



## SHRIRAM PISTONS & RINGS LTD.

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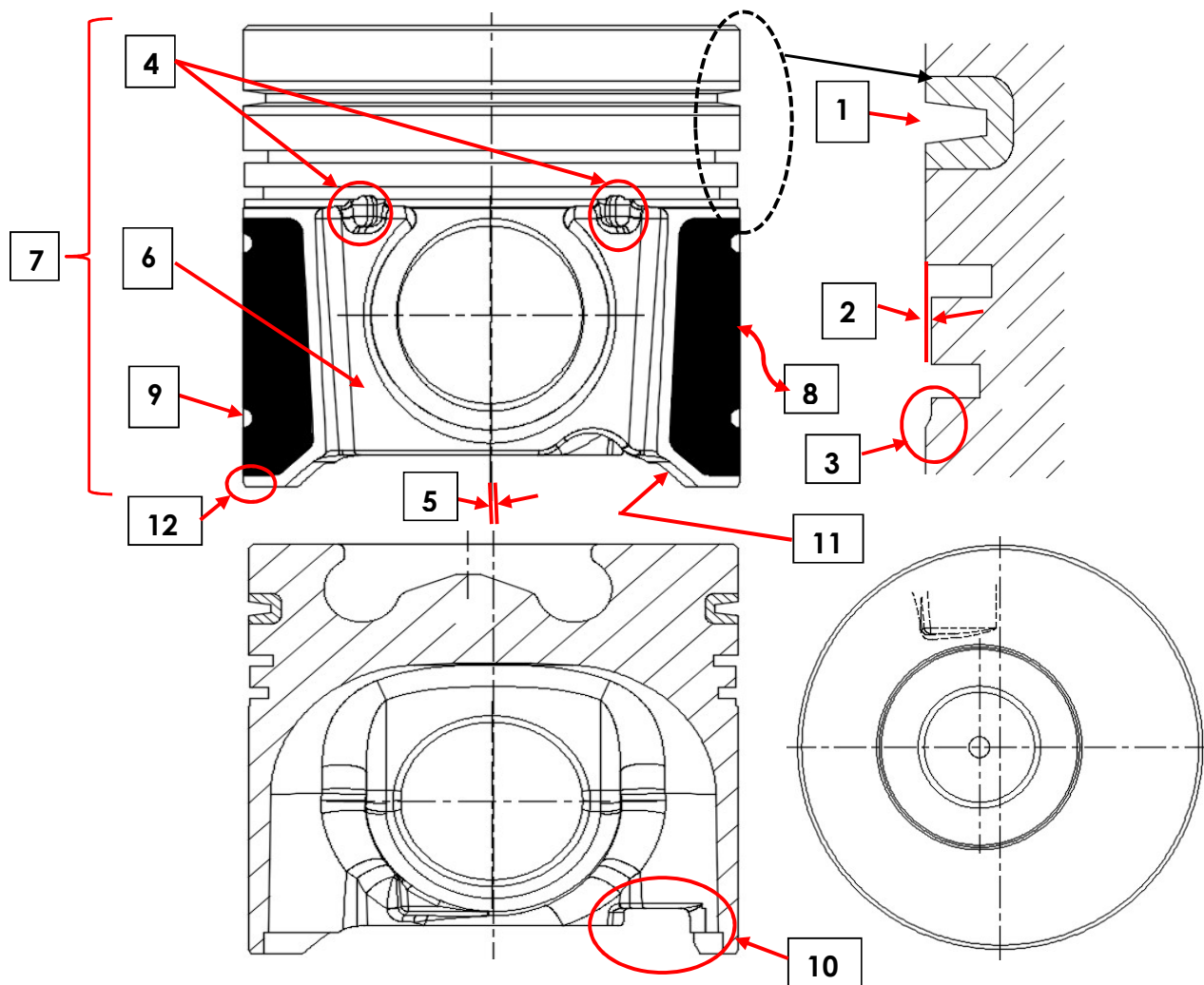
INTRODUCTION CIRCULAR – TATA SUMO GOLD BS III (D)- PISTON SET

USHA is pleased to launch **TATA SUMO GOLD BS III (D)** piston set in its aftermarket LCV/ PV product range.



