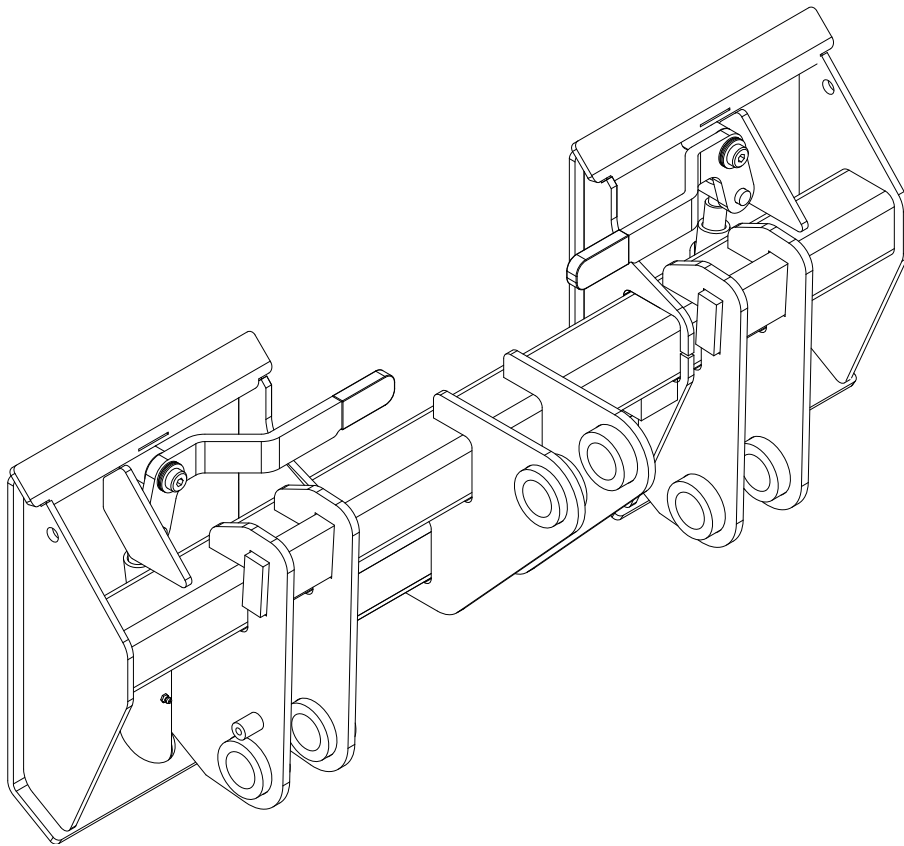




OPERATOR'S AND PARTS MANUAL

UNIVERSAL SKID STEER QUICK ATTACH



SERIAL NUMBER: _____

MODEL NUMBER: _____

Manual Number: 51-10011

Part Number: 10020

Rev. 4

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PREFACE

GENERAL COMMENTS

Congratulations on the purchase of your new attachment! This product was carefully designed and manufactured to give you many years of dependable service. Only minor maintenance (such as cleaning and lubricating) is required to keep it in top working condition. Be sure to observe all maintenance procedures and safety precautions in this manual and on any safety decals located on the product and on any equipment on which the attachment is mounted.

This manual has been designed to help you do a better, safer job. Read this manual carefully and become familiar with its contents.

WARNING! Never let anyone operate this unit without reading the "Safety Precautions" and "Operating Instructions" sections of this manual.



Always choose hard, level ground to park the vehicle on and set the brake so the unit cannot roll.

Unless noted otherwise, right and left sides are determined from the operator's control position when facing the attachment.

NOTE: The illustrations and data used in this manual were current (according to the information available to us) at the time of printing, however, we reserve the right to redesign and change the attachment as may be necessary without notification.

BEFORE OPERATION

The primary responsibility for safety with this equipment falls to the operator. Make sure the equipment is operated only by trained individuals that have read and understand this manual. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or the manufacturer to obtain further assistance. Keep this manual available for reference. Provide the manual to any new owners and/or operators.

