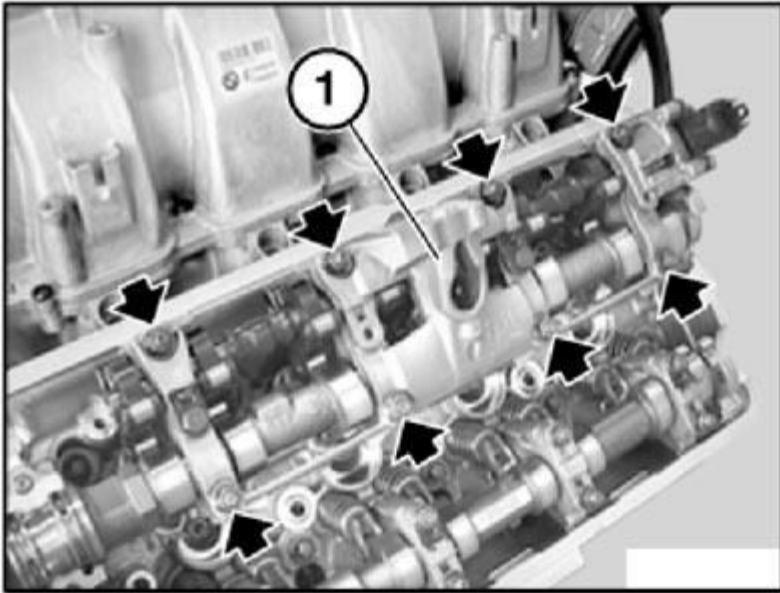


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**Fig. 184: Identifying Marked Bearing Caps Of Inlet Camshaft**  
Courtesy of BMW OF NORTH AMERICA, INC.

Release 8 nuts of bearing bracket (1) from outside to inside.



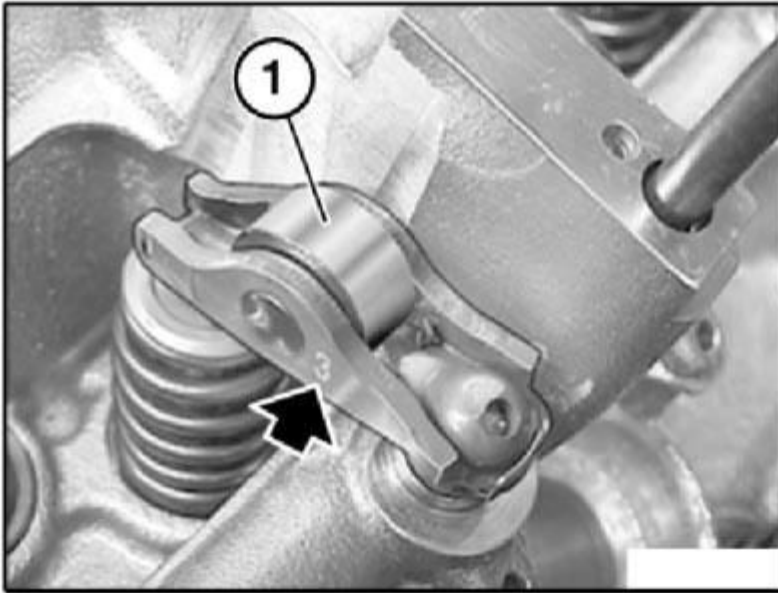
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**Fig. 185: Identifying Nuts Of Bearing Bracket**  
Courtesy of BMW OF NORTH AMERICA, INC.

**NOTE:** Rocker arms are freely accessible after bearing bracket has been removed.

Do "not" remove rocker arm (1) on inlet side.

**IMPORTANT:** Rockers arms (1) are divided into individual tolerance classes. The tolerance classes are designated as illustrated with the numbers from 1 to 4. Used rocker arms (1) may only be reused in the same position.

