

## 4-Stroke Horizontal Engines



## FJ Series

Output : 1.9 kW (2.5 hp) - 5 kW (6.7 hp)

## FE Series

Output : 2.6 kW (3.4 hp) - 8.6 kW (11.5 hp)

## FH Series

Output : 12.3 kW (16.4 hp) - 17.5kW (23.4 hp)

## FD Series

Output : 15.3 kW (20.5 hp) - 20 kW (26.8 hp)





Engine Model	FJ100	FJ180	FJ220
Engine Type	Air-cooled, 4-stroke, horizontal shaft, OHV		
Number of Cylinders	1		
Bore x Stroke (mm)	56 x 40	65 x 54	72 x 54
Displacement (cc)	99	179	220
Max. Power (kW / hp)	1.9 / 2.5 @ 3600 rpm	4.1 / 5.5 @ 3600 rpm	5 / 6.7 @ 3600 rpm
Max. Torque (Nm / ft.lbs)	5.0 / 3.6 @ 2800 rpm	11.2 / 8.6 @ 2400 rpm	14 / 10.3 @ 2400 rpm
Fuel Tank Capacity (litres)	1.6	3.6	
Oil Capacity (litres)	0.46	0.6	
Dry Weight (kg)	10.8	17.5	18
Dimensions (L x W x H)	280 x 306 x 315	304 x 364 x 370	

## FEATURES

- Dual element air cleaner
- Internally vented carburettor
- Cast iron cylinder
- K-twin balancer (FJ180 & 220)
- Overhead V-valves (FJ180 & 220)
- Spherical combustion chamber (FJ180 & 220)
- Roller ball type top bearing (FJ180 & 220)
- Inner vent carburettor

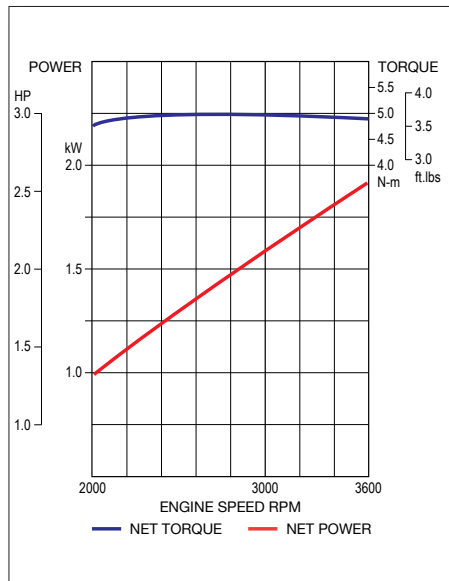
## OPTIONS

- Shaft variation: 15 x 50 mm, 3/4" x 58mm straight shaft (FJ100)
- Recoil start (FJ100)
- Reduction 2:1 gearbox
- Oil level sensor (FJ180 & 220)
- Heavy duty (oil bath) air filter (FJ180 & 220)
- Electric starter (FJ180 & 220)
- Charging coil options (FJ180 & 220)
- Oil drain extension (FJ180 & 220)
- Square muffler with deflector (FJ180 & 220)
- Fuel level gauge in fuel tank (FJ180 & 220)

