

GENESIS[®]

The Promise of Performance.

Severe-Duty Grapple (GSD)

SAFETY, OPERATOR'S & PARTS MANUAL



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PREFACE

To ensure years of safe, dependable service, only trained and authorized persons should operate and service your Genesis attachment. It is the responsibility of the product's owner to ensure the operator is trained in the safe operation of the product and has available this manual for review. It is the responsibility of the operator and maintenance personnel to read, fully understand and follow all operational and safety-related instructions in this manual. The attachment should not be operated until you have read and fully understand these instructions. Always use good safety practices to protect yourself and those around you.

Important

This operator's manual must accompany the attachment at all times and be readily available to the operator.

Manual Replacement

Should this manual become damaged or lost or if additional copies are required, immediately contact any authorized Genesis dealer or the Genesis Service Department at 888-743-2748 or 715-395-5252 for a replacement.

Registration Form

The Warranty Registration Form must be filled out by the dealer or customer and returned to Genesis indicating the date the attachment went into service.

Possible Variations

Genesis cannot anticipate every possible circumstance that might involve a potential hazard as the owner's requirements and equipment may vary. Therefore, the warnings in this publication and on the product may not be all-inclusive, and you must satisfy yourself that the procedure, application, work method or operating technique is safe for you and others before operating.

Public Notice

Genesis reserves the right to make changes and improvements to its products and technical literature at any time without public notice or obligation. Genesis also reserves the right to discontinue manufacturing any product at its discretion at any time.

Warranty

All work or repairs to be considered for warranty reimbursement must be pre-authorized by the Genesis Service Department. Any alterations, modifications or repairs performed before authorization by the Genesis Service Department will render all warranty reimbursement consideration null and void without exception. See page 23 for Warranty Claim Procedures.

Improper operation or improperly performed maintenance may render any warranty null and void.

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SAFETY STATEMENTS



This symbol by itself or used with a safety signal word throughout this manual is used to call attention to instructions involving your personal safety or the safety of others. Failure to follow these instructions can result in injury or death.



This statement is used where serious injury or death will result if the instructions are not followed properly.



This statement is used where serious injury or death could result if the instructions are not followed properly.



This statement is used where minor or moderate injury could result if the instructions are not followed properly.

NOTICE

This statement is used where property damage could result if the instructions are not followed properly.

OPERATIONAL SAFETY

Read Manual Before Operating or Maintaining the Attachment



Read this manual before attempting to operate the attachment. This operator's manual should be regarded as part of the attachment. For proper installation, operation and maintenance of the attachment, operators and maintenance personnel must read this manual.



WARNING

Serious injury or death could result if appropriate protective clothing and safety devices are not used.

Personal Protection

Use protective clothing and safety devices appropriate for the working conditions. These may include but are not limited to:

- ✓ Hard hat
- ✓ Safety glasses, goggles or face shield
- ✓ Hearing protection
- ✓ Safety shoes
- ✓ Heavy gloves
- ✓ Reflective clothing
- ✓ Respirator or filter mask



Safety matters

Know Your Equipment



Know your attachment's capabilities, dimensions and functions before operating. Inspect your attachment before operating and never operate an attachment that is not in proper working order. Remove and replace any damaged or worn parts.

Before Operating

- ✓ Warn all others in the area that you are about to start operation.
- ✓ Perform the "Check the Equipment" steps outlined in this manual.
- ✓ Check underneath and around the machine. Make sure all personnel and equipment are clear from the area of operation and equipment movement. Check clearances in all directions, including overhead.
- ✓ Be properly seated in the operator's seat.
- ✓ Do not attempt to operate until you have read and fully understand this manual and the OEM manual for the carrier.

OPERATIONAL SAFETY

Check the Equipment

Before use, check the equipment to ensure it is in good operating condition.

Check the following:

- ✓ Grease fittings. Pump grease at all fitting locations.
- ✓ Hydraulic fluid level. Add hydraulic fluid as required.
- ✓ All control levers for proper operation.
- ✓ Warning decals, special instructions and operators manuals. Make sure they are legible and in the proper location. All control levers for proper operation.



**GOOD
CONDITION**



WARNING

Serious injury or death could result if warnings or instructions regarding carrier stability and the work area are not followed properly.

Stability

Your Genesis attachment is sized for carrier stability. However, improper operation, faulty maintenance or unauthorized modifications may cause instability.

- ✓ Know the working ranges and capacities of the carrier to avoid tipping.
- ✓ Use the recommended carrier counter weight.

The following conditions affect stability:

- Ground conditions
- Grade
- Weight of attachment
- Contents of attachment
- Operator judgment



OPERATIONAL SAFETY

Know the Work Area

Check clearances in the work area. Keep all bystanders at a safe distance. Do not work under obstacles. Always check your location for overhead and buried power lines or other utilities before operation.

Check ground conditions. Avoid unstable or slippery areas. Position the carrier on firm level ground. If level ground is not possible, position the carrier to use the attachment to the front or back of the carrier. Avoid working over the side of the carrier.

To reduce the risk of tipping and slipping, never park on a grade exceeding 10% (one-foot rise over the span of a ten-foot run).

Starting Procedure

Before operating, walk completely around the equipment to make certain no one is under it, on it or close to it. Keep all bystanders at least 75 feet away from the area of operation and equipment movement. Let all other workers and bystanders know you are preparing to start. DO NOT operate until everyone is clear.

Always be properly seated in the operator's seat before operating any carrier controls.

To start:

- ✓ Make sure all controls are in the center (neutral) position.
- ✓ Be properly seated.
- ✓ Slowly operate all functions to check for proper operation and to bleed air from the hydraulic system.

