SHRIRAM PISTONS & RINGS LTD.

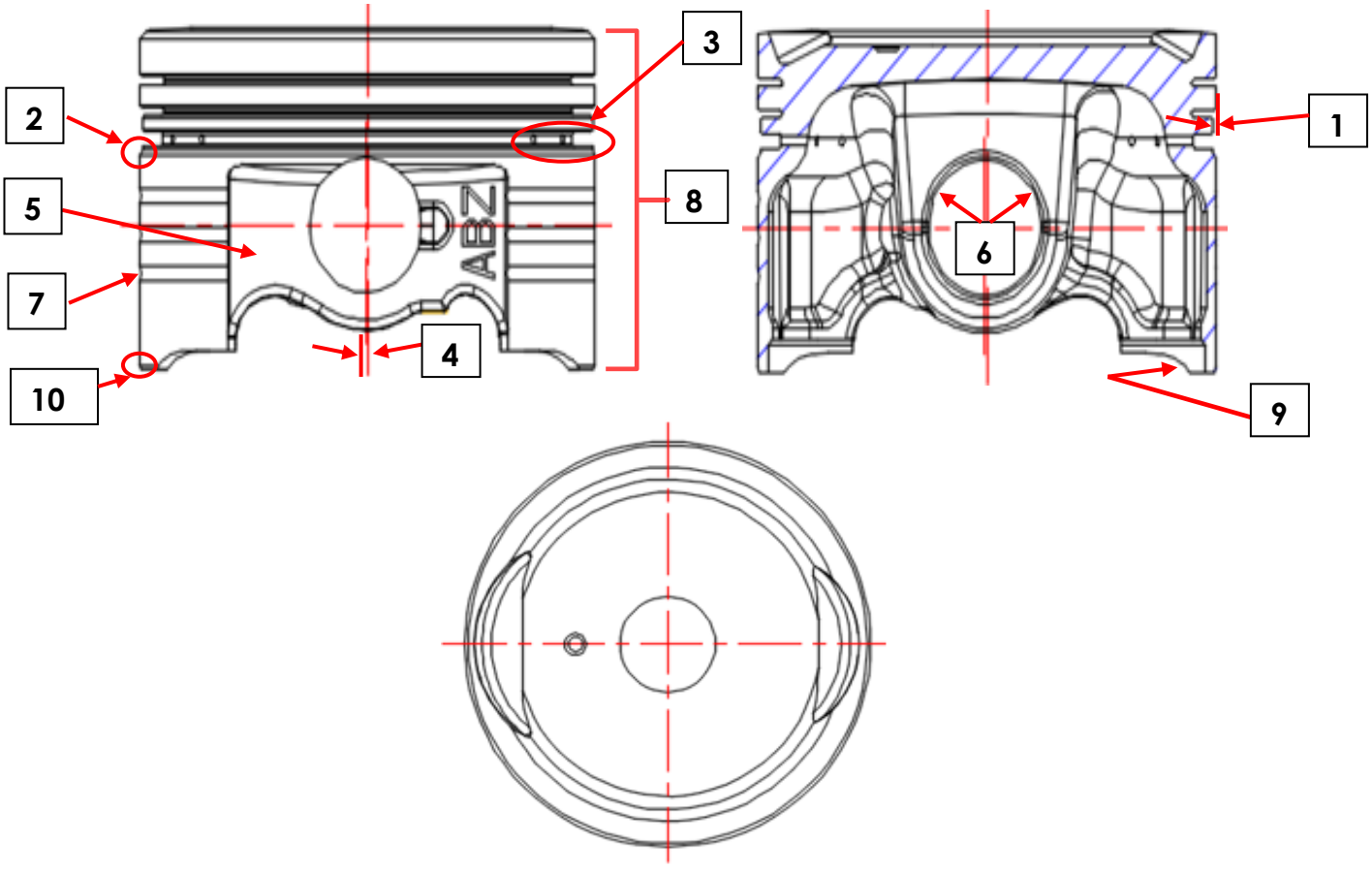
MD: TS: 60/MAR'25 **INTRODUCTION CIRCULAR – HERO XTREME 160cc BS VI 2V - PAS**

USHA is pleased to launch **'HERO XTREME 160cc BS VI 2V'** piston assembly in its aftermarket bi-wheeler product range.



