SHRIRAM PISTONS & RINGS LTD.

New Launch

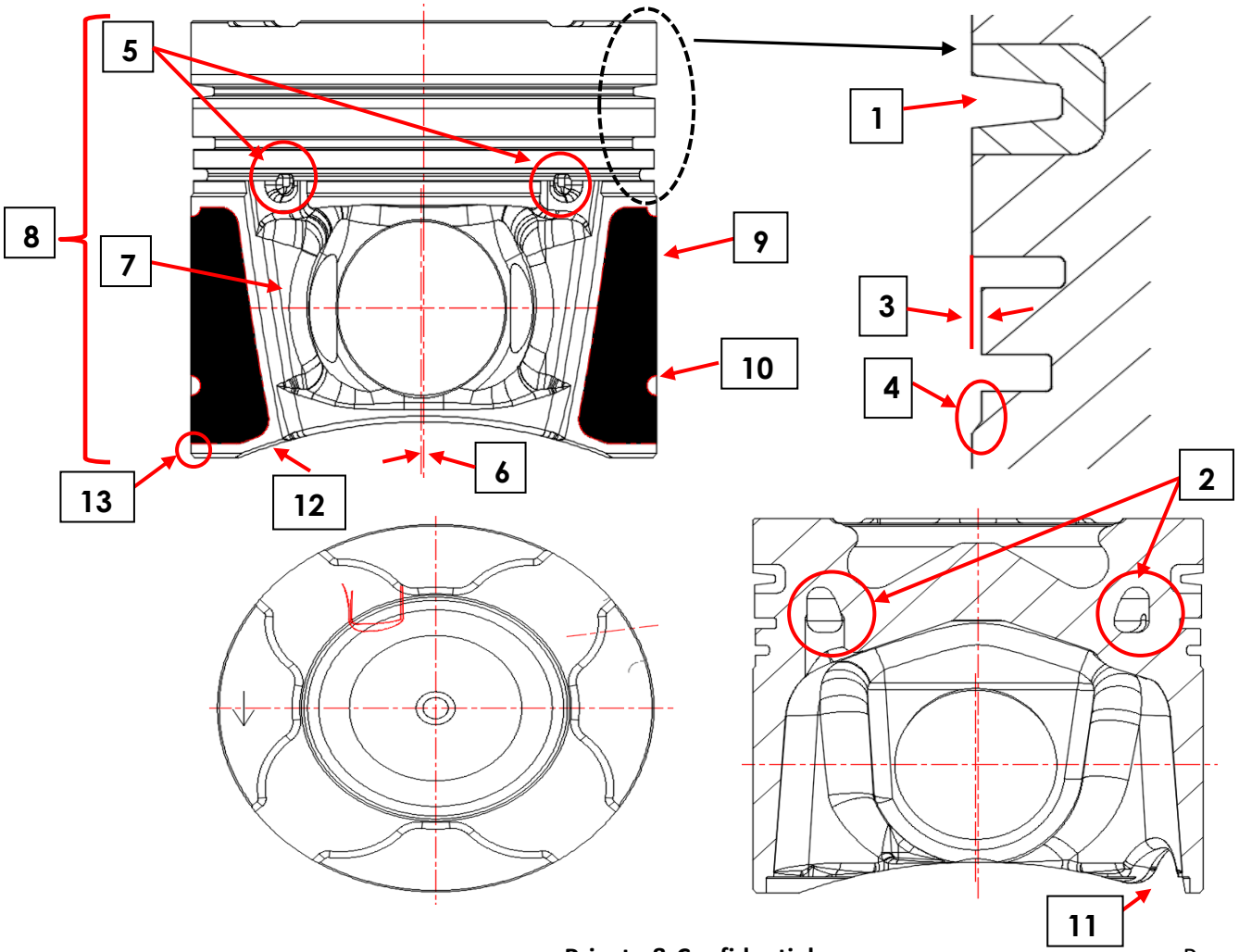
MD: TS: 18/AUG'25 **INTRODUCTION CIRCULAR– TATA ULTRA 3.3L BS6 DIESEL - PISTON SET**

USHA is pleased to launch **TATA ULTRA 3.3L BS6 DIESEL** piston set in its aftermarket LCV product range.

