

ENGINE REVIEW

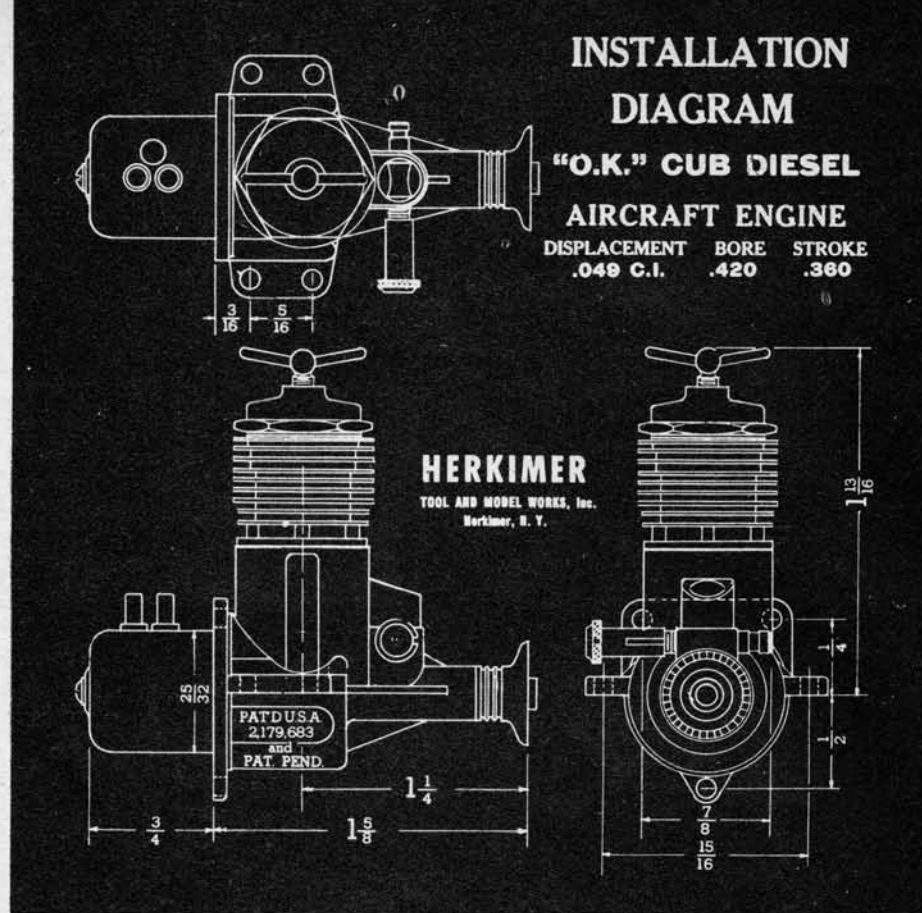
Startling report indicates that the Herkimer .049 Diesel may out-perform its glow plug brother!

by E. C. MARTIN

► In outward appearance this new offering from Herkimer is absolutely identical with the .049B glow plug engine except for the Diesel head. Apart from slightly different relative positioning of the top radial mounting holes, and intake shape, it is also a scaled down replica of the .075 Diesel, and with the .049 displacement so well represented these days, the new Cub is especially interesting, since it permits an accurate performance comparison with its glow operated team mates.

Internally, there are several important differences from the .049X and B working parts. The conrod is machined from steel bar with drilled and reamed bearings, and finally heat treated, whereas the glow Cubs feature aluminum rods. The crankshaft is dimensionally identical except for a 9/64 in. dia. gas passage in place of 11/64 in. dia. on the glow type, and a circular valve port with a flat at its mouth is used in place of the normal cavernous rectangular port. The logical result of these modifications is reduced volumetric efficiency and potential bhp, but considerably greater crankshaft strength, which is compatible with the Diesel characteristics of low peaking speed and high torque. The cylinder is longer to accommodate the contra-piston and is threaded externally for the head which houses a shock absorber, contra-piston stop and compression screw frictioning device of exactly the same design as the .075. Yet, in spite of these "extras," the over-all height of the Diesel is slightly less than that of the glow versions with plugs fitted. The Diesel cylinder has one less cooling fin, but otherwise they are similar in all respects.

