

**LIST OF DIESEL ENGINES WHICH HAVE SUCCESSFULLY PASSED THE UIC EMISSION TEST PROCEDURE  
Engines compliant with EC 26/2004 IIIB emission limits (in force from 01/01/2012)**

**NB:** In September 2019 UIC Leaflet 624 (5<sup>th</sup> edition dated February 2017) was migrated, without any changes, into IRS 60624. Diesel engines which have already successfully passed the UIC test procedure according to UIC Leaflet 624 before the publication of IRS 60624 are still part of the list.

Manufacturer Engine type	Characteristics of the engine							Date of UIC exhaust emission test	Emission of UIC Certificate	Comments
	Nominal Rating [kW]	Nominal speed [rpm]	Mode of operation	Supercharging air cooling in separate circuit	Number and arrangement of cylinders	Bore [mm]	Stroke [mm]			
<b>MAN</b> D 2066 LE 621	275	1.900	4 strokes	Yes	6 cylinders in line vertical	120	155	04/2010	2010	Compliant with the limits for locomotives. Certified acc. UIC Leaflet 623
<b>MAN</b> D 2676 LE 621	338	1.800	4 strokes	Yes	6 cylinders in line vertical	126	166	01/2012	2012	Certified acc. UIC Leaflet 623 Derivative from MAN D 2066 LE 621
<b>MTU</b> 16V 4000 R84 (R74/R64)	2.400 (2.200/2.000)	1.800	4 strokes	Yes	16 V 90°	170	210	01/2012	2012	Compliant with the limits for locomotives. Certified acc. UIC Leaflet 623
<b>MTU</b> 12V 4000 R84 (R64)	1.800 (1.500)	1.800	4 strokes	Yes	12 V 90°	170	210	08/2012	2012	Compliant with the limits for locomotives. Certified acc. UIC Leaflet 623 Derivative from MTU 16V 4000 R84

**LIST OF DIESEL ENGINES WHICH HAVE SUCCESSFULLY PASSED THE UIC EMISSION TEST PROCEDURE**  
**Engines compliant with UIC IIIA emission limits**

**NB:** In September 2019 UIC Leaflet 624 (5<sup>th</sup> edition dated February 2017) was migrated, without any changes, into IRS 60624. Diesel engines which have already successfully passed the UIC test procedure according to UIC Leaflet 624 before the publication of IRS 60624 are still part of the list.

Manufacturer Engine type	Characteristics of the engine							Date of UIC exhaust emission test	Emission of UIC Certificate	Comments
	Nominal Rating [kW]	Nominal speed [rpm]	Mode of operation	Supercharging air cooling in separate circuit	Number and arrangement of cylinders	Bore [mm]	Stroke [mm]			
<b>MAN</b> D 2842 LE 622	588	1.800	4 strokes	Yes	12 V 90°	128	142	02/2007	2007	Certified acc. UIC Leaflet 623 Derivative from MAN D 2842 LE 606
<b>MTU</b> 20V 4000 R43L	3.000	1.800	4 strokes	Yes	20 V 90°	170	210	05/2008	2008	Derivative from MTU 20V 4000 R42
<b>MTU</b> 16V 4000 R43L (R)	2.400 (2.000)	1.800	4 strokes	Yes	16 V 90°	170	210	07/2008	2008	Derivative from MTU 20V 4000 R42
<b>MTU</b> 12V 4000 R43 (L)	1.500 (1.800)	1.800	4 strokes	Yes	12 V 90°	170	210	03/2008	2008	Derivative from MTU 20V 4000 R42
<b>MTU</b> 8V 4000 R43 (L)	1.000 (1.200)	1.800	4 strokes	Yes	8 V 90°	170	210	08/2008	2008	Derivative from MTU 20V 4000 R42
<b>GENERAL ELECTRIC</b> CIS GEVO V12 3a	2.982	1.050	4 strokes	Yes	12 V 45°	229	267	12/2008	2009	
<b>CATERPILLAR</b> 3508C	1.000	1.800	4 strokes	Yes	8 V 60°	170	190	02/2009	2009	Derivative from CAT 3512 SCAC
<b>CATERPILLAR</b> 3512C	1.700 (1.530/1.380)	1.800	4 strokes	Yes	12 V 60°	170	215	02/2009	2009	
<b>MTU</b> 20V 4000 R53	3.150	1.800	4 strokes	Yes	20 V 90°	170	210	03/2012	2012	
<b>MTU</b> 20V 4000 R63L	3.300	1.800	4 strokes	Yes	20 V 90°	170	210	01/2015	2015	

**LIST OF DIESEL ENGINES WHICH HAVE SUCCESSFULLY PASSED THE UIC EMISSION TEST PROCEDURE  
Engines compliant with UIC II emission limits**

**NB:** In September 2019 UIC Leaflet 624 (5<sup>th</sup> edition dated February 2017) was migrated, without any changes, into IRS 60624. Diesel engines which have already successfully passed the UIC test procedure according to UIC Leaflet 624 before the publication of IRS 60624 are still part of the list.

