

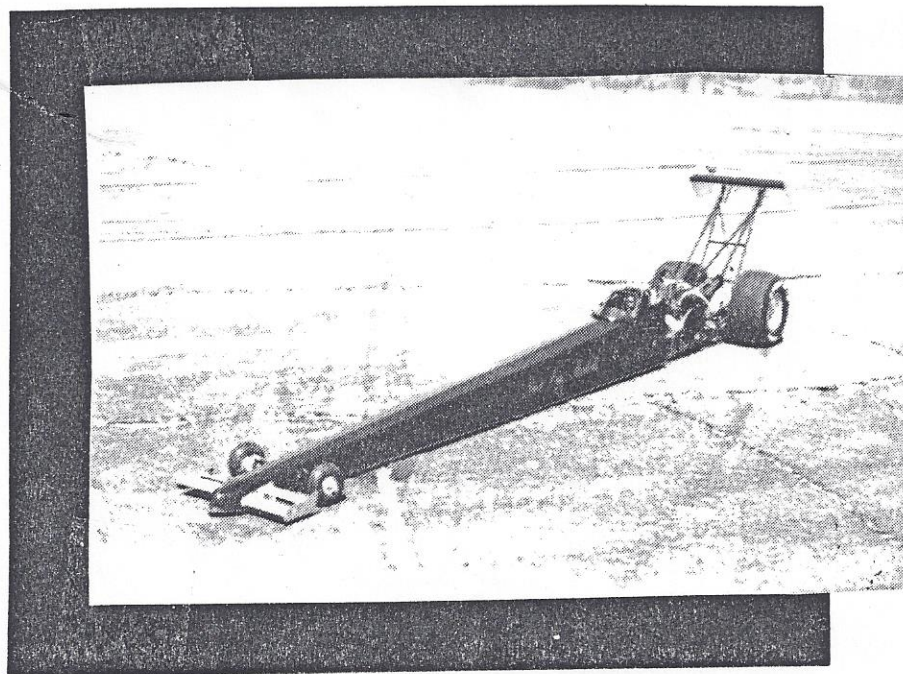
New Era Models

p.o. box 7378

nashua, nh 03060

(603)880-3453 Fax (603)888-8645

Top Fuel Dragster



Instructions

NEW ERA MODELS, INC.
P.O. BOX 7378
NASHUA, NH 03060
(603) 880-3453 FAX (603) 888-8645

Dear Modeler,

Quarter Scale Models are NOT a beginners level model. If you are not familiar with general modeling techniques, please feel free to call or write us, this helps us to help you.

Some of the instructions may vary slightly because we at New Era Models, choose to upgrade and improve the product as New Techniques and Materials are Developed.

It is far better to get a Sturdy, Sound, Technically advanced Race Car, than a highly detailed set of instructions and lose the the Race.

WARRANTY INFORMATION

90 Day Limited Warranty

Your New Era Quarter Scale model is warranted against defects in workmanship and material for a period of 90 days from the date of purchase.

This warranty is null and void if the New Era model has been improperly handled, damaged in a crash, tampered with or modified in any manner. Also it does not cover the replacement of vendor supplied components and/or electrical components damaged because of the use of improper voltages.

If a New Era model or part has to be returned you are required to get a Returned Authorization number from New Era Models prior to shipment. All postage, shipping and insurance costs must be paid by the user/purchaser.

It is expressly understood that the standard replacement warranty of the seller shall be in lieu of any and all other warranties, including the warranties of merchantability and fitness for use. The sole responsibility of the seller shall be in its replacement obligations contained in this standard warranty.

Your New Era model is warranted to the original owner to be free of defects in parts or workmanship for a period of 90 days from the date of purchase. During this time New Era Models will repair or replace at option any defective parts without charge.

Limit of our Liability: Our liability under this warranty is limited to the repair or replacement of defect or defective parts by New Era Models and does not include shipping expense.

Exclusion and/or Voidance of Warranty: This warranty does not apply to damage or defects resulting from misuse, abnormal service, damage in shipment, or damage resulting from a crash. The warranty is voided if the model is modified, altered, or repaired. We are sorry, but we cannot be responsible for crash damage and/or loss of kits, engines, accessories, etc.

PROOF OF DATE OF PURCHASE

It is the responsibility of the purchaser to show proof of date of purchase if a model's warranty is to be honored. Your original purchase invoice or receipt will suffice for this purpose. Your New Era model should be returned directly to New Era for warranty work. The address is:

New Era Models
P.O. Box 7378
Nashua, NH 03060-7378
(603) 880-3453

SHIPPING INFORMATION

Please follow steps 1 through 4 below when returning a model to New Era Models.

When returning your model for warranty service, please be sure to follow these instructions. This will help us troubleshoot the system, repair it, and return it to you as quickly as possible.

1. Call New Era Models for the Return Authorization number.
2. Under normal circumstances, return only the damaged part. (New Era Models may request that the entire model be returned in special cases.)
3. Disconnect the receiver battery switch and harness. Make sure the transmitter is turned off.
4. Send written instructions which include proof of purchase date (your receipt or purchase invoice), a list of all items returned, a complete explanation of the problem and service needed, plus your phone number where you can be reached during the day.
5. Also include your full return address.

Postage may be prepaid or billed C.O.D. Additional postage charges will be applied for non-warranty returns. All models shipped from outside the United States must be prepaid in U.S. funds only.

Top Fuel Dragster Assembly Instructions:

LIST OF TOOLS REQUIRED

Allen Wrenches (Bondhus Ball)

1/8 inch, 1/16 inch, 3/16 inch, 3/32 inch, 5/32 inch, 5/64 inch, 7/64 inch,
9/64 inch.

Open End Wrenches

3/8 inch, 5/16 inch, 7/16 inch.

Adjustable Wrench, 4 inch.

Small Spark Plug Wrench.

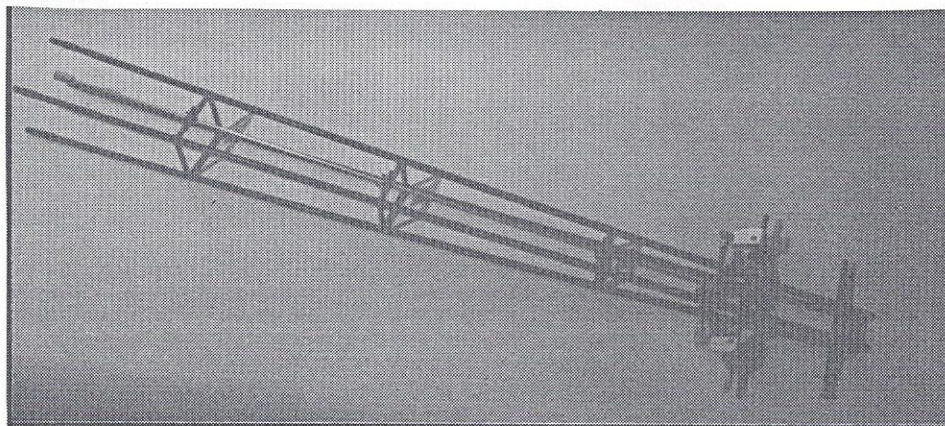
Needle Nose Pliers.

Set of Small Files, including a round and a half-round file.

Locktite, Small Screw Thread Locker No. 222 - Removable.

