Tilt Hitch
AP-TH35

320-084MK
Operator’s Manual

Read the Operator’s Manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

Cover photo may show optional equipment not supplied with standard unit.
For an Operator’s Manual and Decal Kit in French Language, please see your Kubota dealer.
Machine Identification

Record your machine details in the log below. If you replace this manual, be sure to transfer this information to the new manual.

If you, or the dealer, have added Options not originally ordered with the machine, or removed Options that were originally ordered, the weights and measurements are no longer accurate for your machine. Update the record by adding the machine weight and measurements provided in the Specifications & Capacities Section of this manual with the Option(s) weight and measurements.

| Model Number |   |
| Serial Number |   |
| Machine Height |   |
| Machine Length |   |
| Machine Width |   |
| Machine Weight |   |
| Delivery Date |   |
| First Operation |   |

Accessories

| Name: |   |
| Street: |   |
| City/State: |   |
| Telephone: |   |
| Email: |   |

California Proposition 65

WARNING: Cancer and reproductive harm - www.P65Warnings.ca.gov
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Important Safety Information

Listed below are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times
Careful operation is your best assurance against an accident.
All operators, no matter how much experience they may have, should carefully read this manual and other related manuals, or have the manuals read to them, before operating the power machine and this attachment.

△ Thoroughly read and understand the “Safety Label” section. Read all instructions noted on them.
△ Do not operate the equipment while under the influence of drugs or alcohol as they impair the ability to safely and properly operate the equipment.
△ Operator should be familiar with all functions of the skid steer and attachment and be able to handle emergencies quickly.
△ Make sure all guards and shields appropriate for the operation are in place and secured before operating the attachment.
△ Keep all bystanders away from equipment and work area.
△ Start skid steer from the driver’s seat with steering levers and hydraulic controls in neutral.
△ Operate skid steer and controls from the driver’s seat only.
△ Never dismount from a moving skid steer or leave skid steer unattended with engine running.
△ Do not allow anyone to stand between attachment and skid steer while hooking-up.
△ Keep hands, feet, and clothing away from power-driven parts.
△ While transporting and operating equipment, watch out for objects overhead and along side such as fences, trees, buildings, wires, etc.
△ Store attachment in an area where children normally do not play. When needed, secure attachment against falling with support blocks.

Look for the Safety Alert Symbol
The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control, and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

Be Aware of Signal Words
A signal word designates a degree or level of hazard seriousness. The signal words are:

⚠️ DANGER
Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

⚠️ WARNING
Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠️ CAUTION
Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

Safety Precautions for Children
Tragedy can occur if the operator is not alert to the presence of children. Children generally are attracted to attachments and their work.

△ Never assume children will remain where you last saw them.
△ Keep children out of the work area and under the watchful eye of a responsible adult.
△ Be alert and shut the attachment and skid steer/track loader down if children enter the work area.
△ Never carry children on the power machine or attachment. There is not a safe place for them to ride. They may fall off and be run over or interfere with the control of the power machine.
△ Never allow children to operate the power machine, even under adult supervision.
△ Never allow children to play on the power machine or attachment.
△ Use extra caution when backing up. Before the power machine starts to move, look down and behind to make sure the area is clear.

Skid Steer Shutdown And Storage
△ Reduce engine speed and shut-off all power to the attachment.
△ Park on solid, level ground and lower attachment until it is flat on the ground or support blocks.
△ Turn off engine, and remove switch key to prevent unauthorized starting.
△ Relieve all hydraulic pressures.
△ If included, raise seat bar and move controls until both lock.
△ Wait for all components to stop before leaving operator’s seat.
△ Use steps, grab-handles and anti-slip surfaces when stepping on and off the skid steer.
△ Detach and store attachment in an area where children normally do not play. Secure attachment by using blocks and supports.
Listed below are common practices that may or may not be applicable to the products described in this manual.

**Dig Safe - Avoid Underground Utilities**
- USA: Call 811
- CAN: digsafecanada.ca
- Always contact your local utility companies (electrical, telephone, gas, water, sewer, and others) before digging so that they may mark the location of any underground services in the area.
- Be sure to ask how close you can work to the marks they positioned.

