Extreme Duty Road Saw

Operation and Maintenance Manual

BLUE DIAMOND® ATTACHMENTS

Register your WARRANTY within 30 days of purchase

BD-092

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Introduction: *Owner Information*

Thank you for your decision to purchase a Blue Diamond® Extreme Duty Road Saw. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator's Manual and follow the recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and / or laws. Follow all on-product labeling and instructions.

Make sure that all personnel have read this Operator's Manual and thoroughly understand safe and correct operating, installation and maintenance procedures.

Blue Diamond® is continually working to improve its products. Blue Diamond® reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

Although great care has been taken to ensure the accuracy of this publication, Blue Diamond® makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Blue Diamond® assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your Blue Diamond® Attachments Dealer for assistance, information, or additional copies of the manual. Contact www.bluediamondattachments.com or call 888-376-7027 for a complete list of dealers in your area.

Serial Number Location:

Please record attachment information in the space provided for future reference.

Model Number:_____

Serial Number: _____

Dealer Name: _____

Dealer Number:_____

Date of Purchase:_____

The serial number plate is located on the right side of the frame on top of the mount as shown above.

Always use your serial number when requesting information or when ordering parts.

NOTE: The directions left, right, front, and rear, as mentioned throughout this manual, are as viewed from the operator's position.

Revision Date: 01.30.2026

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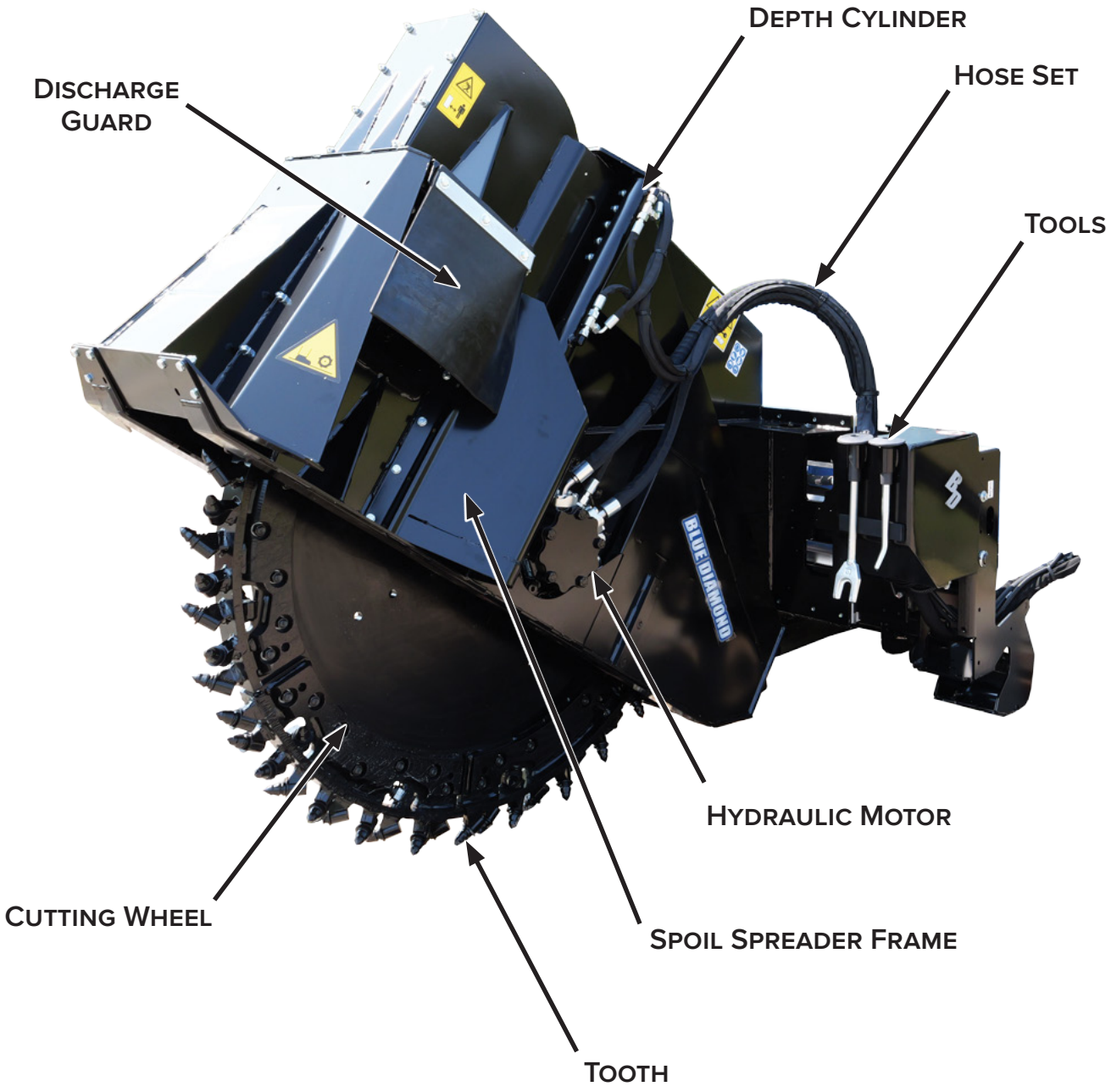
1. Introduction

1.1 *Attachment Identification*



1. Introduction

1.2 *About this Attachment*

Our Road Saw is the perfect addition for the construction industry. This attachment specializes in making precise cuts through tough material, such as concrete and asphalt. The Road Saw can be used to create narrow trenches with consistent depth for laying fiber optics and other similar material, repair roads, and cut through brick.

Because of its robust design, the Road Saw reduces the cost of labor, taking labor-intensive work, such as removing concrete, and making it quick and easy.

1.3 *Attachment Model Numbers*

Model Number	Depth	Width
361120	6” – 17”	2”
361121		3 1/4”
361122		4”
361123		5”
361124		6 1/4”
361125		8”
361130	8” – 24”	3 1/4”
361131		4”
361132		5”
361133		6 1/4”
361134		8”

2. Safety

2.1 *General Safety Information*

SAFETY ALERT SYMBOL

This **SAFETY ALERT SYMBOL** identifies important safety messages on the equipment and in the owner's manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

IMPORTANT

The signal word **IMPORTANT** identifies procedures which must be followed to avoid damage to the machine.

DANGER

The signal word **DANGER** on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

The signal word **WARNING** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

The signal word **CAUTION** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Notes are used to indicate important information. This information may be repeated in other areas of the manual.

Terminology

Host Machine, Machine, Prime Mover:

- The Road Saw can be attached to many different pieces of equipment; therefore, the terms "host machine", "machine", and "prime mover" will be used. Host machine, machine, and prime mover mean any vehicle, tractor, or skid steer providing power to the attachment.

Attachment, Implement, Equipment:

- The Road Saw is the tool that is being attached to the host machine; therefore, the terms "attachment", "implement", and "equipment" will be used. The attachment, implement, and equipment mean any tool that is being used on any vehicle, tractor, or skid steer being used for different applications.

Operating Safety

- Read and follow instructions in this manual and the machine's Operator's Manual before operating.
- The manual must always remain with the machine. In case of loss or damage, request a new copy from your dealer or from Blue Diamond®.
- Strictly follow all rules prescribed by the safety pictograms/decals applied to the machine. Ensure that all safety pictograms/decals are legible. If pictograms/decals are worn, they must be replaced with new ones obtained from Blue Diamond® and placed in the position indicated by this manual.
- Before using the machine, make sure that all safety devices are installed and in good working condition. In case of damaged or missing shields, replace them immediately.
- It is absolutely forbidden to remove or alter safety devices and/or safety precautions
- Pay maximum attention to avoid any accidental contact with rotating parts of the machine.
- If the use of the machine is required at night or in conditions of reduced visibility, the work area must be illuminated (200 lux) by the use of the host machine or fixed/immobile auxiliary lighting.

2.1 *General Safety Information Cont'd*

WARNING

Improper use and maintenance operations can cause serious injury and shorten the useful lifetime of machines.
The operator and qualified technicians must have thorough knowledge of all requirements listed in this manual before beginning to use the machine or perform maintenance operations.
The procedures contained in this manual shall be understood to apply to the machines only where used for the permitted purposes and with all safety devices and equipment installed and operational; if the machines are used for other purposes or under different safety situations, the customer shall bear direct responsibility for persons involved in accidents or incidents and any unusual wear to the attachment.

DANGER

AVOID SERIOUS INJURY OR DEATH

Operators must receive instructions before operating the machine. Untrained operators can cause serious injury or death.
For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment.
For an operator to be qualified, he or she must have read and understood the instructions of this manual, he or she must make adequate preparation for the proper use of the machine, and he or she must hold a driving license.
In case of doubt regarding the use of the machine and/or the interpretation of this manual, the operator must contact either their dealer or Blue Diamond®.

2.2 *Operators*

Qualified Operators

The operator is a person suited to the work and who is physically and psychologically able to withstand the demands connected with operating the equipment for its intended use. The operator must not allow anyone to approach the machine while it is working and must not allow external personnel to operate the machine or attachment.

The operator is to follow the given instructions in this manual and the machine operator's manual in order to obtain maximum performance, minimal fuel consumption, and maximum safety for himself and for others.

The operator is responsible for scrupulously observing all the instructions given in this manual.

Operator Training

- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine safely under all conditions of the work area.

Operator Safety

- Before starting, and during operation of the attachment, make sure there are no people or animals in the operation area; the machine can project material from the back with risks of serious injury or death.
- During operation, adjustment, maintenance, repairing, or transportation of the machine, the operator must always use appropriate Personal Protective Equipment (PPE) including but not limited to safety glasses, working gloves, dust-mask, safety helmet, and hearing protection.

2.2 *Operators Cont'd*

Operator Safety Cont'd

- Do not operate the attachment or machine while wearing loose fitting clothing that can be entangled or caught in parts of the machine.
- Do not operate the implement when tired, not in good condition, or under the influence of alcohol or drugs.
- Any use of the attachment which does not comply with the uses specified in this operation and maintenance manual is strictly prohibited.
- Do not stand, move, or work on floors or any non–bearing structure.
- Do not work in dangerous weather conditions (i.e. lightning).
- Do not dig curves with a radius of less than 330 feet (100 meters).
- The attachment must never be moved sideways when the wheel is in use.
- Ensure that normal maintenance has been performed.

2.3 *Safety Guidelines*

Operating Safety

- Read and follow instructions in this manual and the machine's Operator's Manual before operating.
- Check that the attachment has not suffered any damage during transportation. If so, immediately contact Blue Diamond® Product Support.
- Under no circumstances should young children be allowed to work with this equipment.
- This equipment is dangerous to persons unfamiliar with its operation.
- Check for overhead and/or underground lines before operating equipment (if applicable).
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.
- Check that the attachment is securely fastened to the machine.
- Make sure all the machine controls are in the NEUTRAL before starting the machine.
- Operate the attachment only from the operator's position.
- When learning to operate the equipment, do it at a slow rate in an area clear of bystanders.
- Do not permit personnel to be in the work area when operating the equipment.
- The attachment must be used ONLY on approved machines.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- No modifications may be made to the equipment or its components without written authorization from Blue Diamond®. Unauthorized modifications may alter the design parameters for the original performance of the equipment, resulting in the termination of any and all warranties as well as civil and/or criminal responsibility for damage or injuries.
- Do not make any adjustments or repairs on the equipment while the machine is running.
- Keep shields and guards in place. Replace if damaged.
- DO NOT operate equipment in poor visibility conditions such as fog, darkness, or any conditions that limit clear visibility less than 30 feet (10 meters) in front of and to the sides of the equipment.

2.3 *Safety Guidelines Cont'd*

Operating Safety Cont'd

- Do not operate in a work area that has not been inspected for foreign debris and obstacles.
- Remove any foreign objects and clearly mark any objects that cannot be removed.
- Wear safety glasses, gloves, hearing protection, and other protective clothing when required.
- Only use spare parts supplied by Blue Diamond®, as they offer functional and durability as well as easy interchangeability.
- Do not leave the attachment installed on the machine unattended in a work area.

Machine Requirements and Capabilities

- The machine's operator's cab should be equipped with a thermoplastic polycarbonate or similar material front window, and similar protection on the sides of the operator's cab before operating the equipment.
- Keep bystanders clear of moving parts and the work area. Keep children away.
- Do not exceed 4350 psi (300 bar) operating pressure.
- Use caution on slopes and near banks and ditches to prevent overturn.

Residual Risks

- When the equipment is in use, the following risks may arise:
  - Electric shocks from contact with underground power lines.
  - Fire and explosions through contact with underground gas lines.
- Anyone standing in the vicinity of the equipment may be exposed to the following risks:
  - Risks originating from blows, catching, or shearing as a result of accidental contact with the cutting wheel.
  - Risk of crushing between the attachment and the host machine.
  - Risk of rubble (stones, blunt objects, etc.) being thrown out.
  - Risk of falling waste material (when working on uneven ground or surfaces at different heights).

Environmental Conditions

- With working temperatures below 14°F (–10°C), let the host machine idle before beginning work, and when the hydraulic circuit exceeds 32°F (0°C), run the machine until the working temperature has been reached.
- The work area must comply with the regulations in force concerning hygiene and safety in the workplace.
- If the equipment is required to be partially immersed in saline environments, contact Blue Diamond® Product Support.
- No naked flames and such near the equipment.
- Do not use the equipment in environments where there is a risk of explosion or fire.

Fire Prevention

- Flammable debris (leaves, grass, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean to avoid this accumulation.
- This attachment's hydraulic motor compartment must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.
- All fuels, most lubricants, and some coolant mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

Transporting Safety

- Comply with local, state, and federal laws governing highway safety and movement of machinery on public roads.
- Check local laws for all highway lighting and marking requirements.

2.3 *Safety Guidelines Cont'd*

Transporting Safety Cont'd

- Always yield to oncoming traffic, and move to the side of the road so any following traffic may pass.
- Never allow riders on either machine or equipment.
- If transporting the equipment on a truck or trailer, make sure the equipment is properly secured to the transport vehicle.
- Machines with attachments installed have a different center of gravity and overall dimensions.
- The operator must take great care during movements and maneuvers, avoiding dangerous imbalances and proceeding at low speeds at all times. Keep the attachment raised a couple inches from the ground.
- It is mandatory to remove the attachment from the host machine when driving on public roads unless the host machine's vehicle registration and road-worthiness approval have been updated specifically.
- Blue Diamond® shall not be held responsible for either criminal or civil consequences deriving from failure to obey or abuse of these requirements and limitations.

Hydraulic System

- Ensure that the hoses are sufficient to resist the auxiliary pressure of the host machine and that the hoses and connected are properly connected.
- All inspections of the hoses and fittings must be carried out using suitable personal protective equipment (PPE).
- Check hydraulic tubes, hoses, and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage.
- Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.

Safety Devices

- The safety tools must never be tampered with.
- The attachment must never be used without safety guards fitted.
- Always the use appropriate personal protective equipment (PPE) when performing any type of maintenance.
- The teeth can reach high temperatures during work; it is therefore necessary to wait for them to cool and use appropriate gloves if it likely to come into contact with them.

Personal Protective Equipment

Proper Work Clothes: To help ensure your safety as a designated operator wear proper work clothes including tight fitting clothes, protective gloves, and shoes.

Hand Protection: To help ensure your safety as a designated operator wear protective gloves.

Protective Shoes: To help ensure your safety as a designated operator wear protective shoes.

Safety Helmet: To help ensure your safety as a designated operator wear a safety helmet.

Safety Helmet and Eye/Ear Protection: To help ensure your safety as a designated operator wear a safety helmet and eye/ear protection.

3. Transport

3.1 *Delivery & Unloading*

The Extreme Duty Road Saw is normally transported and delivered, fastened to a pallet in a stable position. The type of packing may vary according to the desired means of transport and destination.

IMPORTANT

- Any optional material (spare teeth, tools for replacement teeth, etc.) is contained in a separate package.
- On receiving the attachment, check it for any damage (major breakages or dents) caused during transportation. If any are found, the carrier must be alerted immediately and the statement “Accepted Conditionally” must be added to the delivery note.
- In the event of damage, give notice of the fact to the carrier in writing within eight (8) days of receiving the attachment.
- If, upon delivery, major damage caused during transportation is noted or any parts that should be included are missing, Blue Diamond® Product Support must be promptly notified of the situation.
- It is essential to check the attachment delivered against the information given in the itemized shipping document.

WARNING

- The packed unit must be unloaded with the utmost care using lifting equipment with a suitable capacity (e.g. forklift or other appropriate means).
- The entire unit must be placed on a flat, stable surface.
- All load handling operations must be carried out by qualified personnel in compliance with regulations in force concerning safety in the workplace.
- Dispose of the packing in compliance with local, state, and federal law.
- If possible, the pallet used for transport can be used for attachment storage.

3.2 *Handling, Transportation, & Lifting*

WARNING

- If the approval of the host machine to travel on normal roads does not extend to the attachment, it must be removed before transportation on open roads.
- Only short distances may be traveled on the worksite when the attachment is mounted on the host machine. This transport must be carried out at low speeds with the attachment close to the ground. All personnel, bystanders, etc. must be kept at a safe distance away.
- The attachment must always be removed from the host machine before the vehicle is driven up loading ramps.
- The attachment must not be operated during transport.

Handling Over Short Stretches (In the Workplace)

- Use the host machine, leaving the attachment mounted.
- Secure the attachment to a pallet, and handle with a forklift or a transpallet.

Handling Over Long Stretches

- Secure the attachment to the pallet, using a forklift or transpallet for handling, then load it onto the method of transportation.

3.2 *Handling, Transportation, & Lifting Cont'd*

Lifting from One Surface to Another (e.g. to Load onto a Truck)

- Use a lifting crane or truck with a suitable capacity for the weight specified on the serial plate. Connect the cables or chains at the three (3) points shown with the relative stickers. (See Figure 1.) When lifting, use hooks or straps capable holding the road saw's weight.

WARNING

- Check that the capabilities of the cables, chains, and lifting and transportation method in general are compatible with the attachment weight specified on the serial plate.
- Keep the attachment close to ground (safe height of 1.5 ft or 0.5 m) when moving with it attached to the host machine.
- Shifting is only permitted on flat or slightly loose ground as long as stability is never jeopardized.
- Check that the pallet on which it will be stored is in suitable condition.

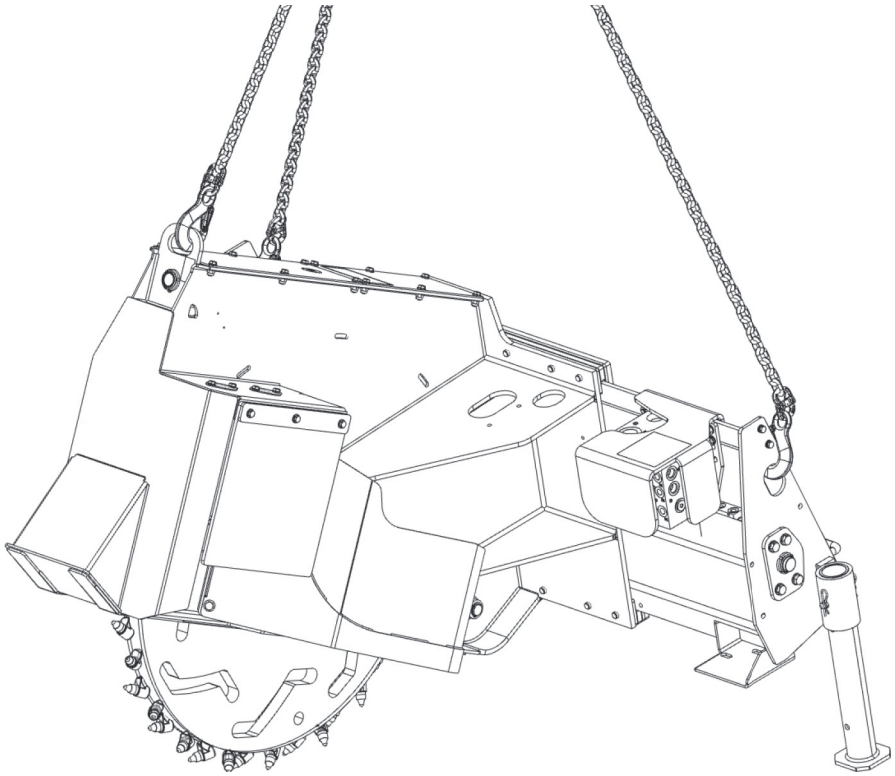


Figure 1

4. Operation

WARNING

- The operator is responsible for checking that the host machine meets the attachment specifications.
- The attachment may only be fitting onto machines that are equipped with safety systems that disable the machine's controls when there is no one in the operator's position.

4.1 *Preliminary Checks*

WARNING

AVOID SERIOUS INJURY OR DEATH

- Disengage machine's auxiliary hydraulics, engage the machine's parking brake, stop the engine, and make sure all moving parts are completely stopped before connecting, disconnecting, adjusting, or cleaning equipment.
- Always keep shields and guards in place when using the equipment.
- Disengage machine's auxiliary hydraulics for road travel.
- Keep hands, feet, and clothing away from all rotating parts.

Before proceeding with the connection to the attachment, the host machine must undergo check to ensure:

1. Check that all safety and braking devices (parking brakes) are in working condition.
2. Check that all quick couplers on the attachment, host machine, and other components related to the hydraulic system are in good condition.
3. Check that all safety shields and guards are in place.
4. Check the mounting frame for damage or cracks.
5. Check for damaged or missing safety decals.
6. Check all welds on the attachment for wear and damage each time the attachment is removed from the machine.

4.2 *Entering & Exiting the Host Machine*

IMPORTANT

See the machine's Operator's Manual for detailed information on operating the loader.

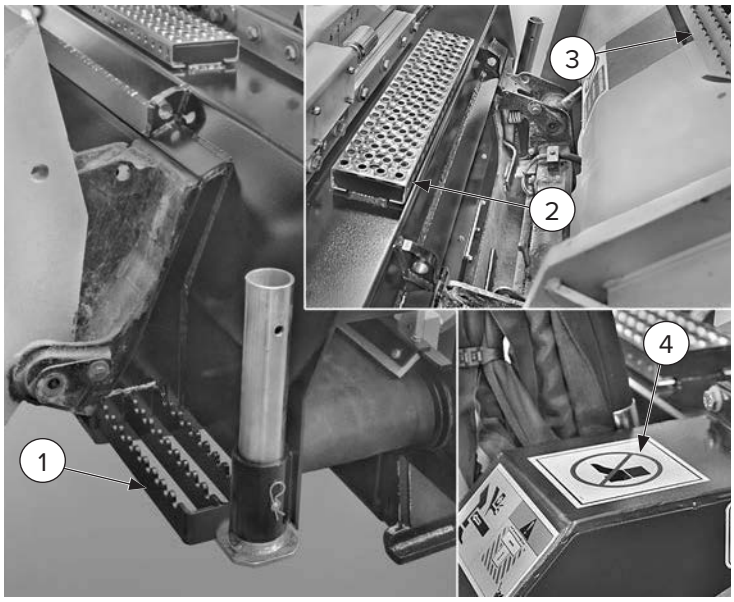


Figure 2

IMPORTANT

Figure 2 may not represent the attachment described in this manual. The operations in this paragraph are still valid for this model.

WARNING

- Always ensure you have three (3) points of contact (grip or support) when entering and exiting the host machine to ensure balance is maintained to prevent a fall.
- The foot cannot rest on the valve cover [Figure 2, Item 4].

4.2 *Entering & Exiting the Host Machine Cont'd*

Entering The Operator's Position

1. Rest your left foot on the lower step [Figure 2, Item 1] of the attachment.
2. Shift the weight to your left foot, and raise your right foot onto the upper step [Item 2] of the Road Saw.
3. Shift the weight to your right foot then raise your left foot onto the anti–slip step [Item 3] of the machine.
4. When in the operator's position, lower safety seat bar, start the engine, and release the parking brake.

Leaving The Operator's Position

WARNING

AVOID SERIOUS INJURY OR DEATH

- Always park on a flat, level surface.
- Lower lift arms and place attachment flat on the ground.
- Place all controls in NEUTRAL.
- Engage the parking brake.
- Stop the engine, and remove the key.
- Wait for all moving parts to stop.

SEE MACHINE'S OPERATOR'S MANUAL FOR ADDITIONAL INFORMATION.

Perform the operations above in reverse.

If the lower step [Item 1] is installed on the attachment's left side, enter and exit the attachment as previously instructed with the foot motion in reverse.

WARNING

- Always use the anti–slip steps to enter and exit the host machine.
- Never enter or exit from the front of the attachment.
- The operator must ensure their shoes are free of mud or any other material which could cause them to slip.

4.3 *Attachment Installation*

IMPORTANT

Figure 3 may not represent the attachment described in this manual. The operations in this paragraph are still valid for this model.

WARNING

CRUSH HAZARD

- Before moving the machine, look in all directions and make sure no bystanders, especially small children are in the work area. Do not allow anyone between the machine and attachment when approaching the attachment for connecting.
- Keep fingers and hands out of pinch points when connecting and disconnecting the attachment.

The attachment must be mounted on the skid steer's arm in place of the bucket. Apart from the general instructions given below, the procedures outlined in the machine's Operator's Manual (see specific section on the application of the attachment) must also be followed.

