TMX Experimental Engine Series FAQ’s

Are the TMX experimental engine series engines, new zero time engines?

Yes, all TMX standard experimental series engines are brand new zero time engines.

Are the TMX series of engines certified?

No, the TMX series of engines is not certified. All parts used on the TMX series of engines with the exception of some accessories and the forward facing IO-360 induction systems are fully FAA certified components but the engine as a complete unit is not certified.

Can the TMX Series of engines be operated on automotive fuel?

Yes, all of the TMX experimental series of engines, that use compression ratios below and including 8.5:1, can be operated on fresh automotive fuel that meets spec ASTM D-4814 and has a minimum 91 octane rating. The use of automotive fuel that is blended with ethanol or alcohol is not permitted. Engines that have been modified to use higher than standard compression ratio pistons or that are using electronic ignition that advances the ignition timing past standard specifications are not recommended to use mogas. Although the use of 91 octane automotive fuel will work in these engines, that practice should be limited and isn't endorsed.

Does my TMX O-360/O-320 come with a primmer system?

Yes, the carbureted versions come with the engine portion of a three cylinder priming system.

Does my TMX 360/320 engine come with an oil filter adapter?

Yes, all Lycoming style TMX series engines come with a easy access angled oil filter adapter that allows the use of a canister type oil filter along with easy access for tidy oil filter removal. Unless Aircraft structures preclude its installation, this adapter is standard equipment on all Lycoming style TMX engines.

What type of oil should I use in my TMX engine?

Aviation mineral oil meeting MIL –L-6082 and of a viscosity appropriate to the ambient temperature ranges should be used for break in.
Aviation ashless dispersant oil meeting MIl-L-22851 and of a viscosity appropriate to the ambient temperature ranges should be used after the break in period is completed.

Average Ambient   *Grade Oil*

Air Temperature

All Temperature	*SAE15W50 or SAE20W50*
Above 80°F.	*SAE60*
Above 60°F.	*SAE40*
30°F. to 90F.	*SAE40 or SAE50*
0°F. to 70F.	*SAE30, SAE40 or SAE20W40*
0°F. to 90°F.	*SAE20W50 or SAE15W50*
Below 10°F.	*SAE30 or SAE20W30*

Does the TMX engine series come in 12 and 24 volt version?

Only the Lycoming style TMX engines are available with either 12V or 24 V systems. The TCM style TMX engines are only available with 12V systems.

Are TMX engines available for both constant speed and fixed pitch propeller use?
Only Lycoming versions of the TMX experimental engine series can be configured for fixed pitch or constant speed use. The TCM versions are only available for fixed pitch use.

Are there any configuration, horsepower, compression ratio, and appearance or accessory options available on the TMX series of engines?

All TMX experimental engines can be custom configured to your needs. Many options are available. Please contact use for further information.

Are the manufacture's maintenance and parts manuals available for all of the TMX series of engines?

Yes, the current versions of both TCM's and Lycoming manuals are applicable to the TMX series of engines.

Does the TMX series of engines come with a Logbook and Operator's Manual?

Yes, All TMX engines are supplied with an Operator's Manual and new Logbook.

What is the TBO of the TMX series of engines?

TMX 320&360 Series	*2400 Hours*
TMX 240 Series	*2000 Hours*
TMX 200 Series	*1800 Hours*

Is the TMX series of engines convertible for aerobatic use.

All of the Lycoming series of TMX engines are convertible for aerobatic use.

What accessories and components are included with a TMX engine?

All standard engine accessories are included with the engine. Your TMX 320 and,360 series engine will include, propeller governor drive adapter(on constant speed models), propeller governor drive gear(on constant speed models), propeller governor plumbing and attaching hardware(on constant speed models), New Titan Nickel Carbide cylinder assemblies, pressure camshaft lobe and tappet face lubrication on Lycoming style engines, 2 new Slick magnetos, ignition harness and 8 AutoLite spark plugs, 12V Sky Tec lightweight starter, new carburetor or EX fuel injection system, new fuel pump, primer system nozzles and engine primmer plumbing (on carbureted versions), inter-cylinder baffles, dipstick tube and dipstick, oil filter adapter and oil filter, new dynamically balanced VAR crankshaft, deluxe balance and combustion equalization package,, vacuum pump drive adapter and drive, starter gear support and ring gear on Lycoming style engines, engine logbook and operators manual.
The TMX IO-240 and O-200 are also supplied with all standard engines accessories including; magnetos, ignition harness, sparkplugs, carburetor or fuel injection system, fuel pump
(IO-240 models), starter, starter adapter, vacuum pump drive, oil cooler (IO-240 models), air oil separator (IO-240 models) and alternator.
Vacuum pump and prop governor are available at additional cost.

