


FIG. 2

REPLACE PUMP

1. Open hood to expose pump.
2. Disconnect hydraulic lines.
3. Remove two 5/16" pump securing bolts.
4. Remove pump by pulling pump straight out from pump motor.

REPLACE VALVE

1. Disconnect machine from power (charger or battery).
2. Lift hood all the way back, resting on the hood bumpers.
3. Remove hoses from valve body. Mark which hoses go where, so that they can be placed back in the same order. Damage can occur if hoses are mixed up. Have a container ready to catch leakage from lines.
4. Take notice of angle of valve fittings.
5. Remove two 5/16-18" bolts securing valve body.

REPLACE WHEEL MOTOR

1. Disconnect machine from power.
2. Block up machine to remove wheel.
3. Remove wheel.
4. Remove oil lines from wheel motor. A small amount of oil will run out of the lines. Drain into a container. Wipe up spills immediately.
5. Remove ten 1/2" wheel motor securing nuts.
6. Pull out on wheel motor to remove.

REPLACE WHEEL

1. Jack machine up by pushing cylinder lift forward to lower and adjust the angle of the cutting head to raise machine.
2. Place blocks under Forklift Cups on the side of the machine that wheel is being changed. Make sure machine is supported properly.
4. Let cylinder down resting machine on blocks allowing rear wheel to be lifted off the floor.
5. Remove five 1/2" lug nuts with an extended arm wrench, remove wheel.
6. Replace wheel (Figure 2).
7. Replace five lug nuts and tighten, making sure lug nuts are very tight.
8. Raise cylinder to raise machine off of blocks. Remove blocks and lower machine.
9. Repeat to other side if necessary.



WARNING: WHEELS ARE EXTREMELY HEAVY. ENSURE PROPER TEAM LIFTING TECHNIQUES OR USE PROPER MACHINERY TO LIFT.

SEAT REPLACEMENT

1. Rotate hood to bumper stops.
2. Remove four nuts securing seat rails.
3. Replace seat; screw on nuts.

REPLACE CASTER

Keep clean and free of debris; ensure it can move freely.

1. Give a shot of grease in grease fitting on caster every month to keep caster moving freely.
2. To remove caster, machine will need to be raised. Push the cylinder lift lever forward to lower and adjust the angle of the cutting head to jack up the machine. Block up machine with wooden block. Remove four bolts, pull caster off and clean/replace as needed.
3. Replace caster.
4. Pull caster toward rear of machine; re-place and tighten the four bolts.
5. Lower the machine.



CAUTION: THE BACKUP BEEPER IS ON THE MACHINE FOR SAFETY. IT IS IMPORTANT TO KEEP IT IN GOOD WORKING CONDITION. FAILURE TO DO SO COULD CAUSE BODILY INJURY.

CLEAN AIR CLEANER FOAM ELEMENT

Wash the element in detergent and water and dry thoroughly.

CLEAN AIR CLEANER PAPER ELEMENT

Clean the paper element by tapping it gently against a flat surface to remove the dust. If the element is very dirty replace it with a new one.

Note: When operating in dusty conditions engine may require more frequent maintenance.



CAUTION: DO NOT USE PETROLEUM SOLVENT TO CLEAN PAPER ELEMENT. DO NOT OIL PAPER ELEMENT. DO NOT USE PRESSURIZED AIR TO CLEAN OR DRY PAPER-ELEMENT.

CHECK ENGINE OIL

Check dip stick on engine. Engine holds 1.75 qt of oil. Improper fluid level will cause engine damage. See Kawasaki manual to change oil.

CHANGE ENGINE OIL AND FILTER

1. Follow shut-down procedure.



CAUTION: STOP THE ENGINE. BE CAREFUL WITH HOT OIL.

2. Lift hood and secure in place.

Maintenance

3. Remove cap from engine oil hose. Drain.
4. Remove engine oil filter.
5. Coat a film of clean engine oil on seal of new filter.
6. Install new filter rotating clockwise until the seal contacts the mounting surface. Rotate filter 3/4 of a turn more by hand to fully tighten down.
7. Replace engine oil.
8. Run the engine for around 3 minutes, stop engine and check for oil leaks around the filter.

CLEAN AND REGAP SPARK PLUG



CAUTION: BEFORE PERFORMING MAINTENANCE ON SPARK PLUG STOP THE ENGINE AND ALLOW TO COOL.

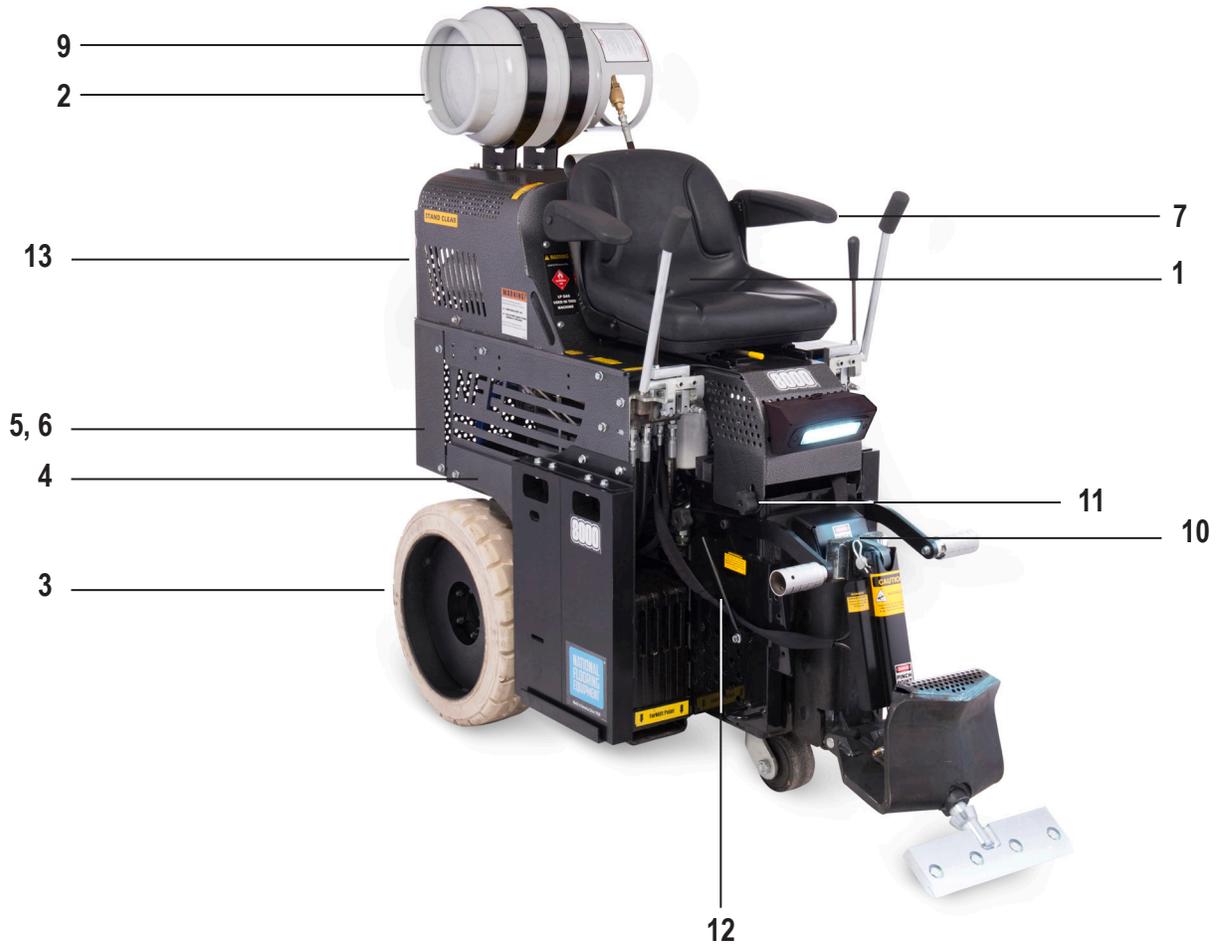
1. Disconnect the spark plug wire lead and remove the spark plug.
2. Scrape or use a wire brush to clean the electrodes and remove carbon deposits and wetness.
3. Inspect for cracked porcelain or other wear or damage. Replace the spark plug with a new one if necessary.
4. Check the spark plug gap and reset it if necessary. The gap must be between 0.7 and 0.8 mm. To change the gap, bend only the side electrode using a spark plug tool.
5. Install and tighten the spark plug to 17 ft-lb torque.
6. Reconnect the spark plug lead.

REPLACE AIR CLEANER

1. Remove the wing bolts, washers, and air cleaner case.
2. Remove the air cleaner elements from the body.
3. Install the elements and the air cleaner parts correctly on the air cleaner body.

