

Service-Information Motorcycle



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Service Department

Group: 11
Engine

June 1990
11 043 90
(2412)

For USA Only

Improved Boxer Valve Components - Unleaded Fuel

The evolution of the Boxer engine, due to emission controls and changing fuels, has resulted in a net increase in combustion temperatures from 1978 to present. Over this period of time numerous changes have been made to components to maintain engine reliability at these higher temperatures.

The changes made to the 1988 and later R100 models have proven so effective in minimizing valve lash wear between service intervals that these components have been adapted for all previous Boxer engines and are available through Spare Parts as follows:

Exhaust Valve Seat: Improved alloy greatly increases heat transfer between valve and cylinder head to eliminate valve recession, yet be compatible with unleaded fuels.

Valve Guide: Improved alloy increases heat conductivity between valve and cylinder head. This also reduces tendency to overheat valves.

Exhaust Valve: On R100 models, a 30° valve seat face is used to increase the heat transfer areas (wider seat width).

Current listed part numbers:

R100 Exhaust Valve 30° x 40 mm Ø 11 34 1 338 285 ⁴⁶⁰⁵

Exhaust Valve Seats:

R100	30° x 40 mm Ø + 2 mm	11 12 1 338 308 [~]	+ 4 mm	11 12 1 338 309✓
*R100	45° x 40 mm Ø + 2 mm	95 12 1 338 308	+ 4 mm	95 12 1 338 309
R90/90S	45° x 40 mm Ø + 2 mm	11 12 1 338 343 [!]	+ 4 mm	11 12 1 338 344
R75	45° x 38 mm Ø + 2 mm	11 12 1 337 899	+ 4 mm	11 12 1 337 900
R60	45° x 36 mm Ø + 2 mm	11 12 1 338 346	+ 4 mm	11 12 1 338 347
R50	45° x 34 mm Ø + 2 mm	11 12 1 337 894	+ 4 mm	11 12 1 337 895

*On pre-1988 R100 models with 45° valves, if replacement valves are not needed, a special seat has been made to enable you to bring the valve seat width at 45° to a full 2 mm. For this reason we do not recommend the seat listed (part nos. 11 12 1 338 349 & 11 12 1 338 350) on the Parts Fiche for this application, as a 2 mm wide seat face cannot be achieved.

Please initial and route to the following before filing

Service	Parts	Sales	Warranty	Technicians

914383-2

Valve **14.06 mm O Standard 11 12 1 338 433
Guide: 14.25 mm O Over-Size 11 12 1 338 445

**This is a standard replacement guide which is pre-reamed for precise replacement fit.

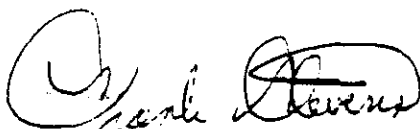
Unleaded Fuels: Only the new exhaust valve seats are required when converting an older model for unleaded fuel use. Replace the valves or intake valve seats only if they are worn beyond specifications, as no modification to these parts is required for exclusive use of unleaded fuels.

We recommend that valve seat installation be entrusted only to a workshop specializing in this type of repair, utilizing approved BMW procedures. A bulletin will be forthcoming with valve seat installation details.

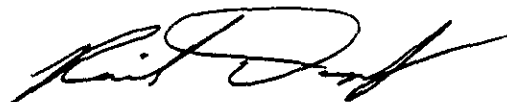
Please refer to the Parts Pricing circular you will be receiving regarding the prices of the aforementioned parts. Many prices have been reduced since the June, 1990 Price Book.

Very truly yours,

BMW of North America, Inc.



Frank Stevens
National Service Manager
FS:je1/255.7



Richard Dampf
National Technical Manager