

TECHNICAL BULLETIN- Bi-Wheeler Engine Valves

USHA is pleased to introduce **engine valves for HONDA ACTIVA 125cc, BAJAJ XCD 135cc, BAJAJ PULSAR 135cc DTSi and YAMAHA FAZER/FZ-16** in Bi-wheeler Engine Valve product range.

These Valves have following specifications:

MODEL		USHA CODE	D x d x L	Treatment	Type	Marking	Stelliting
HONDA ACTIVA 125cc	IN	7125	27 x 4.99 x 77.2	TUFF	MONO	24	Tip
	EX	7126	23 x 4.97 x 76.5	TUFF	MONO	24	Tip & Seat
BAJAJ XCD 135cc	IN	6149	25 x 4.49 x 81.4	TUFF	MONO	JA	-
	EX	6150	21.5 x 4.47 x 80.9	TUFF	BI-METAL	JA	-
BAJAJ PULSAR 135cc DTSi*	IN	6151	20 x 4.48 x 81.6	TUFF	MONO	JD	-
	EX	6152	17.5 x 4.47 x 81	TUFF	BI-METAL	JD	-
YAMAHA FAZER/FZ-16	IN	6209	28 x 4.985 x 82	TUFF	MONO	UI	-
	EX	6210	23.5 x 4.97 x 81.2	TUFF	BI-METAL	UE	-

* Engine has 4 Valves per cylinder

Salient Features:

S.No.	Particulars	Benefits to Customers
1.	All these Engine Valves are Tufftrided.	Better wear and corrosion resistance.
2.	Inlet valves of these models are made up of 'Mono' one piece martensitic material (magnetic).	Better wear resistance.
3.	Exhaust valves made of 'Bi-Metal' have the head of austenitic material. Austenitic material (non magnetic) are known to have high temperature strength and good wear resistance. The stem is made of martensitic material (magnetic).	Better high temperature corrosion resistance and mechanical strength.
4.	Exhaust valves of Activa 125 has tip & seat Stelliting.	Better abrasion and corrosion resistance.
5.	These valves are fully forged finish.	Better fatigue and impact strength.

Tuff

Tuff is the common name for Tufftriding process. In this process the entire surface is given special heat treatment which increases the surface hardness and strength. This increases the wear resistance even at high temperature of the valve and imparts good corrosion resistance.

Stellite

Stellite is cobalt and nickel based alloys. Stellite is done on the valve 'TIP' and 'SEAT'. Seat stellite increases abrasion and corrosion resistance & also imparts high temperature strength. Tip stellite increases wear resistance of the valve.

Fully Forged Valves

The fully forged valves have continuous grain flow lines at the head and under head (neck) portion of valve which increases fatigue strength and impact strength. Due to continuous grain lines, fully die finished valves have no weak areas. This gives extra strength to the valve head.
