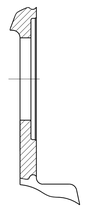
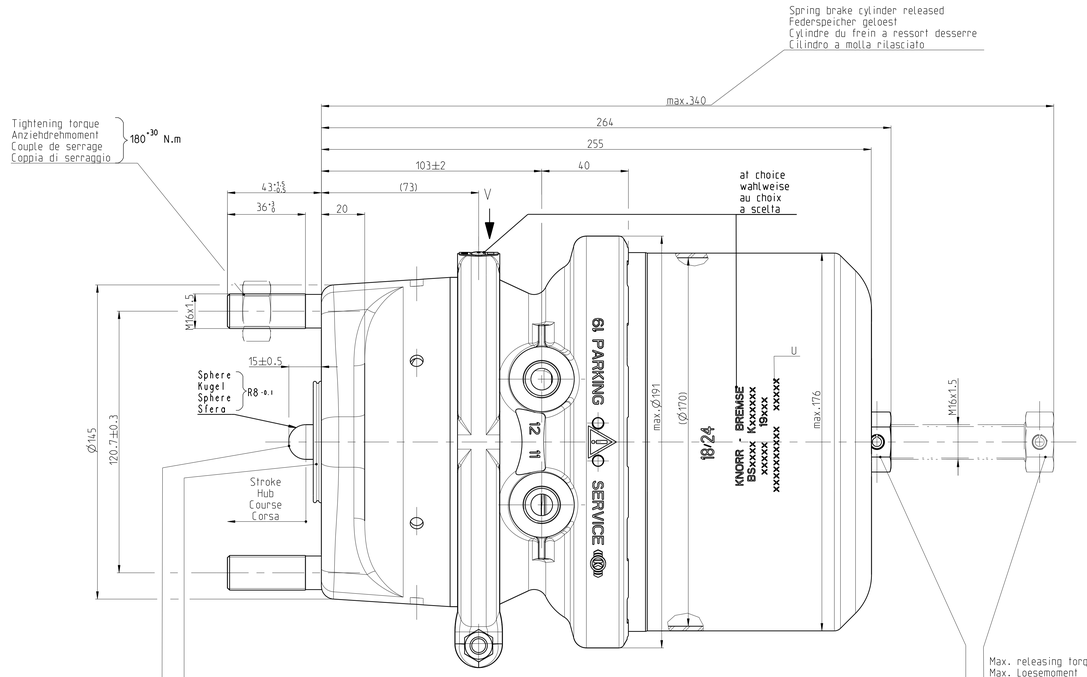
| Tolerances/Toleranzen/Tolérances/Tolleranze | | | | | | |
|---|---|---|---|---|---|---|
| Nominal dimensions in / Nominalmasse in / Cotes nominales en / Dimensioni nominali in — mm | | | | | | |
| <6 | >6 :30 | >30 :80 | >80 :120 | >120 :315 | >315 | |
| ±1 | ±1.5 | ±2 | ±2.5 | ±3 | ±4 | ±3° |

- General presentation, exact orientation of the components, see below.
- Allgemeine Darstellung, fuer genaue Teileorientierung; siehe Ansicht unten.
- Présentation générale, orientation exacte des pièces, voir vue en bas.
- Presentazione generale. Per l'orientazione correcta dei pezzi, vedere il disegno sotto.



Interface specification for geometry according C15651
Schnittstelle Spezifikation für Geometrie nach C15651
Specification d'interface pour la geometrie selon C15651
Specifica dell' interfaccia della geometrica codice C15651



