

READ AND UNDERSTAND THIS MANUAL **BEFORE ASSEMBLING** 

# Kubota

Code No. 7K505-7915-8 English (U.S.A.)

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## TO THE DEALER

1. This manual contains procedures intended to assist the dealer in unpacking and assembling the product before delivering to the customer.

The customer's purchase is based on confidence in both the product and your store. Observe the procedures in this manual to assemble and adjust equipment for your customer's safety and satisfaction. When fully assembled, check function of each part and feature.

 The following safety alert symbol marks and indications are found throughout this manual in steps where particular attention is required so as to ensure your safety and to avoid product damage. Observe the instructions in these warnings where indicated.

	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
IMPORTANT :	Indicates that equipment or property damage could result if instructions are not followed.
NOTE :	Gives helpful information

### SAFETY

To prevent accidents, read through the following items before starting work, and always regard safety when working. It is your responsibility to ensure your safety on the job.

#### 1. Preparations

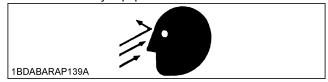
- (1) Select a work site which is level, has sufficient space, and is not close to dangerous objects.
- (2) Avoid poorly ventilated rooms. Asphyxiation from exhaust fumes is always a possibility that accompanies running engine.



(3) Working clothes which may be pinched or caught in the equipment must not be worn. Loose clothing can cause serious injury or death.



(4) Always wear a mask and protective goggles during work when dust or flying debris may be thrown by equipment.



#### 2. Assembly and adjustments

(1) Before assembling equipment, read the assembly instructions for the product to become familiar with the equipment and procedures.



- (2) Use only adequate and required equipment, tools and instruments (e.g. torque wrench, battery hydrometer and etc.).
- (3) Set the parking brake and block wheels to prevent machine (or tractor) movement.
- (4) Lower the attachment or implement to the ground before assembling or adjusting equipment.

(5) Before working under suspended or raised equipment, support the equipment or attachment to prevent the machine from falling or moving out of place.



(6) Keep fire from cigarettes, matches or other ignition sources away from fuel, oil, antifreeze and other flammable materials.



#### 3. After assembly check

- (1) Before operating or test driving the equipment, read and understand the operator's manual.
- (2) Once the equipment is fully assembled, select a safe place for a test run. Prevent bystanders from approaching the equipment.



# 

To avoid personal injury or death:

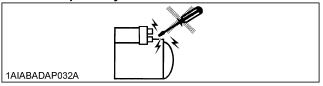
• Do not start engine or operate levers from anywhere other than the seat.





To avoid personal injury:

• Do not bypass-start the equipment. Short circuiting the starter terminal runs the risk that the equipment will start operating or moving unexpectedly.



#### S processes

- 1. S processes mean any process that requires priority control due to its characteristics of having a high probability of leading to physical injuries or fire disasters because of abnormal values and defects in manufacturing quality.
- 2. The S marks in the text indicate the processes that include the following safety characteristics.
  - Any assembly process with important safety characteristic values that require control to ensure product safety.
  - (2) Any assembly process with characteristic values having impact on the strength and performance of <u>S</u> parts.
  - (3) Previous occurrence of accidents related to S process (including probability.)

# UNPACKING AND CHECKING PARTS

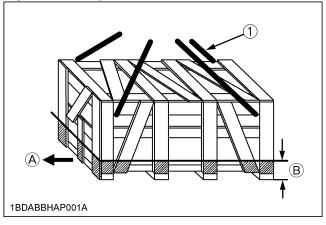
#### **UNPACKING WOODEN CRATE**

- 1. Cutting metal bands (if two are banded together). Metal bands hold the two crates together as one. Cut these bands and separate the crates.
- 2. Unpacking the crates
  - Hook a hoist to the 4 corners of the crate and raise the hoist cable until taut. This serves to prevent the upper part of the crate from striking the backhoe when cut.
  - (2) Saw the crate as indicated in the figure below.

#### **IMPORTANT**:

- Sawing outside the indicated area may damage the backhoe or accessory parts.
- Be sure that the crate is free of other obstructions (e.g. nails, staples and etc.).
- (3) Raise the upper part of crate and remove from the immediate area.
- (4) Remove the remaining slats from the crate. These are indicated by the oblique lines in Figure 1...... ///////

Figure 1 : Cutting area of the crate

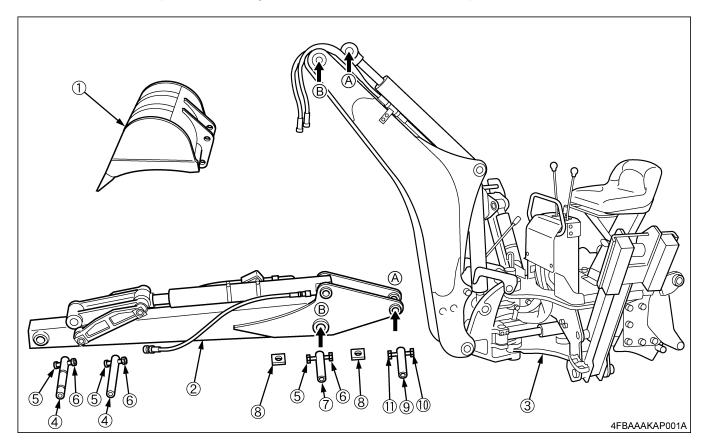


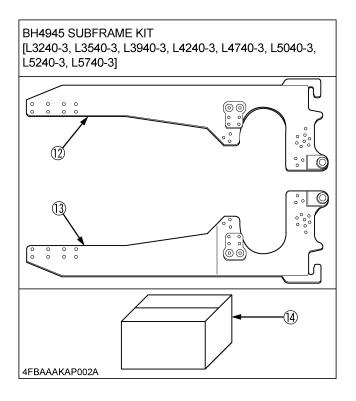
(1) Nylon strap

(A) Front (B) 300 mm (12 in.)

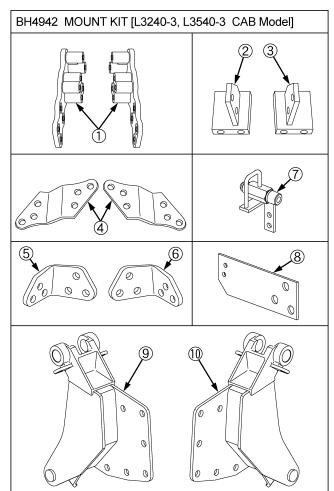
#### CHECKING PARTS

Remove all backhoe components. Referring to the illustration, insure that all components have been included.



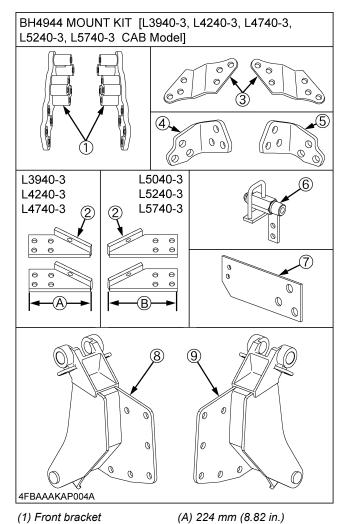


- (1) Backhoe bucket
- (2) Dipperstick (arm) assy
- (3) Main frame-Boom assy
- (4) Pin (1.25 in. x 8.82 in.)
- (5) Hex. Bolt (M10 x 80)
- (6) Locking Nut (M10)
- (7) Pin (1.5 in. x 10.2 in.)
- (8) Spacer
- (9) Pin (1.25 in. x 6.16 in.)
- (10) Hex. Bolt (M10 x 65)
- (11) Locking Nut (M10)
- (12) Sub frame RH
- (13) Sub frame LH
- (14) Carton box



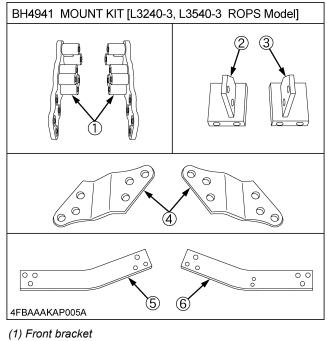
4FBAAAKAP003A

- (1) Front bracket
- (2) Rear bracket LH
- (3) Rear bracket RH
- (4) Frame support
- (5) Connecting plate LH
- (6) Connecting plate RH
- (7) Joint
- (8) Joint stay
- (9) Cab spacer LH
- (10) Cab spacer RH

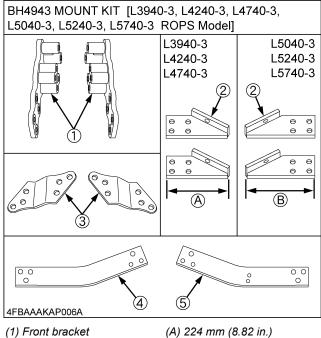


(B) 242 mm (9.53 in.)

- (1) Front bracket
- (2) Rear bracket
- (3) Frame support
- (4) Connecting plate LH
- (5) Connecting plate RH
- (6) Joint
- (7) Joint stay
- (8) Cab spacer LH
- (9) Cab spacer RH

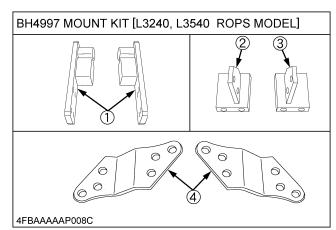


- (2) Rear bracket LH
- (3) Rear bracket RH
- (4) Frame support
- (5) Connecting plate LH
- (6) Connecting plate RH



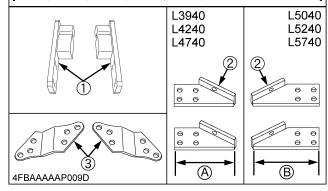
- (2) Rear bracket (3) Frame support
- (4) Connecting plate LH
- (B) 242 mm (9.53 in.)

- (5) Connecting plate RH

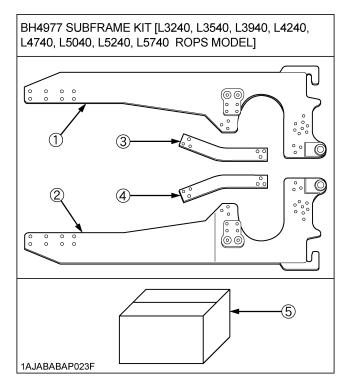


- (1) Front bracket
- (2) Rear bracket LH
- (3) Rear bracket RH
- (4) Frame support

BH4998 MOUNT KIT [L3940, L4240, L4740, L5040, L5240, L5740 ROPS MODEL]



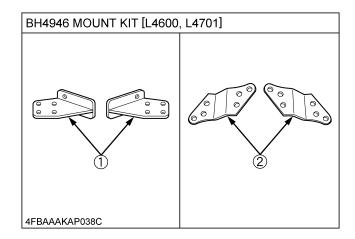
- (1) Front bracket
- (2) Rear bracket
- (3) Frame support
- (A) 224 mm (8.82 in.)
- (B) 242 mm (9.53 in.)

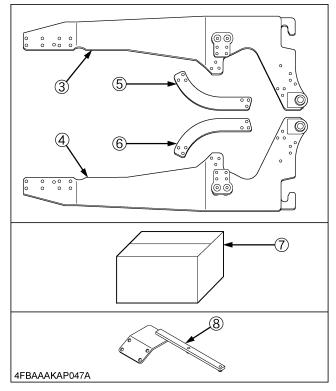


- (1) Sub frame RH
- (2) Sub frame LH
- (3) Connecting plate RH
- (4) Connecting plate LH
- (5) Carton box

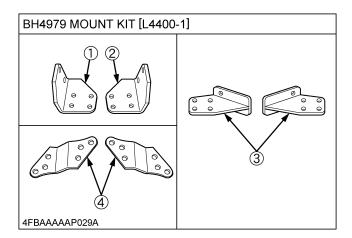
#### NOTE :

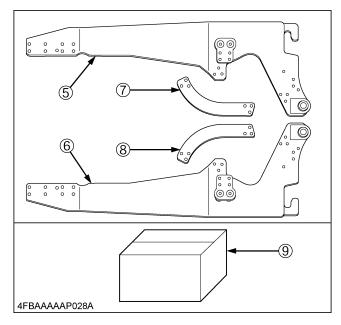
• For assembling, the optional outlet hose (Part No. 7K505-6492-0) is required.



