DA35 EFI Data Sheet

35cc Single Cylinder, Electronic Fuel Injected Two Stroke Engine

Featuring:

- 2.2 kW at 8000 RPM
- 2.7 Nm torque from 5500 RPM to 7000 RPM
- 720 g / kWh average BSFC
- 1.17 kg full system weight
- 1-amp peak current draw

8060 E. Research Ct.
Tucson, AZ 85710
520-578-0818

DA35 EFI Data Sheet

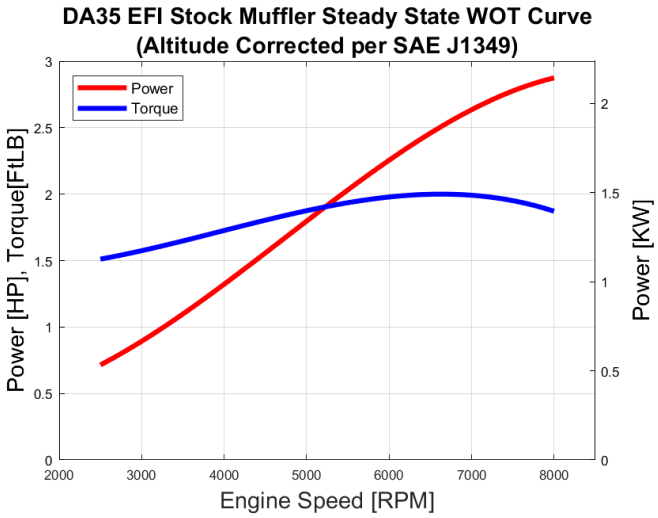


Figure 1: Power curve generated from steady state wide open throttle conditions from 2500 RPM to 8000 RPM in 500 RPM increments. Measured torque was averaged over 30 seconds at each RPM, accounting for all high/low torque spikes that are present in normal operating conditions.

	METRIC	IMPERIAL
DISPLACEMENT	35 cc	2.14 ci
MAX POWER (8000 RPM)*	2.2 kW	2.9 HP
MAX TORQUE (5500 RPM)*	2.7 Nm	2.0 lbft
CONTINUOUS POWER (7000 RPM)*	2.0 kW	2.6 hp
CONTINUOUS TORQUE (7000 RPM)*	2.7 Nm	2.0 lbft
OPERATING RPM RANGE	1500 RPM to 8200 RPM	
AVERAGE BSFC	720 g/kWh	1.2 lb/HPh
WEIGHT (ENGINE WITH THROTTLE BODY)	1 kg	2.2 lb
WEIGHT (ECM)	85 g	2.9 oz
WEIGHT (FUEL PUMP)	88 g	3.1 oz
WEIGHT (IGNITION)	150 g	5.3 oz
WEIGHT (WIRE HARNESS/FUEL LINES)	170 g	6.0 oz
FUEL**	Any Grade Pump Gasoline	
TWO STROKE OIL	Red Line, 40:1 mixture	
REQUIRED OPERATING VOLTAGE	10V to 15V	
CURRENT DRAW	1A Peak	
RECOMMENDED BATTERY	3s or greater LiPo, 1 hour / 1000 mAh	
AMBIENT TEMPERATURE RANGE	0 to 49° C	32 to 120° F

*Stock Muffler **No heavy fuel option at this time

Propeller Recommendations					
2-Blade	**Max RPM ±50**	**Estimated Max Thrust (lbs) ±5%**	**3-Blade**	**Max RPM ±50**	**Estimated Max Thrust (lbs) ±5%**
19 x 10	6370*	15.6**	18 x 10	5700**	15.5**
20 x 8	7000*	20.4**	19 x 11 N	5000**	14.1**
20 x 9	6400**	17.6**			
21 x 8	6600**	20.7**			

