

DA42 New Generation

Elegance meets Efficiency



 **Diamond**
AIRCRAFT





Go anywhere, go direct.

Innovative. Economical. A category-defining aircraft. It takes much effort to redefine a market. This is what the DA42 New Generation has successfully achieved. The success of the DA42 underscores its capabilities. With its new twin AE 300 turbo diesel engines (produced by Austro Engine GmbH) the DA42 is a superbly capable cross-country traveler with a stunning shape that causes admiring glances wherever you taxi in.

Expanding boundaries. The DA42 with its twin engines, extreme range, long endurance and advanced avionics enables you to fly where others do not dare to venture. In your DA42 you can travel directly to places you never thought possible.

Flying a twin is a thought that inspires but also intimidates people. The Diamond Aircraft DA42 New Generation can be operated nearly as easy as a Single Engine Aircraft due to its single lever control and the fully integrated avionics. Meet the DA42 which is designed to inspire not to intimidate.



A New Generation of Diesel-Engined Aviation.

TWO THUMBS UP

Diamond Aircraft Industries has equipped its DA42 with the new Jet-A1-powered AE300 engine. It leaves an excellent impression. It is powerful and economical at the same time. The DA42 New Generation represents a definite improvement over the previous version. All these new facts make the DA42 with AE300 a great choice for individual owners, as well as for flight schools looking to add modern appeal and technology to their flight line.

AN AIRCRAFT THAT WILL DETERMINE THE FUTURE OF DIESEL-ENGINED AVIATION

The 336 hp make for impressive acceleration which unsurprisingly is noticeably increased in comparison with the basic DA42. With the engines delivering 100% take off power, the nose is raised to 12° and it climbs at 90 KCAS burning 9.4 US gal per hour per engine with the variometer oscillating between 1,100 and 1,300 fpm. That is truly impressive. Five minutes after take off the DA42 is retarding to max continuous power of 92% and still get a climb rate of approximately 1,100 fpm. The fuel flow meter is indicating 8.5 USgal/h now.

Leveling off at 12,000 ft and the power indication still at 92% the DA42 is accelerating to 145 KCAS which leads to a true airspeed of 183 kts. The service ceiling is 18,000 ft and it can maintain 14,000 ft with one engine out. Engaged the autopilot and enjoying the luxury of the GFC 700 with its yaw damping

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Christian Dries, CEO, Diamond Aircraft

system. Bringing the power back to a more normal 75 % power, the engines are burning 6.8 US gal per engine and delivering 175 KTAS, which is magnificent for just 51 l of Jet A1 per hour.

IMPRESSIVE RESULT

With the DA42 you will enjoy lower operating costs, lower fuel consumption with an increase of comfort, power and performance.







SIMPLIFIED SINGLE-ENGINE OPERATIONS

Your personal time machine.

LOW FUEL BURN – LONG RANGE

The range of the DA42 is impressive. You can fly non-stop across the Alps and you benefit from the options if ATC vectors you around, or if weather gets bad at your destination. Moreover you can fly around coasts and islands and confidently over water. You can cut corners where single-engine pilots will have to fly over land.



EASE OF OPERATIONS

The EECU technology makes engine management so easy that at times 'old timers' who are accustomed to the six power controls, hand-feathering and prop-synching in traditional twins, have accused DA42 pilots of 'cheating.' It is true; the DA42's two engines are easier to operate than the one engine on many complex singles due to one power lever per engine. No need to lean, no need to worry about advancing the prop to high rpm before landing. The fine-tuned computers take care of all of that, leaving you more time to focus on the big picture.

"Mankind fulfilled its dream of flying a long time ago. The time for new dreams for general aviation has come and Diamond will be leading the way to make these dreams a reality."

Christian Dries, CEO, Diamond Aircraft

SIMPLIFIED SINGLE-ENGINE OPERATIONS

The DA42 uses modern technology to simplify the handling and operation as much as possible. Feathering an engine is as easy as flipping a switch and restarting it after a simulated shut down. With a single-engine ceiling of 10,000 feet, the DA42 convinces on the performance front as well.



GPS NOT APPROVED FOR WAAS OPERATIONS

LIGHTS

INSTRUMENT FLOOD LANDING TAXI POSITION STROBE EMERGENCY



LH ENGINE RH ENGINE
 WATER ECU A WATER ECU A
 ECU B ECU B
 ALTERNATOR
 LH RH

LH ECU BUS RH ECU BUS
 7% 7%
 PITOT HEAT
 LEFT ENGINE MASTER START LEFT
 RIGHT ENGINE MASTER START RIGHT
 ELECT MASTER AIR MASTER
 LANDING GEAR
 UNSAFE LEFT RIGHT

AP DISC
 CWS
 AP TRIM
 PTT
 DIAMOND AIRCRAFT

WARNING: Do not use the fuel selector knob to select fuel tanks. Always use the fuel selector knob to select fuel tanks.

