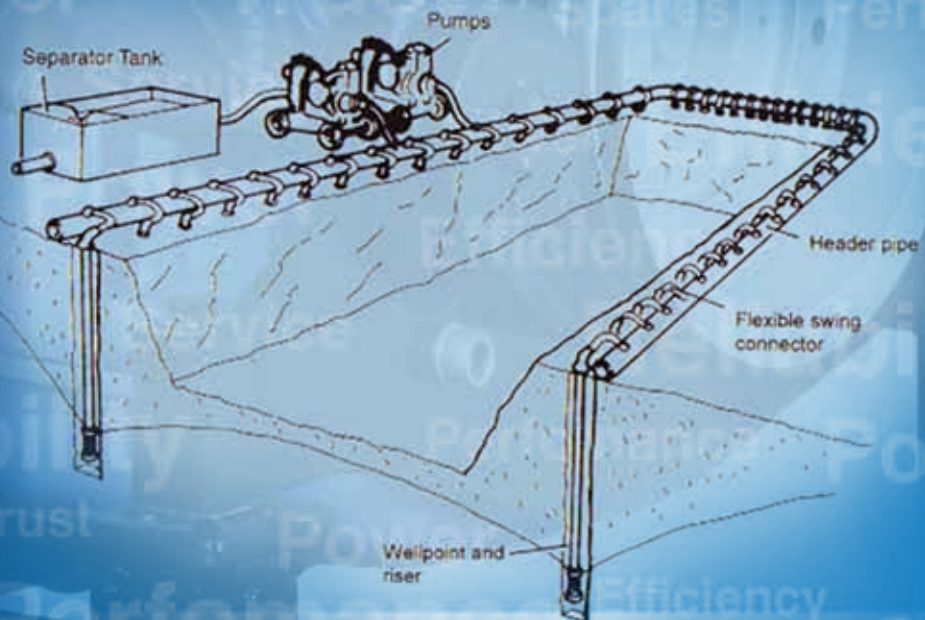
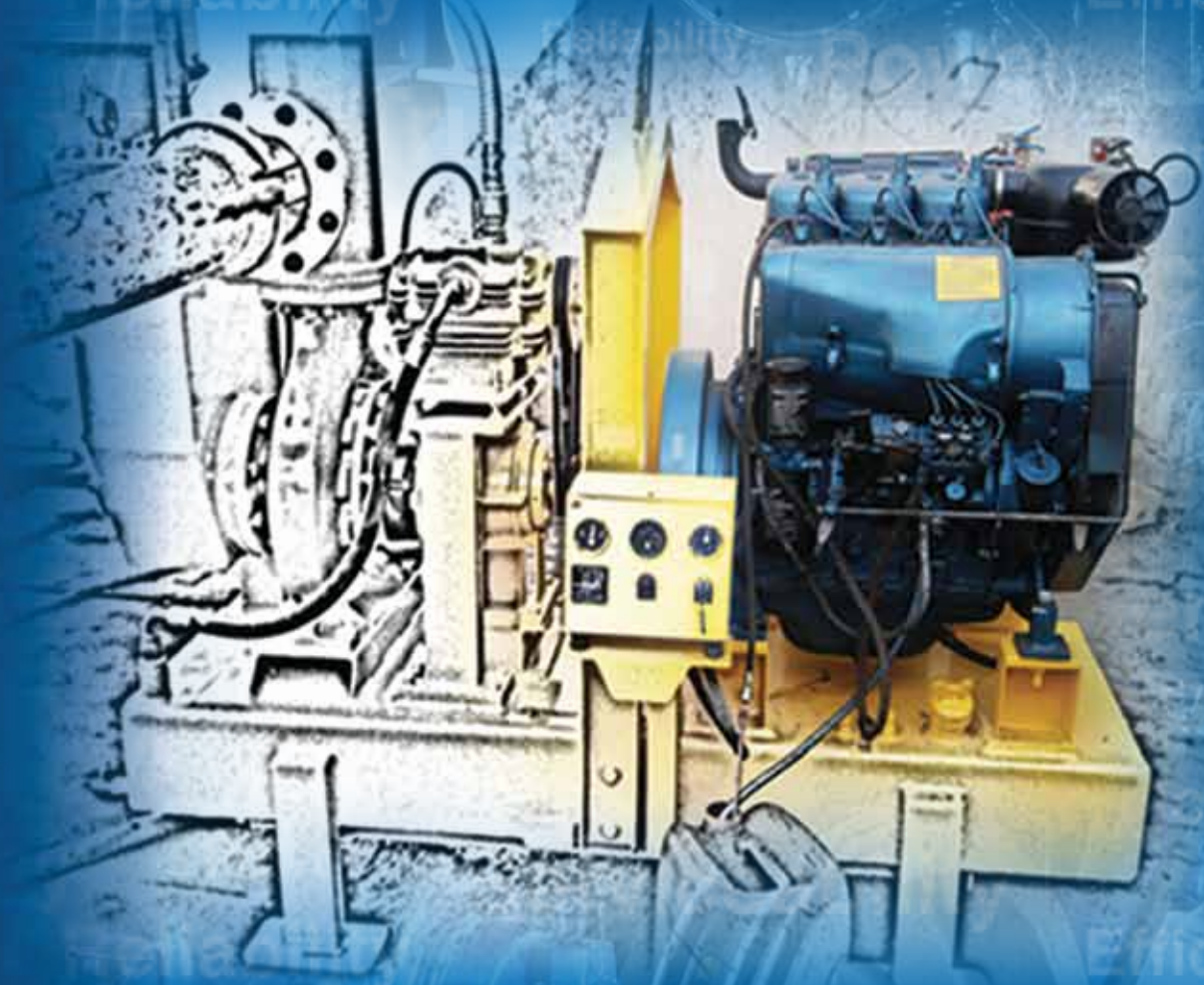


