

**MODEL 104E****1 CYLINDER INDUSTRIAL DIESEL ENGINE**

27/1/1952

**GENERAL DATA****Model Number**

Type

No. of Cyls

Cylinder

Firing Order

Bore

Stroke

Swept Volume

Compression Ratio

Bore, Stroke

Compression Pressure (Bar)

L.C.

S.C.

Maximum B. M. S.P.

L.C.

S.C.

Mean speed at 1500 rpm

B. M. S. P. (Bar) (constant) per  $\text{cm}^2$  area of Piston Area

B. M. S. P. (Bar) (constant) per Bore Compression Chamber

Main Bearing

Method of Starting

Type of Lubricating

Fuel

**TIME**

Type/Use - 4 Stroke

Construction

4 in. line

1, 2, 4, 6

2,100 mm, 20.30 mm

2,100 mm, 17.45 mm

95.5 cc. (in. 3.229 cu)

8.5:1 low - 9.4:1 high

1,000:1

170  $\text{kg}/\text{cm}^2$  (21.20  $\text{kg}/\text{cm}^2$ ) @ 1500 rpm200  $\text{kg}/\text{cm}^2$  (25.2  $\text{kg}/\text{cm}^2$ ) @ 1500 rpm100 - 5  $\text{kg}/\text{cm}^2$  @ 1500 rpm125  $\text{kg}/\text{cm}^2$  @ 1500 rpm200.5  $\text{kg}/\text{cm}^2$ 

J.100 L.104E

E.L.

Bolt - Fully machined

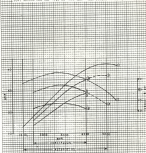
5

Electrical

Controlled automatic stoppage

Front with, Flanged Bolt

NO. 1000. **100 SOUTH BRIDGE ROAD, SINGAPORE.** **27th FEBRUARY 1947.**  
**Mr. J. H. G. G. G.**  
 100 SOUTH BRIDGE ROAD, SINGAPORE.  
 Dear Sir,  
 In reply to your letter of the 21st Feb. 1947, regarding the  
 design of a motor for your engine, I have the pleasure to inform you  
 that the design is complete and the motor is now being built.  
 The motor will be ready for delivery in about 4 weeks.  
 Yours faithfully,  
 W. G. & Co. Engineers Ltd.



NOTES: 1. The motor is to be used for driving a pump. 2. The motor is to be used for driving a pump. 3. The motor is to be used for driving a pump. 4. The motor is to be used for driving a pump. 5. The motor is to be used for driving a pump.

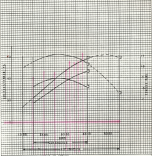
W. G. & Co. Engineers Ltd.  
 100, SOUTH BRIDGE ROAD, SINGAPORE.  
 27th FEBRUARY 1947.

Signature: *[Handwritten Signature]*  
 Date: 27-2-47

GRADE 1000 - EXAMINATION 1933

NAME: WALTER HENRY HARRIS      NO. 1111  
1111  
 GRADE 1000      DATE 11-11-33      COURSE 1000  
 SECTION 1000

FOR SOLUTION OF THE PROBLEMS ON THIS PAGE - USE THE FOLLOWING DATA:  
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- PROBLEMS TO BE SOLVED:
- (1) Find the area under the solid curve from time 1000 to 4000.
  - (2) Find the area under the dashed curve from time 1000 to 4000.
  - (3) Find the area between the two curves from time 1000 to 4000.
  - (4) Find the area under the solid curve from time 1000 to 5000.
  - (5) Find the area under the dashed curve from time 1000 to 5000.
  - (6) Find the area between the two curves from time 1000 to 5000.

