



SAS CRUSHING FORKS™ OPERATOR MANUAL



TABLE OF CONTENTS

•Letter to Owners, Managers, and Operators	Page 2
•Pre-Operation Inspection	Page 3
•Skid Plate Inspection.....	Page 4
•Operating Guidelines pg 1	Page 5
•Operating Guidelines pg 2	Page 6
•Operating Precautions	Page 7
•Safety Information	Page 8
•General Operating Procedure.....	Page 9
•Loader Inspection Sheet.....	Page10
•Safety Warranty pg 1	Page11
•Safety Warranty pg 2	Page12
•Blade Replacement Sheet.....	Page13

•Proprietary Rights: All designs and other proprietary rights provided by S.A.S. of Luxemburg, Ltd. to Buyer are to remain the property of S.A.S. of Luxemburg, Ltd., and Buyer shall honor all proprietary legends. Notice: The SAS FORKS™, this operator manual, www.sasforks.com web site, the pictures, content, designs, forks, and likeness of such, are property of S.A.S. of Luxemburg, Ltd. and are protected under all applicable Copyright, Trade Mark, Trade Dress, and Pending Patent. No information, pictures, designs, or forks may be duplicated in part, entirety, or in likeness.



TO THE OWNERS, MANAGERS, AND OPERATORS OF LOADERS AND FORK LIFTS EQUIPPED WITH SAS FORKS™

Safety is the most important issue in the workplace. Observing safety guidelines, equipment capacities and using common sense will provide a work environment that is safe and efficient for employees, management and customers. This operator manual has been assembled and sent to help you and your operators to move products quickly and safely. It is important that you and your operators read and understand the information included here in.

A key element in safely moving vehicles with SAS FORKS™ is that all necessary people are trained, including:

- Machine Operators.
- Personnel working in the area of the operation of a machine equipped with SAS FORKS™
- Other individuals that Owners or Management of your company feel need to be trained.

Prior to using SAS FORKS™, ensure that all personnel that will use and/or work in the area of the SAS FORKS™ read the following:

- Machine Manufacturer's Operator Manual
- Operator Manual for Machines Equipped with SAS FORKS™ (*This Manual*)
- Identification Plate on the SAS FORKS™

We recommend that Management complete the following items prior to using SAS FORKS™ :

- Conduct a meeting with all personnel and an Experienced Machine Operator to review and discuss safety, capacities, limitations, and proper operational procedures.
- Obtain a signature from each person acknowledging such training & file in their personnel file.

Daily workplace and operational safety is the responsibility of the Owners, Managers, and Operators.

- Knowledgeable & routine supervisory duties to ensure that safe operating practices are followed.
- Regular maintenance and inspection of the equipment, with documentation of such.
- Periodic meetings, reviewing operating guidelines, signed by all of the attending personnel.

The proceeding outline, and the following information laid out in this Operator Manual for SAS FORKS™ is intended to be a guide only, and is not meant to encompass all issues that may need to be addressed for your particular type of business operation.

If you should encounter any additional information that would be helpful to us, or others, please contact us.

Thank you for your business,

PAUL SECKER, President
S.A.S. OF LUXEMBURG, LTD.
133 Center Drive Hwy 54 • PO Box 260
LUXEMBURG, WI 54217

Brian Counts, Mechanical Engineer
Adam Lindley, Sales Manager

Phone: 1-877-SAS-FORK
Phone: 1-877-727-3675
Phone: 1-920-845-2307
Fax: 1-920-845-2309
E-Mail: sales@sasforks.com
Web site: www.sasforks.com



DAILY PRE-OPERATION INSPECTION

Daily, pre-operation inspection is recommended to help the operator safely use SAS FORKS™. The list below is a general summary. This is not meant to be an exhaustive list of items to inspect. Refer to the machine manufacturer's operator manual for additional items that may need to be inspected prior to machine operation. It is the responsibility of the Owners and Operators to ensure safe operation of equipment in the field. Any unsafe items should be professionally repaired prior to operation of machine. This pre-operation inspection should be done on level ground, with the parking brake on.

1) CHECK YOUR HYDRAULIC FITTINGS AND HOSES.

Inspect each hydraulic fitting & hose to ensure it is not worn, kinked, cracked, swelling, or leaking.
Have any damaged part(s) replaced immediately.
Do not operate the machine if damage is found.