4.3 *Attachment Installation Cont'd*

The outlined instructions below must be carried out for a universal skid steer mount.

1. Position the attachment [Figure 3, Item 1] in the non–operative position and with its skid shoes on flat, compact ground and away from ditches, fuel stores, electrical substations, or any other hazard risks.
2. Slowly bring the arm of the machine towards the attachment to position the attachment plate [Item 2] below the upper lip [Item 3] of the attachment mount.
3. Operate the machine hydraulic controls to bring the mount plate towards the attachment [Item 2] until it is completely resting on the attachment mount.
4. Turn off the engine of the machine, and remove the key from the ignition. Exit the host machine, and push the two levers [Items 4 and 5] to engage the quick coupling lock pins. Check that the levers are locked in the retaining position and that the pins are inserted in the holes of the attachment mount.

WARNING

AVOID SERIOUS INJURY OR DEATH

The locking pins/wedges must extend through the holes in the attachment mounting frame. Failure to secure locking pins/wedges can allow attachment to come off.

SEE MACHINE'S OPERATOR'S MANUAL FOR ADDITIONAL INFORMATION.

CAUTION

When the Attachment Installation procedure is completed as described and the pins inserted are checked, lift the attachment off the ground.

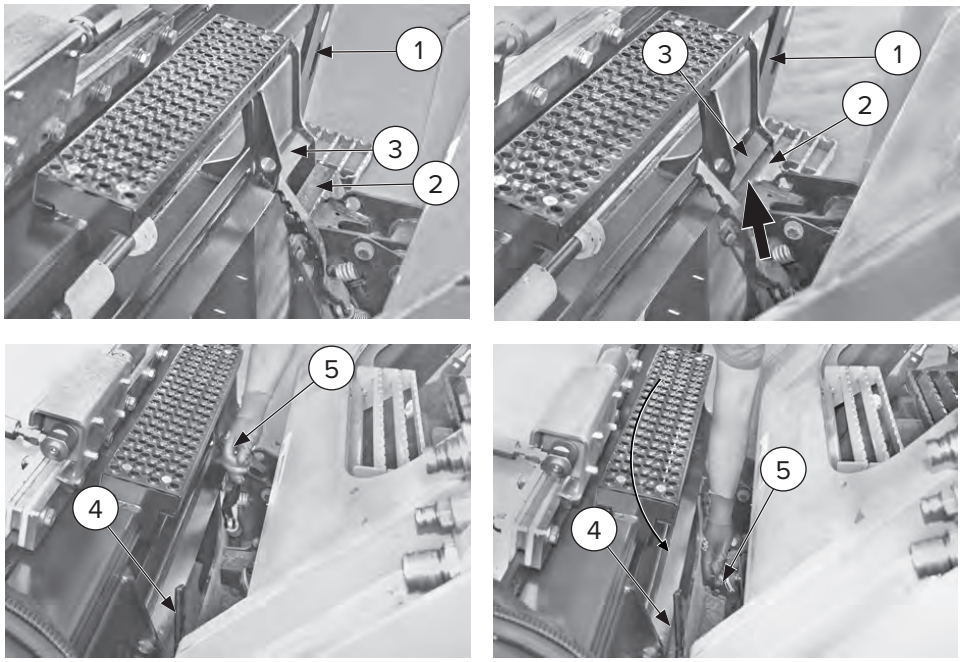


Figure 3

4.4 Connecting Hydraulic Hoses

CAUTION

- The attachment is connected to the host machine via hydraulic hoses. Make sure the hoses are not tangled together and are not likely to be crushed or exposed to tension during work maneuvers as this could prove hazardous.
- Residual risk burns: the hydraulic oil and hoses can reach extremely high temperatures; use the appropriate personal protective equipment (PPE).
- The operation must be carried out by one person (operator) only.

IMPORTANT

Throughly clean the quick couplers before making connections. Dirt can quickly damage the hydraulic system.

IMPORTANT

- When connecting the hoses to the host machine, the case drain hose must be connected first.
- If threaded quick couplers are used, confirm that they have been completely and correctly tightened down.

WARNING

Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required.
Wear goggles. Use cardboard to check for leaks.

To connect the hoses, proceed as follows:

1. Remove dirt or debris from the male and female couplers. Visually inspect the couplers for corroding, cracking, damage, or excessive wear. Replace as needed.
2. Release the pressure in the hydraulic system (see the machine's Operator's Manual).
3. Connect the hoses using the quick couplers (see "4.5 Connecting Quick Couplers" on page 17). It is essential to connect the case drain hose first (see Figure 4 on page 16, Item 1) and then connect the supply [Item 2] and return [Item 3] hoses.
4. Connect the wire harness [Item 4] to the host machine's arm socket.

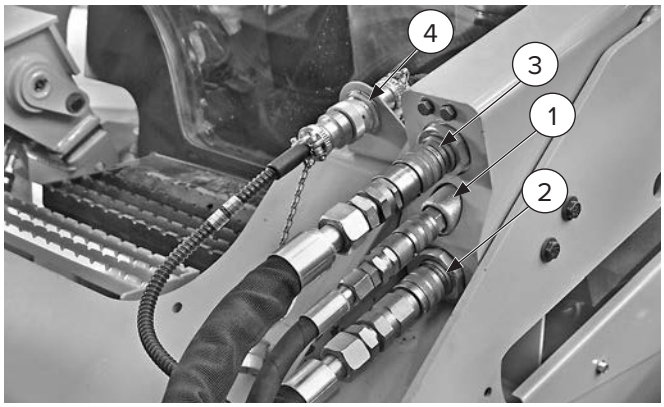


Figure 4

5. Check for oil leaks:
   - Enter the host machine (see "Entering The Operator's Position" on page 14), and start the engine.
   - Engage the high–flow auxiliary machine control to power the hydraulic motor.
   - Turn off the engine, remove the ignition key, and exit the host machine (see "Leaving The Operator's Position" on page 14). Check for any signs of leaks around the hose couplers.

4.5 *Connecting Quick Couplers*

To connect the flat–faced couplers, proceed as follows:

1. Push the male coupler [Figure 5, Item 1] into the female coupler [Item 2] until it clicks into place in the ring nut [Item 3].
2. Turn the ring nut [Item 3] so that the notch [Item 4] is not aligned with the spherule [Item 5], therefore preventing accidental disconnection.

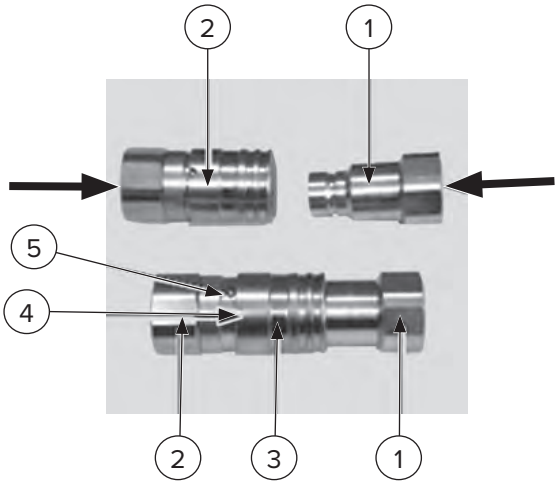


Figure 5

NOTE: Figure 5 shows flat–faced quick couplers with a snap–fastening safety ring nut.

WARNING

- **Before connecting together, carefully clean all quick couplers on the attachment and on the host machine.**
- **If, for some reason, there is residual pressure in the host machine's hydraulic system, the male section of the coupler will not be able to fit in the female section. Follow the instructions given by the host machine's manufacturer to relieve the pressure.**

4.6 *Disconnecting Hydraulic Hoses*

WARNING

AVOID SERIOUS INJURY OR DEATH

Hydraulic fluid, tubes, fittings, and quick couplers can get hot during operation. Be careful when connecting and disconnecting hydraulic hoses.

WARNING

Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required.
Wear goggles. Use cardboard to check for leaks.

IMPORTANT

Disconnect attachment hydraulic hoses from the machine. The hoses must be disconnected in the following order: pressure hose, return hose, and case drain.

To disconnect the hoses, proceed as follows:

1. Turn off the engine.
2. Relieve auxiliary hydraulic pressure. (See the machine's Operator's Manual for correct procedure.)
3. Exit the host machine (see "Leaving The Operator's Position" on page 14). Disconnect the quick couplers.
4. To disconnect flat–faced quick couplers:
   - Turn the ring nut [Figure 5, Item 3] so that the notch [Item 4] lines up with the spherule [Item 5]. Push the ring nut [Item 3] towards the spherule [Item 5] to disconnect the quick coupler.

4.6 *Disconnecting Hydraulic Hoses Cont'd*

5. To disconnect threaded couplers:
   - Unscrew the attachment couplers from the couplers on the host machine.

4.7 *Attachment Removal*

WARNING

Place the attachment on a flat, level surface away from fuel stores, electrical substations, or any other hazard risk.

1. Adjust the depth of the cutting wheel [Figure 6, Item 1] by bringing the excavation depth indicator [Item 2] to maximum height.
2. Relieve auxiliary hydraulic pressure. (See the machine's Operator's Manual for correct procedure.)
3. Park the machine and attachment on a flat, level surface.
4. Lower the host machine's arm until the rear support feet [Item 3] rest on the ground.
5. Slowly tilt the attachment plate until the cutting wheel [Item 1] rests on the ground.
6. Leave the operator's position. See "Leaving The Operator's Position" on page 14.
7. Disconnect the attachment hydraulic hoses and wire harness from the host machine. See "4.6 Disconnecting Hydraulic Hoses" on page 17.
8. Disengage locking pins / wedges. (See the machine's Operator's Manual for correct procedure.)
9. Enter the operator's position. See "Entering The Operator's Position" on page 14.
10. Slowly tilt the machine's mounting plate forward until the attachment mounting frame is free from the machine's mounting plate.
11. Drive the machine slowly backward, away from the attachment.

IMPORTANT

Ensure that the hydraulic hoses have been disconnected. See "4.6 Disconnecting Hydraulic Hoses" on page 17.

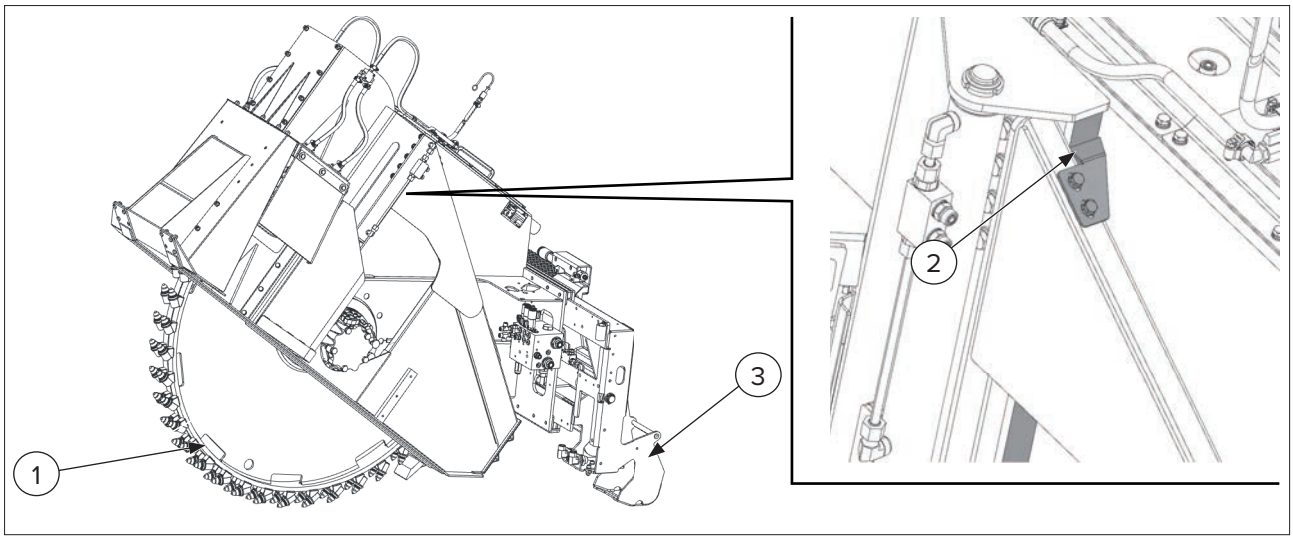


Figure 6

4.8 *Pre–Operation*

CAUTION

- The operation must be carried out by one (1) operator only. Check that nobody is within the host machine's range or within a minimum range of 30 ft. (10 m). Cordon off the work area.
- The operator must not drive the machine when under the influence of drugs or alcohol, which may impair physical or mental capabilities.
- Always work at a safe distance from open excavations and/or slopes and drop–offs.
- Before getting started, make sure there are no buried pipelines which could interfere with excavation work (gas, water, electricity, etc.).
- During work, keep a close eye out for any oil leaks.
- Check that there are no obstructions or hindrances on the work surface.
- On finishing the work, stop the machine before moving it away from the work surface. Always stop the attachment when the host machine is in transit.

WARNING

- The attachment described in this manual is compatible with host machines with three hydraulic lines to enable any additional equipment.
- If the host machine is not equipped to electrically activate the equipment functions, Blue Diamond® can supply a control panel to be installed in the cabin upon request.

IMPORTANT

Whenever the attachment has been left still for a few minutes or disconnected from the host machine, start it up slowly with the diesel engine idling; then accelerate slowly and gradually.

The following checks must always be performed prior to operating the attachment:

- Check that there are no leaks in the hydraulic circuit.
- Check that mechanical & hydraulic connections have been made correctly.
- Check that the work area is clear of people and materials.

Activating the Attachment

The attachment can be activated (cutting wheel rotary motion) with the host machine's controls and/or with the universal control box [Figure 7, Item 1].

1. Turn on the host machine's engine, switch on the hydraulic system. Wait for the oil to reach optimum temperature and for any air bubbles in the system to be expelled.
2. Engage the auxiliary hydraulics on the host machine.
3. Activate the control unit switch [Item 2] by setting it to the ON position; the red LED [Item 3] should light up to indicate that it is activated. The cutting wheel is now spinning.

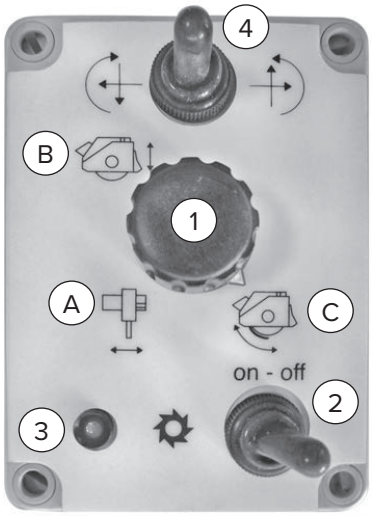


Figure 7

4.9 *Sideshift Function*

1. Stop the cutting wheel by setting the switch [Figure 8, Item 2] to the OFF position, and check that the red LED [Item 3] is OFF.
2. Keep the attachment slightly raised from the ground.
3. Turn the selector [Item 1] to the sideshift symbol [Item A].

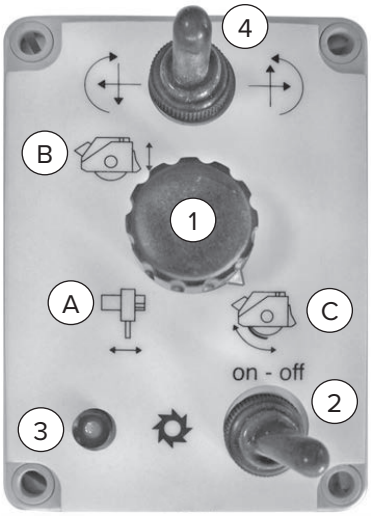


Figure 8

4. Engage the auxiliary hydraulics on the host machine.
5. Move the switch [Item 4] to the right or left to activate sideshift. If movement is too slow, increase the engine speed.

CAUTION

- The host machine must never be moved when the attachment is raised from the ground and the cutting wheel in motion.
- The attachment must never be moved sideways when the cutting wheel is in motion.

4.10 *Adjusting Digging Depth*

CAUTION

The host machine must never be moved with the attachment raised from the ground and the cutting wheel in motion.

The digging depth hydraulic adjustment is performed through the cylinders.

NOTE: The cylinders that determine the digging depth are activated by the host machine joystick controls or by the control box.

1. Stop the cutting wheel by setting the switch [Item 2] to the OFF position, and check that the red LED [Item 2] is OFF.
2. Keep the attachment slightly raised from the ground.
3. Place the selector [Item 1] on the depth adjustment symbol [Item B].

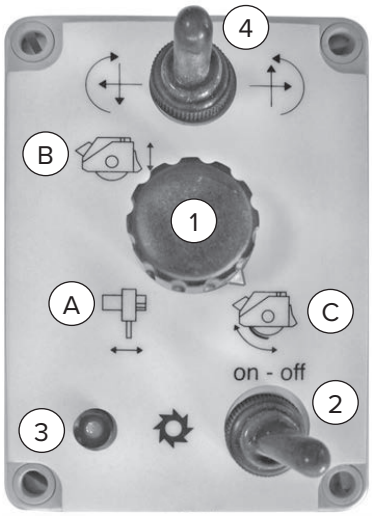


Figure 9

4. Move the switch [Item 4] to the right or to the left to lift or lower the cutting unit, and then adjust the digging depth (if movement is too slow, slightly increase the engine speed). The depth indicator can be used to accurately set the desired digging depth.

IMPORTANT

Adjust the digging depth by moving the switch [Item 4] in small increments.

IMPORTANT

- To make sure the skids are resting completely on the ground, keep the host machine's front wheels or front of tracks slightly raised.
- Slowly move forward while increasing the digging depth to prevent the cutting wheel from stopping before reaching the desired depth.

4.11 *Scraper*

The scraper keeps the trench bottom clear by moving all the debris being excavated to the front of the attachment, where it is then removed by the motion of cutting wheel.

The scraper [Figure 10, Item 1] uses a hydraulic cylinder [Item 2] that is connected by a steel cable. Retract the cylinder piston [Item 2] to lift the scraper [Item 1]. Extend the cylinder [Item 2] to lower the scraper [Item 1].

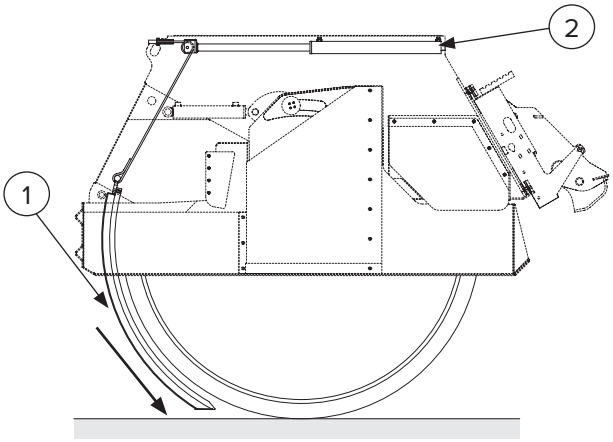


Figure 10

The cylinder can be activated by the host machine joystick controls or by the control box.

1. Place the selector [Figure 11, Item 1] on the scraper adjustment symbol [Item C].
2. Engage the auxiliary hydraulics.
3. Move the switch [Item 2] to the right to extend the cylinder piston to pull the scraper in; move the switch [Item 2] to the left to pull back the cylinder piston to lower the scraper.

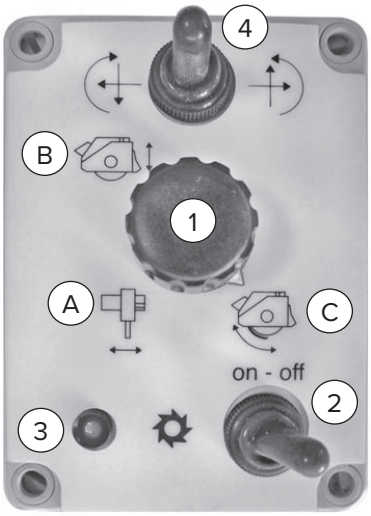


Figure 11

CAUTION

- The scraper must never be moved with the attachment raised from the ground and the cutting wheel in motion.
- The scraper can be moved with the cutting wheel in motion only when the wheel is working inside the trench.

How to Adjust the Scraper

When the scraper is in the down position, it should be 3/16 – 1/4 in. above the trench bottom with the attachment placed horizontally. To adjust the position, loosen the jam nut [Figure 12, Item 3], and move the adjustment bolt [Item 4] to bring it to the right position. Then tighten the jam nut [Item 3].

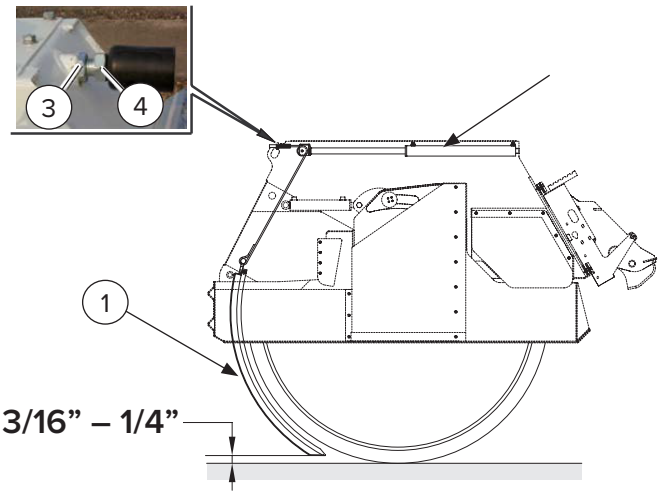


Figure 12

CAUTION

The hydraulic cylinder holds the scraper in the up position. When the operator activates the scraper, the cylinder is pulled out and allows the scraper to move the operating position. This movement is caused by gravity and is not controlled mechanically.

AVOID SERIOUS INJURY. KEEP HANDS AND BODY AWAY FROM THE SCRAPER DESCENT AREA AS IT MAY DROP SUDDENLY.

4.12 *Operating Procedure*

CAUTION

While working, always wear a safety mask to protect against debris.

NOTE: Before operating, see the machine's Operator's Manual and sections "4.9 Sideshift Function" on page 20 and "4.10 Adjusting Digging Depth" on page 20 for information on the controls.

1. Move the attachment to the start of the work area, keeping the unit at the center of the mount to maintain balance.
2. Tilt the attachment forward, resting on the front of the skid shoes. Lift the machine's arms until the front wheels or front of the tracks are slightly raised off the ground.
3. With the host machine's engine at idle, engage the auxiliary hydraulics, then slowly increase to full engine speed.
4. With the machine controls, lower the arms while simultaneously rotating the mount plate to make the cutting wheel penetrate the ground with the skid shoes gripping the ground.
5. Adjust the excavation depth as needed by using the depth cylinders and the depth indicator. (See "4.10 Adjusting Digging Depth" on page 20 for this procedure.)
6. Slowly move the host machine forward, gradually increasing speed. Ensure that the speed is maintained and does not cause the cutting wheel to stop rotating.

Road Saw Jams

1. Back off slightly to allow the cutting wheel to start rotating again.
2. Restart work. Proceed slower than before.

Wheel Locks Due to Foreign Bodies

1. Stop the cutting wheel by disengaging the host machine hydraulics.
1. Keep the host machine's arm fully lowered, tilt the mount plate to rest fully against the machine, and rest the attachment on the ground, resting on the rear of the skid shoe.
2. Stop the engine, secure the host machine by engaging the parking brake, remove the ignition key, and exit the operator's position (see "Leaving The Operator's Position" on page 14).
3. Using the appropriate personal protective equipment (PPE), remove and eliminate the cause of the blockage from the wheel.

4.13 *Stopping the Attachment in Normal Conditions*

For stopping under normal conditions, follow one of the procedures below:

- The host machine controls must be used to stop the machine by slowing the diesel engine down to idling speed and then cutting off the hydraulic oil flow.
- Move the cutting wheel control switch on the control box to the OFF position.

4.14 *Emergency Stops*

To stop the machine in an emergency, the operator must use the appropriate controls on the host machine and stop the diesel engine with the ignition key.

WARNING

For further details on how to stop the host machine, see the machine's Operator's Manual.

4. Operation

4.15 *Parking*

When parking the attachment at the end of the work day or for long stops, completely raise the depth skids, then lower the attachment to the ground.

Make sure that attachment, the support feet [Figure 13, Item 1], and cutting wheel [Item 2] are resting on the ground. Stop the host machine's engine, engage the parking brake, and remove the ignition key before leaving the operator's position.

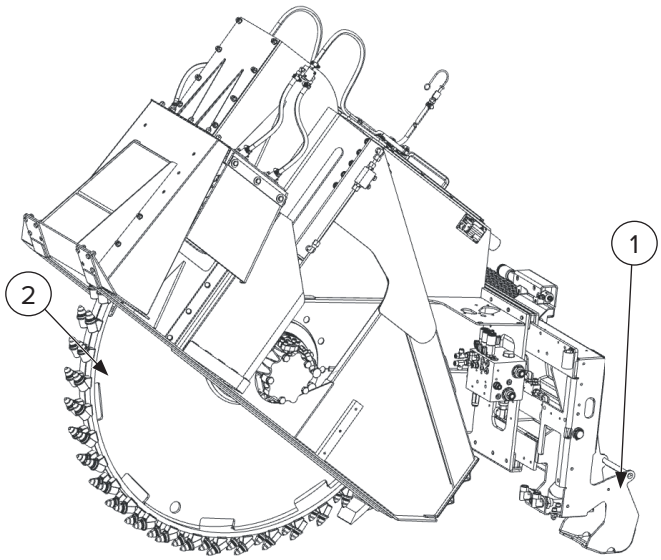


Figure 13

WARNING

- Park the machine / attachment in a suitable place where there are no risks of the attachment being damaged.
- If the operator leaves the attachment unattended, the keys must be removed from the host machine. Measures must also be taken to ensure no unauthorized person(s) can enter the machine and use it.