What is the difference between the 180 HP O-360 engines from Lycoming and the TMX O-360 engine?

The two engines are both parallel valve O-360 180 HP engines. On the outside, they both have the same footprint and other than paint scheme, you would be hard pressed to see the difference between them.
Internally there are some differences in features between each of them. The TMX engine differs from a standard Lycoming Engine by including the following features internally:
**Pressure spray camshaft lobe and tappet face lubrication provided from dedicated oil nozzles, to help prevent camshaft lobe spalling issues common to Lycoming style engines.*
**Dynamically balanced VAR crankshaft for engine smoothness and durability.*
**O ringed thru both passages in the crankcase to prevent the common thru bolt oil leaks that occur later in the engines life.*
**Camshaft bearing bore, oil pressure relief notches machined in the crankcase to prevent the common Lycoming backbone oil leak, later in the engine’s life.*
**Nickel Carbide Cylinder bores on standard cam engines, for rust protection, durability and outstanding oil consumption rates.*

**Solid crankshaft nose bore design on fixed pitch models for added strength and removal of some RPM restrictions associated with hollow crankshaft engine models and some fixed pitch propellers.*
**Universal, installer calibrated dipstick, on TMX-320/ 360 engines, for exact custom oil quantity indications regardless of aircraft or application.*
**Positive crankshaft front thrust lubrication to help prevent crankshaft front thrust/crankcase pick up and galling.*
**3 year, from first start up, parts and labor warranty on the complete engine and accessories.*
**Precision dynamic balancing of all reciprocating components.*
**Port flow matching of intake and exhaust ports.*
**Combustion equalizing on all combustion chambers.*

Can I be present while my TMX engine is being built?

No you cannot be present for the assembly of your actual engine. We provide periodic engine assembly workshops at various times of the year. These are one day seminars coving the entire assembly and test process. You are welcome and encouraged to attend one of these seminars. There is no charge for this service.

What are the approximate weights and dimensions of the TMX experimental engines?

*Approximate TMX Engine Series Weights And Dimensions (**H x W x L**):*

TMX O-360 Fixed Pitch (Solid Shaft 180HP):
25"x 33"x 29" 286 Lbs.

TMX IO-360 Fixed Pitch (Solid Shaft 180HP):
24"x 33"x 29" 289 Lbs.(plus 2 LBS for Forward Facing Sump)

TMX O-360 Constant Speed (180 HP) :
25"x 33"x 29"   281 Lbs.

TMX IO-360 Constant Speed (180 HP) :
24"x 34"x 29"   284 Lbs. (plus 2 LBS for Forward Facing Sump)

TMX O-320 Constant Speed (150/160 HP) :
22"x 32.2"x 29"   274 Lbs.

TMX IO-320 Constant Speed (150/160 HP) :
24"x 32.2"x 29"   277 Lbs. (plus 2LBS for Forward Facing Sump)

TMX O-320 Fixed Pitch (150/160 HP) :
22"x 32.2"x 29"   273 Lbs.

TMX IO-320 Fixed Pitch (150/160 HP) :
24"x 32.2"x 29"   276 Lbs. (plus 2LBS for Forward Facing Sump)

TMX O-200 Fixed Pitch (100 HP)
23"x 31"x 28"   215 Lbs.

TMX IO-240 Fixed Pitch (125 HP)
23"x 31"x 29"   240 Lbs.

Is My TMX engine preserved for shipping and storage?

