

ABDWS EMERGENCY PORTION, PART NO. 593038**with Shipping Cover Combination, Part No. 580926**

NOTE: The Emergency Part No. 593038 is not available as a complete device
This catalog is issued as a convenience for ordering repair parts only.

APRIL, 2003

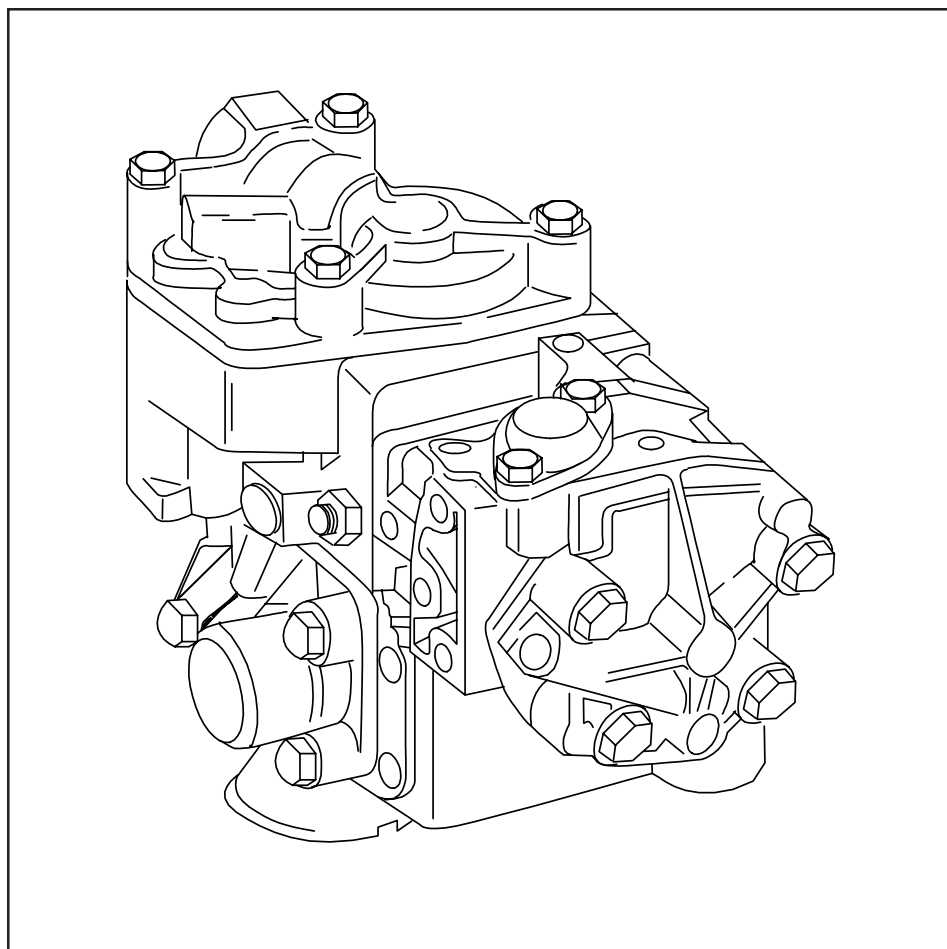
Supersedes issue dated April, 1997

IMPORTANT: This catalog is published as an aid in identifying the detail parts that make up this complete device. Refer to applicable maintenance publication **BEFORE** attempting either the disassembly or the assembly of this device.

⚠ WARNING: At the time any part is replaced in this device, the operation of the complete device must pass a series of tests prescribed in the latest issue of the applicable Wabtec Test Specification. At the time this device is applied to the brake equipment arrangement, a stationary vehicle test must be made to ensure that this device functions properly in the total brake equipment arrangement. (Consult your local Wabtec Representative for identity of the test specification, with latest revision date, that covers this device.)

IMPORTANT: Only Wabtec supplied parts are to be used in the repair of this device in order to obtain satisfactory operation. Commercially available non-O.E.M. parts are unacceptable.

NOTE: The part numbers and their associated descriptions are the property of Wabtec Corporation and may not be replicated in any manner or form without the prior sole written consent of an Officer of Wabtec Corporation.



