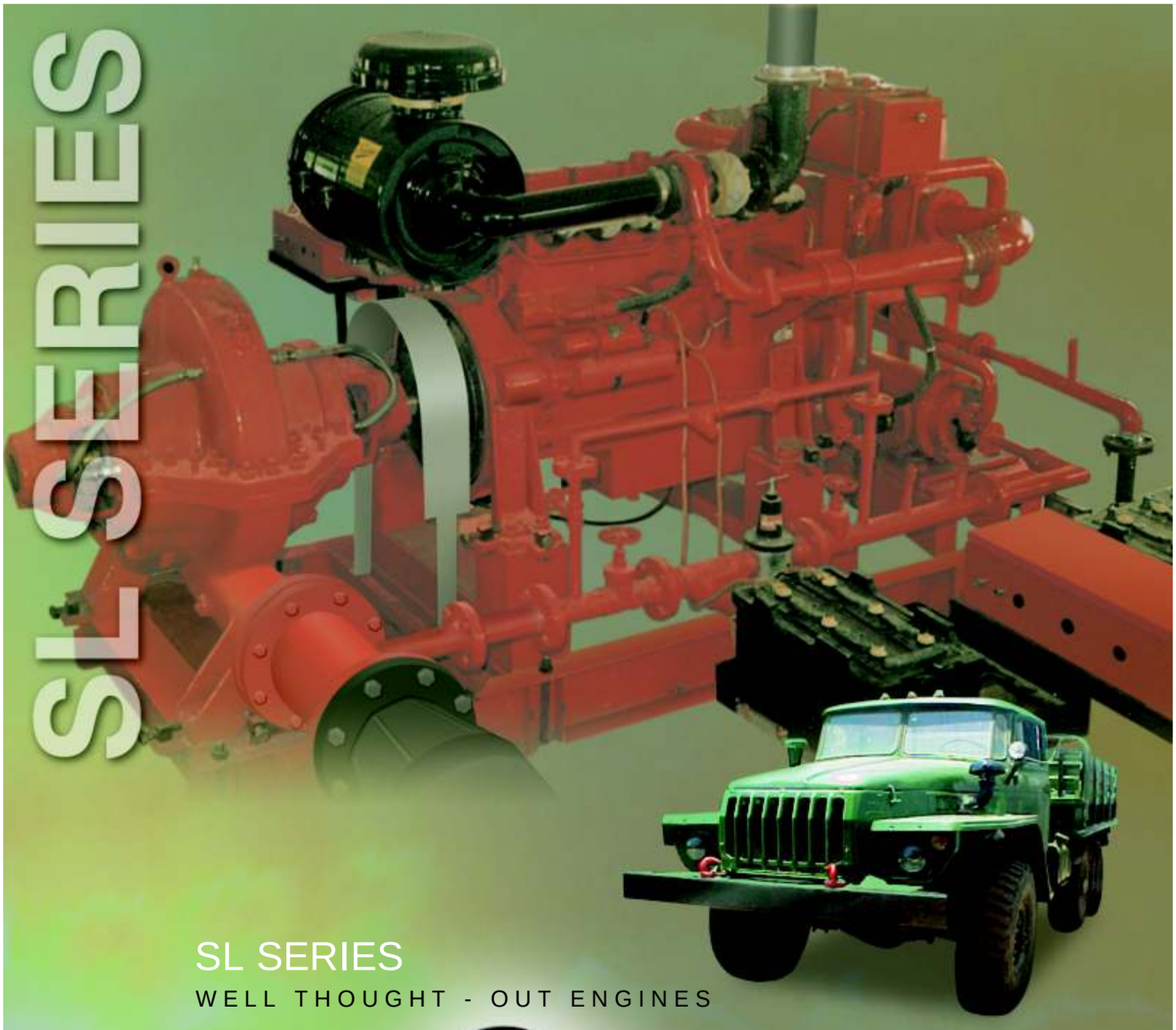
SL SERIES



SL SERIES

WELL THOUGHT - OUT ENGINES

Kirloskar

Enriching Lives

Kirloskar engines: Prime movers to the Indian nation.