SAFETY ALERT SYMBOL



This is the "Safety Alert Symbol" used by this industry. This symbol is used to warn of possible injury. Be sure to read all warnings carefully. They are included for your safety and for the safety of others working with you.

SERVICE

Use only manufacturer replacement parts. Substitute parts may not meet the required standards.

Record the model and serial number of your unit on the cover of this manual. The parts department needs this information to insure that you receive the correct parts.

SOUND AND VIBRATION

Sound pressure levels and vibration data for this attachment are influenced by many different parameters: some items are listed below (not inclusive):

- prime mover type, age, condition, with or without cab enclosure and configuration
- operator training, behavior, stress level
- job site organization, working material condition, environment

Based on the uncertainty of the prime mover, operator, and job site, it is not possible to get precise machine and operator sound pressure levels or vibration levels for this attachment.

NOTE: A list of all Paladin Patents can be found at <http://www.paladinattachments.com/patents.asp>.

SAFETY STATEMENTS



THIS SYMBOL BY ITSELF OR WITH A WARNING WORD THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



DANGER

THIS SIGNAL WORD INDICATES A HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.



WARNING

THIS SIGNAL WORD INDICATES A HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.



CAUTION

THIS SIGNAL WORD INDICATES A HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN MINOR OR MODERATE INJURY.

NOTICE

NOTICE IS USED TO ADDRESS PRACTICES NOT RELATED TO PHYSICAL INJURY.

GENERAL SAFETY PRECAUTIONS

WARNING!



READ MANUAL PRIOR TO INSTALLATION

Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual, as well as all manuals related to this equipment and the prime mover thoroughly before beginning installation, operation, or maintenance. **FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND THE PRIME MOVER'S MANUAL(S).**



READ AND UNDERSTAND ALL SAFETY STATEMENTS

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all OSHA regulations, local laws, and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing, or operating this equipment.



KNOW YOUR EQUIPMENT

Know your equipment's capabilities, dimensions, and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to ensure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued, or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they become worn or hard to read.

GENERAL SAFETY PRECAUTIONS

WARNING!



PROTECT AGAINST FLYING DEBRIS

Always wear proper safety glasses, goggles, or a face shield when driving pins in or out, or when any operation causes dust, flying debris, or any other hazardous material.

WARNING!



LOWER OR SUPPORT RAISED EQUIPMENT

Do not work under raised booms without supporting them. Do not use support material made of concrete blocks, logs, buckets, barrels, or any other material that could suddenly collapse or shift positions. Make sure support material is solid, not decayed, warped, twisted, or tapered. Lower booms to ground level or on blocks. Lower booms and attachments to the ground before leaving the cab or operator's station.

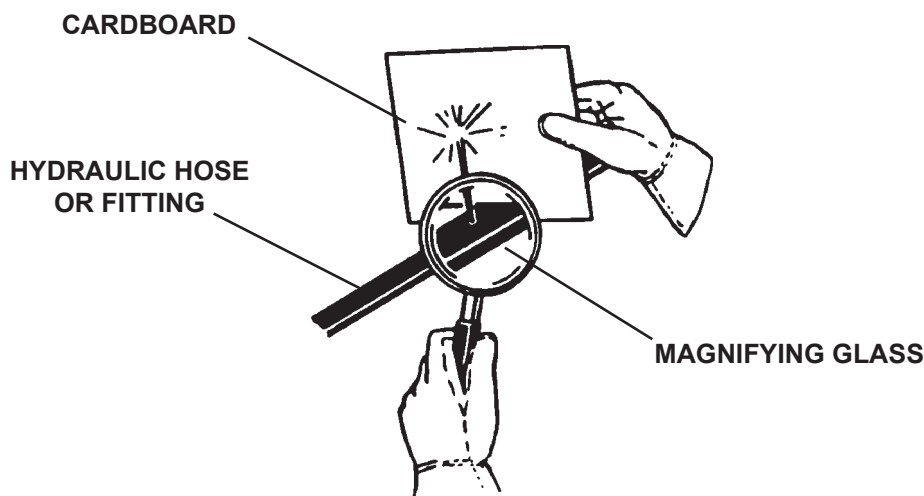
WARNING!