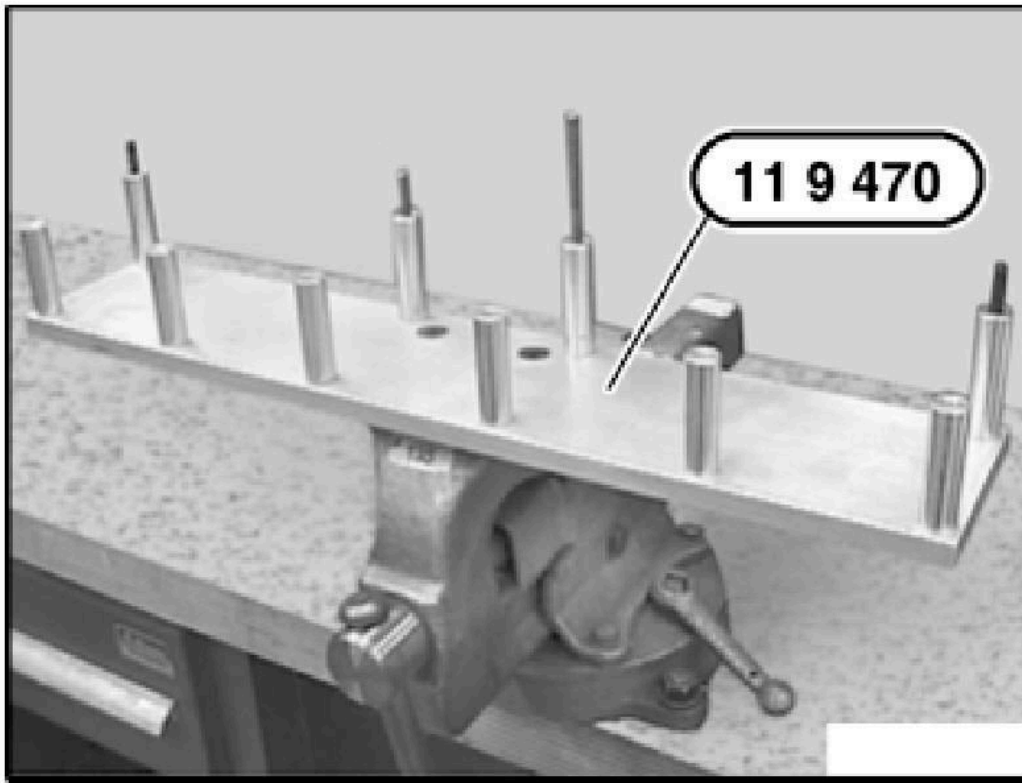


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**Fig. 186: Identifying Rocker Arm**  
Courtesy of BMW OF NORTH AMERICA, INC.

When replacing rocker arms (1) on inlet side: install rocker arms of the same tolerance class in the same position.

Clamp special tool 11 9 470 as illustrated in a vise.

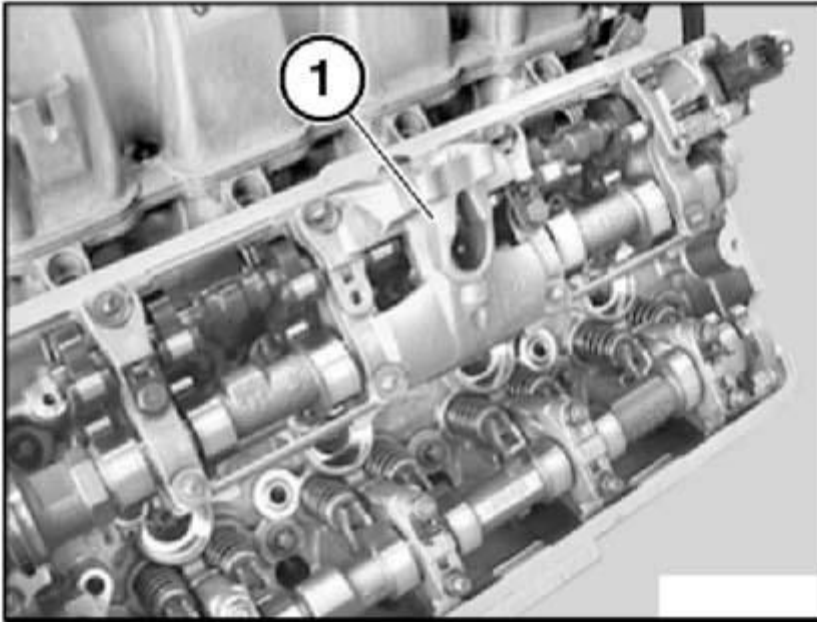


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**Fig. 187: Clamping Special Tool 11 9 470 In A Vise**  
Courtesy of BMW OF NORTH AMERICA, INC.