This piston assembly has following special features: -

PISTON:-



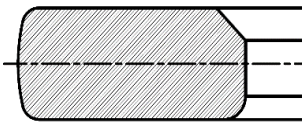
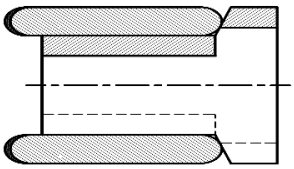
Unique features of USHA **'HERO XTREME 160cc BS VI 2V'** piston are as follows: -

SL. NO.	SPECIAL FEATURE	BENEFITS TO CUSTOMER
1)	**CUT BACK IN 2ND RING LAND:** This piston has a cut back in second ring land for better seating, stability & functioning of intermediate ring.	• Helps in controlling blow-by & reducing oil consumption
2)	**'J' CUT:** An unique 'J' cut is provided below the oil ring groove area.	• Provides all time lubrication to piston skirt • No piston seizure in extreme limits of normal working conditions
3)	**HOLES IN OIL RING GROOVE AREA:** 05 nos. of holes are provided in the oil ring groove on either side of piston skirt, half in groove & half in skirt.	• Faster drainage of excess oil • Reduces oil consumption
4)	**PISTON - PIN BORE OFFSET:** 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.	• Reduced engine noise
5)	**AS CAST RELIEF IN PIN BORE AREA:** As cast relief in pin bore area helps in faster drainage of oil towards sump & also avoids chances of seizure on minor axis.	• Low oil consumption • Longer life
6)	**PIN BORE BROACHING:** Double broach is done on either side, at the upper portion of the pin bore.	• Relieves stress in pin bore • Improves pin bore lubrication
7)	**ACCUMULATOR GROOVES IN SKIRT:** 03 nos. of accumulator grooves are provided on either side of the piston skirt, which acts as an oil reservoir & facilitates all time lubrication to skirt.	• Reduces skirt wear • Low oil consumption
8)	**TIN PLATING:** Entire piston surface is Tin plated. Tin plating is a slippery coating which helps in avoiding metal to metal contact during initial run-in period.	• Reduces friction • Avoids piston scuffing
9)	**SLIPPER DESIGN:** Slipper design helps in reducing piston weight.	• Improves fuel efficiency • Low noise during engine working
10)	**SCRAPING CHAMFER:** A smooth chamfer is provided at the bottom end of the piston skirt.	• Helps in regulating oil supply, reduces skirt wear & hence longer life

TECHNICAL DATA – 'HERO XTREME 160cc BS VI 2V' PISTON	
USHA Code → NCS109	
Nominal Bore Diameter	57.30
Piston Diameter	57.288
Recommended Piston-Liner Clearance	0.012
Compression Height	20.10
Total Height	35.10
Gudgeon Pin Length X OD	38.20 X 14.00
All dimensions in 'mm'	

PISTON RINGS:-

USHA **'HERO XTREME 160cc BS VI 2V'** piston is supplied with a unique **'HPVENT'** ring set for low oil & fuel consumption. The technical details of 'HPVENT' ring set are as under:

TECHNICAL DATA – 'HERO XTREME 160cc BS VI 2V' – 'HPVENT' RINGS						
Ring	Ring Configuration	Axial Thickness (mm)	Closed Gap		Surface Treatment	Cross Section
			(mm)	(Thou)		
Top	Steel Inside Bevel (HPIBGN)	0.80	0.10-0.25	04-10	Gas Nitriding	
Second	Special Steel Taper (TSS)	0.80	0.25-0.40	10-16	Parkerising	
Oil	RIKVENT	1.50	0.10-0.40 (Rails)	04-16	Chrome Plated Rails/ Parkerising	

Above features make USHA **'HERO XTREME 160cc BS VI 2V'** piston assembly unique, produced to give better performance & longer life.