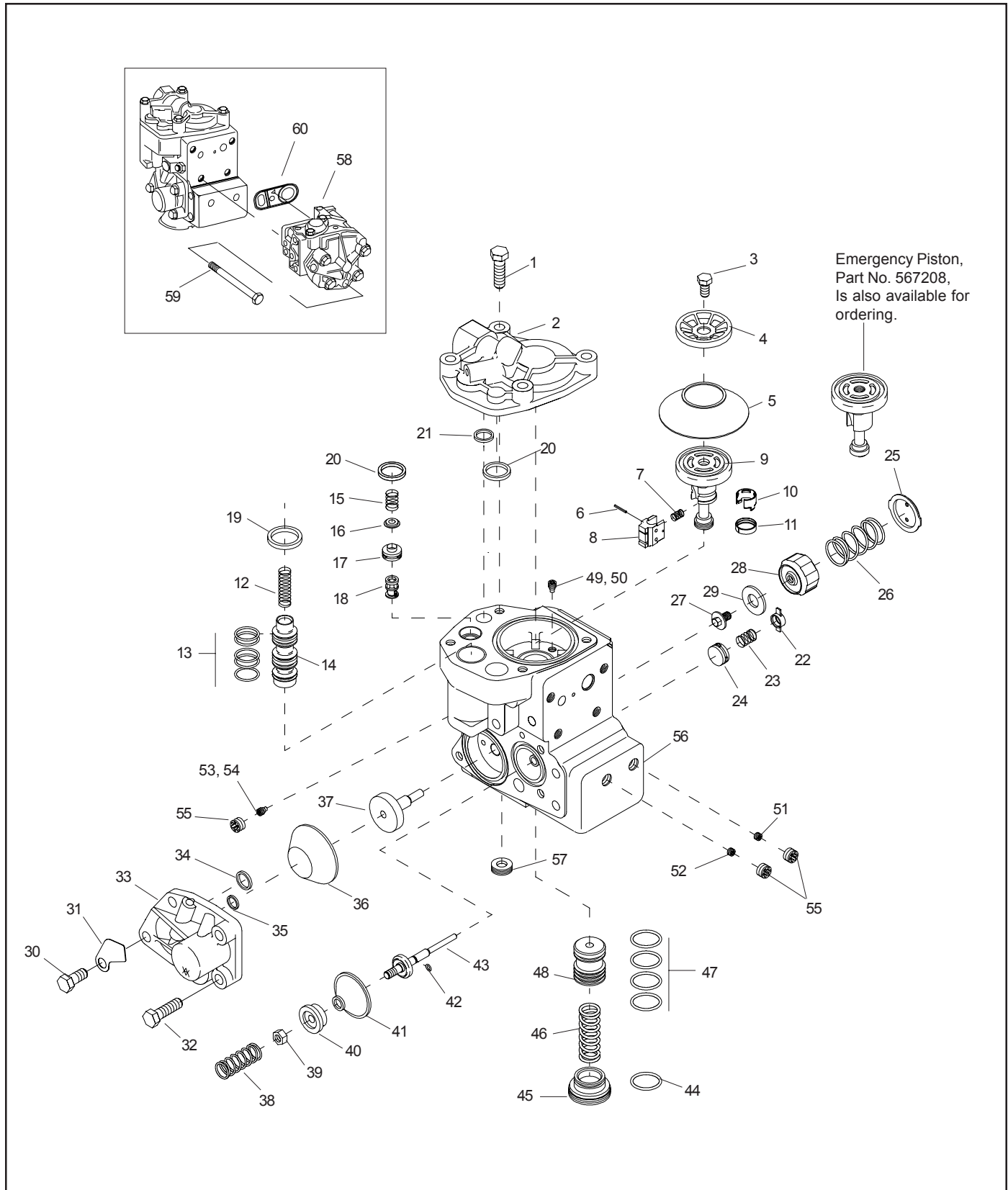


Figure 1 - Part No. 593038



Parts Catalog

ABDWS EMERGENCY PORTION, PART No. 593038 - Figure 1

| Figure & Ref. No. | Customer Part No. | Wabtec Part No. | Description | Qty. |
|-------------------|-------------------|-----------------|---|------|
| 1 - | | 593038 | ABDWS EMERGENCY PORTION (Includes Ref. Nos. 1 to 60) | 1 |
| 1 - 1 | | 542640 | . BOLT , 1/2-13 x 1 3/4" Hex | 4 |
| 1 - 2 | | 567213 | . COVER , Top | 1 |
| 1 - 3 | | 564568 | . BOLT , 5/8-11 x 1" Hex | 1 |
| 1 - 4 | | 567210 | . FOLLOWER , Diaphragm | 1 |
| 1 - 5 | | •564588 | . DIAPHRAGM , Emergency Piston | 1 |
| 1 - 6 | | 550672 | . PIN , 3/32 x 3/4" Cylindrical | 1 |
| 1 - 7 | | 560538 | . SPRING , Emergency Slide Valve (See Page 8 for Spring Identification Chart) | 1 |
| 1 - 8 | | 660474 | . VALVE , Emergency Slide | 1 |
| 1 - 9 | | □660670 | . PISTON , Emergency (Incls. Ref. Nos. 10 & 11) See Note on Page 5 | 1 |
| 1 - 10 | | 660860 | .. RING , Wear Protection | 1 |
| 1 - 11 | | 660660 | .. RING , Wear Protection | 1 |
| 1 - 12 | | 567212 | . SPRING , Return, H.P. Spool Valve (See Page 8 for Spring Identification Chart) | 1 |
| 1 - 13 | | •660061 | . O-RING , 1 3/16" O.D. | 5 |
| 1 - 14 | | 567211 | . VALVE , H.P. Spool | 1 |