**IMPORTANT: Do not tilt bearing bracket (1).**

Carefully lift out bearing bracket (1).

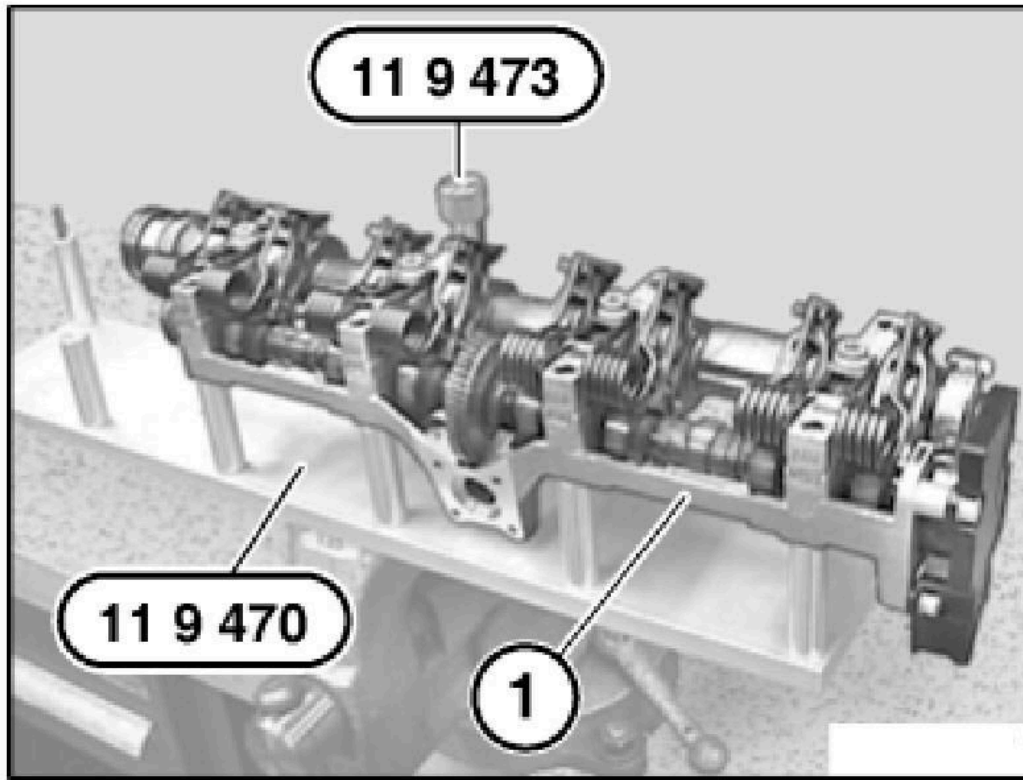


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**Fig. 188: Identifying Bearing Bracket**  
Courtesy of BMW OF NORTH AMERICA, INC.

Place bearing bracket (1) with inlet camshaft and eccentric shaft as illustrated on special tool 11 9 470.

Secure bearing bracket (1) with a nut (special tool 11 9 473).

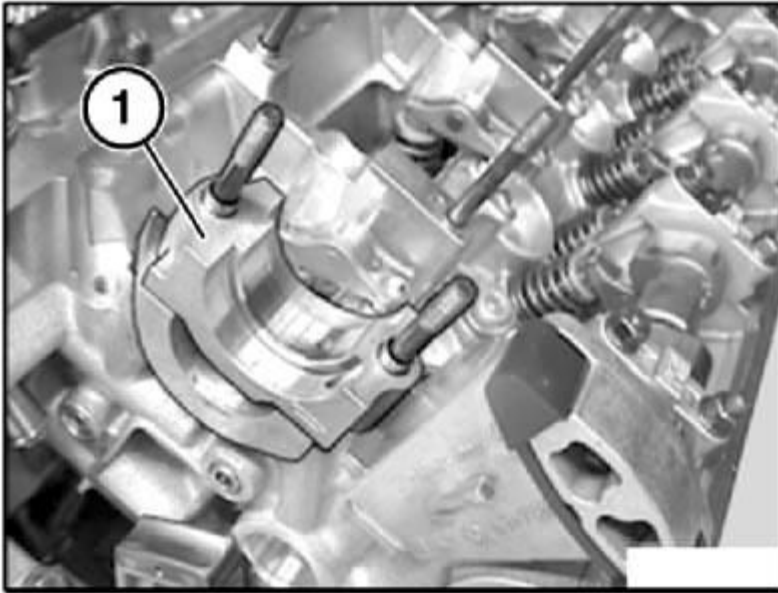


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**Fig. 189: Securing Bearing Bracket With Nut**  
Courtesy of BMW OF NORTH AMERICA, INC.

