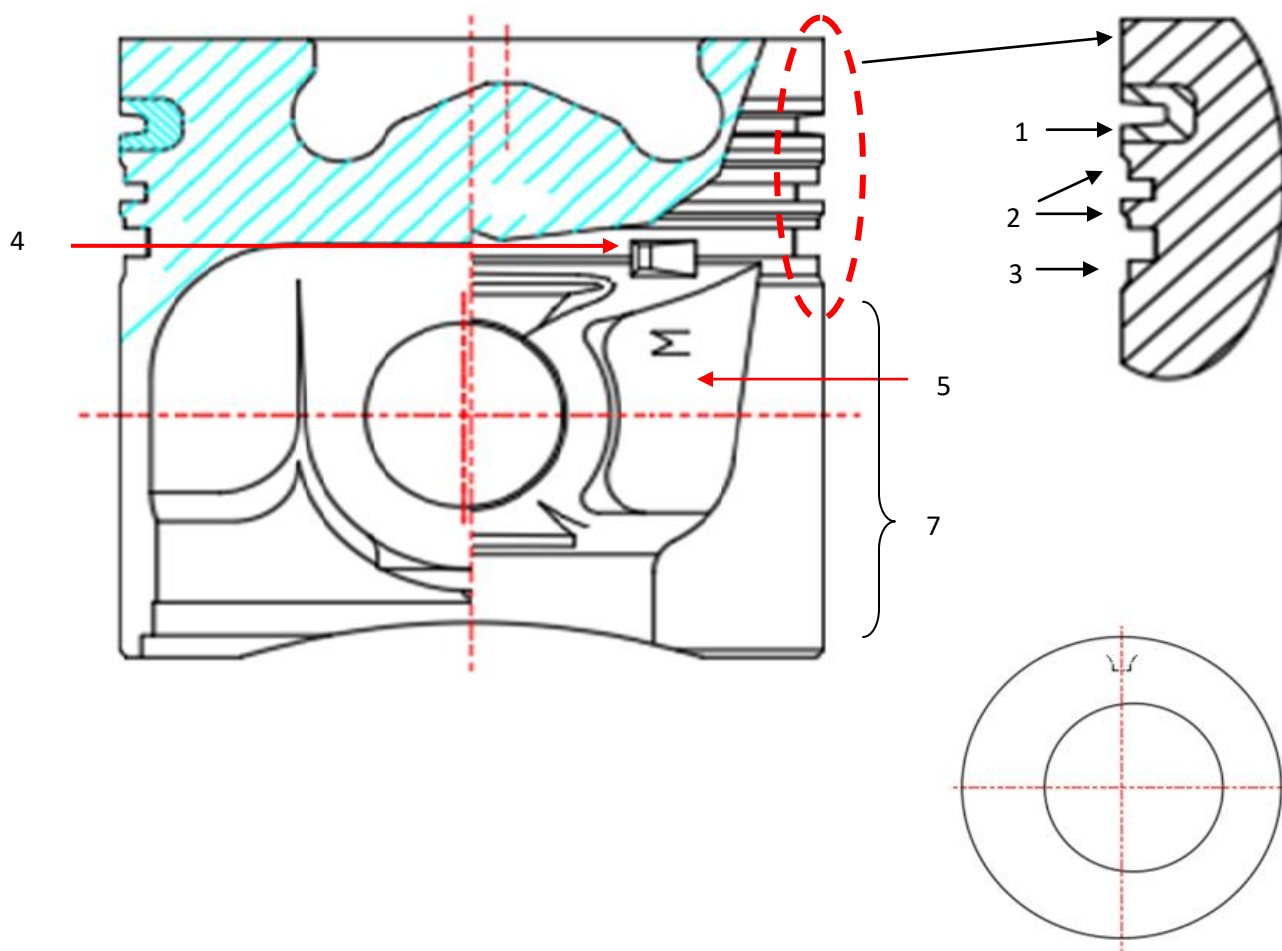


## Technical Bulletin – MAHINDRA DI LCCR Piston Set

USHA is pleased to introduce Mahindra DI LCCR Piston set. This piston is suitable for Mahindra Bolero m2DiCR vehicles.



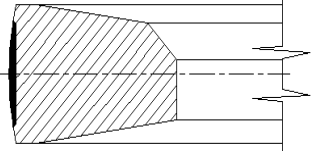
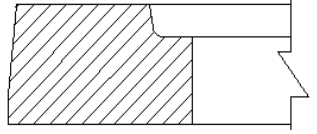
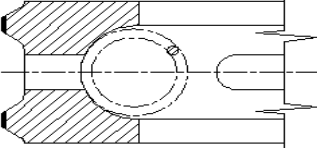
Special features of the piston are as follows:-

Sl. no.	Special features	Benefits to customer
1	<b>HIGH NICKEL WEAR RESISTANT RING CARRIER (RCP):</b> Top groove of this piston is made of high wear resistant ring carrier insert which is manufactured as per latest centrifugal casting process.	<ul style="list-style-type: none"> <li>• Longer life of piston due to better wear resistance of top groove.</li> </ul>
2	<b>STEP CUT IN 1<sup>st</sup> &amp; 2<sup>nd</sup> RING LAND:</b> Provides perfect seating of rings on the bottom flank of groove.	<ul style="list-style-type: none"> <li>• Helps in reducing blow-by.</li> <li>• Helps in 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 on 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 for each 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>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 better piston ring guidance.	<ul style="list-style-type: none"> <li>Faster oil drainage due to more space helps in reducing oil consumption.</li> <li>Better guidance to rings also helps in reducing oil consumption.</li> </ul>
6	<b>PISTON SURFACE COMPLETELY BONDERISED</b>	<ul style="list-style-type: none"> <li>Helps in preventing oxidation of piston and improves adhesion performance.</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>

TECHNICAL DATA- MAHINDRA DI BOLERO LCCR PISTON		USHA CODE→ L18
Nominal bore diameter	mm	88.90
Piston diameter	STD Size mm	88.81
Recommended piston-liner clearance	mm	0.090
Compression height	mm	51.35
Total height	mm	84.35
Piston pin- pin bore clearance	mm	+0.004 to +0.015 (Clearance fit)

**PISTON RINGS-** This piston is designed to match with existing USHA **Mahindra DI Bolero LTC/LCCR SSTR** R/S. Technical details of Bolero LCCR rings are as under:-

<b>TECHNICAL DATA- MAHINDRA DI BOLERO LCCR RINGS</b>						
Ring	Ring Configuration	Axial Thickness (mm)	Closed Gap		Surface Treatment	Cross-Section
			(mm)	(Thou)		
Top	Spl. Steel Keystone Inside Bevel	3.00	0.20-0.40	8-16	Inlaid Chrome & Parkerised	
Second	Taper I.D Step	2.50	0.80-1.00	32-40	Parkerised	
Oil Ring	HTCR	4.00	0.25-0.50	10-20	Lands Chrome Plated & Parkerised	

❖ This piston set and ring set is suitable for Mahindra m2DiCR engines and goes into many Mahindra vehicles listed below :

**m2DiCR Engine Sporting Models :-** Scorpio EX, Scorpio S2, Bolero Zlx/Slx/Sle, BMT m2DiCR, Thar m2DiCR, Bolero Pickup m2Dicr, Bolero Maxi Truck Plus m2DiCR.