



SHRIRAM PISTONS & RINGS LTD.

MD: TS: 10/JUL'24

INTRODUCTION CIRCULAR – **BAJAJ DISCOVER 110cc- PISTON ASSEMBLY**

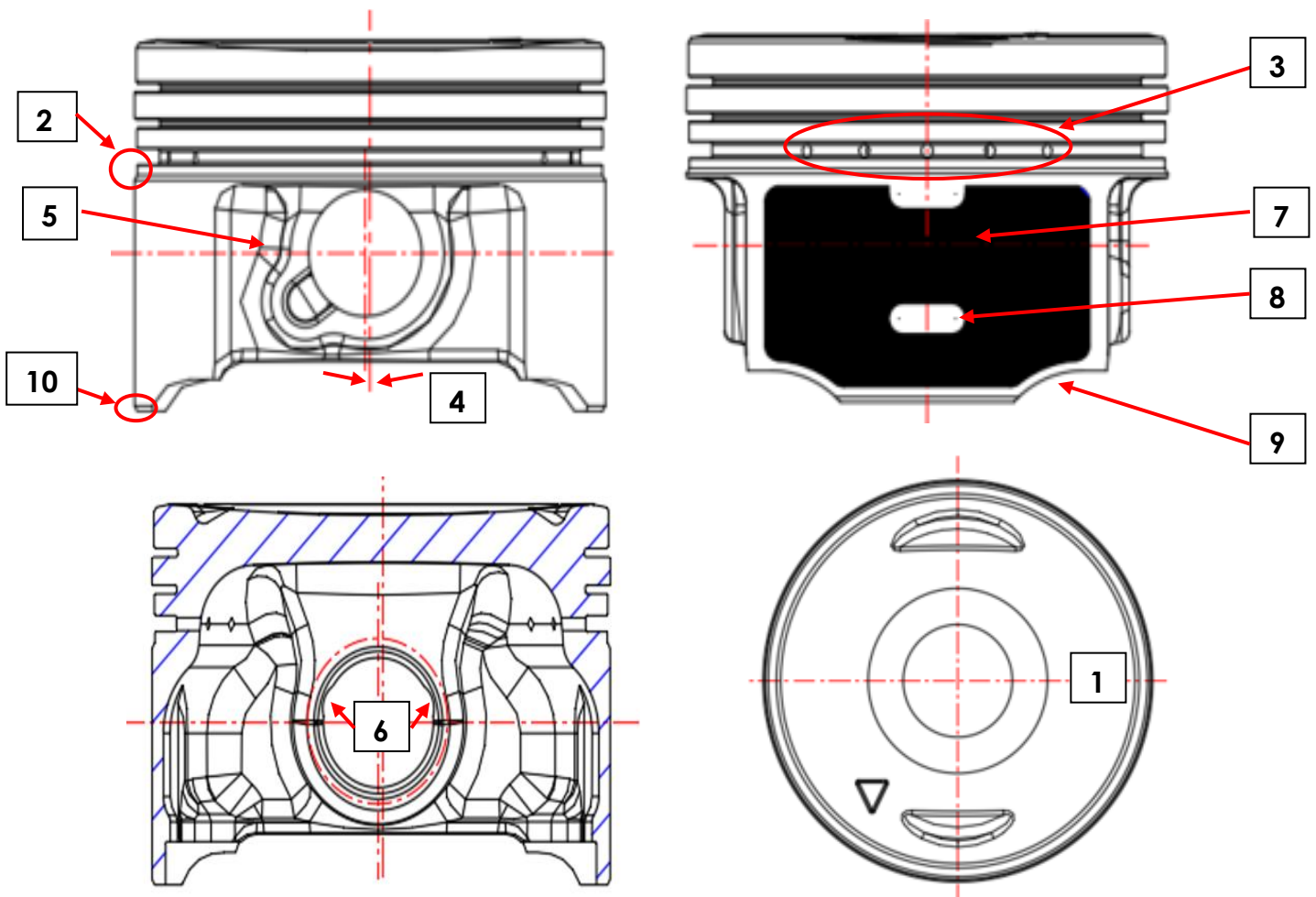
USHA is pleased to launch '**BAJAJ DISCOVER 110cc**' piston assembly in its aftermarket bi-wheeler product range.

This piston assembly is also common to the models like **BAJAJ PLATINA 110cc & CT110**.



This piston assembly has following special features: -

PISTON:-



Unique features of USHA 'BAJAJ DISCOVER 110cc' piston are as follows: -

SL. NO.	SPECIAL FEATURE	BENEFITS TO CUSTOMER
1)	AS CAST CROWN: Crown of the piston is as cast for better grain structure which improves piston strength & heat resistance etc.	<ul style="list-style-type: none"> Improves piston life
2)	'J' CUT: Unique all round 'J' shaped cut is provided just below the oil ring groove area.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Low oil consumption Longer life
6)	PIN BORE BROACHING: Double broach is done on either side, at the upper portion of the pin bore.	<ul style="list-style-type: none"> Relieves stress in pin bore Improves pin bore lubrication
7)	'Nano-friKS COATING' ON PISTON SKIRT:	<ul style="list-style-type: none"> Helps in initial lubrication & seizure free operation Better wear resistance Reduces engine noise
8)	MEASURING POINTS ON PISTON SKIRT:	<ul style="list-style-type: none"> Provided for easy diameter verification
9)	SLIPPER DESIGN: Slipper design helps in reducing piston weight.	<ul style="list-style-type: none"> Improves fuel efficiency Low noise during engine working
10)	SCRAPPING CHAMFER: A smooth chamfer is provided at the bottom end of the piston skirt.	<ul style="list-style-type: none"> Helps in regulating oil supply, reduces skirt wear & hence longer life

TECHNICAL DATA – 'BAJAJ DISCOVER 110cc' PISTON

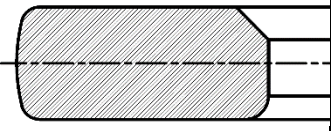
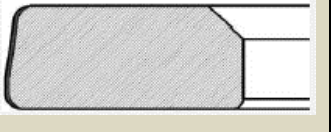
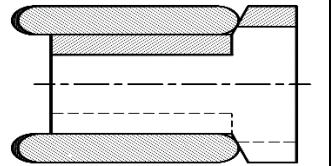
USHA Code → **NCS93**

Nominal Bore Diameter	50.00
Piston Diameter	49.965
Recommended Piston-Liner Clearance	0.035
Compression Height	20.20
Total Height	35.20
Gudgeon Pin Length X OD	35.70 X 12.0
All dimensions in 'mm'	

PISTON RINGS:-

USHA 'BAJAJ DISCOVER 110cc' piston is supplied with a unique '3S VENT' ring set for low oil & fuel consumption. The technical details of '3S VENT' ring set are as under:

TECHNICAL DATA – 'BAJAJ DISCOVER 110cc' – '3S VENT' 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	Steel Taper Inside Bevel (HPCRTIB)	0.80	0.25-0.40	10-16	Chrome Plating/ Parkerising	
Oil	RIKVENT	1.50	0.20-0.70 (Rails)	08-28	Chrome Plating on Rails/ Parkerising	

Above features make USHA 'BAJAJ DISCOVER 110cc' piston assembly unique, produced to give better performance & longer life.



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