This piston set has following special features: -

### PISTON:-



Unique features of USHA **TATA SUMO GOLD BS III (D)** piston are as follows: -

SL. NO.	SPECIAL FEATURE	BENEFITS TO CUSTOMER
1)	<p><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 latest centrifugal casting technology.</p> <p><b>KEystone RING GROOVE GEOMETRY:</b> Helps in squeezing out excess oil from the groove preventing carbon deposition &amp; sludge formation.</p>	<ul style="list-style-type: none"> <li>• Longer life of piston due to negligible wear of top groove</li> </ul>
2)	<p><b>CUT BACK IN 2<sup>nd</sup> RING LAND:</b> This piston is provided with a cut back in second ring land for better seating, stability &amp; functioning of intermediate ring.</p>	<ul style="list-style-type: none"> <li>• Helps in controlling blow-by &amp; reducing oil consumption</li> </ul>
3)	<p><b>'J' CUT:</b> A unique 'J' shaped cut is provided just below the oil ring groove area.</p>	<ul style="list-style-type: none"> <li>• Provides all time lubrication to piston skirt</li> <li>• No piston seizure in extreme limits of normal working conditions</li> </ul>
4)	<p><b>QUICK OIL RETURN SLOTS (QORS):</b> Two nos. of Quick Oil Return Slots (QORS) are provided on either side of piston above the pin bore, half in groove &amp; half in window.</p>	<ul style="list-style-type: none"> <li>• Quick drainage of oil, hence low oil consumption</li> </ul>
5)	<p><b>PISTON - PIN BORE OFFSET:</b> Piston is provided with 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 &amp; BDC smoothly &amp; prevents slapping with cylinder surface.</p>	<ul style="list-style-type: none"> <li>• Reduces engine noise</li> </ul>
6)	<p><b>AS CAST CONVERGENT WINDOW:</b> This not only gives more space for oil drainage but the unique convergent type design also provides more bearing area to piston skirt, which helps in guiding piston rings' movement.</p>	<ul style="list-style-type: none"> <li>• Faster drainage of excess oil towards sump for low oil consumption</li> <li>• Reduces chances of seizure at minor axis, hence longer piston life</li> </ul>
7)	<p><b>PISTON SURFACE COMPLETELY BONDERISED:</b></p>	<ul style="list-style-type: none"> <li>• Bonderising helps in preventing oxidation of piston</li> <li>• Also provides porous surface for oil retention, thereby reducing wear</li> </ul>
8)	<p><b>'Nano-friKS COATING' ON PISTON SKIRT:</b></p>	<ul style="list-style-type: none"> <li>• Helps in initial lubrication &amp; seizure free operation</li> <li>• Better wear resistance</li> <li>• Reduces engine noise</li> </ul>
9)	<p><b>MEASURING POINTS ON PISTON SKIRT:</b></p>	<ul style="list-style-type: none"> <li>• Provided for easy diameter verification</li> </ul>

10)	<b>SLOT FOR PISTON COOLING NOZZLE (PCN) JET:</b> Provides room for oil cooling jet.	<ul style="list-style-type: none"> <li>Helps in directing oil flow underneath piston combustion cavity results in faster dissipation of heat</li> <li>Additional reduction in piston weight improves fuel efficiency</li> </ul>
11)	<b>SLIPPER DESIGN:</b> Slipper design helps in reducing piston weight.	<ul style="list-style-type: none"> <li>Improves fuel efficiency</li> <li>Low noise during engine working</li> </ul>
12)	<b>SCRAPPING CHAMFER:</b> A smooth chamfer is provided at the bottom end of the piston skirt.	<ul style="list-style-type: none"> <li>Helps in regulating oil supply, reduces skirt wear &amp; hence longer life</li> </ul>

TECHNICAL DATA – TATA SUMO GOLD BS III (D) PISTON	
USHA CODE → <b>L45</b>	
Nominal Bore Diameter	97.00
Piston Diameter	96.88
Recommended Piston-Liner Clearance	0.12
Compression Height	58.80
Total Height	93.80
Gudgeon Pin Length X OD	80.0 X 36.0
All dimensions in 'mm'	

Above features make USHA **TATA SUMO GOLD BS III (D)** piston set unique, produced to give better performance & longer life especially when fitted with **TATA SUMO GOLD BS III/ IV 'IP DVM'** ring set (**Code: L34**) supplied by us, having **3.00-2.50-2.50 mm** axial height.



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