TO M-14P M.S.	TASK CARD No. 231	PAGE (S) 273
M.S. ITEM 073.00.00e, 073.00.03a	PROCEDURE: Check of Fuel System and Carburetor for Leakage under Fuel Pressure of 0.4 to 0.5 kgf/cm^2	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Start and test run the engine (Ref. Task Card No. 201).		
2. Shut down the engine (Ref. Task Card No. 203).		
3. Inspect joints of fuel system pipelines and units. T.R. No fuel leakage is allowed.	Eliminate fuel leakage by tightening connection nuts or replacing sealing rings	
4. Inspect the carburetor, drain plugs, jet plugs. T.R. Traces of sweating and leakage of fuel are not allowed.	Eliminate leakage by replacing gaskets and tightening plugs and connections	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 17x19 UB-24-07 Wrench 14x17 14-232-03 Pliers, flat-nosed 150 Wrench 27x30 7811-0041	Wire, locking K0-0.8

TO M-14P M.S.	TASK CARD No. 232	PAGE(S) 275
M.S. ITEM 073.00.00f	PROCEDURE: Check of Fuel Lines for Proper Attachment	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Check reliable attachment of fuel lines excluding their contact with other parts of the engine. T.R. Contact between the fuel lines and other parts is not allowed. Chafing of fuel lines is not allowed.	Bend away and reattach fuel line Replace chafed fuel line	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Screwdriver 700345 A150x0.5	

TO M-14P M.S.	TASK CARD No. 233	PAGE(S) 277
M.S. ITEM 073.00.01a	PROCEDURE: Check of Fuel Pump Attachment	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Inspect the fuel pump attachment place, make sure its attachment and locking are in good repair. T.R. Loosened attachment and locking are not allowed.	Tighten attachment nuts and lock fuel pump	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 11x14 14-24-861 Screwdriver 700345 A150x0.5 Pliers, flat-nosed 150	Locks, safety

TO M-14P M.S.	TASK CARD No. 234	PAGE(S) 279
M.S. ITEM 073.00.02a	PROCEDURE: Check of Fine Fuel Filter Joints for Leakage	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Make sure there is no leakage through the joints of the fine fuel filter. T.R. Fuel leakage or sweating are not allowed.	Tighten filter attachment nuts	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
Set, ultrasonic	Pliers, flat-nosed 150 Wrench 17x19 UB-24-07 Wrench 19x22 700880-7 Wrench 24x27 700880-8	Wire, locking KO-0.8

TO M-14P M.S.	TASK CARD No. 235	PAGE(S) 281
M.S. ITEM 073.00.03b	PROCEDURE: Check of Carburetor for Proper Attachment and Its Control Linkage Articulated Joints for Serviceability	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Check the carburetor for proper attachment to the engine and check its control linkage articulated joints for serviceability. T.R. Loosening of the carburetor attachment is not allowed. Articulated joints should not play and be reliably locked.	Tighten carburetor attachment nuts Eliminate plays by tightening joint nuts	
2. Check travel of the throttle. T.R. The throttle should open and get closed fully.	Adjust throttle travel (Ref. 073.10.03, Task Card No. 203)	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench, socket 14 UB-24-16 Pliers, flat-nosed 150 Wrench 14x17 14-232-03	

TO M-14P M.S.	TASK CARD No. 236	PAGE(S) 283
M.S. ITEM 074.10.01a	PROCEDURE: Check of Attachment of Magneto to Engine and Wires to Magneto and Spark Plugs	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Check attachment of the magneto to the engine, wires to the magneto and spark plugs. T.R. Loosening of magneto attachment is not allowed. Loosening of attachment of wires to the magneto and spark plugs is not allowed.	Tighten magneto attachment nuts Tighten wire fasteners	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench, socket 14 UB-24-16 Wrench 17x19 UB-24-07 Screwdriver 700346 A200x1 Wrench 19x22 700880-7	

TO M-14P M.S.	TASK CARD No. 237	PAGE(S) 285
M.S. ITEM 074.20.01a	PROCEDURE: Check of Ignition Cable Braids for Condition	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Make sure the ignition cable shielding is not chafed or damaged. T.R. Chafing of and damage to cable shielding are not allowed.	Replace damaged ignition cables	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 19x22 700880-7	

TO M-14P M.S.	TASK CARD No. 238	PAGE(S) 287
M.S. ITEM 074.20.01b	PROCEDURE: Check of Routing of Ignition Harness	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Check routing of ignition harness paying special attention to the contacts with the other parts and gaps between the harness and cylinder cooling fins. T.R. Harness touching the cylinder fins is not allowed.	Turn and secure the harness so that they do not touch cylinder fins	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 19x22 700880-7 Wrench 17x19 UB-24-07 Screwdriver 700345 A150x0.5	

