

OPERATION

Safe Operating Practices

Some of the following safety instructions are from ANSI Standard B-71.4-1999 while others are specific to the Hustler Mid Mount Z line.

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.

Operation

- ▲ Never leave a running machine unattended. Always disengage deck clutch, place control levers in park brake position, stop tractor engine, and remove ignition key when leaving operator's seat.
- ▲ Always remain seated while operating machine.
- ▲ Always keep safety shields and covers in place, except for servicing.
- ▲ Always maintain a safe distance from people and pets when mowing. Always stop machine if someone enters the area.
- ▲ Always operate machine in daylight or with adequate working lights.
- ▲ Follow daily and weekly checklists, making sure hoses are tightly secured and bolts are tightened.
- ▲ Always observe traffic laws while driving machine from one location to another. Watch for traffic when operating near or crossing roadways.
- ▲ Always be alert for hazards such as rocks, metal objects and other debris which may be thrown or entangled by mower blades. Watch out for holes or deep depressions.
- ▲ Inspect area to be mowed for hazards such as rocks, metal objects and other debris which may be thrown or entangled by mower blades. Remove these objects before mowing.
- ▲ Always inspect machine for damage after striking a foreign object. If damage is found, repair machine immediately. Be sure to disengage deck clutch, place control levers in park brake position, stop tractor engine, and remove ignition key when leaving operator's seat to inspect damage.
- ▲ Always wear adequate ear protection, such as earplugs, when operating this equipment as prolonged exposure to uncomfortable or loud noises can cause impairment or loss of hearing. Do not wear radios or music headphones while operating the machinery. Safe operation requires your full attention.
- ▲ Do not operate the equipment while wearing sandals, tennis shoes, sneakers, shorts or any type of loose fitting clothing. Always wear long pants, safety glasses, ear protection and safety shoes when operating this machine.
- ▲ Always be aware of what is behind the machine before backing up. Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing up.
- ▲ Never push forward suddenly on your control levers while the machine is in rearward motion because machine may tip backwards.
- ▲ Never pull back suddenly on your control levers while the machine is in forward motion.
- ▲ When moving in reverse, push forward slowly on control levers and avoid sudden movement. Rapid movement of the control levers in either direction could result in a reaction of the tractor that can cause serious injury.
- ▲ Never operate a poorly maintained machine.
- ▲ Never attempt high speed maneuvering, especially in crowded or congested areas.
- ▲ Never allow persons to operate this machine without proper instruction or allow children to operate machine. Allow only responsible adults who are familiar with these instructions to operate this machine.
- ▲ Never put hands or feet under any part of the machine while it is running.
- ▲ Never carry passengers.
- ▲ Always disengage the blades and wait for them to stop before crossing gravel drives, walks or roads.
- ▲ Always keep clear of the mower blades and attachments during their operation.
- ▲ Turn off blades when not mowing.
- ▲ Slow down before turning.
- ▲ Stop the engine before removing the grass catcher or unclogging the

discharge chute. Never clear the discharge chute with the engine running. Turn off the engine and be sure the blades have stopped before cleaning. Use a stick to clear a plugged discharge area. **Never use your hand!**

- ▲ Always keep clear of the mower blades and attachments during operation.
- ▲ Do not operate the machine while under the influence of alcohol or drugs.
- ▲ Exercise caution when loading or unloading the machine onto a trailer or truck.
- ▲ Always wear safety goggles or safety glasses with side shields when operating the mower.
- ▲ Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the mower safely enough to protect themselves and others from serious injury.
- ▲ If any attachment or additional weight is mounted on the rear of the unit, any rapid movement of the control levers in either direction could result in a reaction of the tractor that can cause serious injury.
- ▲ **Clean flammable material from machine.** Prevent fires by keeping engine compartment, exhaust area, battery, fuel line, fuel tank and operator's station clean of accumulated trash, grass clippings, and other debris. Always clean up spilled fuel and oil.
- ▲ Always buckle seat belt, if provided with one, and only if a ROPS is installed properly, before starting tractor.

Using a ramp

- ▲ Use extreme caution when loading and unloading a unit with a ramp.
- ▲ Use only a single, full width ramp; do not use individual ramps for each side of the unit. Having a full width ramp provides a surface for the tractor frame to contact if the unit starts to tip backwards. It also reduces the risk of a wheel going off and the machine tipping over.
- ▲ Do not exceed a 15 degree angle between the ramp and the ground or between the ramp and the trailer or truck.
- ▲ When on a ramp avoid sudden acceleration

Slope Operation

Slopes are a major factor in loss-of-control and tip-over accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it; do not mow it.

- ▲ Use extreme caution when operating on slopes.
 - Be extremely careful changing directions on a slope. Slow down.
 - Do not operate where the machine could slip or tip.
 - Turn slowly
 - Turn on the most level part of the slope
 - To maximize traction, it is better to turn the front of the machine uphill, rather than downhill. **If drive tires lose traction, steering control is lost which could cause serious injury or death.**
 - If it becomes necessary to turn downhill, turn slowly and gradually, if possible.
- ▲ Do not remove or modify the stabilizer wheels.
- ▲ Watch for holes, ruts or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- ▲ Remove obstacles such as rocks, tree limbs, etc.
- ▲ Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction.
- ▲ Avoid starting and stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.
- ▲ Mow a safe distance (minimum of two mower widths) away from drop-offs, retaining walls, drainage ditches, steep banks, water, and other types of hazards to avoid a wheel dropping over the edge or to avoid the ground from breaking away. This will help avoid machine rollover and serious injury or death.
- ▲ Use a walk behind or push mower on slopes and near drop-offs, retaining walls, drainage ditches, steep banks and water to avoid machine rollover and serious injury or death.

- ▲ Do not mow on wet grass. Reduced traction could cause sliding.
- ▲ Do not try to stabilize the machine by putting your foot on the ground.
- ▲ If the mower's tires lose traction when operating on slopes, disengage the blades, place the control levers in the park brake position, turn the engine off and get help.
- ▲ Never make sudden starts, stops, turns, or reverse direction, especially when maneuvering on slopes. The steering is designed for sensitive response. Rapid movement of the control levers in either direction could result in a reaction of the tractor that can cause serious injury.
- ▲ Never stop suddenly while backing down slopes. This action may result in a reaction of the tractor that can cause serious physical injury.
- ▲ The Hustler mower is capable of operating horizontally (traverse) on moderately steep slopes. When operating on slopes up to 15 degrees, be aware of any conditions that may cause the tractor drive tires to lose traction resulting in a possible loss of control of the machine. An operator should not operate on a slope until he is thoroughly familiar with the equipment.

Do not operate on slopes greater than 15 degrees.

Refer to Figure 2-1, page 7, when determining the degree of slope to be mowed.

IMPORTANT: The Hustler ATZ only, is capable of operating on slopes of 15 degrees or more (maximum 25 degrees). **Do not operate the Hustler ATZ on slopes greater than 25 degrees.** Refer to Figure 2-1, page 7 when determining the degree of slope to be mowed.

It is strongly recommended that the operator drive the machine off of the slope, using extreme caution, if any sign of loss of traction is detected. Wait until the condition that caused the problem is resolved before attempting to operate on the slope again.

Terrain conditions can affect traction resulting in possible loss of control of the machine. Some of the conditions to be aware of are:

1. Wet terrain
2. Depressions in the ground; i.e. holes, ruts, washouts
3. Mounds of dirt
4. Soil type; i.e. sand, loose dirt, gravel, clay
5. Grass type, density, and height
6. Extremely dry conditions of grass
7. Tire pressure

The attachments mounted to the tractor will also affect the way it handles on a slope. Be aware that each attachment's characteristics vary.