Yes, the engine has been preserved and should be good for 6 months from date of preservation. If the engine is stored in a controlled enviroment..no dramatic temp changes day to day and humidity is controlled, then the preservation will last for a year. If you are not going to use it in that time- frame, the best bet and preferred method would be to run the engine and re-preserve it. If that method is unavailable we recommend you buy a couple of gallons of preservation type oil and an inexpensive pump up garden sprayer. Plug up any open holes that are exposed to the internals of the engine and install the preservation oil less a quart in the engine. Now remove the top spark plugs and get the garden sprayer. Install the last quart of preservation oil into the garden sprayer, set the sprayer nozzle on mist, pump it up and fog the cylinders through the spark plug holes. Turn the engine over a few times manually, using the crankshaft. Re-fog the cylinders and reinstall the top plugs. Don't turn the crankshaft again until you are ready to start the engine or are redoing the entire operation. Now get a few friends and lift the engine up and slowly rotate it counter clockwise around the crankshaft axis. In another words you would lift the engine and hold it as if it were installed in the aircraft, now rotate it as if the plane were in a 90 left bank, now slowly rotate it to inverted and then to a 90* rt. bank and the back to straight and level.....nothing like doing an aileron roll without an airplane! Doing this a couple of times will allow the preservation oil you installed to coat the internal parts of the engine. The engine weighs approximately 260 to 300 pounds, so the friends need to be able to lift and control the engine as you rotate it. You don't have to hold the engine the whole time, if you have some bubble wrap or even several old blankets to pile on the floor, just lift the engine, rotate it and gently set it down for a few seconds on the bubble wrap or blankets. They will spread the weight of the engine evenly across all surfaces they touch.*
You should do this every 4 or 6 months with new preservation oil each time, if in an uncontrolled environment and once a year if in a controlled environment.

Should I install electronic ignition on my TMX360 and what are the differences between the systems?

I guess the answer to that is your own personal preference. There are many, many, 360's out there running with just two mags. They work great and are reliable and safe. However, even when you have a good system, others will try to improve it, that's why *there are alternative systems available. Do those alternatives make the engine more efficient? Probably. Safer? Maybe,maybe not. More reliable? Not necessarily. More expensive to purchase? Most likely. So when you take all the variables, into consideration, it comes down to whether you want electronic ignition or not, what type of redundancy you want, and what you want to spend for it.*

If you want dual electronic ignition, each using the other as the back up you could use two of a system like Lightspeed or some of the others available. If you want 1/2 electronic ignition and 1/2 standard ignition, the only way to do that exactly, is to use a mag on one side and a system like Lightspeed or Emag on the other side. The Lightspeed system adds about $650.00 per side additional, depending on which of their systems you want to use over the standard engine. The Emag Pmag system adds approximately $850.00 per side, over standard ignition. Other electronic ignition possibilities are the Electroair system. Information about these systems is available at their respective web sites: ,www.lightspeedengineering.com, www.emagair.com and www.electroair.net

Do I need extra test cell run time on my new TMX experimental engine to prevent cylinder glazing during my ground testing phase?

There is an article on "Engine Break In" on our website that explains, in laymen's terms, what is actually happening during this phase of the engine's life. It is located at http://www.mattituck.com under the Tech Advice link on the left and is entitled "Engine Break In". It would be best to read that article before proceeding with reading the rest of this, but if that isn't possible, the article, in a nutshell, explains that engine break in, is all about seating the piston rings to the cylinder walls and that the main deterrent, to this process, is heat build up at the ring to cylinder wall interface.

Knowing this crucial information allows us to make practical decisions regarding ground runs and flight profiles from the new or newly overhauled engine point of view.

*To put it simply, if we get the ring to cylinder interface too hot from too hard of running, lack of cooling or another reason we will glaze the cylinder walls and prevent actual break in from occurring. Because, we are dealing with multiple independent cylinders on the engine, these conditions can happen to one cylinder, all cylinders or anything in between on the same engine. So our job above all other aspect of engine operation during the break in phase, is to keep the cylinder's as cool as possible. If we do this we will not have any problems or issues with the engine as far as break in goes. During any and all ground runs we should limit the duration and actual temps we encounter to prevent glazing from happening. We tell our customers to keep all ground runs less than 10 minutes. Don't run the engine above 2000 RPM unless you are doing a momentary full power check, high speed taxi tests or actual take off runs. If the CHT goes above 350*F or the oil temp goes above 180*F at any point during the 10 minute max. duration ground run, or at the expiration of the ten minute time limit, that run should be terminated. Then, park the aircraft faced into the wind and allow the engine to cool, until you can place your hand on the cylinder heads and barrels for 5 seconds without hurting or burning you hand and the cylinders feel relatively cool to the touch. After the engine has cooled, continue with the last run where you left off. Obviously, from what we have learned about temperature, running the engine more conservatively will not cause any* *problems and may even help the break in process but operating within these restrictions, on the ground, should prevent any glazing issues. These limitations apply to an engine that has had a test cell run before any ground runs are attempted. If your engine hasn't had any test cell time, then I can supply you with a ground run schedule, to replace the test cell run, which can be performed on the aircraft. If you want or need that information, just email me privately and I would be happy to send it along.*

