REFRIGERATED TRAILER APPLICATION & TEST DATA
MAXR-200 CONCENTRATED METAL CONDITIONER
MAXR -100 HEAT EXCHANGER & COMPRESSOR CONDITIONER

1. **MANUFACTURER, REEFER EQUIPMENT**_____

2. **MODEL**_____**SERIAL NO.**_____

3. **SERIES**_____**AGE OF UNIT**_____

4. **REFRIGERANT OIL CAPACITY**_____

5. **TYPE OF REFRIGERANT OIL**_____

6. **MANUFACTURE OF ENGINE & MODEL**_____

7. **ENGINE OIL CAPACITY**_____

8. **TYPE OF ENGINE OIL & VISCOSITY**_____

9. **FUELS: GAS, DIESEL, PROPANE, NATURAL GAS,**_____

MAXR-200 ENGINE TREATMENT TESTING GUIDELINES

BEFORE TREATMENT:

1. **RECORD COLD CRANKING AMPS.***_____

2. **RECORD EACH CYLINDER'S COMPRESSION , IF POSSIBLE.***
   CYLINDER 1._____**2.**_____**3.**_____**4.**_____**BEFORE**
   1._____ **2.**_____**3.**_____**4.**_____**AFTER**

3. **PERFORM DYNAMOMETER TEST ON ENGINE TO ESTABLISH PERFORMANCE PATTERN, IF AVALIABLE.**

4. **TAKE ENGINE OIL SAMPLE BEFORE OIL CHANGE FOR ENGINE OIL SPECTROMETRIC ANALYSIS, ATACH REPORT_____**

5. **RECORD FUEL CONSUMPTION OVER LONG TERM TO ESTABLISH USAGE PATTERN OR USE CURRENT FUEL REPORT WITH CORRESPONDING FUEL USED PER HOUR._____**

6. **RECORD EXHAUSTS EMISSIONS IF POSSIBLE, ATTACH REPORT.**

TREATMENT OF ENGINE MAXR-200:

1. **TREAT ENGINE WITH MAXR-200 AT A RATIO OF 2 OUNCES PER QUART OF ENGINE OIL SUMP CAPACITY.**

2. **DISCONNECT BATTERY CABLE FOR 5 TO 10 MINUTES TO LET THE ENGINE COMPUTER DRAIN DOWN TO REMOVE THE OLD FUEL METERING SETTINGS.**

3. **PERFORMANCE BENEFITS OF MAXR-200 IMPROVE WITH THE FIRST WEEK OF OPERATION, AS THE TREATMENT PROCESS REACHES IT'S MAXIMUM POTENTIAL. IT IS BEST TO OPERATE THE ENGINE UNDER NORMAL OPERATING CONDITIONS FOR SEVERAL DAYS AND THEN PERFORM THE ("AFTER" TEST.)**

4. **REPEATE TEST 1 THROUGH 6 ABOVE, "AFTER" TREATMENT AND RUN IN TIME.**

ITEMS TO OBSERVE AFTER TREATMENT RUN-IN:

1. **REDUCED COLD CRANKING AMPS, INDICATING REDUCED FRICTION AND WEAR AND ELIMINATES DRY START UP.**
   AFTER TREATMENT READING, AMPS_____

2. **IMPROVED COMPRESSION***

3. **REDUCE WEAR METALS IN SPECTROMETRIC OIL ANALYSIS REPORT. AFTER TREATMENT READINGS, ATTACH ANALYSIS REPORT.**

4. **REDUCED FUEL CONSUMPTION.**
   AFTER TREATMENT, FUEL USED PER HOUR_____

5. **REDUCED EXHAUST EMISSIONS.**
   AFTER TEST READING, ATTACH REPORT_____

6. **REDUCED NOISE AND VIBRATION**

7. **THE REFRIGERATION UNIT WILL CYCLE MORE, FRENQUENTLY RESULTING IN LESS RUN TIME.**

***THE TREATING PROCESS HELPS FREE RINGS, THERBY RESTORING COMPRESSION. THEN THE MAXR-200 TREATMENT HELPS KEEP RINGS FREE, MAINTAINING COMPRESSION. HOWEVER, THIS COMPRESSION INCRESE CAN ALSO INCREASE COLD CRANKING AMPS AND SHOULD BE FIGURED INTO COLD CRANKING AMP TEST RESULTS. BEST COLD CRANKING AMPS REDUCTION AFTER TREATMENT IS SEEN ON ENGINES THAT HAVE NOT SUFFERED REDUCED COMPRESSION.**

TREATMENT REFERGERATION UNIT MAXR-100:

1. **TAKE TEMPERATURE READING AT THE CLOSEST OUTLET TO THE REFRIGERATION UNIT INSIDE THE TRAILER . ALLOW 20 MINUTES FOR THE UNIT TO REACH ITS MAXIMUM TEMPERATURE. TAKE A NEW TEMPERATURE READING AFTER ONE WEEK RUN IN PERIOD. BEFORE TREATMENT_____**
   AFTER TREATMENT_____

2. **TO TREAT TRAILER REFRIGERATION SYSTEM, MAXR-100 IS ADDED TO THE SPECIFIED REFRIGERATION SYSTEM OIL THAT LUBRICATES THE COMPRESSOR MOTOR.**

3. **ADD MAXR-100 TO THE SYSTEM BY THE EXACT SAME PROCEDURES THAT ARE NORMALLY EMPLOYED TO ADD REFRIGERANT "LEAK DETECTION" DYE TO A REFRIGERATION SYSTEM. STANDARD "REFRIGERANT DYE INJECTOR" EQUIPMENT OR "TECHNICIAN PRESSURE GAUGES" CAN BE USED TO INTRODUCE THE MAXR-100 TREATMENT AT THE CORRECT RATIO.**

4. **ADD ONE OUNCE OF MAXR-100 PER TON OF REFRIGERATION OR 10 PERCENT OF COMPRESSOR OIL VOLUME. REMOVE SUFFICENT COMPRESSOR OIL TO COMPENSATE FOR THE ADDITION OF MAXR-100, IF NECESSARY, TO ADVOID SYSTEM OVER FILLING.**

5. **IT IS IMPORTANT THAT THE MAXR-100 FLUID IS TO BE INJECTED VERY SLOWLY INTO THE UNIT AND THAT NO AIR OR MOISTURE BE ALLOWED TO ENTER THE REFRIGERANT GAS SYSTEM. THE REFRIGERATION SYSTEM MUST BE PROPERTLY CHARGED AND BALANCED WITH REFRIGERANT GAS.**

ADDITIONAL NOTES AND COMMENTS

Survey taken by: _____

Date: _____

Company Name: _____

Contact Name: _____

Contact Email: _____

Contact Phone: _____

TRANS BIO ENERGY COMPANY, LLC
P. O. BOX 5355
FAIRLAWN, OHIO 44334

PH: 330-665-3839 **FAX: 330-665-3820**