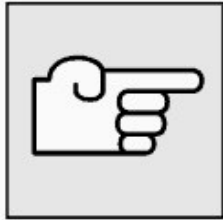


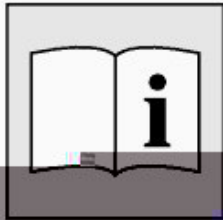
Read the original and a repair record



Remove cylinder head

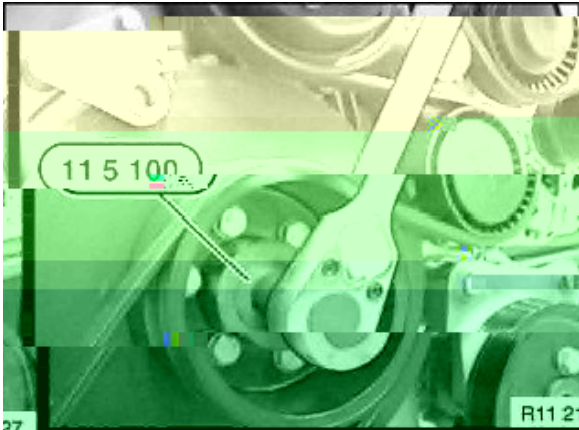
Remove spark plugs

Remove intake and exhaust pipes

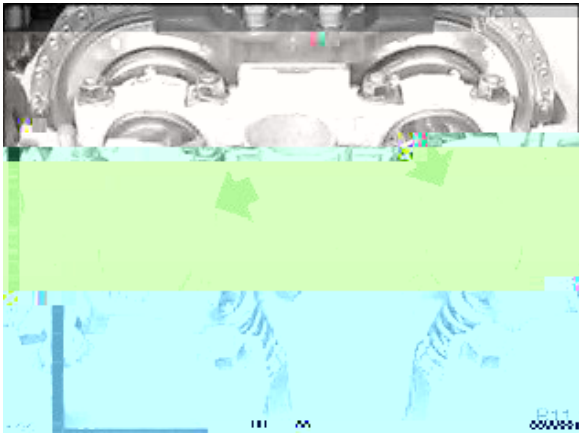


### Removal

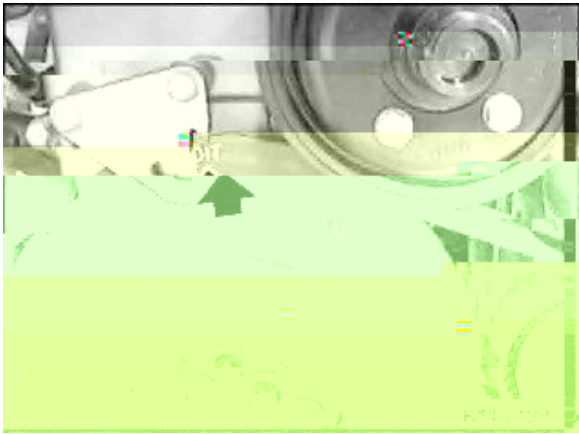
The removal of the VANOS adjustment unit is described separately from the installation here. The sequence for removal and installation is different.



