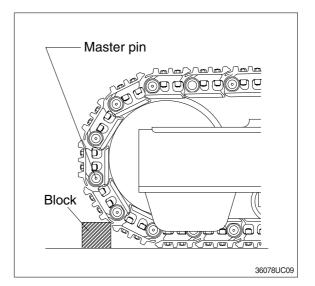
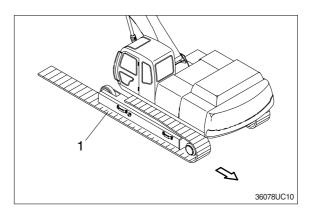
# **GROUP 10 UNDERCARRIAGE**

#### 1. TRACK LINK

### 1) REMOVAL

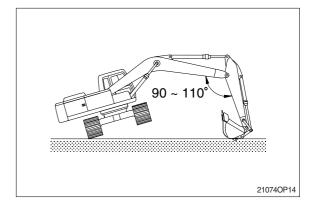
- (1) Move track link until master pin is over front idler in the position put wooden block as shown.
- (2) Loosen tension of the track link.
- If track tension is not relieved when the grease valve is loosened, move the machine backwards and forwards.
- (3) Push out master pin by using a suitable tool.
- (4) Move the machine slowly in reverse, and lay out track link assembly (1).
- \* Jack up the machine and put wooden block under the machine.
- \* Don't get close to the sprocket side as the track shoe plate may fall down on your feet.





#### 2) INSTALL

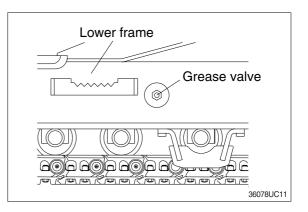
- (1) Carry out installation in the reverse order to removal.
- \* Adjust the tension of the track link.



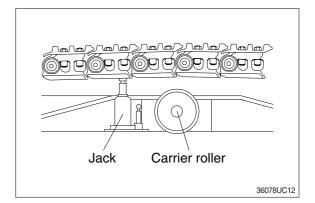
# 2. CARRIER ROLLER

## 1) REMOVAL

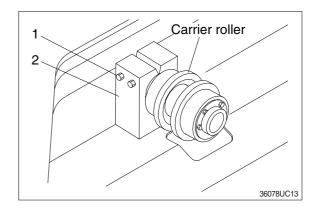
(1) Loosen tension of the track link.



(2) Jack up the track link height enough to permit carrier roller removal.



- (3) Loosen the lock nut (1).
- (4) Open bracket(2) with a screwdriver, push out from inside, and remove carrier roller assembly.
  - · Weight : 40kg(88lb)



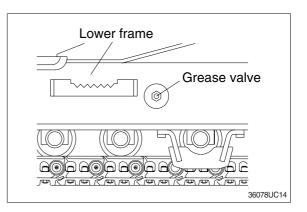
#### 2) INSTALL

(1) Carry out installation in the reverse order to removal.

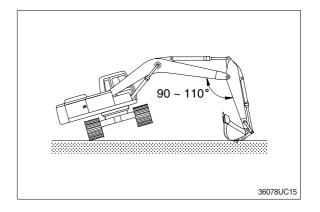
# 3. TRACK ROLLER

# 1) REMOVAL

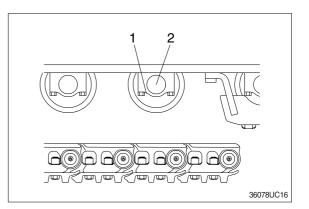
(1) Loosen tension of the track link.



- (2) Using the work equipment, push up track frame on side which is to be removed.
- \* After jack up the machine, set a block under the unit.



(3) Remove the mounting bolts(1) and draw out the track roller(2).Weight : 80kg(176.4lb)



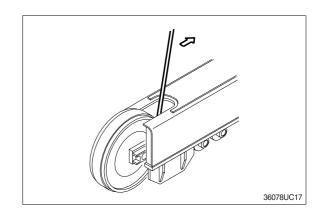
## 2) INSTALL

(1) Carry out installation in the reverse order to removal.

## 4. IDLER AND RECOIL SPRING

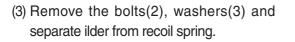
#### 1) REMOVAL

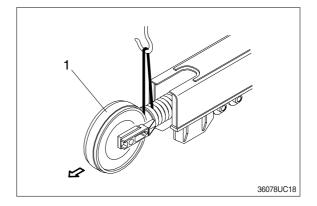
(1) Remove the track link. For detail, see **removal of track link**.

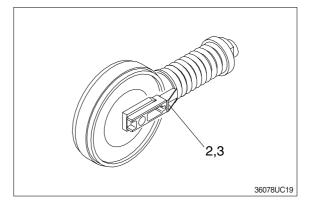


(2) Sling the recoil spring(1) and pull out idler and recoil spring assembly from track frame, using a pry.

