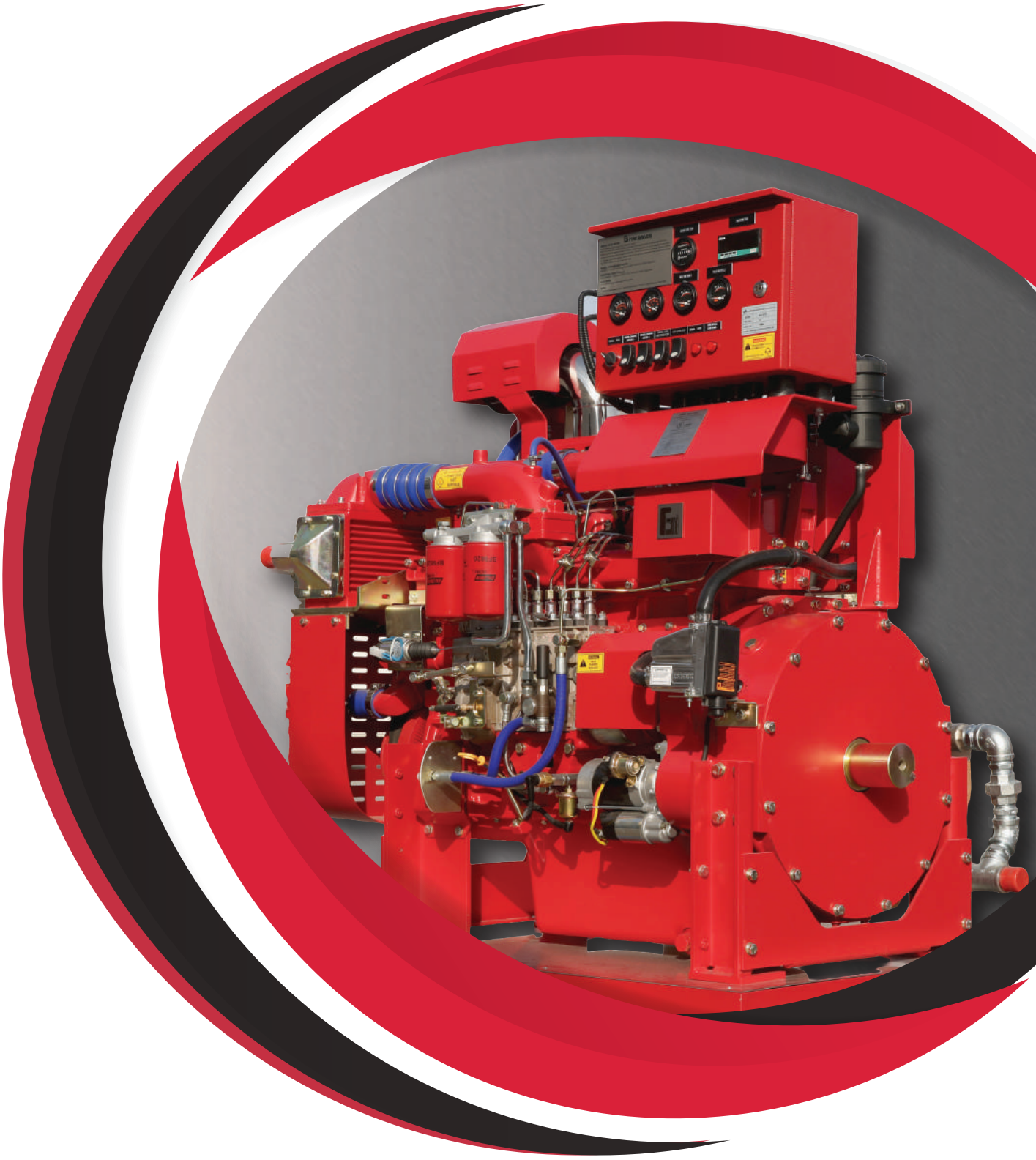
FIRE DRIVER®

State of the art engineering for world class engines

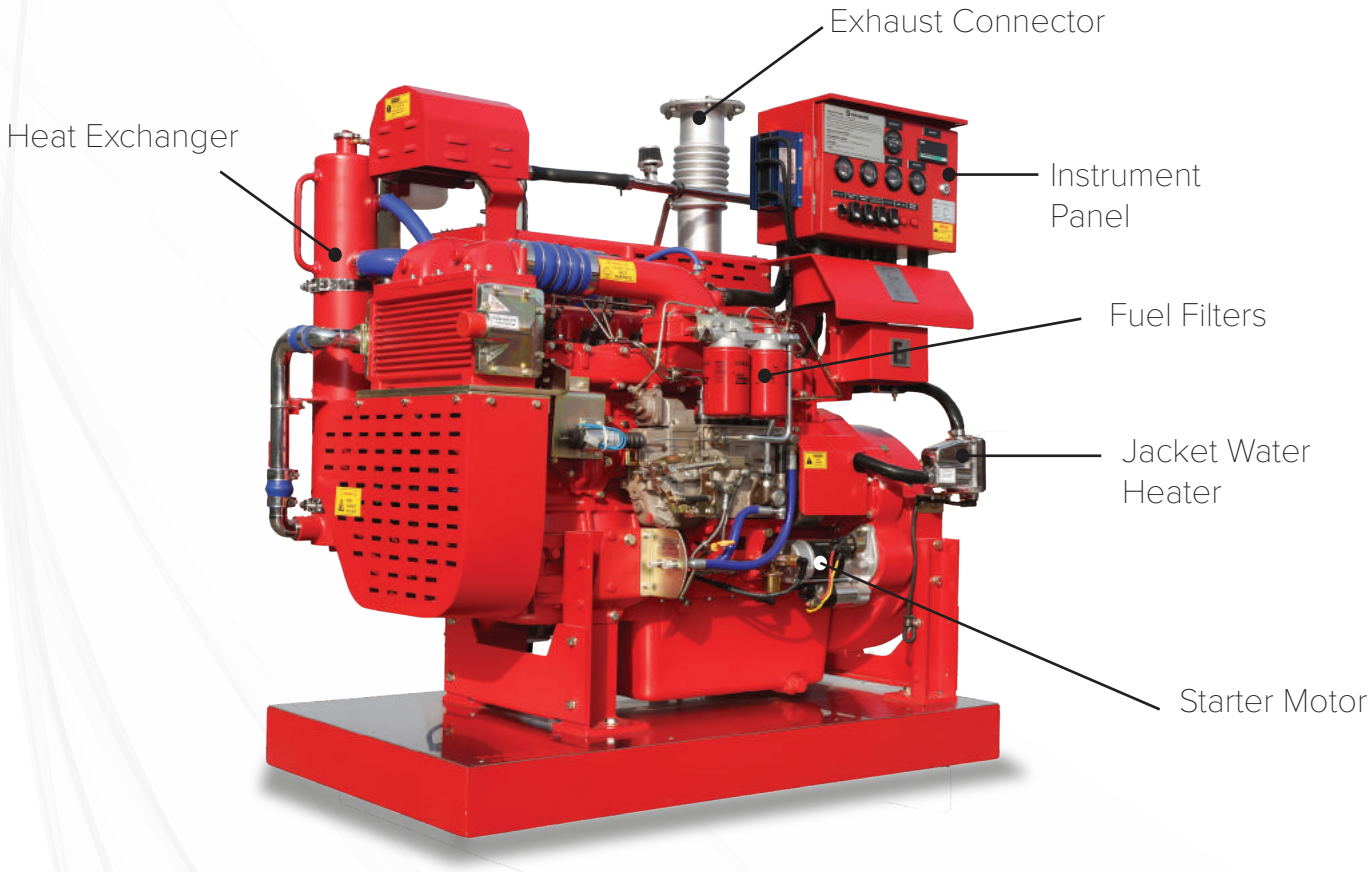


FIRE PUMP DIESEL ENGINE

INTRODUCTION

A fire pump has to start immediately based on demand requirements; NAFFCO brand diesel engines have a reputation for consistent starts and lowest operation and maintenance costs. The NAFFCO brand diesel engines are UL listed diesel engines as per the requirements stated in NFPA 20 and are designed & manufactured according to UL 1247 standards.

