

5625 PROPANE RIDE-ON SCRAPER OPERATING & SERVICE MANUAL



Read Manual Before Operating or
Servicing Machine

401823 Rev N

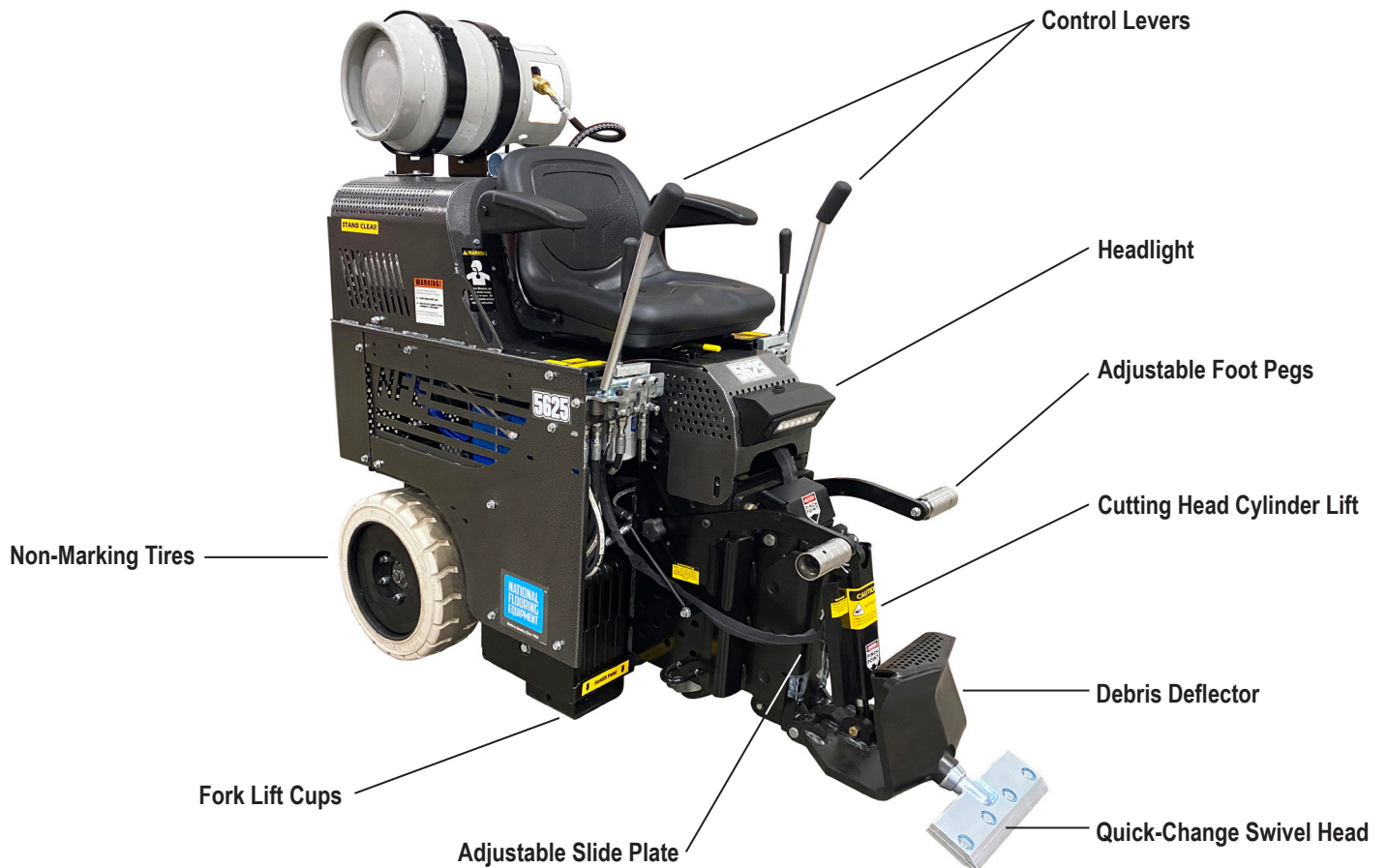
Table of Contents

Table of Contents	3
Features and Specifications	5
Safety	7
General Rules for Safe Operation	7
Ride-On Scraper Safety Guidelines.....	8
Hydraulic Safety.....	9
Components and Assembly	11
Transport.....	11
Long-Term Machine Storage	11
Jobsite Movement.....	12
Wheel Size.....	12
Cutting Head and Blades.....	13
Bracket Configuration	15
Operation	16
Start-Up Procedure	16
Controls	16
Shut-Down Procedure	17
Changing Propane Tank	18
Slide Plate Adjustments and Settings	18
Blade Settings.....	19
Setup for Specific Application	19
Ditching	21
Headlight.....	21
Maintenance Schedule	22
Troubleshooting Guide	23
Maintenance	24
Manual Slide Plate Removal.....	24
Dual Slide Plate Removal	24
Leak Maintenance	25
Hydraulics	25
Change Pump	26
Change Valve	26
Change Wheel Motor	26
Check Engine Oil.....	26
Change Engine Oil Filter.....	26
Additional Engine Maintenance	27
Change Wheel	27
Caster Assembly.....	27
Remove or Replace Foot Peg	28
Telematics Option	28
Parts List and Diagrams	29
External Parts	29
Wheels.....	30
Caster Wheel Assembly.....	30
Foot Pegs	30
Motor Pod Assembly	31
Exhaust Assembly	32
Top-Mount Fuel Line	32
Pump Drive Assembly.....	33
Levers (Dual Lift)	34
Levers (Manual Lift).....	35
Dual Lift	36
Manual Lift	37
Hydraulics	38
Hood Support.....	39

Table of Contents

Weights 39
Headlight Assembly 39
Beacon Assembly 40
Light and Tank Bracket Assembly 40
Labels 41
Wiring Diagrams 42

Features and Specifications



FEATURES

Non-marking Tires - Large non-marking tires work on all types of applications and debris build-up.

Adjustable Foot Pegs - Adjustable foot pegs provide optimum comfort and ergonomics.

Fork Lift Cups - Easily accessible fork lift cups for loading/unloading.

Debris Deflector - Redirects debris away from the operator.

Control Levers - Moves forward, in reverse, turns, and brakes with easy-to-move levers.

Cutting Head Cylinder Lift - Changes the angle of the cutting head with the control handle next to the operator seat.

Adjustable Slide Plate - Affords maximum versatility in blade settings.

Quick-Change Swivel Head - Assures continuous blade contact with the floor.

Headlight - Illuminates work zone.

Features and Specifications

Product Specifications							
Width	Length	Height	Unweighted (Machine Only)	Weight*	Speed	RPM	Power
26" (66 cm)	58" (147 cm) (Manual Lift)	52" (132 cm)	1,413 lbs (641 kg) (Manual Lift)	1,915 lbs (869 kg) (Manual Lift)	Up to 200 ft/min. (61 m/min.)	2,950	25 HP (18.6 kW)
	63" (160 cm) (Dual Lift)		1,513 lbs (686 kg) (Dual Lift)	2,015 lbs (914 kg) (Dual Lift)			

*Weight includes removable weights, cutting head and transport wheels.

Machine Variants			
Region	Serial Number	Body Panels	Slide Plate
Domestic (North America)	5625-10XXXX	Silver Vein	Manual Lift
	5625-12XXXX	Green	Manual Lift
	5625-17XXXX	Silver Vein	Dual Lift
	5625-23XXXX	Silver Vein	Manual Lift
	5625DL-23XXXX	Silver Vein	Dual Lift
International	5625-33XXXX	Silver Vein	Dual Lift

Dual Lift



Manual 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/or 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. Only use in properly ventilated areas, due to possible CO exposure.

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.

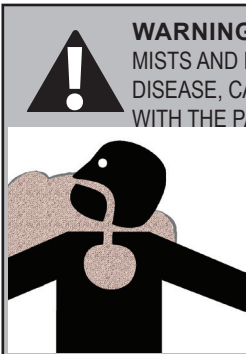
Never smoke or allow a spark or flame near the battery.

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.

THIS PAGE INTENTIONALLY LEFT BLANK

Components and Assembly

TRANSPORT

- Secure machine down with ratchet straps when transporting the machine. Straps need to be rated at least twice the weight of the machine.
- Never leave machine unattended on an incline; chock wheels to keep machine from rolling.
- Hydraulic levers should be straight up in the “neutral” position, not locked in the forward or backward position.
- Lift machine off swivel caster or transport wheels by lowering cutting head for better stabilization.
- Always remove blade and cutting head when machine is being moved or transported. Slide plate can be removed to make the machine more compact.
- Removing any added weight prior to loading/unloading makes this process easier and safer.



CAUTION: MACHINE IS BACK HEAVY. DO NOT RUN ON STEEP INCLINE THIS COULD CAUSE MACHINE TO TIP OVER! (FIGURE 1). DO NOT USE A RAMP TO MOVE MACHINE.



WARNING: MACHINE HAS A SWIVEL FRONT CASTER. NEVER SIDE HILL (FIGURE 2) THE MACHINE ON A INCLINE WITHOUT POWER, THE FRONT CASTER WILL CAUSE MACHINE TO SWING TO THE LOWEST POINT. IF IT IS NECESSARY TO RUN MACHINE ON AN INCLINE, RUN MACHINE ON CUTTING HEAD. PLACE AT LEAST AN 8” CUTTING HEAD IN MACHINE. TO KEEP FROM DAMAGING FLOOR, CLAMP A PIECE OF CARPET INTO CUTTING HEAD. THIS WILL GIVE POSITIVE CONTACT WITH THE FLOOR WHEN POWER IS DISENGAGED FROM THE WHEELS.

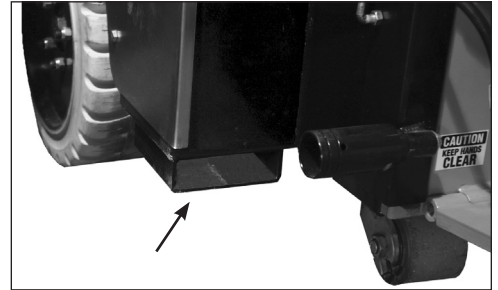


FIG. 1



FIG. 1.1



FIG. 1.2

Dock Heights

It is best to load or unload the machine from a level dock height, e.g. a van from a van dock height or a truck/semi from a regular dock height.

Power Gate

A power gate can be used when the appropriate dock height is unavailable. Ensure gate is properly rated for machine. To better secure machine, raise machine off the caster and onto the lowered cutting head. Tie machine down; chock wheels.

Fork Lift Cups

There are two fork lift cups mounted under the front of the machine (Figure 1). Slide fork lift forks through fork lift cups. Slide forks all the way back to where they almost touch the rear tire (Figure 1.1). Before lifting machine, secure machine to fork lift with heavy 3000 lb. or heavier rope or chain. Tilt forks back to lift machine (Figure 1.2).

Wheel Chocks

Wheel chocks will help to secure the machine, but do not use wheel chocks on their own.

LONG-TERM MACHINE STORAGE

1. Follow the procedure for shutting down the machine in the Operation section.
2. After engine has completely cooled down, disconnect propane line.
3. Remove negative terminal on battery.

Components and Assembly



FIG. 2



FIG. 3

FIG. 3.1

JOBSITE MOVEMENT



WARNING: PROTECT OTHERS IN WORK AREA. PROVIDE BARRIERS OR SHIELDS AS NEEDED TO PROTECT OTHERS FROM DEBRIS AND MACHINE OPERATION. OPERATOR SHOULD BE AWARE OF WHO IS AROUND THEM AND THEIR PROXIMITY.

Taping Wheels

Taping the wheels with a wide masking tape can prevent damage to floors during move-in and move-out.

Front Wheel Assembly

The front wheel assembly (Figure 2) is included and very helpful when moving the machine around on a job site or loading the machine that is not on a pallet. It allows machine stability and safe transportation over most surfaces. It is easy and quick to attach or detach.

1. Raise slide plate so the bottom of the slide plate is higher or even with the bottom of the guide channels.
2. Raise cylinder; remove cutting head or shank.
3. Insert the front wheel assembly into the cutting head.
4. Secure with securing pin.

Moving Machine without Power (Pushing Machine)



WARNING: ALWAYS REMOVE STRAPS BEFORE STARTING MOTORS. FAILURE TO DO SO WILL MAKE MACHINE MOVE AND MAY CAUSE PROPERTY DAMAGE AND/OR BODILY INJURY.