5. Maintenance

5.1 *Service Schedule*

DESCRIPTION	SERVICE PROCEDURES					
	Check	Clean	Lube	Change	Adjust	Drain
Hourly Maintenance						
Wheel	•					
Teeth	•					
Every 8 Hours						
Water Kit Nozzles	•					
All Hardware	•					
Tooth Segments	•					
Every 50 Hours						
Hydraulic Fittings	•					
Hydraulic Hoses	•					
All Hardware	•					
Lubrication			•			
Attachment		•				
Every 100 Hours						
Frame (cracks, bends, or damage)	•					
All Hardware	•					
Every 200 Hours						
Skid Shoes	•					
Case Drain Line Safety Cover	•					
When Required						
Teeth				•		
Tooth Segments				•		

5. Maintenance

WARNING

- The maintenance operations must be carried out in a suitable place in compliance with the health and safety laws with the exception of the “hourly” maintenance, which involves checking the normal wear and tear of the teeth and the scraper sliding blocks, which must be done during a break in the digging operations.
- All maintenance work must be carried out with the attachment detached from the host machine and positioned safely on the ground.
- Clean all parts of the attachment thoroughly before beginning any maintenance work.
- Appropriate personal protective equipment (PPE) must be used when performing any type of maintenance task.

5.2 *Every Hour*

Inspection of the Cutting Wheel

There are two (2) checks to be performed on the cutting wheel and concern the condition of the teeth and any damage or lack of tooth holders (which require the immediate replacement of the tooth segments that make up the wheel unit).

WARNING

- Never work with damaged and/or missing teeth and tooth holders.
- Before leaving the operator’s position:
  - Always park on a flat, level surface.
  - Lower lift arms, and place attachment flat on the ground.
  - Place all controls in NEUTRAL.
  - Engage the parking brake.
  - Stop the engine, and remove the key. Wait for all moving parts to stop.

SEE MACHINE’S OPERATOR’S MANUAL FOR ADDITIONAL INFORMATION.

The cutting wheel is the most important component of the attachment. Because of the function of the Road Saw, it can be easily damaged. Check the cutting wheel visually if it strikes a solid object, such as a trap door, manhole, other iron obstacle, etc.

NOTE: The cutting wheel, like the teeth, is considered a wear part and is, therefore, excluded from the warranty.

To inspect the cutting wheel, perform the following:

1. Raise the side panels to the maximum depth position as stated in 8.1 Attachment Specifications.
2. Place the attachment on the ground with the machine’s lift arms fully lowered, tilt back the mount plate, and rest the support feet [Figure 14, Item 1] on the ground, keeping the cutting wheel slightly raised from the ground.
3. Grip the teeth on the wheel [Item 2] to turn it in the working direction.
4. Inspect the wheel itself, teeth, and tooth holders for damage and significant wear and tear.

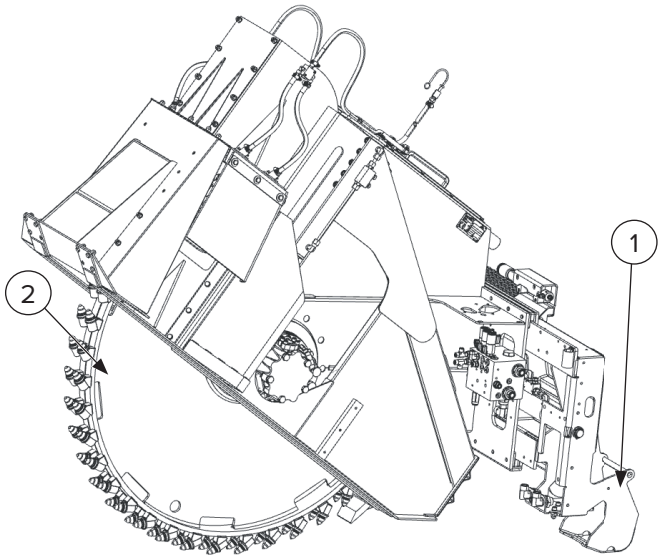


Figure 14

5.2 *Every Hour Cont'd*

Tooth Quality

WARNING

- Never work with damaged and/or missing teeth.
- Before leaving the operator's position:
  - Always park on a flat, level surface.
  - Lower lift arms, and place attachment flat on the ground.
  - Place all controls in NEUTRAL.
  - Engage the parking brake.
  - Stop the engine, and remove the key. Wait for all moving parts to stop.

SEE MACHINE'S OPERATOR'S MANUAL FOR ADDITIONAL INFORMATION.

Every tooth is subject to constant wear due to contact with the material being cut. The greater the wear, the less the tooth's capacity for breaking into the material.

As tooth wear increases, the quality of work decreases, meaning that if extremely worn teeth are used, the attachment's productivity drops significantly.

Promptly replacing the teeth will ensure that the attachment is always used to its full potential.

It is always worthwhile to check for signs of wear as the tooth only really performs well throughout its working life if it is worn down evenly.

Tooth Wear

NOTE: The teeth shown in Figure 15 – Figure 17 are standard models. Similar concepts apply to all teeth models.

Figure 15 shows an ideally worn tooth that needs replaced.

The remaining part of the carbide tip is symmetrically shaped, the body has a uniform, tapered shape, the body has enough bulk to support the carbide core.

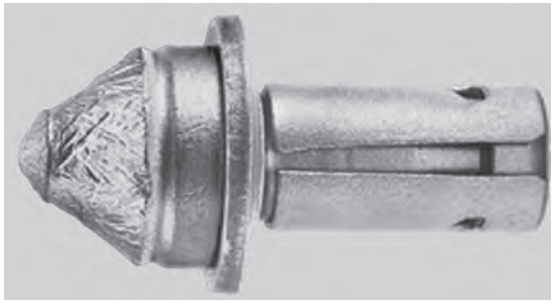


Figure 15

Figure 16 shows a tooth that has worked on soft material and needs replaced.

If a tooth has been used material that is too soft, the body will wear quicker than the tip, and the tip will end up snapping off. Additionally, the altered tooth shape will increase the wear of the tooth holder.

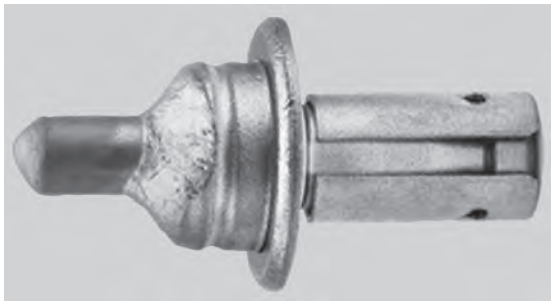


Figure 16

Figure 17 shows a tooth that has not been rotating properly and needs replaced.

Teeth subject to uneven wear will be consumed too quickly when compared to even wear as shown in Figure 15. Uneven wear is a result of failure for the tooth to rotate within its tooth holder. This can be caused by a worn tooth holder or debris lodged between the tooth and its holder. In this instance, clean the holder and lubricate with a water–based asphalt emulsifier (ex. Zep's #AR6690) or dish soap (ex. Dawn dish soap).

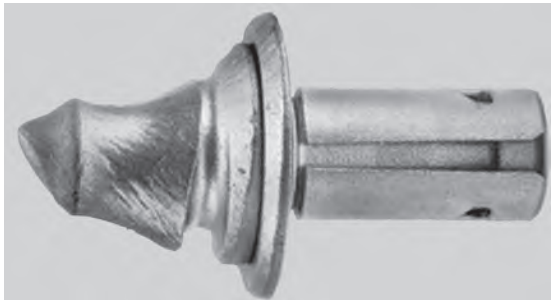


Figure 17

5.2 *Every Hour Cont'd*

Inspection Procedure

1. Visually inspect to establish the degree of wear.
2. Check that the teeth can freely turn in their holders.

Following the procedure, replace any broken teeth or those showing excessive wear (see "Tooth Wear" on page 26) or clean the holders of the teeth that do not turn as shown in Figure 18.

Figure 18

Cleaning the Teeth

1. Remove the tooth that is not rotating.
2. Clean the tooth shank and the holder in which it is fitted.
3. Lubricate with a water–based asphalt emulsifier (ex. Zep's #AR6690) or dish soap (ex. Dawn dish soap).
4. Place the tooth back into its holder.

NOTE: If the tooth rotates to some extent, lubrication with a water–based asphalt emulsifier (ex. Zep's #AR6690) or dish soap (ex. Dawn dish soap) can be performed without removing the tooth from its holder.

IMPORTANT

To make it so the teeth easily turn in their holders, therefore extending their working life, Blue Diamond® recommends applying water–based asphalt emulsifier (ex. Zep's #AR6690) or dish soap (ex. Dawn dish soap) to the rear of the tooth at the end of the working day. Make sure the emulsifier or soap seeps in between the tooth and its holder.

WARNING

- Never let the wheel rotate freely with new or freshly lubricated teeth, as the teeth could come out of their holders due to the centrifugal force. The wheel must be in contact with the material being dug before rotating.
- Never work with badly damaged and/or stuck teeth to avoid damage to the tooth holders.

5.3 *Every Eight (8) Hours*

Cleaning the Nozzles of the Water Kit

1. Check the water nozzles [Figure 19, Item 1] located on the attachment, and clean them if necessary.
2. When reinstalling the nozzles, pay attention to the orientation of the nozzles [Item 1]. They must be installed with the water spray slit [Item 2] parallel to the wheel rotation axis.

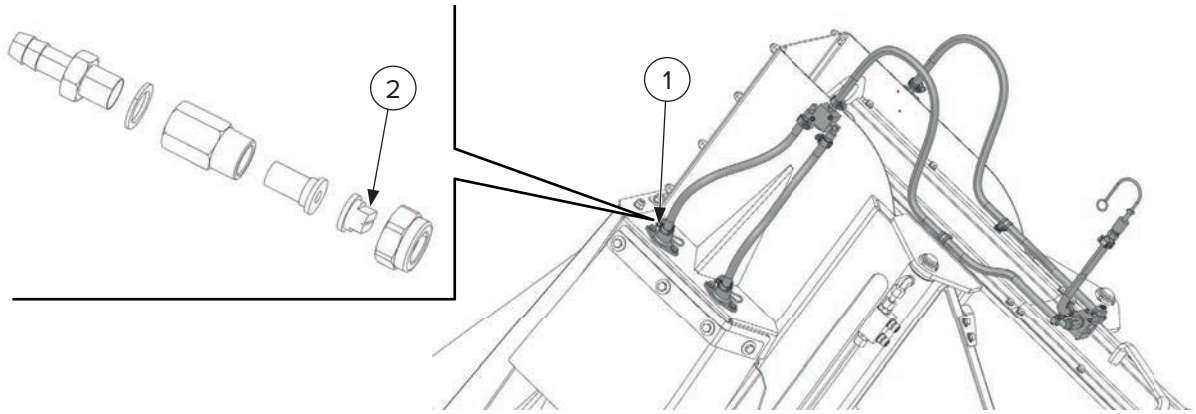


Figure 19

5.3 *Every Eight (8) Hours Cont'd*

Inspect the Tooth Segments

Visually check the integrity of the tooth holders. Replace the tooth segments if necessary.

5.4 *Every Fifty (50) Hours*

Cleaning

Use legally approved neutral detergents. Clean the attachment with a high pressure jet of water.

Lubrication

The wheel support and the joint points of the excavation depth adjustment cylinder are lubricated.

To perform lubrication, inject NLGI 2 – EP lithium grease until all dirty grease has been expelled.

WARNING

Clean the grease nipples thoroughly before connecting the grease pump.

1. Lift the host machine boom and lower the cutting wheel until it reaches the maximum excavation depth.
2. Pull back the mount plate for the attachment, and lower the boom until the rear skid shoes of the attachment rest on the ground.
3. Tilt the attachment until the cutting wheel rests on the ground.
4. Grease the areas as indicated in Figure 20 by using the grease nipple.

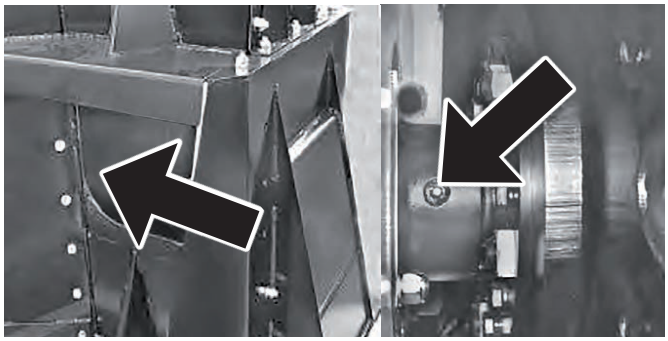


Figure 20

5. Once finished greasing, remove all dirty grease that has been expelled to prevent damaging deposits of dirt and debris.

Hose Integrity

Check the condition of the hoses and the crimping of the fittings.

Replace the hose if it shows signs of aging, leaks, breakages, bulges, abrasions, etc.

- Clean the work area to avoid dirt entering the hydraulic circuit.
- Replacement must be performed by qualified personnel using the appropriate personal protective equipment (PPE).
- The new hose must be the same size and have the same specification as the previous one. It must also be rated for the pressure indicated in "8.1 Attachment Specifications" on page 69.
- For tightening torques, see "8.2 Torque Specifications" on page 72.

5.5 *Every 100 Hours*

Structural Integrity

Clean the attachment carefully prior to inspection.

Inspect the bearing framework visually to check its integrity, focusing particularly on the welding. If any weakening or small cracks are noticed, contact Blue Diamond® Product Support.

Hardware

Check that all hardware, i.e. nuts and bolts, are securely fastened. Tighten any hardware that has become loose.

See page 72 for tightening torques.

5.6 *Every 200 Hours*

Skid Shoes

Visually inspect the two (2) skid shoes [Figure 21, Item 1] to check for signs of wear.

Position the attachment as shown in Figure 21 to perform this check.

Contact Blue Diamond® Product Support for replacement parts if necessary.

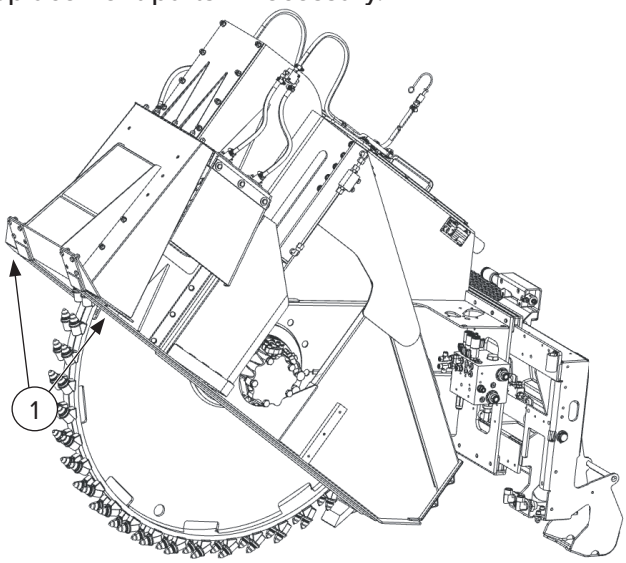


Figure 21

Case Drain Safety Cover Inspection

To prevent damage to the motor due to high backpressure in the case drain line, a safety cap [Figure 22, Item 1] has been fitted, which allows excess pressure to be relieved. When the case drain line pressure exceeds 15 PSI (1 bar), the cover deforms and allows oil out, thereby releasing the excess pressure.

If any deformation and consequent leakage is noticed, check the case drain line pressure (maximum 15 PSI / 1 bar) and the circuit. Replace the cover [Item 1] and the relative O–ring. Contact Blue Diamond® Product Support for more

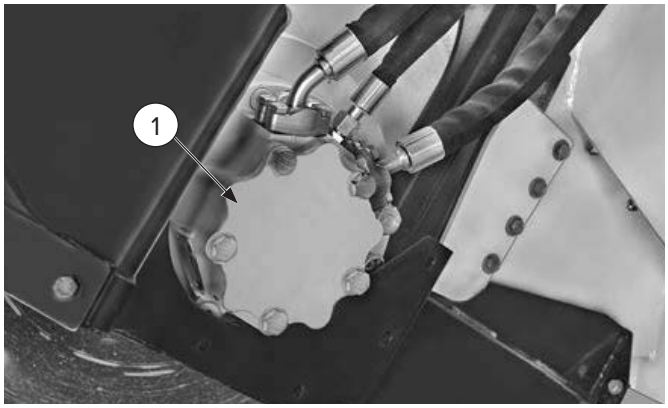


Figure 22

IMPORTANT

When inspecting or replacing the cover, clean both the cover and the surrounding area, ensuring that impurities do not enter the case drain line.

WARNING

The new cover fitted MUST have the same thickness as the original.

5.7 *When Required*

Tooth Replacement

Removal

1. All teeth [Figure 25, Item 1] are held in the tooth holder by a retaining spring.
2. Position the supplied tool [Item 2] as shown in Figure 25.
3. Hit the tool [Item 2] with a hammer to remove the tooth.

NOTE: In the event that the tool is not available, a punch may be inserted into the bottom of the holders to dislodge the tooth.

Assembly

1. Before fitting new teeth, clean and lubricate the holder with a water–based asphalt emulsifier (ex. Zep's #AR6690) or dish soap (ex. Dawn dish soap).
2. Insert the tooth [Figure 23, Item 1] into its holder using light blows with a copper hammer until the tooth is fully inserted.

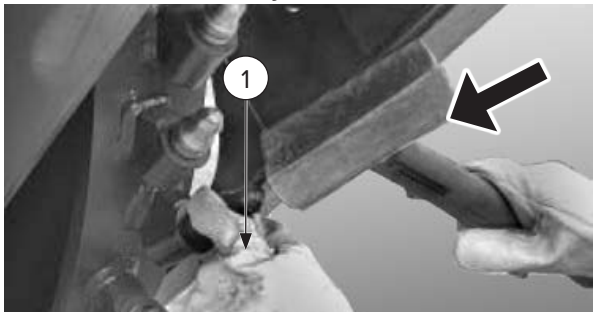


Figure 23

Tooth Segments Replacement

WARNING

Degrease the bolts and nuts before applying Loctite 243; tighten the nuts to 258 lbf•ft (350 N•m) torque.

1. Position the attachment as for checking the cutting wheel.
2. Loosen and remove the eight (8) nuts [Figure 24, Item 1], washers, and fixing bolts of the segment. Removed the tooth segment. Remove the segments that need replaced [Item 2].
3. Fit the new tooth segments with bolts, washers, and nuts [Item 1].

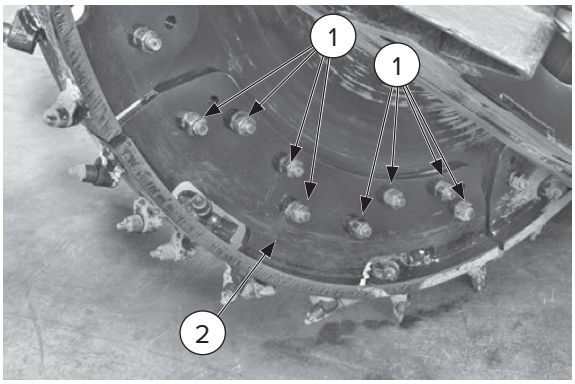


Figure 24

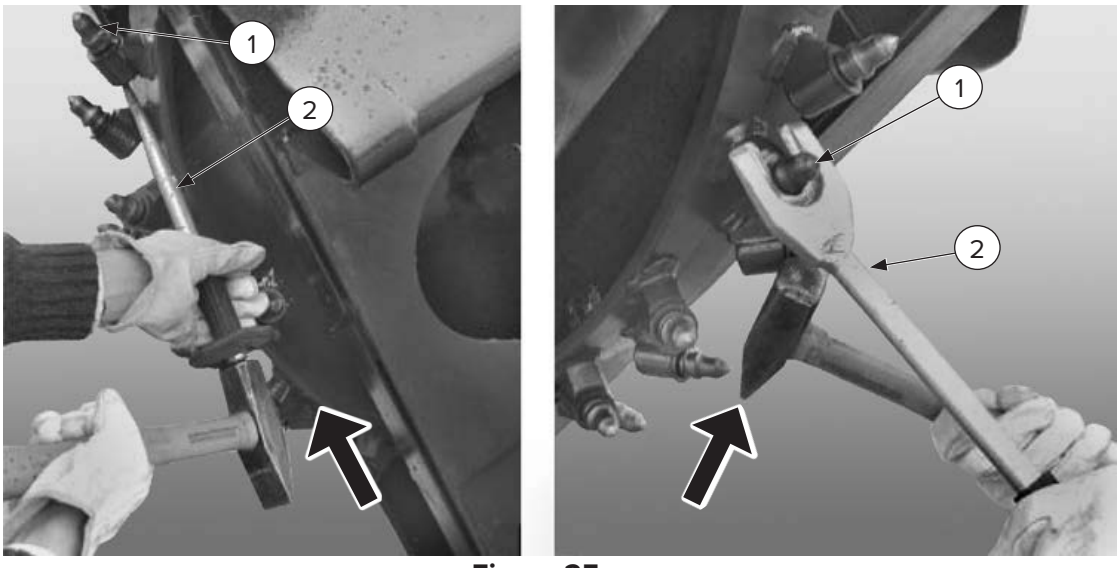


Figure 25

5.7 *When Required Cont'd*

Tooth Segments Replacement Cont'd

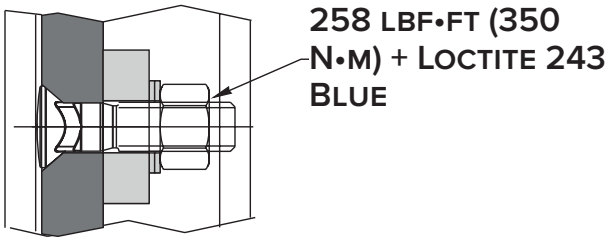


Figure 26

Special Maintenance

For uncommon maintenance procedures, contact Blue Diamond® Product Support for assistance.

5.8 *Storing the Attachment*

Storage

Sometimes it may be necessary to store your Road Saw for an extended period of time. Below is a list of items to perform before storage:

- Check for any oil leaks. Repair if necessary.
- Make sure the hydraulic hose couplers are capped, plugged, or connected to each other.
- Remove the teeth, and apply a water–based asphalt emulsifier (ex. Zep's #AR6690) or dish soap (ex. Dawn dish soap) to the removed teeth.
- Thoroughly wash the attachment before storing for long periods.
- Lubricate the attachment.
- Coat the exposed portion of the cylinder with oil.
- Check for loose hardware and/or damaged parts. Repair, replace, and/or torque if necessary.
- Check for damaged and/or missing decals. Replace if necessary.
- Place the attachment flat on the ground in a dry, protected shelter.

NOTE: In muddy conditions or to prevent the attachment from freezing to the ground, put the attachment on planks or blocks before the attachment from the machine.

Return to Service

After the Road Saw has been in storage, it is necessary to follow the list of items below to return the attachment to service:

- Lubricate all parts subject to lubrication.
- Clean the exposed portion of the cylinder rod and apply a light coating of oil.
- Check for any oil leaks. Repair if necessary.
- Check the integrity of the hoses.
- Connect and operate the attachment and check for correct function.
- Check for loose hardware and/or damaged parts. Repair, replace, and/or torque if necessary.

5.9 *Spare Parts & Accessories*

Contact Blue Diamond® Product Support.

5.10 *Disposal*

When disposing of the attachment or its parts (oils, hoses, plastic parts, etc.), always comply with local, state, and federal laws.

5. Maintenance

5.11 *Troubleshooting*

PROBLEM	CAUSE	SOLUTION
Slow cutting, low performance	Teeth tips worn or broken	Replace the teeth, and clean their holders.
	Low flow and/or hydraulic pressure	Ensure all necessary connections have been made correct for attachment operation.
		Contact the service department as the flow and hydraulic pressure depend on the host machine.
Cut material left in the path of the prime mover	Spoil spreader slides worn out	Replace or repair the slides.
Vibrations	Loose or missing bolts	Check the tightening torques of the bolts (wheel, hydraulic motor, etc.)
		Replace the missing bolts.
	Worn or missing teeth	Replace the teeth, and clean their holders.
Noisy or jammed hydraulic motor.	Problems inside the motor	Contact Blue Diamond® Product Support.
Cutting wheel does not rotate	No hydraulic flow and/or pressure	Check the host machine's hydraulic system.
	Quick couplers not fitted properly	Fit quick couplers properly.
	Other hydraulic or electric issues	Contact Blue Diamond® Product Support.
Sideshift does not work	Wire harness disconnected	Connect the wire harness.
	Quick couplers not fitted properly	Fit quick couplers properly.
Excavation depth adjustment does not work	Wire harness disconnected.	Connect the wire harness.
	Quick couplers not fitted properly	Fit quick couplers properly.
Cutting wheel turns too slowly or too fast	Incorrect attachment to host machine coupling	Contact Blue Diamond® Product Support.
External oil leaks	Loose fittings.	Tighten fittings.
	Hoses damaged	Replace hoses.
	Couplers damaged	Replace couplers
	Leaks from the hydraulic motor oil seals	Contact Blue Diamond® Product Support.