TO M-14P M.S.	TASK CARD No. 239	PAGE(S) 289
M.S. ITEM 074.20.02a	PROCEDURE: Sampling Inspection of Spark Plug Tightening Using Wrench	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Perform sampling inspection of spark plug tightening using a wrench according to the following procedure: (1) Undo the elbows from the spark plugs to be checked (Ref. 074.20.02, Task Card No. 201). (2) Check spark plug tightening with the help of a wrench. T.R. The spark plugs should be reliably tightened. 2. Install the elbows on the spark plugs and tighten them (Ref. 074.20.02, Task Card No. 202). CAUTION: CHECK SPARK PLUG TIGHTENING ON THE COLD ENGINE.	Tighten loosened spark plugs (Ref. 074.20.02, Task Card No. 202)	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench, plug 22 15-32-173 Wrench 19x22 700880-7	

TO M-14P M.S.	TASK CARD No. 240	PAGE(S) 291
M.S. ITEM 080.00.00a	PROCEDURE: Check of Air Line Joints, Drain Cocks and Plugs for Reliable Attachment and Locking	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Check reliable attachment and locking of the air line joints, drain cocks and plugs. T.R. Chafing and traces of leakage are not allowed.	Replace chafed pipeline. Eliminate leakage by tightening connections	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Wrench 11x14 14-24-861 Wrench 14x17 14-232-03 Wrench 17x19 UB-24-07	Wire, locking KO-0.8

TO M-14P M.S.	TASK CARD No. 241	PAGE (S) 293
M.S. ITEM 080.10.00a	PROCEDURE: Check of Reliable Attachment of Compressed Air Distributor, Pipes and Connections for Supply and Discharge of Compressed Air	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Check reliable attachment of the compressed air distributor, pipes and connections for supply and discharge of compressed air. T.R. The compressed air distributor should be reliably attached. Compressed air supply and discharge pipes and connections should be reliably secured.	Secure the compressed air distributor Tighten and secure compressed air supply and discharge pipes and connections	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 9x11 700002 Wrench 11x14 14-24-861 Wrench 14x17 14-232-03 Wrench 19x22 700880-7 Pliers, flat-nosed 150	Wire, locking KO-0.8

TO M-14P M.S.	TASK CARD No. 242	PAGE(S) 295
M.S. ITEM 080.00.00b	PROCEDURE: Check of Compressor for Good Repair and Reliable Attachment	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Check the compressor for good repair. T.R. The bottle air pressure should be at least 50 kgf/cm^2.	(1) Wash compressor filter (Ref. Task Card No. 263). (2) Check inlet valve for easy travel (Ref. Task Card No. 264) (3) Tighten compressor connections	
2. Check the compressor attachment. T.R. The compressor should be properly attached.	Tighten compressor attachment nuts	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 11x14 14-24-861 Wrench 9x11 700002	

TO M-14P M.S.	TASK CARD No. 243	PAGE(S) 297
M.S. ITEM 080.10.00b	PROCEDURE: Check of Starting Valves for Reliable Attachment	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Check attachment of the starting valves and make sure the valves and pipes are free from traces of overheating. T.R. The starting valves should be reliably attached. Traces of overheating on the starting valves and pipes are not allowed.	Secure starting valves Replace starting valves and pipes with traces of overheating	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Wrench 11x14 14-24-861 Wrench 14x17 14-232-03 Wrench 19x22 700880-7	Wire, locking K0-0.8

TO M-14P M.S.	TASK CARD No. 244	PAGE(S) 298.1
M.S. ITEM 072.00.00j	PROCEDURE: Change of Oil	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Unlock and open the cock for draining oil from the oil sump, having fitted a rubber hose to it. 2. Drain oil from the engine to a special vessel. 3. Unlock and open the oil tank drain cock. NOTE: At an ambient temperature of 5 °C and below, heat the engine and oil tank to facilitate oil draining. 4. Close and lock the oil drain cocks. 5. Fill fresh oil. 6. Inspect the oil system visually. T.R. Leakage of oil is not allowed.	Eliminate oil leakage	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Vessel for oil drain Hose, rubber	Wire, locking KO-0.8

TO M-14P M.S.	TASK CARD No. 245	PAGE(S) 298.3
M.S. ITEM 072.00.00k	PROCEDURE: Test Run of Engine after Scheduled Maintenance Operations	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. After accomplishment of scheduled maintenance, start and warm up the engine (Ref. Task Card No. 201). 2. Test run the engine (Ref. Task Card No. 202). 3. Eliminate all troubles detected at test run of the engine.		

