

# **Maintenance and Operating Instructions**

## **PG Style Pipe Grapple**



Read this manual before installing, operating or servicing this product. This manual contains important information. Make this manual available to all persons responsible for the operation, installation, servicing and maintenance of this product.

# **Maintenance and Operating Instructions**

## **PG Style Pipe Grapple**

### **Safety Notes:**

- 1) All safety messages and decals in this manual are to be read and understood by all personnel installing, maintaining or operating the Pipe Grapple.
- 2) If the Pipe Grapple is equipped with O.E.M. (Original Equipment Manufacturer) pin on lugs, read the operating and safety manual for pin on attachments supplied by the machine manufacturer.
- 3) If the Pipe Grapple is equipped with KAT Master Hitch lugs, read the operating and safety manual for the specific Master Hitch system on your machine.
- 4) Always ensure that the Pipe Grapple is properly attached to the machine coupling system before operating or making adjustments.
- 5) Always ensure that all personnel or objects are at the recommended O.E.M. safe working distance from the operating area of the machine.
- 6) Always ensure that the attachment will be uncoupled in a safe, stable position. Unexpected or sudden movement could cause damage, injury or death.
- 7) Always conduct a workplace hazard assessment prior to work commencing. Address any dangers or potential dangers arising out of the use of the equipment and attachments.

### **General Information:**

It is the owners' responsibility to ensure proper maintenance and inspection programs are developed and followed.

Only qualified personnel shall complete maintenance and inspection operations.

Prior to all maintenance or inspection operations ensure that the attachment is resting on the ground and/or properly supported.

Always wear the proper protective equipment when performing maintenance operations.

