
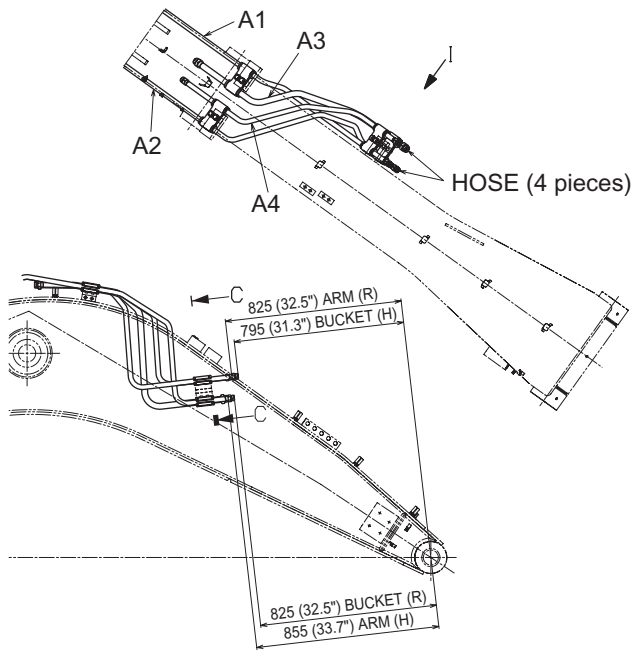
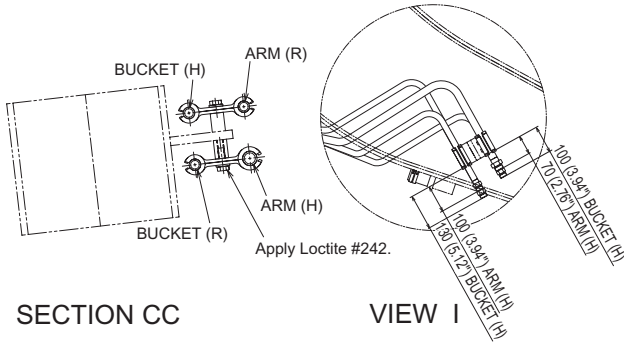


- (5) Disconnecting the arm cylinder and bucket cylinder pipings  
 Release pressure from arm and bucket circuit and bleed air in hydraulic tank, and then disconnect pipe at (A1), (A2), (A3), (A4) and 4 hoses.

 : 27, 36 mm

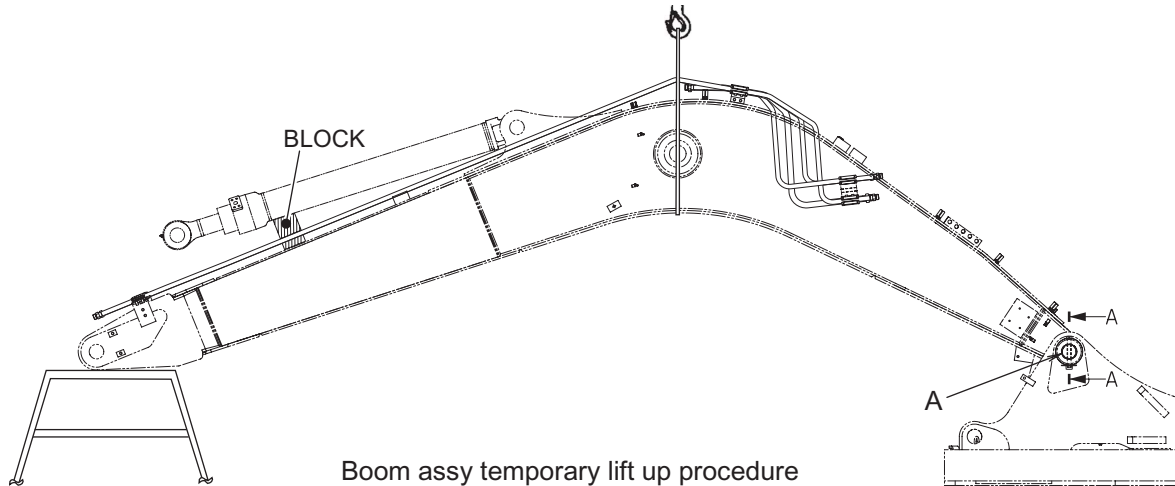
After disconnection of pipe, plug every pipe.  
 ORS Plug : See Tools 11.5.2-(4).