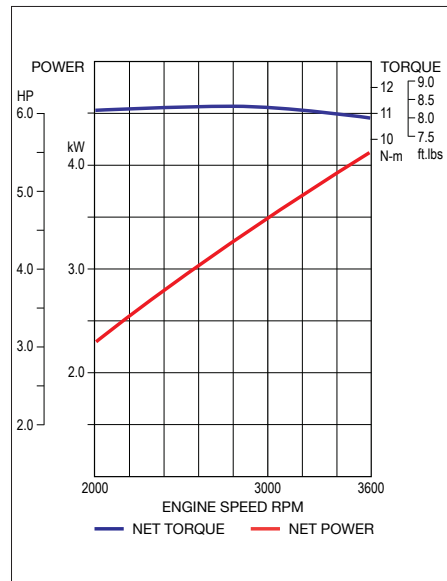
# FJ Series Horizontal

# POWER CURVES

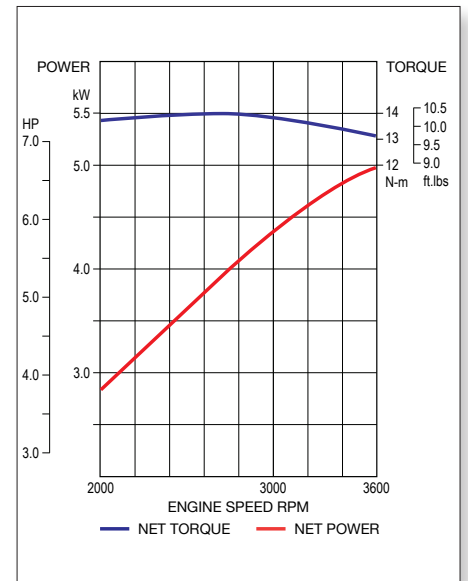
**FJ100**



**FJ180**



**FJ220**



**FJ100**



**FJ180**



**FJ220**



Engine Model	FE120D	FE170D	FE250D	FE290D	FE350D	FE400D
Engine Type	Air-cooled, 4-stroke, horizontal shaft, OHV					
Number of Cylinders	1					
Bore x Stroke (mm)	60 x 44	66 x 50	76 x 55	78 x 60	83 x 65	87 x 67.5
Displacement (cc)	124	171	249	286	351	401
Max. Power (kW / hp)	2.6 / 3.4 @ 3600 rpm	3.7 / 4.9 @ 3600 rpm	5.6 / 7.5 @ 3600 rpm	6.5 / 8.7 @ 3600 rpm	7.8 / 10.4 @ 3600 rpm	8.6 / 11.5 @ 3600 rpm
Max. Torque (Nm / ft.lbs)	7.5 / 5.5 @ 2800 rpm	9.9 / 7.3 @ 2800 rpm	14.8 / 10.9 @ 2500 rpm	17.2 / 12.6 @ 2800 rpm	20.8 / 15.3 @ 2800 rpm	25.2 / 18.5 @ 2800 rpm
Fuel Tank Capacity (litres)	2.5	3.4	5.3	6.0	6.4	
Oil Capacity (litres)	0.6		1.1		1.3	
Dry Weight (kg)	14.6	17.5	26.8	30.4	34.0	34.5
Dimensions (L x W x H mm)	291 x 349 x 347	300 x 354 x 370	344 x 395 x 432	363 x 408 x 441	378 x 422 x 454	380 x 422 x 461

## FEATURES

- Cast iron cylinder
- Dual element air filter
- Reciprocating balancer (FE250D, 290D, 400D)
- Pressurised lubrication (FE290D, 350D, 400D)
- Hydraulic valve lifters (FE250D, 400D)

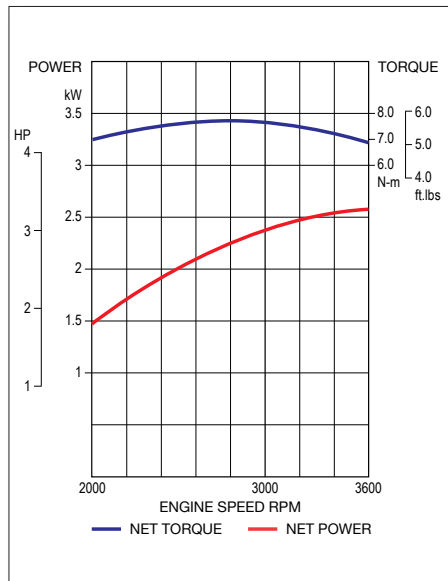
## OPTIONS

- Various shaft options (FE120D, 170D, 250D)
- Shaft variation: 25 x 60, 1" x 72mm straight and tapered (FE290D, 350D, 400D)
- Various speed control systems
- 5 or 13 amp charge coil
- Oil level switches
- Reduction 2:1 gearbox (FE120D, 170D, 250D, 290D)