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS

TO M-14P M.S.	TASK CARD No. 246	PAGE(S) 298.5
M.S. ITEM 072.30.00e	PROCEDURE: Check of Valve Mechanism Parts for Condition	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Move the cable tensioning wing nuts upwards.		
2. Remove the cables and valve case covers.		
3. Check valve springs for condition.		
4. Visually inspect the valve springs to make sure they are serviceable.		
T.R. Broken springs are not allowed.	Replace broken springs	
5. Check manually the roller on the rocker axle for smooth rotation.		
T.R. The rollers should rotate smoothly without jamming.	If there is gap between roller and valve stem, replace rocker	
6. Check tightening of washers of the valve rocker needle bearings by turning the washers with a screwdriver.		
T.R. The washers should not turn on the rocker axle.	If washer turns, uncotter and tighten nut on rocker axle. Cotterpin nut	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 19x22 700880-7 Wrench 17x19 UB-24-07 Wrench, spark plug 22 15-32-173 Screwdriver 700346 A200x1	Rings, sealing Locks from individual SPTA set

TO M-14P M.S.	TASK CARD No. 247	PAGE(S) 298.7 - 298.9
M.S. ITEM 072.30.00f	PROCEDURE: Check of Clearance between Rocker Rollers and Valve Stem Ends	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Lift the cable tensioning wing nuts upwards.		
2. Remove the cables and valve case covers.		
3. Undo the union nuts for attachment of ignition cable elbows to front spark plugs.		
4. Drive out the front spark plugs (Ref. 074.20.02, Task Card No. 201).		
5. Turn the engine crankshaft by the airscrew in its normal direction.		
6. Set the piston to the compression stroke TDC in cylinder No. 1. NOTE: With such a position of the piston in cylinder No. 1 both valves should be closed and the rockers should move easily by hand.		
7. Push the rocker arm on the adjustment screw side and check clearance between the rocker roller and the inlet valve stem with a feeler gauge.		
8. Also check a clearance between the roller and the stem of the exhaust valve. T.R. Clearance should be $(0.3^{+0.15}_{-0.10})$ mm on the cold engine. If clearance is more than 0.45 mm or less than 0.2 mm, readjust it to set 0.3 mm.	Adjust clearance as instructed in Items 9 through 12	
9. Undo the adjustment screw locking nut for 1 to 1.5 turns.		

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
10. Install wrench 10-32-07 in the adjustment screw slot and while turning it clockwise or counterclockwise, set clearance indicated in Item 8. 11. Tighten the locking nut with wrench 14-24-660 supporting the adjustment screw with wrench 10-32-07. 12. Recheck clearance between the rocker roller and the valve stem. 13. Turn the engine crankshaft and repeat operations under Items 6 through 12 for cylinders Nos 2 through 9. CAUTION: 1. WHEN PERFORMING OPERATIONS, PAY SPECIAL ATTENTION TO RELIABLE LOCKING OF THE ROCKER ADJUSTMENT SCREWS. LOOSENING OF LOCKING WILL INCREASE THE CLEARANCES WHICH MAY CAUSE FAILURE OF THE TIMING MECHANISM PARTS. 2. WHEN UNDOING AND TIGHTENING THE ROCKER ADJUSTMENT SCREW NUT WITH THE VALVE IN THE CLOSED POSITION, THE VALVE MAY SINK AND THE TAPPET END MAY LEAVE ITS SEAT. TO AVOID FALLING OUT OF THE TAPPET END FROM THE SEAT, UNDO AND TIGHTEN THE ROCKER ADJUSTMENT SCREW LOCKING NUTS OF THE INLET AND EXHAUST VALVES WITH THE LATTER BEING IN THE FULLY OPEN POSITION. 3. NEVER TURN THE ENGINE CRANKSHAFT WITH THE ROCKER SCREWS DRIVEN OUT FOR MORE THAN A HALF OF THREADED PART (10 mm FROM THE ROCKER SURFACE) TO AVOID BREAKAGE OF THE TAPPET ENDS. 14. Wash the valve case covers in clean gasoline. 15. Install sealing gaskets on the valve case covers. 16. Install the covers on the cylinder valve cases.		

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
17. Fit the cover attachment cables and lower the wing nuts with the stops downwards using a special wrench. T.R. The valve case cover cables should be properly tightened.	If the cables sag, lift the wing nut upwards to the stop, unscrew it to obtain required tension of the cable and lower the wing nut from the stop	
18. Install the front spark plugs (Ref. 074.20.02, Task Card No. 202).		
19. Connect the elbows to the front spark plugs (Ref. 074.20.02, Task Card No. 202).		

