

27th of December 2017Revised 6th of May 2020

Technical Notification (TN) 05-17

**Subject: Standard Inspection & Maintenance schedule for
TMC Feed Air Compressors**



Introduction:

This Technical Notification is an attachment to TN 03-17 or TN 04-17 and must be considered as an integrated part of the supplied PRISM® Membrane Nitrogen Generator System.

References:

TN 03-17: Applies to Large Capacity PRISM® Membrane Nitrogen Generator Systems

TN 04-17: Applies to Small and Medium Capacity PRISM® Membrane Nitrogen Generator Systems

Standard Service Chart

Service Schedule

- 1) Checkpoints before/when starting
- 2) After first 300 hours
- 3) Every 1500 hours or once a year *
- 4) Every 3000 hours or once a year *
- 5) Every 9000 hours or every 3^{rd.} year *
- 6) Every 20000 hours
- 7) Every 35000 hours

* Whichever comes first.

| Operation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Check controller display for alarms | X | | | | | | |
| Check function water separator | X | | | | | | |
| Check oil level** | X | | | | | | |
| Check hoses for leakages | X | | | | | | |
| Check running temperature | X | | | | | | |
| Tighten electrical cables | | X | X | | | | |
| Tighten connections and screws | | X | X | | | | |
| Replace oil filter | | X | X | | | | |
| Change oil */** | | | X | | | | |
| Check and grease load spring, inside discharge valve***** | | | X | | | | |
| Replace oil separator cartridges | | | | X | | | |
| Change strainer for oil return | | | | X | | | |
| Change orifice return line | | | | X | | | |
| Clean oil return line | | | | X | | | |
| Replace air filter | | | | X | | | |
| Change belts (TMC6-TMC85) | | | | X | | | |
| Check flexible coupling element (TMC105-TMC365) | | | | X | | | |
| Clean cooler if needed (water cooled compressors) | | | | X | | | |
| Clean cooler externally (air cooled compressors) | | | | X | | | |
| Check operation of safety valve | | | | X | | | |
| Re-greasing of bearings in el. motor*/*** | | | X | X | | | |

| | | | | | | | |
|---|--|--|--|---|---|---|---|
| El. box filter change**** | | | | X | | | |
| Automatic condensate level drain**** | | | | X | | | |
| Replace Rep. kit inlet valve | | | | | X | | |
| Replace Rep. kit Discharge valve | | | | | X | | |
| Change non-return valve for control air | | | | | X | | |
| Change Solenoid valve for drain | | | | | X | | |
| Replace seal kit on oil stop valve air-end***** | | | | | X | | |
| Replace seal kit non-return valve air-end***** | | | | | X | | |
| Change solenoid valve for load function | | | | | X | | |
| Change blow down membrane | | | | | X | | |
| Change oil thermostat element | | | | | X | | |
| Change rep kit water thermostat | | | | | X | | |
| Change valve PS 1 | | | | | X | | |
| Change membrane in valve PS 2 | | | | | X | | |
| Replace control air piping | | | | | X | | |
| Check air end and motor pulleys or the flex. couplings | | | | | | X | |
| Replace air-end shaft seal kit | | | | | | X | |
| Replace motor bearings | | | | | | X | |
| Replace compressor Air End with a factory reconditioned unit. | | | | | | | X |

* For oil & grease recommendation – see instruction manual “oil and lubrication recommendation”, motor name plate or motor manual.

** Stop the compressor for at least 10 minutes before checking oil. See also number 4 in the list below for more information.

*** 1500-hour lubrication intervals are valid for TMC 86-124, TMC105-235 SA models and TMC 240 – 365.

**** Optional equipment. Check yearly & replace rep.kit when if required

***** Only for air-end type 255/255G and 321/321G used in compressor type ML, L250-L315

***** If load spring inside discharge valve is detected to malfunction, replace with Rep. Kit Discharge valve.

Maintenance of compressor

1. Do not fill oil between oil changes without knowing the reason for the oil consumption. Keep a log for oil filling between oil changes stating amount of oil and type of oil filled. **Never mix oil and grease types.**
2. The compressor need to be started minimum once a week and to be loaded for one hour to secure that all water condensate in the oil system is evaporated.
3. Before starting the compressor after a week stand still, open the drain valve in the bottom of the separator receiver tank and check that no water is detected in the oil reservoir. If water is found drain out before starting the compressor.
4. As a guideline, the running temperature of the compressor need to be minimum 50°C above the cooling media or the ambient temperature, whatever is highest.
5. Check condensate after water separator daily. The condensate shall never be more than light milky white in color.

Cautions:

- All alarms and service signals from the compressor controller must be followed.
- Do not mix different oil or grease types as this will lead to high risk of oxidation.
- Always adjust service counter in controller when servicing the compressor. Different installations, ambient temperature and running conditions might lead to different service schedule.
- Intervals are based on synthetic screw compressor oil ISO VG 46.