LIST OF DIESEL ENGINES WHICH HAVE SUCCESSFULLY PASSED THE UIC TEST PROCEDURE ASSESSING THEIR SUITABILITY FOR USE ON MOTIVE POWER UNITS

Engines compliant with EC 26/2004 IIIB emission limits (in force from 01/01/2012)

NB: In September 2019 UIC Leaflets 623-1 (7th edition dated February 2017) and 623-2 (8th edition dated February 2017) were migrated, without any changes, into the IRS 60623-1 and 60623-2. Diesel engines which have already successfully passed the UIC test procedure according to UIC Leaflets 623-1 and 623-2 before the publication of IRS 60623-1 and IRS 60623-2 are still part of the list.

Manufacturer Engine type	Characteristics of the engine							Date of UIC exhaust emission test	Year of issue - 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]			
MAN 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
MAN D 2676 LE 621	338	1.800	4 strokes	Yes	6 cylinders in line vertical	126	166	01/2012	2012	Derivative from MAN D 2066 LE 621
MTU 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
MTU 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 Derivative from MTU 16V 4000 R84

LIST OF DIESEL ENGINES WHICH HAVE SUCCESSFULLY PASSED THE UIC TEST PROCEDURE ASSESSING THEIR SUITABILITY FOR USE ON MOTIVE POWER UNITS

Engines compliant with UIC IIIA emission limits

NB: In September 2019 UIC Leaflets 623-1 (7th edition dated February 2017) and 623-2 (8th edition dated February 2017) were migrated, without any changes, into the IRS 60623-1 and 60623-2. Diesel engines which have already successfully passed the UIC test procedure according to UIC Leaflets 623-1 and 623-2 before the publication of IRS 60623-1 and IRS 60623-2 are still part of the list.

Manufacturer Engine type	Characteristics of the engine							Date of UIC exhaust emission test	Year of issue - 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]			
MAN D 2842 LE 622	588	1.800	4 strokes	Yes	12 V 90°	128	142	02/2007	2007	Derivative from MAN D 2842 LE 606
MTU 20V 4000 R43L	3.000	1.800	4 strokes	Yes	20 V 90°	170	210	05/2008	2008	Derivative from MTU 20V 4000 R42
MTU 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
MTU 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
MTU 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
MTU 20V 4000 R63	3.000	1.800	4 strokes	Yes	20 V 90°	170	210	05/2008	2013	Derivative from MTU 20V 4000 R42
MTU 20V 4000 R63R	2.700	1.800	4 strokes	Yes	20 V 90°	170	210	05/2008	2013	Derivative from MTU 20V 4000 R42
CATERPILLAR 3508C	1.000	1.800	4 strokes	Yes	8 V 60°	170	190	02/2009	2009	Derivative from CAT 3512 SCAC
LIEBHERR D9816 R	2700	1800	4 strokes	Yes	16 V 60º	175	215	03/2022	2024	
LIEBHERR D9812 R	2000	1800	4 strokes	Yes	12 V 60º	175	215	05/2022	2024	Derivative from LIEBHERR D9816 R

LIST OF DIESEL ENGINES WHICH HAVE SUCCESSFULLY PASSED THE UIC TEST PROCEDURE ASSESSING THEIR SUITABILITY FOR USE ON MOTIVE POWER UNITS

Engines compliant with UIC II emission limits (1/2)

NB: In September 2019 UIC Leaflets 623-1 (7th edition dated February 2017) and 623-2 (8th edition dated February 2017) were migrated, without any changes, into the IRS 60623-1 and 60623-2. Diesel engines which have already successfully passed the UIC test procedure according to UIC Leaflets 623-1 and 623-2 before the publication of IRS 60623-1 and IRS 60623-2 are still part of the list.