To shut down:

- ✓ Return your Genesis attachment to a rest position on the ground.
- ✓ Shut off the carrier engine.
- ✓ Work controls in all directions to relieve hydraulic pressure, per excavator manufacturer's instructions.



WARNING

Serious injury or death could result if warnings or instructions regarding safe operation are not followed properly.

OPERATIONAL SAFETY

Safely Operate Equipment

Do not operate equipment until you are trained by a qualified operator in its use and capabilities.

See your carrier's manual for these instructions.

- ✓ Operate only from the operator's seat. Check the seat belt daily and replace if frayed or damaged.
- ✓ Do not operate this or any other equipment under the influence of drugs or alcohol. If you are taking prescription medication or over-the-counter drugs ask your medical provider whether you can safely operate equipment.
- ✓ Never leave equipment unattended with the engine running or with the attachment in a raised position. Apply the brakes before exiting the equipment.
- ✓ Do not exceed the lifting capacity of your carrier.
- ✓ Avoid conditions that can lead to tipping. The carrier can tip when operated on hills, ridges, banks and slopes. Avoid operating across a slope which could cause the carrier to overturn.
- ✓ Reduce speed when driving over rough terrain, on a slope, or when turning to avoid overturning the carrier.
- ✓ Never use the attachment as a work platform or personnel carrier.
- ✓ Keep all step plates, grab bars, pedals and controls free of dirt, grease, debris and oil.
- ✓ Never allow anyone to be around the equipment when it is operating.
- ✓ Do not operate poorly maintained or otherwise faulty equipment. Inform the proper authority and DO NOT resume operation until the problem has been fixed.
- ✓ Do not alter or remove any safety features.
- ✓ Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.
- ✓ A heavy load can cause equipment instability. Use extreme care during travel. Slow down on turns and watch out for bumps. The equipment may need additional counter-weights to counterbalance the weight of the attachment.



OPERATIONAL SAFETY

Transporting the Attachment

- ✓ Travel only with the attachment in a safe transport position to prevent uncontrolled movement. Drive slowly over rough ground and on slopes.
- ✓ When driving on public roads use safety lights, reflectors, Slow Moving Vehicle signs, etc., to prevent accidents. Check local government regulations that may affect you.
- ✓ Do not drive close to ditches, excavations, etc., as cave-in could result.
- ✓ Do not smoke when refueling the prime mover. Allow room in the fuel tank for expansion. Wipe up any spilled fuel. Secure cap tightly when done.

Equipment Condition

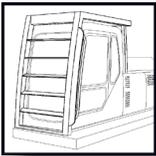
Never operate poorly maintained equipment. When maintenance is required, repair or replace parts immediately.



WARNING

Serious injury or death could result if warnings or instructions regarding working overhead are not followed properly.

Working Overhead



Avoid handling material overhead whenever possible. Safety glass and wire mesh cab guarding must be installed to protect the operator from flying debris that may be created during handling. Falling Object Protection Structures, or FOPS, are necessary for any application where material is to be handled overhead.



DANGER

Serious injury or death will result if warnings or instructions regarding power lines are not followed properly.

Power Lines

Do not operate the machine near energized power lines. All local, state/provincial and federal regulations must be met before approaching power lines, overhead or underground cables, or power sources of any kind with any part of the carrier or attachment. Always contact the appropriate utility when operating near power lines. The lines should be moved, insulated, disconnected or de-energized and grounded before operating in the area.



Current in high voltage lines may arc some distance from the wire to a nearby ground. Keep all parts of the machine at least 50 feet (16m) away from power lines.

OPERATIONAL SAFETY

Prioritized Oil Flow

Equipment operators must ensure there is prioritized oil flow to the main valves in overhead operations or high reach conditions.

Emergency Situations

Always be prepared for emergencies. Make sure a fire extinguisher is available. Be familiar with its operation. Make sure to inspect and service the fire extinguisher regularly. Make sure a first aid kit is readily available.



Unsafe Conditions

Do not operate if an unsafe condition exists. Stop operation immediately, shut down the machine and report the unsafe condition to the proper authority. Equipment operation and maintenance practices directly affect your safety and the safety of those around you. Always use common sense while operating and be alert to unsafe conditions.

Crystalline Silica Dust

It is recommended to use dust suppression, dust collection and if necessary, personal protective equipment during the operation of any attachment that may cause high levels of dust.



DANGER

Exposure to respirable crystalline silica dust along with other hazardous dusts may cause serious or fatal respiratory disease.

IMPORTANT: Concrete and masonry products contain silica sand. Quartz, which is a form of silica and the most common mineral in the Earth's crust, is associated with many types of rock.

Some activities that may have silica dust present in the air include demolition, sweeping, loading, sawing, hammering, drilling or planing of rock, concrete or masonry.

It is recommended to use dust suppression (such as water) or dust collection (such as a vacuum) along with personal protective equipment if necessary during the operation of any attachment that may cause high levels of silica dust.



OPERATIONAL SAFETY



WARNING

Using your Genesis attachment in unauthorized applications may create an unsafe situation and will void the warranty.

Process Material Safely

- Do not pull down structures with your Genesis attachment. Doing so may cause falling debris or material may break free and exceed the capacities of the carrier, causing a tipping hazard.