Another consideration to safe mowing on slopes is to be aware of what is located at the bottom of the slope. Extreme caution should be used when there is a hazard located at the bottom of the slope. Some examples are:

1. Water; i.e. lake, river
2. Cliffs, retaining walls
3. Roads, highways
4. Buildings
5. Rocks

These are just a few examples of situations when caution must be used when operating on a slope. There are many other possibilities too numerous to mention. Just remember to always exercise extreme caution when operating on any slope.

- ▲ **When operating on terrain where there is a potential for a roll over, it is important that a ROPS be installed on the equipment. The ROPS will minimize chance of injury or death from rollover. Seat belt must be fastened while operating a machine equipped with ROPS. Failure to use seat belt will result in serious injury in the event of a roll over.**

Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

- ▲ Never leave machine unattended with ignition key in switch, especially with children present.
- ▲ Children or bystanders may be injured if they move or attempt to operate the tractor while it is unattended. Always disengage deck clutch, place control levers in park brake position, stop tractor engine, and remove ignition key when leaving operator's seat.
- ▲ Keep children out of the mowing area and under the watchful care of another responsible adult.
- ▲ Be alert and turn the machine off if children enter the area.
- ▲ Before and while backing, look behind and down for small children.
- ▲ Never carry children, even with the blades off. They may fall off and be seriously injured or interfere with safe machine operation.
- ▲ Never allow children to operate the machine.
- ▲ Use care when approaching blind corners, shrubs, trees, the end of a fence or other objects that may obscure vision.

Control Panels

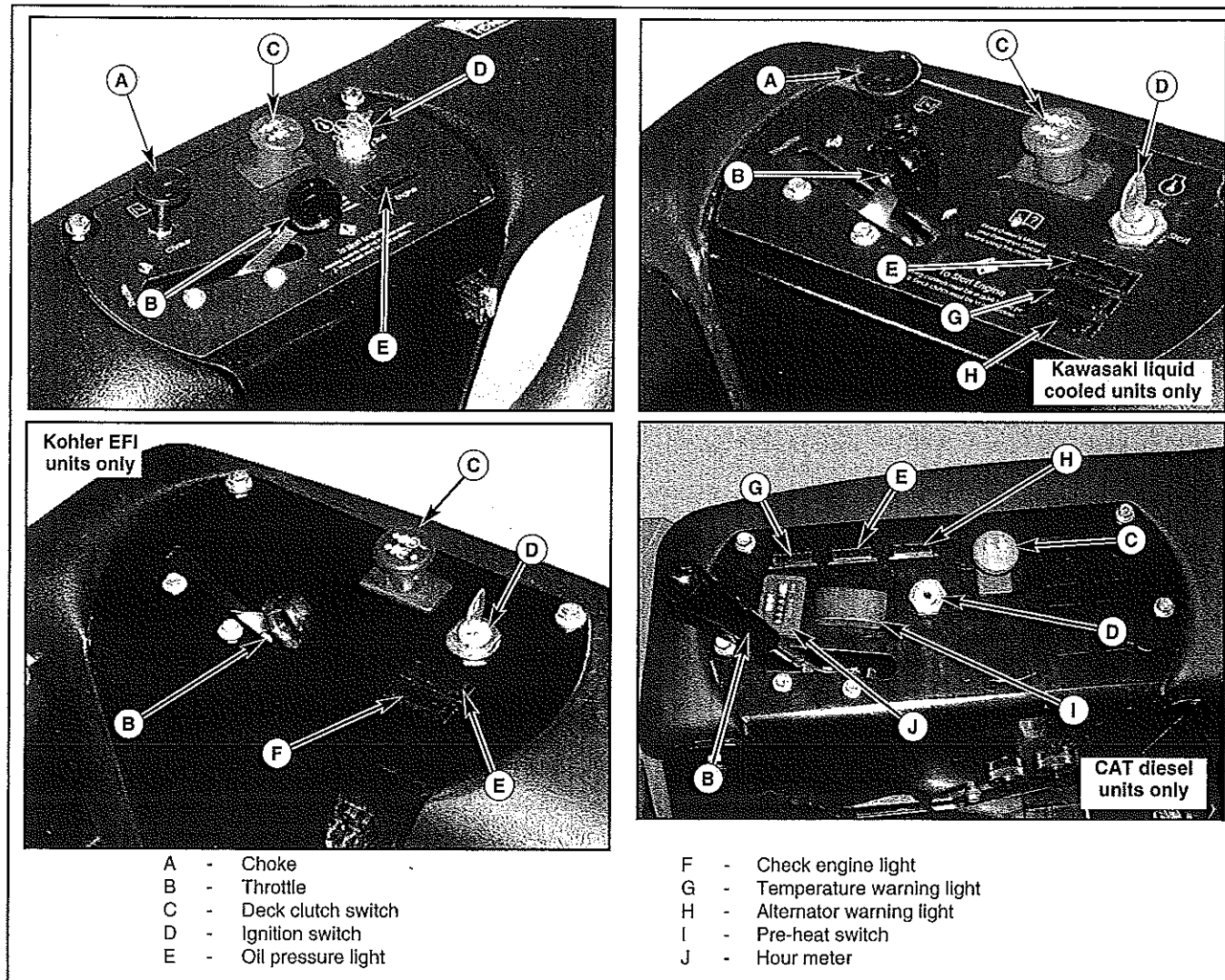


Figure 3-1

IMPORTANT: When access is required under the seat platform and the seat is equipped with the optional arm rests, make certain to place the control arms in the park brake position and pivot the arm rests upward before placing the seat platform in the full forward position to prevent arm rest damage.

Control Panel

- A. Choke control (Fig. 3-1)** — a cable is linked to manually operate the engine choke. When the lever is in the down position, the choke is in the off (run) position. When the lever is pulled up, the choke is in the on (start) position. **Do not** operate the machine in the on (start) position. **NOTE:** The choke control is not used on Models 927053 & 927061.
- B. Throttle control (Fig. 3-1)** — a cable is linked to engine throttle for controlling engine speed. Move lever forward to increase engine rpm, move lever rearward to decrease engine rpm.
- C. Deck clutch switch (Fig. 3-1)** — this switch engages the deck. Pull the switch up to engage and push switch down to disengage the clutch.
IMPORTANT: Never engage clutch with engine running at high rpm or when the deck is under load. Clutch, belts or deck could be damaged.
- D. Ignition switch (Fig. 3-1)** — a three position switch: off, run, and start. With key inserted, rotate it clockwise to START position; release key when engine starts, and switch will automatically return to the RUN position.
- E. Oil pressure light and alarm (Fig. 3-1)** — this light comes on

when the ignition switch is placed in the RUN position and stays lit until the engine is running and a safe oil pressure is developed. If light comes on during operation, shut engine off immediately and locate and correct the problem.

Models 927558 and 927566 only — an audible alarm will sound when the engine oil pressure drops below normal operating pressure.

- F. Check engine light (Fig. 3-1)** — refer to Kohler engine owner's manual for details.
- G. Temperature warning light and alarm (Fig. 3-1)** — this light will come on when the engine coolant temperature reaches an unsafe level during operation. If light comes on, shut down the machine as soon as possible. Never risk continued operation when light remains on; high temperatures can severely damage the engine. Never risk continued operation when light remains on; high temperatures can severely damage the engine.
Models 927558 and 927566 & Diesel units only — an audible alarm will sound when the engine coolant is close to overheating.
- H. Alternator warning light (Fig. 3-1)** — this light comes on when the ignition switch is placed in the RUN position and stays lit until the engine is running and the battery is being charged. If light comes on during operation, shut engine off immediately, locate and correct the problem.
If light remains on while engine is running, it indicates that the battery(s) is being discharged.
- I. Pre-heat switch (Fig. 3-1)** — this is an intermittent rocker switch position. Turn ignition key to run, depress and hold pre-heat switch six (6) seconds to start engine.

