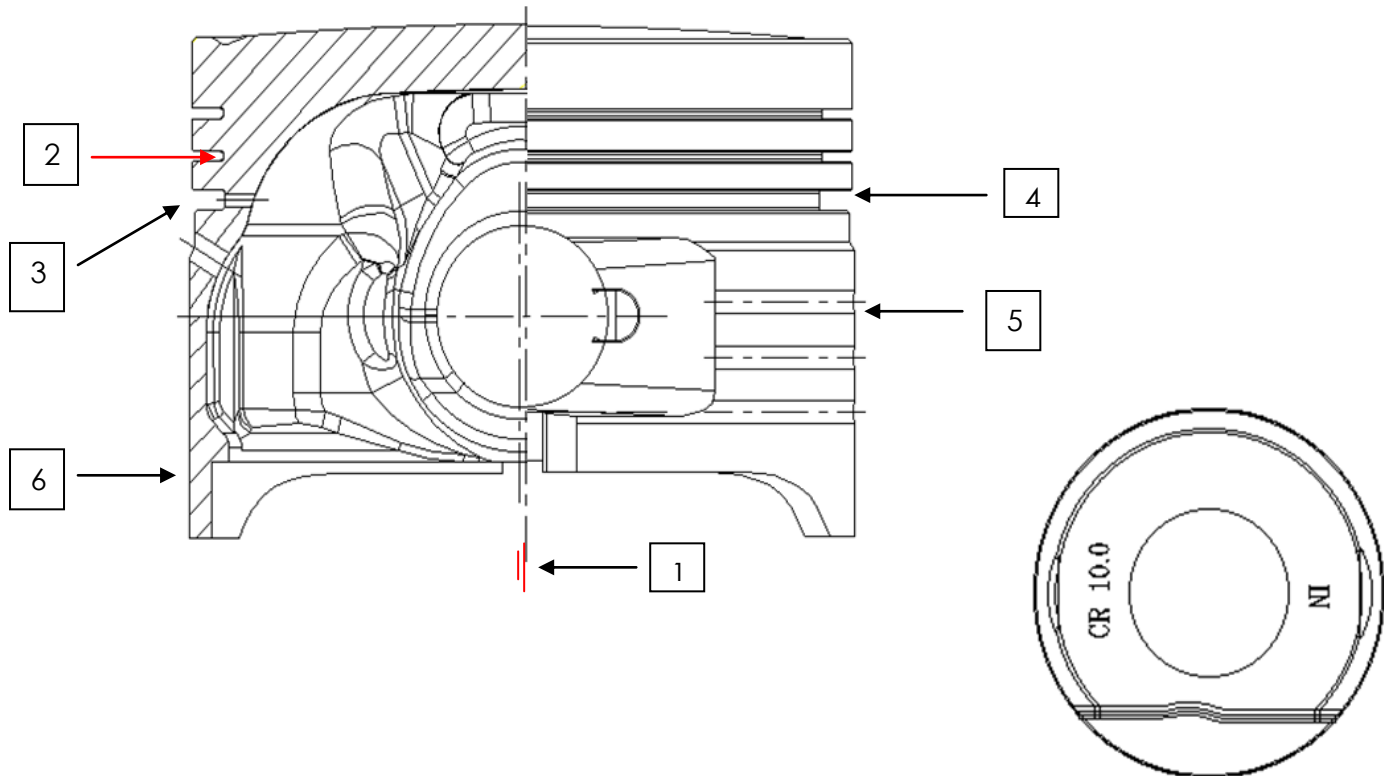


## TECHNICAL BULLETIN - HERO SPLENDOR i-Smart 110 cc PISTON ASSEMBLY

USHA is pleased to introduce **HERO SPLENDOR i-Smart 110 cc** piston assembly in our Bi-wheeler product range.

This piston assembly has following special features:



### PISTON:

Unique features of USHA HERO SPLENDOR i-Smart 110 cc piston are as follows:

Sl. No.	SPECIAL FEATURES	BENEFITS TO CUSTOMERS
1)	<b>PISTON - PIN BORE OFFSET:</b> USHA Hero Splendor i-Smart 110 cc piston is provided with a piston pin bore offset to avoid piston slap. Piston pin bore offset means that the center line of piston is slightly offset from the center line of pin bore. Due to this offset, piston tilts at TDC & BDC smoothly and prevents slapping with liner.	<ul style="list-style-type: none"> <li>• Reduced engine noise.</li> </ul>
2)	<b>OIL HOLES IN OIL RING GROOVE</b>	<ul style="list-style-type: none"> <li>• Faster drainage of excess oil.</li> <li>• Lesser oil consumption.</li> </ul>
3)	<b>OIL HOLES BELOW OIL RING GROOVE</b>	<ul style="list-style-type: none"> <li>• Faster drainage of excess oil.</li> <li>• Reduced oil consumption.</li> </ul>

4)	<b>“J”- CUT:</b> This piston has been provided with a unique “J” cut below the oil ring groove.	<ul style="list-style-type: none"> <li>• “J” cut provides all time lubrication to entire piston skirt.</li> <li>• No piston seizure in extreme limits of normal working conditions.</li> </ul>
5)	<b>SHALLOW GROOVES ON PISTON SKIRT</b>	<ul style="list-style-type: none"> <li>• Helps in retaining oil.</li> <li>• Reduced friction/skirt wear during piston movement.</li> </ul>
6)	<b>SLIPPER DESIGN:</b> Slipper design in piston skirt helps in reducing piston weight & provides better guidance to the piston movement.	<ul style="list-style-type: none"> <li>• Improved fuel efficiency.</li> <li>• Better guidance to rings.</li> <li>• Low noise during engine working.</li> </ul>

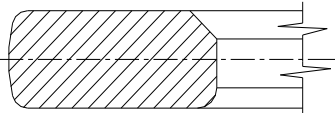
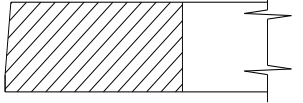
### TECHNICAL DATA- HERO SPLENDOR i-Smart 110 cc PISTON

TECHNICAL DATA- HERO SPLENDOR i-Smart 110 cc PISTON			USHA CODE → S52
Nominal Bore Diameter	mm		53.00
Piston Diameter	STD Size mm		52.975
Recommended Piston-Liner Clearance	mm		0.025
Compression Height	mm		20.80
Total Height	mm		36.80
Piston Pin- Pin Bore Clearance	mm		+0.008 (Clearance Fit)

### PISTON RINGS:

HERO SPLENDOR i-Smart 110 cc piston is supplied with specially designed **HPVENT** ring set for low oil & fuel consumption. The technical details of HPVENT ring set are as under:-

### TECHNICAL DATA- HERO SPLENDOR i-Smart 110 cc ‘HPVENT’ RING SET

Ring	Ring Configuration	Axial Thickness (mm)	Closed Gap		Surface Treatment	Cross Section
			(mm)	(Thou)		
Top	Inside Bevel Steel	0.8	0.10-0.25	4-10	Gas Nitriding	
Second	Taper Special Steel (RIK 20A)	0.8	0.25-0.40	10-16	Parkerised	
Oil Ring	RIKVENT	1.5	0.20-0.70 (Rails)	8-28	Chrome Plated/ Parkerised	