Signed: Walter H. Harris  
 Date: 11-11-33

# Ford Bengali Motor 225E

MODEL CODE

4-CYLINDER JOURNAL BEARING ENGINE



of America

## GENERAL DATA

Model Number

Type

Valves

Cylinders

Firing Order

Bore

Stroke

Compression Ratio

Compression Ratio

Compression Pressure (KSC)

Maximum B, M, R, P

Crank Speed @ 1000 rpm

MEP (kg Overload) per in.<sup>2</sup> (cm<sup>2</sup>) of

Piston Area

MEP (kg Overload) Per Liter

Combustion Chamber

Valve Settings

Method of Starting

Type of Braking

Body

225E

Vertical - 4 Stroke

Overhead

4 in Line

1, 2, 4, 1.

2.100 in. (54.00 mm)

2.500 in. (63.50 mm)

27.0 in. (685.80

8.50

1.000

1.00 kg/cm.<sup>2</sup> (14.7 kg/cm.<sup>2</sup>) @ 1000 rpm

14.00 @ 1000 rpm

200.5 kg./cm.

1000 1.0000

P.L.

Ball Val - Fully Matched

1

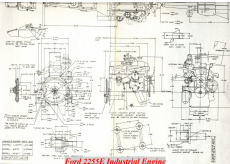
Electrical

Controlled Combustion Emission

From Wall







**Ford 2255E Industrial Engine**

TECHNICAL SPECIFICATION  
**2261E 2262E 2263E**  
**2264E 2265E**  
IN LINE GASOLINE ENGINES



Industrial  
Power  
Products

# General Data

The 2260 range comprises three basic engines which have swept volumes of 1100cc, 1300cc and 1600cc. All three engines have low compression variants and the 1300cc and 1600cc have high performance variants. The models are numbered 2261E(1100cc), 2262E(1300cc), 2263E(1300cc high performance), 2264E(1600cc), 2264E(1600cc Transil) and 2265E(1600cc high performance). All the engines have a bore of 80.08 mm and the stroke dimensions are –

2261E 53.29mm; 2262E and 2263E 62.94mm; 2264E and 2265E 71.62mm.

Compression ratios are as follows –

2261E, 2264E and 2265E (Standard) – 9.0 : 1

2262E and 2263E (Standard) – 9.2 : 1

2261E, 2262E, 2264E (Low Compression

and 2264E LC Transil) – 8.0 : 1

The basic engines include carburettor, inlet and exhaust manifolds, semi-dosed crankcase emission (fully closed on 2264E LC Transil), oil pan, oil pump, oil filter, oil pressure switch (except high performance version), oil level indicator, flywheel, clutch pilot bearing, water pump, crankshaft pulley, fuel pump, distributor and wiring assembly, sparking plugs, thermostat, water outlet connection and water temperature sender unit.

## POWER FIGURES:

The figures below are extracted from the DIN 70020 power curves at the back of this leaflet.

MODEL No.	Max Power (kW)	Max Torque (N m)
2261E (LC) (FC)	32.4 @ 3000 rpm 35.3 @ 3000 rpm	76.2 @ 2000 rpm 73.5 @ 2000 rpm
2262E (LC) (FC)	35.7 @ 3000 rpm 42.4 @ 3000 rpm	75.3 @ 2000 rpm 75.3 @ 2000 rpm
2263E	51.3 @ 3000 rpm	52.2 @ 4000 rpm
2264E (LC) (FC) LC Transil	45.0 @ 3000 rpm 50.0 @ 3000 rpm 48.5 @ 3000 rpm*	110.8 @ 2000 rpm 115.5 @ 2000 rpm 110.2 @ 2000 rpm*
2265E	51.2 @ 3000 rpm	124.5 @ 2500 rpm

\*These power figures are for an engine fitted with a 18 bladed 305-mm diameter fan.













