

HARVEY CRANE – THE “CAM MAN”

by Colin Lawson

“Harvey J. Crane Jr. (1931 – 2013) was the founder of Crane Cams Inc. and was a pioneering figure in the racing and performance automotive industry. At age 13 he discovered hot rods, which led him to a lifetime fascination with modifying engines to increase their power output.

From that early passion Crane gained a reputation for building fast, powerful and reliable flathead Ford V8 engines for Florida racers. At 18 he was building, tuning and maintaining a pair of flathead-powered racers on the dirt tracks of the Midwest. After operating a part time business building race engines in his dad's machine shop Crane opened Crane Engineering in 1953. By the mid-'60s Crane Cams surpassed its competitors, becoming the largest racing cam company in the industry.

Although Crane's company was thought of as a drag-racing cam company, his earliest business had been selling cams for flathead Fords to many of the early NASCAR stock-car heroes. Crane's reputation and knowledge of cam lobe design extended around the globe, and he supplied winning camshafts for Jaguar and Honda teams, race teams in the United Kingdom, Europe and in all forms of U.S. racing. Since 1980, Crane Cams operates in Daytona Beach. After retiring from the company in 1989 he started a very popular “cam school” that attracted students from racing, automotive, industrial and marine sectors. Many of the premier cam designers today are graduates of Crane's cam classes.” Extract from sema-eneews

Forward in time when fifteen cars of the Canada's Capital A's went to the **MAFCA International Convention, July 1996, in Toronto**, our very first experience at a National Convention. Harvey Crane was one of the key note presenters for one of the technical seminars. He described his lifelong interest in the cam design business and his later reversion to making custom cams for Model A, B and flathead engines while teaching others on his processes. He provided an 8-page handout describing various Model A and B camshafts that they had investigated and accurately measured and were also being manufactured for custom orders as required.

An example of cam lift of an NOS cam from Bud Schwalm averaged .3003566” for the eight lobes. The average nose radius was .018” – nearly a sharp nose. The measurement machine was the Crane CamDesign CamCheck that has a resolution of .000,000,8 inches.

All stock Model A cams wear slowly until the cam lift is about .272.” at this point the wear on the nose stops since the nose radius is large enough to reduce the stress on the nose.

An example of a good used camshaft from Charlie Yapp showed an average lift of the 8 lobes at .2921” with a range from .2900” to .2948”, with a nose radius as small as .013”.

An example of a 1932 Ford Model B from Ford of Russia showed an average lift of the intakes at .3317” and for the exhaust at .3387” with a nose radius of less than .030”.

Examples of various regrind profiles ranged from .280” to .330” depending on how the engine will be used. Adjustable tappets must be inspected to ensure minimum of 1” surface diameter.

Three new performance cams that Crane was producing (using Cam Corp, Edgewater, Florida) were listed as having cam lifts of .336”, .346”, .365” at a cost of \$300 when ordered. Replacing the standard 1” diameter face tappets with a wider 1.136” diameter tappet, same as stock Model B, was also required to prevent cam wear. Note that Ted Koudys (retired and having fun) used the wider lifters when doing an engine rebuild. Ted's son Theo Koudys is now running the rebuild business.

When I rebuilt the Model B engine now in the Huckster truck I used a new camshaft from Bill Stipe with a touring grind, lift of .340” and the wide face lifters. Bill's family are now active in the manufacture of quality parts for Model A and B cars.

Some very good articles related to Model A and B engines can be seen on the Fordgarage website. <http://www.fordgarage.com/pages/camshaftspecs.htm>