

WABCO Air Dryer – The Braking System’s Backbone

It goes without saying that a braking system cannot function without both compressor and brake valves. Many functions that ensure the function of the system as a whole are, however, integrated into the Air Dryer or APU (Air Processing Unit).

The most important aspect in this respect is to ensure proper function of the system in the long-term:

- Moisture penetrating into reservoirs and valves causes corrosion. This type of corrosion can remain undetected for a long time but may cause the failure of connected devices in the form of flash rust.
- The moisture that remains in the reservoirs reduces the storage volume and therefore the number of brake actions that are possible while the engine is at a standstill or when the compressor fails. Experience has shown that drivers tend to rely on the function of the air dryer and rarely operate the drain valves of the reservoirs.
- Lubrication of the compressor results in small amounts of oil entering into the compression space, and this oil burns during the compression process due to the heat that is generated. The majority of combustion products (such as carbon deposit) are filtered out by the air drier cartridge, thereby preventing soiling or clogging of the brake valve’s sealing surfaces.
- New types of oil in the motors permit longer intervals between oil changes. However, the high-grade additives in the oils also bring with them new dangers: As components of the lubrication oil in the compressor, these additives can be transformed into aerosols. These aerosols act aggressively on rubber parts in the compressed air braking system. The WABCO Air System Protector (432 901 223 2), the premium cartridge with coalescing filter, prevents these aerosols from penetrating the braking system.



The new Air System Protector fits most air dryers (max. 13 bar, M 39x1.5)

Since the impact on the braking system of the factors mentioned above only starts to take effect after a longer period of operating time, the air dryer often fails to attract a lot of attention. Although air dryers are generally very robust, such disregard can have serious consequences.

For this reason, we recommend:

- replace cartridge(s) at regular intervals,
- frequent actuation of the drain valves at the reservoirs to check the air dryer function,
- taking problems with compressor or air dryer into account as possible causes when soiled or corroded components of the braking system are detected.

In the event that an air dryer needs to be replaced, WABCO can provide the suitable replacement. The table below provides an overview of our air dryers, sorted according to deployment in the different vehicles.

OE Number	Application	Type	Competition	Ref.
DAF / Foden 51-01407-000	DAF / Foden Trucks	Single		432 415 037 0
DAF 1505035R	DAF 95.310/95.350/95.380	Single	Knorr LA8234	432 410 102 7
Danor	Danor	Single		432 410 204 0
DC 000 431 67 15 80	DC 1935, O303	Single		432 420 000 0/7
DC / EvoBus 001 431 22 15	DC LK, MK, SK series / EvoBus O303, 350, 404, 405, 0814, 01114, 01117, 01120	Single		432 421 008 0/7
DC / MB / EvoBus 001 431 48 15	DC / MB Unimog, EvoBus	Single		432 411 166 0
DC / EvoBus 001 431 87 15	DC / EvoBus	Twin		432 432 006 0
MB 662 431 01 15	MB Unimog	Twin		432 432 006 0
DC / EvoBus 8 285 407 000	DC / EvoBus - Setra	Single	Knorr LA8234	432 410 102 7
Dennis Bus 432-410-102-7	Dennis Dart Bus, Single Decker	Single	Knorr LA8234	432 410 102 7
Dennis Bus AB4324100837	Dennis Bus	Single	Haldex78984	432 410 083 7
Eos 920920366	Eos Coach	Single	Knorr LA8234	432 410 102 7
DC / EvoBus 8.285.316.000	DC / EvoBus S:317, S319 GT-HD	Twin		432 432 199 0/7
DC / EvoBus 000 430 27 15	DC / Evobus Setra	Twin		432 432 017 0
DC / EvoBus 8 285 307 000	DC / EvoBus Setra	Twin		432 431 199 0/7
DC / EvoBus 8 285 358 000	DC / EvoBus	Twin		432 431 173 0/7
Dennis 658558	Dennis Bus	Single		432 421 012 0
Diverse	Bus applications	Single	Knorr LA6244+LA8222	432 410 038 0
Ford YC44 2K867 A1A	Ford	Single		432 415 030 0
Iveco 980829	Iveco Ikarus, Pegaso / Irisbus	Single	Knorr LA8234	432 410 102 7
Iveco / Pegaso 4103 1475	Iveco EuroCargo, EuroTech, EuroTrakker, EuroStar, Pegaso Bus, Single decker 391.12.29	Single		432 410 075 0
Iveco 0813 7622	Iveco EuroCargo, EuroTech, EuroTrakker, EuroStar	Single		432 410 023 0/7 432 419 073 0
Iveco 0816 0470	Iveco EuroCargo, EuroTech, EuroStar	Single		432 410 074 0
Iveco 0816 0471	Iveco EuroCargo, EuroTech, EuroStar	Single	Knorr LA6244 / LA8222	432 410 034 0/7
Iveco / Pegaso 0816 0475	Iveco EuroCargo, EuroTech, EuroTrakker, EuroStar, Pegaso Bus, Single decker 391.12.29	Single		432 410 035 0/7
Iveco 110450	Iveco TurboStar, TurboTech, Iveco Astra, special-purpose vehicles	Single		432 410 021 0/7
Iveco 163732	Iveco ASTRA	Single		432 415 015 0
Iveco 4207 9486	Iveco TurboStar, TurboTech, Iveco Astra, special-purpose vehicles	Single	Knorr LA6205+ LA8229	432 410 021 0/7
Iveco 4210 9792	Iveco	Single		432 410 022 0/7