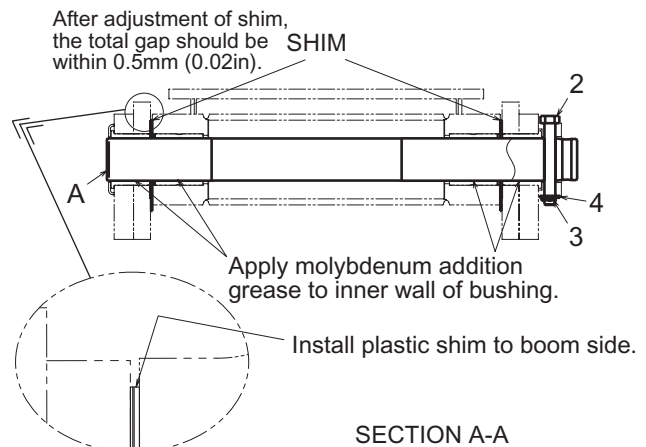
**Fig. 32-19 Boom piping disconnection**

- (6) Lifting up boom assy temporarily  
 Lift up boom with nylon sling so that boom foot pin (A) is not loaded.

Weight of single boom : 1,256 kg (2,770 lbs)



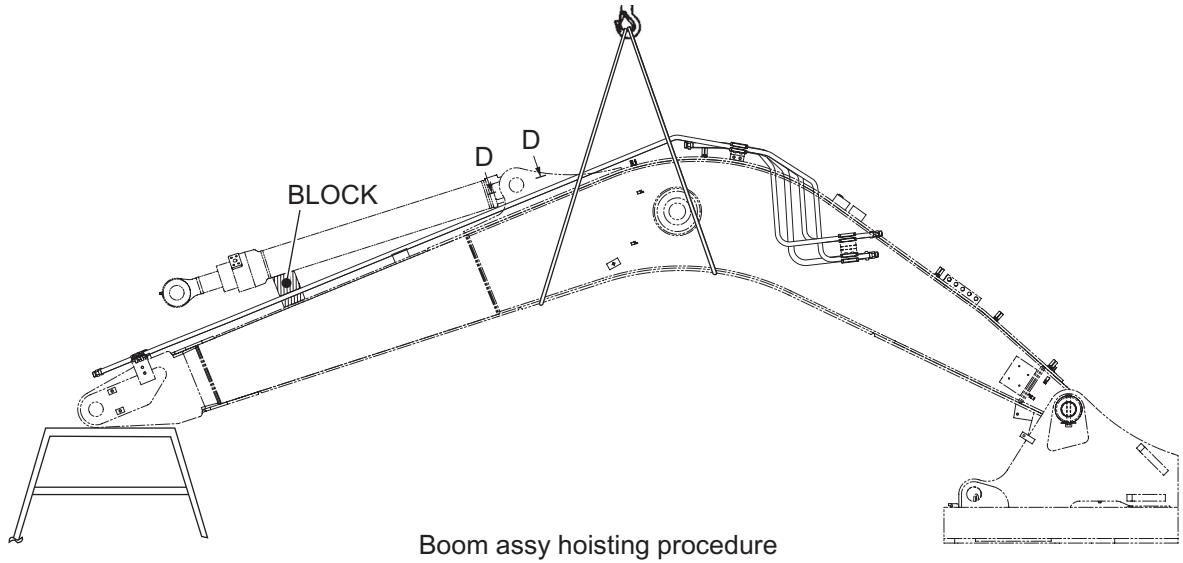
- (7) Removing boom foot pin (A)  
 1) Loosen nut (3) or washer (4) and remove capscrew (2).  
 2) Draw out pin (A).



**Fig. 32-20 Details of boom foot pin (A) section**

- (8) Hoisting boom assy  
Hoist and remove boom assy.

Weight of single boom : 1,256 kg (2,770 lbs)



Boom assy hoisting procedure


- (9) Completion of removal of front attachments  
When the removing and attaching of cylinder are not required, the work is finished.

- (10) Removing and installing arm cylinder


- 1) Lift up arm cylinder (2) with nylon sling so that the head of cylinder is not loaded.
- 2) Disconnect hose (F1) and (F2) at position A.  
After disconnection of hose, plug both ends of hose.

Plug : TOOLS

11.5.2-(4) Plugs for ORS fitting

 :27, 30, 32, 36 mm

- 3) Removing arm cylinder head pin (D)  
Loosen nut (3), remove capscrew M16×130 (2) and pull out pin (D).

 : 24mm

- 4) Removing arm cylinder (2)  
Weight of arm cylinder : 140 kg (309 lbs)

