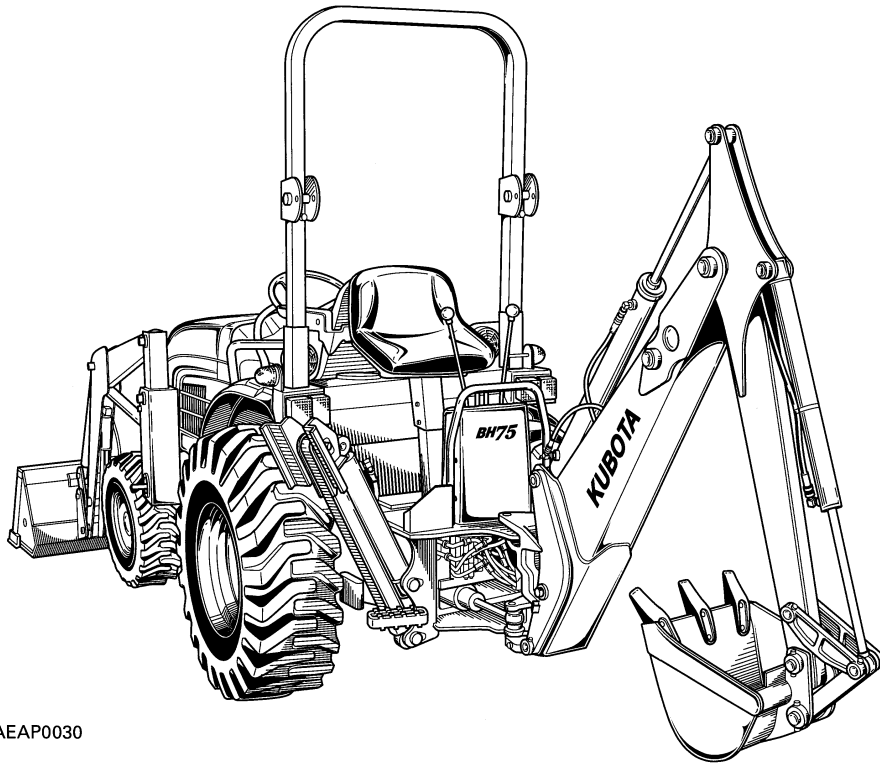


OPERATOR'S MANUAL

KUBOTA BACKHOE

MODEL BH75



1AJABAEAP0030

READ AND SAVE THIS MANUAL

Kubota

ABBREVIATION LIST

Abbreviations	Definitions
2WD	Two Wheel Drive
4WD	Four Wheel Drive
API	American Petroleum Institute
ASAE	American Society of Agricultural Engineers, USA
ASTM	American Society for Testing and Materials, USA
DIN	Deutsches Institut für Normung, GERMANY
DT	Dual Traction [4WD]
fpm	Feet Per Minute
GST	Glide Shift Transmission
Hi-Lo	High Speed-Low Speed
HST	Hydrostatic Transmission
m/s	Meters Per Second
PTO	Power Take Off
RH/LH	Right-hand and left-hand sides are determined by facing in the direction of forward travel
ROPS	Roll-Over Protective Structures
rpm	Revolutions Per Minute
r/s	Revolutions Per Second
SAE	Society of Automotive Engineers, USA
SMV	Slow Moving Vehicle
UDT	KUBOTA UDT fluid (Transmission-hydraulic fluid)

FOREWORD

You are now the proud owner of a KUBOTA Backhoe. This backhoe is a product of KUBOTA quality engineering and manufacturing. It is made of fine materials and under a rigid quality control system. It will give you long, satisfactory service. To obtain the best use of your backhoe, please read this manual carefully. It will help you become familiar with the operation of the backhoe and contains many helpful hints about backhoe maintenance. It is KUBOTA's policy to utilize as quickly as possible every advance in our research. The immediate use of new techniques in the manufacture of products may cause some small parts of this manual to be outdated. KUBOTA distributors and dealers will have the most up-to-date information. Please do not hesitate to consult with them.



SAFETY FIRST

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read these instructions carefully. It is essential that you read the instructions and safety regulations before you attempt to assemble or use this unit.



DANGER : Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING : Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION : Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

IMPORTANT :

Indicates that equipment or property damage could result if instructions are not followed.

NOTE :

Gives helpful information.

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SAFE OPERATION

Most backhoe equipment accidents can be avoided by following simple safety precautions. These safety precautions, if followed at all times, will help you operate your backhoe safely.

BEFORE OPERATING BACKHOE

1. Allow only trained personnel to operate or service this equipment. Read and understand all precautions in this manual before service or operation. Also read all precautions found in the tractor and loader manuals.
2. For safe operation, check the mounting bolts for tightness and that the mount levers are in the right position before operation.
3. Never operate tractor with backhoe attached and loader removed.
4. Check for buried material such as electrical, telephone, gas and water lines. When in doubt, contact local utility companies for their buried location prior to operating the backhoe.
5. Replace any safety decal that becomes damaged, lost or illegible. Also renew all decals when repainting.

OPERATING THE BACKHOE

1. Do not allow anyone other than the operator on the unit while in operation or transport.
2. Use care when operating on slopes to avoid tip-over. Travel at a speed compatible with safe operation, especially when operating on uneven terrain, crossing ditches or while turning.
3. Operate the backhoe from the backhoe operator's seat only.
4. When using on slopes, one stabilizer may be lower than the other. Use extreme care during excavation as risk of tip-over will increase.
5. To reduce the risk of tip-over on a slope, place the spoil to the high side of the excavation.
6. Do not dig under the stabilizer or tractor, especially in soft or sandy conditions. Take extra precaution in wet or thawing ground.
These conditions can become unstable and may collapse under the weight of the machine and may cause tip over.
7. Never operate the machine or any equipment while under the influence of alcohol or other drugs, or while fatigued.
8. When leaving the machine unattended, be sure to lower the backhoe to the ground. Set the parking brake, then shut the engine off and remove the key.

SAFETY FOR CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are generally attracted to machines and the work being done. Never assume children will remain where you last saw them.

1. Keep children out of the operating area and under the watchful eye of another responsible adult.
2. Be alert and turn the machine off if children enter the work area.
3. Before and when backing, look behind and down for small children.
4. Never carry children while operating the machine. They may fall off and be seriously injured or interfere with safe operation of the machine.
5. Never allow children to play on the machine or attachment even when turned off.
6. Never allow children to operate the machine even under adult supervision.
7. Use extra care when approaching blind corners, shrubs, trees, or other obstructions that might hide children from sight.

DRIVING THE TRACTOR ON THE ROAD

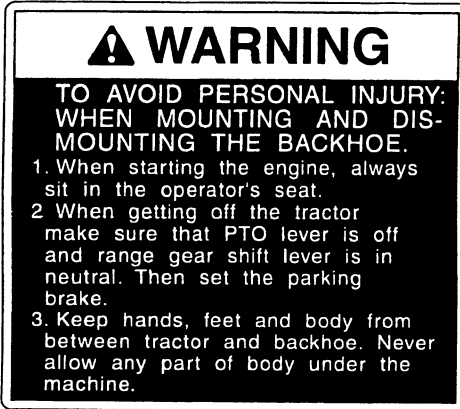
1. Raise and center the boom, close the dipperstick, curl the bucket and engage the boom and swing locks before transporting the machine.
2. Check the local codes or regulations that may apply to tractor / loader / backhoe operation on public streets or highways, before transporting or traveling. Use SMV emblem and warning flashers as required. (SMV: Slow Moving Vehicle)

SERVICING THE BACKHOE

1. Before disconnecting hydraulic lines, relieve all hydraulic pressure.
2. Always use personal protection devices such as safety goggles and ear protection when servicing or repairing the machine.
3. Lower the backhoe to the ground and shut the engine off before servicing.
4. When servicing or repairing pins in cylinder ends, bucket, etc., always use a brass drift and hammer. Failure to do so could result in injury from flying metal fragments.
5. To avoid serious personal injury, keep clear of working area of the backhoe.
6. When servicing or checking underneath, do not get under the machine while it is being held with only the bucket, backhoe or stabilizers. Securely support with jackstands.
7. For your safety, do not work under any hydraulically supported machine elements. They can settle, suddenly leak down, or be accidentally lowered.
8. Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before applying pressure to the system, be sure that all connections are tight and that lines, pipes and hoses are not damaged. Fluid escaping from a very small hole can be almost invisible. Do not use hands to search for suspected leaks, use a piece of cardboard or wood. If injured by escaping fluid, see a doctor at once. Serious infection or allergic reaction will develop if proper medical treatment is not administered immediately.
9. Do not tamper with any backhoe control valve relief pressure setting. The relief valve pressure is preset at the factory. Changing the setting can cause overloading of the backhoe and the tractor, and serious personal injury or death may result.
10. Do not modify the backhoe for any reason. Modifying the backhoe can cause an unstable condition of the tractor / loader / backhoe combination and serious personal injury or death may result.

DANGER, WARNING AND CAUTION LABELS

(1) Part No. 75597-7528-0



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(2) Part No. 7K501-7529-0

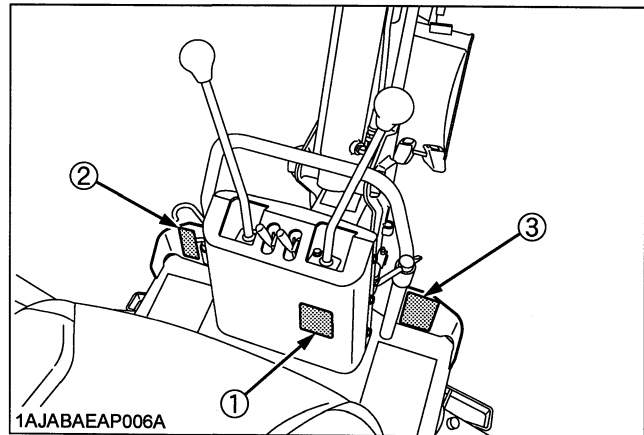


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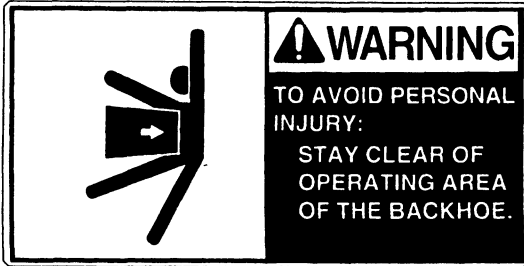
(3) Part No. 75595-7524-0



1AJABAAAP067A



(1) Part No. 75595-7517-0 (Both sides)



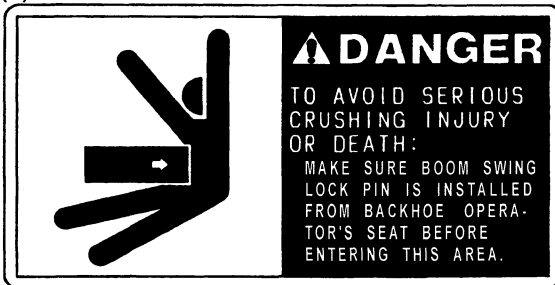
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(2) Part No. 7K500-7531-0

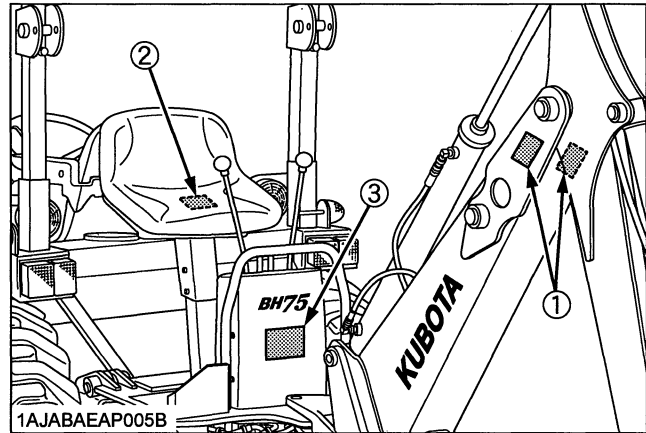


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(3) Part No. 75597-7517-0



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CARE OF DANGER, WARNING AND CAUTION LABELS

1. Keep danger, warning and caution labels clean and free from obstructing material.
2. Clean danger, warning and caution labels with soap and water, dry with a soft cloth.
3. Replace damaged or missing danger, warning and caution labels with new labels from your local KUBOTA Dealer.
4. If a component with danger, warning and caution label(s) affixed is replaced with new part, make sure new label(s) is (are) attached in the same location(s) as the replaced component.
5. Mount new danger, warning and caution labels by applying on a clean dry surface and pressing any bubbles to outside edge.