5. Maintenance

5.11 *Troubleshooting Cont'd*

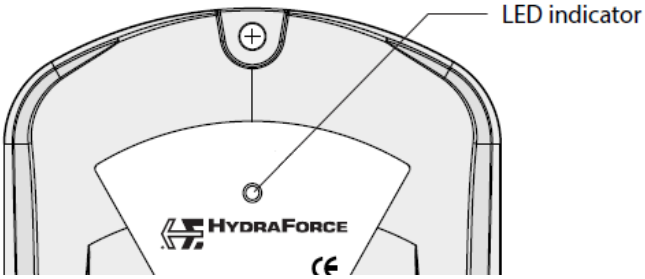
PROBLEM	CAUSE	SOLUTION
Safety cover swollen	Drainage line high backpressure and/ or case drain line missing or fitted incorrectly to the host machine	Always connect the case drain line directly to the host machine.
		Replace the cover and O–Ring to check the backpressure which should be <15 PSI (1 bar). Contact Blue Diamond® Product Support for further assistance.
	Drainage line high backpressure and/ or case drain hose damaged	Replace hose.
		Replace the cover and O–Ring to check the backpressure which should be <15 PSI (1 bar). Contact Blue Diamond® Product Support for further assistance.
	Drainage line high backpressure and/ or case drain coupler damaged	Replace coupler.
		Replace the cover and O–Ring to check the backpressure which should be <15 PSI (1 bar). Contact Blue Diamond® Product Support for further assistance.
	Sudden start–up of attachment with host machine at maximum speed	Start up the attachment with engine idling, then, after a few seconds, accelerate slowly and gradually until operating speed is reached.
		Replace the cover and O–Ring to check the backpressure which should be <15 PSI (1 bar). Contact Blue Diamond® Product Support for further assistance.
	Backpressure in host machine's case drain line is too high.	Replace the cover and O–Ring to check the backpressure which should be <15 PSI (1 bar). Contact Blue Diamond® Product Support for further assistance.

6. Wire Harness Control Guide

6.1 *Warning*

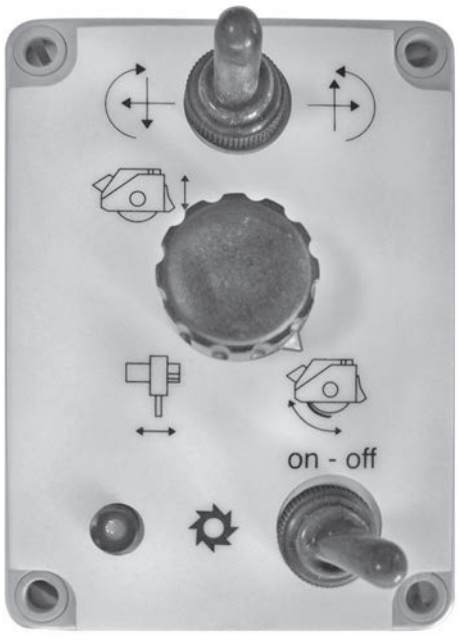
IMPORTANT

Before using the Extreme Duty Road Saw, make sure that the electronic control unit (ECU) is supplied with a current of +12 volts. Green light indicator is flashing.



6.2 *Universal Controller*

261100 + 260900	
Pin	**Description**
E	Shift the cutting wheel to the left
F	Shift the cutting wheel to the right
C + E	Lift the scraper
C + F	Lower the scraper
D + E	Increase the working depth
D + F	Decrease the working depth



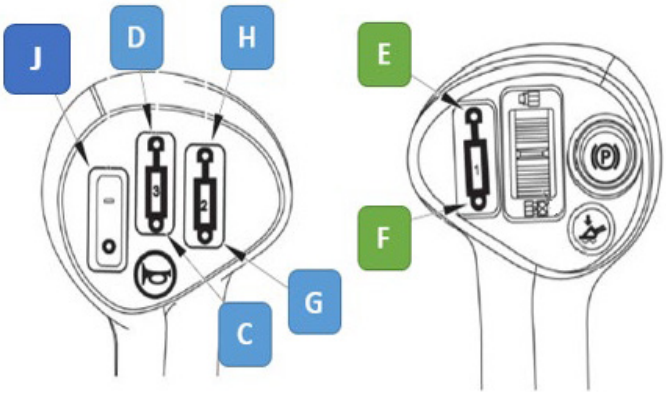
6. Wire Harness Controls

6.3 *Bobcat 14–Pin*

260901	
Pin	**Description**
G	Shift the cutting wheel to the left
H	Shift the cutting wheel to the right
D + G	Lift the scraper
D + H	Lower the scraper
C + G	Increase the working depth
C + H	Decrease the working depth

6.4 *CASE & New Holland*

260900	
Pin	**Description**
E	Shift the cutting wheel to the left
F	Shift the cutting wheel to the right
C + E	Lift the scraper
C + F	Lower the scraper
D + E	Increase the working depth
D + F	Decrease the working depth



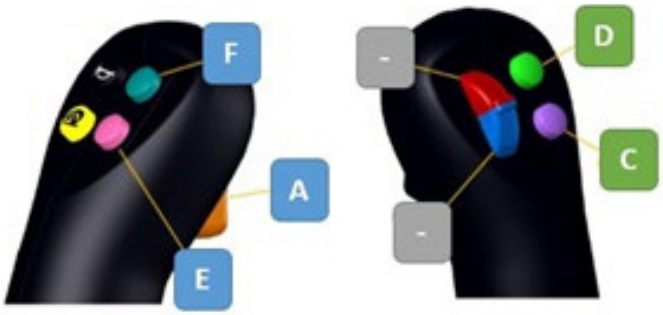
6. Wire Harness Controls

6.5 *CAT D XPS / XHP*

260906	
PIN	**DESCRIPTION**
D	Shift the cutting wheel to the left
C	Shift the cutting wheel to the right
D + E	Lower the scraper
C + E	Lift the scraper
D + F	Decrease the working depth
C + F	Increase the working depth

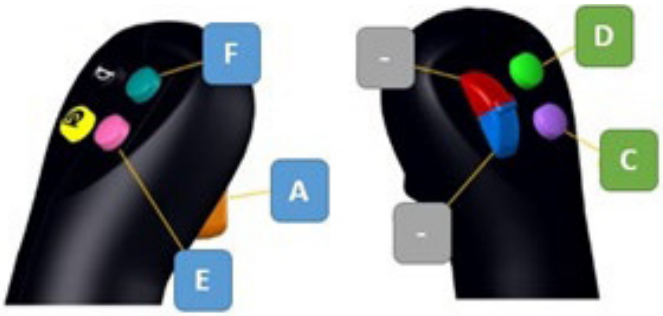
IMPORTANT

Before using the Extreme Duty Road Saw make sure that the electronic control unit (ECU) is supplied with a current of +12 volts by activating the AUX 8 panel switch.



6.6 *CAT D3 XPS / XHP X XE*

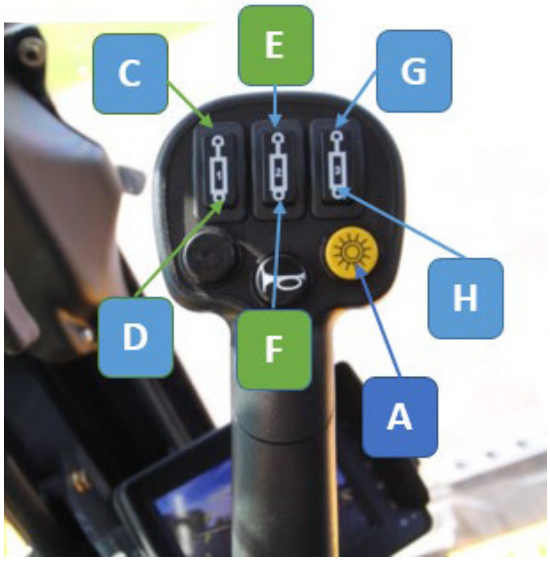
260906	
PIN	**DESCRIPTION**
D	Shift the cutting wheel to the left
C	Shift the cutting wheel to the right
D + E	Lower the scraper
C + E	Lift the scraper
D + F	Decrease the working depth
C + F	Increase the working depth



6. Wire Harness Controls

6.7 Gehl / Manitou / Mustang

260900	
Pin	**Description**
E	Shift the cutting wheel to the left
F	Shift the cutting wheel to the right
C + E	Lift the scraper
C + F	Lower the scraper
D + E	Increase the working depth
D + F	Decrease the working depth

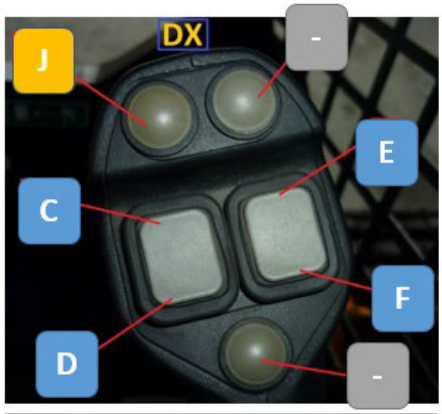


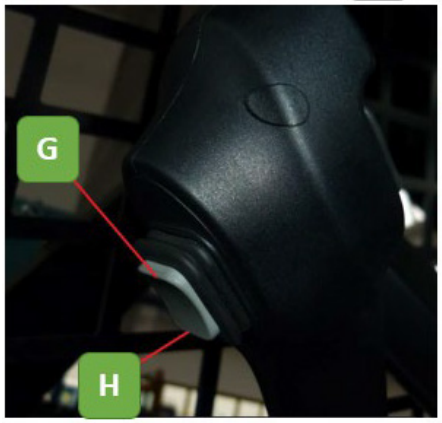
6.8 JCB / Volvo — Post 10 / 2010

260902	
Pin	**Description**
G	Shift the cutting wheel to the left
H	Shift the cutting wheel to the right
D + G	Lift the scraper
D + H	Lower the scraper
C + G	Increase the working depth
C + H	Decrease the working depth

IMPORTANT

Before using the Extreme Duty Road Saw, make sure that the electronic control unit (ECU) is supplied with a current of +12 volts by activating the “J” switch.





6. Wire Harness Controls

6.9 *John Deere*

260905	
Pin	**Description**
G	Shift the cutting wheel to the left
C	Shift the cutting wheel to the right
E + G	Lift the scraper
E + C	Lower the scraper
D + G	Increase the working depth
D + C	Decrease the working depth

6.10 *Kubota*

260900	
Pin	**Description**
E	Shift the cutting wheel to the left
F	Shift the cutting wheel to the right
C + E	Lift the scraper
C + F	Lower the scraper
D + E	Increase the working depth
D + F	Decrease the working depth

6. Wire Harness Controls

6.11 *Takeuchi*

260901	
Pin	**Description**
G	Shift the cutting wheel to the left
H	Shift the cutting wheel to the right
D + G	Lower the scraper
D + H	Lift the scraper
C + G	Decrease the working depth
C + H	Increase the working depth

6.12 *Wacker Neuson*

260903	
Pin	**Description**
F	Shift the equipment to the left
E	Shift the equipment to the right
C + F	Decrease the working depth (left)
C + E	Increase the working depth (left)
D + F	Decrease the working depth (right)
D + E	Increase the working depth (right)

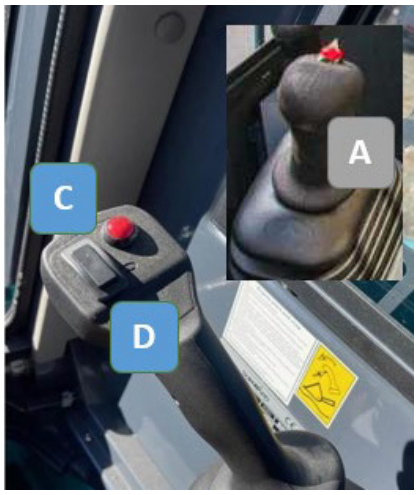
IMPORTANT

Before using the Extreme Duty Road Saw, make sure that the electronic control unit (ECU) is supplied with a current of +12 volts. Green light indicator is flashing. Select position "D" on the control panel (see machine's Operator's Manual).

6. Wire Harness Controls

6.13 *Yanmar*

260904	
Pin	**Description**
E	Shift the equipment to the left
F	Shift the equipment to the right
D + E	Decrease the working depth (left)
D + F	Increase the working depth (left)
C + E	Decrease the working depth (right)
C + F	Increase the working depth (right)



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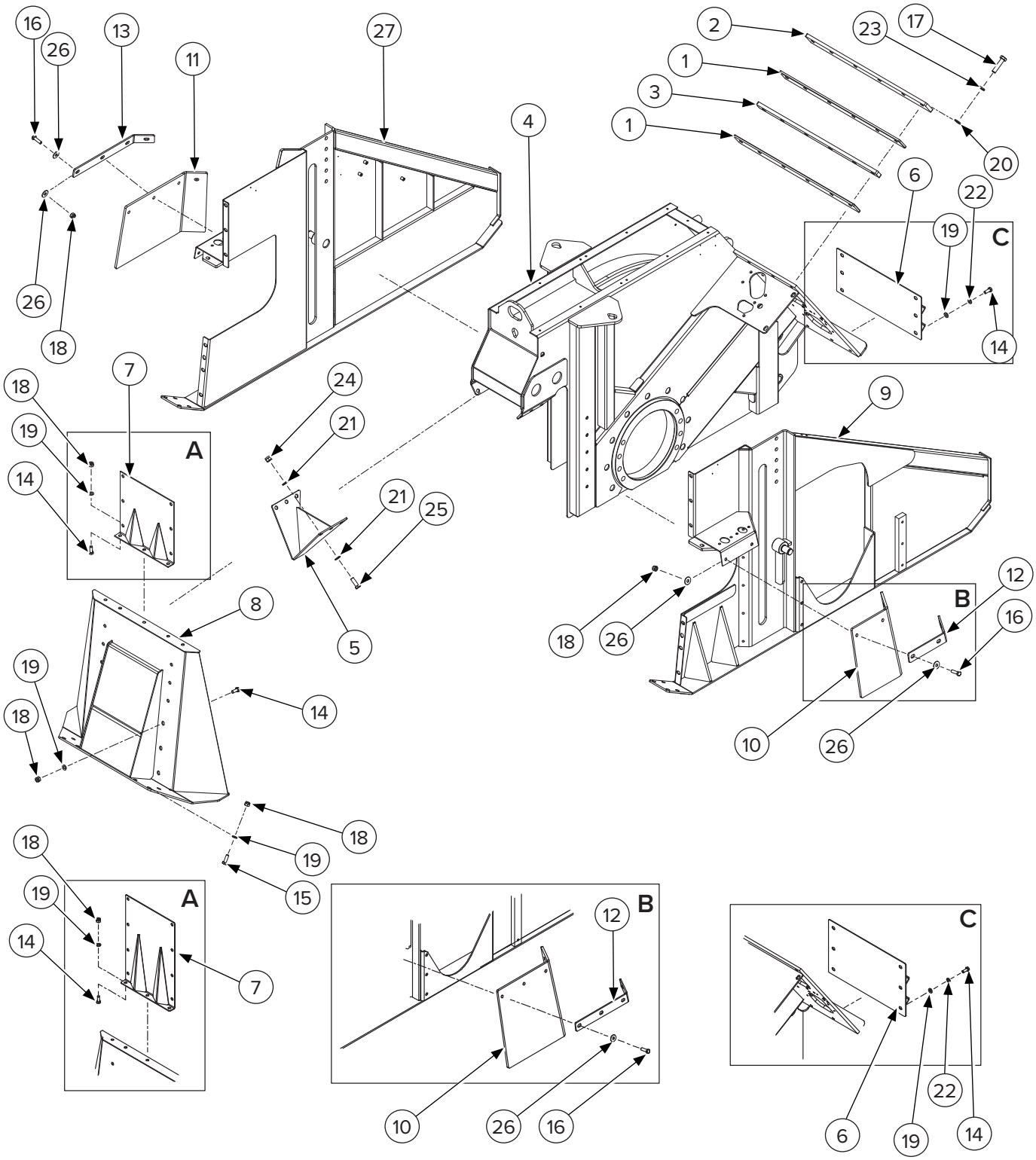
7. Parts

7.1 *Main Components*

Insets A, B, & C show the differences for the 8” – 24” depth Road Saws.



ITEM	PART NUMBER	DESCRIPTION	6” – 17” QTY	8” – 24” QTY
1	260770	Sideshift Slide Poly Plate 60 mm x 8 mm x 650 mm	4	4
2	260768	Sideshift Slide Clamp Plate 35 mm x 13.5 mm x 650 mm	2	2
3	260769	Sideshift Slide Center Spacer Plate 35 mm x 13.5 mm x 650 mm	2	2

7. Parts

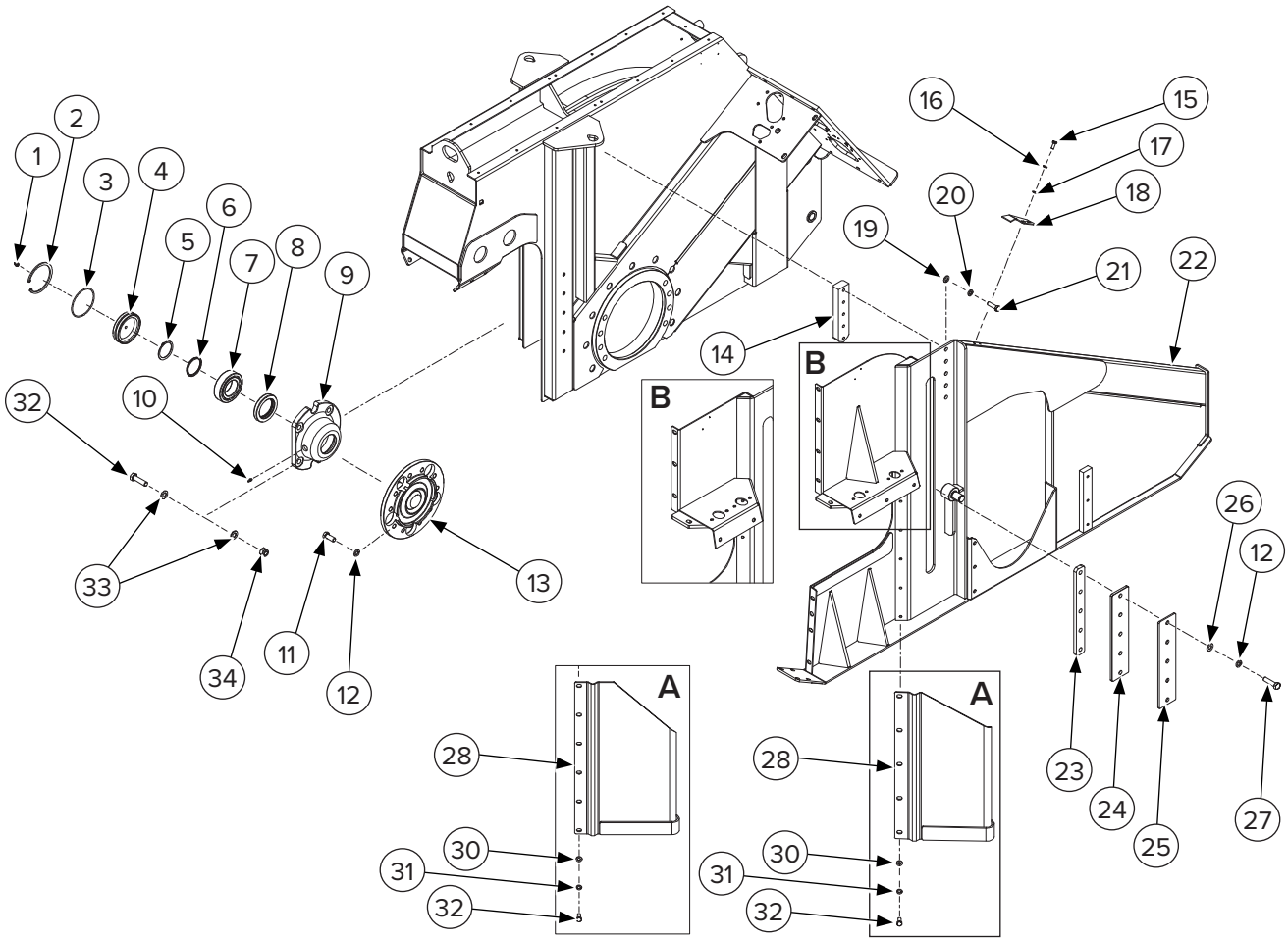
7.1 *Main Components Cont'd*

ITEM	PART NUMBER	DESCRIPTION	6" – 17" QTY	8" – 24" QTY
4	—	Frame Weldment	1	—
	—	Frame Weldment	—	1
5	261188	Spoil Discharge Guard	1	—
	261207	Spoil Discharge Guard	—	1
6	261185	Rear Union Weldment	1	—
	261205	Rear Union Weldment	—	1
7	261184	Upper Front Union Weldment	1	—
	261204	Upper Front Union Weldment	—	1
8	261183	Lower Front Union Weldment	1	—
	261203	Lower Front Union Weldment	—	1
9	—	Left Side Panel Weldment	1	—
	—	Left Side Panel Weldment	—	1
10	—	Left Rubber Discharge Guard	1	—
	261195	Left Rubber Discharge Guard	—	1
11	—	Right Rubber Discharge Guard	1	—
	261194	Right Rubber Discharge Guard	—	1
12	—	Left Rubber Guard Retaining Plate	1	—
	—	Left Rubber Guard Retaining Plate	—	1
13	—	Right Rubber Guard Retaining Plate	1	—
	—	Right Rubber Guard Retaining Plate	—	1
14	—	M10 x 1.5 mm x 25 mm Bolt Hex Head Fully Threaded	37	41
15	—	M10 x 1.5 mm x 30 mm Bolt Hex Head Fully Threaded	8	8
16	—	M10 x 1.5 mm x 35 mm Bolt Hex Head Fully Threaded	7	7
17	—	M14 x 2 mm x 60 mm Bolt Hex Head	12	12
18	—	M10 x 1.5 mm Nylock Nut DIN 982	33	36
19	—	M10 Flat Washer UNI 6592	45	49
20	—	M14 Flat Washer UNI 6592	22	22
21	—	M12 Flat Washer UNI 6592	22	22
22	—	M10 Lock Washer	19	21
23	—	M14 Lock Washer	32	32
24	—	M12 x 1.75 mm Nylock Nut DIN 982	6	6
25	—	M12 x 1.75 mm x 35 mm Bolt Hex Head Fully Threaded	6	6
26	—	2.5 mm x M10 x 30 mm Flat Washer UNI 6593	14	16
27	—	Right Side Panel Weldment	1	—
	—	Right Side Panel Weldment	—	1
NS	261171	Rubber Discharge Guard Kit (Includes Items 10, 12, 16, 18, & 26)	1	—
	261196	Rubber Discharge Guard Kit (Includes Items 10, 12, 16, 18, & 26)	—	1

7. Parts

7.2 *Left Side Frame Components*

Insets A & B show the differences for the 8” – 24” depth Road Saws.