**Transport Safely**
- Comply with federal, state, and local laws.
- Use towing vehicle and trailer of adequate size and capacity. Secure equipment towed on a trailer with chocks, tie downs, and chains.
- Sudden braking can cause a towed trailer to swerve and upset. Reduce speed if towed trailer is not equipped with brakes.
- Avoid contact with any overhead utility lines or electrically charged conductors.
- Always drive with load on end of loader arms low to the ground.
- Always drive straight up and down steep inclines with heavy end of skid steer on the "uphill" side.
- Engage park brake when stopped on an incline.
- Maximum transport speed for an attached equipment is 20 mph. DO NOT EXCEED. Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- As a guideline, use the following maximum speed weight ratios for attached equipment:
  - **20 mph** when weight of attached equipment is less than or equal to the weight of machine towing the equipment.
  - **10 mph** when weight of attached equipment exceeds weight of machine towing equipment but not more than double the weight.
- **IMPORTANT:** Do not tow a load that is more than double the weight of the vehicle towing the load.

**Tire Safety**
- Tire changing can be dangerous and must be performed by trained personnel using the correct tools and equipment.
- Always maintain correct tire pressure. Do not inflate tires above recommended pressures shown in the Operator’s Manual.
- When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.
- Securely support the attachment when changing a wheel.
- When removing and installing wheels, use wheel handling equipment adequate for the weight involved.
- Make sure wheel bolts have been tightened to the specified torque.

**Practice Safe Maintenance**
- Understand procedure before doing work. Refer to the Operator’s Manual for additional information.
- Work on a level surface in a clean dry area that is well-lit.
- Lower attachment to the ground and follow all shutdown procedures before leaving the operator’s seat to perform maintenance.
- Do not work under any hydraulic supported equipment. It can settle, suddenly leak down, or be lowered accidentally. If it is necessary to work under the equipment, securely support it with stands or suitable blocking beforehand.
- Use properly grounded electrical outlets and tools.
- Use correct tools and equipment for the job that are in good condition.
- Allow equipment to cool before working on it.
- Disconnect battery ground cable (−) before servicing or adjusting electrical systems or before welding on equipment.
- Inspect all parts. Make certain parts are in good condition & installed properly.
- Replace parts on this attachment with genuine Kubota parts only. Do not alter this attachment in a way which will adversely affect its performance.
- Do not grease or oil attachment while it is in operation.
- Remove buildup of grease, oil, or debris.
- Always make sure any material and waste products from the repair and maintenance of the attachment are properly collected and disposed.
- Remove all tools and unused parts from the equipment before operation.
Important Safety Information

These are common practices that may or may not be applicable to the products described in this manual.

Prepare for Emergencies
▲ Be prepared if a fire starts.
▲ Keep a first aid kit and fire extinguisher handy.
▲ Keep emergency numbers for doctor, ambulance, hospital, and fire department near phone.

Wear Personal Protective Equipment (PPE)
▲ Wear protective clothing and equipment appropriate for the job such as safety shoes, safety glasses, hard hat, and ear plugs.
▲ Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
▲ Operating equipment safely requires the operator’s full attention. Avoid wearing headphones while operating equipment.

Avoid High Pressure Fluids Hazard
▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
▲ Relieve all residual pressure before disconnecting hydraulic lines or performing work on the hydraulic system.
▲ Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
▲ DO NOT DELAY. If an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within a few hours or gangrene may result.

Use Personal Protective Equipment (PPE)
▲ Wear protective clothing and equipment appropriate for the job such as safety shoes, safety glasses, hard hat, and ear plugs.
▲ Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
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▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
▲ DO NOT DELAY. If an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within a few hours or gangrene may result.

Use Safety Lights and Devices
▲ Slow moving tractors, skid steers, and self-propelled machines can create a hazard when driven on public roads. They are difficult to see, especially at night. Use the Slow Moving Vehicle (SMV) sign when on public roads.
▲ Flashing warning lights and turn signals are recommended whenever driving on public roads.

Use Seat Belt and ROPS
▲ Kubota recommends the use of a CAB or roll-over-protective-structures (ROPS) and seat belt in almost all power machines. Combination of a CAB or ROPS and seat belt will reduce the risk of serious injury or death if the power machine should be upset.
▲ If ROPS is in the locked-up position, fasten seat belt snugly and securely to help protect against serious injury or death from falling and machine overturn.

Keep Riders Off Machinery
▲ Never carry riders on skid steer or attachment.
▲ Riders obstruct operator’s view and interfere with the control of the power machine.
▲ Riders can be struck by objects or thrown from the equipment.
▲ Never use skid steer or attachment to lift or transport riders.
Avoid crystalline Silica (quartz) Dust

Because crystalline silica is a basic component of sand and granite, many activities at construction sites produce dust containing crystalline silica. Trenching, sawing, and boring of material containing crystalline silica can produce dust containing crystalline silica particles. This dust can cause serious injury to the lungs (silicosis).

There are guidelines which should be followed if crystalline silica (quartz) is present in the dust.