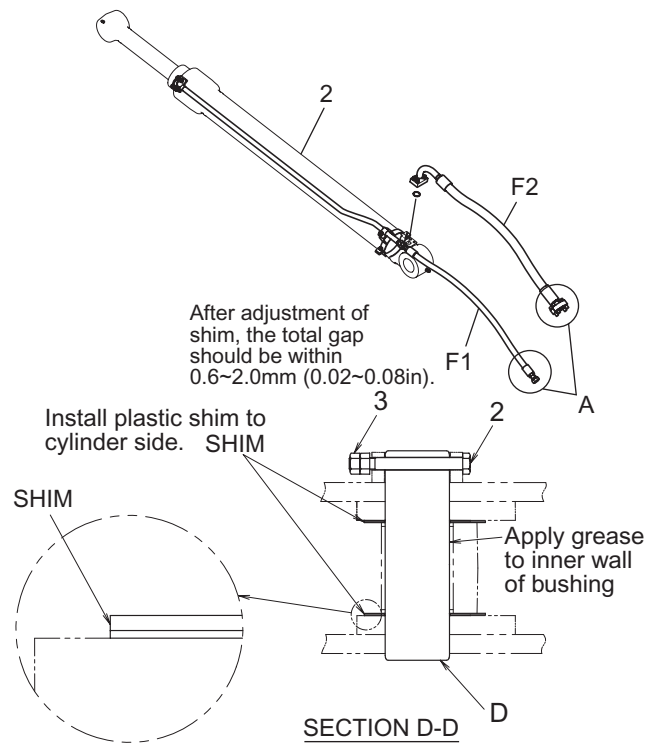



Fig. 32-21 Removing arm cylinder


### (11) Removing and installing boom cylinder

- 1) Release pressure from boom circuit and bleed air in hydraulic tank.
- 2) Sling boom cylinder (2) using nylon sling temporarily not to act the weight of cylinder upon the cylinder head.
- 3) Disconnect each two hoses (C2) and (C3). And plug their both ends.

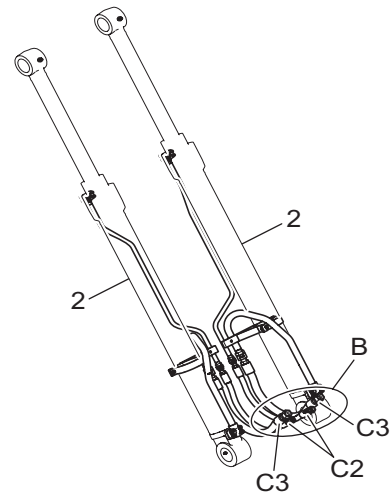
Plug : TOOLS 11.5.2-(4) Plugs for ORS fitting

 : 27,32mm

- 4) Removing boom cylinder foot pin (B)  
(See Fig. 32-23, Fig. 32-24)  
Loosen nut (5), remove capscrews M10×20 (3) and pull out pin (B).

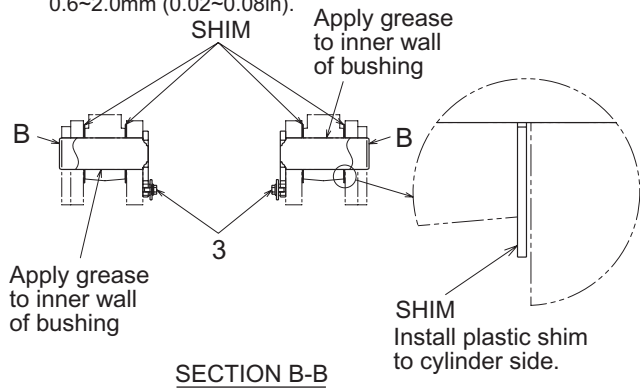
 : 17mm

- 5) Remove boom cylinder (2).  
Weight of boom cylinder : 96 kg (212 lbs)
- 6) Remove another boom cylinder the same way.



**Fig. 32-22 Removing and installing boom cylinder**

After adjustment of shim, the total gap should be within 0.6~2.0mm (0.02~0.08in).



**Fig. 32-23 Removing and installing boom cylinder head pin (B)**

### 32.1.4.3 ATTACHING BOOM

#### (1) Attaching boom foot pin (A)

First of all, insert boom foot pin (A) and install the boom assy.

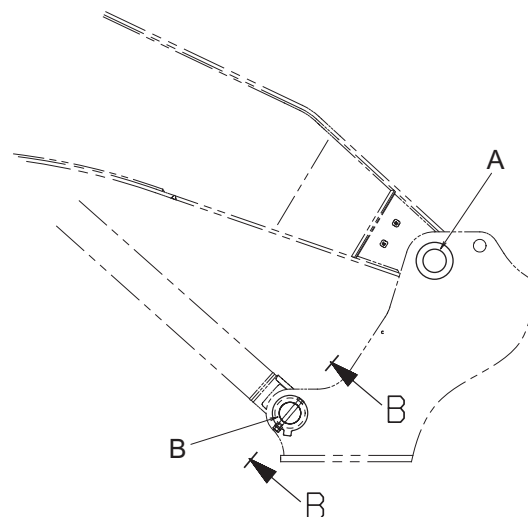
Attach it in the reverse procedure of removing, paying attention to the following points.

- 1) When aligning the pin holes, do not put your finger in the pin holes, but align them visually.
- 2) Check that the dust seals is not damaged and replace as necessary.
- 3) When inserting the pin, coat the shaft with grease.
- 4) M16 capscrew tightening torque : 279 (3.11) N•m (205 lbf•ft)

- 5) When installing boom and cylinder, check the clearance of mounting section in thrust direction, and decide the thickness of shim according to the maintenance standard.

Install plastic shim first, and insert iron shim into remaining gap.

Regarding the position of shim, refer to Fig. 32-20.



**Fig. 32-24 Boom foot pin (A)**