Forward: To move the machine forward, levers need to be pushed forward. To lock levers in place, connect a bungee-strap from each lever (pushing levers forward), pulling straps down to and connecting to the front plate (Figure 3). Never leave machine unattended with strap holding levers open.

Backward: To move machine backward, levers need to be pulled backwards. To lock levers in place, connect a bungee-strap from each lever (pushing levers backward), Pulling straps to the back of the machine and connecting behind the seat or the rear of the machine (Figure 3.1). Never leave machine unattended with strap holding levers open.

Moving Machine on Caster

Moving a weighted machine only on the front caster and not on the cutting head or the front wheel assembly can seem to make the machine turn sluggish. It might turn hard to the right or the left, which is normal.

WHEEL SIZE

An 18" wheel comes standard on the machine. This wheel will work on all types of applications and flooring with heavy debris build-up (VCT, ceramic etc.). It also works well for slippery/slimy residue, ie. double stick.

Keep wheels clean and free of debris, make sure it can move freely. Clean as needed; inspect before each use.

Components and Assembly

CUTTING HEAD AND BLADES



WARNING: DISARM MACHINE WHEN MACHINE IS NOT IN USE. REMOVE THE CUTTING HEAD OR LOWER CUTTING HEAD TO THE FLOOR. FAILURE TO DO SO COULD CAUSE SEVERE BODILY INJURY.



WARNING: BLADES ARE SHARP, USE EXTREME CAUTION. NEVER CHANGE CUTTING HEAD OR SERVICE BLADES WHILE MACHINE IS RUNNING.

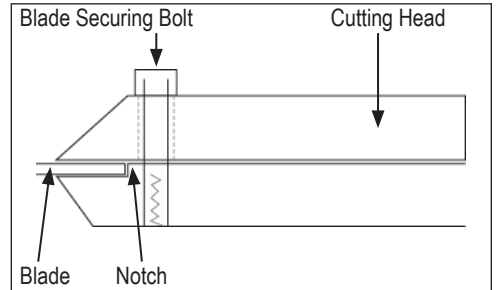


FIG. 4

Matching the correct cutting head, blade size, blade angle and added weight to the machine to make the material removal as easy as possible is important. For every material being removed, there is an optimum blade width, thickness, sharpness, angle and bevel (bevel up or bevel down).

The machine is supplied with a 12" cutting head. Having additional cutting heads will save time on the job. Insert blades into the extra cutting heads before starting a job. When the blade is dull, instead of taking the time to replace it or sharpen it on the job, take out the cutting head and replace it with another.

Shear Point

The shear point is the point where material to be removed will cut cleanly from the floor. If the blade is too wide, too dull or too steep, the shear point is lost.

Inserting Cutting Head

1. With machine off, insert desired cutting head into cutting head holder.
2. Secure with cutting head clip.

Swivel Head

The swivel head keeps the blade in contact with the floor even when the floor is uneven. When using a flat blade, by swiveling the head over 180° allows another sharp edge on the blade without having to replace the blade.

Inserting or Changing Blades

Sharp blades are imperative for good performance. Always wear gloves when handling blades.

1. Using a 3/4" socket wrench, loosen bolts on cutting head. Quantity of bolts will vary depending upon cutting head size.
2. Insert blade into the cutting head to back of notch (Figure 4); tighten firmly.

Note: A cordless 3/8" drive impact wrench will speed up this process.

Inserting a Shank Blade

Shank blades do not require a cutting head.

1. Insert desired shank blade into cutting head holder.
2. Secure with cutting head clip.

Self-Scoring Blades

Instead of pre-scoring a job, for soft goods (carpet, vinyl, linoleum, membrane) the self-scoring blades automatically do the scoring. It is important to keep the "wings" on a self-scoring blade sharp.

Components and Assembly

THIS PAGE INTENTIONALLY LEFT BLANK

Components and Assembly

BRACKET CONFIGURATION

Your machine will arrive from National Flooring Equipment (NFE) with the bracket bolted to the floor of the crate; it will require configuration on the machine prior to use.

If your propane tank has a length of approximately 21 inches (NFE tank size)...

Unbolt the bracket from the crate; use the bolts already connected to the hood to configure the bracket on the machine as follows (Figure 7):

1. L shapes on the bracket should be facing outward (Figure 7A).
2. Right side of the bracket should be bolted to the outermost set of holes on the right.
3. Left side of bracket should be bolted to the holes second-furthest from the left.

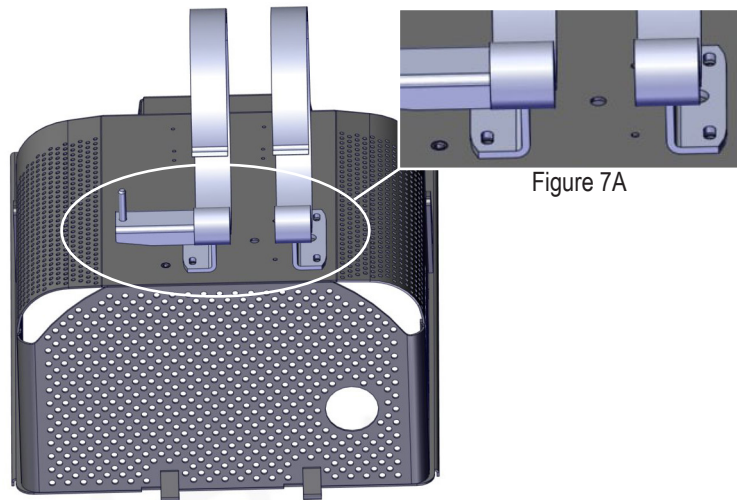


Figure 7

If your propane tank has a length of approximately 28 inches (fork lift tank size)...

Unbolt the bracket from the crate; use the bolts already connected to the hood to configure the bracket on the machine as follows (Figure 8):

1. L shapes on the bracket should be facing inward (Figure 8A).
2. Right side of the bracket should be bolted to the outermost set of holes on the right.
3. Left side of bracket should be bolted to the outermost set of holes on the left.

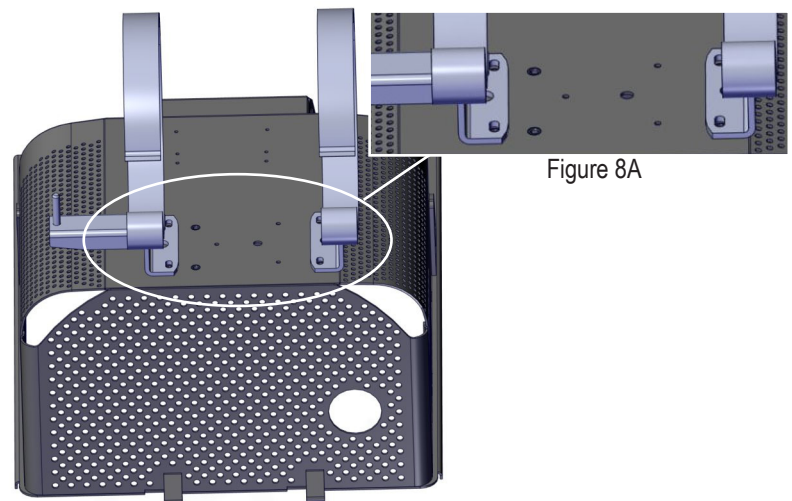


Figure 8

Note: Holes may be hidden by label. Find the holes by running your hand over the label; cut the label so that they are usable.

For assistance, contact NFE Customer Service.

Operation

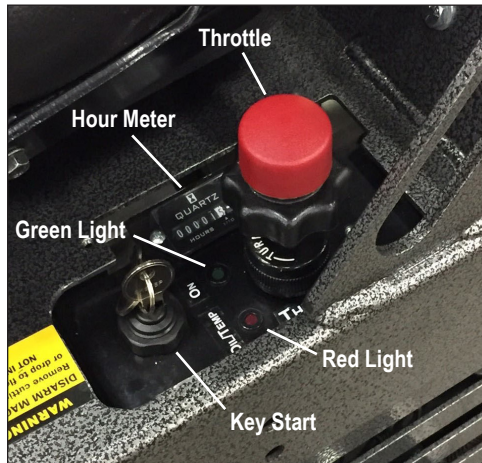


FIG. 9

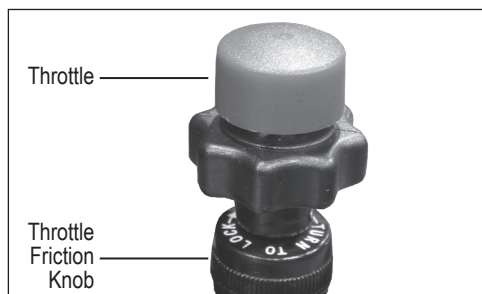


FIG. 10



FIG. 11

START-UP PROCEDURE

1. Insert key to the power key start (Figure 9).

Note: The machine is equipped with a kill switch in the seat, so it will not start unless the operator is properly seated.

2. Open propane tank valve by turning knob counterclockwise until fully open.
3. Ensure that hydraulic levers are centered.
4. Set throttle at a quarter open.
5. Start machine with ignition switch. Both a red and green light will illuminate (Figure 6). Do not hold in the “on” position for more than five seconds.
6. As soon as the engine starts, the red light will shut off. If the Red light does not shut off, turn machine off.
7. Adjust throttle to desired RPM.

Note: If machine is not running but the key is in the ignition and in the “on” position, the hour meter will continue to run.

CONTROLS

Throttle Control

1. With machine on, adjust throttle to desired RPM by pulling up on the throttle control.
2. When at desired RPM, turn throttle friction knob counter-clockwise to hold in position (Figure 10).

Hydraulic Levers

The hydraulic levers (Figure 11) steer the machine. They are feathered spool valves. For smooth even movement, always move levers slowly. Fast movement on control levers will result in jerky, uneven movement.

- To move the machine forward, push both levers forward ↑↑ .
- To move the machine backward, pull both levers backward ↓↓ .
- To turn the machine quickly to the right, move the left lever forward and the right lever backward ↑↓ .
- To turn the machine quickly to the left, move the left lever backward and the right lever forward ↓↑ .
- To turn the machine slowly to the left or right, push the left or right lever forward ↑ or backwards ↓ .
- Correcting direction while moving forward is accomplished by slightly reducing pressure on one lever or the other while moving.
- Placing levers in the center position will cause the wheels to lock-up.

Cylinder Lift Lever

The cylinder lift lever (Figure 12) raises and lowers the cylinder and cutting head. After setting slide plate to proper height, use the cylinder lift lever to set blade to proper cutting angle.

- Pull back ↓ on the cylinder lift lever to raise the cutting head.
- Push the cylinder lift lever forward ↑ to lower the cutting head.
- Continuing to push the cylinder lift lever forward and it will adjust the angle of the cutting head. This will also lift up the front of the machine. **Note:** *This will need to be done when doing maintenance on the machine (ie: wheel changing, front caster maintenance etc). When doing machine maintenance, besides raising the cutting head angle, place blocks under the machine. Never use the cutting head only.*



FIG. 12

WARNING: BE AWARE OF THE MACHINE'S OPERATING ANGLES AND CAUTIOUS OF ANY UNBALANCED MACHINERY OR TOOLING. WHEN CHANGING FROM A LOW SLIDE PLATE TO A HIGH SLIDE PLATE SETTING, A LOW CUTTING HEAD TO A HIGH CUTTING HEAD ANGLE, OR WHILE OPERATING ON A SURFACE THAT IS NOT LEVEL, THE WEIGHT OF THE MACHINE MAY BE DISTRIBUTED DIFFERENTLY OR MAY BECOME UNBALANCED. TOO MUCH OF AN ANGLE COULD MAKE THE MACHINE UNSAFE OR CAUSE A TIP-OVER. DO NOT RUN THE MACHINE IN UNSAFE ENVIRONMENTS.

WARNING: DO NOT ALTER A SWITCH OR LEVER. DO NOT DEFEAT A SAFETY DEVICE.

WARNING: DISARM MACHINE BY REMOVING THE CUTTING HEAD OR LOWERING THE CUTTING HEAD TO THE FLOOR WHEN THE MACHINE IS NOT IN USE.

