



M1050



Thank you for purchasing an AVIASTAR® model engine. Our engines use the finest material and workmanship to ensure maximum performance and trouble free operation. We recommend that you read the warnings and operating instructions carefully before you actually operate your engine.

WARNING ! A MODEL ENGINE IS NOT A TOY !

They are precision instruments which can develop very high power output. All model engines should be handled with extreme care. Abuse will result in serious bodily injuries or property damages. Please read the operation instructions carefully! Always ask for help and advice from experienced modelers if you are new to the hobby.

Preparing your engine

Minimum running-in is required for AVIASTAR® engines. However, it is beneficial to bench run and run-in your engine so you get familiarized with the characteristics of the engine.

1. Mount your engine rigidly on a proper test bench mount (Available in your local dealer).
2. Install the carburettor onto the engine. Do not overtighten the lock pin nut, otherwise you might damage the carburettors neck.
3. Install a proper size propeller onto the propeller shaft. (16x8 ; 16x10 etc.) Position the propeller on the 2 and 8 o'clock position when viewing from the front. Do not over tighten the propeller nut.
4. Install a suitable glow plug on the cylinder head. (Any glow plug of medium heat range should work)
5. Connect the fuel nipple to the fuel tank with a suitable size fuel line.
6. Muffler pressure is recommended even though not necessary.
7. Any good commercial fuel containing 18-20% castor oil (measure by volume) and 10% nitromethane is recommended.
8. Make sure that the fuel level in the fuel tank is not higher than the position of the carburettor.
9. Connect the throttle lever with a suitable linkage (Available in your local dealer) and secure the throttle rotor on the full open position. Never attempt to remove the throttle from the carburettor body for adjustment. Adjust the throttle by adjusting the throttle lever. Use the supplied allen wrench for untightening or tightening the set screws on the throttle lever.

Starting your engine

10. Screw the needle valve completely in, then open the needle valve anti-clockwise for about 4 to 4 1/2 turns.
11. Prime the engine by plugging up the carburettor air intake venturi with your thumb and the same time turning the propeller four to five turns.
12. Connect the glow plug to a 1.2 volt power source.
13. Make sure that nothing is in the way of the propeller arc. Start your engine with an electric starter (always recommended for safety reasons).

Running (breaking) in

14. After the engine is running, open the needle valve further slowly until the RPM drops and set the engine runs on the rich side. (at around 6,000 ~ 6,500 rpm)
15. Run the engine for about 5 minutes. Stop the engine by closing the throttle valve and let the engine cool down.
16. Accumulate the total running in time about one hour.

PROTECH®

Initial set up

17. If the engine starts to pick up speed when running with the throttle valve wide open and the high speed needle on the rich side, this is an indication that the engine parts are beginning to mesh.
18. Gradually turn the high speed needle clockwise to increase the RPM to maximum. It is best to set the needle slightly on the rich side. If the needle is set too lean, the engine will be overheated which may result in damaging the internal parts.
19. Gradually close the throttle. RPM should come down gradually.
20. Adjust the idle needle for a smooth idle.
21. The initial setting of the idle needle: tip of the needle is about 1.5mm away from the tip of the spray bar.

Parts list

PART No.	DESCRIPTION
M1050	AVIASTAR 150 ENGINE - COMPLETE
M1050.001	PROP NUT / WASHER
M1050.002	DRIVE WASHER
M1050.003	FRONT BALL BEARING
M1050.004	CRANK SHAFT
M1050.005	REAR (MAIN) BALL BEARING
M1050.006	CRANKCASE
M1050.007	REAR COVER
M1050.008	REAR COVER O-RING
M1050.009	REAR COVER HEX NUT
M1050.010	CYLINDER HEAD
M1050.011	CYLINDER HEAD GASKET
M1050.012	PISTON
M1050.013	PISTON RING
M1050.014	PISTON PIN & PISTON PIN RETAINER
M1050.015	CYLINDER
M1050.016	CONNECTING ROD
M1050.017	LOCK BAR WITH NUT
M1050.018	CYLINDER HEAD HEX NUT

PART No.	DESCRIPTION
M1050.019	CARBURETTOR - COMPLETE
M1050.020	HI SPEED NEEDLE WITH O-RING
M1050.021	NEEDLE HOUSING
M1050.022	SPRAY BAR WITH O-RING
M1050.023	THROTTLE SPRING
M1050.024	CARBURETTOR O-RING - LOWER
M1050.025	IDLE NEEDLE WITH O-RING
M1050.026	THROTTLE ARM
M1050.027	THROTTLE BARREL
M1050.028	THROTTLE BARREL O-RING
M1050.029	CARBURETTOR BODY
M1050.030	NEEDLE HOUSING BASE
M1050.031	NEEDLE HOUSING BASE O-RING
M1050.032	SPRING CLIP
M1050.033	CARBURETTOR O-RING - UPPER
M1050.034	SET SCREW WITH NUT
M1050.035	FUEL NIPPLE WITH GASKET

Specifications (subject to change without notice)

Displacement	24.90 cc
Bore	32 mm
Stroke	31 mm
Powerband	1,800 ~ 11,000 rpm
Weight	995 g



Manufacturer & Exporter:
Aviotronics Ltd. Hong Kong
P.O.-Box No. 88202,
Sham Shui Po Post Office, Hong Kong

Fax: (852) 2787-4894
E-mail: info@aviatronics.com

© Copy right 2002 Aviatronics Ltd.

PROTECH®