Lift the Load Safely

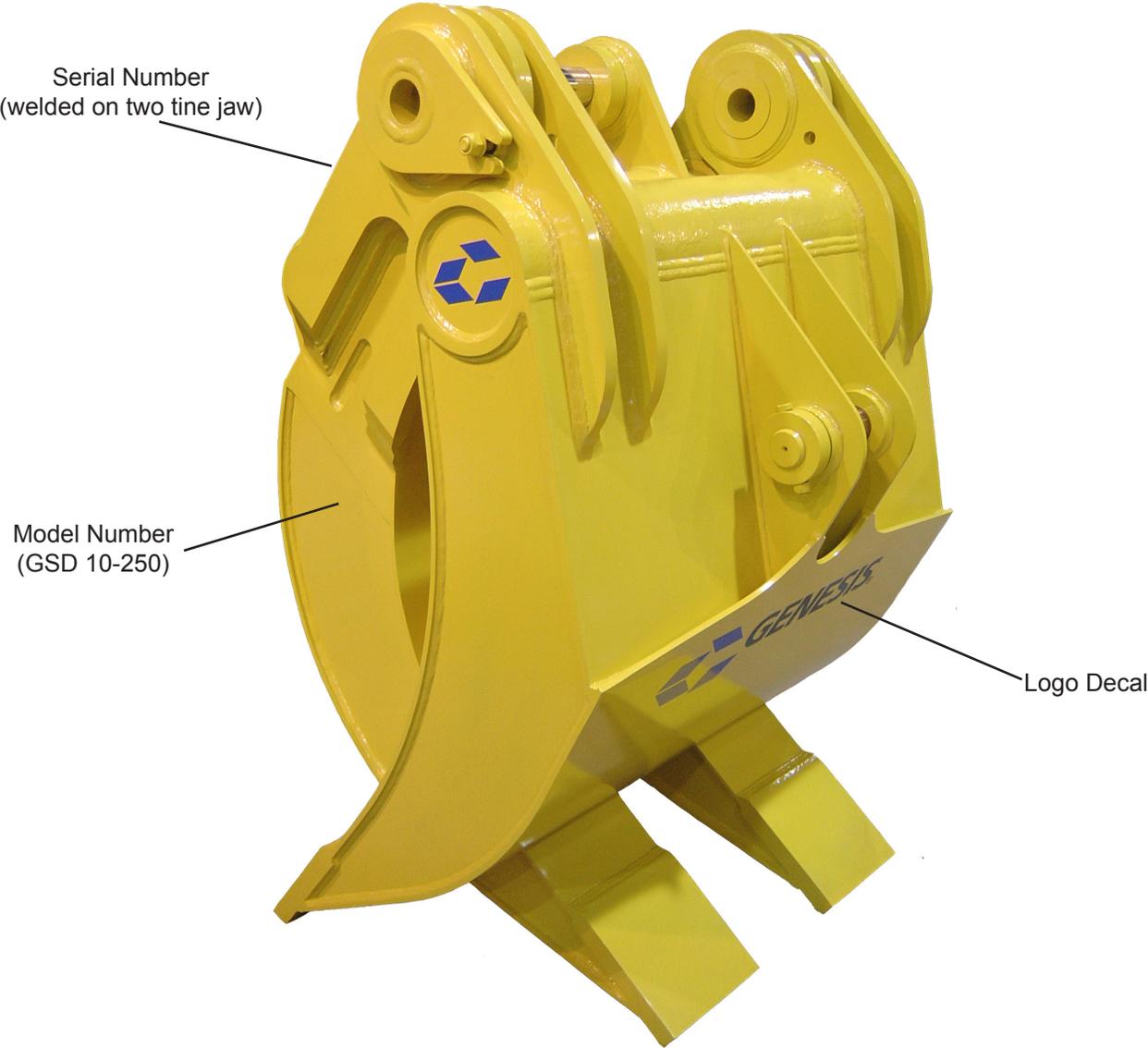
- Make sure the load is held securely in the jaws. Do not move a loaded attachment if the load is loose or dangling. Make sure the load is pinched between the jaws – never cradle a load.
- Use extra caution during reaching to avoid tipping.

Place the Load Safely

- Do not move the attachment, or anything held in the jaws, over people, equipment or buildings. Place the load gently. Do not throw or drop the contents.
- Operate the controls smoothly and gradually. Jerky controls are hazardous and may cause damage to the carrier.
- Avoid fire hazards. Keep the area clean. Remove all flammable materials from the area during any welding or heating process. Have a fire extinguisher nearby and know how to use it.
- Never substitute pins or bolts. Use factory supplied pins. Replace all bolts with the same size and grade. Failure to do so may cause serious injury or death.
- Use your Genesis attachment only as directed in this manual. Do not use the attachment to lift and move other objects. Doing so may cause instability and tipping.

ATTACHMENT MARKINGS

Decals are necessary for safe operation and maintenance. To reorder, contact your Genesis dealer or call 715-395-5252.



PAD INSTALLATION

Preparation of the excavator prior to attachment delivery will make installation safer and easier. Contact Genesis or your Genesis dealer for assistance.

Curl the excavator stick under so the bottom of the stick is facing upward.

Use the mounting dimensions provided on your installation drawing to locate the correct placement of the stabilizer pad on the bottom of the stick. The stabilizer pad must be centered on and parallel to the stick.

WARNING

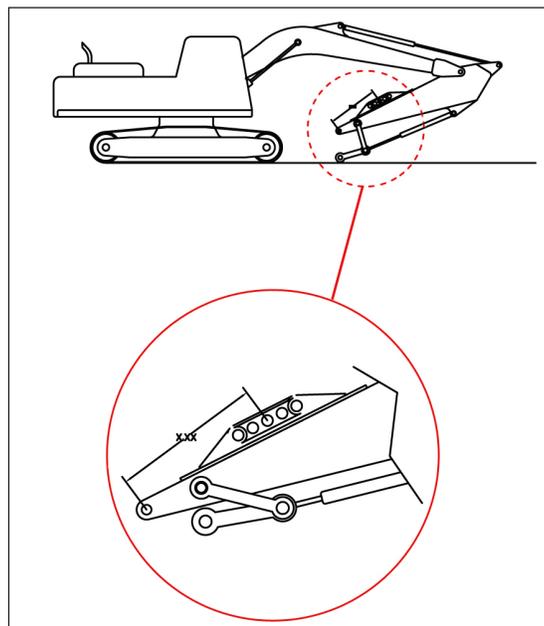
Removing any connecting pin may be hazardous. To remove a connecting pin, position the attachment on the ground and properly support.

