



Operation Manual

Model: 760

Covers Serial Number Range:

716-W-76TKP8Y2*04716 through _____

Sold & Serviced By:

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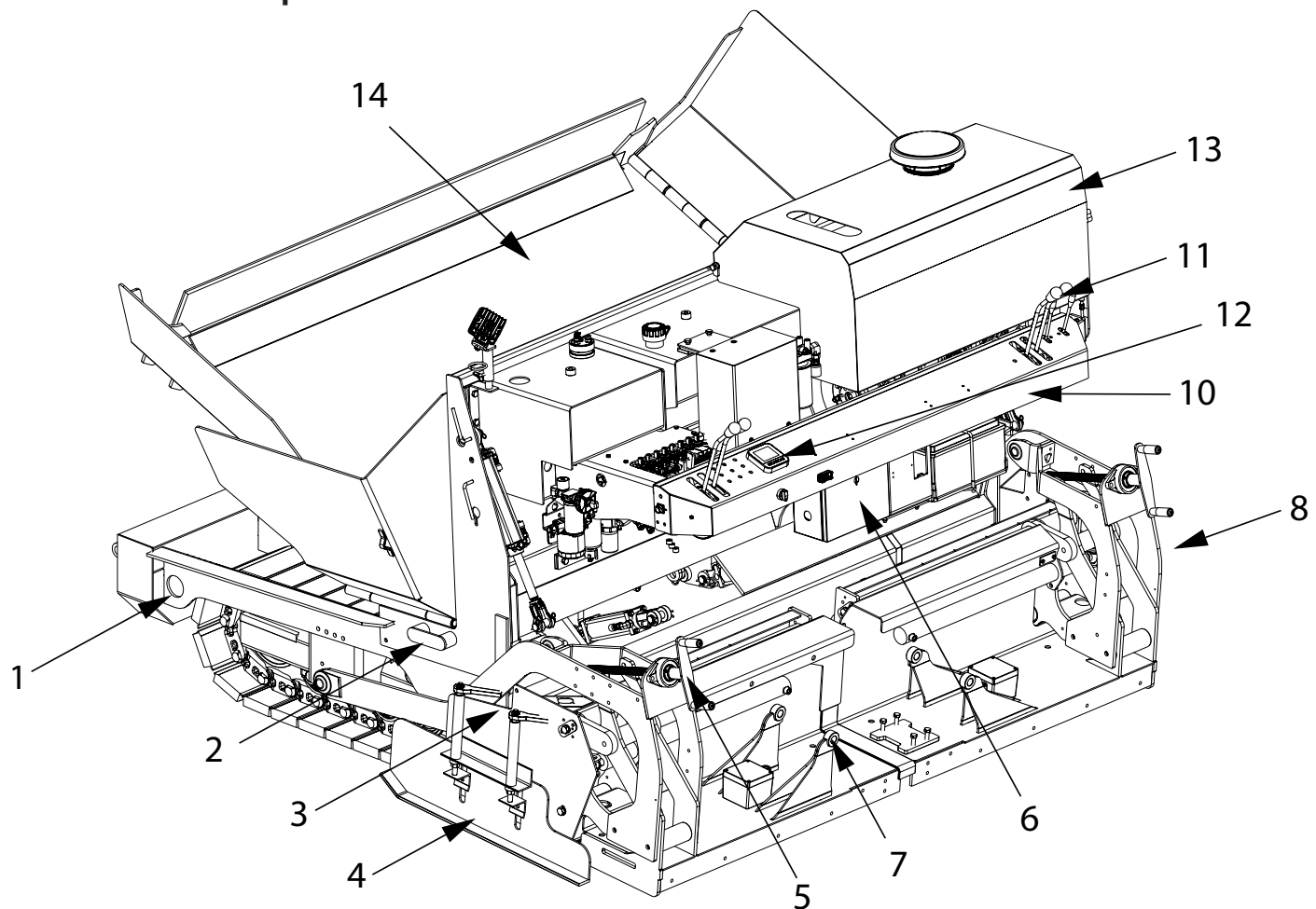
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1. Introduction

1.1 Machine Components



1. Front Tie Down (both sides)
2. Rear Tie Down (both sides)
3. Sonic Sensor
4. Left Extension
5. Left Mat Thickness Adjustment
6. Screed Heat Control Box
7. Screed Crown Adjustment
8. Right Extension
9. Right Mat Thickness Adjustment
10. Dash

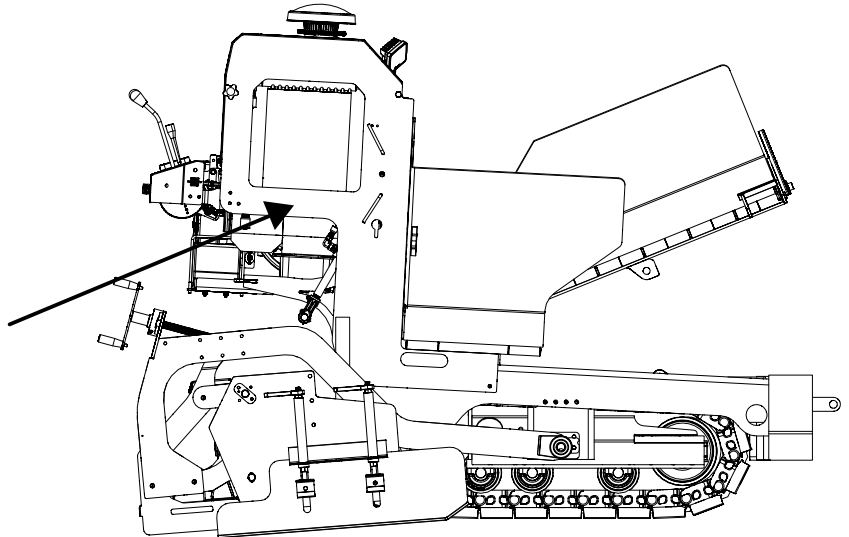
11. Machine Steering Levers
12. Operator Display
13. Engine Compartment
14. Hopper

1.2 Serial Number Plate

Serial number plate is located on the right side of the engine enclosure. Record serial number and date in spaces below.

Serial Number: _____

Date of Purchase: _____



2. Safety

2.1 General Safety Information

Operating personnel must perform service checks regularly to be sure systems are in good operating condition. If abnormal conditions are detected, inform maintenance personnel immediately.

Check all systems for proper operation. Check chassis and all components for physical damage and security of all fasteners and connectors.

2.1.1 Safety Alert And Signal Words

The safety information in this manual is denoted by the safety alert symbol: This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

⚠ DANGER

Indicates a hazardous condition that will result in serious injury or death if not performed appropriately.

⚠ WARNING

Indicates a hazardous condition that could result in serious injury or death if not performed appropriately.

⚠ CAUTION

Indicates a hazardous condition that could result in serious injury if not performed appropriately.

NOTICE

Indicates a situation that could result in damage to the machine or other property.

2.2 Operation Hazards

The following hazards are possible during the operation of the paver. All operators, maintenance and service personal, or any one working with or near the paver must be familiar all hazards.

⚠ WARNING

Do not operate this paver until you read and understand the instructions in the operation section of this manual.

⚠ WARNING

Do not operate, work on or around paver while under the influence of alcohol, drugs or if feeling ill.

⚠ WARNING

Explosion, fire, or property damage hazard.

Do not use starting fluid with this engine.

Use of starting fluid can cause an explosion, fire, personal injury or damage to the engine and other property.

⚠ WARNING

Loud noise hazard.

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Operators, workers and bystanders must use ear protection while machine is in operation.

⚠ WARNING

Entanglement hazard.

Do not wear loose fitting clothing.

Loose fitting clothing and long hair can become entangled in moving or rotating parts. Keep

all personnel clear of moving parts when engine is running or about to be started.

Long hair must be tied back or netted.

Keep clear of moving components.

Never operate machine with open or missing guards or shields.

⚠ WARNING

Fire, burns or property damage hazard.

During aftertreatment regeneration, exhaust gas temperature could reach 1500°F (800°C). Exhaust system surface could exceed 1300°F (700°C) which is hot enough to ignite or melt common materials and burn the skin.

Exhaust and exhaust components can remain hot after engine has been stopped.

To avoid risk of fire, burns and property damage or personal injury, allow the exhaust system to cool before service or repairs.

Be sure there are no combustible materials located where they are likely to come in contact with hot exhaust or exhaust components.

⚠ WARNING

Explosion, fire, or personal injury.

This engine is equipped with an air intake heater.

Do not use starting fluid with this engine.

Use of starting fluid can cause an explosion, fire, personal injury or damage to the engine and other property.

⚠ WARNING

Diesel/Coolant/Hydraulic oil hazard.

In case of contact with eyes, immediately flush eyes with water. Obtain medical attention immediately.

In case of skin contact, wash all exposed skin area with mild soap and water, followed by warm water rinse.

If ingested, obtain medical attention immediately.

⚠ WARNING

Crush hazard.

A raised screed or partially open hopper will fall if a hydraulic line or fitting is opened, or manual override button on hydraulic valve is pressed.

Always fully close hopper and lower screed to ground or engage screed service locks when parking paver or preparing paver for inspections, service and maintenance.

NOTICE

Dispose of waste properly.

Improper disposal of waste can harm the environment.

Use leak proof container when draining fluids. Do not use food or beverage containers.

Contact your local environmental or recycling center for the proper way to recycle or dispose of waste.

2.2.1 ⚠ Pressurized Fluids

Hydraulic oil and grease injected into your skin can cause serious injury or death. Keep your hands and body away from any pressurized leak. Tighten connections before applying pressure. Never use your hand to check for leaks; use a piece of wood or cardboard. If fluid is injected into the skin, it must be surgically removed within a few hours or gangrene may result. Get immediate medical attention.

2.2.2 ⚠ Hazardous Chemicals

Lubricants and coolants can be hazardous. Before operating, check the Material Safety Data Sheet (MSDS) to understand each product, safe handling procedures, and first aid measures relating to the product. Clean up spilled fluids immediately.

Do not drain or pour any fluids or lubricants on the ground. Check with local environmental agencies or recycling centers for proper disposal information.

2.2.3 California Proposition 65 Warnings

⚠ WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always start and operate the engine in a well-ventilated area.

If in an enclosed area, vent the exhaust to the outside.

Do not modify or tamper with the exhaust system.

Do not idle the engine except as necessary.

For more information go to www.P65Warnings.ca.gov/diesel.

⚠ WARNING

Batteries, battery posts, battery terminals, and related accessories can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to www.P65Warnings.ca.gov.

2.2.4 Hazards From Modifying Equipment

Do not make any alterations to your paver. Altering may cause your equipment to be unsafe and may void the manufacturers' warranty.

Always use Mauldin replacement parts.

2.3 Maintenance Hazards

The following maintenance hazards are in addition to those found while operating the paver. All maintenance and service personnel must be familiar with all hazards before working on the machine.

Most accidents are caused by failure to observe basic safety rules or precautions.

An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs.

⚠ WARNING

Improper operation, lubrication or maintenance of this paver can be dangerous and could result in injury or death.

⚠ WARNING

Do not perform any lubrication and maintenance on this paver until you read and understand the instructions in the maintenance section of this manual.