Remove four screws on cover

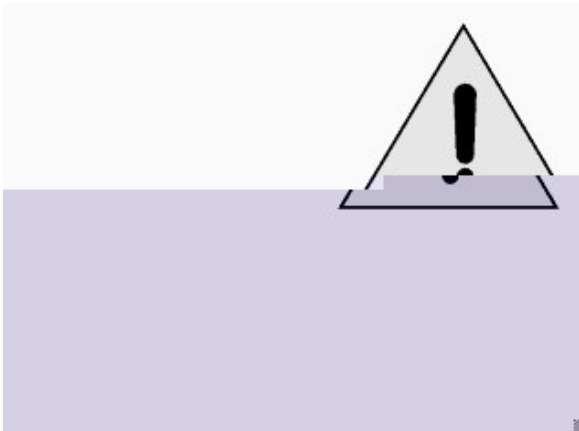


Remove the 1st cylinder DC position of 1st cylinder



**Note:**

DC position of bearing on ground per se sufficient



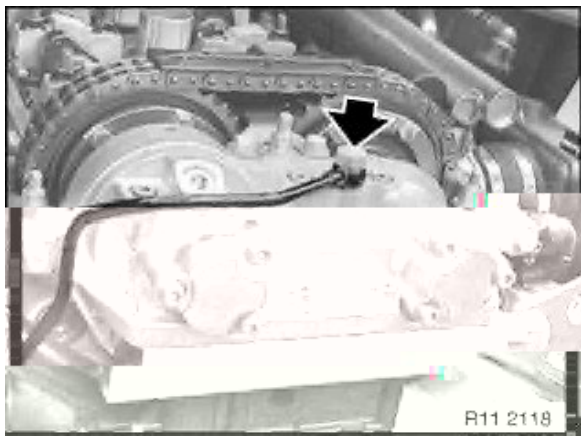
**Caution!**

When the engine is switched off ANO to ensure the 1st cylinder position which is dangerous to engine starting

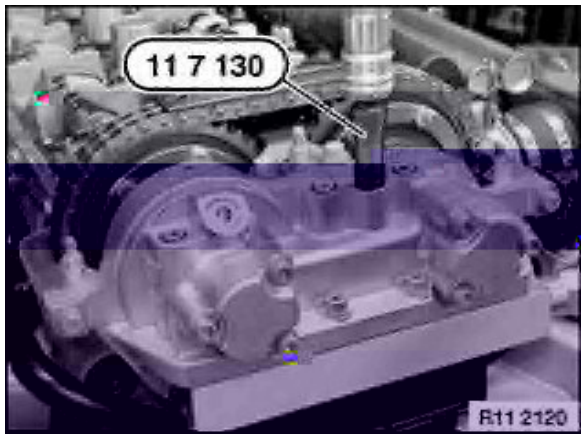
When the 1st cylinder ANO adjustment unit is used proceed to the next adjustment position before the ANO adjustment unit is re-ordered



Detach each of one from the second



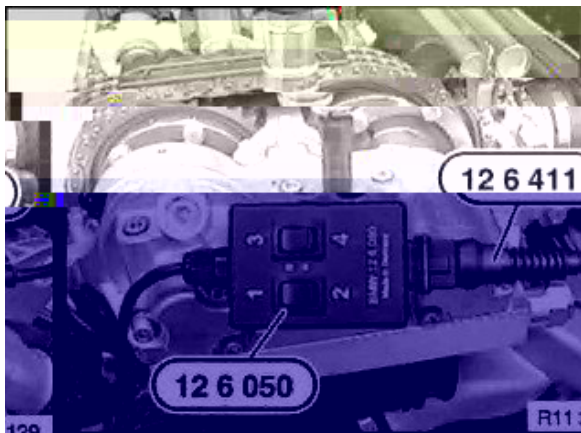
Re o e o ne fro ANO a d us: en un



Fr spec 11 1 1 ANO a d us: en un  
Connea co pressed r 2 o a r



D sconnea pug connea on on so eno d a e



Connea spec 12 n con un on h spec  
12 11 fro spec 12 1 1 so eno d  
a es Connea spec 12 11 o correer s on  
e r a rery

