





General Information


This section provides general information and recommendations required prior to installing, operating or maintaining your KAT Master Hitch.

All safety messages and decals contained in this WBM Parts and Installation Manual, and in the Hydraulic Installation Kit must be read and understood by all personnel installing, maintaining or operating the KAT Master Hitch.

Safety Message Classification	
 DANGER	Indicates an imminently hazardous situation. If not avoided, this hazard will result in serious injury or death.
 WARNING	Indicates a potentially hazardous situation. If not avoided, this hazard could result in serious injury or death.
 CAUTION	Indicates a potentially hazardous situation. If not avoided, this hazard may result in minor or moderate injury.
 NOTICE	Indicates a potentially hazardous situation. If not avoided, this hazard may result in damage to the handler or machine.

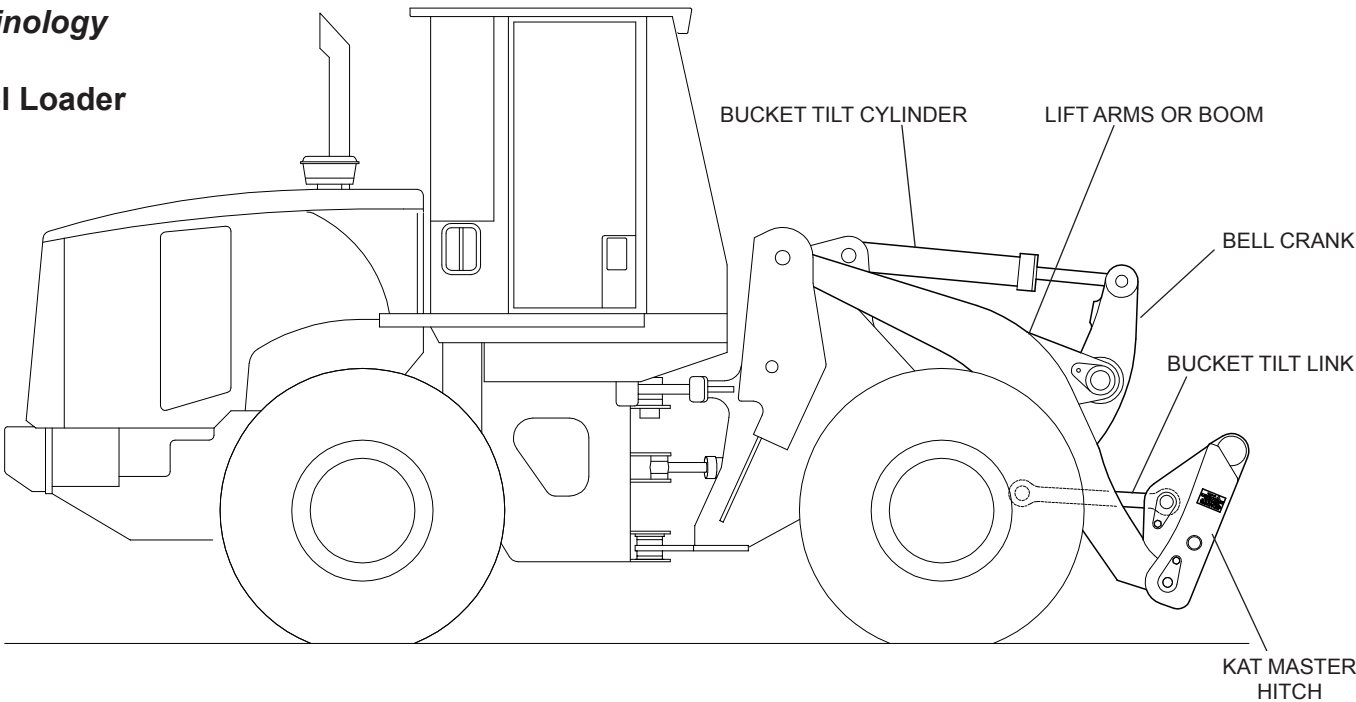
All personnel who will operate the KAT Master Hitch must read and familiarize themselves with the Installation, How it Works, Maintenance and Safe Working Procedures sections of this manual prior to operating or maintaining the KAT Master Hitch.

The owner or operator of any equipment using a KAT Master Hitch shall review all additional materials, including hazard assessments and operating manuals supplied by the manufacturer of the machine to ensure safe use and operation.

