



90-year-old Model F in all its glory after running during the 100th birthday celebrations at Cummins Perth.



Geoff Ironmonger... initiated the project to get the Model F running on the restoration project.



Owen Trew, one of the three technicians who worked on the restoration project.

AN ENGINE

“TO KNOCK THEIR EYES OUT”

One of the many old Cummins engines now treasured around the world can be found at Cummins Perth branch – and it was restored to running order for the company’s global 100th birthday celebrations in February.

The 1929 single-cylinder Model F engine was originally owned by the Puglisi family who bought it for fishing off the NSW South Coast in the early 1930s, installing it in a timber boat called ‘Tory’.

The Model F was Cummins’ first distinctive engine line, emerging in 1924 out of a swirl of innovation and problem solving by company founder Clessie Cummins. Most early editions of the engine had one or two pistons, bolted as separate units to a common base. With a 5.5-inch bore and 7.5-inch stroke, the Model F developed 12.5 hp at 600 rpm.

It performed best when pulling heavy loads at constant speeds, the kind of performance demanded by fishing boats.

Fishermen loved the performance.

To promote the new line aggressively, Clessie Cummins took to the water. He installed a new Model F in a boat in 1924 and mounted a conspicuous sign on the vessel that read: ‘This boat is driven with a New Cummins Oil Engine 12 1/2 HP for 50 cents a day’.

As more fishermen starting using the Model F (F for four-stroke), Clessie wrote that the performance of the engine “knocked their eyes out”.



Left: 7-ring piston from Model F. Right: Clessie’s fuel injector that some experts described as ‘simpler than a fountain pen’.

The project to get the Cummins Perth engine back in running order was initiated by 40-year Cummins veteran Geoff Ironmonger, and he was supported by the Perth branch restoration team of technicians Vic Krupianka, Own Trew and Shane Withers, leading hand Tim Larkan and service manager Bill Parker. The 90-year-old Model F was completely stripped down and after parts were cleaned and some repairs carried out, the beast was reassembled, ready to be fired up.

The only major repair was to the cracked cylinder block which needed to be 'stitched', a job done by R Moore & Sons Diesel, a contractor to the Cummins Master Rebuild Centre in Perth.

Clessie's brother signs test report.

Geoff Ironmonger sourced data on this particular Model F (Engine Serial No. 8466) from the US and was sent an engine dyno test record, amazingly signed by Charles Deloss Cummins on July 27, 1929. Charles was Clessie's younger brother.

After many years of service with the Puglisi family on the NSW South Coast, the engine was eventually taken out of the boat and sold to a cotton grower in the Narrabri (NSW) region where it was put on a bore pump to irrigate the crop.

The Model F eventually came into the possession of Cummins Diesel Sales & Service in Lansvale (Sydney) in 1972. The story behind this particular engine appears in the book – 50 Years of Cummins in Western Australia – compiled by Frank Caddy. Frank, who owned the Model F, retired in 1997 after many years with Cummins; he passed away in 2017.

"A customer literally staggered into the Lansvale facility one Saturday morning carrying a very large injector, looking for an exchange unit," recalled Frank. "Our parts people had never seen the injector before but the customer bumped into (sales manager) Frank Kent who immediately identified it as a Model F injector, impossible to service and with no replacement parts." The customer agreed to exchange his Model F Cummins with a much later model engine.

The Model F had a spell in the maritime museum in Fremantle before being moved to its current location in the reception area at Cummins Perth in Horrie Miller Drive. ■

ENGINE NO. 8466

CUMMINS ENGINE COMPANY
ENGINE TEST RECORD

July 27, 1929

S.O. #98 ALVIN TAYLOR, Ltd.
Engine No. 8466, Model F, No. of Cylinders 1.

Bore 5 1/8" Stroke 7 1/8" Type of Unit Marine.

RPM—No Load
RPM—Full Load 600.
RPM—20% Overload

Does Governor Hunt at Any Speed?
Pulled Rated Full Load How Long? 12 Hours. (Water Brake)
Pulled 20% Overload How Long?
Temperature of Cooling Water 120° - 130°
Condition of Exhaust—Full Load Clear.
Condition of Exhaust—20% Overload
Safety Values Set For 1200 lbs.
Lubricating Oil Gauge Pressure 50 lbs. Fuel Pump Gauge Pressure 75 lbs.
Any Oil Leaks? None. Any Water Leaks? None.
Any Heating Bearings? None. Any Loose Bearings? None.
Any Loose Keys? None.
Any Leaking Valves? None. Does Flywheel Run True? Yes.
How Is Timing? Correct.
Flywheel Markings All out Injection.

REMARKS: (Note here anything not standard about the engine.) Jcos Gear #246 K, Ser 3433.
Curtis Comp. B 252 A, size 2-1/8" x 2-1/2". Comp. tested to 400 lbs.
Rev. Gear and Air Starter O.K.

Charles Deloss Cummins
Foreman of Test.

Engine test report signed by Clessie's brother Charles Deloss Cummins.