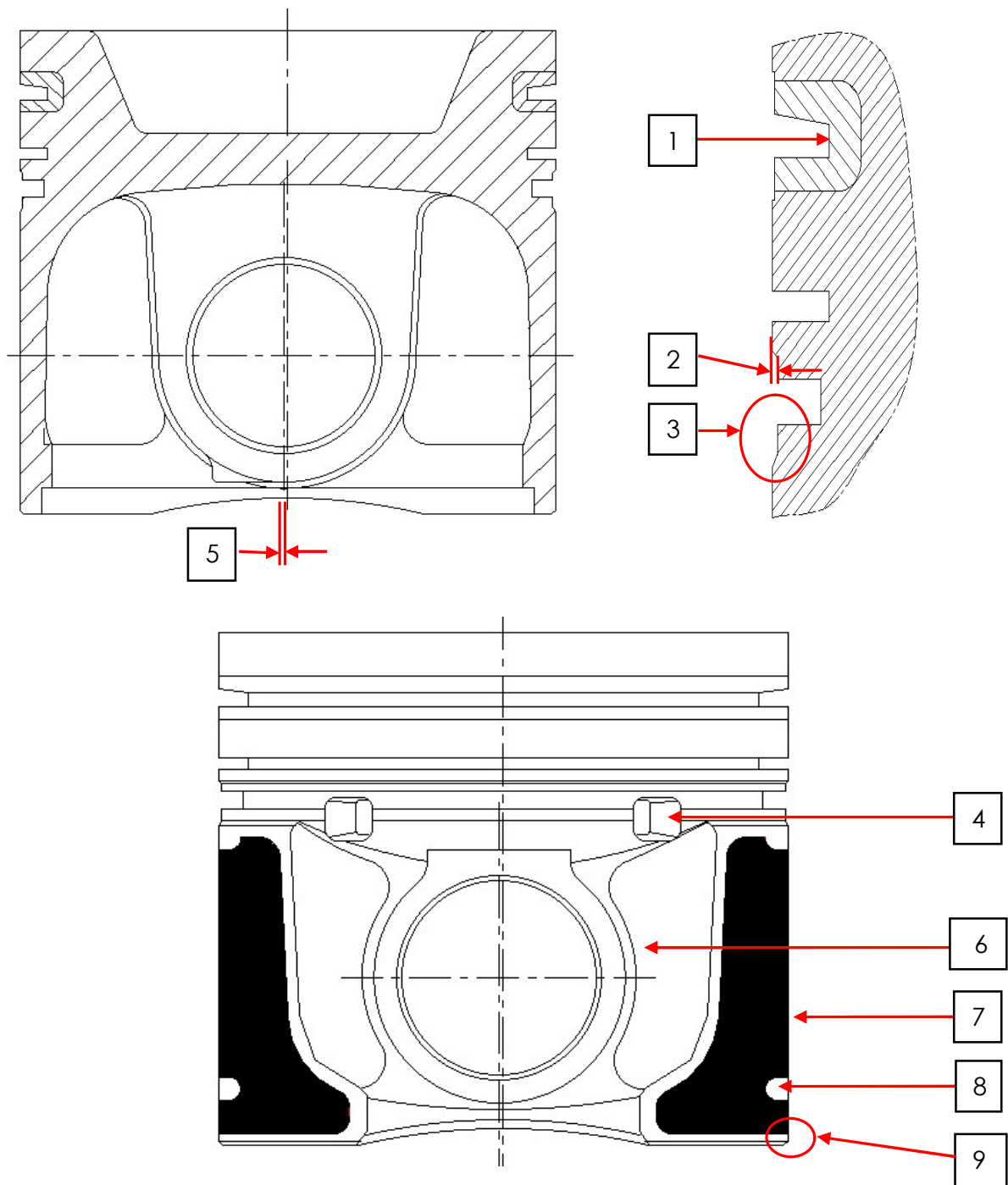


## TECHNICAL BULLETIN – EICHER 683/483 CNG PISTON SET

USHA is pleased to introduce Eicher 683/483 CNG piston set in our HCV/LCV product range.