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Wrench, adjustment 10-32-07 Feeler gauge No. 2 Wrench 17x19 UB-24-07 Wrench 14x17 14-232-03 Wrench 19x22 700880-7 Wrench 22 15-32-173 Screwdriver 700346 A200x1	Gasoline Nefras-S 50/170 or BR-1, BR-2 Cloths

TO M-14P M.S.	TASK CARD No. 248	PAGE(S) 298.11
M.S. ITEM 072.30.00g	PROCEDURE: Check of Cylinder Compression	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Remove all the front spark plugs (Ref. 074.20.02, Task Card No. 201). 2. Screw the pressure gauge into the spark plug hole of the cylinder under check. 3. Turn the airscrew smoothly without jerks. 4. Watch pressure gauge readings. T.R. If compression is normal, the pressure gauge should read 3.5 to 5 kgf/cm^2. NOTE: Check compression on a warm engine at a cylinder head temperature of 40 to 60 °C. 5. Repeat operations under Items 2 through 4 for all the cylinders. 6. Drive out the pressure gauge. 7. Install all the front spark plugs (Ref. 074.20.02, Task Card No. 202).	If compression is less than 3.5 kgf/cm^2, replace cylinder or worn piston rings	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
Pressure gauge	Wrench 19x22 700880-7 Wrench, spark plug 22 15-32-173 Wrench 17x19 UB-24-07	

TO M-14P M.S.	TASK CARD No. 249	PAGE(S) 298.13, 298.14
M.S. ITEM 072.50.00d	PROCEDURE: Inspection and Washing of Engine Rear Cover Mesh Filter	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Unlock the mesh filter on the engine rear cover.		
2. Undo the filter.		
3. Check the filter for condition by external inspection.		
T.R. Damage to the filter is not allowed.	Replace the filter with damaged mesh	
4. Make sure oil is free from metal particles.		
T.R. Presence of metal particles in oil is not allowed.	Find and eliminate the cause of metal particles getting in oil	
5. Wash the filter in clean gasoline and blow with dry compressed air.		
6. Reinstall the filter.		
7. Tighten and lock the filter.		
8. Inspect the filter location places.		
T.R. Oil leakage is not allowed.	Tighten and relock the filter	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Wrench, socket 36 14-24-620	Gasoline Nefras-S 50/170 or BR-1, BR-2 Air, compressed Wire, locking KO-0.8

TO M-14P M.S.	TASK CARD No. 250	PAGE(S) 298.15, 298.16
M.S. ITEM 072.50.00e	PROCEDURE: Inspection and Washing of Filter with Chip Detector	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Drain oil from the engine and oil sump (Ref. Task Card No. 215).		
2. Unlock and undo the filter wire attachment nut.		
3. Unlock and undo three filter with chip detector attachment nuts.		
4. Remove the filter with chip detector.		
5. Inspect the filter with chip detector to make sure it is free from metallic particles.		
T.R. Metallic particles on the filter are not allowed.	Detect and eliminate the cause of metallic particles getting in oil	
6. Wash the filter with chip detector with clean unleaded gasoline and then in a special solution of 80 % alcohol and 20 % glycerine.		
7. Clean the filter with a brush and blow with dry compressed air.		
8. Reinstall the filter with chip detector.		
9. Install and lock the filter attachment nuts.		
10. Install and lock the wire attachment nut.		
NOTE: Prior to installing the filter, check the filter with chip detector internal and external circuits for continuity (Ref. Task Card No. 253).		

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
11. Fill fresh oil into the engine (Ref. Task Card No. 215). 12. Start and test run the engine (Ref. Task Card No. 201). 13. Check the filter with chip detector joints for leakage. T.R. Oil leakage is not allowed.	Eliminate oil leakage	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Wrench 9x11 700002	Gasoline Nefras-S 50/170 or BR-1, BR-2 Mixture, alcohol-glycerine Brush, hair Air, compressed

TO M-14P M.S.	TASK CARD No. 251	PAGE(S) 298.17
M.S. ITEM 072.50.00f	PROCEDURE: Inspection and Washing of Speed Governor Oil Supply Filter	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Unlock and undo the speed governor oil supply filter.		
2. Inspect the filter and make sure it is free from metallic particles. T.R. Metallic particles are not allowed.	Detect and eliminate the cause of metallic particles getting in oil	
3. Wash the filter in clean gasoline and blow with dry compressed air.		
4. Screw on and lock the filter.		
5. Start and test run the engine (Ref. Task Card No. 201).		
6. Check filter joints for leakage. T.R. Leakage of oil through filter joint is not allowed.	Eliminate leakage by tightening filter or replacing gasket	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Wrench 17x19 UB-24-07	Gasoline Nefras-S 50/170 or BR-1, BR-2 Air, compressed Wire, locking KO-0.8