· Weight : 420kg(930lb)

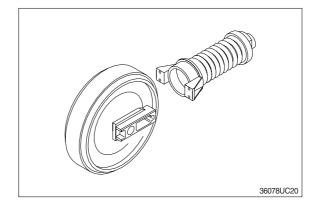






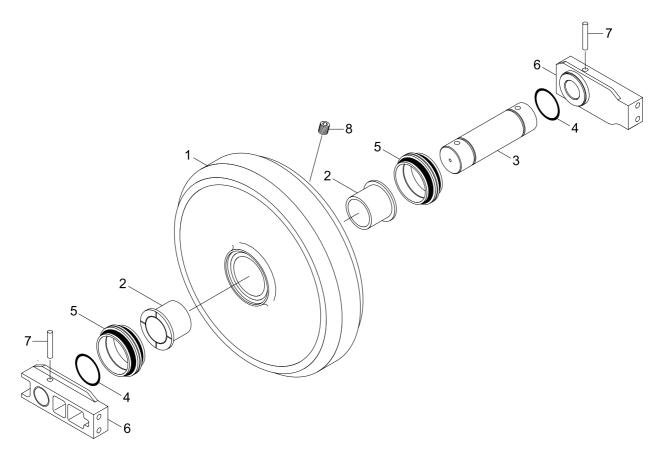
### 2) INSTALL

- (1) Carry out installation in the reverse order to removal.
- Make sure that the boss on the end face of the recoil cylinder rod is in the hole of the track frame.



# 3) DISASSEMBLY AND ASSEMBLY OF IDLER

# (1) Structure



36078UC01

1 Shell

Bushing

Shaft

2

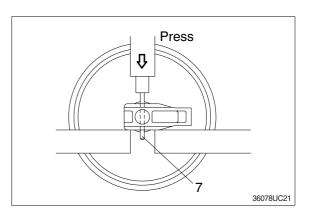
3

- 4 O-ring
  - 5 Seal assembly
  - 6 Bracket

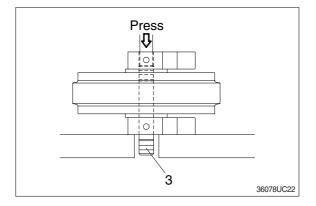
- 7 Spring pin
- 8 Plug

#### (2) Disassembly

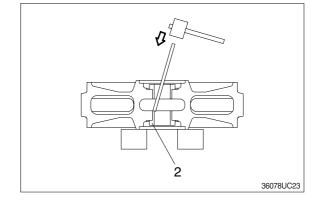
- 1 Remove plug and drain oil.
- 2 Draw out the spring pin(7), using a press.



- $\bigcirc$  Pull out the shaft(3) with a press.
- ④ Remove seal(5) from shell(1) and bracket(6).
- ⑤ Remove O-ring(6) from shaft.



- 6 Remove the bushing(2) from shell, using a special tool.
- \* Only remove bushing if replacement is necessity.

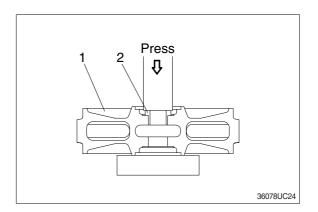


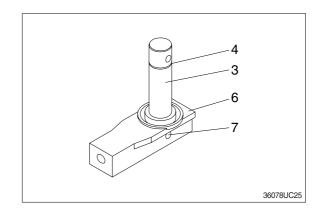
#### (3) Assembly

- \* Before assembly, clean the parts.
- \* Coat the sliding surfaces of all parts with oil.
- Cool up bushing(2) fully by some dry ice and press it into shell(1).

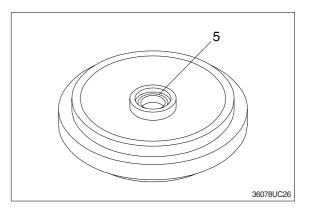
Do not press it at the normal temperature, or not knock in with a hammer even after the cooling.

- ② Coat O-ring(4) with grease thinly, and install it to shaft(3).
- ③ Insert shaft(3) into bracket(6) and drive in the spring pin(7).

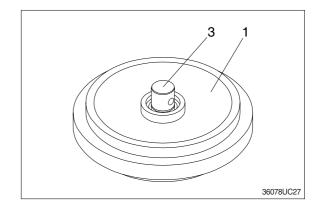




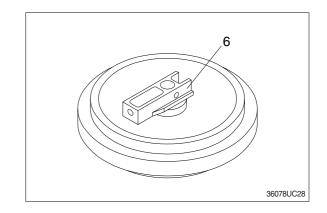
4 Install seal(5) to shell(1) and bracket(6).



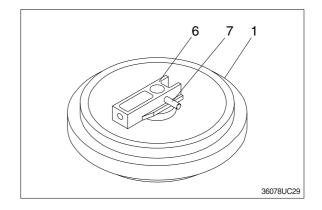
(5) Install shaft(3) to shell(1).



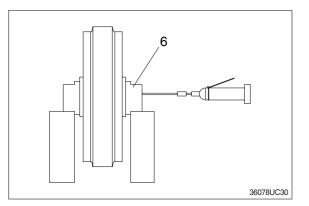
⑥ Install bracket(6) attached with seal(5).



