

limitless



Air- Cooled, HA Series

Well thought out
Diesel Engines

k•rloskar
South Africa

A Rich Tradition of Engineering Excellence

The Kirloskar Legacy stands for a tradition of excellence for more than a century now. A personification of patronizing values and visionary goals, the name 'Kirloskar' is engraved on numerous nation-building milestones. Today, the Kirloskar Group, with a turnover exceeding USD 1.6 billion, stands as an enormous industrial conglomerate.

Incorporated in 1946, Kirloskar Oil Engines Limited (KOEL) is the flagship company of the Kirloskar group. We have four state-of-the-art manufacturing units in India that offer world-class service. The company has a sizable presence in international markets, with offices in the USA, UAE, South Africa, Kenya and representatives in Indonesia, Vietnam and Nigeria. KOEL also has a strong distribution network throughout the Middle East and Africa.

Today KOEL is an acknowledged leader in the

manufacturing of diesel engines, agricultural pumpsets, power tillers and generating sets. The company currently ranks among the leading manufacturers of diesel engines, which are manufactured and sold under Kirloskar Brand. Kirloskar engines cover a power envelop span ranging from 4hp to 1250 hp and from 2,400 hp to 11,000 hp, in air-cooled and liquid cooled, naturally aspirated, turbo and turbo-after-cooled versions.

KOEL manufactures over 2,25,000 engines annually, which are used in over 100 different applications. These applications are found in sectors such as agriculture, power generation, construction, material handling, earth-moving, mining, offshore, fluid handling and agro-industrial market segments that include defence and marine applications. KOEL exports to over 60 countries worldwide.

Air-cooled Diesel Engines. Engineered to Economise.

Maximum economy and reliability combined with air cooling are the features of these diesel engines.

The power units are produced to meet the high precision and quality standards symbolized by the name Kirloskar.

A strictly modular design ensures component standardisation which solves many spare part supply problems. Being air-cooled, the HA Series engines work efficiently under different climatic conditions and are easy to maintain.



Standard Features

- Pre and micro fuel filters
- Lube oil cooler
- Fuel lift pump
- Lube oil filter
- Engine stop lever(hand operated)
- Engine supports suitable for rigid mounting
- Torsional vibration damper on crank pulley (for HA694/HA694TC engine only)as applicable
- Automatic belt tension unit
- Mechanical/electrical engine shut down system in case of 'V' belt failure

Salient Features Designed to Outperform



Various industrial applications



Continuous Piston cooled



Auto-belt tensioning system



In-line gear driven



20% lower fuel consumption



Full flow block type lube oil



Ability specific application requirement



No external lube oil piping



Covered all maintenance points



Turbo charged versions



Provision for engine-mounted belt

Kirloskar HA Series engines act as prime movers in a host of critical and demanding applications such as:



Water Pumps



Compactors



Mining Locomotives



Drill Rigs



Load Haul Dumpers (Lhd)



Sugarcane/wood Handlers



Transit Mixers



Mining Utility Vehicles



Power Ratings As per IS:10002/BS: 5514/DIN 6271/ISO 3046 ISO STD: Power (continuous rating)

Engine	rpm	kW	bhp	torque		
				Nm	kgm	
HA294	1500	14	19	89	9.1	
	1800	17	23	90	9.15	
	2000	18	25	87	8.95	
	2300	20	27.5	84	8.55	
HA394	1500	24	32	150	15.30	
	1800	28	38	148	15.10	
	2000	30	41	144	14.70	
	2300	35	47	143	14.60	
HA494	1500	32	43	201	20.50	
	1800	38	52	203	20.70	
	2300	46	66	192	19.60	
	2500	52	70	*	*	
HA594	1500	44	59	274	27.94	
	1800	52	70	272	27.73	
	2000	55	75	263	26.81	
	2300	58	79	242	24.67	
HA694	1500	48	65	304	31.00	
	1800	58	78	304	31.00	
	2000	63	85	298	30.40	
	2300	70	95	290	29.60	
HA694TC	1500	62	83	350	39.50	
	1800	70	94	400	38.80	
	2000	72	96	355	37.20	
	2300	74.8	101.8	310	34.70	