ITEM	PART NUMBER	DESCRIPTION	6” – 17” QTY	8” – 24” QTY
1	—	Straight Grease Fitting 10 MB	1	1
2	—	110 mm Retaining Ring Internal	1	1
3	—	Outer Bearing Support Gasket	1	1
4	—	Bearing Support Cover Right Side Zinc Plated	1	1
5	—	60 mm Retaining Ring External	1	1
6	—	Bearing Support Right Side Spacer 4 mm	1	1
7	—	Wheel Support Bearing	1	1
8	—	Inner Bearing Support Gasket	1	1
9	—	Wheel Support Bearing Housing	1	1
10	297009	M6 Straight Grease Zerk Fitting	1	1
11	—	M14 x 2 mm x 35 mm Bolt Hex Head Fully Threaded	10	10
12	—	M14 Lock Washer	32	32
13	—	Wheel Support Flange	1	1
14	—	Internal Guide for Side Panel	2	2
15	—	M8 x 1.25 mm x 20 mm Bolt Hex Head Fully Threaded	17	21
16	—	M8 Lock Washer	17	21

7. Parts

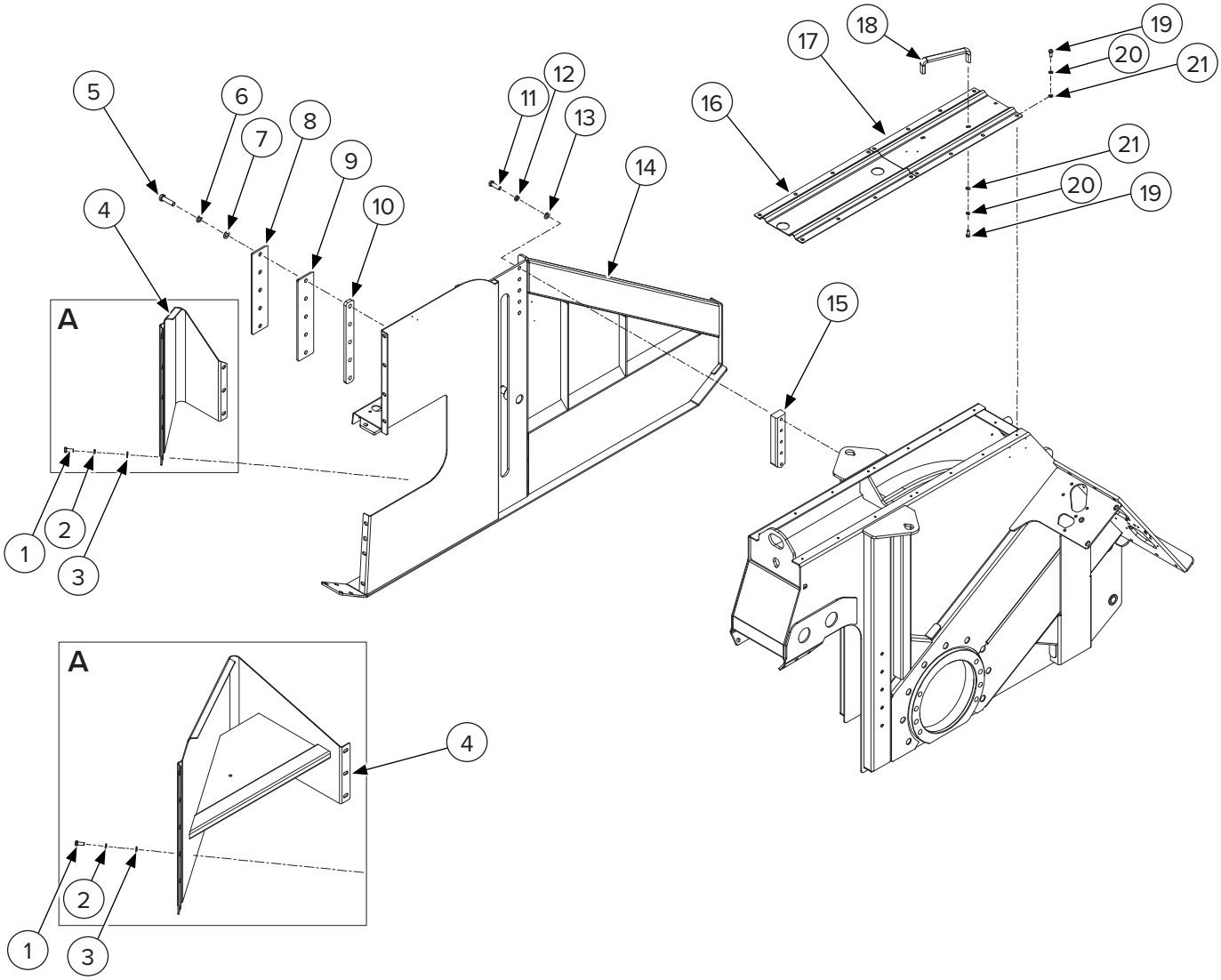
7.2 Left Side Frame Components Cont'd

ITEM	PART NUMBER	DESCRIPTION	6" – 17" QTY	8" – 24" QTY
17	—	M8 Flat Washer UNI 6592	17	21
18	—	Depth Adjustment Indicator	1	1
19	—	M12 Flat Washer UNI 6592	22	22
20	—	M12 Lock Washer	10	10
21	—	M12 x 1.75 mm x 40 mm Bolt Hex Head Fully Threaded	10	—
22	—	Left Side Panel Weldment	1	—
	—	Left Side Panel Weldment	—	1
23	—	Side Panel Guide Plate	2	2
24	261173	Side Panel Guide Plate 80 mm x 360 mm x 8 mm	2	2
25	—	Outer Guide Plate for Side Panel	2	2
26	—	M14 Flat Washer UNI 6592	22	22
27	—	M14 x 2 mm x 55 mm Bolt Hex Head	10	10
28	261161	Left Side Spoil Spreader Frame	1	—
	261190	Left Side Spoil Spreader Frame	—	1
29	—	M10 Flat Washer UNI 6592	45	49
30	—	M10 Lock Washer	19	21
31	—	M10 x 1.5 mm x 25 mm Bolt Hex Head Fully Threaded	37	41
32	—	M16 x 2 mm x 55 mm Bolt Hex Head	4	4
33	—	M16 Flat Washer UNI 6592	8	8
34	—	M16 x 2 mm Nylock Nut DIN 982	4	4
NS	261172	Bearing Support Kit (Includes Items 3, 7, 8, 9, & 10)	1	1

7. Parts

7.3 Right Side Frame Components

Inset A shows the difference for the 8” – 24” depth Road Saws.



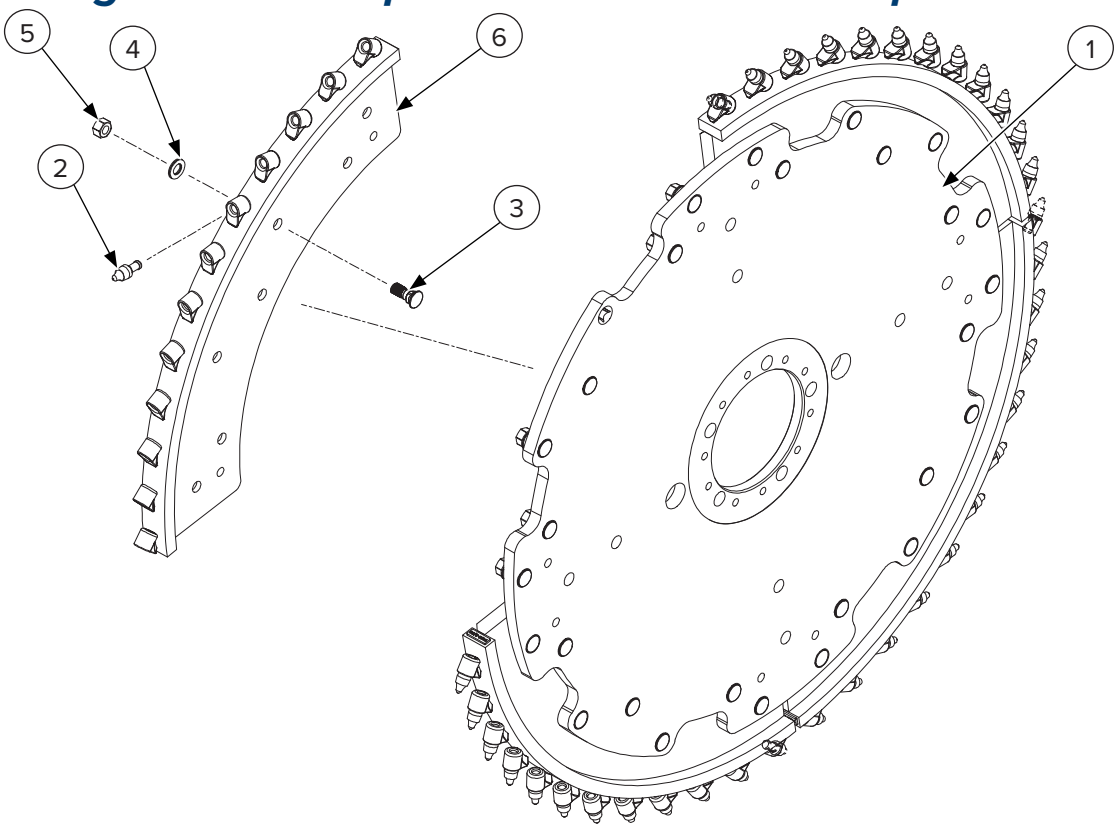
7. Parts

7.3 Right Side Frame Components Cont'd

ITEM	PART NUMBER	DESCRIPTION	6" – 17" QTY	8" – 24" QTY
1	—	M10 x 1.5 mm x 25 mm Bolt Hex Head Fully Threaded	37	41
2	—	M10 Lock Washer	19	21
3	—	M10 Flat Washer UNI 6592	45	49
4	261160	Right Side Spoil Spreader Frame	1	—
	261189	Right Side Spoil Spreader Frame	—	1
5	—	M14 x 2 mm x 55 mm Bolt Hex Head	10	10
6	—	M14 Lock Washer	32	32
7	—	M14 Flat Washer UNI 6592	22	22
8	—	Outer Guide Plate for Side Panel	2	2
9	261173	Side Panel Guide Plate 80 mm x 360 mm x 8 mm	2	2
10	—	Side Panel Guide Plate	2	2
11	—	M14 Bolt Hex Head	10	—
	—	M12 x 1.75 mm x 40 mm Bolt Hex Head Fully Threaded	—	10
12	—	M12 Lock Washer	10	10
13	—	M14 Flat Washer UNI 6592	22	22
14	—	Right Side Panel Weldment	1	—
	—	Right Side Panel Weldment	—	1
15	—	Internal Guide for Side Panel	2	2
16	—	Front Top Frame Cover	1	—
	—	Front Top Frame Cover	—	1
17	—	Rear Top Frame Cover	1	—
	—	Rear Top Frame Cover	—	1
18	—	Top Cover Handle	1	1
19	—	M8 x 1.25 mm x 20 mm Bolt Hex Head Fully Threaded	17	21
20	—	M8 Lock Washer	17	21
21	—	M8 Flat Washer UNI 6592	17	21

7. Parts

7.4 Cutting Wheel Components for 6” – 17” Depth



Tooth Segment Kits

PART NUMBER	DESCRIPTION	QTY
261120	2” Tooth Plate Segment Kit	4
261121	3 1/4” Tooth Plate Segment Kit	
261122	4” Tooth Plate Segment Kit	
261123	5” Tooth Plate Segment Kit	
261124	6 1/4” Tooth Plate Segment Kit	
261125	8” Tooth Plate Segment Kit	

2”

ITEM	PART NUMBER	DESCRIPTION	QTY
1	261169	Base Wheel – No Tooth Segments	1
2	—	Asphalt Tooth 13 mm Shank	48
3	261187	5/8” x 1 3/4” Plow Bolt	28
4	261200	Nord–Lock Self–Lock Washer M16 – Large – White Zinc	28
5	261168	5/8” Nut for Tooth Segment with Threadlock	28
6	—	Tooth Segment 2” Width	4

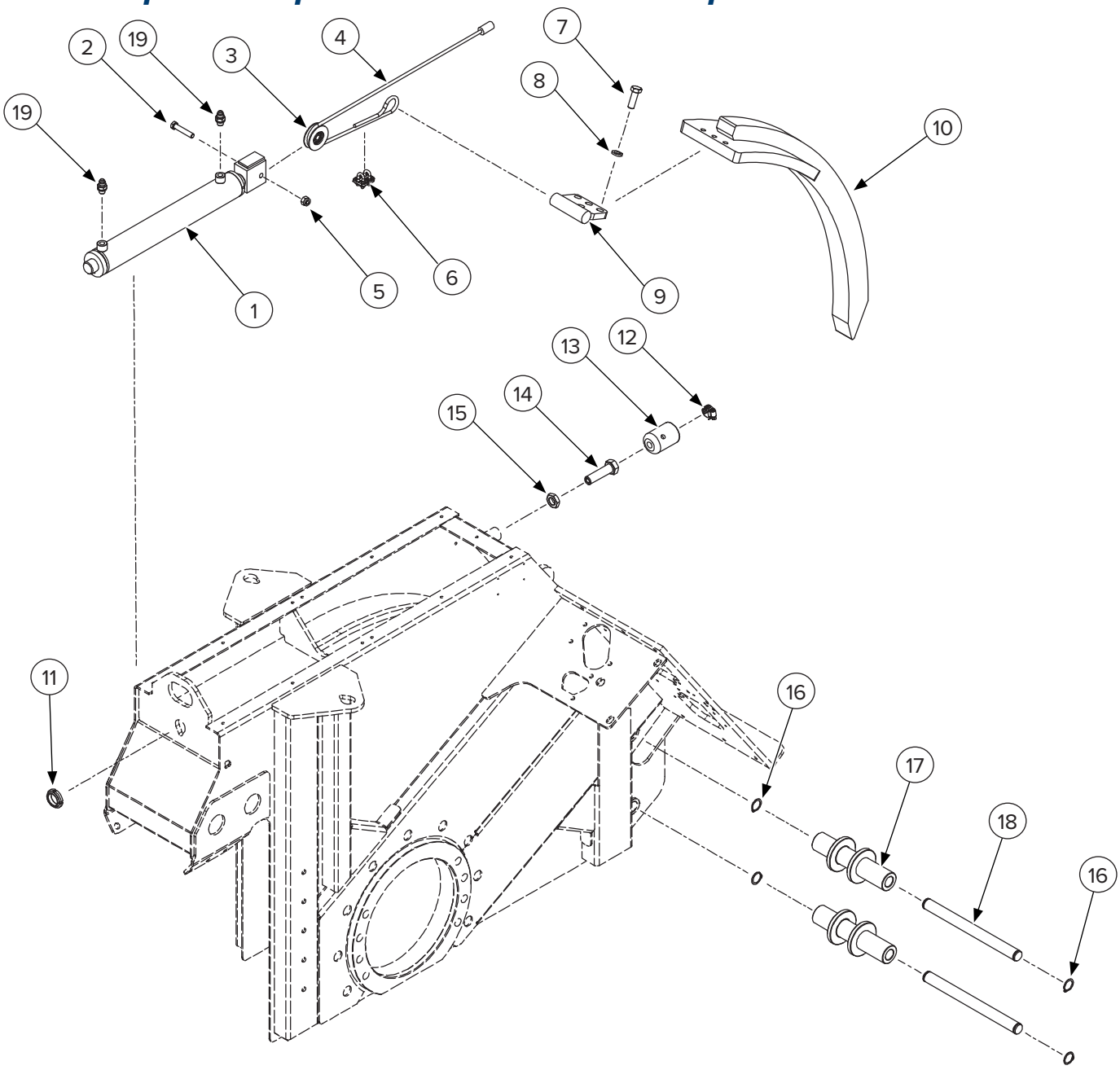
7.4 Cutting Wheel Components for 6” – 17” Depth Cont’d

3 1/4”, 4”, 5”, 6 1/4”, & 8”

ITEM	PART NUMBER	DESCRIPTION	QTY
1	261169	Base Wheel – No Tooth Segments	1
2	—	Concrete Tooth 20 mm Shank	56
3	—	5/8” x 2 1/4” Long 81° Plow Bolt	28
4	261200	Nord–Lock Self–Lock Washer M16 – Large – White Zinc	28
5	261168	5/8” Nut for Tooth Segment with Threadlock	28
6	—	Tooth Segment 3 1/4” Width	4
	—	Tooth Segment 4” Width	
	—	Tooth Segment 5” Width	
	—	Tooth Segment 6 1/4” Width	
	—	Tooth Segment 8” Width	

7. Parts

7.5 *Scraper Components for 6” – 17” Depth*



Scraper Kits – includes Items 7, 8, 9, 10, & 17

PART NUMBER	DESCRIPTION	QTY
261140	2” Scraper Kit	1
261141	3 1/4” Scraper Kit	
261142	4” Scraper Kit	
261143	5” Scraper Kit	
261144	6 1/4” Scraper Kit	
261145	8” Scraper Kit	

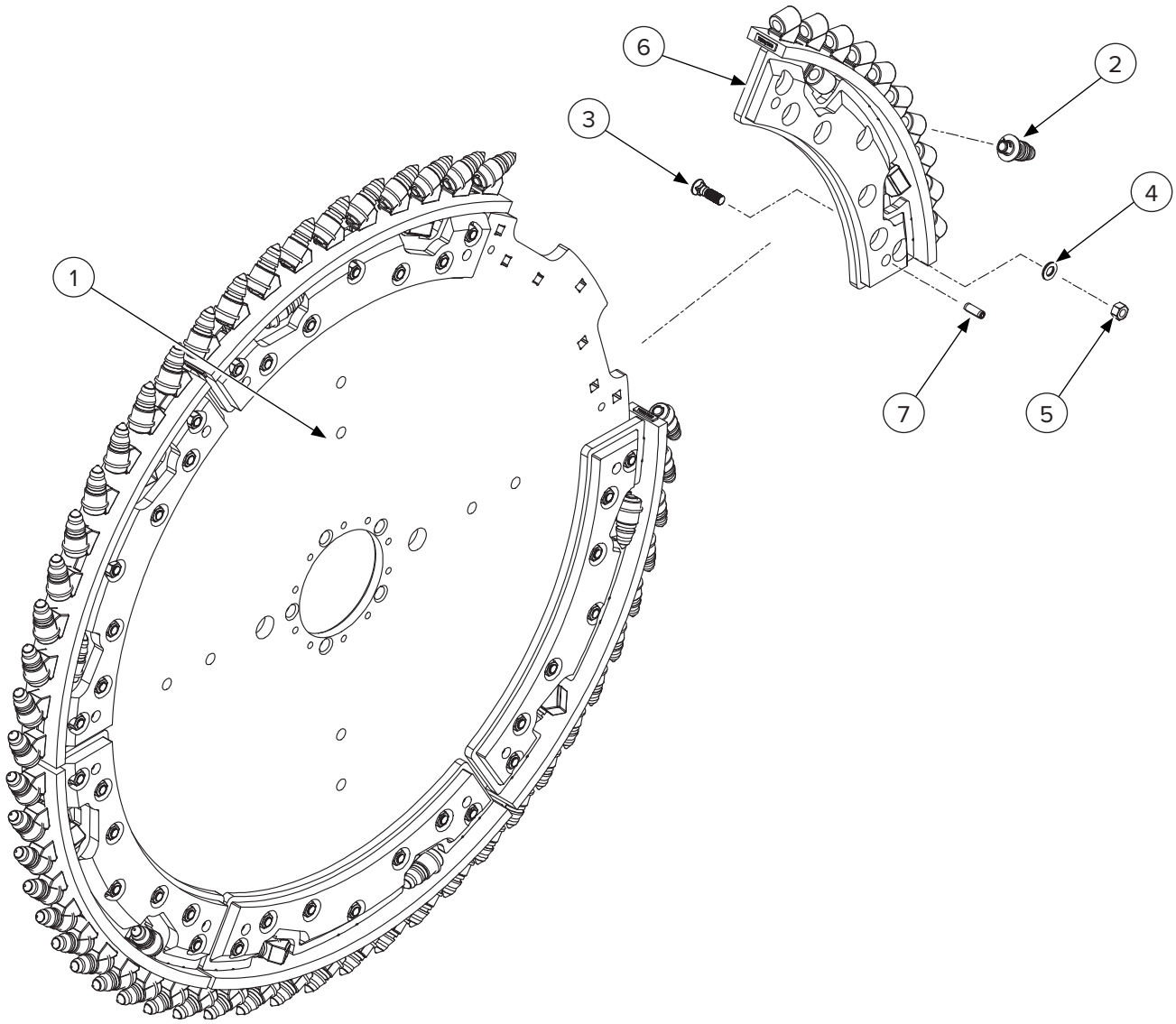
7. Parts

7.5 *Scraper Components for 6” – 17” Depth Cont’d*

ITEM	PART NUMBER	DESCRIPTION	QTY
1	261175	Scraper Cylinder 50 mm Bore x 35 mm Rod x 335 mm Stroke x 508 Retracted Length	1
2	—	M10 x 1.5 mm x 55 mm Bolt Hex Head Fully Threaded	1
3	261164	Scraper Lift Pulley	1
4	261170	Scraper Lift Cable	1
5	—	M10 x 1.5 mm Nylock Nut DIN 982	1
6	—	Scraper Lift Cable Clamp	2
7	—	M14 x 2 mm x 40 mm Bolt Hex Head Fully Threaded	3
8	—	M14 Lock Washer	3
9	261179	Scraper Cable Hook Plate 2”	1
	—	Scraper Cable Hook Plate 3 1/4”	
	261199	Scraper Cable Hook Plate 4”, 5”, 6 1/4”, 8”	
10	—	Scraper 2”	1
	—	Scraper 3 1/4”	
	—	Scraper 4”	
	—	Scraper 5”	
	—	Scraper 6 1/4”	
	—	Scraper 8”	
11	260847	M30 x 1.5 mm x 11 mm Nut Nylon Insert Bearing Locknut	1
12	—	Hose Clamp 10 mm – 16 mm OD	1
13	260735	Manual Depth Adjustment Cylinder End Guard	1
14	261163	Hollow Bolt for Scraper Adjustment	1
15	—	Low Hex Nut M20 x 2.5 UNI 5589 Class 8 Zinc	1
16	298907	25 mm Retaining Ring External	4
17	—	Scraper Guide Roller 2”	2
	—	Scraper Guide Roller 3 1/4”	
	261201	Scraper Guide Roller 4”	
	—	Scraper Guide Roller 5”, 6 1/4”, 8”	
18	261178	Scraper Guide Pin Zinc Plated	2
19	—	Hydraulic Straight Fitting Male #4 BSPP to Male #6 JIC	2

7. Parts

7.6 Cutting Wheel Components for 8” – 24” Depth



Tooth Segment Kits

PART NUMBER	DESCRIPTION	QTY
261130	3 1/4” Tooth Plate Segment Kit	6
261131	4” Tooth Plate Segment Kit	
261132	5” Tooth Plate Segment Kit	
261133	6 1/4” Tooth Plate Segment Kit	
261134	8” Tooth Plate Segment Kit	

7.6 Cutting Wheel Components for 8” – 24” Depth Cont’d

3 1/4”

ITEM	PART NUMBER	DESCRIPTION	QTY
1	261193	Base Wheel – No Tooth Segments	1
2	—	Concrete Tooth 20 mm Shank	60
3	—	5/8” x 2 1/4” Long 81° Plow Bolt	42
4	261200	Nord–Lock Self–Lock Washer M16 – Large – White Zinc	42
5	261168	5/8” Nut for Tooth Segment with Threadlock	42
6	—	Tooth Segment 3 1/4” Width	6
7	261202	Spiral Spring Pin 14 mm x 35 mm DIN 7344	12

4”, 5”

ITEM	PART NUMBER	DESCRIPTION	QTY
1	261193	Base Wheel – No Tooth Segments	1
2	—	Concrete Tooth 20 mm Shank	72
3	261206	5/8” x 2 1/4” Long 81° Plow Bolt	42
4	261200	Nord–Lock Self–Lock Washer M16 – Large – White Zinc	42
5	261168	5/8” Nut for Tooth Segment with Threadlock	42
6	—	Tooth Segment 4” Width	6
	—	Tooth Segment 5” Width	
7	261202	Spiral Spring Pin 14 mm x 35 mm DIN 7344	12

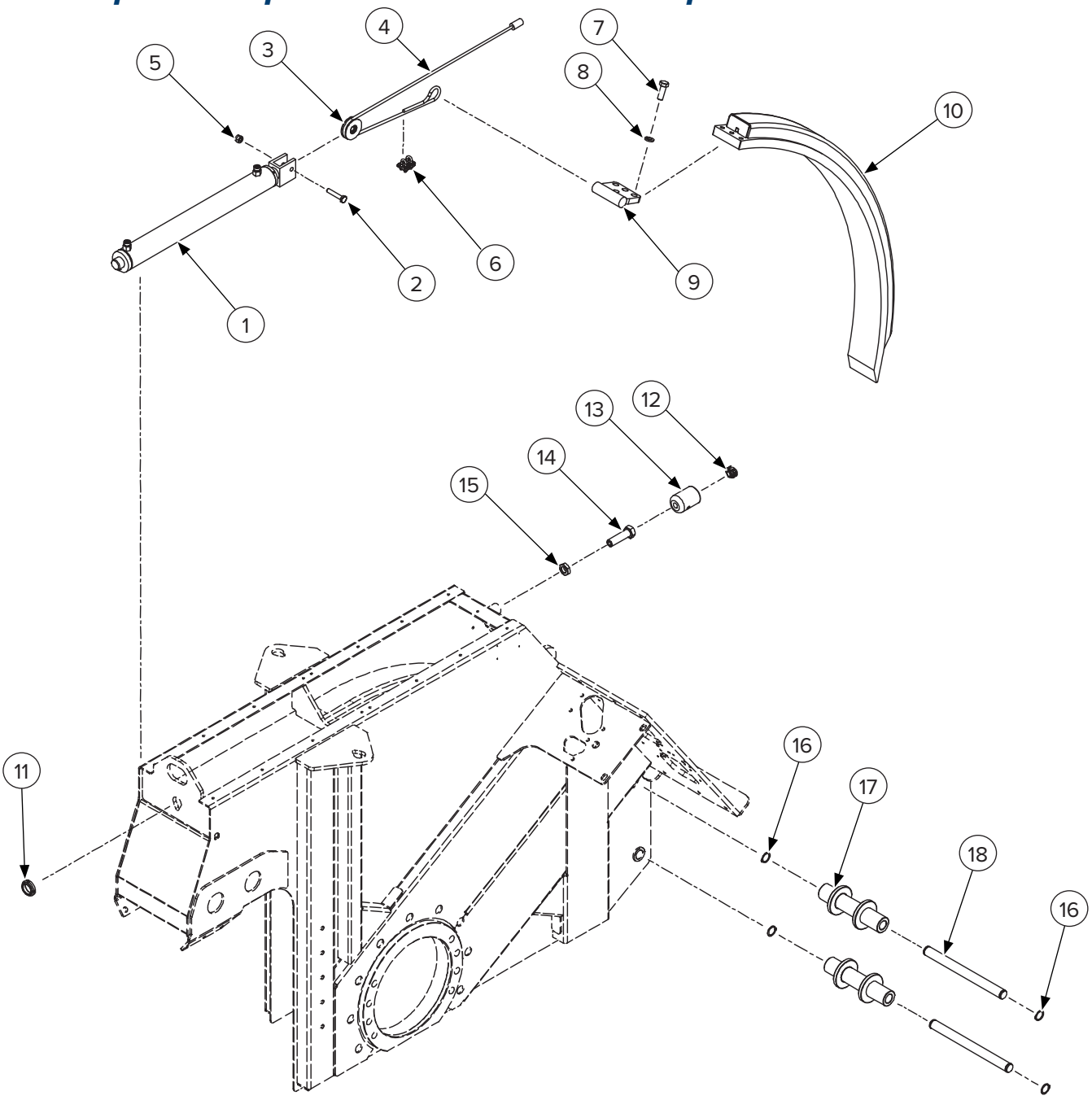
6 1/4”