2.3.1 ⚠ Maintenance And Service

Before performing inspections, service or maintenance:

- Park paver on firm level surface.
- Lower screed to ground or engage screed support locks.
- Fully open or close hoppers.
- Turn engine off and remove ignition key.
- Attach a Do Not Operate tag or similar warning tag to the ignition switch.
- Follow lockout/tag out procedure as defined by your company.

After performing inspections, service or maintenance, verify all guards have been installed and all safety devices are functional.

Always wear face or eye protection, safety shoes, and other protective items as required by your company.

If you must troubleshoot machine with engine running, have someone in constant visual contact who can shut off the engine or engage an Emergency Stop.

If you must service machine with an attachment raised, block up that attachment in a safe position.

2.3.2 ⚠ Fire Or Explosion Prevention

⚠ Engine fuel can cause an explosion or fire. Do not service fuel system with engine running or near open fire. Do not weld or smoke near fuel system. Do not spill fuel or hydraulic oil on hot machine components. Clean up spilled fuel or oils immediately.

⚠ Keep sparks and flames away from batteries to prevent explosion of hydrogen gas in and near a battery. Other precautions include:

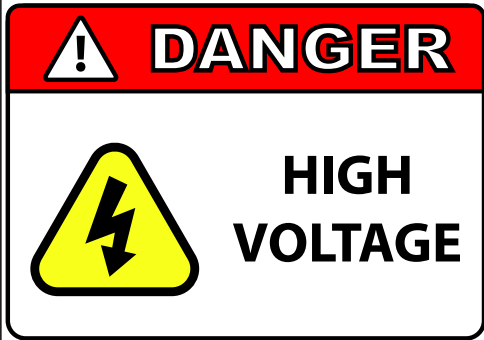

- When disconnecting battery cables, disconnect negative (-) cable first.
- When connecting battery cables, connect negative (-) cable last.
- Do not short circuit battery posts with metal items.



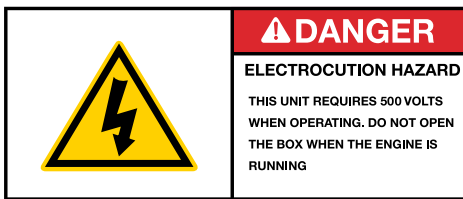


2.4 Safety Decals

Safety decals are located on the paver to identify operational and maintenance hazards. The safety decals are placed according to the hazard in that area of the paver. Read and understand each of the safety decals and the hazard it references. These safety messages are additional information to the safety content described in this operator's manual.

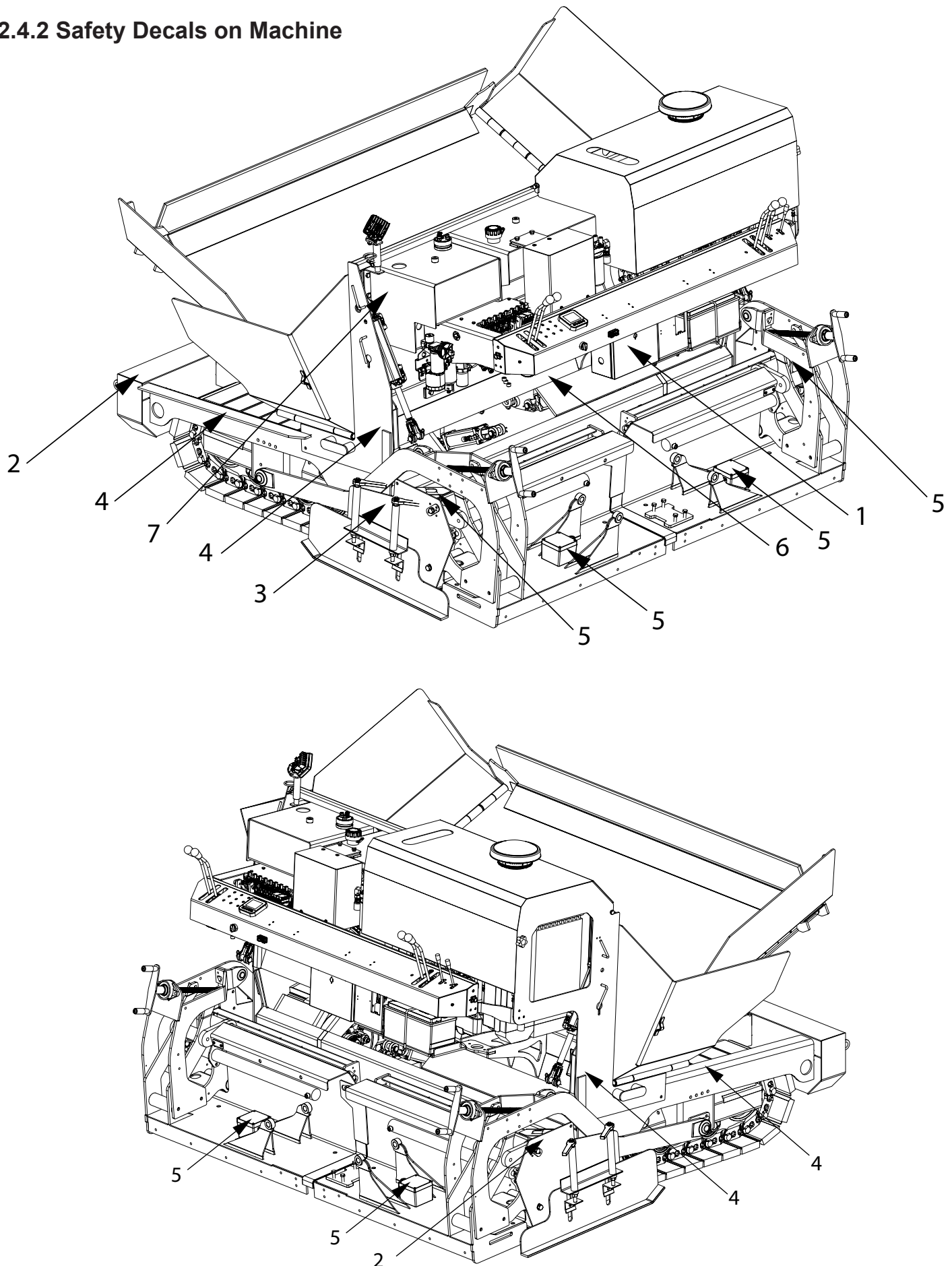
All safety decals must be legible at all times. Avoid using harsh chemicals or pressure washing. If the safety decal is no longer legible, replace it with a new one. Contact your dealer for new decals.

2.4.1 Safety Decals Defined

	<p>1 - Danger High Voltage. The generator provides 250v for screed heater operation. Avoid working on any electrical components while the engine is on.</p>
	<p>2 - Danger Keep Clear. There are moving objects that could result in harm. Keep clear of moving objects. Failure to keep clear may result in serious injury or death.</p>

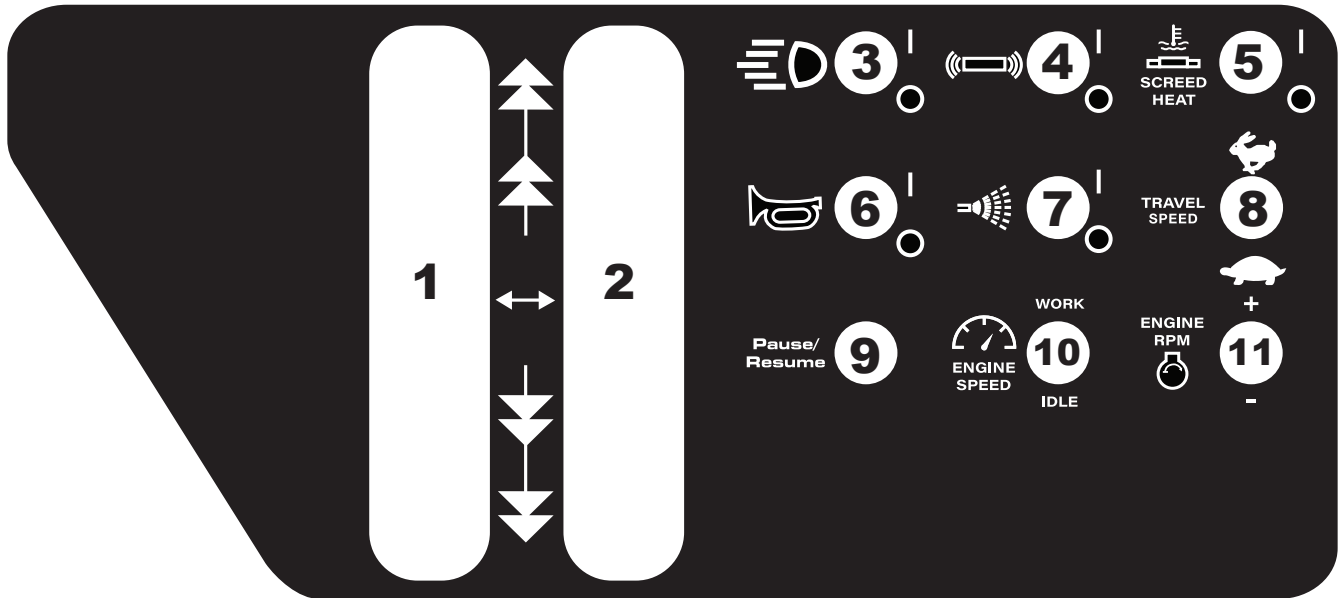
	<p>3 - Danger Stand Back. There are moving objects that could result in harm. Stand back a safe distance to avoid harm. Failure to keep back may result in serious injury or death.</p>
	<p>4 - Danger Crush Hazard. There are moving objects with sharp and or hard edges. Failure to observe moving parts and keep clear can and will result in serious injury.</p>
	<p>5 - Danger High Voltage. This machine uses 250v to operation. Avoid working on any electrical components while the engine is on.</p>
	<p>6 - Caution Moving Augers. Keep clear of moving augers. Failure to do so may result in serious injury or death. Do not stand on or near the augers at any time, even if the machine is not running.</p>
	<p>7 - Danger. Fuel and or flammable fluid is present. Do not smoke or use any open flame.</p>