⑦ Knock in the spring pin(7) with a hammer.

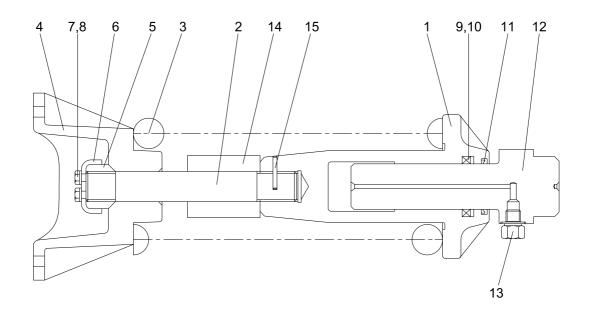


⑧ Lay bracket(6) on its side. Supply engine oil to the specified level, and tighten plug.



# 4) DISASSEMBLY AND ASSEMBLY OF RECOIL SPRING

# (1) Structure



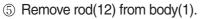
36078UC02

- 1 Body
- 2 Tie bar
- 3 Spring
- 4 Bracket
- 5 Lock nut

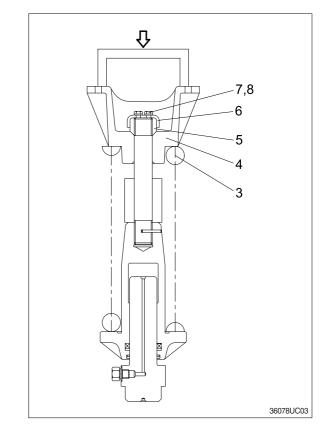
- 6 Lock plate
- 7 Hexagon bolt
- 8 Spring washer
- 9 Rod packing
- 10 Back up ring
- 11 Dust seal
- 12 Rod
- 13 Grease valve
- 14 Tube stopper
- 15 Spring pin

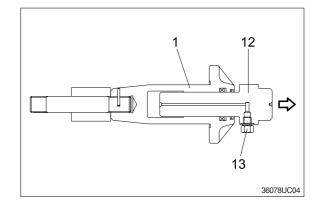
#### (2) Disassembly

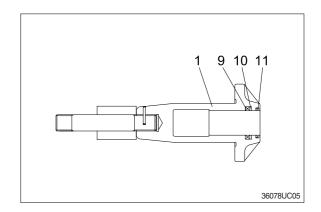
- 1 Apply pressure on spring(3) with a press.
- \* The spring is under a large installed load. This is dangerous, so be sure to set properly.
- $\cdot~$  Spring set load : 21100  $\pm~$  1688kg (46517  $\pm~$  3721lb)
- ② Remove bolt(7), spring washer(8) and lock plate(6).
- ③ Remove lock nut(5). Take enough notice so that the press which pushes down the spring, should not be slipped out in its operation.
- ④ Lighten the press load slowly and remove bracket(4) and spring(3).



6 Remove grease valve(13) from rod(12).



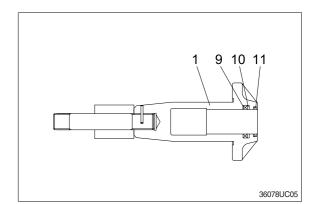




 Remove rod packing(9), back up ring(10) and dust seal(11).

### (3) Assembly

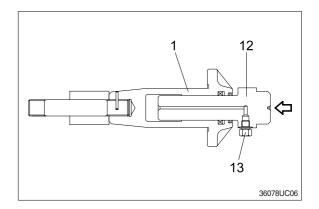
- Install dust seal(11), back up ring(10) and rod packing(9) to body(1).
- When installing dust seal(11) and rod packing(9), take full care so as not to damage the lip.

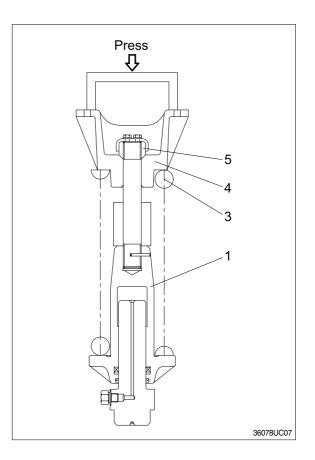


② Pour grease into body(1), then push in rod(12) by hand.

After take grease out of grease valve mounting hole, let air out.

- If air letting is not sufficient, it may be difficult to adjust the tension of crawler.
- ③ Fit grease value(13) to rod(12).
  - Tightening torque :  $10 \pm 1$ kgf m (72.3 $\pm$ 7.2lbf • ft)
- ④ Install spring(3) and bracket(4) to body (1).
- ⑤ Apply pressure to spring(3) with a press and tighten lock nut(5).
- \* Apply sealant before assembling.
- \* During the operation, pay attention specially to prevent the press from slipping out.





- ⑥ Lighten the press load and confirm the set length of spring(3).
- ⑦ After the setting of spring(3), install lock plate(6), spring washer(8) and bolt(7).