These engines go through stringent quality checks and are run tested for their performance ratings at the factory prior to dispatch, only those engine that pass through our stringent quality checks will be supplied to our valuable customers.



FEATURES

- Easy maintenance
- Highly reliable and advanced diesel engines
- Durable and long lasting
- Rugged Construction built for heavy-duty purpose.
- Reduced noise emission levels to avoid additional acoustic enclosures
- Precise and accurate instrument control for monitoring the performance and health of the diesel engine
- Cooling system designed as per NFPA, 20 for optimal heat transfer there by maintain the diesel engine in optimum conditions.
- Conforms to UL 1247 standards
- Best economic fuel consumption rate.
- A very effective and efficient air intake system

ENGINE RATINGS

Engines are rated at standard SAE J 1349 testing code. Net power rating conditions are obtained at 29.61 inches Hg (100.3 k Pa) barometer (approximately 300 feet or 91.44m above sea level) and 77°F or 25°C.

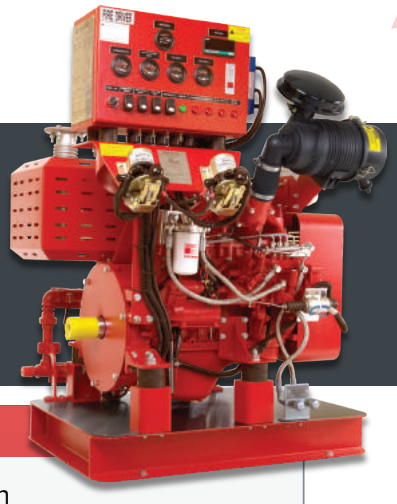
	RATED POWER	LISTING / APPROVAL	RATED SPEED
FD 30H	18	FM APPROVED	2800
	19	UL LISTED, FM APPROVED	2900
	20	FM APPROVED	3000
FD 50H	30	FM APPROVED	2800
	36	UL LISTED, FM APPROVED	2900
	40	FM APPROVED	3000
FD 80H	46	FM APPROVED	2800
	50	UL LISTED, FM APPROVED	2900
	60	FM APPROVED	3000
FD 80R	50	UL LISTED	2900
FD 110R	87	UL LISTED	2900
FD 95H	95	UL LISTED	2900
FD 140H	124	FM APPROVED	2800
	127	UL LISTED, FM APPROVED	2900
FD 175H	170	FM APPROVED	2800
	170	UL LISTED, FM APPROVED	2900
	172	FM APPROVED	3000
	175	UL LISTED	3000
FD 180H	185	UL LISTED	2900
FD 190H	176	FM APPROVED	2800
	190	UL LISTED, FM APPROVED	2900
FD 225H	225	UL LISTED	2900
FD 250H	250	UL LISTED, FM APPROVED	2950
	255	UL LISTED	3000
	194	FM APPROVED	2800
	250	FM APPROVED	3000
FD 325H	310	UL LISTED	2900

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 30 H

Dimensions (L x W x H) : 960 x 1080 x 1180 mm
Weight : 345 kg
Noise : 100dB

Electrical System: V - 12
Starter Motor Rating : 12 v, 3 kw
Alternator : 14 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Natural Aspiration
c	Number of cylinders and its arrangement	In-line, 3 cylinder
d	Engine Bore X Stroke [Inch]	3.15 x 3.54
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[18:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	19 @ 2900 [UL/FM], 19 @ 2900 [UL] 20 @ 3000, 19 @ 2900, 18 @ 2800. [FM]
b	Fuel consumption Kg/hr.	5

