

= Courage C60 =

The Courage C60 was a Le Mans Prototype ( LMP ) racing car built by Courage Compétition in 2000 , and used in international sports car races until 2006 . A replacement for the Courage C52 , it was Courage 's first all new prototype since the Courage C41 was built in 1994 . Initially fitted with a 4 litre naturally aspirated Judd GV4 V10 engine in 2000 , and run by SMG Compétition , Pescarolo Sport began using a 3 @ 2 litre twin turbocharged Sodemo Peugeot A32 V6 engined version of the car in 2001 , and the Peugeot engined versions would prove to be the most successful . In 2004 , Pescarolo redeveloped the C60 on their own , and replaced the Peugeot engines with 5 litre Judd GV5 V10s . In 2005 , Courage ran two updated versions of the C60 ( known as the C60 Hybrid , and using the Judd GV4 engines ) as a factory effort , and one of these took third place at that year 's 24 Hours of Le Mans ; Pescarolo also updated their C60s into a similar Hybrid format , and took second at the 2005 and 2006 24 Hours of Le Mans , whilst also winning the Le Mans Series in both years . In 2006 , the all new Courage LC70 was introduced by Courage , and Pescarolo introduced their 01 in 2007 .

= = Design and development = =

In 2000 , Courage Compétition introduced the C60 as a clean sheet replacement for the Courage C52 . Like its predecessor , the C60 was designed by Paolo Catone , and was the first all new car since the Courage C41 was introduced . The C60 used a carbon fibre and aluminium honeycomb monocoque chassis , whilst its suspension consisted of double wishbones , pushrods and horizontally located dynamic dampers . SMG Compétition were the first team to run the car , and their C60 was fitted with a 4 litre naturally aspirated Judd GV4 V10 engine , In 2001 , Pescarolo Sport began using the C60 and their C60s used a Sodemo developed 3 @ 2 litre twin turbocharged Peugeot A32 V6 engine , capable of a claimed power output of 550 hp ( 410 kW ; 558 PS ) . In 2002 , André de Cortanze redeveloped the C60 into the C60 Evo , which notably featured an unusual brake duct system similar to that found on an open wheel racing car at the front of the car , whilst the rear wing endplates were redesigned and the Peugeot A32 engine now produced a claimed output of 580 hp ( 433 kW ; 588 PS ) . The endplates were further developed in 2003 , whilst the engine 's air restrictors were decreased in size from 32 @ 4 to 30 @ 7 mm ( 1 @ 3 to 1 @ 2 in ) , resulting in the claimed power output decreasing to 510 hp ( 380 kW ; 517 PS ) . In 2004 , Pescarolo began running the car as a " Pescarolo C60 " with a 5 litre Judd GV5 V10 engine , as Henri Pescarolo had further developed the C60 . For 2005 , Courage and Pescarolo both released redeveloped versions of the C60 for the new LMP1 regulations ; both were designated as C60 Hybrids and used Judd engines . The Pescarolo version retained its Judd GV5 engine , with a claimed power output of 630 hp ( 470 kW ; 639 PS ) , whilst the Courage version used the smaller 600 hp ( 447 kW ; 608 PS ) Judd GV4 engine , and featured a noticeably different rear wing . Courage introduced the new Catone designed Courage LC70 in 2006 as the C60 's replacement .

= = Racing history = =

= = = 2000 ? 2001 = = =

The C60 made its debut at the 2000 Silverstone 500 USA Challenge , when SMG Compétition 's Gary Formato and Philippe Gache used the car to take tenth place , and eighth in the LMP category . For the 24 Hours of Le Mans , Gache and Formato were to be joined by Didier Cottaz , but suspension failure after 219 laps forced the team to retire . SMG ran Cottaz and Gache at the 1000 km of Nürburgring , but an accident after 44 laps lead to the team 's retirement .

