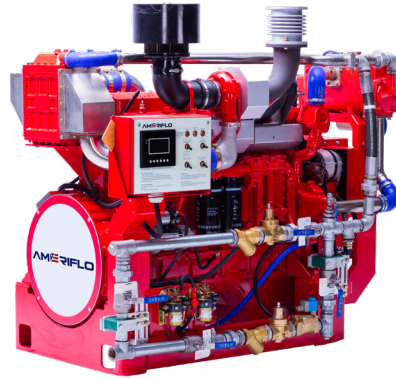


UL - cUL LISTED RATINGS BHP & KW

ENGINE MODEL:	AF6-135B
EMISSIONS:	TIER 0
DATE:	02/06/2021
DRAWING NUMBER:	AF6-135.00
PERFORMANCE CURVE NUMBER:	C06135BF
RATED POWER:	338 BHP @ 1760 RPM 252 KW @ 1760 RPM
REFERENCE NUMBER:	14DS001E
VERSION:	A



GENERAL ENGINE DATA

TYPE:	4 CYCLE; INLINE; WATER COOLED	
NUMBER OF CYLINDERS:	6	
ASPIRATION:	TURBOCHARGED + WATER COOLED	
BORE & STROKE - IN [MM]:	5.32 x 5.91 [135 x 150]	
CYLINDER LINER TYPE:	<input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY	
DISPLACEMENT - IN ³ [L]:	786 [12.88]	
COMPRESSION RATIO:	15.75:01	
FIRING ORDER:	1 - 5 - 3 - 6 - 2 - 4	
COMBUSTION SYSTEM:	DIRECT INJECTION	
ROTATION (AS VIEWED FROM FRONT OF ENGINE):	CCW	
VALVES PER CYLINDER:	INTAKE: 1 EXHAUST: 1	
VALVE LASH (COLD ENGINE):	INTAKE - IN [MM]:	0.013 [0.325]
	EXHAUST - IN [MM]:	0.015 [0.375]
IGNITION TYPE:	COMPRESSION (DIESEL)	
CHARGE AIR COOLING TYPE:	RAW WATER	
WEIGHT (FUEL PUMP CONFIGURATION) - LBS [KG]:	3263 [1480]	
DIMENSIONS (L x W x H) - IN [MM]:	72 x 43 x 60 [1835 x 1085 x 1529]	
FLYWHEEL / FLYWHEEL HOUSING DIMENSIONS:	14.00 / SAE #1	
TORQUE @ RATED RPM - LB-FT [N-M]:	1008 [1366]	

ENGINE PERFORMANCE DATA

ESTIMATED FREE FIELD SOUND PRESSURE LEVEL AT 3 FEET [1 METER] WITH FULL-LOAD GOVERNED SPEED (INCLUDES NOISE FROM EXHAUST, COOLING SYSTEM AND DRIVEN COMPONENTS)	dBa	≤ 108
ALL DATA IS BASED ON ENGINE OPERATING WITH FUEL SYSTEM, LUBRICATING OIL PUMP, AIR CLEANER AND ALTERNATOR. DOES NOT INCLUDE AIR COMPRESSOR, FAN & OPTIONAL EQUIPMENT. DATA IS BASED ON SAE STANDARD J1349 CONDITIONS AT 300 FEET [91.4 METERS] ALTITUDE, 29.61 INCHES [752 MILLIMETERS] HG DRY BAROMETER AND 77°F [25°C] INTAKE AIR TEMPERATURE USING #0 DIESEL FUEL FOLLOWING THE GB 252-2011 STANDARD.		
ALTITUDE ABOVE WHICH OUTPUT SHOULD BE DERATED:	FEET [METER]	300 [91]
DERATE PER 1,000 FEET [305 METERS] ABOVE ALTITUDE LIMIT:	3%	
TEMPERATURE ABOVE WHICH OUTPUT SHOULD BE DERATED:	°F [°C]	77 [25]
DERATE PER 10°F [5.6°C] ABOVE TEMPERATURE LIMIT:	1%	

● ALL DATA CERTIFIED WITHIN ±5%.