USE CARE WITH HYDRAULIC FLUID PRESSURE

Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible. Before connecting or disconnecting hydraulic hoses, read your prime mover's operator's manual for detailed instructions on connecting and disconnecting hydraulic hoses or fittings.

- Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.
- If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research it immediately to determine proper treatment.
- Wear safety glasses, protective clothing, and use a piece of cardboard or wood when searching for hydraulic leaks. **DO NOT USE YOUR HANDS!** SEE ILLUSTRATION.



GENERAL SAFETY PRECAUTIONS

WARNING!



DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the attachment and may impair the function, safety, life, and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. Never modify any ROPS (Roll Over Protective Structure) or FOPS (Falling Object Protective Structure) equipment or device. Any modifications must be authorized in writing by the manufacturer.

WARNING!



SAFELY MAINTAIN AND REPAIR EQUIPMENT

- Do not wear loose clothing or any accessories that can catch in moving parts. If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use properly grounded electrical outlets and tools.
- Use the correct tools for the job at hand. Make sure they are in good condition for the task required.
- Wear the protective equipment specified by the tool manufacturer.



SAFELY OPERATE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements. See your machine's manual for these instructions.

- 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 allow riders on the attachment or the prime mover.
- Do not operate the equipment from anywhere other than the correct operator's position.
- Never leave equipment unattended with the engine running, or with this attachment in a raised position.
- Do not alter or remove any safety feature from the prime mover or this attachment.
- 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.

WARNING!



CALIFORNIA PROPOSITION 65 WARNING

This product may contain a chemical known to the state of California to cause cancer, or birth defects or other reproductive harm. www.P65Warnings.ca.gov

EQUIPMENT SAFETY PRECAUTIONS

WARNING!



KNOW WHERE UTILITIES ARE

Observe overhead electrical and other utility lines. Be sure equipment will clear them. When digging, call your local utilities for location of buried utility lines, gas, water, and sewer, as well as any other hazard you may encounter.

WARNING!



EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA DUST ALONG WITH OTHER HAZARDOUS DUSTS MAY CAUSE SERIOUS OR FATAL RESPIRATORY DISEASE.

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.

WARNING!



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.

WARNING!



END OF LIFE DISPOSAL

At the completion of the useful life of the unit, drain all fluids and dismantle by separating the different materials (rubber, steel, plastic, etc.). Follow all federal, state and local regulations for recycling and disposal of the fluid and components.



OPERATING THE UNIVERSAL SSL QA

- Verify that the connection pins are fully latched. Attachment may drop without warning if not properly attached.
- Keep out of all potential drop paths when repositioning the release handle.
- Keep clear of the area between the loader arms and the tilt cylinders or linkages when positioning the release handle.
- Do not exceed the lifting capacity of your prime mover.
- Operate only from the operator's station.
- When operating on slopes, drive up and down, not across. Avoid steep hillside operation, which could cause the prime mover to overturn.
- Reduce speed when driving over rough terrain, on a slope, or turning, to avoid overturning the vehicle.
- An operator must not use drugs or alcohol, which can change his or her alertness or coordination. An operator taking prescription or over-the-counter drugs should seek medical advice on whether or not he or she can safely operate equipment.
- Before exiting the prime mover, lower the attachment to the ground, apply the brakes, turn off the prime mover's engine and remove the key

EQUIPMENT SAFETY PRECAUTIONS



MAINTAINING THE UNIVERSAL SSL QA

- Before performing maintenance (unless otherwise specified) lower the attachment to the ground, apply the brakes, turn off the engine and remove the key.
- Never perform any work on the attachment unless you are authorized and qualified to do so. Always read the operator service manuals before any repair is made. After completing maintenance or repair, check for correct functioning of the attachment. If not functioning properly, always tag “DO NOT OPERATE” until all problems are corrected.
- Worn, damaged, or illegible safety decals must be replaced. New safety decals can be ordered from Paladin.
- Never make hydraulic repairs while the system is under pressure. Serious personal injury or death could result.
- Never work under a raised attachment.



