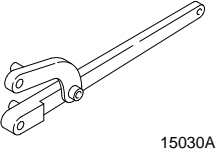
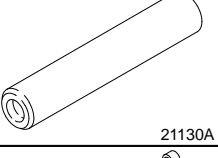
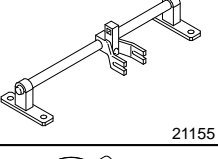
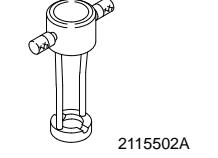
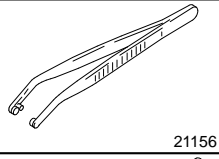
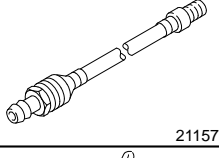
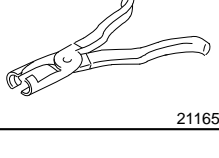


Seals – Valve Stem Renew (all) (21 238 0)**Special Tools**

 15030A	15-030 A Universal flange-holding wrench
 21130A	21-130 A Valve stem seal installer
 21155	21-155 Valve spring compressor
 2115502A	21-155-02A Adaptor for 21-155

 21156	21-156 Installer, valve collets
 21157	21-157 Connecting piece, air supply cylinder
 21165	21-165 Valve stem seal pliers