Aveve y press ogge s ch unons la nd 2 se es on  
spec 12

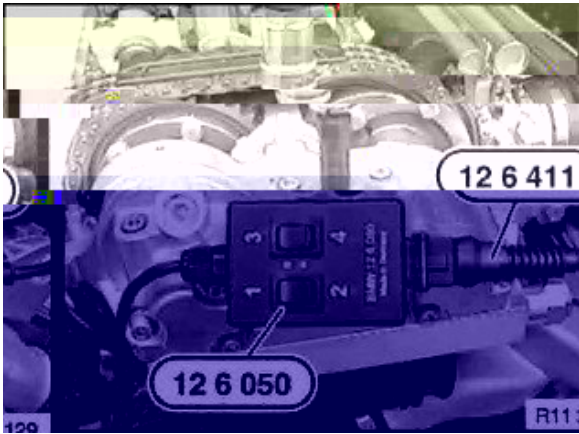


Press and hold down toggle switch upon 1 on speed  
 rev 12

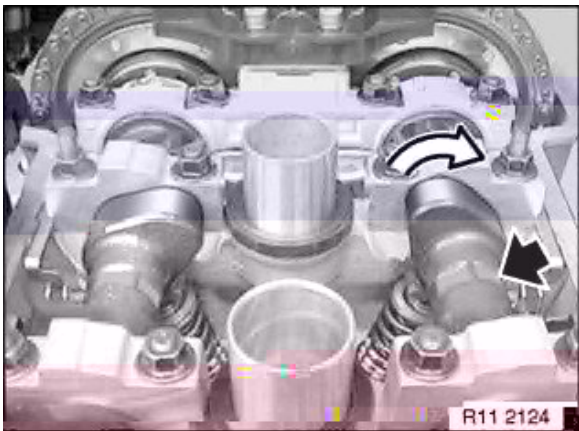
As the reverse needle shifts, the gear is engaged and  
 direction of rotation is reversed.

**Note:**

Pressure in ANO gear is engaged and reverse  
 gear is reversed further.



After every pressure toggle switch, the engine and  
 speed rev 12

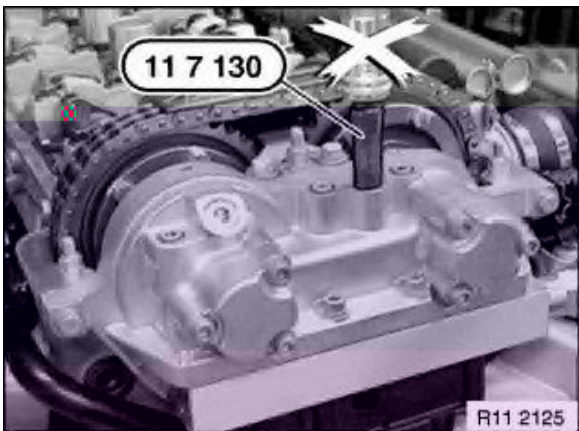


Press and hold down toggle switch upon 1 on speed  
 rev 12

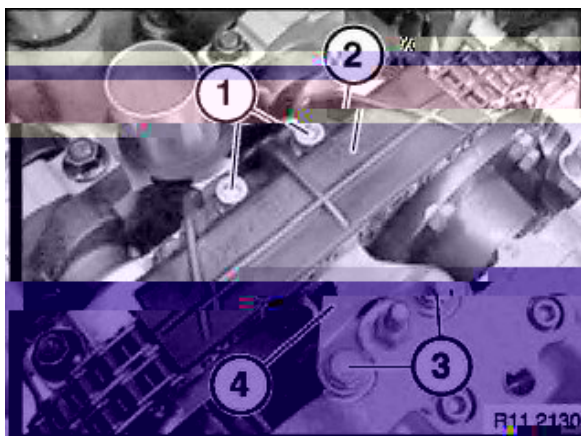
As the reverse needle shifts, the gear is engaged and  
 direction of rotation is reversed.

**Note:**

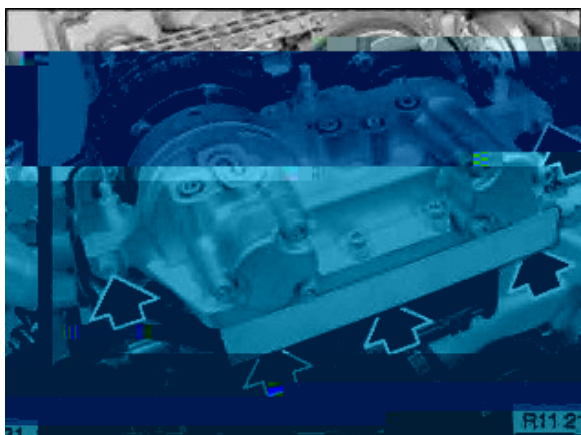
Pressure in ANO gear is engaged and reverse  
 gear is reversed further.