TO M-14P M.S.	TASK CARD No. 252	PAGE(S) 298.19
M.S. ITEM 072.50.00g	PROCEDURE: Washing of Inlet Oil Filter	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Unlock and undo the filter. 2. Inspect the filter to make sure it is free from metallic particles. T.R. Metallic particles in oil are not allowed. 3. Wash the filter in clean gasoline and blow with dry compressed air. 4. Screw on and lock the filter.	Detect and eliminate the cause of metallic particles getting in oil	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Wrench 36 14-24-620	Gasoline Nefras-S 50/170 or BR-1, BR-2 Air, compressed Wire, locking KO-0.8

TO M-14P M.S.	TASK CARD No. 253	PAGE(S) 298.21
M.S. ITEM 072.50.00h	PROCEDURE: Check of Filter with Chip Detector Internal Circuit for Continuity	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Remove the filter with chip detector from the engine: (1) Open the oil sump drain cock and drain oil. (2) Undo three filter with chip detector body attachment nuts. (3) Wash the filter with chip detector with clean unleaded gasoline. (4) Connect the terminal to the filter, interconnect the plate set and close the filter mesh to ground. T.R. The warning lamp on the panel should come on. 2. Reinstall the filter with chip detector and screw on its attachment nuts. 3. Connect the terminal and fit rubber boot.	Replace defective filter with chip detector or detect and eliminate trouble in filter circuit	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 9x11 700002 Pliers, flat-nosed 150	Gasoline Nefras-S 50/170 or BR-1, BR-2 Wire, locking KO-0.8 Brush, hair

TO M-14P M.S.	TASK CARD No. 254	PAGE(S) 298.23
M.S. ITEM 072.50.00i	PROCEDURE: Washing of Engine Oil Lines with Clean Unleaded Gasoline	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Drain oil from the engine and oil tank (Ref. Task Card No. 244). 2. Unlock and disconnect the supply and return oil hoses from the engine oil pump. 3. Wash the oil lines, oil tank and oil cooler after draining oil with clean unleaded gasoline. 4. Connect the oil hoses to the oil pump and lock them. 5. Fill fresh oil in the oil tank and engine. 6. Start the engine (Ref. Task Card No. 201). 7. Inspect the oil line joints. T.R. Oil leakage is not allowed.	Eliminate leakage	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150	Gasoline Nefras-S 50/170 or BR-1, BR-2 Wire, locking KO-0.8

TO M-14P M.S.	TASK CARD No. 255	PAGE(S) 298.25
M.S. ITEM 072.70.00a	PROCEDURE: Drainage of Oil from Generator Drive	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Unlock and drive the plug out of the generator drive body. 2. Drain oil from the drive. 3. Reinstall and lock the plug. NOTE: Drain oil from the generator drive on a warm engine. 4. Start and test run the engine (Ref. Task Card No. 201). 5. Inspect the plug location place. T.R. Oil leakage is not allowed.	Eliminate leakage by tightening plug	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench, flat 11x14 14-24-861 Screwdriver 700345 A150x0.5 Pliers, flat-nosed 150	Wire, locking K0-0.8

TO M-14P M.S.	TASK CARD No. 256	PAGE(S) 298.27
M.S. ITEM 072.70.00b	PROCEDURE: Drainage of Oil from Magneto Drives	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Unlock and drive out the plugs on the rear cover near the magneto drives. 2. Drain oil. 3. Reinstall and lock the plugs. 4. Start and test run the engine. 5. Check the plugs for leakage. T.R. Oil leakage is not allowed. NOTE: Drain oil from the magneto drives on a warm engine.	Tighten and relock the plugs to eliminate leakage	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Screwdriver 700345 A150x0.5 Wrench 11x14 14-24-861	Wire, locking K0-0.8