**IMPORTANT:** The lower section of the bearing bracket (1) is machined with the cylinder head and must not be mixed up.

**NOTE:** Lower section of bearing bracket (1) remains on cylinder head.

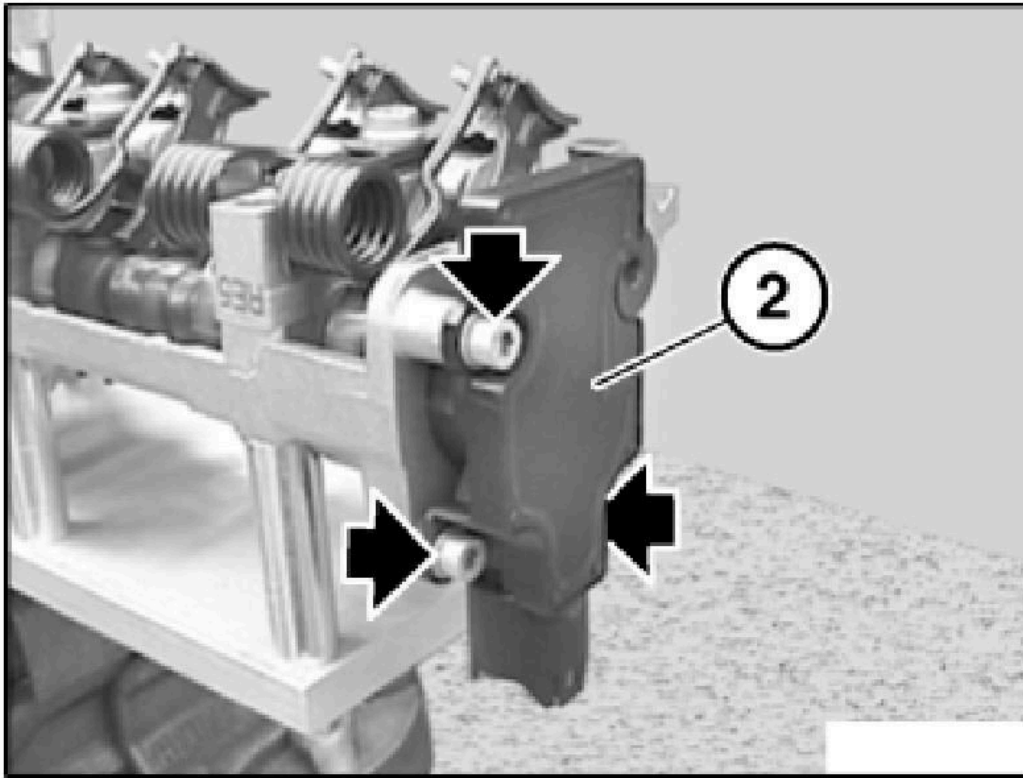


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**Fig. 190: Identifying Lower Section Of Bearing Bracket**  
Courtesy of BMW OF NORTH AMERICA, INC.

**NOTE:** This work step will only be necessary if after the inlet camshaft has been removed the eccentric shaft is also to be removed.

If necessary, remove eccentric shaft sensor (2).



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**Fig. 191: Locating Eccentric Shaft Sensor Retaining Screws**  
Courtesy of BMW OF NORTH AMERICA, INC.