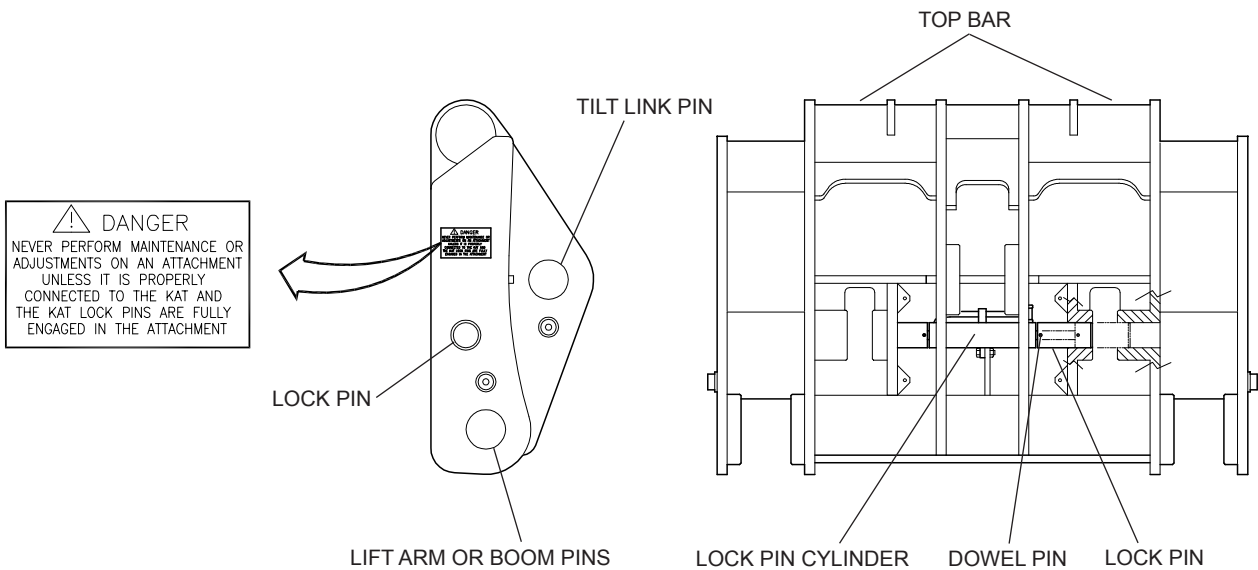
 WARNING
Failure to comply with information contained within the Weldco-Beales Parts and Installation Manual may result in injury, death, damage to property and/or damage to the KAT Master Hitch. Ensure that all personnel have read and understand the information contained in the Manual before attempting to install, maintain and/or operate the 35 ton Lifting Device

Terminology

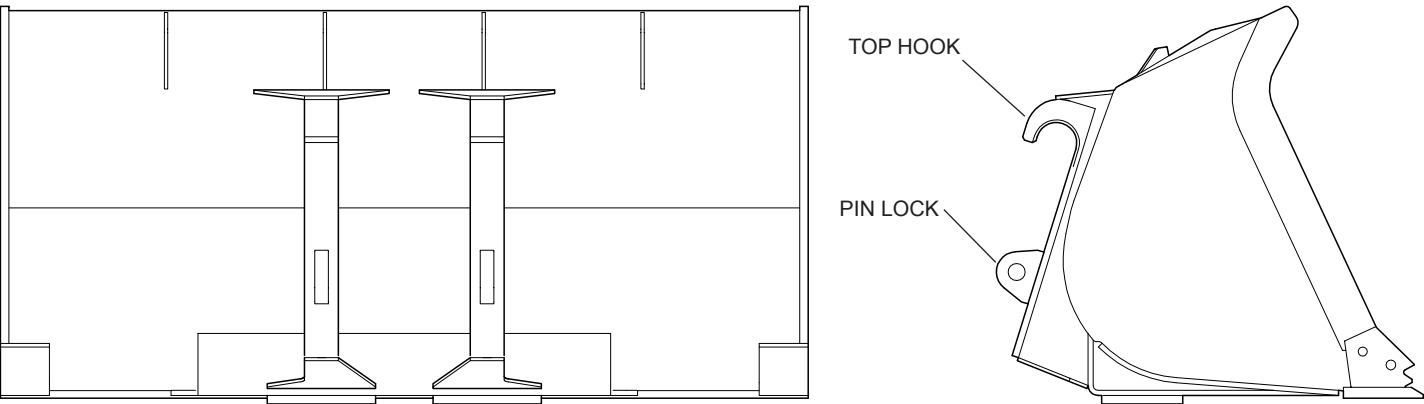
Wheel Loader



KAT Master Hitch



Wheel Loader KAT Bucket



Maintenance and Operation

WARNING

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

WARNING

Always use the lock pins during operation. Failure to follow all safety precautions could result in serious injury or death. Read and understand this manual prior to operating and/or maintaining this equipment.

Maintenance:

General Information:

Only qualified personnel should perform maintenance and inspection operations.

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

Always wear proper protective equipment when performing maintenance operations.

WARNING

The attachment end of the wheel loader lift arms or boom, the linkage and attachments contain several pinch points. Stay clear when the machine is in operation. Properly support all attachments and linkages before performing maintenance or inspections. Failure to do so may result in serious injury or death.

Daily Inspections (Static):

Without the KAT Master Hitch being engaged to an attachment, with the machine's parking brake engaged, and if equipped, the machine's hydraulic safety lever in the off position, perform visual daily inspections on/for all of the following items:

- 1) Structural integrity of the KAT Master Hitch and its' accompanying components. Inspect all welds and components for cracks or damage. Contact WBM with any questions before repairing any welds for recommended welding procedures.
- 2) Excessive wear on components that would impede or impair proper operating procedures; KAT Master Hitch components that show signs of wear by more than 1/32" will require rebuilding or replacement.