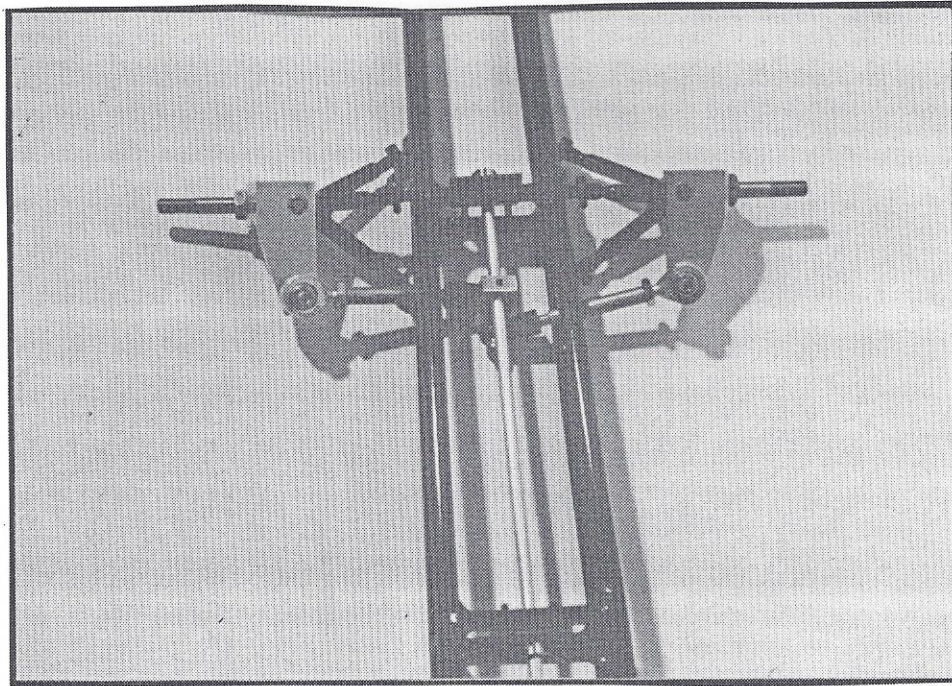
Dremel tool with assorted cutting and polishing points.

FRONT END

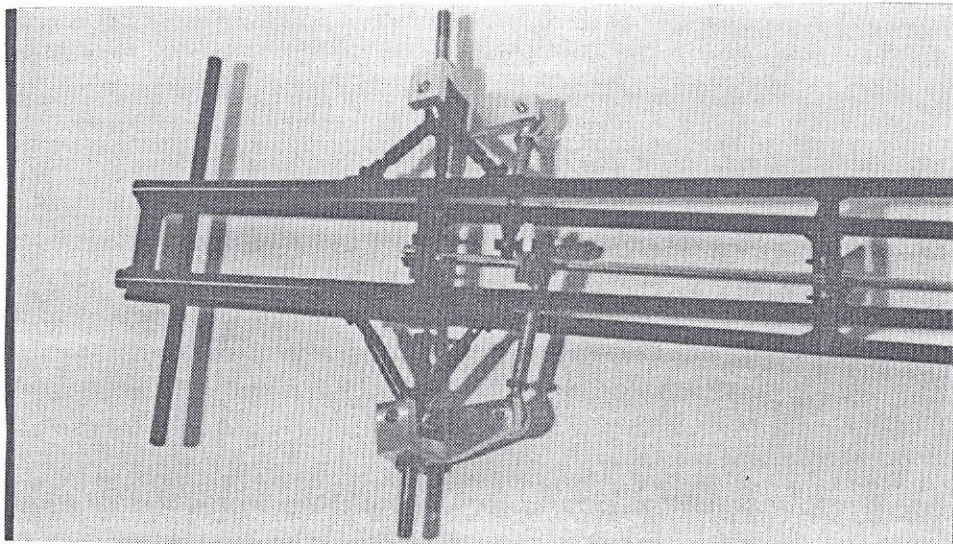


Start the front end assembly by first bolting the four plastic bearings to the metal tabs using the 4-40 bolts & locknuts. See the illustration. Then starting at the rear of front frame push the 35-1/4 inch long aluminum steering rod through the plastic bearings and stations 4 and 3. Make sure that the rod does not rub or bind on the metal tabs. Slide a locking collar on the rod then push the rod through station 2. Place the steering link on the aluminum rod (don't tighten it yet) then push the rod through station 1. Place a locking collar on the very end of the rod and tighten it. Move the locking collar between station 2 and 3 so that it is snug against station 2 and tighten it. Check the steering rod to make sure that it moves freely through the bearings and stations.

Installing the Spindles & Threaded Steering Links



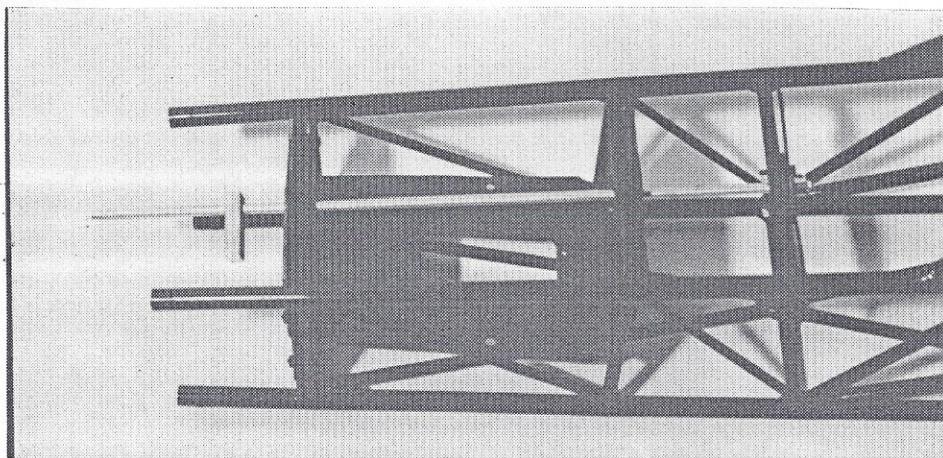
Make 2 Teflon washers from the Teflon strip by punching a $\frac{3}{16}$ inch center hole near one end and cutting the outside diameter $\frac{1}{2}$ inch round. Place the $1\frac{1}{4}$ inch dowel pin in the bottom of spindle, place washer on inside of spindle and slide the assembly onto the A-arm on the frame, push the dowel pin through and lock it in place on the A-arm using the 6-32 set screw (the spindle goes on with the steering arm up). Repeat the procedure for the opposite side. See the illustration.



Assemble the steering links by placing the left hand hex nut on the end of the 3/16 inch metal rod and screw it into the 1/4 inch tubular steering link. Screw the 3/4 inch threaded rod halfway into other end of tubular steering link, then screw on nylon rodend. Attach the steering links to the frame using a 4-40 x 1 inch socket head cap screw through the plastic rodends and tighten on the locknut. See the illustration. Be careful to place the plastic rodends so that angle made by the steering link permits full movement of the front end. Bolt the metal rodends to the steering arms using a 10-32 x 5/8 inch socket head cap screw and tighten it. Adjust the front end for proper tow-in (1/32 - 1/16 inch) and tighten the jam nuts.

Finally, push the steering joint on the inward end of the steering rod and tighten it using a 6-32 set screw. Push the steering joint on the rod about a half an inch; the other half fits on the rear frame rod. The mechanical assembly of the front end is completed.

REAR END



Begin the rear end assembly by installing the firewall steering servo plate, throttle servo plate and the dash. (Some minor fitting may be required on these pieces.) Fasten each plate to its frame location using the 4-40 x 1/2 inch socket head cap screws and locknuts. Install the 12 inch rear aluminum steering rod through the plastic bearings making sure that the rod does not rub or bind on the metal tabs. Install a locking collar on the driver compartment end of the rod, then install the steering link on the firewall side of the steering rod. See the illustration. Do Not tighten collar at this time.