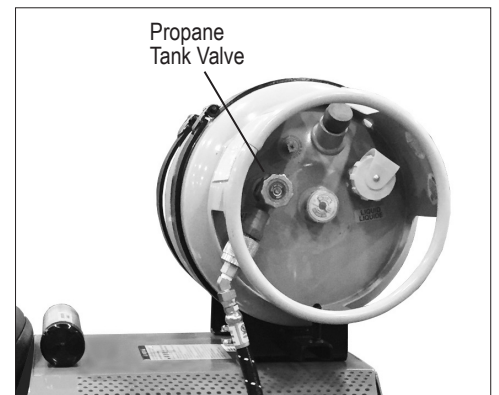


FIG. 13

SHUT-DOWN PROCEDURE

1. Move the machine to level ground.
2. Turn off the ignition switch and remove the key.
3. Do not move hydraulic levers. The hydraulic system is the brake system. Moving levers could cause machine to roll, causing damage to machine, property damage and/ or bodily injury.
4. Wait until motor has stopped completely.
5. Close propane tank valve (Figure 13).
6. Let the engine, exhaust system and hydraulic components cool down before performing maintenance on the machine.

WARNING: ENGINE, EXHAUST SYSTEM, AND HYDRAULIC COMPONENT TEMPERATURES COULD BE IN EXCESS OF 200° F, CAUSING SEVERE BURNS IF TOUCHED.

Operation

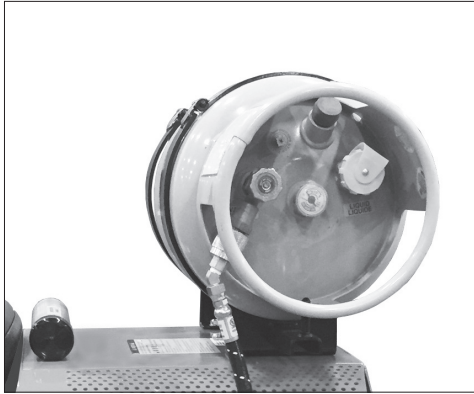


FIG. 14

CHANGING PROPANE TANK

1. Follow shut-down procedure to turn off machine.
2. Release tank bracket so that it swings back. Bracket does not need to be removed completely.
3. Disconnect propane hose (Figure 14).
4. Remove tank.
5. Reverse steps for replacement.

SLIDE PLATE ADJUSTMENT AND SETTINGS

Manual Lift (Figure 15)



WARNING: WHEN ADJUSTING THE SLIDE PLATE, KEEP FEET AND HANDS OUT FROM UNDERNEATH THE CUTTING HEAD AND SLIDE PLATE. FAILURE TO DO SO COULD CAUSE SEVERE BODILY INJURY. WHEN BOLTS ARE REMOVED FROM THE SLIDE PLATE, THE CUTTING HEAD AND SLIDE PLATE WILL DROP TO THE FLOOR.



FIG. 15

- Loosen the four bolts on the front of the slide plate with a 1-1/8" wrench. Slide plate up or down to achieve the desired height of the cutting head. Firmly tighten all four bolts when finished.
- A low setting orients the slide plate approximately 1" (2.5 cm) off the floor. This is for normal removal of most materials.
- A high setting orients the slide plate approximately 6" (15 cm) off the floor. This is for re-scraping glue and some thin-soft coatings.

Dual Lift (Figure 16)



FIG. 16

- Prior to adjusting the dual lift hydraulic slide plate, ensure the channel guide is free of any debris and the machine is safely positioned on a flat surface.
- To set the height of the hydraulic slide plate start, adjust the angle of the cutting head holder with the cylinder lift lever. Pull back on the cutting head lever and raise the cutting head holder to an angle higher than the bottom of the slide plate.
- The lever adjacent to the right hand control lever raises and lowers the hydraulic slide plate. To lower the slide plate, push forward on this lever. To raise the slide plate, pull back on the lever.

Settings

While the hydraulic slide plate can be adjusted to multiple positions, there are two basic slide plate settings:

- **Low Setting:** the hydraulic slide plate is positioned 1" off the floor. This setting is most commonly used during initial scraping or removal applications; such as carpet, VCT, ceramic tile and wood flooring. **Note:** The "low" setting on older model hydraulic slide plates may stop the plate within one to two inches of the floors surface.
- **High Setting:** the hydraulic slide plate is positioned 6" off the floor or in most cases flush with the bottom of the slide plate channel guide. This setting is most often used for re-scraping glues, mastics, thin sets and soft coating.

Steep Cutting Head Angle

A steep angle is only used for re-scraping. The slide plate has to be raised so the bottom of the slide plate is higher or even with the bottom of the guide channels. Not raising the slide plate when operating the machine at a steep angle will cause the machine to jump and buck. It does not give the operator a clear vision of the cutting head and it raises the machine to operate at an unsafe operating height (Figure 17). Failure to raise the slide plate could cause machine damage and/or bodily injury.

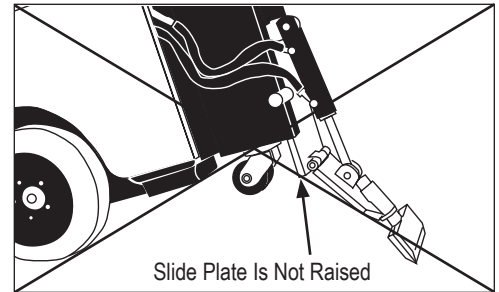


FIG. 17

BLADE SETTINGS

- Dull blades greatly reduce cutting ability; sharpen or replace as needed.
- Start with a narrow blade, then increase blade size to optimize cutting pass. Narrower blades work easier than wider blades and usually clean the floor better.
- For harder jobs, use a smaller blade.
- Normally, bevel on blade is up for concrete; bevel down on wood and shoe blades for soft sub-floors.
- Keep your work area clean and clear of debris.



- After you have removed a portion of material, move it out of the way. This will give the machine maximum performance and help to keep the work area safe.

Weight vs. Sharpness

The most common way to compensate for a dull blade is to add more weight and raise the blade angle. Weight allows dull blades to be used to a point. Weight also causes blades to dull and break easier. Blades of any thickness tend to catch cracks and expansion joints and will bend or break the blade if set at a high angle. For best results, run a small ditching blade at a low angle to identify as many cracks and joints as possible. If blades are breaking, the conditions of use have been misunderstood.

SETUP FOR SPECIFIC APPLICATION

Ceramic

The slide plate should be adjusted to a low setting 1" off the floor. Use a shank blade or a shank blade with a carbide tip.

Wood

The slide plate should be adjusted to a low setting 1" off the floor. Use shank blades, shank blades with carbide tips or a 6" or 8" cutting head with shoe blades, bent shoe blades, or heavy duty blades.

Note: Run machine 45° to the grain of the wood.

A heavy machine cannot be used on wood subfloors or raised panel computer floors. Keep machine light, remove all weights. A weighted machine could break through the floor. The slide plate should be adjusted to a low setting 1" off the floor. Blades should be as flat of an angle as possible. Use a shoe blade, extra heavy duty blade (these blades have a bend to them) or a regular blade, bevel up. When using a regular blade, bending up the corners of the blade will help from the blade digging into the floor. Sometimes a shank blade or a shank blade with a carbide tip will work. Allow blade to shear material

Operation

from the floor. The trick on wood floors is to run the blade flat. Approach should be at a 45° angle to the board. This keeps from digging into the board and hanging up at the seams.

Secondary-Backing Carpet

The slide plate should be adjusted to a low setting 1" off the floor. Use a cutting head from 10"-27" with heavy duty blades or a cutting head from 10"-14" with a self-scoring blade.

Foam-Back Carpet

The slide plate should be adjusted to a low setting 1" off the floor. Use cutting heads from 10"-14" with self-scoring blades. If it is not stuck tight, use a cutting head from 14"-27" with a standard blade.

Double-Stick Carpet

The slide plate should be adjusted to a low setting 1" off the floor. It is best to test to see which is the easiest way to remove double stick. Start with a cutting head from 10"-14" with self-scoring blades. Use self-scoring blades with 4" wings, 6" or 12" wide for best results. In some cases, carpet might pull off the pad and then scrape up the pad separately. Usually leaving carpet connected to the pad works the best. Sharp blades are necessary for proper operation.

Note: When removing carpet from over VCT Tile and the tile needs to be saved, run the machine at a 45° angle over the tile. This should help to save the tile.

VCT Tile

The slide plate should be adjusted to a low setting 1" off the floor. If goods come up easily, change to a larger cutting head. If goods come up harder, use a cutting head from 6"-8" with a premium high tempered blade (.062) to match cutting head size. Sometimes a .094 blade may work better. If goods remove easily, a Tile Box #7074 can be used. A tile box also works for wind rowing, assists for a fast clean-up and collection of tile debris for quick removal.

Rubber Tile

The slide plate should be adjusted to a low setting 1" off the floor. Use a cutting head from 6"-14" with self-scoring blades or use ditching method with a flat blade.

Re-Scraping

Slide plate should be set high, 6"-8" off the floor. Use a cutting head from 8"-27" with scraper blades to match cutting head size. A 15" scraper blade would use a 14" cutting head. Razor blades are faster but a cutting head from 8"-14" can be used with a standard blade. Flip head regularly.

Thin Coating

Slide plate could be set high, 6"-8" or low 1" off the floor. Test to see which works best. Use a cutting head from 8"-27" with razor blades to match cutting head size.

Concrete

Blade should be bevel up when working over concrete. Pretty much anything over concrete works. Try different set-ups to see which works best. If goods come up difficult, the slide plate should be at a low setting, 1" off the floor. Use a smaller size blade. If goods come up easily, a wider blade can be used.

Soft Sub-Floor

The slide plate should be adjusted to a low setting 1" off the floor. Blades should be as flat of an angle as possible. Use a shoe blade, extra heavy duty blade (these blades have a bend to them) or a regular blade, bevel down. When using a regular blade, bending up the corners of the blade will help from the blade digging into the floor. Sometimes a shank blade or a shank blade with a carbide tip will work.

DITCHING

Cross-Room Ditching

When removing hard-to-remove ceramic, VCT or VAT, cross-room ditching will help to make the removal easier. Using a blade 2'-6" in width, make ditches 1'-2' apart in the same direction the machine will be removing the goods (Figure 18). This relieves the pressure holding the tiles together. If ditching helps and the goods are coming up easy, try using a wider blade to ditch with.

Checkerboard Ditching

To make carpet removal and debris cleanup easier, checkerboard ditching is very helpful. Using as wide of a self-scoring blade as possible, make ditches 4'-6' apart crossways from the way the machine will be removing the goods (Figure 19). Running the machine crossways from the ditches will make smaller pieces of debris to be hauled away. Instead of large gummy rolls of carpet, there are small squares that can be rolled, palletized, put on a dolly or folded with the sticky side in. This makes removing the debris easier and reduces the amount of debris.

Note: Ditching will expose expansion joints.

HEADLIGHT

The headlight illuminates the work zone.

- Use the toggle switch to turn the headlight ON and OFF. **NOTE: The headlight only operates when the key is in the ON position.**
- The light is fixed-mounted with fixed brightness--it is not adjustable.

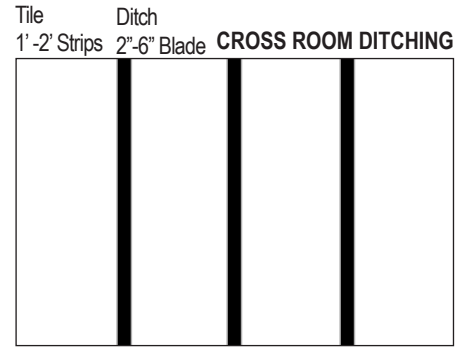


Figure 18
Run the machine the same direction that the ditches are made

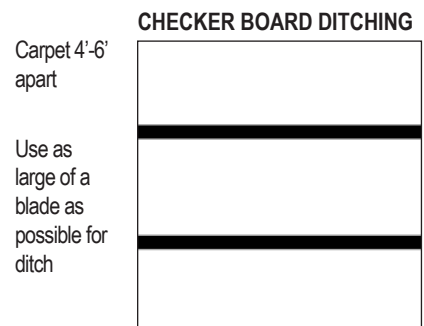


Figure 19
Run the machine crossways from the directions that the ditches are made

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.