WARNING

Any cracks or component damage must be repaired prior to any operation of the KAT Master Hitch. Failure to repair damaged or worn components may result in serious injury or death.

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

CAUTION

When inspecting the hydraulic components for damage, ensure the proper Protective Equipment is being used and the machine's hydraulic engage function has been disengaged.

WARNING

All hydraulic leaks or damage must be repaired prior to any and all operation of the KAT Master Hitch. Failure to repair damaged or worn components may result in serious injury or death.

- 4) Bolts for tightness and installation.
- 5) Lock Pins for structural integrity, cracks and damage.

Daily Inspections (Dynamic):

Perform visual daily inspections on/for all of the following items, without the KAT Master Hitch being engaged to an attachment, the machine's park brake engaged, machine engine rpm at low idle and, if equipped, the machine's hydraulic safety lever in the on position:

WARNING

When performing inspections with equipment in a fully operable condition ensure all personnel and objects are at the O.E.M (Original Equipment Manufacturer) recommended safe working distance from the operating area of the machine. Conduct all inspections on flat, dry ground where the equipment and all attachments are properly supported. Failure to comply may result in property damage or serious injury or death.

- 1) Manipulate the lift arms/boom and bucket hydraulics to allow for a clear, visual inspection of the KAT Master Hitch in operation. Check contact points of roll back and dump stops and Master Hitch range of motion.
- 2) Fully extend and retract the lock pin cylinder, to ensure they move freely.
- 3) Repeat this procedure twice prior to engaging any attachment to ensure that the KAT Master Hitch is functioning properly.

WARNING

If the KAT Master Hitch is not functioning properly have it checked and repaired by a qualified service technician before attempting to use the quick coupler or any related attachments. Failure to comply may result in property damage or serious injury or death.

Daily Inspections (of attachments):

Check the fit of the KAT Master Hitch into all corresponding attachments; inspect the top bar to top hook fit and lock pin to lock pin bore.

There should be no movement between a correctly connected KAT Master Hitch and the attachment KAT lugs.

If movement exists check the KAT Master Hitch and the attachment KAT lugs for possible wear.

Any attachment KAT lugs that are cracked or worn more than 1/32" on any critical surface will require repair or replacement.

WARNING

Any cracking or component damage must be repaired; all worn components or missing parts must be replaced prior to any and all operation of the KAT Master Hitch. Failure to repair or replace damaged or worn components may result in equipment malfunction, serious injury or death.

KAT Master Hitch Installation

WARNING

Installation of the KAT Master Hitch shall be done by a qualified service technician. The technician must read and understand the manual before attempting installation. Failure to comply may result in property damage or serious injury or death.

Component Installation

WARNING

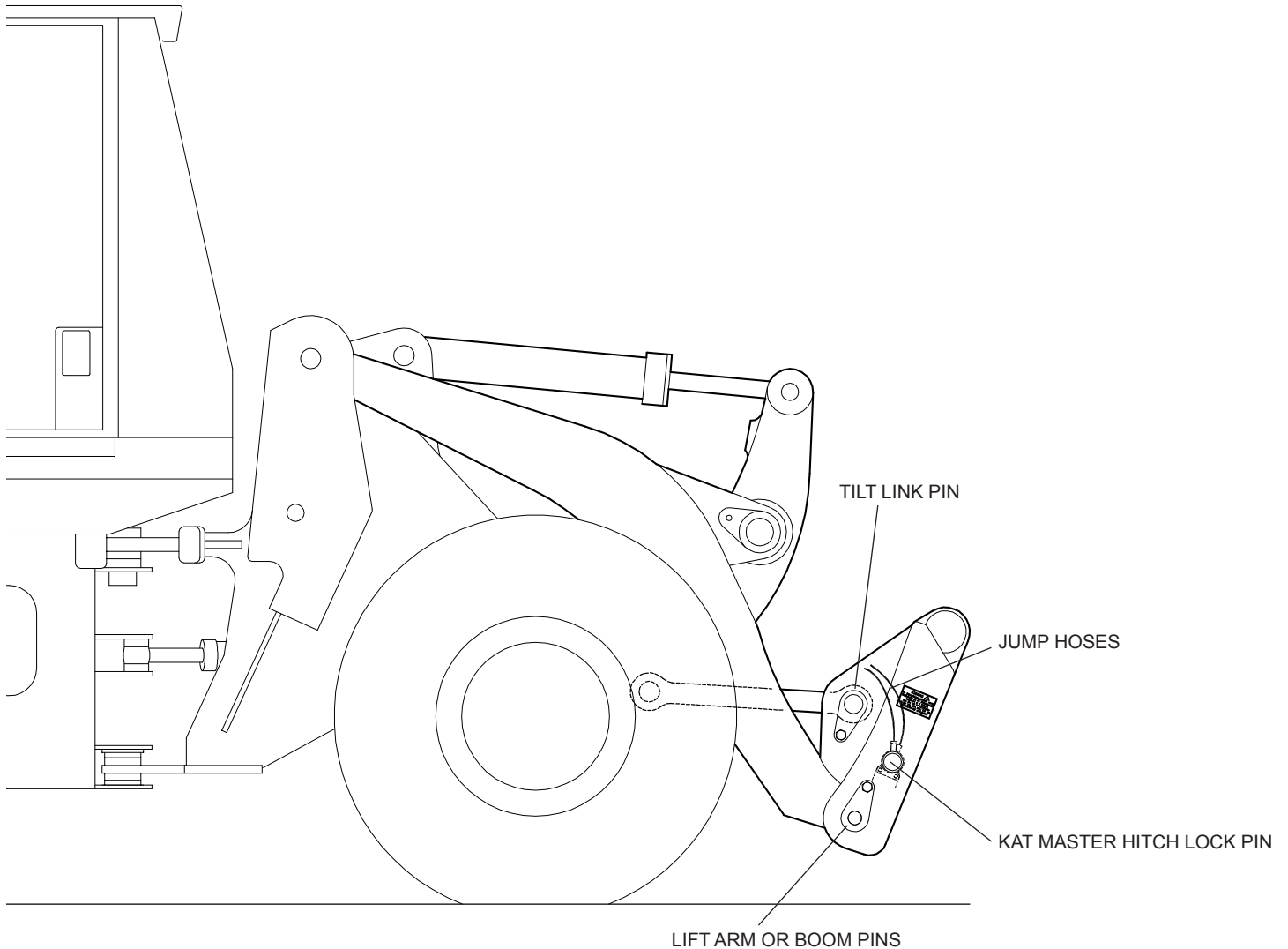
Always follow the procedures in this manual for the installation of the KAT Master Hitch. Failure to do so may result in injury, death, or damage to property or the Master Hitch.