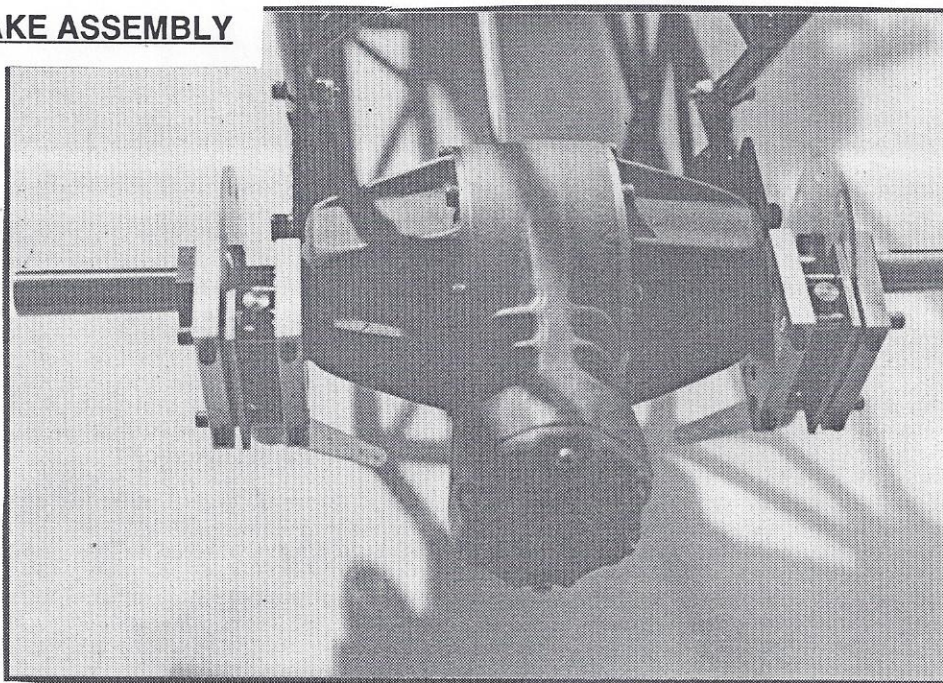
Connect the front and rear frames using the 6-32 x 5/8 inch bolts and locknuts. Align the steering rods, insert the rear rod into the steering joint and tighten the set screw. Install the 4 6-32 x 5/8 bolts and locknuts that hold the rear wing stand to the frame.

SPECIAL NOTES:

Fill the rear end with SAE 30 single viscosity non-detergent oil only. The filler cap is located on the left side of the rear end.

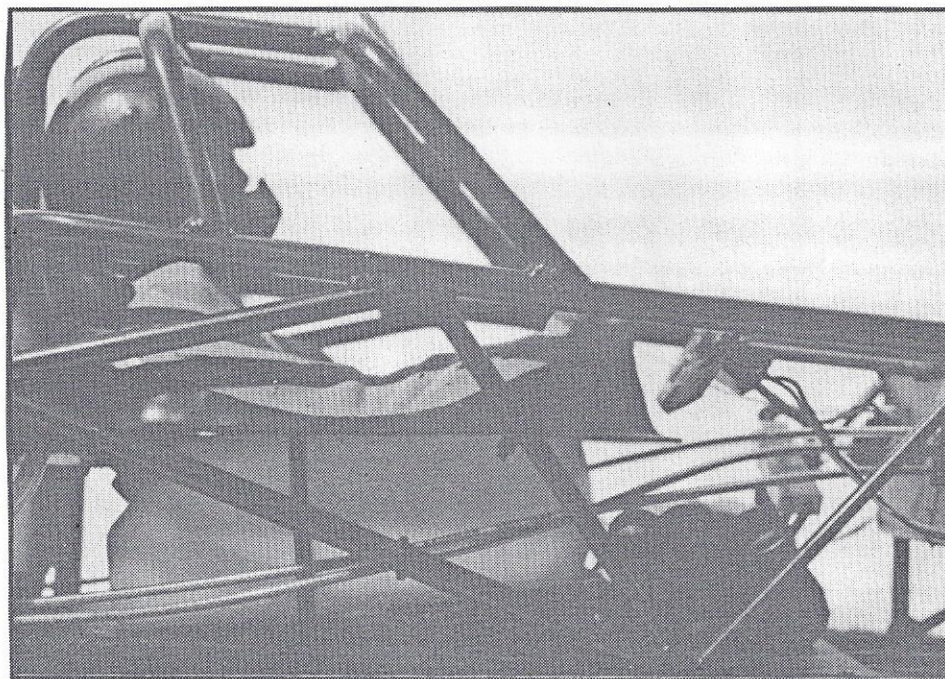
Although the engine and rear end were factory installed and aligned it is YOUR responsibility to check to be sure that nothing is loose or misaligned after putting the car through a brief run in period.

BRAKE ASSEMBLY



Install the rear axle and slide a rotor hex nut on each end of the axle. Install the actuator locating pins in the two holes farthest from the set screw holes in the caliper housing. *It is recommended* that you use a press or a vice to install the two 3/16 x 5/8 inch actuator locating pins. Install the 2, 3/16 inch x 1-1/4 inch disc pad guide pins in the holes and hold them in place using 2, 8-32 x 1/4 inch set screws. Install the caliper mounting plate to rear end, set screws facing the rear, using 2, 10-24 x 5/8 inch socket head cap screws and No. 10 lockwashers. See the illustration. The top and bottom rear outside ends of the end plate and disc pads may have to be filed down and rounded to provide clearance for the tire rims. Install the actuator rod with the short part between the actuator locating pins and the disc pad guide pins. Slide a disc pad onto the disc guide pins with the rod facing towards the axle. Slide a disc rotor on the hex nut against the disc pad. Install the caliper end plate on the end of the disc pad guide pins with the set screws facing rearward. Hold it in place using 2, 8-32 x 1/4 inch set screws. Attach the actuator arm to the bottom of the actuator rod with the extended arm to the center of car and the set screw facing the front. Do not fully tighten the screw since it will be necessary to adjust position of arm for proper braking. Tighten the rotor hex nut on the axle. Repeat this procedure for the opposite side. Install the rear wheel hubs.