Troubleshooting Guide

Problem	Cause	Solution
Scraper does not work when pump is generating pressure.	Severe blockage in wheel drive motor hoses.	Check hoses for blockage and replace hose if necessary.
	Wheel drive motors defective.	Call NFE service center.
Hoses are worn.	Hoses rubbing on components.	Replace and protect hose.
	Hose has been exposed to poor environmental conditions.	Replace hose and protect equipment from poor conditions.
Machine makes an unusually loud hissing or whistling noise.	Fluid is passing over relief valves.	If noise is continuous, call National service center.
	Air in hydraulic circuit.	Check all suction lines; tighten all hose connections. Call NFE service center.
Oil deposits are evident on the inner sides of the driving wheels.	The shaft seals on the wheel motor are worn out.	Replace wheel motor.
	Hose fittings are loose.	Tighten hose fitting. Replace hose or fitting if necessary.
The machine has no power with the engine running at 2,950 RPM.	Check the valve, love joy coupler on pump, handle hardware, and for hose leaks.	Contact NFE service center immediately. Do not operate in this condition.
The scraper does not react when the motion control joystick is actuated.	Check the valve, love joy coupler on pump, handle hardware, and for hose leaks.	Contact NFE service center immediately. Do not operate in this condition.
The hydraulic oil is very cloudy. Excessive air in the circuit can cause severe damage to pump. Stop machine and repair immediately!	Water has entered the hydraulic tank.	Repair tank if necessary. Drain and clean tank thoroughly.
	Oil is contaminated with dirt.	Drain and clean tank thoroughly. Change oil.
	Air has entered the circuit.	Contact NFE service center.
Excessive amount of oil on the chassis.	Outside oil spilled on chassis.	Clean machine thoroughly and see if oil returns.
	Loose hose connections.	Check for loose hoses.
	Loose tank fittings.	Check for loose fittings.
	Low fluid level.	Check fluid level and replace.
Hydraulic oil and/or oil foam leaking from the 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 blocked.	Check for blockage.
	Excessive air in the circuit can cause severe damage to piston pumps.	Stop and repair! 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.	Position on seat correctly.
Red ignition light stays on.	Oil is low.	Fill engine 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; restart machine.

Maintenance



FIG. 1



WARNING: ALWAYS LET ENGINE COOL AND DISCONNECT BATTERY BEFORE PERFORMING ANY MAINTENANCE. FAILURE TO DO SO COULD CAUSE SERIOUS BODILY INJURY.

MANUAL SLIDE PLATE REMOVAL



WARNING: SLIDE PLATE WILL DROP TO THE FLOOR WHEN SLIDE PLATE SECURING BOLTS ARE DISENGAGED. KEEP HANDS AND FEET OUT FROM UNDER THE SLIDE PLATE. FAILURE TO DO SO COULD CAUSE SEVERE INJURY.

1. Follow shut-down procedure.
2. Remove slide plate pin. Remove cutting head bolt. Remove cylinder from slide plate. Remove slide plate (Figure 1).

OR

1. Follow shut-down procedure.
2. Unplug hydraulic lines from cylinder. A small amount of oil may leak out of the lines. Cap lines or bleed them into a container; wipe up spillage immediately.
3. With lines removed, loosen slide plate securing bolts. Hold slide plate at the top of the cylinder.
4. Remove slide plate, cylinder and lower cutting head support.

DUAL SLIDE PLATE REMOVAL



WARNING: ASSEMBLY IS VERY HEAVY. USE TEAM LIFT OR FORKLIFT TO LIFT. KEEP HANDS AND FEET OUT FROM UNDER THE ASSEMBLY. FAILURE TO DO SO COULD CAUSE SEVERE INJURY.

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 assembly.
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 assembly out of the machine.

LEAK MAINTENANCE

All fittings on this machine are O-ring style.

1. Follow shut-down procedure.
2. If a leak is detected, tighten fitting with the proper wrench size. Do not over-tighten. Over-tightening could damage O-rings.
3. If a leak still persists, remove fitting and replace O-ring.

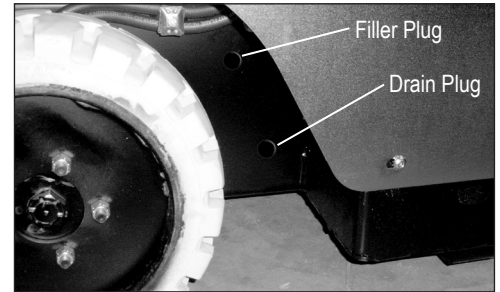


FIG. 2

HYDRAULICS

Check Fluid Level

1. Remove filler plug (Figure 2).
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 2). 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 2).
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.

Change 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 Change 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.

Maintenance



FIG. 3

CHANGE PUMP

5. Follow shut-down procedure.
6. Lift and secure hood.
3. Disconnect hydraulic lines.
4. Remove two 3/8"-16x1 pump bolts.
5. Remove pump by pulling pump straight out from bell housing.

Note: Be cautious to not lose the love joy coupler. If the "plastic spider" falls off inside the pump adapter, the technician might not notice and could reassemble the machine without it.

CHANGE VALVE

1. Follow shut-down procedure.
2. Lift hood and secure in place.
3. Loosen hoses; unbolt valve so that it hangs down. Mark hoses to ensure proper orientation during re-attachment.
4. Re-mount new valve.
5. Transfer hoses to the new valve one at a time, ensuring correct placement.

CHANGE WHEEL MOTOR

1. Follow shut-down procedure.
2. Block up machine to remove wheel. See wheel changing below.
3. Remove wheel.
4. Loosen hoses; remove wheel-motor-securing nuts and pull out on wheel motor until it is removed.
5. Install new wheel motor.
6. Transfer hoses to new motor one at a time, ensuring correct placement.

CHECK ENGINE OIL

Check dip stick on engine (Figure 3). Engine holds 1.75 qt of oil. Improper fluid level will cause engine damage. See Kawasaki manual to change oil.

CHANGE ENGINE OIL FILTER

1. Follow shut-down procedure.
2. Lift hood and secure in place.
3. Remove cap from engine oil hose. Drain.
4. Remove engine oil filter.
5. Replace cap & new filter. Refill with new engine oil.

ADDITIONAL ENGINE MAINTENANCE

See enclosed Kawasaki Manual.



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.

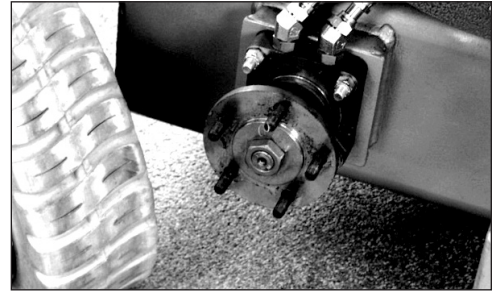


FIG. 4

CHANGE WHEEL



WARNING: WHEN DOING MAINTENANCE OR CHANGING A WHEEL, MAKE SURE MACHINE IS SUPPORTED PROPERLY OR SERIOUS INJURY COULD OCCUR.

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 4).
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.

CASTER ASSEMBLY

1. Keep clean and free of debris; make sure it can move freely.
2. Give a shot of grease in grease zerk on caster as needed to keep moving freely.
3. 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. Remove four bolts, pull caster off, clean/replace as needed.
4. Replace caster.
5. Replace and firmly tighten the four bolts.
6. Lower the machine.

Note: Slots in the caster assembly allow it to slide forward and backward on the mounting bolts. Ensure caster assembly is mounted as far to the rear of the machine as possible.

Maintenance

REMOVE OR REPLACE FOOT PEG

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

TELEMATICS OPTION (5625-12XXXX)

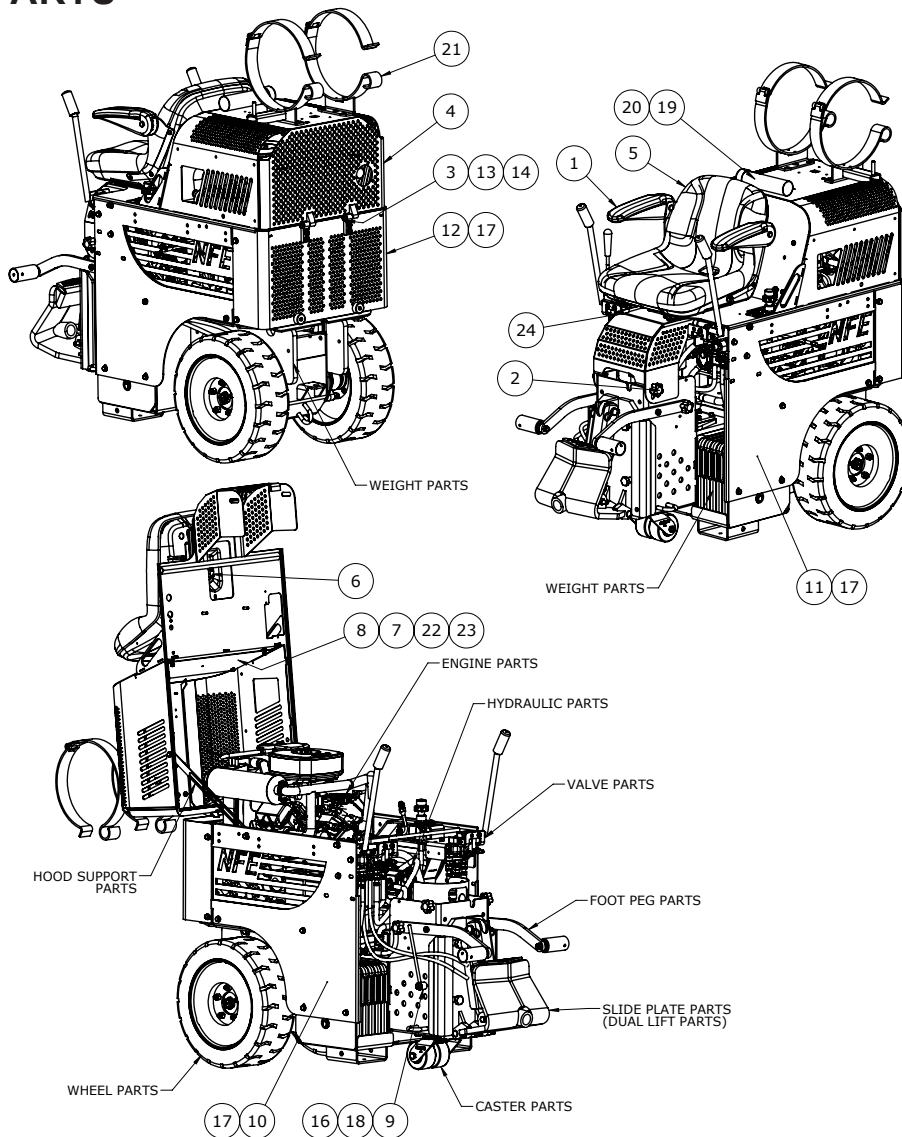
Part No.	Description
406271	Harness, Telematics, Hood, Ride-On, Propane
406273	Harness, Telematics, Body, Ride-On, Propane
406275	Fuse, 3A, 250VAC / 58VDC
406277	Module, Telematics, M7-LITE, ZTR
406278	Mount Kit, Telematics, M7-LITE, ZTR

If you have issues with 406271, 406273 or 406275, please call National's Technical Support.

If you have issues with 406277 or 406278, please call your sales rep.