SERVICING OF BACKHOE

Your dealer is interested in your new backhoe and has the desire to help you get the most value from it. After reading this manual thoroughly, you will find that you can do some of the regular maintenance yourself.

However, when in need of parts or major service, be sure to see your KUBOTA Dealer.

For service, contact the KUBOTA Dealership from which you purchased your backhoe or your local KUBOTA Dealer.

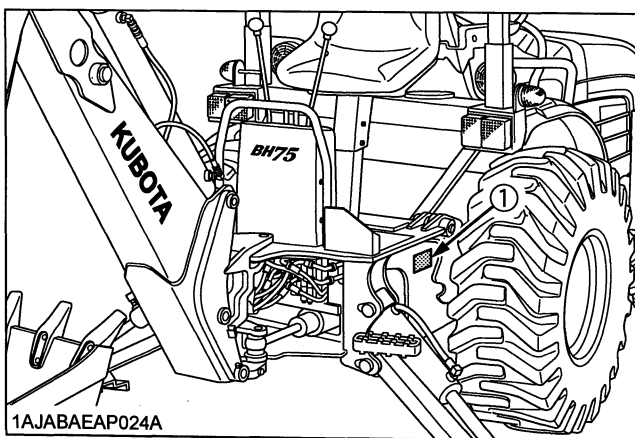
When in need of parts, be prepared to give your dealer the backhoe model and serial number.

Locate the serial number now and record it in the space provided.

The reference to left hand and right hand used in this manual refers to the position when seating at the operator's seat at backhoe position and facing rearward of the tractor.

KUBOTA BACKHOE

Model	BH75
Serial Number	
Date of Purchase	
Name of Dealer (To be filled in by purchaser)	



(1) Serial number

SPECIFICATIONS

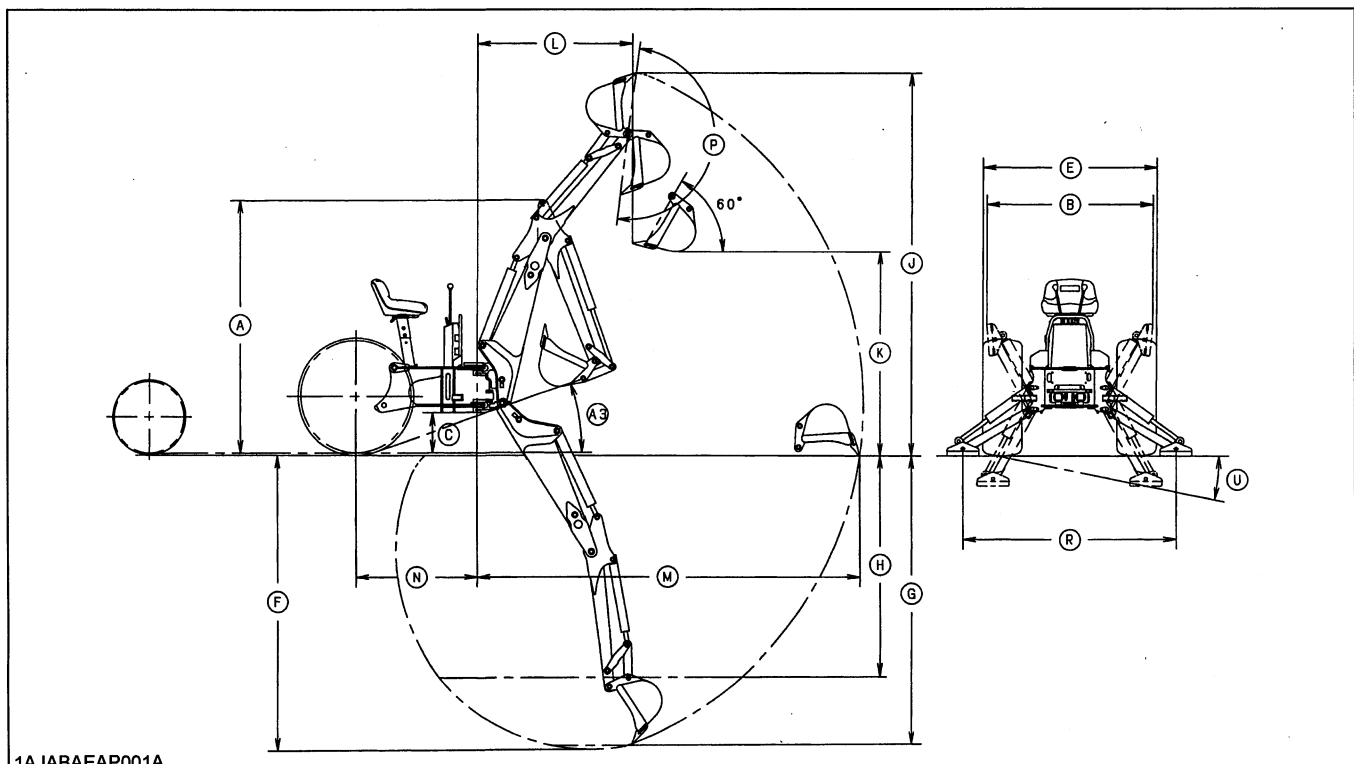
BACKHOE SPECIFICATIONS

NOTE :

- The specifications are taken with KUBOTA B2630 tractor. (Tire size: Front 23 x 8.5-14, Rear 12.4-16)

■ **Dimensions**

Item		BH75
Transport height	(A)	2042 mm (80.4 in.)
Stabilizer spread-transport	(B)	1315 mm (51.8 in.)
Ground clearance	(C)	327 mm (12.9 in.)
Overall width	(E)	1394 mm (54.9 in.)
Maximum digging depth	(F)	2341 mm (92.2 in)
Digging depth, 2 ft. flat bottom	(G)	2311 mm (91.0 in.)
Digging depth, 8 ft. flat bottom	(H)	1761 mm (69.3 in.)
Operating height, fully raised	(J)	3050 mm (120.1 in)
Loading height	(K)	1636 mm (64.4 in.)
Loading reach	(L)	1242 mm (48.9 in.)
Reach from swing pivot	(M)	3060 mm (120.5 in.)
Swing pivot to rear axle center line	(N)	976 mm (38.4 in.)
Bucket rotation	(P)	182 deg.
Stabilizer spread-operating	(R)	1717 mm (67.6 in.)
Angle of departure per SAE J1234	(A3)	18.0 deg.
Leveling angle	(U)	10.2 deg.
Swing arc		180 deg.



■ Specifications

Digging force (Per SAE J49)

With bucket cylinder	3339 lbs (14847 N)
With dipperstick cylinder	2097 lbs (9326 N)

Cycle Time (seconds)

Boom cylinder, extend	4.6
Boom cylinder, retract	3.6
Swing cylinder, from 90 degrees to center	1.3
Dipperstick cylinder, extend	4.7
Dipperstick cylinder, retract	3.7
Bucket cylinder, extend	3.1
Bucket cylinder, retract	2.2
Stabilizer cylinder, max. height to ground	2.0
Stabilizer cylinder, ground to max. height	1.6

Hydraulic cylinders

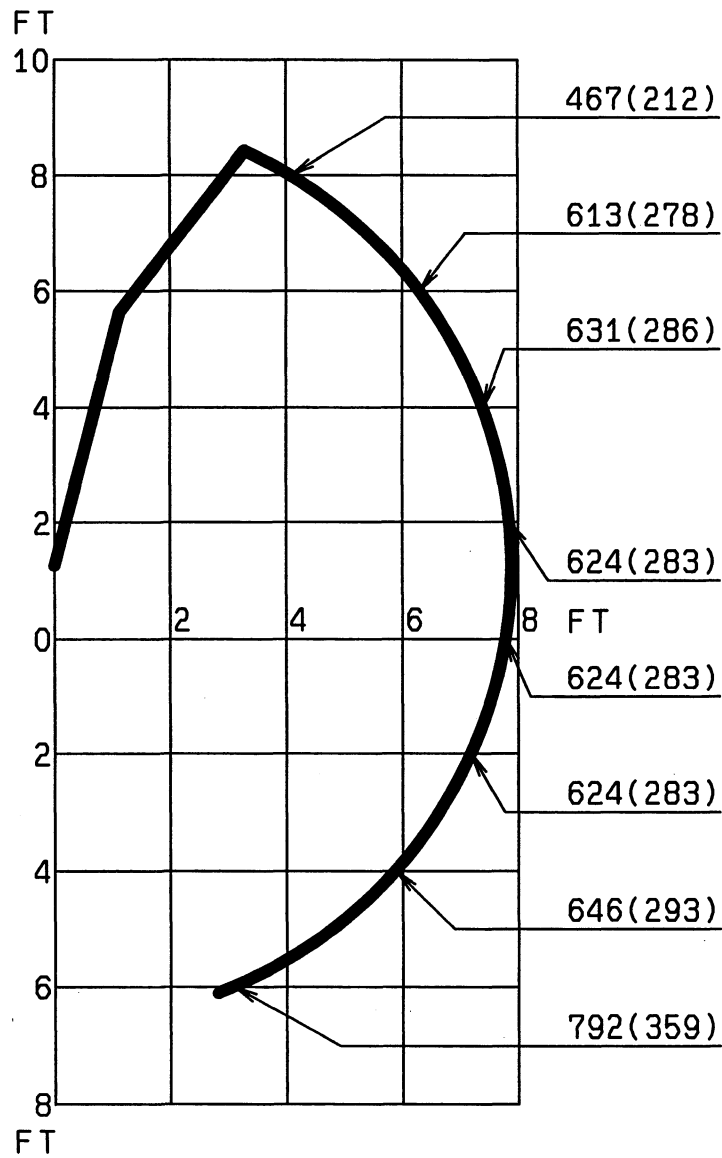
	Boom cm (in.)	Dipperstick cm (in.)	Bucket cm (in.)	Stabilizer cm (in.)	Swing cm (in.)
Rod diameter	3.5 (1.38)	3.2 (1.26)	3.0 (1.18)	3.0 (1.18)	2.5 (0.98)
Cylinder bore	6.5 (2.56)	6.5 (2.56)	5.5 (2.17)	6.0 (2.36)	5.0 (1.97)

Bucket Alternatives (Option)

	Width cm (in.)	SAE Struck Capacity m ³ (cu-ft)	SAE Heaped Capacity m ³ (cu-ft)	Number of Teeth	Weight kg (lbs)
Trenching 10"	25.4 (10)	0.017 (0.60)	0.021 (0.74)	3	29 (64)
Trenching 12"	30.5 (12)	0.022 (0.77)	0.027 (0.95)	3	32 (71)
Trenching 16"	40.6 (16)	0.031 (1.09)	0.039 (1.38)	4	38 (84)
Trenching 24"	61.0 (24)	0.048 (1.70)	0.064 (2.26)	5	47 (104)