- 1) Position the machine on stable, level terrain in an area where there is clear and unobstructed access to all areas of the wheel loader.
- 2) If the wheel loader is equipped with an existing pin-on style attachment, remove the factory pins and remove the attachment from the work area. The factory pins are needed to install the KAT Master Hitch on the wheel loader.
- 3) Align the KAT Master Hitch lower pin bores with the wheel loader lift arm/boom pin bores and install the factory pins.
- 4) Align the bucket tilt cylinder link(s). Install and secure the correct proper pin(s).

Hydraulic Installation

The KAT Master Hitch lock pin cylinder can utilize pressure from the machine's "3rd valve", or an auxiliary hydraulic pump to activate the lock pin cylinder.

- 1) Connect the lock pin cylinder to the machine hydraulic system with jump hoses.
- 2) Contact the Wheel Loader manufacturer/dealer for machine hydraulic information.



Roll Back / Dump Stop Installation

The Roll Back and Dump Stops are tack welded in the approximate position at time of manufacture. These stops must be field welded at the time of master hitch installation. This ensures the full range of motion is inspected at that time.

Regular inspection of the Roll Back and Dump Stops contact points and range of motion is required during the life of the KAT Master Hitch.

WARNING

Always follow the procedures in this manual for the installation of the KAT Master Hitch. Failure to do so may result in injury, death, or damage to property or the Master Hitch.

Roll Back Stops

- 1) Locate boom pin height at carry position (consult machine brochure).
- 2) Roll the KAT Master Hitch back to limit of travel.

CAUTION

Do not slam KAT Master Hitch back. Stops are only tack welded in place. Damage to machine or KAT Master Hitch may result.

- 3) Roll Back Stops should contact the boom arms.
- 4) Check each boom arm for correct roll back stop contact. Roll back stops should have full and even contact with the boom arms.

CAUTION

Ensure both boom arms contact the stops equally and at the same time. If they do not contact equally the KAT Master Hitch will twist and flex have premature failure.

- 5) Adjust KAT Master Hitch stops as needed to ensure there is full contact.
- 6) Fully weld KAT Master Hitch stops in place.

Dump Stops

Follow this procedure:

- 1) Apply grease or other marking agent to contact areas of KAT Master Hitch.
- 2) Locate boom pin at maximum height.
- 3) Roll the KAT Master Hitch forward to limit of travel.
- 4) KAT Master Hitch stops should contact the boom arms.

CAUTION

Do not slam KAT Master Hitch forward. Stops are only tack welded in place. Damage to machine or KAT Master Hitch may result.

- 5) Factory bell crank stop should also make contact.
- 6) Check each boom arm for correct KAT Master Hitch dump stop contact. Check contact of factory bell crank stop.
- 7) Adjust KAT Master Hitch stops for angle and location to ensure there is full contact.

CAUTION

Ensure both boom arms and the factory bell crank stop contact equally and at the same time. If they do not contact equally the KAT Master Hitch will twist and flex have premature failure.

- 8) Fully weld KAT Master Hitch stops in place.

