

**Ethanol Mix Petrol Fuel(IS:2796 or 17021)
reflects in
IS:11501-1986 or Not?**

IS establishment Period → IS:11501 & IS:2796/17021

IS: 11501 – 1986

(Agriculture Engine monoset Water Pump – Reaffirmed 2001)

UDC 621.67.031 : 631.672.2

भारतीय मानक ब्यूरो
Bureau of Indian Standards
CD-ROM Print
Indian Standard

IS : 11501 - 1986
(Reaffirmed 2001)

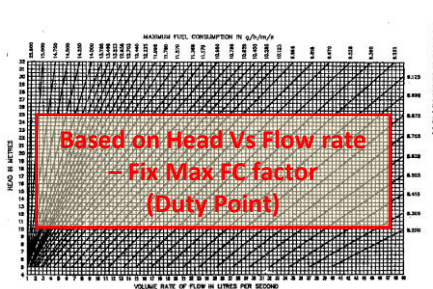
SPECIFICATION FOR ENGINE MONOSET PUMPS FOR CLEAR, COLD, FRESH WATER FOR AGRICULTURAL PURPOSES

1. **Scope** — Specifies the technical requirements of constant speed, compression ignition (diesel) engine monoset, centrifugal pumps and spark ignition engines for handling clear, cold, fresh water for agricultural purposes.

2. **Units, Terminology and Classification** — Units, terminology and classification relating to pump shall be as specified in IS : 5120-1977 'Technical requirements for rotodynamic special purpose pumps'.

3. **Characteristics of Clear, Cold, Fresh Water** — Characteristics of clear, cold, fresh water are

FC Curve & Calculation – to fix Pump Duty point



11.4.2 For spark ignition engine monosets (petrol and/or kerosene engines):

Fuel consumption for specified duty head and discharge rate for monoset ratings 1 kW to 6 kW and speeds 900 rpm and above shall not exceed the values specified in Fig. 4 multiplied by factors given below for various types of engines:

Engine	Multiplying Factor
1) Four stroke side valve engine:	
a) Kerosene run	Values indicated in Fig. 4
b) Petrol run	0.8 times the values indicated in Fig. 4
2) Four stroke overhead valve engine:	
a) Kerosene run	0.8 times the values indicated in Fig. 4
b) Petrol run	0.65 times the values indicated in Fig. 4

11.5 The fuel consumption for engine monoset of self-priming type pump shall not exceed the values specified for engine monoset of non self-priming type pump specified in 11.4 multiplied by 1.2 for various types of engines.

Guarantee for mass produced pumps - Tolerances

15.2.2 Guarantees for mass-produced pumps — For mass-produced pumps, any pump corresponding to the curves give for any chosen operation point, results not divergent from the values of the published curve by more than:

- a) —6 percent for total head,
- b) —8 percent for rate of flow, and
- c) +10 percent for power input.

Our assumption, it is specified based on 100% Petrol Fuel.

IS: 2796:2008; E5 Fuel – 3rd Revision -Amendment3:2003

IS 2796 : 2008

भारतीय मानक
मोटार गैसोलीन — विशिष्टि
(चौथा पुनरीक्षण)
Indian Standard
MOTOR GASOLINE — SPECIFICATION
(Fourth Revision)

IS: 17021:2018 ; E20 Fuel

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Indian Standard

IS 17021 : 2018

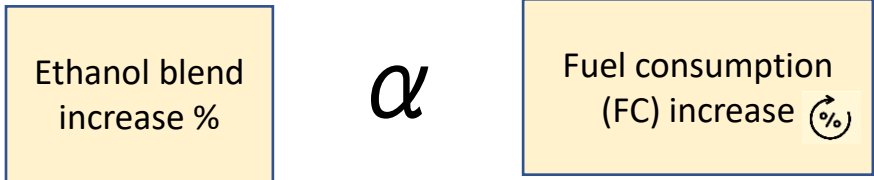
ई 20 ईंधन — निर्जल इथेनॉल और गैसोलीन का मिश्रण — स्पार्क इग्निटेड इंजन संचालित वाहनों के लिए ईंधन के रूप में — विशिष्टि

E 20 Fuel — Admixture of Anhydrous Ethanol and Gasoline — As Fuel for Spark Ignited Engine Powered Vehicles Specification

However Ethanol Fuel Blending standards were established later.

We Urge to BIS for ethanol fuel spec clarification in IS:11501.

Product Quality

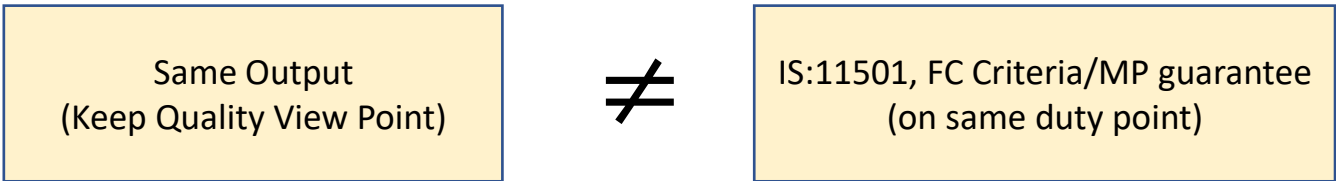


\therefore For Same Output = Fuel Consumption \uparrow

Water pump functional necessity is output.

Challenge for OEM

EBP-2025 Policy beyond E10 i.e. E20 or Flex fuel.



Difficult challenge to keep same quality parameter with ethanol mix fuel.

- 1. Clarify IS:11501 – ethanol mixing fuel incorporate?**
- 2. Realization of Business impact – Effect on competitiveness.**

Thanks for your kind Consideration