



MD: TS: 31/NOV'25

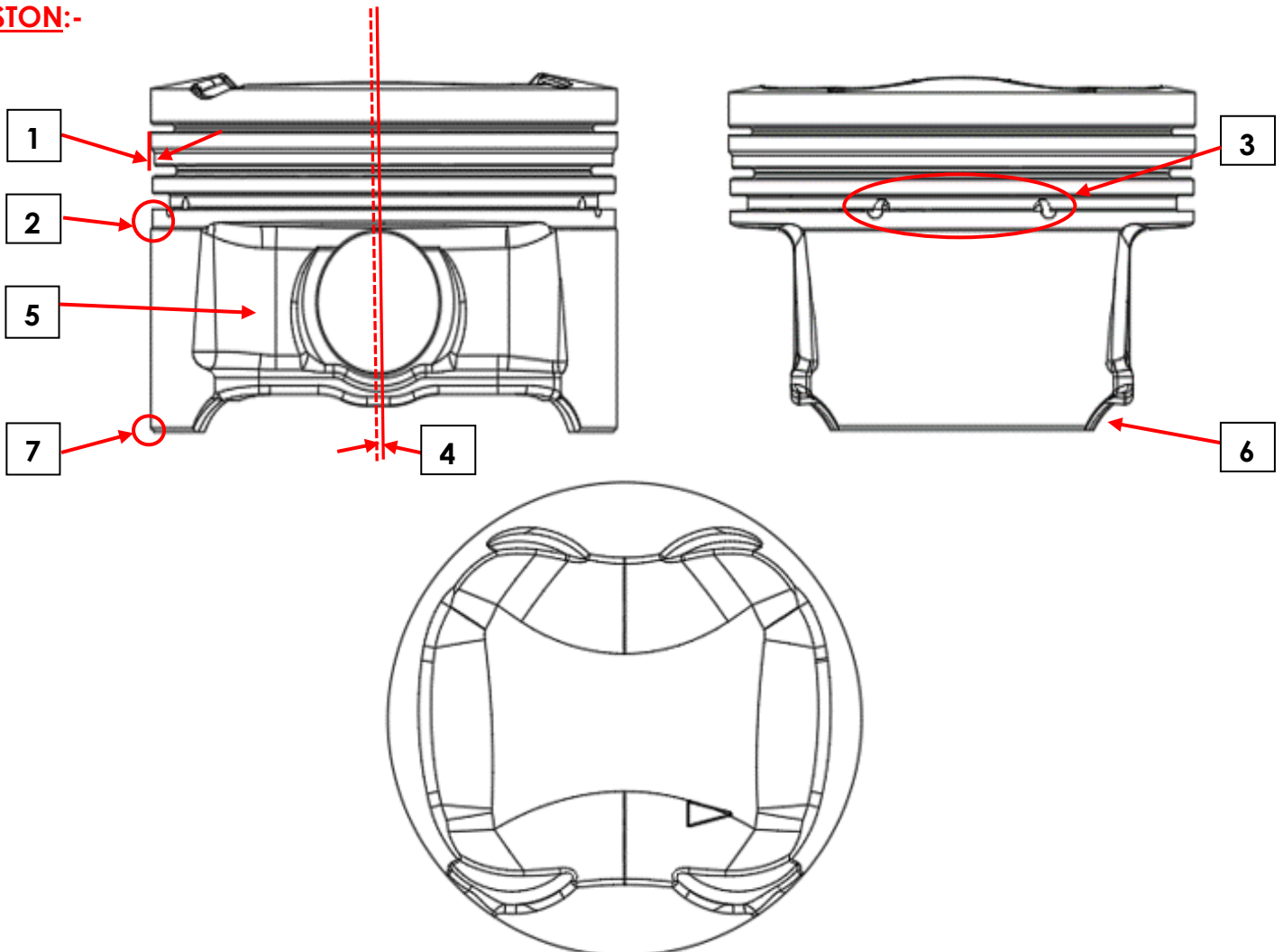
INTRODUCTION CIRCULAR – KWD 800cc PETROL – PAS & ERS

USHA is pleased to launch '**KWD 800cc PETROL**' Piston Assembly & Ring Set in its aftermarket Car/PV product range.