Before Welding:

Disconnect battery ground cables or shut off master battery switch to avoid damage to the excavator's onboard computer systems. Connect welding ground clamp directly to the parts being welded. Connecting to any other area may cause arcing between moving parts such as bearings or cylinder parts.

Weld the pad to the stick using E7018 low hydrogen electrode or equivalent. Weld per instructions provided on your Installation Drawing.

Install the stabilizer arm to the pad in the factory recommended position.



Enlarged view of stabilizer pad

CAUTION

Moving the stiff arm back one hole, further from the grapple, from the factory recommended position, may result in linkage and/or grapple toggle and damage to the bucket cylinder.

WARNING

Particles may fly when a pin is struck. Use a drift pin or mallet when striking pins. Keep all personnel at a safe distance.

GRAPPLE INSTALLATION

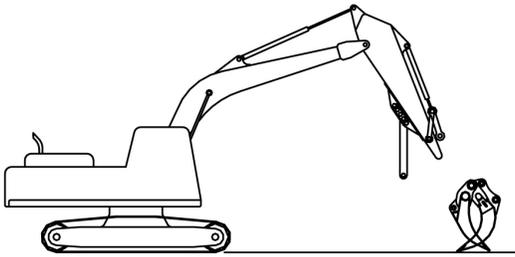


Diagram A

Remove the bucket following the manufacturer's procedure. Retract the bucket cylinder. The grapple must be on a firm, level surface with the jaws closed.

Position the excavator behind the grapple and carefully line up the stick connection of the excavator and grapple. (Diagram A)

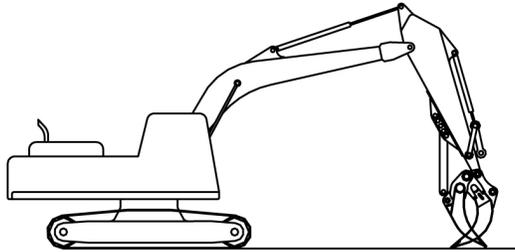


Diagram B

Install pin. (Diagram B)

Raise the grapple slightly off the ground and extend the bucket cylinder. Connect power link of excavator to the grapple. (Diagram C)

Align the stabilizer arm with the lower grapple jaw by moving the stick and operating the bucket cylinder. Pin the arm to the grapple. (Diagram D)



WARNING

Make sure all personnel stand clear. Lifting the grapple will cause the jaw to move and the stabilizer bar to swing.

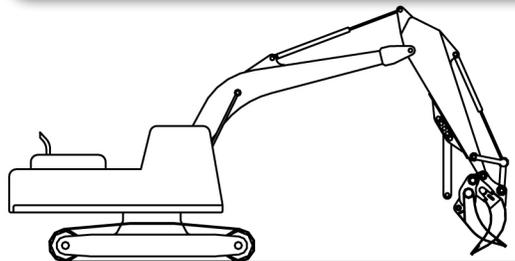


Diagram C

Check all connections to ensure mounting pins are properly retained.

Stiff arm should be mounted in factory recommended pin position.

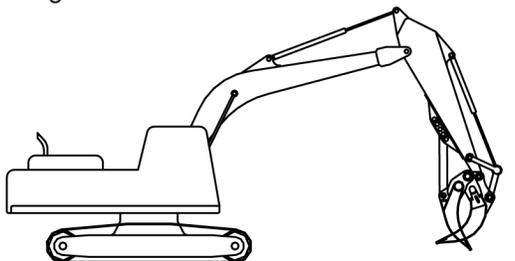


Diagram D

Grapple Removal

To remove the grapple with the stiff arm attached and set the stiff arm on a heavy object. Remove the pin from pad. Slowly raise the grapple to allow stiff arm to hang. Move the grapple to a storage position. (Diagram E)

Lower the grapple to the ground. Close the jaws to prevent grapple movement after the link pin is removed.

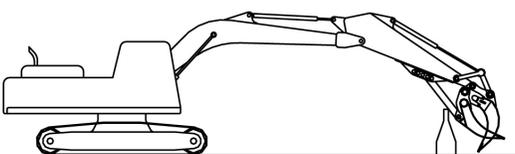


Diagram E

Remove the grapple mount pins.



WARNING

Make sure all personnel stand clear. Removing the pin from the pad will cause the jaw to move and the stabilizer bar to swing.

MAINTENANCE SAFETY

Only trained and authorized persons should perform maintenance on the attachment. To be qualified, you must understand the instructions in this manual, have training, and know the safety rules and regulations of the job site.

Do not alter the physical or mechanical operation of the attachment. Doing so may cause a dangerous situation for yourself and those around you and will void the warranty.

Do not attempt repairs you do not understand. If any questions arise regarding a safety or maintenance procedure, contact Genesis or your Genesis dealer.

Read this entire manual. All personnel must understand the maintenance and safety procedures.

Use factory authorized parts. The use of unauthorized parts may compromise safety, performance and durability of the attachment and may void the warranty.

Follow the daily checklist and maintenance schedules in this manual. Extreme conditions may dictate shorter maintenance intervals.

Do not exceed bolt torque specifications.

Do not weld on structural components without consulting Genesis. Doing so may cause structural failure and void the warranty.

Do not work on the attachment before ensuring it will not move. Completely lower the boom to the ground or a rest position and relieve hydraulic pressure.

