



Online Store with Search via Exploded Drawings and Automatically Set Hotspots

Hauke Tietjen,

ANTEROS Forum 2020

The Tietjen Company

- Family business
- 60 employees
- Market leader for air brake systems
- over 40 years of experience in the development of air brake systems
- 5000 different variants of retrofit kits available
- Sale of approx. 4000 air brake systems per year (after market)
- over 75,000 brake systems sold since founding



Product Areas and Core Competencies

Off-Highway OE



Air brake systems for off-highway OE customers, such as:

- Tractors
- Trailers
- Telescopic loaders
- Harvesters
- Construction machinery
- Industrial trucks

Trailer OE



Air brake systems for trailer OE customers, such as:

- Center axle trailers
- Drawbar trailers
- Semi-trailers

After Market / Kits



Air brake systems, kits and spare parts for:

- Agricultural machinery trade
- Construction machinery trade
- Car/vehicle workshops

Our Product Range

Air brake systems for towing vehicles



Air brake systems for trailers



Kits and spare parts



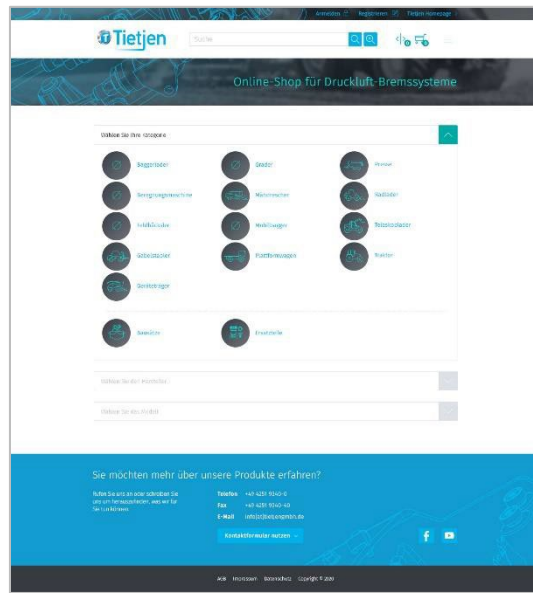
Retrofit trailer hitches



ANTEROS at Tietjen

- ANTEROS has been in use since 2008
- Data maintenance of product data and images

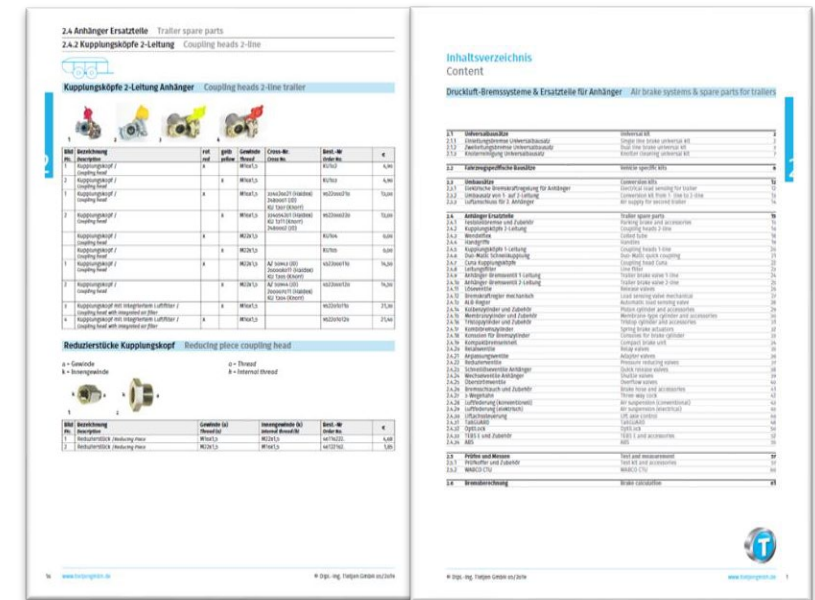
- Print automation of our product catalog
- Web: first online catalog, now online store