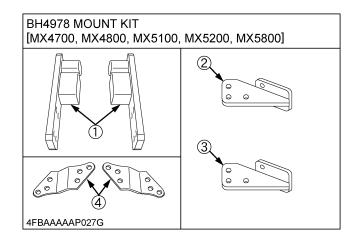


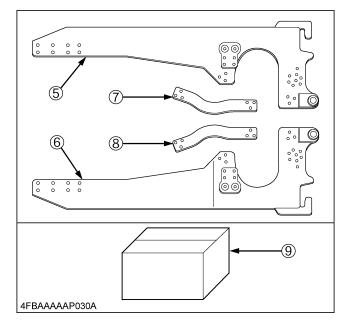
- (1) Rear bracket
- (2) Frame support
- (3) Sub bracket RH
- (4) Sub bracket LH
- (5) Connecting plate RH
- (6) Connecting plate LH
- (7) Carton box
- (8) Tool box stay



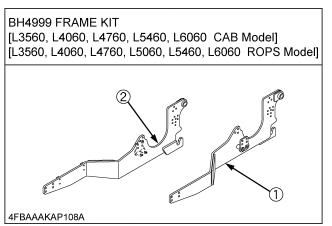


- (1) Front bracket LH
- (2) Front bracket RH
- (3) Rear bracket
- (4) Frame support
- (5) Sub bracket RH
- (6) Sub bracket LH
- (7) Connecting plate RH
- (8) Connecting plate LH
- (9) Carton box





- (1) Front bracket
- (2) Rear bracket LH
- (3) Rear bracket RH
- (4) Frame support
- (5) Sub frame RH
- (6) Sub frame LH
- (7) Connecting plate RH
- (8) Connecting plate LH
- (9) Carton box

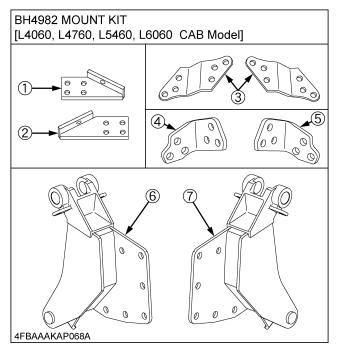


(1) Sub frame LH

(2) Sub frame RH

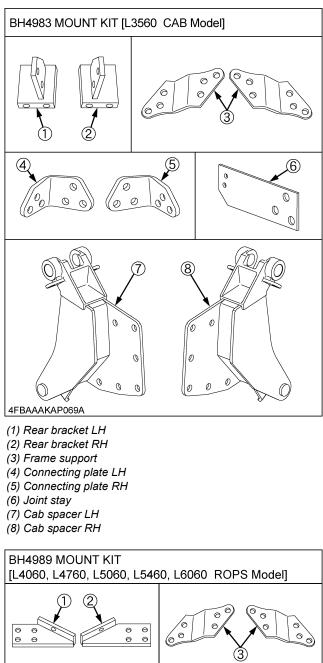
#### NOTE :

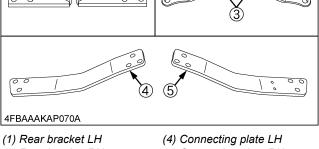
• The BH4999 frame kit is commonly utilized for all the related models.



(1) Rear bracket LH

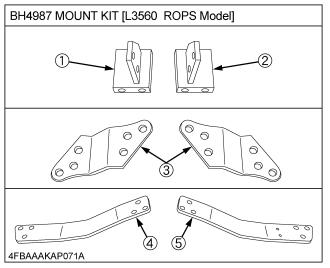
- (2) Rear bracket RH
- (3) Frame support
- (4) Connecting plate LH
- (5) Connecting plate RH
- (6) Cab spacer LH
- (7) Cab spacer RH





(2) Rear bracket RH (3) Frame support

(5) Connecting plate RH



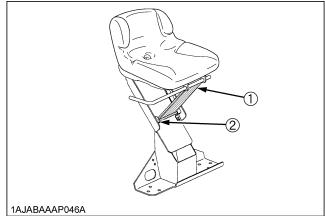
- (1) Rear Bracket LH
- (2) Rear Bracket RH
- (3) Frame Support
- (4) Connecting plate LH (5) Connecting plate RH

### **OPERATION**

- 1. BH92 backhoe is approved for use on:
  - L3240-3, L3540-3, L3940-3, L4240-3, L4740-3, L5040-3, L5240-3 and L5740-3 tractors with foldable ROPS or CAB, LA514, LA724 or LA854 Loader and applicable backhoe mount Kit only.
  - L3240, L3540, L3940, L4240, L4740, L5040, L5240 and L5740 tractors with foldable ROPS, LA514, LA724 or LA854 Loader and applicable backhoe mount Kit only.
  - L4600 and L4701 tractors with foldable ROPS, LA764 or LA765 Loader and applicable backhoe mount kit only.
  - L4400-1 tractors with foldable ROPS, LA703 Loader and applicable backhoe mount kit only.
  - MX4700, MX4800, MX5100, MX5200 and MX5800 tractors with foldable ROPS, LA844 or LA1065 Loader and applicable backhoe mount kit only.
  - L3560, L4060, L4760, L5060, L5460 and L6060 tractors with foldable ROPS or CAB, LA805 or LA1055 Loader and applicable backhoe mount kit only.
- 2. The BH92 backhoe can not be mounted on a tractor together with mid mount mower.
- 3. When using other implements with backhoe removed, mount the 3-point linkage to the tractor.
- 4. Removal and reinstallation of backhoe sub frame should be performed by your KUBOTA dealer.
- 5. Save the loader sub frame and the 3-point linkage components which are removed.

#### • Operating seat support link

- 1. Tilt the seat down at the front to provide foot space, and watch your step when getting on or off.
- 2. Before sitting down, make sure the support link is resting on the lock plate and the seat is stable.
- 3. To avoid pinching a hand, keep them away from seat support link.



- (1) Support link
- (2) Lock plate

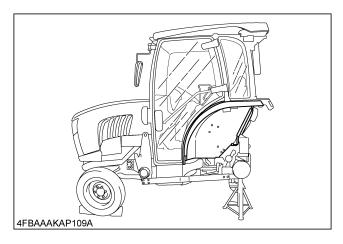
# TRACTOR PREPARATION

- 1. Park the tractor on a hard and level surface.
- 2. Remove the 3-point linkage from the tractor.

# ASSEMBLY [L3560, L4060, L4760, L5460, L6060 CAB Model]

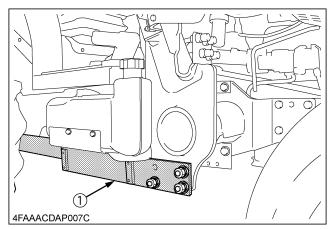
#### Preparation

1. Detach the rear tire from the tractor.



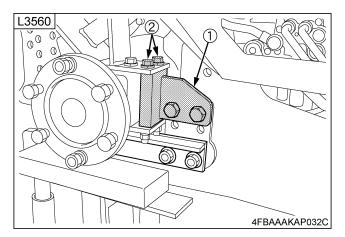
#### Sub Frame

1. Detach the front loader sub frame.



(1) Sub frame

2. Detach the collar and attach the rear bracket in place.



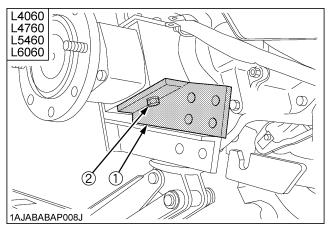
(1) Rear bracket

(2) 2 - M14 x 148 bolts [Original bolts] 2 - M14 spring lock washers

Tightening torque: 167-196 N-m

(17.0-20.0 kgf-m, 123-144 ft-lbs)

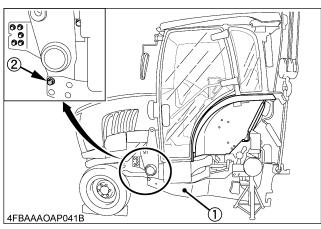
3. Attach the rear bracket in place.



- (1) Rear bracket
- (2) 2 M14 x 30 bolts 2 - M14 spring lock washers Tightening torque: 124-147 N-m

(12.6-15.0 kgf-m, 91.5-108.4 ft-lbs)

4. Tighten a bolt only one of the front of a sub frame and lift the back end of the sub frame using a hoist.

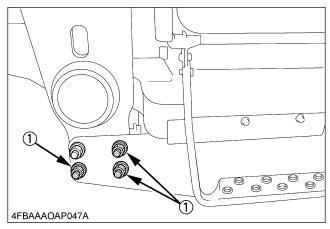


- (1) Sub frame
- (2) 1 M16 x 60 bolt
  - 1 5/8 hardened plain washer
  - 1 M16 spring lock washer
  - 1 M16 nut

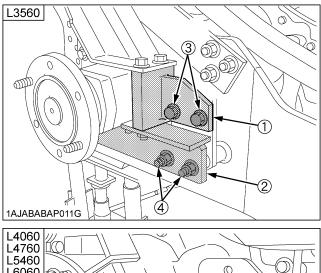
#### **IMPORTANT**:

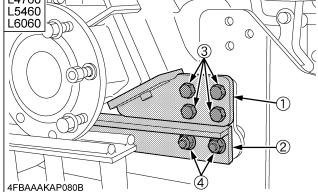
- Be sure to apply a nylon strap to the back end of the sub frame for hoisting it.
- If the rear of the sub frame is raised too much with a crane, it will hit the fuel tank. Take much care not to hit it when raising the rear of the sub frame.

5. Temporarily tighten the bolts and nuts in place.



- (1) 3 M16 x 60 bolts
  - 3 5/8 hardened plain washers
  - 3 M16 spring lock washers
  - 3 M16 nuts
- Tightening torque: 196 to 225 N-m
  - (20.0 to 23.0 kgf-m, 145 to 166 ft-lbs)



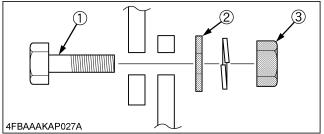


- (1) Rear bracket
- (2) Frame
- (3) 4 M16 x 50 bolts
  - 4 5/8 hardened plain washers
  - 4 M16 spring lock washers
  - 4 M16 nuts
- (4) 2 M16 x 140 bolts
  - 2 5/8 hardened plain washers
  - 2 M16 spring lock washers
  - 2 M16 nuts
- Tightening torque: 196-225 N-m

(20.0-23.0 kgf-m, 145-166 ft-lbs)

#### **IMPORTANT** :

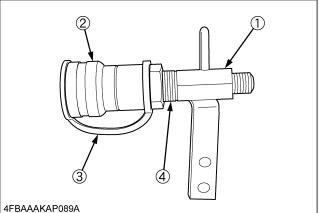
• If the number of bolts and that of hardened plain washers are the same, additionally put the hardened plain washers at the nut.



- (1) Bolt
- (2) Hardened plain washer

(3) Nut

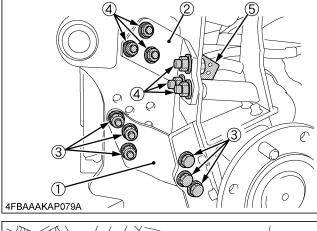
6. Wind the sealing tape around the joint coupler. Attach the female coupler and plug to joint coupler.

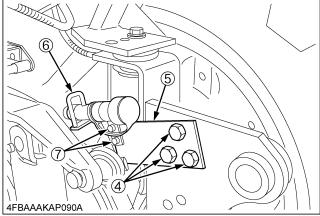


- (1) Joint coupler Thread size: 1/2 - 14 NPT Tightening torque: 49 to 58 N-m (5.0 to 5.9 kgf-m, 36 to 43 ft-lbs)
- (2) Female coupler
- (3) Plug
- (4) Sealing tape

7. Attach the frame support, connecting plate and joint stay.

Attach the joint coupler to joint stay.





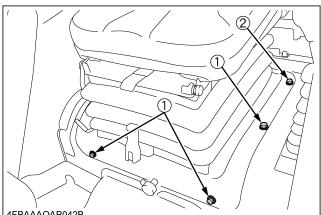
- (1) Frame support
- (2) Connecting plate
- (3) 6 M16 x 50 bolts
  - 6 5/8 hardened plain washers
  - 6 M16 spring lock washers
  - 6 M16 nuts
- (4) [Left side]
  - 6 M16 x 50 bolts
  - 6 5/8 hardened plain washers
  - 6 M16 spring lock washers
  - 6 M16 nuts
  - [Right side]
  - 3 M16 x 55 bolts (Joint stay)
  - 3 M16 x 50 bolts
  - 6 5/8 hardened plain washers
  - 6 M16 spring lock washers
  - 6 M16 nuts
- (5) Joint stay [RH only]
- Tightening torque: 196 to 225 N-m
  - (20.0 to 23.0 kgf-m, 145 to 166 ft-lbs)
- (6) Joint coupler(7) 2 M8 X 20 bolts

#### **IMPORTANT** :

- Do not tighten fasteners until all components are assembled.
- Finally tighten the fasteners to the specified torque.

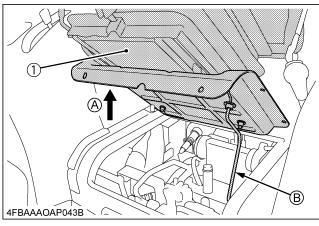
#### Hydraulic Line

1. Remove each bolt and raise the operating seat. And then lock the seat.



4FBAAAOAP042B

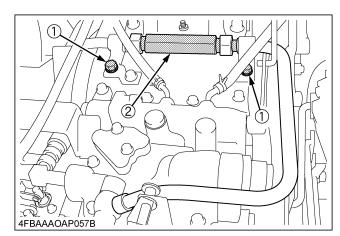
(1) 4 - M8 bolts (2) 2 - M8 nuts



(1) Operating seat

(A) Raise (B) Lock the seat

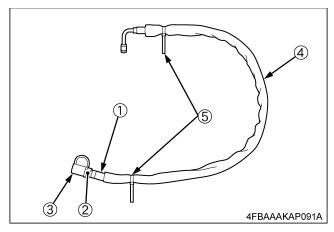
2. Remove the bolt and tube.



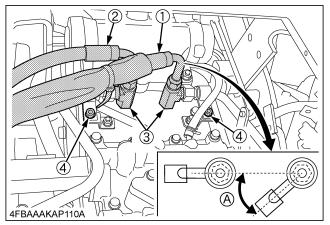
(1) 2 - M8 bolts

(2) Tube

3. Wind the sealing tape around the backhoe outlet hose. Attach sleeve by band cord, male coupler and cap to the outlet hose.



- (1) Backhoe outlet hose
- (2) Male coupler Thread size:1/2 - 14 NPT Tightening torque: 49 to 58 N-m (5.0 to 5.9 kgf-m, 36 to 43 ft-lbs)
- (3) Cap
- (4) Sleeve
- (5) Band cord
- 4. Connect the joints as shown below and connect the backhoe inlet hose and backhoe outlet hose. Then tighten the bolts using torque.