EMERGENCY
 Press "EMT" to accept

max. usable fuel
 main tank:
 2 x 25 US gal
 auxiliary tanks:
 2 x 10 US gal
 max. difference LH/RH
 main tanks: 1-10 gal



Instrument panel section containing three analog gauges: a heading indicator on the left, an altimeter in the center, and an airspeed indicator on the right. A red emergency stop button is located to the right of the altimeter.

Large central navigation display (ND) showing a map with flight paths, waypoints, and various data fields. The display includes information such as 'NAV 115.50', '110.90', '115.50', '122.650', and '118.525'. A 'NO GPS POSITION' warning is visible on the map. The display is surrounded by various control buttons and knobs.

Control panel section containing a large rotary knob, numerous push buttons, and rotary switches. The buttons are organized into sections: 'LH MAIN BUS' (top right), 'RH MAIN BUS' (middle right), and 'AVIONICS BUS' (bottom right). The buttons are labeled with various functions such as 'NO SMOKING', 'CORR', 'SPS/NAV1', 'APSR', 'ENG REST', 'PITOT', 'SPR PUMP', 'TAXI/PAF', 'FLOOD', 'PTB', 'ADC', 'AVIB', 'SEAR WIN', 'SEAR', 'ELEV. LIMIT', 'STWRT', 'HOT LT', 'AV/CDU', 'AFONIC', 'AP CONT', 'CONE', 'SPS/NAV2', 'AUDIO', 'AUTO PILOT', 'SND LWR', 'W/SVR', 'ADP', 'SME', 'TAS', 'BATT', 'AL3 IN', 'EQU BUS', 'EQU B', 'EQU A'.

Control panel section containing several push buttons and switches, labeled 'FUEL PUMPS LH ENGINE' and 'FUEL PUMPS RH ENGINE'. The buttons are arranged in two columns, each with a fuel pump symbol and a '7 1/2' label.

Control panel section containing a 'FLAPS' control knob and several indicator lights. The knob is labeled 'UP' and 'DOWN'. The indicator lights are labeled 'APP 13.3 XIAS' and 'LOC 33 XIAS'.

Control panel section containing several push buttons and switches, labeled 'BATT', 'AL3 IN', 'EQU BUS', 'EQU B', 'EQU A'. The buttons are arranged in two columns, each with a battery symbol and a '20' label.

Control panel section containing several push buttons and switches, labeled 'OUTSIDE AIR', 'DATA/COM', 'O-RING', 'N', 'H'. The buttons are arranged in a vertical column.

Control lever (AP DISC) with a hand resting on it. The lever is grey and has a red button on top. The label 'AP DISC' and 'PTT' are visible on the lever.

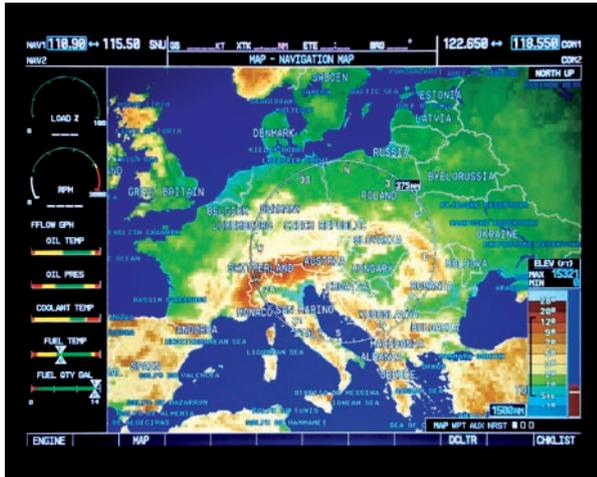


Go where singles fear to fly.

GO SAFELY

Diamond Aircraft's obsession with safety is embodied in the design of the DA42. The DA42 is the undisputed technology leader. Not only for the sake of technology but also for the sake of your comfort, safety, ease of operation and efficiency. It offers the ultimate in redundancy: damage tolerance, fail-safe carbon airframe, completely redundant electrical system and power sources, redundant flight instrumentation and of course twin engines with convenient single-lever power plant control.