Disconnect the pressure from speed rev 11 1



Remove screws 1  
 Remove screw 2  
 Remove screws  
 Remove holder



Remove screws on ANO and use in unit

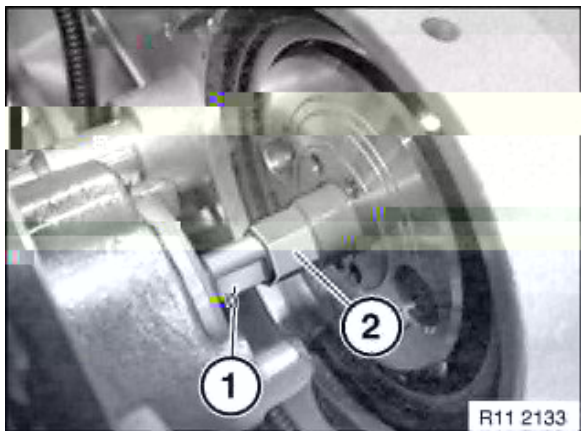


**Caution!**

Make sure that compressed air is not connected  
 Press down on special tool 12 6 050 to ensure that the oil cap of the hydraulic pump is engaged

**Caution!**

Do not damage ANO and use in unit  
 Carefully detach ANO and use in unit from adapter see section under hood

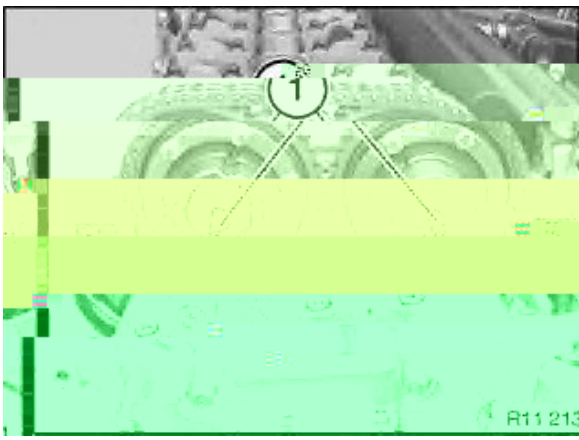


Detach ANO and use in unit hydraulic pumps on exhaust and inlets desired

**Caution!**

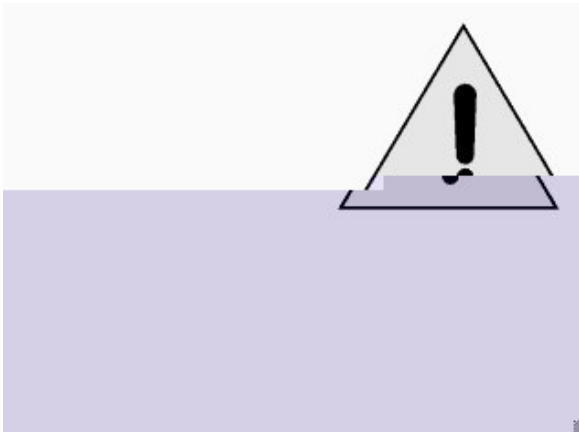
CC thread  
 Because of narrow surface 1 and remove hex head 2  
 Remove screw connection of forked shaft on near and exhaust sides supporting ANO and use in unit with your hand in the process

Remove ANO adjustment unit



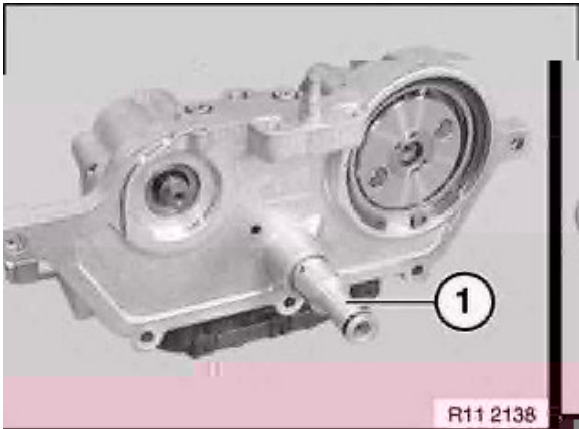
**Note:**

When the ANO adjustment unit is removed, the VANOS gear on the engine must be locked.