Workshop Equipment

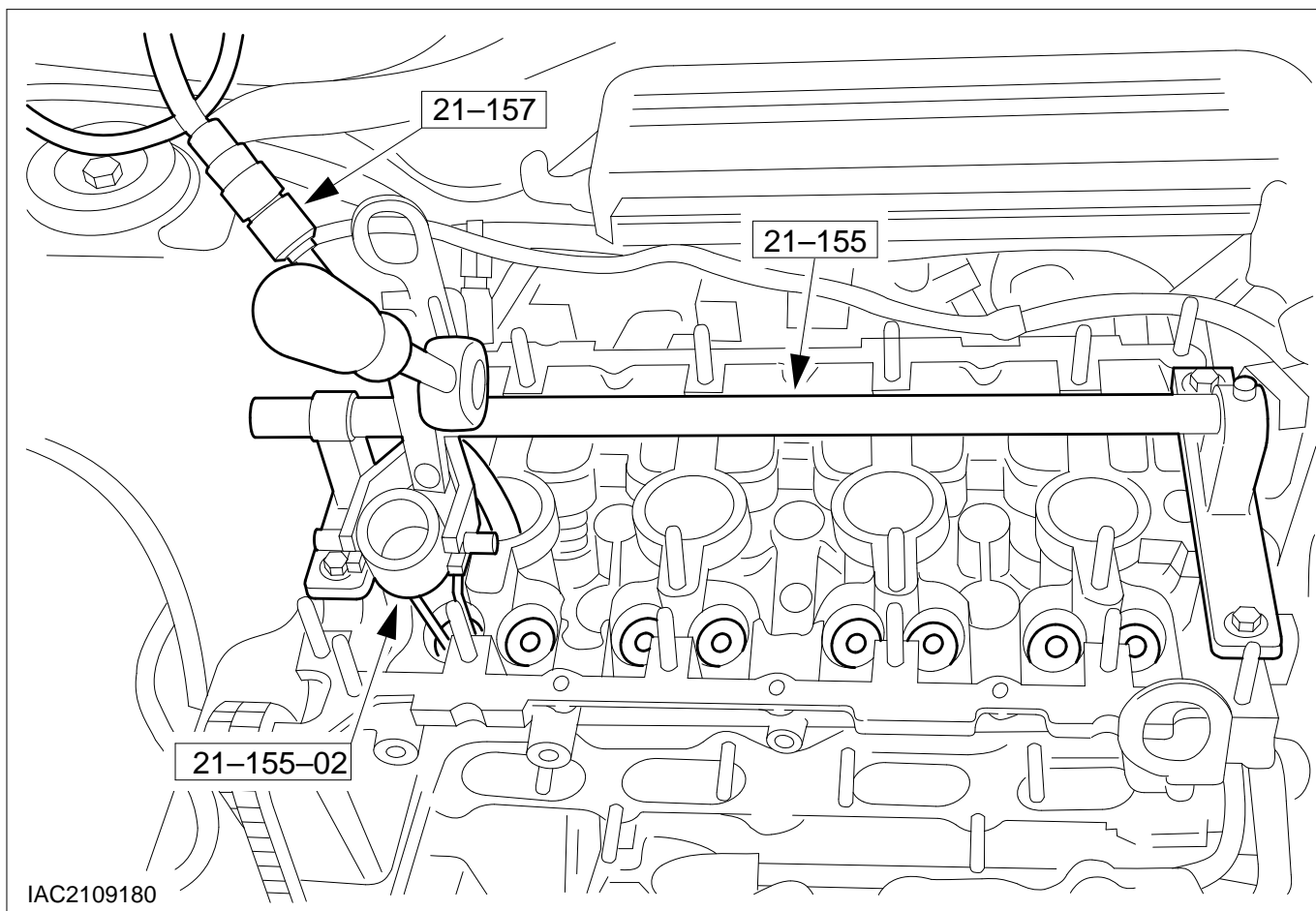
Brass drift	
-------------	--

Consumables

Cable ties	
------------	--

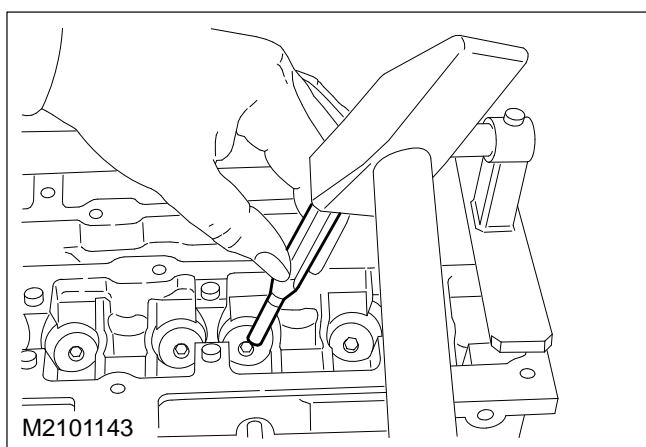
Renew

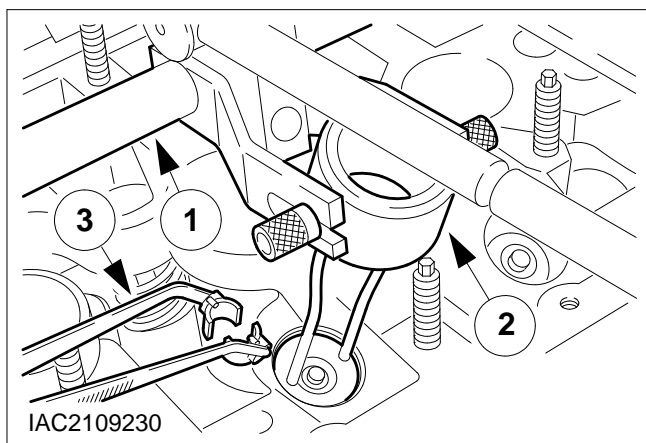
- 1. Remove camshafts as in operation 21 283 0.**
- 2. Remove the hydraulic tappets and keep them in order.**



⚠ CAUTION: Connect compressed air at 7 to 10 bar.

3. Install the valve spring compressor and adaptor.
4. Screw the adaptor into the spark plug thread.
5. Using a brass drift, loosen all valve spring retainers from the valve collets by a light blow on the valve spring retainer edge.