| 1 - 15 | | 569087 | . SPRING , Check Valve Emergency Accelerated Release Valve (See Page 8 for Spring Identification Chart) | 1 |
| 1 - 16 | | •95084 | . SEAT , Check Valve | 1 |
| 1 - 17 | | •94891 | . VALVE , Emergency Accelerated Release Check | 1 |
| 1 - 18 | | •588105 | . STRAINER , Air (Refer to Service Bulletin 68-22) | 1 |
| 1 - 19 | | •538079 | . GASKET , 1 3/4" O.D. Ring | 1 |
| 1 - 20 | | •534526 | . GASKET , 1 1/2" O.D. Ring | 2 |
| 1 - 21 | | •534683 | . GASKET , 1 1/8" O.D. Ring | 1 |
| 1 - 22 | | 569022 | . RETAINER , Inshot Spring | 1 |
| 1 - 23 | | 533932 | . SPRING , Check Valve Inshot (See Page 8 for Spring Identification Chart) | 1 |
| 1 - 24 | | •94891 | . VALVE , Inshot Check | 1 |
| 1 - 25 | | 94880 | . RETAINER , Spring | 1 |
| 1 - 26 | | 567222 | . SPRING , Vent Valve (See Page 8 for Spring Identification Chart) | 1 |
| 1 - 27 | | 570014 | . BOLT , 3/8-16 x 5/8" Hex | 1 |
| 1 - 28 | | 567220 | . PISTON , Small Vent Valve | 1 |
| 1 - 29 | | •95968 | . SEAL , Vent Valve | 1 |
| 1 - 30 | | 514280 | . BOLT , 1/2-13 x 1 1/8" Hex | 2 |
| 1 - 31 | | 660695 | . TAG , Identification | 1 |
| 1 - 32 | | 542640 | . BOLT , 1/2-13 x 1 3/4" Hex | 2 |
| 1 - 33 | | 567224 | . COVER , Vent Valve | 1 |

