

MD: TS: 02/2021

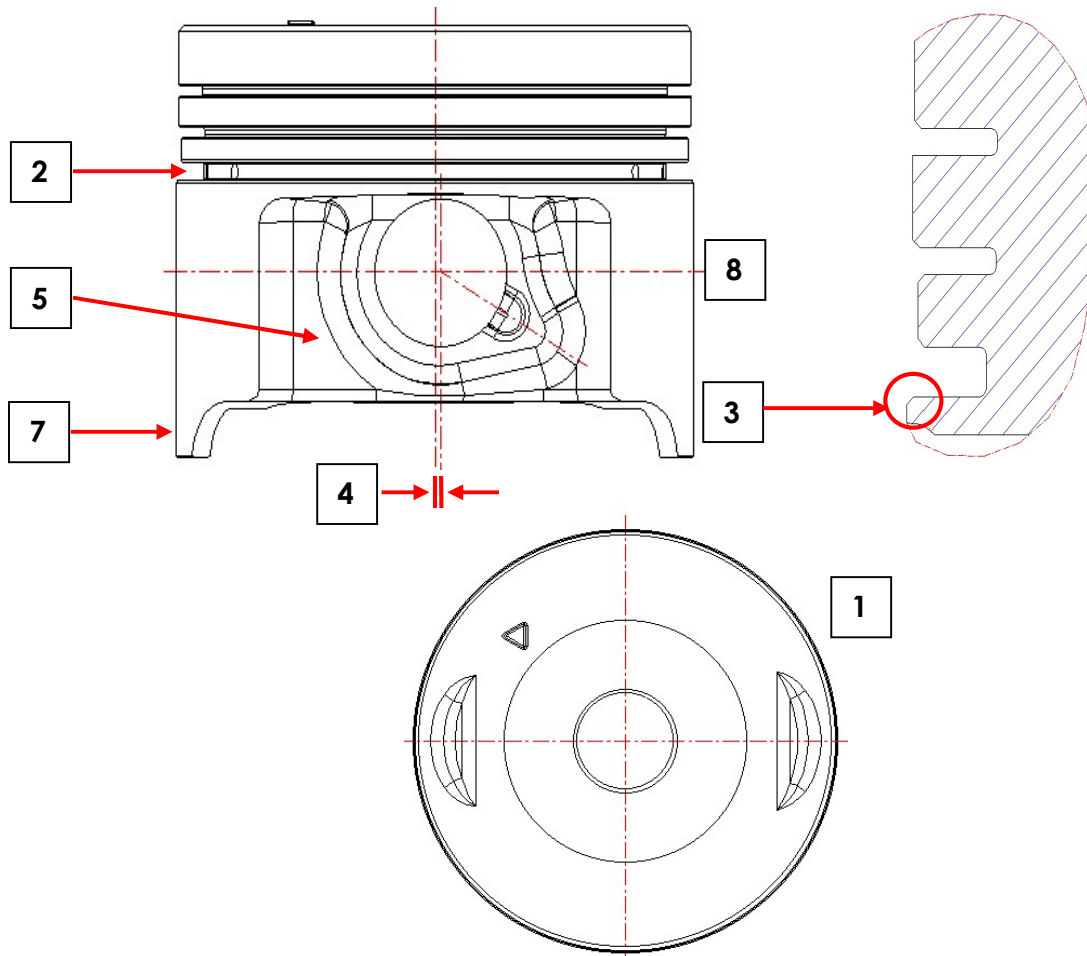
AUG'2020

An update from SHRIRAM PISTONS & RINGS LTD.