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	17
b	Maximum allowable back pressure [inch of water]	23
c	Maximum exhaust gas temperature °C.	450 to 500
d	Exhaust gas Flow [CFM]	252
e	Air Flow requirement for engine combustion [CFM]	103
f	Air Flow required for room ventilation [CFM]	1148

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	5
c	Lub oil pressure	0.20 to 0.40 Mpa

Cooling System

a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	4.5
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	2.5 [2.4]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	7

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 50 H

Dimensions (L x W x H) : 980 x 1080 x 1180 mm
Weight : 395 kg
Noise : 101dB

Electrical System: V - 12
Starter Motor Rating : 12 v, 3.2 kw
Alternator : 14 v

Engine basic data

a	Injection type	Direct injection
b	Aspiration	Natural Aspiration
c	Number of cylinders and its arrangement	In-line, 4 cylinder
d	Engine Bore X Stroke [Inch]	3.73 x 3.94
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[18:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	36 @ 2900. [UL/FM], 36 @ 2900 [UL] 40 @ 3000, 36 @ 2900, 30 @ 2800. [FM]
b	Fuel consumption Kg/hr.	7 to 8

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	17
b	Maximum allowable back pressure [inch of water]	25
c	Maximum exhaust gas temperature °C.	480 to 520
d	Exhaust gas Flow [CFM]	440
e	Air Flow requirement for engine combustion [CFM]	175
f	Air Flow required for room ventilation [CFM]	1547

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	5
c	Lub oil pressure	0.20 to 0.40 Mpa

Cooling System

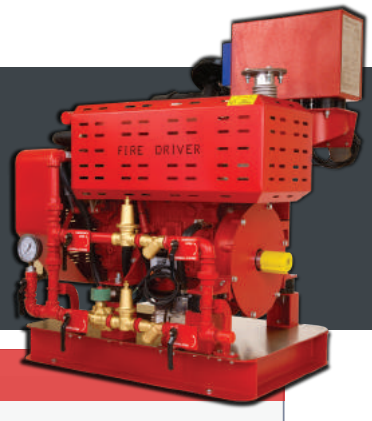
a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	8
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	3.4 [3.2]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	7

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 80 H

Dimensions (L x W x H) : 1040 x 1140 x 1230 mm
Weight : 445 kg
Noise : 102dB

Electrical System: V - 12
Starter Motor Rating : 12 v, 2.8 kw
Alternator : 14 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Natural Aspiration
c	Number of cylinders and its arrangement	In-line, 4 cylinder
d	Total Displacement	3.185L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17.5:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	50 @ 2900. [UL/FM], 50 @ 2900 [UL] 60 @ 3000, 50 @ 2900, 46 @ 2800. [FM]
b	Fuel consumption Kg/hr.	10 to 11.5

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	15
b	Maximum allowable back pressure [inch of water]	30
c	Maximum exhaust gas temperature °C.	480 to 500
d	Exhaust gas Flow [CFM]	610
e	Air Flow requirement for engine combustion [CFM]	237
f	Air Flow required for room ventilation [CFM]	2670

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	5.5
c	Lub oil pressure	0.20 to 0.40 Mpa

Cooling System

a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	9.5
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	6.35 [6]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	12

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 80 R

Dimensions (L x W x H) : 1080 x 1050 x 1300 mm
Weight : 440 kg

Electrical System: V - 12
Starter Motor Rating : 12 v, 2.8 kw
Alternator : 14 v

Engine basic data

a	Injection type	Direct injection
b	Aspiration	Natural Aspiration
c	Number of cylinders and its arrangement	In-line, 4 cylinder
d	Total Displacement	3.185L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17.5:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	50 @ 2900 [UL]
b	Fuel consumption Kg/hr.	10 to 11

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	15
b	Maximum allowable back pressure [inch of water]	28
c	Maximum exhaust gas temperature °C.	480 to 520
d	Exhaust gas Flow [CFM]	610
e	Air Flow requirement for engine combustion [CFM]	237
f	Air Flow required for room ventilation [CFM]	2670