Operating Manual for the KAT Master Hitch

WARNING

Failure to comply with information contained in the Weldco-Beales Parts and Service Manual may result in injury, death, damage to property, and/or damage to the KAT Master Hitch. Ensure that all personnel have read and understand the Parts and Installation manual before operating or maintaining this equipment.

Engage/disengage attachments away from all personnel.

A visual inspection must be performed to ensure a proper connection each and every time an attachment is engaged. Failure to properly engage an attachment can result in injury or death. The attachment may drop without warning if the KAT Master Hitch is not properly engaged with the attachment

PN # 599-002-195

Safety Notes:

1. Before operating the KAT Master Hitch read the Safe Working Procedures, and General Operating and Maintenance Guidelines.
2. Always utilize the Parts and Installation manual to ensure the recommended procedures have been used to ensure a successful and correct installation.
3. Always ensure when coupling or uncoupling the attachment that the machine is at low engine idle.
4. Never operate or move the machine with the lock pins disengaged from the attachment and the KAT Master Hitch still inserted in the attachment.
5. Always ensure that all surrounding personnel and/or objects are at the recommended O.E.M (Original Equipment Manufacturer) safe working distance from the operating area of machine.
6. Always ensure that the attachment will be uncoupled in a safe, stable position to prevent unexpected or sudden movement that could cause damage, injury or death.
7. Always conduct a workplace hazard assessment **prior** to work commencing to address any dangers or potential dangers arising out of the use of the equipment and/or KAT Master Hitch and attachments.
8. If the KAT Master Hitch is observed to be **not properly engaged** in the attachment the operator should immediately discontinue use. The KAT Master Hitch and attachment should be immediately secured and not placed into operation until there has been a full assessment of any malfunction and all problems are remedied by qualified personnel.
9. Do not use any attachment which is not in the correct tonnage class.

Uncoupling the Attachment

- 1) Position the attachment on level ground, ensuring that the attachment will remain stable after uncoupling.

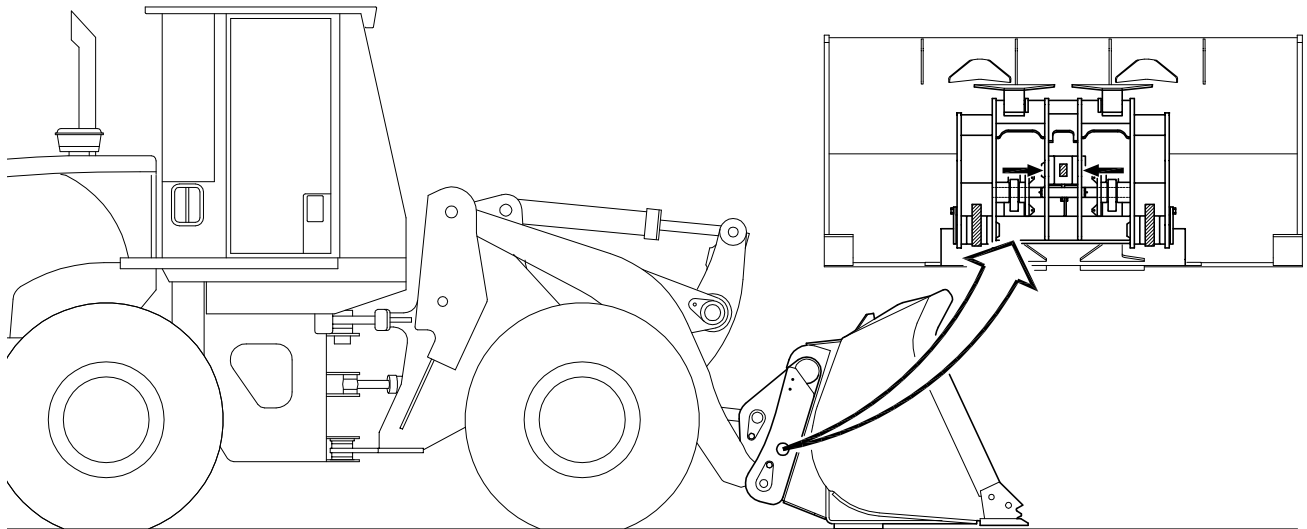
WARNING

Engage or disengage attachments away from all personnel as the attachment may drop without warning. Failure to do so may result in injury, death or damage to property or the KAT Master Hitch.

