



# SHRIRAM PISTONS & RINGS LTD.

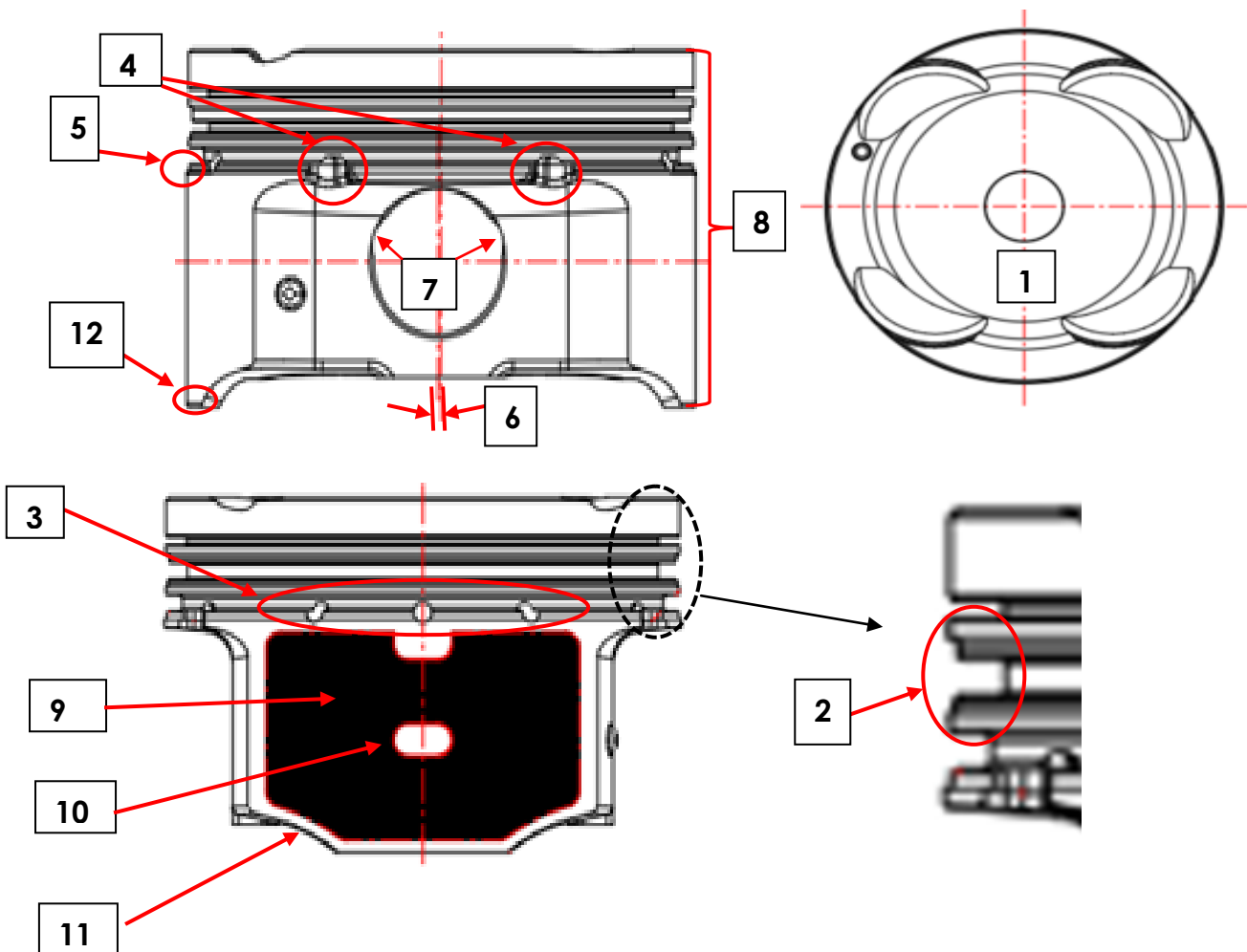
MD: TS: 04/MAY'24 INTRODUCTION CIRCULAR – HYUNDAI i10/ i20 KAPPA 1.2L (P) (4 CUT) - PISTON SET

USHA is pleased to launch 'Hyundai i10/ i20 1.2L Kappa Petrol' piston set in its aftermarket Car product range.



This piston set has following special features: -

## PISTON:-



Unique features of USHA 'Hyundai i10/ i20 1.2L Kappa Petrol' piston are as follows: -

SL. NO.	SPECIAL FEATURE	BENEFITS TO CUSTOMER
1)	<b>SHALLOW CAVITY:</b> Piston crown is provided with a shallow machined cavity for an effective combustion.	<ul style="list-style-type: none"> <li>• Lower emissions</li> <li>• Better fuel efficiency</li> </ul>
2)	<b>STEP CUT IN UPPER &amp; LOWER LANDS OF SECOND RING GROOVE:</b> An all-round step is provided in the upper & lower lands of second ring groove for better seating, stability & functioning of ring by reducing fluttering in the groove.	<ul style="list-style-type: none"> <li>• Helps in controlling blow-by &amp; reduces oil consumption</li> </ul>
3)	<b>HOLES IN OIL RING GROOVE:</b> 03 nos. of holes are provided in the oil ring groove on either side of piston skirt, half in groove & half in skirt.	<ul style="list-style-type: none"> <li>• Faster drainage of excess oil</li> <li>• Reduces oil consumption</li> </ul>
4)	<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 & half in window.	<ul style="list-style-type: none"> <li>• Quick drainage of oil, hence low oil consumption</li> </ul>
5)	<b>'J' CUT:</b> Unique all round 'J' shaped cut is provided just below the oil ring groove area.	<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>
6)	<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 & BDC smoothly & prevents slapping with cylinder surface.	<ul style="list-style-type: none"> <li>• Reduced engine noise</li> </ul>
7)	<b>PIN BORE BROACHING:</b> Double broach is done on either side, at the upper portion of the pin bore.	<ul style="list-style-type: none"> <li>• Relieves stress in pin bore</li> <li>• Improves pin bore lubrication</li> </ul>
8)	<b>TIN PLATING:</b> Entire surface of the piston is tin plated. Tin plating is a coating which helps in avoiding metal to metal contact.	<ul style="list-style-type: none"> <li>• Reduces friction &amp; provides lubrication during initial running in</li> </ul>
9)	<b>'Nano-friKS COATING' ON PISTON SKIRT:</b>	<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>
10)	<b>MEASURING POINTS ON PISTON SKIRT:</b>	<ul style="list-style-type: none"> <li>• Provided for easy diameter verification</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 – ‘HYUNDAI i10/ i20 KAPPA 1.2L (P) 4 CUT’ PISTON	
<b>USHA CODE→C41</b>	
Nominal Bore Diameter	71.00
Piston Diameter	70.98
Recommended Piston-Liner Clearance	0.02
Compression Height	26.18
Total Height	44.18
Gudgeon Pin Length X OD	48.0 X 18.0
All dimensions in ‘mm’	

Above features make USHA ‘Hyundai i10/ i20 Kappa 1.2L’ piston set unique, produced to give better performance & longer life.



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