2) GREASE AND INSPECT ALL THE LINKAGE PINS.

Inspect each linkage pin to ensure properly fastened and the condition.
Grease each linkage pin and joint to ensure smooth operation and to reduce wear.
Do not operate machine if linkage pin or retaining plate of bolt is worn, loose or missing.

3) CHECK THE WELDS ATTACHING THE BLADES TO THE CARRIAGE.

There are four welds attaching each blade to the carriage (two on each side of each blade).
Each weld should be smooth with no cracks. Do not operate machine if a weld is showing any signs of cracking. Refer to this manual for repair instructions.

4) CHECK THE SKID PLATES ON THE BOTTOM OF THE SAS FORKS™ CARRIAGE.

Please see page 4 for details.
Replace if less than 1/8" thick.
Order replacement skid plates by calling: U.S.A. Phone: 920-845-2198 or 1-877-SAS-FORK.

5) CHECK ROCKER PANEL BUMPER PADS ON THE SAS CRUSHING FORKS.™

IF SO EQUIPPED.
Replace if severely cracked, torn or missing.
To order replacement pads call SAS Forks @ USA Phone :920-845-2307 or 1-877-SAS-FORKS





SAS FORKS™ SKID PLATE INSPECTION

MAXIMIZE SAS FORKS™ LIFE WITH SKID PLATE MAINTENANCE

To get the maximum life from your SAS FORK™ carriage, always keep the skid plates on the bottom. Periodic inspection of the skid plates is needed. Order factory replacement skid plates from S.A.S. of Luxemburg, Ltd. when they are worn thin (about 1/8”).

Carriage Skid Plates: Failure to keep skid plates on the carriage will result in structural damage to the carriage and could result in tearing out one or both blades and necessitating the purchase of a new carriage. *The “carriage” is also referred to as the “shoe”, as shown in the diagram below.*

DO NOT MAKE UNAUTHORIZED WELDS TO SAS FORKS™

To prolong the life of the SAS FORK™ assembly, do not weld on the forks except as shown in this diagram. If you need to make any other repairs on the SAS FORKS™, please contact S.A.S. of Luxemburg, Ltd. Engineering and discuss the situation with them.

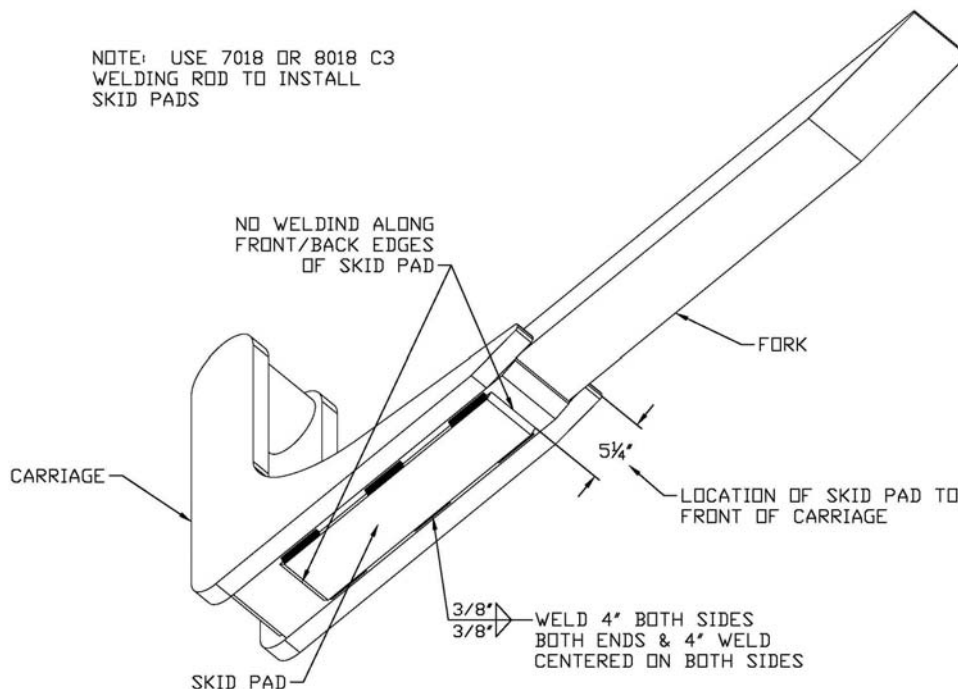
CONTACT US TO ORDER OR FOR QUESTIONS

Phone: 1-877-SAS-FORK (1-877-727-3675) or 920-845-2198

Fax: 1-920-845-2309

Email: sales@sasforks.com

SKID PLATE DIAGRAM WITH INSTALLATION INSTRUCTIONS



NOTE: DO NOT WELD ALONG FRONT AND BACK OF SKID PLATES. ONLY SKIP WELD ALONG OUTSIDE EDGES.