TO M-14P M.S.	TASK CARD No. 257	PAGE(S) 298.29, 298.30
M.S. ITEM 073.00.03c	PROCEDURE: Replacement of Filtering Element in Fuel Fine Filter 8D5.886.027	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
CAUTION: WHEN PERFORMING SCHEDULED MAINTENANCE, PRECLUDE CONTAMINATION OF THE FILTER INTERIOR. IT IS STRICTLY PROHIBITED TO DISASSEMBLE THE FILTER UNLESS FOR REPLACING THE FILTERING ELEMENT. 1. Make sure there is no gasoline pressure in the fuel system. 2. Unlock and undo cover (2) of the filter (Ref. 073.10.02, Fig. 1). 3. Remove filtering element (3) from the filter body, protecting it against knocks. 4. Wash the filter body interior with working fluid. 5. Depreserve (Ref. 073.10.02, Task Card No. 201) and install a clean filtering element from the individual SPTA set. 6. Replace rubber sealing rings (4), (8), (10) with new ones taken from the SPTA set. 7. Install the cover, lock and seal it. 8. Check the fuel for leakage by filling fuel system with fuel, building up operating pressure in it and inspecting the joint externally. Determine tightness by absence of stains on filtering paper. 9. Place the removed filtering element in PVC bag, pack in a cardboard box and send for ultrasonic cleaning.		

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
10. Wash the filtering element soiled in operation and check it for leakage according to the effective instructions. 11. Check the filtering element for leakage at an air pressure of 120 mm of water column. 12. Check quality of filtering element washing. The time of filtering element filling with gasoline Nefras-S 50/170 or BR-1, BR-2 is not above 3 s as against instrument PKF.		

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
Instrument PKF	Bath Stopwatch Pliers, flat-nosed 150 Wrench, box 9x11 700002 Wrench, socket 9 14-24-640 Wrench, flat 24x27 700880-8 Adapter 600/015-47 Plug 8D8.632.203 Ring, sealing 2262A-16-2	Wire, locking KO-0.8 Filtering element with Certificate Ring, sealing,from individual SPTA set Gasoline Nefras-S 50/170 or BR-1, BR-2 Paper, filtering

TO M-14P M.S.	TASK CARD No. 258	PAGE(S) 298.31
M.S. ITEM 073.00.03d	PROCEDURE: Inspection and Washing of Carburetor Fuel Filter	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Close the fuel shut-off valve. 2. Unlock and undo the carburetor fuel filter. 3. Wash the filter in clean gasoline. 4. Blow the filter with dry compressed air. 5. Install and lock the carburetor fuel filter. 6. Check the fuel system for leakage (Ref. Task Card No. 231).		

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Wrench 11x14 14-24-861	Gasoline Nefras-S 50/170 or BR-1, BR-2 Wire, locking KO-0.8 Air, compressed

TO M-14P M.S.	TASK CARD No. 259	PAGE(S) 298.33 - 298.35
M.S. ITEM 073.00.03e	PROCEDURE: Accomplishment of Carburetor Scheduled Maintenance according to Carburetor Maintenance Manual	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Close the fuel shut-off valve in the pilot's cabin. 2. Unlock and undo the fuel filter. 3. Check the fuel filter for cleanliness. 4. Wash the filter in clean gasoline and blow it with dry compressed air. 5. Install and lock the fuel filter. 6. Unlock and undo the carburetor air filter (Ref. 073.10.03, Fig. 202). 7. Wash the filter in clean gasoline and blow it with dry compressed air. 8. Install and lock the air filter. 9. Unlock and drive out the fuel chamber drain plugs (Ref. 073.10.03, Figs 201, 202). 10. Drain sediment from the fuel chamber through the drain plugs. 11. Install and lock the drain plugs. 12. Unlock and undo the suction jet plug. 13. Drive out the suction jet. 14. Wash the suction jet with gasoline and blow with compressed air.		

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
15. Reinstall the suction jet.		
16. Install and lock the suction jet plug.		
17. Measure the initial position of the altitude control needle and adjust it if necessary (Ref. 073.10.03, Task Card No. 206).		
18. Unlock and undo the plugs of the breathing holes in the aneroid space and acceleration pump (Ref. 073.10.03, Fig. 202).		
19. Check breathing hole cleanliness. T.R. Clogging of the breathing holes is not allowed.	Clean and wash breathing holes with clean gasoline	
20. Tighten and lock the breathing hole plugs.		
21. Check and restore all broken locks of the carburetor.		
22. Start and test run the engine (Ref. Task Card No. 201).		
23. Inspect the carburetor and its joints visually. T.R. Fuel leakage is not allowed.	Detect and eliminate fuel leakage	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Pliers, flat-nosed 150 Wrench 14x17 14-232-03 Wrench 19x22 700880-7 Screwdriver Syringe UB-24-05 Wrench 11x14 14-24-861 Template Wrench 7x9 700880-2	Gasoline Nefras-S 50/170 or BR-1, BR-2 Brush, hair Wire, locking KO-0.8