J. **Electronic hour meter (Fig. 3-5)** — registers 1/10 hour increments up to 9,999.9 total hours. Connected to the ignition switch, the meter records the accumulative time while the ignition key is switched to the RUN position. **NOTE:** The hour meter is found in various locations on different tractors. **NOTE:** There is no hour meter on FasTrak 36/42 tractors.

Controls

A. **Control levers (Fig. 3-2 & 3-3)** — these levers control the tractor's speed, direction, neutral lock, and park brake. Levers are used to steer, accelerate, decelerate and change direction. When the control levers are in the park brake position (3-3) the tractor will not move when the engine is on and drive pumps are operating.



WARNING: The parking brake may not hold the tractor if parked on a slope. Block or chock the machine when parked on a slope.

B. **Deck lift pedal (Fig. 3-4)** — the deck lift pedal is used to raise or lower the deck. Push on the pedal to raise the deck and then place the deck height locking pin into the desired cutting height hole. Push the deck lift pedal to raise the deck when going over obstructions.

Safety start interlock system

The tractor is equipped with a safety start interlock system consisting of the park brake switches, seat switch, and deck clutch switch.

Check tractor safety start interlock system daily, prior to operation. This system is an important tractor safety feature. It should be repaired immediately if it malfunctions. The machine incorporates a separate seat switch which will stop the tractor engine when the operator is unseated for any reason while the tractor is operating. This is a safety feature designed to prevent runaway or accidental entanglement. To inspect the system:

1. The operator must be on the seat when testing the seat switch.
2. Set both control levers in the park brake position.
3. Start the engine and allow it to warm up to operating temperature.
4. With the deck clutch switch down and the control levers in the park brake position, slowly raise off of the seat. The engine should continue to run.
5. With the deck clutch switch up and/or the control levers in the neutral position, slowly raise off of the seat. The engine should stop.
6. If the engine fails to stop when the deck clutch switch is up or one or both of the control levers is up and the operator is off the seat, check the function of the seat switch. If the seat switch is not operating properly (is not opening or closing) and if the cause can not be determined, replace the seat switch.

If the problem can not be located, contact your Hustler Dealer.



WARNING: The safety interlock system should always function per steps 4 and 5. If it does not function properly, it should be corrected immediately. Do not operate machine without properly functioning seat safety switch.

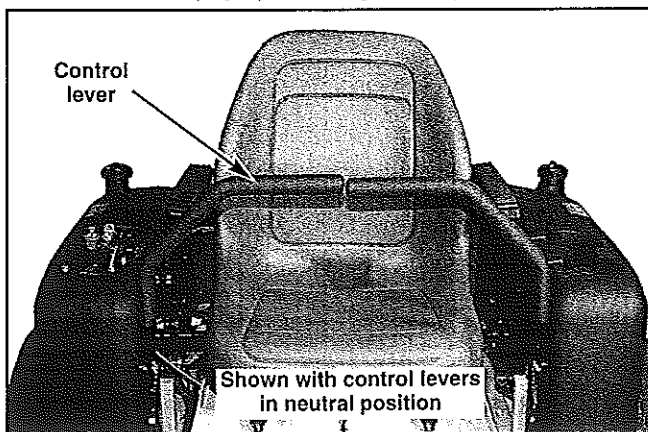


Figure 3-2

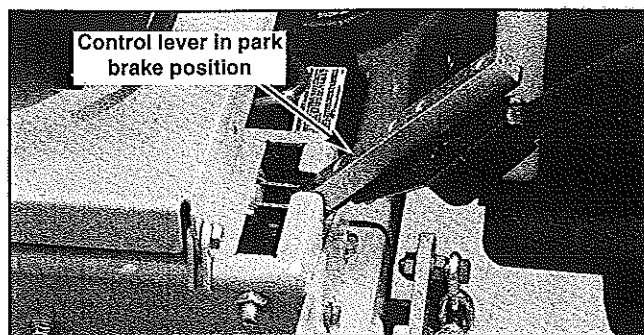


Figure 3-3

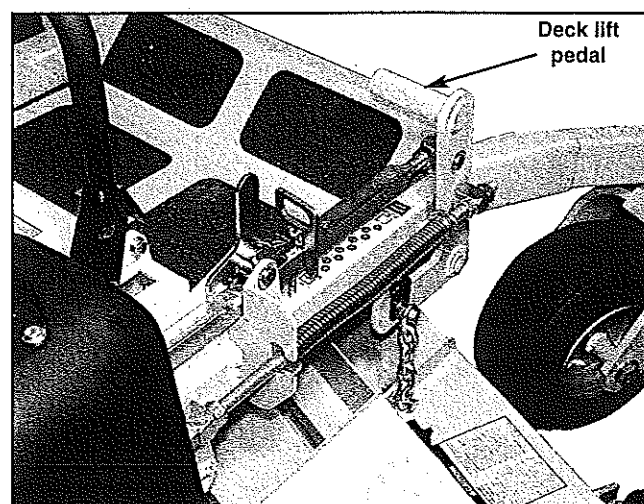


Figure 3-4

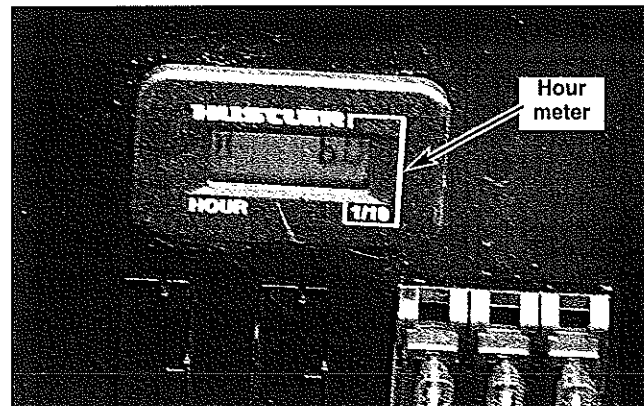


Figure 3-5

Engine (gasoline) starting

The tractor's safety start interlock system is also designed to protect the operator and others from accidental injury due to unintentional engine starting. The engine starting motor will not engage until:

- A. Control levers are in the park brake position.
- B. Deck clutch switch is in the down (OFF) position.



WARNING: The safety interlock system must not be disconnected or bypassed. Doing so could cause the machine to operate unexpectedly resulting in personal injury.

NOTE: The operator's seat is equipped with a separate safety switch. If for any reason the operator should become unseated when the control levers are not in the park brake position (park brake switches are disengaged) or the deck clutch switch is engaged the engine will stop.

The following steps are the correct procedures for starting the engine. If difficulty is encountered, contact the Hustler Dealer in your area.

1. Before starting tractor each day, perform daily pre-operation checking. (See Safety start interlock system section)
2. Make sure the control levers are in the park brake position and deck clutch switch is disengaged.
3. Use choke, if unit is equipped with one, when engine is cold, or if warm engine fails to start within 5 seconds of cranking. Avoid flooding and operate engine without choking as soon as possible.
4. Set throttle at approximately 1/2 open position.
5. Insert key in ignition switch and rotate full clockwise to engage starting motor. Release key when engine starts.

IMPORTANT: The engine starter should not be operated for periods longer than 30 seconds at a time. An interval of at least two minutes should be allowed between such cranking periods to protect the starter from overheating and burn-out.

6. Perform test to make sure safety start interlock system is operating properly. Refer to Safety start interlock system section.
7. As soon as engine begins to run, check to make certain the oil warning light, check engine light and alternator warning light (if applicable) are off. If not, stop engine immediately and check for the cause.
8. Allow the engine to idle a few minutes before advancing the throttle and/or engaging the deck clutch.
9. Before stopping the engine, place the control levers in the park brake position, disengage the deck clutch, and throttle back to low idle for a couple of minutes; then rotate ignition key counter-clockwise to the OFF position. Remove the key from switch before leaving the tractor.