TRANSPORTING THE UNIVERSAL SSL QA

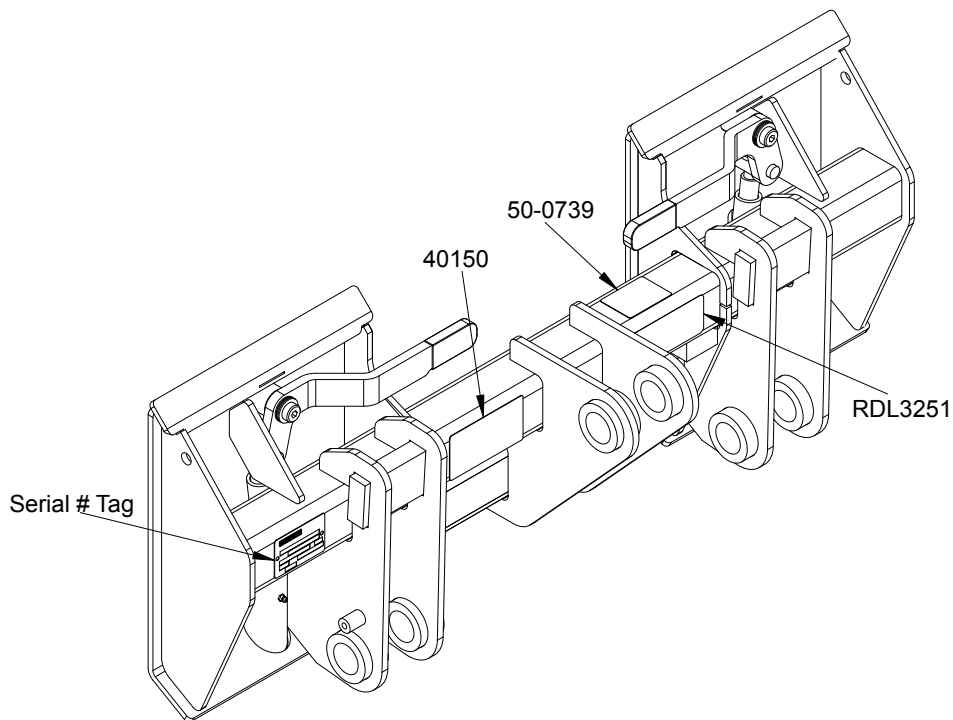
- Travel only with the attachment in a safe transport position to prevent uncontrolled movement. Drive slowly over rough ground and on slopes.
- When driving on public roads use safety lights, reflectors, Slow Moving Vehicle signs etc., to prevent accidents. Check local government regulations that may affect you.
- Do not drive close to ditches, excavations, etc., 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.

DECALS

DECAL PLACEMENT

GENERAL INFORMATION

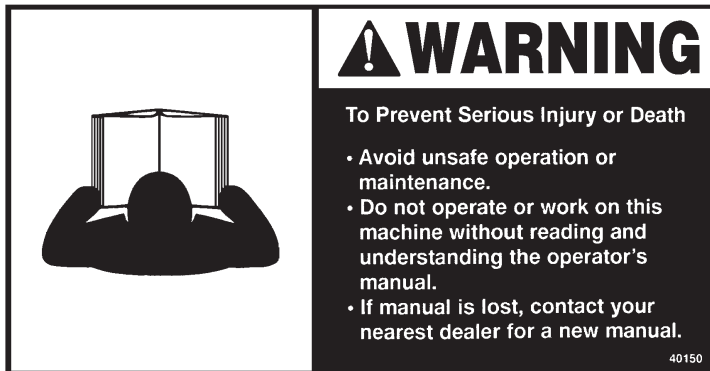
The diagram on this page shows the location of the decals used on the FFC Universal SSL QA. The decals are identified by their part numbers, with reductions of the actual decals located on the following page. Use this information to order replacements for lost or damaged decals. Be sure to read all decals before operating the attachment. They contain information you need to know for both safety and product longevity.