Never operate poorly maintained equipment. When maintenance is required, repair or replace parts immediately.

Do not operate under unsafe conditions. If an unsafe condition arises during operation, immediately shut down the equipment and report the situation to the proper authority.

MAINTENANCE SCHEDULE

Performing scheduled maintenance will promote safe, reliable operation of your shear. Inspect and grease components every eight hours of operation, as indicated on the following checklist. Use maintenance procedures described in this manual. If you are not able to safely and competently perform these procedures, have a Genesis dealer perform them.

Extreme operating conditions may require shortened maintenance intervals.

Eight-Hour Checklist

Inspect:

- Bolts - check for loose bolts, replace if damaged
- Bracket pivot for wear and pin retainers
- Entire grapple for cracks (visual check)

Grease:

- Bracket pivot
- Main shaft/pivot (both sides)
- Excavator stick tip and linkage joints per excavator OEM instructions
- Both ends of stiff arm

Jaws:

- Check tines for wear
- Build-up and hard-surface as required

Grease

Use a lithium-based premium EP #2 in normal conditions above 32° F (0° C). Use Grade 0 in temperatures below freezing.

Grease all fittings every eight hours of operation. Grease all locations until grease extrusion is visible.

BOLT TORQUE SPECIFICATIONS

Genesis typically uses dry torque measurements.

Prior to using the chart below, clean all bolt holes, bolts and nuts to remove dirt, grease and oil. See the Visual Reference below or Parts Manual to identify bolt type.

Never re-torque bolts that use Loctite. If a bolt becomes loose or damaged after the initial use when Loctite was applied and the bolt was torqued, the bolt must be replaced.

Never break tightened bolts loose with a torque wrench. Doing so may break the torque wrench or take it out of calibration.

Torque wrenches should be calibrated on an annual basis.

When using a torque multiplier with a torque wrench, incorrect settings will be multiplied by the ratio of the torque wrench.

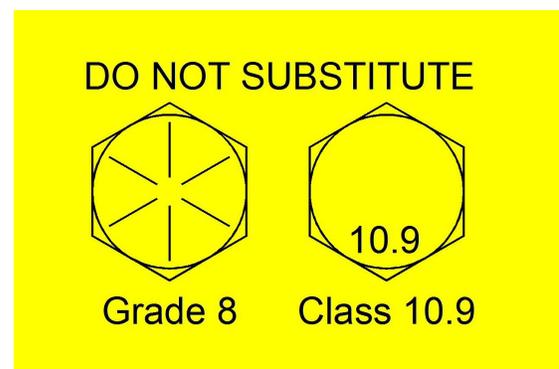
Never use an air wrench on a torque multiplier.

Dry Torque Values					
Fastener Grade	Size x Pitch	Hex Head		Flat Head	
		Nm	Ft-lb	Nm	Ft-lb
CL 10.9	M8 x 1.25	36	27	29	22
	M10 x 1.50	72	53	58	42
	M12 x 1.75	125	92	100	74
	M14 x 1.50	210	154	168	123
	M14 x 2.00	200	148	160	118
	M16 x 2.00	313	230	250	184
	M20 x 1.50	640	472	512	378
	M20 x 2.50	610	450	488	360
	M24 x 3.00	1055	778	844	622
	M27 x 3.00	1543	1138	1234	910
8	M30 x 3.50	2095	1545	1676	1236
	1/2-13	145	107	116	86
	1/2-20	163	120	130	96
	5/8-11	286	211	229	169
	3/4-10	510	376	408	301
	7/8-9	822	606	658	485
	1.00-8	1220	900	976	720
	1.00-14	1345	992	1076	794
L9	1.50-6	4280	3160	3424	2528
9	1.25-7	2464	1817	1971	1454

Wet Torque Values					
Fastener Grade	Size x Pitch	Hex Head		Flat Head	
		Nm	Ft-lb	Nm	Ft-lb
CL 10.9	M20 x 2.50	458	338	366	270
	M24 x 3.00	790	583	632	466
	M27 x 3.00	1157	850	926	680
	M30 x 3.50	1572	1160	1258	928
8	3/4-10	383	282	306	226
	7/8-9	617	455	494	364
	1.00-8	916	675	733	540
	1.25-7	1847	1362	1478	1090
9	1.50-12	4067	3000	3254	2400

Apply grease or anti-seize on threads and under bolt heads

Visual Reference



STRUCTURAL MAINTENANCE

Before performing maintenance, read, fully understand and follow the safety rules outlined in this manual.