2.4.2 Safety Decals on Machine



3 Paver Operation

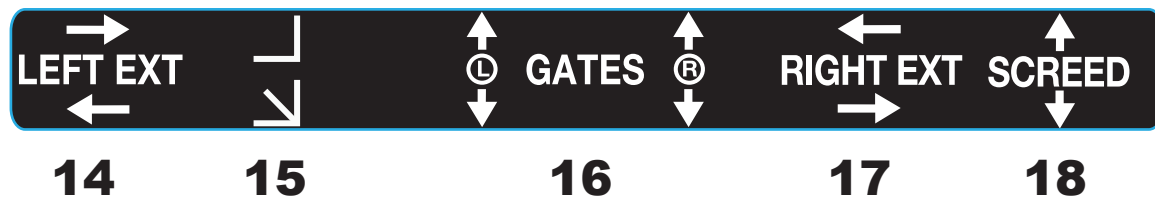
3.1 Machine Functions Explained



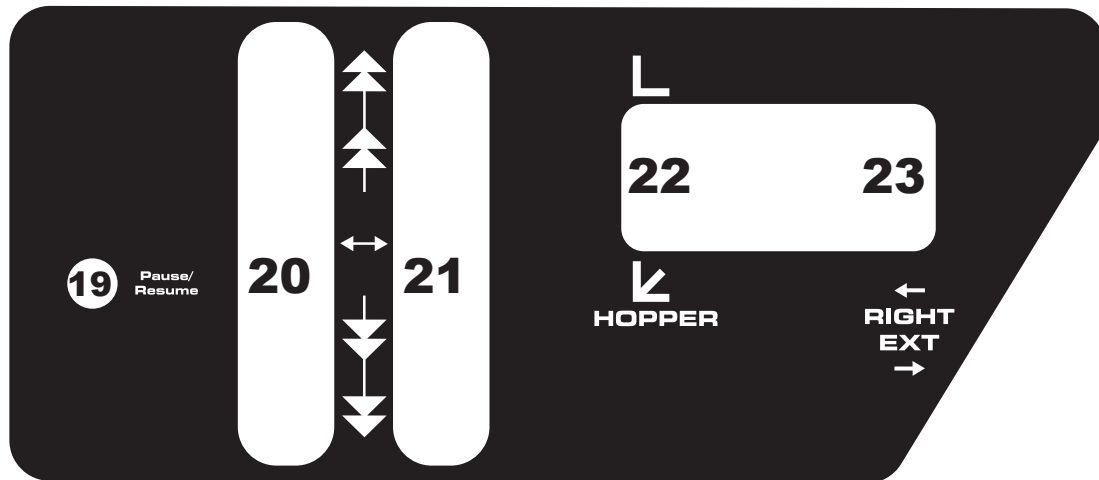
1. Left track forward reverse lever
2. Right track forward reverse lever
3. Work Lights Of/Off
4. Screed Vibrator On/off
5. Screed Heat On/off. This turns the screed heat on or off. The desired temperature is set in the digital display. See Screed Heating Section.
6. Horn
7. Wash down pump On/off
8. Travel speed High or Low speed. Paving and Machine loading/unloading should always be done in low speed range.
9. Pause/Resume: Pause feature will stop the movement of the machine without returning the joy sticks to the neutral position. To resume forward motion during paving double click the Pause/Resume toggle switch. NOTE the feed controls will continue to run in automatic or manual.
10. Engine Speed: this is to select a set RPM for idle or high RPM for work mode.
11. Engine RPM Adjustment: this increases or decreases the idle or work RPM a small increment.



12. Auger directional Toggle Switch. This changes the direction of the augers. Left and right side must be changed independently.
13. Auger feed Auto/Manual Toggle switch. Set the toggle switch to the curly loop to have automatic feed control. The system will use the sonic sensor to control the height of the head of material. Push the toggle switch to the hand icon for manual control, this will run the auger constantly. The center position of the Auto/Manual toggle switch is the off position.



14. Left Extension: This valve extends and retracts the left extension.
15. Hopper: This raises and lowers the hopper.
16. Gates Left and Right: These two levers control the flow of material from the hopper to the screed.
17. Right Extension: This valve extends and retracts the right extension.
18. Screed Raise/Lower/Float: This valve raises and lowers the screed. To float the screed for paving operation pull the lever until the detent and the level stays in the lowered position.



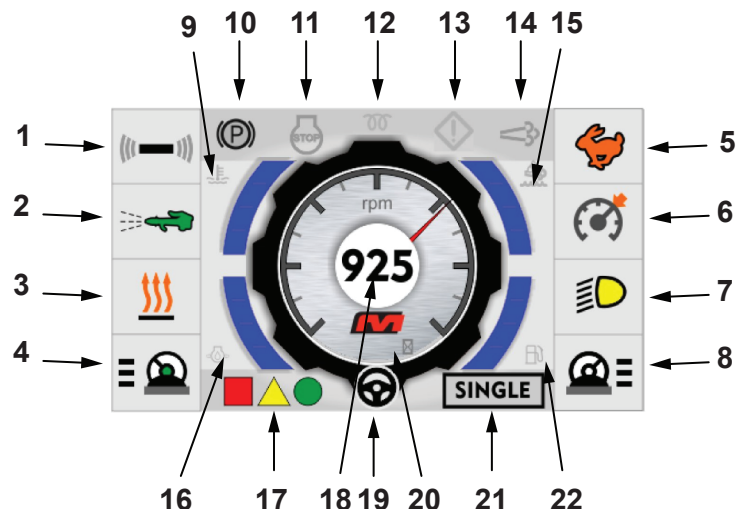
19. Pause/Resume: Pause feature will stop the movement of the machine without returning the joy sticks to the neutral position. To resume forward motion during paving double click the Pause/Resume toggle switch.
NOTE the feed controls will continue to run in automatic or manual.
20. Left track forward/reverse/steer.
21. Right track forward/reverse/steer.
22. Hopper raise/lower.
23. Right Extension extend/retract.

3.2 Digital Display

This digital display indicates engine oil pressure, engine coolant temperature, battery voltage, engine speed, engine torque being used, diesel exhaust fluid tank level, diesel fuel tank level and engine hours.

3.2.1 Engine Screen

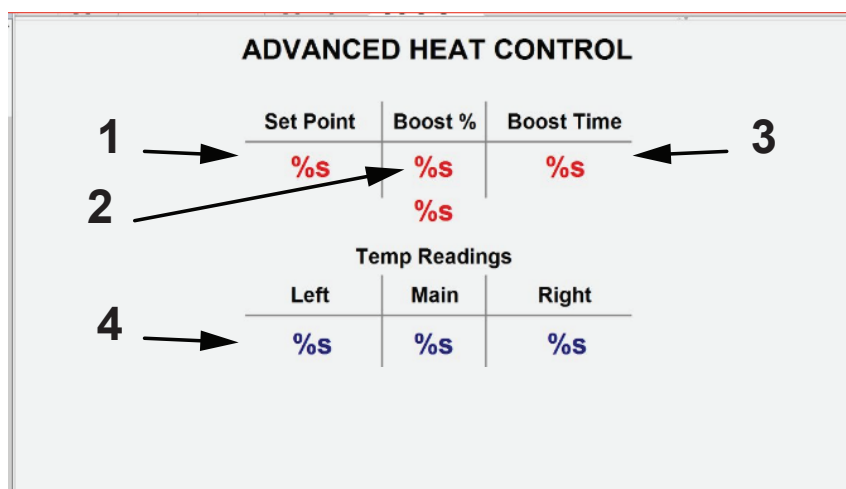
1. Screed vibrator on/off. Vibrate only works when machine is in forward motion.
2. Wash-down on/off.
3. Screed heat on/off.
4. Left side material pile height selector, low, medium, high. The center of the auger icon will show green if auger is satisfied and red if there is a sensor fault.
5. Travel mode on/off (2 speed selector). Travel mode should only ever be used for transport. Do not pave in "Rabbit" mode.
6. Engine RPM selector, Idle/Pave.
7. Work lights on/off. (Optional on some models)



8. Right side material pile height selector, low, medium, high. The center of the auger icon will show green if auger is satisfied and red if there is a sensor fault.
9. Engine Coolant Gauge. The bar graph will change colors depending on condition. Green condition is satisfactory, red means engine temperature has exceeded manufacturer's suggestion.
10. Parking brake and Pause Icon.
11. Engine Stop Icon. This is an icon to indicate there is an engine fault code. Codes may not be available, see a mechanic/technician for more information.
12. Wait to start icon. If this icon is illuminated you need to pause before you try to start the engine.
13. Error icon. When this icon is illuminated yellow there is a controller communication error. When this icon is red there is a an engine communication error.
14. DEF icon. This icon will change and tell the current state of the DEF system. (If applicable)
15. DEF Gauge/Battery Gauge. On units that contain DEF fluid there will be a DEF level gauge. For units that do not utilize DEF fluid there will be a battery volt gauge. The gauge bar graph will show different colors different conditions.
16. Oil Pressure gauge. This is for engine oil pressure. The bar graph will show different colors for different conditions.
17. Screed heat status icons (there are 3 icons to indicate left extension, main screed, and right extension):
Black Diamond: System Satisfied (at full temp, heating is off) or off condition.
Red Triangle: Heating Stage 1, Orange Triangle: Heating Stage 2, Yellow Triangle: Heating Stage 3, Green triangle : Heating Stage 4
Red Square: System Error
18. Engine RPM tachometer
19. Active Station Icon. If your machine has 2 displays, the display with this active station (steering wheel) icon has the controls for steering the machine.
20. Hour Gauge. Tells how many machine hours.
21. Feed System operator mode. Single (single operator) means the one active station display will have control of both left and right feed systems. Dual (dual operators) means the left operator will control left feed and right will control the right.

3.2.2 Screed Temperature Screen

1. Set point
2. Boost – Boost % percentage to boost temperature to, Boost Degree: temperature boosted.
3. Boost Time – amount of time to boost temperature to.
4. Temperature Reading – calibrated temperature reading of screed plates

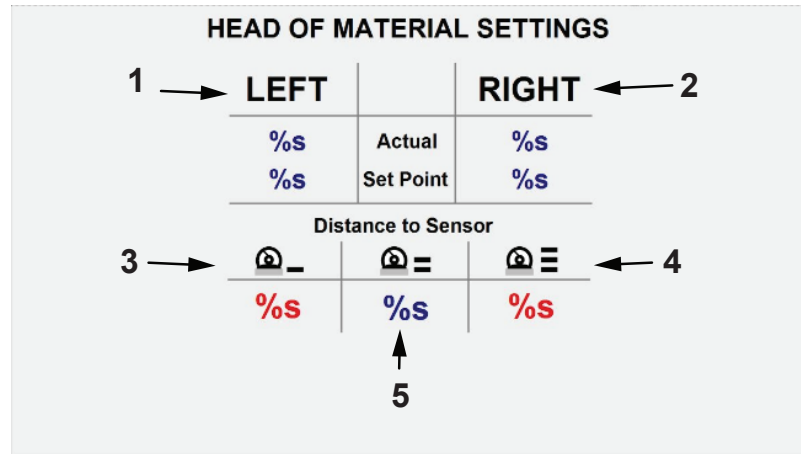


3.2.3 Material Feed Screen

1. Left side sonic sensor settings.

Actual: this is the current reading from the sensor to the top of pile/ground. This can be used for trouble shooting.

Set Point: is the current desired distance that will shut off the feed system.



2. Right side sonic sensor settings.

Actual: this is the current reading from the sensor to the top of pile/ground. This can be used for trouble shooting.

Set Point: is the current desired distance that will shut off the feed system.

3. Low Head of Material setting: this is the desired low material setting height (number is larger because it is distance from the sensor).
4. High Head of Material setting: this is the desired high setting (number is lower because it is measured from sonic sensor).
5. Medium Head of Material setting: this is the middle setting. This is always calculated subtracting the low setting from the high setting (user can not change this directly, must change upper or lower setting to get a different middle setting).

3.3 Prestart Checks

Prior to starting the machine, the following procedures must be completed.