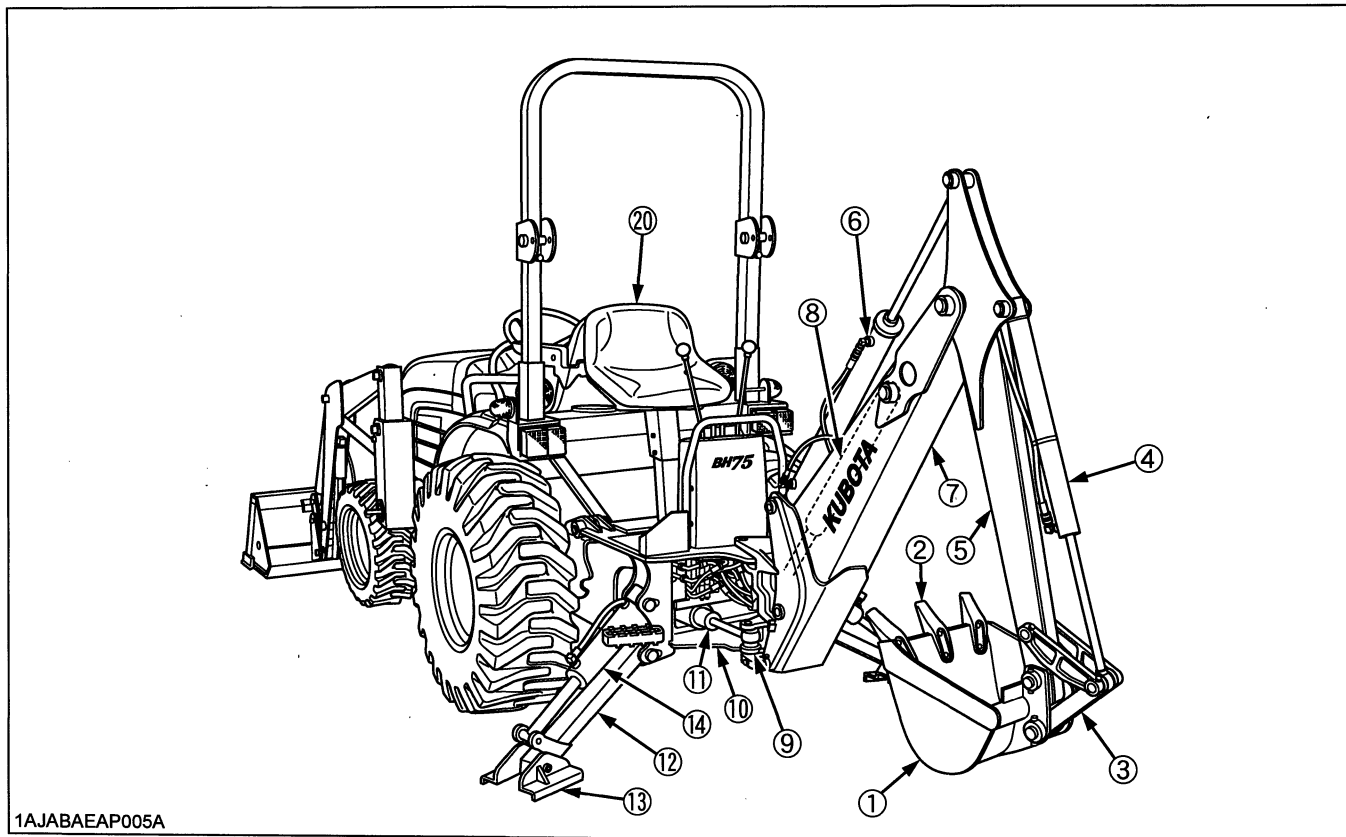
■ Lift Capacity (Per SAE J31)

Lift capacities shown are 87% of maximum lift force, according to SAE definition.

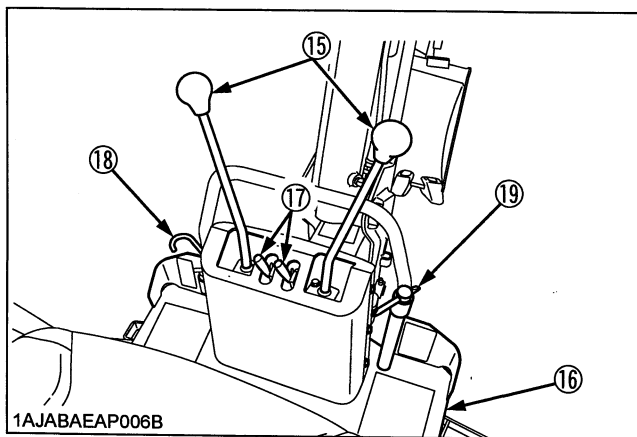


RATED LIFT CAPACITY(OVER END)-lbs(kg)

BACKHOE TERMINOLOGY



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1AJABAEAP006B

- (1) Backhoe bucket
- (2) Bucket teeth
- (3) Link, bucket
- (4) Cylinder, bucket
- (5) Dipperstick
- (6) Cylinder, dipperstick
- (7) Boom
- (8) Cylinder, boom
- (9) Swing frame
- (10) Main frame
- (11) Cylinder, swing
- (12) Stabilizer
- (13) Stabilizer pad
- (14) Cylinder, stabilizer
- (15) Joystick control
- (16) Step
- (17) Stabilizer control
- (18) Swing lock pin
- (19) Boom lock pin
- (20) Seat

PRE-OPERATING INSTRUCTIONS

PRE-OPERATION CHECKS

Prior to starting the engine, make pre-operation checks according to " MAINTENANCE ".

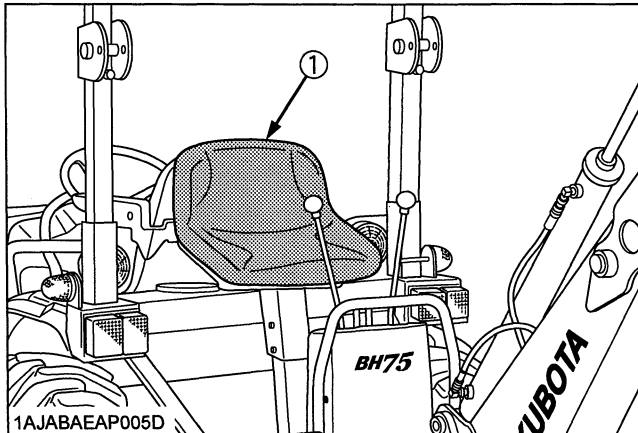


CAUTION

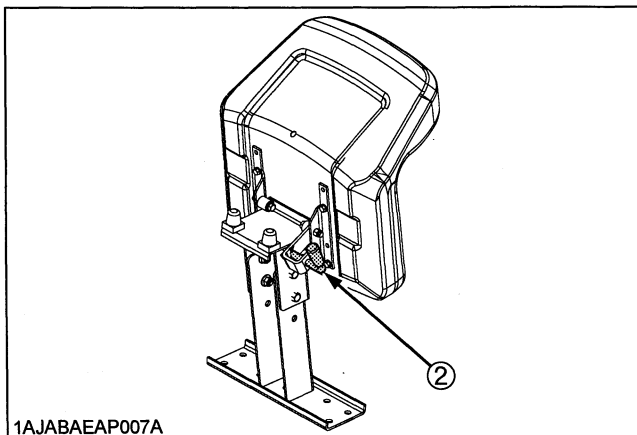
To avoid personal injury:

- Read " SAFE OPERATION " section in the front of this manual.
- Read the warning and caution labels located on the backhoe.
- Make sure the swing lock pin is set before entering or exiting the backhoe operator area.

OPERATOR'S SEAT



(1) Operator's seat (backhoe position)



(2) Support link lever

1. Before starting the tractor, unlock the backhoe's seat by lifting the support link lever and tilting the seat forward. Make sure the lever is locked.

2. To use the backhoe, first tilt the tractor's seat forward. Next, unlock the backhoe's seat by lifting the support link lever and tilting the seat backward and down. Make sure the lever is locked.
3. To avoid pinching your hand or fingers, keep them away from the seat support link.

BALLAST



WARNING

To avoid serious personal injury or death:

- Never remove loader to ensure tractor stability at all times.

IMPORTANT :

- Do not add liquid ballast or any other weights to the front tires.
- While BH75 backhoe is installed on the tractor, liquid ballast in the rear tires should be removed.

OPERATION

1. BH75 backhoe is approved for use on:
 - B7800 tractor(s) with foldable ROPS, LA402-1 Loader and BH4974 mount kit.
 - B2630 and B3030 tractors with foldable ROPS, LA403 Loader and BH4975 mount kit.
 - L2800 and L3400 tractors with rigid and foldable ROPS, LA463 Loader and BH4976 mount kit.
 - L3240 and L3540 tractors with rigid and foldable ROPS, LA514 or LA724 Loader and BH4996 mount kit.
2. The BH75 backhoe can be mounted on a tractor together with mid mount mower on B7800, B2630 and B3030.
3. When using other implements with backhoe removed, mount the 3-point linkage to the tractor.
4. It is necessary to have the backhoe detached when using rear remote, the 3-point hitch or any other valves that are downstream of the backhoe valve. Failure to do this may cause the exceeding allowable back pressure to break the seal or case of the backhoe valve.
5. Removal and reinstallation of backhoe sub frame should be performed by your KUBOTA dealer.
6. Save the 3-point linkage components which are removed.

OPERATING INSTRUCTIONS

OPERATING SPEED



CAUTION

To avoid personal injury:

- Use care when operating on slopes to avoid tip-over. Travel at speed compatible with safe operation, especially when operating in uneven terrain, crossing ditches or while turning.

1. This backhoe can be operated at any engine speed from about 75% of rated rpm to factory rated rpm. The backhoe is most efficient at rated engine speed. However, in special digging conditions, for optimal fuel economy, or in residential neighborhood where noise may be a consideration, the engine speed can be lowered to about 75% of rated rpm.
2. When operating in temperature below 0 °C (32 °F), run the tractor engine below about 50% of rated rpm until the oil temperature exceeds 0 °C (32 °F).

BACKHOE CONTROLS



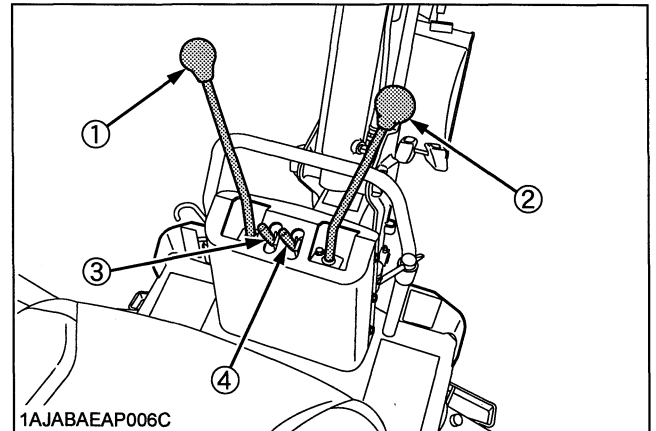
CAUTION

To avoid personal injury:

- For all excavation work, operate the backhoe from the backhoe operator's seat only.
- Do not tamper with any backhoe control valve relief pressure setting.

The relief valve is preset at the factory. Changing the setting can cause overloading of the backhoe and the tractor and serious personal injury may result.

The backhoe is controlled by using the two lever "joystick" system. The left lever controls the boom and swing circuits, and the right lever controls the dipperstick and bucket circuits. The further the levers are moved from neutral, the faster the component will move. Learn the feature of the controls for smooth and precise component movement.



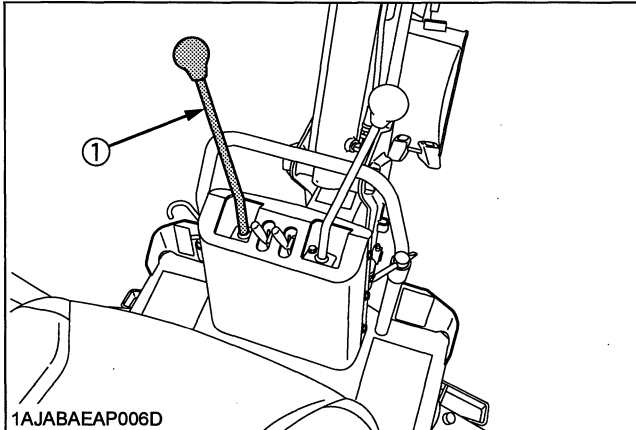
- 1A-JABAEAP006C
- (1) Boom and swing lever
 - (2) Dipperstick and bucket lever
 - (3) Stabilizer control lever, left
 - (4) Stabilizer control lever, right

■ Boom & Swing Lever

Pushing the lever forward will lower the boom, and pulling it back will raise it.

Movement of the lever to the left will swing the bucket to the left, and right lever movement will swing to the right.

By moving the lever out of the plus "+" position; into an "X" relationship, it is possible to raise or lower and swing at the same time.



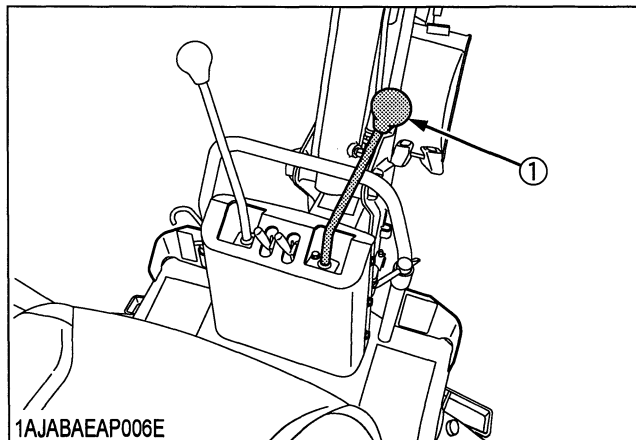
(1) Boom and swing lever

■ Dipperstick & Bucket Lever

Pushing the lever forward will crowd out the dipperstick and the bucket out and pulling it back will crowd them in. Lever movement to the left will curl the bucket to fill it, and right lever movement will dump the bucket.

Again, movement into an "X" relationship will crowd in and fill the bucket, or crowd out and dump the bucket.

