

# **SERVICE MANUAL**

**HONDA GXV-50 ENGINE**

**HONDA GCV-135 ENGINE**

**HONDA GCV-160 ENGINE**

FOR THE 416H, 418H-4.5 AND 418H-5.5  
ALLEN HOVER MOWER

GCV135 (GJAF-1000001-FORWARD)

## SPECIFICATIONS

Model	GCV135
Type	4-stroke, overhead camshaft single cylinder
Displacement	135 cm <sup>3</sup> (8.2 cu-in)
Bore x stroke	64 x 42 mm (2.5 x 1.7 in)
Maximum horsepower	3.3 kW (4.5 HP) at 3,600 rpm
Maximum torque	9.7 N·m (0.99 kgf·m, 7.2 lbf·ft) at 2,500 rpm
Compression ratio	8.5 : 1
Fuel consumption	313g/kWh (230g / HPh, 0.51 lb/HPh)
Cooling system	Forced-air
Ignition system	Transistorized magneto ignition
Ignition timing	20° B. T. D. C.
Spark plug	BPR6ES (NGK)
Carburetor	Horizontal type, butterfly valve
Air cleaner	Dry (Paper) type
Governor	Centrifugal mechanical governor
Lubrication system	Splash
Oil capacity	0.55 ℓ (0.58 US qt, 0.48 imp qt)
Recommended operating ambient temperature	-5 °C -40 °C (23 °F - 104 °F)
Starting system	Recoil starter
Stopping system	Ignition primary circuit ground
Fuel used	Unleaded gasoline with a pump octane number 86 or higher
Fuel tank capacity	0.9 ℓ (0.24 US gal, 0.20 imp gal)
PTO shaft rotation	Counterclockwise (from PTO shaft side)

GCV135 (SJAF-1000001-FORWARD)

### DIMENSIONS AND WEIGHTS

GCV135:

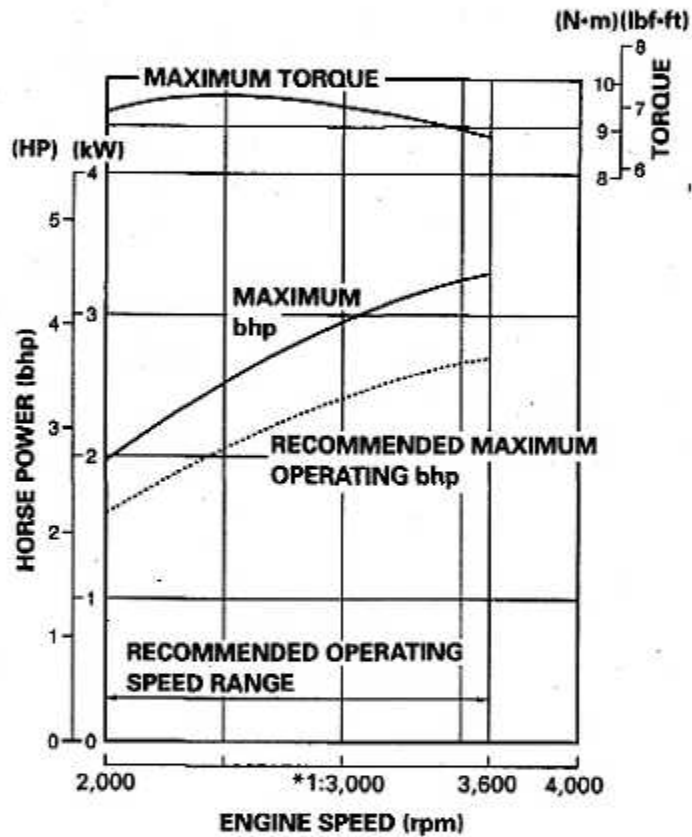
Item	PTO type	
	N1	N2
Overall length	351 mm (13.8 in)	
Overall width	331 mm (13.0 in)	
Overall height	353 mm (13.9 in)	340 mm (13.4 in)
Dry weight	9.5 kg (20.9 lbs)	
Operating weight	10.8 kg (23.8 lbs)	

# PERFORMANCE CURVES

GCV135 (GJAF-1000001-FORWARD)

Power curves are according to SAE standard No. J-1995. For practical operations, the bhp load and engine speed should not exceed the limit defined by the "Recommended Maximum Operating bhp" curve. Continuous operation should not exceed 80% of the "Maximum bhp".

