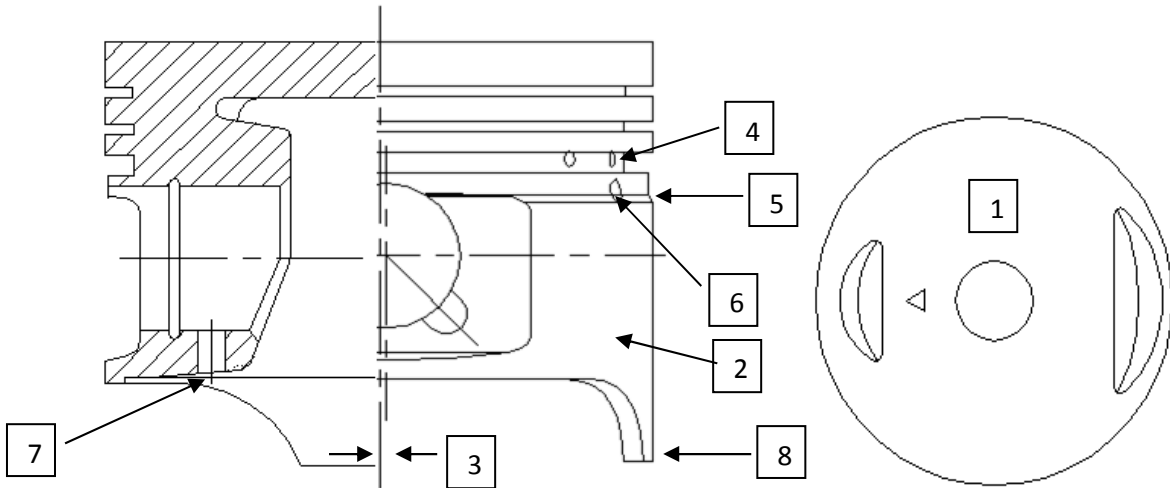


TECHNICAL BULLETIN- TVS PEP+ PISTON ASSEMBLY

USHA is pleased to introduce TVS PEP+ piston assembly in our range of two wheeler assemblies.

This piston assembly has following special features:

PISTON:



Unique features of TVS PEP+ piston are as follows:

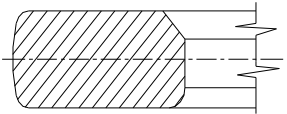
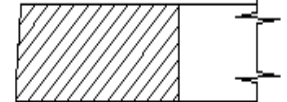
S.No.	SPECIAL FEATURES	BENEFITS TO CUSTOMERS
1)	AS CAST CROWN: USHA Pep+ piston has as cast crown i.e. no machining is done on the crown of piston (except button). As cast crown has better grain structure which increases its strength & heat resistance etc.	<ul style="list-style-type: none"> Increased piston assembly life
2)	PISTON FULLY TIN PLATED	<ul style="list-style-type: none"> Tin plating provides better corrosion resistance & initial lubrication Helps in avoiding piston scuffing
3)	PISTON- PIN BORE OFFSET: USHA Pep+ pistons are provided with a 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 smoothly & prevents slapping with liner.	<ul style="list-style-type: none"> Reduced engine noise
4)	OIL HOLES IN OIL RING GROOVE	<ul style="list-style-type: none"> Faster drainage of excess oil Lesser oil consumption

5)	"J"- CUT: USHA Pep+ piston has been provided with a unique "J" cut below the oil ring groove area.	<ul style="list-style-type: none"> • "J" cut provides all time lubrication in piston skirt area • No piston seizure in extreme limits of normal working conditions
6)	OIL HOLES BELOW OIL RING GROOVE	<ul style="list-style-type: none"> • Quick drainage of excess oil • Low oil consumption
7)	HOLES IN PIN BOSS	<ul style="list-style-type: none"> • To improve lubrication of pin
8)	SLIPPER DESIGN: Slipper Design in skirt helps in reducing piston weight & provides better guidance to the piston movement.	<ul style="list-style-type: none"> • Improved fuel efficiency • Better guidance to rings • Low noise during engine operation

TECHNICAL DATA- TVS PEP+ PISTON		
USHA CODE→ S29		
Nominal Bore Diameter	mm	51.00
Piston Diameter	STD Size mm	50.980
Recommended Piston-Liner Clearance	mm	0.020
Compression Height	mm	19.80
Total Height	mm	40.20
Piston Pin- Pin Bore Clearance	mm	+0.002 to +0.013 (Clearance Fit)

PISTON RINGS:

TVS PEP+ pistons are supplied with unique design HPVENT ring set for low oil & fuel consumption. The technical details of HPVENT ring set are as under :-

TECHNICAL DATA- TVS PEP+ RINGS						
Ring	Ring Configuration	Axial Thickness (mm)	Closed Gap		Surface Treatment	Cross Section
			(mm)	(Thou)		
Top	HPIBGN	0.8	0.10-0.25	4-10	Gas Nitrided	
Second	TSS	0.8	0.15-0.30	6-12	Parkerised	
Oil Ring	RIKVENT	1.5	0.20-0.70 (Rails)	8-28	Chrome Plated/ Parkerised	