This piston set is common to the models like **TATA T.11 ULTRA + T.12 ULTRA + + T.14 ULTRA + K.14 ULTRA + T.16 ULTRA + 712 LPT + 1012 LPT + 1216 LPT + 1412 LPT + 1416 LPT + 1512 LPT + 1916 LPT + 912 LPK + 1212 LPK + 1416 LPK.**

This piston set has following special features: -

PISTON:-



Unique features of USHA **TATA ULTRA 3.3L BS6 DIESEL** piston are as follows:

SL. NO.	SPECIAL FEATURE	BENEFITS TO CUSTOMER
1)	**HIGH NICKEL WEAR RESISTANT RING CARRIER (RCP):** Top groove of this piston is made of high nickel wear resistant ring carrier insert which is manufactured using latest centrifugal casting technology. **KEYSTONE RING GROOVE GEOMETRY:** Helps in squeezing out excess oil from the groove preventing carbon deposition & sludge formation.	• Longer life of piston due to negligible wear of top groove
2)	**OIL COOLING GALLERY (OCG):** A through oil cooling gallery is made around the periphery on under crown area of the piston beneath ring zone with the help of salt core during casting, through which oil flows continuously during its working cycle.	• Facilitates faster heat dissipation • Helps in rapid cooling of combustion bowl & ring groove areas, thereby enhancing piston & engine life
3)	**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
4)	**'J' CUT:** Piston is provided with a unique 'J' cut below the oil ring groove area.	• Provides all time lubrication to piston skirt • No piston seizure in extreme limits of normal working conditions
5)	**QUICK OIL RETURN SLOTS (QORS):** Two nos. of Quick Oil Return Slots (QORS) are provided on either side of piston above the pin bore, half in groove & half in window.	• Faster drainage of excess oil, hence low oil consumption
6)	**PISTON-PIN BORE OFFSET:** The piston is provided with a 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.	• Reduced engine noise
7)	**AS CAST CONVERGENT WINDOW:** This not only gives more space for oil drainage but the unique convergent type design also provides more bearing area to piston skirt, which helps in guiding piston rings' movement.	• Faster oil drainage, hence low oil consumption • Seizure on minor axis is avoided, hence longer piston life
8)	**PISTON SURFACE COMPLETELY BONDERISED:**	• Bonderising helps in preventing oxidation of piston • Also provides porous surface for oil retention, thereby reducing wear

9)	**'Nano-friKS COATING' ON PISTON SKIRT:**	• Helps in initial lubrication & seizure free operation • Better wear resistance • Reduces engine noise
10)	**MEASURING POINTS ON PISTON SKIRT:**	• Provided for easy diameter verification
11)	**SLOT FOR PISTON COOLING NOZZLE (PCN) JET:** Provides room for oil cooling jet.	• Helps in directing oil flow underneath piston combustion cavity results in faster dissipation of heat
12)	**SLIPPER DESIGN:** Slipper design helps in reducing piston weight.	• Improves fuel efficiency • Low noise during engine working
13)	**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 – TATA ULTRA 3.3L BS6 DIESEL PISTON (Ø 100.00 mm)	
USHA CODE→ L52	
Nominal Bore Diameter	100.00
Piston Diameter	99.885
Recommended Piston-Liner Clearance	0.115
Compression Height	59.50
Total Height	90.50
Gudgeon Pin Length X OD	80.00 X 36.00
All dimensions in 'mm'	

Above features make USHA **TATA ULTRA 3.3L BS6 DIESEL** piston set unique, produced to give better performance & longer life especially when fitted with USHA **'IP DVM'** ring set of subject model.

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