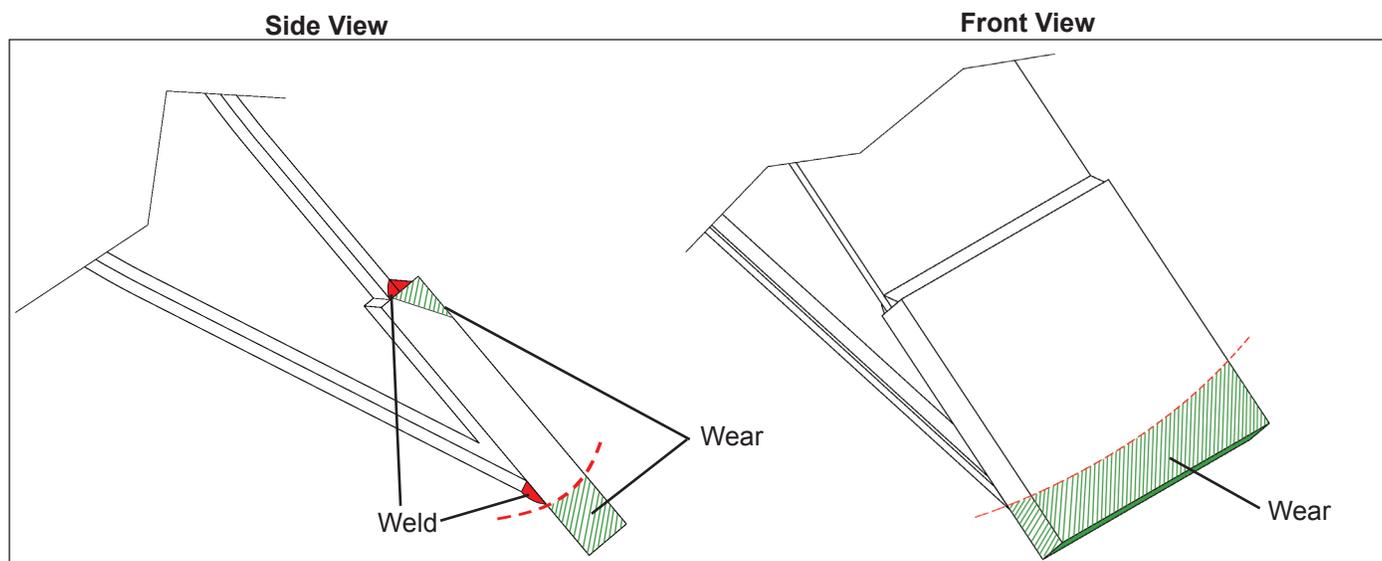
Always wear personal safety equipment including gloves, safety glasses, safety boots and proper clothing.

Tine Tips

At the end of each shift, check tine tip condition.

Tines may be built up and hard-surfaced.

Replace tine tips if the weld is gone or the plate is worn down from excess wear, as shown below.



Contact the Genesis Service Department at 715-395-5252 for additional information regarding proper tine tip maintenance, wear and build-up procedures.

GENERAL WELDING GUIDELINES

Welding Ground Clamp

Disconnect all battery ground cables or shut off master battery switch, if equipped. Failure to do so may cause excavator electrical problems, including permanent damage to on-board computer systems.

Connect ground clamp as close as possible to the area being welded without allowing current to pass through the pivot group or cylinder pin.

If you are welding on the lower jaw, connect the weld clamp to the lower. If you are welding on the upper jaw, connect to the upper but not to the power link. If needed, weld a piece of steel to the area for the grounding clamp and cut the piece off when welding is completed.

Welding Rules

Before you begin:

- Wear an approved respirator
- Grind the area to clean it
- Remove all existing hard-surfacing
- Preheat area to 350° F (177° C). Maintain this temperature throughout the procedure. Do not exceed 450° F (232° C) interpass temperature.

REMOVE PAINT BEFORE WELDING OR HEATING



Hazardous fumes/dust can be generated when paint is heated by welding, soldering or using a torch. Do all work outside or in a well-ventilated area and dispose of paint and solvent properly. Remove paint before welding or heating.

When sanding or grinding paint, avoid breathing the dust. Wear an approved respirator. If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

During welding:

- Always grind and weld with the grain of the material.
- Peen each weld pass to relieve stress and harden the welds.
- Do not undercut the ends of the welds.

After welding maintenance is complete:

- Cover the area with a heat blanket and allow it to cool slowly, approximately eight hours.
- Do not put the grapple into operation until the welds have been allowed to cool.

HARD-SURFACING

Do not apply hard-surfacing directly to the parent material as this could cause toe cracking, and the hard-surfacing will break away.

Procedure:

Follow the General Welding Guidelines and Rules.

Apply a single pass stringer bead pattern, with the grain, using E7018 electrode. Peen each pass.

Do not apply a stringer directly on the edge. Start the first pass 1/4" from the edge.

Stagger the ends of the stringer welds so they do not end in a straight line.

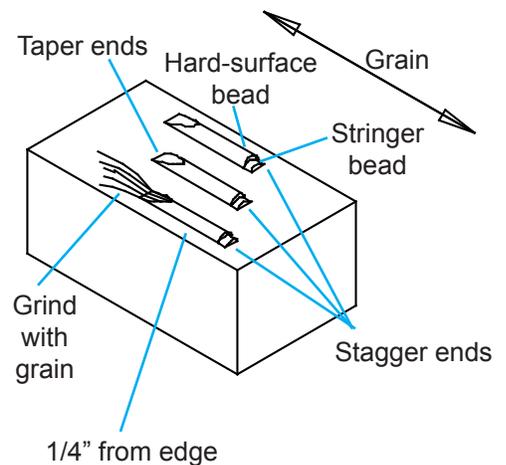
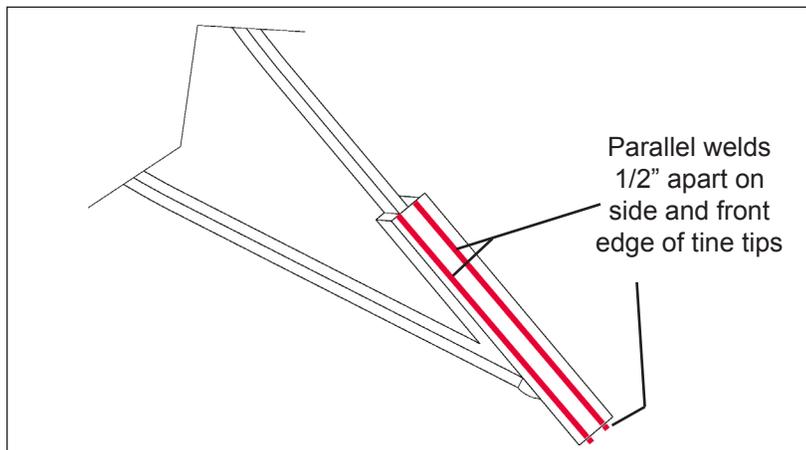
Cap each stringer bead with one pass of GenWire or GenRod to hard-surface. Do not apply more than two layers of hard-surfacing. Peen each pass.