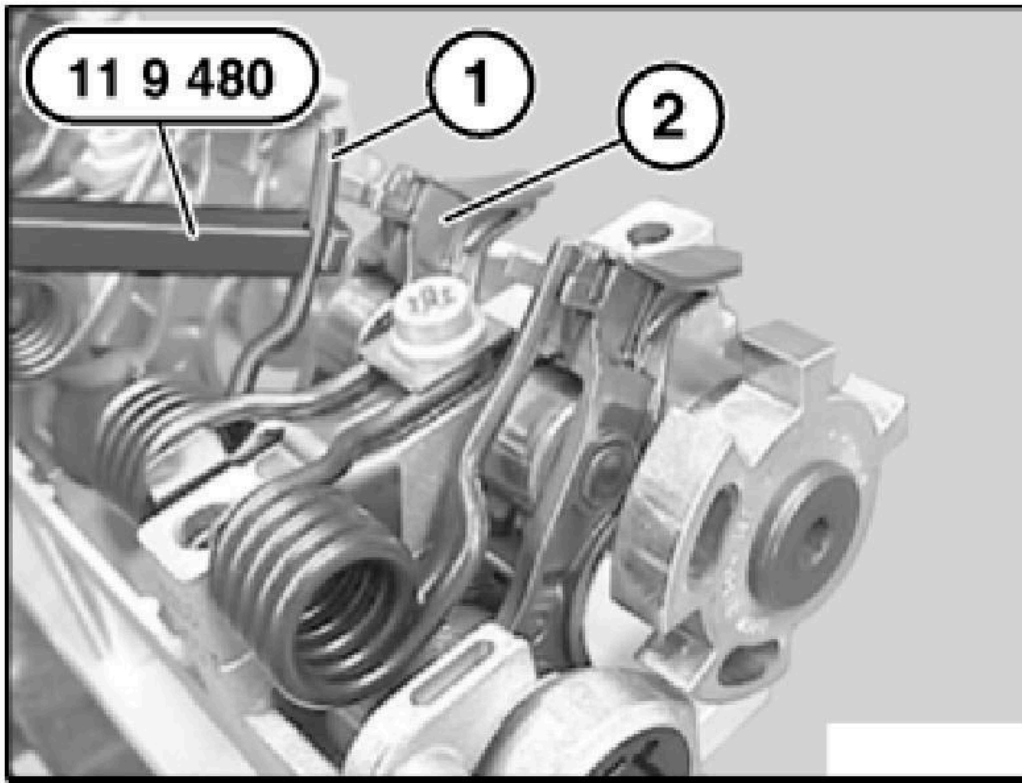
**NOTE:** Removal of the intermediate levers and torsion springs is described on the 8th cylinder. The same procedure is applicable to cylinders 5 to 7.

Raise one end of torsion spring (1) with special tool 11 9 480.

Lift out intermediate lever (2) and set down in an orderly fashion.