Note: Refer to OEM engine manual for important safety, operational and maintenance information.

- Check engine oil level.
- Check engine coolant level.
- Check hydraulic oil level.
- Check fuel and DEF levels (if applicable).
- Check wash down tank level.
- Check around machine to verify nothing is on or under the machine.

3.4 Start Engine

⚠ WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always start and operate the engine in a well-ventilated area.
If in an enclosed area, vent the exhaust to the outside.
Do not modify or tamper with the exhaust system.
Do not idle the engine except as necessary.
For more information go to www.P65Warnings.ca.gov/diesel.

⚠ WARNING

Explosion, fire, or personal injury.

This engine is equipped with an air intake heater.

Do not use starting fluid. Will Void any Warranty.

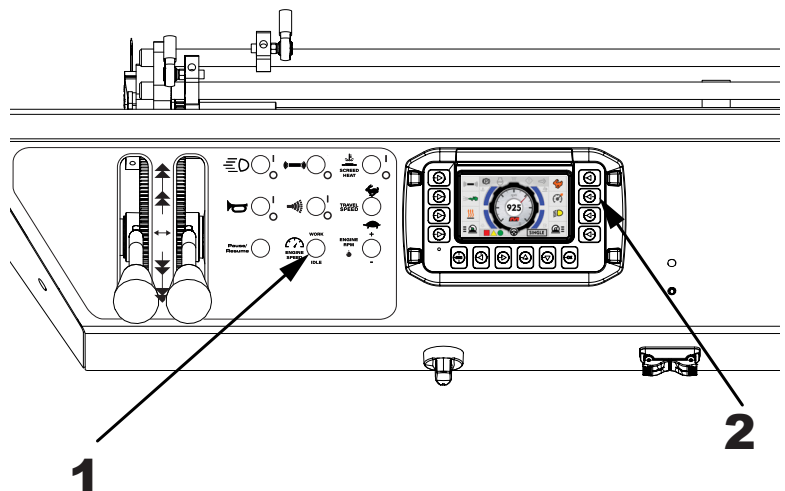
Use of starting fluid can cause an explosion, fire, personal injury or damage to the engine and other property.

Turn key switch to on position. Wait for splash screen to load to the engine screen.
Turn key switch to start and release. During cooler temperatures, there may be slight delay before starter engages while engine grid heat is engaged.
Run engine at low idle to warm up.

3.5 Idle/Pave and Engine Speed

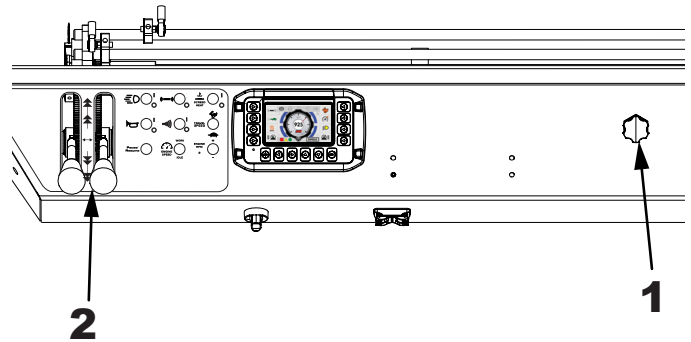
Engine will start up at the preset 900 idle speed. Press the Idle/Pave toggle switch(1) or soft button(2) to switch from idle to work rpm and vise versa. Factory recommended RPM for paving (Work) mode is 1800RPM. Paver will retain last set work RPM used.

Toggle the RPM Increase/Decrease Toggle to adjust work RPM. Maximum RPM is 2000 RPM. Each toggle click goes up or down 100 RPM.



3.6 Emergency Stop

Press Emergency stop button (1) to stop all paver functions. Twist button out to reset. All functions must be restarted.



3.7 Driving

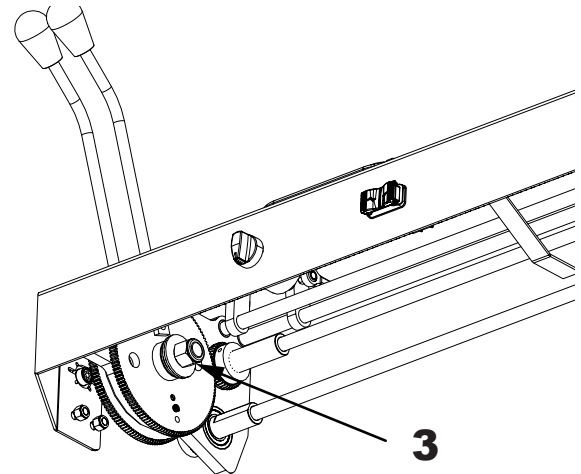
The paver will move forward by pushing both levers(2) forward and will move backwards by pulling the levers back. Steering a course is accomplished by adjusting the speed of one handle relative to the other.

HINT - to make driving easy, push both handles forward to desired speed, then use only one handle to fine-tune your direction.

3.8 Steering Tension

The steer handles can be adjusted for operator preference on tension, (or drag). Tension can be added to the point were the handles are locked and cannot be moved. The ideal setting is somewhere in-between were the handles have enough tension to stay in the position the operator chooses, but not so stiff as to produce fatigue.

To adjust tension: loosen or tighten the nut(3) located at the center of the aluminum discs were the handles are attached.

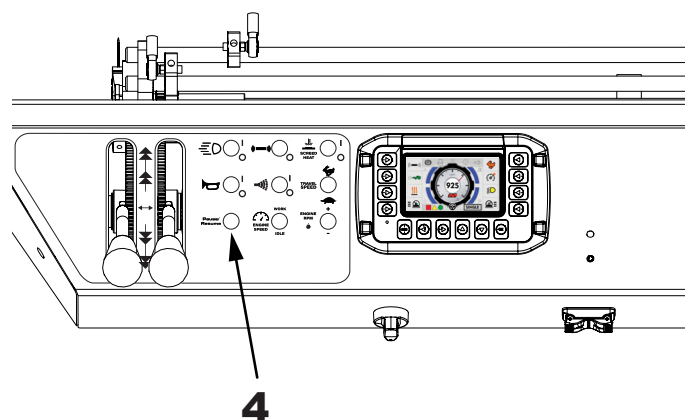


3.9 Pause/Resume

The paver is equipped with a Pause and Resume feature. This allows you to pause functions while paving. Hitting the Pause toggle will pause the machine's movement (tracks) and feed functions without having to move the joy sticks or toggle switches. This is intended to be used when one truck is empty you can pause the machine with one toggle.

While paving:

1. Press the Pause/Resume toggle(1) once to pause the machine. To resume paving operation double click the Pause/Resume toggle(1).



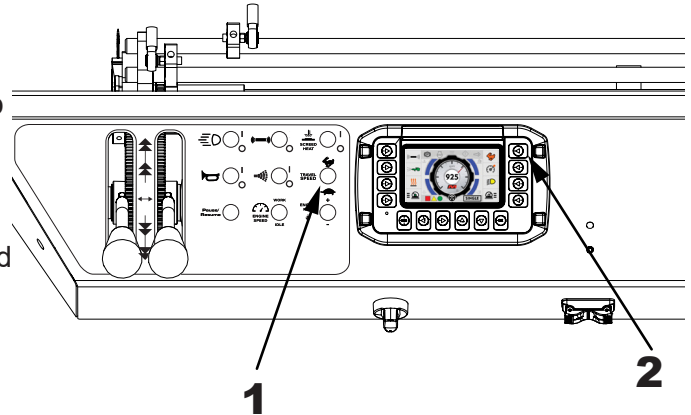
3.10 Two Speed

⚠ WARNING

CAUTION: INJURY/OR DAMAGE MAY OCCUR:
When switching to high range, bring paver to a stop before switching.

Select high(rabbit) or low(turtle) on the travel speed toggle switch (1), or the soft button (2). Select low speed for paving and machine loading. Select high speed for traveling to and from work site.

If you toggle to high speed and idle/pave switch is in idle, the engine will stay at idle and paver will move at a slightly faster rate. If idle/pave switch is in pave and you toggle to high speed, the engine speed will increase rpm and paver will move at a faster rate.



3.11 Screed Heat

⚠ WARNING

CAUTION: INJURY/OR DAMAGE MAY OCCUR:
Main screed and extension bottom surfaces will be hot during operation. Do not touch surfaces until they have reached ambient temperatures.

To turn on screed heat press the screed heat toggle switch(3) or the soft button(4) on the display. Screed heat is thermostatically controlled. The set point can be changed at the screed heat setting page of the display (2). The heating system uses icons to display its current state.

Black Diamond: System Satisfied (at full temp, heating is off) or off condition.

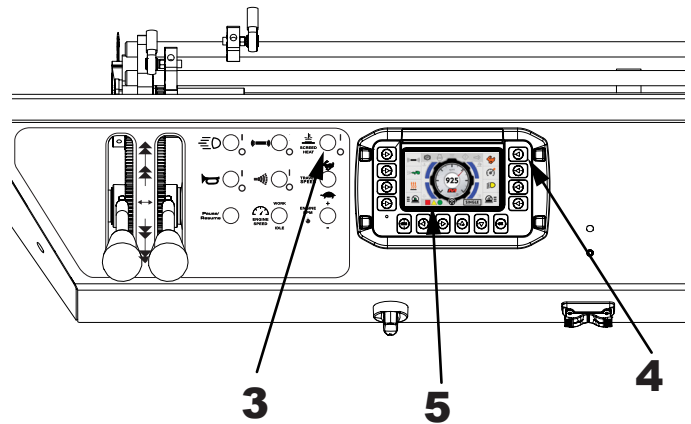
Red Triangle: Heating Stage 1

Orange Triangle: Heating Stage 2

Yellow Triangle: Heating Stage 3

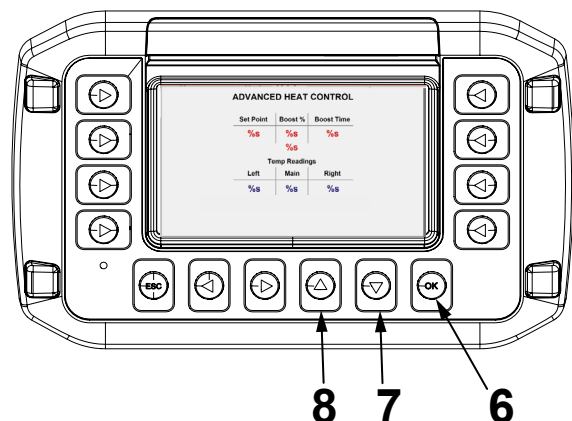
Green triangle : Heating Stage 4

Red Square: System Error



3.11.1 Set Screed Temperature

1. Press the OK (6) button until you get to the temperature set screen.
2. Use the down arrow button(7) to lower temperature or up arrow button(8) to raise desired screed temperature.