Engine (diesel) starting

The Hustler Super Z Diesel safety start interlock system is also designed to protect the operator and others from accidental injury due to unintentional engine starting. The engine starting motor will not engage until:

- A. Control levers are in the park brake position.
- B. Deck clutch switch is in the down (OFF) position.



WARNING: The safety interlock system must not be disconnected or bypassed. Doing so could cause the machine to operate unexpectedly resulting in personal injury.

NOTE: The operator's seat is equipped with a separate safety switch. If for any reason the operator should become unseated when the brake switches are disengaged or the deck clutch switch is engaged the engine will stop.

The following steps are the correct procedures for starting the engine. If difficulty is encountered, contact the Hustler Dealer in your area.

1. Before starting tractor each day, perform daily pre-operation checking.
2. Make sure the control levers are in the park brake position and deck clutch switch is disengaged.
3. Set throttle at approximately 1/2 open position.
4. Insert key in ignition switch and rotate it to the ON position, then hold the pre-heat switch down to pre-heat the engine, hold this position for 6 seconds. This is necessary only when the temperature is below 50° F. This operation is not necessary when restarting a warm engine.

Shown in the chart are the standard preheating times for various temperatures. This operation, however, is not required when the engine is warmed up.

Failure to follow these recommendations can lead to premature failure of the starter motor and the fuel shut-off solenoid.

NOTICE: Ether, or other starting fluids, must never be used as a starting aid with this engine. Warranty will be denied when engine damage results from such use.

5. Rotate ignition switch key full clockwise to engage starting motor. Release key when engine starts.

IMPORTANT: The engine starter should not be operated for periods longer than 30 seconds at a time. An interval of at least two minutes should be allowed between such cranking periods to protect the starter from overheating and burn-out.

6. Perform test to make sure safety start interlock system is operating properly. Refer to Safety start interlock system section.

Ambient temperature	Preheating time Ordinary heat type
Above 10°C (50°F)	No Need
10°C (50°F) to -5°C (23°F)	Approx. 6 seconds
Below -5°C (23°F)	Approx. 12 seconds
Limit of continuous use	20 seconds

7. As soon as engine begins to run, check to make certain the oil warning light is off. If not, stop engine immediately and check for the cause.
8. Allow the engine to idle a few minutes before advancing the throttle and/or engaging the deck clutch.
9. Before stopping the engine, place the control levers in the park brake position, disengage the deck clutch, and throttle back to low idle for a couple of minutes; then rotate ignition key counter-clockwise to the OFF position. Remove the key from switch before leaving the tractor.

Stopping the engine

Use the following procedure to shut off the engine after operating the equipment.

1. Place the control levers in the park brake position
2. Disengage the deck clutch
3. Throttle back to low idle for a couple of minutes
4. Rotate ignition key counter-clockwise to the OFF position. Remove the key from switch before leaving the tractor.

Moving tractor with stalled engine

If it becomes necessary to move the tractor when the engine is inoperative, the hydraulic pumps are equipped with bypass valves. Before moving the unit, turn bypass valves counter clockwise one-half to one revolution. The valve stems on each hydraulic pump are located near the top and are identified as a hex stud. The valve is located per Figure 3-7.

Do not tow the machine. Move it by hand or use a winch to load on a trailer for transporting.

When transporting on another vehicle, the tractor should be facing forward and it must be secured.

IMPORTANT: Always make certain the two bypass valves are returned to their operating position before running the tractor following repairs. (Fig. 3-6, 3-7 & 3-8)

The control levers must be placed in the neutral position, to release the park brakes, so that the tractor can be moved.

Do not tow the machine. Move it by hand or use a winch to load on a trailer for transporting.

When transporting on another vehicle, the tractor should be facing forward and it must be secured.

IMPORTANT: Always make certain the two bypass valves are returned to their operating position before running the tractor following repairs.

ROPS

(Super Z Diesel only)

The two-post ROPS can be pivoted down so that the machine can operate under low hanging tree limbs or other obstructions. Do not wear the seat belt when the ROPS is in the lowered position. Fig. 3-9



WARNING: To minimize chance of injury or death from rollover: keep ROPS in the raised and locked position and use the seat belt.

There is no roll over protection when the ROPS is in the lowered position.

Lower the ROPS only when absolutely necessary. Drive slowly and carefully. Raise the ROPS as soon as clearance permits. Read and follow slope operation instructions and warnings.

Do not wear seat belt when the ROPS is in the lowered position.

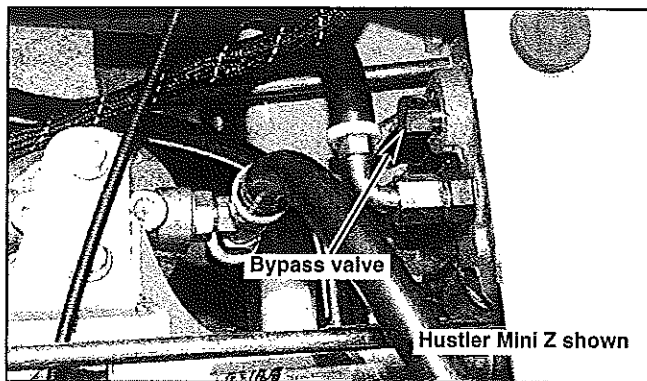


Figure 3-6

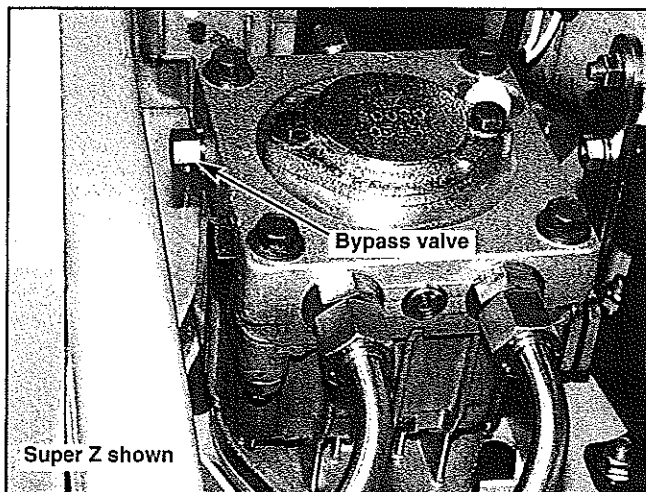


Figure 3-7

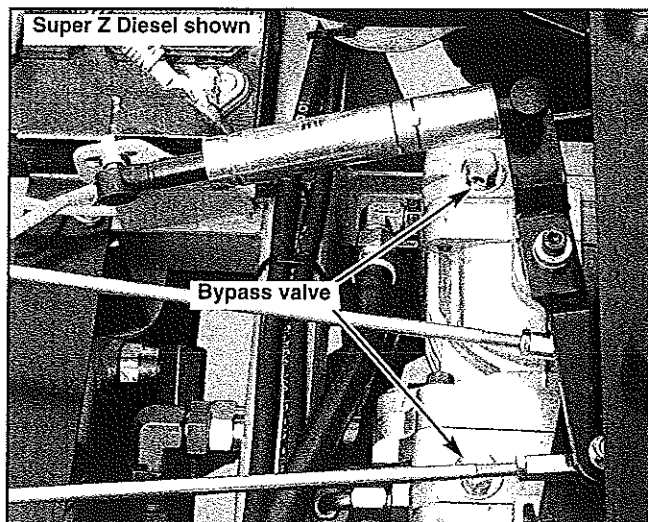


Figure 3-8

Driving the tractor



DANGER: Never make sudden stops or reverse direction, especially when maneuvering on a slope. The steering is designed for sensitive response. Rapid movement of the control levers in either direction could result in a reaction of the tractor that can cause serious injury.

After starting engine, engage the control levers and steer as follows:

To go forward, push control levers forward an equal distance (Fig. 3-10).