- Be aware of and follow OSHA (or other local, State, or Federal) guidelines for exposure to airborne crystalline silica.
- Know the work operations where exposure to crystalline silica may occur.
- Participate in air monitoring or training programs offered by the employer.
- Be aware of and use optional equipment controls such as water sprays, local exhaust ventilation, and enclosed cabs with positive pressure air conditioning if the machine has such equipment. Otherwise respirators shall be worn.
- Where respirators are required, wear a respirator approved for protection against crystalline silica containing dust. Do not alter respirator in any way. Workers who use tight-fitting respirators can not have beards/mustaches which interfere with the respirator seal to the face.

Handle Chemicals Properly

- Protective clothing should be worn.
- Handle all chemicals with care.
- Follow instructions on container label.
- Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil, and property.
- Inhaling smoke from any type of chemical fire is a serious health hazard.
- Store or dispose of unused chemicals as specified by the chemical manufacturer.
Important Safety Information

Safety Labels
Your Tilt Hitch comes equipped with all safety labels in place. They are designed to help you safely operate your attachment. Read and follow their directions.

1. Keep all safety labels clean and legible.
2. Refer to this section for proper label placement. Replace all damaged or missing labels. Order new labels from your nearest Kubota dealer. To find your nearest dealer, visit our dealer locator at www.landpride.com.
3. Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by Kubota. When ordering new components make sure the correct safety labels are included in the request.
4. Refer to this section for proper label placement.
   To install new labels:
   a. Clean surface area where label is to be placed.
   b. Spray soapy water onto the cleaned area.
   c. Peel backing from label and press label firmly onto the surface.
   d. Squeeze out air bubbles with edge of a credit card or with a similar type of straight edge.

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858-765C
Danger: Pinch Point Hazard
2-Places

818-831C
Warning: High-Pressure Fluid Hazard
1-Place
Important Safety Information

Table of Contents

838-293C
Warning: Read Manual
1-Place
Kubota welcomes you to the growing family of new product owners. This Tilt Hitch has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance, and safe operating practices will help you get years of satisfactory use from this product.

Application
The TH35 Series Skid Steer Tilt Hitch is designed and built by Kubota to provide quick and easy attachment and 20 degree tilting capabilities to non-hydraulic attachments with a universal skid steer hitch plate. Buckets, blades, rakes, pallet forks, and other like attachments work extremely well with this hitch. Rental yards, attachment dealers, and owners of larger attachment fleets will find that the TH35 serves an excellent tool for spotting, relocating, and organizing attachments on large lots.

See “Specifications & Capacities” on page 17 and “Features & Benefits” on page 18 for additional information and performance enhancing options.

Using This Manual
• This Operator’s Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
• The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
• To order a new Operator’s or Parts Manual, contact your authorized dealer. Manuals can also be downloaded, free-of-charge, from our website at www.landpride.com

Terminology
“Right” or “Left” as used in this manual is determined by facing the direction the machine will operate while in use unless otherwise stated.

Definitions

| IMPORTANT: A special point of information related to the following topic. Kubota’s intention is this information must be read & noted before continuing. |
| NOTE: A special point of information that the operator should be aware of before continuing. |

Owner Assistance
The dealer should complete the Online Warranty Registration at the time of purchase. This information is necessary to provide you with quality customer service.

The parts on your Tilt Hitch have been specially designed by Kubota/Land Pride and should only be replaced with genuine Kubota parts. Contact a Kubota dealer if customer service or repair parts are required. Your Kubota dealer has trained personnel, repair parts, and equipment needed to service the attachment.

Serial Number
For quick reference and prompt service, record model and serial number on the inside cover page and again on the warranty page. Always provide model number and serial number when ordering parts and in all correspondences with your Kubota dealer. For location of your serial number plate, see Figure 1.

Introduction

Application

Serial Number

Using This Manual

Terminology

Further Assistance

Owner Assistance
Skid Steer Requirements
The Tilt Hitch is designed to attach to skid steer loaders with the following:

- Hitch type ............... Universal Quick Attach
- Hydraulic hoses .......... 1 Set of auxiliary hydraulics

⚠️ WARNING
To avoid serious injury or death:

- Lightweight power machines may need weight added to the rear to maintain steering control and prevent forward tipping or side tipping caused by a heavy front load. Consult your power machine Operator’s Manual to determine proper weight requirements and maximum weight limitations.
- Consult your skid steer’s manual for operating capacity, lifting capacity, and operating specifications. Exceeding rated capacities and specifications can result in a roll-over or other serious hazard.

Torque Requirements
Refer to “Section 7: Torque Values Chart” on page 20 to determine correct torque values when tightening hardware.