EXHAUST SYSTEM

EXHAUST GAS TEMPERATURE @ MAXIMUM RATING (POWER) - °F [°C]:	≤ 1112 [600] @ 1760 RPM
EXHAUST GAS FLOW @ MAXIMUM OUTPUT - CFM [M ³ /HR]:	2129 [3618] @ 1760 RPM
MAXIMUM ALLOWABLE BACK PRESSURE - PSI [KPA]:	1.16 [8]
MINIMUM EXHAUST PIPE DIAMETER - IN [MM]:	5 [125]

AIR INTAKE SYSTEM

AIR CLEANER TYPE:	DRY TYPE, DISPOSABLE
AIR FLOW - CFM [M ³ /HR]:	904 [1536] @ 1760 RPM
AIR INLET RESTRICTION - PSI [KPA]:	≤ 0.87 [6]

LUBRICATION SYSTEM

OIL CAPACITY (ENGINE ONLY) - QTS [L]:	33.8 [32]
MAXIMUM SUMP OIL TEMPERATURE - °F [°C]:	176 ~ 239 [80 ~ 115]
NORMAL OPERATING OIL PRESSURE RANGE - PSI [BAR]:	58.0 ~ 87.0 [4.0 ~ 6.0]
OIL PRESSURE @ IDLE - PSI [BAR]:	> 2.2 [0.15]

COOLING SYSTEM

COOLANT CAPACITY (ENGINE & HEAT EXCHANGER) - QTS [L]:	50.7 [48]	
THERMOSTAT RANGE:	START OPEN - °F [°C]:	171 [77]
	FULL OPEN - °F [°C]:	194 [90]
COOLANT PRESSURE MAXIMUM - PSI [BAR]:	13 [0.9]	
RAW WATER PRESSURE RANGE @ HEAT EXCHANGER - PSI [BAR]:	72.5 [5]	
ENGINE NORMAL OPERATING COOLANT TEMPERATURE - °F [°C]:	171 ~ 203 [77 ~ 95]	
ENGINE COOLANT FLOW @ FULL SPEED - GPM [M ³ /HR]:	163 [27]	
MINIMUM RAW WATER FLOW @ ENGINE SPEED (RPM)	1470	1760
RAW WATER TEMPERATURES TO 60.8°F [16°C] - GPM [M ³ /HR]:	35.2 [8.0]	39.6 [9.0]
RAW WATER TEMPERATURES TO 100.4°F [38°C] - GPM [M ³ /HR]:	46.2 [10.5]	52.8 [12.0]
RAW WATER INTAKE PIPE SIZE:	RAW WATER INLET - IN:	1.50 NPT
	RAW WATER OUTLET - IN:	2.00 NPT

HEATER SYSTEM

WATTAGE - W:	4500
VOLTAGE (AC) - V:	220

DC ELECTRICAL SYSTEM

NORMAL SYSTEM VOLTAGE - V:	24
STARTER MOTOR - HP [KW]:	11.4 [8.5]
RECOMMENDED MINIMUM BATTERY SIZE - AH:	180
COLD CRANKING AMPS @ 0°F (-18°C):	950
CHARGING ALTERNATOR OUTPUT - AMPS:	55

① ALL DATA CERTIFIED WITHIN ±5%.

FUEL SYSTEM

INJECTION PUMP:	INLINE, PLUNGER TYPE
INJECTION PUMP ADVANCE ANGLE - °:	14.5
MINIMUM SUPPLY LINE SIZE - IN [MM]:	0.50 [12]
MINIMUM RETURN LINE SIZE - IN [MM]:	0.50 [12]
FUEL MANAGEMENT CONTROL:	MECHANICAL
IDLE SPEED - RPM:	750
GOVERNED SPEED RATE - %:	< 10

① ALL DATA CERTIFIED WITHIN ±5%.