When it comes time to fly the aircraft, once again we want to observe the ground run rules, for taxi and warm up. Once we are ready to fly, we want to use full power for take off and initial climb and then we want to reduce power to climb power(normally around 85%) until we reach a safe altitude above the airport. Keep the climbs, as flat as possible, to maintain as much cooling as possible. Remember that heat is our major enemy and we can control that with climb speed. After establishing an appropriate altitude, reduce power to 65% to 75% (preferably 75 % if speed restrictions will allow it). If we see temps, exceeding 15% of our ground run limitations, in initial flights, we should reduce power to control those temps and land the aircraft. Then, double check all cooling associated equipment, repair as necessary if you find a defect, let the engine cool off and fly it again, taking up from where you left off, observing the same restrictions. The first flight shouldn't be any longer than 10 or 15 minutes maximum, even with good cooling that would allow a longer flight. The first flight is a "test flight" and after landing you should do a through visual inspection of the engine and its installation, for leaks and any other operational issues like interference fits that showed up under power, chafing of lines etc. After the first flight issues are checked, we are ready for further flights under the same ground run and flight restriction's we have been observing. The key issue once again is heat. If we control the heat by power setting, airspeed, step climbing or any other means at our disposal we will not glaze the cylinders and we will successfully break the engine in. If we operate the engine at too low of a power setting, to seat the rings, we will not harm the engine or the eventual break in process, unless we develop enough heat to glaze the cylinders. In another words, operation at a low power setting, isn't a deterrent for break in unless we have the heat. The amount of physical time we spend, at too low of a power setting to accomplish ring seating, does increase the available amount of engine operational time, that we could glaze the cylinders from excessive heat but it will not directly cause that heat unless there is something wrong or we screw up. The low power operation, without the heat, doesn't hurt anything, it is just wasted operational time, as far as, break in goes. To put it simply, if we ran the engine for 10 hours at 50% power it is unlikely that we would break the rings in, due to the low BMEP, but it is also unlikely that we would glaze the cylinders if we didn't get the engine and cylinders too hot. If we then operated the engine at 75% power for ten hours we would have the same chance of breaking the engine in successfully as we had before the ten hours at 50% power. But we have to understand, that ten hours at 50 % power is ten hours of, extra, wasted from a break in stand point, operational time where we could do something to cause the excessive heat, that causes glazing, if we weren't paying attention. That is the only risk of low power operation as far as break in is concerned.

If you look at this scenario, you can understand how anyone is able to run an engine, in a test cell for extended periods, when we have new rings. It is because, in a test cell, we can control the cooling and if for some reason we can't, we terminate the runs in the cell to prevent glazing just like you should in the aircraft. If you control the cooling by limiting *run duration or max. temps. encountered, with the engine installed on the aircraft, you are able to run the same as if the engine were in a test cell. Thus, extra cell time, on a new engine, isn't really necessary to prevent glazing.*

How do I start my fuel Injected Lycoming style TMX IO-360?

Procedure for a cold engine:
(1) Set propeller governor control in "Full RPM" position (where applicable).
(2) Turn fuel valve "On".
(3) Open throttle wide open, move mixture control to "Full Rich" turn boost pump on, approximately 3 to 5 seconds, turn boost pump off, then return throttle to "Closed" and return mixture control to "Idle Cut-Off".
(4) Open throttle 1/4 to 1/2 of travel. Keep you hand on the throttle during the staring process to make movement toward the idle position after the engine has started an easy immediate thing to be able to do.
(4) Set magneto selector switch (consult airframe manufacturer's handbook for correct position).
(5) Engage starter.
(6) Engine starts.
(7) Retard throttle towards idle position.
(8) Move mixture control slowly and smoothly to "Full Rich".
(9) Check oil pressure gage. If minimum oil pressure is not indicated within thirty seconds, stop engine and determine trouble.