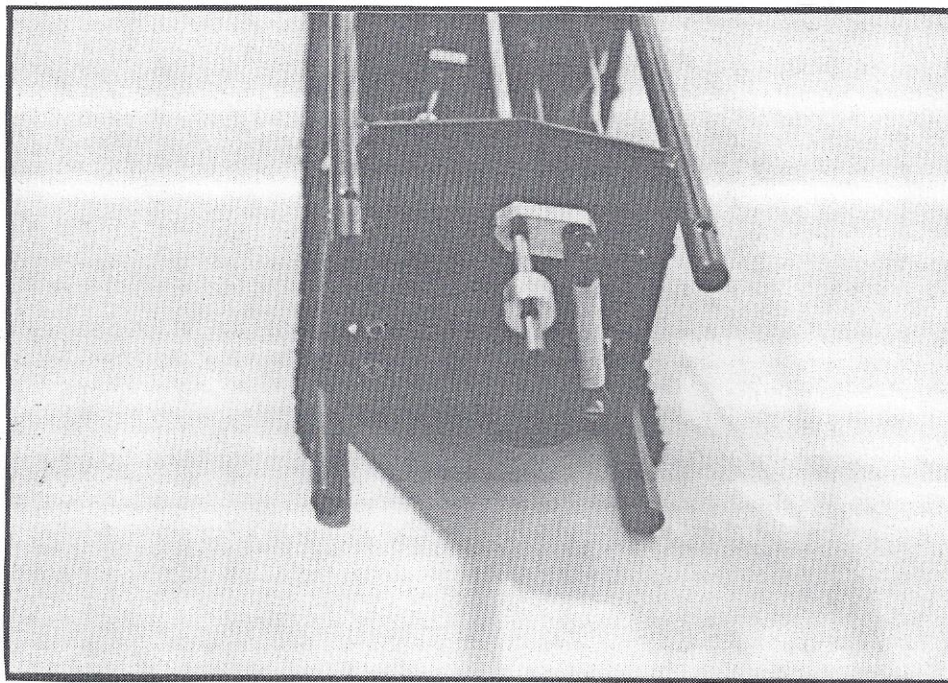
FUEL TANK ASSEMBLY & INSTALLATION



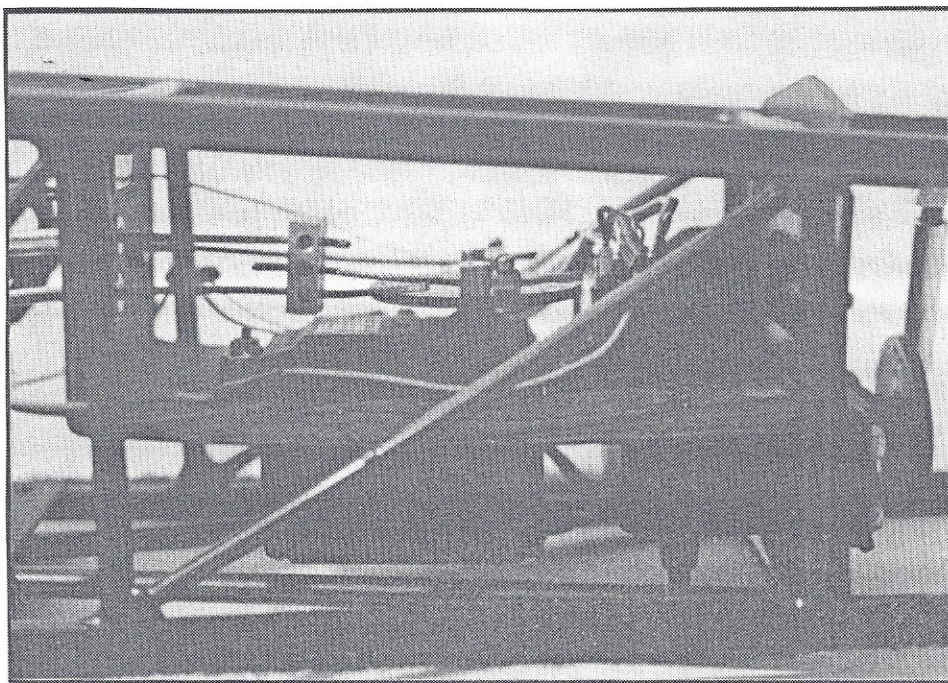
Mount the fuel and battery tray with cable ties as shown in the illustration. Your kit includes a bladder type tank to hold fuel. Assemble the tank by following the tank instructions, making certain to use the gasoline-rated stopper and pick-up line that is provided. Do Not use a silicone fuel line inside the tank. Cable tie the fuel bladder to the mounting tray, using two large cable ties joined together in both places. You will obtain best results by tilting the front part of the tank up, extending the vent line inside the tank to the left front corner and using a piece of brass provided to pick-up fuel in left rear corner of the tank. I prefer to use a fuel bulb for fueling, you may use a 1/3 tube and fill the tank however you wish. DUBRO recently marketed a reasonably priced, hand operated, one gallon plastic gas tank.

RADIO INSTALLATION

This car is supplied with a servo plate that has an opening for Futaba S-34 High Torque Servos. If you are using different servos you may have to enlarge the opening with a file. Install the brake-throttle servo into the opening with the servo wheel towards the front of the car. Secure the servo with 4, 4-40 x 1/2 socket head cap screws and locknuts to the top of the servo grommets. Install the steering servo so that the grommets are on the outside of the bulkhead with the output shaft towards the left side of the car. Secure the servo with 4, 4-40 locknuts to the top of the servo grommets. Assemble the steering servo link by screwing the two male plastic rodends about halfway into the 1-3/8 inch aluminum tube then press a ball with a large hole in one end and a ball with a small hole in the other end. Attach the small end to the large round servo horn about 1/8 inch from the edge, using a 4-40 flathead screw and a 4-40 locknut. Attach the end with the large hole to the steering link with a 6-32 x 3/8 inch socket head cap screw. See the illustration.



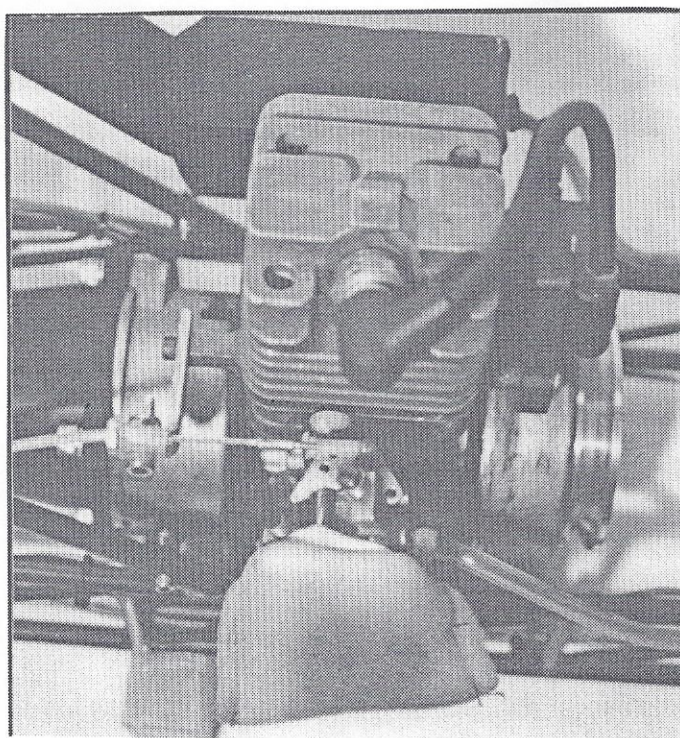
Remove the cables from the cable housing. Cut the two brake housings 32 inches long and cut the fuel cable housing 33 inches long. Thread a 6-32 hexnut on the end of each cable housing 1/2 inch from the end. Install the 33 inch cable housing (nuttend end) through the left cable hole and both 32 inch cable housings through the right cable holes. Attach a 6-32 hexnut on each end of the cable housings passing through the cable holes. (We will install the cable holes later.) Drill holes and install a tie wrap through the brake-throttle servo plate around steering servo and tighten it. See the illustration. Mount the receiver flat on the brake-throttle servo plate using the Velcro and tie wrap provided. Mount battery pack on plate provided in front of fuel tank. Mount the ON/OFF receiver switch to the dash.



Note: It is recommended that you use a Futaba Nicad battery pack for the receiver power source.

CABLE ASSEMBLY

Mount the push rod connectors on the opposite sides of the brake-throttle horn at the farthest holes. Solder a clevis pin to the end of each of the three cables. Install two cables starting at the rear of each of the brake housings, bringing them forward and cutting off the excess cable after the clevis is connected to the rear of the brake actuator arm. See the illustration. Slide the brake cables into the brake connector block from the rear and the push rod connector from the front side. Secure the push rod with a 1/16 inch collar and tighten the set screws.



QUADRA 50cc Standard Engine

Install the throttle mounting bracket on engine using an 8-32 x 3/8 inch socket head cap screw. Then install plastic cable housing retainer using 10-32x 1/2 inch locknut. Thread a 6-32 hexnut 5/8 inch onto cable housing and push cable into plastic cable housing retainer. See the illustration.