ENGINE MATERIALS & CONSTRUCTION

ENGINE		AIR INTAKE	
CAMSHAFT:		AIR CLEANER:	
TYPE	OVERHEAD	TYPE	DRIP PROOF
MATERIAL	CARBON STEEL	MATERIAL	PLEATED PAPER
LOCATION	IN BLOCK	COOLING SYSTEM	
DRIVE	SPUR GEAR	COOLANT HEAT EXCHANGER:	
CONNECTING RODS:		TYPE	TUBE & SHELL
TYPE	I-BEAM, FRACTURE	MATERIAL	
MATERIAL	FORGED STEEL	ELECTRODE	ZINC
CRANKSHAFT:		HEADERS	ALUMINUM
TYPE	GROUND	SHELL	ALUMINUM
MATERIAL	DUCTILE IRON	TUBES	COPPER
MAIN BEARINGS:		COOLANT PUMP:	
TYPE	PRECISION, HALF SHELL	TYPE	CENTRIFUGAL
MATERIAL	TIM ALUMINUM ALLOY	DRIVE	V-BELT
CYLINDER BLOCK:		THERMOSTAT:	
TYPE	GANTRY	TYPE	NON-BLOCKING
MATERIAL	CAST IRON	QUANTITY	1
CYLINDER HEAD:		COOLING LOOP (GALVANIZED):	
TYPE	ONE PIECE	TEES, ELBOWS, PIPE	GALVANIZED STEEL
MATERIAL	CAST IRON	BALL VALVES	BRASS
CYLINDER LINERS:		SOLENOID VALVE	BRASS
TYPE	WET LINED	PRESSURE REGULATOR	BRASS
MATERIAL	CAST IRON ALLOY	STRAINER	BRASS
PISTONS:		COOLING LOOP (316 STAINLESS STEEL):	
TYPE	TRUNK	TEES, ELBOWS, PIPE	316 STAINLESS STEEL
MATERIAL	ALUMINUM ALLOY	BALL VALVES	316 STAINLESS STEEL
PISTON PINS:		SOLENOID VALVE	316 STAINLESS STEEL
TYPE	FULL FLOATING	PRESSURE REGULATOR	316 STAINLESS STEEL
MATERIAL	ALLOY STEEL	STRAINER	316 STAINLESS STEEL
PISTON RINGS:		FUEL SYSTEM	
FIRST	DUCTILE CAST IRON	FUEL INJECTION PUMP:	
SECOND	ALLOY CAST IRON	TYPE	FULL MECHANICAL, CENTRIFUGAL
THIRD	ALLOY CAST IRON	DRIVE	GEAR DRIVEN
VALVES:		LUBRICATION SYSTEM	
TYPE	POPPET	TYPE	GEROTOR
ARRANGEMENT	OVERHEAD	DRIVE	GEAR
VALVE # PER CYLINDER	1 INTAKE, 1 EXHAUST		
OPERATING MECHANISM	MECHANICAL ROCKER ARM		
LIFTER TYPE	LARGE HEAD		