Parts List and Diagrams

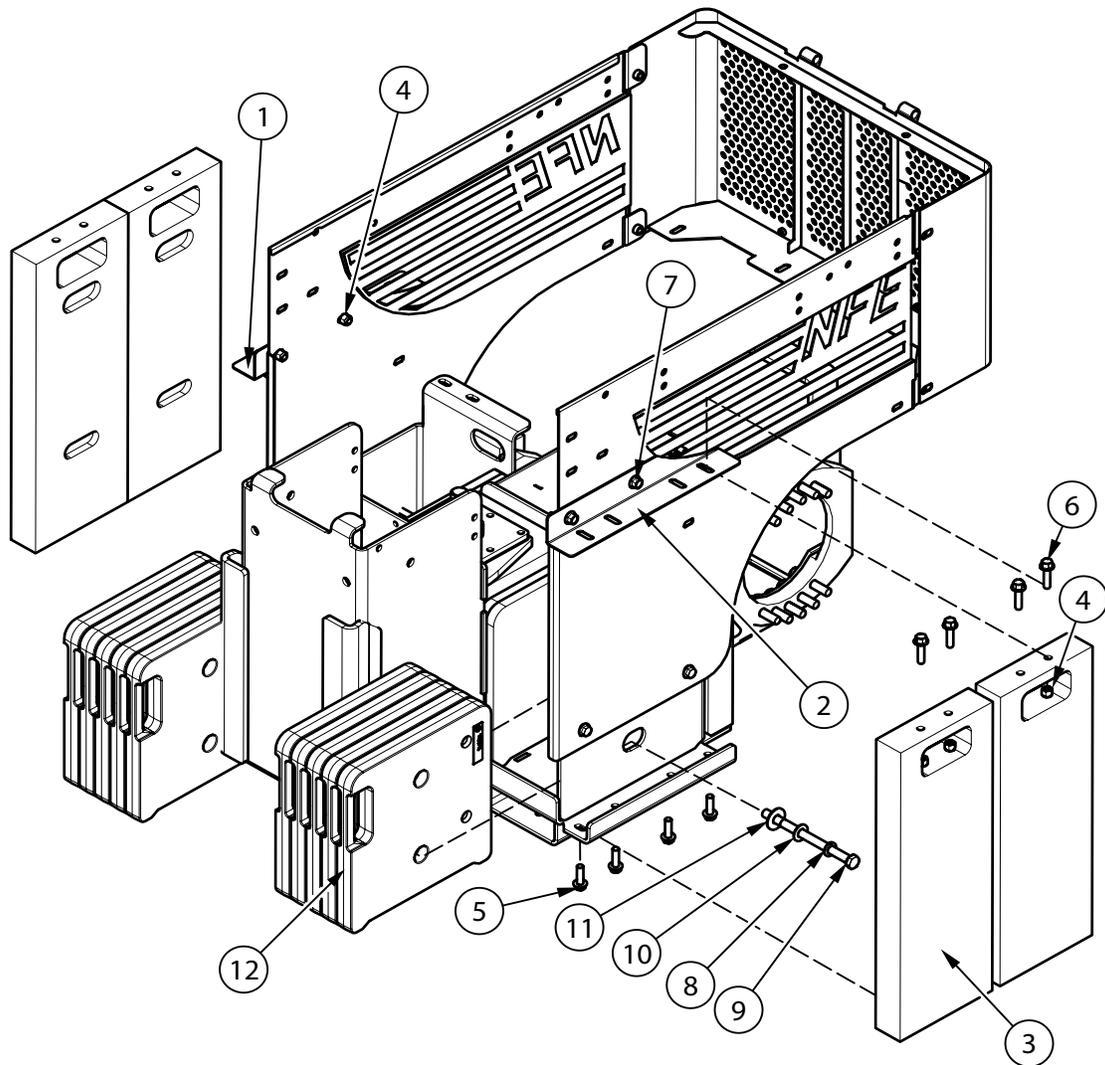
EXTERNAL PARTS



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	5110-111 SEAT, RIDE-ON	1	7	400321 ARMRESTS, KIT FOR PLASTIC SEAT	1
2	402139 TANK, PROPANE, 20LBS	1	8	401561-SV PANEL, SIDE, LEFT, SILVER VEIN (NOT SHOWN)	1
3	401697 WHEEL, HD, 21"	2		401561-G PANEL, SIDE, LEFT, GREEN (NOT SHOWN - 8000-12XXXX ONLY)	1
4	401560-SV PANEL, SIDE, RIGHT, SILVER VEIN	1	9	70628 BRACKET SET, TANK, 33 POUND, LP	1
	401560-G PANEL, SIDE, RIGHT, GREEN (8000-12XXXX ONLY)	1	10	401669 COVER, UPPER HOSE	1
5	404304-SV HINGE, LOWER, BOLT-ON, LOWER WRAP, SIVER VEIN	2	11	401999 KNOB, THREE-LOBE 1/2-13	2
	404304-G HINGE, LOWER, BOLT-ON, LOWER WRAP, GREEN (8000-12XXXX ONLY)	2	12	5200-603 HOSE GUIDE	1
6	404303-SV SHROUD WELDMENT, LOWER WRAP, BOLTED HINGE, SIVER VEIN	1	13	403132-SV HOOD WLDT, RIDE-ON, SILVER VEIN	1
	404303-G SHROUD WELDMENT, LOWER WRAP, BOLTED HINGE, GREEN (8000-12XXXX ONLY)	1		403132-G HOOD WLDT, RIDE-ON, GREEN (8000-12XXXX ONLY)	1

Parts List and Diagrams

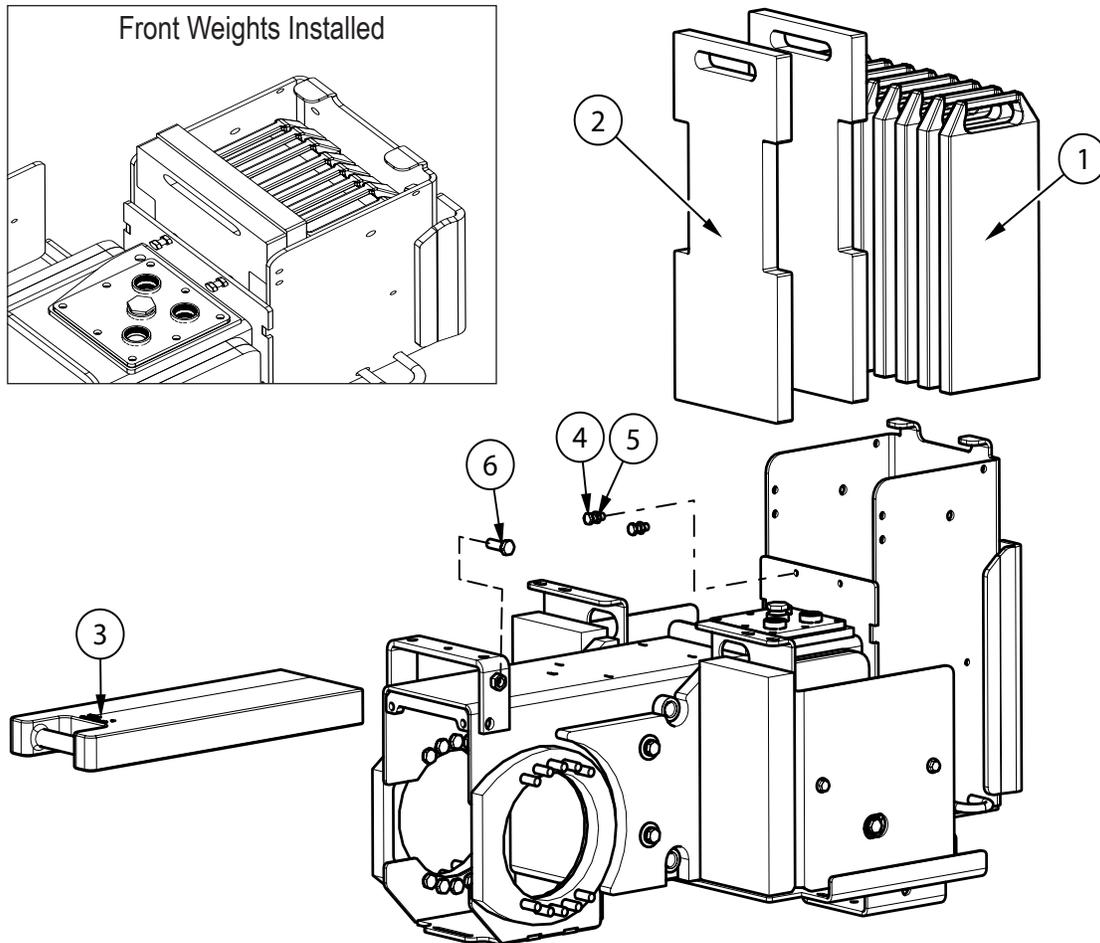
REMOVABLE WEIGHTS—OUTER AND POCKET



Item No.	Part Number	Description	Qty
1	401961	Bracket, Weight, Right	1
2	401962	Bracket, Weight, Left	1
3	402102	Weight, Outer, XL	4
4	73207	Nut, Hex, Nylon Insert, 3/8-16	12
5	73223	Bolt, Wizlock, 3/8-16x1-1/4	8
6	73238	Bolt, Wizlock, 3/8-16x1-1/2	8
7	73259	Bolt, Wizlock, 3/8-16x3/4	4
8	73403	Washer, Split lock 1/2	2
9	73414	Bolt, HHCS, 1/2-13x 7	2
10	73424	Washer, Flat, Zinc SAE 1/2	2
11	73425	Washer, Flat USS Zinc 1/2	2
12	74854	Weight, Pocket, Cast, Ride On	10

Parts List and Diagrams

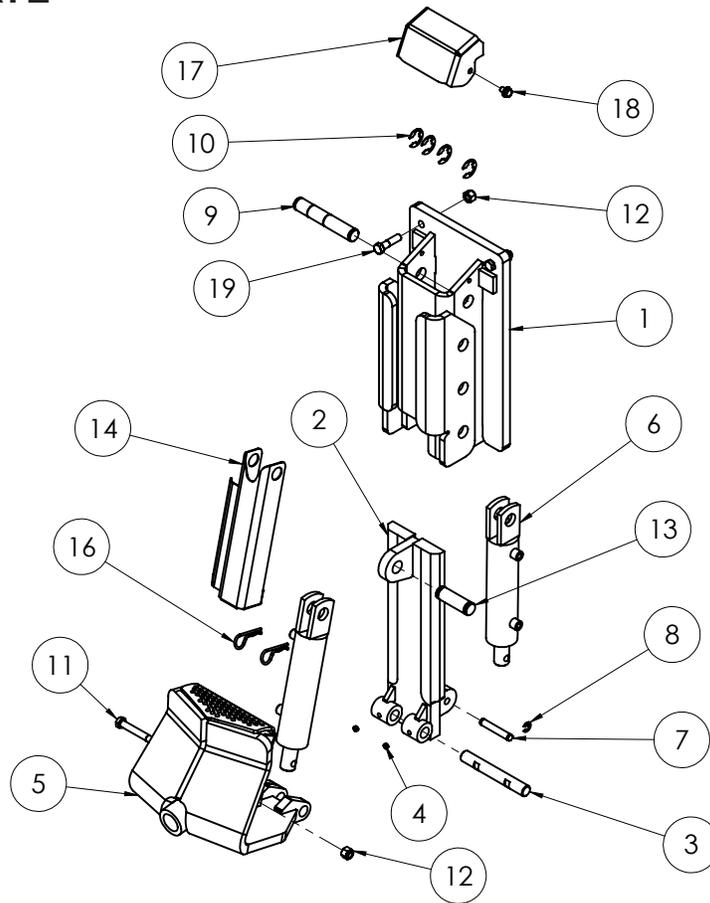
REMOVABLE WEIGHTS—FRONT AND REAR



Item No.	Part Number	Description	Qty
1	400197	Weight, Front, 16.5 X 6.88	9
2	402137	Weight, Front Take-Up	2
3	5110-404	Bottom Weight	1
4	73201	Screw, Hex Head Cap, 3/8-16 x 1	2
5	73229	Nut, Hex Jam 3/8-16	2
6	73427	Bolt, Hex Head Cap 1/2-13x1-1/2	1

