

SEARCH AIRCRAFT LOG ENTRIES

COMPLETED ON ENTRY DATE	9/19/2022
	9/19/2022

ID	N NUMBER	MAN_DATE	MAKE	MODEL	SERIAL	PERFORMED BY
2	N5424S	1971	PIPER	PA-28-140	28-7125119	JIM DE VRIES
TOPIC	TEARDOWN					

TEARDOWN AND INSPECTION REPORT ON N5424S 9/19/2022

THIS INSPECTION WAS CONDUCTED BY JIM DE VRIES

INITIAL OBSERVATIONS REVEALED A BIRD OR RODENT NEST IN RIGHT REAR CYLINDER # 3.

SHOP AIR WAS INJECTED INTO CYLINDER 4, AND THE DIP STICK WAS REMOVED TO LISTEN FOR AIR SEPAGE, AT THAT TIME OIL GUSHED OUT OF THE OIL FILLER NECK.

THE CYLINDERS WERE REMOVED CLEANED AND WERE FOUND TO HAVE SEVERE COROSION NEAR THE CYLINDER HEAD. THE CYLINDERS WERE HONED TO DETERMINE EXTENT OF THE CORROSION, AND WAS FOUND TO BE IN EXCESS OF THE 10/1000 ALLOWED FOR REBORING.

VALVE SEATS APPEARED TO BE IN USABLE CONDITION. VALVE GUIDES DID NOT SHOW EXCESSIVE WEAR.

ALL FOUR OF THE EXHAUST VALVES SHOWED EXCESIVE CORROSION IN THE VALVE GUIDE CONTACT AREA.

THE INTAKE VALVES APPEARED TO BE IN USABLE CONDITION.

THE CAMSHAFT APPEARED TO BE IN USABLE CONDITION.

THE VALVE LIFTERS SHOWED SCALDING AND PEELING OF THE SURFACES, AND WOULD INDICATE SHEDDING OF SMALL METAL PARTICLES.

THE PISTONS SHOWED CORROSION PITS AFTER BEADBLASTING, BUT APPERAED TO BE USABLE.

PISTON COMPRESSION RINGS WERE CORRODED AND STUCK IN PISTON GROVES, BUT THEY WERE FREED UP.

OIL RINGS WERE SOLIDLLY IMPACTED IN THE PISTON GROVES, AND COULD NOT BE LOSENEED WITHOUT BREACKING. ONE SET EAS BROKEN AND REPLACED WITH A NEW OIL RING. THE OTHER THREE OIL RINGS WERE LEFT IN THE PISTONS IN AN IMPACTED STATE.

AFTER REASEMBLLY, ENGINE WAS RUN UP, FOR APPROXIMATELY ONE MINUETE.

COMPRESSIONS AFTER RUN UP WITH THE ENGINE IN A "COLD" STATE, WERE AS FOLLOWS

CYL 1 18 #

CYL 2 69 #

CYL 3 68 #

CYL 4 59 #