Procedure for a hot engine that was shut down with in a few minutes ago:
(1) Set propeller governor control in "Full RPM" position (where applicable).
(2) Turn fuel valve "On".
(3) Open throttle wide open, move mixture control to "Full Rich" return throttle to "Closed" and return mixture control to "Idle Cut-Off".
(4) Open throttle 1/4 to 1/2 of travel. Keep you hand on the throttle during the staring process to make movement toward the idle position after the engine has started an easy immediate thing to be able to do.
(4) Set magneto selector switch (consult airframe manufacturer's handbook for correct position).
(5) Engage starter.
(6) Engine starts.
(7) Retard throttle towards idle position.
(8) Move mixture control slowly and smoothly to "Full Rich".
(9) Check oil pressure gage. If minimum oil pressure is not indicated within thirty seconds, stop engine and determine trouble.

Procedure for a hot engine that was shut down more than a couple of minutes ago:
(1) Set propeller governor control in "Full RPM" position (where applicable).
(2) Turn fuel valve "On".
(3) Open throttle wide open, move mixture control to "Full Rich" turn boost pump on, approximately 1 second or less, turn boost pump off, then return throttle to "Closed" and return mixture control to "Idle Cut-Off".
(4) Open throttle 1/4 to 1/2 of travel. Keep you hand on the throttle during the staring process to make movement toward the idle position after the engine has started an easy immediate thing to be able to do.
(4) Set magneto selector switch (consult airframe manufacturer's handbook for correct position).
(5) Engage starter.
(6) Engine starts.
(7) Retard throttle towards idle position.
(8) Move mixture control slowly and smoothly to "Full Rich".
(9) Check oil pressure gage. If minimum oil pressure is not indicated within thirty seconds, stop engine and determine trouble.

What is the Forward Facing Sump and Induction System? Is it available with a Carburetor? What is the comparison to the vertical induction sump?

There are several O-360 models that have a horizontal rear inlet with a carburetor. These engines use a HA-6 horizontal carburetor. The O-360-F1A6 or the O-360-A4K are examples of these. There are no horizontal carbureted engines with the carb facing forward.. All of the TMX 360's with forward facing induction use fuel injection. You can't use a HA-6 carb with forward facing sumps because the bolt pattern for mounting is different between the fuel injector and the HA-6 carb. Likewise, a rear-facing sump that is made for Fuel Injection won't work with a horizontal carb and vice a versa. That isn't the case with vertical sumps. The mounting bolt pattern is the same for both the vertical style 360 carb and Fuel injection. The difference between a vertical carbureted 360 and a vertical Fuel Injected 360 is just weather it's carbureted or fuel injected. The vertically supplied 180HP engines IO or O without the fuel delivery system and fuel pump are exactly the same. The difference between an 180HP experimental horizontal engine and the vertical engine is just the sump and intake pipes. The two common forward facing sumps produce more power because they don't heat up the air going through them, from the hot oil in the sump portion, as the vertical sumps do. Our tests have shown the horsepower difference to be approximately 6.5 to 7 HP more with the horizontal forward facing cold air sump. There are two types of horizontal sump currently manufactured, one is made of a composite plastic the others are made of aluminum. Our tests were conducted

using the aluminum sump but I can't see why the plastic one would yield different results.
If fuel injecting the vertical sump, you should be able to use the same cowl setup as the carbureted version of the engine. The Bendix Fuel injector when mounted is approximately 1 inch shorter than the carbureted version. Installing a spacer between the bottom of the fuel injector and top of the air box will make the height difference non-tangible. The only possible problem is that the mixture control on the fuel injector will need to be anchored, on the engine end, in a non-standard fashion as the mixture lever on the fuel injector is in a different place than on the carburetor. The standard carburetor throttle mount bracing should work OK as the throttle arm on the Bendix fuel servo is in a very similar location when compared to the carburetor

My Carbureted TMX 360 gets rough when I lean it aggressively? Why does a fuel injected engine lean more efficiently than a carbureted engine? Can I run My TMX engine (LOP) lean of peak EGT?

