



AIR BRAKE CORPORATION OF AUSTRALIA P/L

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TSE 'HOT' MODEL HIGH OUTPUT TECHNOLOGY SPRINGBRAKES

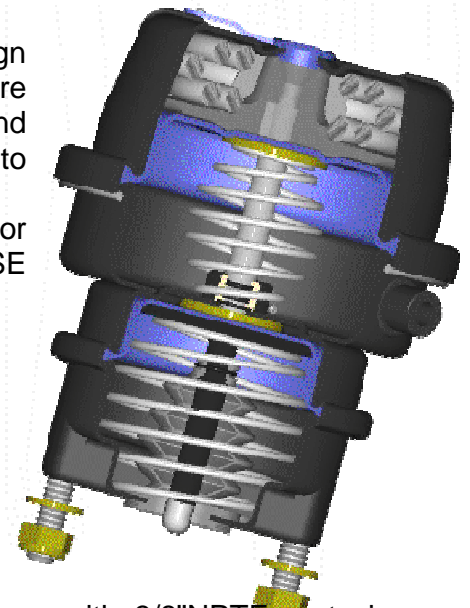
AIR DISC BRAKES

As an alternative to the usual s-cam models (2024, 2424, 2430, 3030, etc), all AIR BRAKE CORPORATION trailer brake kits may now be ordered with the exclusive new 'HOT' model springbrakes developed by TSE specifically for European air disc brakes.

These new units are designed to deliver equivalent spring force to European piston type springbrakes in a more economical and durable double diaphragm construction. The high spring force means that compliance with ADR38/02 parking and emergency requirements is often possible with springbrakes on fewer axles, saving both cost and weight.

Industry leading features make the 'HOT' model ideally suited to either original equipment installation or aftermarket replacement of European piston types...

- ✓ Economical but durable double diaphragm design (piston designs favoured in Europe are susceptible to air system contaminants and impact damage to the piston housing, leading to seal leakage and piston seizure).
- ✓ Advanced pushrod sealing meets Euro specs for protection of caliper, backed up by extended TSE warranty on springbrake *and* caliper.
- ✓ Higher parking and emergency force than conventional double diaphragms.
- ✓ Stronger zero-porosity all steel construction with e-coat corrosion protection.
- ✓ Lighter, shorter profile and sealed tamper proof spring housing.
- ✓ Long lasting triple-coated power spring.



All common stock 'HOT' models listed below come with 3/8"NPTF ports in an unhandled orientation, so the same P/N may be used on both sides of the axle with industry standard 3/8"NPTF fittings, without the need for metric adapters.

SPRINGBRAKES...

1216	P/N 1216HTLD64-1707
1424	P/N 1424HTLD64-1814
1616	P/N 1616HTLD64-1708
1624	P/N 1624HTLD64-1815
1824	P/N 1824HTLD64-2694
2024	P/N 2024HTLD65-2152

SERVICE ONLY...

T12	P/N 12HSCLD64-1705
T14	P/N 14HSCLD64-1813
T16	P/N 16HSCLD64-1706
T20	P/N 20HSCLD65-1463
T22	P/N 22HSCLD65-2000
T24	P/N 24HSCLD65-1465

ADR38 CALCS

The actuator size required for a specific application is determined by the trailer manufacturer's 'Compliance Plate Approval' (CPA), which is in turn generally determined by calculation. This calculation uses data in the relevant SARN approval for the various sub-assemblies used - Control System (air kit), Foundation Brake (axle), and SuSpension.

Actuator data for most common Air Brake Corporation kits is listed below for reference. However, these values can vary, so before running Compliance Plate Approval calculations, **the relevant data should be extracted from the appropriate SARN documents** (in particular, the equations for 'A' listed below for emergency/parking brakes are based on the latest RW-TUV test results and may differ slightly from equations quoted in older SARN approvals). Effective service diaphragm area is not captured in the SARN documents, so the values listed below may be used as a guide.

Note that effective diaphragm area is derived from force vs pressure test data, and varies significantly with stroke and pressure. ADR38 does not stipulate the method for its derivation. The values below (**) represent an approximate 'normalised' average diaphragm area at typical working strokes and pressures, and are listed for reference.

ACTUATOR Model/Desc	Notes and Comments	**Effective Service Dia.Area (sq cm)	Equation for 'A' for Emerg'y / Park calc
1216HTLD64	'HOT' model for disc brakes	85	1,20 - 0,0088S (095)***
1424HTLD64	'HOT' model for disc brakes	90	0,99 - 0,0069S (140)***
1616HTLD64	'HOT' model for disc brakes	95	1,20 - 0,0088S (180)***
1624HTLD64	'HOT' model for disc brakes	95	0,99 - 0,0069S (140)***
1824HTLD65	'HOT' model for disc brakes	107	0,99 - 0,0069S (140)***
2024HTLD65	'HOT' model for disc brakes	110	0,99 - 0,0069S (140)***
2224HTLD65	'HOT' model for disc brakes	120	0,99 - 0,0069S (140)***
2424HTLD65	'HOT' model for disc brakes	140	0,99 - 0,0069S (140)***
2024TN2/TL2	'OMNI' model for s-cam drum	110	0,76 - 0,0060S (140)
2424TN2/TL2	'OMNI' model for s-cam drum	140	0,76 - 0,0060S (140)
2430TN2/TL2	'OMNI' model for s-cam drum	140	0,69 - 0,0049S (180)
3030TN2/TL2	'OMNI' model for s-cam drum	180	0,69 - 0,0049S (180)

***NOTE...

'HOT' models have higher power spring force than conventional double diaphragm springbrakes. The 1216 and 1616 'HOT' models listed above have parking/emergency force similar to the TSE XX30 'OMNI' model, so if 'HOT's are not specifically listed in the SARN data, the equation for 'A' applicable to XX30 may be used for parking/emergency calculations. Contact ABC engineering for further information.

Note that ADR38 considers springbrakes to be part of the approved 'Control System' (refer to AMVCB circular 38-1-3 Attachment 1 Page 3). Use of springbrakes not supplied with the 'Control System' may render trailer ADR compliance invalid.

There will be a small surcharge on ADR38 trailer kit prices for the 'HOT' springbrake option.