

**REP-REP-RAE9011N47-1131X03 Replacing top timing chain (N47D/C K/U/O/T 0/1)**

VIN: XXXXXXX Vehicle: 1/F20/5-  
DOOR/M135I/N55/MANUAL/EUR/RL/2014/03

System 3.42.40.11060 Data R3.42.40.11060  
Version: Version:

**11 31 548****Replacing top timing chain  
(N47D/C K/U/O/T 0/1)****Special tools required:**

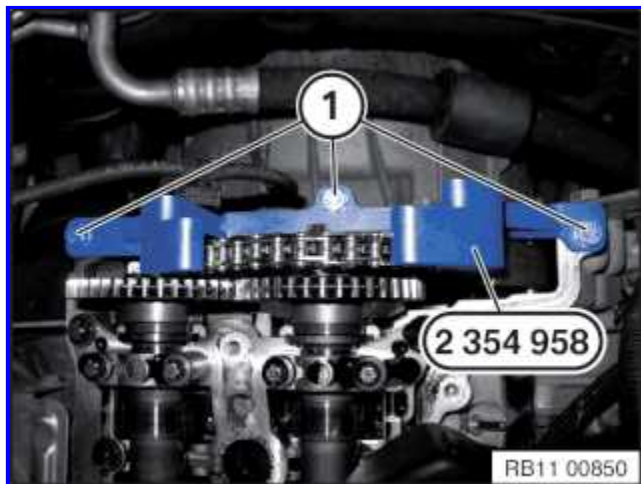
- 2 354 958
- 2 354 984
- 2 354 983
- 2 353 281
- 2 354 976
- 2 354 962

**Important!**

Loose chain sections can fall into the engine!

**Necessary preliminary tasks:**

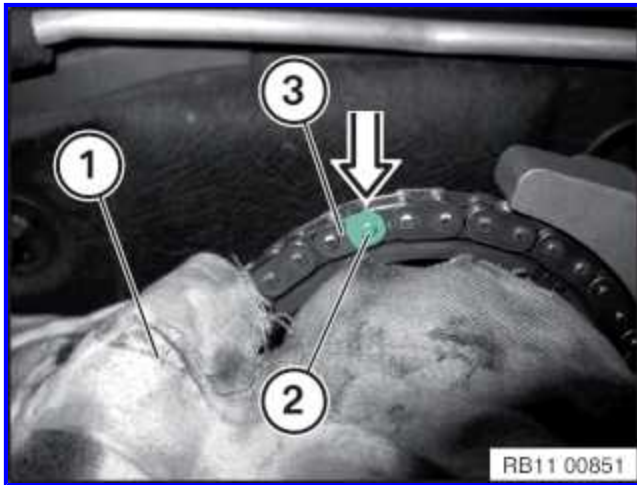
- Check camshaft time-lag.

**Important!**

Screws (1) can fall into the chain drive **risk of damage!**

Secure special tool 2 354 958 with bolts (1) to cylinder head.

Tightening torque. 11 00 2AZ.



Cover cylinder head (1) at chain drive with a suitable cleaning cloth.

Mark right rivet (2) at cover tab (3) (see arrow).



### Opening the timing chain:

Turn back pressing-off bolt (1) on special tool 2 354 984 .



### Installation note:

Bore hole (centring aid)

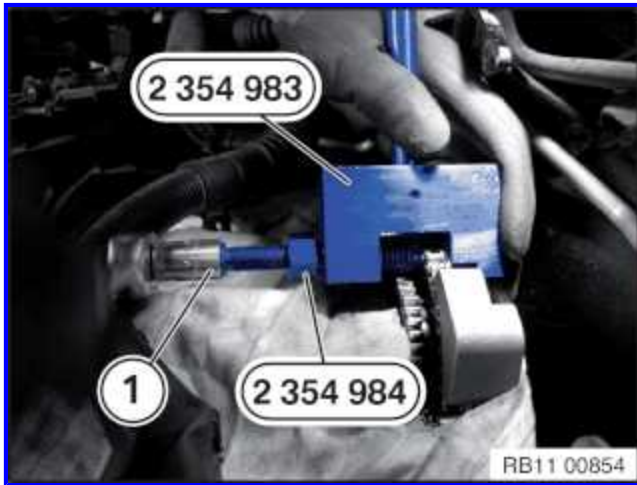
Turn back pressing-off bolt on special tool 2 354 984 up to short length (see arrow).

### Important!

Loose rivet can fall in the engine compartment.