If you are able to experience roughness when leaning the engine, it is indicative that the fuel air mixture to each cylinder isn't even. This is not uncommon on a carbureted engine. With uneven mixture distribution, as you lean, the leanest cylinder will lose power faster and before the others producing a slight power loss and engine operational roughness as that cylinder is making less power than the others. If you were able to continue leaning the engine without experiencing that roughness, it would indicate that the cylinders were receiving an equal fuel air mixture distribution. In other words, no one cylinder starts to misfire worse, than the others, as you remove fuel. Each cylinder loses power at the same rate and the engine stays smooth, to the feel, because the power pulses are the same. When the fuel air distribution to each cylinder is equal, in theory you could lean the engine to the point the cylinders wouldn't fire any longer and the engine would quit but you would never feel the engine get rough. Fuel injected engines deliver the fuel charge directly to the cylinder making the fuel air mixture much closer to a constant, on all cylinders, than a carbureted engine that delivers all of the fuel into the airflow to the cylinders at the carburetor and then lets the engine pull that mixture into the cylinders. This is why the mixture distribution is better on a fuel injected engine than on a carbureted engine. GAMIjectors take this a step further and customize each cylinders fuel injection nozzle size to get the most equal fuel air distribution that is possible between cylinders.
The closer we are with fuel air distribution equality, the more assured we are, that what is happening in one cylinder form a fuel air standpoint is happening in the others. That is, if one cylinder is at peak egt, the others should be too. In a carbureted engine, because of the inequality of the fuel air mixture distribution we are not assured that what is happening in each cylinder is the same and the fact that an engine will run rough when leaning proves that it isn't the same. One cylinder has lost more power than the others because it is leaner than the others and the roughness proves it.

This is why, when we lean an engine, we always want to use the leanest cylinder,.(the one with the least spread between full rich and peak EGT, not necessarily the one with the highest egt) that way we know that when leaning, all of the other cylinders will be richer than the one we are using for reference. If all of the cylinders have equal fuel air distribution than we will not have a leanest cylinder and they will all lean the same. When we lean an engine we raise egt temps until we get to peak. If we are not leaning to the leanest cylinder the egt will be higher than we think on a cylinder we aren't monitoring.
The closer we get the engine to having equal fuel air mixture the more efficiency we breed into the engine. If all cylinders are equal than when we lean they are all the same and thus none are running richer than the others. That being the case, the actual total fuel burn of the engine will be less than that of an engine that has uneven distribution, as the later will have cylinders that are operating richer than the one we leaned to.
The detonation margin of an engine is affected by where we are in the wide fuel air mixture margin that an engine runs in. Just because a cylinder will fire doesn't mean it won't detonate. If we are not far enough rich of peak, at certain power settings, the detonation margin isn't great enough to allow running the engine there. As well, if we aren't lean enough past peak, detonation margins are affected as well. There are other factors that also effect the detonation margin, like air inlet temperature, fuel octane, compression ratio and ignition timing to name a few. Unless you are sure that all cylinders have acceptable detonation margins, it isn't advisable to run the engine leaner than 150 ROP at power setting above 65%. Certainly trying to run a carbureted engine at 50 past peak on any one cylinder will yield other cylinders that are in the no go range as far detonation margin goes. Likewise a very unbalanced fuel injected engine could too. An engine that is very balanced from a fuel air mixture standpoint, with all other variables out of the picture, will make all cylinders have the same detonation margin as the others, allowing confident leaning that will yield operation outside of the areas you don't want to be in. Lycoming feeling on the matter is at 75% power run 150* ROP at 65% and below you can run at peak. If I am not mistaken, I believe GAMI describes the danger zone as the area as between 50* LOP to 150*ROP at 75% power. I believe these numbers or rules apply to standard engines using 100LL. Other factors to a particular engine could affect the basic rule, just because one person with a standard fuel injected engine can run lean of peak doesn't mean someone with higher compression pistons, using electronic ignition can too. You need to really do your homework, have very good instrumentation and understand fully what that instrumentation is telling you, to safely operate the engine LOP. There are many engine operators that I have met, that have studied and understand all of the issues with leaning LOP or operation at peak EGT and have and will continue to successfully operate that way because they can recognize when they shouldn't be doing something that could damage their engine. On the other hand there are many that don't understand what the EGT guage is telling them, have modified engines and are very close to disaster without knowing it. From my experience, some aren't as lucky as others, and they damage or wear their engine prematurely. Aggressive leaning isn't the easiest thing to do safely; it takes understanding and a through understanding of the results ones actions are producing.*

Are TMX Experimental Series Engines available with FADEC systems?

No at the current time, no Aerosance FADEC systems are available for experimental use engine.

Are TMX experimental Series Engines Available with the Mattituck Services REDGOLD Process and Warranty?

All Lycoming style TMX engines are available with the Mattituck Services REDGOLD process and warranty. It is standard and included in the price on all Lycoming style TMX engines.

Are Lycoming Style TMX engine s available with roller tappets?

Yes, they are available in both standard and roller tappet versions.