IMPORTANT: Keep all safety decals clean and legible. Replace all missing, or damaged safety decals. When replacing parts with safety decals attached, the safety decals must also be replaced. Safety signs are available, free of charge, from your dealer or from FFC.

REPLACING SAFETY DECALS: Clean the area of application with a nonflammable solvent, then wash the same area with soap and water. Allow the surface to dry. Remove the backing from the safety decal, exposing the adhesive surface. Apply the safety decal to the position shown in the diagram, and smooth out any bubbles.

DECALS



PART #40150
WARNING! READ OPERATOR'S MANUAL



PART #50-0739
IMPORTANT! OPERATING WEIGHT



PART #RDL3251
WARNING! ENGAGE LATCH PINS

INSTALLATION

UNIVERSAL SSL QA INSTALLATION

QA to Prime Mover

WARNING! Improper attachment of the Universal SSL QA could result in injury or death. Do not operate this product until you have positive indication that the attachment is securely mounted.



1. Position the Universal SSL QA on a level surface.
2. Enter the prime mover and fasten the safety restraints.
3. Start the engine and disengage the parking brake.
4. Align the attachment mechanism with the mounting on the Universal SSL QA and attach to the prime mover by following the attaching procedure in the prime mover owners manual.
5. Engage the parking brake and shut down the prime mover.
6. Unfasten safety restraints and exit the prime mover.
7. While the loader arms are lowered, visually inspect the attachment mechanism to ensure that it is securely mounted.
8. Following your prime mover's start up and operating procedures, carefully raise the loader and cycle the rollback/dump cylinders to check clearances and that any limiting stops make proper contact. Verify that all mounting procedures have been successfully completed. Contact FFC for instructions if the limiting stops do not contact properly.

IMPORTANT - Lubricate all grease fittings before connecting any attachment to this product. Refer to MAINTENANCE page and follow the instructions.

REMOVING THE UNIVERSAL SSL QA

WARNING! Serious injury or death may result from disengaging the Universal SSL QA when the Universal SSL QA is in an unstable position or carrying a load. Place the Universal SSL QA in a stable position before disengaging.

1. Lower the Universal SSL QA to the ground.
2. Engage the parking brake and shut down the prime mover. Be sure to relieve pressure to the auxiliary hydraulic lines.
3. Unfasten safety restraints and exit prime mover.
4. Disengage attachment locking mechanism (mechanical type).
5. Enter prime mover, fasten safety restraints and start the prime mover.
6. Disengage attachment locking mechanism (prime mover's hydraulic type).
7. Disengage the parking brake, and back away from the Universal SSL QA.

OPERATION

OPERATING TIPS



Failure to fully latch the connection pins can result in allowing the attached equipment to fall off the loader on to the operator or others.

The loader arms, the Universal SSL QA, and/or the attached equipment could drop down when released. Keep out of all potential drop paths when repositioning the release handles.

Keep clear of the area between the loader arms and the tilt cylinders or linkages when positioning the release handles. Any loader or cylinder movement could result in crushing or shearing anything between those components.

Carry the Universal SSL QA low to the ground so that the operator has good visibility and stability. Avoid any sudden movements.

ATTACHING EQUIPMENT

NOTE: Follow the instructions in your attachment manual for installing an attachment.