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	5.5
c	Lub oil pressure	0.20 to 0.40 Mpa

Cooling System

a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Radiator Cooled
e	Coolant Capacity [lit]	10.5
f	Radiator cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	6.35 [6]

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 110 R

Dimensions (L x W x H) : 1640 x 900 x 1500 mm
Weight : 865 kg
Noise : 108dB

Electrical System: V - 24
Starter Motor Rating : 24 v, 7 kw
Alternator : 28 v

Engine basic data

a	Injection type	Direct injection
b	Aspiration	Natural Aspiration
c	Number of cylinders and its arrangement	In-line, 6 cylinder
d	Total Displacement	5.823L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17 : 1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	87 @ 2900 [UL]
b	Fuel consumption Kg/hr.	20 to 21

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	14
b	Maximum allowable back pressure [inch of water]	29
c	Maximum exhaust gas temperature °C.	400 to 500
d	Exhaust gas Flow [CFM]	698
e	Air Flow requirement for engine combustion [CFM]	319
f	Air Flow required for room ventilation [CFM]	2805

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	12
c	Lub oil pressure	0.20 to 0.50 Mpa

Cooling System

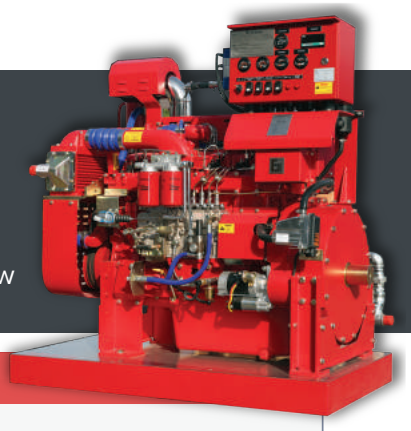
a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Radiator Cooled
e	Coolant Capacity [lit]	24
f	Radiator cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	9.4 [8.9]

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 95 H

Dimensions (L x W x H) : 1540 x 980 x 1440 mm
Weight : 910 kg
Noise : 114dB

Electrical System: V - 24
Starter Motor Rating : 24 v, 7 kw
Alternator : 28 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Natural Aspiration
c	Number of cylinders and its arrangement	In-line, 6 cylinder
d	Engine Bore X Stroke [Inch]	5.823L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	95 @ 2900 [UL]
b	Fuel consumption Kg/hr.	20 to 22

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	15
b	Maximum allowable back pressure [inch of water]	30
c	Maximum exhaust gas temperature °C.	400 to 520
d	Exhaust gas Flow [CFM]	698
e	Air Flow requirement for engine combustion [CFM]	319
f	Air Flow required for room ventilation [CFM]	2805

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	12
c	Lub oil pressure	0.20 to 0.50 Mpa

Cooling System

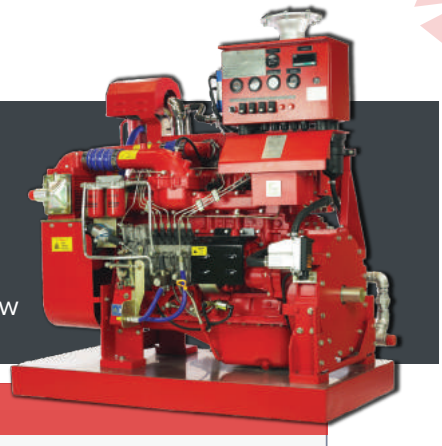
a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	24
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	9.4 [8.9]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	21

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 140 H

Dimensions (L x W x H) : 1540 x 980 x 1440 mm
Weight : 910 kg
Noise: 110dB

Electrical System: V - 24
Starter Motor Rating : 24 v, 7 kw
Alternator : 28 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Natural Aspiration
c	Number of cylinders and its arrangement	In-line, 6 cylinder
d	Total Displacement	7.12L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	127 @ 2900 [UL], 127 @ 2900 [UL] 127 @ 2900, 124 @ 2800 [FM]
b	Fuel consumption Kg/hr.	25 to 27

