JET ENGINE SUPERINTENDENT

1. **SPECIALTY SUMMARY:** Supervises installation, removal, repair, maintenance, test and modification of turboprop engines and jet engines. Directs aircraft engine maintenance activities.
2. **DUTIES AND RESPONSIBILITIES:**
a. **PLANS AND ORGANIZES AIRCRAFT PROPULSION MAINTENANCE ACTIVITIES:**
(1) Plans and organizes repair and maintenance activities.
(2) Determines requirements for aircraft engine repair and maintenance personnel, evaluates qualifications of airmen and assigns personnel to unit positions.
(3) Improves work methods and procedures to ensure best utilization of personnel and economy of operation by means such as establishing production controls and quality standards.
(4) Analyzes reports on repair, overhaul, inspection and testing of aircraft engines, modules and related equipment.
(5) Manages use and control of space, equipment, time and supplies allotted to aircraft engine maintenance activities.
(6) Requisitions and accounts for equipment, space, supplies and other facilities required for efficient operation.
b. **DIRECTS AIRCRAFT PROPULSION MAINTENANCE ACTIVITIES:**
(1) Checks methods used in disassembly, inspection, repair, testing and modification of aircraft engine, modules and related equipment.
(2) Assigns engine maintenance personnel specific functions such as testing or repairing engines and modules.
(3) Evaluates work performed in terms of compliance with directives, policies and work standards.
(4) Controls work flow and improves processing of aircraft engine repair by instituting methods of arranging and utilizing equipment, tools and personnel and improving operating procedures.
(5) Observes performance of functions such as testing, inspection, modification, and repair.
(6) Ensures conformance with prescribed standards of quality and safety.
(7) Supervises preparation and maintenance of records and reports incident to engine repair, inspection, workload and replacement of parts.
(8) Determines type and extent of repairs required, considering time requirement for parts and loss of engine use.
c. **SUPERVISES AND CONDUCTS TRAINING:**
(1) Plans and conducts conferences, classes of instruction on inspection, repair and modification of aircraft engines and related equipment.
(2) Rotates assignment of engine maintenance personnel on various components to ensure opportunity for full qualification and to improve use of assigned personnel.
(3) Arranges for attendance of selected individuals at factory

familiarization course and specialized training.
(4) Demonstrates new equipment and indoctrinates newly assigned personnel in local policies and procedures.
d. **INSPECTS AND EVALUATES AIRCRAFT PROPULSION MAINTENANCE ACTIVITIES:**
(1) Conducts periodic inspections of engine repair functions and maintenance unit to determine operational status and to assist in solving maintenance, supply and personnel problems.
(2) Serves on teams organized to inspect aircraft engine maintenance and repair operations.
(3) Contributes to or serves on committees or boards set up to accomplish research and development on aircraft engine maintenance methods and procedures.
e. **PERFORMS TECHNICAL AIRCRAFT PROPULSION MAINTENANCE FUNCTIONS:**
(1) Resolves technical problems and interprets technical publications that apply to assembly, installation, removal, inspection maintenance, repair and modification of engine components.
(2) Troubleshoots engines and related systems, isolates malfunctions, examines faulty components and determines feasibility of repair or need to submit material deficiency report.
3. **SPECIALTY QUALIFICATIONS:**
a. **KNOWLEDGE:** Knowledge of mechanical principles that apply to aircraft engines, principles of oil analysis, wear metal criteria, and guidelines; concepts and application of series and supporting publications, interpretation of wiring diagrams, blueprints and technical publications is mandatory.
b. **EXPERIENCE:** Qualification as a 25270 and experience in directing functions such as inspection, repair, testing or modification of aircraft engines are mandatory.
c **TRAINING:**
(1) Reading and writing for supervisor course.
(2) Management principles course.
d. **OTHER:**
(
JET ENGINE MAINTENANCE
1. **SPECIALTY SUMMARY:** Inspects, removes, installs, trouble-shoots, repairs, maintains, tests and modifies jet, turbo jet, turbo fan and small gas turbine engines; maintains associated equipment; and supervises jet engine activities.
2. **DUTIES AND RESPONSIBILITIES:**
a. **ADVISES ON TECHNICAL PROBLEMS OF REPAIR AND MAINTENANCE OF TURBO JET TURBO FAN AND JET ENGINES:**
(1) Solves maintenance problems by studying layout drawings, diagrams, blueprints and wiring and schematic diagrams and analyzing construction and operating characteristics of jet engines, including small gas turbine engines.
(2) Determines repair procedures necessary to correct defective equipment.
(3) Interprets installation and maintenance policies and procedures

related to jet engine repair.
(4) Diagnoses recurring malfunctions and recommends corrective action by initiation of material deficiency reports or by other appropriate means.
(5) Devises new maintenance and operating procedures and recommends revised policy to facilitate full utilization of personnel and equipment.