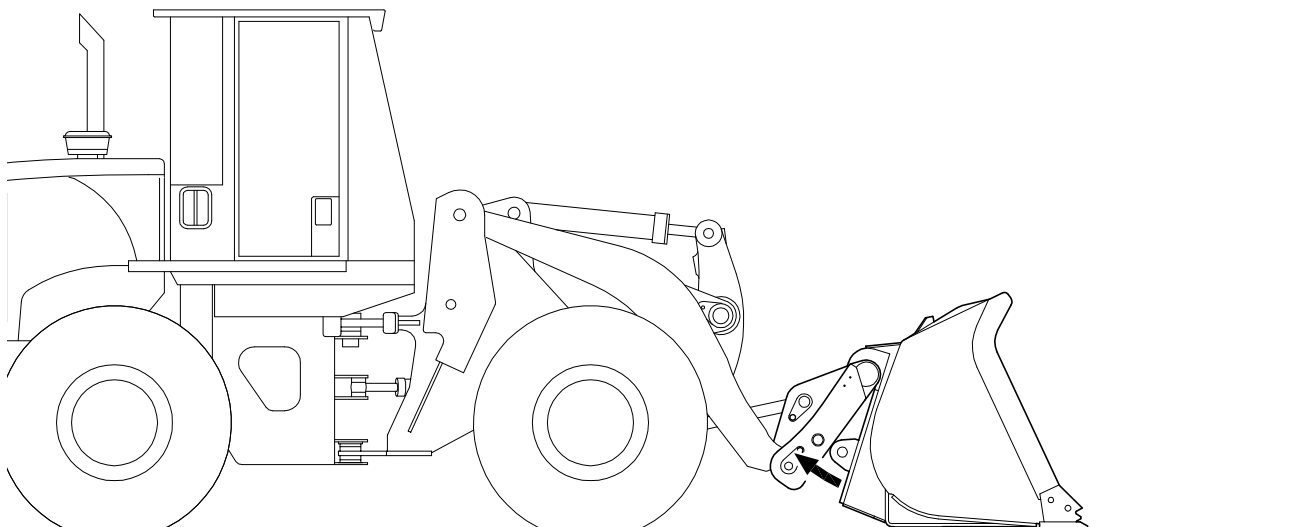
WARNING

Use only WBM style lugged wheel loader attachments on the WBM style KAT Master Hitch. Failure to do so may result in injury, death or damage to property or the Master Hitch.

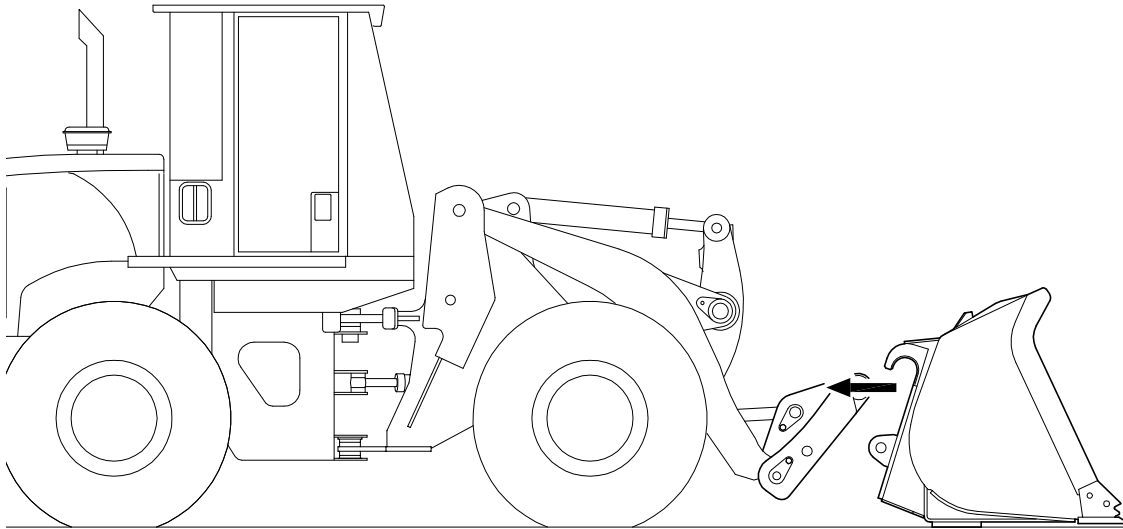
- 2) With the attachment positioned on level ground, hydraulically disengage the lock pins from the attachment. If required, slowly manipulate the KAT Master Hitch by operating the tilt circuit to allow easier disengagement of the lock pins.
- 3) After the lock pins have been fully disengaged, slowly tilt the KAT Master Hitch forward. Slowly back the machine away to disengage the bottom of the attachment.



- 4) After the bottom end of the KAT Master Hitch is disengaged, lower the machine's lift arm/boom to free the top end of the hitch.



- 5) Once the KAT Master Hitch has cleared the attachment, position the machine to engage another attachment.



Coupling the Attachment

- 1) Prior to engaging an attachment, ensure it is in a safe position to be coupled.