For 2001 , Pescarolo Sport replaced their C52s with the C60 . Their first race with the C60 came at the 12 Hours of Sebring , with Jean Christophe Boullion , Sébastien Bourdais and Laurent

Rédon selected to drive the car ; however , engine problems after 167 laps forced them to retire , and they were classified 25th overall , and seventh in class . At the 2 Hours 30 Minutes of Catalunya , Boullion and Bourdais completed 57 laps before another engine problem forced them to retire . For the 2 Hours 45 Minutes of Donington Park , Boullion partnered Rédon to fourth place , the fastest of the non @-@ Audi entries . However , oil pump issues struck at the 1000 km of Monza , forcing Boullion , Rédon and Bourdais to retire . Three C60s were entered in the 2001 24 Hours of Le Mans ; Pescarolo ran Boullion , Bourdais and Rédon in one car , and Emmanuel Clérico , Cottaz and Boris Derichebourg in another , whilst SMG ran Gache alongside Jérôme Policand and Anthony Beltoise in their C60 . Only the Boullion / Bourdais / Rédon C60 finished ( in 13th overall , and 4th in the LMP900 category ) , as the other Pescarolo car crashed out after 42 laps , and SMG 's C60 succumbed to engine problems 9 laps later . Pescarolo Sport 's next race with the C60 came at the 1000 km Estoril , where Boullion , Rédon and Derichebourg were able to take the car 's first ever victory , although they had initially been disqualified for ignoring blue flags ; Boullion and Rédon immediately followed this with another victory in their next race , which was the 2 Hours 30 Minutes of Magny @-@ Cours . Boullion and Derichebourg finished the season off with second at the 2 Hours 30 Minutes of Nürburgring . Courage finished the American Le Mans Series ( ALMS ) season classified in sixth , whilst they took fifth in the FIA Sportscar Championship , and third in the European Le Mans Series ( ELMS ) .

= = = 2002 ? 2003 = = =

For 2002 , Courage Compétition began running a factory team again ( using a Judd @-@ engined C60 ) , whilst Pescarolo Sport continued with their Peugeot @-@ engined C60 . The 2 Hours 30 Minutes of Catalunya saw Courage 's Thed Björk , Derichebourg and Cottaz take fifth overall , whilst Pescarolo 's Boullion and Bourdais won the race . At the 2 Hours 30 Minutes of Estoril , it was Cottaz and Derichebourg who took second for Courage , whilst Boullion and Franck Lagorce finished fourth for Pescarolo . At the 2 Hours 30 Minutes of Brno , Cottaz and Derichebourg took another second for Courage , whilst Pescarolo did not compete . Three C60s were entered for the 2002 24 Hours of Le Mans ; Courage selected Cottaz , Derichebourg and Björk to drive their car , whilst Pescarolo ran Boullion , Lagorce and Bourdais in one of their C60 @-@ Peugeots , and Stéphane Ortelli , Ukyo Katayama and Éric Hélary drove their other car . Although the C60 of Ortelli / Katayama / Hélary succumbed to engine trouble after 144 laps , the other Pescarolo @-@ entered C60 finished tenth overall , and ninth in class whilst the Courage @-@ entered C60 finished 15th overall , and 11th in class . Pescarolo reverted to a single @-@ car entry for the 2 Hours 30 Minutes of Magny @-@ Cours , which , with Bourdais and Boullion at the wheel , finished in second ; the Courage @-@ entered car , driven by Cottaz and Derichebourg , succumbed to electrical issues before completing a lap . Courage did not run their car again , whilst Pescarolo 's Boullion and Lagorce took third at the 2 Hours 30 Minutes of Dijon , before Bourdais and Boullion finished the season with a victory at the 2 Hours 30 Minutes of Spa . Courage finished the season tied with Dome on 97 points in the SR1 Constructor 's Championship , but lost the title to Dome as they had won a single race less .

Pescarolo started the 2003 FIA Sportscar Championship season with a victory at the 2 Hours 30 Minutes of Estoril , with Boullion partnering Stéphane Sarrazin in the C60 . Like the previous year , three C60s were entered at the 24 Hours of Le Mans ; Courage ran Jonathan Cochet , Jean @-@ Marc Gounon and Stéphan Grégoire in their car , whilst Pescarolo ran Boullion , Sarrazin and Lagorce in one car , with Nicolas Minassian , Soheil Ayari and Hélary in the other . The three C60s finished seventh , eighth and ninth respectively , which equated to fifth , sixth and seventh in the LMP900 category . Pescarolo followed this result with a string of retirements at the 500 km of Monza , the 2 Hours 30 Minutes of Oschersleben and the 2 Hours 30 Minutes of Donington . The 1000 km of Spa saw a return to form , as Sarrazin and Lagorce took second , before Pescarolo ended the FIA Sportscar Championship season with a victory at the 2 Hours 30 Minutes of Nogaro ( where Ayari replaced Sarrazin ) . Despite the mid @-@ season slump , Pescarolo were still able to deliver Courage second in the SR1 Constructor 's Championship . The final race of the C60 's season came

at the non @-@ championship 1000 km of Le Mans , where Sarrazin , Lagorce and Bourdais took second place .

