

Tractors and Farm Equipment Limited, Chennai				R&D Division			
PRODUCT DESIGN SPECIFICATION							
PDR NO	PDR-DOM/0910/00078	PDS NO	PDS-DOM/1011/00123	VERSION	1.7	DATE	15-12-2010
MACHINE MODEL	MF245 DI MS AFA (589)	BASE MODEL	MF245 DI MS AFA (485)	SALES CODE	589		
						PDR Initiated By	Domestic
<b>PERFORMANCE</b>							
MAXIMUM GROSS ENGINE POWER @		rpm (Ps as per BU AU 141a)		47.65@2250			
		(kW as per ISO 14396)		35.06 @ 2250			
MAXIMUM GROSS ENGINE TORQUE @		rpm Kgm		17 @ 1400			
BACK UP TORQUE		%		12.1			
SFC @ max. PTO Power		g/PS-hr		195.4			
PTO Power		Ps		40.2 to 42.2 @ 2250			
		kW		29.56 to 31.04 @ 2250			
<b>ENGINE</b>							
MAKE AND MODEL				SIMPSONS TIII A S325-F4			
EMISSION COMPLANCE LEVEL				TREM III A			
TYPE				(NA) Direct Injection			
DESCRIPTION				T III A S 325 - F4			
NO. OF CYLINDERS				3			
BORE / STROKE		mm		91.4 / 127			
CAPACITY		cc		2500			
RATED SPEED		rpm		2250			
MAX NO LOAD FULL THROTTLE SPEED		rpm		2300 - 2475			
NO LOAD IDLE SPEED		rpm		775			
LUB OIL CONSUMPTION		%		0.3 % Fuel Consumption@start@FLRS on dynamometer			
CLOSED LOOP BREATHING				Closed Loop Breathing System available.			
GEAR PUMP				Not provided			
POWER CONSUMPTION FOR GEAR PUMP				Nil			
USEFUL LIFE BEFORE OPENING		Hrs		5000 hrs condition to proper maintenance as given in Simpson handbook.			
LUB OIL CHANGE INTERVAL		Hrs		Initial 50 hrs and subsequently every 250 hrs.			
ENGINE SHUT OFF PROVISION				Electric shut off (Key)			
<b>FUEL SYSTEM</b>							
CAB HEATER PROVISION							
FUEL PUMP TYPE AND MAKE				Rotary - Delphi TVS			
INJECTORS TYPE AND MAKE				Multi Hole - Delphi TVS			
PRESSURE SETTING		kgf/sq.cm		250 - 258			
FUEL FILTER TYPE AND MAKE				0.5 Ltr Dual filter - Delphi -TVS			
COLD STARTING AID				Not provided			

WATER SEPARATOR		Not Provided
RESEARCH & DEVELOPMENT		EXPORTS/MARKETING
CHECKED BY:		CHECKED BY:

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 <b>LUBRICATION SYSTEM</b>							
TYPE				OIL, FORCED FEED, ROTARY PUMP, THROW AWAY CANISTER TYPE FILTER			
RELIEF VALVE OPENING PRESSURE				kgf/sq.cm	3.5 to 4.2		
MINIMUM OIL PRESSURE @ IDLING RPM IN HOT CONDITION				kgf/sq.cm	1.5 @ 85 degree C		
 <b>EXHAUST SYSTEM</b>							
<b>EXHAUST AFTER TREATMENT</b>							
				VERTICAL			
 <b>COOLING SYSTEM</b>							
SYSTEM				Water Cooled			
RADIATOR				ALUMINIUM			
FAN				PLASTIC - 7 BLADE			
TEMPERATURE CONTROL				Thermostat at water outlet.			
RADIATOR CAP PRESSURE				kgf/sq.cm	0.9		
 <b>AIR INDUCTION SYSTEM</b>							
AIR CLEANER TYPE				WET-3 STAGE			
AIR CLEANER LOCATION				Inside Bonnet			
PRE CLEANER LOCATION				OVER BONNET			

RESEARCH & DEVELOPMENT	EXPORTS/MARKETING
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