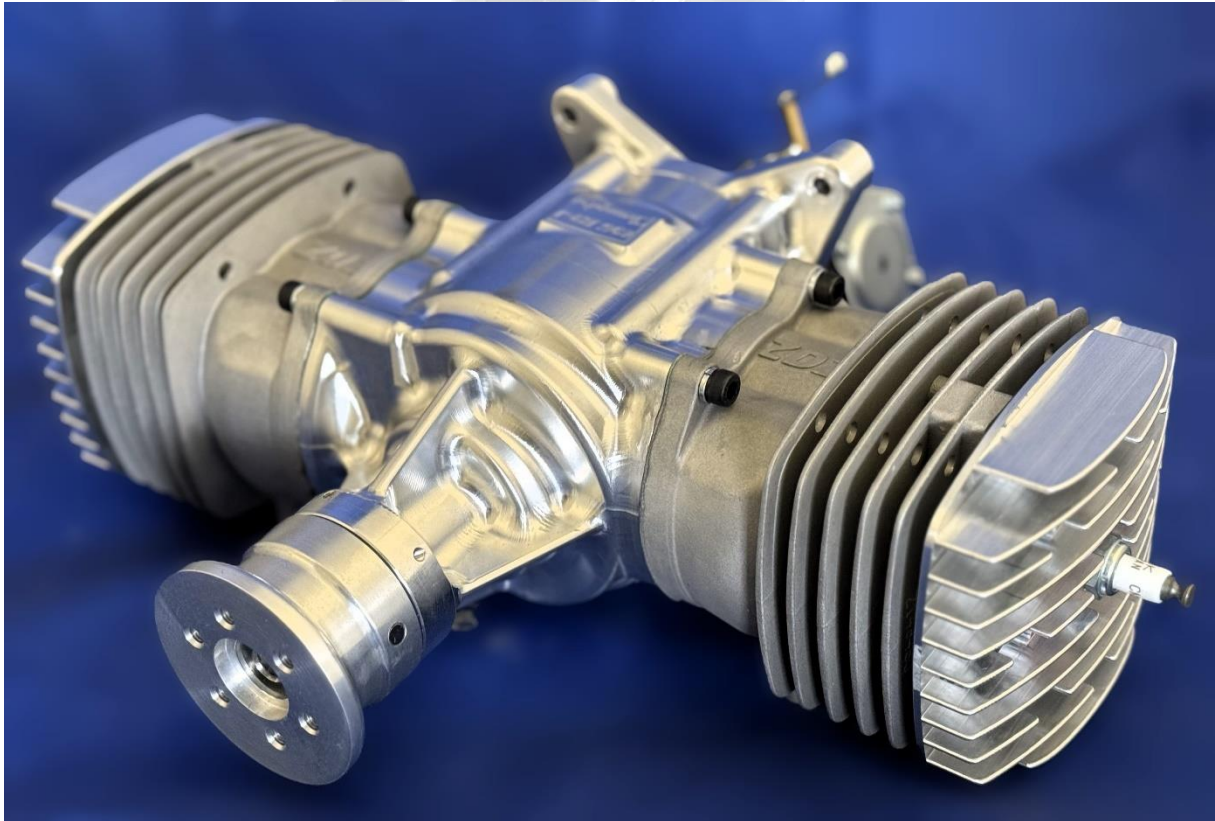


AIRDYNAMIX

DATASHEET ADX 195



ADX 195 ENGINE

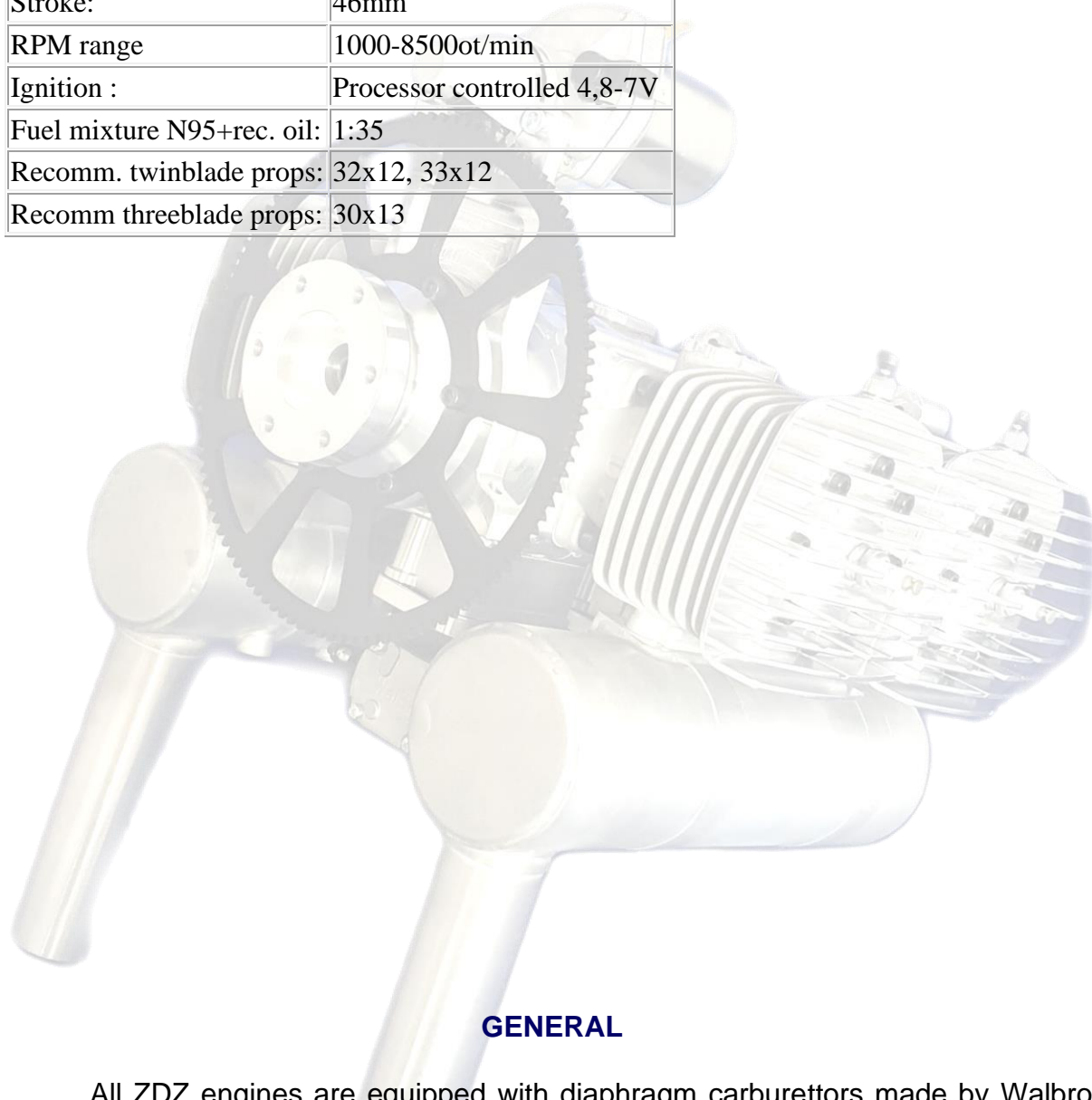
ADX 195 gasoline engine is intended for UAV drone target applications and offers excellent power to weight ratio while having absolutely low vibrations thanks to its construction and balanced internals. During its development all the knowledge and experience from previous models were applied and improved. The result is powerful, low vibration and very durable and reliable engine with improved cooling for easier usage. Before being shipped from the factory, each engine is tested and pre-adjusted.

As a result, there is rarely need for the user to make much in the way of adjustments. In general, they require only some minor carburettor adjustments that take into consideration the propellers and mufflers being used.

TECHNICAL PARAMETERS OF ADX 195

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Displacement:	195ccm
Weight:	3722g/5040g with el. starter)
Bore:	52mm
Stroke:	46mm
RPM range	1000-8500ot/min
Ignition :	Processor controlled 4,8-7V
Fuel mixture N95+rec. oil:	1:35
Recomm. twinblade props:	32x12, 33x12
Recomm threeblade props:	30x13



GENERAL

All ZDZ engines are equipped with diaphragm carburettors made by Walbro. (These carburettors are adjusted with two mixture screws that are marked with the letter "H" (for the adjustment of High speed) and by the letter "L" (for the adjustment of idle and the acceleration from idle to full throttle). ZDZ engines are equipped with commonly sized special SKF and NSK ball bearings. The piston con rod is equipped with SKF needle bearings. All screws and connections are secured by Loctite 243/648 and market for controll.

EACH engine as mentioned above is tested before shipment and test result recorded to its birthcard in our information system as well as all other events and repairs in the future during the engine lifetime.

IGNITION SYSTEM

On 195B2RV-JCH engine you can find one set of processor controlled ignition with controlled advanced spark timing



Illustrative photo

OPTIONAL EQUIPMENT

ADX 195 engine can be optionally equipped with additional accessories or modified with new features as shown in the table below.