= = = 2004 ? 2005 = = =

In 2004 , Pescarolo Sport were the only team to use the C60 , which they ran as the " Pescarolo C60 " . The team 's first race came in the 1000 km of Monza , which formed part of the new Le Mans Endurance Series ( LMES ) ; here , Ayari and Emmanuel Collard took fourth overall , and were the fastest of the non @-@ Audi entrants . For the 24 Hours of Le Mans , Collard partnered Bourdais and Minassian in one C60 , whilst Ayari drove with Érik Comas and Benoît Tréluyer in the other . Although the C60 of Collard , Bourdais and Minassian succumbed to engine trouble after 282 laps , the Ayari / Comas / Tréluyer finished fourth overall , and fastest of the non @-@ Audi runners once more . Hélyary was selected to partner Ayari at the 1000 km of Nürburgring , and this time the pair brought the C60 home in fifth overall . Pescarolo 's last race of the season came at the 1000 km of Spa , where Gounon and Ayari lasted nine laps before being forced to retire due to accident damage . Pescarolo finished the LMES season in fifth place , level on points with Team Jota .

In 2005 , Courage Compétition began running their updated C60 Hybrid , whilst Pescarolo also updated their C60 ; the two teams were the fastest and second fastest respectively at the Paul Ricard test session . At the LMES season opener , which was the 1000 km of Spa , the Courage @-@ entered car , driven by Cochet , Christian Vann and Alexander Frei was eliminated in a pit @-@ lane accident , whilst the Pescarolo entry , driven by Bouillon , Collard and Comas finished second . For the 24 Hours of Le Mans , both teams entered two cars ; Courage entered Frei , Vann and Dominik Schwager in one car , and Cochet , Shinji Nakano and Bruce Jouanny in the other , whilst Pescarolo ran Collard , Bouillon and Comas in one of their C60s , with Ayari , Hélyary and Sébastien Loeb in the other . One car from each team finished ; Collard , Bouillon and Comas took second for Pescarolo , whilst Schwager , Frei and Vann finished eighth for Courage . Both teams reverted to single @-@ car entries for the 1000 km of Monza , which Collard and Bouillon won for Pescarolo ; the Gounon / Vann / Frei combination in the Courage finished sixth overall , and fourth in the LMP1 category . For the 1000 km of Silverstone , it was Frei , Vann and Cochet , driving for Courage , who were the fastest C60 ; they took 14th , and 13th in class , whilst Collard and Bouillon had problems and finished 34th , and 17th in class . The 1000 km of Nürburgring saw Bouillon and Collard take fourth for Pescarolo , whilst Frei and Cochet took eighth for Courage . At the final round of the season , which was the 1000 km of Istanbul , Collard and Bouillon took another victory for Pescarolo , whilst the Courage of Gounon and Frei took 21st overall , and eighth in class . This result meant that Pescarolo had won their first ever team 's championship , whilst Courage finished seventh .

= = = 2006 = = =

For 2006 , Pescarolo were the only team to run the C60 in the newly @-@ renamed Le Mans Series ( LMS ) . Collard and Bouillon started the season in exactly the same way they had finished the previous one , by winning the 1000 km of Istanbul in the Pescarolo C60 Hybrid . The 1000 km of Spa saw Collard and Bouillon win again , despite starting the race from the pitlane after a crash in free practice . At the 24 Hours of Le Mans , Pescarolo entered two C60s , as usual ; one driven by Hélyary , Loeb and Franck Montagny , whilst the other was driven by Collard , Minassian and Comas . The Montagny / Hélyary / Loeb car took second overall , beating one of the brand @-@ new Audi R10 TDIs , whilst the other car finished fifth overall , and fourth in the LMP1 category . Having returned to the LMS , Collard and Bouillon were joined by Hélyary for the 1000 km of Nürburgring , and the trio took another win for Pescarolo . Didier André replaced Hélyary in the final two rounds , which were the 1000 km of Donington and 1000 km of Jarama , and Pescarolo won both races to complete a clean sweep . As a result , Pescarolo retained the LMP1 team 's championship with the maximum score possible . The C60 was made obsolete by the new LMP1 regulations for 2007 , and thus was retired , and replaced by the Pescarolo 01 .