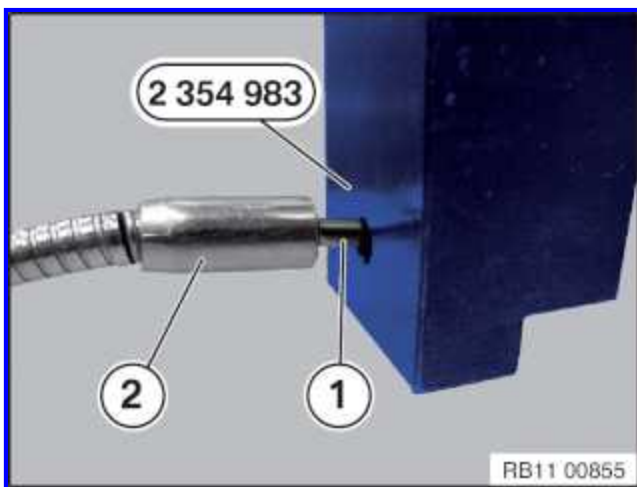
Seal bore hole on special tool 2 354 983 with suitable auxiliary materials.

Position special tool 2 354 983 on timing chain (rivet) (centring).



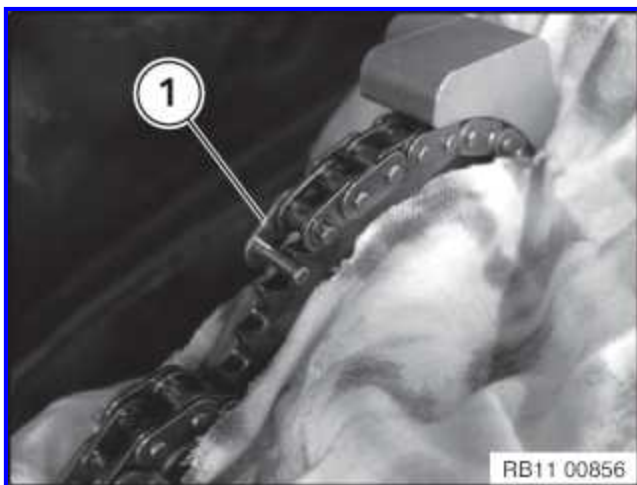
Pretension spindle 2 354 984 up to bolt / limit position of timing chain by hand.

Press off rivet with pressing-off bolt (1), screw in special tool up to limit position.



Remove rivet (1) from special tool 2 354 983 with a magnet (2).

Remove special tool 2 354 983.



#### *Installation note:*

Coat ends of chain lock (1) with grease.

#### **Tightening the timing chain:**

Attach chain lock (1) in the open timing chain.

Check camshaft sprocket for wear.

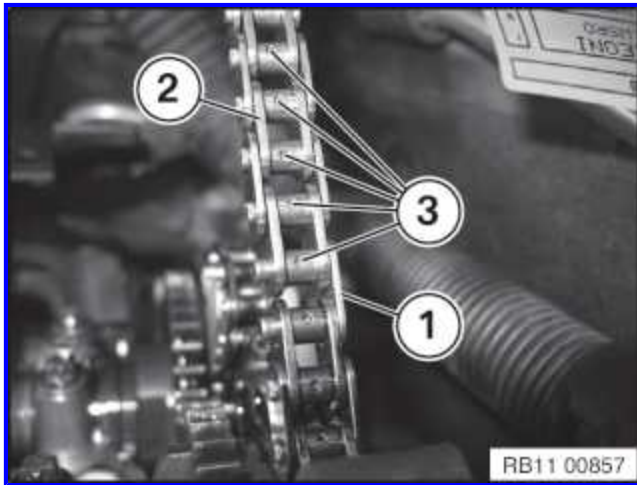
#### **Important!**

Observe direction of installation!

Oil holes (3) must be visible from the outside.

Attach timing chain (2) in the chain lock (1).

Both timing chains must be aligned with each other.



Outer tab on lock (1) must be aligned with the outer tabs of the timing chains (see graphic).

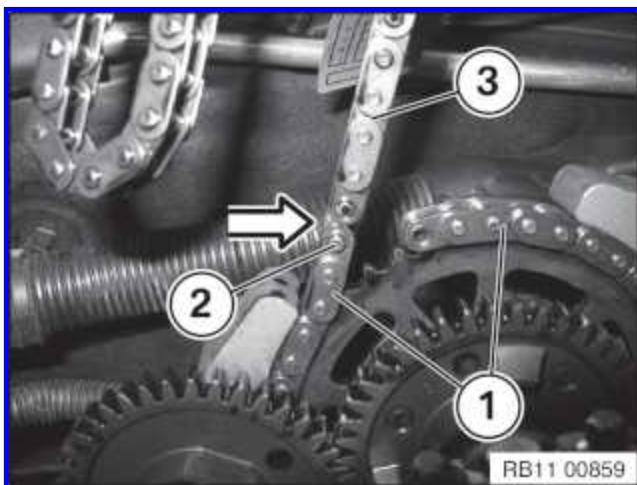


*Note:*

Turn engine in direction of engine rotation until the run-through timing chain can be removed.