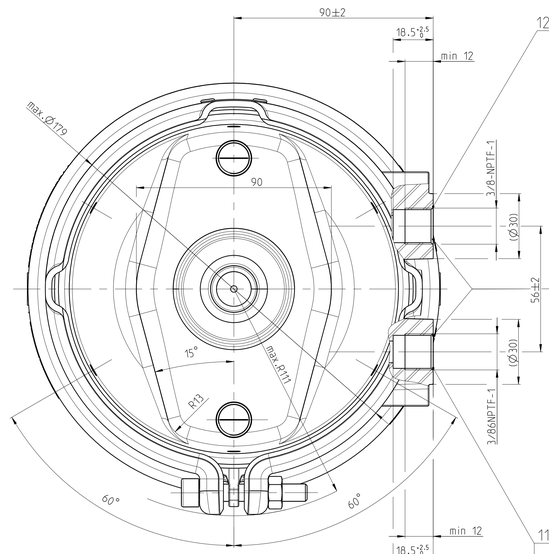

Sealing:pressure tight against secondary chamber
Abdichtung:druckdicht zum Sekundaerraum
Etancheite: etanche a la chambre secondaire
Tenuta ermetizzare la camera secondaria
} 0.4 bar

Max.pivoting angle of piston rod in all directions
Schwenkbereich der Kolbenstange allseitig max.
Angle de pivotement max. de la tige de piston de tous cotes
Angelo di rotazione dello stelo stantuffo in tutti i direzioni
} 4°

Max. releasing torque
Max. Loesemoment
Couple de desserrage max.
Coppia di rilascio max.
} 35 N.m

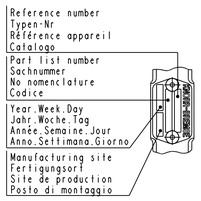
Mechanical releasing device: Spanner width
Mechanische Loesevorrichtung: SW
Dispositif de desserrage mécanique: Cote sur plats
Dispositivo di rilascio meccano.Chiave
} 24

Tightening torque in operating position
Anziehdrehmoment in Betriebsstellung
Couple de serrage en position de service
Coppia di serraggio nella posizione di servizio
} 20 - 70 N.m



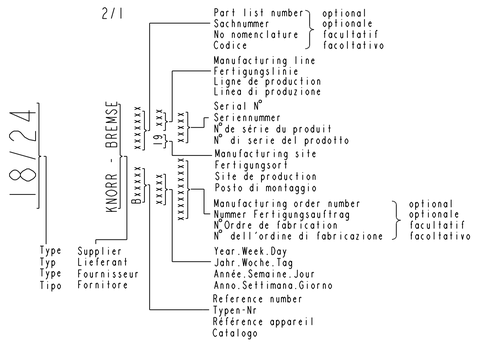

11 Charging and venting of spring portion via connection 11
Be- und Entlueftung des Federraumes ueber Anschluss 11
Alimentation et mise a l'atmosphere de la chambre a ressort par le raccord 11
Alimentazione ed evacuazione della attraverso attacco 11

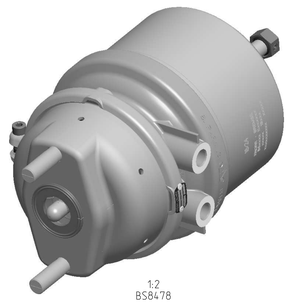
## V




## U

2/1

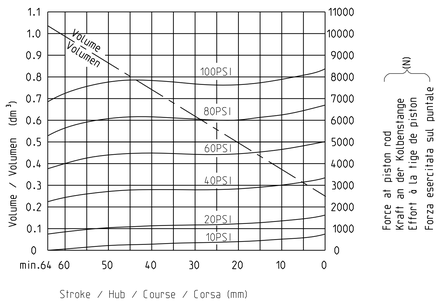


1:2
BS8478

Force of return spring at stroke 0 mm
Kraftabgabe der Rueckholfeder bei Hub 0 mm
Force du ressort de rappel à une course de 0 mm
Forza della molla di ritorno a una corsa di 0 mm
} F = 220 +30 -20 N

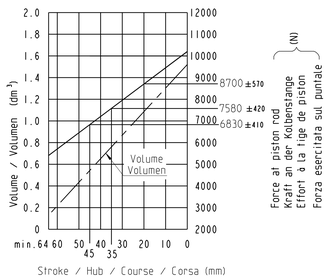
Diagram of service brake
Diagramm der Betriebsbremse
Diagramme du frein de service
Diagramma del freno di servizio
} Type 18




Hold-off pressure (pressure decreasing) measured at 10 mm of stroke - 4.83 Bar (70 PSI.) maximum.