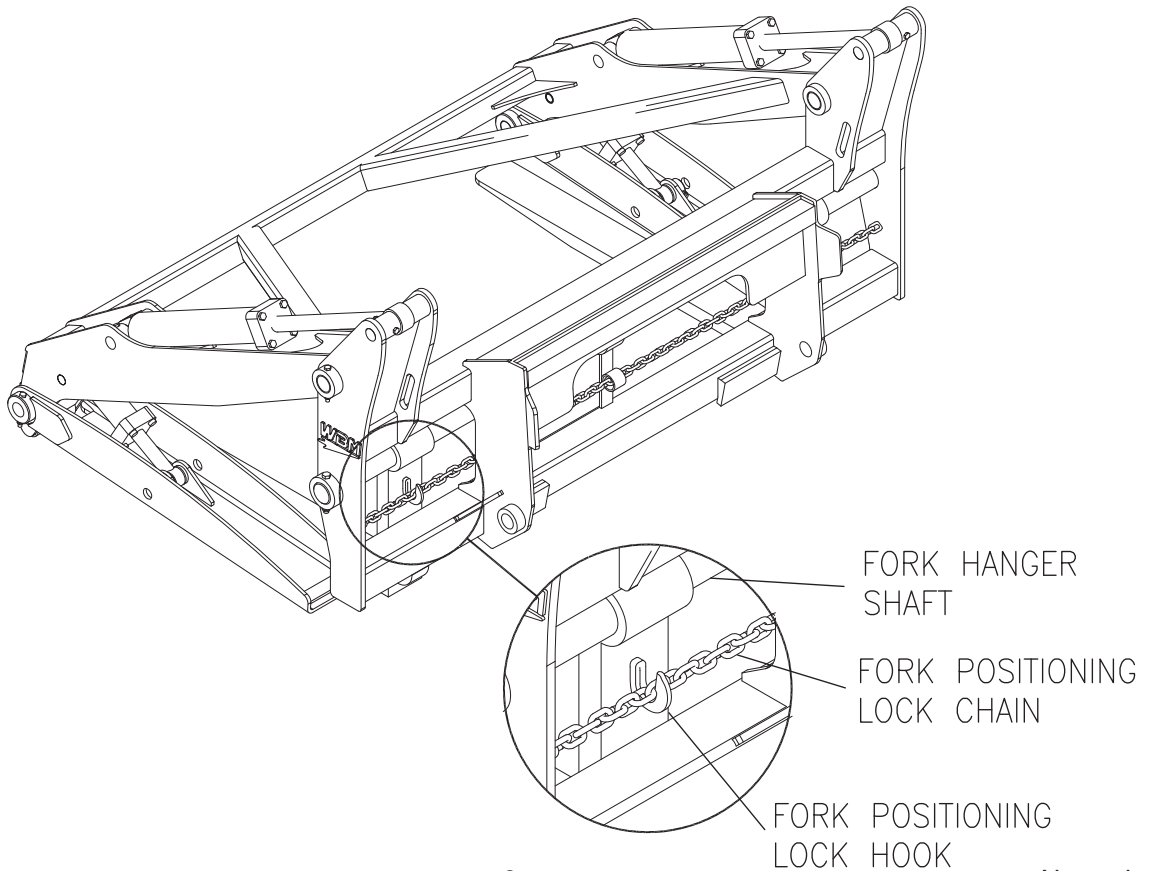
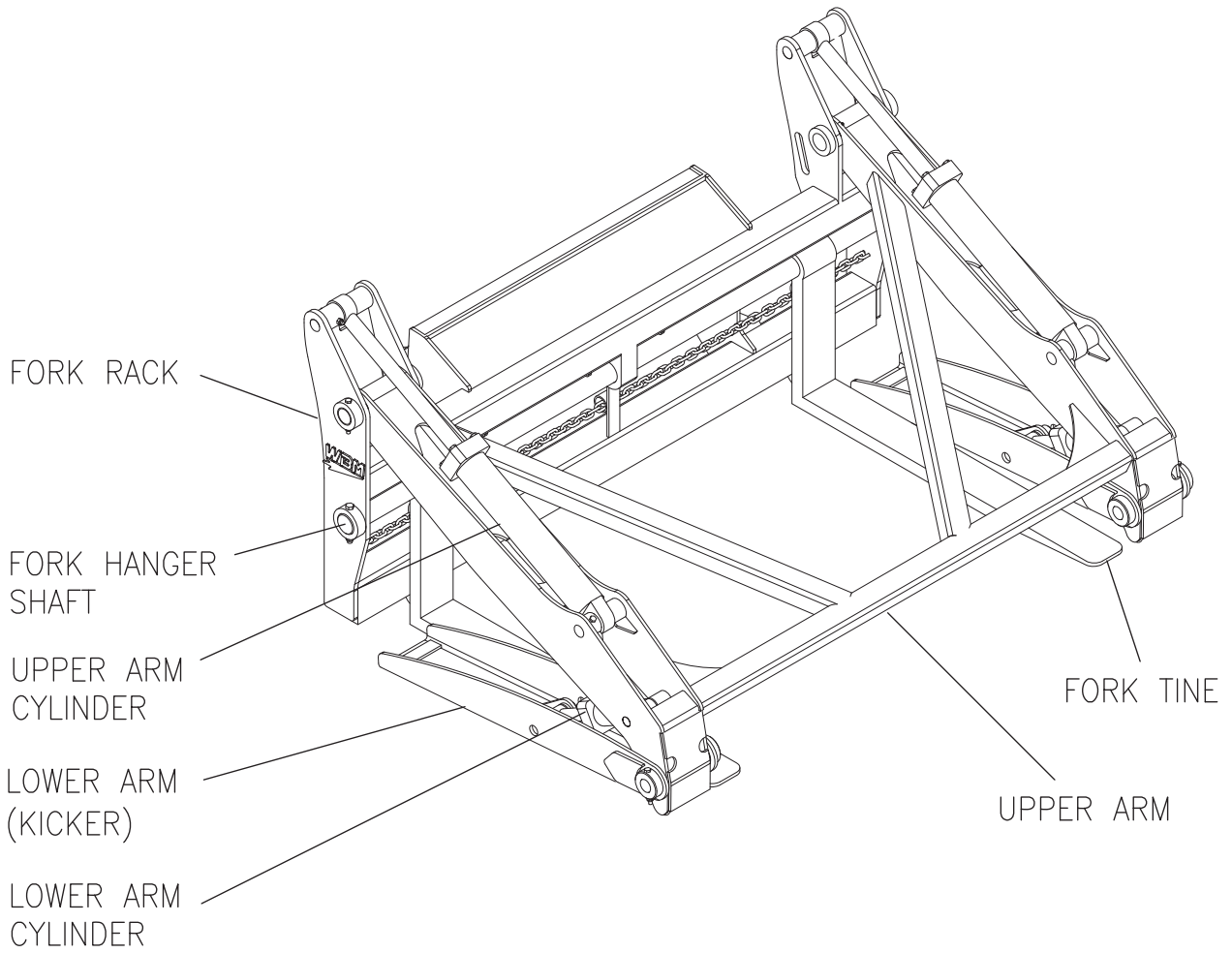
#### **DANGER**