SACHS 52cc Optional Engine

Insert the cable by pushing it through from the engine end forward. Cut off the excess cable leaving about 1 inch further than the push rod connector. Secure the cable with 1/16 inch locking collar and tighten the set screw.

It will be necessary to adjust the brake and gas settings with your radio unit ON and with the servos at centered/neutral. Set all controls to centered/neutral and trims to center for proper adjustment.

WARNING: When adjusting the disc brake unit, you must have all of the slack out of the control cables and the pads adjusted evenly for the proper drag. Adjust the steering servo when you adjust the brakes.

PRE-RUN CHECKOUT

Check every nut, bolt, and set screw before you run your race car for the first time. Place the car on the ground and check to make sure your brakes are working. Mix the fuel at 32 to 1 using a good quality two cycle oil. Use either the pull start or the belt starter to start the engine. Warm up the engine a minute or two, then open the choke if your car is so equipped. Run the race car very slowly at first and check the steering and brakes. Adjust them as necessary. After several minutes, stop the engine and check **EVERY** nut, bolt, and set screw, again.

When running your Miniature Race Car, make certain that you have plenty of room. It is **YOUR RESPONSIBILITY** to see that all observers are in an area where there is no danger to them in any way.

CUTTING & FITTING THE BODY FOR DRAGSTER

TOOLS REQUIRED:

- *Dremel Tool with abrasive wheel or small diameter grinder**
- *Sanding Block**
- *coarse and fine sandpaper**
- *3M super weather strip adhesive**
- *Masking Tape**

The Body needs to be cut to fit over the front control arm and the steering link. To do this, place some masking tape on the outside surface of the body where it is to be cut, place the body over the chassis, making sure the windshield area is where you want it. Now, project the distance from the bottom of the frame, up to each tube. Mark that distance on the body, measuring up from bottom lip of body. You will wind up with 4 tube locations from the front suspension marked on the body and 1 tube location from the front wing holder marked on the body. Smooth these points together in a slow curve and cut it out using a dremel tool.

You may have to repeat the proceeding several times, depending on how particular you are about the clearances to the suspension components. You are finished when the body is flush with the bottom of the frame rail.

To fasten the body to the frame, use the length of Velcro. Cut it in half the long way, placing the hook side of the Velcro on the left & right side of the lower frame rail. Place the loop side along the corresponding bottom edge of the fiberglass body.

NOTE:

You need to sand the inside surface of fiberglass and clean it to get the Velcro to stick. It may be necessary to use additional glue such as 3M super weatherstrip adhesive to assure bonding to the Body.

BUILDING THE DRAGSTER WINGS

TOOLS REQUIRED:

Hot Glue Gun & Clear Glue Sticks
Clear Silicone Caulking
Drill & bits

WINGS:

Follow the Top Fuel Wing assembly sketch for the placement of the side dams on the wing and the wood strip to the inside of the wing. Clean all aluminum surfaces to be joined with paint thinner or pre-sol.

We recommend, holding the parts in place with a small amount of hot melt glue. Next, use a clear silicone sealer to seal the side panels to the wing and allow them to dry overnight.

INSTALLING FRONT WING:

With the body on the chassis, place the front wing over the wing pin that protrudes from the body. Fasten the wing to the body by drilling a hole from inside the body to the pilot hole in the wing. Fasten it with a small sheetmetal screw.

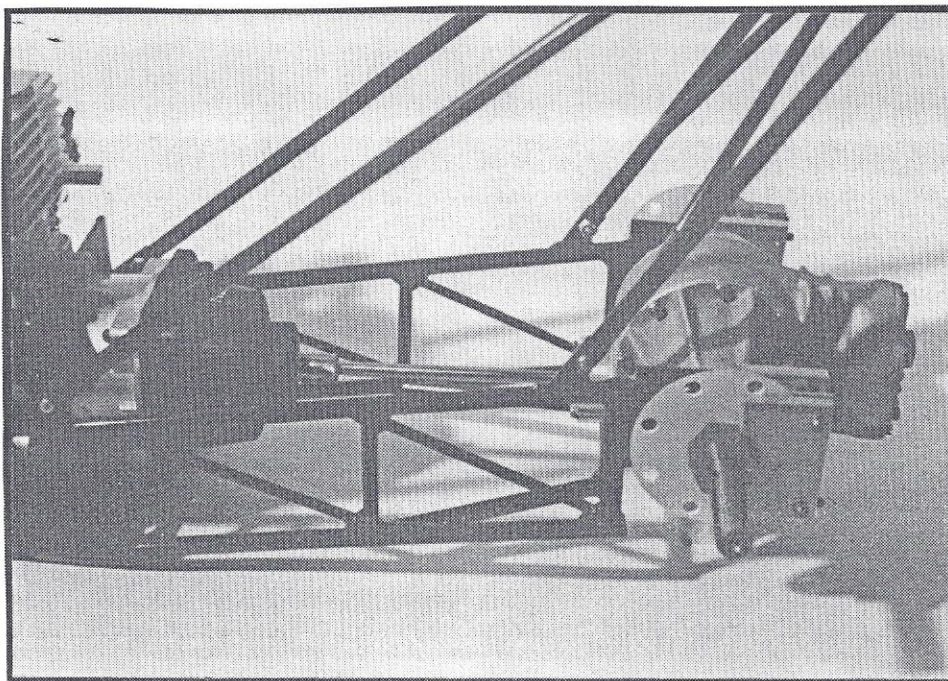
REAR WING:

There are 2 wing supports. The forward wing support bolts to the wing stand (frame) with 6-32 hardware. Measure along the wing to locate the wooden spar you glued into wing. Drill 2 pilot holes up thru the wing support into the wooden spar and fasten using the sheet metal screws provided.

The rear wing support is adjustable and Velcro's to the rear part of the wing. Attach the brass rod to the chrome clevises, bolt the clevises to the frame using the 4-40 hardware. Then bolt the frame to rear wing support with 4-40 hardware.

The velcro attachment on the rear wing support permits for quick wing adjustment. Don't be fooled by the wing placement. The angle of attack can be critical to the handling and performance of this car.

DRAGSTER WING ILLUSTRATION



FUEL TANK ASSEMBLY INSTRUCTIONS

Push the 6 inch long Brass Tubes through Rubber Stopper so that just 1/2 inch is extended beyond bottom of stopper.

Next insert one straight 3 1/2 inch brass tube in middle hole of stopper, expose 1/2 inch beyond stopper bottom.

Take the second 3 1/2 inch brass tube, insert one of the flex cables and bend a 2 inch length of tube into a half circle. Insert the straight portion of tube into the stopper from the stopper bottom (see Hints).

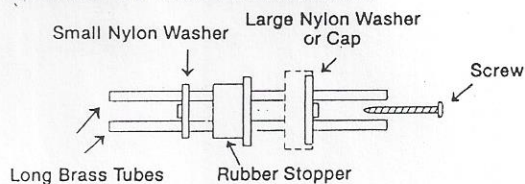
Insert the stopper into the tank, curved tube first, seat the stopper in the tank but **DO NOT** tighten it at this time.

Push the 6 inch tube into bottom of tank. (Hold tank up to light to see when tube has bottomed.)

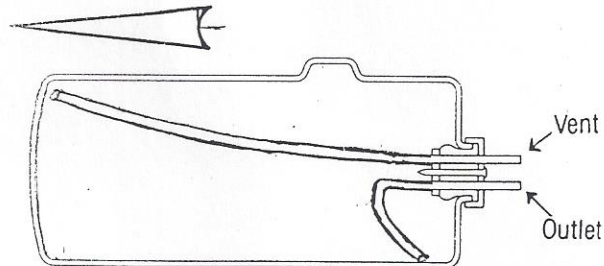
Tighten the screw on top of stopper to secure the stopper in the tank.