**IMPORTANT:** Keep holding torsion spring (1) with special tool 11 9 480.



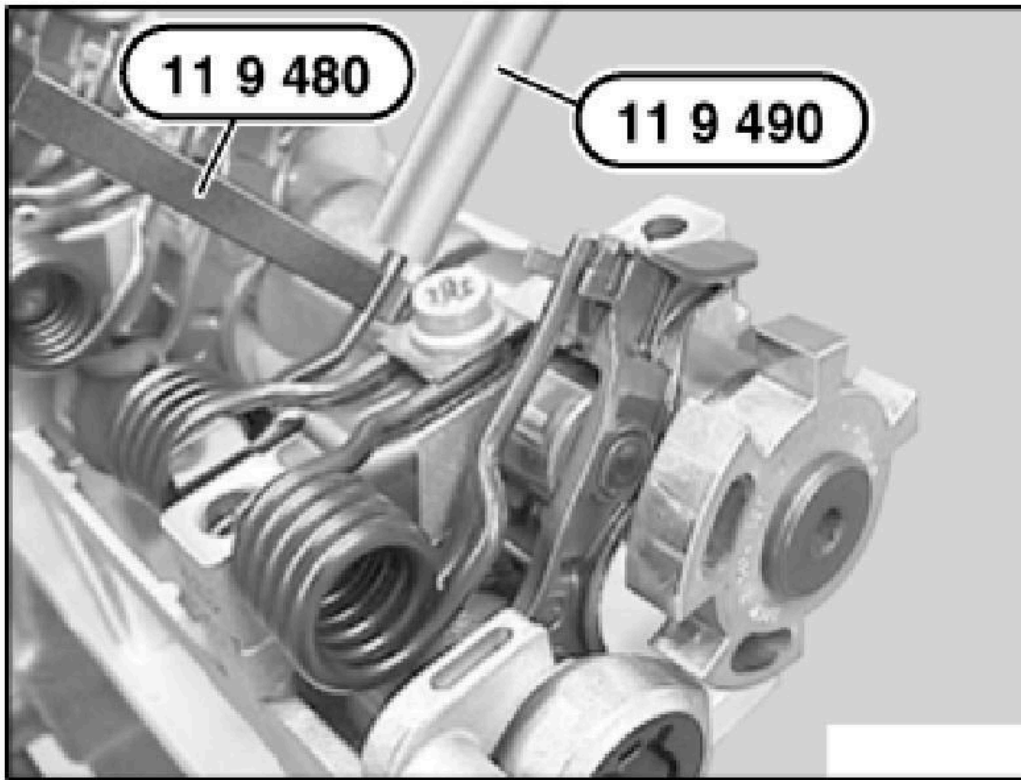


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**Fig. 192: Raising Torsion Spring Using Lever**  
Courtesy of BMW OF NORTH AMERICA, INC.

Attach special tool 11 9 490 to end of torsion spring.

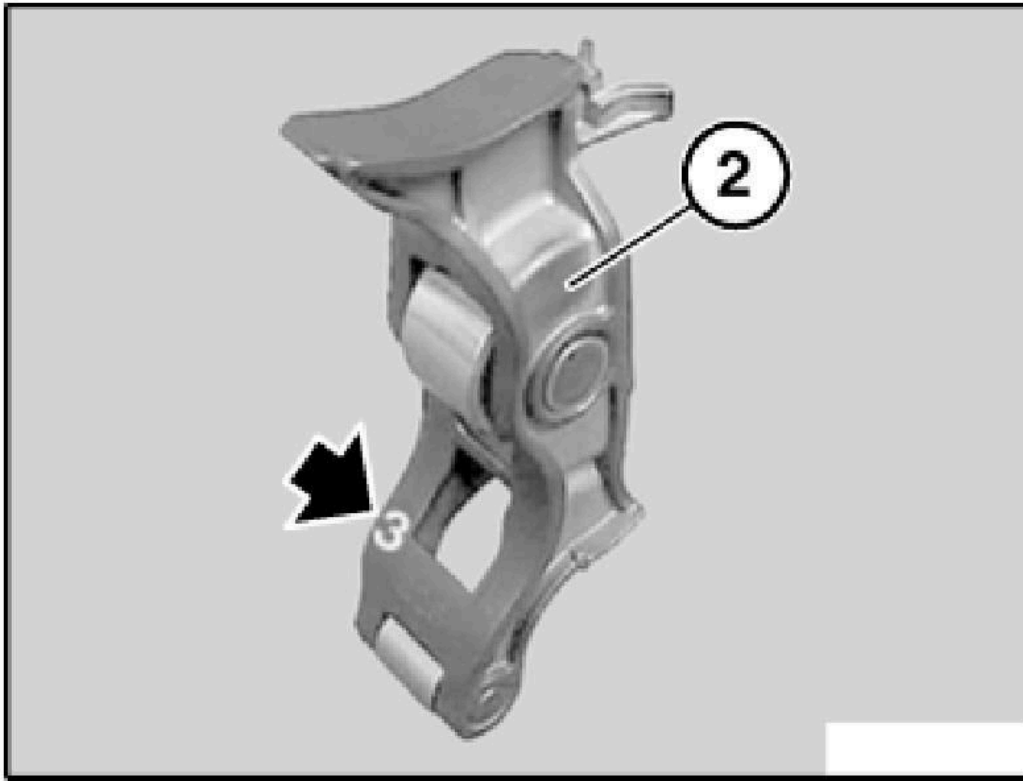
Support end of torsion spring protected with special tool 11 9 490 on inlet camshaft.



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**Fig. 193: Attaching Special Tool To End Of Torsion Spring**  
Courtesy of BMW OF NORTH AMERICA, INC.

**IMPORTANT:** Intermediate levers (2) are divided into individual tolerance classes. Only intermediate levers of the same tolerance class may be fitted in a single cylinder head. The tolerance classes are designated as illustrated with the numbers from 1 to 5. Used intermediate levers (2) may only be reused in the same position.



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**Fig. 194: Identifying Intermediate Lever Tolerance Class Number**  
Courtesy of BMW OF NORTH AMERICA, INC.

Raise second end of torsion spring (1) with special tool 11 9 480.

Lift out intermediate lever (2) and set down in an orderly fashion.

**IMPORTANT: Keep holding torsion spring (1) with special tool 11 9 480.**