*Recorded from Test Stand **Simulation Estimation

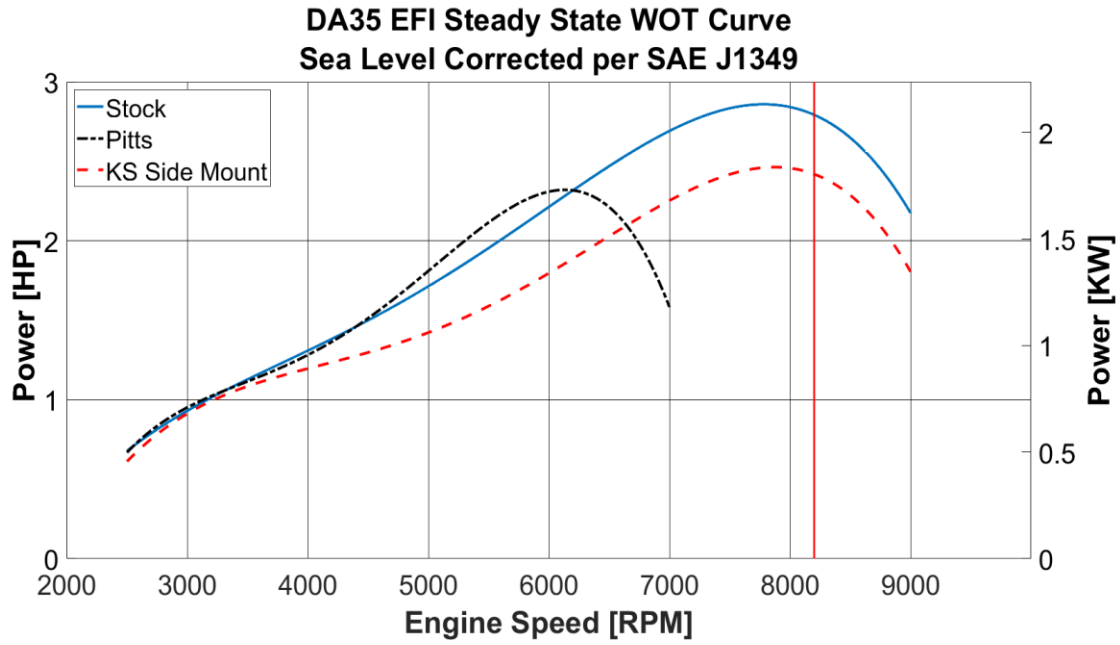


Figure 2: Power comparison of stock muffler, Pitts rear mount muffler, and KS side mount quite mufflers.