Operations/Procedures/forks/Fork Crushing Operator Manual//04-SKID PLATE INSPECTION.doc 4/18/08

www.sasforks.com

© 2000, 1987 S.A.S. of Luxemburg, Ltd.

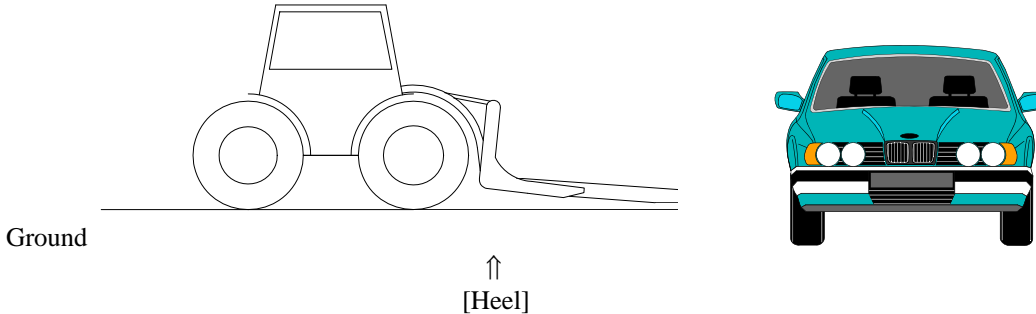
1-877-SAS-FORK



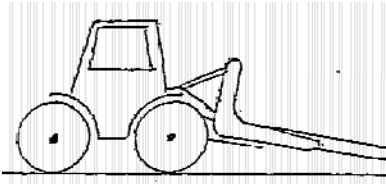
OPERATING GUIDELINES FOR SAS FORKS™

1) ENTRY UNDER A VEHICLE:

Correct: The proper operation of the forks is to put the tapered portion of the fork blade parallel to the ground and slide the fork blade under the car or truck.

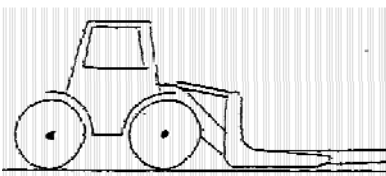


When you approach a vehicle in this manner, the heel of the shoe (carriage) will actually be about 3 to 5 inches off the ground. At first this may seem that this is not the proper way to operate the forks, however, it is correct.



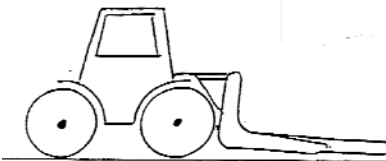
TOO STEEP: Incorrect fork position:

When you put the tips on the ground and the heel (the back of the fork) is 15 to 20 inches high, the angle of the blade is so great that the vehicle cannot easily slide up on the fork blade.



TOO FLAT: Incorrect fork position:

If you have the top surface of the blade parallel to the ground as you go under a vehicle, you will tear up the bottom of the vehicle being picked up.



CORRECT SAS FORK™ position:

The best possible angle of the forks to slide under a vehicle is when the tapered surface of the blade is parallel to the ground. The forks were designed, tested, and use-proven to give you the fastest and easiest entry possible using this method.



2) MAXIMUM LIFT HEIGHTS

All machines (loaders / fork lifts / fork trucks / etc.) have height lifting limitations. The identification plate on your SAS FORKS™ specifies the maximum height a load may be lifted safely with SAS FORKS™. (Some machine's maximum lift height is only 8')

Load Height limitations can usually be found:

- On the SAS FORKS™ identification plate
- In your machine manufacturer's operator manual
- Identify the most restricted limitation and do not exceed it.

If your loader has an automatic lift detent, remove it or lock it out.