Parts List and Diagrams

DUAL SLIDE PLATE

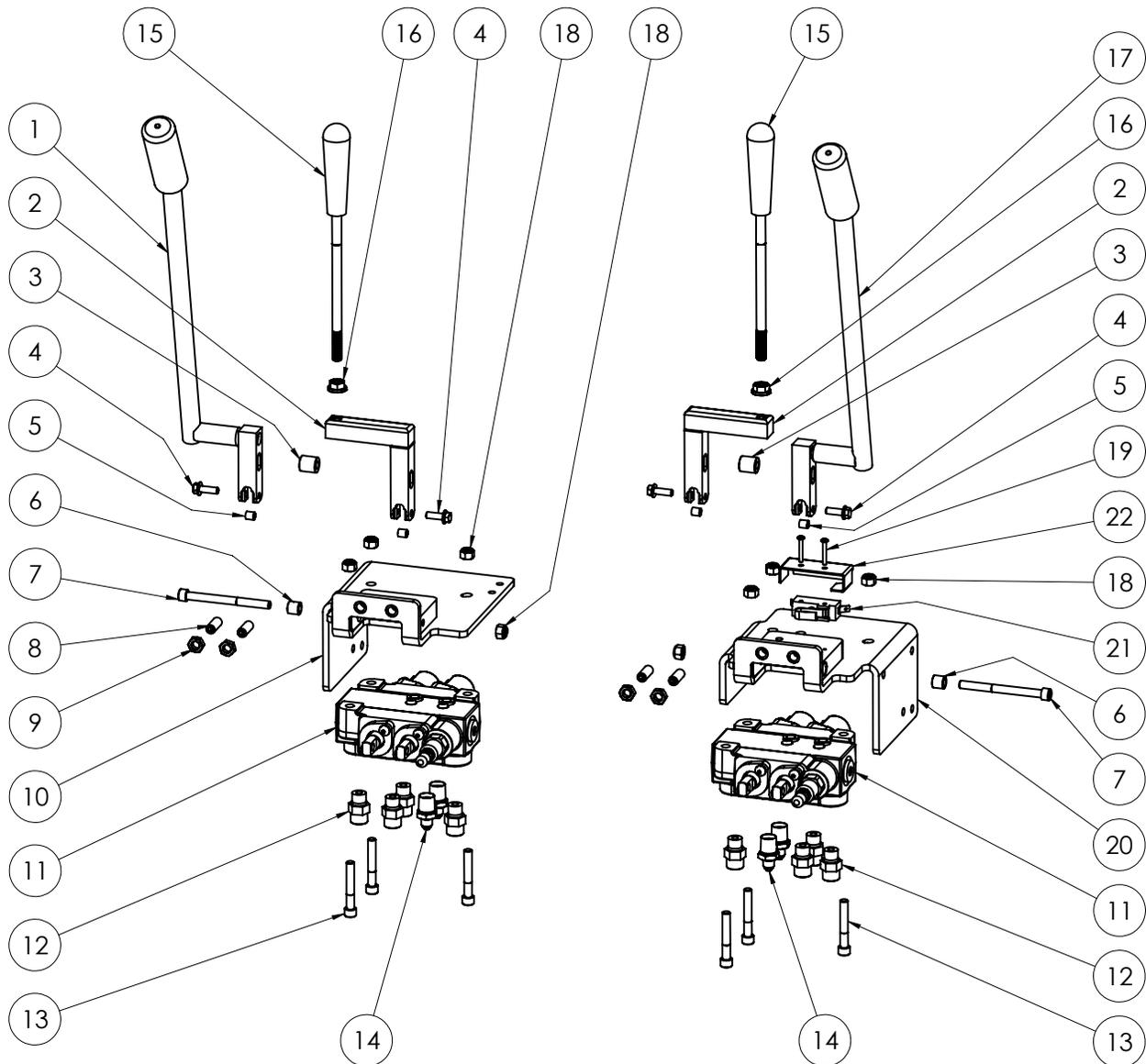


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	402423	Housing, Hydraulic Adjustment, Wildt	1
2	402432	Slide Plate, Hydraulic Adjustment, Wildt	1
3	401429	Pin, Lower Cutting Head Support	1
4	401876	SSS, 3/8-24 x .25, Black Oxide	2
5	402440	Tooling Holder, Weldment	1
6	5110-250	Cylinder NN16	2
7	6500-31	Pin Lower Middle	1
8	80084	E-Clip, 1/2" shaft	2
9	402542	Pin, Upper, Hydraulic Cylinder	1
10	80083	E-Clip, 1" shaft	4
11	400132	Bolt, Hex Head, 1/2-13 x 4, Grade 8	1
12	73402	Nut, Nylock 1/2-13	3
13	402576	Pin, Cylinder/Guard, Upper	1
14	402574	Shield, Cylinder	1
15	400296*	Gasket, EPDM Foam	1
16	73536	5/8 Hitch Pin Clip	2
17	402513	Cover, Hydraulic Adjustment, Housing	1
18	73224	Bolt, Flange 3/8-16x1/2	2
19	73413	Bolt, Hex Head 1/2-13x2	2

*-NOT SHOWN

Parts List and Diagrams

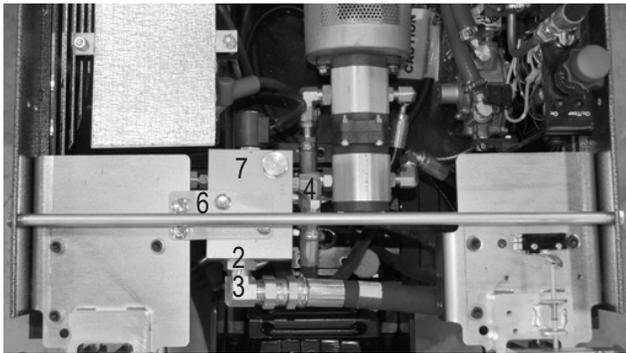
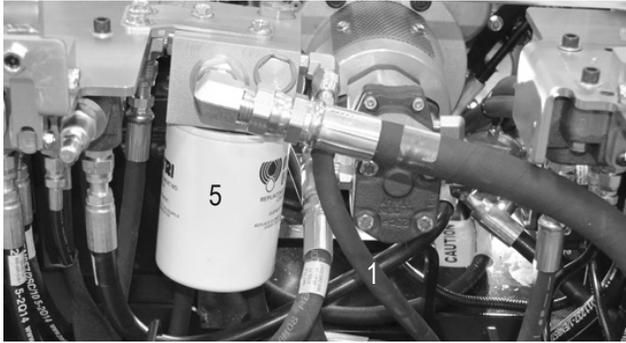
LEVERS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	402416	Assembly, Valve Handle, Right	1	12	70651	Plug, Valve Body	8
2	401797	Bracket, Universal, Lever	2	13	73320	Bolt, Socket Head Cap 5/16-18x2	6
3	401408	Spacer, Round, .323 X .625 X .675	2	14	5110-268	Fitting, Valve Straight	4
4	73027	Bolt, Wizlock, 1/4-20 X 3/4	4	15	5700-60	Handle, Valve Adjustment	2
5	401604	Bushing, Lever, Hydro Valve	4	16	73211	Nut, Flange, Serrated, 3/8-16	2
6	402227	Sleeve, Take-up, Valve Brkt	2	17	402415	Assembly, Valve Handle, Left	1
7	73321	Bolt, SHCS, 5/16-18x3.5	2	18	73322	Nut, Nyloc, 5/16-18	8
8	73227	Screw, Set 3/8-24x1	4	19	74517	Screw, PPH-MS, 6-32x1	2
9	73235	Nut, Hex Jam 3/8-24	4	20	401795	Bracket Wldt, Valve, LH	1
10	401796	Bracket Wldt, Valve, RH	1	21	403064	Switch, Back-up Beeper	1
11	401834	Valve, Metered, Dual Spool, High PSI	2	22	402949	Cover, Switch, Back-Up	1

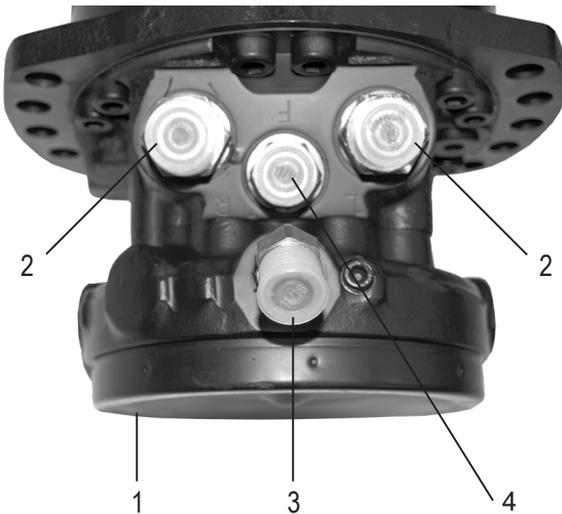
Parts List and Diagrams

HYDRAULIC PARKING BRAKE



	PART#	DESCRIPTION	QTY
1	402205	HOSE, PARKING BRAKE RELEASE, L	2
2	402154	FITTING, #12 O-RING BOSS TO #1	1
3	70653	FITTING, 90 DEGREE	1
4	402199	FITTING, #4 O-RING BOSS TO #6	2
5	5700-65	FILTER	1
6	401972	BRACKET, VALVE BLOCK	1
7	401973	HOUSING, HYDRAULIC, ASSEMBLY	1
8	400034	FITTING, FF1231-06-08 (NOT SHOWN)	2