To go in reverse, pull control levers rearward an equal distance (Fig. 3-10).

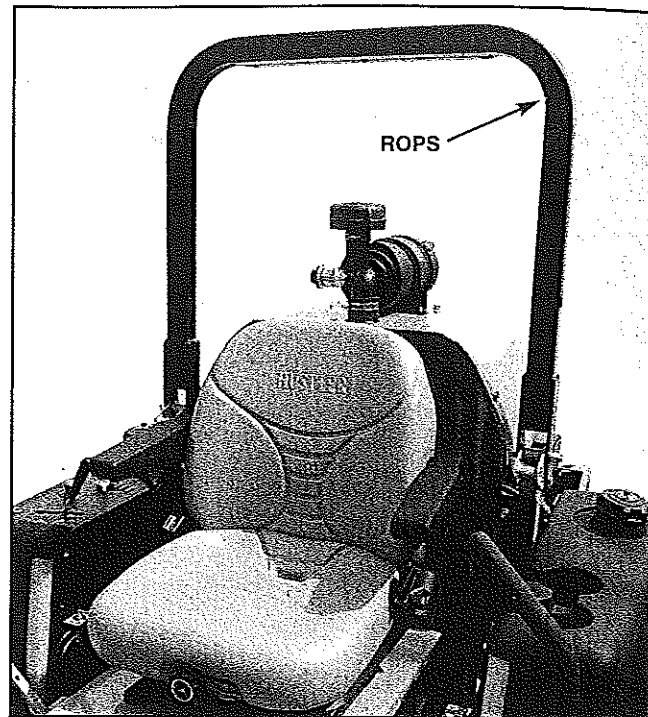


Figure 3-9

To turn left, move the right control lever farther forward from neutral than the left control lever. (Fig. 3-10)

To turn right, move the left control lever farther forward from neutral than the right control lever. (Fig. 3-10)

To pivot turn, move one control lever forward and the other control lever back of neutral. This will allow the drive wheels to counter-rotate. (Fig. 3-10)

To stop or decrease speed, move control levers to neutral. When going forward pull back gently on control levers. When going in reverse push forward gently on control levers.

To make a three point turn to the right, move the left control lever farther forward from neutral than the right control lever and start the turn. Next, pull back on the control levers until they are past neutral and the machine starts to go rearward. Pull right control lever farther rearward from neutral than the left control lever until the rear of the machine has pivoted around. Then, push the control levers forward until they are both past neutral and the machine starts to go forward. Push the left control lever farther forward from neutral than the right control lever and finish the turn. (Fig. 3-11)



DANGER: When moving in the rearward direction push forward gently on control levers and avoid sudden movement. Any sudden movement could cause the front of the mower to come off of the ground resulting in possible loss of control.

IMPORTANT: Rapid movement of control levers is not recommended as damage to the hydraulic system components may occur.

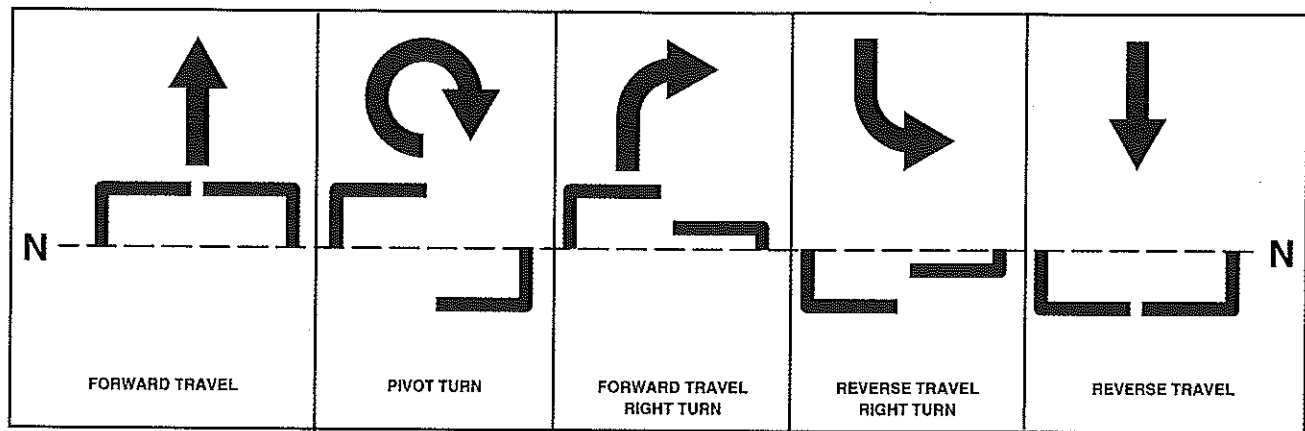
To increase speed, increase control lever's distance from neutral. The farther forward control levers are from neutral, the faster tractor will travel forward. The farther back control levers are from neutral, the faster tractor will go in reverse.

Operating suggestions



DANGER: Prior to operating the tractor the operator should be thoroughly familiar with the proper use and operation of the equipment, should read the manual completely and thoroughly, and should have attempted slow moving maneuvers to become familiar with the operation of the equipment before attempting normal speed operation. An inexperienced operator should not mow on slopes or on uneven terrain.

FRONT OF TRACTOR FACES THIS DIRECTION



N = Neutral Position

Direction of arrows indicate direction of tractor movement.

Figure 3-10



WARNING: If you lose steering control while operating the machine, place the steering control levers in the park brake position immediately. Inspect the machine and involve your Hustler dealer to resolve the problem before continuing to operate.



WARNING: The unit's control levers are very responsive: Easy does it! For smooth operation, move lever slowly, avoid sudden movement. Skill and ease of operation come with practice and experience. The machine can spin very rapidly. Use caution when making turns and slow down before making sharp turns.

Inexperienced operators may have a tendency to oversteer and lose control. Slow-moving practice maneuvers are recommended to become familiar with these characteristics before attempting normal speed operation.



WARNING: Sharp depressions or raised obstacles (such as gutters or curbs) should not be directly approached at high speed in an attempt to "jump" them as the operator could be thrown from the equipment. Approach at a slow speed and angle one drive wheel at the obstruction. Continue at an angle until the wheel clears and then pivot the opposite wheel around.

When turning on soft wet turf, keep both wheels rolling either forward or backward. Pivoting on one stopped wheel can damage turf. This is especially important when mowing.

Tractor performance is maximum when the throttle is set at full rpm. This gives maximum power to the drive wheels and deck when needed. Use the control levers to control ground speed rather than engine rpm.

Keep blades sharp. Many professional mowing companies have additional sets of blades and change blades twice a day: once in the morning and again at noon. Many problems with incorrect cutting patterns are due to dull blades or blades which have been sharpened incorrectly. Information on sharpening blades is listed in this manual's maintenance section. In addition, most communities have individuals or companies which specialize in sharpening mower blades. Blade sharpness should be checked daily.



DANGER: Never work with blades while engine is running or deck clutch switch is engaged (on). Always place deck clutch switch in the disengaged position, place control levers in the park brake position and turn engine off and disconnect

negative battery cable. Block up mower when you must work under it. Wear gloves when handling blades. Always check for blade damage if mower strikes rock, branch or other foreign object during mowing!

Use high blade speed. Your mower is designed to operate at full throttle. The throttle setting directly controls blade speed. The highest blade speed generally gives best cut.

Direct grass discharge to right, away from unmown area. Select a mowing pattern that directs grass discharge towards the outside, not towards center, of mowing area. Generally, this means using a pattern utilizing left turns because side discharge is to right. In any case, avoid throwing grass discharge onto unmowed area because grass is then mowed "twice". Mowing twice puts an unnecessary load on the unit and reduces mowing efficiency.

When mowing a lawn for the first time cut grass slightly longer than normal to avoid scalping uneven terrain. When possible, it is best to use the cutting height that was used in the past. When cutting grass taller than six inches, you may want to mow the lawn twice to achieve a better quality of cut.