Grind the ends of all stringer welds with the grain to taper 1" to 1-1/2" (25 - 38 mm) to the parent material.

Hard-Surfacing Patterns

Where parallel lines are shown, side view, apply single passes approximately 1/2" apart. Where crosshatch is shown (on grapple), apply stringer beads at 45° angles to form 1" squares.

Side View



WARRANTY

Claim Procedure

Notify the Genesis Service Department of the potential warranty claim prior to making the repair. Digital pictures are very helpful for diagnosing problems and recommending repairs.

Contact the Genesis Service Department before making alterations, changes or repairs to any component that is going to be considered for warranty. Not doing so will void all Genesis warranty consideration.

The Genesis Service Department will issue an authorization number to track the repair costs, outgoing parts, and/or defective parts returning to the factory.

Replacement parts must be ordered using a purchase order number. Shipping is standard ground. Overnight shipping is available by request, and Genesis will not cover the shipping charge.

When the repair is complete, submit an invoice to the Genesis Service Department within 30 days. Include itemized internal labor reporting, parts lists and invoices for outside contractors. Reference the authorization number on all invoices.

When returning parts for warranty consideration, include a copy of any related Genesis paperwork along with any other necessary documentation to ensure proper processing and credit. The Genesis Service Department will provide the necessary forms.

Your account will be credited when the warranty claim is accepted.

Blade Warranty

Standard warranty on blades will only be considered on the first edge, and wear on the edge must be 1/8" radius or less. Genesis does not warranty cutting blades that are cracked or broken from top to bottom (perpendicular to the long edge of the blade). Genesis also does not cover fasteners, the labor to replace wear components or collateral damage, such as blade seats, from broken blades, the piercing blade tang or adjustment plates.

Please direct any questions to the Genesis Service Department: 715-395-5252

PARTS ORDER POLICY AND PROCEDURE

Parts Orders Should Include

- Purchase order number
- Model and serial number of attachment
- Part number and quantity needed
- Shipping and billing address
- Method of shipment or required delivery date

Placing Orders

Orders may be placed by phone, e-mail or fax. To fax an order, use the form on the following page. Contact information is located at the front of this manual.

Part Numbers

Part numbers are listed in a separate Parts Manual or, if included, the Parts section of this manual. Contact the Genesis Parts Department with questions regarding part numbers, availability and pricing.

Shipping

All orders will be shipped best way surface unless an alternate shipping method is requested. Shipping charges are not included in the purchase price of parts.

Invoices

All invoices are due upon receipt. Any accounts with invoices open beyond 60 days are subject to review and may be placed on C.O.D. status without further notice.

Returns

Unused Genesis parts may be returned with proper documentation. Return shipping is the responsibility of the purchaser. Credit will be issued upon return, less a 20% restocking fee. Documentation is required for credit of returned parts. Contact the Genesis Parts Department at 715-395-5252 for a RGA (Return Goods Authorization) number and form.

Return Goods Authorization

All parts returned to Genesis for warranty consideration must be returned with a completed RGA (Return Goods Authorization) provided by the Genesis Parts Department. The form needs to be completed in its entirety, including any additional information requested by the Parts or Service Department. Return freight is the responsibility of the shipper and will be credited upon claim approval. A determination to accept or deny the claim will be made based on the information available to Genesis. Warranty on purchased parts other than wear components is 6 months. There is no warranty period on wear parts or components.

PARTS LISTS

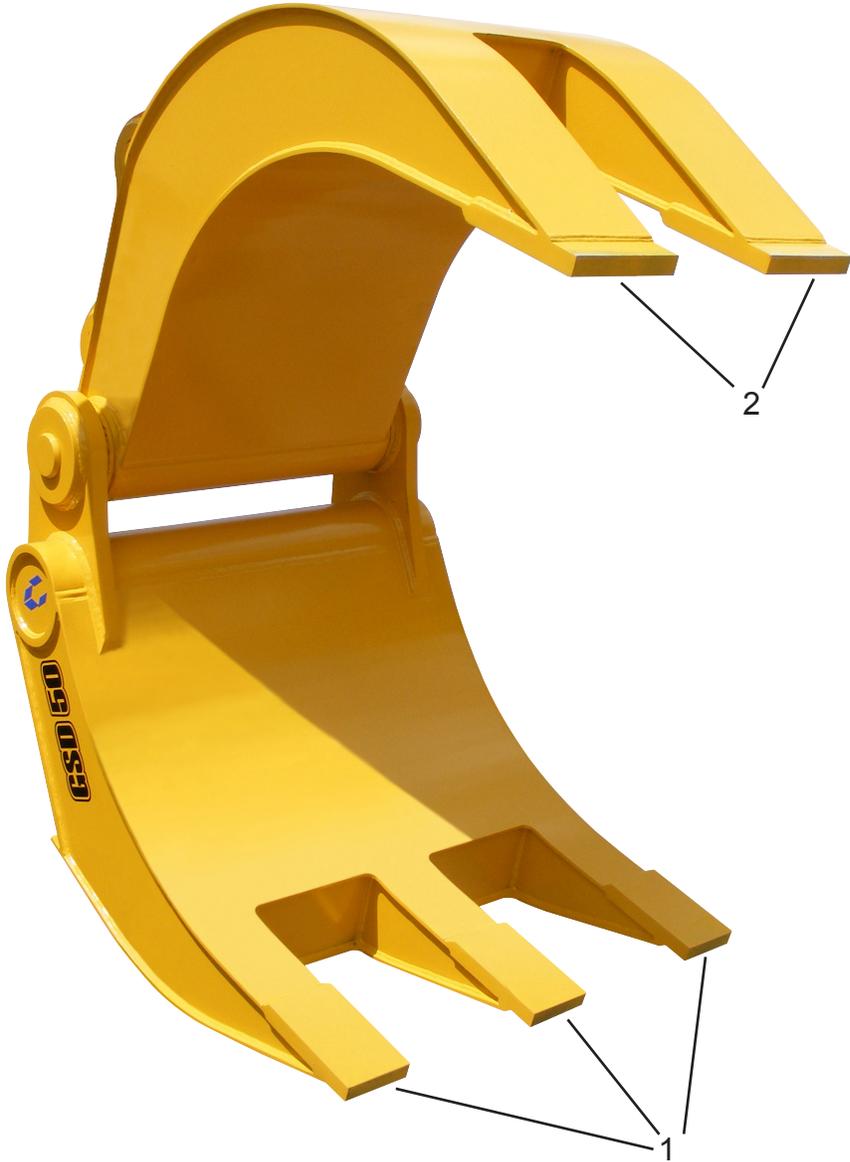
The following pages contain illustrations and parts lists for Genesis Severe-Duty Grapples. These photos and generalized drawings identify major components and may not be identical in fine detail to a particular grapple.