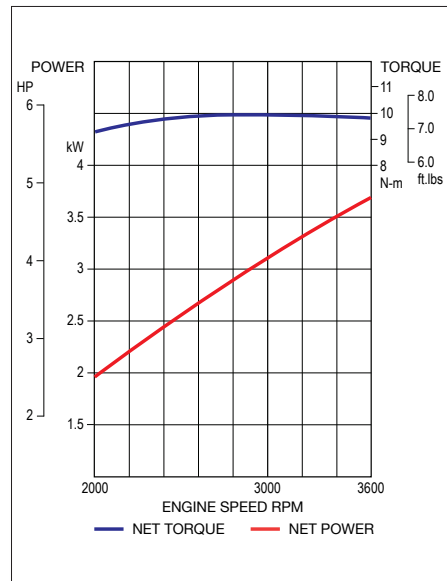
# FE Series Horizontal

# POWER CURVES

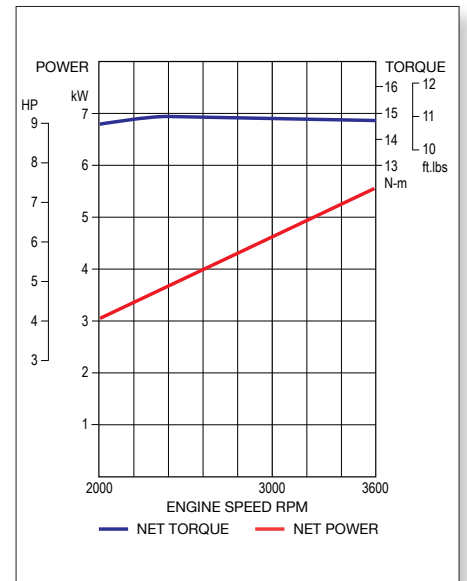
**FE120D**



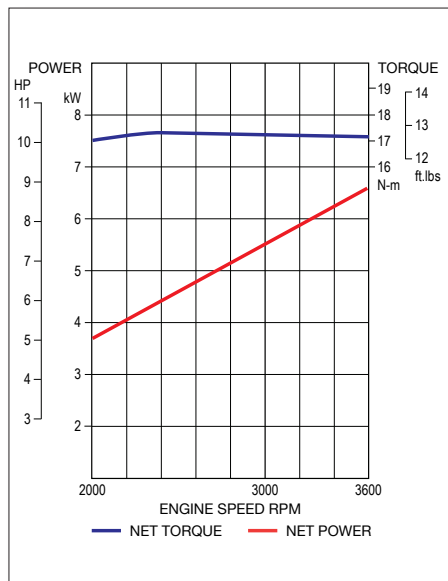
**FE170D**



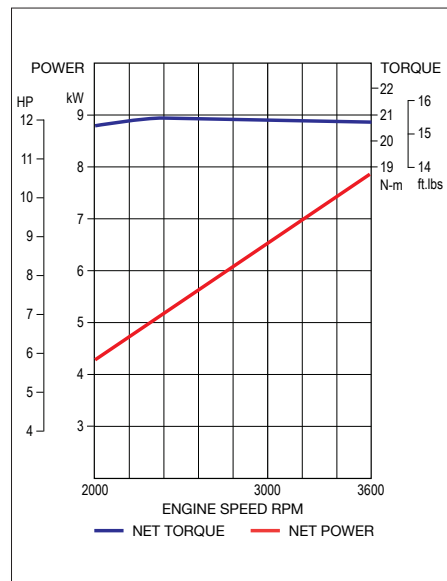
**FE250D**



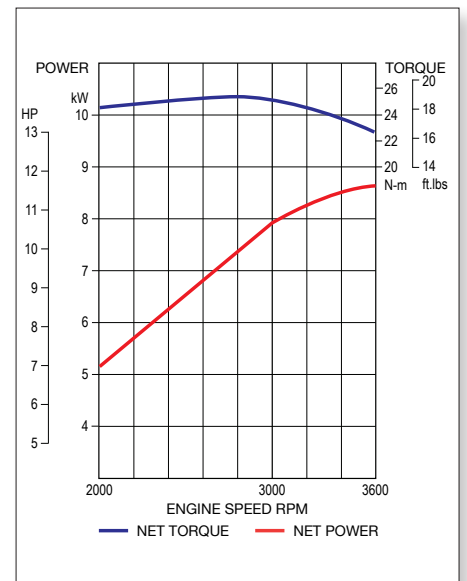
**FE290D**



**FE350D**



**FE400D**





Engine Model	FH601D	FH641D	FH680D	FH721D	FH770 KAI
Engine Type	Air-cooled, 4-stroke, Horizontal shaft, OHV				
Number of Cylinders	2				
Bore x Stroke (mm)	75.2 x 76				80 x 76
Displacement (cc)	675				746
Max. Power (kW / hp)	12.3 / 16.4 @ 3600 rpm	13.6 / 18.2 @ 3600 rpm	14.5 / 19.4 @ 3600 rpm	16 / 21.4 @ 3600 rpm	17.5 / 23.4 @ 3600 rpm