Improper operation and maintenance of the Pipe Grapple could result in serious injury or death. Read and understand this manual prior to operating and/or maintaining this equipment.

#### **DANGER**

Do not modify any part of the Pipe Grapple unless authorized by Weldco-Beales Mfg. Doing so may cause structural damage to the Pipe Grapple and may result in property damage or serious injury or death.

# Pipe Grapple Terminology



## MAINTENANCE

### Daily Inspections:

Perform visual daily inspections on/for all of the following items, with the Pipe Grapple resting on the ground and the machine turned off:

- 1) Structural integrity of the Pipe Grapple and its' accompanying components. Inspect all welds and components for cracks or damage.
- 2) Excessive wear on components that would impede or impair proper operating procedures.

**⚠ DANGER**

All cracks or component damage must be repaired; all worn components or missing parts must be replaced before operation of the Pipe Grapple. Failure to repair or replace damaged or worn components may result in serious injury or death.

- 3) Hydraulic components (hoses, hose ends, fittings, valves) and connections for leakage or damage.

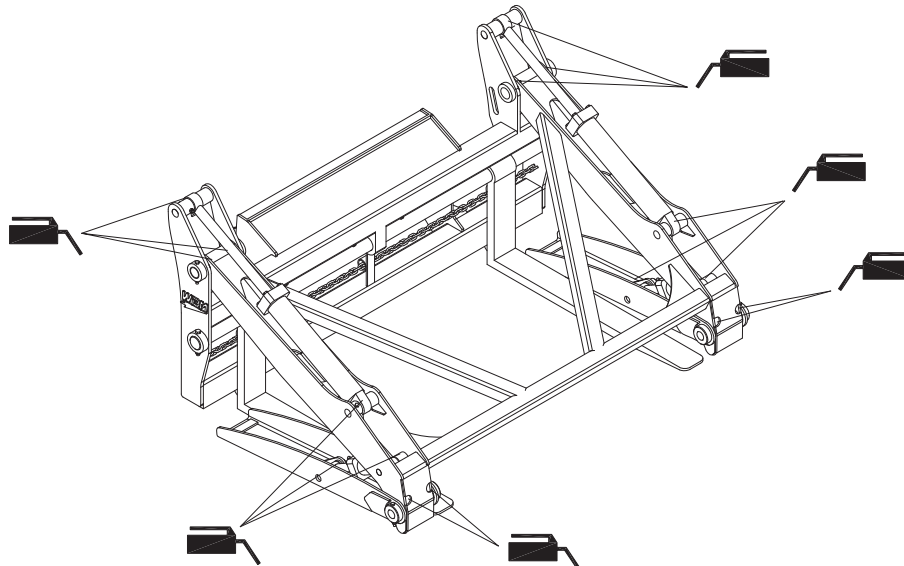
**⚠ WARNING**

Use proper protective equipment when inspecting hydraulic components for leaks and damage. Failure to do so could result in serious injury or death

**⚠ DANGER**

Do not modify any part of the Pipe Grapple unless authorized by Weldco-Beales Mfg. Doing so may cause structural damage to the Pipe Grapple and may result in property damage or serious injury or death.

