

Rocket Times

THE OFFICIAL **Centuri** MODEL ROCKETRY MAGAZINE

MAGNUM-D's MEAN HIGHER PERFORMANCE

Centuri's Magnum-D engines open up new possibilities in model rocket performance for the rocketeer. These powerful engines are equal to two C engines, and this means you can fly bigger rockets higher and faster.

In the early years of model rocketry, it was possible to fly large rockets only with combinations of small engines. Multi-staging and clustering were popular techniques for improving model rocket performance.

Although these techniques worked well, they were not as reliable as a single larger engine. Centuri's Magnum-D engines mean model rocketeers can fly large models reliably, without having to resort to staging or clustering.

When designing D engine models from custom parts, it's important to keep in mind the basic rules about stable rockets (See Centuri technical report TIR-30). An extra measure of stability should be designed into every D model. The models should be streamlined and not have many parts that extend far away from the model, since lift-off accelerations are higher and these parts may break off.

When flying D birds, you'll need a larger flying field than usual since the rockets will go higher. Also remember that recovery systems open at higher altitudes and rockets are more subject to drift. Be sure to follow the HIAA-NAR Safety Code when flying all model rockets.

You can design your own D engine model rockets using



The new Magnum Jayhawk: designed for high performance Magnum-D engines.

the new custom parts Centuri is offering. Our new ST-9 body tube is an exact fit for D engines, and is ideal for engine tubes in engine mounts. Centuri offers new engine mounts for mounting Magnum-D engines in our standard ST-13, 16, and 20 body

tubes. We're also offering nose cones for our new ST-9 so you can use it with the new regular engine adapter engine mount to make standard model rockets for use with regular Centuri Enerjet engines.

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DON'T MISS AN ISSUE. . .

Rocket Times is now published four times per year. In order to receive each issue, and to get in on mailings with exciting special sales and offers you must be an active Centuri mail-order customer. This requires you to have placed an order for Centuri merchandise within the past four months.

Remember, in addition to the great bargains described in this catalog, every Centuri order receives a free T-shirt

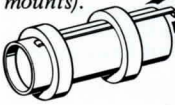
iron-on. There are four different types of these 2-color iron-ons, and we'll pick one at random and include it in every mail order. Be sure to collect all four.

If you would like to see additional features in Rocket Times, drop a line to Editor: Rocket Times, PO Box 1988, Phoenix, AZ 85001. We'll read each suggestion and who knows, maybe yours will be used!

PARTS FOR "D" ENGINE MODEL ROCKETS...

ENGINE MOUNTS

BONUS!
Each includes engine locks (not included in standard mounts).



NEW
FOUR "D" ENGINE MOUNTS

Prod.#	Desc.	Function	Price
6055	EM-9	Adapts D engine rocket to Enerjet engines. Fits new ST-9*	\$1.00
6056	EM-913	Mounts D engine in ST-13.	\$1.15
6057	EM-916	Mounts D engine in ST-16.	\$1.25
6058	EM-920	Mounts D engine in ST-20.	\$1.50

*BODY TUBE

6007	ST-918	0.950" I.D. 0.976" O.D. 18" long	\$1.10
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PLASTIC NOSE CONES

6222	PNC-91	Fits ST-9	\$1.05
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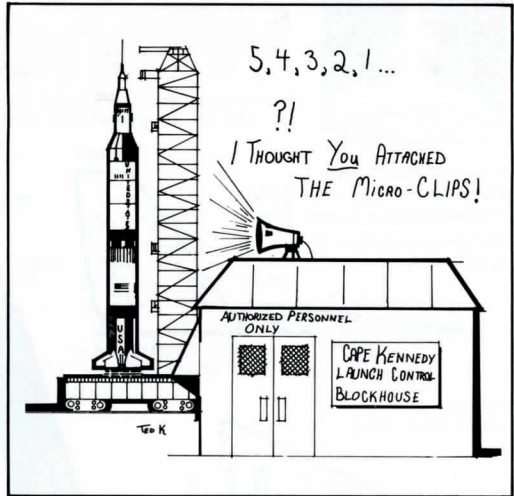
6224	PNC-92	Fits ST-9	\$1.60
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TUBE COUPLERS

6429	HTC-9	Hollow Tube Coupler for ST-9.	.65¢
6273	BTC-9	Balsa Tube Coupler for ST-9.	.85¢

CARTOON CONTEST



This issue's Cartoon Contest winner is Ted Katauskas from Calumet City, IL. Ted's mystery prize is a set of 3 NASA photos of the Mercury Little Joe II program. Real Nasa photos!

Want to see your cartoon published? Just draw a funny cartoon about model rocketry and send it to the Editor: Rocket Times. Each issue we pick the one most suitable for publication and award a "Mystery Prize".

PHOTO CONTEST



Jamie Hale of San Antonio TX is the winner of the photo contest. This carefully done photo is of the real NASA Space Shuttle riding piggyback on a 747 on its cross country ferry to Cape Canaveral.