WHEEL MOTOR

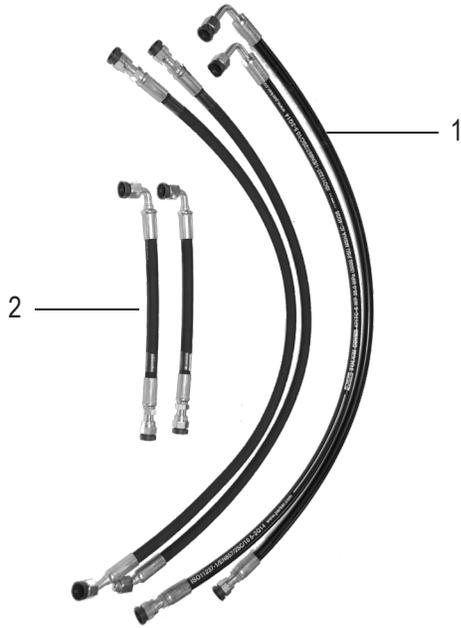


	PART#	DESCRIPTION	QTY
1	401592	WHEEL MOTOR, POCLAIN W/ BRAKE	2
2	5110-114-2	FITTING, WHEEL MOTOR	4
3	5110-264	FITTING, VALVE, 45 DEGREE	2
4	400034	FITTING, FF1231-0608	1

Parts List and Diagrams

WHEEL MOTOR HOSES

	PART#	DESCRIPTION	QTY
1	401632	HOSE, HYDRAULIC, 3/8X41.75, F/F, 5KSI	4
2	5700-75	HOSE, HYDRAULIC, 3/8 X 13, F/90F	2



TOP-MOUNT FUEL LINE

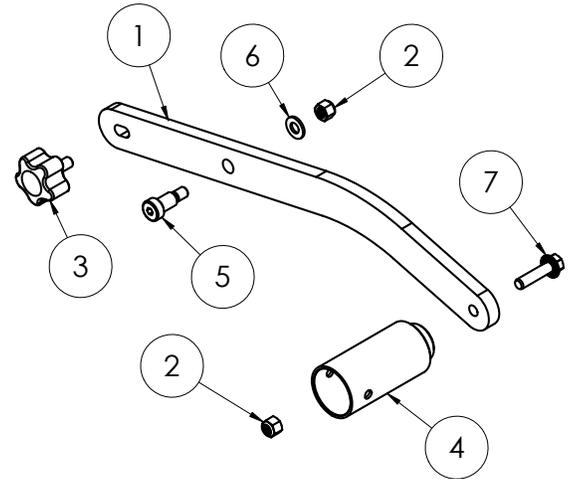


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	403219	Hose, LPG, Top-Mount	1

Parts List and Diagrams

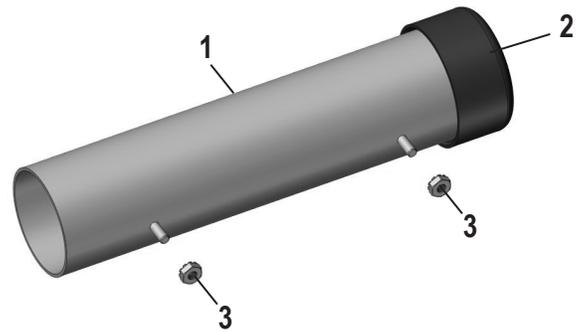
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	402298	Bracket, Pivot, Footrest	1
2	73207	NUT, NYLOCK, 3/8-16	2
3	401999	Knob, Adjustable, 3/4"	1
4	5110-180	Peg, Foot	1
5	402460	Bolt, Shoulder, .500 x .75, 3/8-16	1
6	73263	WASHER,FLAT SAE ZINC 3/8	1
7	73238	Bolt, Flange 3/8-16x1-1/2	1

FOOT PEGS



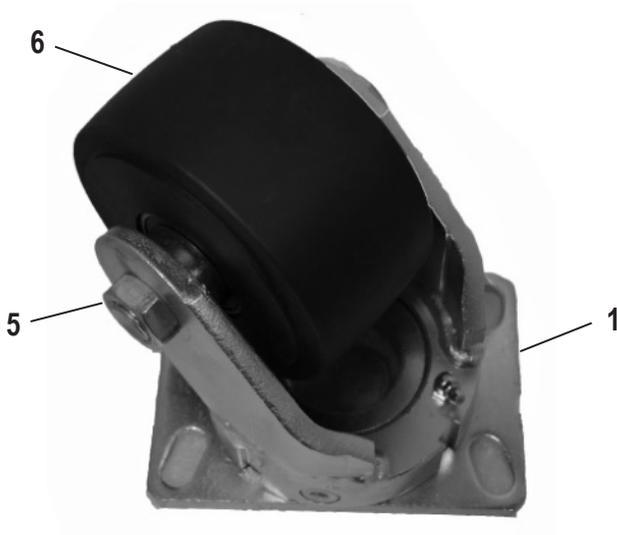
PART#	DESCRIPTION	QTY
1 70602	INSTRUCTION MANUAL TUBE	1
2 70603	INSTRUCTION TUBE CAP	1
3 74425	NUT, KEPS LOCK 10-32	2

INSTRUCTION TUBE PARTS



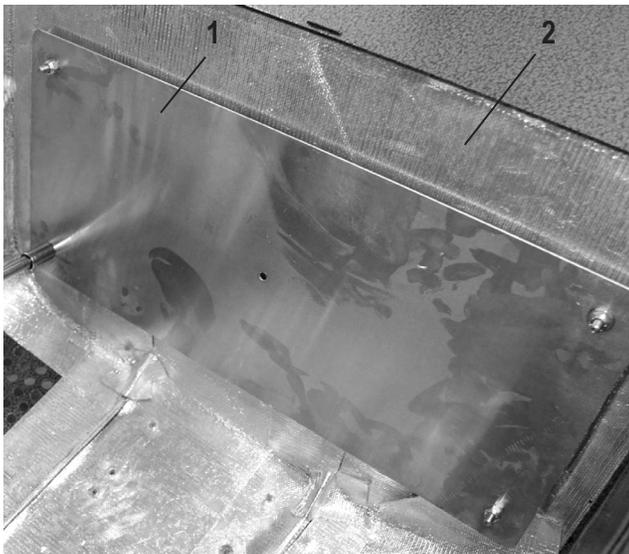
Parts List and Diagrams

CASTER WHEEL ASSEMBLY



PART#	DESCRIPTION	QTY
1 401597	CASTER ASSY, HD, KINGPINLESS, 5", PLATE-MOUNT	1
2 73406	BOLT, HEX HEAD CAP 1/2-13X1-1/4 (NOT SHOWN)	4
3 73424	WASHER, FLAT, ZINC SAE 1/2 (NOT SHOWN)	4
4 73403	WASHER, SPLIT LOCK 1/2 (NOT SHOWN)	4
5 403353	AXLE, INCLUDING NUT	1
6 403354	WHEEL, HD, 5"OD X 3-1/2"W	1

