व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT

संख्या / No. : PS-156/1741/2015
माह / Month: June, 2015

ENGINE OPERATED POWER KNAPSACK SPRAYER
'AGRIMATE, AMH-709T'

सत्यमेव जयते

भारत सरकार
कृषि मंत्रालय
(कृषि एवं सहकारिता विभाग)

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE
(DEPARTMENT OF AGRICULTURE & COOPEARATION)

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PERFORMANCE REQUIREMENTS (Cl.6. IS 11313:2007)			
Cl.6.1 Discharge rate/Suction capacity	When tested in accordance with the method given in 8.3, the pump shall be capable of discharging/sucking a minimum of 8000 ml. water per minute at its rated speed and rated pressure.	The pump is capable to discharge 8050 ml/min without gun at 7015 rpm of pump speed and 20 kg/cm^2 pressure	Conforms
Cl.6.1.1	The discharge rate/suction capacity shall be declared by the manufacturer	7.0 l/min declared in the manual of submitted by the manufacturer	Conforms
Cl.6.2 Volumetric Efficiency Cl6.2.1	When determined in accordance with 8.4.1, the volumetric efficiency of the piston/plunger type pump shall minimum 80 percent.	The volumetric efficiency is 97.69% which is specified limit	Conforms
Cl.6.2.2	The volumetric efficiency requirement for roller vane type pump shall be minimum 80%	Not applicable	-
Cl.6.3 Power requirement	When tested in accordance with the method given in 8.5, pump shaft power requirement shall not be more than that of the value declared by the manufacturer.	Not applicable	-
Cl.6.4 Maximum achievable pressure	When tested in accordance with the method given in 8.7, maximum achievable pressure shall not be less than that of the value declared by the manufacturer.	Maximum achievable pressure observed as 30 kg/ cm^2 with gun against the declaration of 35 kg/cm^2.	Conforms
Cl.6.5 Endurance test	Sprayer shall withstand the test endurance test specified in 8.8 and the variation in Discharge rate between first and last observation shall not be more than ± 5 Percent.	Endurance test of 50 hrs. completed without any breakdown & the variation in pressure. Percentage variation in discharge is 1.84% with in specified limit (see annexure IV for more details)	Conforms
Cl. 7	OTHER REQUIREMENTS (IS 11313:2007)		
Cl. 7.1	Each sprayer shall be provided with parts catalogue and manual giving detailed information about sprayer, engine, its rated speed along with operational and maintenance instructions and safety precautions.	Manual and parts catalogue is provided by the manufacturer and found adequate in contents.	Conforms
Cl. 7.2	Each sprayer shall be provided with a set of necessary tools, suction strainer having aperture size of 300μm to 425μm and a measuring jar for lubricating oil.	One set of Gaskets & spanner is provided with suction strainer of 350 μm aperture size is provided with suction pipe.	Conforms

Cl.10.	MARKING AND PACKING (Cl.10 IS:11313-2007)		
Cl.10.1 Marking	Each sprayer shall be marked with the following particulars :-		
a)	Manufacturer's name & his registered trade mark	Marked Agrimate AMH-709T	Conforms
b)	Sl. No. and batch or code No.	Not marked	**Does not conform**

6. COMMENTS AND RECOMMENDATION:-

6.1 Engine operated power sprayer Agrimate AMH-709T conforms all the clauses of IS: 11313-2007 except requirement specified in the following clause. These should be rectified and incorporated at manufacturing level:-

6.2 The prime mover fitted in the sprayer manufactured by thai Honda manufacturing Co. Ltd. Thailand, model-GX25 petrol engine of 0.72 kW at rated speed of 7000 rpm, In pursuance of ministry's order no. 7-23/2011-M&T (I&P) dated 20.04.2011 the engine performance test as per IS:7347/1974 has not been conducted and the performance parameters as specified by the applicant have been presumed taking into consideration that the engine manufacturing company is ISO-9001:2008 & ISO-14001:2004 certified company as is evident from the certificate registration no. 66100090007 issue date 21.05.2012 and 04104050086 dated 03.01.2014 respectively.

i) The material used for different components require to be declared by the manufacturer as per clause 4.3 of IS: 11313:2007 which is not declared.

ii) C1.E.5 IS: 3652:1995- Designation of spray gun does not conform.

iii) The gun does not conform the requirement of IS: 3652:1995 Clause E-6 For Marking. The make, Model, Serial No./Batch No. or Code No. Should be on marked gun.

iv) Cl.10.1 IS:11313-2007- Sr. No. & batch or code no. of sprayer is not provided.

6.3 The accessories for operator's safety has not been provided with sprayer. It may be provided for operator's safety.

6.4 Safety signs and hazard pictorials are not provided on the machine. it should be provided on the machine to alert person to and existing or potential hazard, identify the hazard, describe the nature of hazard, explain the consequences of potential injury from the hazard and instruct the persons about how to avoid the hazard.

6.5 The following literatures are provided by applicant for reference during test.

(a) Operator's instruction book (English).
(b) Honda GX25T engine - Parts catalogue (English).
(c) Honda GX25- Manual D utilization (printed in Thailand, 5 language, not English). The literature provided are adequate however, the operator's manual, service & spare parts catalogue/manual may be updated & brought as per IS: 8132:1999 in Hindi & other regional language for guidance of users.