Online store



Central, efficient data maintenance



Print catalog 100% automated

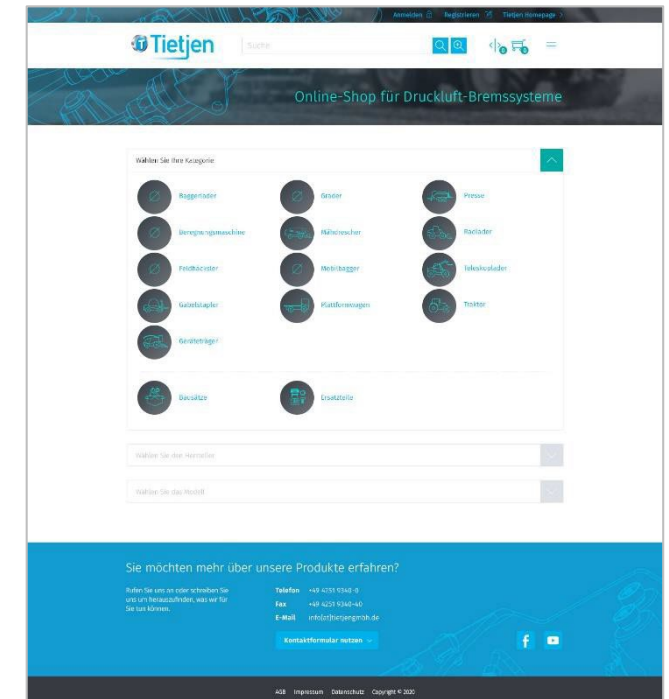
The ANTEROS Online Store at Tietjen

Motivation for the online store

- Shop 24 hours a day, 7 days a week and without a salesperson - saves time and money.
- Our agricultural target group is also getting used to purchasing on the Internet
- Easier and more efficient search for our products becomes possible
- Additional information about our products can be better integrated
- Online stores can lead to more purchases and new customers

Online store key data

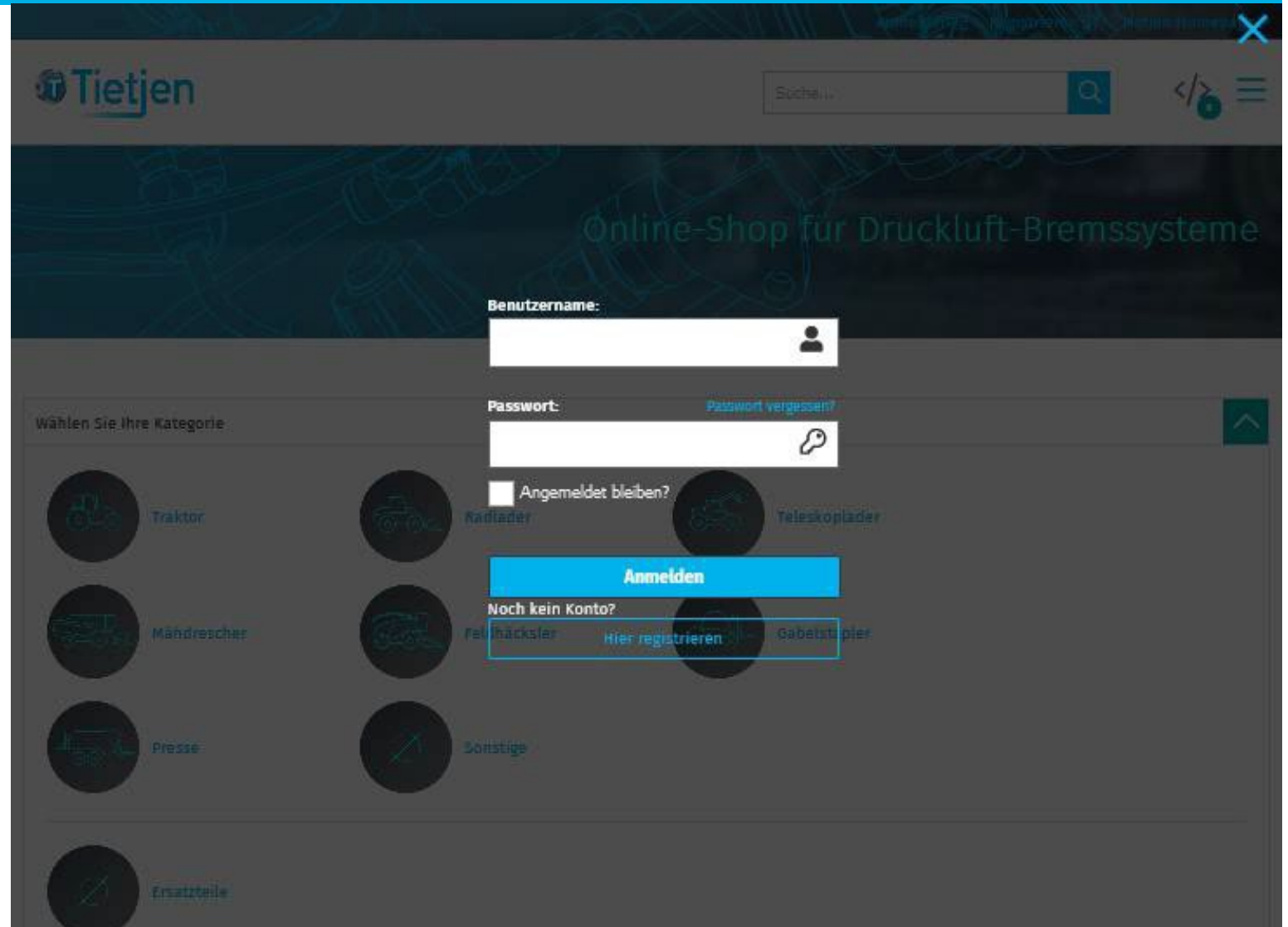
- Target group are business customers (B2B)
- Customers have full store functions and all data after login
- Less data and features without login