ITEM 3 APPLIES TO ARTICULATING LOADERS:

3) TURNING WHILE CARRYING A LOAD

While carrying a load on the forks, keep it low to the ground. It is not safe to turn (*articulate*) if the load is more than 2 feet above the ground. When there is a need to raise a load in excess of 2 feet, you must be sure that the turn is not in excess of 5° to the right or left. The best way to lift loads at heights above 2 feet is to "line up" with the truck/trailer/semi/etc. before raising the load. When your machine is lined up straight on with the truck/trailer/semi/etc. or what ever you are lifting to, you should then lift the load and place it without turning the machine.

Do not turn (*articulate*) with a load in excess of 2 feet above the ground.

TIPS FOR BETTER RESULTS USING SAS FORKS™

BE CAREFULL IN RAINY OR SNOWY WEATHER:

- a) Vehicles become slippery on the fork blades when wet or when ice or snow is on the blades. Tip the blades back about 5° so the vehicle doesn't slip off the end of the forks. Drive very slowly.
- b) The road or yard surface can become very slippery because of ice and packed snow. Your machine is very heavy and is difficult to stop if it begins to slide. You may run into other vehicles, a building, or people and not be able to stop. Drive very slowly in this type of weather.



SAS FORKS™ OPERATING PRECAUTIONS

1) PEOPLE AND PEDESTRIANS:

At all times you must be aware of the location of all people in the vicinity of your loader and the vehicle you are transporting. You are responsible to maintain a safe operating distance from them. A minimum recommended distance that all people must stay clear from an operating loader and its vehicle load is 30 feet. This 30 feet must be maintained all the way around the loader and the vehicle load. If a person comes within this safety zone, carefully bring the loader to a complete stop and inform the person that they must stay at least 30 feet away for safety reasons.

2) BACKING SAFETY WARNING:

When backing up (reverse) with the loader/fork lift, a safety beep shall sound to warn all people that you are backing up. If this safety beep is found inoperable at any time, it must be immediately fixed prior to further use of the loader.

3) VEHICLES DROPPING, FALLING OR TIPPING OFF THE FORKS:

This could be extremely dangerous and costly event.

A vehicle falling on a person may cause serious injury or even death.

To prevent the vehicle from dropping, falling or tipping off the forks:

Pick up the vehicle on the forks evenly, centering the load on the forks from right to left.

Tip the blades back about 5°. This will prevent the vehicle from sliding off the end of the forks. Drive the loader at a reasonable speed to prevent bouncing or jarring of the vehicle on the forks, from bumps in the road.

To prevent injury in the case of a vehicle unexpectedly leaving the forks:

It is imperative that you maintain adequate clearance away from all people and pedestrians at a minimum of 30 feet from the front, back and all sides of the loader and the vehicle on the forks. If a person comes within this safety zone, carefully bring the loader to a complete stop, lower the vehicle carried on the forks to the ground and inform the person that they must stay at least 30 feet away for safety reasons.



SAS FORKS™ SAFETY INFORMATION

If your loader has an automatic dump feature, or detent raise features --disconnect it immediately.

WARNING: DO NOT ALLOW THE FOLLOWING CONDITIONS TO OCCUR. SERIOUS INJURY OR DEATH COULD RESULT IF THE FOLLOWING CONDITIONS ARE ALLOWED.

- 1) **Never** raise the forks in excess of the recommended height above the ground. The load may suddenly dump without any control or warning. The maximum recommended height for lifting loads will vary from 8' to 11' depending on the specific machine.
- 2) **Never** articulate the loader more than 5 degrees right or left with the load at a height of more than 2 feet above ground. The loader could tip over.
- 3) **Never** pick up a unit weighing more than the rated load-see the load rating plate. The loader may tip over. See the SAS FORKS™ identification plate for load limitations. Also refer to the machine manufacturer's serial plate for load and lift limitations. Adhere to the most restrictive limitation.
- 4) **Never** put the tips of the forks on the ground and raise the front wheels of the loader off the ground. Four things will eventually happen:
 - 1) The tips of your forks will eventually **bend upward**.
 - 2) The loader may tip over.
 - 3) The blade retaining welds may crack or break.
 - 4) The blades will eventually crack from the bottom up.
- 5) **Never** lift a load and let someone walk or work under the forks. Anything could happen and the load may drop crushing anyone under the load.
- 6) **Never** raise the forks to the maximum lifting height and point the fork blades in the air. You could hit a power line and be electrocuted.
- 7) **Never** attempt to grease the fork pins when the machine is running, you could be crushed in the operating linkage.
- 8) **Never** attempt to grease the fork pins when the forks are lifted up off the ground, you could be crushed if the forks would drop to the ground.
- 9) **Never** operate the loader without the correct tire pressure in **all** tires. One soft tire could cause the loader to tip over.
- 10) **Never** operate your machine with the automatic dump feature engaged or with the detent in the raise position.