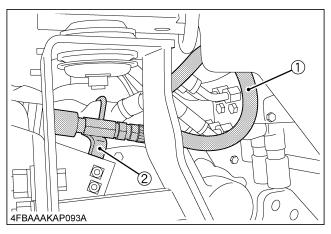


(1) Backhoe outlet hose

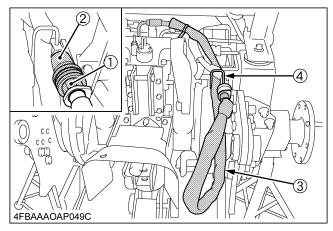
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(A) 10°
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- (2) Backhoe inlet hose Thread size: 3/4 - 16 UNF Tightening torque: 36 to 40 N-m (3.7 to 4.1 kgf-m, 27 to 30 ft-lbs)
  (3) Joint
- Tightening torque: 90 to 108 N-m (9.2 to 11.0 kgf-m, 67 to 79 ft-lbs)
- (4) 2-M8 bolts Tightening torque: 23.6 to 27.4 N-m (2.4 to 2.8 kgf-m, 17.4 to 20.2 ft-lbs)

5. Connect the backhoe inlet hose to the coupler joint.

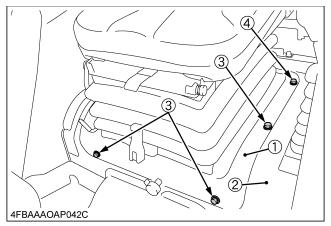


- (1) Backhoe inlet hose Thread size: 3/4 - 16 UNF Tightening torque: 36 to 40 N-m (3.7 to 4.1 kgf-m, 27 to 30 ft-lbs)
- (2) Coupler joint
- 6. Lower the operating seat and tighten each bolt.
- 7. Connect the male coupler to the female coupler. Pass the outlet hose through the coupler joint.



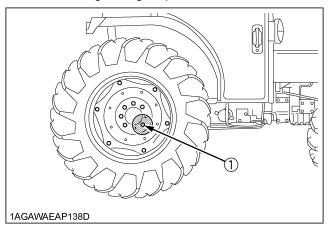
- (1) Male coupler
- (2) Female coupler
- (3) Outlet hose
- (4) Coupler joint

8. S Attach the operating seat to the floor seat cover. Tighten the bolts and nuts by correct tightening torque.



- (1) Operating seat
- (2) Floor seat cover
- (3) 4 M8 bolts
- (4) 2 M8 nuts

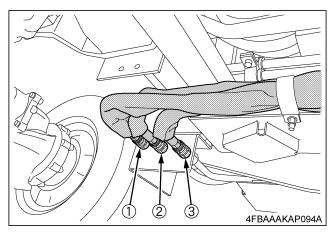
- Rear wheels
- 1. S Install the right and left rear wheels to the tractor with the bolts and nuts. Tighten the bolts and nuts by the correct tightening torque.



(1) Tightening torque: 215 N-m (21.9 kgf-m, 158.6 ft-lbs) Loader option

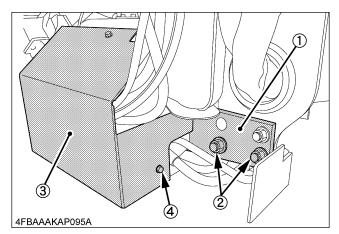
(When the machine is equipped with the 3rd function or the hydraulic 2 lever quick coupler)

1. Disconnect the loader option's hoses.



(1) Hose (P.B)

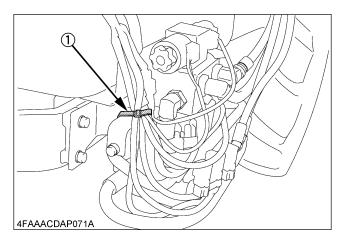
- (2) Hose (OUT)
- (3) Hose (IN)
- 2. Remove the sub frame bolts first and then the optional valve cover.



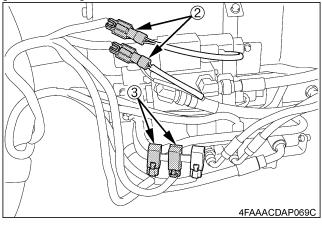
- (1) Sub frame
- (2) 2 M16 nuts
- (3) Valve cover
- (4) 3 M8 bolts

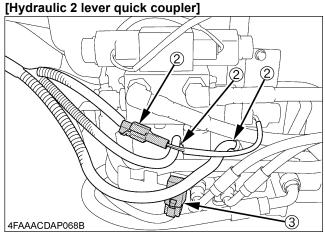
Tightening torque: 23.6 to 27.4 N-m (2.4 to 2.8 kgf-m, 17.4 to 20.2 ft-lbs)

3. Disconnect the coupler, the relay and the band cord.



#### [3rd function]

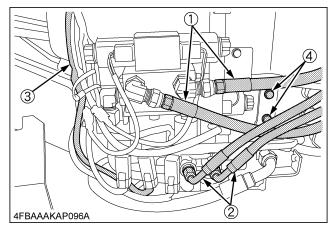




- (1) Band cord
- (2) Coupler
- (3) Relay

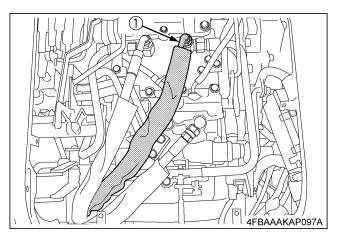
 Disconnect the 3rd function hose and the hydraulic 2 lever quick coupler hose.
 Remove the bolts and take the valve out of the sub

Remove the bolts and take the value out of the sub frame.



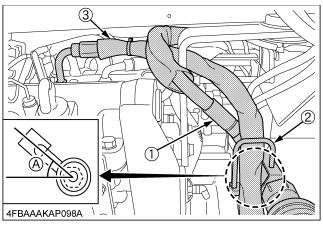
(1) 3rd Function Hose

- (2) HYD. 2 lever quick coupler Hose
- (3) Wire harness
- (4) 4 M10 bolts
- 5. Dismount the loader sub frame.
- Mount the backhoe sub frame instead. (For details, see "Sub Frame" in "ASSEMBLY [L3560, L4060, L4760, L5460, L6060 CAB Model]" section.)
- 7. Disconnect the inlet hose.



(1) Inlet hose

 Reconnect the inlet hose to the coupler joint.
 Pass the backhoe outlet hose through the coupler joint and connect this hose, as shown below.



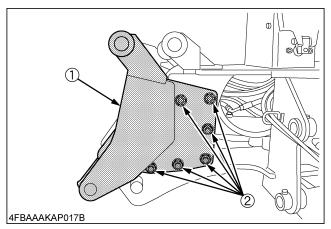
(1) Inlet hose

(A)  $35^{\circ}$ 

- (2) Coupler joint
- (3) Backhoe outlet hose Thread size: 3/4 - 16 UNF Tightening torque: 36 to 40 N-m (3.7 to 4.1 kgf-m, 27 to 30 ft-lbs)
- Reattach the related parts in the reverse order of dismounting the loader option. (For details, refer to LA555, LA805, LA1055 ASSEMBLY INSTRUCTIONS.)

#### **CAB** Spacer

1. Attach the cab spacer.



(1) Cab spacer

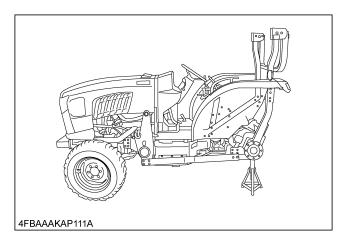
- (2) 6 M20 x 55 bolts
  - 12- 3/4 hardened plain washers
  - 6 M20 spring lock washers
  - 6 M20 nuts

Tightening torque: 368 to 431 N-m (37.6 to 44.0 kgf-m, 272 to 318 ft-lbs)

# ASSEMBLY [L3560, L4060, L4760, L5060, L5460, L6060 ROPS Model]

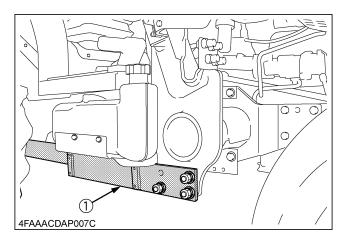
#### Preparation

1. Detach the rear tire from the tractor.



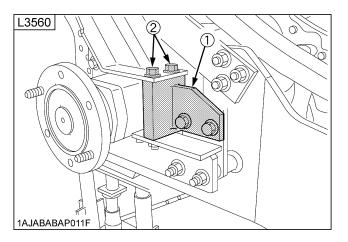
#### Sub Frame

1. Detach the front loader sub frame.



(1) Sub frame

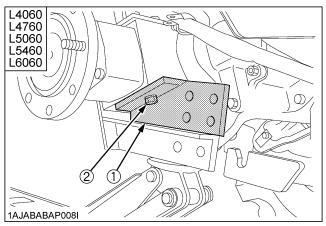
2. Detach the collar and attach the rear bracket in place.



(1) Rear bracket

(2) 2 - M14 x 148 bolts [Original bolts]
2 - M14 spring lock washers
Tightening torque: 167-196 N-m (17.0-20.0 kgf-m, 123-144 ft-lbs)

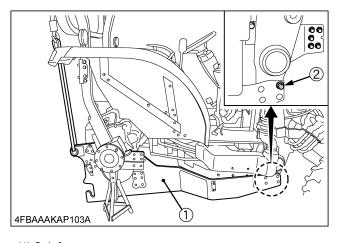
#### 3. Attach the rear bracket in place.



(1) Rear bracket

- (2) 2 M14 x 30 bolts
- 2 M14 spring lock washers
- Tightening torque: 124-147 N-m
  - (12.6-15.0 kgf-m, 91.5-108.4 ft-lbs)

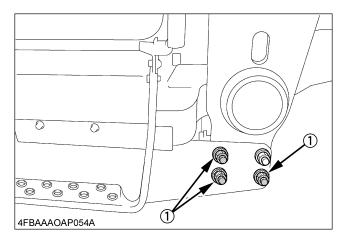
4. Tighten a bolt only one of the front of a sub frame and lift the back end of the sub frame using a hoist.



- (1) Sub frame
- (2) 1 M16 x 60 bolt
  - 1 5/8 hardened plain washer
  - 1 M16 spring lock washer
  - 1 M16 nut

#### **IMPORTANT :**

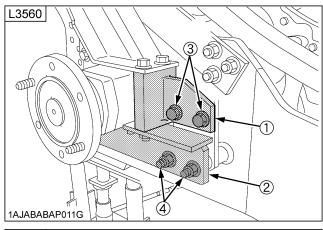
- Be sure to apply a nylon strap to the back end of the sub frame for hoisting it.
- If the rear of the sub frame is raised too much with a crane, it will hit the fuel tank. Take much care not to hit it when raising the rear of the sub frame.
- 5. Temporarily tighten the bolts and nuts in place.

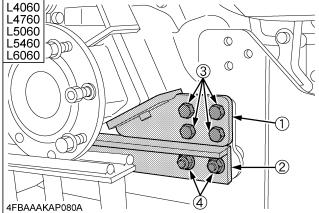


- (1) 3 M16 x 60 bolts
  - 3 5/8 hardened plain washers
  - 3 M16 spring lock washers
- 3 M16 nuts

Tightening torque: 196-225 N-m

(20.0-23.0 kgf-m, 145-166 ft-lbs)





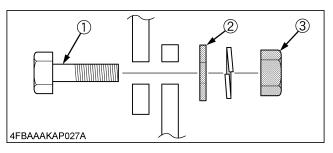
- (1) Rear bracket
- (2) Frame
- (3) 4 M16 x 50 bolts
  - 4 5/8 hardened plain washers
  - 4 M16 spring lock washers
  - 4 M16 nuts
- (4) 2 M16 x 140 bolts
  - 2 5/8 hardened plain washers
  - 2 M16 spring lock washers
  - 2 M16 nuts

Tightening torque: 196-225 N-m

(20.0-23.0 kgf-m, 145-166 ft-lbs)

#### **IMPORTANT :**

• If the number of bolts and that of hardened plain washers are the same, additionally put the hardened plain washers at the nut.

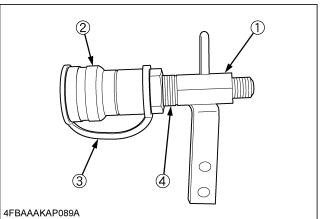


(1) Bolt

(2) Hardened plain washer

(3) Nut

6. Wind the sealing tape around the joint coupler. Attach the female coupler and plug to joint coupler.

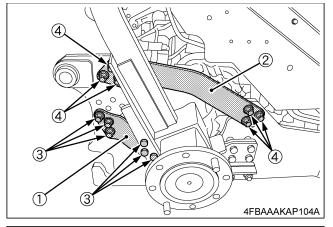


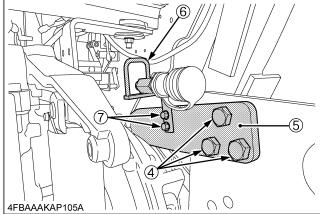
(1) Joint coupler

- Thread size: 1/2 14 NPT Tightening torque: 49 to 58 N-m (5.0 to 5.9 kgf-m, 36 to 43 ft-lbs)
- (2) Female coupler
- (3) Plug
- (4) Sealing tape

7. Attach the frame support, connecting plate and joint stay.

Attach the joint coupler to joint stay.