You can enter this ongoing Photo Contest and try for the prize, a \$25

Centuri Merchandise Certificate. A winner is picked for each issue of Rocket Times. Send in your best photo about model rocketry or real rocketry addressed to: Photo Contest, Rocket Times. Black and white photos are best and be sure to try for good contrast and sharp focus.



Design Contest Winner

NEW

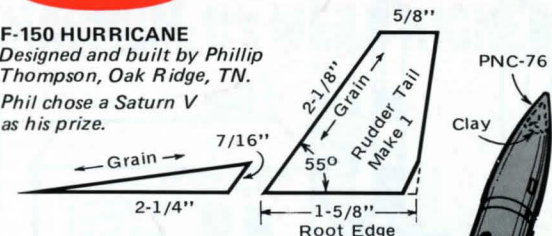
SPACESHIP DESIGN CONTEST

See current catalog's Rocket Times for rules on this permanent contest.

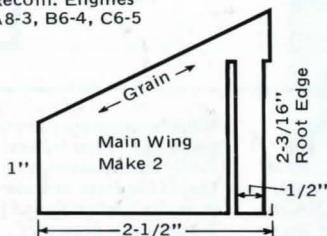
F-150 HURRICANE

Designed and built by Phillip Thompson, Oak Ridge, TN.

Phil chose a Saturn V as his prize.



Recom. Engines
A8-3, B6-4, C6-5



2-5/8"
Lgth
ST-518

18" Lgth
ST-818

Other Parts:
LL-3
CP-16
SCF-1
SC-18
1/16" Balsa
Clay Wt.

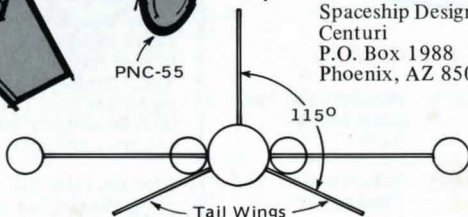
PNC-54

Turbojet
Tube*
3" Lgth
ST-518

PNC-55

EM-8
Engine
Mount

*Glue turbojet tube to wing before attaching wing to body tube.



Have an idea for a far-out spaceship? Enter your design in this contest and win \$50.00 in Centuri merchandise if your entry is one of the top ten. \$500.00 in Centuri merchandise will be awarded!

CONTEST RULES

1. Your design must be of a spaceship and must also be capable of flight as a model rocket.
2. All entries should include a parts list, drawing and/or diagram and any instructions that will be helpful. Photos are appreciated but are not required.
3. Entries will be judged on originality, neatness, completeness and clarity. All plans must be flight tested and proven.
4. Please do not send the actual model as it cannot be returned.
5. You may send as many entries as you like.
6. All entries become the property of Centuri Engineering Co., and cannot be returned.
7. Employees of Centuri Engineering Co. and members of their immediate families are not eligible.

PRIZES WORTH \$500

10 first prizes of \$50.00 Merchandise Certificates will be awarded.

Send your entry to:
Spaceship Design Contest
Centuri
P.O. Box 1988
Phoenix, AZ 85001

Rocket Times Sweep-Up

Clip this ad and check the boxes next to the product you want to take advantage of in this special Rocket Times offer. Quantities are limited so order now. Substitutions will be made with items of equal or greater value when supplies are exhausted.



#5010

SAVE \$2.10
Vulcan
only \$1.40

Recom.
Engines:
B4-2, C6-3,
C5-3S

Pre-painted and easy to assemble, Vulcan tracks smoothly upward without conventional fins, to return gracefully by parachute. Small and very fast, this rocket has a unique shape all its own. Take something special to the launch site next time—take Vulcan.

Vulcan

#5790

Skill Level 3



#5012

SAVE \$1.50
X-24 Bug
only \$1.00

Recom. Engines:
B4-2, C6-0, C6-3

Features a spectacular boost and long glide recovery. Special wing slots create a weird sound that lets you track this fast-moving vehicle. Super detailed parts, pre-formed and pre-painted, make your "Bug" come alive on the launch pad. Get in on tomorrow's manned re-entry vehicle today!

X-24 Bug

#5788

Skill Level 3



#5305

SAVE \$2.01
Fireflash
only \$1.49

Recom.
Engines:
1/4A-3M,
A4-4M

(Or comparable
Estes engines.)

A detailed semi-scale model of a British missile. For recovery, ejection gases are ducted to deploy a 12" chute from one "fuel cell". Includes plastic nose cone, pre-cut fibre fins, and a black and silver decal sheet. A challenging project for any rocketeer!

Fireflash

#5791

Skill Level 5

Centuri

Fall Engine Special

Stock up now on these popular Centuri Enerjet engines! The Fall Engine Special includes 2 boxes each of the following Centuri engines:

A8-3 B6-4 B14-5 C6-5

That's a total of 24 engines! And each box contains three popular Sure-Shot igniters, too! Here's a great chance



SAVE \$5.00
Fall Engine Special only
\$15.00 (20 value!!)