Parts List and Diagrams

EXTERNAL PARTS



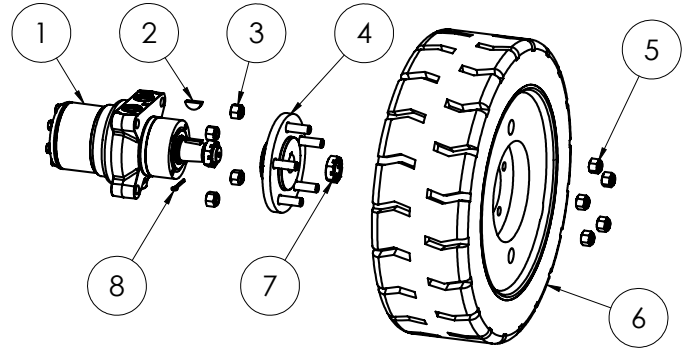
Item	Part No.	Description	Qty.
1	400321	Armrests, Kit for Plastic Seat	1
2	401999	Knob, Adjustable, 3/8 x 3/4	2
3	402127	Bolt, Shoulder, 1/2 x 1-1/2, 3/8-16, Black Oxide	2
4	403132-SV	Hood Weldment, Ride-On, Silver Vein	1
	403132-G	Hood Weldment, Ride-On, Green (5625-12XXXX Only)	1
5	5110-111	Seat, Ride-On	1
6	5110-207	Switch, Seat	1
7	5200QL-13	Spacer, Round, .344 x .750 x .380	4
8	5600-80	Deflector, Heat	1
9	5200-603	Guide, Hose	1
10	401560-SV	Panel, Side, Right, Silver Vein	1
	401560-G	Panel, Side, Right, Green (5625-12XXXX Only)	1
11	401561-SV	Panel, Side, Left, Silver Vein	1
	401561-G	Panel, Side, Left, Green (5625-12XXXX Only)	1
12	404303-SV	Shroud Weldment, Lower Wrap, Bolted Hinge, Silver Vein	1
	404303-G	Shroud Weldment, Lower Wrap, Bolted Hinge, Green (5625-12XXXX Only)	1

Item	Part No.	Description	Qty.
13	404304-SV	Hinge, Lower, Bolt-On, Lower Wrap, Silver Vein	2
	404304-G	Hinge, Lower, Bolt-On, Lower Wrap, Green (5625-12XXXX Only)	2
14	404322	Bolt, Wizlock, 5/16-18 x 7/8, Black Zinc, Adhesive	4
15	402139	Tank, Propane, 20lbs (Not Shown) (5625-10XXXX, -12XXXX, -17XXXX, -23XXXX, 5625DL-23XXXX Only)	1
16	73210	Washer, Internal/External Lock 3/8	1
17	73224	Bolt, Wizlock, 3/8-16x1/2	16
18	73238	Bolt, Wizlock, 3/8-16x1-1/2	1
19	70602	Tube, Instruction Manual	1
20	70603	Cap, Instruction Tube	1
	70628	Bracket Set, Tank, 33 Pound, LP	1
21	402259	Bracket Assy, Light & Propane, AUS (Not Shown) (5625-33XXXX Only)	1
22	73008	Nut, Hex, Nylon Insert, 1/4-20	4
23	73076	Screw, Hex Head Cap, 1/4-20x1	4
24	401631	Adjuster, Fore/Aft, Seat	1

Parts List and Diagrams

WHEELS

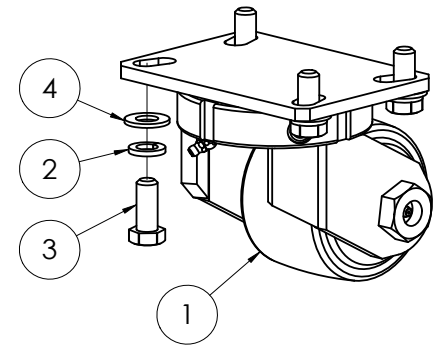
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	400133	Motor, Wheel, Hydraulic, 10mm	1
2	73047	Key, Woodruff 5/16 x 1	1
3	73402	Nut, Nylock 1/2-13	4
4	5110-117	Wheel, Hub	1
5	73430	Nut, NyLock 1/2-20	5
6	5600-300	Wheel, Rim and Tire, 18"	1
7	5110-117-2	Hub Nut	1
8	401433	Pin, Cotter 1/8 x 1.75	1



CASTER WHEEL ASSEMBLY

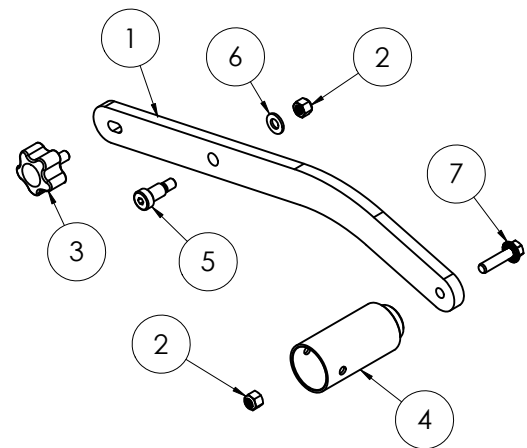
Item No.	Part No.	Description	Qty.
1	402280	Caster Assy, Kingpinless, 4", Plate-Mount	1
1.1*	403352	Wheel, 4"OD x 2-1/2"W (Wheel Only)	1
1.2*	403353	Axle, Including Nut	1
2	73403	Washer, Lock, 1/2	4
3	73406	Screw, Hex Head Cap, 1/2-13x1-1/4	4
4	73424	Washer, Flat, Zinc SAE 1/2	4

*Items 1.1 and 1.2 are included as part of Item 1 and are also available individually.



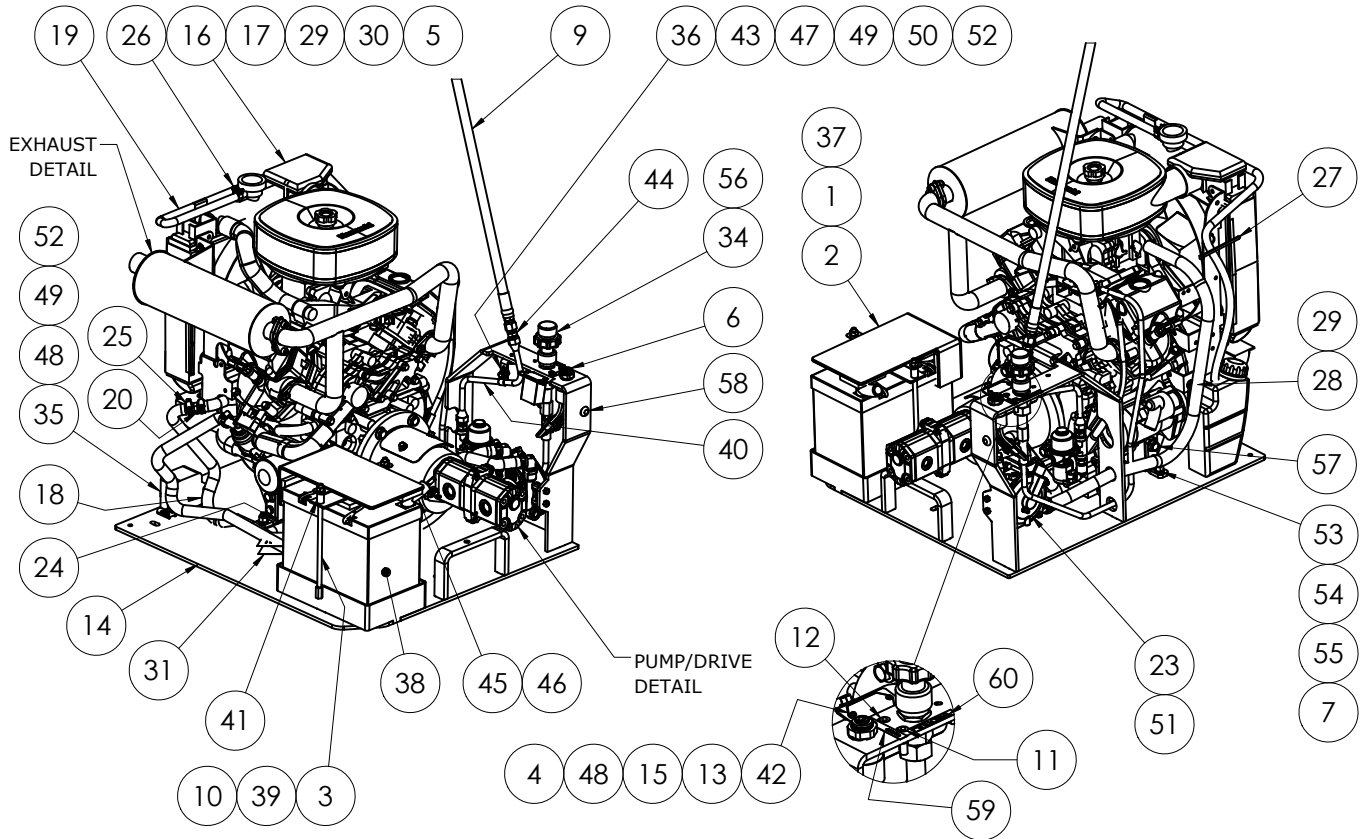
FOOT PEGS

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



Parts List and Diagrams

MOTOR POD ASSEMBLY



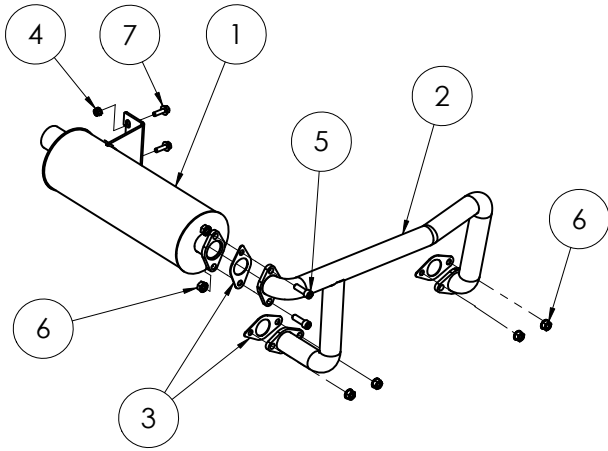
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	400191-1	Cover, Battery, Top	1
2	400280	Barrier, Heat, Adhesive Back	1
3	401418	Rod, Threaded, 5/16-18x9	2
4	401496	Screw, Hex Head Cap, 1/4-20 x 3/8, Clear Zinc	1
5	402109	Bolt, Motor Base, M10 x 25 w/patch	4
6	402367	Switch, Ignition, Keyed, Sealed, Quick Connect	1
7	402803	Bracket, Motor, Torque Control	4
8*	403217	Harness, Wiring, Motor Pod, Oil Pressure	1
9	403219	Hose, LPG, Top-Mount	1
10	404157	Nut, Keps, 5/16-18, Clear Zinc	2
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, 4psi	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 Nylon, 18lbs, 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 NO.	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, Grade 2, Clear Zinc	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, Hex, Nylon Insert, 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, 25 HP	
62*	400217	Filter, Foam Element 25 HP	
63*	400218	Filter, Air, Element	

*Not shown

Parts List and Diagrams

EXHAUST ASSEMBLY



ITEM NO.	PART NO.	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, Keps, M6-1.0, Clear Zinc	2
5	73311	Screw, Socket Head Cap, 5/16-18x1	2
6	404157	Nut, Keps, 5/16-18, Clear Zinc	6
7	74632	Bolt, Wizlock, M6-1.0x20, Clear Zinc	2