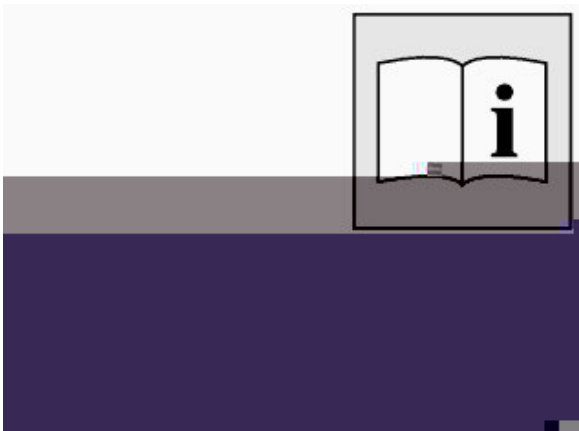


**Caution!**

When the engine is running, the ANO adjustment unit is rotated. The VANOS gear and its position must be noted. The VANOS gear should not be reconnected and the valves should be checked.

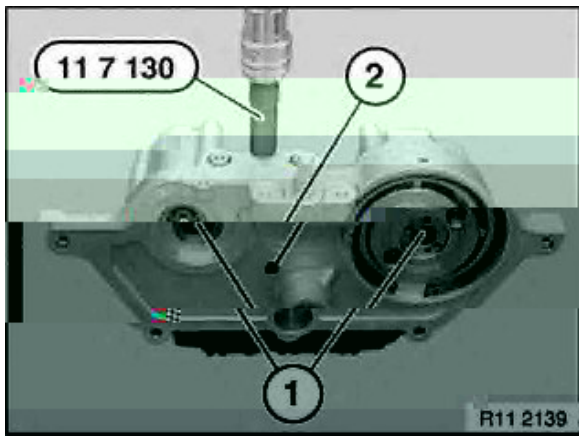


Check control valve 1 from ANO adjustment unit



**Installation**

The installation of the ANO adjustment unit is described separately from the reassembly sequence for removal and installation differences.



**Note:**

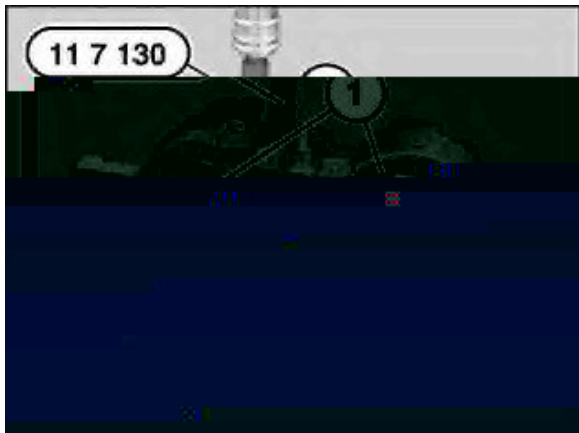
Procedure for replacement or repair is then described in the hydraulic systems 1 of the ANO and dust extraction "read and" and the head gasket are not accessible.

For specification 11 1 to ANO and dust extraction unit.

**Caution!**

Oil is sprayed when compressed air is connected. Connect compressed air to air

Connect compressed air to air

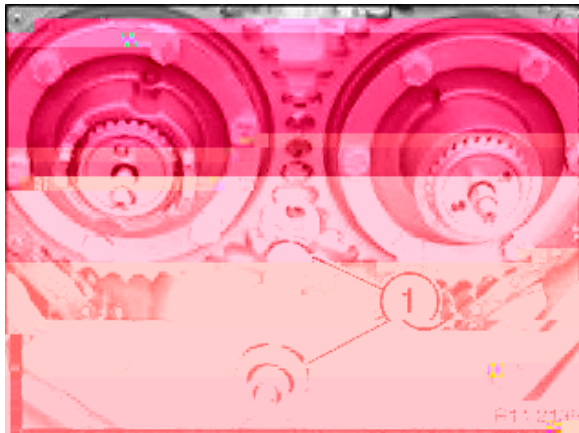


Connect specification 12 in connection with specification 12 11 to the end of the ANO and dust extraction unit.

