

Wärtsilä 2-stroke, Technical Services

Engine section	Engine type	Ref.	Date	Issue	Document no.	Page
	RTA, RT-flex and X engines	2-stroke	28.03.2022	4	RT-135_A1 Appendix 1	1(8)

Piston ring versions and order numbers

Engine type	Piston design	Standard version	Order number (Code no.)	Alternative 1 (gastight) see ¹⁾	Order number (Code no.)	Alternative 2 (see ²⁾ when applicable)	Order number (Code no.)	Alternative 3	Order number (Code no.)
RT-flex96C-B	3-ring	1x GTP1CC24 2x SCP2CC20	DF 34436 DF 34428						
	4-ring	1x SCP1CC20 3x SCP2CC20	DF 34425 DF 34428	1x GTP1CC20 3x SCP2CC20	DF 34429 DF 34428	1x SCP1CC20 3x SCP1RC20	DF 34425 DF 34426		
RTA96C-B RTA96C	3-ring	1x GTP1CC24 2x SCP2CC20	D 34436 D 34428						
	4-ring	1x SCP1CC20 3x SCP2CC20	D 34425 D 34428	1x GTP1CC20 3x SCP2CC20	D 34429 D 34428	1x SCP1CC20 3x SCP1RC20	D 34425 D 34426		
	5-ring	1x SCP1CC20 4x SCP2CC18	D 34425 D 34430	1x GTP1CC20 4x SCP2CC18	D 34429 D 34430	1x SCP1CC20 4x SCP1RC18	D 34425 D 34427		
X92	3-ring	1x GTP1CC26 1x SCP2CC17 1x SCP2CC19	DX 34428 DX 34427 DX 34426						
X92-B	3-ring	1x GTP1CC26 1x SCP2CC17 1x SCP2CC19	TX 34428 TX 34427 TX 34426						
X92DF	3-ring	1x GTP1CC26 1x SCP2CC17 1x SCP2CC19	GX 34428 GX 34427 GX 34426						
RT-flex84T-D	3-ring	2x SCP2CC20 1x GTP1CC24	SPBF 34104 SPBF 34103						
	4-ring	1x SCP1CC20 3x SCP2CC20	BF 34425 BF 34427	1x GTP1CC20 3x SCP2CC20	BF 34425GTP BF 34427	1x SCP1CC20 3x SCP1RC20	BF 34425 BF 34426RC1		
RTA84T-D RTA84T-B	3-ring	1x GTP1CC24 2x SCP2CC20	SPB 34103 SPB 34104						
	4-ring	1x SCP1CC20 3x SCP2CC20	B 34425 B 34427	1x GTP1CC20 3x SCP2CC20	B 34425GTP B 34427	1x SCP1CC20 3x SCP1RC20	B 34425 B 34426		
RTA84T	3-ring	2x SCP2CC20 1x GTP1CC24	SPW 34104 SPW 34103						
	4-ring	1x SCP1CC20 3x SCP2CC20	W 34424 W 34431	1x GTP1CC20 3x SCP2CC20	W 34424GTP W 34431	1x SCP1CC20 3x SCP1RC20	W 34424 W 34425	4x SCP1RC20	W 34425
	5-ring	1x SCP1CC20 4x SCP2CC16 or 1x SCP1CC16 4x SCP2CC16	W 34424 W 34430 W 34429 W 34430	1x GTP1CC20 4x SCP2CC16 or 1x GTP1CC16 4x SCP2CC16	W 34424GTP W 34430 W 34429GTP W 34430	1x SCP1CC20 4x SCP1RC16 or 1x SCP1CC16 4x SCP1RC16	W 34424 W 34426 W 34429 W 34426	1x SCP1RC20 4x SCP1RC16 or 5x SCP1RC16	W 34425 W 34426 W 34426