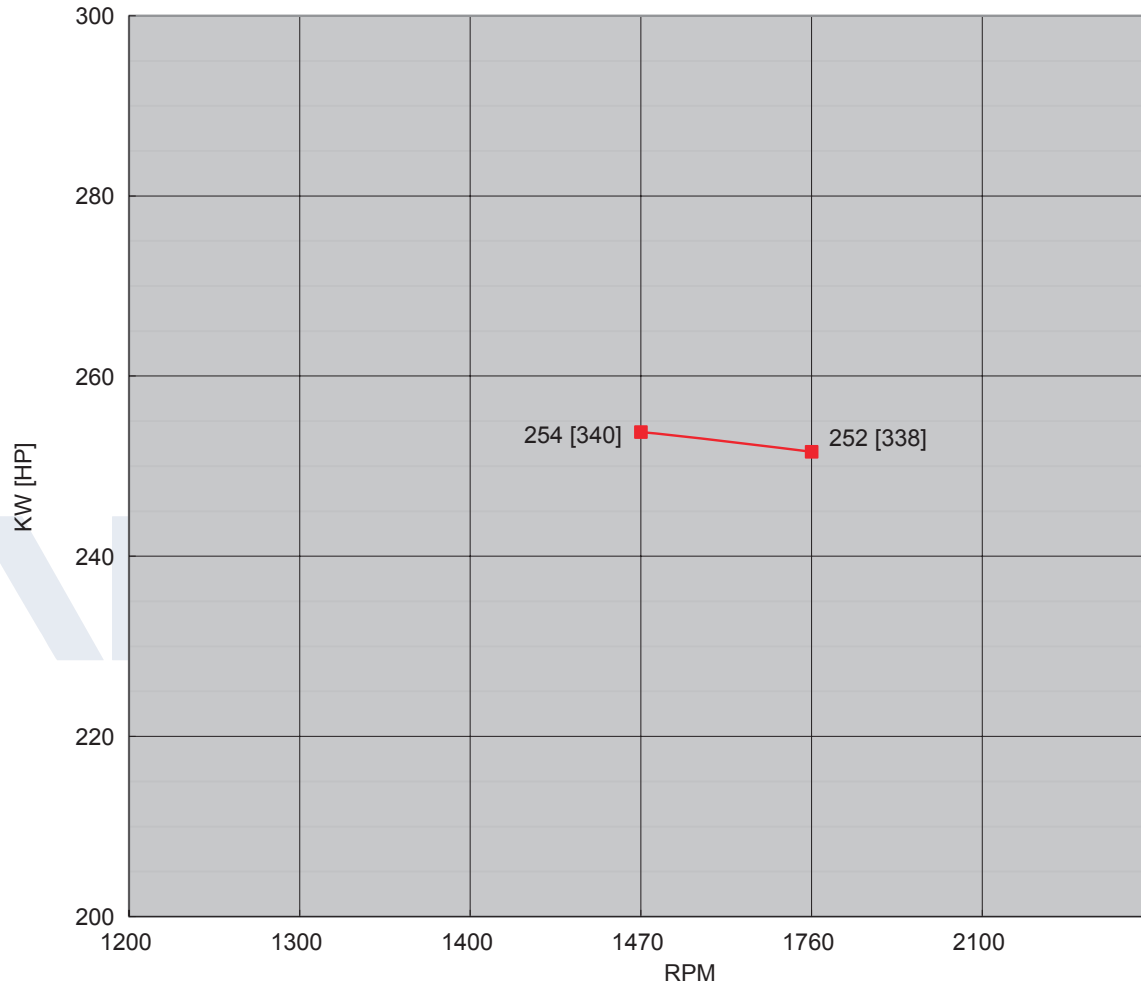
SPARE PARTS LIST

PART DESCRIPTION	QUANTITY	PART NUMBER	REMARKS
LUBRICATION SYSTEM			
OIL FILTER	2 PIECES	AF-D17-002-02+B	
OIL PRESSURE SENSOR	1 PIECE	AF-21103-OPS	
FUEL SYSTEM			
FUEL FILTER	1 PIECE	AF-S00010128+1	
INJECTION PUMP	1 PIECE	AF-S00000770+01	
FUEL SUPPLY & RETURN HOSE	1 PIECE	AF6-135B-6.1	
	1 PIECE	AF6-135B-6.2	
COOLING SYSTEM			
HEAT EXCHANGER	1 PIECE	AF-C300ZJ-HE	
COOLING LOOP	1 SET	AF-CL40SV	
COOLANT HOSE (90° ELBOW)	1 PIECE	AF-E90-60/120P4	
COOLANT HOSE (90° REDUCER ELBOW)	1 PIECE	AF-RE-60-65/130P4	
COOLING HOSE	1 PIECE	AF-8-3-800-CH	
	1 PIECE	AF-16-5-2000-CH	
WATER PUMP	1 PIECE		
RUNNING WATER TEMPERATURE SENSOR	1 PIECE	AF-E00105-WTR	
STANDBY WATER TEMPERATURE SENSOR	1 PIECE	AF-00108-WTS	
THERMOSTAT	1 PIECE	AF-1500079215	
PREHEATER	1 PIECE	AF-FH220450065 OR AF-FH110200065 OR AF-SH110200065	
FLOW SENSOR	1 PIECE	-	
CONTROL SYSTEM			
STARTER	1 PIECE	AF-S00011506+02	
ALTERNATOR	1 PIECE	AF-S00011521+01	
BATTERY	2 PIECES	AF-N200	
STARTER CONTACTOR	2 PIECES		
OVERSPEED SHUTDOWN	1 PIECE		
SPEED SENSOR	1 PIECE		
INSTRUMENT PANEL	1 SET	AF-ENL-AB-ETS/R-B	
TRANSMISSION SYSTEM			
BELT	2 PIECES	AF-1500079197	
STOP SOLENOID	1 PIECE	AF-5295568-SN	
INTAKE & EXHAUST SYSTEM			
AIR FILTER	1 PIECE	AF-S00034176+02	
TURBOCHARGER	1 PIECE		

POWER CURVE

CURVE NUMBER:	C06135BF	DATE:	02/06/2021
DISPLACEMENT - IN ³ [L]:	786 [12.88]	ASPIRATION:	TURBOCHARGED + WATER COOLED
POWER STANDARD:	UL	BORE & STROKE - IN [MM]:	5.32 x 5.91 [135 x 150]
NUMBER OF CYLINDERS:	6	FUEL SYSTEM:	INLINE, MECHANICAL

● ALL DATA CERTIFIED WITHIN ±5%.