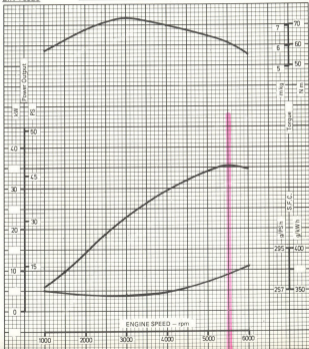
OFFICIAL  
POWER  
CURVES

ENGINE MODEL:

# 2261E. HC.

	POWER OUTPUT & SPEED			MAX. TORQUE & SPEED		
	kW	PS	rpm	N m	m kg	rpm
Automotive Output	35,3	48	5500	73,5	7,5	3000

DIN 70020



ENGINE & TRANSMISSION  
ENGINEERING

CONCURRED BY: *[Signature]* DATE: 12/2/25.



OFFICIAL  
POWER  
CURVES

ENGINE MODEL:

2262E. LC.

Automotive Output

POWER OUTPUT & SPEED			MAX. TORQUE & SPEED		
kW	PS	rpm	Nm	m kg	rpm
38.7	54	5500	85.3	8.7	3000

DIN 70020



ENGINE & TRANSMISSION  
ENGINEERING

CONCURRED BY: *[Signature]* DATE: 23/11/2015



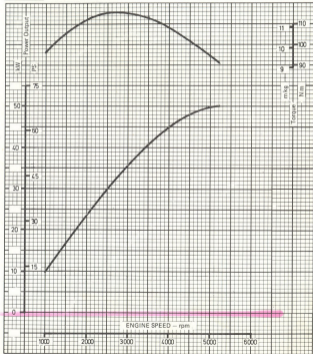
OFFICIAL  
POWER  
CURVES

ENGINE MODEL:

# 2264E. HC.

	POWER OUTPUT & SPEED			MAX. TORQUE & SPEED		
	kW	PS	rpm	Nm	m kg	rpm
Automotive Output	50	68	5200	115,5	11,8	2500

DIN 70020



ENGINE & TRANSMISSION  
ENGINEERING

CONCURRED BY: *[Signature]* ..... DATE: *24/4/15* .....

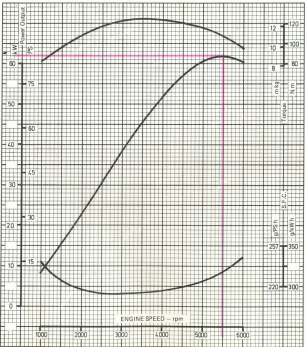


**OFFICIAL  
POWER  
CURVES**

ENGINE MODEL: **2265E.**

	POWER OUTPUT & SPEED			MAX. TORQUE & SPEED		
	kW	PS	rpm	Nm	m kg	rpm
Automotive Output	61,8	84	5500	124,5	12,7	3500

DIN 70020



ENGINE & TRANSMISSION  
ENGINEERING

CONSIDERED BY: *[Signature]* DATE: *2/2/15*

ENGINE SPECIFICATION

# 2270 RANGE



Industrial  
Power  
Products

# Power Ratings

A summary of the power ratings of selected carburettor versions to BS 5514 Part 1: 1977 of the 2270 Flange are included in the table below. Power curves to BS 5514 are included at the end of the specification. Where power curves are required of carburettor versions not included in this specification, please contact the Cast and Specifications Dept. 20/196, South Cokerdon, Essex, England.

BS 5514 Part 1: 1977  
DIN 6270

Model No. Carburettor	Maximum Power and Torque Ratings			
	Intermittent		Continuous	
	Power at 4000 r.p.m.	Torque	Power at 3600 r.p.m.	Torque
2271E — LC Downdraft Gasoline	26.6 kW	87 Nm @ 3000 r.p.m.	23.41 kW	81 Nm @ 3000 r.p.m.
2271E — LC Updraft Gasoline	T.B.A.		T.B.A.	
2271E — HC Downdraft Gasoline	26.20 kW	85 Nm @ 3000 r.p.m.	23.41 kW	82 Nm @ 3000 r.p.m.
2274E — LC (ind. Carb.) Downdraft Gasoline	26.00 kW	107 Nm @ 2500 r.p.m.	24.07 kW	87 Nm @ 2500 r.p.m.
2274E — LC Updraft Gasoline	23.8 kW	103 Nm @ 2500 r.p.m.	20.8 kW	84 Nm @ 2500 r.p.m.
2274E — LC Downdraft Morsø LPG	26.9 kW	104 Nm @ 2500 r.p.m.	21.45 kW	84 Nm @ 2500 r.p.m.
2274E — LC Updraft Morsø LPG	26.1 kW	102 Nm @ 2500 r.p.m.	21.3 kW	82 Nm @ 2500 r.p.m.
2274E — HC Downdraft Nat. Gas	27.54 kW @ 3000 r.p.m.	83 Nm @ 2500 r.p.m.	25.33 kW @ 3000 r.p.m.	85 Nm @ 2500 r.p.m.