- 4) Pipe Grapple cylinders for structural integrity, cracks, damage and leakage.
- 5) Sufficient amount of grease at all locations. (16 Places)

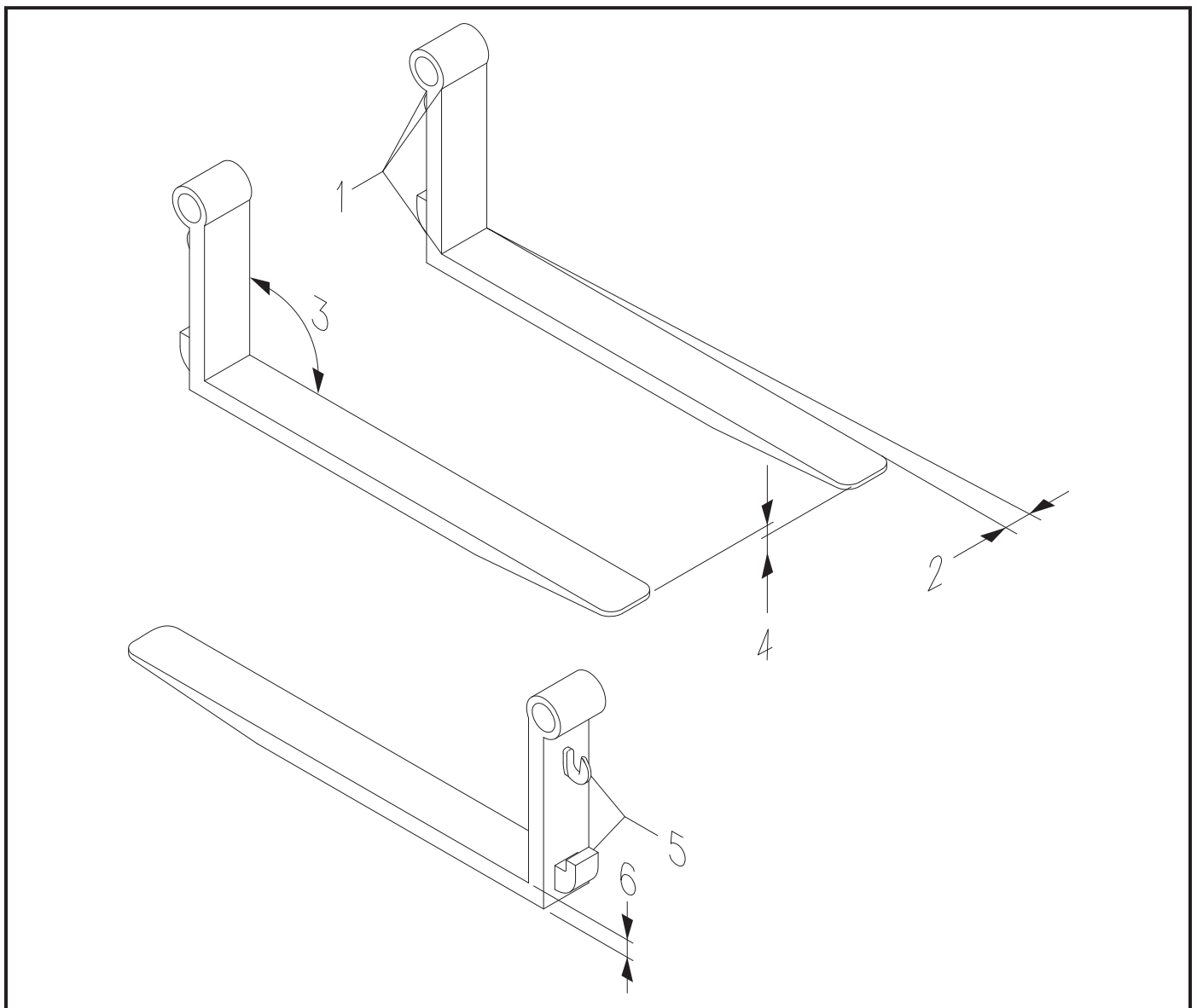


## **Fork Tine Inspections:**

The fork tines are to be inspected on a regular basis or when damage or failure is detected as per ASME B56.1. If any such defect is present, the fork tine is to be removed from service until it has been appropriately repaired or replaced.

Items to check include (see figure below):

1. Surface cracks, especially in the heel and the pin boss areas.
2. Straightness of fork tine, which is not to exceed  $\frac{1}{2}\%$  of the length of the tine and/or the height of the back respectively.
3. Angle of the fork tine to the back of the forks, which is not to exceed  $3^\circ$  beyond the original angle.
4. Height difference between both fork tine tips, which is not to exceed 3% of the length of the fork tine.
5. Fork swing lock and fork positioning lock for cracks and deformities.
6. Fork tine wear, which is not to exceed 10% of original tine thickness.



**Fork Tine Inspections**

## OPERATION

### ***Before Using The Pipe Grapple:***

Ensure that it is securely attached to the machine and the hydraulics are properly connected. Cycle the Pipe Grapple through the dump and roll back positions to ensure the Pipe Grapple is secured to the machine.

### ***⚠ DANGER***

When performing inspections or tests with equipment in a fully operable condition ensure all personnel and objects are at least the O.E.M. recommended safe working distance from the operating area of the machine. Failure to comply may result in property damage or serious injury or death.

Fully open and fully close the over arm and ensure that it is working properly.



### ***⚠ DANGER***

Do not operate the Pipe Grapple if the over arm is not working properly. Failure to repair or replace damaged or malfunctioning components may result in property damage or serious injury or death.