HINT: Tubing will slip into stopper more easily after drop of oil has been applied to tube OD.

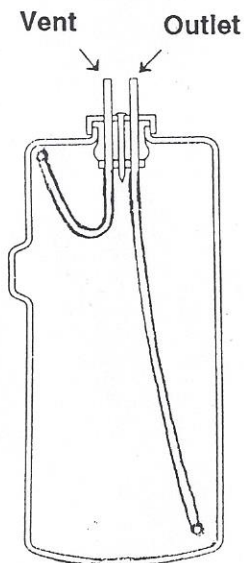
FIGURE A STOPPER ASSEMBLY



Front of Car



LAY DOWN
Funny Car
Super Modified
Indy
Top Fuel Dragster



UPRIGHT
Grand National
Pro Stock
Truck

NEW ERA MODELS INC.

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1. TRIMMING THE TREAD

Trim the excess rubber from the tread. Trim the flashing on the edges of the tread, the seams on the face of the tread and the points on the inside surface, using a pair of sharp scissors and a razor blade.

2. PREPARING THE HOST TIRE

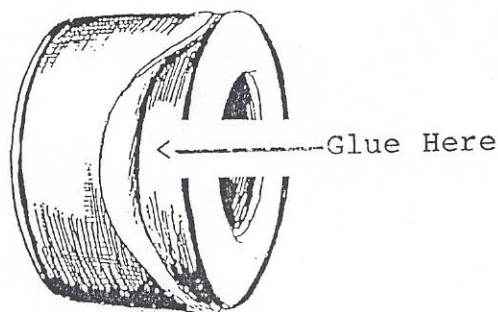
Trim the flashing from the inside and surface of the host tire using a razor blade. Before gluing on the tread, rough up the smooth surface on the face of the tire using a coarse grade of sandpaper. We recommend that the tire be mounted and spun on a drill or similar device for sanding. Spinning the tire for sanding will insure that the host tire remains round.

3. GLUING THE TIRE

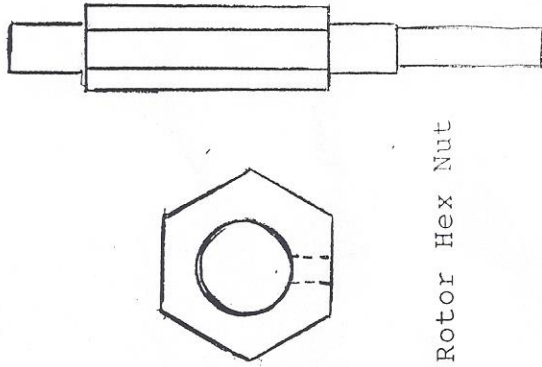
Stretch the tread over the host tire and center it on the face. Lift one edge of the tread making sure to keep tread centered. Brush a Cyanoacrylate type adhesive over the entire exposed area of the face of the host tire. Carefully roll the tread back into place on the surface of the tire. When the glue has set, repeat the process by gluing the opposite side of the tread.

4. RECOMMENDED ADHESIVES

An ordinary Cyanoacrylate adhesive will work under most conditions. A high viscosity adhesive (gap filling) will make the gluing process easier. A high temperature adhesive may be required if you live in an area of the country that experience very high temperatures, such as PACER, CA.