HEAT DEFLECTOR



PART#	DESCRIPTION	QTY
1 5600-80	DEFLECTOR, HEAT	1
2 400280	BARRIER, HEAT, ADHESIVE BACK	5FT

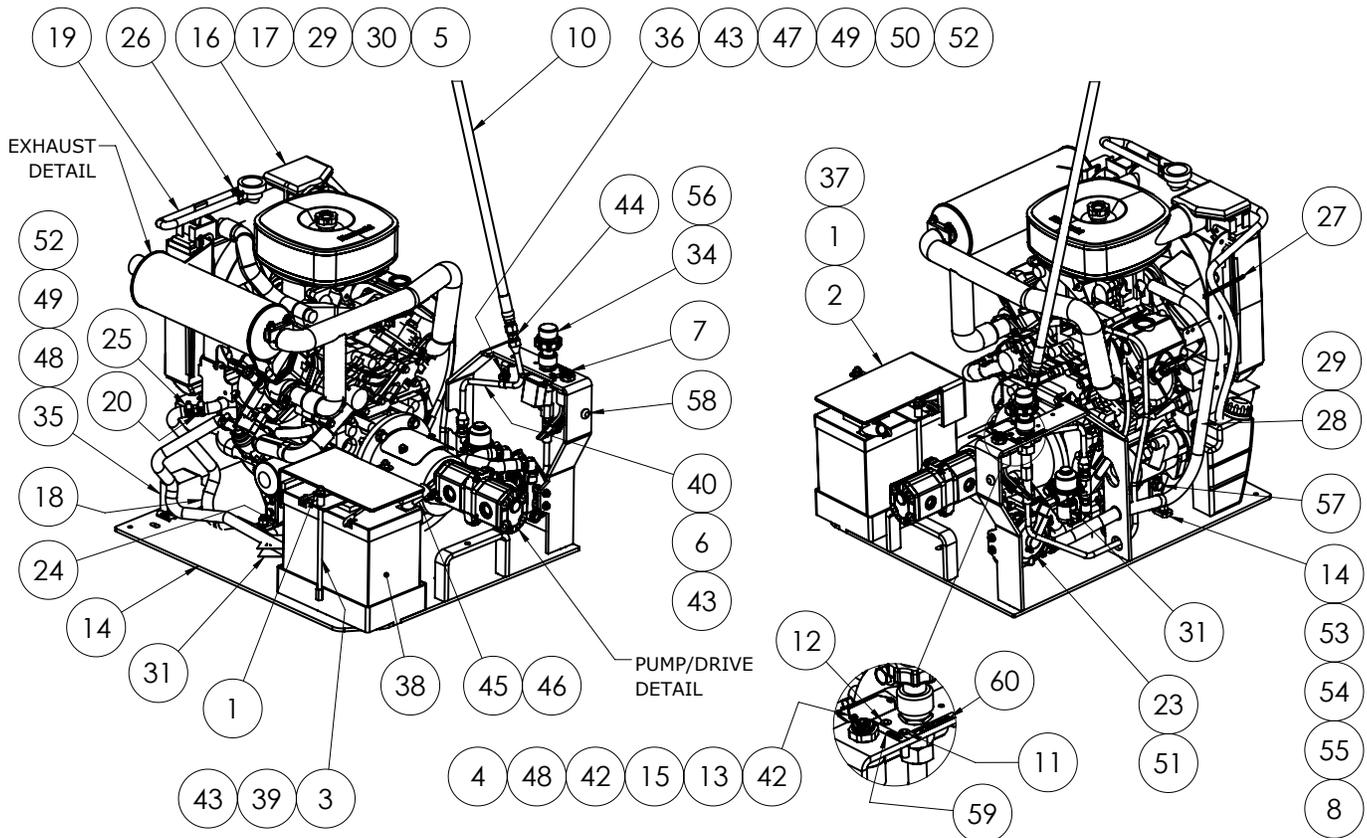
BACKUP BEEPER ASSEMBLY



PART#	DESCRIPTION	QTY
1 5200-116	BEEPER, BACK UP	1

Parts List and Diagrams

MOTOR POD ASSEMBLY



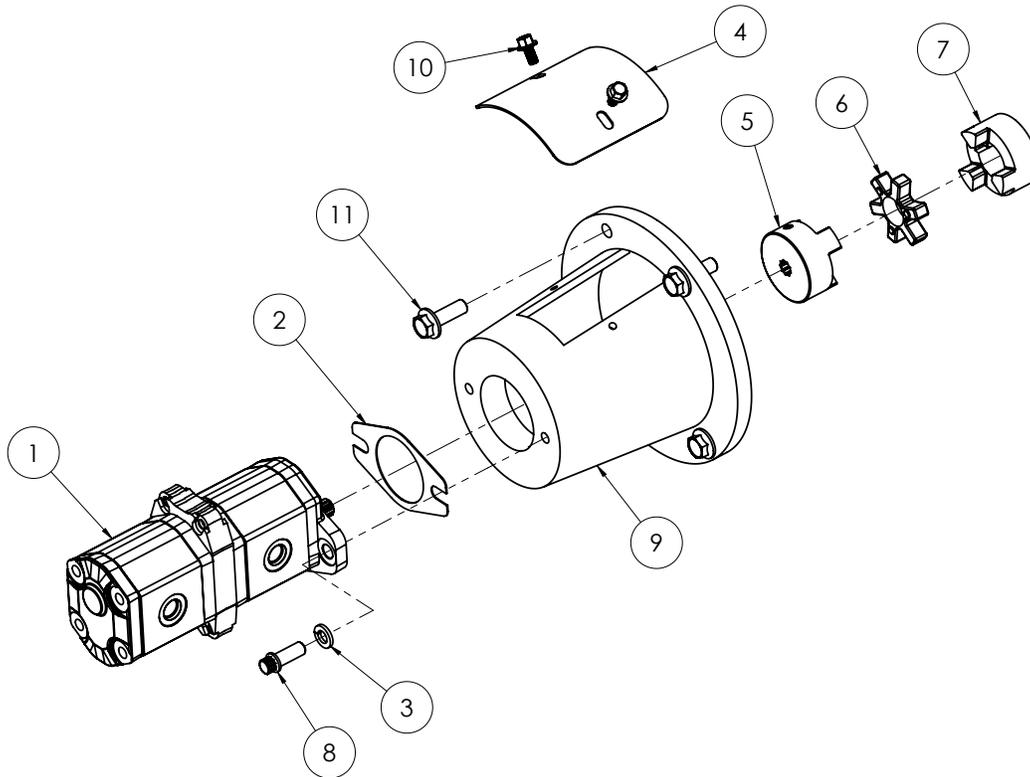
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	400191-1	Cover, Battery, Top	1
2	400280	Barrier, Heat, Adhesive Back	1
3	401418	Rod, Threaded, 5/16-18x9	2
4	401496	Screw, Hex Head Cap, 1/4-20 x 3/8, Clear Zinc	1
5	402109	Bolt, Motor Base, M10 x 25 w/patch	4
6	402313	Washer, Crush, Copper, Fitting	2
7	402367	Switch, Ignition, Keyed, Sealed, Quick Connect	1
8	402803	Bracket, Motor, Torque Control	4
9	* 403217	Harness, Wiring, Motor Pod, Oil Pressure	1
10	403219	Hose, LPG, Top-Mount	1
11	403300	Light, LED, 8mm, Red, 12v, 20mA	1
12	403301	Light, LED, 8mm, Green, 12V, 20mA	1
13	403607	Screw, Button Head Cap, 4-40 x 3/8, Clear Zinc	2
14	404121	Weldment, Base, Motor Pod, Forward Ignition	1
15	404122	Bracket, Meter, Hour, Propane	1
16	400130	Engine, 25HP, Kawasaki	1
17	400144	Fan, Reverse, 25 HP	1
18	400158	Hose, Coolant, 1/2 ID, Silicone	1
19	400167	Hose, Coolant, 1/4 ID, Silicone	1
20	400181	Fitting, Splice, 1/2 ID Hose, Barbed, Brass	1
21	* 402377	Oil, Motor 5W-30	1
22	* 403220	Propane Kit	1
23	403306	Regulator, Propane, IMPCO T-60-A-NP-N	1
24	5600-131	Drain Kit, Engine Oil	1
25	70605	Clamp, Hose, Worm Gear, 1/2	6
26	70656	Clamp, Hose, Mini, 13.5mm	1
27	72840	Tie, Cable, Black 4"	3
28	73027	Bolt, Wizlock, 1/4-20 X 3/4	1
29	73091	Washer, Flat, Zinc, SAE 1/4	9
30	74630	Bolt, Hex Head Cap M6-12 8.8	4
31	L290	Label, Oil Change Plug	1
32	* 404137	Cable, Battery, Red, 32"	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
33	* 404138	Cable, Battery, Black, 24"	1
34	404143	Assembly, Cable, Throttle, Motor Pod	1
35	5200-116	Beeper, Back-up	1
36	5200-217	Bracket, Clamp, Hose	1
37	5200QL-28A	Foam, Battery Cover, 2" x 8"	5
38	5600-121	Battery, 12 Volt, 55 AGM	1
39	5600-13	Bracket, Hold Down, Battery	1
40	5600-68	Line, Fuel, Hard, Top Mount	1
41	5600-83	Spacer, Round, .382 x .500 x .875, Aluminum	2
42	5700-88	Meter, Hour	1
43	63-P30	Clamp, Wire 3/8	1
44	70660	Fitting, Flared	1
45	71703	Protector, Battery Terminal, Red	2
46	71704	Protector, Battery Terminal, Black	1
47	73001	Bolt, Wizlock 1/4-20x1/2	3
48	73002	Washer, Split Lock, 1/4"	4
49	73005	Screw, Hex Head Cap 1/4-20x1/2	3
50	73009	Nut, Hex, 1/4-20	1
51	73020	Bolt, Wizlock 1/4-20x5/8	2
52	73091	Washer, Flat, Zinc, SAE 1/4	3
53	73204	Washer, Lock, 3/8	5
54	73207	Nut, NyLock 3/8-16	4
55	73254	Bolt, Flat Head, Socket Cap, 3/8-16 x 1-1/4	4
56	73600	Nut, Hex, 3/4-16, Grade 8, Yellow Zinc	2
57	74650	Bolt, Wizlock, M10-1.5 x 25mm, Class 8.8	2
58	74702	Grommet, 3/8"ID, 3/4"OD 9307K	1
59	L316	Label, Oil Temp On	1
60	L317	Label, Throttle	1
61	* 400235	Filter, Oil, 25HP	
62	* 400217	Filter, Air, Element, External	
63	* 400218	Filter, Air, Element	

*NOT SHOWN

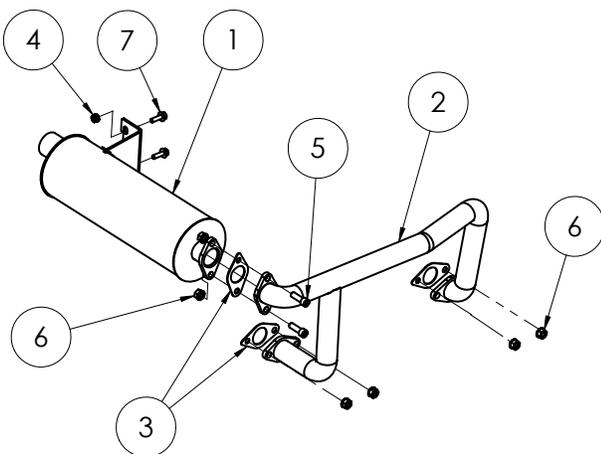
Parts List and Diagrams

PUMP DRIVE ASSEMBLY



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	70905-D7	Pump, Double, Marzocchi	1
2	5200-1G	Gasket, Pump	1
3	73204	Washer, Lock, 3/8	1
4	401414	Cover, Bell Housing	1
5	70951	Coupler, Lovejoy, Splined	1
6	70953	Spider	1
7	70954	Coupler, 1-1/8"	1
8	404156	Screw, Ferris Cap, 3/8-16 x 1, 12pt, Black Oxide	2
9	400179	Housing, Bell Pump, Machined	1
10	73001	Bolt, Wizlock 1/4-20x1/2	2
11	74651	Bolt, Wizlock, M10-1.5 x 30mm, Class 8.8	4