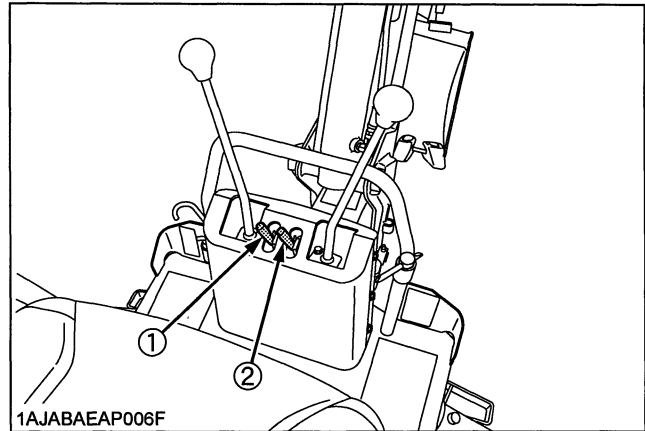
With experience, the combination of both "joystick" levers will allow lift, swing, crowd out and spoil dumping, all in one smooth movement, or lowering, swing, crowd in and bucket filling with reverse movement.



(1) Dipperstick and bucket lever

■ Stabilizer Control Levers

Moving the levers downward will lower the stabilizers, and upward lever movement will raise them.



(1) Stabilizer control lever, left
(2) Stabilizer control lever, right

PLACING THE STABILIZERS



CAUTION

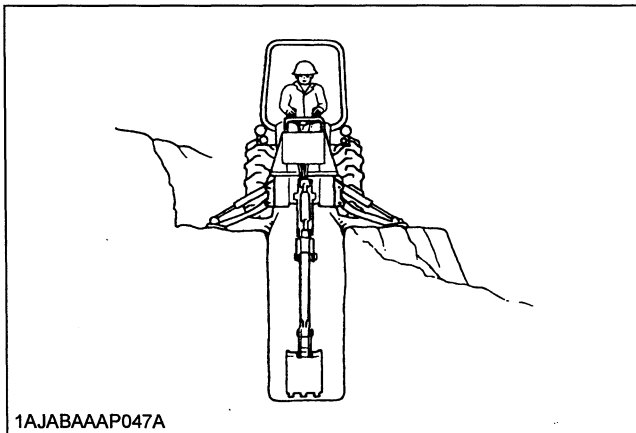
To avoid personal injury:

- When working on slopes, one stabilizer may be lower than the other. Use extreme care during excavation as risk of overturn will increase.
- When digging on a hillside, always dump the bucket on the uphill side of excavation.
- To reduce the risk of overturn on a slope, place the spoil to the high side of the excavation.

1. Lower the stabilizers and remove the weight of the backhoe from the rear wheels. However, one or both rear tires should remain in light contact with the ground. This will give the backhoe the widest possible stance and the lowest center of gravity.

If the rear wheels are raised too high, digging depth will be reduced and undue stress will be exerted on the backhoe frame components.

If the slope is unusually steep, cut a level surface with the loader and pile the spoil on the downhill side. Backdrag and pack the spoil so it will support the stabilizer on the low side. This procedure is recommended when a wall, tree line or other obstruction prevents placing backhoe spoil on the high side of the excavation.



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2. The loader bucket should be lowered to give the backhoe unit a "tri-pod" stance. With the loader bucket in ground contact, front tire bounce will not be a factor in overall control. When possible, the loader bucket cutting edge should be lowered vertically into the ground surface. This will assist the stabilizers, not allowing the unit to shift, while excavating. However, on a slope, the bottom of the bucket should be used, and only the side that contacts the uneven terrain. Too much loader down pressure, on a slope, will restrict the unit from being correctly leveled and will place an undue twist through the loader bucket and lift arms.

GENERAL BACKHOE OPERATION



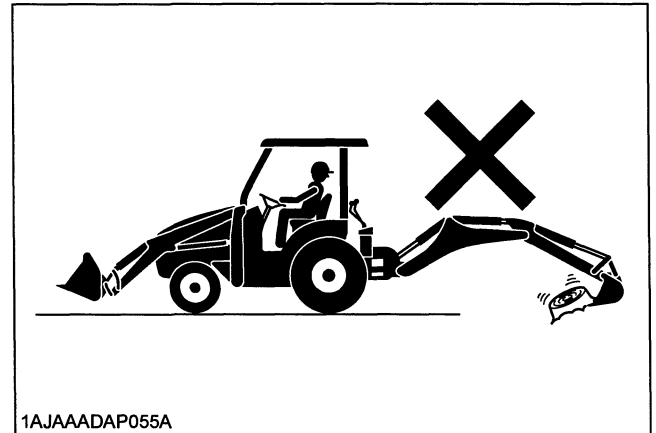
CAUTION

To avoid personal injury:

- Do not dig under the stabilizer or tractor, especially in soft or sandy conditions. Take extra precaution in wet or thawing ground. These conditions can become unstable very quickly and may collapse under the weight of the machine and may tip over.
- Use care for buried material such as electrical, telephone, gas and water lines. When in doubt, contact local utility companies for their buried location.

IMPORTANT :

- Do not use the tractor to pull out tree stumps with the boom dipper extended and the bucket in its crowded position.



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■ Dipperstick Digging

Lower the bucket to the ground, the same as with bucket digging, then curl until the bucket teeth are flat on the ground.

Using only the crowd cylinder, retract the dipperstick, dragging the bucket through the trench until it is approximately half full. Begin to curl the bucket in while continuing to crowd in, until the bucket is completely full. Raise and swing the boom and dump the bucket in the spoil area on the high side of the trench or excavation.

■ Spoil Pile Location



CAUTION

To avoid personal injury:

- Do not place spoil close to the edge of the excavation where its weight could cause a cave-in.

Carefully preplan the location for the spoil that will be removed from the excavation. The location will vary depending on the excavation being dug.

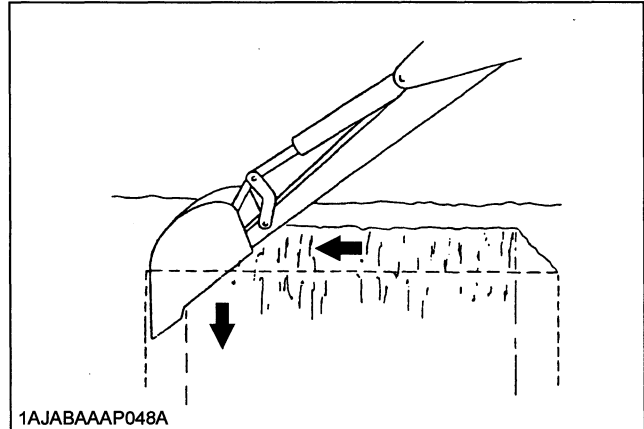
The height of spoil pile can be controlled without moving the tractor. Approach the pile with the backhoe bucket full and ready to empty. Instead of dumping on top, lower the full bucket into the top of the pile. Begin dumping and crowding out at the same time. As the bucket opens and dumps, the bottom of the bucket will push the top of the pile off and behind its location, safely away from the excavation.

■ Straight Wall or Cemetery Digging

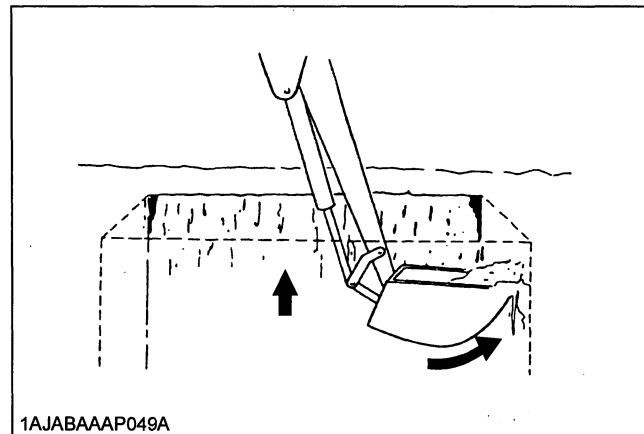
Strip the top soil off the ground, within the confines of the straight hole or grave to be dug. Clean out as much material, within the same confines, as possible with normal digging methods.

Finish the far wall by crowding out while forcing the bucket down with the boom.

Curl the bucket out to keep the bottom of the bucket vertical while making the down cut.



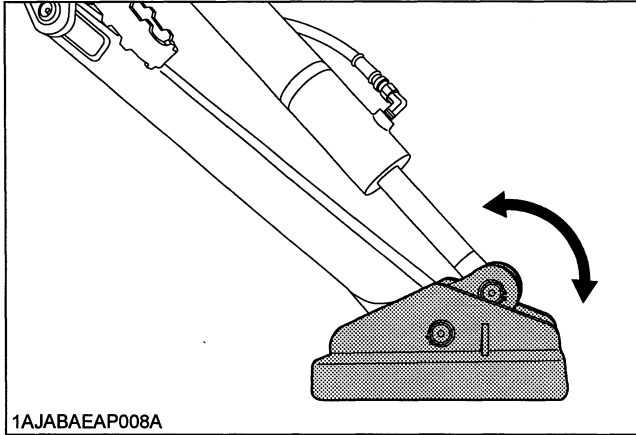
To finish the near wall, raise the boom while crowding in. The bucket will have to be curled in to keep the cutting edge horizontal with the wall during the up cut.



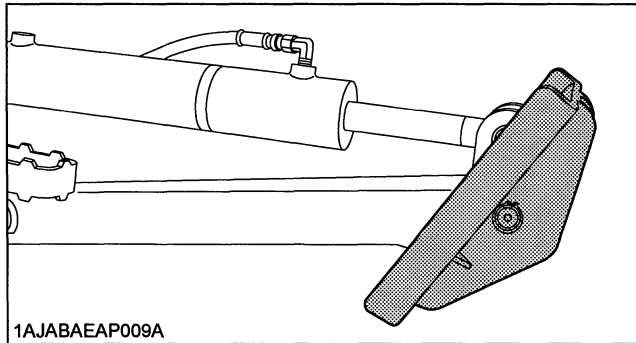
When finishing straight wall, or digging graves, in sandy soil, use a platform under the rear tires and stabilizers. The platform distributes the backhoe load over a large area and lessens the possibility of a cave-in.

■ Stabilizer pads

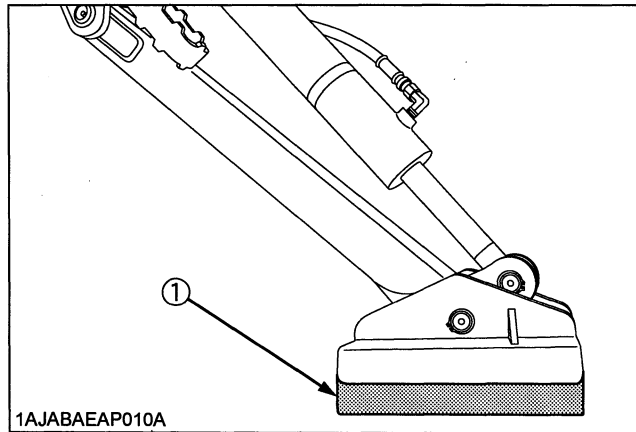
The stabilizer pads can be reversed without the use of tools. Change the pads depending on the job.



◆ When operating in dirt to prevent slippage.



◆ When operating on street to prevent damage to work area.



(1) Rubber shoes (option)

IMPORTANT :

- Always lower stabilizers slightly when changing from one position to another to avoid soil splash.

TRANSPORTING

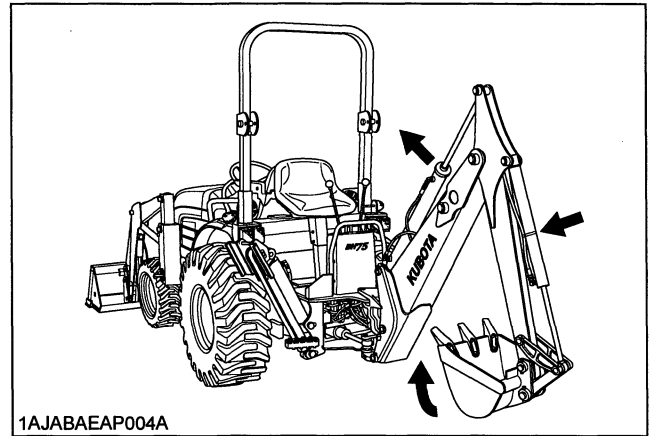


CAUTION

To avoid personal injury:

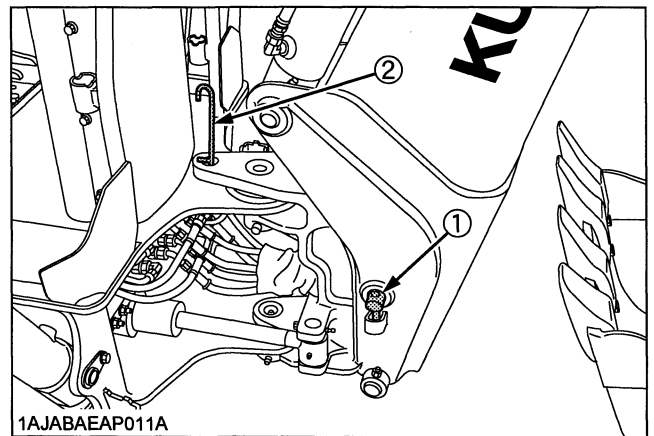
- Before transporting the machine, raise and center the boom, close the dipperstick, curl the bucket and engage the boom and swing locks.
- Always securely fasten the tractor / loader / backhoe, with chains and chain binders, to transport vehicle.