Connect specification 12 11 to the correct valve position every

Press down on specification 12 the so end of the seal is raised and the oil chamber of the hydraulic systems is extended. The hydraulic systems 1 extend

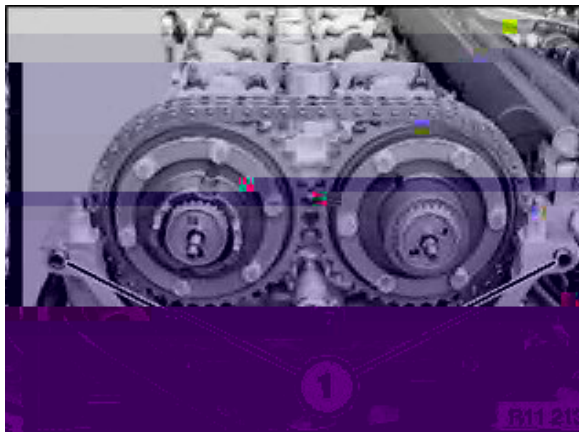
Disconnect compressed air from specification 11 1. Release specification 11 1 from ANO and dust extraction unit.



**Note:**

After servicing the control valve in the engine, a check suggests that the friction components are essential for replacement of the control valve.

Replace the rings 1 and cover with a seal. Press the control valve in the cylinder head.

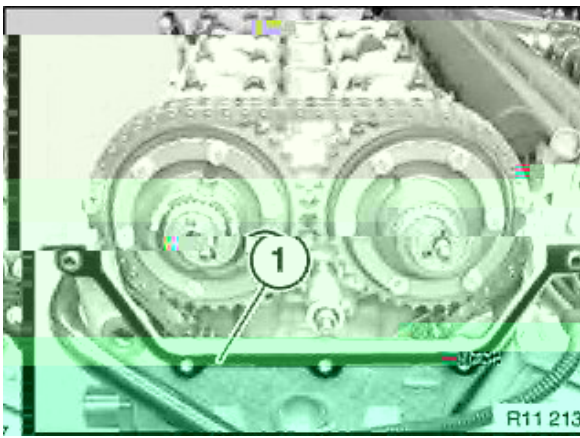


Check the seal 1 for damage and correct installation.

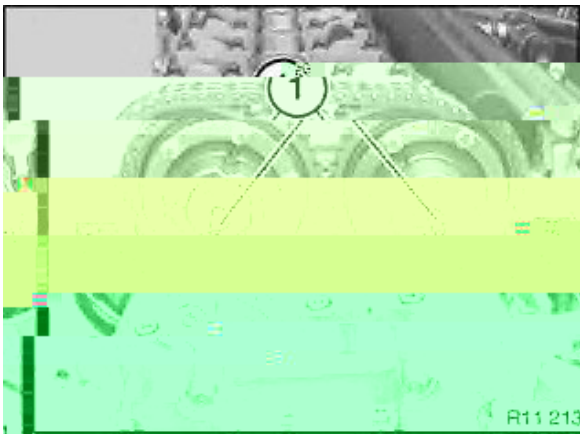
## Rep ce g s e 1

### Caution!

Note direction of installation of g s e  
n s g s e 1 n such a y b e d ng p n s o  
ANO a d u s e n u n t  
ecure g s e 1 w h s e ng co mp o u n d o n e d p e r  
s e e e s



Pa ce ANO a d u s e n u n t o n r o e h e d s b f s 1

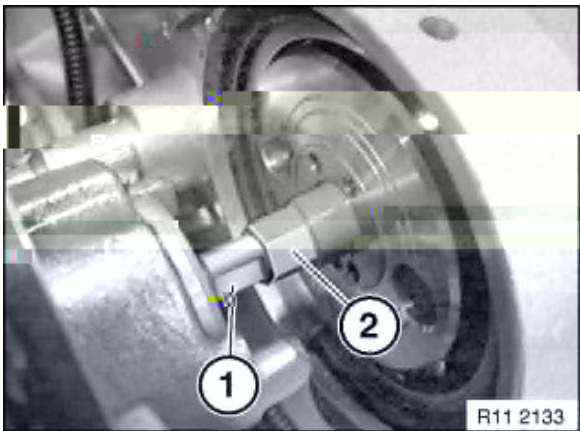


### Caution!

CC w h r e d  
h e n g h e n n g d o n r o e h e d s b f s s u p p o r t ANO  
a d u s e n u n t w h y o u r h a n d  
r p o n d h e d r o n 1 a n d s c r e w o g e t h e r w h e n g o n 2  
a w e r e y e e e n e x b u s a n d n e s d e s n 1 2 u r n  
n c r e e n s

g h e n d o n s c r e c o n n e c t o n o f r o e h e d s b f o n n e a n d  
e x b u s s d e s

