"Glow Power" requires: 6-channel radio w/4 mini servos, 3 standard servos, 2-stroke 0.40-0.46 engine,
"Electric Power" requires: 6-channel radio w/6 mini servos, Outrunner Motor KM37490750 w/Radial Mount Adaptor HW2340300, 40A Brushless ESC, 4 cells 14.8V 3200mAh Lipo battery and charger

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>72 in / 1830 mm</td>
</tr>
<tr>
<td>Wing Area</td>
<td>736 sq in / 47.5 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>6.6 lb / 3000 g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>48 in / 1220 mm</td>
</tr>
</tbody>
</table>

*Specifications are subject to change without notice.*

Warning! This model is not a toy.
It is designed for maximum performance. Please seek advice if one is not familiar with this kind of engine powered precision model. Operating this model without prior preparation may cause injuries. Remember, safety is the most important thing. Always keep this instruction manual at hand for quick reference.
1/6 PIPER PA-25 PAWNEE

INDEX

BEFORE YOU BEGIN ............................................... P.1
PARTS LIST ............................................................... P.2
ASSEMBLY ................................................................. P.3-P.14
SAFETY PRECAUTIONS ............................................. P.14

BEFORE YOU BEGIN

1 Read through the manual before you begin, so you will have an overall idea of what to do.

2 Check all parts. If you find any defective or missing parts contact your local dealer. Please DRY FIT and check for defects for all parts that will require CA or Epoxy for final assembly. Any parts you find to be defective after the gluing process may be difficult to remove for warranty replacement. The manufacturer will replace any defective parts, but will not extend to the parts that are good before gluing to defective parts during assembly. Warranty will not cover any parts modified by customer.

3 Symbols used throughout this instruction manual comprise of the following :-

Apply epoxy glue.
Apply thread locker
Assemble left and right sides the same way.
Peel off shaded portion covering film.
Drill holes with the specified diameter (here: 3mm).
Pay close attention here!

Apply instant glue (C.A.glue, super glue.)
Must be purchased separately!
Ensure smooth non-binding movement while assembling.
Cut off shaded portion.
Pierce the shaded portion covering film.

Pay close attention here!

Warning! Do not overlook this symbol!
Parts List

1. DECALS: A335 DEC -- set
   MAIN WING -- 1 pair
   FUSELAGE -- 1 pc.
   VERTICAL FIN & RUDDER -- 1 set

2. STABILIZER & ELEVATOR -- 1 set

3. PUSHROD Ø1.8x785mm w/ Threads (For Rudder) -- 1 pc.
   SCREW PB2x12mm -- 3 pcs
   TRI-HORN PL4111221 -- 1 set
   FUEL TUBE D6x5mm -- 1 pc.

4. PUSHROD Ø1.8x703mm w/ Threads (For Elevator) -- 2 pcs
   SCREW PB2x12mm -- 6 pcs
   CLEVIS PL4111203 -- 1 pc.
   TRI-HORN PL4111221 -- 2 sets
   FUEL TUBE D6x5mm -- 2 pcs

5. TAIL LANDING GEAR PL7100001 -- 1 pc.
   TAIL WHEEL Ø25mm -- 1 pc.
   COLLAR Ø2.1mm w/ Set Screw -- 1 set
   SCREW PA3x12mm -- 2 pcs
   SCREW PM2x12mm -- 1 pc.
   PLATE 0.3mm -- 1 pc.
   M2 NUT -- 1 pc.

6. MAIN LANDING GEAR -- 1 pc.
   COLLAR Ø4.1mm w/ Set Screw -- 4 sets
   MAIN WHEEL Ø80mm -- 2 pcs
   SCREW PA3x12mm -- 12 pcs
   MOUNTING PLATE PL4114020 -- 6 pcs

7. COWLING -- 1 pc.
   TRANSPARENT 3D TEMPLATE -- 1 pc.
   SCREW PWA2.6x12mm -- 4 pcs
   SILICON GROMMETS PL1265035 d1.5xD6.5mm -- 4 pcs
   SPINNER Ø57mm PL2111057 -- 1 set
   SCREW PA3x12mm -- 2 pcs
   PLYWOOD 3x30x53mm(For mini servo) -- 1 pc.
   PLYWOOD 3x10x32mm(For standard servo) -- 2 pcs