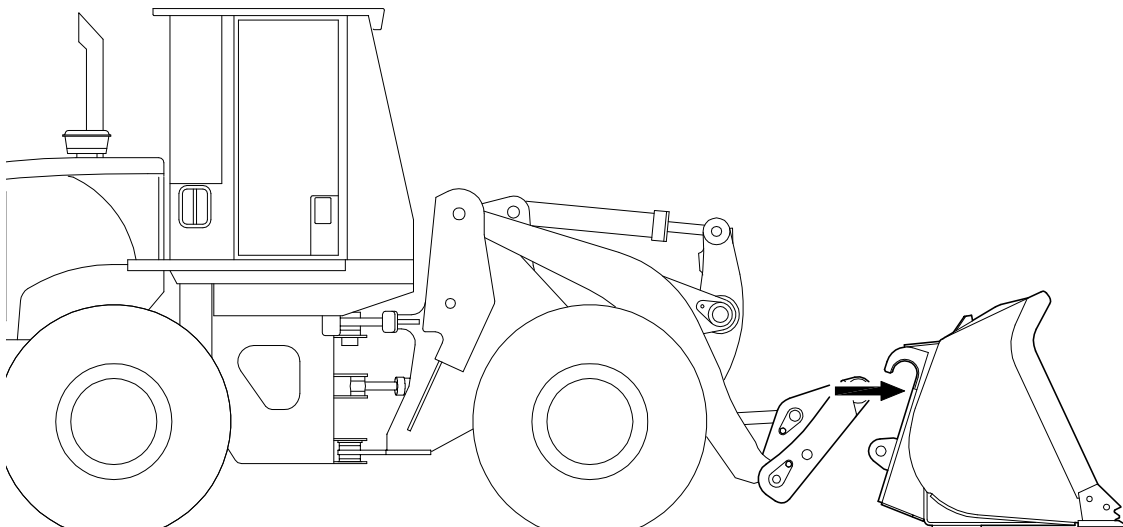
WARNING

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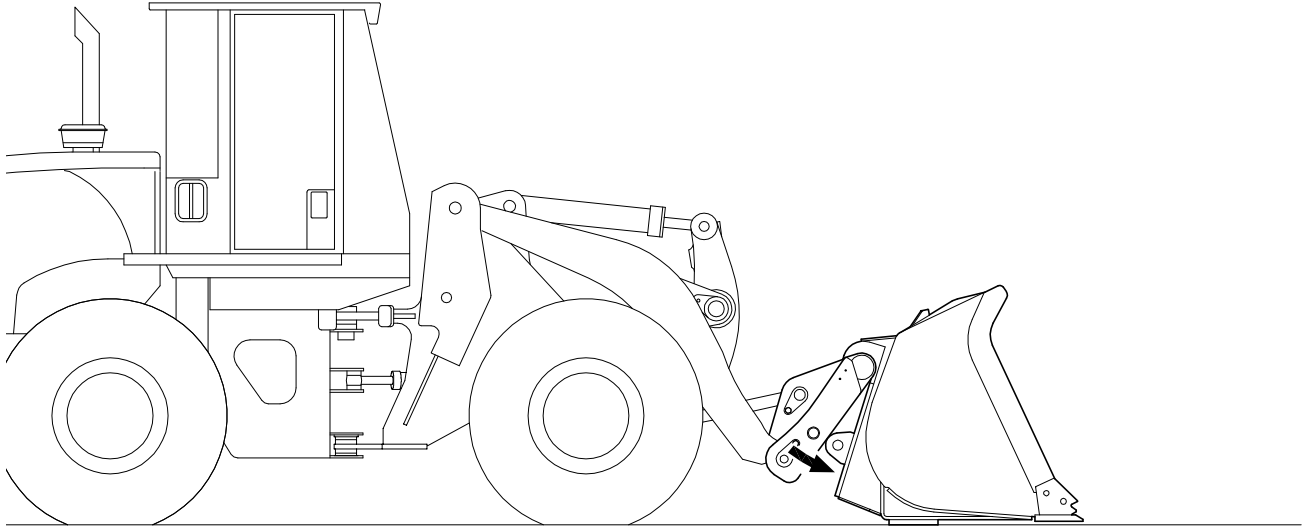
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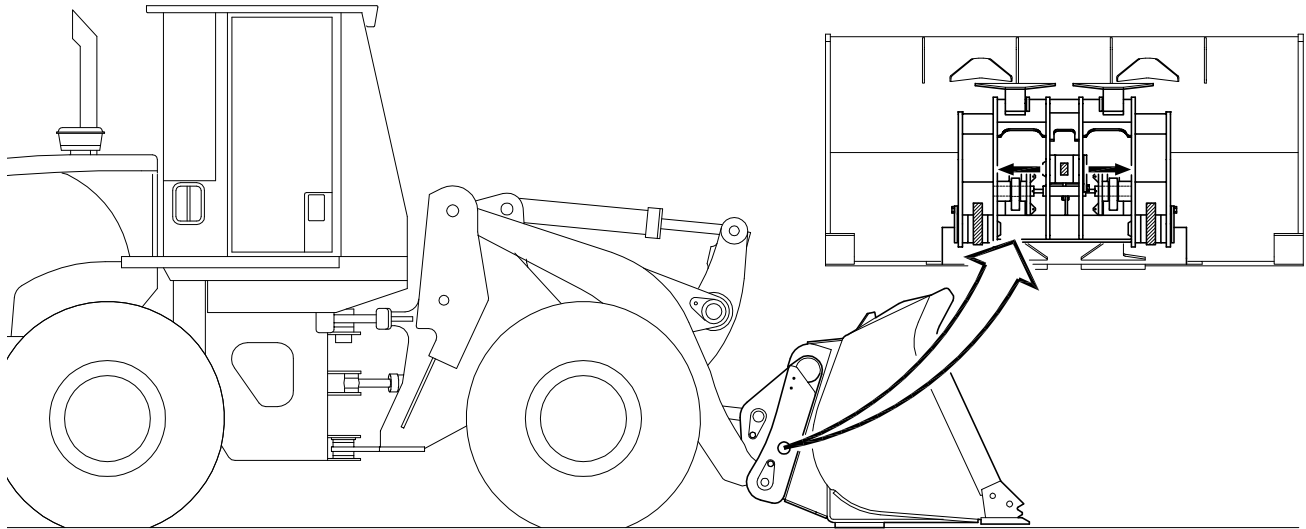
- 2) With the machine's lift-arm/boom lowered and the KAT Master Hitch tilted forward, align the Master Hitch with the attachment lugs. Using the wheel loader hydraulic controls fully insert the top bar of the Master Hitch in the top hooks of the attachment.