Engine type	Piston de- sign	Standard version	Order number (Code no.)	Alternative 1 (gastight) see ¹⁾	Order number (Code no.)	Alternative 2 (see ²⁾ when applicable)	Order number (Code no.)	Alternative 3	Order number (Code no.)
continued									
RTA84C-U RTA84C	3-ring	1x GTP1CC24 2x SCP2CC20	SPC 34103 SPC 34104						
	4-ring	1x SCP1CC20 3x SCP2CC20	C 34420 C 34428	1x GTP1CC20 3x SCP2CC20	C 34420GTP C 34428	1x SCP1CC20 3x SCP1RC20	C 34420 C 34421	4x SCP1RC20	C 34421
		5-ring	1x SCP1CC20 4x SCP2CC16	C 34420 C 34427	1x GTP1CC20 4x SCP2CC16	C 34420GTP C 34427	1x SCP1CC20 4x SCP1RC16	C 34420 C 34422	1x SPC1RC20 4x SCP1RC16
	or			or		or		or	
	1x SCP1CC16 4x SCP2CC16		C 34429 C 34427	1x GTP1CC16	C 34429GTP	1x SCP1CC16 4x SCP1RC16	C 34429 C 34422	5x SCP1RC16	C 34422
	4x SCP2CC16		C 34427	4x SCP2CC16	C 34427				
RTA84M	5-ring	1x SCP1CC20 4x SCP2CC16	Z 34437 Z 34427	1x GTP1CC20 4x SCP2CC16	Z 34437GTP Z 34427	1x SCP1RC20 4x SCP1RC16	Z 34438 Z 34439	1x SCP1RC20 4x K0P16	Z 34438 Z 34400
		or		or		or		or	
		1x SCP1CC16 4x SCP2CC16	Z 34429 Z 34427	1x GTP1CC16 4x SCP2CC16	Z 34429GTP Z 34427	5x SCP1RC16	Z 34439	1x SCP1RC16 4x K0P16	Z 34439 Z 34400
		or							
		1x SCP1CC20 4x SCP1RC16	Z 34437 Z 34439						
		or							
RTA84	5-ring	1x SCP1CC16 4x SCP1RC16	Z 34429 Z 34439						
		or							
		1x GTP1CC20 3x SCP1RC20	U 34409GTP U 34409RC1	1x SCP1CC20 3x SCP1RC20	U 34409CC1 U 34409RC1				
		1x SCP1CC20 4x SCP2CC16	U 34409CC1 U 34408CC2	1x GTP1CC20 4x SCP2CC16	U 34409GTP U 34408CC2	1x SCP1RC20 4x SCP1RC16	U 34409 U 34408	1x SCP1RC20 4x K0P16	U 34409RC1 U 34408
		or		or		or		or	
		1x SCP1CC16 4x SCP2CC16	U 34408CC1 U 34408CC2	1x GTP1CC16 4x SCP2CC16	U 34408GTP U 34408CC2	5x SCP1RC16	U 4408	1x SCP1RC16 4x K0P16	U 34408RC1 U 34408
X82	3-ring	1x GTP1CC24 2x SCP2CC16	CX 34427 CX 34426						
X82-B	3-ring	1x GTP1CC24 2x SCP2CC16	HX 34427 HX 34426						
X82DF-1.0	2-ring	1x GTP1CC24 1x SCP2CC16	OX 34250 OX 34251						
RT-flex82T	3-ring	1x GTP1CC24 2x SCP2CC16	VF 34427 VF34426						
RT-flex82C	3-ring	1x GTP1CC24 2x SCP2CC16	LF 34427 LF 34426						
RTA82T	3-ring	1x GTP1CC24 2x SCP2CC16	V 34427 V 34426						