### ***Fork Tine Adjustment:***

**⚠ DANGER**

Do not attempt to adjust the fork tines unless the Pipe Grapple is securely attached to the machine. Failure to do so may result in property damage or serious injury or death.

Always ensure safe working procedures are followed. While adjusting the fork tines, be cautious of pinch points and crush hazards.



### ***To Adjust Fork Tines:***

1. Raise the Pipe Grapple off the ground to about waist height.
2. Raise the over arm to allow clearance from the tips of the fork tines.
3. Place the machine engine to idle and set parking brake.
4. From the ground, remove the chain from the hook on the back of the fork tines.
5. Slide the fork tines to the desired position.
6. Re-attach the chain to the hooks.

### ***Pipe Grapple Usage:***

**⚠ CAUTION**

Fork tine capacity ratings are **reduced** on attachments with over arms or clamps. Be aware of the fork tine capacity ratings of the attachment.

**⚠ WARNING**

Do not exceed the rated load capacity of the Pipe Grapple. Doing so may cause structural damage to the Pipe Grapple and may result in property damage or serious injury or death.

The Pipe Grapple capacity ratings refer to the Pipe Grapple only and may exceed the machine load ratings. Ensure the machine is capable of handling the intended load. Consult the machine operators' manual for details.

**⚠ DANGER**

Do not leave a load suspended for an extended period of time. Do not leave a suspended load unattended. Doing so may result in property damage or serious injury or death.

**⚠ DANGER**

Do not move a load until it is securely clamped and all personnel and objects are at least the O.E.M. recommended safe working distance from the operating area of the machine. Failure to comply may result in property damage or serious injury or death.





 **WARNING**

Do not use the Pipe Grapple for lifting or moving personnel. Doing so may result in serious injury or death.