During normal mowing cut only about 1/3 of the grass blade. Cutting more than that is not recommended unless grass is sparse or it is the end of the mowing season.

Alternate mowing direction to keep the grass growing straight and better dispersion of the clippings.

Remember, grass grows at different rates at different time of the year. Mow more often in the early spring to maintain the same cutting height. As the growth rate slows in mid summer, mow less frequently. If you cannot mow at a regular interval, mow at a high cutting height; then mow again two days later at a lower cutting height.

Raise the cutting height of the mower if the cutting width of the mower is wider than the previous mower. This ensures that uneven turf is not cut too short.

Raise the cutting height of the mower if the grass is slightly taller than normal or if it contains a high degree of moisture. Then mow it again with the cutting height set lower.

If the machine's forward motion must be stopped while mowing, a clump of grass clippings may drop onto your lawn. To avoid this, move onto a previously cut area with the blades engaged.



WARNING: Never direct discharge of material from mower deck towards bystanders. Do not operate the mower without either the discharge chute or the entire grass collection system in place. Fig. 3-12

Three point turn

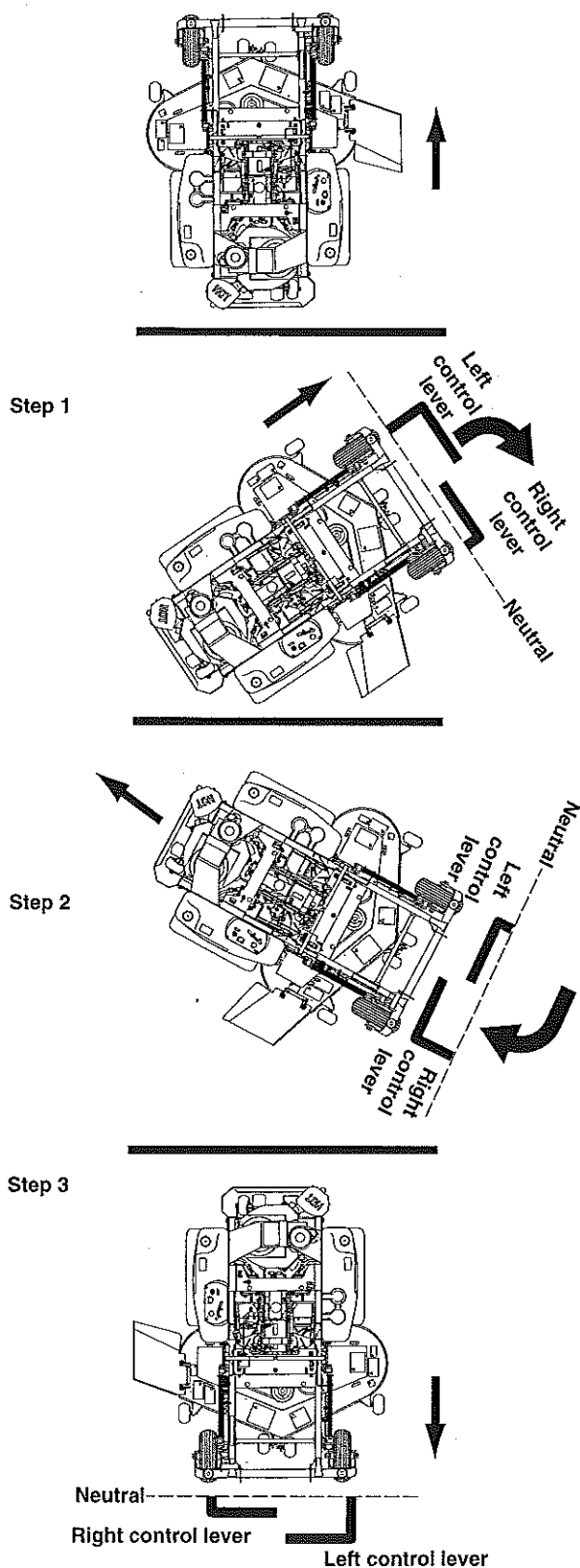


Figure 3-11

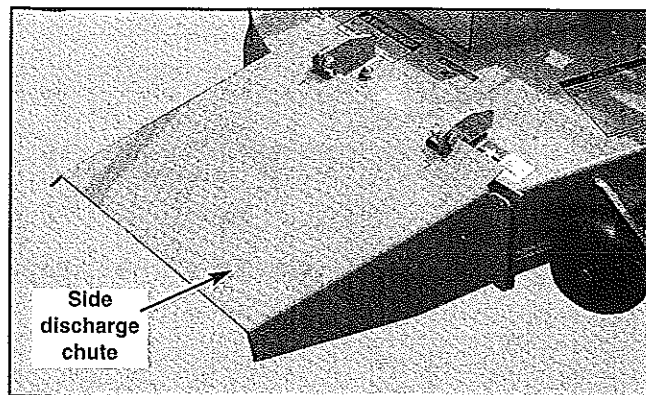


Figure 3-12

Mower deck operation



DANGER: Never attempt to make any adjustments to the mower deck while the engine is running or with the deck drive clutch engaged. Mower blades cannot be seen and are located very close to deck housing. Fingers and toes can be cut off instantly.

With the engine running, engage the deck clutch switch (Fig. 3-1) and advance engine throttle to full rpm.

NOTE: Engaging the deck clutch at high engine rpm or when under heavy load (in tall grass for example) can cause belts and/or electric clutch to slip, resulting in premature wear or possible damage.

Deck cutting height adjustment

Hustler Mini Z/Super Mini Z

Deck height is adjustable from 1-1/2" to 4-1/2" (3.81 cm - 11.43 cm) in 1/4" increments. The holes in the height adjusting bar are spaced at 1/2" intervals. By turning the height adjusting stop around, 1/4" increments can be attained due to the 1/4" plate that is part of the stop. Fig. 3-13

EXAMPLE: When the height adjusting stop is placed in the 1-1/2" hole, with the 1/4" plate facing to the front of the unit, the cutting height is at 1-1/2". When the height adjusting stop is placed in the 1-1/2" hole, with the 1/4" plate on the operator's side of the hole, the cutting height is at 1-3/4".

The notch located at the rear of the height adjusting bar is to be used when the deck is placed in the transport mode.

Hustler Z/Super Z/Hustler ATZ

Deck height is adjustable from 1" to 5" (2.54 cm - 12.7 cm) in 1/4" (.64 cm) increments. The holes in the height adjusting bar are spaced at 1/2" (1.27 cm) intervals. By turning the height adjusting stop around, 1/4" (.64 cm) increments can be attained due to the 1/4" (.64 cm) plate that is part of the stop. Fig. 3-13

EXAMPLE: When the height adjusting stop is placed in the 1" (2.54 cm) hole, with the 1/4" (.64 cm) plate facing to the front of the unit, the cutting height is at 1". When the height adjusting stop is placed in the 1" (2.54 cm) hole, with the 1/4" (.64 cm) plate on the operator's side of the hole, the cutting height is at 1-1/4" (3.18 cm).

The notch located at the rear of the height adjusting bar is to be used when the deck is placed in the transport mode.

Super Z Diesel

Deck height is adjustable from 1" to 7" (2.54 cm - 17.78 cm) in 1/4" (.64 cm) increments. The holes in the height adjusting bar are spaced at 1/2" (1.27 cm) intervals. By turning the height adjusting stop around, 1/4" (.64 cm) increments can be attained due to the 1/4" (.64 cm) plate that is part of the stop. Fig. 3-13

There are three (3) holes in each of the four (4) deck chain brackets that are also used for height adjustment. Fig. 3-14

The top hole is used for cutting heights of 1" - 5" (2.54 - 12.70 cm). The following information is to ascertain what to set the cutting height at when the top hole is used.