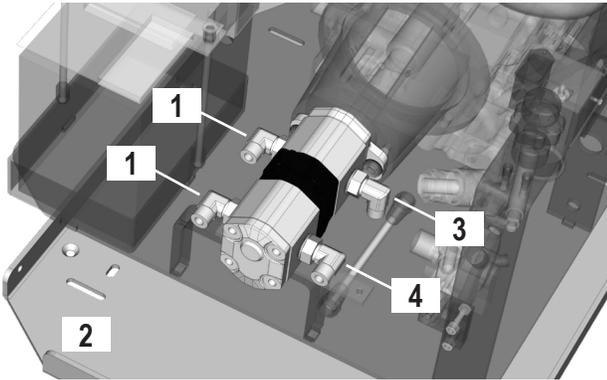
EXHAUST ASSEMBLY



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	404285	Muffler, Exhaust, 25hp, Foil Wrapped, Flanged	1
2	404286	Manifold, Exhaust, 25hp, Foil Wrapped, Flanged	1
3	400219	Gasket, Muffler	3
4	403235	Nut, Hex, M6 x 1.0, Keps	2
5	73311	Screw, Socket Head Cap, 5/16-18 x 1	2
6	404157	Nut, Keps, 5/16-18, Clear Zinc	2
7	74632	Bolt, Flange, M6-1.0 x 20, Clear Zinc	2

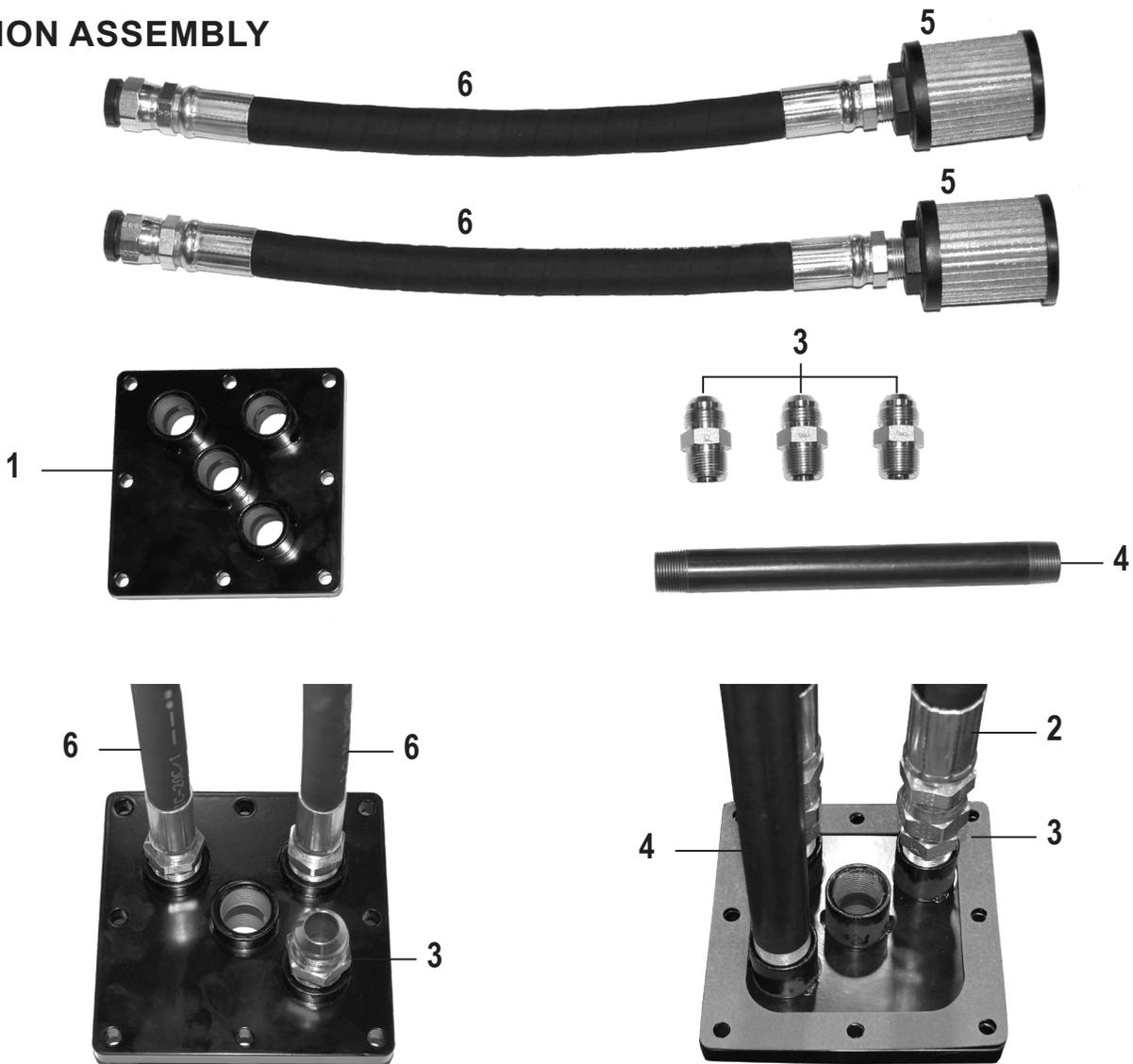
Parts List and Diagrams

PUMP FITTINGS



PART#	DESCRIPTION	QTY
1 6280-118	FITTING, SUCTION HOSE TO PUMP	2
2 5200QL-27	BASE, MAIN	1
3 5110-264	FITTING, VALVE, 45 DEGREE	1
4 72816	FITTING, ELBOW, 90 DEGREE, 3/8"	1

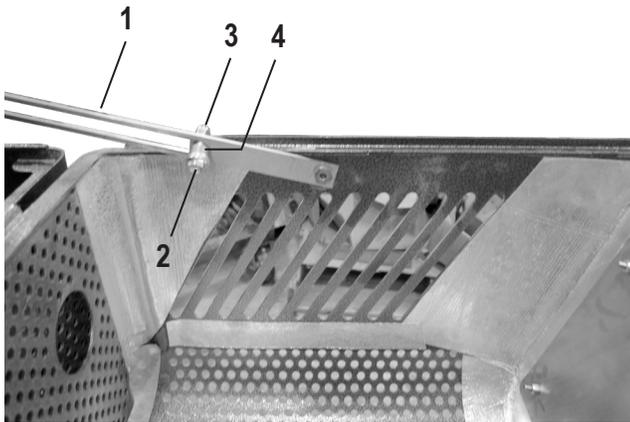
SUCTION ASSEMBLY



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1 401574	PLATE, SUCTION	1	4 70655	PIPE, MALE, 10" X 3/4"	1
2 5700-93	GASKET	1	5 5110-237	FILTER SCREEN	2
3 70652	FITTING	3	6 400099	HOSE, HYDRAULIC, SUCTION, 3/4X20, F/M2	2

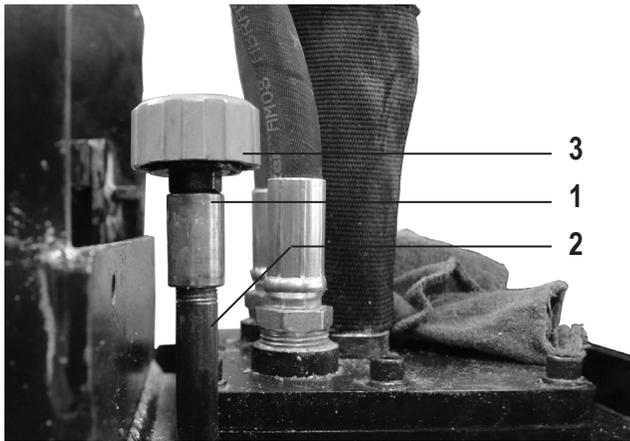
Parts List and Diagrams

HOOD SUPPORT



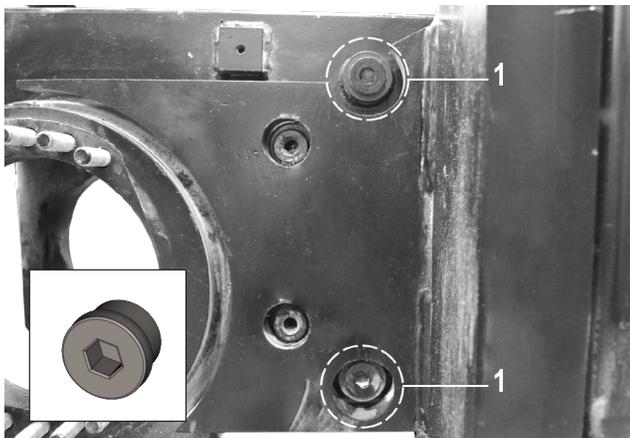
	PART#	DESCRIPTION	QTY
1	400172	SUPPORT, HOOD	1
2	73212	BOLT, BUTTON HEAD CAP, 3/8-16 X .5	1
3	400189	ACORN NUT 3/8-16	1
4	402116	SPACER, HOOD STRAP, HOOD	1
5	401963	SPACER, HOOD STRAP, BODY (NOT SHOWN)	1
6	73223	BOLT, FLANGE 3/8-16 X 1.25 (NOT SHOWN)	1

DIPSTICK



	PART#	DESCRIPTION	QTY
1	5110-234	COUPLER, RELIEF VALVE	1
2	402989	PIPE, RELIEF VALVE, 2-1/2"	1
3	80058	BREATHER, W/ 6" DIP STICK	1

DRAIN PLUGS



	PART#	DESCRIPTION	QTY
1	5110-157	PLUG, DRAIN-FILLER	2

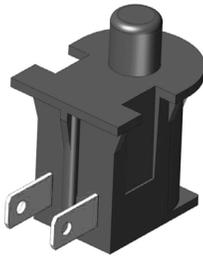
Parts List and Diagrams

SEAT ADJUSTER



	PART#	DESCRIPTION	QTY
1	401631	ADJUSTER, FORE/AFT, SEAT	1

SEAT SWITCH



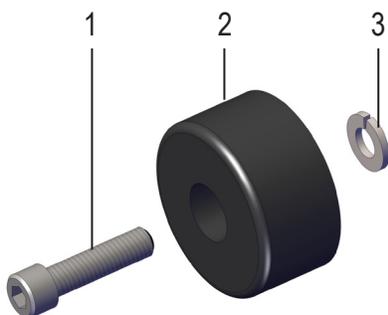
	PART#	DESCRIPTION	QTY
1	5110-207	SWITCH, SEAT	1