Required release pressure
Erforderlicher Loesedruck
Pression de desserrage nécessaire
Pressione di rilascio necessaria
} 5.1± 0.3 bar

Diagram of spring loaded cylinder
Diagramm des Federspeichers
Diagramme du cylindre à ressort
Diagramma del cilindro a molla
} Type 24




Operational uses specifications:

Max. operating pressure
Max. Betriebsdruck
Pression de service max.
Pressione d'esercizio max.
11 } 10.2 bar

Max. operating pressure
Max. Betriebsdruck
Pression de service max.
Pressione d'esercizio max.
12 } 8.5 bar

Permissible leakage
Zulaessige Undichtheit
Fuite admissible
Fuga d'aria ammissibile
} $V_n$ = 23 cm³ /min

Critical uses specifications without part failure:

Max. pressure
Hoechstdruck
Pression max.
Pressione massima
11 } 13 bar

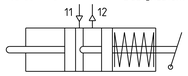
Max. pressure
Hoechstdruck
Pression max.
Pressione massima
12 } 11 bar

Temperature range
Therm. Anwendungsbereich
Plage de température
Campo termico di applicazione
} -40°C bis +80°C to à a

General specifications:

Medium: Air
Medium: Luft
Fluide:Air
Fluido:Aria

Designation of connection threads corresponding to
Anschlussbezeichnungen nach
Désignations des raccords selon
Designazioni degli attachi secondo
} DIN-ISO 6786




Graphic symbol
Schaltzeichen
Symbole graphique
Simbolo grafico
} DIN-ISO 1219

Specifications for service brake actuation in parking position:

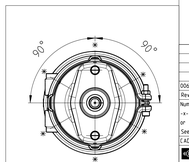
Minimum pressure
Minimum Druck
Pression minimale
Pressione minimo
11 } 2 bar

Pressure rising min.
Druckgradient min.
Montee en pression min.
Aumento della pressione min.
11 } 3 bar/s

- Exhaust holes must be directed downwards and upwards at ±30° regarding to the vertical
- Entlueftung muss im eingebauten Zustand nach unten und nach oben zeigen
- Les orifices d'échappement doivent etre dirigés vers le bas et le haut à ±30° par rapport à la verticale
- Installato i fori di scarico dovranno essere rivolti verso il basso e il alto con ±30° rispetto alla verticale

- Breather holes opened
- Atmungsbohrungen geoeffnet
- Trous de respiration ouverts
- Fori di respirazione aperti

} Ø6




BS8478

| | | |
|---|---|---|
| BS8478 - K011236 | | 7.9 |
| KB-Ref.number<br>KB-Bestell-Nr.<br>KB-No de réf.<br>Codice KB per ordince | | Weight<br>Gewicht<br>Masse<br>Massa (kg) |

| Rev. | Revision Reference | Date | Name |
|---|---|---|---|
| 006 | C903192 | 19.05.2016 | SG |

Numbers of described parts: ISO 128-30
-x- 0
-y- 0
See Table
First Angle Proj.

Special Characteristics: 0 (S/C) 0 (C/C)
Surface Treatment: -x-
Length Unit: mm | Scale: 1:1
Weight: see table kg

General Tolerances
Material: -x-
Made from: -x-
Corners
CAD Model No.: 2019149

Type 18/24

KNORR-BREMSE Systèmes pour Véhicules Utilitaires France S.A.

CAD Sys.: PRO/ENGINEER | Format A0
Responsible Dept./Team: LDAT
Drawn: 2016/05/19 Sperges
Spring Brake (Disc)
Zylinder (Scheibe)
Cyl. frein double (disque)
Bielemento fren. (disco)

Knorr-Bremse Group

Release Process Documentation in EDM. Level and Status Information in Watermark.
Drawing Number: Z019149
Doc-Type: ID | Language: TT
Drw-Rev: 006
Sheet 1 of 1

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100 mm