8. PUSHROD Ø1.8x105mm w/ Threads (For Flap) -- 2 pcs
   PUSHROD Ø1.8x115mm w/ Threads (For Aileron) -- 2 pcs
   TRI-HORN PL4111221 -- 4 sets
   SCREW PB2x20mm -- 8 pcs
   SCREW PB2x16mm -- 4 pcs
   CLEVIS PL4112103 -- 4 pcs
   FUEL TUBE D6x5mm -- 8 pcs
   STRAPER PL4112102 -- 4 pcs

9. PUSHROD Ø1.8x73mm (For Elevator) -- 1 pc.
   SCREW PA3x22mm -- 4 pcs
   M2 NUT -- 1 pc.

10. WING TUBE Ø10x531mm(A) -- 1 pc.
    WING TUBE Ø8x531mm(B) -- 1 pc.
    SCREW PA3x22mm -- 4 pcs
    WASHER d3.2xD12mm -- 4 pcs

11. WING STRUTS(A) -- 1 pair
    WING STRUTS Cover(A) -- 1 pair
    WING STRUTS(B) -- 1 pair
    WING STRUTS Cover(B) -- 1 pair
    SOCKET HEAD SCREW M3x15mm -- 4 pcs
    SOCKET HEAD SCREW M3x12mm -- 6 pcs
    WASHER d3xD7mm -- 16 pcs
    M3 NYLON INSERT LOCK NUT -- 2 pcs
    M3 NUT -- 4 pcs
    PLATE 2mm -- 2 pcs

12. FUEL TUBE D6x5mm -- 2 pcs
    STRAPER PL4112102 -- 2 pcs
    SPONGE -- 80x70x130mm -- 1 pc.
    PUSHROD CONNECTOR PL4410010 -- 1 set
    PUSHROD Ø1.8x73mm (For Elevator) -- 1 pc.
    BATTERY MAT 2x50x150mm -- 2 pcs
    PLYWOOD 3x30x53mm(For mini servo) -- 2 pcs

13. BATTERY COVER -- 1 pc.

14. PILOT PC001085A -- 1 sets
    CANOPY -- 1 pc.
    SCREW PWA2.3x8mm -- 4 pcs
    SILICON GROMMETS PL1265035 d1.5xD6.5mm -- 4 pcs

COVERING:--
TOUGHLON STL 331 CUB YELLOW
TOUGHLON STL 100 WHITE
TOUGHLON STL 250 BLUE
1 Decals

- Cut out decal sheet, peel off backing sheet and apply on fuselage, rudder and wings.

Main wings

Fuselage

Rudder
2 Stabilizer & Elevator

- Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.

- Apply instant type CA glue to both sides of each hinge.

3 Vertical Fin & Rudder

- Apply instant type CA glue to both sides of each hinge.

4 Rudder Pushrod

- Ø1mm pilot holes for World Models horn are pre-drilled. Please look for pin-hole marks at side of control surfaces.

- Fuel Tube D6x5mm
- Tri-horn M3 x 14mm
- Clevis
- Pushrod Ø1.8x785mm
- PB2x12mm Screw 3
5 Elevator Pushrod

PB2x12mm Screw

Fuel Tube Ø6x5mm

Pushrod Ø1.8x703mm

Clevis

PB2x12mm

Tri-horn M3 x 14mm

6 Tail Landing Gear

PA3x12mm Screw

PM2x12mm Screw

2.1mm Collar

M2 Nut

PA3x12mm

2.1mm Collar

3mm set screw

M2 Nut

PM2x12mm

Aluminium Plate

7 Main Landing Gear

PA3x12mm Screw

Wheel Ø80mm

4.1mm Collar

M3x3mm Set Screw

Landing Gear

PA3x12mm

L/R

Ø1mm pilot holes for World Models horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.
This step is for electric powered. Please follow step 8B if your model is engine powered.