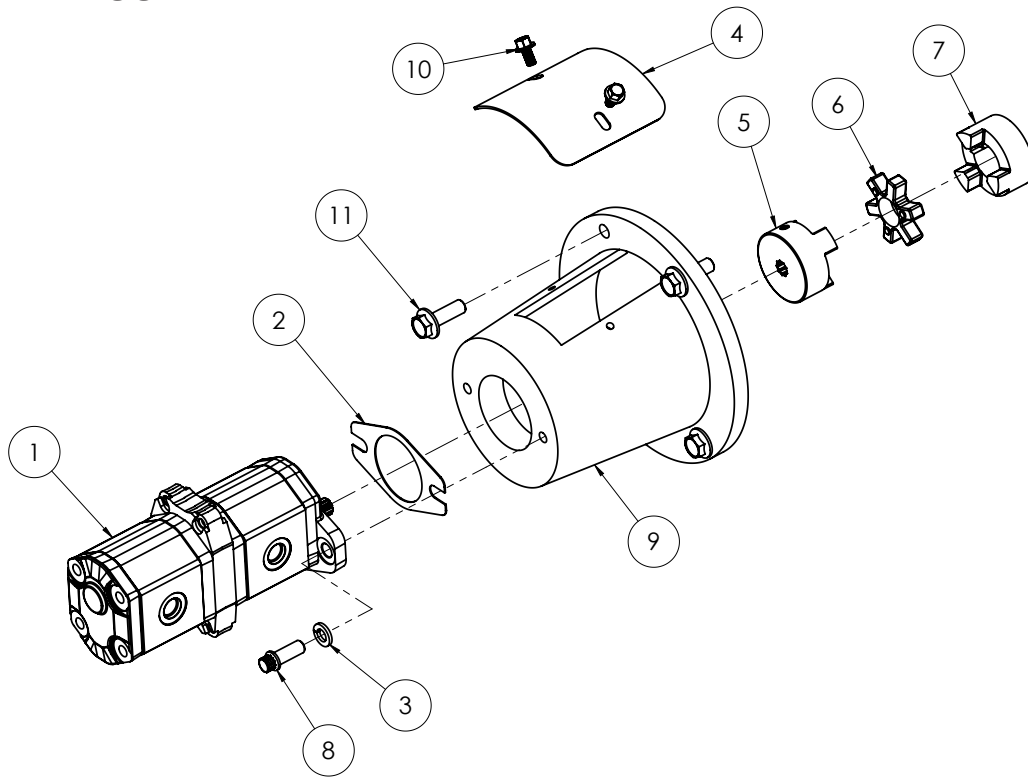
TOP-MOUNT FUEL LINE



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

Parts List and Diagrams

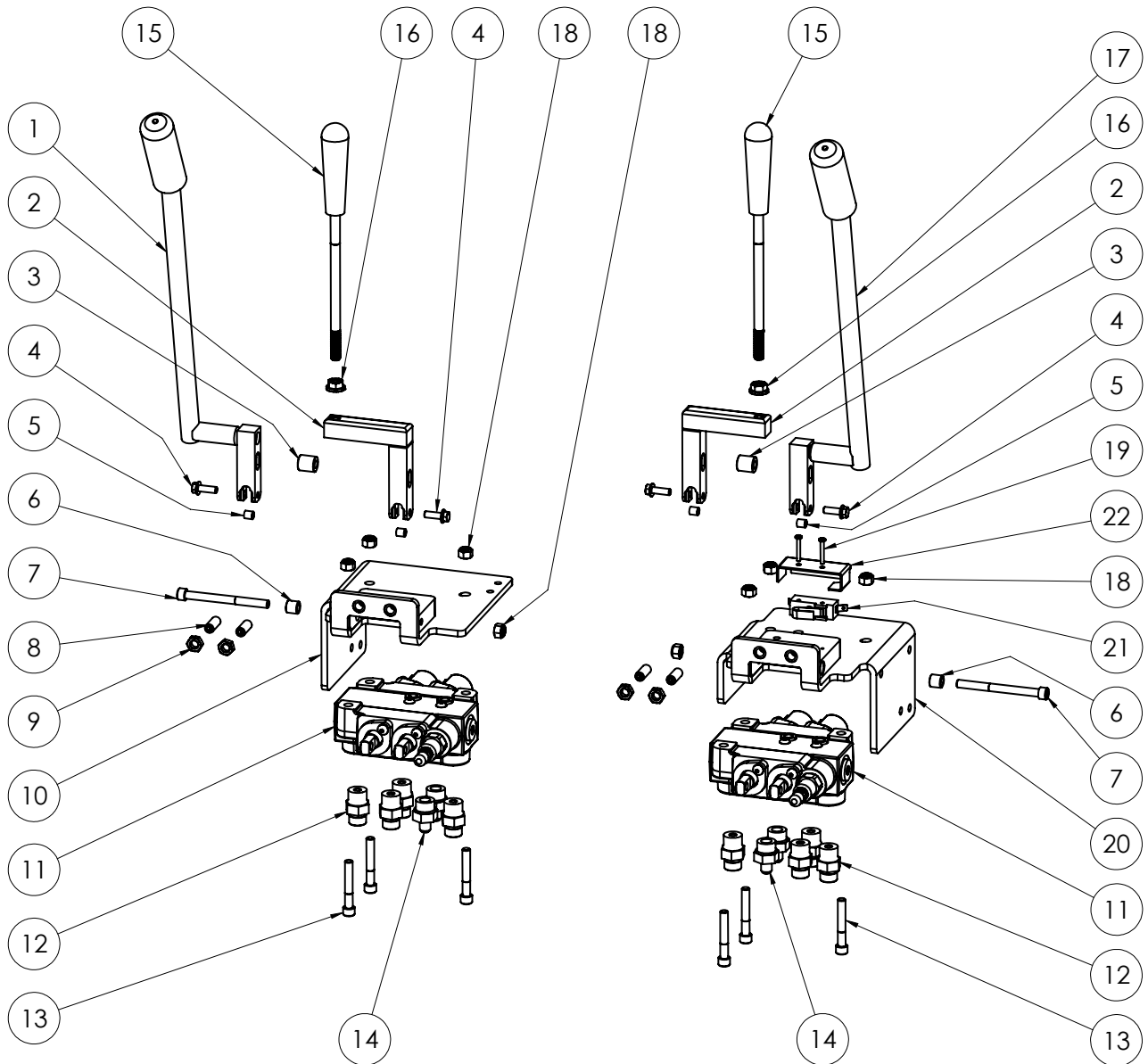
PUMP DRIVE ASSEMBLY



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, Ferry 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

Parts List and Diagrams

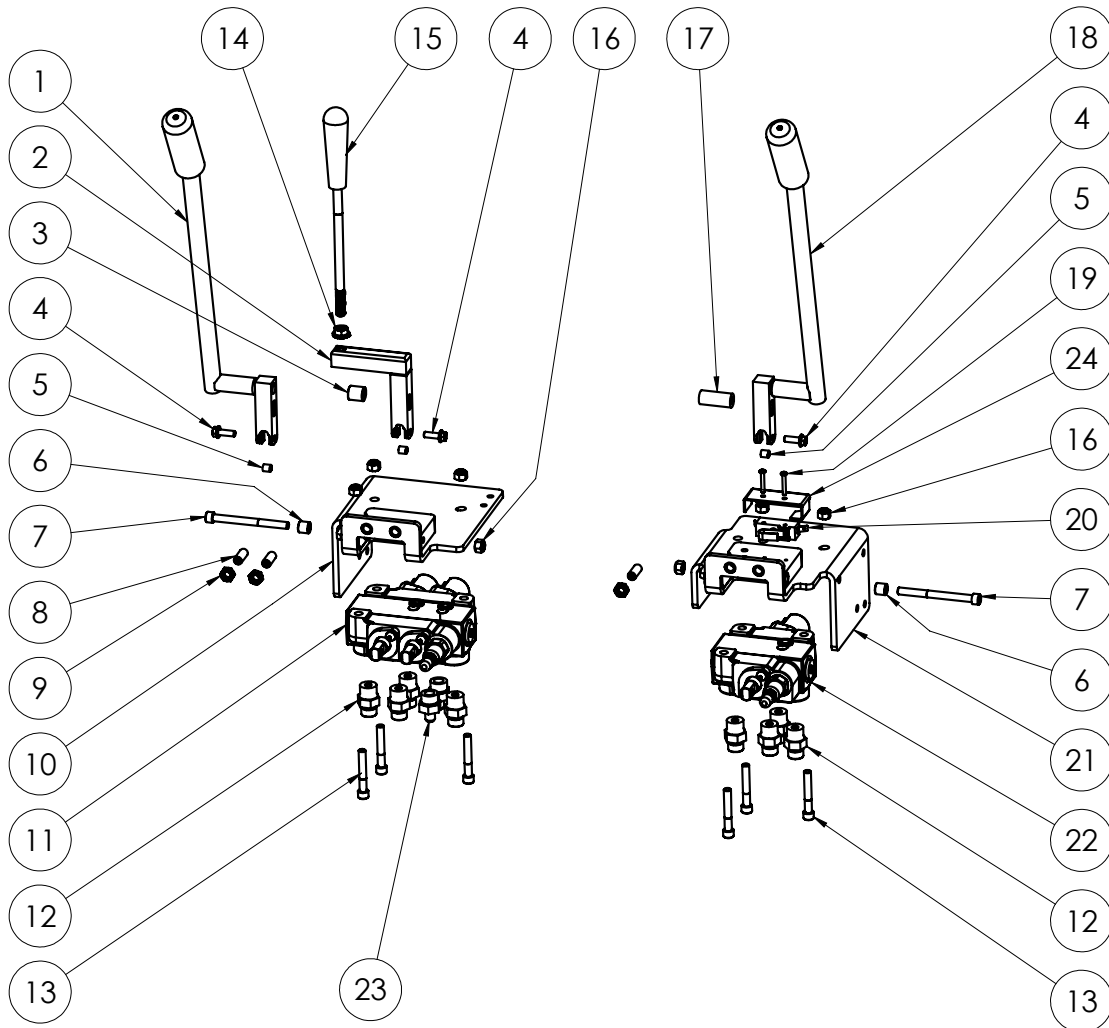
LEVERS (DUAL LIFT)



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	402416	Assembly, Valve Handle, Right	1	12	400034	Fitting, FF1231-06-08	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	400137	Fitting, 1/2 - 1/4, JIC	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	401832	Valve, Metered, Dual Spool, Low PSI	2	22	402949	Cover, Switch, Back-Up	1

Parts List and Diagrams

LEVERS (MANUAL LIFT)

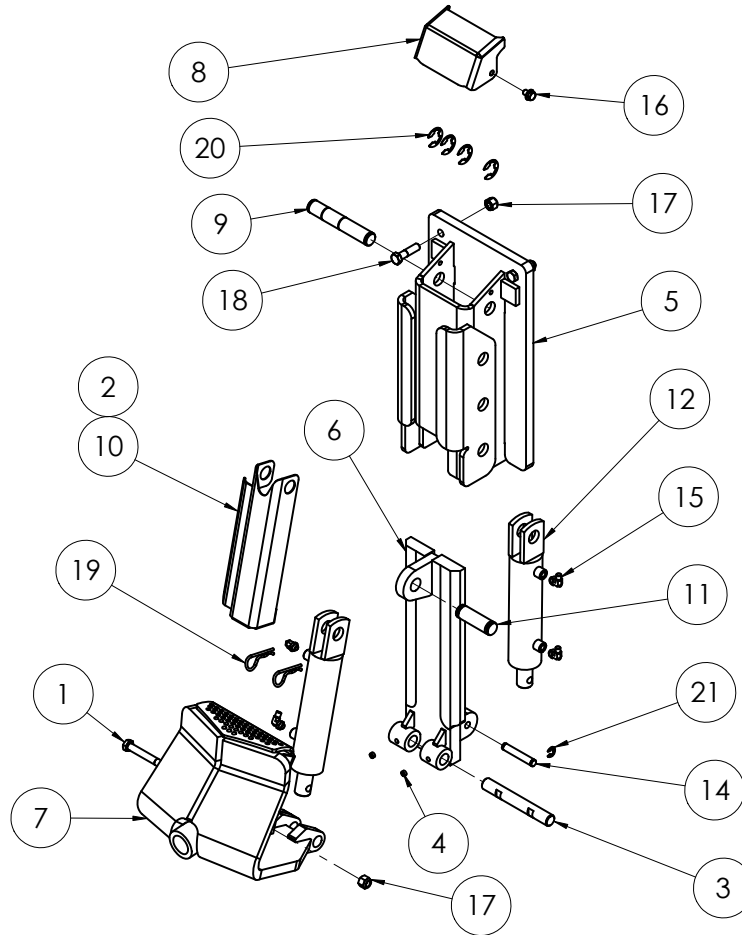


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	402416	Assembly, Valve Handle, Right	1
2	401797	Bracket, Universal, Lever	1
3	401408	Spacer, Round, .323 X .625 X .675	1
4	73027	Bolt, Wizlock, 1/4-20 X 3/4	3
5	401604	Bushing, Lever, Hydro Valve	3
6	402227	Sleeve, Take-up, Valve Brkt	2
7	73321	Bolt, SHCS, 5/16-18x3.5	2
8	73227	Screw, Set 3/8-24x1	3
9	73235	Nut, Hex Jam 3/8-24	3
10	401796	Bracket Wldt, Valve, RH	1
11	401832	Valve, Metered, Dual Spool, Low PSI	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
12	400034	Fitting, FF1231-06-08	8
13	73320	Bolt, Socket Head Cap 5/16-18x2	6
14	73211	Nut, Flange, Serrated, 3/8-16	1
15	5700-60	Handle, Valve Adjustment	1
16	73322	Nut, Nyloc, 5/16-18	7
17	401947	Spacer, Round, .323 X .625 X 1.455	1
18	402415	Assembly, Valve Handle, Left	1
19	74517	Screw, PPH-MS, 6-32x1	2
20	403064	Switch, Back-up Beeper	1
21	401795	Bracket Wldt, Valve, LH	1
22	401833	Valve, Metered, Single Spool, Low PSI	1
23	400137	Fitting, 1/2 - 1/4, JIC	2
24	402949	Cover, Switch, Back-Up	1