KIRLOSKAR

Kirloskar Diesel Engine



Enriching Lives



MAJOR BENEFITS OF KIRLOSKAR



Heavy duty thick sheet Belt Guard for safety & long life



Pre-Cleaner + Oil Bath type Air Cleaner designed for dusty conditions



Control Panel with Ammeter, Hour meter, Oil pressure gauge, On/Off switch



Common Header for Fuel & Oil Filter Leading to ease in maintenance & serviceability



SAE 3 flywheel housing for easy coupling & adaptation



Lifting hooks arrangement for ease in movement / handling of engine



Auto belt tensioning unit, Mechanical engine shutdown safety arrangement in case of Belt failure, safety arrangement suitable for desert conditions



Easy access and Ready availability of spare parts and service



Efficient and reliable fuel injection system for better fuel consumption and efficiency



Heavy duty blower designed for efficient engine cooling in hot and dusty conditions

"Kirloskar Diesel Engines for more than 80 different applications"

"Kirloskar Diesel Engines for more than 80 different applications"

HA Series Engine for centrifugal pump (Open & Close Impeller)

The Engines are suitable for following suction and delivery sizes of pumps

HA Series Air Cooled Engine -

Table *

Kirloskar Engine model	Engine rating	Pump Suction & Delivery sizes	Water flow
HA 294	23 hp @ 1800 rpm	4" x 4" (100 mm)	150 (CuM/hr)
HA 394	38 hp @ 1800 rpm	6" x 6" (150 mm)	400 (CuM/hr)
HA 494	52 hp @ 1800 rpm	8" x 8" (200 mm)	550 (CuM/hr)
HA 694	78 hp @ 1800 rpm	12" x 12" (300 mm)	-

Kirloskar HA Series Engines are well known and widely used for Powering Dewatering Pumpset application especially in the GCC region. An active population of 3,000 Engines is itself a testimony of popularity, Product Reliability as well as customer acceptance in the market.