General Installation Instructions:

1. With the Universal SSL QA tilted forward, slowly drive the prime mover forward towards the attachment. Raise the lift arms until the "V" ends of the Universal SSL QA engage the mounting lip of the attachment. The Universal SSL QA should be centered on the attachment's mounting plate.
2. Roll back the Universal SSL QA until it seats against the attachment mounting plate.
3. Following the safety shut down procedure for your machine, engage the parking brake and shut down the prime mover. .
4. Pull on the locking handles to secure the attachment to the Universal SSL QA. (Pulling on the locking handles will extend the lower pin on the Universal SSL QA through the mounting plate on the attachment.)
5. Visually check for lower pin engagement.
6. Test the lower pin engagement by using your prime mover's hydraulics to apply down pressure to the front edge of the equipment. If the equipment pivots away from the lower part of the Universal SSL QA, repeat the necessary steps above until no separation occurs.
7. FOR EQUIPMENT REQUIRING HYDRAULIC CONNECTION: Connect and check the hydraulic lines per the instructions supplied with the attached equipment and with your loader and prime mover.

DETACHING EQUIPMENT

1. FOR EQUIPMENT CONNECTED TO HYDRAULICS: Disconnect the hydraulic lines as per the instructions supplied with the attachment and with your loader and prime mover.
2. Park your prime mover on a level surface with attachment properly attached and resting on the ground.
3. Place your prime mover's transmission in "Park" and engage the parking brake.
4. Unlock the locking handles on the Universal SSL QA.
5. Enter the prime mover and fasten the safety restraints.
6. Start the engine and disengage the parking brake.
7. Disconnect from the attachment by rotating the Universal SSL QA forward while backing away from the attachment.
8. Shut off your prime mover's engine, remove the starter key, and wait for all moving parts to come to a stop.

MAINTENANCE

MAINTENANCE SCHEDULE

Procedure	Before each use	After each use	100 Hours	500 Hours	See Prime Mover Manual
Fittings, zerk - Grease	✓				
Hardware - Check for tightness	✓				

TROUBLESHOOTING

Problem	Possible Cause	Possible Solution
Handles do not stay in unlatched position.	Belleville springs are worn out or broken.	Replace Belleville springs.
Handles do not stay in latched position.	Debris preventing complete handle rotation.	Remove debris.

PRIME MOVER SPECIFICATIONS

IMPORTANT Exceeding any of the maximum recommended prime mover specifications **CAN** result in damage to this product and **WILL** void all FFC warranties.

DESCRIPTION	SPECIFICATIONS
Prime Mover Operating Weight	4500 kg (9,920 lbs.) or Less*
Allowable Load	7,500 lbs. maximum
Rear Ballast	As required to maintain full prime mover stability. (Note the shipping weight of your model, then see the operator's manual(s) for your prime mover and loader for ballasting needs.)

*As defined in SAE J2513 JUN00.

ATTACHMENT SPECIFICATIONS

Model Number	Overall Width	Overall Height	Overall Depth *with No Mounting Ears	Weight
10020	44.25"	17.13"	6.06"	215#

*Mounting ears add approximately 8".

BOLT TORQUE

BOLT TORQUE SPECIFICATIONS

GENERAL TORQUE SPECIFICATION TABLES


Use the following charts when determining bolt torque specifications when special torques are not given. Always use grade 5 or better when replacing bolts.

SAE BOLT TORQUE SPECIFICATIONS




NOTE: The following torque values are for use with extreme pressure lubricants, plating or hard washer applications Increase torque 15% when using hardware that is unplated and either dry or lubricated with engine oil.

Bolt Size		SAE GRADE 5 TORQUE				SAE GRADE 8 TORQUE				Bolt head identification marks as per grade. NOTE: Manufacturing Marks Will Vary
		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters		
Inches	Millimeters	UNC	UNF	UNC	UNF	UNC	UNF	UNC	UNF	
1/4	6.35	8	9	11	12	10	13	14	18	
5/16	7.94	14	19	19	23	20	25	27	34	
3/8	9.53	30	36	41	49	38	46	52	62	
7/16	11.11	46	54	62	73	60	71	81	96	
1/2	12.70	68	82	92	111	94	112	127	152	
9/16	14.29	94	112	127	152	136	163	184	221	
5/8	15.88	128	153	174	207	187	224	254	304	
3/4	19.05	230	275	312	373	323	395	438	536	
7/8	22.23	340	408	461	553	510	612	691	830	
1	25.40	493	592	668	803	765	918	1037	1245	
1-1/8	25.58	680	748	922	1014	1088	1224	1475	1660	
1-1/4	31.75	952	1054	1291	1429	1547	1700	2097	2305	
1-3/8	34.93	1241	1428	1683	1936	2023	2312	2743	3135	
1-1/2	38.10	1649	1870	2236	2535	2686	3026	3642	4103	