Parts List and Diagrams

DUAL LIFT

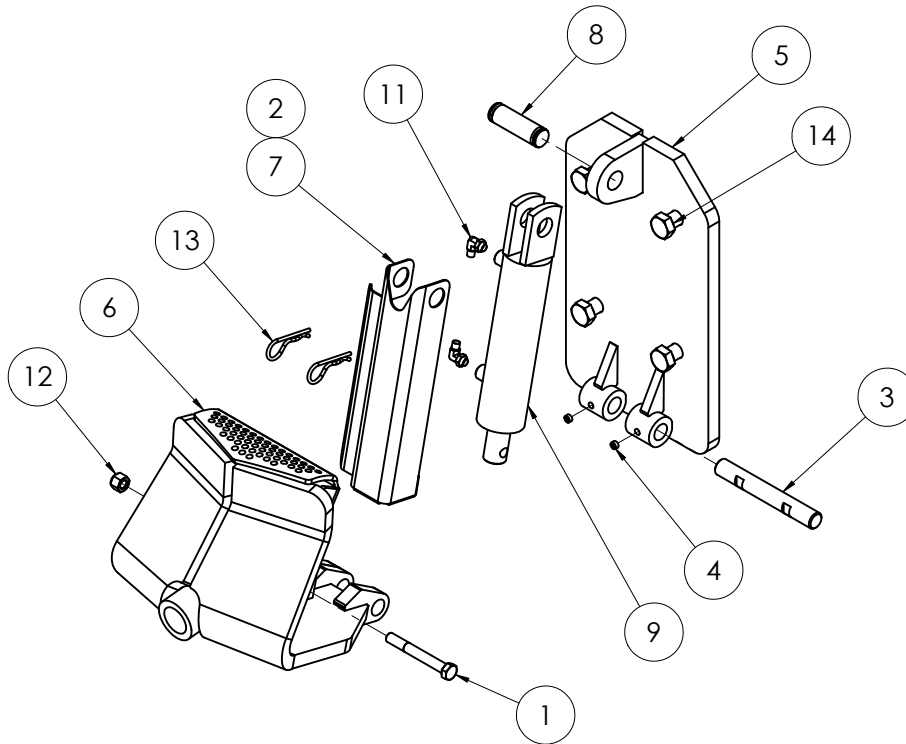


ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	400132	Bolt, Hex Head, 1/2-13 x 4, Grade 8	1
2*	400296	Gasket, EPDM Foam	1
3	401429	Pin, Lower Cutting Head Support	1
4	401876	SSS, 3/8-24 x .25, Black Oxide	2
5	402423	Housing, Hydraulic Adjustment, Wldt	1
6	402432	Slide Plate, Hydraulic Adjustment, Wldt	1
7	402440	Tooling Holder, Weldment	1
8	402513	Cover, Hydraulic Adjustment, Housing	1
9	402542	Pin, Upper, Hydraulic Cylinder	1
10	402574	Shield, Cylinder	1
11	402576	Pin, Cylinder/Guard, Upper	1
12	5110-250	Cylinder NN16	2
13*	5110-267	Hose, Assembly, Hydraulic, 1/8 x 31.75, F/F	2
14	6500-31	Pin Lower Middle	1
15	72801	Fitting, 90 Deg., 1/4"	4
16	73224	Bolt, Wizlock, 3/8-16x1/2	2
17	73402	Nut, Nylock, 1/2-13	3
18	73413	Bolt, Hex Head 1/2-13x2	2
19	73536	5/8 Hitch Pin Clip	2
20	80083	E-Clip, 1" shaft	4
21	80084	E-Clip, 1/2" shaft	2

*Not shown

Parts List and Diagrams

MANUAL LIFT

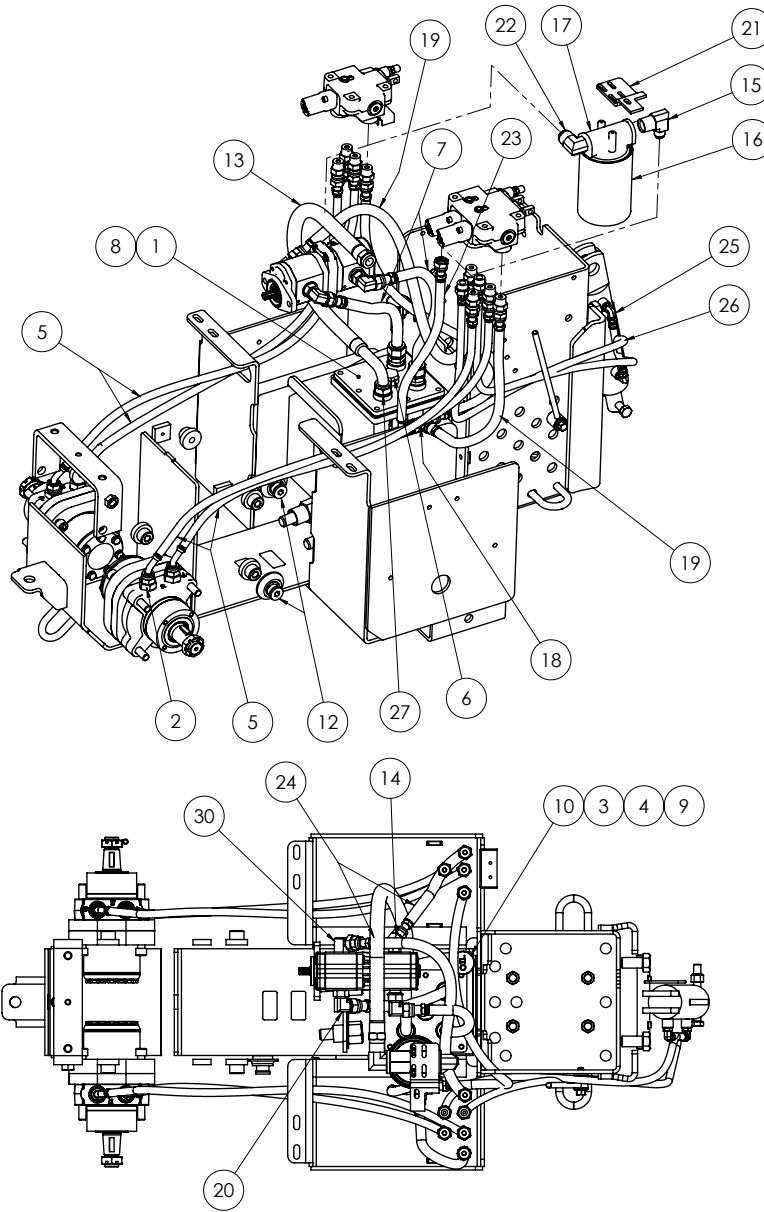


ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	400132	Bolt, Hex Head, 1/2-13 x 4, Grade 8	1
2*	400296	Gasket, EPDM Foam	1
3	401429	Pin, Lower Cutting Head Support	1
4	401876	SSS, 3/8-24 x .25, Black Oxide	2
5	402410	Slide Plate, Steel, Manual Adjustment	1
6	402440	Tooling Holder, Weldment	1
7	402574	Shield, Cylinder	1
8	402576	Pin, Cylinder/Guard, Upper	1
9	5110-250	Cylinder NN16	1
10*	5110-267	Hose, Assembly, Hydraulic, 1/8 x 31.75, F/F	1
11	72801	Fitting, 90 Deg., 1/4"	2
12	73402	Nut, Nylock, 1/2-13	1
13	73536	5/8 Hitch Pin Clip	2
14	73605	Bolt, Hex Head, Grade 8, 3/4-10x1-1/2	4

*Not shown

Parts List and Diagrams

HYDRAULICS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	401574	Plate, Suction	1
2	5110-114-2	Fitting, Wheel Motor	4
3	5110-234-1	Pipe, Relief Valve	1
4	5110-234	Coupler, Relief Valve	1
5	5200-261	Hose, Hydraulic, 3/8 x 40, F/45F	4
6	5700-67	Plug, Tank	1
7	5700-77	Hose, Hydraulic, 1/2 x 13.5, M/F	2
8	5700-93	Gasket	1
9*	70655	Pipe, Male, 10"x3/4"	1
10	405291	Breather Cap, with Splash Guard, 1/4 NPT	1
11*	400099	Hose, Hydraulic, Suction, 3/4 x 20, F/M	2
12	5110-157	Drain, Filler-Plug	2
13	401635	Hose, Hydraulic, Suction, 3/4 x 20, F/M	1
14	5110-264	Fitting, Valve, 45 degree	1
15	5700-64	Fitting, Filter	1
16	5700-65	Filter	1

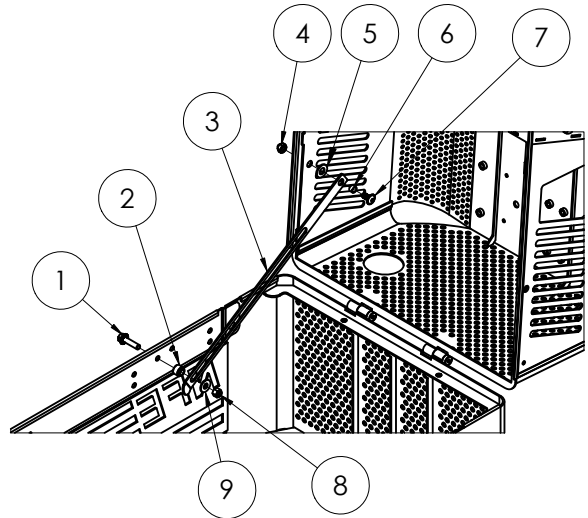
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
17	5700-66	Filter Head	1
18	5700-70	T-Fitting	1
19	5700-72	Hose, Hydraulic, 3/8 x 21, F/F	2
20	6280-118	Fitting, Suction Hose to Pump	2
21	70612	Bracket, Filter	1
22	70653	Fitting, 90 Degree	1
23	70351	Hose, Hydraulic, 3/8 x 10, F/90F	1
24	5700-76	Hose, Hydraulic, 3/8 x 26, F/F	2
25	72801	Fitting, 90 Deg., 1/4"	2
26	5110-267	Hose, Assembly, Hydraulic, 1/8 x 31.75, F/F	1
27	70652	Fitting	1
28*	5110-237	Filter Screen	2
29*	400177	Oil	6
30	72816	Fitting, Elbow, 90 Degree, 3/8"	1

*NOT SHOWN

Parts List and Diagrams

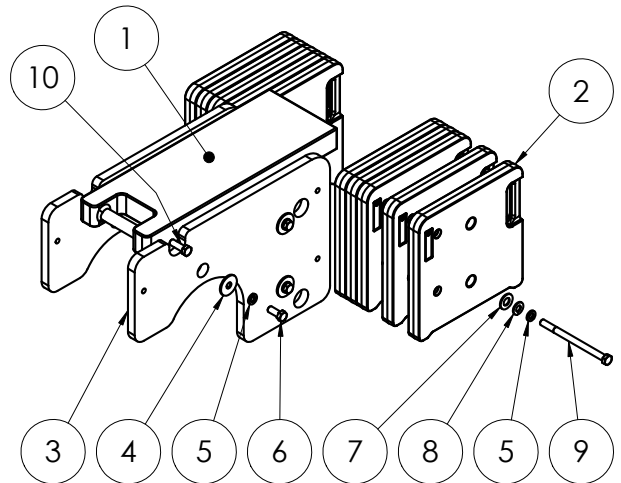
HOOD SUPPORT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	73238	Bolt, Flange 3/8-16x1-1/2	1
2	401963	Spacer, Hood Strap, Body	1
3	400172	Support, Hood	1
4	400189	Nut, Acorn, Nickel Plated, 3/8-16	1
5	401452	Washer, Flat, 1/2", SAE	1
6	402116	Spacer, Hood Strap, Hood	1
7	73231	Bolt, Button Head, Flange, 3/8-16	1
8	73207	Nut, NyLock 3/8-16	1
9	73264	Washer, Flat, Zinc USS 3/8	1



