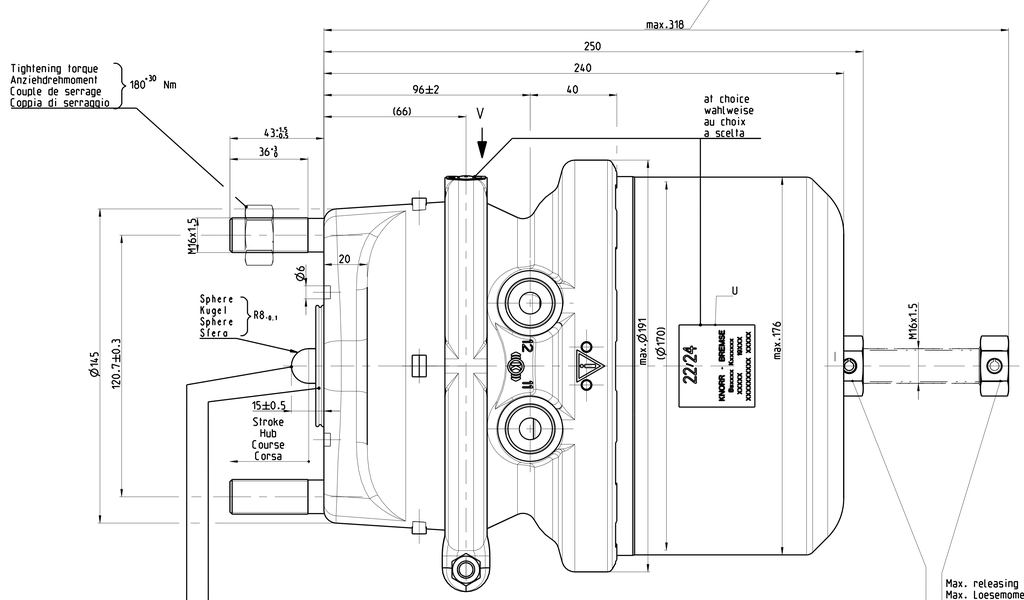
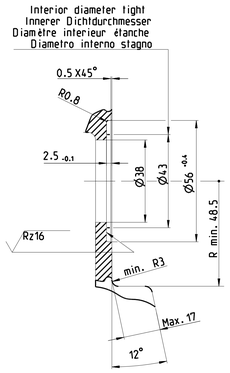
Tolerances/Toleranzen/Tolérances/Tolleranze						
Nominal dimensions in Nominalmasse in Cotes nominales en Dimensioni nominali in				mm		
<6	>6 :30	>30 :80	>80 :120	>120 :315	>315	
±1	±1.5	±2	±2.5	±3	±4	±3°

- 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.

Spring brake cylinder released
Federspeicher gelöest
Cylindre du frein a ressort desserre
Cilindro a molla rilasciato



Interior diameter tight
Innerer Dichtdurchmesser
Diamètre intérieur étanche
Diametro interno stagno



Installation dimension of brake caliper
Anschlssgeometrie des Bremssattels
Bride de fixation de l'étrier de frein
Geometria della flangia sulla staffa

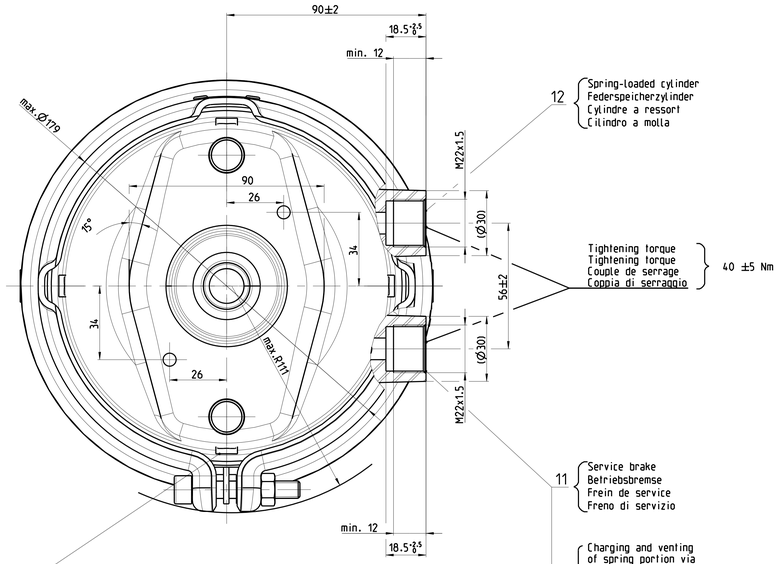
Sealing:pressure tight against secondary chamber
Abdichtung:druckdicht zum Sekundaerraum
Etancheite: etanche a la chambre secondaire
Tenuta ermetizare la camera secondaria } 0.4 bar

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
Angolo di rotazione dello stelo stantuffo in tutti i direzioni } 4°

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

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 Nm



12 Spring-loaded cylinder
Federspeicherzylinder
Cylindre a ressort
Cilindro a molla

Tightening torque
Tightening torque
Couple de serrage
Coppia di serraggio } 40 ±5 Nm