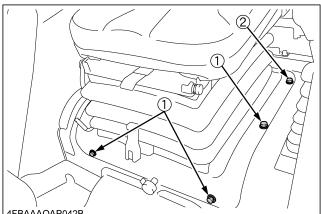
- (1) Frame support
- (2) Connecting plate
- (3) 6 M16 x 50 bolts
  - 6 5/8 hardened plain washers
  - 6 M16 spring lock washers
  - 6 M16 nuts
- (4) 12 M16 x 50 bolts
  - 12 5/8 hardened plain washers
  - 12 M16 spring lock washers
  - 12 M16 nuts
- (5) Joint stay [RH only]
- Tightening torque: 196 to 225 N-m
- (20.0 to 23.0 kgf-m, 145 to 166 ft-lbs)
- (6) Joint coupler
- (7) 2 M8 X 20 bolts

#### **IMPORTANT :**

- Do not tighten fasteners until all components are assembled.
- Finally tighten the fasteners to the specified torque.

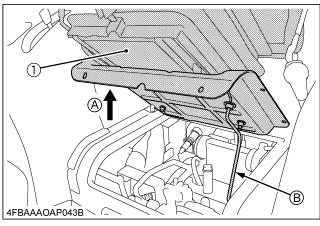
#### Hydraulic Line

1. Remove each bolt and raise the operating seat. And then lock the seat.



4FBAAAOAP042B

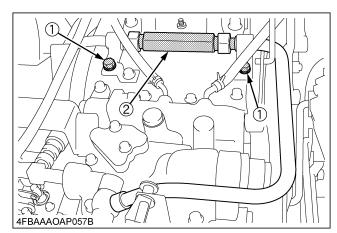
(1) 4 - M8 bolts (2) 2 - M8 nuts



(1) Operating seat (A) Raise

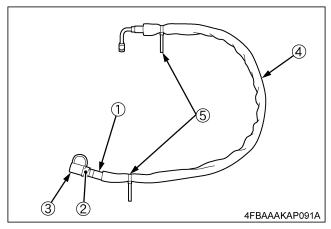
(B) Lock the seat

2. Remove the bolt and tube.

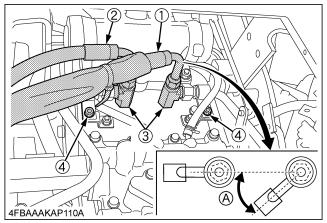


(1) 2 - M8 bolts (2) Tube

3. Wind the sealing tape around the backhoe outlet hose. Attach sleeve by band cord, male coupler and cap to the outlet hose.



- (1) Backhoe outlet hose
- (2) Male coupler Thread size:1/2 - 14 NPT Tightening torque: 49 to 58 N-m (5.0 to 5.9 kgf-m, 36 to 43 ft-lbs)
- (3) Cap
- (4) Sleeve
- (5) Band cord
- 4. Connect the joints as shown below and connect the backhoe inlet hose and backhoe outlet hose. Then tighten the bolts using torque.

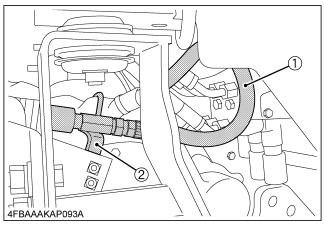


(1) Backhoe outlet hose

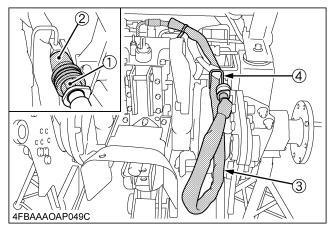
```
(A) 10°
```

- (2) Backhoe inlet hose Thread size: 3/4 - 16 UNF Tightening torque: 36 to 40 N-m (3.7 to 4.1 kgf-m, 27 to 30 ft-lbs)
  (3) Joint
- Tightening torque: 36 to 108 N-m (9.2 to 11.0 kgf-m, 67 to 79 ft-lbs)
- (4) 2-M8 bolts

5. Connect the backhoe inlet hose to the coupler joint.

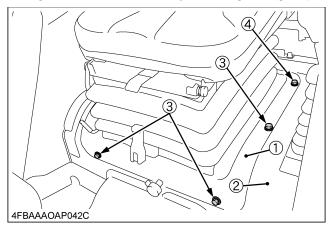


- (1) Backhoe inlet hose Thread size: 3/4 - 16 UNF Tightening torque: 36 to 40 N-m (3.7 to 4.1 kgf-m, 27 to 30 ft-lbs)
- (2) Coupler joint
- 6. Lower the operating seat and tighten each bolt.
- 7. Connect the male coupler to the female coupler. Pass the outlet hose through the coupler joint.



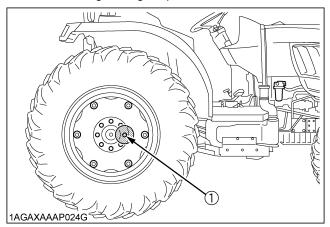
- (1) Male coupler
- (2) Female coupler
- (3) Outlet hose
- (4) Coupler joint

8. S Attach the operating seat to the floor seat cover. Tighten the bolts and nuts by correct tightening torque.



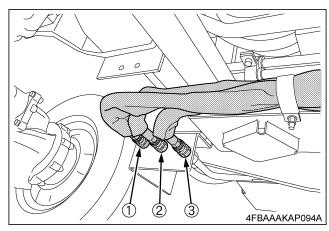
- (1) Operating seat
- (2) Floor seat cover
- (3) 4 M8 bolts
- (4) 2 M8 nuts

- Rear wheels
- 1. S Install the right and left rear wheels to the tractor with the bolts and nuts. Tighten the bolts and nuts by the correct tightening torque.



(1) Tightening torque: 215 N-m (21.9 kgf-m, 158.6 ft-lbs)

- Loader option (When the machine is equipped with the 3rd function or the hydraulic 2 lever quick coupler)
- 1. Disconnect the loader option's hoses.

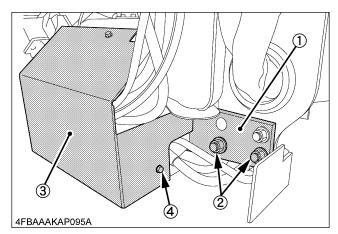


(1) Hose (P.B)

(2) Hose (OUT)

(3) Hose (IN)

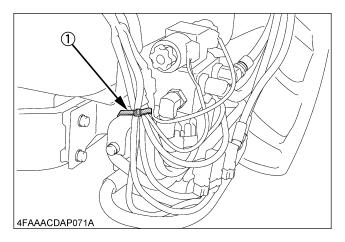
2. Remove the sub frame bolts first and then the optional valve cover.



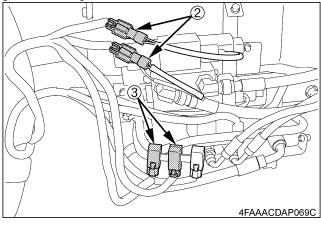
- (1) Sub frame
- (2) 2 M16 nuts
- (3) Valve cover
- (4) 3 M8 bolts

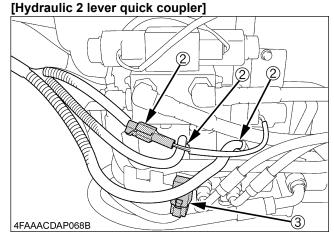
Tightening torque: 23.6 to 27.4 N-m (2.4 to 2.8 kgf-m, 17.4 to 20.2 ft-lbs)

3. Disconnect the coupler, the relay and the band cord.



#### [3rd function]

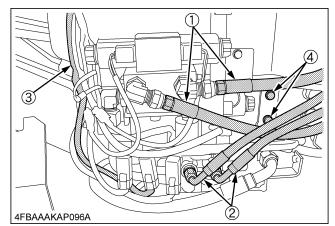




- (1) Band cord
- (2) Coupler
- (3) Relay

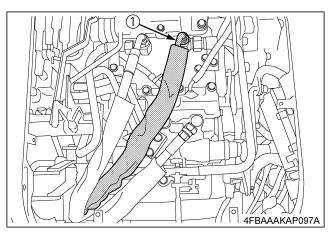
 Disconnect the 3rd function hose and the hydraulic 2 lever quick coupler hose.

Remove the bolts and take the valve out of the sub frame.



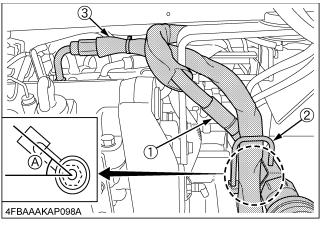
(1) 3rd Function Hose

- (2) HYD. 2 lever quick coupler Hose
- (3) Wire harness
- (4) 4 M10 bolts
- 5. Dismount the loader sub frame.
- Mount the backhoe sub frame instead. (For details, see "Sub Frame" in "ASSEMBLY [L3560, L4060, L4760, L5060, L5460, L6060 ROPS Model]" section.)
- 7. Disconnect the inlet hose.



(1) Inlet hose

 Reconnect the inlet hose to the coupler joint.
 Pass the backhoe outlet hose through the coupler joint and connect this hose, as shown below.



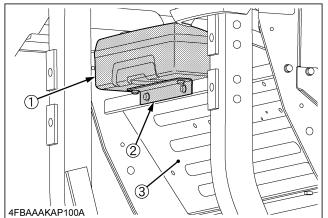
(1) Inlet hose

(A) 35°

- (2) Coupler joint
- (3) Backhoe outlet hose Thread size: 3/4 - 16 UNF Tightening torque: 36 to 40 N-m
   (3.7 to 4.1 kgf-m, 27 to 30 ft-lbs)
- Reattach the related parts in the reverse order of dismounting the loader option. (For details, refer to LA555, LA805, LA1055 ASSEMBLY INSTRUCTIONS.)

#### Tool box

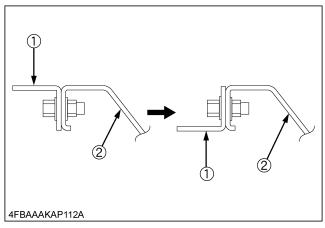
1. Detach the tool box from the tool box stay.



- (1) Tool box
- (2) Tool box stay
- (3) Floor seat

#### NOTE :

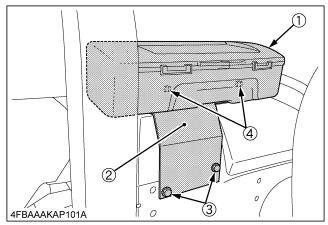
• After detaching the tool box, secure its stay back in position in order not to lose it.



(1) Tool box stay

(2) Floor seat

2. Attach the tool box and the tool box stay to the left side of the tractor ROPS.

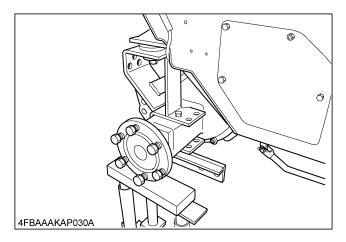


- (1) Tool box
- (2) Tool box stay
- (3) 2 M8 x 16 bolts
- 2 M8 Flange nuts
- (4) 2 M8 x 25 bolts

# ASSEMBLY [L3240-3 - L5740-3 CAB Model]

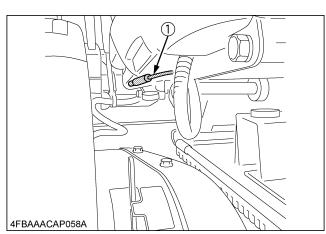
### Preparation

1. Detach the rear tire, fender plate and operating seat from the tractor.



#### NOTE :

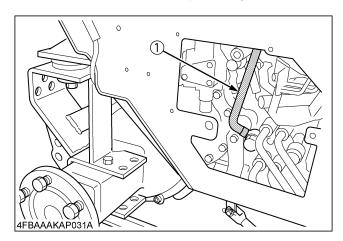
Before detaching the operating seat, disconnect the OPC wire harness.

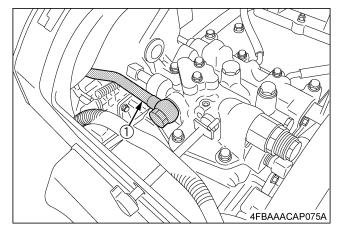


(1) OPC wire harness

### Hydraulic Line

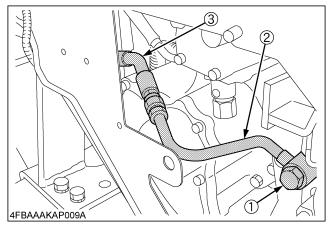
1. Disconnect the front loader power beyond tube.



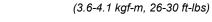


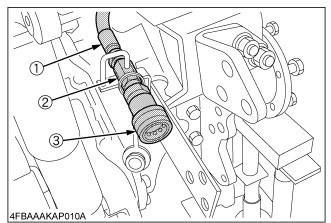
(1) Front loader power beyond tube

2. Connect the backhoe inlet tube to the power beyond port of the loader valve and the backhoe inlet hose to the backhoe inlet tube and coupler joint. Fix the coupler joint to the joint stay.