Engine type continued	Piston design	Standard version	Order number (Code no.)	Alternative 1 (gastight) see ¹⁾	Order number (Code no.)	Alternative 2 (see ²⁾ when applicable)	Order number (Code no.)	Alternative 3	Order number (Code no.)
RTA82C	3-ring	1x GTP1CC24 2x SCP2CC16	L 34427 L 34426						
RTA76	5-ring	1x K0P18 4x K0P14 or 5x K0P14	U 34409 U 34408 U 34408						
X72	3-ring	1x GTP1CC22 2x SCP2CC13	BX 34250 BX 34251						
X72-B	2-ring	1x GTP1CC22 1x SCP2CC13	VX 34250 VX 34251						
X72DF	3-ring	1x GTP1CC22 2x SCP2CC13	EX 34250 EX 34251						
RTA72U-B	3-ring	1x GTP1CC18 2x SCP2CC18	SPA 34103 SPA 34104						
	4-ring	1x SCP1CC18 3x SCP1RC18 or 1x SCP1CC18 3x SCP1RC14	A 34428 A 34429 A 34428 A 34430			4x SCP1RC18 or 1x SCP1RC18 3x SCP1RC14	A 34429 A 34429 A 34430		
RTA72U RTA72	3-ring	1x GTP1CC18 2x SCP2CC18	SPZ 34103 SPZ 34104						
	4-ring	1x SCP1CC18 3x SCP1RC18 or 1x SCP1CC18 3x SCP1RC14	Z 34433 Z 34434 Z 34433 Z 34435			4x SCP1RC18 or 1x SCP1RC18 3x SCP1RC14	Z 34434 Z 34434 Z 34435		
	5-ring	1x SCP1CC18 4x SCP1RC14	Z 34433 Z 34435			1x SCP1RC18 4x SCP1RC14 or 5x SCP1RC14	Z 34434 Z 34435 Z 34435		
RT-flex68-D V1	3-ring	1x GTP1CC18 2x SCP2CC18	PF 34428 PF 34427			1x SCP1CC18 ²⁾ 2x SCP1RC18 ²⁾	PF 34425 PF 34426		
	4-ring	1x SCP1CC18 3x SCP2CC18	PF 34425 PF 34427			1x SCP1CC18 ²⁾ 3x SCP1RC18 ²⁾	PF 34425 PF 34426		
RT-flex68 D_L	3-ring	1x GTP1CC18 2x SCP2CC18	UF 34428 UF 34427						
RT-flex68-D V0	3-ring	1x GTP1CC18 2x SPC2CC18	MF 34428 MF 34427						
	4-ring	1x SCP1CC18 3x SCP2CC18	MF 34425 MF 34427			1x SCP1CC18 3x SCP1RC18	MF 34425 MF 34426		
RT-flex68-B	3-ring	1x GTP1CC18 2x SPC2CC18	MF 34428 MF 34427						
	4-ring	1x SCP1CC18 3x SCP1RC18	MF 34425 MF 34426						

Engine type continued	Piston design	Standard version	Order number (Code no.)	Alternative 1 (gastight) see ¹⁾	Order number (Code no.)	Alternative 2 (see ²⁾ when applicable)	Order number (Code no.)	Alternative 3	Order number (Code no.)
RTA68-B	3-ring	1x GTP1CC18 2x SPC2CC18	Q 34431 Q 34428						
	4-ring	1x SCP1CC18 3x SCP1RC18	Q 34424 Q 34425						
RTA68	5-ring	1x SCP1RC18 4x K0P13 or 5x K0P13	U 34409RC1 U 34408 U 34408						
X62DF	3-ring	1x GTP1CC20 2x SCP2CC12	FX 34250 FX 34251						
X62	3-ring	1x GTP1CC20 2x SCP2CC12	AX 34250 AX 34251						
X62-B	3-ring	1x GTP1CC20 1x SCP2CC12	UX 34250 UX 34251						
RTA62U-B	3-ring	1x GTP1CC17 2x SCP2CC17	SPA 34113 SPA 34114						
	4-ring	1x SCP1CC17 3x SCP1RC17 or 1x SCP1CC17 3x SCP1RC13	A 34422 A 34423 A 34422 A 34424			4x SCP1RC17 or 1x SCP1RC17 3x SCP1RC13	A 34423 A 34423 A 34424		
RTA62U RTA62	3-ring	1x GTP1CC17 2x SCP2CC17	SPZ 34113 SPZ 34114						
	4-ring	1x SCP1CC17 3x SCP1RC17 or 1x SCP1CC17 3x SCP1RC13	Z 34430 Z 34431 Z 34430 Z 34432			4x SCP1RC17 or 1x SCP1RC17 3x SCP1RC13	Z 34431 Z 34431 Z 34432		
	5-ring	1x SCP1CC17 4x SCP1RC13	Z 34430 Z 34432			1x SCP1RC17 4x SCP1RC13 or 5x SCP1RC13	Z 34431 Z 34432 Z 34432		
RT-flex60C-B RT-flex60C	3-ring	1x GTP1CC16 2x SCP1CC16	SPNF 34103 SPNF 34104						
	4-ring	1x SCP1CC16 3x SCP2CC16	NF 34420 NF 34421CC2	1x GTP1CC16 3x SCP2CC16	NF 34420GTP NF 34421CC2	1x SCP1CC16 3x SCP1RC16	NF 34420 NF 34421RC1		
RT-flex58T-D_V0_V1	3-ring	1x GTP1CC16 2x SCP2CC16	OF 34422 OF 34423			1x SCP1CC16 ₂₎ 2x SCP1RC16 ₂₎	OF 34420 OF 34421		
	4-ring	1x SCP1CC16 3x SCP2CC16	OF 34420 OF 34423			1x SCP1CC16 ₂₎ 3x SCP1RC16 ₂₎	OF 34420 OF 34421		