ITEM	PART NUMBER	DESCRIPTION	QTY
1	261193	Base Wheel – No Tooth Segments	1
2	—	Concrete Tooth 20 mm Shank	96
3	261206	5/8” x 2 1/4” Long 81° Plow Bolt	42
4	—	Nord–Lock Self–Lock Washer M16 – Large – White Zinc	42
5	261168	5/8” Nut for Tooth Segment with Threadlock	42
6	—	Tooth Segment 6 1/4” Width	6
7	261202	Spiral Spring Pin 14 mm x 35 mm DIN 7344	12

8”

ITEM	PART NUMBER	DESCRIPTION	QTY
1	261193	Base Wheel – No Tooth Segments	1
2	—	Concrete Tooth 20 mm Shank	108
3	—	5/8” x 2 1/4” Long 81° Plow Bolt	42
4	261200	Nord–Lock Self–Lock Washer M16 – Large – White Zinc	42
5	261168	5/8” Nut for Tooth Segment with Threadlock	42
6	—	Tooth Segment 8” Width	6
7	261202	Spiral Spring Pin 14 mm x 35 mm DIN 7344	12

7.7 Scraper Components for 8” – 24” Depth



Scraper Kits – includes Items 7, 8, 9, 10, & 17

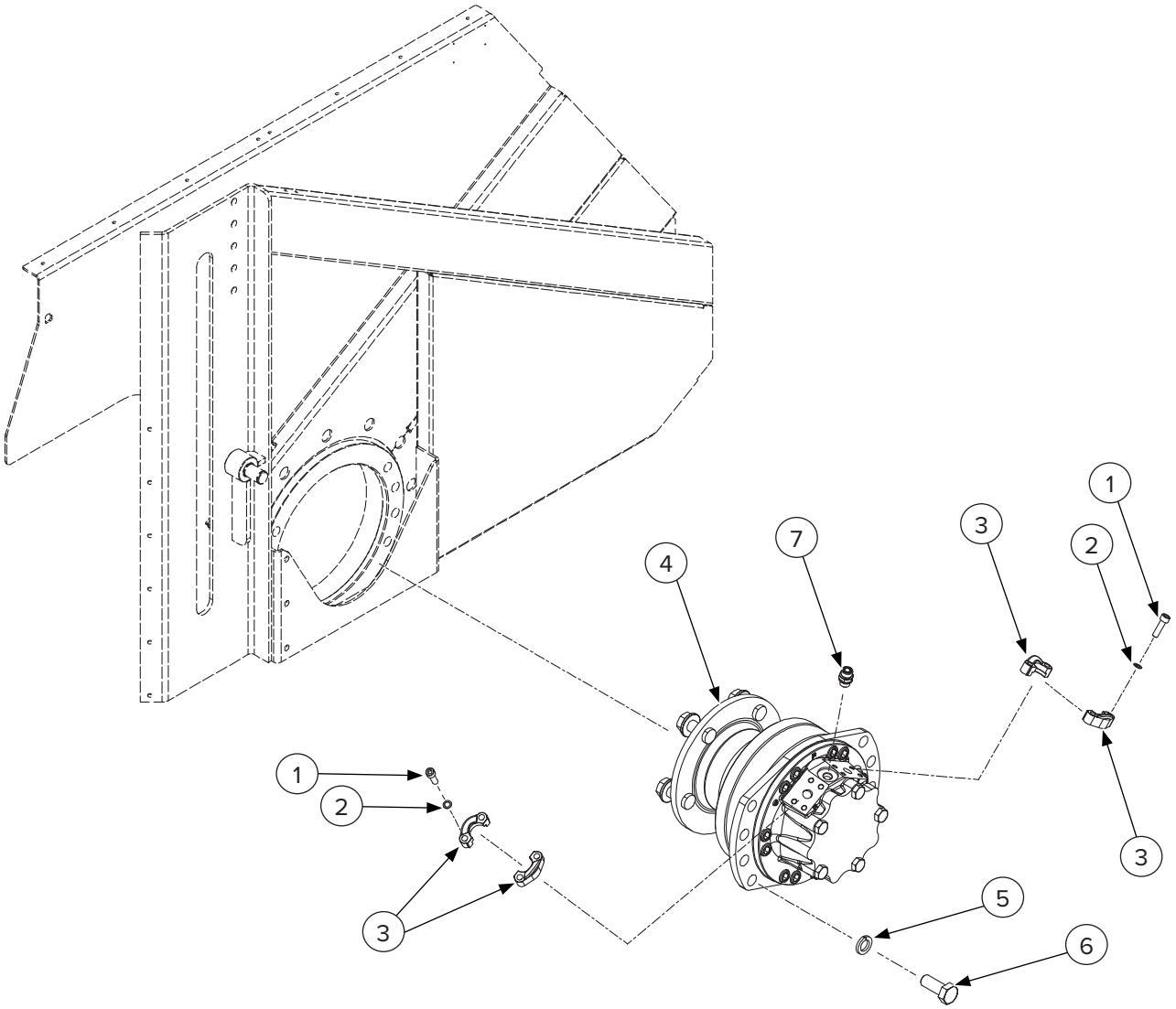
PART NUMBER	DESCRIPTION	QTY
261150	3 1/4” Scraper Kit	6
261151	4” Scraper Kit	
261152	5” Scraper Kit	
261153	6 1/4” Scraper Kit	
261154	8” Scraper Kit	

7. Parts

7.7 Scraper Components for 8” – 24” Depth Cont’d

ITEM	PART NUMBER	DESCRIPTION	QTY
1	261198	Lift Cylinder 50 mm Bore x 35 mm Rod x 450 mm Stroke x 623 mm Retracted Length	1
2	—	M10 Hex Head Bolt	1
3	261164	Scraper Lift Pulley	1
4	261170	Scraper Lift Cable	1
5	—	M10 x 1.5 mm Nylock Nut DIN 982	1
6	—	Scraper Lift Cable Clamp	2
7	—	M14 x 2 mm x 40 mm Bolt Hex Head Fully Threaded	3
8	—	M14 Lock Washer	3
9	—	Scraper Cable Hook Plate 3 1/4”	1
	261199	Scraper Cable Hook Plate for 4”, 5”, 6 1/4”, 8”	
10	—	Scraper 3 1/4”	1
	—	Scraper 4”	
	—	Scraper 5”	
	—	Scraper 6 1/4”	
	—	Scraper 8”	
11	260847	M30 x 1.5 mm x 11 mm Nut Nylon Insert Bearing Locknut	1
12	—	Hose Clamp 10 mm – 16 mm OD	1
13	260735	Manual Depth Adjustment Cylinder End Guard	1
14	261164	Drilled Bolt for Scraper Adjustment	1
15	—	Low Hex Nut M20 x 2.5 UNI 5589 Class 8 Zinc	1
16	298907	25 mm Retaining Ring External	4
17	—	Scraper Guide Roller 3 1/4”	2
	261201	Scraper Guide Roller 4”	
	—	Scraper Guide Roller 5”, 6 1/4”, 8”	
18	261178	Scraper Guide Pin Zinc Plated	2

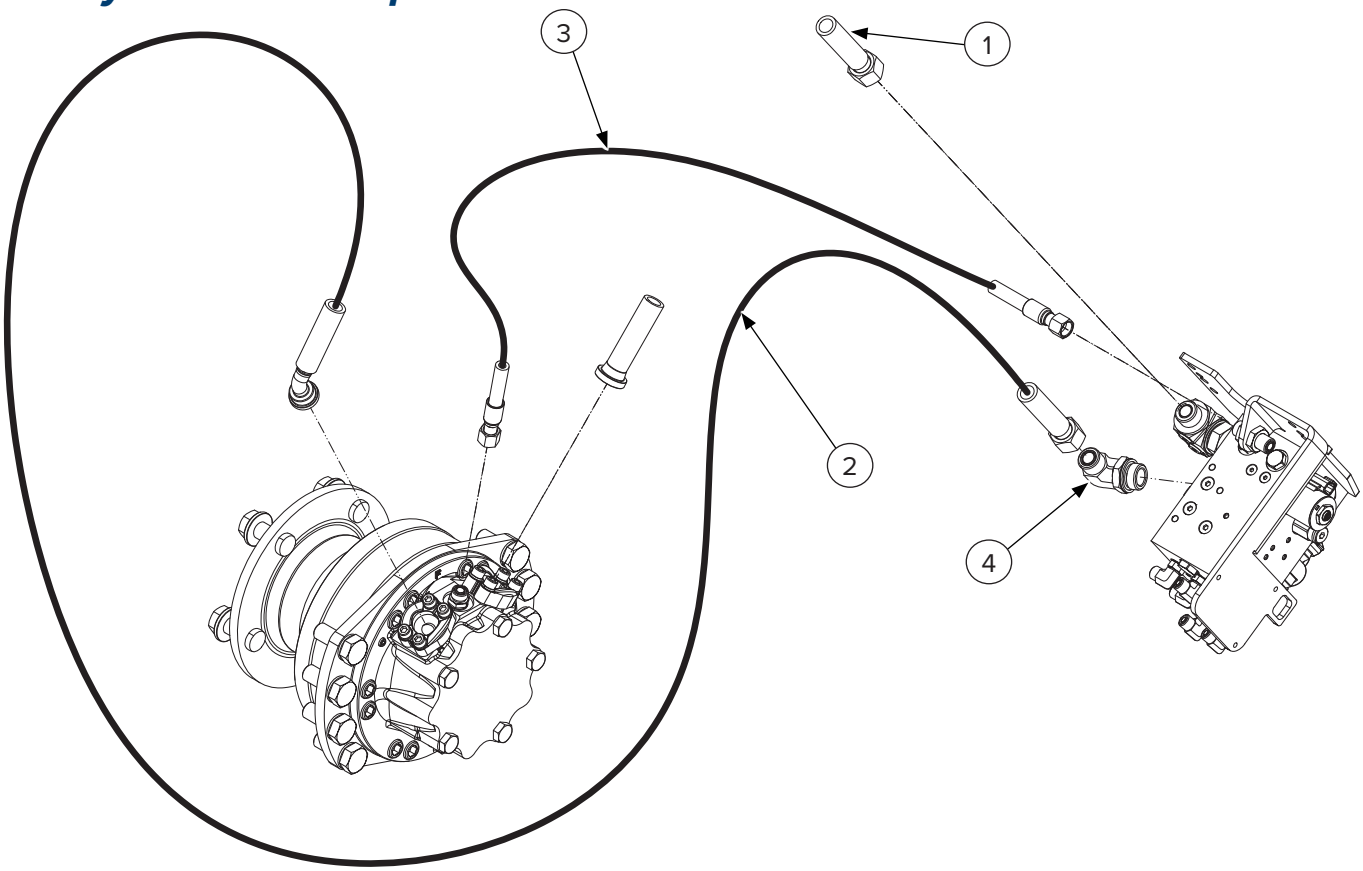
7.8 Motor Components — Both Models



ITEM	PART NUMBER	DESCRIPTION	6" – 17" QTY	8" – 24" QTY
1	—	Socket Head Screw M10 x 35 CL 8.8 UNI 5931 – Zinc	8	8
2	—	M10 Lock Washer	8	—
	—	M10 Schnorr Washer	—	8
3	295000-12-62SF	Hydraulic Fitting SAE Split Flange Half #12 Code 62	4	4
4	—	1404cc Motor	1	—
	—	1684cc Motor	—	1
5	—	M22 Heavy Spring Lock Washer	8	8
6	—	M22 x 2.5 mm x 55 mm Bolt Hex Head Fully Threaded	8	8
7	—	Hydraulic Straight Fitting Male M18 x 1.5 mm to Male #8 ORFS	1	1

7. Parts

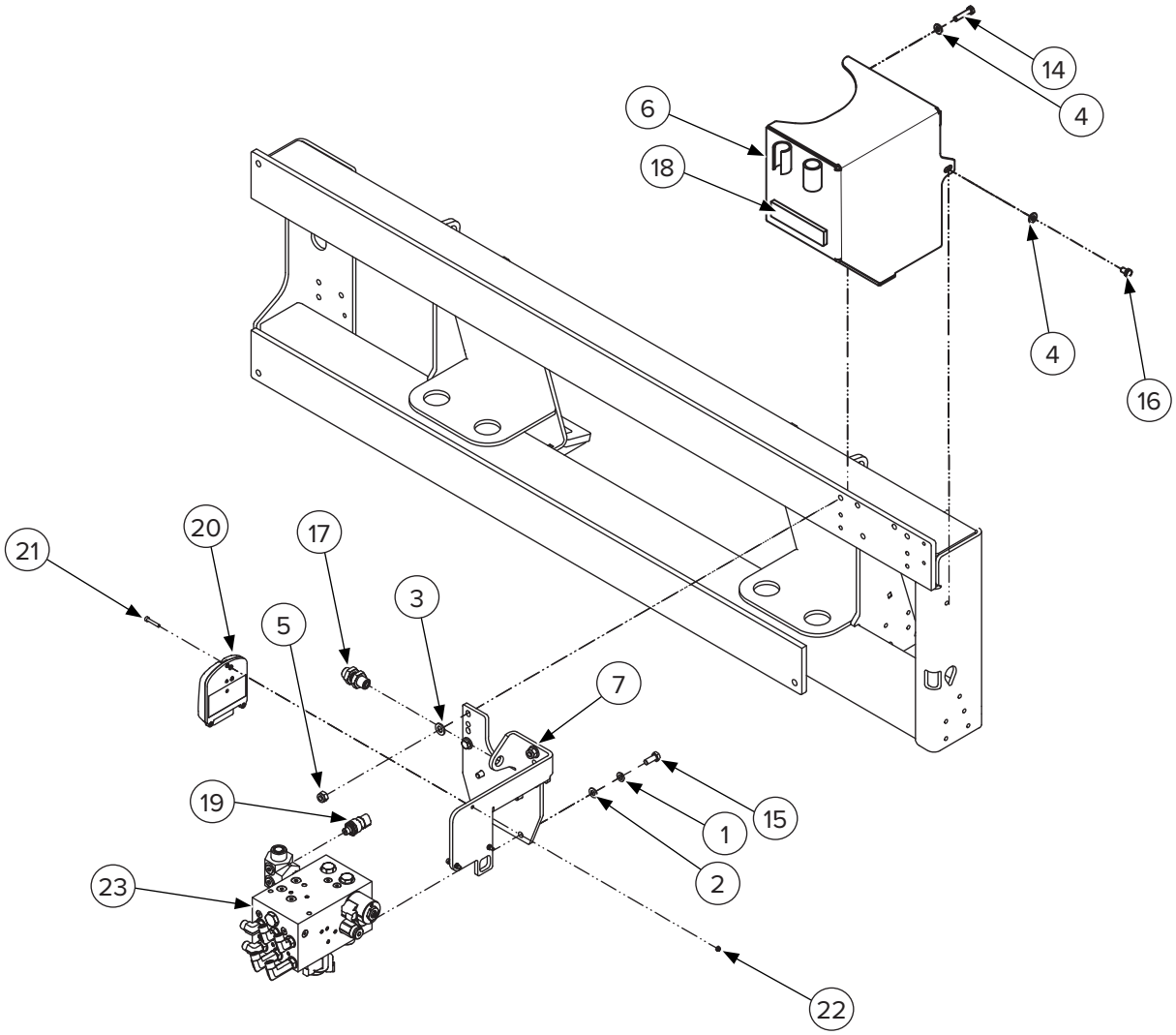
7.9 Hydraulic Components for Motor — Both Models

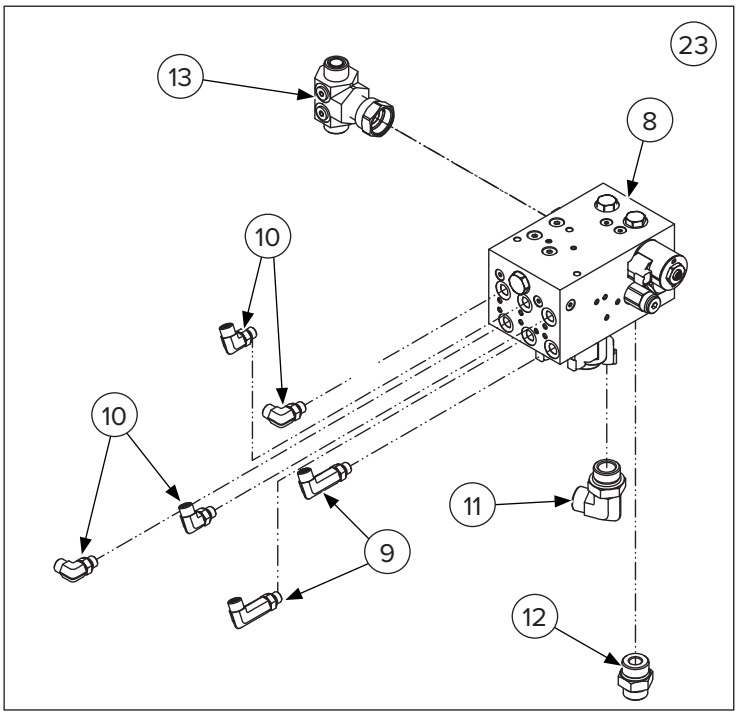


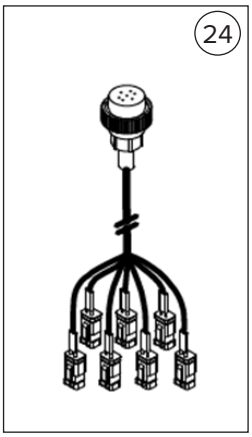
ITEM	PART NUMBER	DESCRIPTION	6” – 17” QTY	8” – 24” QTY
1	—	Motor to Block Supply Hose	1	—
	—	Motor to Block Supply Hose	—	1
2	—	Motor to Block Return Hose	1	—
	—	Motor to Block Return Hose	—	1
3	—	Motor to Block Case Drain Hose	1	—
	—	Motor to Block Case Drain Hose	—	1
4	—	90° Swivel Fitting 1 3/16” ORFS	1	1

7. Parts

7.10 *Valve Block Components — Both Models*







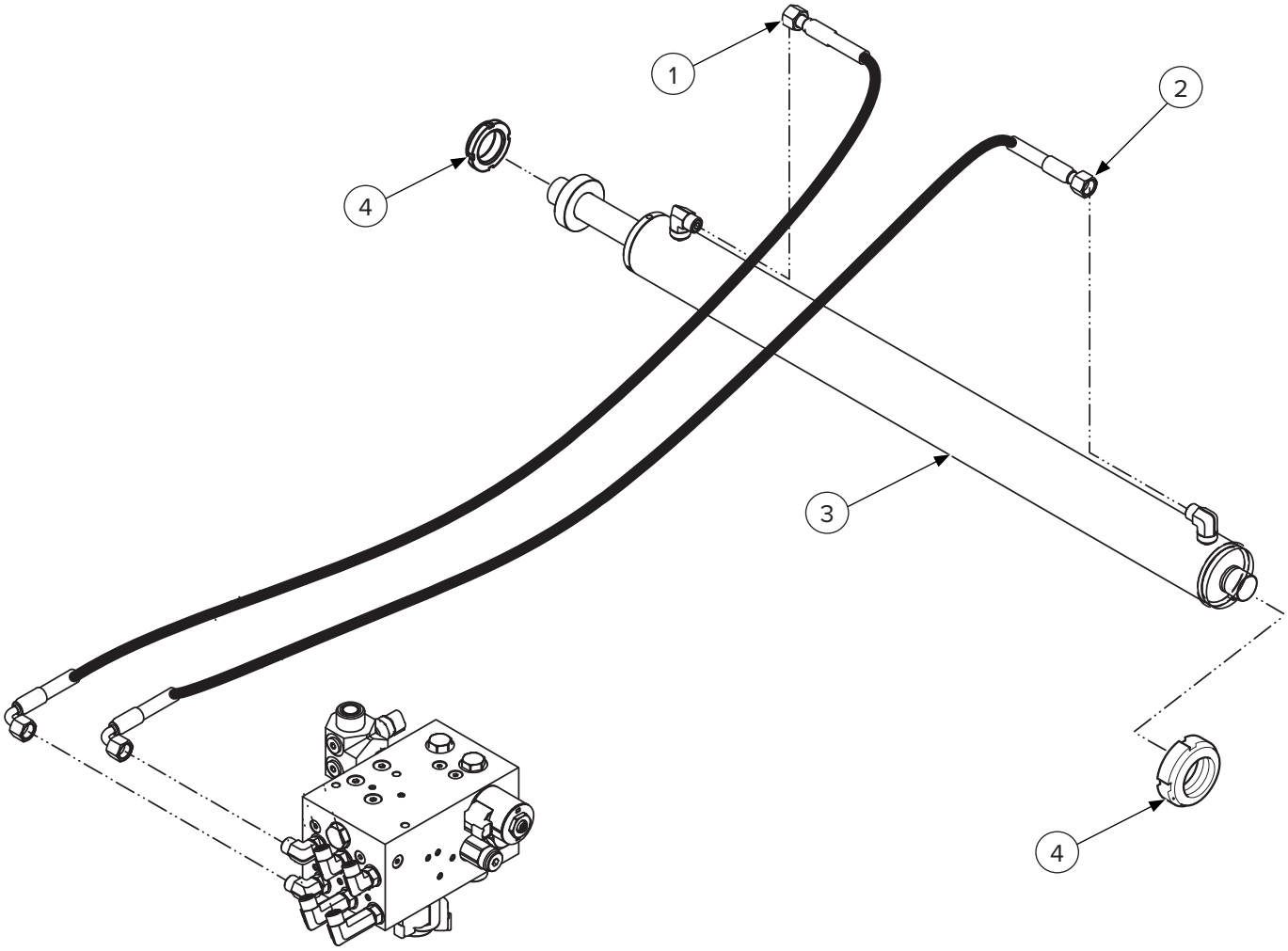
7. Parts

7.10 *Valve Block Components — Both Models Cont'd*

ITEM	PART NUMBER	DESCRIPTION	QTY
1	—	M10 Lock Washer	4
2	—	M10 Flat Washer UNI 6592	4
3	—	M14 Flat Washer	2
4	—	M10 Spring Lock Washer DIN 6796	5
5	—	M10 x 1.5 mm Nylock Nut DIN 982	2
6	—	Valve Block Cover	1
7	260777	Diverter Valve Mount Bracket	1
8	260788	Manifold Valve Block	1
9	—	Hydraulic 90 Degree Fitting Male #6 O–Ring Face Seal to Male #6 O–Ring Boss Long	2
10	295030-M06FS-M06ORB	Hydraulic 90 Degree Fitting Male #6 O–Ring Face Seal to Male #6 O–Ring Boss	4
11	295030-M12FS-M16ORB	Hydraulic 90 Degree Fitting Male #12 O–Ring Face Seal to Male #16 O–Ring Boss	1
12	295010-M12FS-M16ORB	Hydraulic Straight Fitting Male #12 O–Ring Face Seal to Male #16 O–Ring Boss	1
13	260773	Transducer Tee Fitting with #6 ORB Ports Male #12 ORFS to Male #12 ORFS to Female #16 ORFS	1
14	—	M10 x 1.5 mm x 45 mm Bolt Hex Head Fully Threaded	2
15	—	M10 x 1.5 mm x 25 mm Bolt Hex Head Fully Threaded	4
16	—	M10 x 1.5 mm x 16 mm Bolt Hex Head Fully Threaded	1
17	295010-M08FS-M08FSBH	Hydraulic Straight Fitting Male #8 O–Ring Face Seal to Male #8 Bulkhead O–Ring Face Seal	1
18	260789	Adhesive Foam Strip 40 mm x 10 mm x 165 mm Long	1
19	260774	Pressure Sensor 3–Pin Connector	1
20	260790	Electronic Control Unit	1
21	—	Socket Head Screw M5 x 30 CL 8.8 UNI 5931 – Zinc	3
22	—	M5 x 0.8 mm Nylock Nut DIN 985	3
23	260791	Manifold Valve Block Assembly with Fittings	1
24	261165	Attachment Side Wire Harness	1