Before You Start
⚠️ WARNING
To avoid serious injury or death:

Allow only persons to operate this attachment who have fully read and comprehended this manual, who are properly trained to operate the attachment safely, and who are age 16 or older. Serious injury or death can result from the failure to read, understand, and follow instructions provided in this manual.

Make sure that the intended skid steer conforms to the requirements stated above. Also, read and understand this Operator’s Manual for your Tilt Hitch. An understanding of how it works will aid in its assembly and set-up.

Skid Steer Shutdown Procedure
The following are basic skid steer shutdown procedures. Follow these procedures and any additional shutdown procedures provided in your skid steer Operator’s Manual before leaving the operator’s seat.

1. Reduce engine speed and shut-off all power to the attachment.
2. Park on solid, level ground.
3. Adjust attachment to make it level and straight (not angling).
4. Lower attachment until it is flat on the ground or on support blocks.
5. Turn off engine, and remove switch key to prevent unauthorized starting.
6. Relieve all hydraulic pressure to auxiliary hydraulic lines.
7. If included, raise seat bar and move controls until both lock.
8. Wait for all components to come to a complete stop before leaving the operator’s seat.
9. Use steps, grab handles, and anti-slip surfaces when stepping on and off the skid steer or attachment.
Section 1: Assembly & Set-up

Tilt Hitch Hook-Up
Refer to Figure 1-2 on page 11:

⚠️ DANGER
To avoid serious injury or death:
A crushing hazard exists while hooking-up and unhooking the attachment. Do not allow anyone to stand between attachment and power machine while approaching or backing away from the attachment. Do not operate lift and/or tilt controls while someone is near the power machine and/or attachment.

⚠️ WARNING
To avoid serious injury or death:
Check hitch fit-up frequently. An improper fit-up can cause the attachment to come loose from the loader hitch plate and fall.
1. Check for and remove all debris in the Tilt Hitch and skid steer hitch point areas.
2. Make sure hydraulic hoses (#1 & #2) do not interfere with the Tilt Hitch hook-up.
3. Raise lock pins on skid steer hitch for hook-up.
4. Carefully drive up to the Tilt Hitch making sure the hitch plate on the skid steer loader arms is parallel with the Tilt Hitch’s hitch plate.
5. Rotate top of skid steer hitch plate slightly forward.
6. Place top of skid steer hitch under the Tilt Hitch’s top angled bar.
7. Slowly raise the skid steer loader arms up until the skid steer hitch plate is seated under the Tilt Hitch’s top angle bar.
8. Rotate the top of the skid steer loader hitch plate back until the hitch plate makes full contact with the Tilt Hitch’s hitch plate.
9. If lock pins are mechanical, skip to step 11 below. Otherwise, continue with step 10.
10. Hydraulically lower lock pins on the skid steer hitch. Make sure lock pins go through the bottom notches in the Tilt Hitch’s hitch and are in the locked down position.
12. If lock pins are mechanical, manually lower them. Make sure they go through bottom notches in the Tilt Hitch’s hitch and are in the locked down position.

Hydraulic Hose Hook-Up
Refer to Figure 1-2 on page 11:

⚠️ WARNING
To avoid serious injury or death:
- Hydraulic fluid under high pressure can penetrate the skin and/or eyes causing a serious injury. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece of cardboard or wood rather than hands when searching for leaks. A doctor familiar with this type of injury must treat the injury within a few hours or gangrene may result. DO NOT DELAY.
- Shut power machine down and release all hydraulic pressure to the equipment before connecting or disconnecting hydraulic hoses to or from the power machine.

1. Clean quick connect couplers of dirt.
2. Connect female (#4) and male (#3) couplers to the skid steer high-pressure outlets. Make sure quick connect couplers have fully engaged. If they have not, check the following:
   a. Make sure couplers are same size and type.
   b. Make sure hydraulic pressure has been released.
3. For additional help, refer to Hydraulic Hook-up in your skid steer Operator’s Manual.

IMPORTANT: Make sure coupler fittings on the hydraulic hoses and power machine are clean before connecting them together.

NOTE: When attaching to a Kubota skid steer, route hydraulic hoses through Kubota’s SVL or SSV Hose Stay as shown in Figure 1-1. Purchase SVL Hose Stay #S6689 or SSV Hose Stay #77700-07225 through your nearest Kubota dealer. Refer to the SVL or SSV skid steer Operator’s Manual for additional instructions.

Kubota Hose Stay
Figure 1-1
Attachment Hook-Up
Refer to Figure 1-3:

⚠️ DANGER
To avoid serious injury or death:
A crushing hazard exists while hooking-up and unhooking the attachment. Do not allow anyone to stand between attachment and power machine while approaching or backing away from the attachment. Do not operate lift and/or tilt controls while someone is near the power machine and/or attachment.