- (1) Power beyond port
- (2) Backhoe inlet tube
- (3) Backhoe inlet hose (3/4-16) Tightening torque: 36-40 N-m



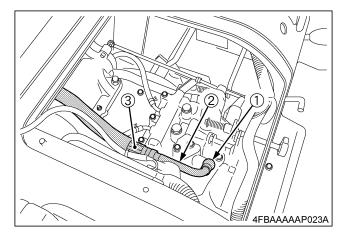


- (1) Backhoe inlet hose (3/4-16) Tightening torque: 36-40 N-m (3.6-4.1 kgf-m, 26-30 ft-lbs)
- (2) Coupler joint
  (3) Quick coupler (1/2-14NPT) Tightening torque: 49-58 N-m
  - (5.0-5.9 kgf-m, 36-43 ft-lbs)

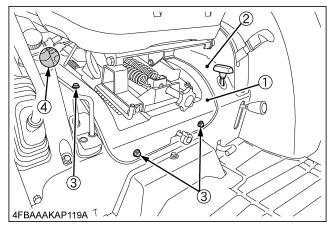
#### **IMPORTANT**:

• Make sure quick coupler with red cap should be connected securely.

Connect the backhoe outlet hose to the P port of the valve cover.



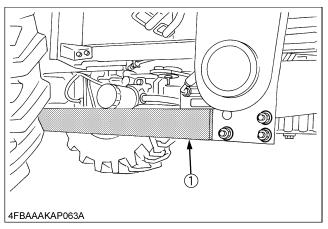
- (1) P port
- (2) Backhoe outlet tube
  (3) Backhoe outlet hose (3/4-16) Tightening torque: 36-40 N-m (3.6-4.1 kgf-m, 26-30 ft-lbs)
- 4. Connect the male coupler to the outlet hose. Connect the coupler joint and female coupler to the inlet hose. Connect the male coupler to the female coupler.
- 5. S Attach the operating seat to the floor seat cover. Tighten the bolts and nuts by correct tightening torque.



- (1) Operating seat
- (2) Floor seat cover
- (3) 4 M8 bolts
- (4) 2 M8 nuts
  - Tightening torque: 23.6 to 27.4 N-m (2.4 to 2.8 kgf-m, 17.4 to 20.2 ft-lbs)

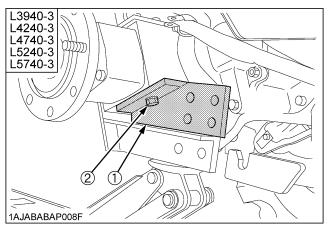
#### Sub Frame

1. Detach the front loader sub frame.



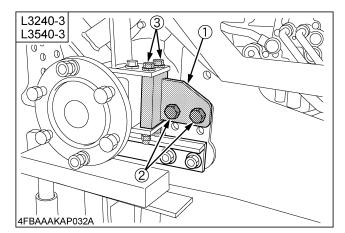


2. Attach the rear bracket in place.



(1) Rear bracket

(2) 2 - M14 x 30 bolts Tightening torque: 124-147 N-m (12.6-15.0 kgf-m , 91.5-108.4 ft-lbs) 3. On the L3240-3 and L3540-3, using the accessory bolts of the tractor, attach the rear bracket.



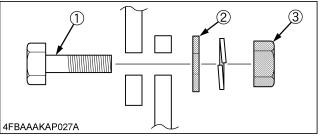
- (1) Rear bracket
- (2) 2 M16 x 50 bolts
  - 2 5/8 hardened plain washers
  - 2 M16 spring lock washers
  - 2 M16 nuts

Tightening torque: 196-225 N-m

- (20.0-23.0 kgf-m ,145-166 ft-lbs)
- (3) 2 M14 x 148 bolts (with spring washer) Tightening torque: 167-202 N-m (17.0-20.6 kgf-m ,120-149 ft-lbs)

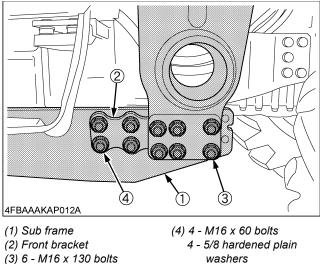
#### **IMPORTANT**:

 If the number of bolts and that of hardened plain washers are the same, additionally put the hardened plain washers at the nut.



- (1) Bolt
- (2) Hardened plain washer
- (3) Nut

4. Lift the back end of the sub frame using a hoist and jack up the front of the sub frame. Temporarily tighten the bolts and nuts in place.



6 - 5/8 hardened plain washers

4- M16 spring lock washers 4 - M16 nuts

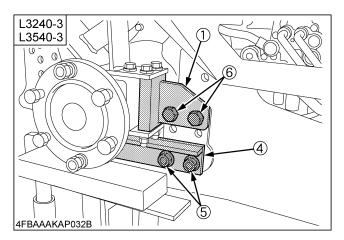
6- M16 spring lock washers 6 - M16 nuts

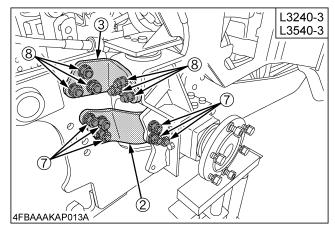
Tightening torque: 196-225 N-m

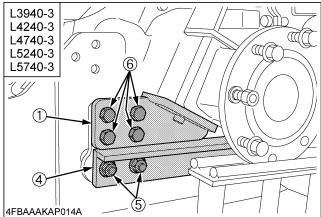
(20.0-23.0 kgf-m ,145-166 ft-lbs)

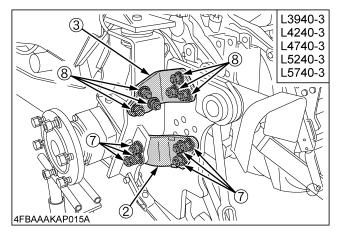
#### **IMPORTANT:**

- Be sure to apply a nylon strap to the back end of the sub frame for hoisting it.
- 5. Using the bolts and nuts, temporarily fix the following components to the sub frame: CAB frame, rear bracket, frame support and connecting plate.









- (1) Rear bracket
- (2) Frame support
- (3) Connecting plate
- (4) ROPS Frame
- (5) 2 M16 x 140 bolts
  - 2 5/8 hardened plain washers
  - 2 M16 spring lock washers
  - 2 M16 nuts
- (6) 4 M16 x 50 bolts [L3940, L4240, L4740, L5240, L5740]
   4 5/8 hardened plain washers
  - 4 M16 spring lock washers
  - 4 M16 nuts
- (7) 6 M16 x 50 bolts
  - 6 5/8 hardened plain washers
  - 6 M16 spring lock washers
  - 6 M16 nuts
- (8) [Left side]
  - 6 M16 x 50 bolts
  - 6 5/8 hardened plain washers
  - 6 M16 spring lock washers
  - 6 M16 nuts

[Right side]

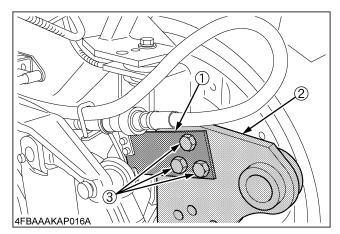
- 3 M16 x 55 bolts
- 3 M16 x 50 bolts
- 6 5/8 hardened plain washers
- 6 M16 spring lock washers
- 6 M16 nuts

Tightening torque: 196-225 N-m

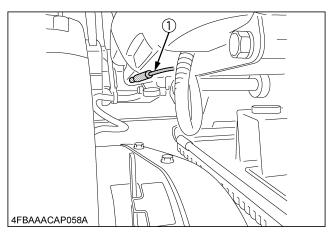
(20.0-23.0 kgf-m ,145-166 ft-lbs)

NOTE :

Install joint stay to the sub frame (RH) as shown in the figure.



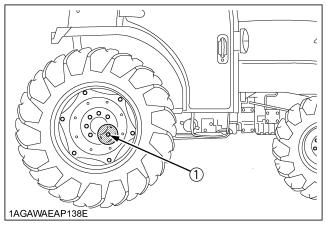
- (1) Joint stay
- (2) Sub frame (RH)
- (3) M16 x 55 bolts (Right side only)
- 6. After assembling connect the OPC wire harness.



(1) OPC wire harness

#### Rear wheels

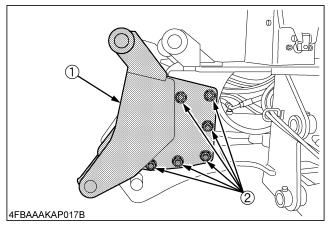
1. S Install the right and left rear wheels to the tractor with the bolts and nuts. Tighten the bolts and nuts by the correct tightening torque.



(1) Tightening torque: 215 N-m (21.9 kgf-m, 158.6 ft-lbs)

#### CAB Spacer

1. Attach the cab spacer.

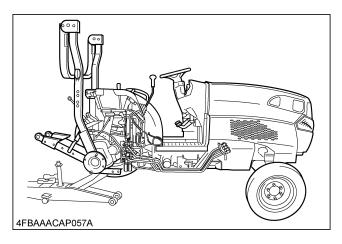


- (1) Cab spacer
- (2) 6 M20 x 55 bolts
  - 12 3/4 hardened plain washers
  - 6 M20 spring lock washers
  - 6 M20 nuts
  - Tightening torque: 368-431 N-m
    - ( 37.6-44.0 kgf-m ,272-318 ft-lbs)

## ASSEMBLY [L3240(-3) - L5740(-3) ROPS Model]

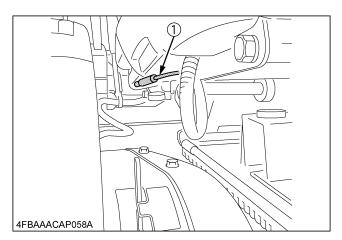
### Preparation

1. Detach the rear tire (RH), fender (RH) and operating seat from the tractor.



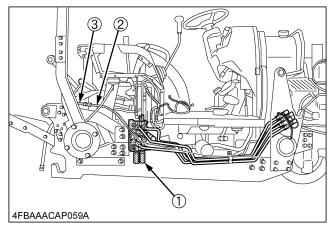
#### NOTE :

• Before detaching the operating seat, disconnect the OPC wire harness.



(1) OPC wire harness

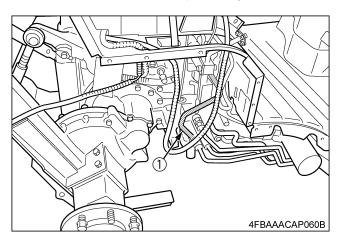
#### Layout of BH92 Backhoe Hydraulic Lines

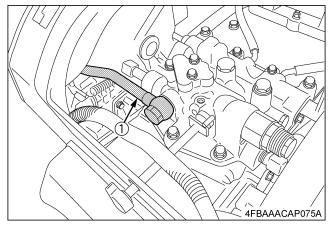


- (1) Front loader valve
- (2) Backhoe inlet tube
- (3) Backhoe inlet hose

#### Hydraulic Line

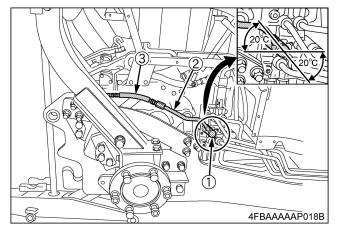
1. Disconnect the front loader power beyond tube.





(1) Front loader power beyond tube

2. Connect the backhoe inlet tube to the power beyond port of the loader valve and the backhoe inlet hose to the backhoe inlet tube and coupler joint.



- (1) Power beyond port
- (2) Backhoe inlet tube
- (3) Backhoe inlet hose (3/4-16) Tightening torque: 36-40 N-m

(3.6-4.1 kgf-m, 26-30 ft-lbs)

#### **IMPORTANT**:

 Make sure quick coupler with red cap should be connected securely. (1) P port (2) Backhoe outlet tube

(3.6 - 4.1 kgf-m, 26- 30 ft-lbs)

Hoses pre-installed on the control valve assembly are not securely tightened to ease installation of hoses to hydraulic block. Be sure to securely tighten all hose

• Adjust the hose fittings so the hoses clear the tractor.

(3) Backhoe inlet hose (3/4-16)

fittings after installing.

**IMPORTANT :** 

Tightening torque: 36-40 N-m

4. Clamp the hose to stay using a plastic band.

3. Connect the backhoe outlet hose to the P port of the valve cover.

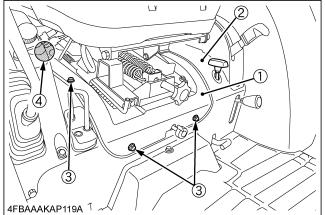
32

L4740-3 L5240-3 L5740-3

#### (1) Hose

(A) Clamp onto this stay

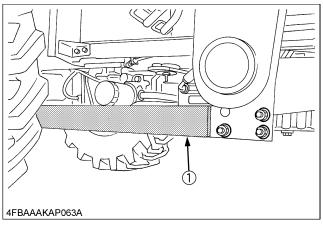
5. S Attach the operating seat to the floor seat cover. Tighten the bolts and nuts by correct tightening torque.



- (1) Operating seat
- (2) Floor seat cover
- (3) 4 M8 bolts
- (4) 2 M8 nuts
- +) Z = MO Huls
  - Tightening torque: 23.6 to 27.4 N-m (2.4 to 2.8 kgf-m, 17.4 to 20.2 ft-lbs)

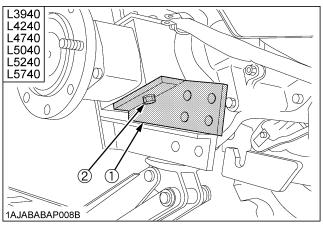
#### Sub Frame

1. Detach the front loader sub frame.





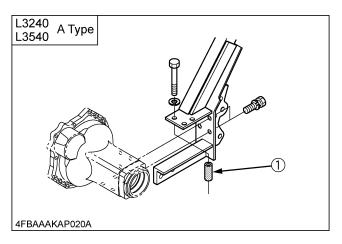
2. Attach the rear bracket in place.