Standard equipment

- Oil bath air cleaner with pre-cleaner and dust collector
- Exhaust manifold cum silencer (HA294/HA394/HA494/HA694 engine only)
- 12V electric starting with starter, without wiring, batteries and leads.
- 12V/35 amps Alternator with built- in cut out.
- Pre and micro fuel filters
- Lube oil cooler
- Fuel lift pump
- Lube oil filter
- Engine stop lever (hand operated)
- Belt guard
- Engine supports suitable for rigid mounting
- **Engine control panel** consisting of start push button, lube oil pressure gauge, Hour meter, ammeters and cutout.
- Torsional vibration damper on crank pulley (for HA694 engine only) as applicable
- Automatic belt tension unit.
- Mechanical engine shut down system in case of 'V' belt failure
- Lock nut type speed adjusting unit on fuel pump

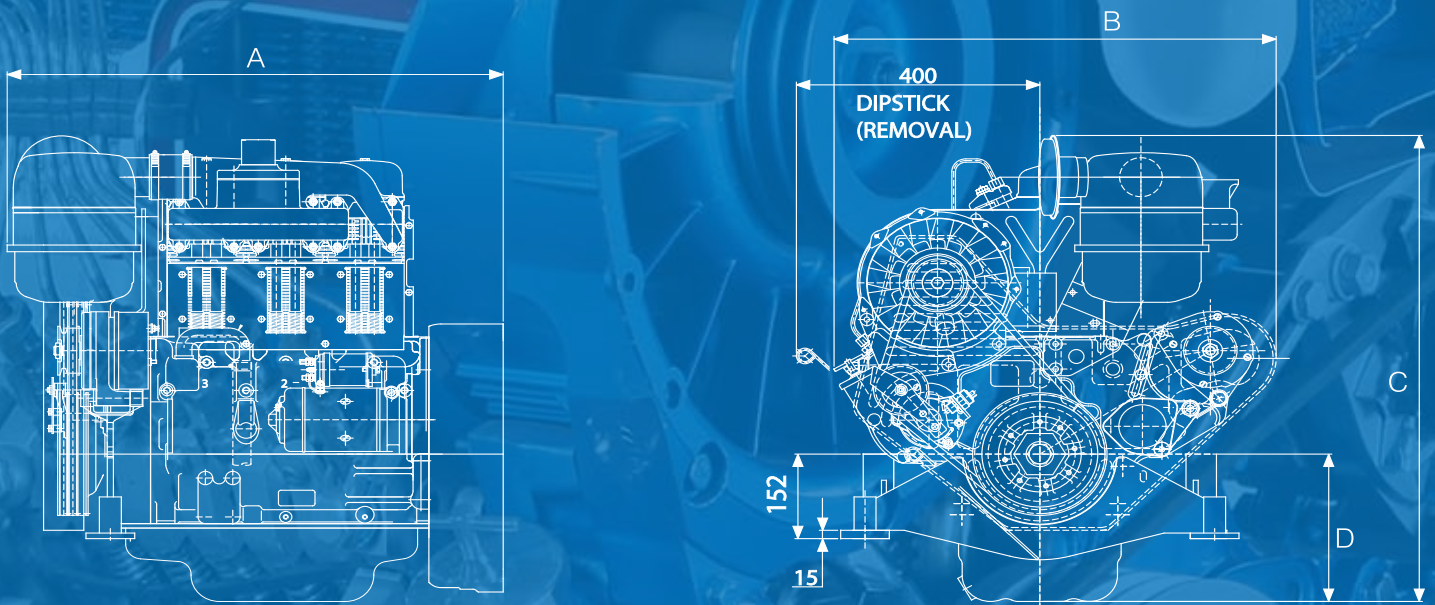
* The pump data given in this catalogue is for illustrative purpose only and does not pertain to any specific pump / model. Please consult Kirloskar representative for selection of suitable engine model (s) for specific requirement (s)

"Kirloskar Diesel Engines for more than 80 different applications"

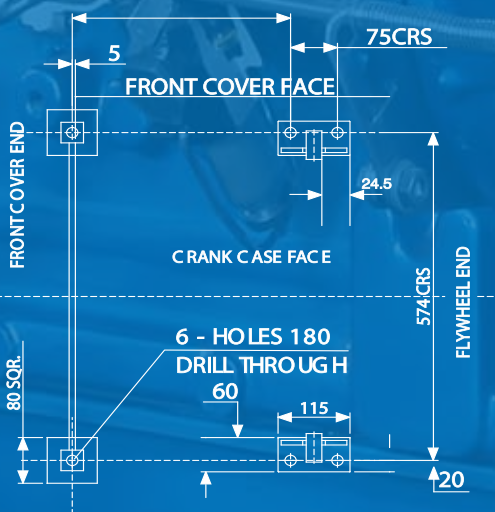
Overall dimensions and installation drawings

Engine Model	A	B	C*	D*	X	X1
HA294	678	704	872	301	342	455
HA394	808	704	868	297	272	585
HA494	938	704	868	297	602	715
HA694	1277	704	922	300	869	982

* All dimensions are in mm, kindly consult Kirloskar representative for updated information.