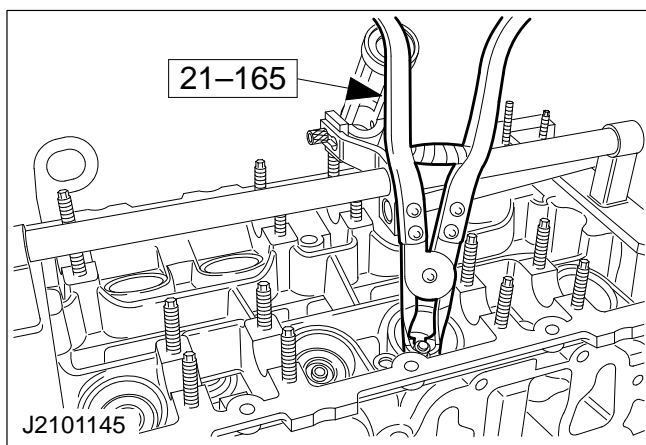




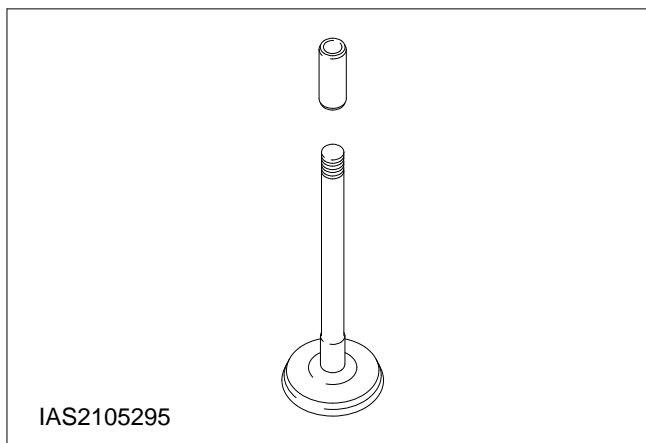
NOTE: Put all parts aside in order.

6. Remove valve springs.

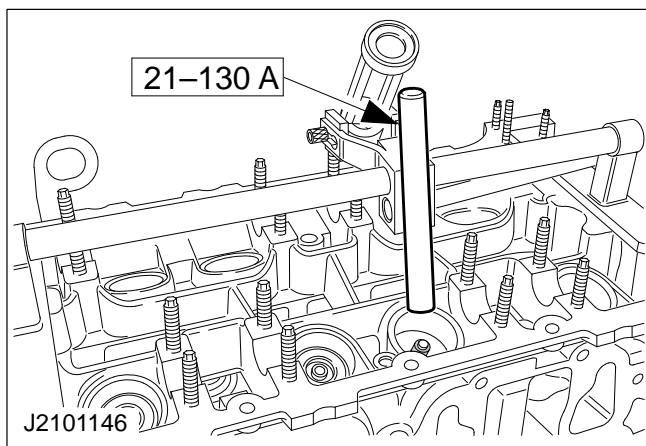
- 1 Put the tool onto the valve spring retainer.
- 2 Compress the valve springs.
- 3 Remove the collets using Special Tool 21-156, take out the valve springs and valve spring retainers.



7. Pull off the valve stem seals.

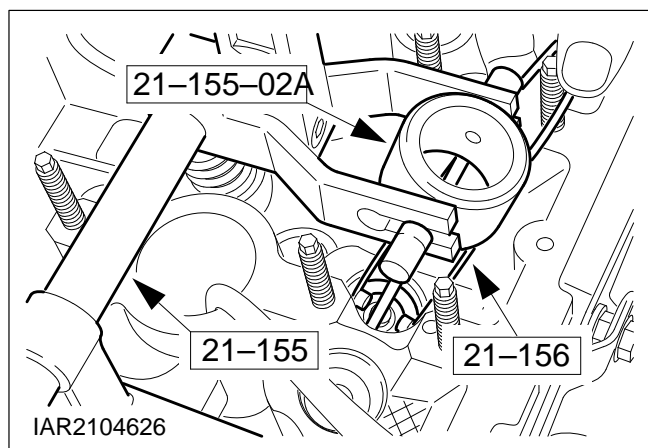


8. Valve stem seal fitting sleeve.



9. Install the valve stem seals.

- Cover the valve collet grooves with the fitting sleeve.
- Push on the valve stem seal.

**10. Install the valve springs.**

- Put the valve spring and valve spring retainer into position.

NOTE: Do not push the valve down.

- Compress the valve spring.
- Insert the collets.
- Release the valve spring and check that the collets are correctly seated.

11. Repeat sub-operations 5 to 9 for all other valves.**12. Fit the hydraulic tappets.****13. Remove the valve spring compressor and adaptor.****14. Install the camshafts as in operation 21 283 0.**