7. Parts

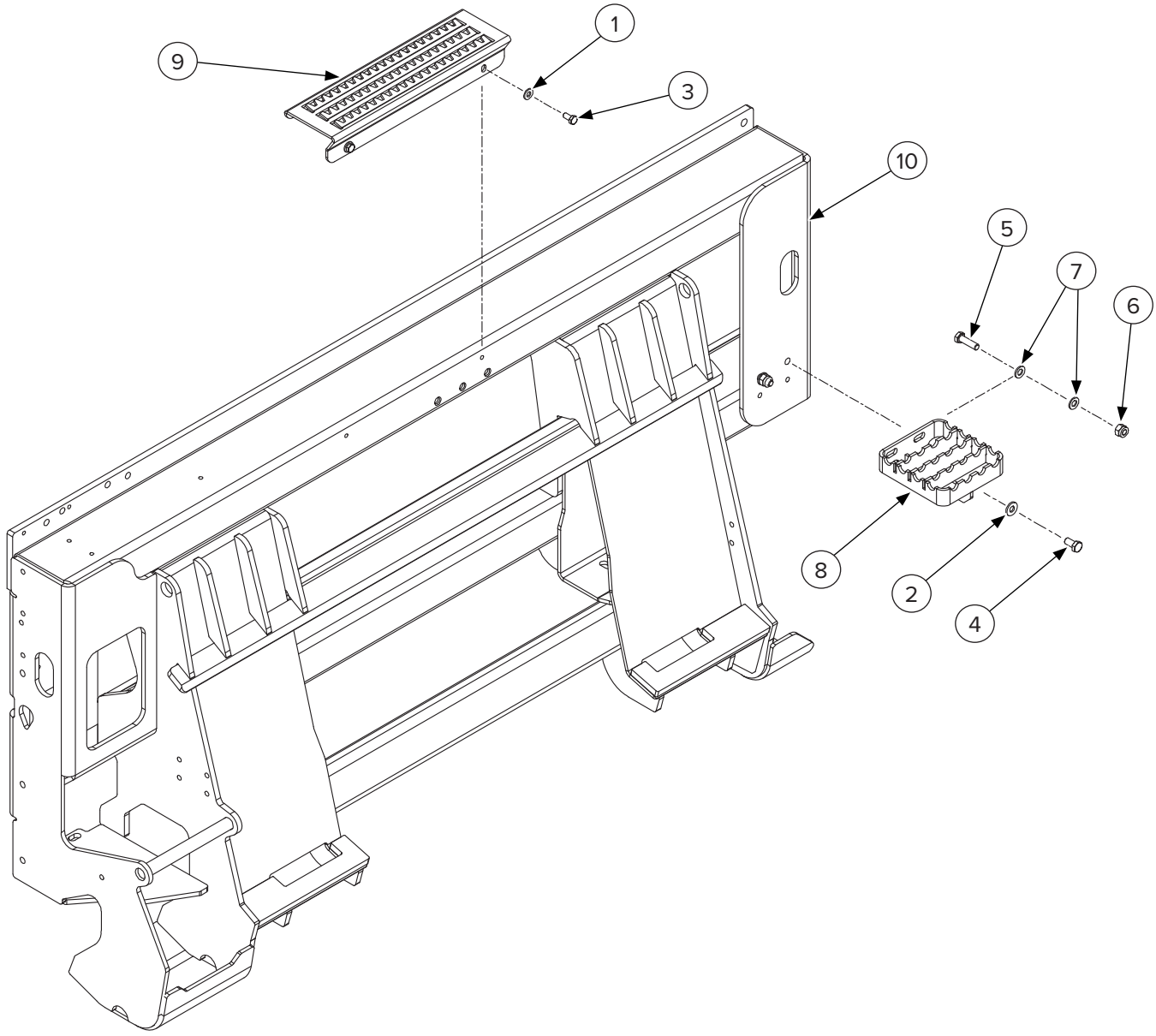
7.11 *Sideshift Components — Both Models*



ITEM	PART NUMBER	DESCRIPTION	QTY
1	260822	Cylinder Retract Hose with Sleeve 750 mm OAL 1/4” ID Straight Female #6 O–Ring Face Seal to 90 Degree Female #6 O–Ring Face Seal	1
2	—	Cylinder Extend Hose with Sleeve 1/4” ID Straight Female #6 O–Ring Face Seal to 90 Degree Female #6 O–Ring Face Seal	1
3	261176	Cylinder 60 mm Bore x 30 mm Rod x 465 mm Stroke x 1005 mm Retracted Length with 207 mm Extended Rod	1
4	260847	M30 x 1.5 mm x 11 mm Nut Nylon Insert Bearing Locknut	2

7. Parts

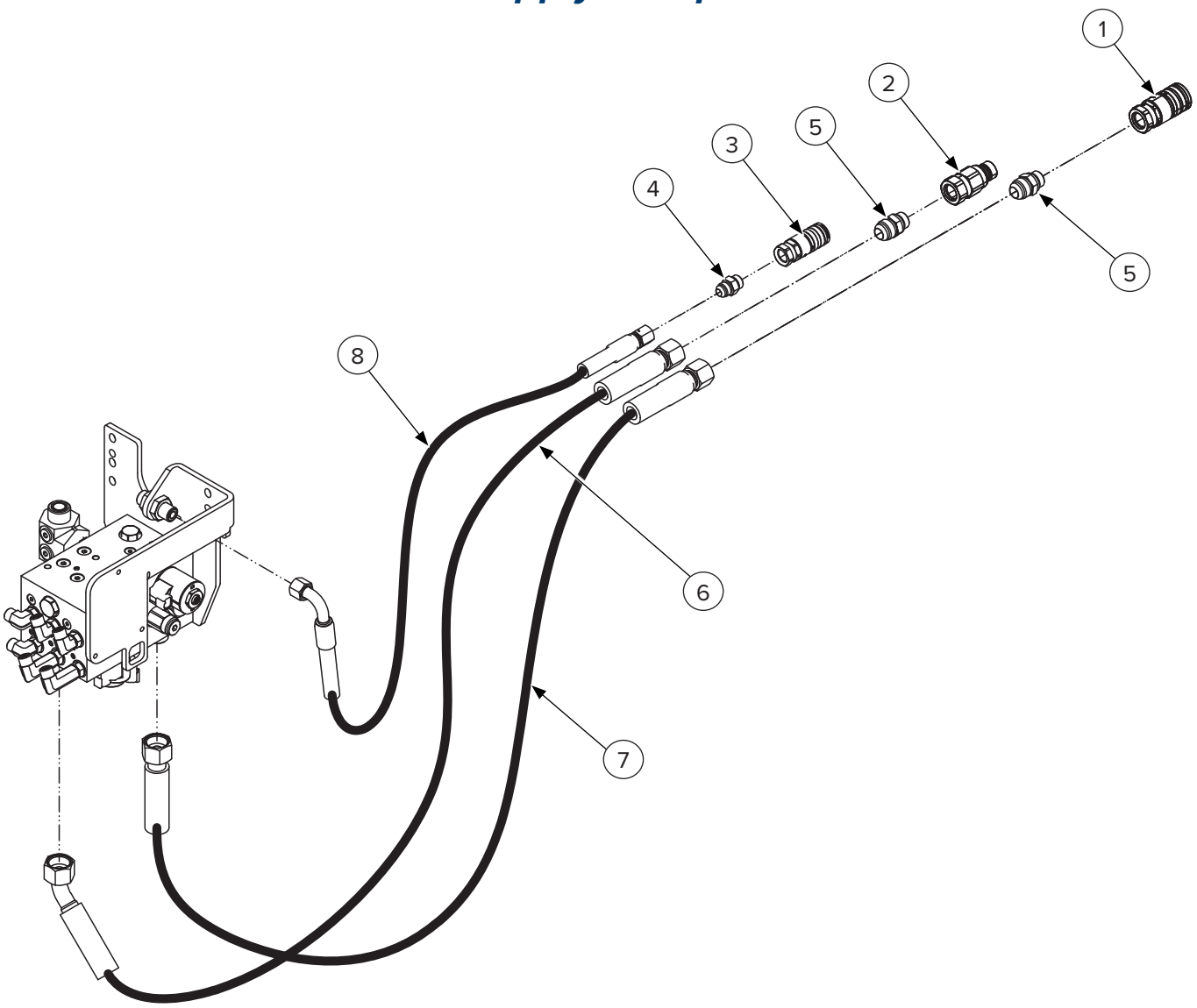
7.12 *Left Side Mount Components — Both Models*



ITEM	PART NUMBER	DESCRIPTION	QTY
1	—	M8 Spring Lock Washer DIN 6796	2
2	—	M10 Spring Lock Washer DIN 6796	1
3	—	M8 x 1.25 mm x 16 mm Bolt Hex Head Fully Threaded	2
4	—	M10 x 1.5 mm x 20 mm Bolt Hex Head Fully Threaded	1
5	—	M10 x 1.5 mm x 35 mm Bolt Hex Head Fully Threaded	2
6	—	M10 x 1.5 mm Nylock Nut DIN 982	2
7	—	M10 Flat Washer UNI 6592	4
8	260720	Side Step Weldment	1
9	260730	Top Step Weldment	1
10	—	Mount Weldment	1

7. Parts

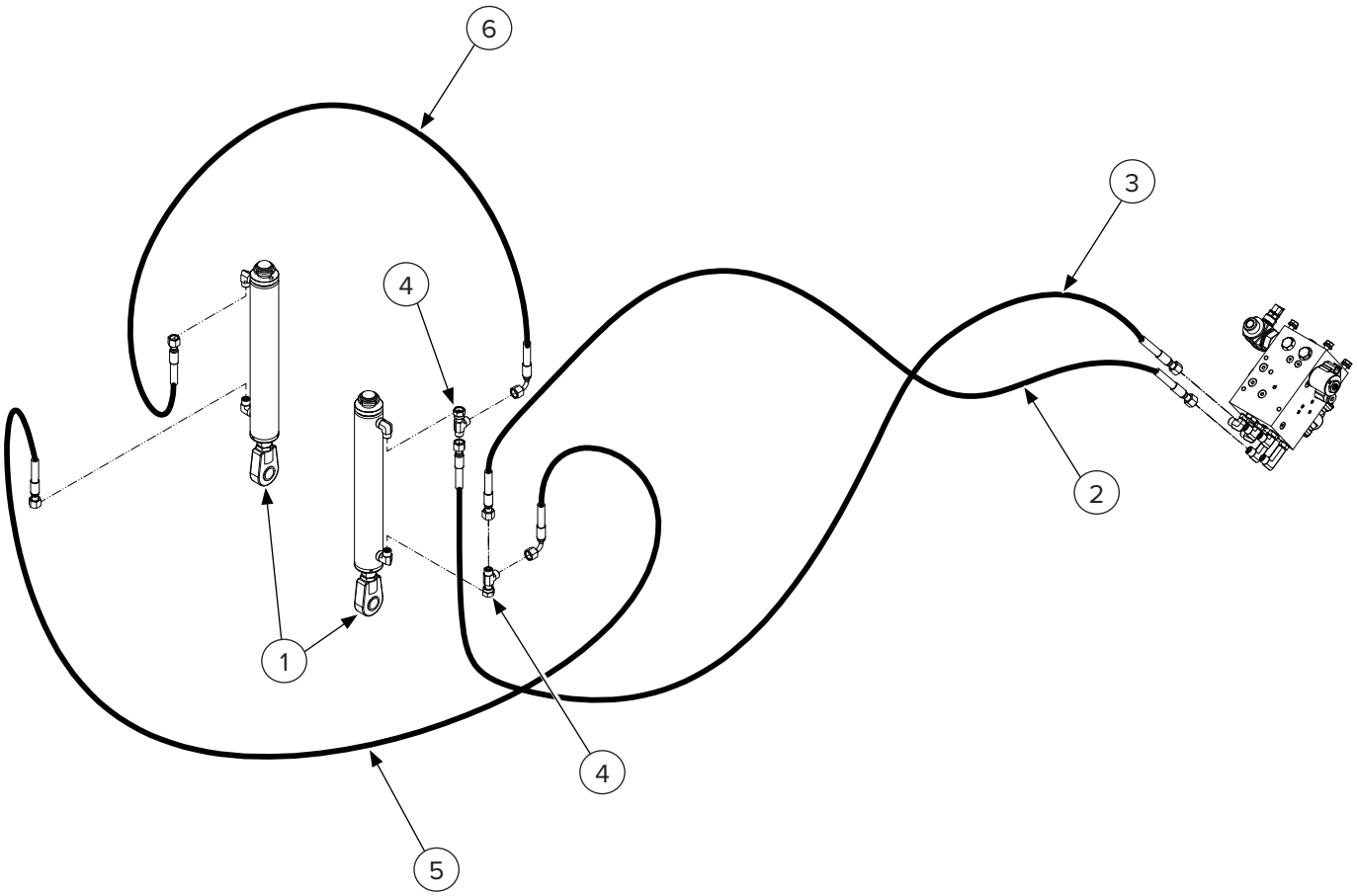
7.13 *Machine Hoses Left Supply Components — Both Models*



ITEM	PART NUMBER	DESCRIPTION	QTY
1	—	Coupler, Female Flat Face Straight 1/2” Body Female #10 O–Ring Boss	1
2	—	Coupler, Male Flat Face Straight 1/2” Body Female #10 O–Ring Boss	1
3	224060	Coupler, Female Flat Face Straight 3/8” Body Female #8 O–Ring Boss	1
4	295010-M08JIC-M08ORB	Hydraulic Straight Fitting Male #8 JIC to Male #8 O–Ring Boss	1
5	295010-M12JIC-M10ORB	Hydraulic Straight Fitting Male #12 JIC to Male #10 O–Ring Boss	2
6	—	Machine Hose	1
7	—	Machine Hose	1
8	260787	Case Drain Machine Hose 260 mm OAL 1/2” ID 90 Degree Female #8 O–Ring Face Seal Swivel to Female #8 JIC Swivel	1

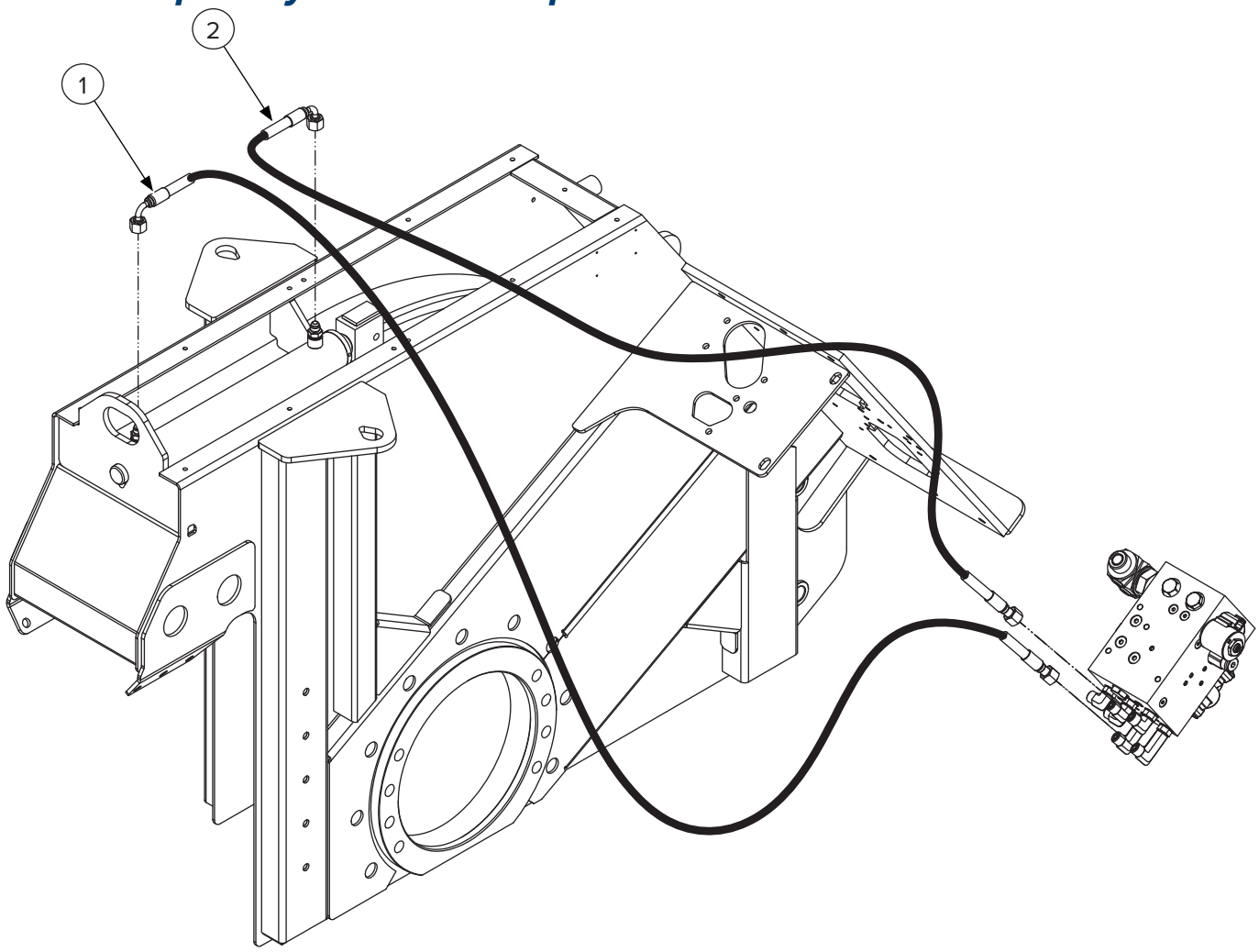
7. Parts

7.14 *Depth Components — Both Models*



ITEM	PART NUMBER	DESCRIPTION	6” – 17” QTY	8” – 24” QTY
1	261174	Depth Cylinder 50 mm Bore x 30 mm Rod x 300 mm Stroke x 531 mm Retracted Length	2	—
	261197	Depth Cylinder 50 mm Bore x 30 mm Rod x 400 mm Stroke x 605 Retracted Length	—	2
2	—	Block to Depth Cylinder Retract Hose	1	1
3	—	Block to Depth Cylinder Extend Hose	1	1
4	—	Hydraulic Run Tee Fitting Female #6 ORFS to Male #6 ORFS to Male #6 ORFS	2	2
5	—	Left to Right Depth Cylinder Body Side Hose	1	1
6	—	Left to Right Depth Cylinder Rod Side Hose	1	—
	—	Left to Right Depth Cylinder Rod Side Hose	—	1

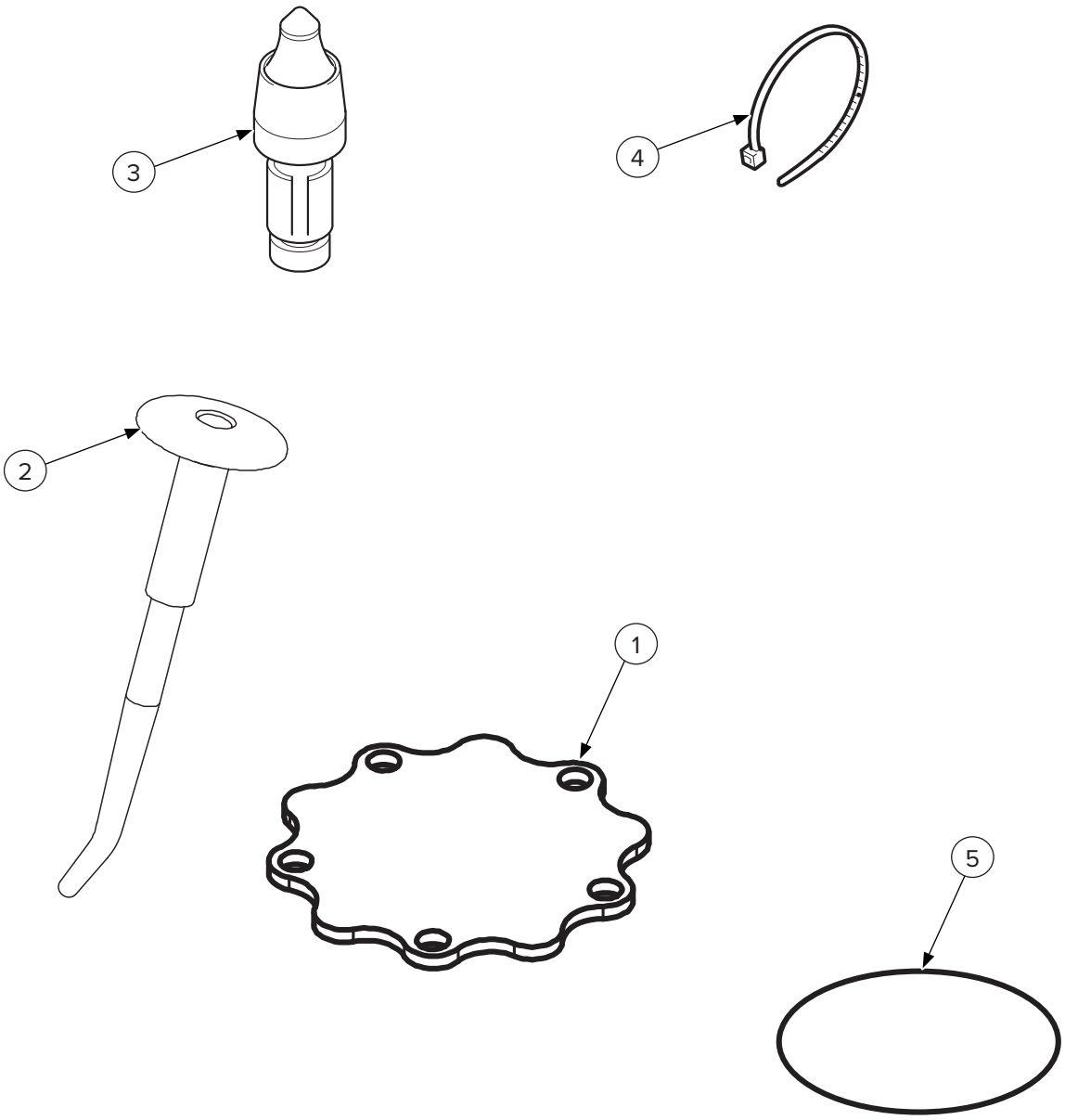
7.15 *Scraper Hydraulic Components*



ITEM	PART NUMBER	DESCRIPTION	6” – 17” QTY	8” – 24” QTY
1	260833	Scraper Cylinder Extend Hose with Sleeve 750 mm OAL 1/4” ID Straight Female #6 O–Ring Face Seal to 90 Degree Female #6 O–Ring Face Seal	1	—
	—	Scraper Cylinder Extend Hose with Sleeve 1/4” ID Straight Female #6 O–Ring Face Seal to 90 Degree Female #6 O–Ring Face Seal	—	1
2	—	Scraper Cylinder Retract Hose with Sleeve 1/4” ID Straight Female #6 O–Ring Face Seal to 90 Degree Female #6 O–Ring Face Seal	1	—
	—	Scraper Cylinder Retract Hose with Sleeve 1/4” ID Straight Female #6 O–Ring Face Seal to 90 Degree Female #6 O–Ring Face Seal	—	1

7. Parts

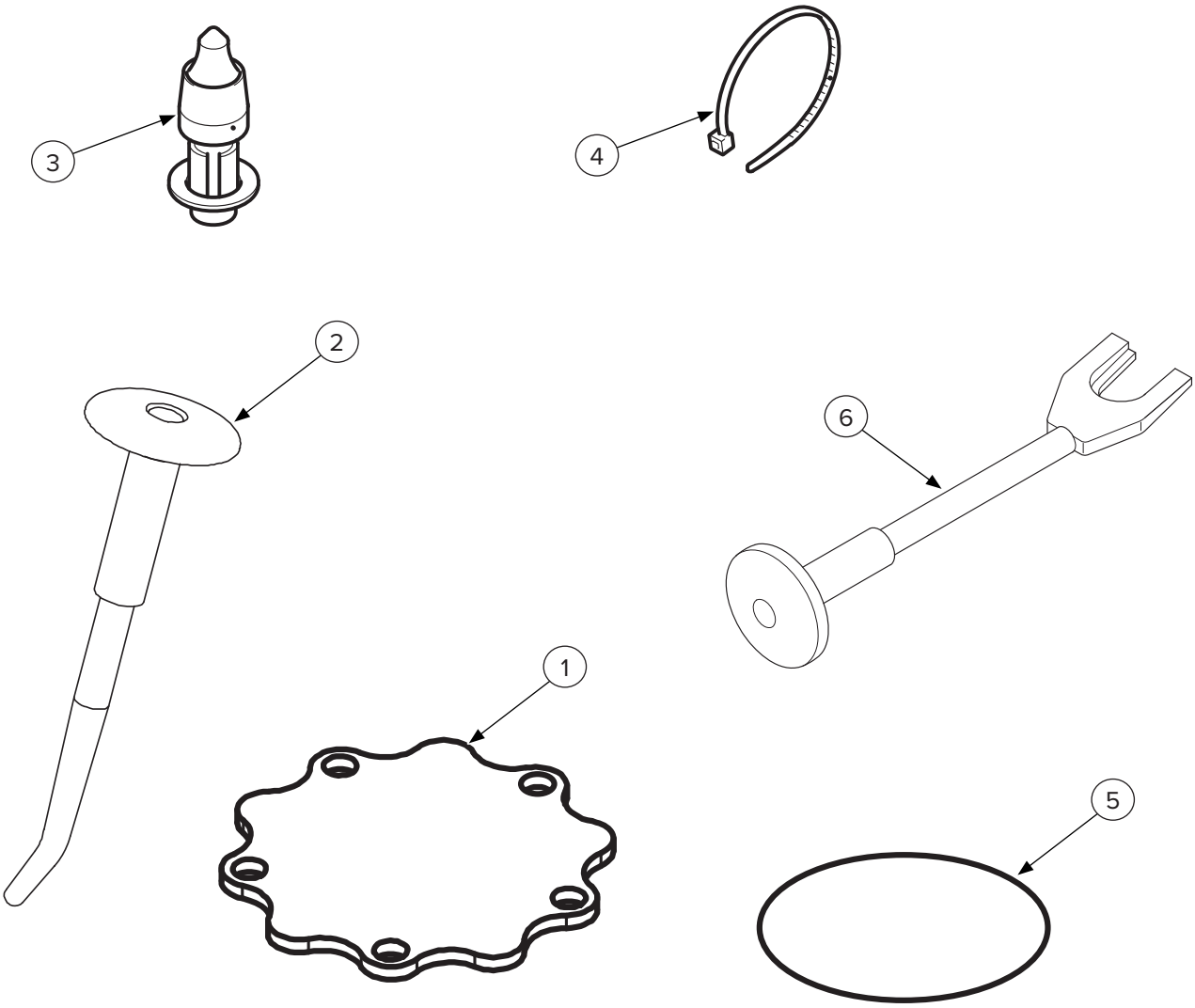
7.16 *Tool Kit Components for 2” Width ONLY*