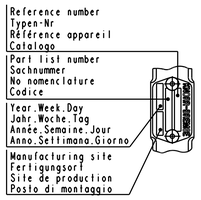
11 Service brake
Betriebsbremse
Frein de service
Freno di servizio

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

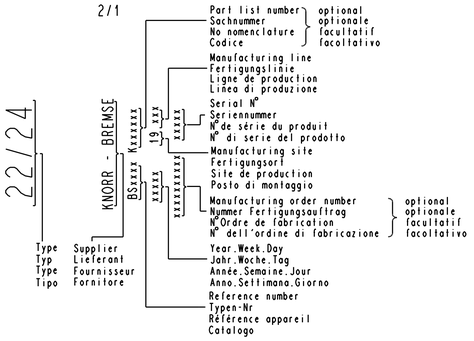
4 breather hole are plugged
4 Atmungsbohrungen verschlossen
4 trous de respiration sont obturés
4 fori de respirazione sono chuisi

After installation into the vehicle the lower plug must be removed. Exhaust hole must be directed downwards when mounted
Nach dem Einbau in das Fahrzeug ist der untenliegende Pfropfen zu entfernen. Entlueftung muss im eingebauten Zustand nach unten zeigen
Après montage sur véhicule le bouchon inférieur doit être déposé. L'orifice d'échappement doit être dirigé vers le bas en état monté
Arvenuto il montaggio sul veicolo, il tappo inferiore dev'essere tallo. Installato i fori di scarico dovranno essere rivolti verso il bass

V



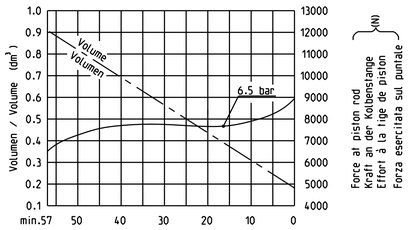
U
2/1



1:2
BS8485

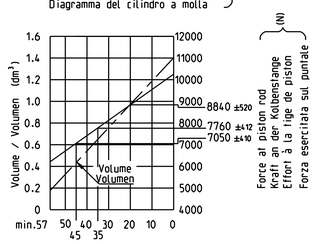
Force of return spring at stroke 20 mm
Kraftabgabe der Rueckholfeder bei Hub 20 mm
Force du ressort de rappel à une course de 20 mm
Forza della molla di ritorno a una corsa di 20 mm } F = 200 N

Diagram of service brake
Diagramm der Betriebsbremse
Diagramme du frein de service
Diagramma del freno di servizio } Type 22



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



Operationnal 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 = 30 cm³ /min

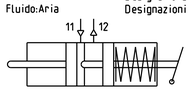
Critical uses specifications without part failure:

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 / -40°C to +80°C / -40°C à +80°C / -40°C a +80°C

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

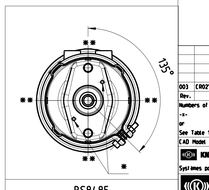
Specifications for service brake actuation in parking position:

Minimun 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

Warning / Nachricht / Avertissement / Avvertimento

This brake actuator can only be used on applications for which it has been formally validated by Knorr-Bremse
Dieser Bremszylinder darf nur für Applikationen angewendet werden, für die er von Knorr-Bremse freigegeben worden ist
Cet actionneur de frein ne doit être utilisé que sur les applications pour lesquelles il a été formellement homologué par Knorr-Bremse
Questo cilindro a molla deve essere utilizzato solo per applicazioni benestariale formalmente dalla Knorr-Bremse

- Exhaust hole must be directed downwards when monted
- Entlueffung muss im eingebauten Zustand nach unten zeigen
- L'orifice d'échappement doit etre dirigé vers le bas en état monté
- Installato il foro di scarico dovra essere rivolto verso il basso



•• Plug • Breather holes opened
•• Pfropfen • Atmungsbohrungen geoeffnet
•• Bouchon • Trous de respiration ouverts
•• Tappo • Fori di respirazione aperti } Ø6

Valid for / Frei fuer / Valable pour / Valido per	K038830N00	BS8485 - K038830	8.0
		KB-Ref.number / KB-Bestell-Nr. / KB-No de ref. / Codice KB per ordince	Weight / Gewicht / Masse / Massa (kg)

003	C1027193	10.04.2013	SG				
Rev.	Revision Reference	Date	Name				
Numbers of described parts:	ISO 128-30	Special Characteristics:	0 S/C / 0 C/C	Surface Treatment:		Length Unit: mm	Scale: 1:1
-x-				-x-		Weight: see table	kg
acc. to Table 1	First Angle Proj.	Tolerancing Principle		Material: -x-			
		General Tolerances		Made from: -x-			
CAD Model No.:	Z044144	Owners		Spring Brake (Disc)			
KNORR-BREMSE		CAD Sys.: PRO/ENGINEER	Format A0	KOMBIzylinder (Scheibe)			
		Responsible Dept./Team	LDA1	Cyl. frein double (disque)			
Systèmes pour Véhicules Utilitaires France S.A.		Drawn	2009/02/10	Speorges	Bielemento fren. (disco)		
Knorr-Bremse Group		Release Process Documentation in EDM. Level and Status information in Watermark.		Drawing number	Z044144		Blatt/Bloc 003
				Doc-Type: ID	Language: TI		Sheet: 1 of 1

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