Engine type continued	Piston design	Standard version	Order number (Code no.)	Alternative 1 (gastight) see ¹⁾	Order number (Code no.)	Alternative 2 (see ²⁾ when applicable)	Order number (Code no.)	Alternative 3	Order number (Code no.)
RT-flex58T-D_V2	3-ring	1x GTP1CC16 2x SCP2CC16	GF 34422 GF 34423						
RT-flex58T-B	3-ring	1x GTP1CC16 2x SCP2CC16	OF 34422 OF 34423						
	4-ring	1x SCP1CC16 3x SCP1RC16	OF 34420 OF 34421			4x SCP1RC16	OF 34421		
RT-flex58T-E	3-ring	1x GTP1CC16 2x SCP2CC16	CF 34422 CF 34423						
RT-flex58TD ER-3	3-ring	1x GTP1CC18 2x SCP2CC12	AF 34425 AF 34426						
RTA58T-D	3-ring	1x GTP1CC16 2x SCP2CC16	SPQ 34103 SPQ 34104						
	4-ring	1x SPC1CC16 2x SCP2CC16	Q 34422 Q 34429						
RTA58T-B	3-ring	1x GTP1CC16 2x SPC2CC16	SPQ 34103 SPQ 34104						
	4-ring	1x SCP1CC16 3x SCP1RC16	Q 34422 Q 34423			4x SCP1RC16	Q 34423		
RTA58T	3-ring	1x GTP1CC16 2x SCP2CC16	SPW 34303 SPW 34304						
	4-ring	1x SCP1CC16 3x SCP1RC16	W 34422 W 34423			4x SCP1RC16	W 34423		
RTA58	5-ring	1x SCP1RC16 4x K0P12 or 5x K0P12	U 34409RC1 U 34408 U 34408						
RTA52U RTA52	4-ring	1x SCP1CC15 3x SCP1RC15 or 1x SCP1CC15 3x SCP1RC12	Z 34427 Z 34428 Z 34427 Z 34429			4x SCP1RC15 or 1x SCP1RC15 3x SCP1RC12	Z 34428 Z 34428 Z 34429		
	5-ring	1x SCP1CC15 4x SCP1RC12	Z 34427 Z 34429			1x SCP1RC15 4x SCP1RC12 or 5x SCP1RC12	Z 34428 Z 34429 Z 34429		
X52	2-ring	1x GTP1CC18 1x SCP2CC15	KX 34250 KX 34251						
X52DF	2-ring	1x GTP1CC18 1x SCP2CC15	LX 34250 LX 34251						
RT-flex50-D	3-ring	1x GTP1CC15 2x SCP2CC15 or 1x GTP1CC17 2x SCP2CC15	IF 34422 IF 34423 IF 34424 IF 34423			1x GTP1CC15 ²⁾ 2x SCP1RC15 ²⁾	IF 34422 IF 34421		