GENERAL SAS FORK PRECAUTIONS

Recycling Important: Recycling, is our main business: The recycling of every component is important to the Earth, to the Company's bottom-line, and our jobs. Careful handling of all vehicles is very important, so our company can achieve the maximum return from each vehicle we invested in.

General Information on Equipment Cost:

Loader/Fork Truck Investment	\$50,000 to \$130,000 plus
SAS FORKS™ Equipment Investment	\$ 4,000 to \$ 8,000 plus
One new loader tire Replacement Cost	\$ 800 to \$ 1,600

Proceed carefully:•Watch your footing so you don't slip off the loader when entering or exiting.

•Safety glasses are recommended to be worn at all times.

PRE-OPERATION INSPECTION:

- a. Check the oil (fill as necessary).
- b. Check the antifreeze (fill as necessary).
- c. Check the tires for proper air pressure (cuts, holes, etc.).
- d. Check the hydraulic fittings and hoses.
- e. Check and grease the linkage pins.
- f. Check the welds attaching the blades to the carriage.
- g. Check the tips of the forks for upward bending.
- h. Check the skid plates under carriage and under fork tips.
- i. Unplug block heater (wrap cord up neatly and hang on hook on building or fence).

START ENGINE:

- a. Allow the engine to warm up 5 minutes before use.
- b. Check gauges for proper oil pressure, fuel level, etc.

Shut engine off immediately if you hear any unusual noises or if the gauges are indicating something out of the normal operating range and notify your immediate supervisor.

BEFORE ENGAGING THE TRANSMISSION IN GEAR:

- a. Visually check all around the loader/fork lift to be sure all people are clear.
- b. Disengage the parking brake.
- c. Lift the forks off the ground.

DURING USE OF MACHINE AND SAS FORKS™

Follow procedures and information in the Operator Manual for Machines Equipped with SAS FORKS™

WHEN FINISHED USING THE MACHINE:

- a. Lower the forks to the ground



SAFETY

Buyer accepts the responsibility to (1) Ensure that all personnel that will use and/or work in the area of the purchased product will read the safety ID plate and the Operator Manual For Machines Equipped With SAS FORKS™ and the Machine Manufacturer’s Operators Manual, prior to use; and (2) Ensure that all personnel follow the safety guidelines outlined on these materials. S.A.S. OF LUXEMBURG, LTD. IS NOT RESPONSIBLE FOR SAFETY IN THE FIELD.

GOALS OF THE S.A.S. OF LUXEMBURG, LTD. LIMITED WARRANTY PROCEDURE

- ASSURE MINIMUM CUSTOMER DOWNTIME by resolving the problem correctly on a timely basis.
- ASSURE END-USER CONFIDENCE while maintaining an equitable Warranty expense for both your company and SAS.
- PRODUCT IMPROVEMENT. We have an engineering staff ready to assist you. Call us at 1-877-SAS-FORK (1-877-727-3675) Please call SAS before attempting any repair, modification, or questionable job applications.

LIMITED WARRANTY FOR SAS FORKS™

For products that S.A.S. of Luxemburg, Ltd. (SAS) manufactures, SAS warrants that such products conform to all specifications for materials and workmanship for the period of time indicated below, after delivery, when used in compliance with the SAS FORKS™ Operator Manual.