Kirloskar Oil Engines Limited founded in 1946 and popularly known as KOEL is India's leading manufacturer of the finest and widest range of diesel engines - from 3 hp to 800 hp, and from 2400 hp to 11,000 hp. The engines are branded as 'Kirloskar'. With annual manufacturing volumes exceeding 225,000 engines, Kirloskar engines are available in both air-cooled and liquid-cooled versions. The main engine manufacturing plant is at Pune, and other manufacturing locations are Nashik, Ahmednagar, Rajkot, Indore. With an investment outlay of over US$ 200 Mn we are setting up world class engine manufacturing facility at Kagal near Kolhapur (200 Kms south of Pune). This will enhance our manufacturing capacity by 100,000 engines per year starting 2008. Kirloskar engines are available in Industrial, Agriculture, Power Generation as well as Marine Application. The engine manufacturing facilities are continually upgraded and improved to ensure the requisite quality at competitive cost. Critical components like crankcases, crankshafts, camshafts, gear casing, cylinder heads and connecting rods are manufactured in-house. KOEL also manufactures for its exclusive use, special purpose machines to achieve critical degrees of precision that international specifications demand. The prestigious ISO 9001 certification for Quality Management Systems in 1992 and ISO 14001 certification for Environmental Management Systems in 1999 & TS16949 are the proof of Kirloskar's commitment to quality and environment. KOEL is the first engine manufacturing company in India to be awarded the ISO 14001 certification. At Kirloskar, we believe that the industry and the environment can, and must, coexist in a mutually beneficial way. Bringing this thought into practice, is what has driven us to manufacture engines that are not only eco-friendly, but are also manufactured in an environment-friendly way.

Product Support :

Kirloskar has one of the most extensive service networks in India. Almost 90% of Kirloskar engines are within 100 kilometre periphery of a Kirloskar Service Dealer. 230 Service Dealership locations provide relentless service to the customers. The location of the dealerships and their infrastructure is continually assessed based on the Kirloskar engine population build-up in each territory, and the emerging service needs of the customers. Out of these, 96 Service Dealership locations provide 24-hour service. The number of Service Dealerships that provide 24-hour service are growing day by day. Additionally, over 65 Kirloskar Territory Managers, Service Engineers and Technicians are stationed at 15 Kirloskar Area Offices. A well spread out service network manned by about 2,200 Kirloskar trained engineers and technicians ensures prompt service and easy availability of genuine spare parts, thus ensuring highest up time for Kirloskar engines.

All pervasive IT in operations :

Having foreseen the power of IT to transform businesses, way back in 1998, KOEL installed the world's leading Enterprise-wide Solution (ERP) Oracle. This installation is noted to be one of the most comprehensive installations of Oracle in the manufacturing industry. The installation of ERP in 1998 was followed up with web-enabled business processes in 2000; comprising 26 specific modules, connecting over 2,500 stake-holders who together commit over 50,000 transactions every day. With this initiative, Kirloskar Service Dealers, OEMs, Area Sales Offices, Suppliers and Logistic Providers form a digital community that is ever ready to respond to each customer need efficiently. The Service Dealerships are able to respond to customer needs quickly and efficiently by accessing latest service information and parts availability over the internet, 24 hours a day, 365 days a year, including a leap year.

We are in the process of expanding the IT applications in the area of Customer Relationship Management [CRM]. The CRM Module will enable us to actively address the needs of its existing, as well as prospective customer base. By being always online and in real time. What started as an ERP initiative in 1998 has today become one of the largest eBusiness suites operating outside the United States.

Liquid - cooled diesels engineered to economise

Maximum economy and reliability are the features of these diesel engines. The power units are produced to meet the high precision and quality standards symbolised by the name Kirloskar. A strictly modular design ensures component standardisation which resolves many spare parts supply problems.

Salient features

- Optimized cast iron cylinder head with optimum distribution of forces.
- Wet, replaceable cylinder liners .
- Efficient and reliable turbocharger.
- Full flow disposable spin-on oil filter for extra high filtration.
- One centrifugal type bypass filter.