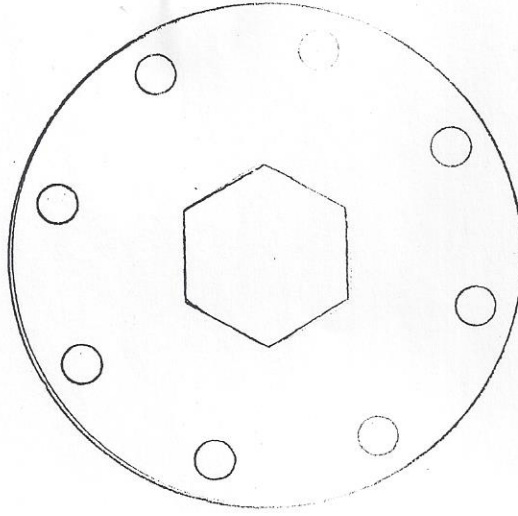


DRAGSTER BRAKE PARTS

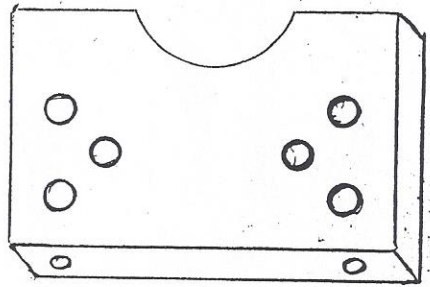


Rotor Hex Nut

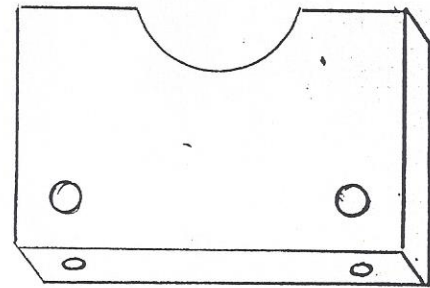
Actuator Rod



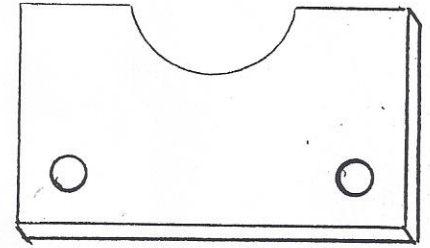
Disc Brake Rotor



Caliper Housing

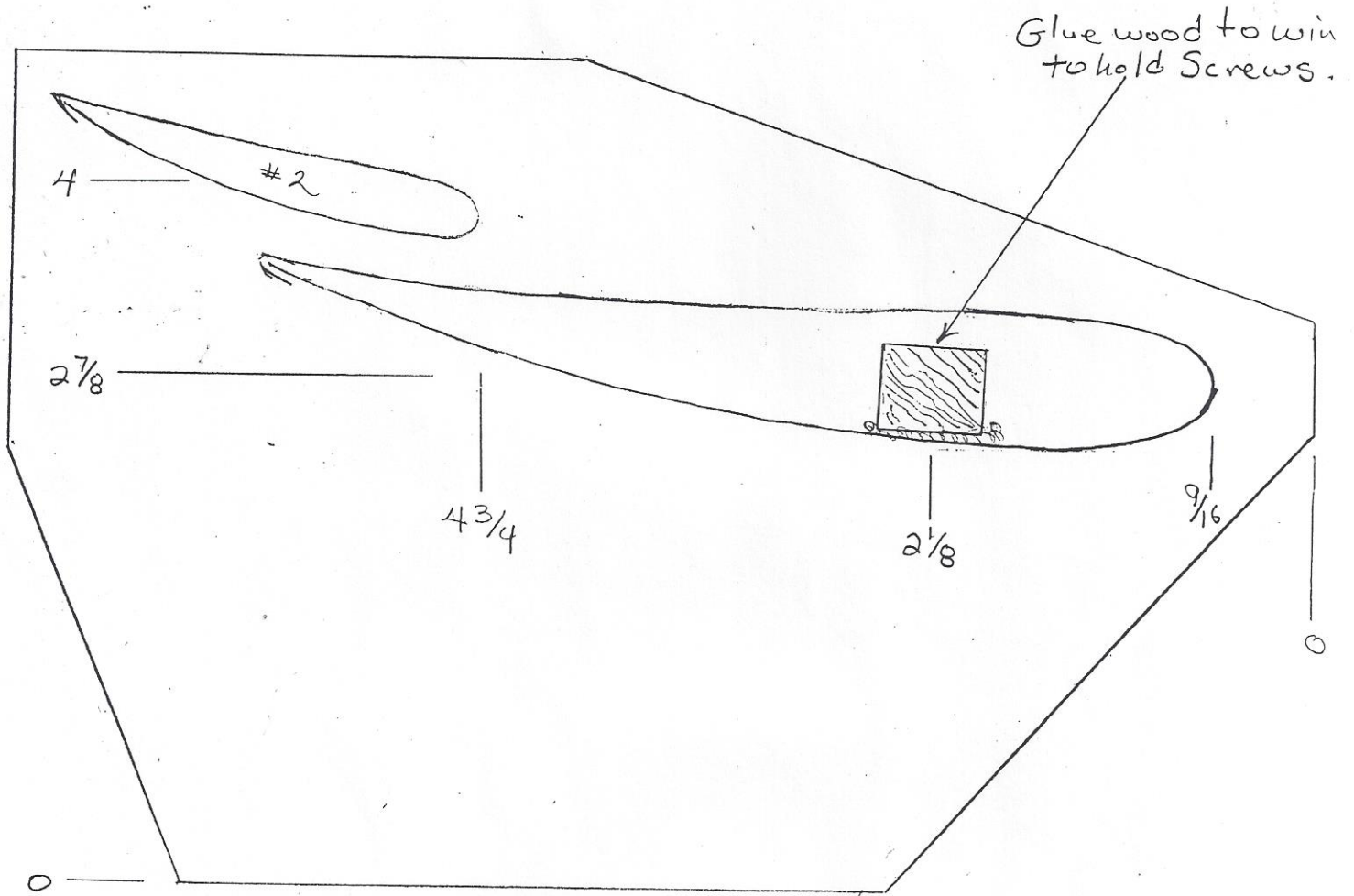


Caliper End Plate

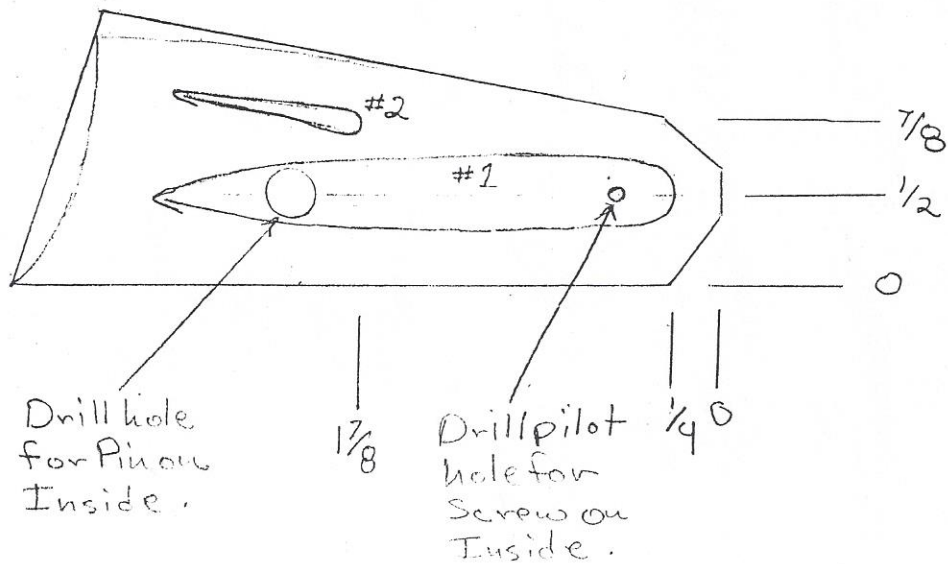


Brake Pads

Top Fuel Dragster Wing Assembly



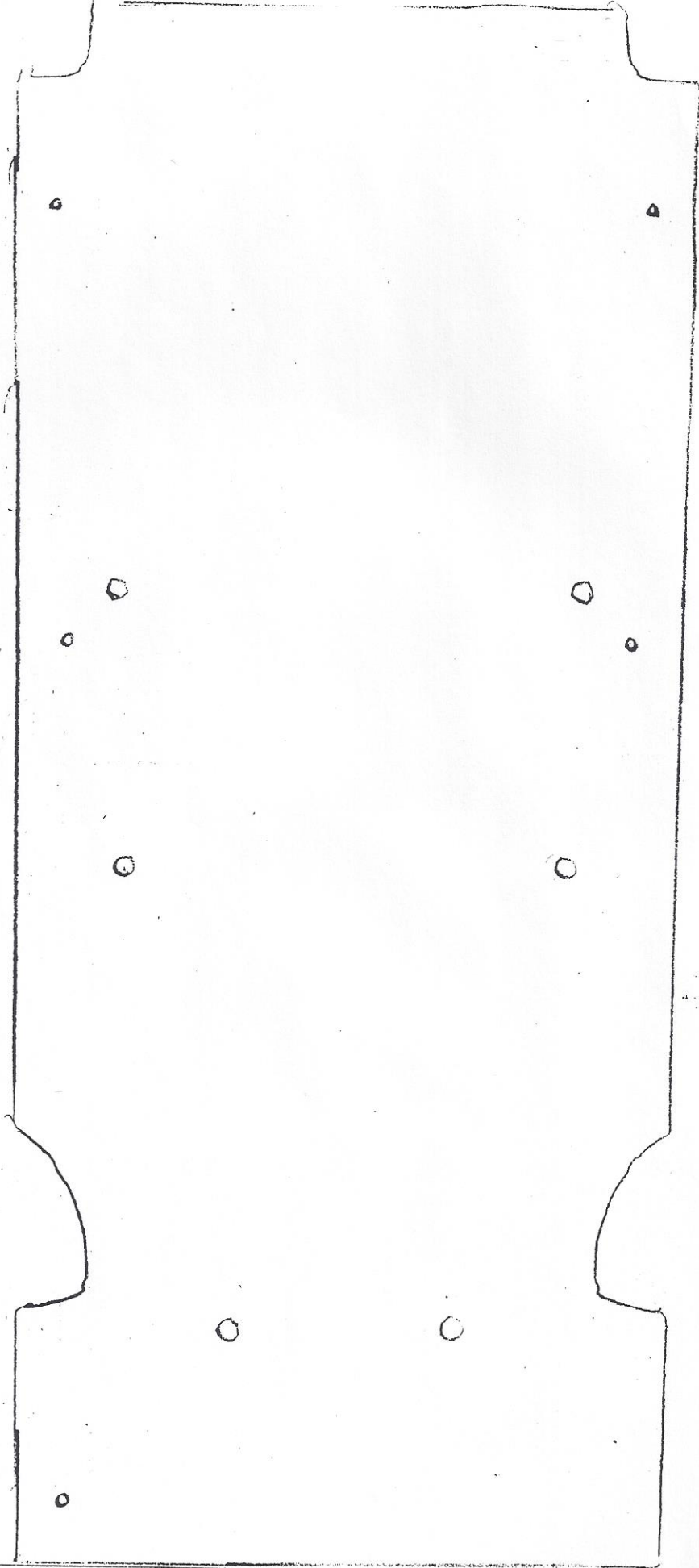
Make a Right + Left Fin + wing, glue assembly with Silicane