<u>PRODUCT TYPE</u>	<u>LIMITED WARRANTY PERIOD</u>	<u>ITEM COVERED</u>
STANDARD HEAVY DUTY 15’ SAS FORKS™	1 YEARS FROM ORIGINAL SHIP DATE	CARRIAGE UNIT
STANDARD HEAVY DUTY 15’ BLADES	3 YEARS FROM ORIGINAL SHIP DATE	FORK BLADE
ALL OTHER SAS FORKS™ (listed below)	1 YEAR FROM ORIGINAL SHIP DATE	CARRIAGE UNIT
MEDIUM DUTY SHORT SAS FORKS™, HEAVY DUTY SHORT CRUSHING SAS FORKS™, THE CLAW™, SAS RAKE FORK, MEDIUM DUTY LONG SAS FORKS™, EXTRA HEAVY DUTY LONG SAS FORKS™ , LIGHT DUTY LONG TUBULAR.		
BLADES FOR ABOVE LISTED SAS FORKS™	1 YEAR FROM ORIGINAL SHIP DATE	FORK BLADE
FORGED FORKS	1 YEAR FROM ORIGINAL SHIP DATE	CARRIAGE UNIT
FORGED FORK BLADES	None, Not a SAS manufactured component.	NA
SAS FORKS™ BUMPERS	None	NA
SKID PLATES	None	NA
OTHER PRODUCTS NOT LISTED	None, unless specified on face of original invoice	NA

SAS does not warrant the products that it does not manufacture. Rather, all warranties, if any, for these products are supplied by the manufacture. SELLER EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

CALL FOR WARRANTY CONSIDERATION: To be considered for warranty repairs or replacement buyer must notify SAS of any warranty claim within 10 days after such claim arises, and prior to expiration of the warranty period and prior to the performance of any repairs being done, otherwise buyer waives all rights to such claim.

- Obtain the serial number off the forks and call SAS at 1-877-SAS-FORK. Clearly describe the problem and the operation that was taking place when it occurred.
- Buyer is to return defective assembly, freight prepaid, or photographic evidence clearly showing the problem area and details of failure to SAS for review. When necessary, a factory representative may evaluate the problem in the field.

WHAT SAS WILL DO: SAS will examine the defective product, and the details of the failure. If SAS determines that the failure of materials or workmanship was proven to be within the terms of this limited warranty, SAS will, at it’s option, repair or replace, FOB the factory, in Luxemburg, WI, USA, the defective product. If the product cannot be returned to the factory, SAS may approve field repair of defective product. SAS will approve an appropriate amount of hours and cost for the repair before authorizing repairs to begin. No provisions will be made for incidental damages, mileage, travel time, overtime, downtime, or special freight charges.

FORK BLADE LIMITED WARRANTY

•**BENT FORK BLADES** are a condition of operation error and are NOT a warranted condition. If you do bend a blade, call 1-877-SAS-FORK and a factory representative will assist you in the procedure for straightening the bent blade. The blades, under most circumstances, can be straightened.

•**BROKEN/CRACKED FORK BLADES** must meet the following specifications to qualify for a broken blade replacement:

1) The tips of the blade must measure at least 90% of the original thickness at the originally designed length.

•The STANDARD 15' HEAVY DUTY FORK BLADES are designed and shipped from the factory at one and one-half (1 ½") inches thick and one hundred and ninety two (192") inches long.

•ALL OTHER BLADES ARE CUSTOM DESIGNED; Consult SAS for original fork blade design specifications.

2) The blades must not have been welded or ground in any manner other than for welding of factory approved skid pads.

3) The blades must not have an upward deflection of more than 1" per 10' as measured from the tip. *

4) The blades must not be cracked from the bottom, or the crack must not originate from the bottom.*

*Both of the above conditions are caused from repeated down pressure. This is not a warrantable condition. See page 5 and 8

5) Refer to the 'conditions that will void your warranty'

If the blade(s) break and the blades meet these conditions, the factory will ship you freight collect a new replacement blade at no charge.

CARRIAGE UNIT LIMITED WARRANTY

•**UPPER CARRIAGE UNIT FIT AND CONSTRUCTION:** We guarantee our SAS FORKS™ to fit your machine as designed to match the specifications you provided.

This is warranted against cracks in material, weldments, and factory machined areas.

•**WEAR OF BASE PLATE LOWER CARRIAGE,** which is structural material, voids the warranty. This is caused from not maintaining skid plates under the carriage. See page 6.

•**BROKEN/CRACKED LOWER CARRIAGE:**

Cracking or breaking of the carriage unit from the bottom voids the warranty. This is caused from improper operation. Usually caused by repeated down pressure and wheelies. This is not a warrantable condition. See pages 5 and 8.