⚠️ WARNING
To avoid serious injury or death:
Check hitch fit-up frequently. An improper fit-up can cause the attachment to come loose from the loader hitch plate and fall.

1. Check for and remove all debris in the Tilt Hitch and attachment hitch point areas.
2. Make sure no hydraulic hoses interfere with the attachment hook-up.
3. Raise lock pins on the Tilt Hitch by raising the lock pin levers as shown.
4. Carefully drive up to the attachment making sure the hitch plate on the Tilt Hitch is parallel with the attachment’s hitch plate.
5. Rotate the top of the Tilt Hitch’s hitch plate slightly forward.
6. Place the top of the Tilt Hitch front mounting plate under the attachment’s top angled bar.
7. Slowly raise the skid steer loader arms up until the Tilt Hitch’s hitch plate is seated under the attachment’s top angled bar.
8. Rotate the top of the Tilt Hitch’s hitch plate back until the hitch plate makes full contact with the attachment’s hitch plate.
10. Lower the lock pin levers to set the lock pins. Make sure they go through the bottom notches in the attachment’s hitch and are in the locked down position.
Purge Hydraulic System

**WARNING**
To avoid serious injury or death:

Purge hydraulic cylinder and/or hoses of air before putting the equipment into service. Not purging the system can cause uneven cylinder movement and positioning.

Refer to Figure 1-4:

1. With the Tilt Hitch raised off the ground about 30”, cycle hydraulic cylinder (#1) from fully extended to fully retracted several times.
2. Purge tilt cylinder (#1) if it continues to operate unevenly or sporadically.
   a. Start the skid steer, raise the Tilt Hitch up until tilt cylinder (#1) can be fully retracted.
   b. Lower the skid steer loader arms onto solid, non-concrete support blocks or stands that are capable of supporting the fully tilted Tilt Hitch off the ground.
   d. Loosen hydraulic fitting (#2) on tilt cylinder (#1).

**NOTE:** Access to fittings is limited. Removal of cylinder may be required. Remove cylinder pins and pull cylinder out through bottom to access fittings. Continue steps e through m and then re-assemble cylinder back to unit.

   e. Start skid steer and slowly extend tilt cylinder (#1) to purge any air trapped in the system. Stop purging once all air is removed.
   g. Tighten hydraulic fitting (#2).
   h. Start skid steer and fully extend tilt cylinder (#1).
   j. Loosen hydraulic fitting (#3) on tilt cylinder (#1).
   k. Start skid steer and slowly retract cylinder (#1) to purge any trapped air from the system.
   m. Tighten hydraulic fitting (#3).
   n. Start skid steer, tilt the Tilt Hitch level, raise pivot frame off of the support block, and back skid steer up until support block is in front of the Tilt Hitch.

3. Properly collect and dispose spilled oil.

Equipment Clearances

It is important to check clearance before putting the Tilt Hitch with attachment into operation. Make sure hydraulic hoses and control harness are long enough and will not become pinched or entangled in the equipment. Check your attachment operator’s manual for clearance information.

Unhook Attachment

Refer to Figure 1-5 on page 13:

**DANGER**
To avoid serious injury or death:

A crushing hazard exists while hooking-up and unhooking the attachment. Do not allow anyone to stand between attachment and power machine while approaching or backing away from the attachment. Do not operate lift and/or tilt controls while someone is near the power machine and/or attachment.

1. Park skid steer with attached Tilt Hitch on solid, level ground.
2. Tilt the attachment horizontal (parallel with the ground).
3. Lower the attachment and hitch plate onto the ground or support blocks.
5. Raise lock pins on the Tilt Hitch by raising the lock pin levers as shown.
6. Return to the skid steer seat.
7. Tilt the bottom of the Tilt Hitch’s hitch plate slightly back or away from the attachment’s hitch plate.
8. Slowly lower the loader arms until the Tilt Hitch’s hitch plate has separated from the attachment's top angle bars.
9. Back the skid steer slowly away from the attachment making sure the Tilt Hitch does not interfere with the attachment’s hitch plate.
Unhook Tilt Hitch
Refer to Figure 1-6:

⚠️ **DANGER**
To avoid serious injury or death:
A crushing hazard exists while hooking-up and unhooking the attachment. Do not allow anyone to stand between attachment and power machine while approaching or backing away from the attachment. Do not operate lift and/or tilt controls while someone is near the power machine and/or attachment.