REAR FRAME COVER



	PART#	DESCRIPTION	QTY
1	402177	COVER, FRAME, REAR, XL	1

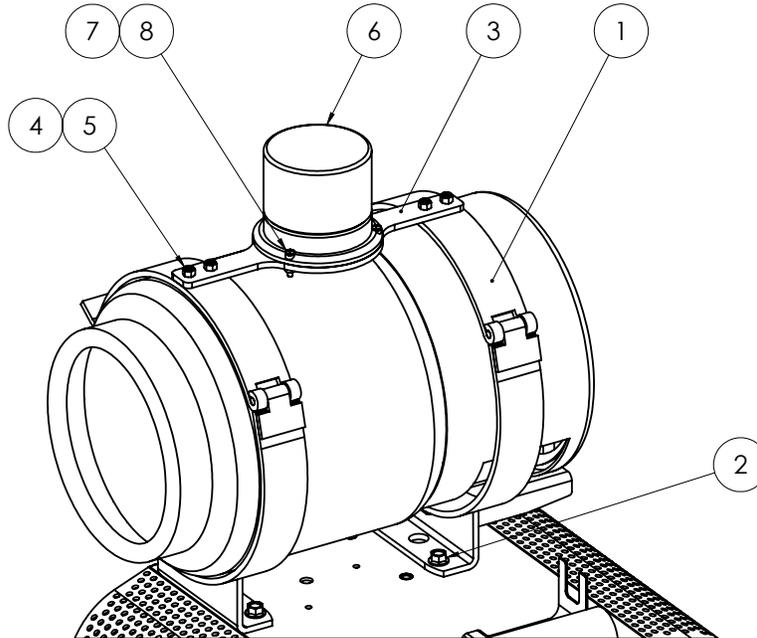
HOOD BUMPER ASSEMBLY



	PART#	DESCRIPTION	QTY
1	73020	BOLT, WIZLOCK 1/4-20X5/8	2
2	5600-66	BUMPER, HOOD	2
3	73002	WASHER, SPLIT LOCK 1/4	2

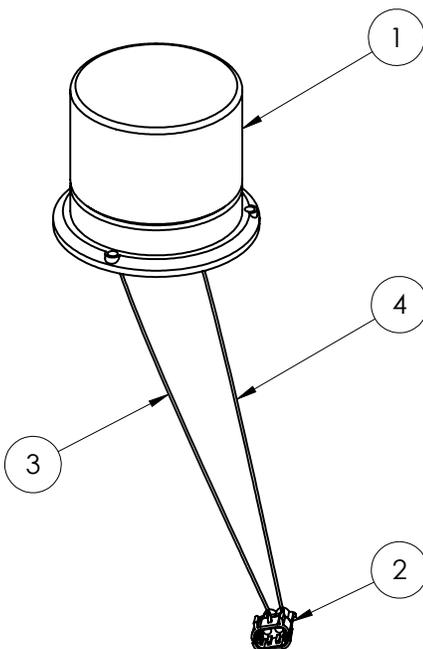
Parts List and Diagrams

LIGHT AND TANK BRACKET ASSEMBLY (8000-31XXXX, -33XXXX ONLY)



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1 402136	BRACKET, TANK, 33 POUND, LP, MOD	1	5 73008	NUT, NYLOCK 1/4-20	4
2 73259	BOLT, FLANGE, SERRATED, SAE 3/8-16X3/4	4	6 402512	ASSEMBLY, BEACON, WIRED	1
3 402105	BRACKET, LIGHT, AUS	1	7 74430	SCREW, PHILLIPS PAN HEAD MACHINE, ZINC 10-32X3/4	3
4 73029	SCREW, FLAT HEAD SOCKET CAP, 1/4-20 X 3/4, BLACK OXIDE	4	8 74425	NUT, KEPS LOCK 10-32	3

BEACON ASSEMBLY 402512 (8000-31XXXX, -33XXXX ONLY)



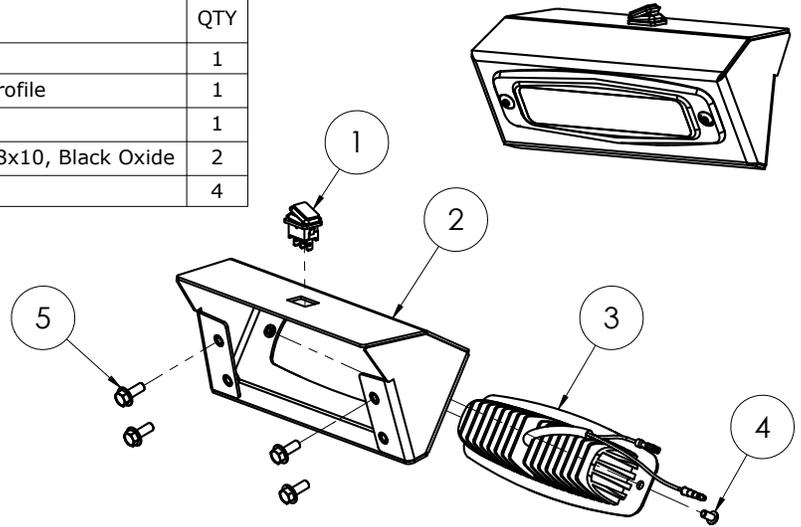
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70629	Light, Flashing	1
2	72790	Connector, Male, 2 Pole	1
3	72568	Wire, Primary, 14 GPT-500-RED (TSC)	3'
4	72569	Wire, Primary, 14 GPT-500-BLK (TSC)	3'
5	72770	Terminal, 14-12 Gauge, Male	2 *
6	72775	Terminal, 18-16 Gauge, Female	2 *
7	72815	Terminal Connector, Female, Push-On	1 *
8	72836	Terminal, Nylon, B, Butt, 16-14	2 *
9	72873	Clamp, Cable 3/8	2 *
10	72887	Loom, Convuluted Split 1/2"	3.5' *
11	72892	Lock, Secondary, TPA, 2 Pole	1 *
12	72931	Seal, Cable	1 *
13	73222	Screw, Hex Head Cap, Flange, 3/8-16 x 1	4 *

* - NOT SHOWN

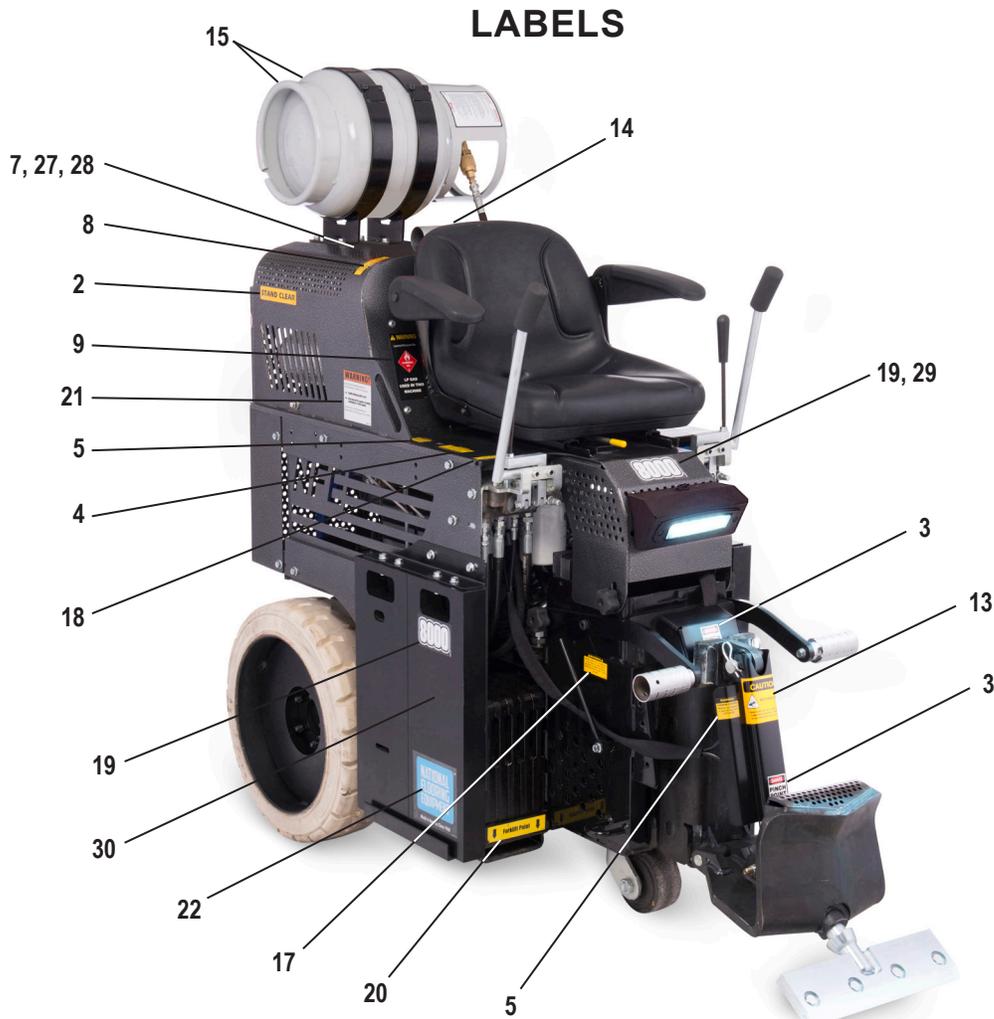
Parts List and Diagrams

HEADLIGHT ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	403976	Switch, Rocker, SP, 14V, 16 A	1
2	404009	Shroud, Worklight, Rider, Low Profile	1
3	404041	Light, Work, 6"x2", Flush, 18W	1
4	404060	Screw, Button Head Cap, M5x0.8x10, Black Oxide	2
5	74631	Bolt, Wizlock, M6-16	4



Parts List and Diagrams



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	405190-XX**	1	18	L98	2
2	L08-1	2	19	402059	3
3	L106	2	20	402149	2
4	L118	2	21	402376	1
5	L137	3	22	402464	2
6	L142*	1	23	L223*	1
7	L155	1	24	L290***	1
8	L256	2	25	L316***	1
9	L314	1	26	L317***	1
10	L315*	1	27	404034	1
11	L318*	1	28	404034-JA	1
12	L319*	1	29	402627	1
13	L33B	1	30	402628	1
14	L33C	1			2
15	L561	2			
16	L66*	1			
17	L95F	2			