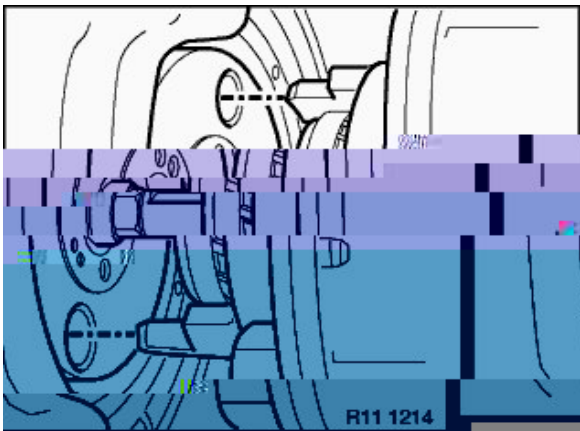
g h e n n g t o r q u e 1 N



A g n a d p s i o n p u p o d r e r o n s p n e h u

### Note:

P a t r e s h o s s c h e a c r e p r e s e n t a t i o n



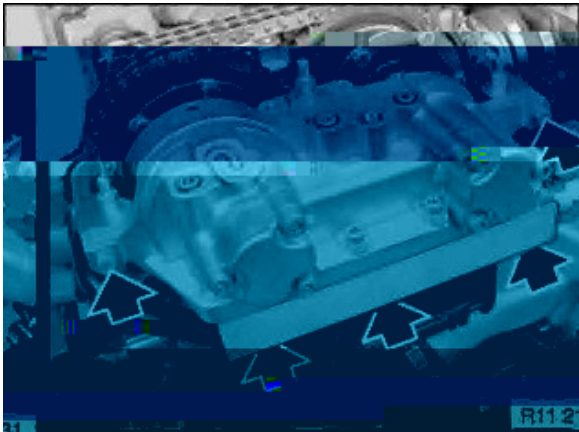




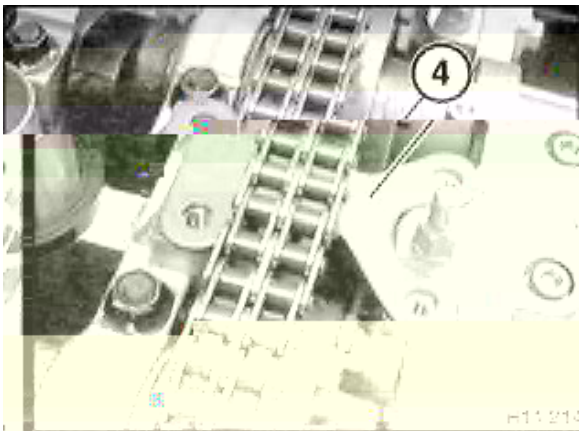
Press down on specification 12  
 suddenly the so-called release lever  
 escape from the hydraulic pressure of the ANO adjustment unit  
 suddenly push on ANO adjustment unit  
 cylinder head

**Caution!**

When this position is reached check position of adjustment pin  
 procedure and sign if necessary