GRADE 2



GRADE 5



GRADE 8



METRIC BOLT TORQUE SPECIFICATIONS

NOTE: The following torque values are for use with metric hardware that is unplated and either dry or lubricated with engine oil. Reduce torque 15% when using hardware that has extreme pressure lubricants, plating or hard washer applications.

Bolt head identification marks as per grade.



Size of Bolt	Grade No.	Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M6	5.6	1.0	3.6-5.8	4.9-7.9	-	-	-
	8.8		5.8-4	7.9-12.7		-	-
	10.9		7.2-10	9.8-13.6		-	-
M8	5.6	1.25	7.2-14	9.8-19	1.0	12-17	16.3-23
	8.8		17-22	23-29.8		19-27	25.7-36.6
	10.9		20-26	27.1-35.2		22-31	29.8-42
M10	5.6	1.5	20-25	27.1-33.9	1.25	20-29	27.1-39.3
	8.8		34-40	46.1-54.2		35-47	47.4-63.7
	10.9		38-46	51.5-62.3		40-52	54.2-70.5
M12	5.6	1.75	28-34	37.9-46.1	1.25	31-41	42-55.6
	8.8		51-59	69.1-79.9		56-68	75.9-92.1
	10.9		57-66	77.2-89.4		62-75	84-101.6
M14	5.6	2.0	49-56	66.4-75.9	1.5	52-64	70.5-86.7
	8.8		81-93	109.8-126		90-106	122-143.6
	10.9		96-109	130.1-147.7		107-124	145-168
M16	5.6	2.0	67-77	90.8-104.3	1.5	69-83	93.5-112.5
	8.8		116-130	157.2-176.2		120-138	162.6-187
	10.9		129-145	174.8-196.5		140-158	189.7-214.1
M18	5.6	2.0	88-100	119.2-136	1.5	100-117	136-158.5
	8.8		150-168	203.3-227.6		177-199	239.8-269.6
	10.9		175-194	237.1-262.9		202-231	273.7-313
M20	5.6	2.5	108-130	146.3-176.2	1.5	132-150	178.9-203.3
	8.8		186-205	252-277.8		206-242	279.1-327.9
	10.9		213-249	288.6-337.4		246-289	333.3-391.6