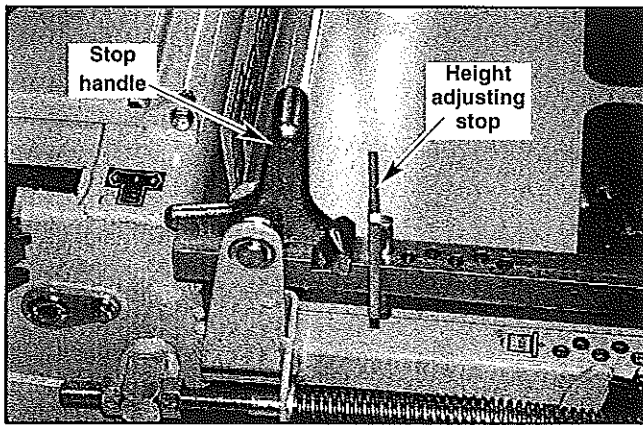


Figure 3-13

When the chains are placed in the top hole of the deck chain brackets and the height adjusting stop is placed in the front height adjusting bar hole, with the 1/4" (.64 CM) plate facing to the front of the unit, the cutting height is at 1" (2.54 CM). When the height adjusting stop is placed in the same hole, with the 1/4" (.64 CM) plate on the operator's side of the hole, the cutting height is at 1-1/4" (3.18 CM).

The middle hole is used for cutting heights of 2" - 6" (5.08 CM - 15.24 CM). The following information is to ascertain what to set the cutting height at when the middle hole is used.

When the chains are placed in the middle hole of the deck chain brackets and the height adjusting stop is placed in the front height adjusting bar hole, with the 1/4" (.64 CM) plate facing to the front of the unit, the cutting height is at 2" (5.08 CM). When the height adjusting stop is placed in the same hole, with the 1/4" (.64 CM) plate on the operator's side of the hole, the cutting height is at 2-1/4" (5.72 CM).

The lower hole is used for cutting heights of 3" - 7" (7.62 CM - 17.78 CM). The following information is to ascertain what to set the cutting height at when the lower hole is used.

When the chains are placed in the lower hole of the deck chain brackets and the height adjusting stop is placed in the front height adjusting bar hole, with the 1/4" (.64 CM) plate facing to the front of the unit, the cutting height is at 3" (7.62 CM). When the height adjusting stop is placed in the same hole, with the 1/4" (.64 CM) plate on the operator's side of the hole, the cutting height is at 3-1/4" (8.26 CM).

The notch located at the rear of the height adjusting bar is to be used when the deck is placed in the transport mode.

Anti-scalp wheels

Anti-scalp wheel kits are standard on Hustler Mid Mount Z units. These anti-scalp wheels are designed to minimize scalping when mowing on rough uneven terrain.

After setting the cutting height, adjust the front anti-scalp wheels so they extend below the deck but do not contact the ground. They should always be at least 1/4" to 3/4" (6.35MM to 19.05MM) below the deck. With the unit sitting on a flat level surface, the front wheel position can be adjusted up or down as needed from 3/4" to 1-3/4" (19.05MM to 44.45MM) below the blade surface. Move the front wheels up or down, in 1/2" (12.70MM) increments, using the different axle mount holes in the wheel mount bracket. Fig. 3-15

When adjusting the rear anti-scalp wheels, the wheel should be in the lower axle mount hole when the front anti-scalp wheels are in the lower or middle axle mount holes. When the front wheels are in the upper axle mount hole, the rear wheels should be in the upper axle mount hole as well.

Hustler Mini Z/Super Mini Z

NOTE: When the anti-scalp wheels are installed, the minimum cutting height is 1" (2.5 CM) with the anti-scalp wheels set at 3/4" (1.91CM).

Hustler Z/Super Z/Super Z Diesel/Hustler ATZ

NOTE: When the anti-scalp wheels are installed, the minimum cutting height is 1" (2.5 CM) with the anti-scalp wheels set at 3/4" (1.91CM).

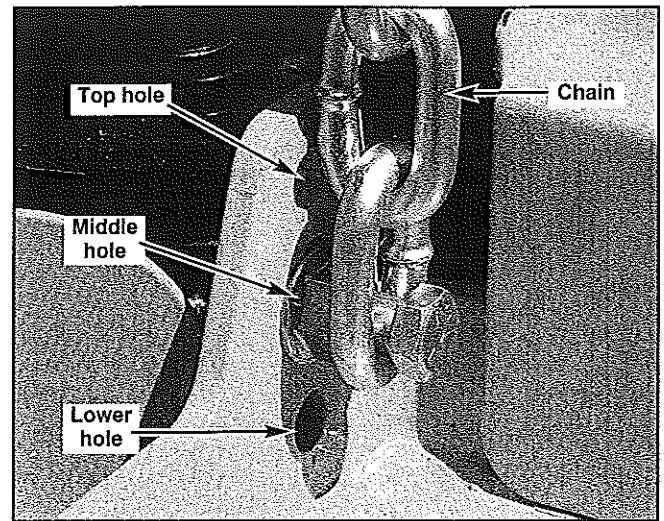


Figure 3-14

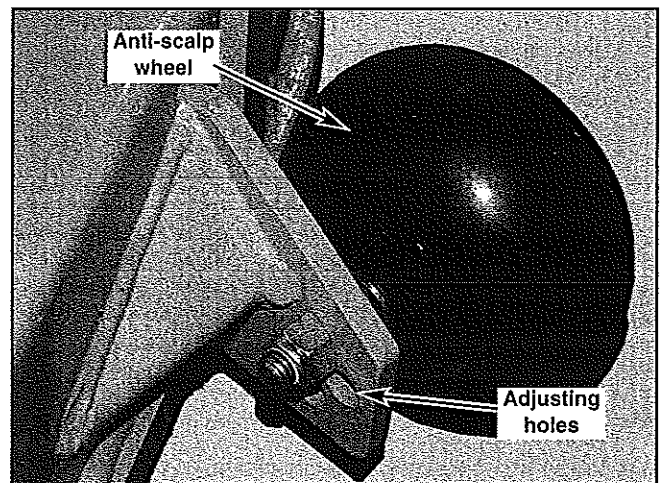


Figure 3-15

BAC-VAC™ Mounting

If a BAC-VAC™ is to be mounted to an Hustler ATZ tractor it will be necessary to remove the following from the unit:

1. Drive wheel weights
2. Frame weights located between the drive wheels
3. The front and rear mount legs of the ROPS structure. The two post ROPS structure will remain. Fig. 3-16

The weights included with the BAC-VAC™ will be used instead of the Hustler ATZ tractor weights.

If a BAC-VAC™ is mounted to the Hustler ATZ it will be necessary to remove the BAC-VAC™ and front wheel weights from the tractor and it will be necessary to re-attach the drive wheel weights, frame weights and the front and rear mount legs to the tractor before operating the unit on a slope.