Optional Features

- Engine control panel consisting of start push button, lube oil pressure gauge and ammeter
- Industrial type silencer suitable for remote mounting
- Spark arrestor type exhaust silencer
- Expansion bellow
- Exhaust manifold-cum-silencer for HA294/HA394/HA494/HA694 engine only (to replace separate manifold and exhaust silencer)
- Dry type air cleaner with evacuator valve and restriction indicator (pre-cleaner available on demand)
- Lock nut type speed adjusting unit on fuel pump
- Engine supports
- Hand starting arrangement at gear end on HA294, HA 394 and HA494 only (this requires extra heavy flywheel which can be accommodated only in SAE-1, flywheel housing)
- 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 overspeed (details on request)
- Hot air outlet ducting and fresh air intake ducting*
- Holset type flexible coupling with following
- unfinished bore flanges
- Engine model unfinished bore/coupling type
HA294/394 22 mm dia
HA494/494TC/30 mm dia
694HA/694TC
- Raised oil filling and raised dipstick arrangement
- Special lube oil sumps to suit high inclinations *
- Flywheel housing (SAE4, 3, 2 and 1)
- 12V/24V electrical starting system
- Cold starting aid for engine starting -5°C down to -20°C*
- Mud filter and water separator instruments
- Low lube oil pressure switch (normally closed type)
- V-belt failure switch
- High cylinder head temperature switch
- Engine over speed switch (12V/24V)
- 12V/24V stop solenoid (in lieu of mechanical shutdown)
- Electrical hour meter and tachometer
- Lube oil temperature gauge with sensor
- Note: Selection depends on application, rpm and torque to be transmitted.

*details on request

Brief Specifications

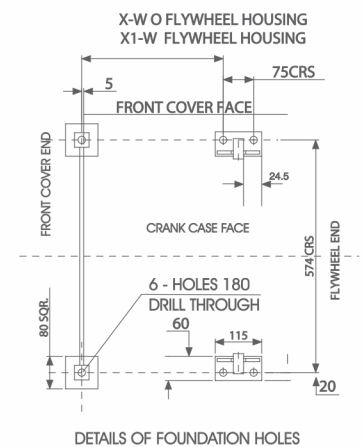
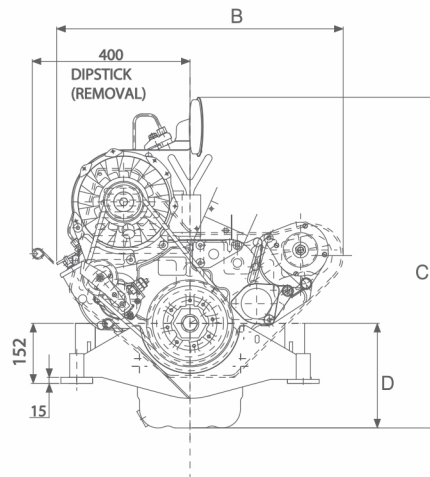
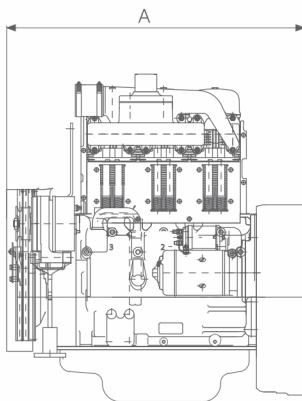
Models (Units)	HA 294	HA 394	HA 494	HA 594	HA 694	HA 694T
Cyl. Arrangement Cyl. / Inline	2	3	4	5	6	6
Aspiration	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Turbocharged
Bore x Stroke (mm)	100 x 120					
Displacement (Ltrs)	1.88	2.83	3.79	4.70	5.66	5.66
Compression Ratio	17 ± 1				18 ± 1	
Firing Order	1-2	1-3-2	1-3-4-2	1-2-4-5-3	1-5-3-6-2-4	1-5-3-6-2-4
Type of Governing	Mechanical					Mechanical/ Electronic
Battery Required (V)	12			24		
Method of starting	Electrical					
Flywheel housing (SAE)	SAE - 3					
Flywheel (SAE)	SAE-8”- SAE-10” - SAE 11.5"					
L X W X H	678 X 704 X 872	808 X 704 X 868	938 X 704 X 868	999 X 704 X 874	1277 X 704 X 922	1145 X 704 X 878
Engine Weight (Dry weight of bare Engine)	243	300	338	433	430	448

Note: Please consult with KOEL's International Business office to choose an engine that best suits your requirement.

Overall Dimensions and Installation Drawings

Engine Model	A	B	C*	D*	X	X
HA 294	678	704	872	301	342	455
HA 394	808	704	868	297	272	585
HA 494	938	704	868	297	602	715
HA 594	999	704	874	331	—	—
HA 694	1277	704	922	300	869	982
HA 694 TC	1145	760	878	300	869	982

*All dimensions are in mm. The dimensions may vary with alternations depending on applications.



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