Determine and note the load height of the backhoe, for underpass clearance, before transporting.



■ Driving to the Job-site

When driving or transporting from one job-site to another, or when using the loader such as stockpiling and backfilling, always engage the boom and swing locks.



(1) Boom lock pin
(2) Swing lock pin

■ Trailer Transporting

When loading or off-loading the machine on or from trailer / truck, use strong, secure ramps long enough to provide a low angle to the transport vehicle.

After loading the machine, release the boom lock, lower the backhoe bucket to the bed of the transport vehicle, lower the loader bucket, set the parking brake of the tractor, shut the engine off and then remove the key.

Check the local codes or regulations that may apply to tractor / loader / backhoe operation on public streets or highways, before transporting or traveling. Use SMV emblem and warning flashers as required.

(SMV: Slow Moving Vehicle)

MAINTENANCE

DAILY CHECKS



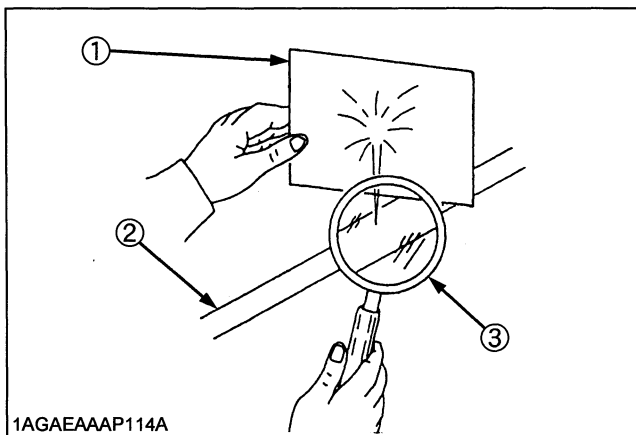
CAUTION

To avoid personal injury:

- Never make any repairs, service or adjustments when the hydraulic system is under pressure, when the engine is running or when any backhoe cylinder is under load.
- Escaping hydraulic fluid under pressure can have sufficient force to penetrate skin, causing serious personal injury.

Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to system, be sure all connections are tight and that lines, pipes and hoses are not damaged. Fluid escaping from a very small hole can be almost invisible. Do not use hands to search for suspected leak, use a piece of cardboard or wood. If injured by escaping fluid, see a doctor at once.

Serious infection or allergic reaction will develop if proper medical treatment is not administered immediately.

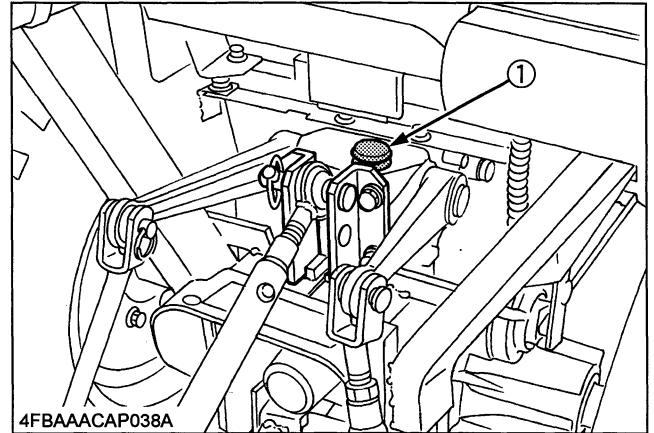


1AGAEAAAP114A

- (1) Cardboard
- (2) Hydraulic line
- (3) Magnifying glass

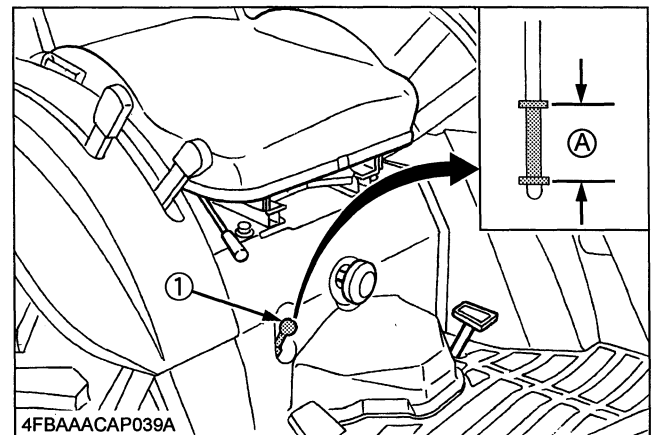
1. The backhoe is run by the tractor hydraulic system. Daily before operation, check the tractor hydraulic level. If low, replenish the oil as described in the tractor operator's manual. Also check the filter screen and change the hydraulic fluid as recommended in the tractor operator's manual.

[B7800]



4FBAAACAP038A

(1) Oil inlet

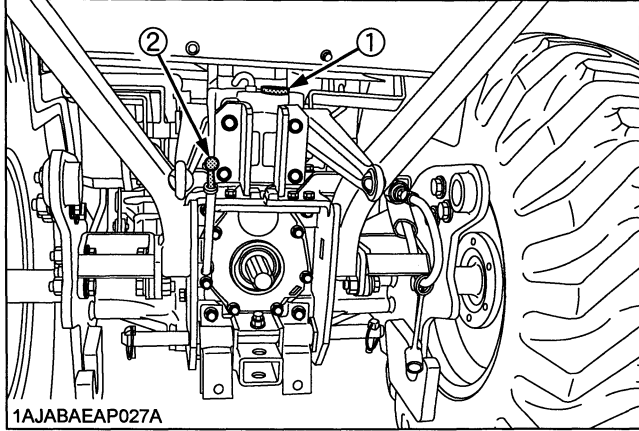


4FBAAACAP039A

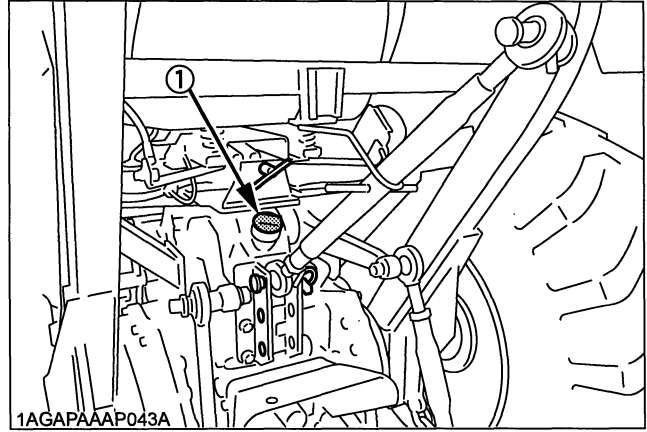
(1) Dipstick

(A) Oil level is acceptable within this range

[B2630] [B3030]

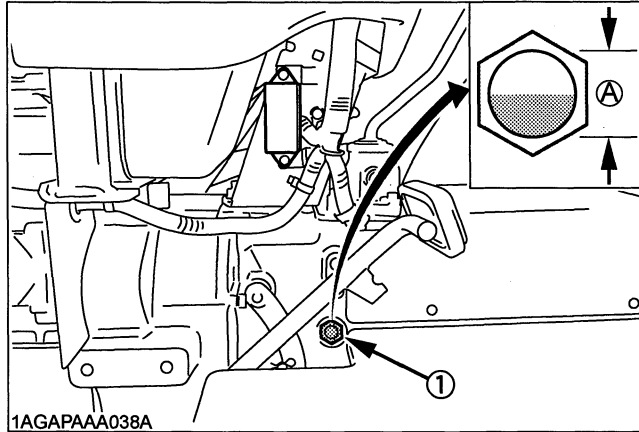


(1) Oil port
(2) Dipstick



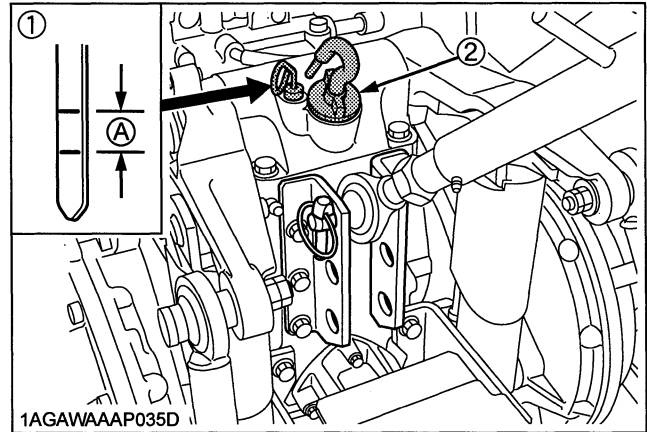
(1) Oil inlet

[L2800] [L3400]
[Manual Transmission Type]



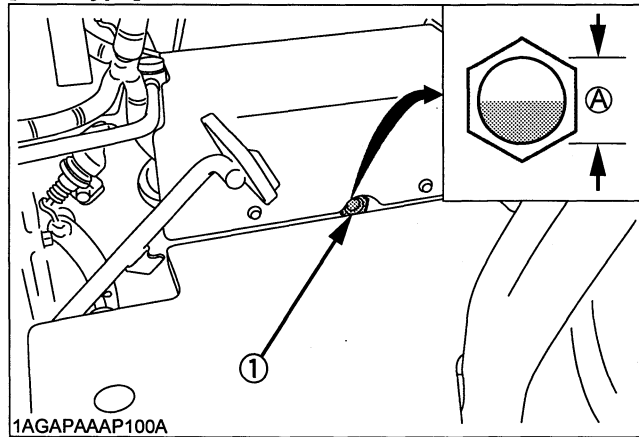
(1) Gauge (A) Oil level is acceptable within this range

[L3240] [L3540]



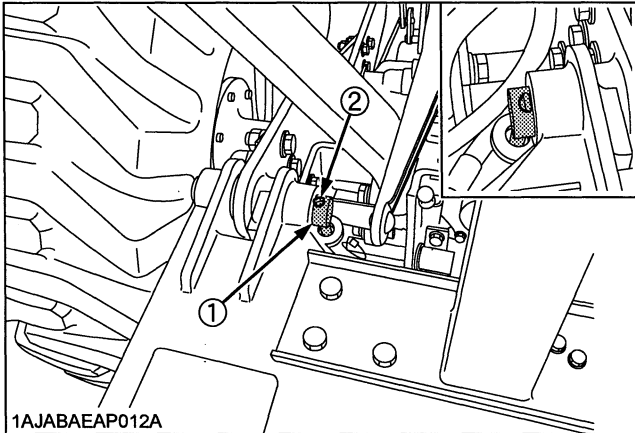
(1) Gauge (2) Oil inlet
(A) Oil level is acceptable within this range

[HST Type]



(1) Gauge (A) Oil level is acceptable within this range

2. With the engine off and the bucket on the ground, inspect all hoses for cuts or wear. Check for signs of leaks and make sure all fittings are tight.
3. For safe operation, check that the mounting pin slide bar is inserted into the hole of the main frame before operation.



(1) Mounting pin
(2) Slide bar

EVERY 50 HOURS

■ Checking Sub Frame Bolt Torque

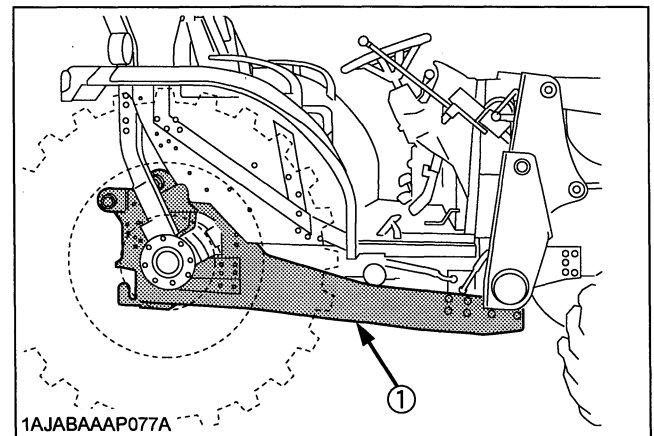


CAUTION

To avoid personal injury:

- Never operate backhoe and front loader with a loose sub frame.
- Any time bolts and nuts are loosened, retighten to specified torque.
- Check all bolts and nuts frequently and keep them tight.