• NOTE: See Repair Parts Kit Information on Page 5


ABDWS EMERGENCY PORTION, PART No. 593038 - Figure 1 (Continued)

| Figure & Ref. No. | Customer Part No. | Wabtec Part No. | Description | Qty. |
|-------------------|-------------------|-----------------|---|------|
| 1 - 34 | | •532092 | .GASKET, ¹⁵ / ₁₆ " O.D. Ring | 1 |
| 1 - 35 | | •527560 | .GASKET, ⁵ / ₈ " O.D. Ring | 1 |
| 1 - 36 | | •564586 | .DIAPHRAGM, Vent Valve Piston | 1 |
| 1 - 37 | | 567218 | .PISTON, Vent Valve | 1 |
| 1 - 38 | | 569088 | .SPRING, Inshot Piston (See Page 8 for Spring Identification Chart) | 1 |
| 1 - 39 | | 569374 | .NUT, ³ / ₈ " Self-Locking | 1 |
| 1 - 40 | | 567223 | .FOLLOWER, Diaphragm | 1 |
| 1 - 41 | | •564587 | .DIAPHRAGM, Inshot | 1 |
| 1 - 42 | | •534662 | .O-RING, ³ / ₈ " O.D. | 1 |
| 1 - 43 | | 567262 | .PISTON, Inshot | 1 |
| 1 - 44 | | •524794 | .O-RING, 1 ¹ / ₂ " O.D. | 1 |
| 1 - 45 | | 567217 | .NUT, Cap | 1 |
| 1 - 46 | | 70642 | .SPRING, Spool Valve, Emergency Accelerated Release (See Page 8 for Spring Identification Chart) | 1 |
| 1 - 47 | | •524794 | .O-RING, 1 ¹ / ₂ " O.D. | 4 |
| 1 - 48 | | 567216 | .VALVE, Emergency Accelerated Release Spool | 1 |
| 1 - 49 | | 567206 | .PLUG, ¹ / ₈ " NPT Choke Charging (Includes Ref. No. 50) | 1 |
| 1 - 50 | | •506276 | ..FILTER, Felt Strainer | 1 |
| 1 - 51 | | 550069 | .PLUG, ¹ / ₈ " NPT Inshot By-Pass Choke | 1 |
| 1 - 52 | | 77882 | .PLUG, ¹ / ₈ " NPT Inshot Volume Choke | 1 |
| 1 - 53 | | 567206 | .PLUG, ¹ / ₈ " NPT Q.A. Blow-Down Choke (Includes Ref. No. 54) | 1 |
| 1 - 54 | | •506276 | ..FILTER, Felt Strainer | 1 |
| 1 - 55 | | 572393 | .PLUG, ³ / ₈ " NPT | 3 |
| 1 - 56 | | 593044 | .BODY, Emergency Portion (Incl. Ref. No. 57) | 1 |
| 1 - 57 | | 577046 | ..PLUG, ¹ / ₂ " NPT Filter (Exhaust Port) (Incl. Ref. Nos. 57a & 57b) | 1 |
| 1 - 57a | | •577048 | ...INSERT, Filter Air (Not Shown) | 1 |
| 1 - 57b | | 579886 | ...RING, Retainer (Not Shown) | 1 |
| 1 - 58 | | 580589 | .ACCELERATED APPLICATION VALVE PORTION (See Insert in Figure 1, for details see Figure 2) | 1 |
| 1 - 59 | | 19426 | .BOLT, ¹ / ₂ -13 x 4 ³ / ₄ " Hex | 4 |
| 1 - 60 | | •580612 | .GASKET | 1 |

• NOTE: See Repair Parts Kit Information on Page 5

ABDWS EMERGENCY PORTION with SHIPPING COVER COMBINATION

| Figure & Ref. No. | Customer Part No. | Wabtec Part No. | Description | Qty. |
|-------------------|-------------------|-----------------|--|------|
| | | 580926 | ABDWS EMERGENCY PORTION with Shipping Cover Combinaton | Ref. |
| | | 593038 | ABDWS EMERGENCY PORTION | 1 |
| | | 578757 | COVER, Shipping | 1 |