 **WARNING**

Do not use the Pipe Grapple as a ramming, pushing or pulling device. Doing so may cause structural damage to the Pipe Grapple and may result in property damage or serious injury or death.

**It is the responsibility of the owners and operators to ensure safe working procedures are followed in every application and circumstance. This manual is to be used as a guide but is not in itself a comprehensive safety program. A safety program should be developed that is specific to each application. For more information on safe work practices contact the nearest Weldco-Beales Mfg. Branch.**

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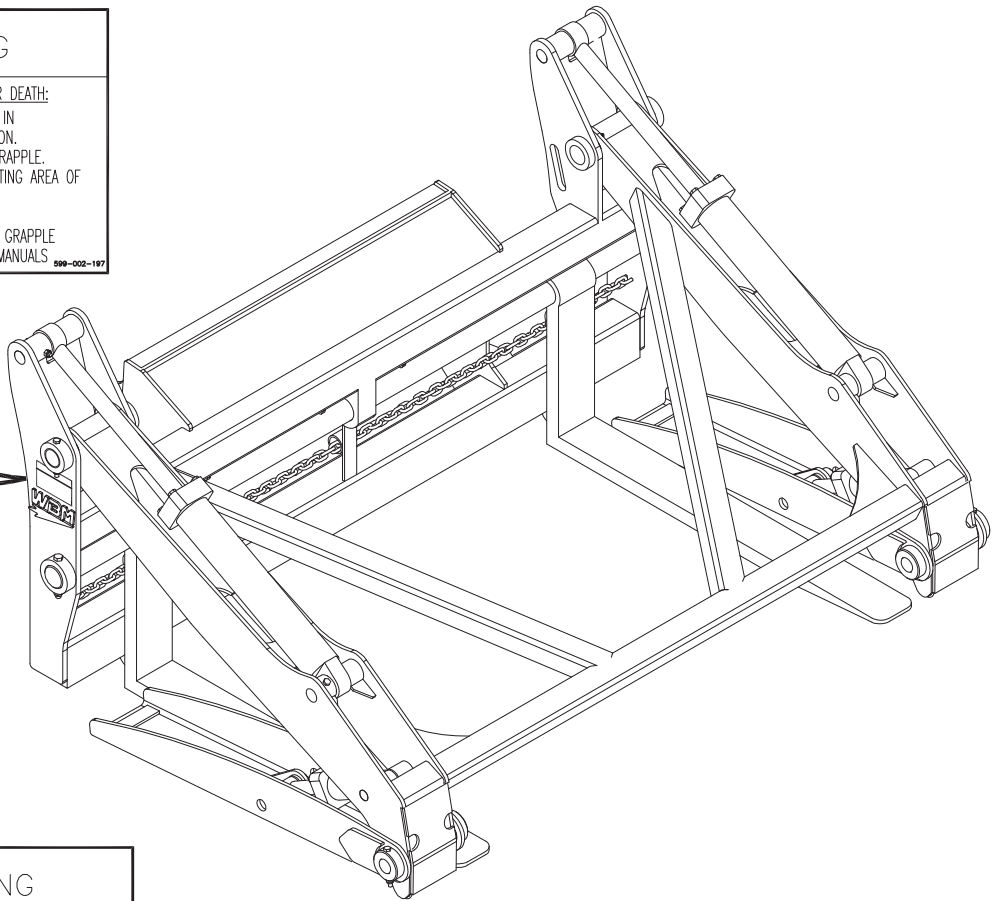
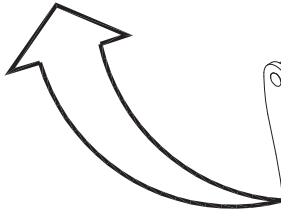
**SAFETY DECALS:**


 **WARNING**

TO REDUCE THE RISK OF SERIOUS INJURY OR DEATH:

- KEEP THE GRAPPLE ON THE GROUND AND IN THE CLOSED POSITION WHEN NOT IN OPERATION.
- DO NOT ALLOW RIDERS ON MACHINE OR GRAPPLE.
- KEEP ALL PERSONNEL OUT OF THE OPERATING AREA OF THE GRAPPLE WHILE IN OPERATION.
- BE CAUTIOUS OF PINCH POINTS
- DO NOT EXCEED THE RATED LOAD OF THE GRAPPLE
- READ AND UNDERSTAND THE OPERATOR'S MANUALS

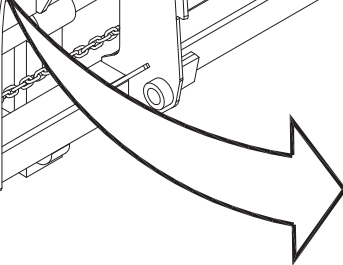
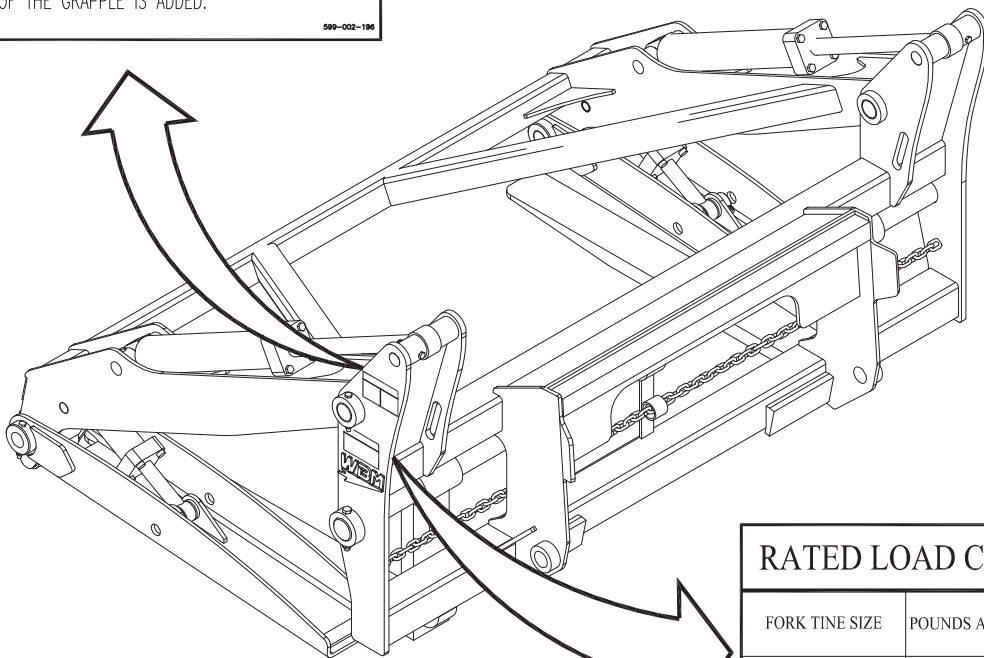
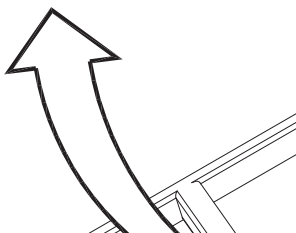
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 **WARNING**

THE LOAD CAPACITY RATINGS REFER TO THE GRAPPLE ONLY. MACHINE RATINGS MAY DIFFER, CONSULT THE MACHINE OPERATOR'S MANUAL. WHEN CALCULATING TOTAL LOAD CAPACITY, ENSURE THE WEIGHT OF THE GRAPPLE IS ADDED.

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RATED LOAD CAPACITY	
FORK TINE SIZE	POUNDS AT 27" LOAD CENTER
2" X 6" X 54"	5,450
2 1/2" X 6" X 54"	8,350
2 1/2" X 8" X 54"	10,000

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