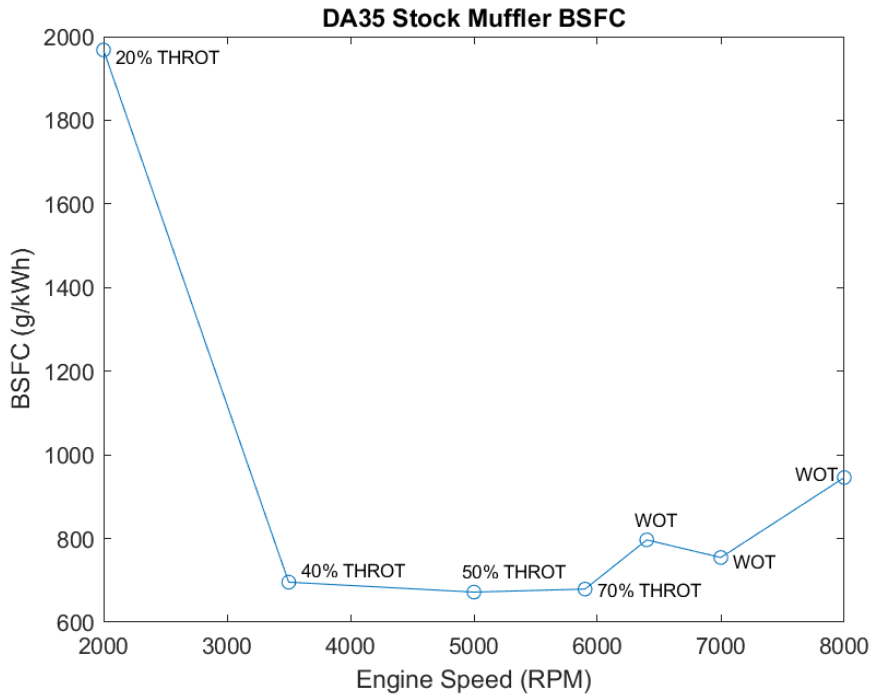
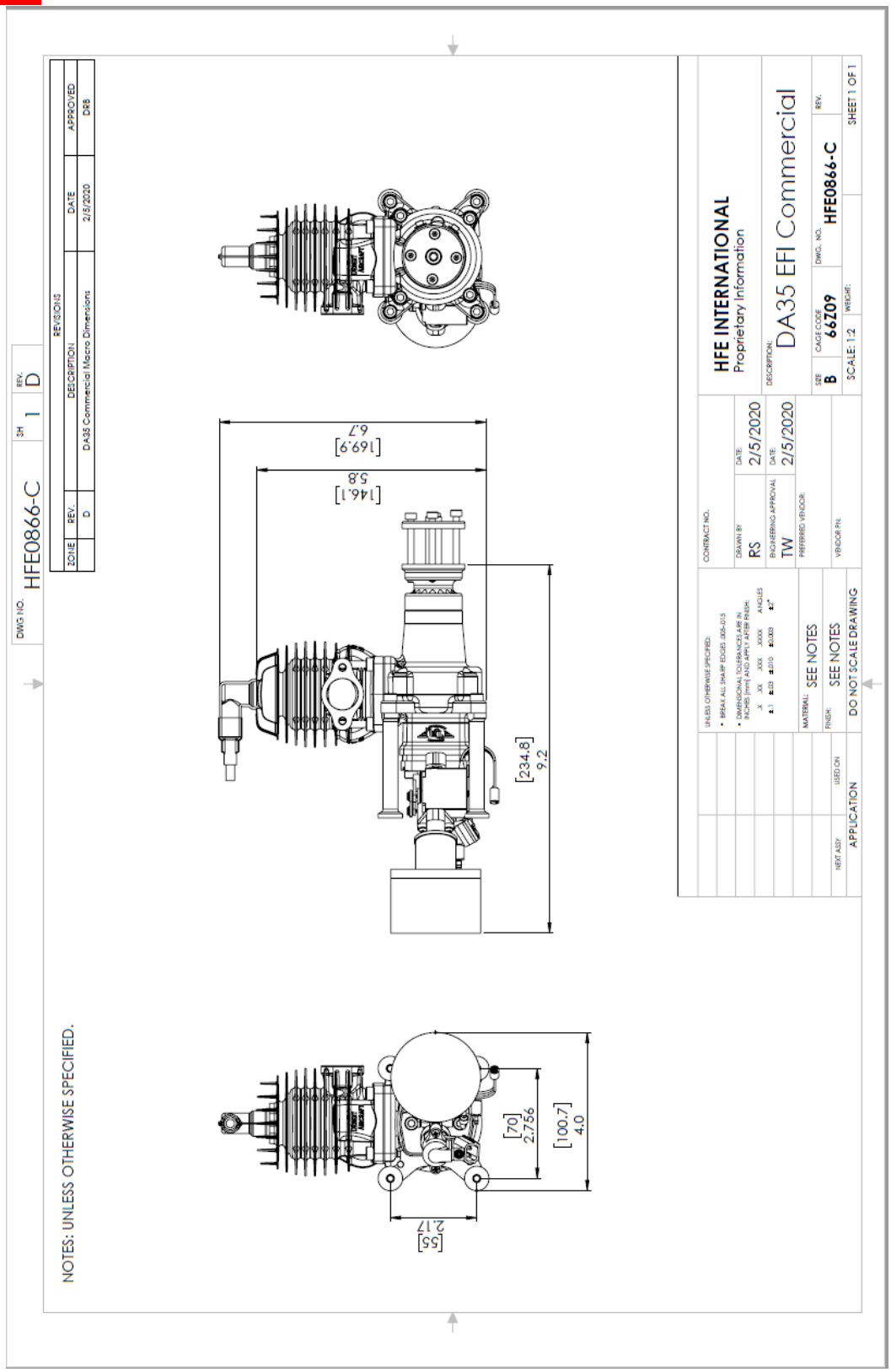


Figure 3: BSFC at various throttle positions and RPM representing propeller load.


DWG NO. HFE0866-C
SH 1
REV. D
REVISIONS
ZONE REV. DESCRIPTION DATE APPROVED
D DA35 Commercial Macro Dimensions 2/5/2020 DRB
NOTES: UNLESS OTHERWISE SPECIFIED.
[55] 2.17
[70] 2.756
[100.7] 4.0
[169.9] 6.7
[146.1] 5.8
[234.8] 9.2
HFE INTERNATIONAL
Proprietary Information
DESCRIPTION: DA35 EFI Commercial
SIZE B
CAGE CODE 66209
DWG. NO. HFE0866-C
REV.
SCALE: 1:2
WEIGHT:
SHEET 1 OF 1
CONTRACT NO.
DRAWN BY RS DATE 2/5/2020
ENGINEERING APPROVAL TW DATE 2/5/2020
PREFERRED VENDOR:
VENDOR P/N:
UNLESS OTHERWISE SPECIFIED:
• BREAK ALL SHARP EDGES .005-.015
• DIMENSIONAL TOLERANCES ARE IN INCHES [mm] AND APPLY AFTER FINISH:
.X .XX .XXX .XXXX ANGLES
±.1 ±.03 ±.010 ±.0003 ±2°
MATERIAL: SEE NOTES
FINISH: SEE NOTES
NEXT ASSY
USED ON
APPLICATION
DO NOT SCALE DRAWING