GCV135:

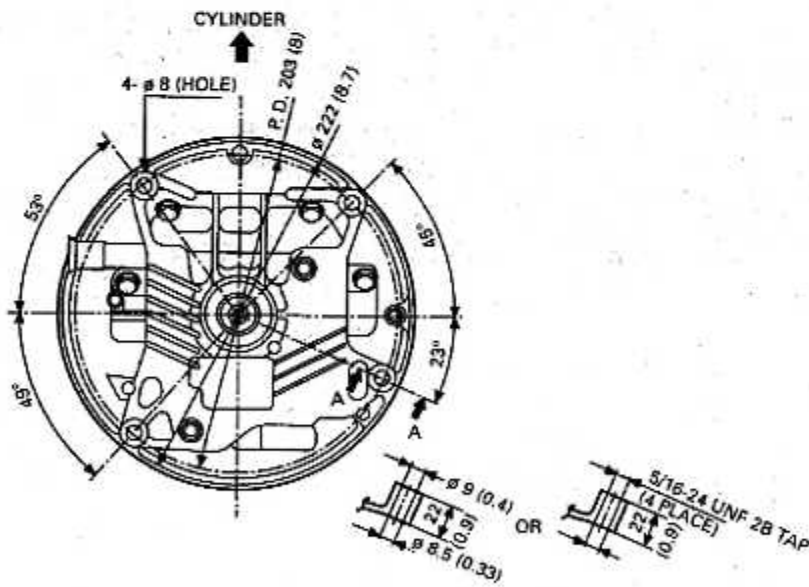
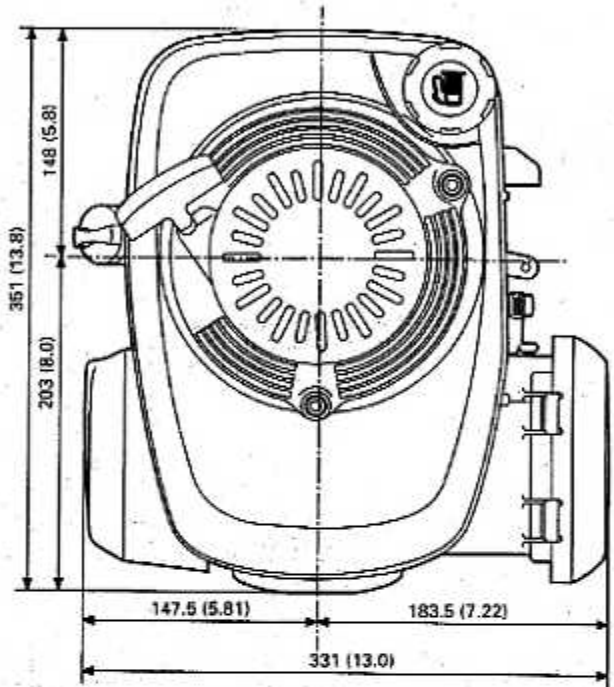
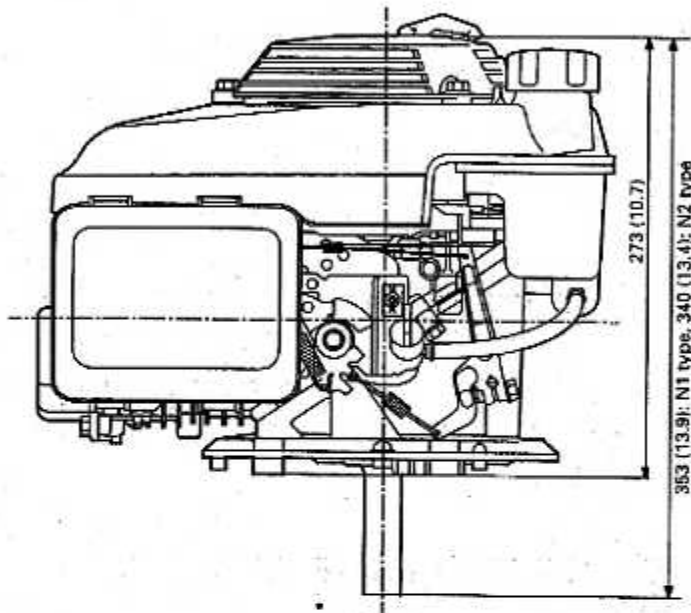


\*1: Rated speed

# DIMENSIONAL DRAWINGS

GCV135 (GJAF-1000001-FORWARD)

Unit : mm (in)