USHA Eicher 683/483 CNG piston set has following special features:

### PISTON:-



S. No.	SPECIAL FEATURE	BENEFIT TO CUSTOMER
1)	<b>HIGH NICKEL WEAR RESISTANT RING CARRIER (RCP):</b> Top groove of this piston is made of high nickel wear resistant ring carrier insert which is manufactured using centrifugal casting technology.	<ul style="list-style-type: none"> <li>• Longer life of piston due to negligible wear of top groove.</li> </ul>
2)	<b>STEP CUT IN SECOND RING LAND:</b> Second ring land is provided with a step cut to provide better seating & stability of intermediate compression ring.	<ul style="list-style-type: none"> <li>• Helps in controlling blow-by &amp; reducing oil consumption.</li> </ul>
3)	<b>“J” CUT:</b> This piston has been provided with a unique “J” cut below the oil ring groove area.	<ul style="list-style-type: none"> <li>• “J” cut provides all time lubrication to piston skirt.</li> <li>• No piston seizure in extreme limits of normal working conditions.</li> </ul>
4)	<b>QUICK OIL RETURN SLOTS (QORS):</b> Two nos. of Quick Oil Return Slots (QORS) are provided on each side of the piston above the pin bore, half in groove & half in window.	<ul style="list-style-type: none"> <li>• Quick drainage of oil and hence lower oil consumption.</li> </ul>
5)	<b>PISTON-PIN BORE OFFSET:</b> Pistons are provided with a piston pin bore offset to avoid piston slap. Piston pin bore offset means that the centre line of piston is slightly offset from the centre line of pin bore. Due to this offset, piston tilts at TDC & BDC smoothly & prevents slapping with liner.	<ul style="list-style-type: none"> <li>• Reduced engine noise.</li> </ul>
6)	<b>AS CAST HYDRODYNAMIC WINDOW:</b> New hydrodynamic ‘As Cast’ window designed by our collaborator, not only provides more space for oil drainage, but also provides more skirt area for piston ring guidance.	<ul style="list-style-type: none"> <li>• Faster drainage of oil due to more space helps in reducing oil consumption.</li> <li>• Better guidance to rings.</li> </ul>
7)	<b>SKIRT COATED WITH NEW “D-10” COATING</b>	<ul style="list-style-type: none"> <li>• <b>D-10</b> permanent coating provides better wear resistance &amp; helps in initial lubrication to avoid piston scuffing.</li> </ul>
8)	<b>MEASURING POINTS ON THE SKIRT:</b> Two points on both sides of the skirt.	<ul style="list-style-type: none"> <li>• Provided for easy diameter verification.</li> </ul>
9)	<b>BOTTOM CHAMFER:</b> A smooth chamfer is provided at the bottom end of the piston which provides better hydrodynamic oil film.	<ul style="list-style-type: none"> <li>• Helps in regulating oil supply, reduces skirt wear &amp; hence longer life.</li> </ul>

<b>TECHNICAL DATA- USHA EICHER 683/483 CNG PISTON SET</b>		
<b>USHA CODE→H27/L27</b>		
<b>Nominal Bore Diameter</b>	<b>mm</b>	<b>100.00</b>
<b>Piston Diameter</b>	<b>STD Size mm</b>	<b>99.870</b>
<b>Recommended Piston-Liner Clearance</b>	<b>mm</b>	<b>00.130</b>
<b>Compression Height</b>	<b>mm</b>	<b>60.59</b>
<b>Total Height</b>	<b>mm</b>	<b>90.09</b>
<b>Piston Pin-Pin Bore Clearance</b>	<b>mm</b>	<b>+0.007 to +0.019 (Clearance Fit)</b>

**PISTON RINGS:-**

This piston is designed to match with existing USHA Eicher 683/483 H04/L04 "CPDVM" ring set for low oil consumption and an excellent performance.