3.12 Material Feed Operation

⚠ DANGER

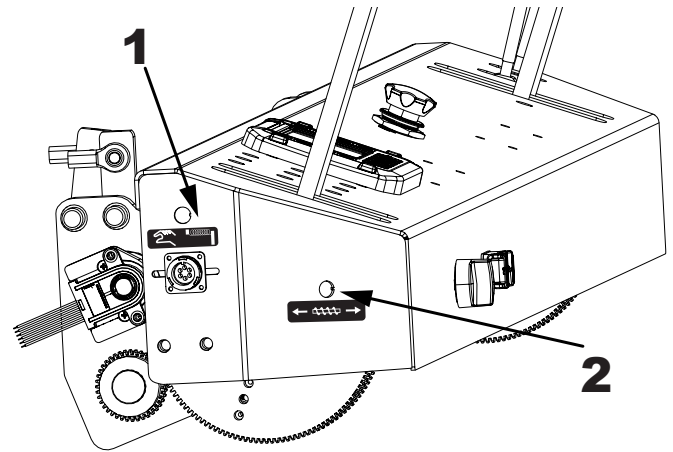
DANGER: INJURY/OR DAMAGE MAY OCCUR: Make sure area around auger is completely clear before operating. Make sure there is no personnel or obstructions. Never operate the augers when personnel are in front of or around the augers. Never put an object like a board or stick in the augers.

3.12.1 Automatic Auger Control

At the left operator's station:

1. Press the Auto/Manual toggle switch(1) to the Auto position (corkscrew icon).
2. Press the Auger Direction toggle switch(2) to the out position (indicated by the arrow to the outside of the machine).

Each side must be setup independently. Repeat the above steps for the right side of the operators station.



3.12.2 Manual Auger Control

Start at the left side operator station.

1. Press the Auto/Manual toggle switch(1) to the manual position (hand icon).
2. Press the Auger Direction toggle switch(2) to the out position (indicated by the arrow to the outside of the machine).

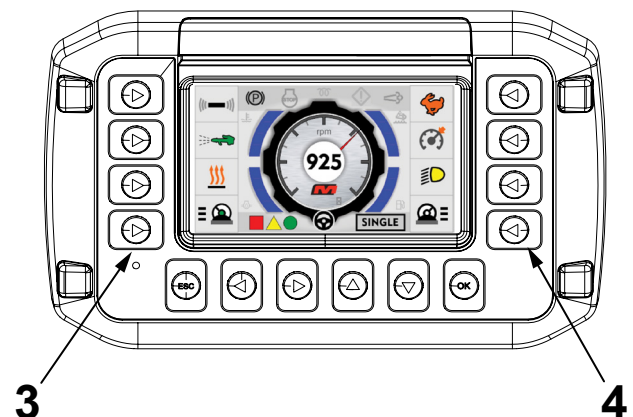
Each side must be setup independently. Repeat the above steps for the right side of the operators station.

3.12.3 Material Height Adjustment Presets

Material height can be changed based on condition or preference. There are three quick height settings. A low, medium, and high setting. These can be changed at Engine/Operator screen of the display.

Hit the left material height button (3) or right material height button (4) to change the left material height until you reach desired height setting. A single bar represents low height, two bars represent medium height, and three bars is the high setting.

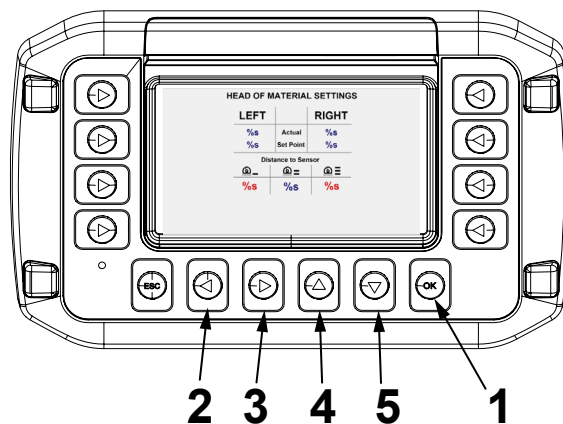
Left and right sides must be set independently.



3.12.3 Change Material Height Presets

You can change the value of your low, medium, and high presets at the Material Feed screen of the display.

1. Press the OK (1) button until you reach the Head of Material Setting Screen.
2. Use the arrow left(2) or right(3) to highlight the left of right head of material.
3. Use the up(4) or down(5) buttons to raise or lower the value.



NOTE:

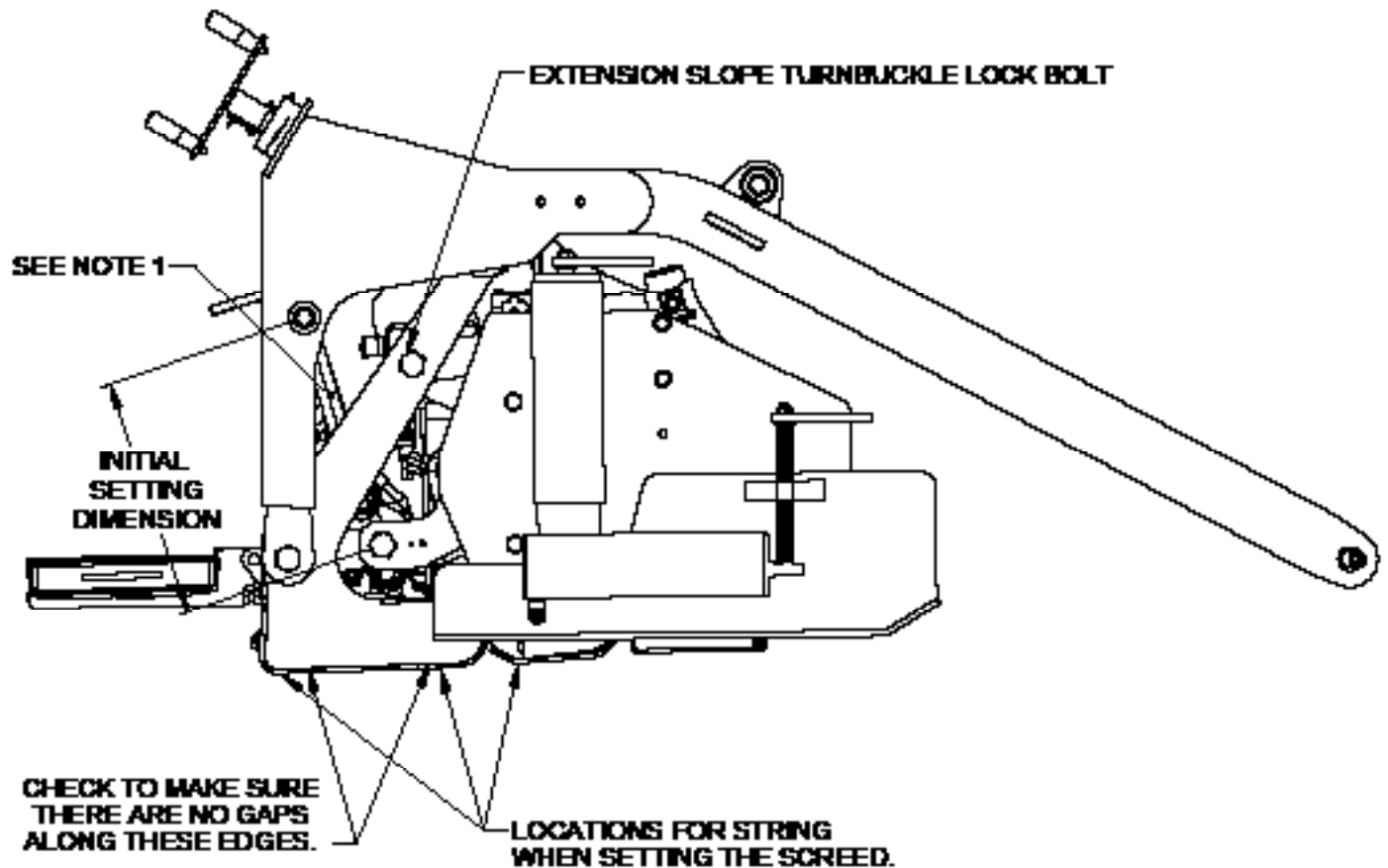
You can only change the low preset and the high preset, The middle preset is always the average of the difference between the low and high settings.

The value is the distance FROM the sensor, not the height off the ground. The lowest head of material setting will have the higher value. The highest head of material setting will have the lowest value.

4 Screed Setup

4.1 Initial Screed Setup

Initial Screed Adjustment Settings



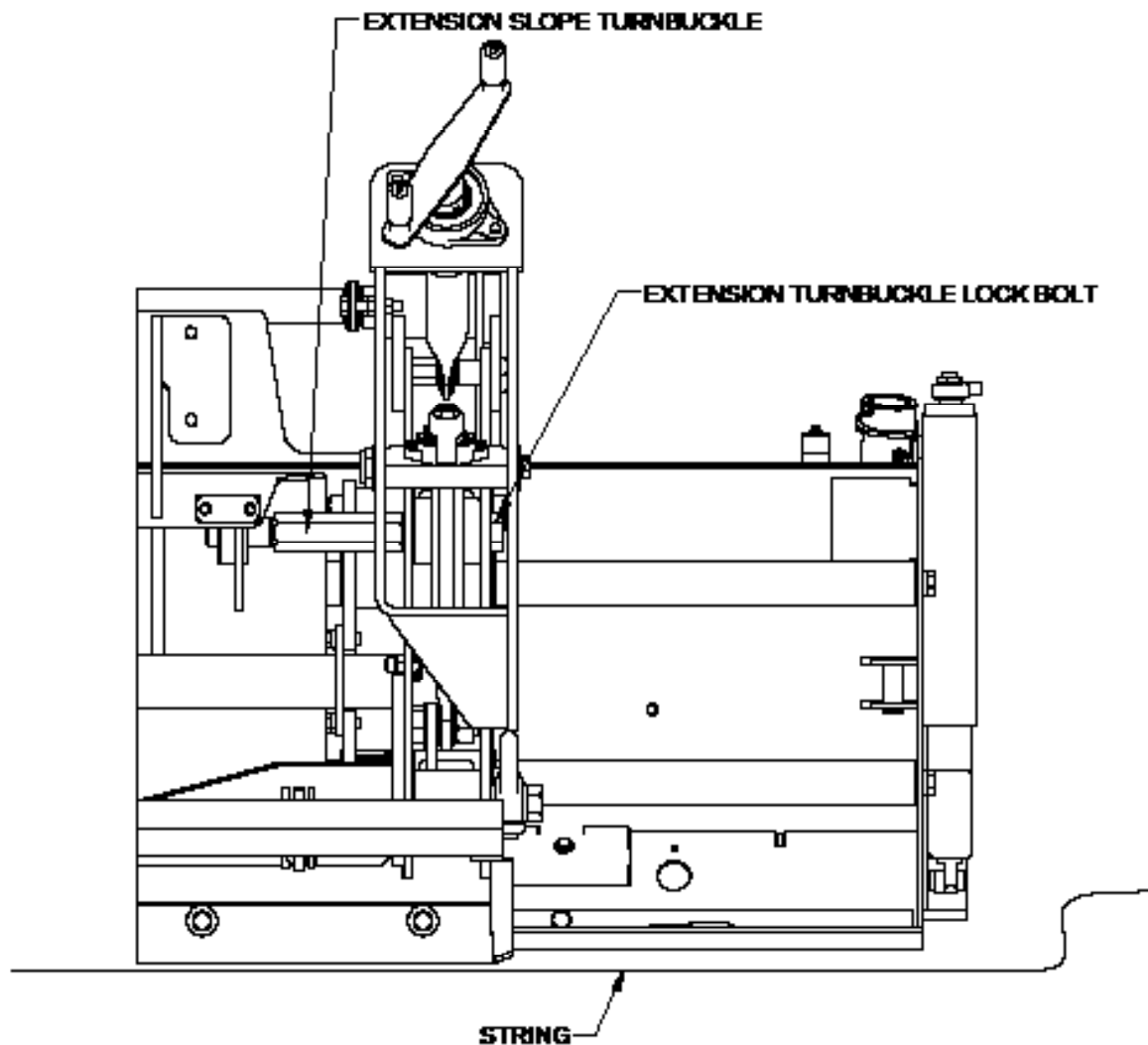
NOTES:

1. VERIFY EXTENSION RAISE/LOWER TURNBUCKLE ASSEMBLY IS FREE TO TURN AND ADJUSTABLE FROM 15-1/4" TO 18-1/4"

ADJUSTMENT INSTRUCTIONS:

1. INITIAL SETTING: 18"
2. TO RAISE EXTENSION ASSEMBLY, DECREASE THE INITIAL SETTING ON THE TURNBUCKLE ASSEMBLY.
3. TO LOWER EXTENSION ASSEMBLY, INCREASE THE INITIAL SETTING ON THE TURNBUCKLE ASSEMBLY.