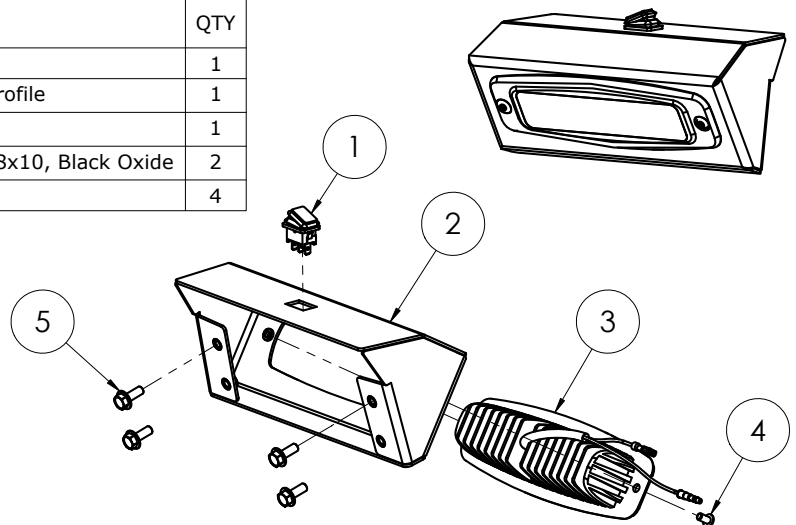
WEIGHTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	5110-404	Bottom Weight	1
2	74854	Weight, Pocket, Cast, Ride On	10
3	5600-37	Side Weight	2
4	73399	Washer, Extra Heavy Fender 1/2"	6
5	73403	Washer, Split lock 1/2	8
6	73406	Bolt, Hex Head Cap 1/2-13x1-1/4	6
7	73531	Washer, Flat Zinc, SAE 5/8	2
8	73424	Washer, Flat, Zinc SAE 1/2	2
9	73414	Bolt, HHCS, 1/2-13x7	2
10	73427	Bolt, Hex Head Cap 1/2-13x1-1/2	1



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

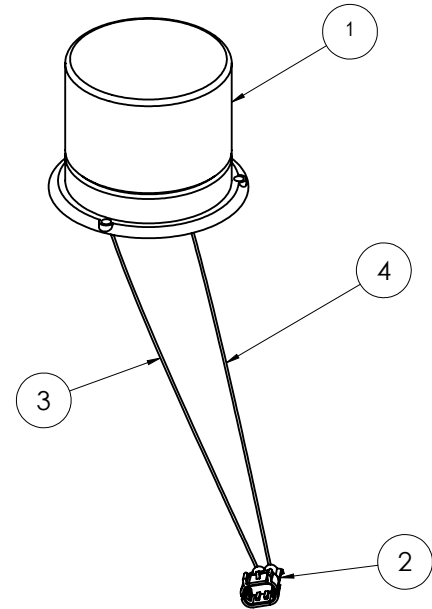


Parts List and Diagrams

BEACON ASSEMBLY 402512 (5625-33XXXX ONLY)

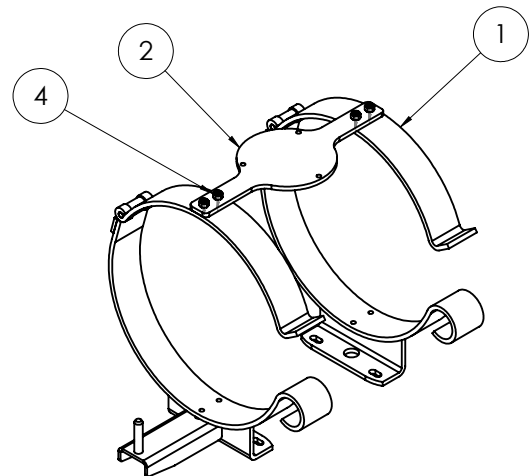
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70629	Light, Flashing	1
2	72790	Connector, Male, 2 Pole	1
3	72568	Wire, Primary, 14 GPT-500-RED (TSC)	3
4	72569	Wire, Primary, 14 GPT-500-BLK (TSC)	3
5	72770	Terminal, 14-12 Gauge, Male	2
6	72775	Terminal, 18-16 Gauge, Female	2
7	72815	Terminal Connector, Female, Push-On	1
8	72836	Terminal, Nylon, B, Butt, 16-14	2
9	72873	Clamp, Cable 3/8	2
10	72887	Loom, Convoluted 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



LIGHT AND TANK BRACKET ASSEMBLY 402259 (5625-33XXXX ONLY)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	402136	Bracket, Tank, 33 Pound, LP, MOD	1
2	402105	Bracket, Light, AUS	1
3	73029	Screw, Flat Head Socket Cap, 1/4-20 x 3/4, Black Oxide	4
4	73008	Nut, Nylock 1/4-20	4



Parts List and Diagrams

LABELS



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	405191**	1	17	L142*	1
2	L33B	1	18	L561	2
3	L155	1	19	L256*	2
4	L95F	2	20	L318*	1
5	L98	1	21	L319*	1
6	L106	2	22	402149	2
7	L118	2	23	402376	1
8	L137	3	24	L290***	1
9	402464	2	25	L316***	1
10	L223*	1	26	L317***	1
11	402012	3	27	405153	1
12	L314*	1	28	402627	1
13	L315	1			
14	L08-1	2	29	402628	2
15	L33C	1			
16	L66*	1			

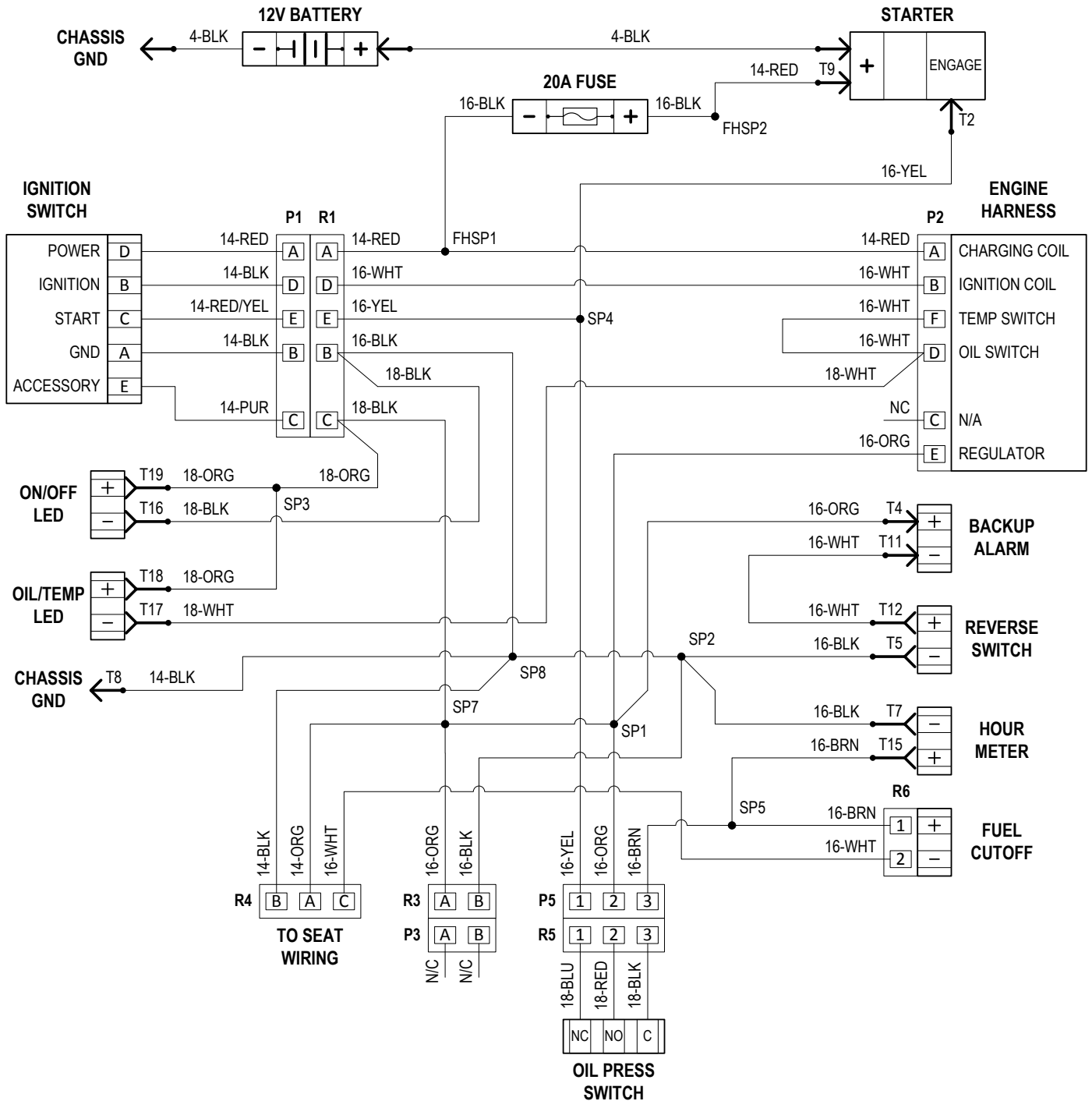
* Not shown

** Kit includes Items 2-26.

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

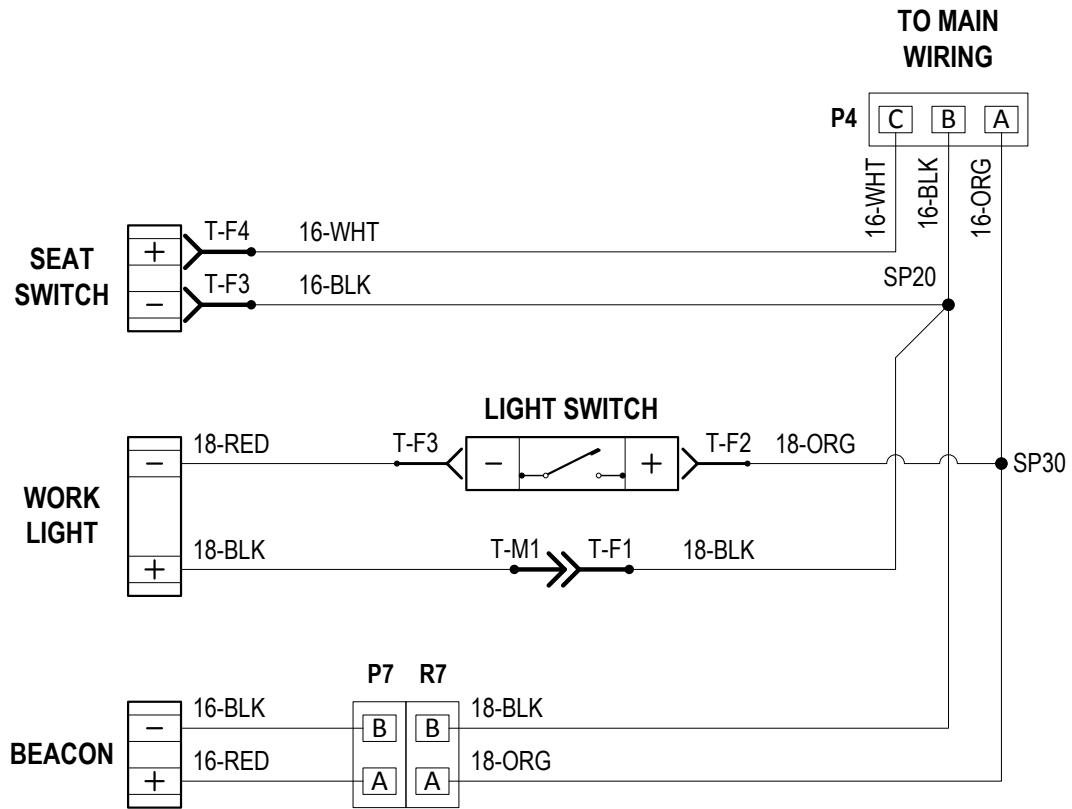
Wiring Diagrams

5625 MAIN WIRING DIAGRAM



Wiring Diagrams

5625/8000 SEAT WIRING DIAGRAM





Made in America Since 1968

9250 Xylon Avenue N • Minneapolis, MN 55445 • U.S.A.
Toll-free 800-245-0267 • Phone 763-315-5300 • Fax 800-648-7124 • Fax 763-535-8255
Web Site: www.nationalequipmentdirect.com • E-Mail: info@nationalequipment.com