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	15
b	Maximum allowable back pressure [inch of water]	30
c	Maximum exhaust gas temperature °C.	580 to 650
d	Exhaust gas Flow [CFM]	1085
e	Air Flow requirement for engine combustion [CFM]	373
f	Air Flow required for room ventilation [CFM]	3729

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	12
c	Lub oil pressure	0.20 to 0.50 Mpa

Cooling System

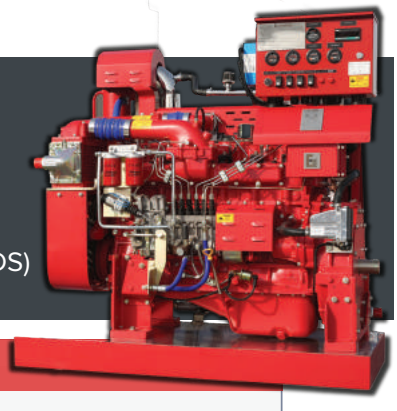
a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	24
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	11.8 [11.2]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	24

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 175 H

Dimensions (L x W x H) : 1540 x 1070 x 1450 mm
Weight : 1025 kg
Noise : 112dB

Electrical System: V - 24
Starter Motor Rating : 24 v, 7 kw (DS)
Alternator : 28 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Turbo Charged After Cooled
c	Number of cylinders and its arrangement	In-line, 6 cylinder
d	Total Displacement	6.8L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	170 @ 2900 [UL/FM], 175 @ 3000 [UL] 170 @ 2800, 170 @ 2900, 172 @ 3000 [FM]
b	Fuel consumption Kg/hr.	35 to 39

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	15
b	Maximum allowable back pressure [inch of water]	29
c	Maximum exhaust gas temperature °C.	400 to 500
d	Exhaust gas Flow [CFM]	1440
e	Air Flow requirement for engine combustion [CFM]	623
f	Air Flow required for room ventilation [CFM]	4315

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	12.5
c	Lub oil pressure	0.20 to 0.60 Mpa

Cooling System

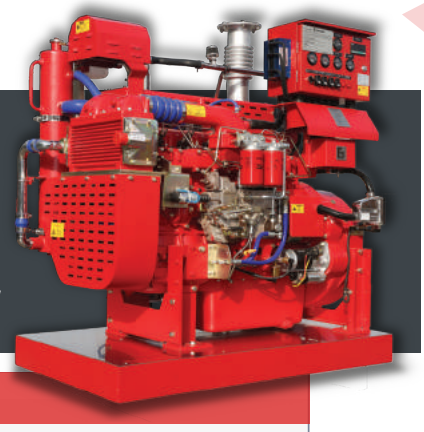
a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	27
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	13.7 [13]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	35

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 180 H

Dimensions (L x W x H) : 1900 x 1200 x 1530 mm
Weight : 1425 kg
Noise : 115dB

Electrical System: V - 24
Starter Motor Rating : 24 v, 7.5 kw
Alternator : 28 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Turbo Charger
c	Number of cylinders and its arrangement	In-line, 6 cylinder
d	Total Displacement	10.9L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	185 @ 2900 [UL]
b	Fuel consumption Kg/hr.	34 to 36

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	15
b	Maximum allowable back pressure [inch of water]	28
c	Maximum exhaust gas temperature °C.	450 to 500
d	Exhaust gas Flow [CFM]	1675
e	Air Flow requirement for engine combustion [CFM]	667
f	Air Flow required for room ventilation [CFM]	5350

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	24
c	Lub oil pressure	0.20 to 0.60 Mpa