1. First insert the grommet to the cowling then apply screw.

2. Double-sided Tape

3. 11x8E Propeller PL6211108

4. Battery Tie
Optional Glow Engine Power Package

1. Insert the grommet to the cowling then apply screw.

2. Illustration is for inverted mounting. You can mount the engine upright or sideways simply by rotating the engine mount. Thrust angles will not be affected.

3. Fuel Tank 320CC

4. 11x6 Propeller PL62231106

5. First insert the grommet to the cowling then apply screw.

If 1/6 Piper PA-25 Pawnee is engine powered. Please follow this step.
**9 Aileron Servo**

Apply instant type CA glue to both sides of each hinge.

- **PWA2x8mm**
  - Screw: 16

**10 Aileron Pushrod**

- **PB2x20mm**
  - Screw: 8
- **PB2x16mm**
  - Screw: 4

*Bottom View*

- Ø1mm pilot holes for World Models horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.
11 Main Wing

<table>
<thead>
<tr>
<th>Part</th>
<th>Qty</th>
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<tbody>
<tr>
<td>PA3x22mm</td>
<td>4</td>
</tr>
<tr>
<td>d3.2xD12mm</td>
<td>4</td>
</tr>
</tbody>
</table>

Insert carbon wing tubes into right wing, apply the PA Screws.

Insert the right wing tubes through the Fuselage, and then install the left wing. Press the wings against the fuselage then apply PA screws to the left wing.
# 12 Wing Struts

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3x15mm Socket Head Screw</td>
<td>4</td>
</tr>
<tr>
<td>M3x12mm Socket Head Screw</td>
<td>6</td>
</tr>
<tr>
<td>d3x7mm Washer</td>
<td>12</td>
</tr>
<tr>
<td>M3 Nylon Insert Lock Nut</td>
<td>2</td>
</tr>
<tr>
<td>M3 Nut</td>
<td>4</td>
</tr>
</tbody>
</table>

**Wing Struts Diagram**

- M3x15mm Socket Head Screw
- M3x12mm Socket Head Screw
- d3x7mm Washer
- M3 Nylon Insert Lock Nut
- M3 Nut

**Wing Strut Cover**

- M3x12mm
- d3x7mm Washer

**Wing Strut**

- M3x15mm
- M3x12mm
- d3x7mm Washer
- M3 Nut
- M3 Nylon Insert Lock Nut
This step is for electric powered. Please follow step 13B if your model is engine powered.

- Plug in the Aileron Servos wire to channel 1
- Plug in the Elevator Servo wire to channel 2
- Plug in the ESC Throttle wire to channel 3
- Plug in the Rudder Servo wire to channel 4
- Plug in the Flap Servos wire to channel 6

If P1/6 Piper PA-25 Pawnee is engine powered. Please follow this step.

- Plug in the Aileron Servos wire to channel 1
- Plug in the Elevator Servo wire to channel 2
- Plug in the Throttle Servo wire to channel 3
- Plug in the Rudder Servo wire to channel 4
- Plug in the Flap Servos wire to channel 6
14 Battery Cover

15 Canopy & Pilot

PWA2.3x8mm Screw  
\[ \text{数量} = 4 \]

d1.5xD6.5mm Silicon Grommet  
\[ \text{数量} = 4 \]

Pilot

Canopy

Fuselage

Silicon Grommets

www.theworldmodels.com
17 Control Throws

Adjust the control throws as shown in the diagram. These throws are good for general flying. You can adjust according to your personal preference.

Elevator

Rudder

Flaps (near fuselage)

Ailerons (away from fuselage)
The ideal C.G. for electric powered model is 76mm (3 in.) behind the leading edge measured at where the wing meets the fuselage. In order to obtain the C.G. specified, add weight to the fuselage or move the battery position. Check the C.G. before flying.

For glow engine powered model, set C.G. at 80mm (3.2 in.) with empty tank to compensate for weight of fuel.