Max. Torque (Nm / ft.lbs)	44.8 / 33 @ 2000 rpm	46.4 / 34.2 @ 2000 rpm	46.4 / 34.2 @ 2200 rpm	48.2 / 35.5 @ 2400 rpm	56 / 41.3 @ 2200 rpm
Fuel Tank Capacity (litres)	1.9				
Dry Weight (kg)	45.4				46.0
Dimensions (L x W x H)	347.5 x 330 x 492 mm				343.4 x 438.4 x 664.8

## FEATURES

- Overhead V-valves
- Pressurised lubrication
- Dual element air filter
- Internally vented carburettor
- Rotating grass screen
- Cast iron cylinder liners
- Oil cooler (FH770D KAI)

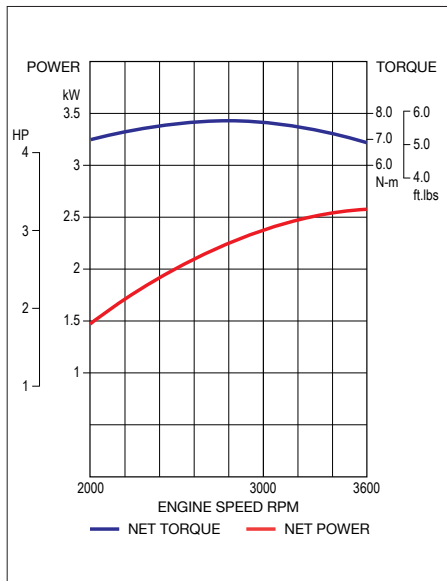
## OPTIONS

- Shaft variation: 1 1/8" x 100 mm, 1" x 60 mm (flywheel)
- Various speed control systems
- 13 or 20 amp charge coil
- Various oil drain & starter options
- Oil pressure switches