The parts lists included here are intended to aid in operation and maintenance. Part numbers listed are those currently used. These may differ from the part numbers of the components originally installed in your grapple. To ensure use of the correct components, always indicate your grapple model and serial number when ordering parts.

If further information is required, contact the Genesis Parts Department for a parts list specific to your grapple model and serial number.

PARTS LISTS

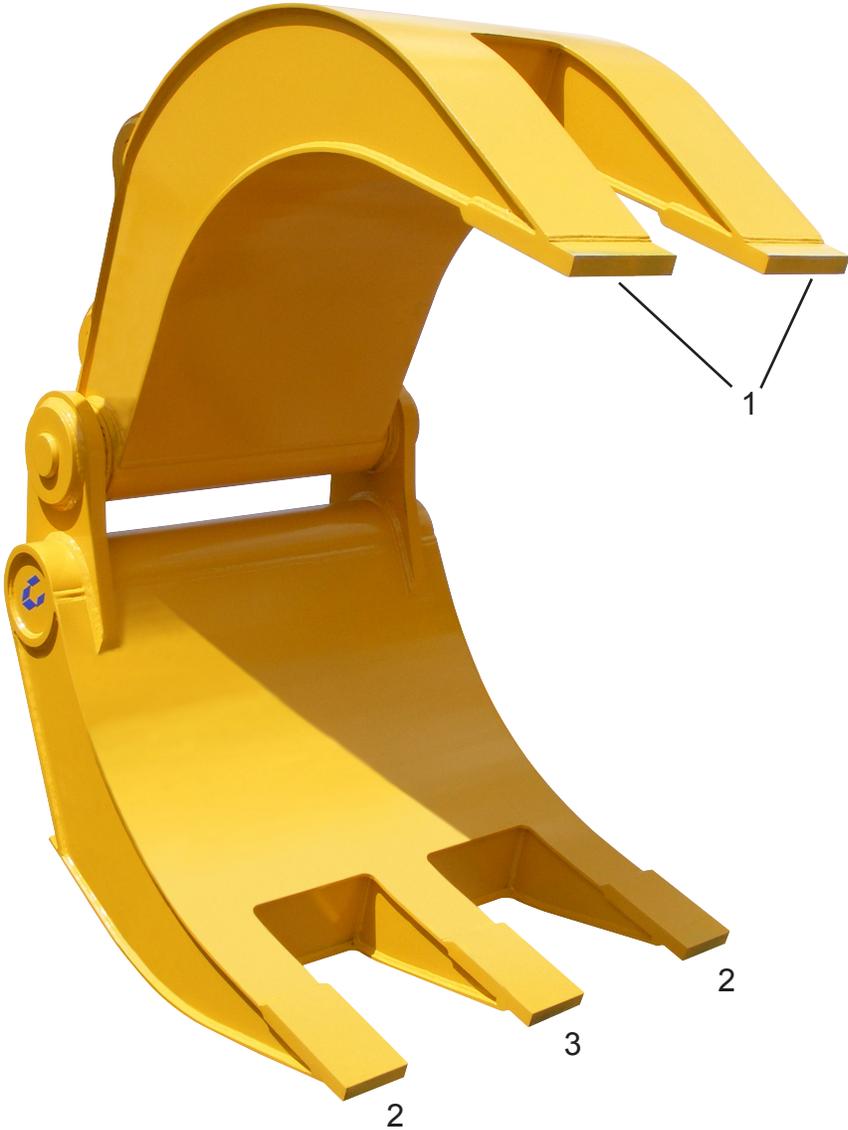
Wear Parts GSD 10-70



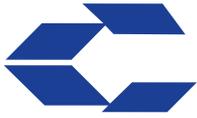
Item	Qty	Part Number				Description
		GSD 10	GSD 30	GSD 40	GSD 50/70	
1	3	2101442	2100419	2100408	2100055	Grapple Tips
2	2	2101438	2100419	2100419	2100014	Grapple Tips

PARTS LISTS

Wear Parts GSD 90-250



Item	Qty	Part Number			Description
		GSD 90/140	GSD 170	GSD 250	
1	2	2100014	2100192	2101169	Grapple Tips
2	2	2100027	2100204	2101169	Grapple Tips
3	1	2100014	2100205	2101169	Grapple Tips



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