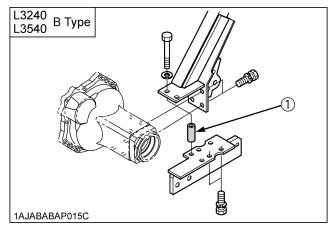


(1) Rear bracket

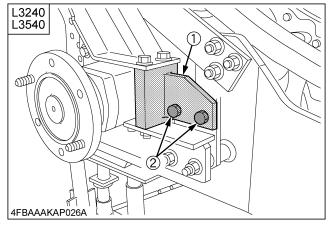
(2) 2 - M14 x 30 bolts

3. On the L3240 and L3540, remove the collar first and then attach the rear bracket.





(1) Collar

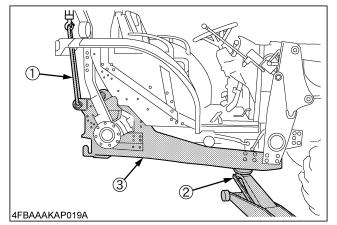


(1) Rear bracket

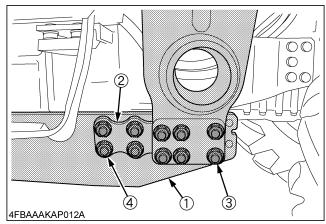
- (2) 2 M16 x 55 bolts [L3240 L3540]
  - 2 5/8 hardened plain washers
  - 2 M16 spring lock washers
  - 2 M16 nuts

Tightening torque: 196-225 N-m

- (20.0-23.0 kgf-m ,145-166 ft-lbs)
- 4. Lift the back end of the sub frame using a hoist and jack up the front of the sub frame. Temporarily tighten the bolts and nuts in place.



- (1) Nylon strap
- (2) Jack
- (3) Sub frame



- (1) Sub frame
- (4) 4 M16 x 60 bolts 4 - 5/8 hardened plain
- (2) Front bracket
- (3) 6 M16 x 130 bolts
  - 6 5/8 hardened plain
    - washers

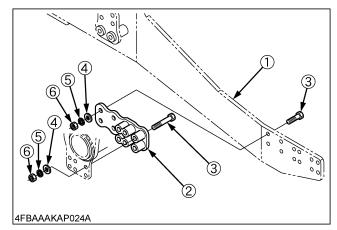
washers 4- M16 spring lock washers 4 - M16 nuts

- . . 4
- 6- M16 spring lock washers

6 - M16 nuts

Tightening torque: 196-225 N-m

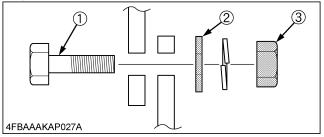
(20.0-23.0 kgf-m,145-166 ft-lbs)



- (1) Sub frame
- (2) Front bracket
- (3) Bolt
- (4) Hardened plain washer
- (5) Spring lock washer
- (6) Nut

### **IMPORTANT**:

 If the number of bolts and that of hardened plain washers are the same, additionally put the hardened plain washers at the nut.



(1) Bolt

- (2) Hardened plain washer
- (3) Nut

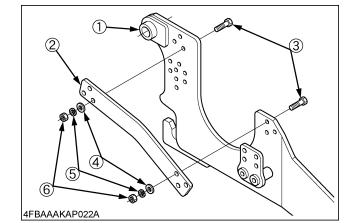
#### **IMPORTANT** :

• Be sure to apply a nylon strap to the back end of the sub frame for hoisting it.

- 0 0 0 0 O(8  $\bigcirc$ (1 6) 2 0 (4) 4FBAAAKAP018A
- 5. Using the bolts and nuts, temporarily fix the following components to the sub frame: ROPS frame, rear bracket, frame support and connecting plate.

- (1) Rear bracket
- (2) Frame support
- (3) Connecting plate
- (4) ROPS Frame
- (5) 2 M16 x 140 bolts
  - 2 5/8 hardened plain washers
  - 2 M16 spring lock washers
  - 2 M16 nuts
- (6) 4 M16 x 50 bolts
  - [L3940, L4240, L4740, L5040, L5240, L5740]
  - 4 5/8 hardened plain washers
  - 4 M16 spring lock washers
  - 4 M16 nuts
- (7) 6 M16 x 50 bolts
  - 6 5/8 hardened plain washers
  - 6 M16 spring lock washers
  - 6 M16 nuts
- (8) 6 M16 x 50 bolts
  - 6 5/8 hardened plain washers
  - 6 M16 spring lock washers
  - 6 M16 nuts
- Tightening torque: 196-225 N-m

(20.0-23.0 kgf-m ,145-166 ft-lbs)

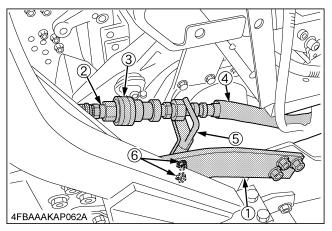


- (1) Sub frame
- (2) Connecting plate
- (3) Bolt
- (4) Hardened plain washer (5) Spring lock washer
- (6) Nut

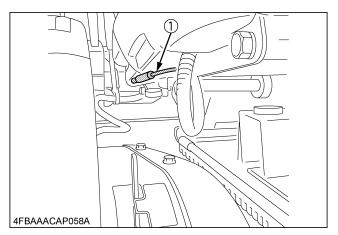
 Connect the male coupler to the inlet hose. Connect the coupler joint and female coupler to the inlet hose. Fix the coupler joint to the connecting plate (RH). Connect the male coupler to the female coupler.

### NOTE :

• Take this step after mounting the connection plate (RH) in position.

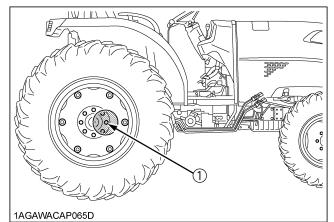


- (1) Connecting plate RH
- (2) Male coupler
- (3) Female coupler (1/2-14NPTF) Tightening torque: 49-58 N-m (5.0-5.9 kgf-m, 36-43 ft-lbs)
- (4) Inlet hose (3/4-16) Tightening torque: 36-40 N-m (3.6-4.1 kgf-m, 26-30 ft-lbs)
- (5) Coupler joint
- (6) 2 M8 x 20 flange bolts and nuts
- 7. After assembling connect the OPC wire harness.



(1) OPC wire harness

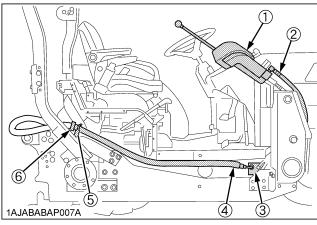
- Rear wheels
- 1. S Install the right and left rear wheels to the tractor with the bolts and nuts. Tighten the bolts and nuts by the correct tightening torque.



(1) Tightening torque: 215 N-m (21.9 kgf-m, 158.6 ft-lbs)

# ASSEMBLY [L4400-1, L4600 , L4701, MX4700, MX4800, MX5100, MX5200, MX5800]

### Layout of BH92 Backhoe Hydraulic Lines



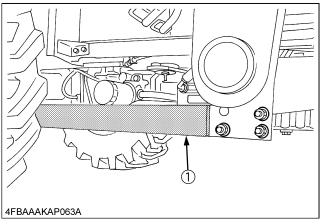
- (1) Front loader valve(2) Backhoe inlet hose
- (4) Backhoe outlet hose(5) Coupler joint
- (3) Hydraulic block
- (5) Coupler joint (6) Female coupler

### Preparation

1. Detach the rear tires from the tractor.

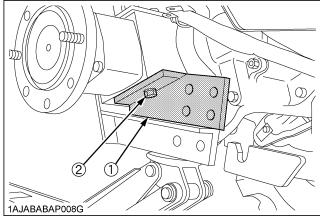
### Sub Frame

Detach the front loader sub frame.



(1) Sub frame

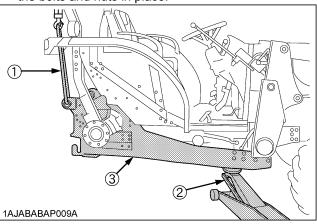
1. Attach the rear bracket in place.



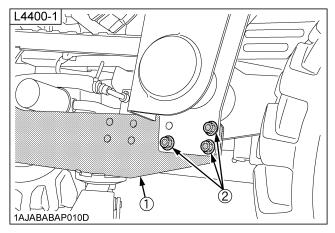
(1) Rear bracket
 (2) 2 - M14 x 30 bolts
 Tightening torque:124-147 N-m

 (12.6-15.0 kgf-m ,91.5-108.4 ft-lbs)

2. Lift the back end of the sub frame using a hoist and jack up the front of the sub frame. Temporarily tighten the bolts and nuts in place.

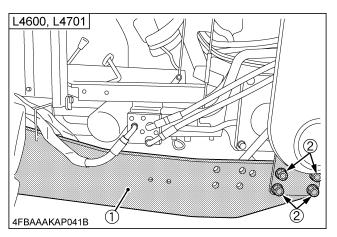


- (1) Nylon strap (2) Jack
- (3) Sub frame



- (1) Sub frame
- (2) 3 M16 x 55 bolts
  - 3 5/8 hardened plain washers
  - 3 M16 spring lock washers
  - 3 M16 nuts
  - Tightening torque: 196-225 N-m

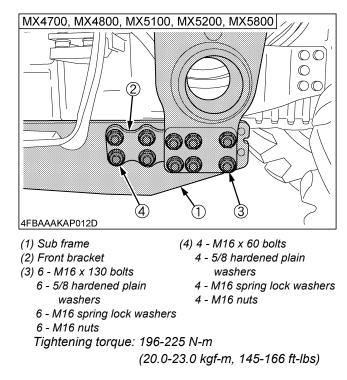
(20.0-23.0 kgf-m, 145-166 ft-lbs)



- (1) Sub frame
- (2) 4 M16 x 50 bolts
  - 4 5/8 hardened plain washers
  - 4 M16 spring lock washers
  - 4 M16 nuts

Tightening torque: 196-225 N-m

(20.0-23.0 kgf-m ,145-166 ft-lbs)



#### **IMPORTANT:**

- Be sure to apply a nylon strap to the back end of the sub frame for hoisting it.
- For the three-section auxiliary control valve, move the inlet hose behind the sub frame (below the auxiliary control valve) before hoisting the sub frame.

- 0 3 0 0 (9)8  $\bigcirc$  $\bigcirc$ (1)X (8) (A)(6 2 0 (4) 4FBAAAKAP042A
- 3. Using the bolts and nuts, temporarily fix the following components to the sub frame: ROPS frame, rear bracket, frame support and connecting plate.

#### (1) Rear bracket

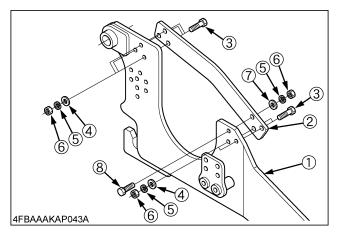
- (2) Frame support
- (3) Connecting plate
- (4) ROPS Frame
- (5) 2 M16 x 140 bolts
  - 2 5/8 hardened
  - plain washers
  - 2 M16 spring
  - lock washers
  - 2 M16 nuts
- (6) [L4400-1, L4600, L4701]
  - 4 M16 x 50 bolts
    - 4 5/8 hardened
  - plain washers
  - 4 M16 spring
  - lock washers
  - 4 M16 nuts
- (7) 6 M16 x 50 bolts 6 - 5/8 hardened
  - plain washers
  - 6 M16 spring
  - lock washers
  - 6 M16 nuts
- (8) 5 M16 x 50 bolts
  - 5 5/8 hardened
  - plain washers
  - 5 M16 spring
  - lock washers
- 5 M16 nuts
- (9) [L4600, L4701]
- 1 M16 x 45 bolt 1 - M16 spring
  - lock washer
  - 1 M16 nut

(A) [L4400-1, L4600, L4701]

- (6) [MX4700, MX4800 MX5100, MX5200, MX5800] 3 - M16 x 50 bolts
  - 3 5/8 hardened
  - plain washers
  - 3 M16 spring
  - lock washers
  - 3 M16 nuts

(9) [L4400-1, MX4700, MX4800 MX5100, MX5200, MX5800] 1 - M16 x 50 bolt 1 - 5/8 hardened

- plain washer 1 - M16 spring
- lock washer
- 1 M16 nut



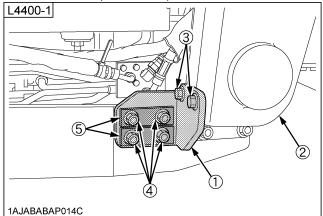
- (1) Sub frame
- (2) Connecting plate
- (3) Bolt
- (4) Hardened plain washer
- (5) Spring lock washer
- (6) Nut
- (7) Hardened plain washer [L4400-1, MX4700, MX5100]
- (8) Bolt [L4600, L4701: M16 x 45]
  - [L4400-1, MX4700, MX4800, MX5100, MX5200, MX5800: M16 x 50]

#### NOTE :

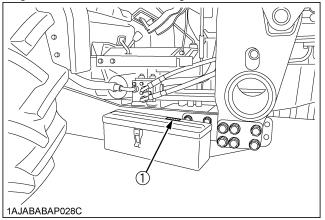
- Direction of Bolt
- Tightening torque: 196-225 N-m

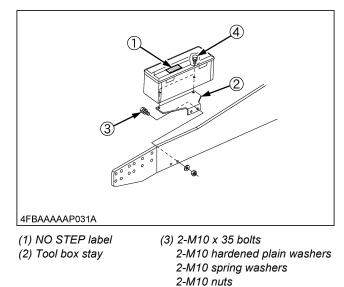
(20.0-23.0 kgf-m ,145-166 ft-lbs)

- 4. Temporarily fix the front bracket using the bolts and nuts.
- 5. First, tighten up the two bolts at the front loader's main frame to the specified torque.