TO M-14P M.S.	TASK CARD No. 260	PAGE(S) 298.37 - 298.40
M.S. ITEM 074.10.01b	PROCEDURE: Accomplishment of Magneto Scheduled Maintenance according to Magneto Maintenance Manual	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Drive out three magneto shield attachment screws.		
2. Drive out four magneto pipe attachment screws.		
3. Remove the distributor and carefully move it aside so as not to damage high-tension cable.		
4. Carry out the following operations to check operability of the magneto assemblies.		
(1) Check all screw joints of the breaker.		
T.R. Breaker screw joints should be reliably tightened.	Tighten loosened screws of breaker mechanism	
(2) Check rotation of the breaker mechanism arm on its pivot.		
T.R. The arm should rotate smoothly without jamming.	Eliminate jamming of arm on its pivot	
(3) Measure the breaker contacts gap (Ref. 074.10.01, Task Card No. 203).		
T.R. The gap should be from 0.25 to 0.35 mm.	Adjust gap to be from 0.25 to 0.35 mm	
(4) Burnish the contacts in case of soiling or oiling, wipe them with chamois or clean cloth moistened in clean alcohol.		
T.R. Oiling and soiling of contacts are not allowed.	Burnish and wipe contacts	
(5) Adjust the gap to be from 0.25 to 0.35 mm (Ref. 074.10.01, Task Card No. 203).		
NOTE: Make an entry in the magneto Certificate after each adjustment of breaker contacts.		

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
(6) Inspect metal surfaces of parts and assemblies located in the breaker mechanism space. If runs of oil or oil films are detected, remove them with a clean cloth moistened in clean rectified alcohol and squeezed dry.		
(7) Coat the breaker spring with a thin layer of turbine oil avoiding runs. CAUTION: 1. SEE TO IT THAT OIL DOES NOT GET ONTO THE BREAKER CONTACTS. 2. LUBRICATE THE SPRING ALSO AFTER DEPRESERVING THE MAGNETO.	Ref. Item (13)	
(8) Check presence and intactness of distribution mechanism contact spring in the distributor cover seat for leading of high tension.		
(9) Check the carbon knob with spring for condition. T.R. Contact spring should be free from damage.	Replace damaged parts with new ones taken from individual SPTA set.	
Soiling of the distributor and rotor is not allowed.	Remove soiling from rotor and distributor with clean dry chamois	
(10) Check high-tension leads and terminals in the upper cover. T.R. Damage is not allowed.	Replace damaged parts with new ones taken from individual SPTA set	
(11) Check the transformer: (a) Drive out the upper cover attachment screws and remove it. (b) Make sure the transformer does not move and check quality of transformer attachment screw tightening with a screwdriver. If the transformer attachment screws are loosened, perform the following operations: Unbend the lock washer tab from the screw face, undo the screw, replace the lock washer.		

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
Tighten the screw fully with a screwdriver. Bend one of the lock washer tabs so that it tightly contacts the screw face. (c) Install the upper cover on the magneto, secure its attachment screws to the body. If transformer attachment screw thread is stripped, replace the screw. T.R. Stripping of thread on attachment screws cannot be tolerated.	Replace screws with stripped thread with new ones from individual SPTA set	
(12) Check attachment of the rotor to the cam. T.R. Stripping of thread on attachment screws is not allowed.	Replace screws with stripped thread with new ones taken from individual SPTA set	
(13) Inspect the cam. T.R. Soiling of the cam surface is not allowed.	Wipe cam with chamois or clean calico cloth moistened in clean rectified alcohol	
(14) Apply a thin layer of turbine oil T22 to the working surface of the cam. T.R. Runs of oil and getting of it onto contacts, surfaces of other parts cannot be allowed.	Remove oil runs with chamois or clean calico cloth	
(15) Fill two droplets of turbine oil T22 into the lubricator.		

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
5. Drain oil from the magneto drives (Ref. Task Card No. 356). 6. Install the distributor. 7. Install the magneto pipe. 8. Install the magneto shield. 9. Drive home the attachment screws.		

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 11x14 14-24-861 Screwdriver 700345 A150x0.5 Pliers, flat-nosed 150 Rule	Oil, turbine T22 Cloths Alcohol, rectified Chamois or cloth, calico