Cooling System

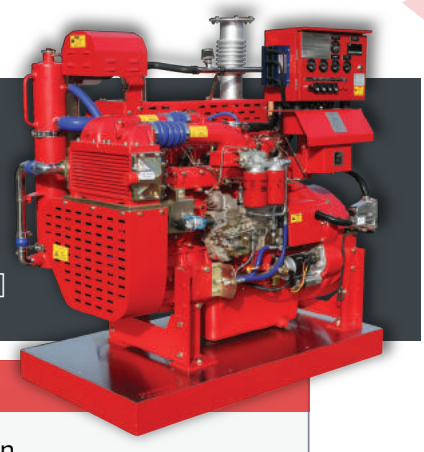
a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	17
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	18.9 [17.9]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	48

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 190 H

Dimensions (L x W x H) : 1460 x 1000 x 1430 mm
Weight : 1020 kg
Noise : 112dB

Electrical System: V - 24
Starter Motor Rating : 24 v, 7 kw [DS]
Alternator : 28 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Turbocharger - Aftercooler
c	Number of cylinders and its arrangement	In-line, 6 cylinder
d	Total Displacement	7.8L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	190 @ 2900 [UL/FM],190 @ 2900 [UL] 176 @ 2800, 190 @ 2900 [FM]
b	Fuel consumption Kg/hr.	38 to 40

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	15
b	Maximum allowable back pressure [inch of water]	29
c	Maximum exhaust gas temperature °C.	400 to 500
d	Exhaust gas Flow [CFM]	1530
e	Air Flow requirement for engine combustion [CFM]	637
f	Air Flow required for room ventilation [CFM]	5320

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	12.5
c	Lub oil pressure	0.20 to 0.60 Mpa

Cooling System

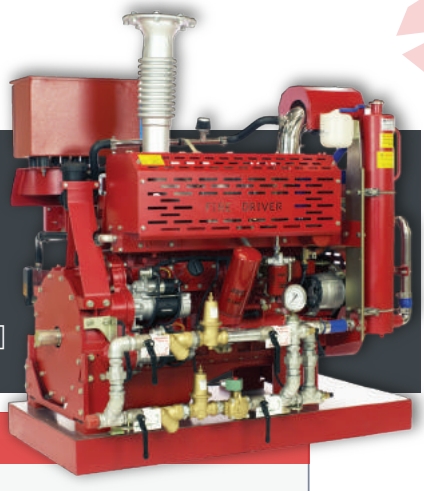
a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	17
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	16.2 [15.3]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	46

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 225 H

Dimensions (L x W x H) : 1900 x 1200 x 1530 mm
Weight : 1470 kg
Noise : 115dB

Electrical System: V - 24
Starter Motor Rating : 24 v, 7 kw [DS]
Alternator : 28 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Turbocharger - Aftercooler
c	Number of cylinders and its arrangement	In-line, 6 cylinder
d	Total Displacement	11L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	225 @ 2900 [UL]
b	Fuel consumption Kg/hr.	39 to 41

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	15
b	Maximum allowable back pressure [inch of water]	29
c	Maximum exhaust gas temperature °C.	450 to 500
d	Exhaust gas Flow [CFM]	1670
e	Air Flow requirement for engine combustion [CFM]	683
f	Air Flow required for room ventilation [CFM]	5413

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	24
c	Lub oil pressure	0.20 to 0.60 Mpa

Cooling System

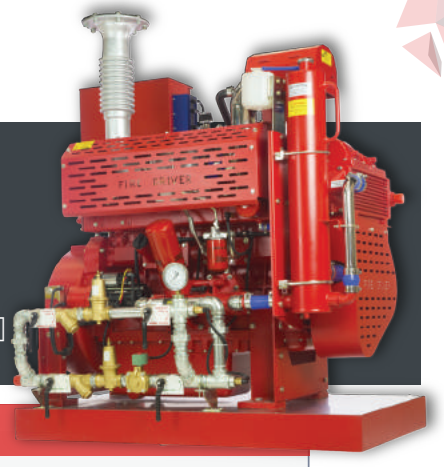
a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	17
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	17.1 [16.2]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	48