# First time flyer should never fly by himself/herself. Assistance from experienced flyer is absolutely necessary.

# Pre-flight adjustment must be done before flying, it is very dangerous to fly a badly pre-adjusted aircraft.

# **1/6 PIPER PA-25 PAWNEE** is specially designed to be powered by **KM37490750 Outrunner Motor** or **2-stroke 0.40-0.46** engine, using a more powerful engine does not mean better performance. In fact, over powered engine may cause structural damage and injuries.

# Make sure the air field is spacious, never fly the plane too close to people and never get too close to a running propeller. Extreme caution should be exercised when working with electric powered models. Make sure the propeller is cleared of all objects, especially your hands before connecting the battery to the model. Make sure you understand the operation of the ESC (Electronic Speed Control) by studying the ESC manual. Once you plug in the battery for electric powered model, always treat the propeller as a rotating one, as accidental movement of the throttle stick will spin the propeller and could cause injuries.

# If you find wrinkles on the covering as a result of weather changes, you can use hot iron to remove the wrinkles. Please begin with lower temperature setting and gradually raise the temperature until the wrinkles are gone. Too hot an iron may damage the covering. Don’t use hot iron near the seams or edges, hot iron will melt the glue and shrink the covering at the same time, causing the seams to pull away.

# Check and re-tighten up all factory assembled screws, use thread locker if necessary.
After fastening the round nut, make sure that the linkage connector can rotate freely.

Drill 2mm hole at servo horn.

Insert linkage connector into servo horn.

Make sure shoulder of screw is cleared from servo horn. Add washer to reduce play if necessary.

Tighten up the round nut against the shoulder. Apply CA or permanent thread locker.

Product Registration Form (US Customers)

We would like to share with you any relevant information regarding your model, including product news and free upgrade parts when applicable. Please fill in the following and send to AirBorne Models, 4749-K, Bennett Drive, Livermore, CA 94551 USA.

1. Name: _____________________________________________________________

2. Address: __________________________________________________________

3. Phone #: _____________________ E-mail: _____________________________

4. Model: ____________________________________________________________

Wing QC# __________ Fuselage QC# _________________________________
(QC numbers are stamped on wing and fuselage)

5. Date of Purchase: _________________________________________________

6. Store Name: _____________________________________________________

Please call AirBorne Models at 925 371 0922 for any assistance in filling this form. Thank you very much for purchasing our product.
Usage of the transparent 3D template

This transparent 3D template is used for position guidance of the actual cutting of the pre-painted cowling.

1. Simply cut the transparent 3D template to fit your engine and exhaust pipe.
2. Then slide onto the actual cowling.
3. Use as template to mark the openings required for final cutting.
### Optional Parts

**ACCESSORIES**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP0011310</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
</tbody>
</table>

- Ideal for electric models

3 - Pin EZ Connector

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP0011210</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
</tbody>
</table>

- Ideal for electric models

2 - Pin EZ Connector

**Electronic Speed Control 15A**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KC2015A01</td>
<td>37 x 19 x 7mm</td>
<td>1 pc</td>
</tr>
</tbody>
</table>

- Current: 15A continuous
- Weight: 22g (with wires)
- BEC output: Switch 5V / 1.5A
- Input:
  Bec function for 7 - 8 cells; (Nimh / Nicd) operation

**Outrunner Motor 37 / 49 -750kv**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM37490750</td>
<td></td>
</tr>
</tbody>
</table>

- Kv (rpm / V): 750
- Operating Power: 590 W
- Operating Voltage: 8.5 - 18V
- Operating Current: 40A
- Peak Current: 65A (max.15 sec.)
- Internal Resistance: 34 m ohms
- Diameter: 37.2 mm
- Length: 49.4 mm
- Weight: 183 g
- Shaft Diameter: 5 mm
- Shaft Length: 20.6 mm
- Mounting Screw:
  - M3 (Front) and M2.5 (Back)
  - Distance of Mounting Holes:
    25mm (Front) and 15.5mm (Back)

**Radial Mount Adaptor Set**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Package</th>
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</thead>
<tbody>
<tr>
<td>HW2340300</td>
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</table>

**Clevis Wrench**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI8210010</td>
<td></td>
</tr>
</tbody>
</table>

- Small Clevis
- Large Clevis

Special tool for clevis installation. Suitable for standard and small (EP) clevis.

