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Retrofit Checklist for Converting CFC or HCFC Systems

to

DuPont™ ISCEON® MO29

(R422D)

Retrofit Check List: 1) Pre- and Post- Retrofit Checks
(To be used in conjunction with DuPont Retrofit Guidelines)

Retrofit Check List: 2) Retrofit Progress Checks
(To be used in conjunction with DuPont Retrofit Guidelines)

Retrofit Check List: 3) System Data Sheet

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Retrofit Checklist for Converting CFC or HCFC Systems to DuPont™ ISCEON® MO29

DuPont™ ISCEON® MO29 Refrigerant

Retrofit Check List: 1) Pre- and Post- Retrofit Checks

Pre-Retrofit Advance Preparation for Retrofit	Check Complete
1 Ensure the Retrofit Procedure has been read	
Clarify any doubts with DuPont Technical Services	
2 Check Service History log-book	
Recent refrigerant additions might signify system leaks Is current system design in agreement with log-book?	
3 Leak check system	
If leaks found schedule repair	
4 Check compressor oil management system design	
If no oil separator present oil level observation needed after retrofit	
5 System performance check: complete data sheet	
See Retrofit procedure p. 8	
If obvious performance problem: Correct before retrofit (or plan to do it during retrofit)	
6 Identify system critical elastomeric seals	
See Retrofit Guidelines p.2	
7 Check Compressor oil condition	
If doubtful schedule change	
8 Ensure all needed materials will be available	
Seals, filter cores, etc.	
Recovery cylinder(s) Recovery machine, vacuum pump, Nitrogen	
Technical data: Retrofit Guidelines, PT data (Slide rules, etc.)	

Post-Retrofit Verification of system performance and integrity	Check Complete			
	24 hrs	48 hrs	72hrs	1 week
1 Observe compressor oil level				
Correct if needed (see Guidelines p 3)				
2 Measure Performance Data				
Use Data Sheet				
3 Carry out Leak check				
Correct any leaks found				

DuPont™ ISCEON® MO29 Refrigerant

Retrofit Check List: 2) Retrofit Progress Checks

Retrofit Steps	Check Complete
1 Recover old refrigerant using good refrigeration practice Use dedicated recovery cylinder(s) Weigh the recovered refrigerant De-gas the compressor oil using a vacuum pump	☐
2 Break the vacuum using dry nitrogen Minimise ingress of moist air into the system	☐
4 Change necessary mechanical components Filter/dryer Identified system critical elastomeric seals Replace oil if needed	☐
5 Evacuate system. Hold under vacuum. To remove moisture. Early indication of leaks (if vacuum does not hold)	☐
6 If indication of leak pressurise with Nitrogen. Locate leak(s). De-pressurise and correct Evacuate system. Hold under vacuum	☐
7 Charge with ISCEON®MO29 from liquid phase a) If system receiver - to normal level b) If no receiver - initial 90% of R22 charge	☐
8 Start system, measure performance data (See data sheet) Adjust refrigerant charge if needed Adjust superheat setting if needed	☐
10 Check Compressor oil levels Adjust if necessary	☐
11 Re-check system for refrigerant leaks	☐
12 Label System Refrigerant (and any added/changed oil) Update log-book	☐

System Data Sheet

Type of System/Location: _____

Equipment Mfg.:_____   Compressor Mfg.:_____

Model No.:_____   Model No.:_____

Serial No.:_____   Serial No.:_____

Date of Manufacture_____   Date of manufacture_____

Refrigerant Charge Size:_____   Lubricant Type: _____

Lubricant Type/Charge Size:_____   Drier Mfg./ Model _____ _

Drier Type (check one):   Loose Fill:_____

                        Solid Core:_____

Condenser Cooling Medium (air/water): _____

Expansion Device (check one):   Capillary Tube: _____   TXV: _____   Electronic _____

Expansion valve: Manufacturer: _____ Model No:_____

Control/Set Point: _____

Location of Sensor: _____

Other System Controls (ex.: head press control), Describe:_____

Performance Data (circle units used where applicable)

Date/Time					
Refrigerant					
Charge Size (kg)					
Ambient Temp. (°C)					
Compressor:					
Suction T (°C)					
Suction P (kPa)					
Discharge T (°C)					
Discharge P (kPa/)					
Evaporator:					
Coil Air/H_2O In T (°C)					
Coil Air/H_2O Out T (°C)					
Operating Service Temperature) (°C)					
Condenser:					
Coil Air/H_2O In T (°C)					
Coil Air/H_2O Out T (/°C)					
Superheat and Sub-Cool (derived values)					
Refrigerant T at Superheat Ctl. Pt (°C)					
Calculated Superheat (K)					
Exp. Device Inlet T (°C)					
Calculated sub-cool (K)					
Motor Amps (if pack: total)					
Additional Comments:					