## NOTES

- For practical purposes BS 5514 and DIN 6270 values are identical.
- The above values were compiled from tests using a 364mm (14.0 in) 7 bladed fan. To calculate engine power ratings using a different size of fan, add the power at the relevant speed from the table below and then subtract from the total the power absorption of the fan used.
- In certain applications (e.g. sweepers, fork lift trucks etc.) intermittent operation up to 4000 r.p.m. is permissible on gasoline and LPG fueled engines. If in doubt, contact the Installation Engineering Department 20/587, South Cokerdon, Essex, England.
- When speed control governors are fitted to the 2270 range engines a power deration occurs which must be included in any net installed power calculation. The amount of power derate depends on the carburettor/governor combination specified. Governor curves are available on request.

Engine r.p.m.	2000	2500	3000	3500	4000
kW	0.29	0.39	0.6	1.2	1.8



# Ford 2274E Petrol Engine



Diagram illustrating the valve timing mechanism.



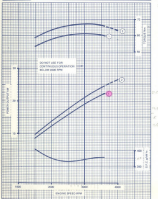
Diagram illustrating the cylinder block and crankshaft.





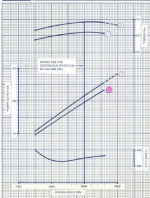


MODEL NO. <b>670</b> SERIAL NO. <b>15000000000000000000</b> DATE OF MANUFACTURE <b>01/2010</b> POWER RATING <b>15000000000000000000</b>	MODEL NO. <b>670</b> SERIAL NO. <b>15000000000000000000</b> DATE OF MANUFACTURE <b>01/2010</b> POWER RATING <b>15000000000000000000</b>	MODEL NO. <b>670</b> SERIAL NO. <b>15000000000000000000</b> DATE OF MANUFACTURE <b>01/2010</b> POWER RATING <b>15000000000000000000</b>
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<b>Model:</b> 1000 <b>Part Number:</b> 1000-1000 <b>Weight:</b> 1000 lbs <b>Dimensions:</b> 1000" x 1000" x 1000"	<b>Material:</b> 304 SS <b>Finish:</b> Polished <b>Temperature Range:</b> -200 to 500°F <b>Pressure Rating:</b> 1500 PSI	<b>Flow Rate:</b> 1000 GPM <b>Power Consumption:</b> 1000 HP <b>Control System:</b> PLC	<b>Manufacturer:</b> The Climator Company <b>Address:</b> 1000 Industrial Blvd <b>City:</b> Anytown, NY <b>Phone:</b> (516) 123-4567 <b>Website:</b> www.climator.com
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Industrial  
Process  
Products

Product Name: **2,2,4,4-Tetrahydroquinoline**

MS Number: **000000000**

Product Weight:

MS Number: **000000000**

MS Number: **000000000**

Product Weight:

MS Number: **000000000**

MS Number: **000000000**

Product Weight:

MS Number: **000000000**

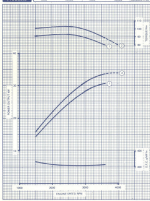
MS Number: **000000000**

Product Weight:

MS Number: **000000000**

MS Number: **000000000**

Product Weight:



1000  
800  
600  
400  
200  
0

100  
200  
300  
400  
500

Vapor Pressure (mm Hg)

Temperature (°C)