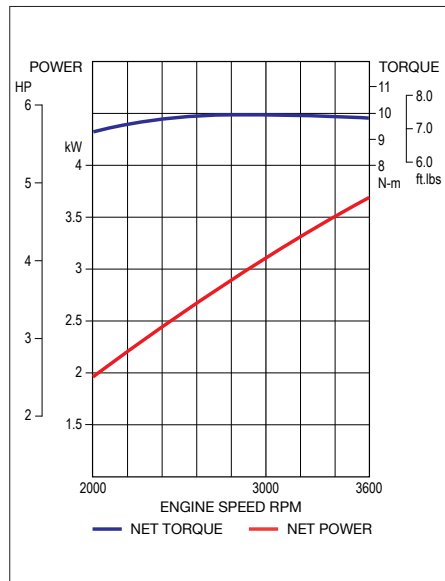
# FH Series Horizontal

## POWER CURVES

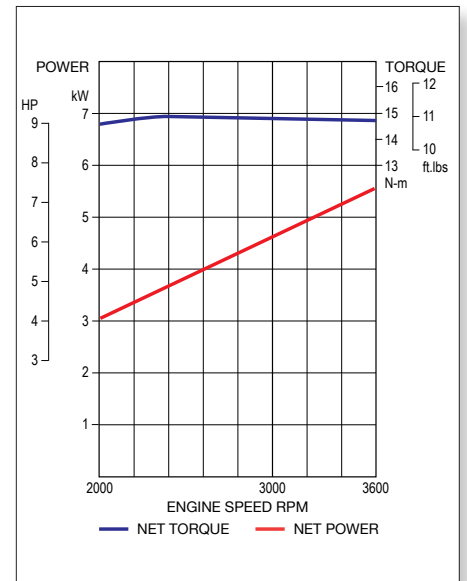
### FH601D



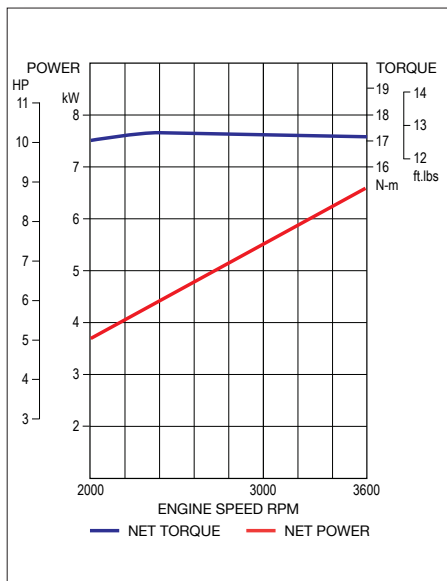
### FH641D



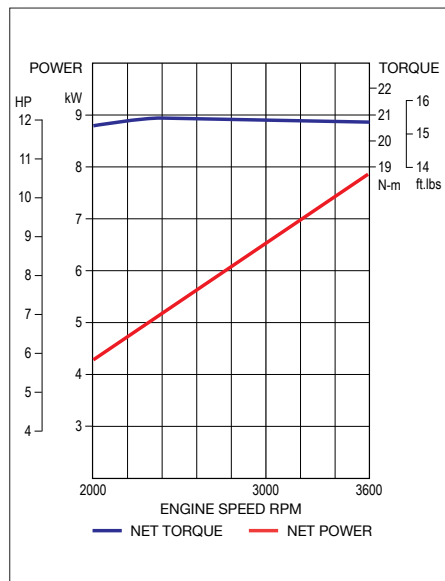
### FH680D



### FH721D



### FH770D KAI



### FH770D KAI





Engine Model	FD671D	FD750D	FD750D DFI	FD791D DFI	FD851D DFI
Engine Type	Liquid-cooled, 4-stroke, Horizontal shaft, OHV				
Number of Cylinders	2				
Bore x Stroke (mm)	78 x 78				82 x 78
Displacement (cc)	745				824
Max. Power (kW / hp)	15.3 / 20.5 @ 3600 rpm	17.5 / 23.4 @ 3600 rpm	17.7 / 23.7 @ 3600 rpm	18.3 / 24.5 @ 3600 rpm	20 / 26.8 @ 3600 rpm
Max. Torque (Nm / ft.lbs)	50 / 36.9 @ 2400 rpm	52 / 38.3 @ 2300 rpm	51.3 / 37.8 @ 2400 rpm	52.5 / 38.7 @ 2400 rpm	59 / 43.5 @ 2400 rpm
Fuel Tank Capacity (litres)	2				
Dry Weight (kg)	57				
Dimensions (L x W x H)	520 x 458 x 580 mm				

## FEATURES

- Overhead V-valves
- Pressurised lubrication
- Dual element air filter (FD671D, 750D)
- Twin barrel carburettor (FD671D, 750D)
- Cooling temperature switch (FD671D, 750D)
- Cast iron cylinder liners
- Multiport digital fuel injection (FD750D DFI, 791D DFI, 851D DFI)
- Compact electronic control unit (FD750D DFI, 791D DFI, 851D DFI)
- High pressure pulse-type fuel pump (FD750D DFI, 791D DFI, 851D DFI)

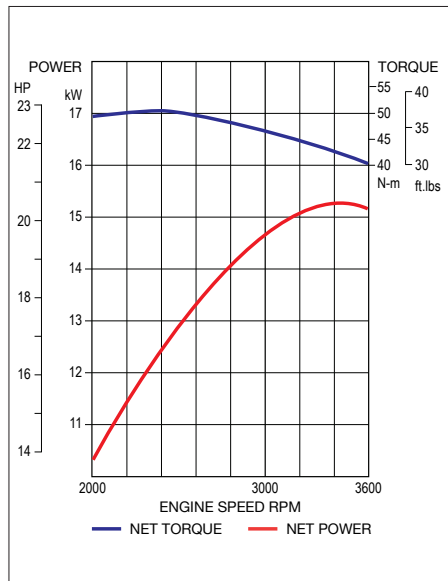
## OPTIONS

- Shaft variation: 1" x 80 mm, 1 1/8" x 80 mm, 1 1/8" x 110 mm
- Various speed control systems
- 13, 20 or 30 amp charge coil
- Various oil drain & starter options
- Oil pressure switches
- Heavy duty canister air filter