Insurance premiums on the DA42 are very reasonable thanks to its docile engine-out characteristics, combined with solid single-engine performance. With range like no other piston twin, the DA42 makes it possible to fly directly to many more destinations safely and very comfortably.



GO IN WEATHER

Real traveling means real weather. When clouds move in, when rain is in the forecast, when colder weather causes icing, DA42 pilots have many more tools at their disposal than most single-engine pilots to make go or no-go decisions.

"I have a team that is unmatched in general aviation manufacturing. I know that they design and build the safest aircraft in the world." Christian Dries, CEO, Diamond Aircraft

KNOWN ICE PROTECTION

A proven TKS ice protection system helps the DA42 to withstand flight into known icing conditions. Wings, tail, propellers and windshield are protected with TKS fluid, systems are redundant and rigorous flight tests have demonstrated and proved the ability of the DA42 to withstand icing long enough to get you back to safety.

ADVANCED AVIONICS

The capable Garmin G1000 cockpit makes flight planning and plan changes in the air less challenging. A dual-alternator, dual-battery system provides you with the confidence that your avionics will be there when you need them. The anti-static primer combined with static wicks ensures crisp reception especially in precipitation when you need it most.



The Ultimate Flying Machine.

BE ENVIED

Get used to admiration in the air and on the ground. The DA42's sleek lines and powerful looking engines with three-blade composite propellers are sure to attract crowds wherever you pull up. For you and your lucky passengers the DA42's platinum cabin offers luxury amenities like premium leather seats, brushed aluminum and carbon fiber trim details. Of course you do not have to leave your personal luxuries behind as the DA42 can carry plenty of gear in its spacious interior baggage compartment. Two sets of golf clubs fit in its generous nose baggage area without any problems.



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A SKILL BUILDER PAR EXCELLENCE

Many leading flight schools make the DA42 a key plane in their training fleets. With the DA42 students gain training experience that is essential when switching to jets or airliners after graduation. Jet-like thrust control, advanced Garmin G1000 glass cockpit and the ability to fly approaches and procedures in conditions similar to those encountered by light jets and turbo-props ensures students to be ready for their next steps.





Durable construction.

Built out of durable low drag composites the sleek and aerodynamic DA42's attractive and modern shape will assure the durability for many years. The unlimited life airframe is far less prone to dents and dings than an aluminum airplane. Composite construction, unlike aluminum, allows for adding materials only where needed for extra strength, reducing overall weight and material and increasing interior room, comfort and useful load.



Solid development.

SOLID DEVELOPMENT WITH THE BEST TEAM

With our partners you have the highest possible experience level of developing diesel engine technology. The development of the AE300 has been enhanced through our partnerships with MB Tech and Bosch General Aviation. We are convinced that we have developed the most excellent aircraft engine for your purposes. Higher reliability and solid quality of engine components are achieved by robust technology and through cooperation with our partners. Our sincere belief in this method of developing and then producing a complete aircraft system is demonstrated by the fact that we have invested nearly 50 million Euros in this project.

“ONE PACKAGE WARRANTY”

You will have an aircraft and engine that are surely dependent upon each other. The DA42 New Generation will certainly benefit upon the manner in which each of them complements the other. This is why we offer you a one-shop-stop principle for airframe/engine guarantee cases. For you this means that you have one reliable partner for airframe/engine guarantee and ease of handling of all support issues.

MAINTENANCE ISSUES

Design and construction of the engine was and is developed to reduce service intervals for Maintenance Austro Engine is providing the SEPP (scheduled exchange parts program) for the first and second 1,000 engine operating hours, which

includes following Parts free of charge for the customer: 1) Alternator (currently change during initial phase every 300 hours) 2) High pressure pump (currently change during initial phase every 300 hours) 3) Torsion Vibration Damper (currently check during initial phase every 300 hours). The AE300 is the state of the art Aviation engines for the next generation of general aviation business.

HOW TO DESCRIBE THE FEELING OF FLYING THE DA42 NEW GENERATION?

The aircraft runs smoother and provides a higher single engine performance. It will maintain full performance at the critical altitude of 10,000 ft. You will experience a lower specific fuel consumption compared to previous diesel aircraft engines.

FURTHER PRODUCT IMPROVEMENTS WITH THE DA42 NG

All aircraft are equipped with GFC700 Automatic Flight Control System for your complete flying comfort and Garmin Chart-View will display aviation charts directly on the PFD/MFD. The system is installed together with Garmin SVT (Synthetic Visual Technology) which is a standard feature in our DA42.



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