Engine type continued	Piston design	Standard version	Order number (Code no.)	Alternative 1 (gastight) see ¹⁾	Order number (Code no.)	Alternative 2 (see ²⁾ when applicable)	Order number (Code no.)	Alternative 3	Order number (Code no.)
RT-flex50-B RT-flex50	3-ring	1x GTP1CC15 2x SCP2CC15 or 1x GTP1CC17 2x SCP2CC15	IF 34422 IF 34423 IF 34424 IF 34423	1x GTP1CC15 ²⁾ 2x SCP1RC15 ²⁾			IF 34422 IF 34421		
	4-ring	1x GTP1CC15 3x SCP1RC15	IF 34422 IF 34421	1x GTP1CC15 3x SCP2CC15	IF 34422 IF 34423				
RT-flex50DF	3-ring	1x GTP1CC17 2x SCP2CC15	KF 34422 KF 34423						
RT-flex48T-D	3-ring	1x GTP1CC15 2x SCP2CC15	EF 34426 EF 34427			1x SCP1CC15 ²⁾ 2x SCP1RC15 ²⁾	EF 34425 *)		
	4-ring	1x SCP1CC15 3x SCP2CC15	EF 34425 EF 34427			1x SCP1CC15 ²⁾ 3x SCP1RC15 ²⁾	EF 34425 *)		
RTA48T-D RTA48T-B	3-ring	1x GTP1CC15 2x SCP2CC15	Q 34427 Q 34426			1x SCP1CC15 ²⁾ 2x SCP1RC15 ²⁾	Q 34420 Q 34421		
	4-ring	1x SCP1CC15 3x SCP2CC15	Q 34420 Q 34426	1x GTP1CC15 3x SCP2CC15	Q 34427 Q 34426	1x SCP1CC15 ²⁾ 3x SCP1RC15 ²⁾ or 4x SCP1RC15	Q 34420 Q 34421 Q 34421		
RTA48T	4-ring	1x SCP1CC15 3x SCP1RC15	W 34420 W 34421			4x SCP1RC15	W 34421		
RTA48	4-ring	1x SCP1RC15 3x K0P11 or 4x K0P11	T 34411RC1 T 34409 T 34409						
RTA38	4-ring	1x K0P13 3x K0P10 or 4x K0P10	T 34408 T 34407 T 34407						
X40	3-ring	1x GTP1CC14 2x SCP2CC09	SF 34250 SF 34251						
X40-B	3-ring	1x GTP1CC14 2x SCP2CC09	SX 34250 SX 34251						
X35	3-ring	1x GTP1CC13 2x SCP2CC08	RF 34250 RF 34251						
X35-B	3-ring	1x GTP1CC13 2x SCP2CC08	RX 34250 RX 34251						

1.1 Notes to table with piston ring versions and order numbers

Remark to columns "Standard version" and "Alternative 1 to 3":

- Gas Tight (GT) top piston rings may be beneficial when installed in the following cases:
 - Cylinder liners that have reached approximately 40% of the maximum admissible cylinder liner wear, according to the Maintenance Manual and/or
 - Re-honed cylinder liners depending on the liner wear profile

In case the above conditions are met and you are planning to install GT top piston rings, please contact Wärtsilä preferably with overhaul records/data of the affected unit for further evaluation .

- In case of IMO Tier II engines the "Alternative 2" is only applicable for de-rated engines after approval from Wärtsilä Switzerland Ltd.

NOTE:

This Appendix 1 with the table to piston ring versions and order numbers is part of Technical Bulletin RT-135.

2 Contacts

2.1 How to contact Wärtsilä

For services, spare parts and/or tools, please contact your nearest Wärtsilä representative or log in to Wärtsilä Online: wartsila.com/wartsila-online.

If you do not have the contact details at hand, please follow the link: wartsila.com/contact.

2.2 Contact details for emergency issues

For emergency issues, please use the following phone number:
24hrs phone number: +41 52 550 01 11.

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