**Propeller Adaptor Wrench**

<table>
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<th>Package</th>
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<tbody>
<tr>
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**Electronic Speed Control 15A**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
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</thead>
<tbody>
<tr>
<td>KC2015A01</td>
<td>37 x 19 x 7mm</td>
<td>1 pc</td>
</tr>
</tbody>
</table>

- Current: 15A continuous
- Weight: 22g (with wires)
- BEC output: Switch 5V / 1.5A
- Input:
  Bec function for 7 - 8 cells; (Nimh / Nicd) operation

**Outrunner Motor 37 / 49 -750kv**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Package</th>
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<tbody>
<tr>
<td>KM37490750</td>
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</table>

- Kv (rpm / V): 750
- Operating Power: 590 W
- Operating Voltage: 8.5 - 18V
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- Peak Current: 65A (max.15 sec.)
- Internal Resistance: 34 m ohms
- Diameter: 37.2 mm
- Length: 49.4 mm
- Weight: 183 g
- Shaft Diameter: 5 mm
- Shaft Length: 20.6 mm
- Mounting Screw:
  - M3 (Front) and M2.5 (Back)
  - Distance of Mounting Holes:
    25mm (Front) and 15.5mm (Back)
## Optional Parts

### ACCESSORIES

<table>
<thead>
<tr>
<th>Optional Parts</th>
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<th>Size</th>
<th>Package</th>
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<tbody>
<tr>
<td><strong>180mm Extension</strong></td>
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<tr>
<td>- <strong>PL8210010</strong></td>
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<td></td>
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<tr>
<td><strong>180mm Y-Cord</strong></td>
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<td>- <strong>Code No.</strong></td>
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<tr>
<td>- <strong>KW0021800</strong></td>
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<td>180mm</td>
<td>1 pc</td>
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<tr>
<td><strong>Charge Receptacles</strong></td>
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<tr>
<td>- <strong>Code No.</strong></td>
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<td>- <strong>KP0041300</strong></td>
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<tr>
<td><strong>Fuel Filler</strong></td>
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<tr>
<td>- <strong>Code No.</strong></td>
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<tr>
<td>- <strong>PL8110030</strong></td>
<td></td>
<td>15 x 22 x 49mm</td>
<td>1 x 1 pc</td>
</tr>
<tr>
<td>- <strong>SV4031</strong></td>
<td></td>
<td>40.6 x 20 x 37mm</td>
<td>1 set</td>
</tr>
<tr>
<td><strong>Clevis Wrench</strong></td>
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<td></td>
<td></td>
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<tr>
<td>- <strong>Code No.</strong></td>
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<tr>
<td>- <strong>PL8210010</strong></td>
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</tr>
<tr>
<td>- <strong>Small Clevis</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>- <strong>Large Clevis</strong></td>
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<tr>
<td><strong>Field Stand</strong></td>
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<td></td>
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<tr>
<td>- <strong>Code No.</strong></td>
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<tr>
<td>- <strong>MS9111450</strong></td>
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<td>600 x 240 x 350mm</td>
<td>1 pc</td>
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<tr>
<td><strong>Standard Servo</strong></td>
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<tr>
<td>- <strong>Code No.</strong></td>
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<td></td>
<td></td>
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<tr>
<td>- <strong>SV4031</strong></td>
<td></td>
<td>40.6 x 20 x 37mm</td>
<td>1 set</td>
</tr>
</tbody>
</table>

**Specifications**

**Speed:**
- 0.17 sec / 60° @4.8V
- 0.14 sec / 60° @6.0V

**Torque:**
- 3.2kg.cm / 44.8 oz - in @4.8V
- 4.1kg.cm / 57.4 oz - in @6.0V

**Size:**
- 40.6 x 20 x 37mm / 1.60 x 0.79 x 1.46 in

**Weight:** 39.4 g / 1.39 oz