⚠️ **WARNING**
To avoid serious injury or death:
- Hydraulic fluid under high pressure can penetrate the skin and/or eyes causing a serious injury. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece of cardboard or wood rather than hands when searching for leaks. A doctor familiar with this type of injury must treat the injury within a few hours or gangrene may result. DO NOT DELAY.
- Shut power machine down and release all hydraulic pressure to the equipment before connecting or disconnecting hydraulic hoses to or from the power machine.

**NOTE:** The Tilt Hitch should be laid over on the ground or solid, non-concrete support blocks, resting on its face during the unhooking process. Do not attempt to unhook the Tilt Hitch in a vertical position.

1. Park skid steer with attached Tilt Hitch on solid, level ground.
2. Rotate the hitch forward (parallel with the ground) and unhook it on the ground or solid, non-concrete support blocks.
3. Lower the Tilt Hitch and hitch plate onto the ground or support blocks.
5. Uncouple hydraulic hose fittings (#3 & #4) from the skid steer. Coil hydraulic hose and store them on the Tilt Hitch with hose ends out of the dirt.
6. If lock handles are mechanical, pull lock handles up on the skid steer loader hitch plate to remove lock pins from the bottom notches in the Tilt Hitch’s hitch plate.
7. Return to the skid steer seat.
8. If lock handles are hydraulic, raise lock pins to remove them from the hitch plate notches.
9. Tilt the bottom of the skid steer loader hitch plate slightly back or away from the Tilt Hitch’s hitch plate.
10. Slowly lower the loader arms until the skid steer loader hitch plate has separated from the Tilt Hitch’s top angle bars.
11. Back the skid steer slowly away from the Tilt Hitch making sure the skid steer does not interfere with the Tilt Hitch’s hitch plate and hydraulic hoses.
Section 2: Operating Instructions

Transporting and Use

⚠️ DANGER
To avoid serious injury or death:
The lock pin levers should always be rotated down when using the Tilt Hitch.

⚠️ WARNING
To avoid serious injury or death:
When traveling on roadways, travel in such a way that other vehicles may pass you safely. Use LED lights, clean reflectors, and a slow moving vehicle sign that is visible from the back to warn operators in other vehicles of your presence. Always comply with all federal, state, and local laws.

Backup alarm must be in good working order to warn others. Use a backup camera or rear-view mirror that is in good condition to help see undesirable situations behind the unit.

Drive at a slower speed to compensate for blind spots.

Operating Instructions

Once you have familiarized yourself with the Operator’s Manual and properly attached your Kubota TH35 Tilt Hitch to the skid steer loader, you should be just about ready to start Tilt Hitch “management and handling” of your compatible attachments.

You can use the Tilt Hitch to keep the attachment level when traveling over uneven terrain or keep the attachment at a specific angle to slope the terrain. To rotate the tilt hitch to the left, use the hydraulic function to tilt between zero and twenty degrees to the left. To rotate to the right, use the hydraulic function to tilt between zero and twenty degrees to the right. When on uneven ground, and you want to level the Tilt Hitch, use the bubble level above the indicator so the bubble is in between the two level marks.

Now you are ready to use your Tilt Hitch. Raise your Tilt Hitch lock pin levers. Start your skid steer loader and slowly move forward centering on the attachment you want to attach to. Refer to “Attachment Hook-Up” on page 11. You should be ready for transport.

When you are ready to detach, position the attachment over a firm surface or prepared docking point that will keep the attachment properly oriented for future hook-up. Refer to “Unhook Tilt Hitch” on page 13. With a little practice you should get very good at hooking and unhooking quickly.

If attachment is to be operated in reverse, make sure visibility to the rear of the power unit is appropriate for the attachment. Backup camera or mirror is recommended. Maintain cleanliness of lens or mirror.
General Maintenance
Proper servicing and adjustments are key to the long life of any attachment. With careful and systematic inspection, you can avoid costly maintenance, time, and repair.

After using your Skid Steer Tilt Hitch for several hours, check all bolts to be sure they are tight.

Repaint parts where paint is worn or scratched to prevent rust. Ask your Kubota dealer for touch-up paint. Paint is available in aerosol can, quarts, and gallon sizes. See chart below.

<table>
<thead>
<tr>
<th>Touch-Up Paint</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part No.</strong></td>
</tr>
<tr>
<td>821-070C</td>
</tr>
<tr>
<td>821-070CTU</td>
</tr>
<tr>
<td>821-070CQT</td>
</tr>
<tr>
<td>821-070CGL</td>
</tr>
</tbody>
</table>

Replace any worn, damaged, or illegible safety labels by obtaining new labels from your Kubota dealer.