1. **Rotation Options:** Our engines can be customized to operate in either a clockwise (CW) or counterclockwise (CCW) rotation. This provides flexibility to choose the rotation that best suits your specific system requirements.
2. **Exhaust system:** You can choose between standard SSA compact and direct mount system or specific solution.
3. **Double Spark Plug Heads:** Engines can be equipped with double spark plug heads to increase safety and reliability. This feature ensures that your engine continues to operate in the event of a spark plug failure, offering uninterrupted performance and peace of mind.
4. **Additional Sensor Mounting Position:** Engines could be equipped with an additional sensor mounting position on either the cylinder heads or crankcase. This provides the flexibility to tailor the engine to your exact needs, allowing you to achieve optimal performance and functionality.
5. **Cylinder Head Redesign:** Our engines can be completely redesigned to provide easier cooling or fit into your cowl space. This feature ensures that your engine not only performs at its best, but also fits seamlessly into your system.
6. **Electric Starter:** Engines could be equipped with an electric starter for easy and efficient start-up. This feature saves time and effort, allowing you to focus on your work and get the job done quickly and efficiently.
7. **Automatic Deco Valves:** Engines could be equipped with automatic deco valves, making restarts in the air easy and stress-free. This feature allows you to focus on your flight and enjoy a smoother and more comfortable experience.
8. **Power Generator:** Engines can be designed with brushless generators that provide superior power to meet your specific needs. This feature ensures that you have the power you need to operate all of your equipment, no matter what the situation.
9. **Custom-Made Backplate:** Engines could be designed with a custom-made backplate that offers a mounting points as well as design tailored to your specific needs. This feature ensures that your engine fits seamlessly into your system, providing optimal performance and functionality.
10. **Electronic Fuel Injection:** Engines could be equipped with electronic fuel injection for improved efficiency and performance. This feature ensures that you get the most out of your engine, with increased fuel economy and power.
11. **Belt reduction gear:** Custom designed reduction gear can be installed onto the engine to better suit your needs.

DRAWINGS AND MODELS

3-view drawing file, please download here: <https://www.airdynamix.tech/soubor/195b2s-magni-installation-dimensions-gif/>

3D STEP file, please download here: <https://www.airdynamix.tech/soubor/195b2-magni-step/>



Appendix A – Maintenance periods

Periodical maintenance operations for ADX 195

GENERAL TBO - 300hrs, Crankshaft 1000hrs

Do the operation in left column every :

Operation	25hr	50hr	100hrs	500hrs	1000hrs
Deep visual inspection	X				
Spark plug cleaning	X				
Spark plug electrodes gap control	X				
Spark plug replacement		X			
Fuel filter replacement	X				
Fuel lines/throttle control check	X				
Piston and cylinders decarbonization		X			
Compression check		X			
Rotary valve check	X				
Rotary valve replacement			X		
Carburettor filter cleaning		X			
Starter and starter wheel check		X			
Starter and starter wheel replacement				X	
Wrist pin and piston rod bearings check		X			
Wrist pin and piston rod bearings replacement				X	
Spark plug cap replacement		X			
Generator rotor replacement (if installed)				X	
Stabilizer replacement				X	
Ignition unit replacement				X	
Crankshaft replacement					X
Bearings replacement				X	
Cylinder and piston replacement				X	

Table A -ZDZ maintenance schedule

General warranty period is 500hrs or 1 year* which one of terms is reached earlier.

Crankshaft has special warranty for 1000hrs or two years which one of terms is reached earlier. If part is properly controlled and replaced according to Table A and damaged before the replacement

It is considered warranty case and replaced by ZDZ. New replaced part has warranty period only 3 months. Parts for planned replacement have to be bought from a supplier, they are not replaced under warranty.

**) where replacement is indicated in shorter period, replacement period also means warranty for that particular part.*

Appendix B – Engine package content

With engine we deliver:

- 1) Engine with spark plugs, carburettor, ignition boxes and sensors
- 2) Pack with common accessories:
 - a) 2 pieces of exhaust gaskets
 - b) 4 pieces of exhaust screws
 - c) 6 pieces of propeller screws
 - d) 1 piece of aluminium propeller washer
 - e) 2 pieces of carburettor levers with ball joints
 - f) 1 piece of central propeller screw
 - g) 2 pieces of sensor holder installation screws
 - h) 2 pieces of central propeller screw M10x1 nut
 - i) 1 pieces of central propeller screw M10 washer