Check sub frame bolts and nuts regularly especially when new. If they are loose, tighten them as follows.

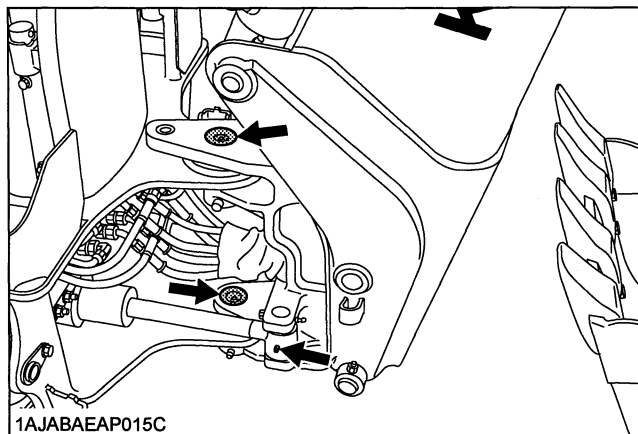
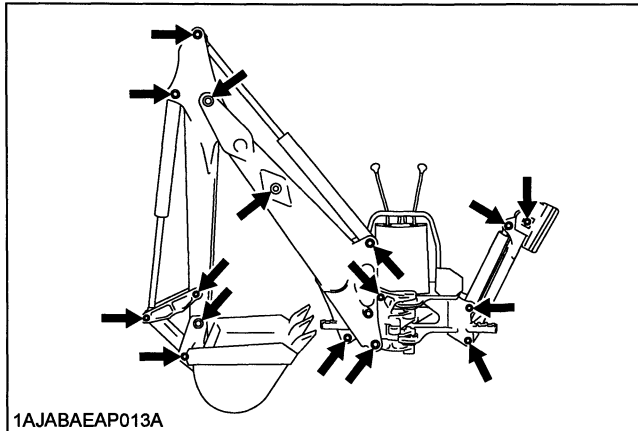


(1) Sub frame

- M16 bolt and nut**
Tightening torque: 196-225 N-m
(20.0-23.0 kgf-m, 145-166 ft-lbs)
- M14 bolt and nut**
Tightening torque: 124-147 N-m
(12.6-15.0 kgf-m, 91.5-108.4 ft-lbs)
- M12 bolt and nut**
[At rear axle case]
Tightening torque: 64.0-74.0 N-m
(6.5-7.5 kgf-m, 46.3-53.5 ft-lbs)
- [Otherwise]**
Tightening torque: 77.5-90.1 N-m
(7.9-9.2 kgf-m, 57.2-66.5 ft-lbs)

LUBRICATION

Lubricate all grease fittings every 10 hours of operation. High quality grease designated "extreme pressure" and containing Molybdenum disulfide is recommended. This grease may specify "Moly Ep" on it's label.



TIRE INFLATION

Insure the tractor tires are properly inflated. Refer to the tractor operator's manual for optional tires.

BUCKET SERVICE



CAUTION

To avoid personal injury:

- When servicing or repairing pins in cylinder ends, bucket, etc., always use a brass drift and hammer. Failure to do so could result in injury from flying metal fragments.

■ Changing the Backhoe Bucket

Changing the backhoe bucket becomes necessary as the type of job to be accomplished changes. In most backhoe operations, this is a common occurrence.

By using the following instructions, this job will be quick and easy. Always select a smooth level area to change buckets.

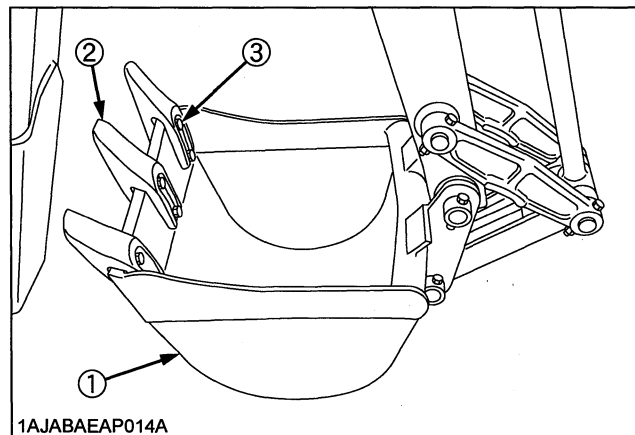
Place the bucket to be installed on its bottom, near the backhoe dipperstick and the bucket to be removed.

Position the bucket to be removed, hydraulically, into this "natural" position, just touching the ground.

■ Changing the Bucket Teeth




The bucket teeth are locked with bolts on the bucket. Even though the teeth are heat-treated and hard, they will eventually need replacement. As the teeth become worn, the resistance of digging will increase. When the teeth are worn, install new teeth using new bolts.

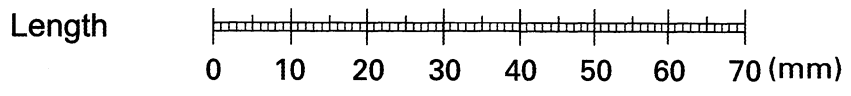
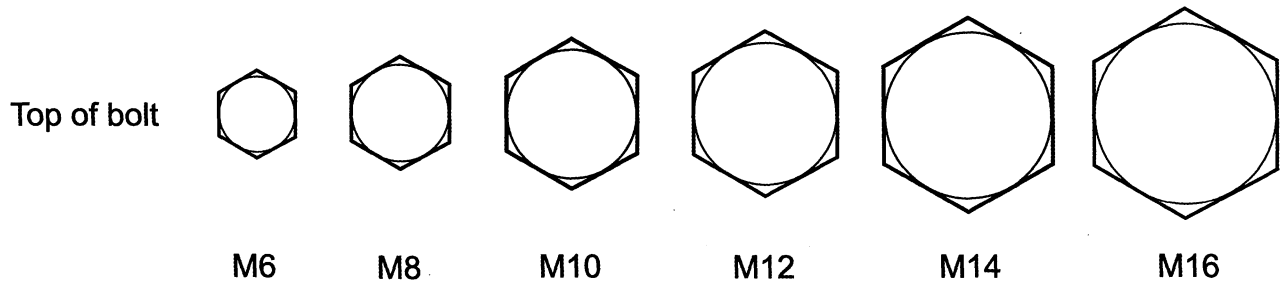
Bucket teeth may be removed and stored when drainage work is required. This type of work may not require trenching teeth.



- (1) Bucket
- (2) Bucket teeth
- (3) Bolt

General torque specification

American standard screws, bolts and nuts with UNC or UNF threads			Metric cap screws 		
SAE grade No.	SAE GR.5 	SAE GR.8 	property class	8.8 Approx. SAE GR 5	
1/4 (N-m) (kgf-m) (ft-lbs)	11.7 to 15.8 1.19 to 1.61 8.6 to 11.6	16.3 to 19.8 1.66 to 2.02 12.0 to 14.6	M6 (N-m) (kgf-m) (ft-lbs)	9.8 to 11.2 1.0 to 1.1 7.2 to 8.3	
5/16 (N-m) (kgf-m) (ft-lbs)	23.1 to 27.8 2.35 to 2.83 17.0 to 20.5	32.5 to 39.3 3.31 to 4.01 24.0 to 29.0	M8 (N-m) (kgf-m) (ft-lbs)	23.6 to 27.4 2.4 to 2.8 17.4 to 20.2	
3/8 (N-m) (kgf-m) (ft-lbs)	47.5 to 57.0 4.84 to 5.81 35.0 to 42.0	61.0 to 73.2 6.22 to 7.46 45.0 to 54.0	M10 (N-m) (kgf-m) (ft-lbs)	48.1 to 55.8 4.9 to 5.7 35.5 to 41.2	
1/2 (N-m) (kgf-m) (ft-lbs)	108.5 to 130.2 11.06 to 13.28 80.0 to 96.0	149.2 to 179.0 15.21 to 18.25 110.0 to 132.0	M12 (N-m) (kgf-m) (ft-lbs)	77.5 to 90.1 7.9 to 9.2 57.2 to 66.5	
9/16 (N-m) (kgf-m) (ft-lbs)	149.2 to 179.0 15.21 to 18.25 110.0 to 132.0	217.0 to 260.4 22.13 to 26.55 160.0 to 192.0	M14 (N-m) (kgf-m) (ft-lbs)	124 to 147 12.6 to 15.0 91.5 to 108.4	
5/8 (N-m) (kgf-m) (ft-lbs)	203.4 to 244.1 20.74 to 24.89 150.0 to 180.0	298.3 to 358.0 30.42 to 36.51 220.0 to 264.0	M16 (N-m) (kgf-m) (ft-lbs)	196 to 225 20.0 to 23.0 145 to 166	



REMOVING THE BACKHOE

REMOVAL OF THE BACKHOE



CAUTION

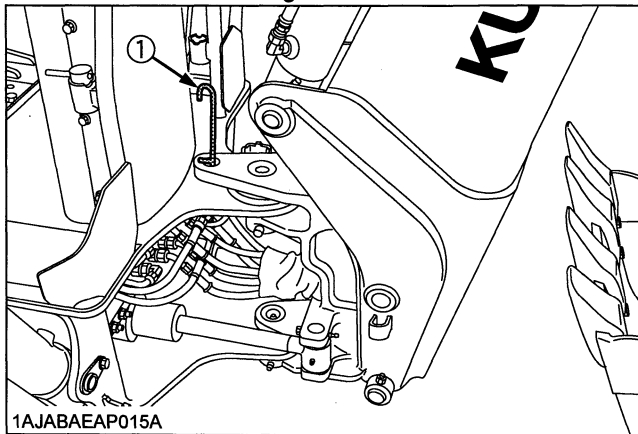
To avoid personal injury:

- When starting the engine, always sit in the tractor operator's seat.
- When getting off the tractor, make sure that PTO lever is off and range gear shift lever is in neutral. Then set the parking brake.
- Keep hands, feet and body from between tractor and backhoe. Never allow any part of body under the machine.
- When leaving the backhoe operator's seat, fully lower the boom to the ground.
- When removing the backhoe set the swing lock pin.

IMPORTANT :

- When removing the backhoe, set the engine speed low idle.
- For removing the backhoe, locate the tractor / loader / backhoe on a flat level and hard surface, preferably concrete. If the surface is soft, place a board on the ground for the bucket and stabilizers.

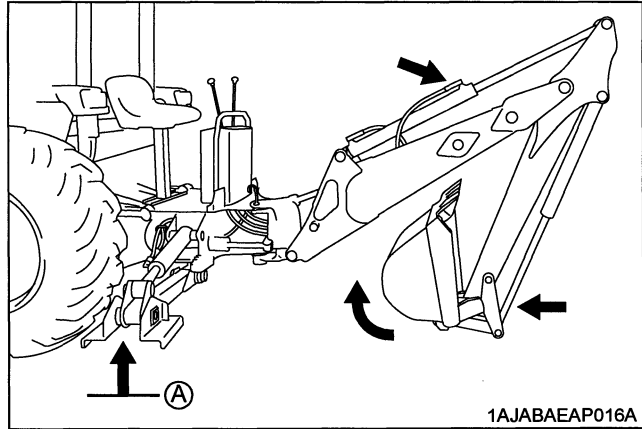
1. Set the swing lock pin to prevent the pivoting of the boom before removing the backhoe.



(1) Swing lock pin

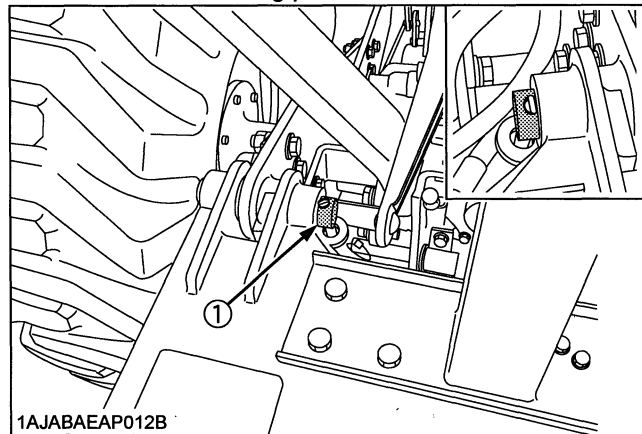
2. Stand beside the rear tire, fully close the dipperstick, curl the bucket and lower the boom until the back of bucket contacts the ground.