- Full flow oil cooler
- Efficient cooling with accurate coolant controls. Reliable sleeve thermostat with minimum pressure drop
- Belt driven, highly efficient coolant pump.
- Twin fuel filters of throw-away type.
- High grade alloy steel material heavy-duty crankshaft with seven bearings for moderate load on main bearings.
- MICO / Motorpal fuel injection system
- Gear type lubricating oil pump gear driven by the transmission.
- Nitro-carburized transmission gears for heavy-duty operation.
- Viscous crankshaft vibration damper to withstand single bearing alternator torsional vibrations.

User advantages

- Benefits of the same engine family covering the output range 154 to 355 BHP and variety of equipment :
- The need for training of maintenance personnel is minimized.
- Better logistics support is possible due to lower weight and volume of equipment and individual engine parts, lower frequency of workshop attendance, extended MTOBs, faster maintenance, extended diesel and lube oil top-up intervals.

Agency Certification by institutions like R&D Dighi, Pune for 6SL9088T/TA engine

Standard scope of supply

- In line vertical, liquid cooled diesel engine
- Anti clockwise rotation looking from flywheel end.
- Fuel Injection Pump (MICO / Motorpal)
- 24V Starter and battery charging alternator
- Twin bowl fuel filter
- Lube oil filter

- Centrifugal bypass filter
- Lube oil cooler
- Engine mounted dry type air cleaner
- Silencer supplied loose.
- Expansion bellow
- Flywheel
- Flywheel housing SAE 1
- Holset / Equivalent coupling
- Control panel and wiring harness
- Radiator and radiator fan
- Air to air charge air cooler for TA engines.
- Fuel pipes
- Rigid engine mounting foot.

Optional equipment

- Residential type exhaust silencer suitable for remote mounting
- Holset type flexible coupling with 35 mm or 45 mm semi finished bore
- Provision for gear driven hydraulic pump & gear driven compressor
- Automatic engine shut-down arrangement in case of low lube oil pressure, high cylinder head temperature, V belt failure and engine over sped (details on request)
- Industrial power take-offs (Twin disc type) to suit SP 2140 PTO.
- Special lube oil sumps to suit high inclinations (details on request)
- Cold starting aid for engine starting below minus 5 C down to minus 20^{0}C (detail on request)
- Mud filter and water separator

Note : Selection depends on application, rpm and torque to be transmitted. Consult KOEL R&E for proper selection.

Standard scope of supply - Fire fighting

- In line vertical, liquid cooled diesel engine
- Anti clockwise rotation looking from flywheel end.
- Fuel injection pump (MICO / Motorpal)
- 24V starter and battery charging alternator
- Twin bowl fuel filter
- Lube oil filter
- Centrifugal bypass filter
- Lube oil cooler
- Engine mounted dry type air cleaner
- Silencer supplied loose
- Expansion bellow
- Flywheel
- Flywheel housing SAE 1
- Holset / Equivalent coupling
- Control panel and wiring harness
- Automatic shut down arrangement for low lube oil pressure, high water temperature and engine over speed.
- Radiator and radiator fan / Heat exchanger cooling.
- Make up water tank in case of Heat exchanger cooling.
- Air to air charge air cooler for TA engines.
- Fuel pipes
- Rigid mounting foot.
- Painted in fire fighting red colour