Keep timing chains (1) under tension.

Do not crank engine too far under any circumstances.

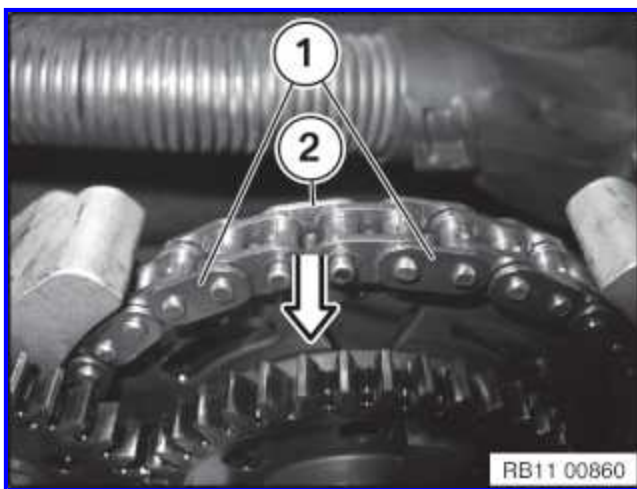
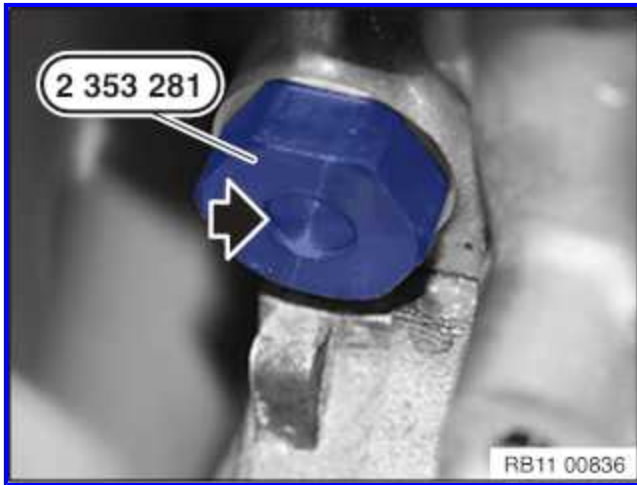


**Important!**

Loose components can fall into the chain drive **risk of damage!**

Remove timing chain (3) with chain lock (2).

Remove special tool 2 353 281.



### Pressing in the timing chain:

#### Important!

Loose components can fall into the chain drive **risk of damage!**

Press in both end of timing chain (1) on camshaft sprocket.

Insert chain lock (2) from the rear through both ends of new timing chain (1).

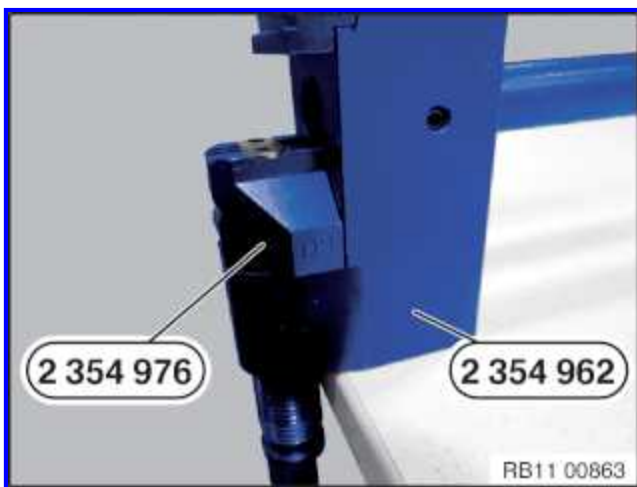
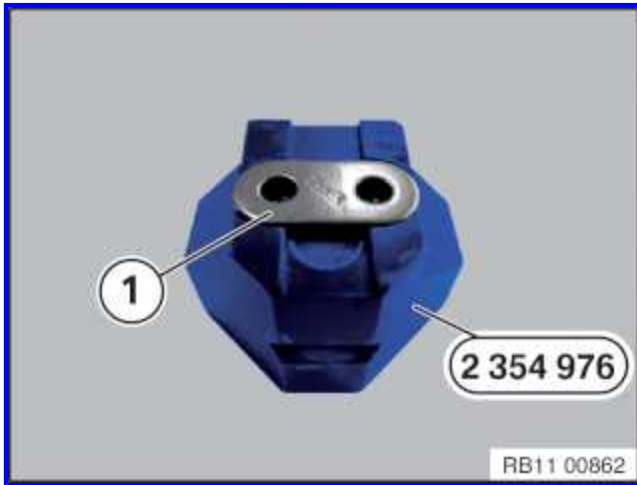


#### Installation note:

Rounded sides (2) of cover tab (1) must point towards timing chain.