Elsewhere in the engine, the only detectable differences are a slightly smaller spraybar diameter on the Diesel and some very minor alterations in the crankcase



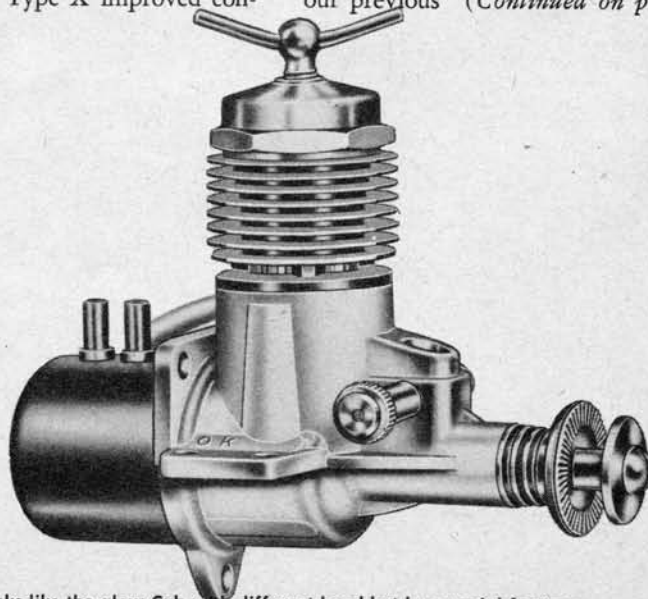
Use this full size three-view for planning installation of the engine. It is beam or radial mount.

machining, which are probably standard on all the .049 types in current production.

In order to take full advantage of this unique opportunity for comparing the Diesel system with the glow, and their respective merits, we are reprinting the .049X test figures alongside those of the new engine, and they should convey more information more convincingly than any amount of words. However, the figures are very different from those anticipated and appear to contradict all previous comparisons of the two types. It can only be said that the Type X improved con-

siderably several running hours after the test, whereas the Diesel may be an outstanding example, which only time will show.

Apart from this, there is the fact that production engines do vary one from another by as much as 10 per cent, which makes engine comparisons on the basis of the one example of each type rather undependable. It therefore follows that manufacturers handling thousands of engines of various types are the only people who ever get a true picture, and having had that experience, we can only reiterate our previous (Continued on page 49)



Looks like the glow Cub with different head but has special features.



proudly
presents...

The Greatest Forward Step in the
Engineering of Miniature Engines

The New '1954 Veco' .35

The ONLY engine that has
TCC*

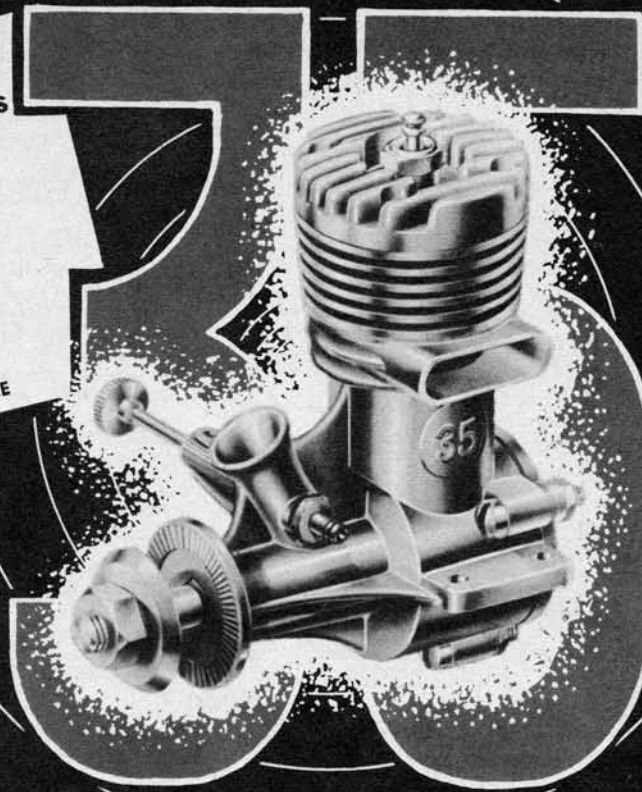
* TEMPERATURE CONTROLLED CLEARANCE

★ YOU ASKED FOR IT ★
The Great Increase in the demand for the
1954 Veco .29 and .31 has prompted the
pre-release of Veco .35 also with 'TCC'.
It has been TRIED... TESTED...
PROVEN under the personal direction of
Mel Andeson... well known through
the years for the "Cyclones" and many
"Spitfire" engines.

HENRY ENGINEERING COMPANY

BURBANK • CALIF • U.S.A.

See Your Dealer



NOTE: See Bob Palmer Fly the New 'Veco'
THUNDERFIRD, Powered with the New 'Veco'
.35 Engine, at the 1954 Nationals.

Engine Review

(Continued from page 30)

views on Diesel versus glow. Meanwhile, on
a note of bewilderment, it can obviously be
said that Herkimer has produced another
winner.