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 250 H

Dimensions (L x W x H) : 1520 x 990 x 1490 mm
Weight : 1125 kg
Noise : 114dB

Electrical System: V - 24
Starter Motor Rating : 24 v, 7 kw [DS]
Alternator : 28 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Turbocharger - Aftercooler
c	Number of cylinders and its arrangement	In-line, 6 cylinder
d	Total Displacement	8.8L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	250 @ 2950 [UL/FM], 255 @ 3000 [UL] 250 @ 3000, 250 @ 2950, 194 @ 2800 [FM]
b	Fuel consumption Kg/hr.	58

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	18
b	Maximum allowable back pressure [inch of water]	30
c	Maximum exhaust gas temperature °C.	up to 550
d	Exhaust gas Flow [CFM]	1790
e	Air Flow requirement for engine combustion [CFM]	695
f	Air Flow required for room ventilation [CFM]	5960

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	21
c	Lub oil pressure	0.20 to 0.60 Mpa

Cooling System

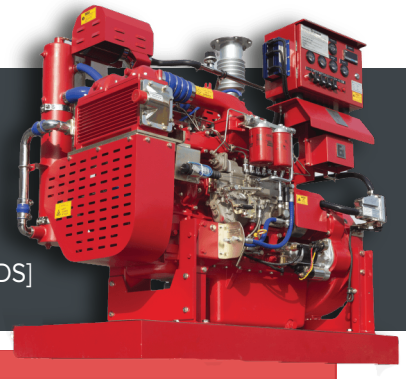
a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	19
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	18.9 [17.9]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	57

FIRE DRIVER DIESEL ENGINE SPECIFICATIONS

ENGINE MODEL - FD 325 H

Dimensions (L x W x H) : 1510 x 980 x 1490 mm
Weight : 1125 kg
Noise: 114dB

Electrical System: V - 24
Starter Motor Rating : 24 v, 7 kw [DS]
Alternator : 28 v



Engine basic data

a	Injection type	Direct injection
b	Aspiration	Turbocharger - Aftercooler
c	Number of cylinders and its arrangement	In-line, 6 cylinder
d	Total Displacement	9.8L
e	Engine rotation (view from flywheel end)	Counter Clockwise
f	Combustion chamber	Direct injection
g	Compression ratio	[17:1]

Engine Net Performance

a	Engine power Output Hp @ Rpm	310 @ 2900 [UL]
b	Fuel consumption Kg/hr.	67

Fuel System

a	Injection pump	Mechanical, Multi line fuel injection
b	Fuel specification	ASTM D 975 Diesel Fuel

Air & Exhaust System

a	Max. Inlet Air Restriction [inch of water]	17
b	Maximum allowable back pressure [inch of water]	30
c	Maximum exhaust gas temperature °C.	up to 600
d	Exhaust gas Flow [CFM]	1934
e	Air Flow requirement for engine combustion [CFM]	705
f	Air Flow required for room ventilation [CFM]	6475

Lubrication System

a	Lub oil specification	15 W 40
b	Total system capacity [lit]	18
c	Lub oil pressure	0.20 to 0.60 Mpa

Cooling System

a	Coolant specification	ASTM D6210 or Equivalent.
b	Maximum coolant temperature °C.	95
c	Minimum coolant temperature °C.	33
d	Cooling system	Forced close and cycle (Heat Exchanger)
e	Coolant Capacity [lit]	21
f	Heat exchanger cap pressure [Psi]	7
g	Engine radiated heat kw [Btu/sec]	25.6 [24.3]
h	Raw water pressure [Psi]	60 (max)
i	Raw water Flow [Gpm]	57

Our manufacturing facility for the diesel engine has been assessed against ISO 9001:2008 requirements by UL DQS (Underwriters Laboratories Inc) and LPCB (Loss Prevention Certification Board).

Fully equipped automatic dynamometer engine testing facilities

- Endurance test
- Operational test
- Continuos running test
- Rotational speed test
- Load test

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