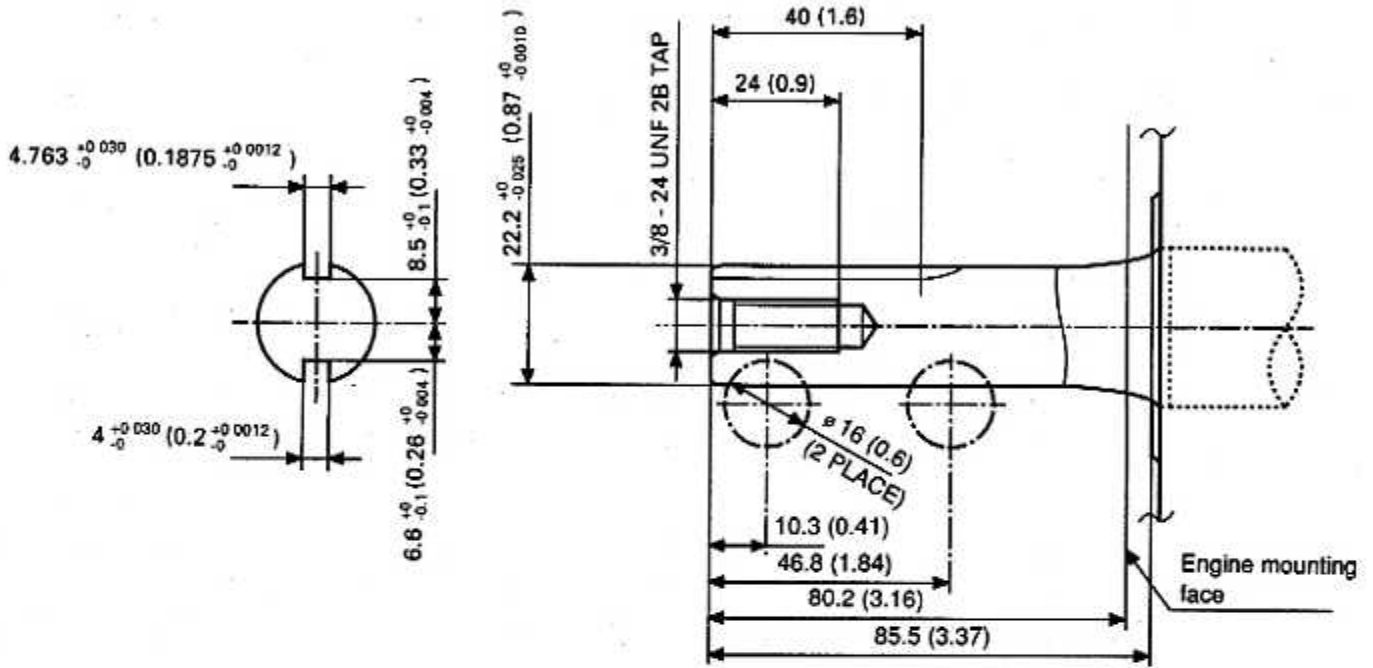
SECTION A-A

# PTO DIMENSIONAL DRAWINGS

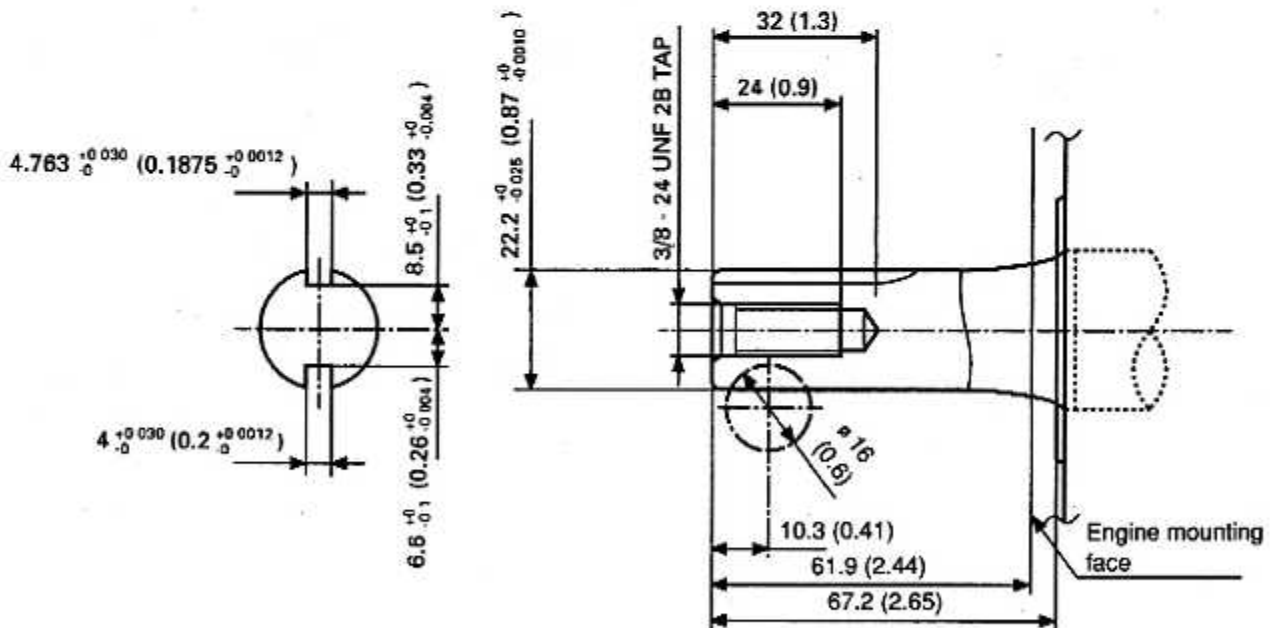
GCV135 (GJAF-1000001-FORWARD)

