

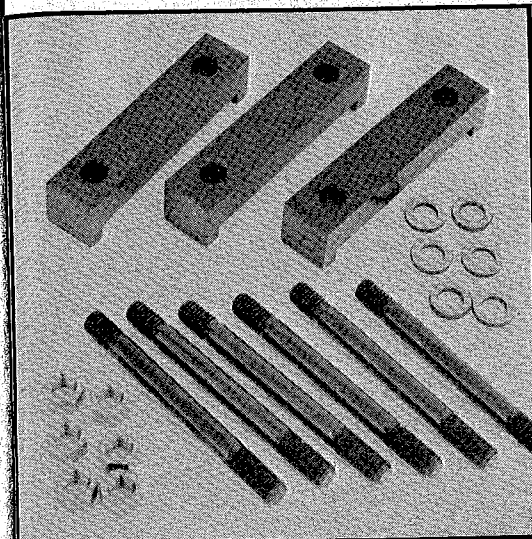


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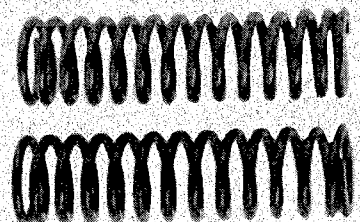
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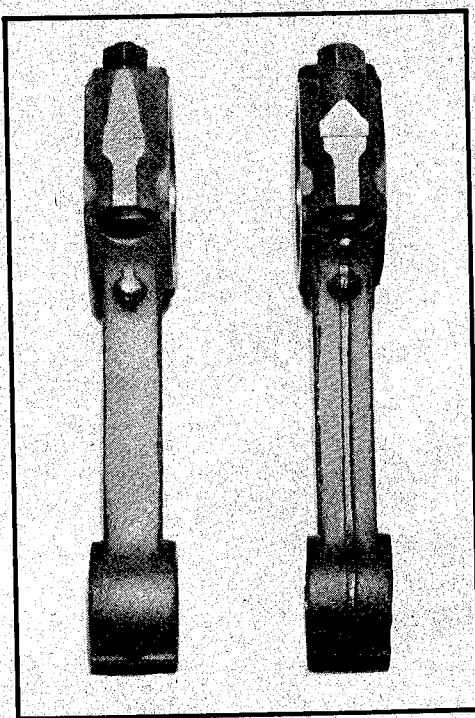
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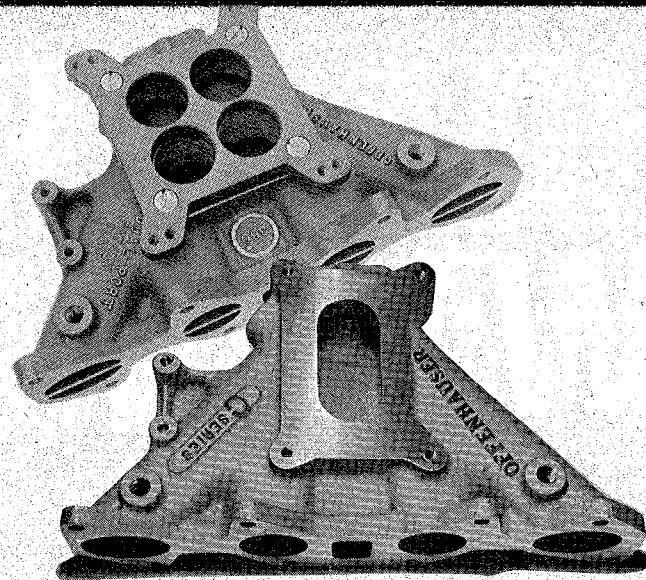
High-output Stage Three motor needed its two-bolt-main bottom-end beefed up, so this Gap Engines support kit was designed.



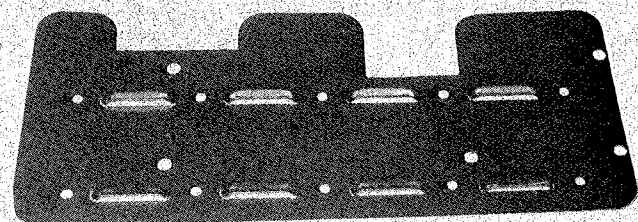
An 80 psi oil pump relief spring (top) replaces stock unit in Stage Three.