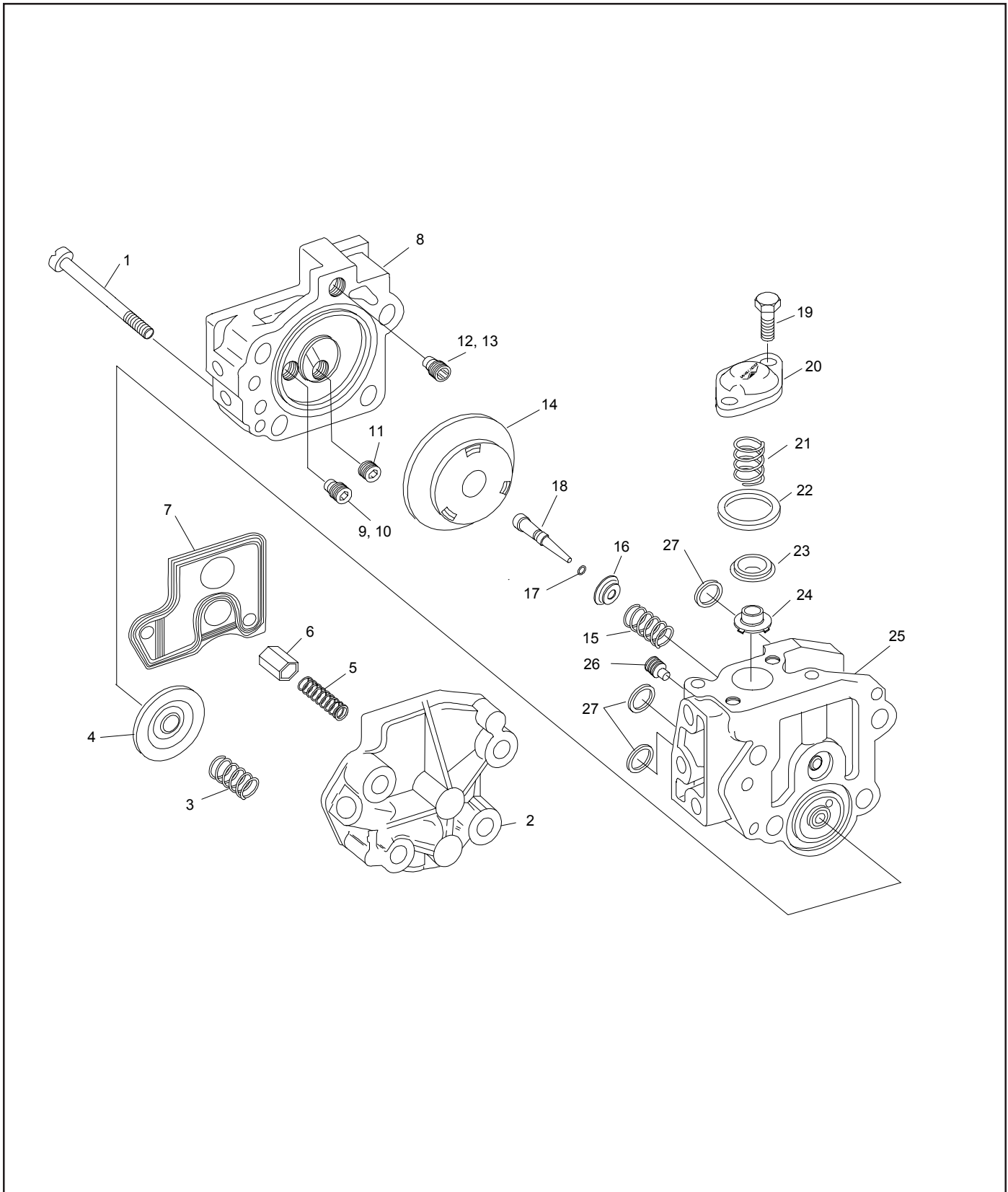


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ABDW EMERGENCY PORTION REPAIR PARTS KIT, PART No. 580924