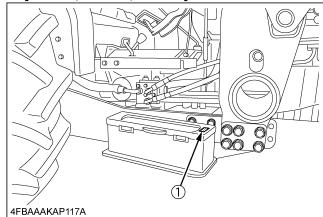
- (1) Front bracket
- (2) Loader main frame
- (3) 2 M16 x 55 bolts
  - 2 5/8 hardened plain washers
  - 2 M16 spring lock washers
  - 2 M16 nuts
- (4) 4 M16 x 55 bolts
- 4 M16 spring lock washers 4 - M16 nuts
- (5) 2 Locking washers 2 (outside) Tightening torque: 196-225 N-m (20.0-23.0 kgf-m, 145-166 ft-lbs)
- 6. Then tighten up all the remaining applied bolts and nuts to the specified torque.
- 7. Install the tool box. Apply the label. [L4400-1, MX4700, MX5100]

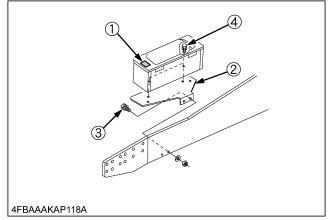




(4) 2-M8 x 20 sems bolts

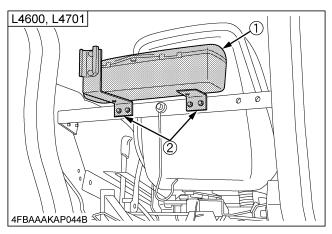
### [MX4800, MX5200, MX5800]





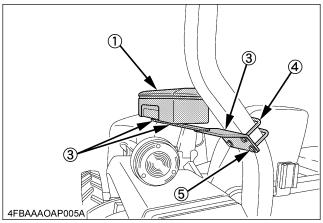
- (1) NO STEP label (2) Tool box stay
- (3) 2-M10 x 35 bolts
   2-M10 hardened plain washers
   2-M10 spring washers
- 2-M10 nuts (4) 2-M8 x 20 sems bolts

Detach the tool box and stays from the fender bracket.



- (1) Tool box
- (2) Tool box stay

Afterwards, attach the tool box and the stay to the left side of the tractor ROPS.

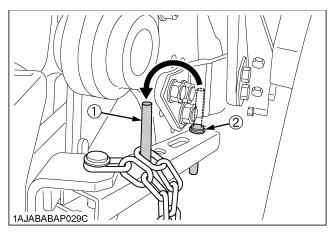


- (1) Tool box
- (2) Tool box stay
- (3) 2 M8 x 25 w-sems bolts
- (4) U-bolt
- (5) 4 M10 flange nuts

### NOTE :

Secure the tool box horizontally as shown above.

- 8. In combination with the 3-point link.
  - 1) Move the set pin to another hole.
  - 2) Install the stabilizer with the clevis pin.



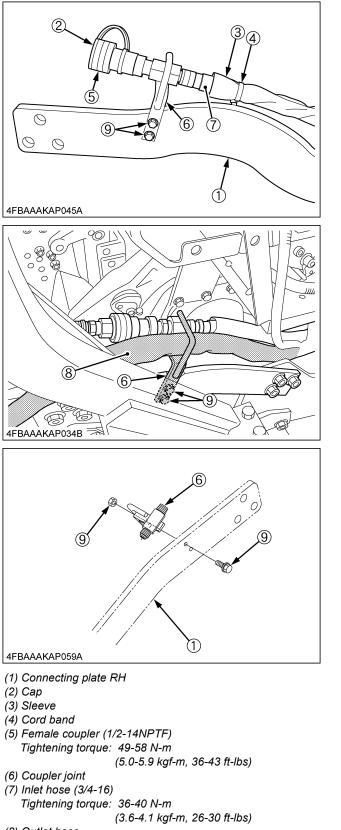
- (1) Set pin
- (2) Clevis pin

### [BH4972, BH4975, BH4976, BH4988]

- 9. Connect the female coupler with the blue cap to the coupler joint, using thread tape.
- 10. Tighten the coupler joint to the specified torque.
- 11. Connect the backhoe inlet hose to the coupler joint at the specified angle.
- Pass the backhoe outlet hose through the guide of coupler joint guide.
- 13. Wrap the sealing tape around the threads of the outlet hose and connect the male coupler with the red cap to the outlet hose.
- 14. Attach the coupler joint to the connecting plate.

### NOTE :

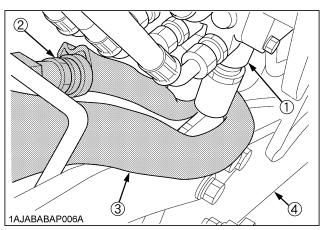
- Take this step after mounting the connection plate (RH) in position.
- The installation position of the coupler joint is different depending on the model. When connecting it, be careful as shown in the figure below.



- (8) Outlet hose
- (9) 2 M8 x 30 flange bolts and nuts Tightening torque: 23.6-27.4 N-m (2.4-2.8 kgf-m, 17.4-20.2 ft-lbs)

[When equipped with the auxiliary control valve]

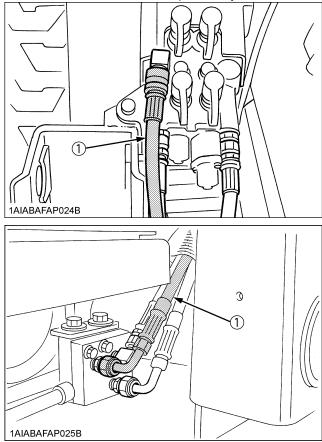
- 1. Pass the inlet hose inside of the sub frame.
- 2. Pass the outlet hose outside of the sub frame.



- (1) Auxiliary control valve
- (2) Inlet hose
- (3) Outlet hose
- (4) Sub frame

### Hydraulic Line

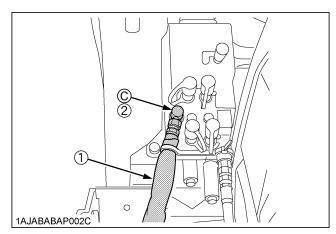
1. Disconnect the front loader power beyond hose.



(1) Front loader power beyond hose

2. Connect the backhoe inlet hose to the power beyond port (c) adapter.

Route the backhoe inlet hose under the hydraulic block, clamp the three hoses using a plastic band.



 (1) Backhoe inlet hose (3/4-16) Tightening torque: 36-40 N-m (3.6-4.1 kgf-m, 26-30 ft-lbs)

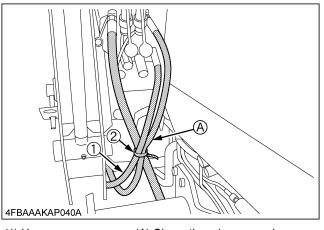
N-m

(C) Power beyond port

(2) Adapter

### **IMPORTANT**:

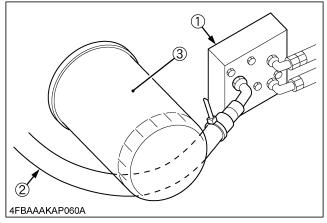
 Make sure that the loader hydraulic hose quick coupler, with the red dust plug, can be easily connected without contacting the backhoe inlet hose.



(1) Hoses(2) Plastic band

(A) Clamp three hoses as shown

3. Connect the backhoe outlet hose to the hydraulic block.



(1) Hydraulic block

(2) Backhoe outlet hose (3/4-16) Tightening torque: 36-40 N-m (3.6-4.1 kgf-m, 26-30 ft-lbs)

(3) Filter

### **IMPORTANT** :

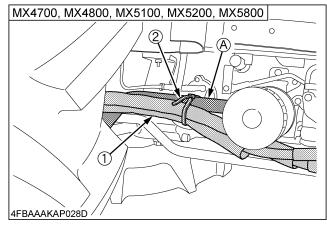
• Route the hose just below the filter as shown in the figure.

### [MX series only]

4. Clamp the two hoses to the pipe using a plastic band.

### **IMPORTANT**:

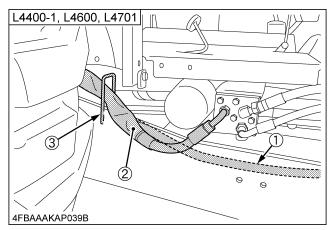
- Hoses pre-installed on the control valve assembly are not securely tightened to ease installation of hoses to hydraulic block. Be sure to securely tighten all hose fittings after installing.
- Adjust the hose fittings so the hoses clear the tractor.



(1) Hoses (2) Plastic band

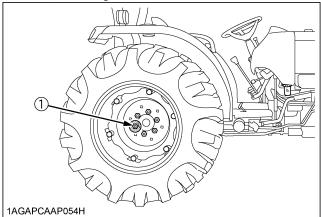
(A) Clamp onto this pipe.

5. Pass the two hoses through the guide.



- (1) Inlet hose
- (2) Outlet hose
- (3) Hose guide
- Rear wheels
- 1. S Install the right and left rear wheels to the tractor with the bolts and nuts. Tighten the bolts and nuts by the correct tightening torque.

### [L4400-1, L4600, L4701, MX4700, MX4800, MX5100, MX5200, MX5800]



(1) Tightening torque: 196 to 225 N-m (20.0 to 22.9 kgf-m, 144.6 to 166.0 ft-lbs)

### SETTING UP DIPPERSTICK AND BUCKET

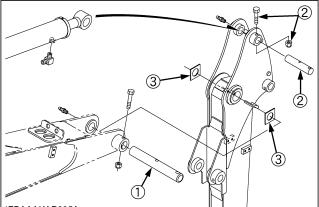
### Dipperstick

1. Install dipperstick assy to the boom using pins, spacers, bolts, nuts.

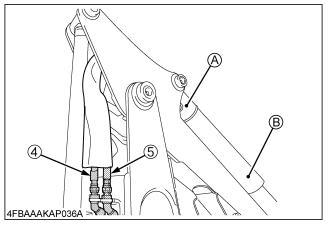
Connect hoses to the each port on the boom.

### **IMPORTANT :**

Check the position and the direction of the hose as shown below.



4FBAAAKAP035A



- (1) Pin (Ø38 x 259 mm), Bolt (M10 x 80), Locking Nut (M10)
- (2) Pin (Ø32 x 156 mm),
  - Hex. Bolt (M10 x 65), Locking Nut (M10)
- (3) Spacer
- (4) Hose (3/4-16) (Cylinder bottom side)

(5) Hose (3/4-16) (Cylinder rod side) Tightening torque: 36-40 N-m

(3.6 - 4.1 kgf-m, 26- 30 ft-lbs)

(A) Cylinder

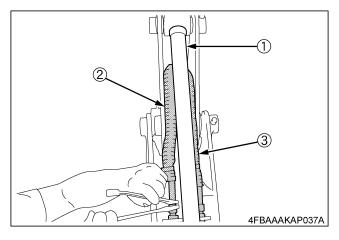
(B) Cylinder

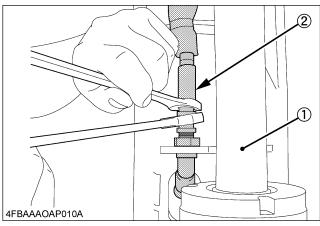
rod side

bottom side

### NOTE :

- Do not tighten too much a locking nut firmly. The gap between the boss and the locking nut is adjusted in 2 to 3 mm (0.08 to 0.12 in.).
- Tighten up the hose in parallel with the cylinder rod. •





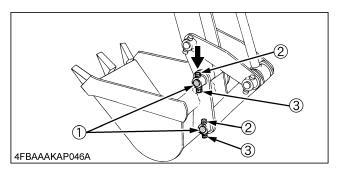
(1) Cylinder rod

(2) Hose (Cylinder bottom side)

(3) Hose (Cylinder rod side)

### Bucket

1. Install bucket to the dipperstick of the backhoe using two pins, bolts and nuts.



(1) Pins (1.25 in. x 8.82 in.)
(2) Bolt (M10 x 80)
(3) Locking Nut (M10)

### **IMPORTANT** :

- Nuts : Do not tighten firmly. Gap between boss and nut should be 2 to 3 mm (0.08 to 0.12 in.).
- Bolts : Make sure not to confuse the set-up direction of bolts.
- Pins : Apply a small amount of multipurpose grease.

### INSTALLING THE BACKHOE

### 

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.

To avoid personal injury:

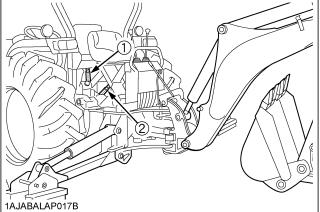
• Make sure the tractor PTO is disengaged.

### **IMPORTANT**:

- When installing the backhoe, set the engine speed to low idle.
- 1. Remove the 3-point hitch and / or drawbar. (if equipped)
- 2. Make sure the swing lock pin is installed.
- 3. Slowly back the tractor / loader, centering to the backhoe main frame.

