

# MUSCLE RACER

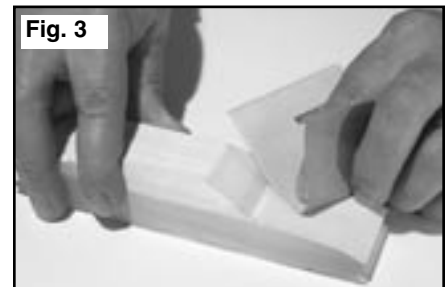
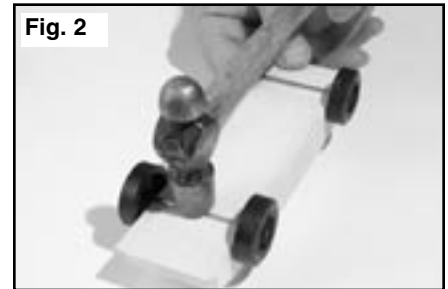
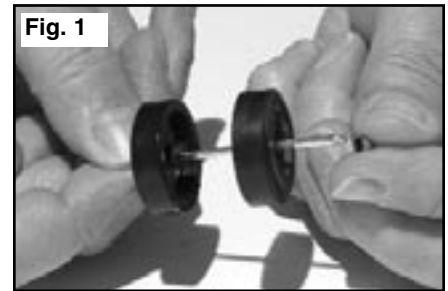
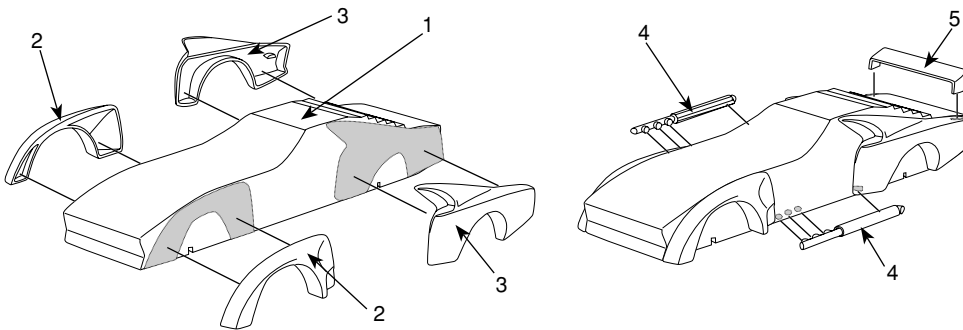
## PINECAR® DERBY™ SPECIFICATIONS

1. Maximum racer size, including wheels, is 7" long, 2 3/4" wide.
2. Minimum racer width between wheels is 1 3/4".
3. Minimum clearance between racer and track is 3/8".
4. Maximum racer weight is 5 oz. (142 g.). Metal, wood or plastic may be added.
5. No wheel bearings, bushings, springs, starting devices, loose or moving weights, or parts are allowed.

Racers that do not meet specifications may be disqualified. Local rules may vary. Wheels and axles should be the same on all racers in a race. **OFFICIAL BSA WHEELS AND AXLES WILL FIT ON ALL PINECAR RACERS™.** PineCar offers a variety of accessories for speed and design. Remember, as you build your racer, most local Derby Officials also present separate craftsmanship awards for the best-looking racer entries!

## KIT CONTENTS

Description	Quantity	Description	Quantity
1. Pre-cut block .....	1	10. Foam paintbrush .....	1
2. Front fenders .....	2	11. Accent paint strip (black and silver) .....	1
3. Rear fenders .....	2	12. Accent brush .....	1
4. Side exhaust pipes .....	2	13. Wheels .....	4
5. Rear spoiler .....	1	14. Axles .....	2
6. 120-grit sandpaper .....	1	15. 5-piece hubcap strip .....	1
7. 220-grit sandpaper .....	1	16. Incremental weight .....	1
8. Sealer/Paint .....	1	17. Screws .....	2
9. Gloss finish .....	1	18. Decal sheet .....	1



## INSTRUCTIONS

**Read through all instructions before beginning your project.**

*Tools required for easy assembly: hammer, screwdriver, glue and pliers.*

### • Weigh racer parts

Weigh all racer parts before assembling. Make the racer slightly overweight. The heavier your racer, the faster it will go. Break weight increments off if needed. Remember, you can take weight off the day of the race, but may not be allowed to add weight.

### • Test fit wheel and axle assemblies (Figs. 1 and 2)

Put two wheels on one axle. Be sure outside of wheels face correct direction and install hubcaps (Fig. 1). Repeat with other axle. Center axle assemblies over axle slots on racer bottom. Make slots the correct size by gently tapping axles into slots with a hammer (Fig. 2). Both wheels should clear racer body enough to spin freely. If not, sand sides of racer body until they do. Remove axle assemblies and set aside.

### • Prepare wooden body (Fig. 3)

Sand the entire racer with medium sandpaper, then sand with fine sandpaper, removing all sanding marks. Wipe sanding dust off.

**TIP:** Use PineCar Body Putty (P3928) to fill any gaps, cuts, or scratches. Putty can also be used as a smoothing compound. If needed, sand racer to remove putty residue.

### • Test fit body details (Fig. 4)

Test-fit front and rear fenders, rear spoiler and side exhaust pipes to the racer. If needed, sand the area to accommodate the fenders. Glue front and rear fenders to racer with PineCar Super Glue (P381) or PineCar Formula Glue™ (P384). Allow glue to dry thoroughly. Remove wheel assemblies.

### • Seal and paint (Fig. 5)

PineCar sealer/paint is a combination sanding sealer and paint. Paint two or more coats of paint on the entire racer. Rinse paintbrush well after each coat. Allow each coat to dry thoroughly and

sand lightly between coats. Do not sand after the final coat.

**NOTE:** PineCar sealer/paint is non-toxic and water-soluble. It may be thinned with water if necessary.

• **Paint detail parts (Fig. 6)**

Black and silver accent paint may be used to paint side exhaust pipes, rear spoiler and wheels.

• **Apply decals (Fig. 7)**

Test fit decals, trim if needed. Apply decals to clean, dry, dust-free surfaces only. Pull up decal from backing sheet and place on racer.

• **Attach details**

When the paint has dried, glue the side exhaust pipes and rear spoiler to the racer. See picture for placement.

• **Apply gloss finish (Fig. 8)**

Apply several coats of gloss finish with the foam paintbrush. Allow gloss finish to dry between coats. Don't forget to rinse brush after each use.

**NOTE:** PineCar gloss is non-toxic and water-soluble. It may be thinned with water if necessary.

• **Attach weight (Fig. 9)**

Turn your racer on its top, with a soft cloth under it. Attach weight to the bottom of your racer with screws. Axles must be flush with the bottom of the racer to allow 3/8" clearance. Weigh racer, remember the heavier your racer the faster it will go. Make your racer slightly overweight. On race day break off excess weight with pliers if needed.

• **Attach wheel and axle assemblies (Fig. 10)**

Center axle assemblies over the axle slots and gently tap them into the slots with a small hammer. Glue axle assemblies on with PineCar Super Glue. Lubricate axles with Hob-E-Lube® Dry Graphite (P358) or Dry White (P355) where wheels rotate (by wheel hubs). **NOTE:** Liquid lubricants may damage wheels.

*Add details and accessories to your PineCar® Racer™ from the complete line of PineCar products. For more products, tips and techniques, see "Building PineCar Racers" video (VHS-P3940, DVD-P3941), read the "PineCar How-To-Book" (P383) or visit [www.pinecar.com](http://www.pinecar.com).*