ITEM	PART NUMBER	DESCRIPTION	6” – 17” QTY
1	261167	Motor Cover 8mm Thick Zinc Plated	1
2	261166	Tooth Removal Pick Tool for 13 mm Shank	1
3	—	Asphalt Tooth 13 mm Shank	10
4	—	Zip Tie 375 mm x 9 mm	6
5	261177	Motor Cover O–Ring 145.72 mm x 2.62 mm	1

7. Parts

7.17 *Tool Kit Components for 3 1/4” – 8” Width, Both Models*



ITEM	PART NUMBER	DESCRIPTION	6” – 17” QTY
1	261167	Motor Cover 8 mm Thick Zinc Plated	1
2	261192	Tooth Removal Pick Tool for 20 mm Shank	1
3	—	Concrete Tooth 20 mm Shank	10
4	—	Zip Tie 375 mm x 9 mm	6
5	261177	Motor Cover O–Ring 145.72 mm x 2.62 mm	1
6	261191	Tooth Removal Fork Tool for 20 mm Shank	1

7. Parts

7.18 *Safety Decals*

1
2

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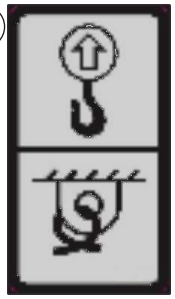

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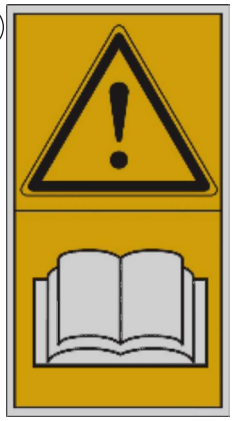

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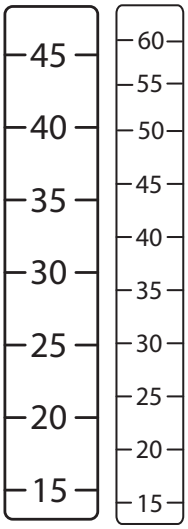


17

7. Parts

7.18 *Safety Decals Cont'd*

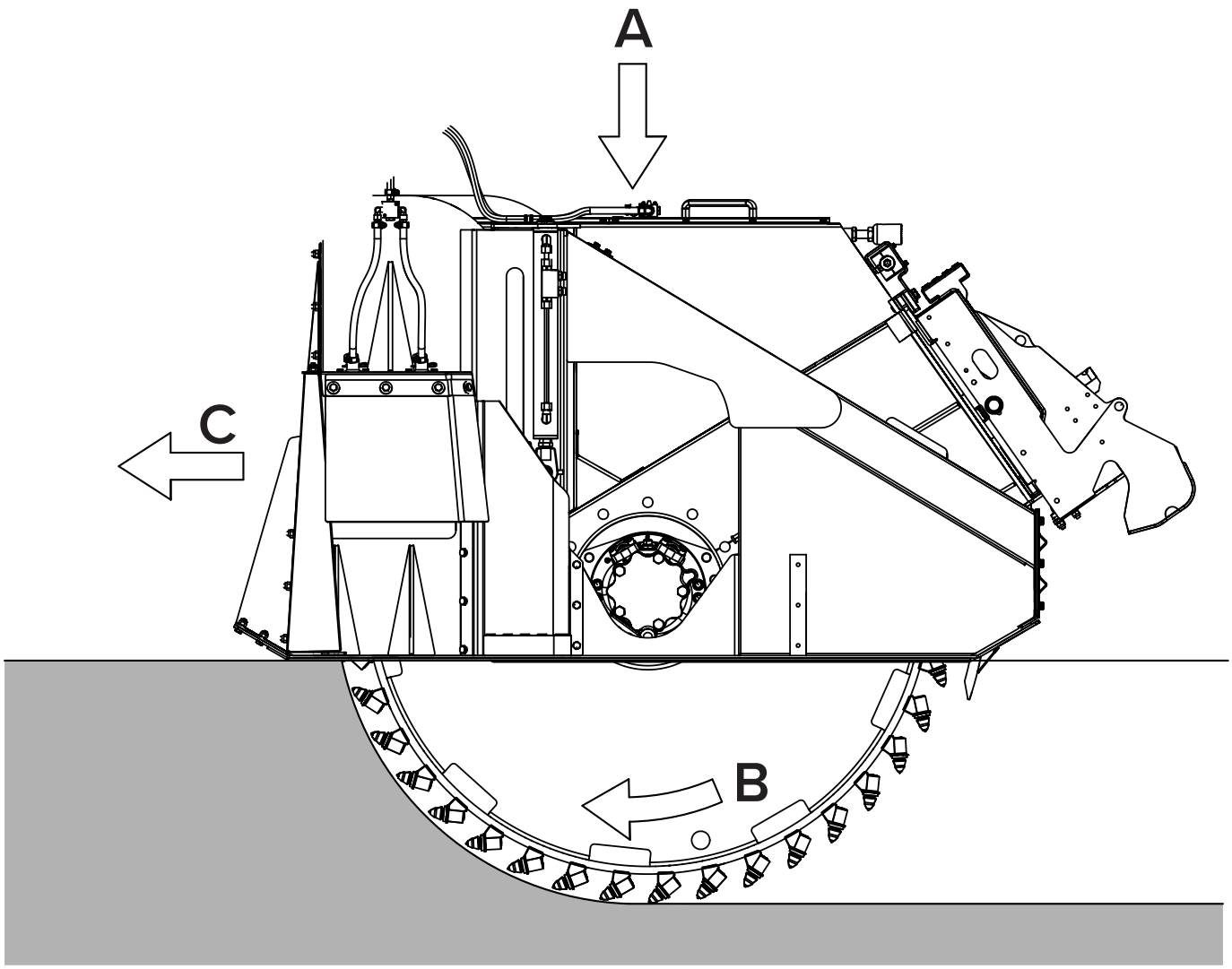
ITEM	PART NUMBER	DESCRIPTION	QTY
1	BD-060	Decal, Blue Diamond Attachments 2.4375" x 2.375"	2
2	BD-111	Decal, Blue Diamond Attachments, Diamond Shape 7.75" x 6.0"	1
3	BD-092	Decal, Warranty Registration QR Code 1.5" x 2"	1
4	BD-001	Decal, Read Owners Manual 3" x 3"	1
5	BD-123	Decal, High Pressure Fluid Hazard 3" x 3"	1
6	BD-004	Decal, Grease All Fittings Every 8 Hours 2" x 4"	1
7	260705	Decal, Crush Hazard – Stay Clear	2
8	260708	Decal, Lift Point	4
9	260701	Decal, Wear Personal Protective Equipment (PPE)	1
10	260703	Decal, Read Manual	1
11	260706	Decal, Turn Off and Remove Key Before Maintenance	1
12	260702	Decal, Flying Objects – Stay Clear	2
13	260704	Decal, Stay Clear of Rotating Parts	1
14	260709	Decal, Rotating Drum	2
15	260700	Decal, Not a Step	1
16	261041	10" Depth Indicator Decal	1
	261042	18" Depth Indicator Decal	
17	BD-057	Decal, Blue Diamond 2.9" x 17.364"	2

CAUTION

Always heed the warnings on the plates and decals/stickers. Failure to do so may result in death or serious injury. Make sure the plates and decals/stickers are always in place and legible. If this is not the case, affix or replace them, obtaining materials required from Blue Diamond®.

8. Specifications

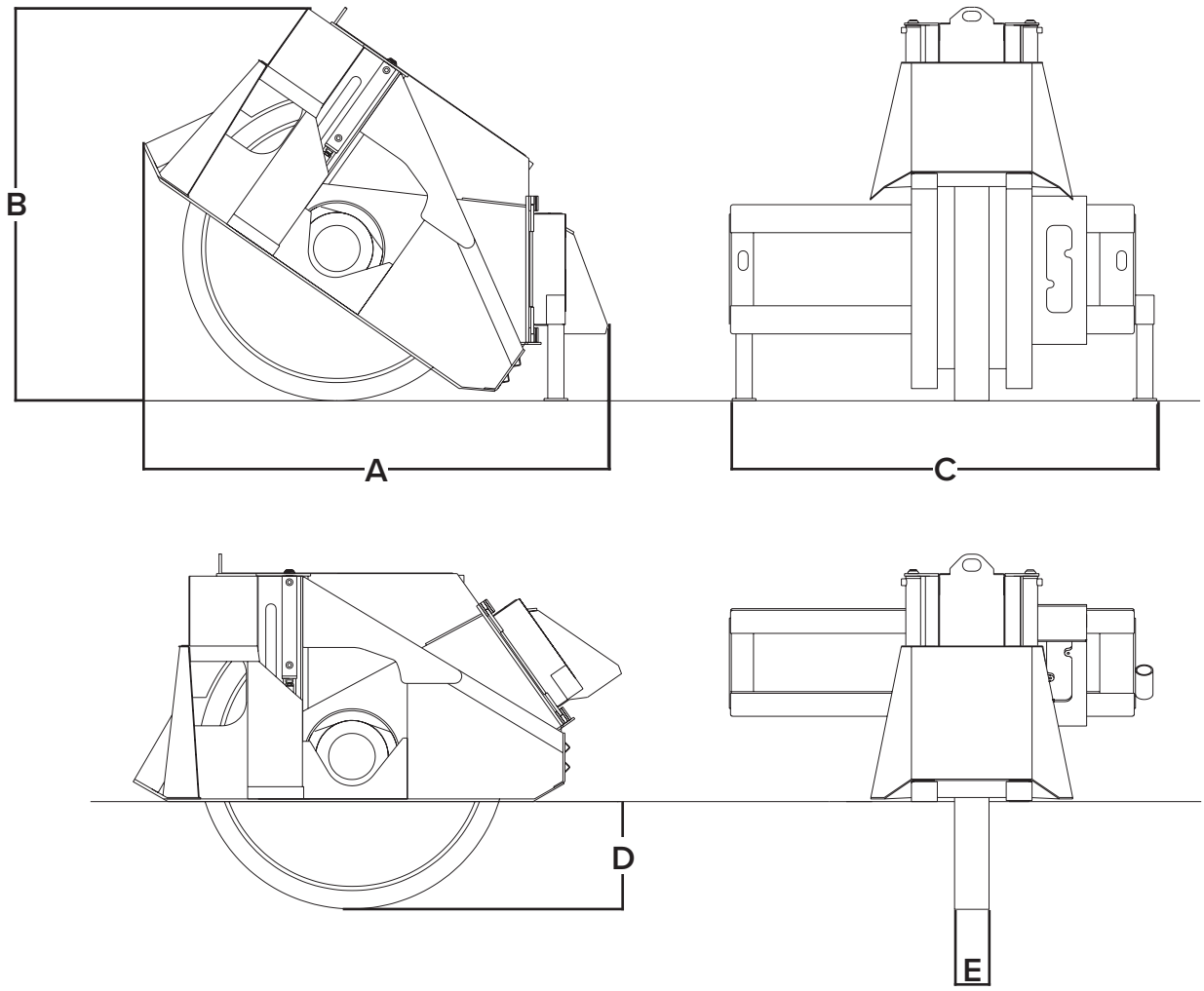
8.1 *Attachment Specifications*



ALL MODELS	
A	Ground Gripping Force
B	Rotation Direction of the Cutting Wheel
C	Forward Motion

8. Specifications

8.1 *Attachment Specifications Cont'd*



8. Specifications

8.1 *Attachment Specifications Cont'd*

DESCRIPTION	36112*	36113*
Overall Length (A)	75 in. 1900 mm	84 in. 2130 mm
Overall Height (B)	65 in. 1650 mm	76 in. 1930 mm
Overall Width (C)	68 1/2 in. 1740 mm	68 1/2 in. 1740 mm
Maximum Cutting Depth (D)	17 in. 440 mm	24 in. 600 mm
Cutting Width (E) (All Options Listed)	2 – 3 1/4 – 4 in. 50 – 80 – 100 mm	3 1/4 – 4 in. 80 – 100 mm
	5 — 6 1/4 – 8 in. 130 – 160 – 200 mm	5 — 6 1/4 – 8 in. 130 – 160 – 200 mm
Operating Pressure	2320 – 4350 PSI 160 — 300 bar	2320 – 4350 PSI 160 — 300 bar
Oil Flow	21 – 42 GPM 80 – 160 l/min	24 – 42 GPM 90 – 160 l/min
Drum Speed	55 – 110 rpm	55 – 95 rpm
Max. Hydraulic Motor Power	48 kW	48 kW
	65 HP	65 HP
Weight*	2094 lbs 950 kg	2866 lbs 1300 kg

*Unit only – cutting wheel not included

Example of how to calculate the hydraulic motor power:

Imperial Units

$$\frac{\text{Q (GPM)} \times \text{P (PSI)}}{1{,}714} = \text{A (HP)}$$

Metric Units

$$\frac{\text{Q (l / min)} \times \text{P (bar)}}{450} = \text{A (kW)}$$

Key
Q = Capacity P = Pressure A = Power

NOTE: The capacity and pressure rates stated in the equation above must be measured at exactly the same time, using a precision tool. The measurement must be carried out by a skilled person.

8. Specifications

8.2 *Torque Specifications*

Standard Hardware and Lock Nuts

BOLT TYPE	CLASS 4.8		CLASS 8.8 OR 9.8		CLASS 10.9		CLASS 12.9	
Size	Lubricated	Dry	Lubricated	Dry	Lubricated	Dry	Lubricated	Dry
M6	4.8 N•m	6 N•m	9 N•m	11 N•m	13 N•m	17 N•m	15 N•m	19 N•m
	3.5 lbf•ft	4.5 lbf•ft	6.5 lbf•ft	8.5 lbf•ft	9.5 lbf•ft	12 lbf•ft	11.5 lbf•ft	14.5 lbf•ft
M8	12 N•m	15 N•m	22 N•m	28 N•m	32 N•m	40 N•m	37 N•m	47 N•m
	8.5 lbf•ft	11 lbf•ft	16 lbf•ft	20 lbf•ft	24 lbf•ft	30 lbf•ft	28 lbf•ft	35 lbf•ft
M10	23 N•m	29 N•m	43 N•m	55 N•m	63 N•m	80 N•m	75 N•m	95 N•m
	17 lbf•ft	21 lbf•ft	32 lbf•ft	40 lbf•ft	47 lbf•ft	60 lbf•ft	55 lbf•ft	70 lbf•ft
M12	40 N•m	50 N•m	75 N•m	95 N•m	110 N•m	140 N•m	130 N•m	165 N•m
	29 lbf•ft	37 lbf•ft	55 lbf•ft	70 lbf•ft	80 lbf•ft	105 lbf•ft	95 lbf•ft	120 lbf•ft
M14	63 N•m	80 N•m	120 N•m	150 N•m	175 N•m	225 N•m	205 N•m	260 N•m
	47 lbf•ft	60 lbf•ft	88 lbf•ft	110 lbf•ft	130 lbf•ft	165 lbf•ft	150 lbf•ft	190 lbf•ft
M16	135 N•m	175 N•m	260 N•m	330 N•m	375 N•m	475 N•m	440 N•m	560 N•m
	100 lbf•ft	125 lbf•ft	195 lbf•ft	250 lbf•ft	275 lbf•ft	350 lbf•ft	325 lbf•ft	410 lbf•ft
M18	135 N•m	175 N•m	260 N•m	330 N•m	375 N•m	475 N•m	440 N•m	560 N•m
	100 lbf•ft	125 lbf•ft	195 lbf•ft	250 lbf•ft	275 lbf•ft	350 lbf•ft	325 lbf•ft	410 lbf•ft
M20	190 N•m	240 N•m	375 N•m	475 N•m	530 N•m	675 N•m	625 N•m	800 N•m
	140 lbf•ft	180 lbf•ft	275 lbf•ft	350 lbf•ft	400 lbf•ft	500 lbf•ft	460 lbf•ft	580 lbf•ft
M22	260 N•m	330 N•m	510 N•m	650 N•m	725 N•m	925 N•m	850 N•m	1075 N•m
	190 lbf•ft	250 lbf•ft	375 lbf•ft	475 lbf•ft	540 lbf•ft	675 lbf•ft	625 lbf•ft	800 lbf•ft
M24	330 N•m	425 N•m	650 N•m	825 N•m	925 N•m	1150 N•m	1075 N•m	1350 N•m
	250 lbf•ft	310 lbf•ft	475 lbf•ft	600 lbf•ft	675 lbf•ft	850 lbf•ft	800 lbf•ft	1000 lbf•ft
M27	490 N•m	625 N•m	950 N•m	1200 N•m	1350 N•m	1700 N•m	1600 N•m	2000 N•m
	360 lbf•ft	450 lbf•ft	700 lbf•ft	875 lbf•ft	1000 lbf•ft	1250 lbf•ft	1150 lbf•ft	1500 lbf•ft
M30	675 N•m	850 N•m	1300 N•m	1650 N•m	1850 N•m	2300 N•m	2150 N•m	2700 N•m
	490 lbf•ft	625 lbf•ft	950 lbf•ft	1200 lbf•ft	1350 lbf•ft	1700 lbf•ft	1600 lbf•ft	2000 lbf•ft
M33	900 N•m	1150 N•m	1750 N•m	2200 N•m	2500 N•m	3150 N•m	2900 N•m	3700 N•m
	675 lbf•ft	850 lbf•ft	1300 lbf•ft	1650 lbf•ft	1850 lbf•ft	2350 lbf•ft	2150 lbf•ft	2750 lbf•ft
M36	1150 N•m	1450 N•m	2250 N•m	2850 N•m	3200 N•m	4050 N•m	3750 N•m	4750 N•m
	850 lbf•ft	1075 lbf•ft	1650 lbf•ft	2100 lbf•ft	2350 lbf•ft	3000 lbf•ft	2750 lbf•ft	3500 lbf•ft

8. Specifications

8.2 *Torque Specifications Cont'd*

Tightening Torques for Hose Fittings

DASH SIZE	BSPP DIAMETER	TORQUE
#4	1/4"	35 N•m
		26 lbf•ft
#6	3/8"	70 N•m
		52 lbf•ft
#8	1/2"	100 N•m
		74 lbf•ft
#12	3/4"	190 N•m
		140 lbf•ft
#16	1"	300 N•m
		221 lbf•ft
#20	1 1/4"	330 N•m
		243 lbf•ft
#24	1 1/2"	400 N•m
		295 lbf•ft

DASH SIZE	"W" (inch) DIAMETER	TORQUE
#6	9/16"	30 N•m
		22 lbf•ft
#8	3/4"	50 N•m
		37 lbf•ft
#10	7/8"	70 N•m
		52 lbf•ft
#12	1 1/16"	100 N•m
		74 lbf•ft
#14	1 3/16"	130 N•m
		96 lbf•ft
#16	1 5/16"	145 N•m
		107 lbf•ft
#20	1 5/8"	190 N•m
		140 lbf•ft
#24	1 7/8"	240 N•m
		177 lbf•ft

8.2 *Torque Specifications Cont'd*

Tightening Torques for Hoses

With ORFS Fittings

DASH SIZE	"W" (inch) DIAMETER	TORQUE
#4	9/16"	25 N•m
		18 lbf•ft
#6	11/16"	40 N•m
		30 lbf•ft
#8	13/16"	55 N•m
		41 lbf•ft
#10	1"	100 N•m
		74 lbf•ft
#12	1 3/16"	125 N•m
		92 lbf•ft
#16	1 7/16"	165 N•m
		122 lbf•ft
#20	1 11/16"	200 N•m
		148 lbf•ft
#24	2"	245 N•m
		181 lbf•ft

With JIC 37° Fittings

DASH SIZE	"W" (inch) DIAMETER	TORQUE
#6	9/16"	30 N•m
		22 lbf•ft
#8	3/4"	50 N•m
		37 lbf•ft
#10	7/8"	70 N•m
		52 lbf•ft
#12	1 1/16"	100 N•m
		74 lbf•ft
#14	1 3/16"	130 N•m
		96 lbf•ft
#16	1 5/16"	145 N•m
		107 lbf•ft
#20	1 5/8"	190 N•m
		140 lbf•ft
#24	1 7/8"	240 N•m
		177 lbf•ft

With BSPP Fittings

DASH SIZE	"W" (inch) DIAMETER	TORQUE
#4	1/4"	15 N•m
		11 lbf•ft
#6	3/8"	28 N•m
		21 lbf•ft
#8	1/2"	60 N•m
		44 lbf•ft
#10	5/8"	70 N•m
		52 lbf•ft
#12	3/4"	110 N•m
		81 lbf•ft
#16	1"	140 N•m
		103 lbf•ft
#20	1 1/4"	190 N•m
		140 lbf•ft
#24	1 1/2"	245 N•m
		181 lbf•ft

Warranty

MANUFACTURER'S LIMITED WARRANTY

BLUE DIAMOND® ATTACHMENTS, a manufacturer of quality attachments, warrants new BLUE DIAMOND® ATTACHMENTS products and/or attachments at the time of delivery to the original purchaser, to be free from defects in material and workmanship when properly set up and operated in accordance with the recommendations set forth by BLUE DIAMOND® ATTACHMENTS, LLC.

BLUE DIAMOND® ATTACHMENTS liability for any defect with respect to accepted goods shall be limited to repairing the goods at a BLUE DIAMOND® ATTACHMENTS designated location or at an authorized dealer location, or replacing them, as BLUE DIAMOND® ATTACHMENTS shall elect. The above shall be in accordance with BLUE DIAMOND® ATTACHMENTS warranty adjustment policies. BLUE DIAMOND® ATTACHMENTS obligation shall terminate twelve (12) months for the Extreme Duty Road Saw after the delivery of the goods to original purchaser.

This warranty shall not apply to any machine or attachment which shall have been repaired or altered outside the BLUE DIAMOND® ATTACHMENTS factory or authorized BLUE DIAMOND® ATTACHMENTS dealership or in any way so as in BLUE DIAMOND® ATTACHMENTS judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident beyond the company recommended machine rated capacity.

WARRANTY CLAIM

To submit a warranty claim, a claim must be filed with BLUE DIAMOND® ATTACHMENTS before work is performed. The BLUE DIAMOND® PRODUCT SUPPORT TEAM will advise repairs and applicable parts exchanges. Tampering with the failed part may void the warranty. This warranty does not include freight or delivery charges incurred when returning machinery for servicing. Dealer mileage, service calls, and pickup/delivery charges are the customers' responsibility.

EXCLUSIONS OF WARRANTY

Except as otherwise expressly stated herein, BLUE DIAMOND® ATTACHMENTS makes no representation or warranty of any kind, expressed or implied, AND MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO ITS MACHINERY AND/OR ATTACHMENTS ARE FIT FOR ANY PARTICULAR PURPOSE. BLUE DIAMOND® ATTACHMENTS shall not be liable for incidental or consequential damages for any breach or warranty, including but not limited to inconvenience, rental of replacement equipment, loss of profits or other commercial loss. Upon purchase, the buyer assumes all liability for all personal injury and property resulting from the handling, possession, or use of the goods by the buyer.

No agent, employee, or representative of BLUE DIAMOND® ATTACHMENTS has any authority to bind BLUE DIAMOND® ATTACHMENTS to any affirmation, representation, or warranty concerning its machinery and/or attachments except as specifically set forth herein.

This warranty policy supersedes any previous documents. Please see bluediamondattachments.com/warranty-policies for the most up to date warranty information.

NOTE: Blue Diamond® Attachments is a trademark of BLUE DIAMOND® ATTACHMENTS

QUALITY | DEPENDABILITY | INTEGRITY

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