Manufacturer Engine type	Characteristics of the engine							Date of UIC exhaust emission test	Emission of UIC Certificate	Comments
	Nominal Rating [kW]	Nominal speed [rpm]	Mode of operation	Supercharging air cooling in separate circuit	Number and arrangement of cylinders	Bore [mm]	Stroke [mm]			
<b>CATERPILLAR</b> CAT E 3412 E-2T- JWAC	746	2.100	4 strokes	No	12 V 90°	137	152	08/2000	2001	Certified acc. UIC Leaflet 623
<b>CUMMINS</b> QSK 19R	565	2.100	4 strokes	Yes	6 cylinders in line incl. 75°	159	159	09/2002	2003	Certified acc. UIC Leaflet 623
<b>MAN</b> D 2842 LE 602	588	2.100	4 strokes	Yes	12 V 90°	128	142	03/2001	2001	Derivative from MAN D 2842 LE 606
<b>MAN</b> D 2842 LE 606	662	2.100	4 strokes	Yes	12 V 90°	128	142	04/2002	2003	Certified acc. UIC Leaflet 623
<b>MAN</b> D 2842 LE 609	635	1.900	4 strokes	Yes	12 V 90°	128	142	04/2002	2003	Derivative from MAN D 2842 LE 606
<b>MAN</b> D 2876 LUE 601	375	2.000	4 strokes	Yes	6 cylinders in line horizontal	128	166	05/2003	2003	
<b>MAN</b> D 2876 LUE 602	338	2.000	4 strokes	Yes	6 cylinders in line horizontal	128	166	05/2003	2003	
<b>MAN</b> D 2876 LUE 603	301	2.000	4 strokes	Yes	6 cylinders in line horizontal	128	166	05/2003	2003	
<b>MAN</b> D 2876 LUE 604	375	2.000	4 strokes	Yes	6 cylinders in line horizontal	128	166	05/2003	2003	
<b>MAN</b> D 2876 LUE 605	338	2.000	4 strokes	Yes	6 cylinders in line horizontal	128	166	05/2003	2003	
<b>MAN</b> D 2876 LUE 606	301	2.000	4 strokes	Yes	6 cylinders in line horizontal	128	166	05/2003	2003	

Manufacturer Engine type	Characteristics of the engine							Date of UIC exhaust emission test	Emission of UIC Certificate	Comments
	Nominal Rating [kW]	Nominal speed [rpm]	Mode of operation	Supercharging air cooling in separate circuit	Number and arrangement of cylinders	Bore [mm]	Stroke [mm]			
<b>MTU</b> 16V 4000 R41	2.100	1.800	4 strokes	Yes	16 V 90°	165	190	06/2001	2002	Certified acc. UIC Leaflet 623
<b>MTU</b> 16V 4000 R41L	2.200	1.860	4 strokes	Yes	16 V 90°	165	190	10/2003	2004	Derivative from MTU 16V 4000 R41
<b>IVECO</b> 8V FVQE 2883X* A201	620	2.100	4 strokes	Yes	8 V 90°	145	152	07/2003	2004	Certified acc. UIC Leaflet 623
<b>IVECO</b> 8V FVQE 2883X* A200	550	2.100	4 strokes	Yes	8 V 90°	145	152	07/2003	2004	Certified acc. UIC Leaflet 623
<b>MTU</b> 6H 1800 R80	315	1.900	4 strokes	Yes	6 cylinders in line horizontal	128	166	02/2004	2004	
<b>MTU</b> 6H 1800 R81	350	1.900	4 strokes	Yes	6 cylinders in line horizontal	128	166	02/2004	2004	
<b>MTU</b> 12V 4000 R41R	1.040/1.380	1.500	4 strokes	Yes	12 V 90°	165	190	04/2004	2004	Derivative from MTU 16V 4000 R41
<b>MTU</b> 12V 4000 R41	1.500	1.800	4 strokes	Yes	12 V 90°	165	190	04/2004	2004	Derivative from MTU 16V 4000 R41
<b>MTU</b> 12V 4000 R41L	1.650	1.860	4 strokes	Yes	12 V 90°	165	190	04/2004	2004	Derivative from MTU 16V 4000 R41
<b>EMD</b> 12N6710G3BU2	2.470	904	2 strokes	Yes	12 V 45°	230	279	06/2004	2004	
<b>GENERAL ELECTRIC</b> GE 7FDL 12 M1	2.461 (2.220) 2.342	1.050 1.000	4 strokes	Yes	12 V 45°	229	267	05/2005	2005	
<b>MAN B&amp;W</b> 16 Rk 215	3.160	1.000	4 strokes	Yes	16 V 60°	215	275	09/2004	2005	Certified according UIC Leaflet 623
<b>CATERPILLAR</b> 3508	1.000	1.800	4 strokes	Yes	8 V 60°	170	190	11/2005	2006	Derivative from CAT 3512 SCAC

Manufacturer Engine type	Characteristics of the engine							Date of UIC exhaust emission test	Emission of UIC Certificate	Comments
	Nominal Rating [kW]	Nominal speed [rpm]	Mode of operation	Supercharging air cooling in separate circuit	Number and arrangement of cylinders	Bore [mm]	Stroke [mm]			
<b>MTU</b> 20V 4000 R42	2.860	1.800	4 strokes	Yes	20 V 90°	165	210	05/2006	2006	Certified acc. UIC Leaflet 623
<b>MAN</b> D 2842 LE 620	662	2.100	4 strokes	Yes	12 V 90°	128	142	11/2005	2006	Derivative from MAN D 2842 LE 606
<b>MTU</b> 8V 4000 R41L	1.100	1.860	4 strokes	Yes	12 V 90°	165	190	10/2006	2006	Derivative from MTU 16V 4000 R41
<b>MTU</b> 20V 4000 R42L	3.000	1.800	4 strokes	Yes	20 V 90°	165	210	05/2006	2006	Derivative from MTU 20V 4000 R42
<b>CATERPILLAR</b> CAT 3512 SCAC	1.500	1.800	4 strokes	Yes	12 V 60°	170	190	08/2007	2008	Certified acc. UIC Leaflet 623
<b>WÄRTSILÄ</b> <b>UD 30V12 R3</b> <b>(R2)</b>	700 (607)	1.500	4 strokes	Yes	12 V 60°	175	180/ 192	02/2010	2010	