This piston assembly has following special features: -

PISTON:-



Unique features of USHA 'KWD 800cc PETROL' piston are as follows: -

SL. NO.	SPECIAL FEATURE	BENEFITS TO CUSTOMER
1)	STEP CUT IN 1ST RING LAND: This piston has a step cut in first ring land for better seating, stability & functioning of top ring.	Helps in controlling blow-by & reducing oil consumption
2)	'J' CUT: Piston has been 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
3)	HOLES IN OIL RING GROOVE AREA: 02 nos. of holes are provided in the oil ring groove on either side of piston 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)	SLIPPER DESIGN: Slipper design helps in reducing piston weight.	- Improves fuel efficiency - Low noise during engine working
7)	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 – 'KWD 800cc PETROL' PISTON	
USHA Code → C65	
Nominal Bore Diameter	69.00
Piston Diameter	68.975
Recommended Piston-Liner Clearance	0.025
Compression Height	29.11
Total Height	45.61
Gudgeon Pin Length X OD	46.85 X 18.00
All dimensions in 'mm'	

PISTON RINGS:-

USHA 'KWD 800cc PETROL' piston assembly is supplied with a unique 'HPVENT' ring set for low oil & fuel consumption.

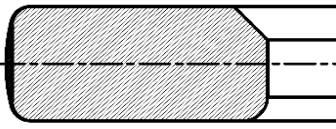
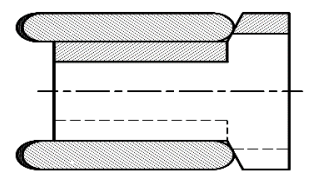


This ring set has following special features:

ITEM	CONFIGURATION	FEATURES	BENEFITS TO CUSTOMER
Top Ring	Steel Inside Bevelled Chrome Plated (HPIBCR)	Steel Material	Top ring is made up of steel which possesses good elasticity, excellent resistance to twisting, breakage & wear, hence longer life.
		Inside Bevelling	This ring set has a bevel cut on top inside face which facilitates ring to twist positively during downward movement & provides better sealing.
		Chrome Plating	Outer periphery of the ring is chrome plated which provides excellent wear & scuff resistance.
		Parkerising	Side faces are parkerised to provide porous surface for oil retention resulting in better lubrication & lesser wear.
2 nd Ring	Taper Napier (N)	Taper face	Ring has a Taper geometry at its upper outer face which provides line contact with liner resulting in higher wall pressure, hence better sealing.
		Napier cut geometry	A Napier cut is provided at ring's lower outer face facilitates the ring to accumulate excess oil & scraps it towards crankcase, hence low oil consumption.
		Parkerising	Ring is fully parkerised to provide porous surface for oil retention resulting in better lubrication & lesser wear.
Oil Ring	RIKVENT	'RIKVENT' Design	'RIKVENT' ring has a unique design consisting of three parts i.e. two rails & one spacer. The spacer acts as an expander and has protruded lips which not only push ring rails against cylinder walls but also tilt lower rail upwards and upper rail downwards making it nearly impossible for lubricating oil to go up towards combustion chamber, resulting in lower oil consumption.

		Steel material	Spacer & Rails are made up of steel material having better conformability & wear resistance, hence improved oil scraping & ring life.
		Chrome Plating on Rails	The rails are chrome plated for better wear resistance.
		Parkerising	Side faces of the rails are parkerised to provide porous surface for oil retention resulting in better lubrication & lesser wear.

The technical details of 'HPVENT' ring set are as under:

TECHNICAL DATA – 'KWD 800cc PETROL' – 'HPVENT' RING SET (Ø 69.00mm)						
Ring	Ring Configuration	Axial Thickness (mm)	Closed Gap		Surface Treatment	Cross Section
			(mm)	(Thou)		
Top	Steel Inside Bevel (HPIBCR)	1.00	0.12-0.27	05-11	Chrome Plating	
Second	Napier (N)	1.20	0.35-0.50	14-20	Parkerising	
Oil	RIKVENT	2.00	0.20-0.70 (Rails)	08-28	Chrome Plated Rails/ Parkerising	

Above features make USHA 'KWD 800cc PETROL' Piston Assembly & Ring Set unique, produced to give better performance & longer life.



Technical Product News is an exclusive update of product & information from
Shriram Pistons & Rings Ltd., 3rd Floor, Himalaya House, 23, Kasturba Gandhi Marg, New Delhi-110001
Tel: 011-46451100, 23315941, Email: tss@shrirampistons.com, Website: www.shrirampistons.com