X-W O FLYWHEEL HOUSING
X1-W FLYWHEEL HOUSING



DETAILS OF FOUNDATION HOLES

"Kirloskar Diesel Engines for more than 80 different applications"

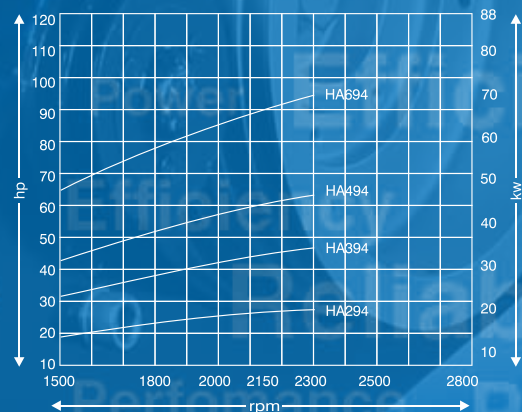
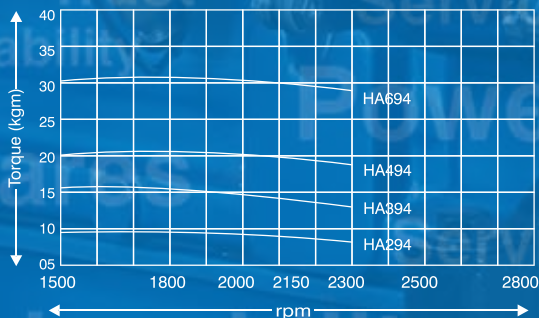
Technical Specification of HA Series Engines

Parameter	Unit	HA294	HA394	HA494	HA694
No. of Cylinders	-	2	3	4	6
Bore x Stroke	mm	100 x 120			
Firing Order	-	1-2	1-3-2	1-3-4-2	1-5-3-6-2-4
Displacement	cc	1884	2826	3768	5652
Direction of rotation	-	Counter Clockwise viewed from the flywheel (CCW)			
Aspiration	-	Natural			
Compression ratio	-	17:1			
Starting Arrangement	-	12V Electric			
Rated output as per IS10002 / BS5514 (Gross prime continuous rating)					
at 1500 rpm		19.0 (14.0)	32.0 (23.6)	43.0 (31.6)	65.0 (47.8)
at 1800 rpm	bhp (kW)	23.0 (16.9)	38.0 (28.0)	52.0 (38.2)	78.0 (57.4)
at 2000 rpm		25.0 (18.4)	41.0 (30.2)	56.0 (41.2)	85.0 (62.6)
at 2300 rpm		27.5 (20.2)	47.0 (34.6)	63.0 (46.4)	95.0 (69.9)
Governor type	-	Mechanical			
Fuel Consumption in lit/hr (litre per hour) [+ 5% tolerance]					
1500 rpm full load	lit/hr	3.9	6.83	8.59	-
1800 rpm full load		-	7.28	10.58	-
2300 rpm full load		-	-	-	14.0
Lube oil consumption	-	Less than 0.7% of fuel consumption			
Lube oil sump capacity	Litres	5	9	11	14
Dry engine weight with flywheel	kg	326	370	421	477
Container loading	20 ft. 40 ft.	24 48	24 48	20 40	12 24

Notes :

1. Engine rating are subject to deration in accordance with relevant standards, for ambient conditions worse than NTP.
2. Fuel consumption readings are based on diesel fuel with a specific gravity of 0.83 and conforming to BS 2869 with +5% production tolerance.

HORSE POWER RATINGS AS PER IS: 10002/BS: 5514/DIN 6271/ISO: 3046 (ISO STD. POWER, CONTINUOUS RATING)



Marketed by:



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Dealer

Enriching Lives