Manufacturer Engine type	Characteristics of the engine							Date of UIC exhaust emission test	Year of issue - 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]			
CATERPILLAR CAT E 3412 E-2T- JWAC	746	2.100	4 strokes	No	12 V 90°	137	152	08/2000	2001	
CUMMINS QSK 19R	565	2.100	4 strokes	Yes	6 cylinders in line incl. 75°	159	159	09/2002	2003	
MAN 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
MAN D 2842 LE 606	662	2.100	4 strokes	Yes	12 V 90°	128	142	04/2002	2003	
MAN 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
MTU 16V 4000 R41	2.100	1.800	4 strokes	Yes	16 V 90°	165	190	06/2001	2002	
MTU 16V 4000 R41L	2.200	1.860	4 strokes	Yes	16 V 90°	165	190	10/2003	2004	Derivative from MTU 16V 4000 R41
IVECO 8V FVQE 2883X* A201	620	2.100	4 strokes	Yes	8 V 90°	145	152	07/2003	2004	
IVECO 8V FVQE 2883X* A200	550	2.100	4 strokes	Yes	8 V 90°	145	152	07/2003	2004	
MTU 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
MTU 12V 4000 R41	1.500	1.800	4 strokes	Yes	12 V 90°	165	190	04/2004	2004	Derivative from MTU 16V 4000 R41

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]			
MTU 12V 4000 R41L	1.650	1.860	4 strokes	Yes	12 V 90°	165	190	04/2004	2004	Derivative from MTU 16V 4000 R41
MAN B&W 16 Rk 215	3.160	1.000	4 strokes	Yes	16 V 60°	215	275	09/2004	2005	
MTU 20V 4000 R42	2.860	1.800	4 strokes	Yes	20 V 90°	165	210	05/2006	2006	
MAN 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
MTU 8V 4000 R41L	1.100	1.860	4 strokes	Yes	12 V 90°	165	190	10/2006	2006	Derivative from MTU 16V 4000 R41
MTU 20V 4000 R42L	3.000	1.800	4 strokes	Yes	20 V 90°	165	210	05/2006	2006	Derivative from MTU 20V 4000 R42
CATERPILLAR CAT 3512 SCAC	1.500	1.800	4 strokes	Yes	12 V 60°	170	190	08/2007	2008	
CATERPILLAR CAT 3508 SCAC	1.000	1.800	4 strokes	Yes	8 V 60°	170	190	11/2005	2006	Derivative from CAT 3512 SCAT
MAN D 2676 LE 624	353	1.800	4 strokes	Yes	6 cylinders in-line vertical	126	166	02/2017	2017	

LIST OF DIESEL ENGINES WHICH HAVE SUCCESSFULLY PASSED THE UIC TEST PROCEDURE ASSESSING THEIR SUITABILITY FOR USE ON MOTIVE POWER UNITS

Engines compliant with UIC I emission limits

NB: In September 2019 UIC Leaflets 623-1 (7th edition dated February 2017) and 623-2 (8th edition dated February 2017) were migrated, without any changes, into the IRS 60623-1 and 60623-2. Diesel engines which have already successfully passed the UIC test procedure according to UIC Leaflets 623-1 and 623-2 before the publication of IRS 60623-1 and IRS 60623-2 are still part of the list.

Manufacturer Engine type	Characteristics of the engine							Date of UIC exhaust emission test	Year of issue - 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]			
RENAULT RVI MIHR 06.20.45	249	2.000	4 strokes		6 cylinders in line horizontal	120	145	04/1992	1994	
IVECO Aifo 8297 SRI 10.00	698	2.100	4 strokes		12 V 90°	145	130	11/1993	1995	
MAN D 2866 LUE 602	300	2.100	4 strokes	Yes	6 cylinders in line horizontal	128	155	01/1994	1995	
CUMMINS NTA 855 R4	310	2.100	4 strokes		6 cylinders in line horizontal	140	152	08/1994	1995	
IVECO Aifo 8217 SRI	294	1.800	4 strokes	Yes	6 cylinders in line horizontal	137	156	02/1995	1996	
IVECO Aifo 8217 SI	206	2.000	4 strokes	No	6 cylinders in line horizontal	137	156	12/1996	1997	Derivative from Aifo 8217 SRI
MAN D 2866 LUH 21	257	1.500	4 strokes	Yes	6 cylinders in line horizontal	128	155	03/1997	1997	Derivative from MAN D 2866 LUE 602
ISOTTA FRASCHINI V 1712 T2F	1.400	1.800	4 strokes	Yes	12 V 90°	170	170	04/1997	1999	
ANGLO BELGIAN CORPORATION 6 DZC-1000-144	1.150	1.000	4 strokes	Yes	6 cylinders in line vertical	256	310	01/1998	1999	
ISOTTA FRASCHINI V 1712 NF	412	1.500	4 strokes	No	12 V 90°	170	170	10/1999	2000	Derivative from ISOTTA FRASCHINI V 1712 T2F