3. Keep the stabilizer pads at about 381 mm (15.0 in.) high.



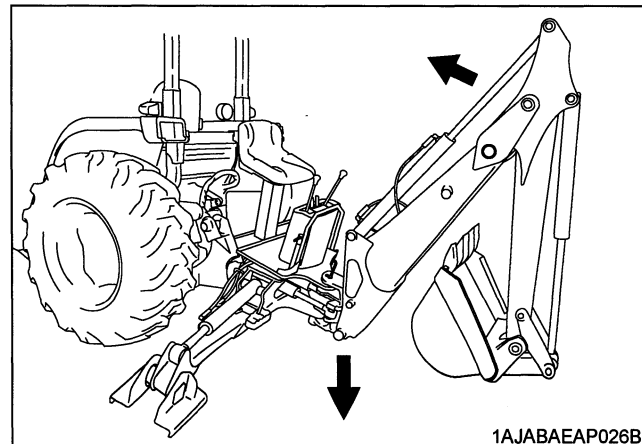
(A) 381 mm (15.0 in.)

4. Raise the rear wheels slightly with the boom and remove the mounting pins.



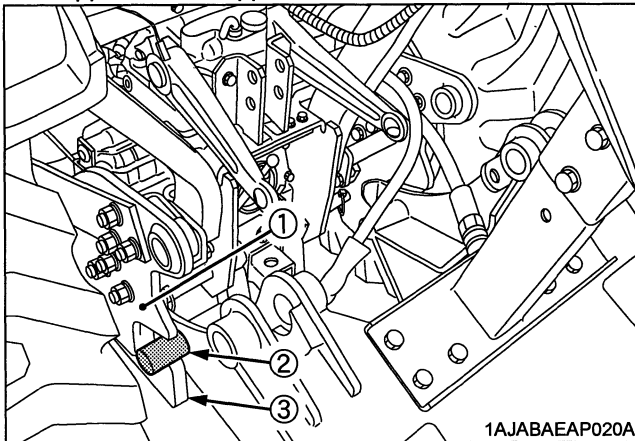
(1) Mounting pin

5. Slowly raise the boom to disengage the backhoe from the tractor.



1AJABAEAP026B

6. Raise the backhoe by operating the stabilizers to the lowering direction until the mount bars hit to the guide stopper on the support hooks.



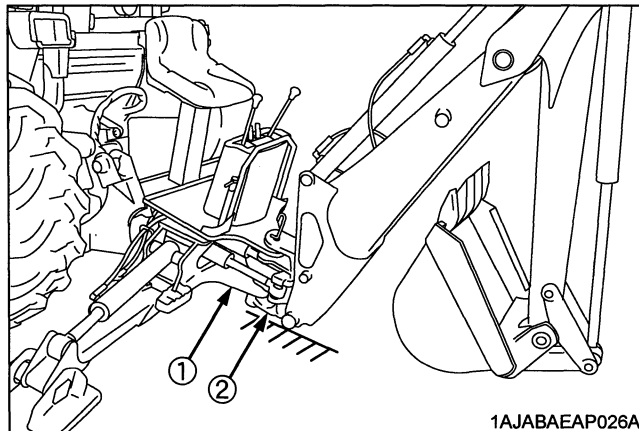
- (1) Guide stop
- (2) Mount bar
- (3) Support hook

7. Move the tractor forward from the backhoe about 8 inches.

IMPORTANT :

- Be careful not to damage or break the hoses when moving the tractor.

8. Lower the main frame and swing frame onto the ground by operating the boom and stabilizer control levers.



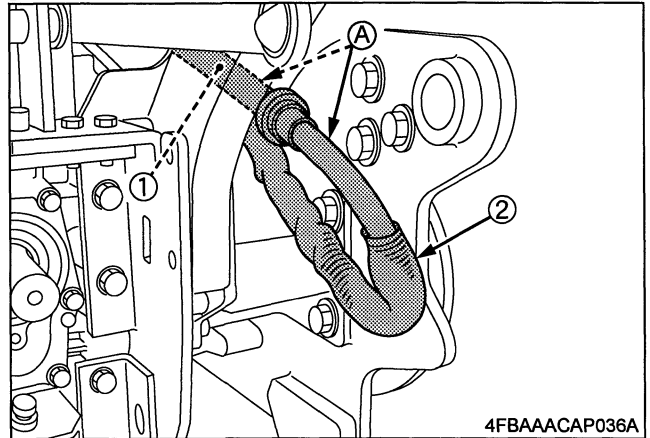
- (1) Main frame
- (2) Swing frame

9. Shut off the engine and set the parking brake.
10. Slowly release all hydraulic pressure by moving the backhoe hydraulic control levers in all directions.
11. Disconnect hydraulic hoses in the following manner:
 - (1) Disconnect the inlet and outlet hoses from the tractor.
 - (2) Connect tractor's outlet hose to the coupler of return hose.

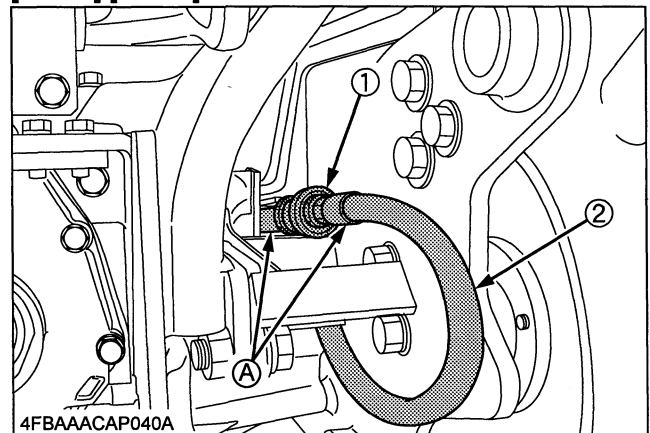
NOTE :

- Failure to reconnect the hose can result in severe damage to Hydraulic Pump and seals.
Do not start tractor with hose disconnected.

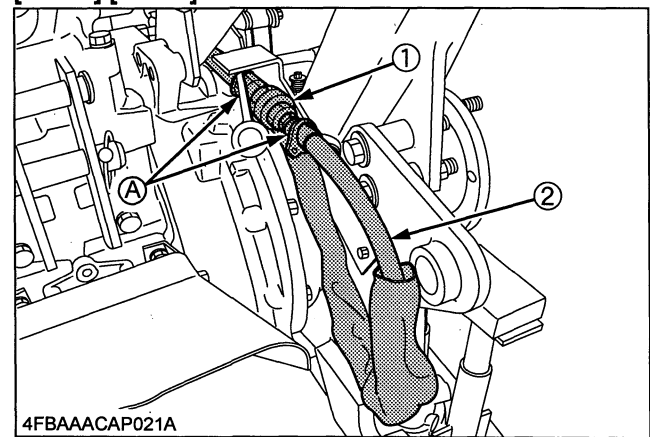
[B7800]



[B2630] [B3030]

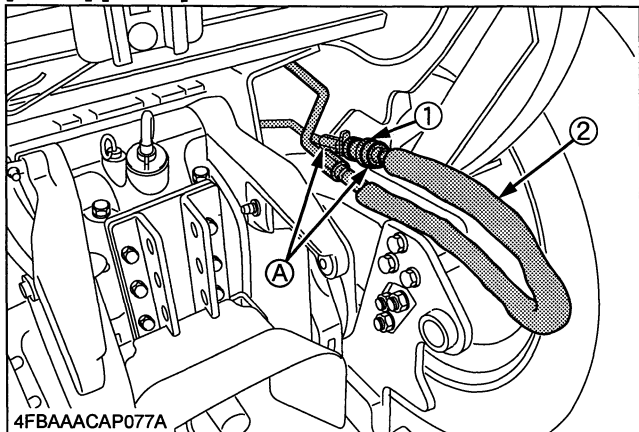


[L2800] [L3400]



- (1) Outlet hose (tractor)
- (2) Return hose (tractor)
- (A) To be connected

[L3240] [L3540]



(1) Outlet hose (tractor) (A) To be connected
(2) Return hose (tractor)

12. Restart the engine.

Then drive the tractor / loader slowly away from the backhoe.

13. Shut off the engine and remove the key from the tractor. Set the parking brake.

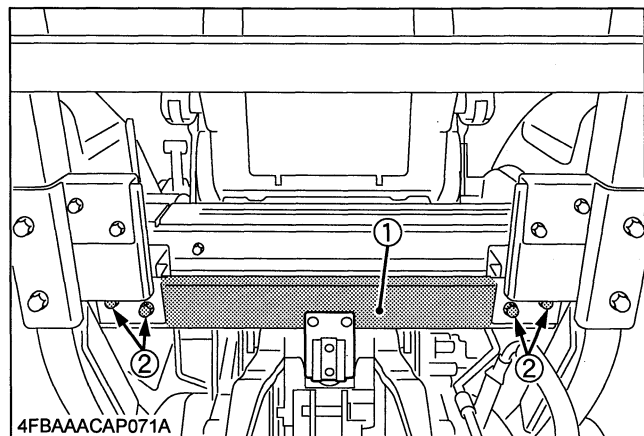
NOTE :

- The entire three point hitch can now be reinstalled on the tractor for use with other rear mount implements.
- Be sure that there is sufficient ballast in the rear tires and an implement is attached to the three point hitch before using the loader with backhoe removed.

IMPORTANT :

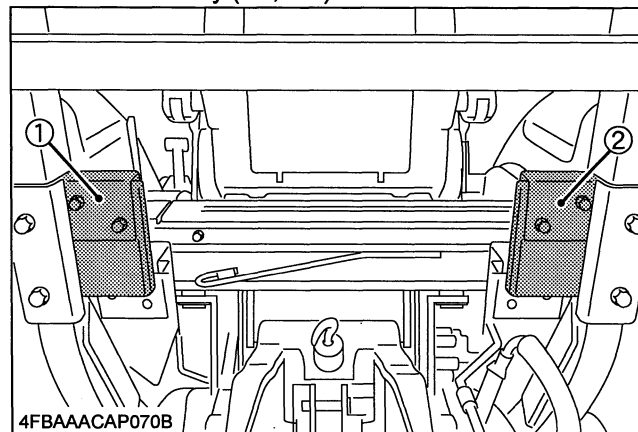
- [For L3240 and L3540 only]
When using the 3P-link or traveling on the road without the backhoe, return the ROPS connecting bar to its position in the following procedure.

1. Detach the bar.



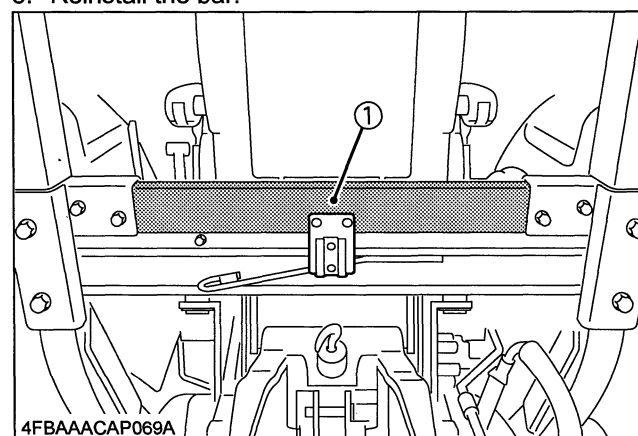
(1) Bar (2) 4 - M12 x 65 semi bolts
(Re-use)

2. Detach the stay (LH, RH).



(1) Stay (LH)
(2) Stay (RH)

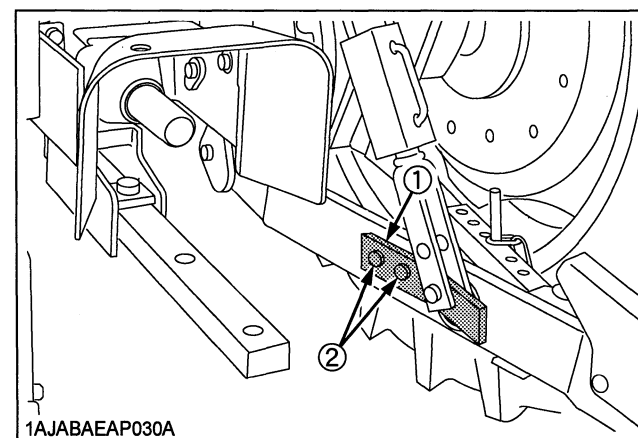
3. Reinstall the bar.