Initial Screed Adjustment Settings



NOTES:

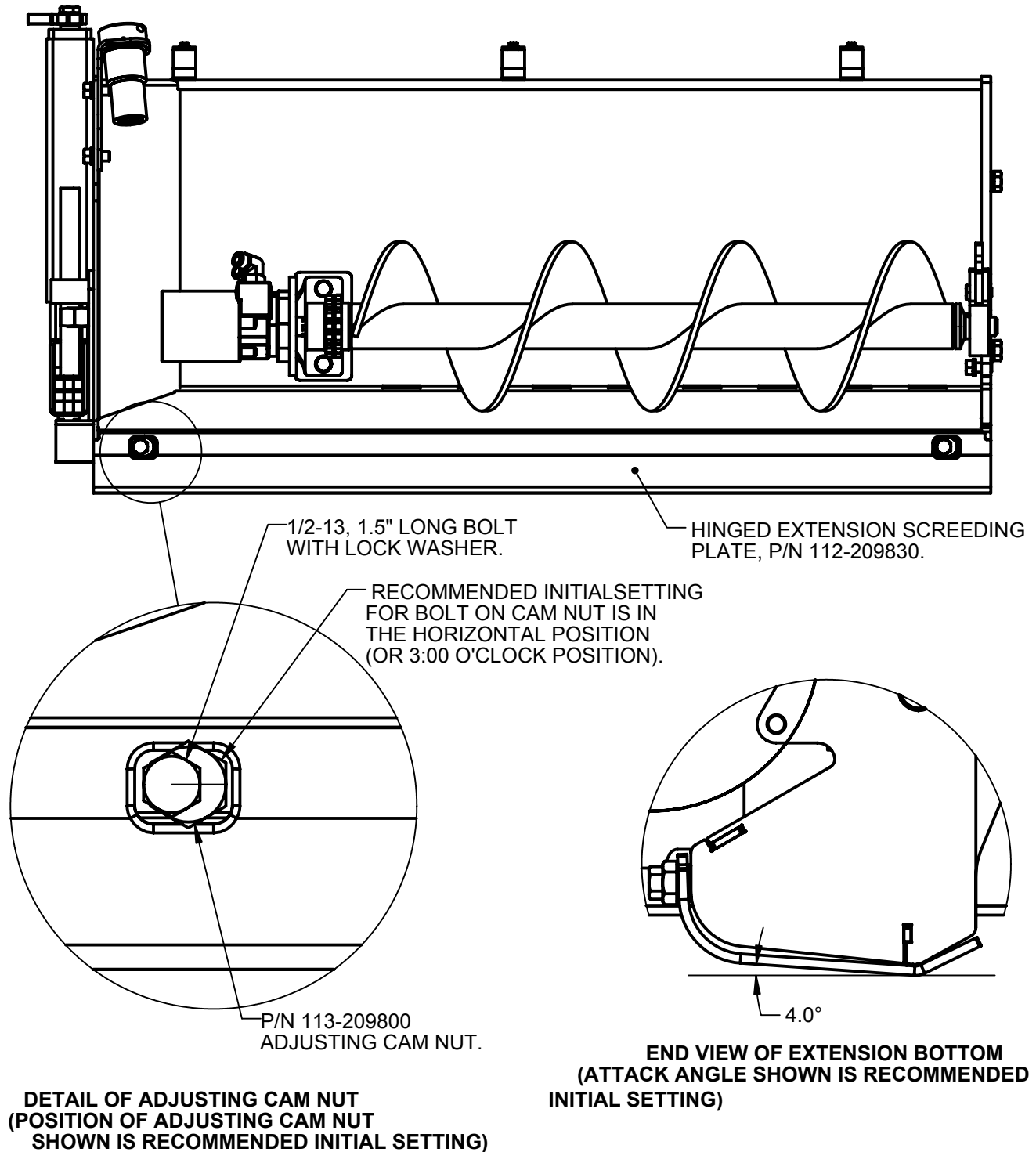
1. POSITION EXTENSION AT HALF WAY OUT POSITION.

ADJUSTMENT INSTRUCTIONS:

1. RUN BOTH LEFT AND RIGHT EXTENSION OUT TO THE HALF OUT POSITION.
2. USE A STRING AND ALIGN WITH TRAILING EDGE OF EXTENSION SCREED PLATE BOTTOM.
3. LOOSEN EXTENSION TURNBUCKLE LOCK BOLT.
4. ADJUST THE EXTENSION SLOPE TURNBUCKLE TO MAKE THE EXTENSION SCREED PLATE FLAT WITH THE STRING.

4.2 Extension Bottom Setup

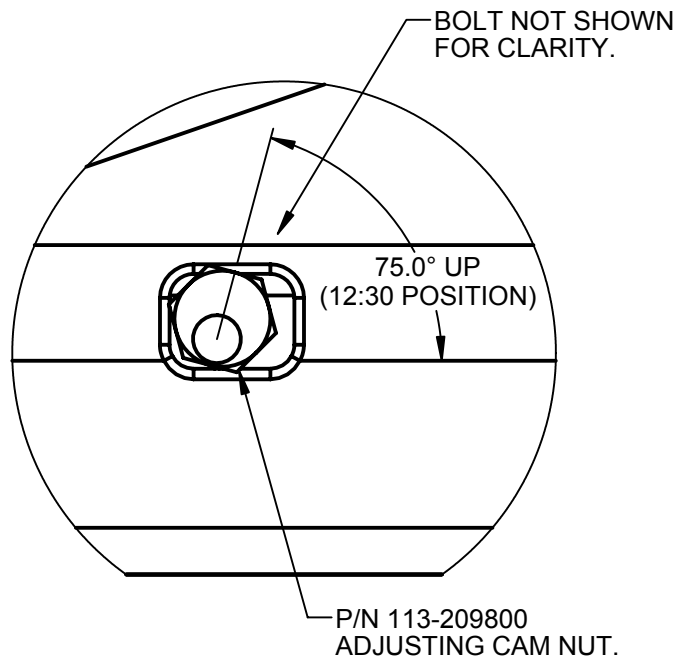
Extension Adjustable Bottom



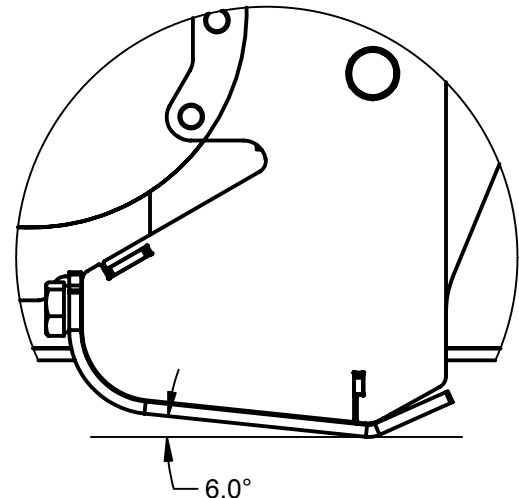
NOTES:

1. If adjusting the attack angle of the extension screeding plate is required, replace P/N 113-209801 with P/N 113-209800 adjusting cam nut. See the following two (2) pages for instructions to raise or lower the extension screeding plate profile to obtain seamless mat paving performance.

Extension Adjustable Bottom



**DETAIL OF ADJUSTING NUT
(POSITION OF ADJUSTING CAM NUT
SHOWN IS FOR MAXIMUM ATTACK ANGLE)**



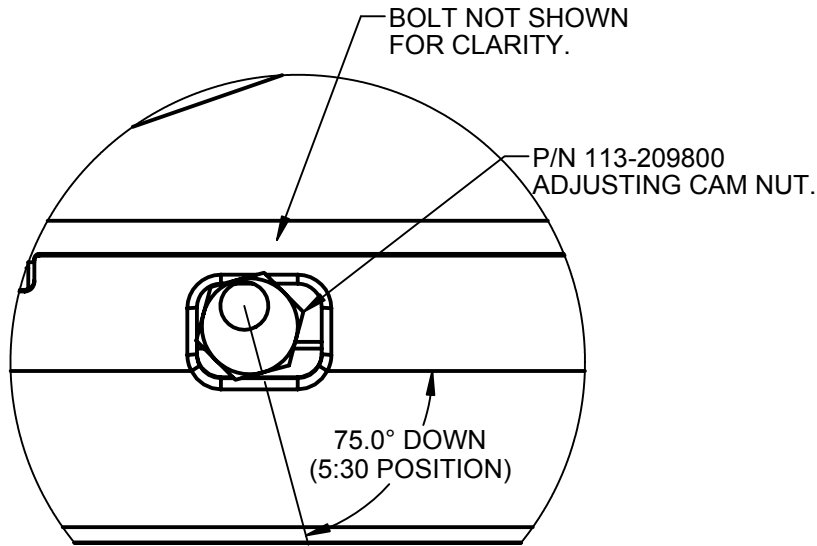
**END VIEW OF EXTENSION BOTTOM
(ATTACK ANGLE SHOWN IS MAXIMUM)**

NOTES:

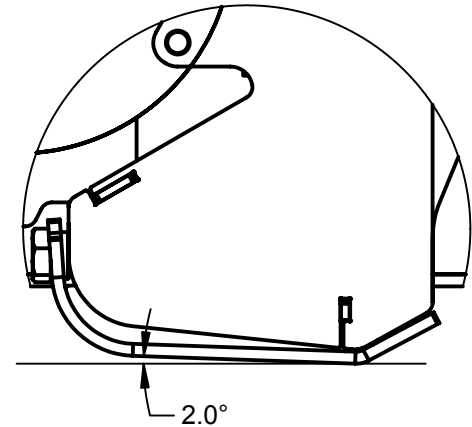
1. If the extensions are lower than the main screed at full paving widths, then increase the extension attack angle, see table below.