Nylon Wear Pads
Refer to Figure 3-1:
The AP-TH35 Tilt Hitch comes equipped with two nylon wear pads that contain lubricating properties. The pads will wear over time and shims will have to be removed so that the pads remain in contact with tilt plate.

1. Loosen and remove all six 5/8”-18 x 1-1/2” flanged bolts (#1) and set them to the side.
2. Remove clamp (#2) with nylon pad attached to it and set to the side.
3. Remove shim or shims so that when clamp (#2) is reassembled, the nylon pad is in contact with the tilt plate without any play.

**NOTE:** Removing too many shims may lock tilt plate and prevent tilting. You may have created too much clamping force with nylon pads. Repeat steps 1-7 until tilting can be accomplished with cylinder. A good rule of thumb is, measure the amount of wear on the nylon pad and add that amount of shim to the front of the clamp.

4. Assemble the removed shim or shims in front of clamp (#2). All shims are required or bolts will bottom out.
5. Re-assemble shims and clamp (#2) to the tilt plate with six 5/8”-18 x 1-1/2” flanged bolts (#1).
6. Tighten to correct torque.
7. Repeat steps 1-6 for the other nylon pad.
**Lubrication**

**Lubrication Legend**
- Spray lube
- Multipurpose grease lube
- Oil lube

**Intervals in hours at which lubrication is required**
- 50 Hrs

**Pivot Points**
- Typical both sides.
- Multipurpose Grease Lube
- Quantity = Generously

**Pivot Point**
- Multipurpose Grease Lube
- Quantity = Generously
# TH35 Series Tilt Hitch

## Specifications & Capacities

<table>
<thead>
<tr>
<th>Specification</th>
<th>Measurement</th>
<th>Unit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall height</td>
<td>24-1/4</td>
<td>in (cm)</td>
</tr>
<tr>
<td>Overall width</td>
<td>48-1/2</td>
<td>in (m)</td>
</tr>
<tr>
<td>Overall length</td>
<td>7-7/8</td>
<td>in (cm)</td>
</tr>
<tr>
<td>Weight</td>
<td>345</td>
<td>lbs (kg)</td>
</tr>
<tr>
<td>Tilt capacity</td>
<td>20</td>
<td>degrees</td>
</tr>
<tr>
<td>Tilt cylinder</td>
<td>2.5 x 5 x 1.25</td>
<td>in (cm)</td>
</tr>
<tr>
<td>Angle gauge</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>Bubble level</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>Flat face couplers connect</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>under pressure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Diagram of TH35 Series Tilt Hitch](image)
### TH35 Series Skid Steer Tilt Hitch

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Degree tilt in both directions</td>
<td>Tilts buckets and other attachments to help with grading and leveling.</td>
</tr>
<tr>
<td>Angle gauge &amp; bubble level</td>
<td>Helps the operator set to desired angle and the bubble level helps get attachment to level.</td>
</tr>
<tr>
<td>Nylon slide pads</td>
<td>These nylon slide pads contain lubricating properties.</td>
</tr>
<tr>
<td>Flat face couplers connect under pressure</td>
<td>Easier to hook up to skid steer.</td>
</tr>
<tr>
<td>Universal skid steer plate</td>
<td>Fits most skid steer loaders.</td>
</tr>
</tbody>
</table>
## Troubleshooting Chart

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulics will not tilt unit</td>
<td>Kinked hydraulic line</td>
<td>Unkink line</td>
</tr>
<tr>
<td></td>
<td>Wear pad/pads adjusted to tight</td>
<td>Reposition shims</td>
</tr>
<tr>
<td></td>
<td>Material build up or rock jammed</td>
<td>Remove material or rock</td>
</tr>
<tr>
<td></td>
<td>Hydraulic filter/oil is dirty</td>
<td>New oil and filter for skid steer</td>
</tr>
<tr>
<td>Lock pin lever won’t engage</td>
<td>No lubrication for pin and mechanism</td>
<td>Grease pin and spray lubricant onto mechanism for levers</td>
</tr>
<tr>
<td></td>
<td>Damage to lower lock pin or attaching equipment where lock pin goes through frame</td>
<td>Clean up any burrs or damage</td>
</tr>
<tr>
<td>Tilting sporadic or continues after button released</td>
<td>Air in hydraulic system</td>
<td>Purge hydraulic system</td>
</tr>
</tbody>
</table>
## Torque Values Chart for Common Bolt Sizes