(1) Bar

IMPORTANT :

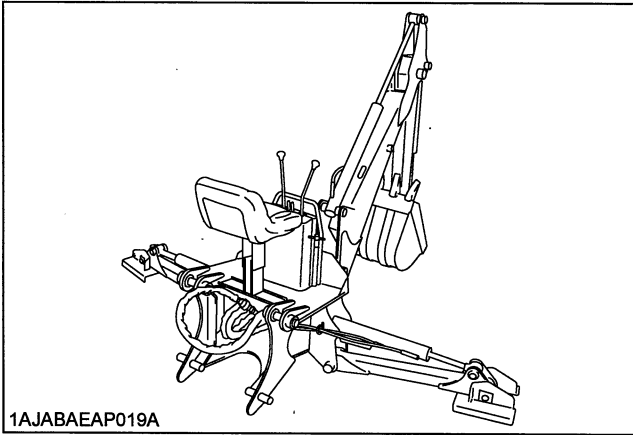
- [For L3240 and L3540 only]
When using the 3P-link, attach the lift rod brackets to the lower links in the following figure.



(1) 2 - lift rod bracket
(2) 4 - M16 x 75 bolts
4 - M16 spring lock washers
4 - M16 nuts

STORAGE OF THE BACKHOE

1. Store the backhoe in a dry place.
2. Apply a coat of grease to all exposed cylinder rods to prevent rusting.
3. If the backhoe is being stored outside, cover the backhoe with suitable weather cover. This will keep moisture, dirt and other airborne debris from getting into the system.
4. Repair or replace any worn, damaged or missing parts.



IMPORTANT :

- When storing the backhoe, install the dust caps onto the backhoe's hydraulic nipples to prevent contamination.

REINSTALLING THE BACKHOE



WARNING

To avoid personal injury or death:

- When starting the engine, always sit in the operator's seat.
- When getting off the tractor, make sure that PTO lever is off and range gear shift lever is in neutral. Set the parking brake.
- Keep hands, feet and body from between tractor and backhoe. Never allow any part of body under the machine.



CAUTION

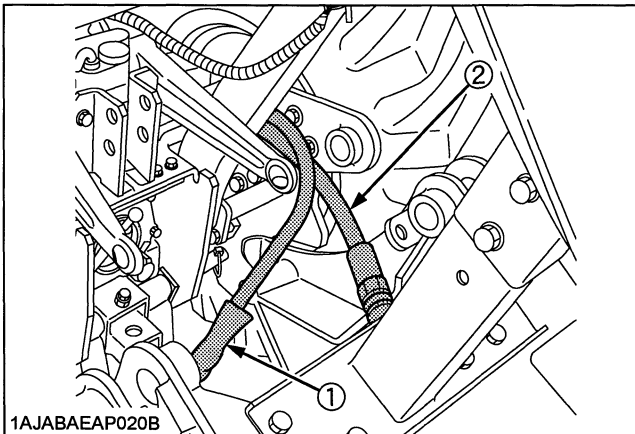
To avoid personal injury:

- Make sure the tractor PTO is disengaged.

IMPORTANT :

- When reinstalling the backhoe, set the engine speed to low idle.

1. Remove the 3-point hitch and / or drawbar. (if equipped)
[For L3240 and L3540 only]
Replace the ROPS connecting bar in the specified procedure. (See section "Installing the Stay for ROPS Connecting Bar".)
2. Make sure the swing lock pin is installed.
3. Slowly back the tractor / loader, centering to the backhoe main frame.
Stop the tractor 254 to 381 mm (10.0 to 12.0 in.) away from the backhoe.
4. Shut the engine off and set the parking brake.
5. Connect the inlet and outlet hoses of the backhoe to the outlet hose and return hose of the tractor.



- (1) Inlet hose
(2) Return hose

IMPORTANT :

- Make sure both hoses are firmly connected before starting the engine.
6. Restart the engine.



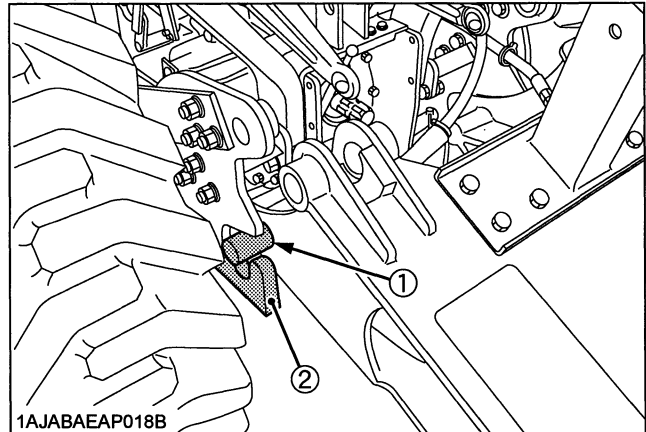
WARNING

To avoid personal injury or death:

- Do not move the joystick control lever to the swing position.
7. Stand beside the rear tire. Move the boom to fully raising position and raise the backhoe by operating the stabilizers until the mount bar on the backhoe main frame are slightly higher than the tractor main frame support hooks.

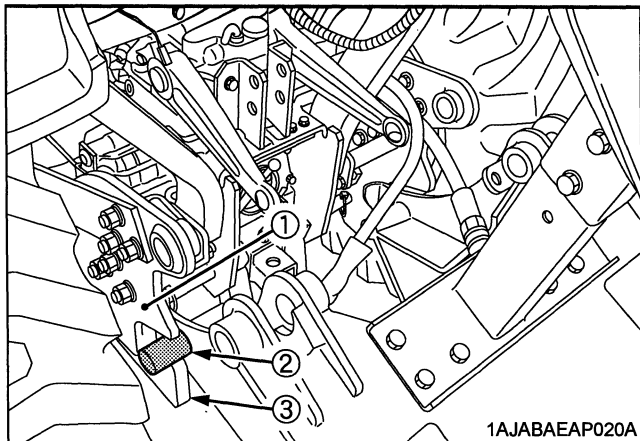
NOTE :

- If the support hooks are not parallel to the mount bars, adjust with the stabilizers.



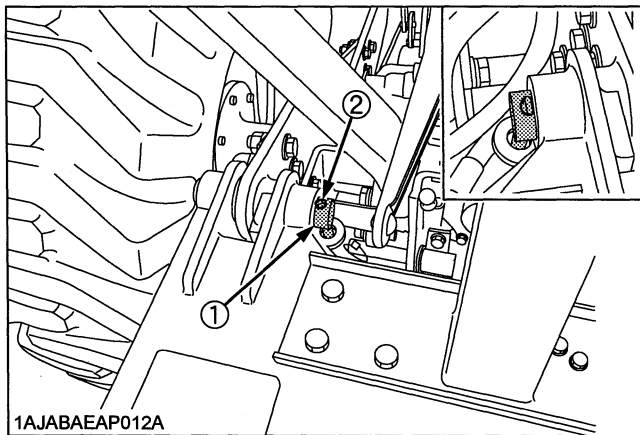
- (1) Mount bar
(2) Support hook

8. Move the tractor backward until the support hooks on the tractor main frame are just beneath the mount bar on the backhoe main frame.



- (1) Guide stop
- (2) Mount bar
- (3) Support hook

9. Lower the mount bar onto the support hooks by operating the stabilizer and boom control levers.
10. Move the boom slowly to the lowering position, and engage the guide plates of the main frame to the bosses of sub frame. Then raise the rear wheels slightly by operating the boom to the lowering direction.
11. Shut off the engine. Reinstall the mounting pins, and insert the slide bar of the mounting pins to the hole of the main frame.



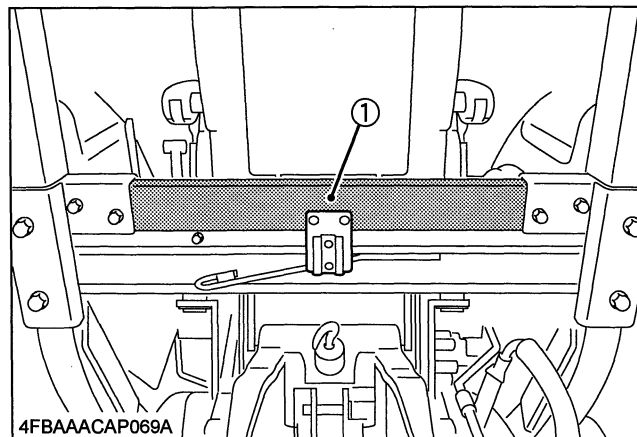
- (1) Mounting pin
- (2) Slide bar

NOTE :

- Move the tractor / loader / backhoe to an open area and cycle all backhoe functions. This will check their operation and flow oil back through the system, filtering it and refilling each circuit. Check the hydraulic oil level before putting the backhoe into full operation. See "MAINTENANCE" section of the tractor operator's manual for oil type and correct level.

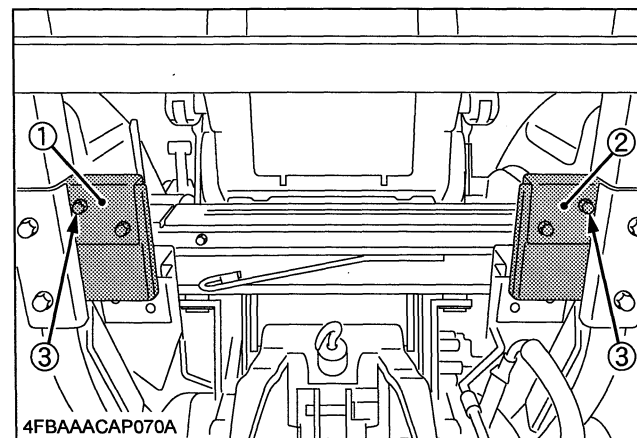
■ Installing the Stay for ROPS Connecting Bar

1. Detach the bar.



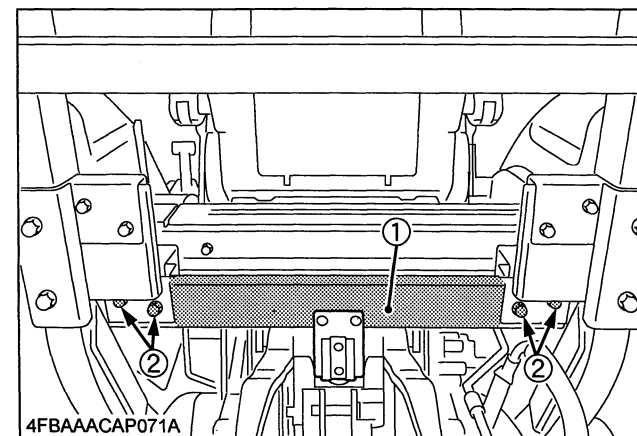
- (1) Bar

2. Re-attach the stay (LH, RH).



- (1) Stay (LH)
- (2) Stay (RH)
- (3) 4 - M12 x 65 sems bolts (Re-use)

3. Reinstall the bar.



- (1) Bar
- (2) 4 - M12 x 65 sems bolts

KUBOTA Corporation is ...

Since its inception in 1890, KUBOTA Corporation has grown to rank as one of the major firms in Japan.

To achieve this status, the company has through the years diversified the range of its products and services to a remarkable extent, until today, 19 plants and 16,000 employees produce over 1,000 different items, large and small.

All these products and all the services which accompany them, however, are unified by one central commitment. KUBOTA makes products which, taken on a national scale, are basic necessities. Products which are indispensable, products intended to help individuals and nations fulfill the potential inherent in their environment. For KUBOTA is the Basic Necessities Giant.

This potential includes water supply, food from the soil and from the sea, industrial development, architecture and construction, and transportation.

Thousands of people depend on KUBOTA's know-how, technology, experience and customer service. You too can depend on KUBOTA.



KUBOTA TRACTOR CORPORATION

CORPORATE OFFICE: 3401 DEL AMO BOULEVARD, TORRANCE, CA 90503

WESTERN DIVISION: 1175 S. Guild Ave., Lodi, CA 95240 • (209) 334-9910

CENTRAL DIVISION: 14855 F.A.A. Blvd., Fort Worth, TX 76155 • (817) 871-0900

NORTHERN DIVISION: One Kubota Way, Groveport, OH 43125 • (614) 835-1100

SOUTHEAST DIVISION: 1025 Northbrook Parkway, Suwanee, GA 30024 • (770) 995-8855

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