



# KIRLOSKAR DIESEL ENGINES

**Engine Model: 4R1040TC** 

No. of	Bore x Stroke	Displacement (cc)	Gross Power Output Rating as per ISO3046 at 1800 RPM bhp (kW)			ower Rating tor at 0.8 pf
Cyls.	(mm)	(33)	Prime	Standby	Prime	Standby
4	105 x 120	4160	90 bhp (66.2 kW)	99 bhp (72.9 kW)	72 kVA	79.2 kVA

## Features -

- Designed for heavy duty applications
- Extremely reliable
- All service points like dipstick, lube oil filling, lube oil filter, fuel pump, injectors are on one side which is the cooler side. This adds to operator comfort.
- Lower operating cost
- Easy maintenance higher uptime
- Superior design standards that minimize power deration even at high ambient temperatures.

## **Ratings Definition:**

**Standby Ratings**: These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3)

**Prime Rating**: These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercial purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

**Continuous Rating**: These ratings are applicable for supplying power continuously to a constant load upto the full output rating for unlimited hours. No sustained overload capability is available for this rating.



# **Engine Technical Data:**

Physical Data				
Engine Make	Kirloskar			
Engine Model	4R1040TC			
Number of cylinders	4			
Configuration	Inline			
Туре	Four stroke			
Bore x Stroke (mm)	105 x 120			
Displacement (cc)	4160			
Cooling	Liquid cooled			
Aspiration	Turbocharged			
Compression Ratio	18:1			
Starting Arrangement	12V Electric			

Fuel System				
Type of fuel filter		Two stage spin on type		
Governor Type	Mechanical			
Class of Governing		ISO 3046 Class A1 & ISO 8528-5, Class G2		
Fuel pump type		Inline		
Fuel pump make		MICO - BOSCH		
Recommended Fuel		Class A2, High speed diesel		
Fuel consumption Load at		100%	75%	50%
+5% tolerance L/hr		17	12.8	9.2
Fuel consumption readings are based on diesel fuel with a specific gravity of 0.85 and confirming to BS 2869, Class A2)				

Air System			
Air Filter Type	Dry type replaceable element		
Exhaust gas flow rate (kg / hr)	358		
Combustion fresh air flow (m³/hr)	242		
Radiator air flow (m³/hr)	9300		
Total fresh air required (m³/hr)	9542		

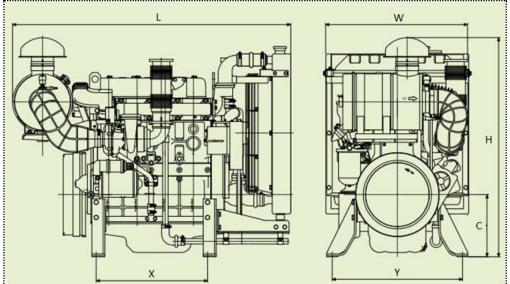
Lubrication System			
Type of lube oil filter	Full flow spin on type		
Oil to be used	SAE15W40 API : CI4		
Oil pump type	Through G-rotor gear pump		
Lub oil sump capacity (lit)	11		
Lube oil consumption	0.3% of fuel consumption		

Cooling System			
Cooling system capacity (lit)	24		
Water pump type	Centrifugal		
Radiator fan load (hp)	3.5		

Electrical System			
Starting Arrangement	12V Electric		
Starter	12V Electric		
Recommended starter battery rating	120 Amp-hr		
Battery charging alternator	Engine mounted 12V battery charger		
Battery charger amps	35		

## **Engine Dimensional Details:**





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Dimensions in mm					
L	W	Н	С	Х	Y
1415	826	1142	285	513.5	600

Weight Details			
Engine weight without radiator Gross / Net (kg)	570 / 460		
Radiator and accessories weight Gross / Net (kg)	77 / 60		

Coupling		
Flywheel Suitable for SAE 11.5" disc		
Housing	SAE3	
Coupling disc	Not supplied	

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Kirloskar Oil Engines Limited reserved the right to change the design or specifications without notice

<sup>(\*</sup> Please refer to the respective rating GA drawing)