Stop the tractor 250 to 300 mm (10 to 12 inches) 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

#### **IMPORTANT**:

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

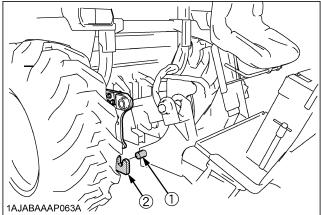


To avoid personal injury or death:

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

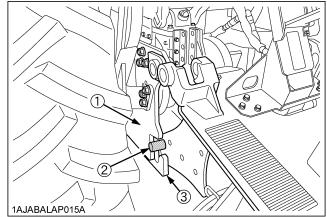
### NOTE :

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



(1) Mount bar

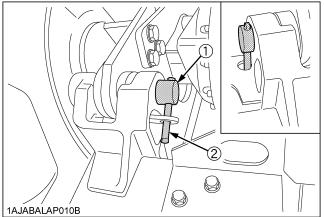
- (2) Support hook
- 8. Move the tractor backward until the support hooks on the tractor main frame are just beneath the mount bar on the backhoe main frame.



- (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.

<sup>(2)</sup> Return hose

- 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 section "MAINTENANCE" for oil type and correct level.

#### Installation position for the seat support

Choose the front or rear seat support position for the types of tractor which installs the backhoe.

4FBAAAKAP120A	
(A): Rear position	L3240-3 to L5740-3 ROPS/CAB Model L3560 to L6060 ROPS/CAB Model
(B): Front position	L3240 to L5740 ROPS Model L4400-1, L4600, L4701, MX4700/4800/5100/5200/5800

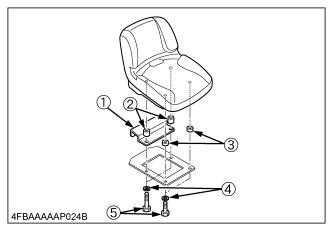
S Attach the seat support to the main frame. Tighten the flange bolts and nuts by the correct tightening torque.

6 - M12 flange bolts and nuts

Tightening torque: 77.5 to 90.1 N-m (7.9 to 9.2 kgf-m, 57.2 to 66.5 ft-lbs)

### [BH4998] (L3940 - L5740)

S Place the seat-spacer under the operator's seat then reinstall them as shown below. Tighten the bolts by the correct tightening torque.



- (1) Seat-spacer
- (2) Cushion
- (3) Cushion
- (4) Washer
- (5) 4-5/16" bolts
- Tightening torque: 23.1 to 27.7 N-m (2.35 to 2.82 kgf-m, 17.0 to 20.4 ft-lbs)

### **REMOVING THE BACKHOE**

Removal of The Backhoe



To avoid personal injury:

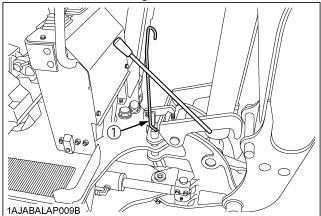
- When starting the engine, always sit in the tractor operator's seat.
- When getting off the tractor, make sure that PTO lever is off and range gear shift lever is in neutral. Then set the parking brake.
- Keep hands, feet and body from between tractor and backhoe. Never allow any part of body under 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 to low idle.
- For removing the backhoe, locate the tractor / loader / backhoe on a flat level and hard surface, preferably concrete.

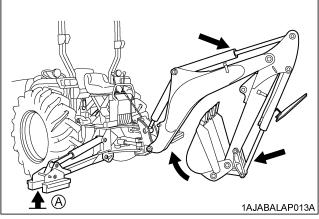
If the surface is soft, place a board on the ground for the bucket and stabilizers.

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



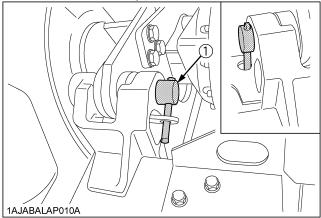
(1) Swing lock pin

 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 380 mm (15 inches) high.



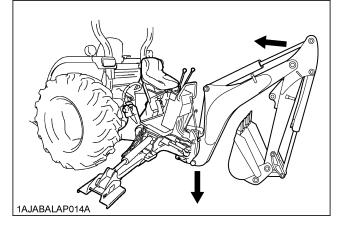
(A) 380 mm (15 inches)

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

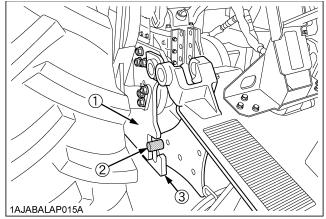


(1) Mounting pin

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



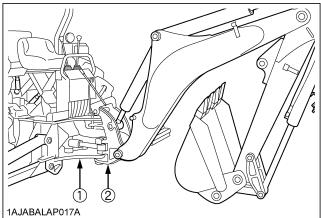
6. Raise the backhoe by operating the stabilizers in the lowering direction until the mount bars hit the guide stopper on the support hooks.



- (1) Guide stop
- (2) Mount bar
- (3) Support hook
- 7. Move the tractor forward from the backhoe about 200 mm (8 inches).

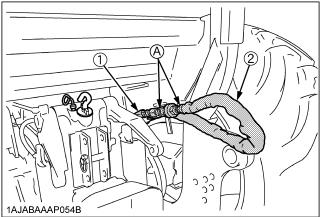
### **IMPORTANT** :

- 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.



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

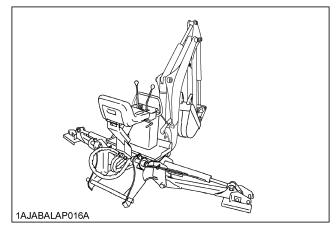
- The entire three point hitch can now be reinstalled on the tractor for use with other rear mount implements.
- . Be sure that there is sufficient ballast in the rear tires and an implement is attached to the three point hitch before using the loader with backhoe removed.

### **IMPORTANT**:

Tractor outlet hose must be connected to tractor return hose when backhoe is removed.

### 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 a 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.



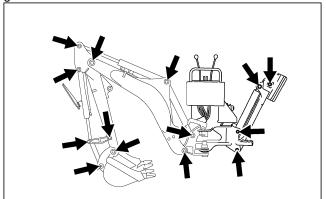
### **IMPORTANT:**

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

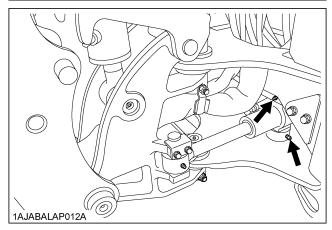
### **PRE-OPERATION CHECK**

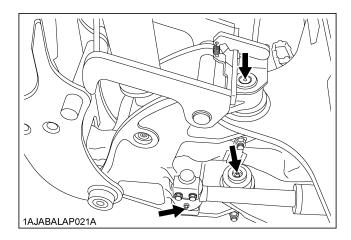
### Lubrication

Lubricate all grease fittings with SAE multipurpose grease.



1AJABALAP011A



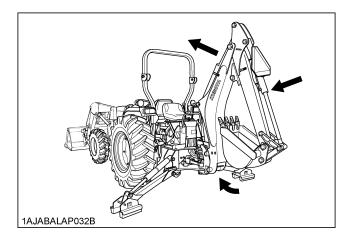


### Transmission Fluid

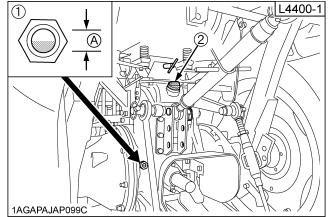
Check tractor transmission fluid level. Add fluid if necessary. Refer to the tractor operator's manual for instructions and proper fluid. Repeat this check after purging air from the system. At that time, it will be necessary to add transmission fluid.

### **IMPORTANT**:

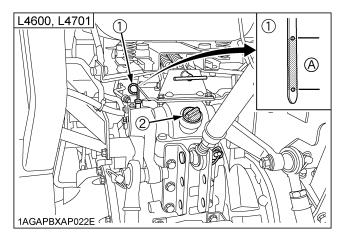
- If oil level is low, do not run engine.
- When checking the oil level, locate the tractor / loader / backhoe on a flat and level surface and set the loader / backhoe as illustrated.



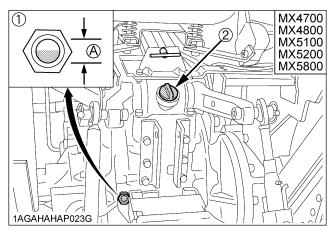
After purging air from the hydraulic circuit, add transmission oil to prescribed level.



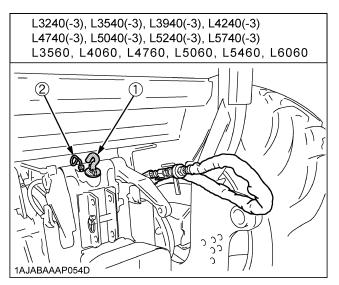
(1) Gauge (A) Oil level is acceptable within this range.(2) Oil inlet



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



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



(1) Oil port

(2) Dipstick

### **ASSEMBLY TIME**

Refer to the following table for the assembly time to open the crate and assemble the tractor.

Assembly times on the table are just for reference under the following conditions.

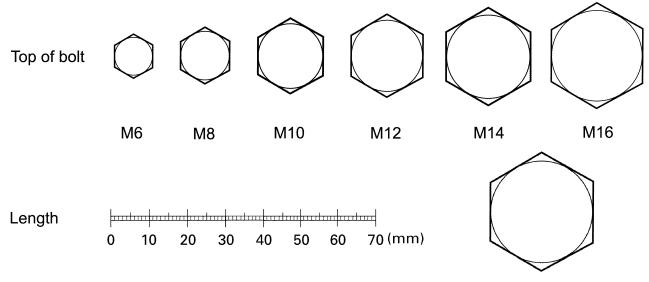
- 1. Assembly by one worker.
- 2. Following tools and equipment are available.
  - (1) Chain hoist or crane.
  - (2) Impact wrench, Ratchet wrench, Torque wrench, Socket wrench, Spanner wrench.
  - (3) Nylon strap.

L4400-1	
L4600	
L4701	
MX4700	2.25 HRS
MX4800	2.25 HR5
MX5100	
MX5200	
MX5800	

L3240(-3)	
L3540(-3)	
L3940(-3)	
L4240(-3)	
L4740(-3)	
L5040(-3)	[ROPS] 2.50 HRS
L5240(-3)	
L5740(-3)	[CAB] 3.00 HRS
L3560	[CAB] 5.00 TIKS
L4060	
L4760	
L5060	
L5460	
L6060	
	1

# TIGHTENING TORQUE OF BOLTS AND NUTS

American standard screws, bolts and nuts with UNC or UNF threads			Metric cap screws			
SAE g	grade No.	SAE GR.5	SAE GR.8	proper	ty 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
				M18	(N-m) (kgf-m) (ft-lbs)	275 to 318 28.0 to 32.5 203 to 235
				M20	(N-m) (kgf-m) (ft-lbs)	368 to 431 37.6 to 44.0 272 to 318



M18 M20

# TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS

Item	Shape	Thread size	Tightening torque		
nem			N-m	kgf-m	ft-lbs
Adjustable elbow, Adaptor (O-ring port) (UNF)	[A] [B] (A] [B] (A] Nut Type [B] No Nut Type a: O-ring 4FBAAAKAP064A	9/16	37 to 44	3.8 to 4.5	27 to 33
		3/4	48 to 54	4.9 to 5.5	35 to 40
		7/8	77 to 85	7.9 to 8.6	57 to 62
Hose fitting, Flare nut (UNF)		9/16	22 to 25	2.3 to 2.6	16 to 19
		3/4	36 to 40	3.6 to 4.1	26 to 30
		7/8	43 to 50	4.4 to 5.0	32 to 36
Adaptor (NPT) 4F	4FBAAAKAP066A	1/4	30 to 50	3.1 to 5.0	23 to 36
		3/8	39 to 60	4.0 to 6.1	29 to 44
		1/2	49 to 58	5.0 to 5.9	36 to 43

# CHECK LIST FOR INSPECTION AFTER ASSEMBLY

Inspector:	Date co	Date completed:			
Backhoe mode	el: Serial N	Serial No.:			
Classification	Inpection	Inpection items			
Assembly	[L3560, L4060, L4760, L5060, L5460, L6060 ROPS Model] [L3560, L4060, L4760, L5460, L6060 CAB Model] [L3240(-3), L3540(-3), L3940(-3), L4240(-3), L4740(-3), L5040(-3), L5240(-3), L5740(-3) ROPS Model] [L3240-3, L3540-3, L3940-3, L4240-3, L4740-3, L5240-3, L5740-3 CAB Model] 1. Check for proper tightening of floor sheet cover. Tightening torque for M8 bolts and nuts: 23.6 to 27.4 N-m				
	<ul> <li>[When you changed the position of seat support]</li> <li>2. Check for proper tightening of seat support assy. Tightening torque for M12 flange bolts and nuts: 77.5 to 90.1 N-m</li> </ul>				
	[BH4998 (L3940, L4240, L4740, L5040, L5240, L5740)] 3. Check for proper tightening of backhoe seat. Tightening torque for 5/16" bolts: 23.1 to 27.7 N-m				
	<ul> <li>[All tractors]</li> <li>4. Check for proper tightening of rear tires.</li> <li>[L4400-1, L4600, L4701]</li> <li>Tightening torque for M16 bolts: 196 to 225</li> <li>[MX4700, MX4800, MX5100, MX5200, MX5</li> <li>Tightening torque for M16 bolts and nuts: 19</li> <li>[L3240(-3), L3540(-3), L3940(-3), L4240(-3)</li> <li>Tightening torque for M16 bolts and nuts: 21</li> <li>[L3560, L4060, L4760, L5060, L5460, L606</li> <li>Tightening torque for M16 bolts and nuts: 21</li> </ul>	800] 6 to 225 N-m , <b>L4740(-3), L5040(-3), L5240(-3), L5740(-3)]</b> 5 N-m 0]			