• N1 type

Unit : mm (in)



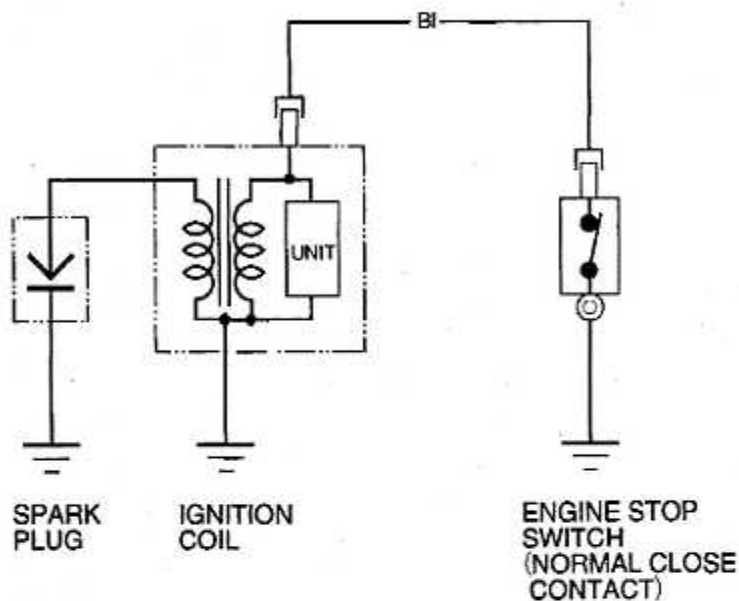
• N2 type



# WIRING DIAGRAMS

GCV135 (GJAF-1000001-FORWARD)

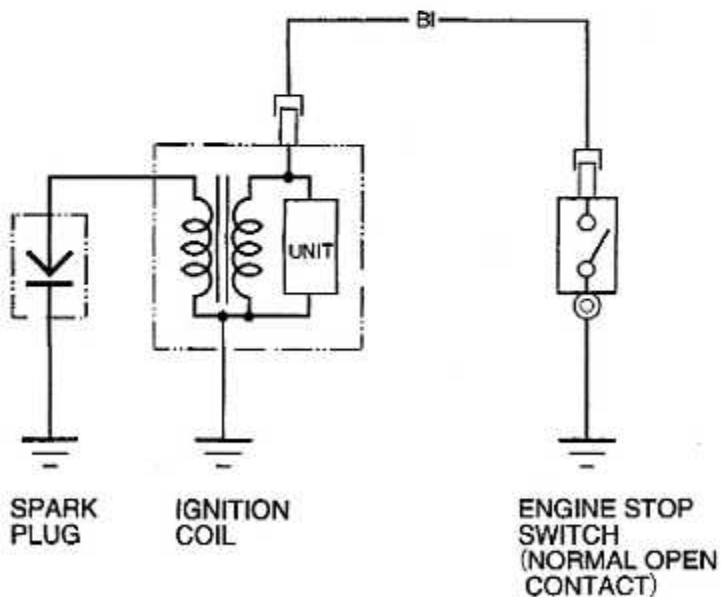
## • With flywheel brake



Bl	Black	Br	Brown
Y	Yellow	O	Orange
Bu	Blue	Lb	Light blue
G	Green	Lg	Light green
R	Red	P	Pink
W	White	Gr	Gray

ENGINE	SWITCH CONTACT
RUN	OPEN
STOP	CLOSE

## • Without flywheel brake



Bl	Black	Br	Brown
Y	Yellow	O	Orange
Bu	Blue	Lb	Light blue
G	Green	Lg	Light green
R	Red	P	Pink
W	White	Gr	Gray

ENGINE	SWITCH CONTACT
RUN	OPEN
STOP	CLOSE