CONDITIONS THAT WILL VOID YOUR WARRANTY: Failures, which in our determination were the result of:

• Improper installation.

• Misapplication - See SAS FORKS™ Operator Manual.

• Misuse or Improper operation – See SAS FORKS™ Operator Manual.

• Exceeding the weight and/or lift limitation posted on the Identification Plate attached the SAS FORKS™.

• Negligence or Failure to perform routine inspection and/or maintenance as outlined in the SAS FORKS™ Operator Manual.

• Unauthorized modification, welding, burning, grinding, installation of non-factory skid plates, etc. (other than specifically allowed in the SAS FORKS™ Operator Manual or as provided in a written authorization directly from SAS factory Engineers.).

• Continued use after a malfunction of the hydraulic system in the forklift or loader.

• Accidental damage.

LIMITED WARRANTY REMEDIES: Buyer must notify SAS of any warranty claim within 10 days after such claim arises; otherwise buyer waves all rights to such claim. Unless agreed otherwise in writing. Buyer's sole remedy for breach of warranty is, at seller's option, the repair of the defect, or the providing of a replacement part F.O.B. seller's office. Seller will not be responsible for costs of dismantling or reassembling the product. Further, seller will not be liable for any direct, indirect, consequential, incidental, or special damages arising out of a breach of warranty. These remedies are exclusive, and all other warranty remedies are excluded.

PROPRIETARY RIGHTS: All designs and other proprietary rights provided by SAS to Buyer are to remain the property of SAS, and Buyer shall honor all proprietary legends. Buyer agrees not to copy the design of S.A.S.™ Forks.

LIMITATION OF LIABILITY: The seller's price is based on the enforceability of this limitation of liability, and the buyer understands that the price would be substantially higher without this limitation. Seller shall have no liability to buyer for lost profits or for special, consequential, exemplary, or incidental damages of any kind, whether arising in contract, tort, product-liability, or otherwise, even if advised of the potential damages in advance.

• In no event shall seller be liable to buyer for any damages whatsoever in excess of the contract price.

• In the event that any warranty or warranty remedy fails of its essential purpose, or is held to be invalid or unenforceable for any reason, in consideration of the other provisions of this agreement, the parties understand and agree that all limitations of liability under this provision will nevertheless remain in effect.

SEVERABILITY: Any legally unenforceable provision may be severed from this agreement, and the remaining terms and conditions will be enforced as a whole.

PRE-HEAT PROCEDURE:

THE PREHEAT TEMPERATURE SHOULD BE ABOVE 600° F & NOT TO EXCEED 850° F, TO AVOID THIS:

- USE A SOFT FLAME AND DO NOT LEAVE UNATTENDED
- USE A 600° F TEMP STICK FREQUENTLY ON HEATED SURFACE UNTIL IT MELTS

WELD PROCEDURE:

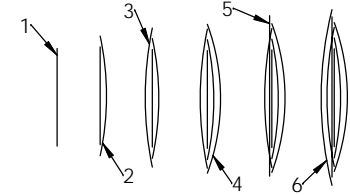
- WELD WITH MET110 or MC100 IN AREA'S SHOWN
- INTERPASS TEMPERATURES NOT TO EXCEED 850° F
- DO NOT LET COOL UNDER 600° F

POST-HEAT PROCEDURE:

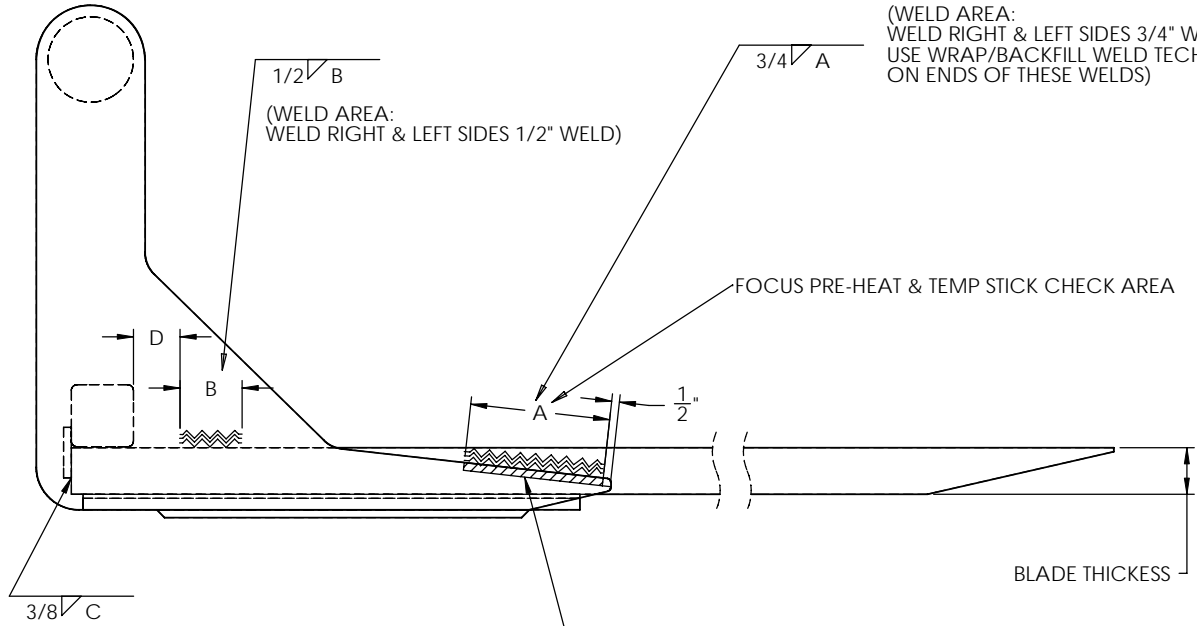
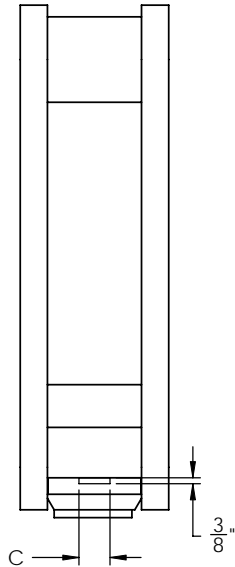
- USE SOFT FLAME ON WELDED AREA KEEPING TEMPERATURE BETWEEN 600° F & 850° F FOR 1 1/2 HOURS
- WRAP WELDED AREA WITH FIRE PROOF BLANKET & ALLOW TO COOL SLOWLY FOR 4-5 HOURS

WRAP/BACKFILL WELD TECHNIQUE:

- ON WELD AREA "A" ONLY!



(WELD AREA: WELD RIGHT & LEFT SIDES 3/4" WELD. USE WRAP/BACKFILL WELD TECHNIQUE ON ENDS OF THESE WELDS)



RECOMMENDED PROCEDURE:

1. CUT OUT OLD BLADES WITH GRINDING WHEEL (DO NOT USE TORCH)
2. PRE-HEAT "A" & "B" WELD AREA'S TOGETHER.
3. WELD "A" AREA.
4. WELD "B" AREA.
5. WELD "C" AREA AT BOTTOM REAR OF SHOE AS SHOWN (NO PRE OR POST HEAT REQUIRED)-NOT A CRITICAL STRESS AREA OF THE BLADE.

BLADE THICKNESS	A	B	C	D
2 1/2"	5"	5"	2"	3"
3"	9"	4"	2"	3"
3 1/2"	11"	4"	2"	2"
4"	14"	3 1/2"	2"	2"

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SAS OF LUXEMBURG, LTD. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SAS OF LUXEMBURG, LTD IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/16 ANGULAR: MACH ± 0.5° BEND ± 5° TWO PLACE DECIMAL ± 0.03 THREE PLACE DECIMAL ± 0.005 INTERPRET GEOMETRIC TOLERANCING PER: ANSI SPEC	NAME STB	DATE 10/10/2007	SAS OF LUXEMBURG, LTD	
MATERIAL SEE BOM	DRAWN			TITLE: CRUSHING BLADE REPLACEMENT/WELDING PROCEDURE
FINISH	CHECKED			
DO NOT SCALE DRAWING	ENG APPR.			SIZE B DWG. NO. BLADES-BFF REV
COMMENTS:			SCALE: 1:24 WEIGHT: 2470.01 SHEET 1 OF 1	