- 3) When the top bar of the KAT Master Hitch is fully inserted in the top hooks of the attachment slowly tilt the Master Hitch back to rotate the bottom of the Master Hitch into the lower portion of the attachment lugs.



- 4) After the KAT Master Hitch is fully seated, extend the lock pins, engaging the attachment.



NOTICE

ISO 23727 Compliant Kat Master Hitches

ISO 23727 compliant KAT master hitches are designed to work with a variety of manufacturers lugging. The location of the attachment lug stops may not be compatible with the KAT master hitch.

Carefully check the location of the attachment lug stops. Remove and relocate as required.

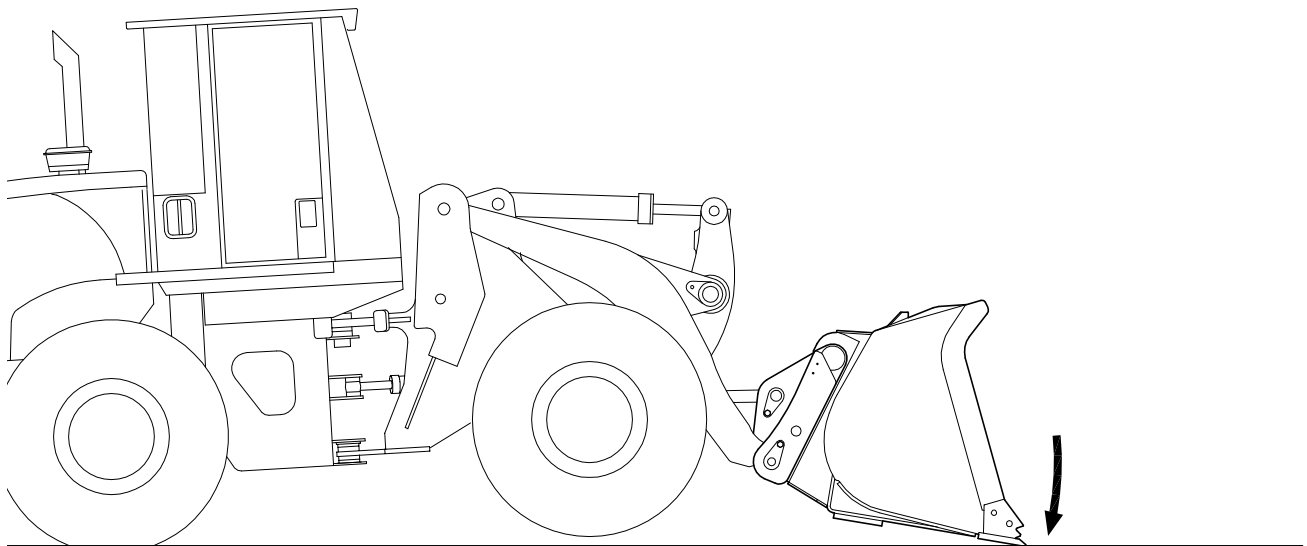
- 5) Manipulate the tilt circuit hydraulics to perform a visual inspection from the operators cab to ensure that the attachment is seated properly on the KAT Master Hitch and that both lock pins are fully engaged.

! WARNING

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

7) Test the attachment for secure engagement with the KAT Master Hitch by:

- Raising the attachment off the ground about 2 feet.
- Applying down pressure by tilting the KAT Master Hitch and the attachment forward allowing the attachment to contact the ground to ensure that the lock pins are engaged.
- Cycle the KAT Master Hitch on the attachment working the tilt cylinder in and out trying to force the attachment from the Master Hitch.



8) After the visual inspection and secure engagement test has been successfully completed, and proper attachment to the KAT Master Hitch has been confirmed, operate the machine as required.

! WARNING

A visual inspection and secure engagement test must be completed after every attachment change to ensure proper engagement of the KAT Master Hitch has occurred. Failure to comply may result in property damage or serious injury or death.

! WARNING

Never perform maintenance or adjustments on an attachment unless the KAT lock pins are fully engaged. Failure to comply may result in property damage or serious injury or death