Horse Power Ratings : SL90 Engines for Industrial Applications As per BS 5514

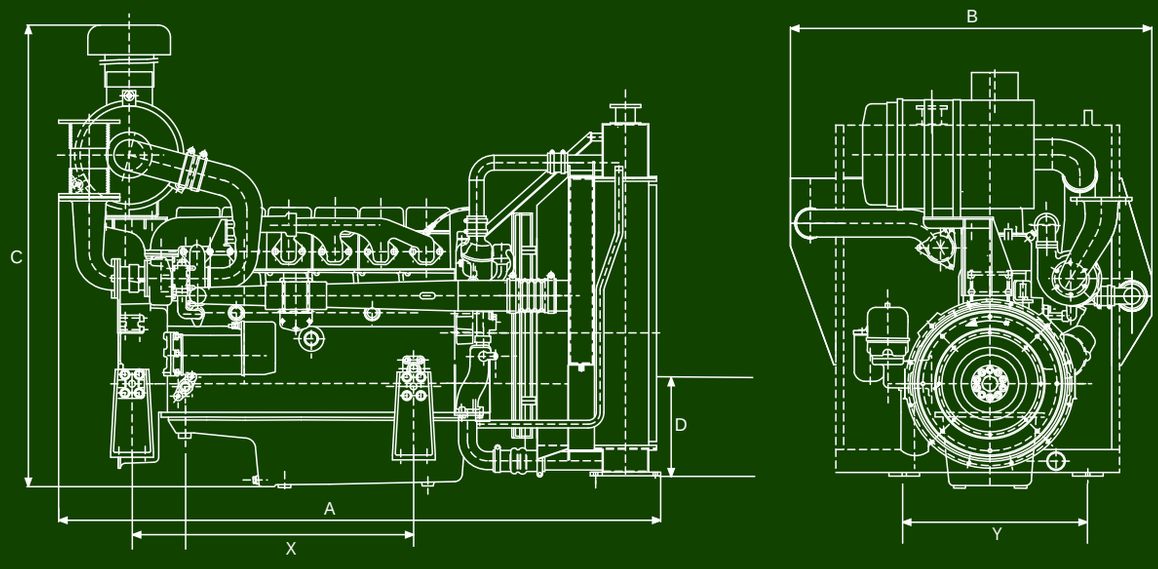
Engine	Rpm	Continuous Rating		Fuel Stop Power	
		Power HP	Max. Torque kg-m @ rated rpm	Power HP	Max. Torque kg-m @ rated rpm
6SL9088T	1500	154	73.6	169	80.9
	1800	173	68.9	190	75.8
	2100	190	64.8	209	71.3
6SL9088TA	1500	198	94.6	218	104.0
	1800	231	92.0	254	101.2
	2100	-		-	
6SL1500TA	1500	254	121.3	279	133.5
	1800	-		-	
	2100	-		-	
6SL8800TA	1500	310	148.1	341	162.9
	1800	255	101.5	281	111.9
	1800	345	137.3	380	151.3
	2100	355	113.3	365	124.6

Note : All the above values are for constant speed applications.

Overall dimensions and installation drawings
(6SL9088T / 6SL9088TA / 6SL1500TA / 6SL800TA engines)

Model	A	B	C	D	X	Y
6SL9088T	1793	980	1581	255	836.5	736
6SL9088TA	1762	1181	1581	255	836.5	736
6SL1500TA	1975	1181	1581	255	836.5	736
6SL8800TA	1975	1181	1581	255	836.5	736

All dimensions are in mm
These dimensions may vary from alternations depending on applications. Request to refer the installation drawing for further clarity.



Brief specifications

Models	6SL9088T	6SL9088TA	6SL1500TA	6SL8800TA
Engine Description	Vertical Water cooled, compression Ignition four stroke cycle Turbo / Turbo After Cooled Diesel Engines			
Bore x Stroke (mm)	118 x 135			
Displacement (cc)	8800	8800	8800	8800
Compression Ratio	17.5 : 1	17.5 : 1	17.5 : 1	15.5 : 1
Direction of Rotation	Counter-clockwise (looking at flywheel end)			
Speed - Max Operating	2100 (for continuous duty & intermittent duty as mentioned in the table for 'Horse Power Ratings')			
Min. operating (rpm)	1500			
Low idling (rpm)	650			
Dry weight of engine with Flywheel SAE1 & Radiator	1200	1300	1400	1400

Approximate shipping specifications with standard equipment

Model	Net Weight (kg)	Gross Weight (kg)	Packing case size (mm)
6SL9088T	1200	1550	1830 x 1230 x 1450
6SL9088TA	1300	1550	1830 x 1230 x 1450
6SL1500TA	1400	1550	1830 x 1230 x 1450
6SL8800TA	1400	1720	1830 x 1230 x 1450

Enriching Lives

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