NEW ERA MODELS, INC.
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NASHUA

NH 03060

Digger Pattern for
Steel + Battery

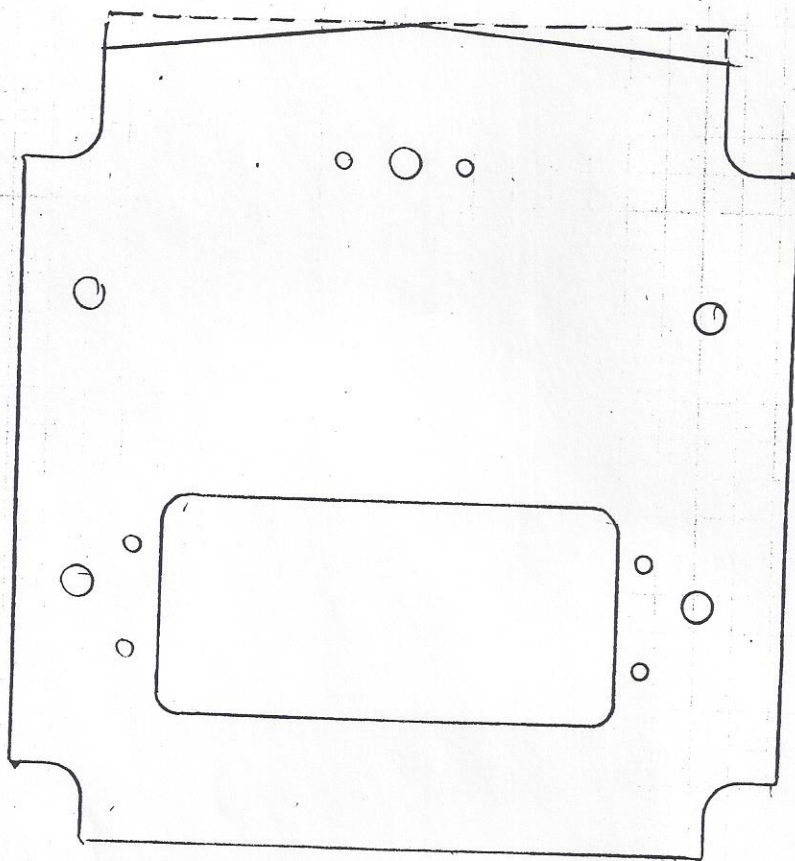


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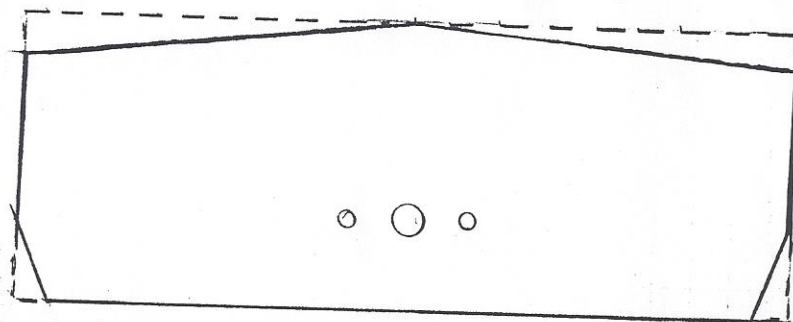
4.5x 10 1/8

Patterns for Firewall and Dash -



NEW ERA MODELS, INC.
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GEAR RATIO CHART

NEW ERA MODELS

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(603) 880-3453 FAX (603) 888-8645

CLASSIC GN ENGINE GEAR

with 20 tooth gear on jackshaft

13-20 = 6.58
14-20 = 6.11
15-20 = 5.70*
16-20 = 5.35
17-20 = 5.04
18-20 = 4.75

FIRST CHOICE ENGINE GEAR

with 28 tooth gear on jackshaft

CHAIN BELT

	15-28 = 6.79
	16-28 = 6.36
	17-28 = 5.98*
18-28 = 6.66	18-28 = 5.65*
19-28 = 6.31	19-28 = 5.36*
20-28 = 5.99*	20-28 = 5.09
21-28 = 5.70*	
22-28 = 5.44	

PRO STOCK CHAIN

16-19 = 5.08
16-20 = 5.35*
16-21 = 5.61
16-22 = 5.88
16-23 = 6.15

BELT

16-22 = 5.00
16-23 = 5.23*
16-24 = 5.46*
16-25 = 5.68
16-26 = 5.91

DRAGSTER

DRAG REAR with quick change gears

16-16 = 3.66	15-16 = 3.90**
15-17 = 4.12	14-17 = 4.44**
14-18 = 4.71	13-18 = 5.06**
13-19 = 5.35	12-19 = 5.79**
12-20 = 6.10*	

* MOST COMMON GEAR SELECTION

** May Reduce Gear Life



P.O. Box 7378, Nashua, NH 03060-7378

(603) 880-3453

TOP FUEL DRAGSTER

Parts Price List

CODE	REQ. QTY	PRODUCT	RETAIL EACH	CODE	REQ. QTY	PRODUCT	RETAIL EACH
INS-030	1	Instruction	25.00	COW-103	4	Rear Wheel Half 2" ea.	9.90
TFF-101	1	Frame	445.00	TFF-110	2	Front Wheel	22.95
FCE-102	1	Engine (52cc - 54cc)	345.00	TFW-105	2	Tires Front ea.	10.95
COE-122	1	Engine Adapter Plate	12.60	FC-4	2	Tires Rear 9" (rubber) ea.	45.95
TFE-701	1	Clutch Housing	95.00	NE9X4-11		First Choice 9" Drag Band	22.00
COE-124	1	Clutch, Drum & Rotor	60.00	COM-156	10	Plastic Rod Ends male	1.75
COE-177	1	Fuel Line (per ft.)	1.25	COM-157	4	Plastic Rod Ends female	1.50
COE-178	1	Fuel Tank	5.00	COM-158	14	Rod End Ball	.75
COE-180	1	Gas Stopper	1.50	TFM-163	1	Servo Tray	11.00
COE-189	1	TCJ8Y Champ. Spark Plug	4.95	COM-169	1	Cable Ties small	.10
TFB-100	1	Body	145.00	COM-170	1	Cable Ties large	.15
TFB-181	1	Windshield	5.00	COM-171	1	Velcro (3 ft.) (per. ft.)	2.40
TFB-702	1	Rear Wing Support	59.95	COA-058	1	Racing Driver	18.95
TFB-703	1	2 Stage Rear Wing Assembly	59.50	COA-059	1	Helmet	6.00
TFB-704	2	2 Stage Front Wing Assembly	24.95				
FCF-114	2	Spindle	24.95				
COF-117	1	Steering Rack	12.50				
TFF-119	1	Front Support LH	24.50				
TFF-120	1	Front Support RH	24.50				
COF-121	1	Steering Servo Mount	11.40				
TFF-126	4	Front Hub Bearing	8.50				
TFF-135	2	Steering Link	8.00				
TFF-136	1	Steering Servo Link	4.00				
COR-109	2	Rear Hub	18.95				
TFR-401	1	Quick Change Drag Rear	475.00				
COR-129	1	3/16 Rod End LH	6.95				
COR-130	1	3/16 Rod End RH	6.95				
COR-159	3	Woodruff Key	.50				
TFR-164	1	Fuel Tank Mount	6.00				
COD-150A	1	Caliper Housing	8.95				
COD-150B	1	Caliper End Plate	5.95				
COD-151	2	Brake Pads	4.95				
PRD-152	1	Actuator Rod	9.95				
COD-153	1	Rotor Hex Nut	6.95				
COD-154	2	Disc Brake Rotor	8.95				
COD-155	1	Caliper Bracket	8.95				
COD-179	1	Brake Actuator Arm	6.95				

Prices subject to Change without Notice!