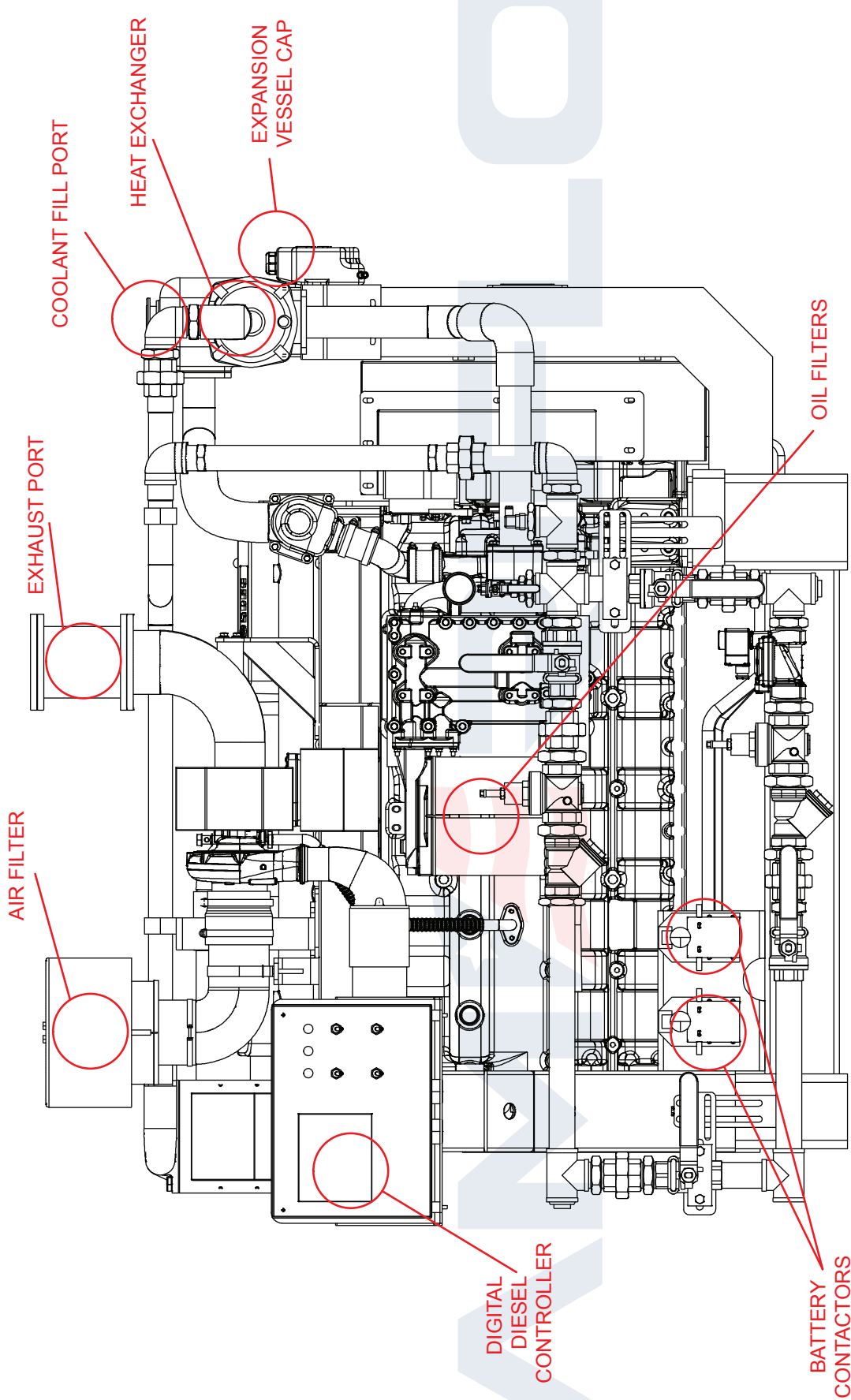


TORQUE		
SPEED	LB-FT	N-M
RPM		
1150		
1470	1215	1648
1760	1008	1366
2100		

OUTPUT POWER		
SPEED	HP	KW
RPM		
1150		
1470	254	340
1760	252	338
2100		

FUEL CONSUMPTION		
SPEED	LB/BHP-HR	G/KW-HR
RPM		
1150		
1470	0.337	205
1760	0.345	210
2100		

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REV	UNITS	AMERIFLO	
	IN (MM)	PROJECT:	
		NAME: INSTALLATION DRAWING	PROJECT:
		DATE: 09/01/2020	MODEL: AF6-135B
		DRW BY: MJF	PART NO: AF6-135B-RIGHT
		CHK BY:	MATERIAL:
		APPROVED: DATE:	SCALE: NONE
		DATE: 09/01/2020	PAGE: 1
		MJF	OF: 1
		DWN	
		APVD	
		DATE	
		DESCRIPTION	
A		CREATION	
REV		DESCRIPTION	

NOTES:

1. ALL PLUMBING MUST BE SUPPORTED AND/OR ISOLATED SO THAT NO WEIGHT OR STRESS IS APPLIED TO ANY ENGINE COMPONENT.
2. REFER TO SPECIFIC MODELS' INSTALLATION, OPERATION & MAINTENANCE MANUAL FOR INSTALLATION GUIDELINES.