| Figure & Ref. No. | Customer Part No. | Wabtec Part No. | Description | Qty. |
|-------------------|-------------------|-----------------|--|------|
| 1 - | | 580924 | ABDW EMERGENCY PORTION REPAIR PARTS KIT | Ref. |
| 1 - 5 | | 564588 | DIAPHRAGM , Emergency Piston | 1 |
| 1 - 13 | | 660061 | O-RING , 1 ³ / ₁₆ " O.D. | 5 |
| 1 - 16 | | 95084 | SEAT , Check Valve | 1 |
| 1 - 17 | | 94891 | VALVE , Accelerated Release Check | 1 |
| 1 - 18 | | 588105 | STRAINER , Air | 1 |
| 1 - 19 | | 538079 | GASKET , 1 ³ / ₄ " O.D. Ring | 1 |
| 1 - 20 | | 534526 | GASKET , 1 ¹ / ₂ " O.D. Ring | 2 |
| 1 - 21 | | 534683 | GASKET , 1 ¹ / ₈ " O.D. Ring | 1 |
| 1 - 24 | | 94891 | VALVE , Inshot Check | 1 |
| 1 - 29 | | 95968 | SEAL , Vent Valve | 1 |
| 1 - 34 | | 532092 | GASKET , 1 ⁵ / ₁₆ " O.D. Ring | 1 |
| 1 - 35 | | 527560 | GASKET , 5/ ₈ " O.D. Ring | 1 |
| 1 - 36 | | 564586 | DIAPHRAGM , Vent Valve Piston | 1 |
| 1 - 41 | | 564587 | DIAPHRAGM , Inshot | 1 |
| 1 - 42 | | 534662 | O-RING , 3/ ₈ " O.D. | 1 |
| 1 - 44 | | 524794 | O-RING , 1 ¹ / ₂ " O.D. | 1 |
| 1 - 47 | | 524794 | O-RING , 1 ¹ / ₂ " O.D. | 4 |
| 1 - 50 | | 506276 | FILTER , Felt Strainer | 1 |
| 1 - 54 | | 506276 | FILTER , Felt Strainer | 1 |
| 1 - 57a | | 577048 | FILTER , Insert Air | 1 |
| 1 - 60 | | 580612 | GASKET | 1 |
| 2 - 4 | | 580606 | DIAPHRAGM | 1 |
| 2 - 6 | | 566758 | VALVE , Check | 1 |
| 2 - 7 | | 580605 | GASKET , Cover | 1 |
| 2 - 10 | | 506276 | STRAINER , Felt | 1 |
| 2 - 13 | | 506276 | STRAINER , Felt | 1 |
| 2 - 14 | | 580601 | DIAPHRAGM | 1 |
| 2 - 17 | | 524609 | O-RING , 1/ ₄ " O.D. | 1 |
| 2 - 22 | | 534526 | GASKET , 1 ¹ / ₂ " O.D. Ring | 1 |
| 2 - 24 | | 94891 | VALVE , Check | 1 |
| 2 - 27 | | 534527 | GASKET , 1 ¹ / ₁₆ " O.D. Ring | 3 |

- NOTE:** This Emergency Piston is fitted with plastic rings and provides Vibration Protection to the Portion. Emergency Piston without plastic rings, Part Number 567208, is also available for ordering.

**Figure 2 - Part No. 580589**

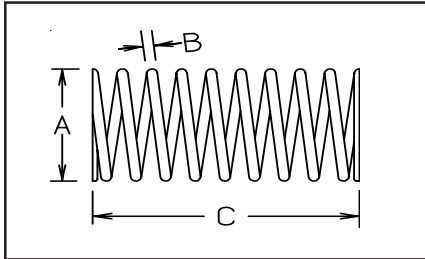


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ACCELERATED APPLICATION VALVE PORTION, PART No. 580589 - Figure 2