**USHA**<sup>®</sup> is pleased to introduce Bajaj Platina 100 ES piston assembly in our Bi-wheeler product range.

This piston assembly has following special features:

**PISTON:**



Unique features of USHA BAJAJ PLATINA 100 ES piston are as follows:

| Sl. No | SPECIAL FEATURE  | BENEFITS TO CUSTOMER  |
|--------|--|---|
| 1)     | <b>AS CAST CROWN:-</b> USHA Platina 100 ES piston has as cast crown i.e. no machining is done on crown of piston. As cast crown has better grain structure which increases the strength, heat resistance etc. of the piston. | <ul style="list-style-type: none"> <li>Improves piston life</li> </ul>  |
| 2)     | <b>OIL HOLES IN RING GROOVE:-</b>  | <ul style="list-style-type: none"> <li>Faster drainage of excess oil</li> <li>Less oil consumption</li> </ul> |
| 3)     | <b>CHAMFER AT BOTTOM FLANK OF OIL RING GROOVE:-</b>  | <ul style="list-style-type: none"> <li>Better drainage of oil</li> <li>Reduces skirt wear</li> </ul>          |

|    |   |   |
|----|---|---|
| 4) | <b>PISTON- PIN BORE OFFSET:-</b> USHA Platina 100 ES piston is 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 & BDC smoothly & prevents slapping with liner. | <ul style="list-style-type: none"> <li>Reduces engine noise</li> </ul>  |
| 5) | <b>AS CAST RELIEF IN PIN BORE AREA:-</b> USHA Platina 100 ES piston is provided with as cast relief in pin bore area which helps in better drainage of oil.   | <ul style="list-style-type: none"> <li>Less oil consumption</li> </ul>  |
| 6) | <b>OIL HOLES IN PIN BOSS:-</b> Oil holes are provided for better lubrication of piston pin.   | <ul style="list-style-type: none"> <li>Lesser pin-pin bore wear</li> <li>Longer life of piston</li> </ul>   |
| 7) | <b>SLIPPER DESIGN:-</b> Slipper design in skirt helps in reducing piston weight & provides better guidance to piston movement.  | <ul style="list-style-type: none"> <li>Improves fuel efficiency</li> <li>Better guidance to rings</li> <li>Low noise during engine working</li> </ul> |
| 8) | <b>PISTON FULLY TIN PLATED:-</b> Piston surface is Tin plated. Tin plating is a slippery coating which avoids metal contact during initial running-in period.   | <ul style="list-style-type: none"> <li>Reduces friction</li> <li>Avoids piston scuffing/ seizure etc.</li> </ul>                                      |

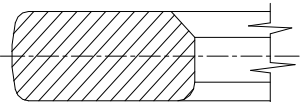
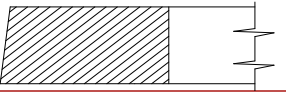
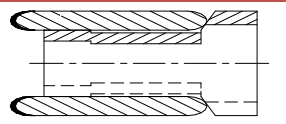
#### TECHNICAL DATA- BAJAJ PLATINA 100 ES PISTON

| USHA CODE → S56                    |             |                                     |
|------------------------------------|-------------|-------------------------------------|
| Nominal Bore Diameter              | mm          | 47.00                               |
| Piston Diameter                    | STD Size mm | 46.965                              |
| Recommended Piston-Liner Clearance | mm          | 0.035                               |
| Compression Height                 | mm          | 19.95                               |
| Total Height                       | mm          | 34.95                               |
| Piston Pin- Pin Bore Clearance     | mm          | +0.007 to +0.018<br>(Clearance fit) |

#### PISTON RINGS:

USHA BAJAJ PLATINA 100 ES piston is provided with a unique design HPVENT ring set for low oil & fuel consumption. The technical details of HPVENT ring set are as under:-

#### TECHNICAL DATA- BAJAJ PLATINA 100 ES – ‘HPVENT’ RINGS

| Ring     | Ring Configuration  | Axial Thickness (mm) | Closed Gap        |        | Surface Treatment   | Cross Section   |
|----------|---------------------|----------------------|-------------------|--------|---------------------|---|
|          |                     |                      | (mm)              | (Thou) |                     |   |
| Top      | Inside Bevel Steel  | 0.80                 | 0.10-0.25         | 4-10   | Gas Nitrided        |  |
| Second   | Taper Special Steel | 0.80                 | 0.30-0.45         | 12-18  | Parkerised          |  |
| Oil Ring | RIKVENT             | 1.50                 | 0.20-0.70 (Rails) | 8-28   | Rails Chrome Plated |  |



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