

Tractors and Farm Equipment Limited, Chennai						R&D Division	
PRODUCT DESIGN SPECIFICATION							
PDR NO	PDR-DOM/1112/00211	PDS NO	PDS-DOM/1112/00219	VERSION	1.8	DATE	26-07-2011
MACHINE MODEL	MF290 Xtra 4WD H4,D8,OIB, FTF, AUX HYD , DIFF LOCK	BASE MODEL		MF 290 Xtra 4WD- GX101	SALES CODE	GX135	
						PDR Initiated By	Domestic
PERFORMANCE							
MAXIMUM GROSS ENGINE POWER	@	rpm (Ps as per BU AU 141a)		81.62@2200			
		(kW as per ISO 14396)		60.0 @ 2200			
MAXIMUM GROSS ENGINE TORQUE	@	rpm Kgm		29.7 @ 1400±100			
BACK UP TORQUE		%		11.8			
SFC @ max. PTO Power		g/PS-hr		204.5			
PTO Power		Ps		66 to 69.4 @ 2200 Erpm without IPTO and Compressor.			
		kW		48.5 to 51.0 @ 2200 Erpm without IPTO and Compressor.			
ENGINE							
MAKE AND MODEL				SIMPSONS S440			
EMISSION COMPLANCE LEVEL				Blue Engine (Non Emission)			
TYPE				Direct Injection, NA			
DESCRIPTION				S 440 (Blue Engine)			
NO. OF CYLINDERS				4			
BORE / STROKE				mm 100 /127			
CAPACITY				cc 4000			
RATED SPEED				rpm 2200			
MAX NO LOAD FULL THROTTLE SPEED				rpm 2420			
NO LOAD IDLE SPEED				rpm 700 to 750			
LUB OIL CONSUMPTION				% 0.35 % of fuel consumption @ start @ FLRS on dynamometer test.			
CLOSED LOOP BREATHING				PCV System			
GEAR PUMP				Power Steering GEAR PUMP WITH REMOTE RESERVOIR			
POWER CONSUMPTION FOR GEAR PUMP				Max 1.5Ps at engine speed 2200 at Static condition			
USEFUL LIFE BEFORE OPENING				Hrs 5000 hrs condition to proper maintenance as given M/S Simpson handbook.			
LUB OIL CHANGE INTERVAL				Hrs Initial 50 hrs and subsequently every 250hrs.			
ENGINE SHUT OFF PROVISION				Mechanical Fuel cut-off – Lever type			
FUEL SYSTEM							
CAB HEATER PROVISION							
FUEL PUMP TYPE AND MAKE				IN LINE - BOSCH			
INJECTORS TYPE AND MAKE				Multihole and BOSCH			
PRESSURE SETTING				kgf/sq.cm 230 - 238			
FUEL FILTER TYPE AND MAKE				Duel fuel filter and BOSCH.			

COLD STARTING AID	Minus 15 degree C with themostart (12V - THERMOSTART ON THE INDUCTION MANIFOLD)
WATER SEPARATOR	
RESEARCH & DEVELOPMENT	EXPORTS/MARKETING
CHECKED BY:	CHECKED BY:

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 LUBRICATION SYSTEM							
TYPE				OIL, FORCED FEED, ROTARY PUMP, THROW AWAY CANISTER TYPE FILTER			
RELIEF VALVE OPENING PRESSURE				kgf/sq.cm	3.52 to 4.2		
MINIMUM OIL PRESSURE @ IDLING RPM IN HOT CONDITION				kgf/sq.cm	1.5 at 85 Deg C		
EXHAUST SYSTEM				VERTICAL			
EXHAUST AFTER TREATMENT							
 COOLING SYSTEM							
SYSTEM				Water Cooled			
RADIATOR				COPPER BRASS			
FAN				METAL – 6 BLADE			
TEMPERATURE CONTROL				Thermostat at water outlet			
RADIATOR CAP PRESSURE				kgf/sq.cm	0.9		
 AIR INDUCTION SYSTEM							
AIR CLEANER TYPE				WET-4 STAGE			
AIR CLEANER LOCATION				Inside Bonnet			
PRE CLEANER LOCATION				OVER BONNET			

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