b. **REMOVES, INSTALLS, INSPECTS, REPAIRS AND MODIFIES JET ENGINES, INCLUDING SMALL GAS TURBINE ENGINES:**

(1) Diagnoses malfunctions using technical publications and performs repair.
(2) Determines extent of disassembly necessary to repair or replace engine parts.
(3) Inspects engine components using visual inspection methods. Analyzes inspection findings to determine extent of repair.
(4) Repairs engines by replacing parts and removing defects such as nicks, dents, scratches and burrs.
(5) Assembles engines, adhering to prescribed procedures, torque values, safety methods and clearances.
(6) Modifies engines according to technical directives.
(7) Removes and installs engine quick change kit.
(8) Prepares engine for installation and installs in aircraft.
(9) Makes repairs to internal turbines.
(10) Conducts tests of repaired components using bench mockups and related test equipment.
(11) Adjusts, aligns and calibrates jet engines and their components to achieve maximum operating efficiency consistent with design characteristics.

c. **PERFORMS AND SUPERVISES TEST STAND FUNCTIONS ON AIRCRAFT JET, TURBO JET AND TURBO FAN ENGINES:**

(1) Performs test functions by placing engines on test stands and installing test equipment and making necessary connections.
(2) Performs pre-operational and post-operational checks.
(3) Operates engine and performs engine tests according to applicable directives and records test data on log sheet.
(4) Determines engine performance by computing engine thrust, specific fuel consumption, engine RPM and exhaust gas temperature.
(5) Evaluates engine performance and accepts or rejects engine.
(6) Removes engines from test stand and prepares them for installation or storage.
(7) Accomplishes operator maintenance on test stand.
(8) Observes and ensures compliance with established safety procedures.

d. **INSPECTS JET ENGINES AND RELATED EQUIPMENT:**

(1) Inspects jet engines to determine operational status.
(2) Interprets inspection findings and determines adequacy of corrective action.

(3) Inspects installed and repaired jet engines and components with technical publications.

e. **SUPERVISES JET ENGINE MAINTENANCE PERSONNEL:**

(1) Establishes work methods, production controls and performance standards.

(2) Plans and schedules work assignments and establishes priorities for accomplishing work.

(3) Ensures maintenance equipment, tools, parts and test equipment are available.

(4) Ensures assigned support equipment is serviceable.

(5) Initiates and reviews maintenance data records.

(6) Assigns repair and maintenance functions to subordinates and evaluates their performance in terms of compliance with operational policies, maintenance procedures and technical orders.

(7) Conducts or supervises on-the-job training programs and instructs subordinates in maintenance techniques.

(8) Rotates assignment of jet engine mechanics on various maintenance tasks to ensure opportunity for full qualification and to improve utility of assigned airmen.

(9) Reviews training status to determine level of qualification achieved by individuals and units.

3. **SPECIALTY QUALIFICATIONS:**

a. **KNOWLEDGE:** Knowledge of mechanical principles that apply to jet engines, principles of oil analysis, wear metal criteria and guidelines; concepts and application of RSAFM 66 series and supporting publications, use and interpretation of wiring diagrams, blueprints and technical publications is mandatory.

Restricted

b. **EDUCATION:** A 12th grade education with courses in mechanics or mathematics is desirable.

c. **EXPERIENCE:**

(1) Experience in performing or supervising functions such as repair, modification or testing of jet engines is mandatory prior to the award of the 5-level AFSC.

(2) Experience in maintenance of airframes is desirable.

d. **TRAINING:**

(1) Completion of a basic jet engine maintenance course is mandatory.

(a) Career development course.

(b) Religious course.

e. **OTHER:**

(1) Normal color vision is mandatory.