**C. Maintenance Schedule**

A recommended maintenance schedule for normal refrigeration duty is shown in Table 5-1 on the following page. This program should be followed if maximum compressor package performance and life is to be obtained.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Service Intervals in Hours** (Services shown are to be repeated at the same intervals beyond 20,000 hours) | 20000 |  |  | ---------- Every 30,000 - 35,000 Hours - High Stage; Every 35,000 - 40,000 Hours - Booster ---------- |  |  |  |  |  |  |  |  |  |  | X | ------------------------------------------------ As Indicated by Item #14 ------------------------------------------------ | ----------------------------------------------- Per Manufacturer’s Specs. ----------------------------------------------- | X |
| 18000 |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| 16000 |  | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 14000 |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| 12000 |  |  |  |  |  |  |  |  |  |  |  |  | X | X |
| 10000 |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| 8000 |  | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 6000 |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| 4000 |  |  |  |  |  |  |  |  |  |  |  |  | X | X |
| 2000 |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| Startup | X |  | X | X | X | X | X | X |  | X | X | X | X |  |
| Maintenance to be Performed | | Class A Inspection | Class B Inspection | Class C Inspection | Check and Clean Suction Strainer | Clean Oil Strainer | Change Oil Filters | Check Oil Pump | Check & Clean Oil Return Strainer | Clean Refrigerant Strainers | Change Coalescers | Check Coupling | Check Oil Pressure Regulator | Clean Package | Oil Analysis | Change Oil | Grease Motor Bearings | Vibration Surveys |
| Item  No. | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |

Table 5-1: Compressor Maintenance Schedule

**D. Class A, B & C Inspection Summary**

**Class A Inspection**

Service Interval: Quarterly

Service Time Required: 4-8 Hours

* Log Machine Properly
* Check Coalescer Pressure Drop
* Take Vibration Readings
* Check Motor Current Draw
* Check Motor Load Control
* Calibrate Pressure Sensors
* Calibrate Temperature Sensors
* Calibrate Motor Current Transformer
* Adjust Load/Unload Solenoid Valve
* Check Axial Float in Male Rotor Shaft
* Check Motor/Compressor Alignment
* Check Operation of all Safeties

**Class B Inspection**

Service Interval: Annually

Service Time Required: 32 Hours

**GENERAL**

* Perform FES Class A Inspection
* Inspect Skid for Rust and Corrosion

**REFRIGERANT CIRCUIT**

* Clean Suction Strainer
* Clean Liquid Injection Strainer
* Check Operation of Liquid Injection Valve
* Inspect all External Refrigerant Lines
* Leak Check Machine Properly

**ELECTRICAL CIRCUIT**

* Inspect Motor Terminals
* Grease Motor Bearings
* Check all Connections in Starter
* Inspect Condition of Contactors
* Check Relays in Starter and Control Panel
* Check Timers in Starter and Control Panel
* Check Starter & Control Panel for Proper Operation

**LUBRICATION CIRCUIT**

* Change Oil if Warranted by Analysis
* Replace Oil Filters
* Inspect Coalescer Elements
* Clean Oil Pump Suction Strainer
* Check Oil Pump Alignment
* Inspect all External Oil Lines
* Check Oil Pressure Regulator
* Check Operation of Oil Return System
* Check Operation of Oil Heaters

**Class C Inspection**

Service Interval: 30,000 Hours - 35,000 Hours

(High Stage Application)

Service Interval: 35,000 Hours - 40,000 Hours

(Booster Application)

(or as required based on operating conditions, vibration analysis and oil analysis)

Service Time Required: 40-48 Hours

**DISASSEMBLE COMPRESSOR COMPLETELY**

Thoroughly Inspect the following:

* Male and Female Rotors
* Shaft Journals
* Slide Valve
* Balance Piston
* Unloader Piston
* Radial Bearings
* Thrust Bearings

Carefully Inspect the Following Critical Clearances:

* Slide Valve

Reassemble Compressor Using the Following New Parts:

* Radial Bearings
* Thrust Bearings
* Gaskets (as required)
* O-Ring (as required)
* Shaft Seal Kit

**DISMANTLE OIL PUMP (If Applicable)**

Check Gear and Idler for Wear

Rebuild and Set Proper Clearances