Prepare special tool 2 354 976 with cover tab (1) with the rounded side (see graphic).

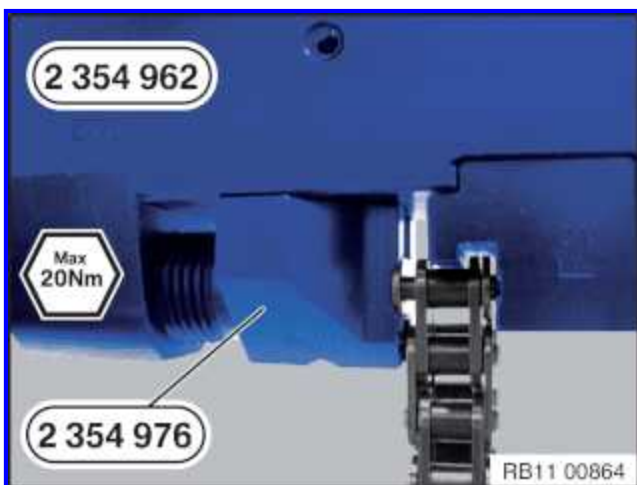
Fasten cover tab (1) on magnets of special tool 2 354 976.



### Important!

Loose components.

Prepare special tool 2 354 976 with cover tab on special tool 2 354 962.



### Important!

Maximum 20 Nm

Do not increase torque, risk of damage on chain lock.

Manually join cover tab on chain lock to spindle of special tool 2 354 976.

Make sure chain locks are positioned exactly in the matrix **risk of damage!**

Press on cover tab with 20 Nm.

Graphic shows removed chain drive.

### Important!

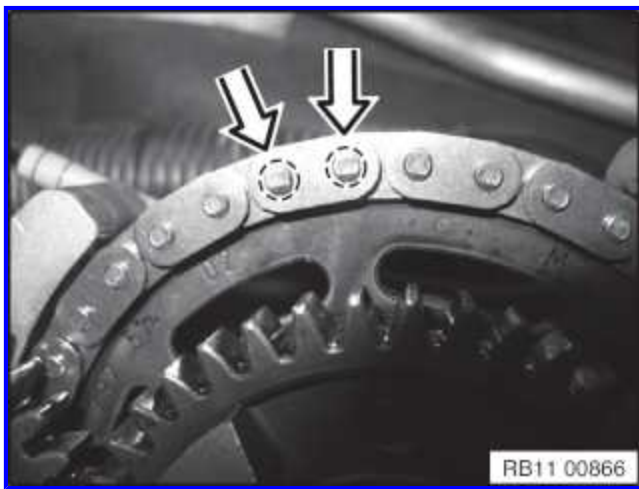
Do not exceed maximum **20 Nm** torque on chain lock not **risk of damage!**

For safety purposes, the chain lock must be pressed in again.

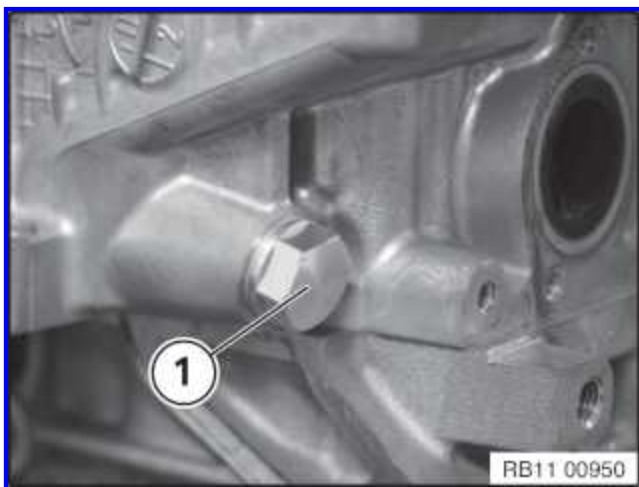


Remount special tool 2 354 976 on special tool 2 354 962 (see graphic).

Press in both rivets singly on chain lock with special tool 2 354 976 to maximum **20 Nm**.



Check both rivets (see graphic).



*Installation note:*

Install chain tensioner with part number 8 576 201 (AF 24).

Replace sealing ring.

Tightening torque: 11 12 3AZ.



Follow diagnosis instruction.