| Figure & Ref. No. | Customer Part No. | Wabtec Part No. | Description | Qty. |
|-------------------|-------------------|-----------------|--|------|
| 2 - | | 580589 | ..ACCELERATED APPLICATION VALVE PORTION (Includes Item Nos. 1 to 27) | 1 |
| 2 - 1 | | 580611 | ..BOLT , 1/4-20 x 3" Fillet Head | 2 |
| 2 - 2 | | 580608 | ..COVER | 1 |
| 2 - 3 | | 584197 | ..SPRING , Diaphragm Check Valve (See Page 8 for Spring Information Chart) | 1 |
| 2 - 4 | | • 580606 | ..DIAPHRAGM | 1 |
| 2 - 5 | | 21085 | ..SPRING (See Page 8 for Spring Information Chart) | 1 |
| 2 - 6 | | • 566758 | ..VALVE , Check | 1 |
| 2 - 7 | | • 580605 | ..GASKET , Cover | 1 |
| 2 - 8 | | 580618 | ..FILLING PIECE ASSEMBLY (Includes Item Nos. 9 to 13) | 1 |
| 2 - 9 | | 554755 | ...PLUG , 1/8" NPT Choke, QAC Exh., Port 1 (Includes Item No. 10) | 1 |
| 2 - 10 | | • 506276 |STRAINER , Felt | 1 |
| 2 - 11 | | 520479 | ...PLUG , 1/8" NPT Choke, Breather Choke, Port 5 | 1 |
| 2 - 12 | | 570785 | ...PLUG , 1/8" NPT Choke, B.P. Supply, Port 3 (Includes Item No. 13) | 1 |
| 2 - 13 | | • 506276 |STRAINER , Felt | 1 |
| 2 - 14 | | • 580601 | ..DIAPHRAGM | 1 |
| 2 - 15 | | 580600 | ..SPRING (See Page 8 for Spring Information Chart) | 1 |
| 2 - 16 | | 580599 | ..CAGE , Spring | 1 |
| 2 - 17 | | • 524609 | ..O-RING , 1/4" O.D | 1 |
| 2 - 18 | | 580598 | ..PLUNGER | 1 |
| 2 - 19 | | 512422 | ..BOLT , 3/8-16 x 7/8" Hex | 2 |
| 2 - 20 | | 580673 | ..COVER , Check Valve | 1 |
| 2 - 21 | | 581330 | ..SPRING , Check Valve | 1 |
| 2 - 22 | | • 534526 | ..GASKET , 1 1/2" O.D Ring | 1 |
| 2 - 23 | | 95084 | ..SEAT , Spring | 1 |
| 2 - 24 | | • 94891 | ..VALVE , Check | 1 |
| 2 - 25 | | 580616 | ..BODY , AAV Portion (Includes Ref. No. 29) | 1 |
| 2 - 26 | | 77619 | ...PLUG , 1/8" NPT Choke Volume Exh., Port 1 | 1 |
| 2 - 27 | | • 534527 | ..GASKET , 1 1/16" O.D Ring | 3 |

SPRING IDENTIFICATION



The following table is shown to enable identification of the springs used in the devices catalogued herein. It is based on calculated figures and the actual spring will vary somewhat, due to the small differences in wire, coil diameter, number of turns, etc. This tabulation is intended for identification only and should not be used for any other purpose. It does not represent a specification for the springs mentioned. For proper operation of this device ONLY springs supplied by Wabtec Corporation are to be used in locations illustrated herein.

| Part No. | Approx. Outside Dia. "A" In. | Approx. Dia. Wire "B" In. | Approx. Free Height "C" In. | Approx. No. Turns * | Material |
|----------|------------------------------|---------------------------|-----------------------------|---------------------|--------------|
| 21085 | 5/16 | 3/64 | 1 1/4 | 16 1/2 | Bronze |
| 70642 | 1 | 9/64 | 2 3/4 | 10 1/2 | Steel |
| 533932 | 17/32 | 1/32 | 1 1/2 | 6 | Steel |
| 560538 | 7/32 | 1/32 | 1/2 | 9 | Phos. Bronze |
| 567212 | 9/16 | 1/16 | 1 7/8 | 11 | Steel |
| 567222 | 1 5/16 | 3/32 | 2 5/8 | 6 | Steel |
| 569087 | 13/16 | 1/16 | 7/8 | 6 | Steel |
| 569088 | 7/8 | 3/32 | 2 1/8 | 9 | Steel |
| 580600 | 5/8 | 3/64 | 1 19/64 | 7 | Steel |
| 581330 | 23/32 | 1/16 | 1 3/16 | 7 | Music Wire |
| 584197 | 27/64 | 3/64 | 1 23/64 | 7 | Music Wire |

*NOTE: Number of turns counted from extreme ends of wire.
All dimensions are shown in inches.

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