Desired Attack Angle	Angle from Horizontal	O'Clock Position
4.0° (Initial Setting)	90° (Initial Setting)	3:00 (Initial Setting)
4.5°	15° UP	2:30
5.0°	30° UP	2:00
5.5°	45° UP	1:30
6.0°	75° UP	12:30

Extension Adjustable Bottom



**DETAIL OF ADJUSTING CAM NUT
(POSITION OF ADJUSTING CAM NUT
SHOWN IS FOR MINIMUM ATTACK ANGLE)**



**END VIEW OF EXTENSION BOTTOM
(ATTACK ANGLE SHOWN IS MINIMUM)**

NOTES:

1. If the extensions are higher than the main screed at full paving widths, then decrease the extension attack angle, see table below.

Desired Attack Angle	Angle from Horizontal	O'Clock Position
4.0° (Initial Setting)	90° (Initial Setting)	3:00 (Initial Setting)
3.5°	15° DOWN	3:30
3.0°	30° DOWN	4:00
2.5°	45° DOWN	4:30
2.0°	75° DOWN	5:30

5 Fluid Capacities and Recommendations

Fluid	Capacity	Recommendation
Engine Oil	7.5 Quarts	10w30,10w40,15w40
Hydraulic Oil	17 US Gallons	AW46 Hydraulic Oil
Engine Coolant	2.5 US Gallons	Extended Life 50/50 Mix
Diesel	15 US Gallons	Ultra Low Sulfur Diesel

5.1 Engine Coolant

All engines are shipped from the factory with proper engine coolant and levels. Customers are responsible for filling and maintaining the engine's coolant system. The use of improper coolant mixtures in diesel engines can result in serious engine damage due to liner erosion and pitting.

5.2 Lubrication and Service Procedures

5.2.1 Air Filters

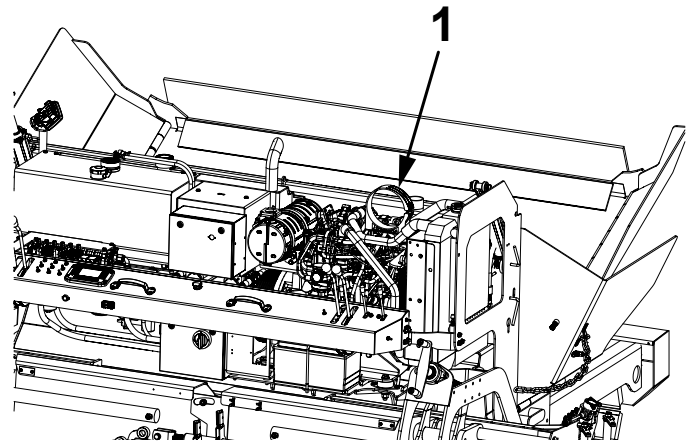
IMPORTANT: Service the engine air filters only when the need is indicated by the air cleaner service indicator, (if equipped), or in accordance with The preventative maintenance decal. Excessive service will cause premature wear.

Engine Primary Element

1. Open engine cover
2. Unbuckle clips to remove element container end cap(1).
3. Pull gently to remove main element.
4. Use compressed air with an element-cleaning nozzle

IMPORTANT: Main element should be replaced after six cleanings or 500 hours use.

IMPORTANT: Do not attempt to clean element using a standard air nozzle. Do not strike element on a hard surface. Either action will damage the element.



5.3 Battery

⚠ WARNING

BATTERY ELECTROLYTE IS A CAUSTIC ACID. KEEP IT AWAY FROM SKIN AND EYES. IF CONTACT OCCURS, FLUSH THE AFFECTED AREA WITH LOTS OF WATER.

⚠ WARNING

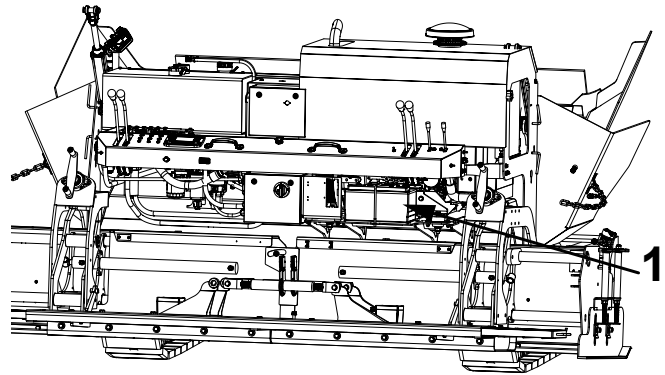
DISCONNECT GROUND CABLE FROM THE NEGATIVE BATTERY POST BEFORE ATTEMPTING TO SERVICE OR REMOVE BATTERY.

5.3.1 Removal

- Locate battery underneath engine (1).
- Disconnect ground (negative) cable from battery (-) terminal.
- Disconnect positive cable from battery (+) terminal.

5.3.2 Cleaning

- Remove battery, following correct procedures.
- Thoroughly clean terminals with a battery-cleaning tool.
- Mix a paste solution of baking soda and water and apply to battery and terminals.
- Rinse battery and paver area near battery liberally with water.



5.3.3 Installation

- Clean battery, following correct procedures.
- Be certain battery area is clean and clear of debris.
- Install battery and connect positive (+) cable to terminal.

⚠ WARNING

DO NOT CONNECT NEGATIVE (GROUND) TERMINAL FIRST. ARCING CAN OCCUR, POSSIBLY CAUSING SEVERE BURNS AND/OR BATTERY EXPLOSION.

- Connect negative (-) terminal.
- Close engine compartment.

5.3.4 Charging

- Connect charger leads to proper battery terminals then proceed according to charger manufacturer's instructions.

5.3.5 Storage

- Remove and clean battery, following correct procedures.
- Bring battery to full charge, following charger manufacturer's instructions.
- Store in a cool dry place where there is no possibility of freezing.

NOTE: Check battery every 30 days during storage and return to full charge if necessary.

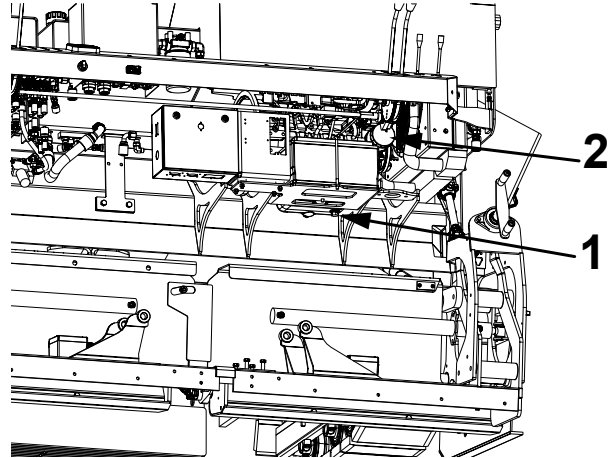
5.4 Engine and Engine Filters

⚠ WARNING

BOTH DIESEL FUEL AND GASOLINE ARE HIGHLY FLAMMABLE AND EXPLOSIVE UNDER CERTAIN CONDITIONS. DO NOT SMOKE OR ALLOW SPARKS OR OPEN FLAME WHEN HANDLING.

5.4.1 To Change Engine Oil

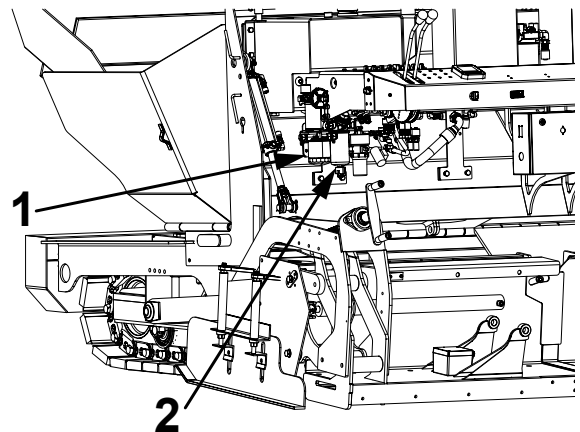
1. See OEM Engine Manufacturer's Manual for filter and oil specification.
2. Lower screed to the ground.
3. Loosen the drain plug on the bottom of the oil pan(1)
4. Using a catch bucket drain all of the oil.
5. Reinstall the drain plug(1) and torque to spec.
6. With a filter wrench remove the old oil filter(2)
7. On the new oil filter lubricate the o-ring
8. Screw the new filter on and tighten. Tighten it 1/4 turn past hand tight.
9. Fill the engine with the appropriate oil spec and quantity. See Section 5 for fluid and quantity.



IMPORTANT: Do not over tighten.

5.4.2 To change fuel filter and water separator

1. Stop engine. Wait 15 minutes or engine oil to cool before proceeding.
2. Lower screed to the ground
3. Loosen and remove the fuel filter(1).
4. Loosen and remove water/fuel separator(2).
5. Lightly coat the seal rings with oil, and then screw on filters until seals meet flanges.
6. Tighten an additional 1/2 to 3/4 turns by hand.



IMPORTANT: Do not over tighten.

5.5 Hydraulic System

⚠ DANGER

RELEASE, RESTRAIN, OR OTHERWISE RENDER SAFE ALL POTENTIAL HAZARDOUS STORED OR RESIDUAL ENERGY. IF A POSSIBILITY EXISTS FOR RE-ACCUMULATION OF HAZARDOUS ENERGY, REGULARLY VERIFY DURING THE SERVICE AND MAINTENANCE THAT SUCH ENERGY HAS NOT RE-ACCUMULATED TO HAZARDOUS LEVELS.

⚠ DANGER

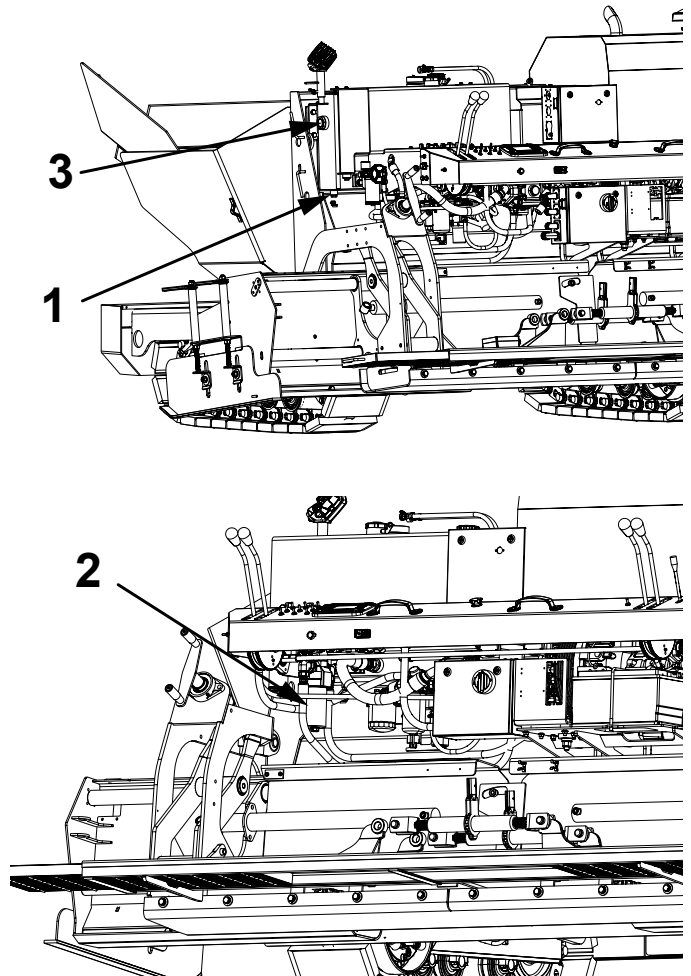
DO NOT RELEASE OR OPEN ANY HOSE OR HYDRAULIC CIRCUIT WHILE ANY IMPLEMENT IS SUSPENDED IN THE AIR. ENSURE ALL IMPLEMENTS ARE PROPERLY SUPPORTED AND/OR IN THEIR DOWN MOST LOWEST POSITION.