Iveco 4253 7851	Iveco	Twin		432 432 199 0/7
Iveco 0816 0470	Iveco EuroCargo, EuroTech, EuroStar	Single		432 410 033 0/7
Iveco 9010099029	Iveco TurboStar, TurboTech, Iveco Astra, special-purpose vehicles	Single		432 410 021 0/7
Iveco / Pegaso 70003-43220	Iveco Ikarus, Pegaso / Irisbus	Single	Knorr LA8234	432 410 102 7
Irisbus 42554597	Irisbus	Twin		432 431 173 0/7
John Deere 28210401000	Jonckheere Bus and Coach	Single	Knorr LA8210	432 410 116 7
Karosa 5006016148	Karosa Bus	Single	Knorr LA6244, A8222	432 410 122 0
Kögel 322 795	Kögel	Single	Knorr LA8234	432 410 102 7
Liebherr / DC 5026 57308	Liebherr / DC	Single		432 410 007 0
MAN / Neoman 81.52102-6104	MAN M / F2000, TGA, Neoman Bus	Single	Knorr LA8210	432 410 116 7
MAN / ERF 127670-0	MAN / ERF E&EC series from mid 1996	Single		432 415 029 0
MAN / ERF 128792-2	MAN / ERF E&EC series from mid 1996	Single		432 415 030 0
MAN / Neoman 81.52102-6024	MAN G / F90, Neoman	Single	Knorr LA8211	432 410 111 7
MAN / Neoman 88.52102-6008	MAN / Neoman	Twin		432 431 199 0/7
MAN / Neoman 81.52102-6088	MAN M/F 2000, Neoman Bus	Twin		432 432 000 0
MAN 81.52102-6095	MAN	Twin		432 432 002 0
MAN 81.52102-6097	MAN F90, L / M / F2000, TG-A	Single	Knorr LA8211	432 410 113 0/7
MAN 81.52102-6105	MAN L / M / F2000	Single	Knorr LA8212	432 410 112 7
MAN 81.52102-6112	MAN	Twin		432 432 005 0
MAN / Neoman 81.52102-6119	MAN M / F2000, TGA, Neoman Bus	Single	Knorr LA8207AT	432 410 115 7
MAN 84.52102-6017	MAN	Twin		432 432 199 0/7
MAN 88.52102-6007	MAN	Single		432 420 000 0/7
MAN 910036047	MAN	Single	Knorr LA8234	432 410 102 7
MAN 88.52102-6001	MAN	Single	Knorr LA8234	432 410 102 7
MAN 81.52102.6023	MAN	Single	Knorr LA8234	432 410 102 7
Neoplan 11017447	Neoplan Skyliner Double Decker Bus, Transliner Muncial Vehicle Bus	Single	Knorr LA8234	432 410 102 7
Neoplan 11017448	Neoplan	Single		432 420 000 0/7
Neoplan 11018638	Neoplan Transliner Bus	Twin		432 432 199 0/7
Neoplan 11018678	Neoplan	Twin		432 431 199 0/7
Neoplan 1102.734.01	Neoplan	Single		432 420 000 0/7
Neoplan 11060914	Neoplan	Twin		432 432 017 0
Neoplan 11062846	Neoplan	Twin		432 432 002 0
Nissan Motor 47540-D6435	Nissan	Single	Knorr LA8234	432 410 102 7

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RV.I 4324200000	Renault V.I.	Single		432 420 000 0/7
RV.I 5010260523	RV.I. Midlum, Premium	Single		432 415 138 0 432 415 124 0
RVI 5010260660	Renault V.I. Midlum, Premium	Single		432 415 026 7
RVI 5010376083	Renault V.I.	Single		432 415 033 0
Scania 1441751	Scania 3+4 series	Single	Haldex 78984	432 410 083 7
Scania	Scania 4 series	Single		432 410 090 0
Scania 1517979	Scania 3+4 series	Single	Haldex 78984	432 410 083 7
Solaris P-1102.751.140	Solaris Bus	Single		432 410 022 0/7
Volvo 20393337	Volvo	Single		432 410 087 0
Volvo 3035101	Volvo B10M Bus / Coach	Twin		432 431 010 7
Volvo 8112336	Volvo B10M Bus / Coach	Twin		432 431 010 7
Volvo 8112337	Volvo FH 12 series, FH 16/520	Twin		432 431 008 7
Volvo 3951836	Volvo	Single		432 410 089 0
Volvo 20553336	Volvo all ranges	Single		432 410 192 0
Volvo 20410157	Volvo all ranges	Single		432 410 192 0
Volvo 20546790	Volvo all ranges	Single		432 410 191 0
Volvo 85000332	Volvo all ranges	Single		432 410 191 0
Volvo 20420156	Volvo all ranges	Single		432 410 191 0
Volvo 85000114	Volvo all ranges	Single		432 410 191 0