<table>
<thead>
<tr>
<th>Bolt Size (inches)</th>
<th>Grade 2</th>
<th>Grade 5</th>
<th>Grade 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>in-tpi</td>
<td>N \cdot m</td>
<td>ft-lb</td>
<td>N \cdot m</td>
</tr>
<tr>
<td>1/4&quot; - 20</td>
<td>7.4</td>
<td>5.6</td>
<td>11</td>
</tr>
<tr>
<td>1/4&quot; - 28</td>
<td>8.5</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>5/16&quot; - 18</td>
<td>15</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td>5/16&quot; - 24</td>
<td>17</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>3/8&quot; - 16</td>
<td>27</td>
<td>20</td>
<td>42</td>
</tr>
<tr>
<td>3/8&quot; - 24</td>
<td>31</td>
<td>22</td>
<td>47</td>
</tr>
<tr>
<td>7/16&quot; - 14</td>
<td>43</td>
<td>32</td>
<td>67</td>
</tr>
<tr>
<td>7/16&quot; - 20</td>
<td>49</td>
<td>36</td>
<td>75</td>
</tr>
<tr>
<td>1/2&quot; - 13</td>
<td>66</td>
<td>49</td>
<td>105</td>
</tr>
<tr>
<td>1/2&quot; - 20</td>
<td>75</td>
<td>55</td>
<td>115</td>
</tr>
<tr>
<td>9/16&quot; - 12</td>
<td>95</td>
<td>70</td>
<td>150</td>
</tr>
<tr>
<td>9/16&quot; - 18</td>
<td>105</td>
<td>79</td>
<td>165</td>
</tr>
<tr>
<td>5/8&quot; - 11</td>
<td>130</td>
<td>97</td>
<td>205</td>
</tr>
<tr>
<td>5/8&quot; - 18</td>
<td>150</td>
<td>110</td>
<td>230</td>
</tr>
<tr>
<td>3/4&quot; - 10</td>
<td>235</td>
<td>170</td>
<td>360</td>
</tr>
<tr>
<td>3/4&quot; - 16</td>
<td>260</td>
<td>190</td>
<td>405</td>
</tr>
<tr>
<td>7/8&quot; - 9</td>
<td>225</td>
<td>165</td>
<td>585</td>
</tr>
<tr>
<td>7/8&quot; - 14</td>
<td>250</td>
<td>185</td>
<td>640</td>
</tr>
<tr>
<td>1&quot; - 8</td>
<td>340</td>
<td>250</td>
<td>875</td>
</tr>
<tr>
<td>1&quot; - 12</td>
<td>370</td>
<td>275</td>
<td>955</td>
</tr>
<tr>
<td>1-1/8&quot; - 7</td>
<td>480</td>
<td>355</td>
<td>1080</td>
</tr>
<tr>
<td>1-1/8&quot; - 12</td>
<td>540</td>
<td>395</td>
<td>1210</td>
</tr>
<tr>
<td>1-1/4&quot; - 7</td>
<td>680</td>
<td>500</td>
<td>1520</td>
</tr>
<tr>
<td>1-1/4&quot; - 12</td>
<td>750</td>
<td>555</td>
<td>1680</td>
</tr>
<tr>
<td>1-3/8&quot; - 6</td>
<td>890</td>
<td>655</td>
<td>1990</td>
</tr>
<tr>
<td>1-3/8&quot; - 12</td>
<td>1010</td>
<td>745</td>
<td>2270</td>
</tr>
<tr>
<td>1-1/2&quot; - 6</td>
<td>1180</td>
<td>870</td>
<td>2640</td>
</tr>
<tr>
<td>1-1/2&quot; - 12</td>
<td>1330</td>
<td>980</td>
<td>2970</td>
</tr>
</tbody>
</table>

1 in-tpi = nominal thread diameter in inches-threads per inch
2 N \cdot m = newton-meters
3 ft-lb = foot pounds
4 mm x pitch = nominal thread diameter in millimeters x thread pitch

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

### Additional Torque Values

| Wear Pad Bolts (Qty. 12) | 170 ft-lbs |
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Warranty

Land Pride warrants to the original purchaser that this Land Pride product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

**Overall Unit:** One year Parts and Labor

**Hydraulic Cylinder:** One year Parts and Labor.

**Hoses, Seals & Cutting Edge:** Considered wear items.

This Warranty is limited to the repair or replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items. Land Pride reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride’s judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this Warranty should be made to the dealer which originally sold the product and all warranty adjustments must be made through an authorized Land Pride dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Land Pride liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Land Pride shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

**No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.**

This Warranty is not valid unless registered with Land Pride within 30 days from the date of original purchase.

**IMPORTANT:** The Online Warranty Registration should be completed by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

Model Number ____________________ Serial Number ____________________
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