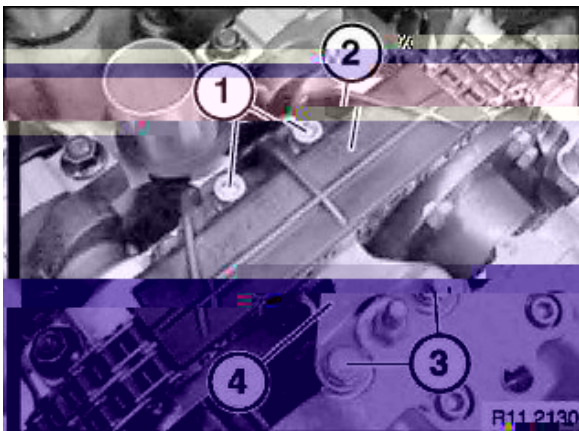


insert screws of ANO adjustment unit and given

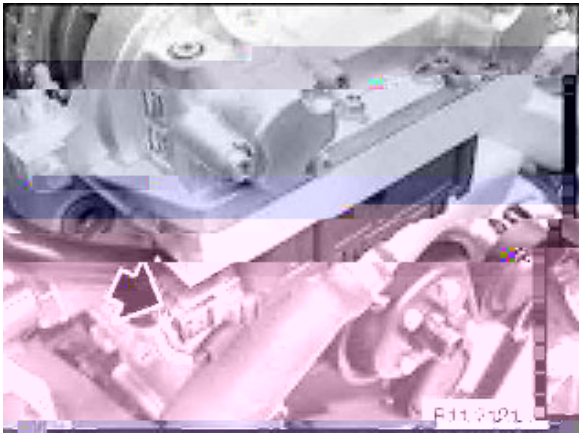


*Note:*

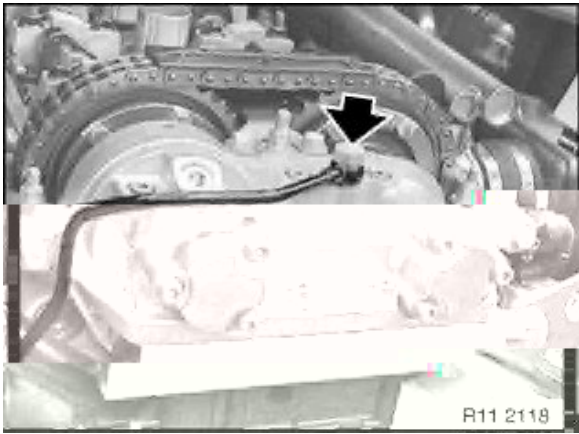
Check needed reaction  
 in order



insert screws and secure in order do not given  
 down screws yet  
 screws 2  
 insert screws 1  
 given down screws 1 and screws



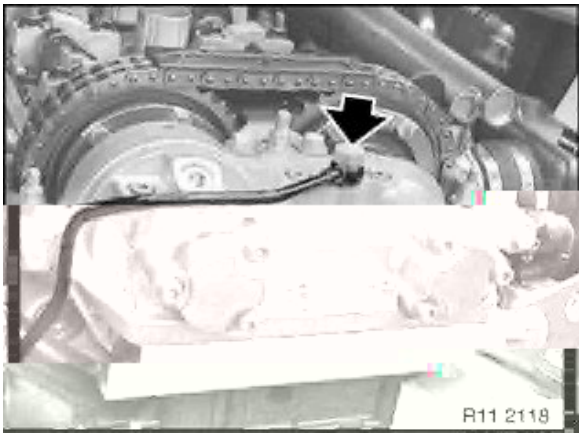
Disconnect the speed sensor and speed sensor  
 and re-secure the connections in the end of the  
 sensor screw connections in the end of the



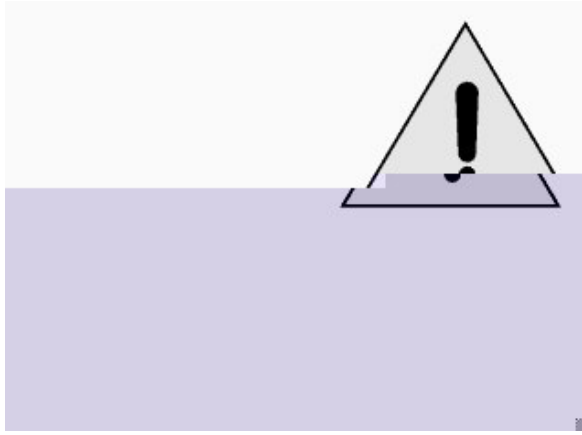
Replace the rings of the  
 sensor and do not give the



the screw and give the



give the of the  
 give the torque 11 AZ  
 Assemble the engine



### Caution!

here is the ANO system once it is opened  
in the first few seconds after it is opened its results may be very  
discernible "hearing noise"  
hearing noise does "not" indicate incorrect assembly  
hearing noise disappears soon after the oil pressure  
has built up and the system has been