The new Cub is, in fact, the most gentle-
manly Diesel in our experience. On small prop
sizes it is notably free from the tendency to
"bite" the fingers during starting, except when
hot and flooded, and both hot and cold start-
ing are quite easy without priming. However,
choking is very uncomfortable for a hot start,
and the best method of avoiding the hazards
of over-priming, with resulting sore fingers,
is to cover one of the tank vents when the
tank is full, and give an extra squirt with the
fuel pump. This forces a drop or two of fuel
into the carburetor and usually gives instant
hot starts.

TEST: O.K. Cub .049 Diesel

Fuel: 30 per cent SAE 70 Shell Oil, 40 per
cent Shell Diesel Fuel Oil, 28.5 per cent ether,
1.5 per cent amyl nitrate; Running Time Prior
to Test: 1-1/2 hours; Bore: .420 in.; Stroke:
.360 in.; Weight: 1.6 oz. (with tank, less
prop).

	.049 Diesel	.049X
6-1/2 x 3 (Prop Supplied)	12,500	
Power Prop		
6 x 5	10,500	9,000
6 x 4	11,700	10,200
6 x 3	14,000	12,800
5-1/4 x 5	12,800	11,500
5-1/4 x 4	13,700	13,000
5-1/4 x 3	15,200	15,400
Top Flite		
6 x 5	9,750	8,250
6 x 4	11,100	10,000
6 x 3	12,500	11,600

END

MAN at Work

(Continued from page 6)

Hand-Launched Stick Model - Class
A (30 sq. in. wing area or less),
microfilm covered (introduction to
microfilm on a type with which he is
familiar and which may be covered
easily);

Hand-Launched Stick Model - Class
B (30-100 sq. in. wing area), cover-
ing material optional (the advanced
model-event restricted in practice to
large meets and experienced builders).

"It is my opinion that the autogiro, orni-
thopter and helicopter classes should be re-
tained and ROG abolished, but these are not
important issues. Insofar as the first factor,
that of local and club leadership, is concerned,
only with renewed interest and enlightenment
at the average modeler's level will changes
take place. It is on this that indoor flying
will die or thrive."

The Oakland Cloud Dusters, of which Roth
is a member, think the Roth article puts
them on the spot as recommending "mike"
be dropped. Joe Bilgri, presumably the
spokesman, wants it made clear that: (1)
Should We Scrap Microfilm? is strictly Roth's
viewpoint and not that of the Dusters; (2)
The Oakland Cloud Dusters are not against
microfilm, models and are using paper covered
indoor models to build up experience for
the non-film members of the club before
scheduling any microfilm contests; (3) Carl
Rambo was misquoted as well as not being in
agreement with article. This statement is duly
reported to keep the Golden Gate boys from
blowing their stacks while we await Round
Three in the Battle of Microfilm. Congres-
sional hearings have nothing on us!

Meanwhile, MAN at Work thinks that in-
doors is practically dead, that status quo

FORECASTS fine flying weather!

Before you take
to the air this
Summer take a close look
at these Austin-Craft
Specials for active model-
ers... Austin-Craft
offers more of every-
thing you need. For in-
stance...

A-C PUMPS

Ever-working,
Never-failing,
Heavy-plated.
1/2 pt. or pt. ea. 65c
1/2 pt. or pt. with screen filter --- 69c
Quart with screen filter 75c

AIRFLEX WHEELS

2 3/4" Streamlined
for Free Flight
and "U" Control.
Aluminum hub.
Weight 2 oz. plus,
per pr. -- \$1.50

FUEL-OFF TIMER

1/2A, A, B, and
even C Motors!
Glow Plug and
Diesel. Wgt. 1/2
oz. All Metal
LARGE TIMER \$1.95
BABY TIMER \$1.50
TIMERETTE \$1.50

Needle Valves

Flex -- \$1.00 ea.
Uni-Flex \$.75 ea.
Universal \$.49 ea.
Extension, small -- \$.25 ea.
Extension, large -- \$.25 ea.

A-C BATTERY BOXES

Large, med.,
Pencil, 40c ea. 4-Pencil,
3-volt, 60c. 6-volt (for
radio control, etc.) 75c ea.

TINY FLEX NEEDLES

K & B -- \$.39 ea.
Baby Spitfire .39 ea.
Wasp and
McCoy. \$.39 ea.
O. K. -- \$.49 ea.
Spitzzy, Royal
Spitfire \$.49 ea.

AUSTIN CRAFT
A-C

431 S. VICTORY BLVD.
BURBANK, CALIF.