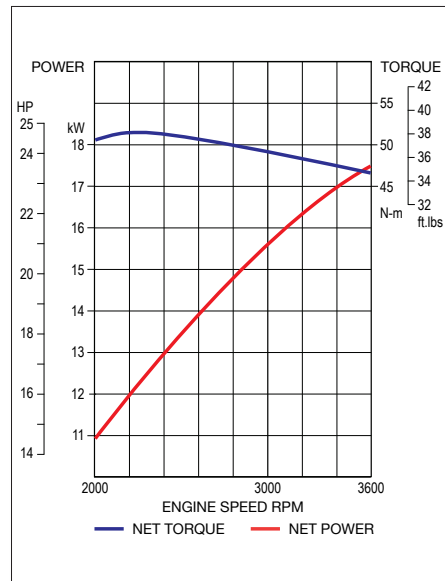
# FD Series Horizontal

# POWER CURVES

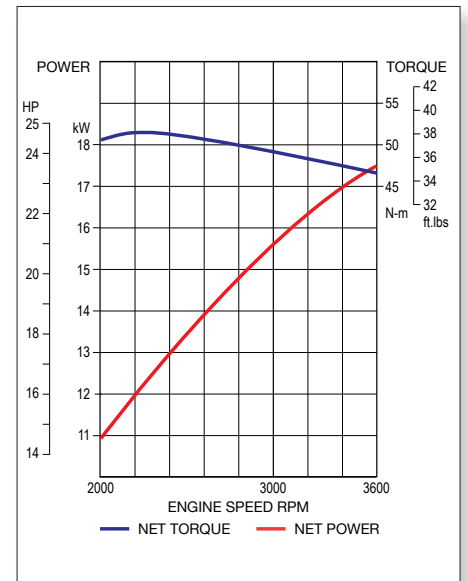
**FD671D**



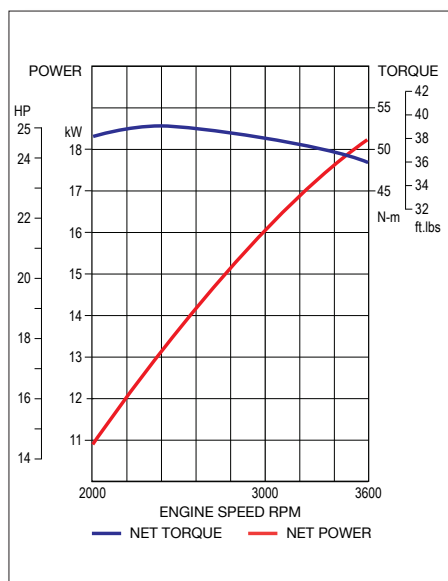
**FD750D**



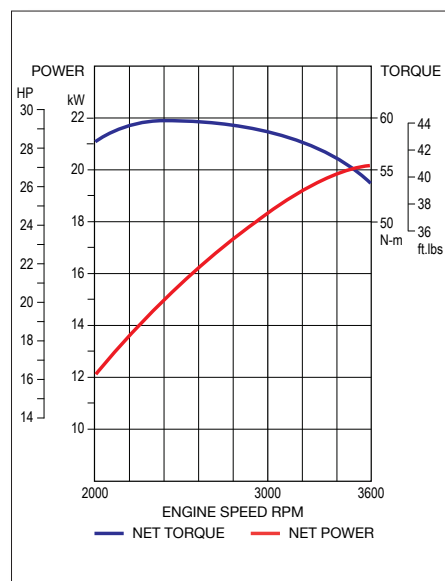
**FD750D DFI**



**FD791D DFI**



**FD851D DFI**



**FD851D DFI**