MAINTENANCE

MAINTENANCE RECORD

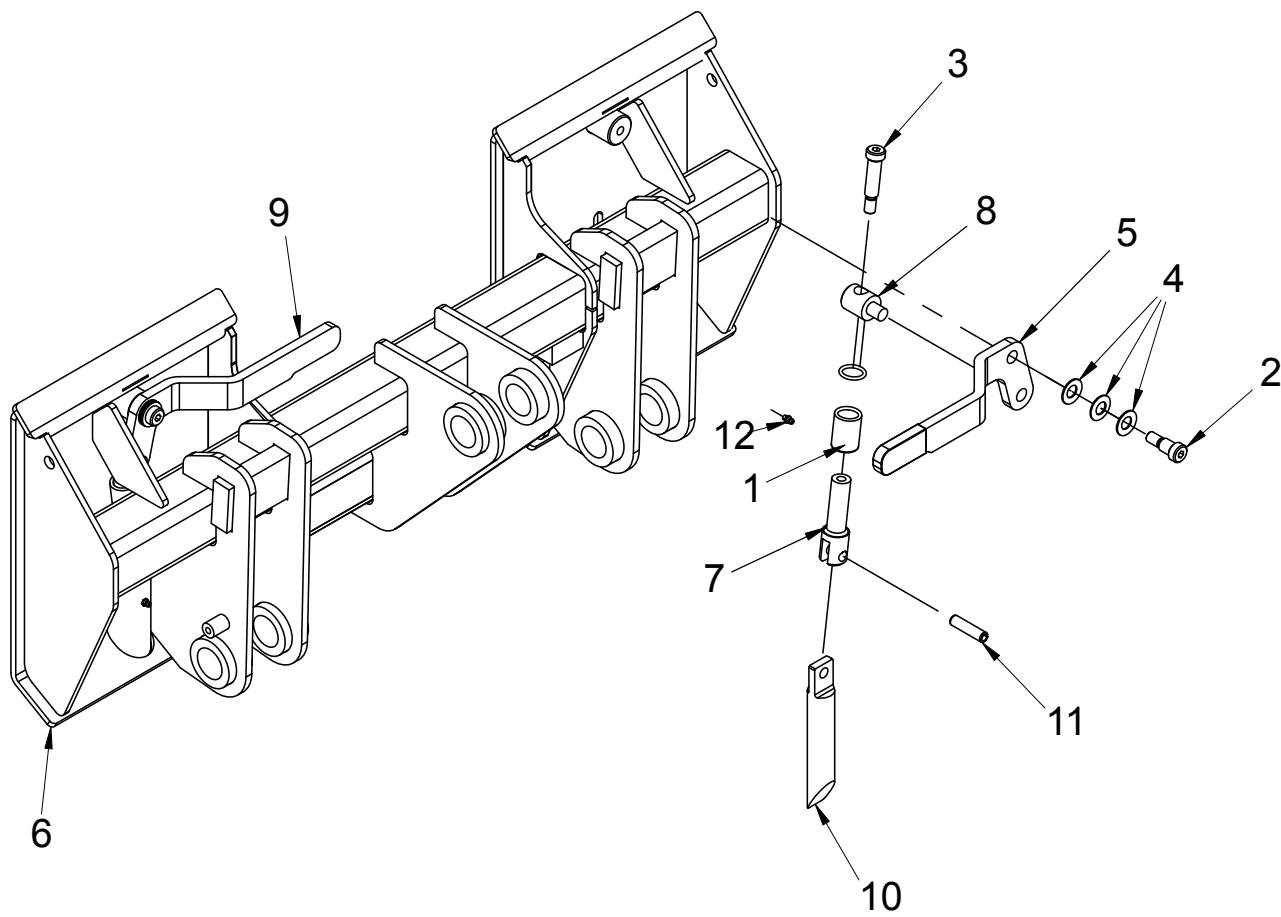
Use this log to record maintenance performed on the Universal SSL QA.

[illegible]

LIMITED WARRANTY

In order to provide you with the most UP-TO-DATE Warranty information, Paladin Warranty Statement and Warranty Procedures along with Warranty Registration and Claim Forms have been moved to our website at [*www.paladinattachments.com*](http://www.paladinattachments.com).

UNIVERSAL SSL QA



UNIVERSAL SSL QA

ITEM	QTY	10020	DESCRIPTION
1	2	07-10008	Compression Spring 1.25" x 4" x 0.148"
2	2	07-10058	Shoulder Screw .63" x .75" (.5"-13) ZDC
3	2	07-10059	Shoulder Screw .63" x 2" (.5"-13) ZDC
4	6	07-10060	Belleville Spring .63" x 1.25" x .062"
5	1	13-50572	Right Handle
6	1	13-50577-	Mounting Weldment (* = mounting specific number)
7	2	13-50586	Spring Pin 1.25" x 4.31"
8	2	13-50587	Latch Handle Linkage 1.25" x 2.19"
9	1	13-50588	Left Handle
10	2	13-50589	Rod 1.25" x 8.13" with features YDC
11	2	87337	Roll Pin .5" x 2"
12	2	6616	Grease Zerk .25"-28 Self-Tap

*ITEM may vary per Skid Steer -- Contact FFC for correct item.