Hustler Mini Z/Super Mini Z Maintenance Schedule

Refer to Fig. 4-13

SERVICE AT INTERVALS INDICATED	WEEKLY OR 50 HOURS	MONTHLY OR 100 HOURS	ANNUALLY OR 500 HOURS
Verify safety start interlock system	Daily		
Visually inspect unit for loose hardware and/or damaged parts	Daily		
Visually inspect tires	Daily		
Check oil level, engine (1)	Daily or every 4 hrs.		
Clean air intake screen (5)	Daily or every 4 hrs.		
Clean oil heat exchanger (5)	Daily or every 4 hrs.		
Check fuel level	Daily		
Blades - sharpen & securely fastened	Daily		
Discharge chute - securely in place & in lowest position	Daily		
Clean engine and pump compartments	Daily		
Replace air cleaner paper element (5)	As needed		
Grease deck pusher arms	x		
Grease pump idler	x		
Grease deck height pivots	x		
Grease gauge wheel bearings	x		
Change engine oil & filter (1) (4)	x		
Clean cylinder and head fins (a)	x		
Check battery connections	x		
Check tire pressure with a gauge	x		
Check hydraulic oil level	x		
Clean engine exterior (a)	x		
Clean and regap spark plugs (a)		x	
Check pump and deck belt tension & condition (6)		x	
Check fuel and hydraulic lines (7)		x	
Check fuel valve and grommet (7)		x	
Tighten lug nuts on wheels (2)		x	
Change fuel filter			x
Clean or replace hydraulic fill cap			x
Change hydraulic filter and oil (3)			x
Replace spark plugs			x

NOTES:

1. Initial oil change is after 5 hours of operation. Thereafter, change oil after every 40 hours operation. Change more often under dusty or dirty conditions and during hot weather periods.
2. Torque initially and after first 2 hours of operation.
3. Perform initial hydraulic filter change after 50 hours (one week) of operation.
4. Change engine oil filter per the engine manufacturer's recommendations. Refer to Engine Owner's Manual for recommendations and other maintenance items.
5. Service more often under dusty or dirty conditions. Use caution when servicing to prevent dust contamination in the engine. **Do not** clean filter element. Replace with a new one.
6. **Pump drive belt only - Inspect every 100 hours** and replace if worn or cracking is noticed. Otherwise, **replace every 400 hours or 2 years** whichever comes first.
7. Check fuel line hoses, fuel valve and grommet for any cracks or leaks.

REFERENCES:

a —Refer to Engine Owner's Manual

NOTE: After completing maintenance cycle (500 hours), repeat cycle.

Hustler Z/Super Z/Hustler ATZ Maintenance Schedule

Refer to Fig. 4-14, 4-15, 4-16 & Fig. 4-17

SERVICE AT INTERVALS INDICATED	WEEKLY OR 50 HOURS	MONTHLY OR 100 HOURS	ANNUALLY OR 500 HOURS
Verify safety start interlock system	Daily		
Check coolant level	Daily		
Visually inspect unit for loose hardware and/or damaged parts	Daily		
Visually inspect tires	Daily		
Check oil level, engine (1)	Daily or every 4 hrs.		
Clean air intake screen (5)	Daily or every 4 hrs.		
Clean oil heat exchanger (5)	Daily or every 4 hrs.		
Check radiator screen (5)	Daily or every 4 hrs.		
Check fuel level	Daily		
Blades - sharpen & securely fastened	Daily		
Discharge chute - securely in place & in lowest position	Daily		
Clean engine and pump compartment	Daily		
Replace air cleaner paper element (5)	As needed		
Grease deck idler	x		
Grease deck pusher arms	x		
Grease pump idler	x		
Grease deck height pivots	x		
Grease gauge wheel bearings	x		
Change engine oil & filter (1) (4)	x		
Clean cylinder and head fins (a)	x		
Check battery connections	x		
Check tire pressure with a gauge	x		
Check hydraulic oil level	x		
Clean engine exterior (a)	x		
Clean and regap spark plugs (a)		x	
Check pump and deck belt tension & condition (6)		x	
Check fuel and hydraulic lines (7)		x	
Check fuel valve and grommet (7)		x	
Tighten lug nuts on wheels (2)		x	
Change fuel filter			x
Clean or replace hydraulic fill cap			x
Change hydraulic filter and oil (3)			x
Grease deck spindle housings			x
Replace spark plugs			x
Drain & replace engine coolant			x
Clean radiator core (9)			x

NOTES:

1. Initial oil change is after 5 hours of operation. Thereafter, change oil after every 40 hours operation. Change more often under dusty or dirty conditions and during hot weather periods.
2. Torque initially and after first 2 hours of operation.
3. Perform initial hydraulic filter change after 50 hours (one week) of operation.
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6. **Pump drive belt only - Inspect every 100 hours** and replace if worn or cracking is noticed. Otherwise, **replace every 400 hours or 2 years** whichever comes first.
7. Check fuel line hoses, fuel valve and grommet for any cracks or leaks.

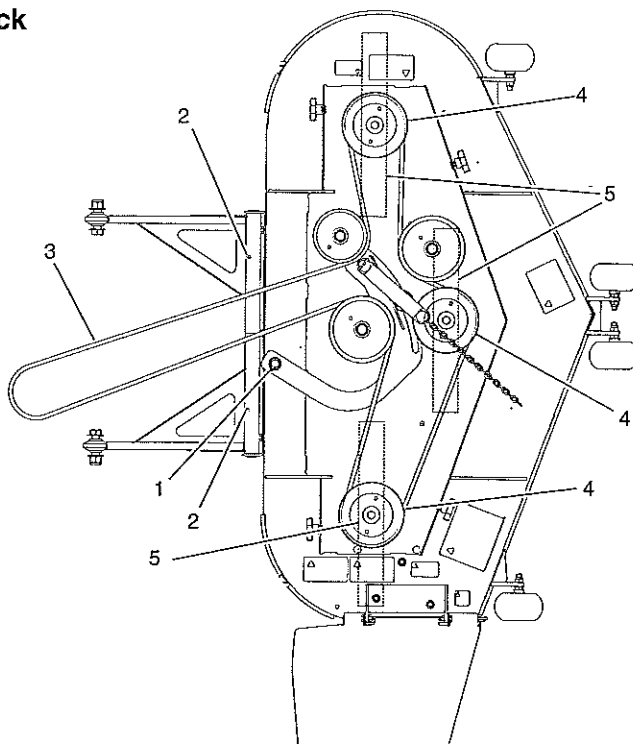
REFERENCES:

a —Refer to Engine Owner's Manual

NOTE: After completing maintenance cycle (500 hours), repeat cycle.

**Hustler Z/Super Z
Maintenance Locator Chart**

Side discharge deck



- 1. Deck Idler Zerk (1)
- 2. Deck Pusher Arm Zerks (2)
- 3. Deck Belt
- 4. Spindle Housing Zerk (3)
- 5. Blades

Rear discharge deck

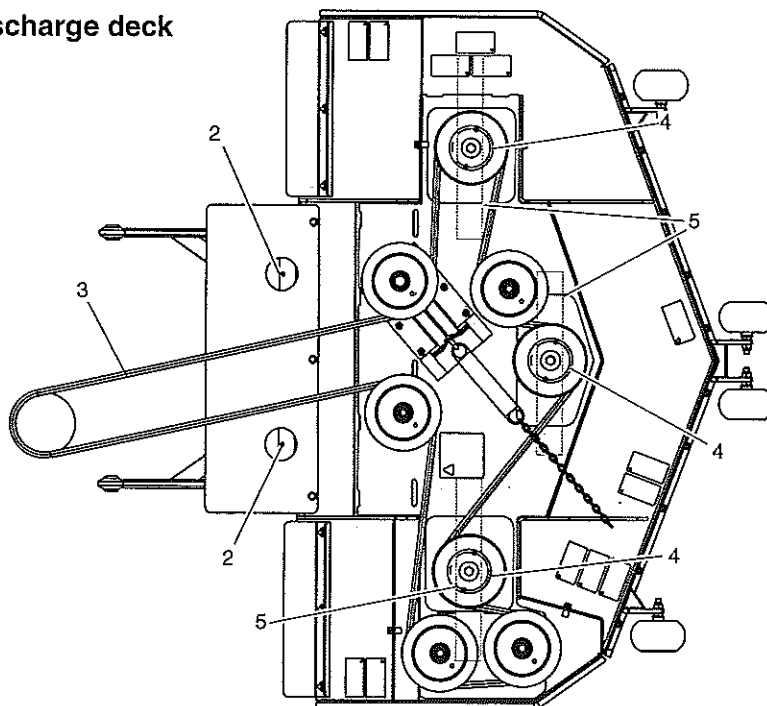


Figure 4-15