TO M-14P M.S.	TASK CARD No. 261	PAGE(S) 298.41, 298.42
M.S. ITEM 074.20.02b	PROCEDURE: Accomplishment of Spark Plug Scheduled Maintenance according to Spark Plug Maintenance Manual	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. On expiration of spark plug life till first regapping, remove the spark plugs from the engine (Ref. 074.20.02, Task Card No. 201). 2. Wash the spark plug center electrode space with clean gasoline and dry in air. When washing, immerse only spark plug threaded portion into gasoline. 3. Clean the spark plug center electrode space of carbon deposit and lead fouling on sandblasting device OSP-1 of tester "Iskra" according to the tester Operating Instructions. 4. After sandblasting the spark plug center electrode space blow it with clean dry air at a pressure of 4 to 5 kgf/cm^2. 5. Wipe the inner surface of the shield of the wet spark plug with a clean dry cloth and dry the spark plug at a temperature of 120 to 130 °C for 1.5 h. 6. Check the plug for spark and leakage on unit PPE-1 of tester "Iskra" according to the tester Operating Instructions or on a special set. NOTE: Spark plug damping resistance is not subject to test in service. 7. Carefully inspect the insulator tip. T.R. Cracked tips are not allowed.	Replace spark plugs with cracked tips	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
8. Check the gap between the central and side electrode with a 0.4-mm feeler gauge and regap the spark plug if necessary. Carry out regapping only on special fixture RIP-1 of tester "Iskra". No other regapping methods are allowed. CAUTION: WHEN REGAPPING, NEVER INSERT THE GAUGE INTO THE GAP AND PRESS THE CENTRAL ELECTRODE, OTHERWISE DAMAGE TO THE CENTRAL ELECTRODE OR CERAMIC INSULATOR NOSE MAY RESULT. 9. Install the tested spark plugs on the engine (Ref. 074.20.02, Task Card No. 202). NOTE: The spark plugs removed from the engine can be reinstalled on the engine till complete expiration of service life if they operate on the tester at a pressure of at least 8 kgf/cm^2 without regapping. 10. Install the plug elbows (Ref. 074.20.02, Task Card No. 202).		

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
Tester "Iskra"	Wrench, spark plug 22 15-32-173 Wrench 19x22 700880-7 Feeler gauge, special	Gasoline Nefras-S 50/170 or BR-1, BR-2 Cloths

TO M-14P M.S.	TASK CARD No. 262	PAGE(S) 298.43
M.S. ITEM 080.00.00c	PROCEDURE: Check of Compressor Attachment	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Check compressor attachment. T.R. The compressor should be reliably attached. 2. Drain condensate from the air system filter sump (blow the pipe in cold weather).	Tighten compressor attachment nuts	

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 11x14 14-24-861 Wrench 9x11 700002 Wrench 17x19 UB-24-07	

TO M-14P M.S.	TASK CARD No. 263	PAGE(S) 298.45
M.S. ITEM 080.00.00d	PROCEDURE: Replacement of Compressor Filtering Element	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Remove the spring lock and hold-down mesh. 2. Remove the filtering element and the other mesh of the compressor. 3. Wash all the removed parts in clean unleaded gasoline. 4. Dry the parts with dry compressed air. 5. Reinstall the meshes and new filtering element taken from the SPTA set. 6. Lock the meshes and filtering element with a spring lock; place the lock with convex part facing the mesh. 7. Make sure of reliable locking.		

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Screwdriver 700346 A200x1	Gasoline Nefras-S 50/170 or BR-1, BR-2 Air, compressed Element, filtering

TO M-14P M.S.	TASK CARD No. 264	PAGE(S) 298.47
M.S. ITEM 080.00.00e	PROCEDURE: Check of Compressor Inlet Valve for Easy Travel	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Carry out operations under Task Card No. 263, Items 1 through 4. 2. Push the compressor inlet valve with hand. NOTE: The inlet valve should move freely without jamming. 3. Carry out operations under Task Card No. 263, Items 5 through 7.		

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Screwdriver 700345	

TO M-14P M.S.	TASK CARD No. 265	PAGE(S) 298.49
M.S. ITEM 080.00.00f	PROCEDURE: Washing of Compressor Delivery Valve	

OPERATIONS AND TECHNICAL REQUIREMENTS	CORRECTIVE ACTIONS	CHECKED BY
1. Remove the compressor delivery valve. 2. Disassemble the valve and clean the valve parts of coking products. Wash with gasoline and blow with dry compressed air. 3. Assemble the valve and reinstall it. Install new gaskets AK-05001, AK-05002 and AK-05003 taken from the individual SPTA set.		

TEST EQUIPMENT	TOOLS AND FIXTURES	MATERIALS
	Wrench 700880-7	Gasoline Nefras-S 50/170 or BR-1, BR-2 Gaskets from individual SPTA set Air, compressed

ENGINE M-14P - REMOVAL/INSTALLATION

1. LIST OF TASK CARDS

Title	Task Card No.
Unpackaging of New Engine	401
Depreservation of Engine under Field Conditions	402
Removal of Engine from Airplane	403
Installation of Engine on Airplane	404

ENGINE M-14P - REMOVAL/INSTALLATION

1. LIST OF TASK CARDS

Title	Task Card No.
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