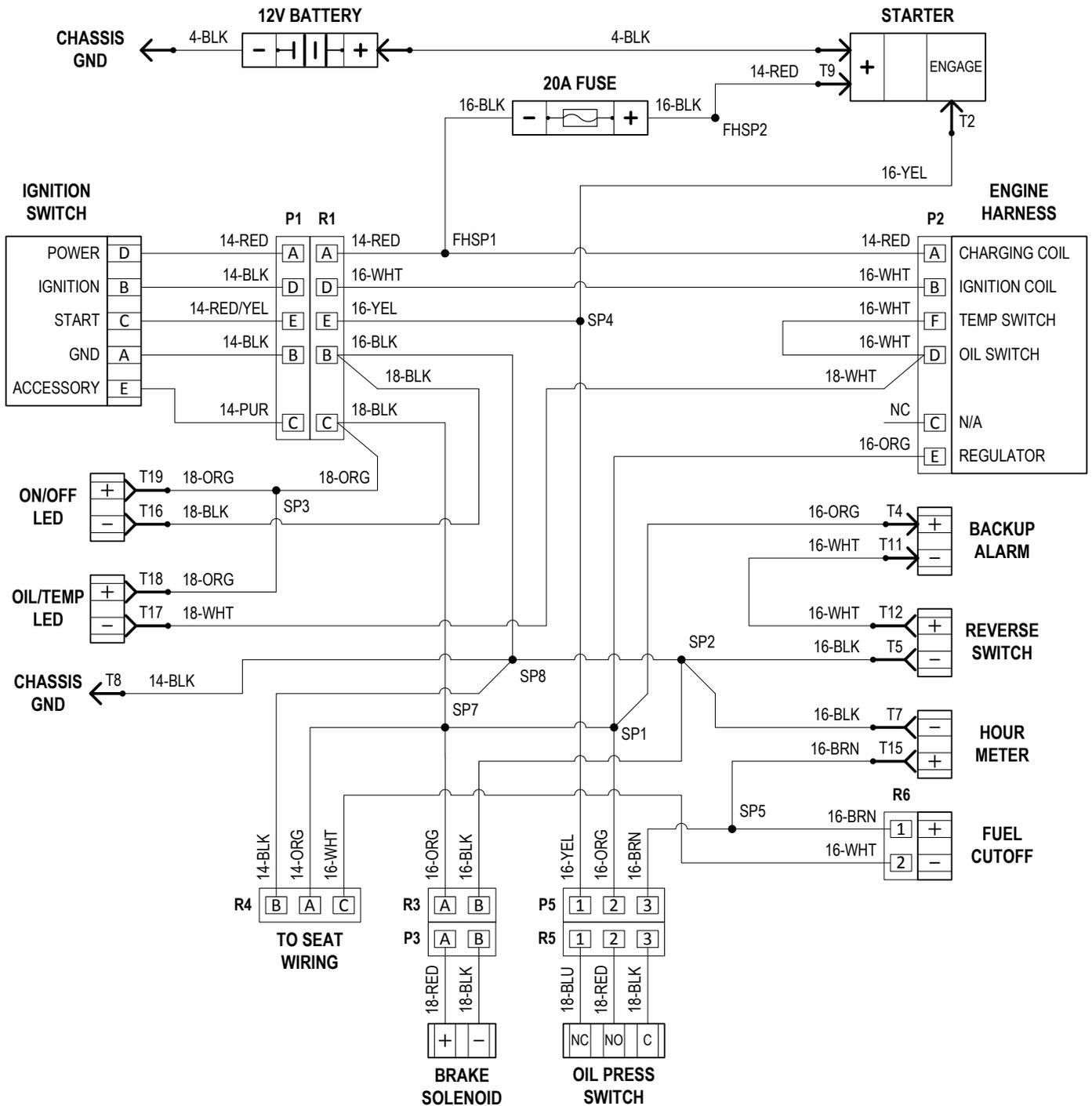
* Not shown

** Kit includes Items 2-26. Suffix (-XX) denotes language: None=English; -JA=Japanese.

*** Not shown. See motor pod assembly diagram for label placement.

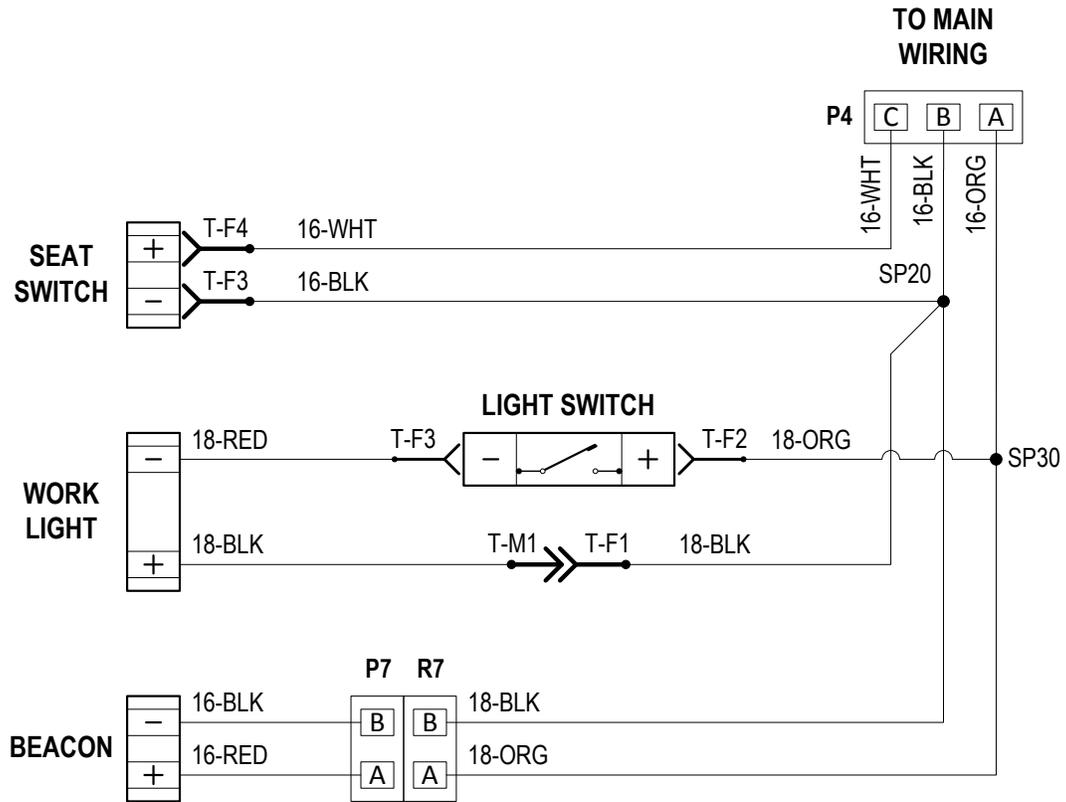
Parts List and Diagrams

8000 MAIN WIRING DIAGRAM



Parts List and Diagrams

5625/8000 SEAT WIRING DIAGRAM



Warranty

National Flooring Equipment Inc. (referred to as "The Company") warrants that each new unit manufactured by The Company to be free from defects in materials and workmanship in normal use and service for a period of twelve (12) months from date of shipment from The Company to the end user. If shipment to end user is from a Distributor, The Company may honor warranty for up to 15 months from initial shipment from the Company if the end user can provide documentation of receipt date. Accessories or equipment furnished and installed on the product by the Company but manufactured by others, including but not limited to: engines, motors, electrical components, transmissions etc., shall carry the accessory manufacturers own warranty. Battery warranties are prorated over the warranty period. Customer is responsible for the inspection of equipment or parts upon delivery. **Freight damages are excluded from this warranty.**

The Company, at its determination of defect, will repair or replace any product or part deemed to be defective in material or workmanship within specified warranty time period. All product determinations and / or repairs will take place at The Company repair facility or at a certified warranty location designated by The Company. The Company will coordinate and be responsible for all freight expenses associated with valid warranty claims. Freight and shipping expenses associated with abuse or misuse will be back charged to the Distributor/Customer. The Company reserves the right to modify, alter or improve any part / parts without incurring any obligation to replace any part / parts previously sold without such modified, altered or improved part / parts. In no event shall the seller or manufacturer of the product be liable for special, incidental, or consequential damages, including loss of profits, whether or not caused by or resulting from the negligence of seller and / or the manufacturer of the product unless specifically provided herein. **This warranty shall not apply to any products or portions there of which have been subjected to abuse, misuse, improper installation or operation, lack of recommended maintenance, electrical failure or abnormal conditions, and to products which have been tampered with, altered, modified, repaired, reworked by anyone not approved or authorized by the Company or used in any manner inconsistent with the provisions of the above or any instructions or specifications provided with or for the product.** Any and all unauthorized onsite warranty work conducted by unauthorized personnel or any outside person(s), is not covered by The Company unless the work has been pre-authorized by a predetermined manufacturer representative. This warranty excludes wearable parts and/or consumables.

Defective or failed material or equipment shall be held at the purchaser's premises until authorization has been granted by The Company to return or dispose of defective products. Products returned to The Company for inspection must be returned with a manufacturer authorized Return Material Authorization (RMA), and must be packaged to The Company's specifications to avoid damage during shipment. Any unauthorized return of equipment will be declined at the dock by The Company. Any non-approved items returned with approved returned items are subject to rejection and will not be credited. Credit will be issued for material found to be defective upon The Company's inspection based on prices at time of purchase.

TO OBTAIN SERVICE CONTACT NATIONAL FLOORING EQUIPMENT, INC. TOLL FREE AT 800-245-0267 FOR A REPAIR AUTHORIZATION NUMBER. COD FREIGHT RETURNS WILL NOT BE ACCEPTED. FREIGHT COLLECT SHIPMENTS WILL NOT BE ACCEPTED. WARRANTY REPAIRS MUST BE ACCOMPANIED BY DATE OF PURCHASE RECEIPT AND A RETURN/ REPAIR AUTHORIZATION NUMBER.

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MACHINE SERIAL NUMBER: _____



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