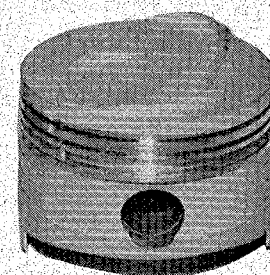
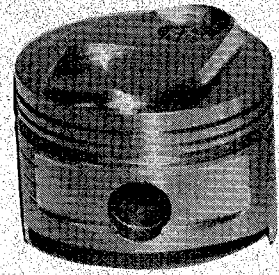
Stock Ford rods were used in all phases of development, but for the all-out Stage Three engine, they were shotpeened, Magnafluxed, polished, sized and drilled for pin oiling (left). Note oil hole in rod side; this lets additional oil squirt on cylinder walls, necessary on the 2.3 motor to prevent piston scuffing. Some early '74 engines did not have this boss drilled out, and consequently developed durability problems.



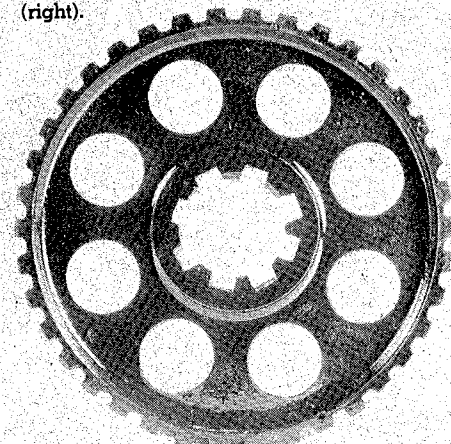
Offenhauser dual-port intake was used in Stages One and Two with Holley 390-cfm carb (top). For Stage Three, brand-new Offy C-series single-plane intake was used with 500-cfm 2-barrel to obtain greater top-end power.



Gap Engines windage tray helps keep oil from splashing on crank at high rpm.



Venolia pistons, custom-made to Ken's order, offer 12.2:1 compression. Dome of out-of-box pistons (left) was reworked by Ken, after which pistons were glass-headed (right).



This multi-index cam sprocket was developed by Ken to restore correct cam timing on engines with milled heads and/or enable rapid cam advance/retard for fine-tuning on the track. So far, cams have been run straight up.

Suppliers

Gap Engines, Inc.
13145 Wayne Rd.
Livonia, MI 48150
(313) 421-1155
(Engine builder)

Holley Replacement Parts Div. Colt Industries
11955 E. 9 Mile Rd.
Warren, MI 48089
(313) 497-4000
(Carburetors)

Hooker Industries, Inc.
1009 W. Brooks St.
Ontario, CA 91761
(714) 983-5871
(Headers)

Moroso Performance Products, Inc.
Carter Dr.
Guilford, CT 06437
(203) 453-6571
(Spark plug wires)

Speed-Pro Sealed Power Corp.
100 Terrace Plz.
Muskegon, MI 49443
(616) 724-5011
(Piston rings)

Offenhauser Sales Corp.
5232 Alhambra Ave.
Los Angeles, CA 90032
(213) 225-1307
(Intake manifolds)

Reed Cams, Inc.
114 New St.
Decatur, GA 30030
(404) 378-4511
(Valve springs, retainers, cams)

Skladanek Racing Heads
13155 Wayne Rd.
Livonia, MI 48150
(313) 522-7170
(Headwork)

Champion Spark Plug Co.
P.O. Box 910
Toledo, OH 43661
(419) 535-2567
(Spark plugs)

Venolia Pistons
2160 E. Cherry Industrial Cir.
Long Beach, CA 90805
(213) 636-9329
(Pistons)

Conclusion

You might say the development program was very successful—just how many V8s can achieve 1.8 hp/cubic inch on gasoline? It just goes to show the inherent efficiency of a lightweight, compact 4-cylinder engine that has half the parts of a V8 (less internal friction) and an overhead camshaft (higher rpm potential). In a 3000-pound-or-lighter chassis, this combo should really scream (not to mention how it would go around corners).

And Ken Moe's development program has barely scratched the surface. In the works are nitrous oxide packages and all-out turbocharged engines. Judging from these normally aspirated figures, a turboed, nitrous-injected engine could easily develop over 400 hp.

More ponies for the Pinto? You bet! Only now they're full-fledge horses, for Dearborn's little pet has finally grown up. **HR**