5.5.1 Hydraulic Fluid Change

1. Stop engine. Allow system pressure to drop and remove filler cap.
2. Remove drain plug(1) and drain system completely.
3. Remove hydraulic filter(2). Replace filter element and reinstall.
4. Replace fluid to approximately half way in sight gauge window(3).
5. Operate paver and recheck level.
6. Check visually for oil leaks.

NOTE: Each paver should be thoroughly inspected after each use and during maintenance cycle for:

Tightness of mounting bolts and attaching hardware on bearings, couplings, frame, etc.
Leaks, cracks and loose electrical and fluid fittings.
Malfunctioning indicators or controls.
Worn or damaged tires.
Cleanliness.



5.6 Drive Motor

The final drive unit on this machine is a maintenance free unit that does not use a planetary gear set. There is no fluid to replace at regular service intervals. It uses the hydraulic oil from the hydraulic circuit of the drive motor to lubricate the internals of the drive unit. The performance and life duration of the drive unit is greatly dependent on the cleanliness of the hydraulic oil. It is imperative to follow the hydraulic oil filter service intervals, and ensure hydraulic oil is topped off and not low.

6 Troubleshooting

6.1 General

Proper troubleshooting begins with an organized approach to the problem at hand. Begin with investigation of the most probable cause, following the guidelines below.

Study the problem thoroughly before taking action:

Did warning signs precede the problem? If so, what were they? What would they indicate? Is scheduled maintenance current on all parts and systems involved?

Has similar trouble occurred before? What action was taken at that time? Can engine be operated without further damage?

WARNING

IF RUNNING INSPECTION MUST BE MADE, GET ASSISTANCE. OPERATOR SHOULD REMAIN ON PAVER THROUGHOUT INSPECTION. MAKE SURE TRANSMISSION IS IN NEUTRAL POSITION.

Check the most convenient things first.

Don't begin major work before checking all other possibilities.

Reconsider all known facts and clues before proceeding to more in-depth work. Correct the basic cause. Remember, failure of a certain part may be caused by malfunction of another part or system.

6.1.1 Use of Schematics

The Parts & Service manual incorporates electrical and hydraulic diagrams formatted for ease of use by maintenance and for the training of personnel.

6.1.2 Troubleshooting chart

The troubleshooting chart lists problems that might be encountered in the operation of the vehicle. The remedies listed may direct the repairman to a possible faulty component.

⚠ WARNING

THE TROUBLESHOOTING CHART AND PROCEDURES OUTLINED IN THIS SECTION SHOULD NOT BE ATTEMPTED BY OTHER THAN EXPERIENCED MECHANICS OR PERSONNEL UNDER THE DIRECT SUPERVISION OF AN EXPERIENCED MECHANIC. FAILURE TO COMPLY MAY RESULT IN DAMAGE TO EQUIPMENT AND/OR INJURY OR DEATH TO PERSONNEL.

⚠ DANGER

RELEASE, RESTRAIN, OR OTHERWISE RENDER SAFE ALL POTENTIAL HAZARDOUS STORED OR RESIDUAL ENERGY. IF A POSSIBILITY EXISTS FOR RE-ACCUMULATION OF HAZARDOUS ENERGY, REGULARLY VERIFY DURING THE SERVICE AND MAINTENANCE THAT SUCH ENERGY HAS NOT RE-ACCUMULATED TO HAZARDOUS LEVELS.

⚠ DANGER

DO NOT RELEASE OR OPEN ANY HOSE OR HYDRAULIC CIRCUIT WHILE ANY IMPLEMENT IS SUSPENDED IN THE AIR. ENSURE ALL IMPLEMENTS ARE PROPERLY SUPPORTED AND/OR IN THEIR DOWN MOST LOWEST POSITION.

6.2 Engine

For engine troubleshooting see charts indicating faults and recommended repair procedures, refer to Manufacturer's Operation and Maintenance Manual.

If your particular problem is not covered or you are unsure of what steps to take, contact your dealer for assistance.

6.2.1 Transmission

1. Vehicle fails to move under power. Inadequate oil level in hydraulic reservoir.
 - Drive line mechanical failure
2. Vehicle moves in neutral.
 - Steering levers are actually engaged
 - Steering calibration adjustment required

For detailed troubleshooting information on hydrostatic transmission, refer to Trouble Shooting Manual, Rexroth Hydrostatic Transmissions, available from a Rexroth representative or dealer.

6.3 Electrical System

Engine Status	Voltmeter Reading	Indicates	To Correct
Running	13.5v - 14v	Normal Condition	
Running	Less than 13.5v or more than 14v	Alternator or Regulator Malfunction	Contact Dealer
Won't Start	12-12.5v	Weak Battery	Charge
Won't Start	Less than 12 Volts	Weak Battery or Defective Cell	Charge or Replace

6.4 Hydraulic System

Thoroughly review description of hydraulic system. Use logical steps to determine cause of malfunction. Identify the function or functions that require troubleshooting.

If possible, trace malfunction to source; pump, control, motor or cylinder. Determine pressure operating the function as specified:

6.4.1 Hydraulic System Pressures

Priority circuit, triple gear pump	2,500 – 2,800 p.s.i.
Neutral Position Main circuit, Rexroth tandem pump	up to 4,500 p.s.i.
Relief Pressure Charge circuit, Rexroth tandem pump	300 – 400 p.s.i.

Problem	Possible Cause	Correction
No power or Inadequate Power	Worn or Malfunctioning Pump or Motor Stuck Relief Valve Cartridge Low System Pressure Caused by Worn Pump	Repair or Replace Pump or Motor Repair or Replace Pump
Surging of Hydraulic Items	Air in System Due to Low level of oil, Cavitating pump, leaky fittings, pinched hoses, etc	Correct

Removal and Installation of Equipment

1. Preparation

WARNING

BEFORE PERFORMING INSTALLATION OR REMOVAL PROCEDURES THE FOLLOWING PRECAUTIONS MUST BE ADHERED TO IN ORDER TO PREVENT POSSIBLE DAMAGE TO EQUIPMENT OR INJURY OR DEATH TO PERSONNEL.

⚠ WARNING

TURN THE ENGINE OFF BY TURNING THE IGNITION SWITCH TO OFF. DISCONNECT THE BATTERY CABLES BEFORE SERVICING THE ENGINE START OR STOP CIRCUITS. DISCONNECTING BATTERY NEGATIVE GROUND BEFORE REMOVING OR CONNECTING THE POSITIVE BATTERY CABLE CAN PREVENT SHORT CIRCUITING OF THE BATTERY BY TOOLS.

6.5 Recommended Preventive Maintenance Intervals

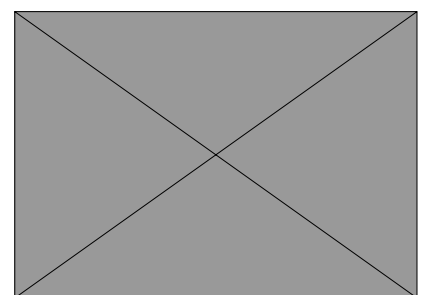
Initial	Item	Procedure
Initial Break in	After First 50 Hours: Change all hydraulic filters Check for hydraulic leaks Change engine oil and filters Check for loose nuts and bolts Check for excessive wear on all working parts	Tighten as necessary
Daily or 10 Hours	Check hydraulic fluid level Check oil level Engine air cleaner system Check for loose bolts Remove asphalt from all working surfaces	Add as necessary Add as necessary Check Service indicator and Inspect Tighten as necessary Spray down with approved release agent and clean
50 hours	All 10 hour items All bearings Track system All linkages	As above Grease Check master link Grease
250 Hours	All 50 Hour Items Engine air cleaners Engine oil and filter Fuel tank Hydraulic return filter	As above Replace Element Drain and refill Drain water separator Replace
500 Hours	All 250 Hour Items Fuel Filters	As above Replace
1000 Hours or Yearly	All 500 Hour Items Hydraulic System Radiator	As Above Drain and Refill Clean fins with degrease

A copy of this schedule is attached to the paver in the form of a decal.

Be sure to follow the Hour interval recommendations whenever the paver is equipped with an engine hour meter. Time intervals are considered not to exceed recommendations.

NOTE:

FAILURE TO PERFORM PROPER SCHEDULED MAINTENANCE WILL ADVERSELY EFFECT THE PERFORMANCE OF THE PAVER, AND MAY VOID YOUR WARRANTY IN PART OR IN ENTIRETY.



7 Warranty



CALDER BROTHERS CORPORATION (LIMITED) PRODUCT WARRANTY

Calder Brothers Corporation warrants that the Paver, Roller, Tank or Grader under this program will be free from defects in material and workmanship for a period of (12) twelve months from the date of installation. Written notice of any claimed defect must be given to Calder Brothers Corporation within the warranty period and within (30) thirty days after such defect is discovered. Liability under this warranty is limited to replacing or repairing at Calder Brothers Corporation election, any part or parts deemed defective after examination by Calder Brothers Corporation or an Authorized Service Representative via prepaid transportation for which is found to be defective, will be repaired or replaced and returned to the customer via prepaid surface transportation within the United States. Should any part be found not defective, inspection and handling may be charged to the customer by Mauldin or an Authorized Service Representative.

EXCLUSIONS:

This warranty does not apply to routine wearable parts of the Mauldin machine such as seals, points, plugs, hoses or similar items. This warranty does not extend to any machine or part replaced or repaired under this warranty. This warranty does not cover any repair or replacement labor or any part of parts found defective after examination by Mauldin or an Authorized Service Representative. This warranty does not apply to defects caused by casualty or unreasonable use, including faulty repairs by others and failure to provide reasonable and necessary maintenance.

THIS WARRANTY SET FORTH HEREIN IS IN LIEU OF AND EXCLUDES ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND CUSTOMER WAIVES ANY OBLIGATION OF LIABILITY OF MAULDIN ARISING IN TORT OR STRICT LIABILITY IN TORT, OR FOR LOSS OR USE, REVENUE OR PROFIT WITH RESPECT TO MAULDIN MACHINE AND/OR PARTS FOR ANY LIABILITY OF CUSTOMER TO ANY THIRD PARTY, OR FOR OTHER DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.