ANTEROS Online Store at Tietjen

Online store login

- Only then can you see prices
- Only then can you order
- Only then can you see spare parts and their exploded views



The screenshot shows the login interface of the Tietjen online store. At the top, there is a navigation bar with the Tietjen logo, a search bar, and a menu icon. Below the navigation bar, a dark banner displays the text "Online-Shop für Druckluft-Bremssysteme". The login form is centered on the page and includes the following elements:

- Benutzername:** A text input field with a user icon on the right.
- Passwort:** A text input field with a password icon on the right. A link "Passwort vergessen?" is located to the right of the field.
- ☐ **Angemeldet bleiben?**
- Anmelden**: A prominent blue button.
- Noch kein Konto?**: Text above the registration link.
- Hier registrieren**: A link to create a new account.

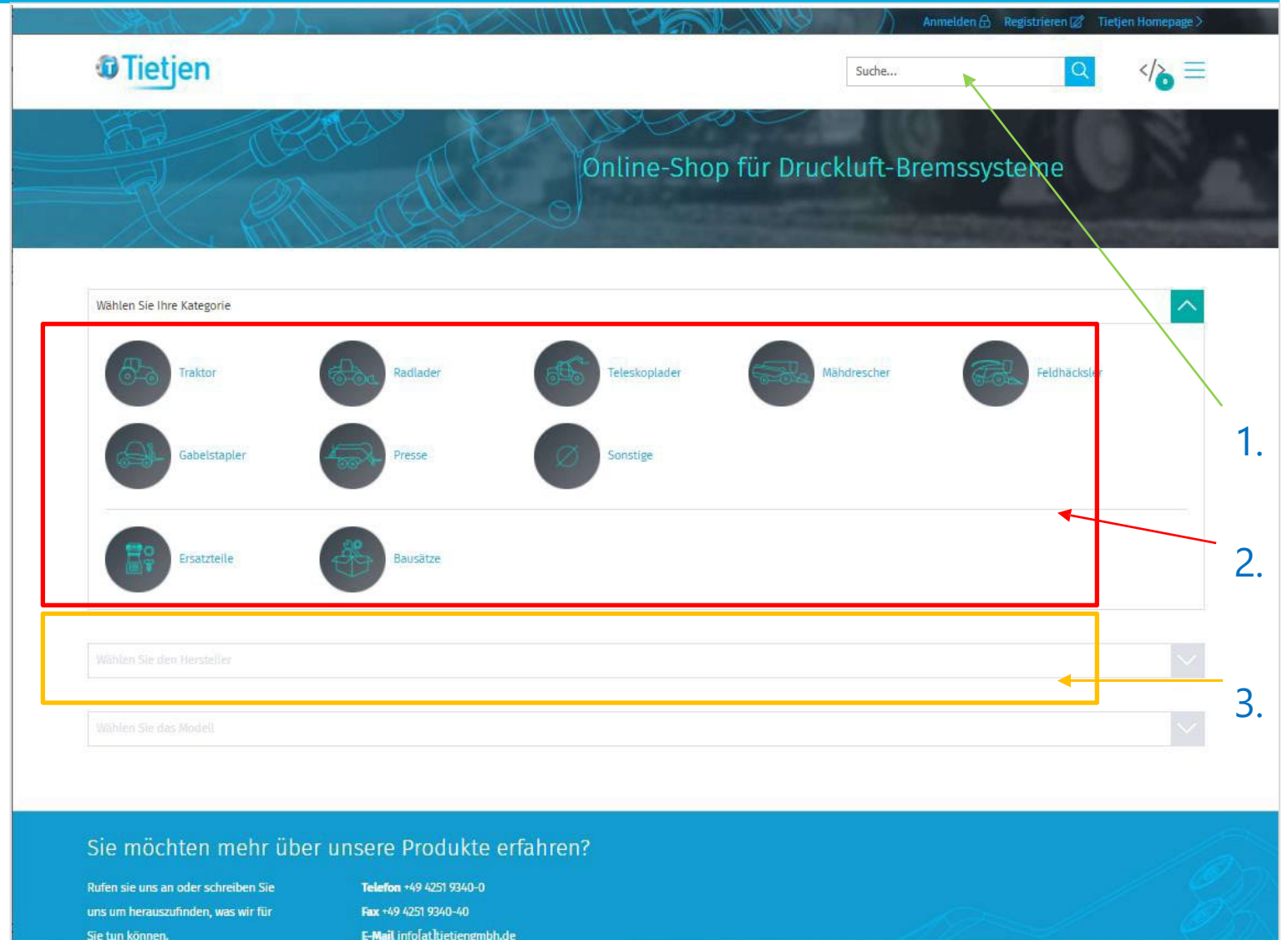
Below the login form, there is a section titled "Wählen Sie Ihre Kategorie" (Select your category) with a grid of circular icons and labels for various equipment:

- Traktor
- Kraftlader
- Teleskoplader
- Mähdrescher
- Feldhäcksler
- Gabelstapler
- Presse
- Sonstige
- Ersatzteile

Search Function in the ANTEROS Online Store at Tietjen

Multiple search paths

1. Via **search field**: Search by item number, serial number or keyword.
2. For compressed air systems and spare parts via **vehicle**
3. For single parts and kits via **category**

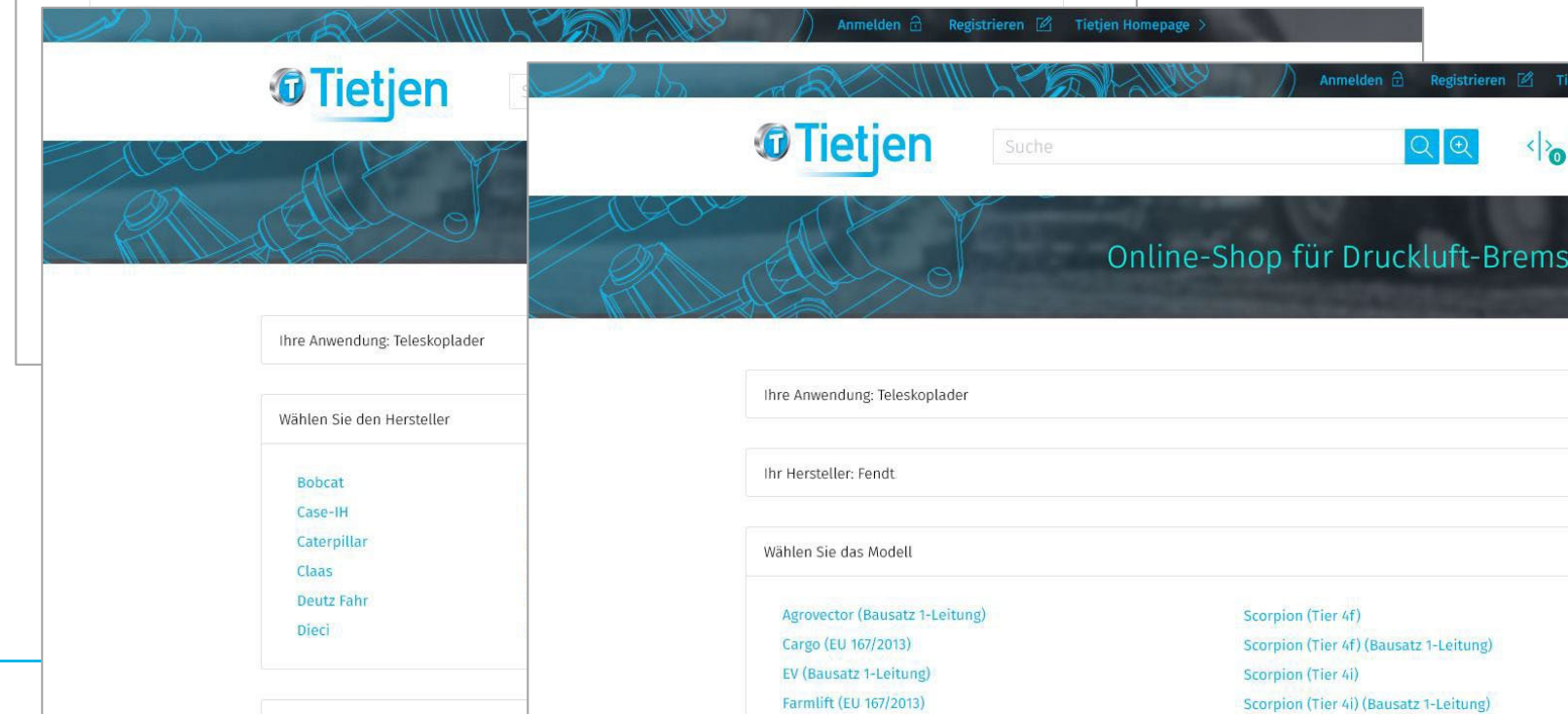
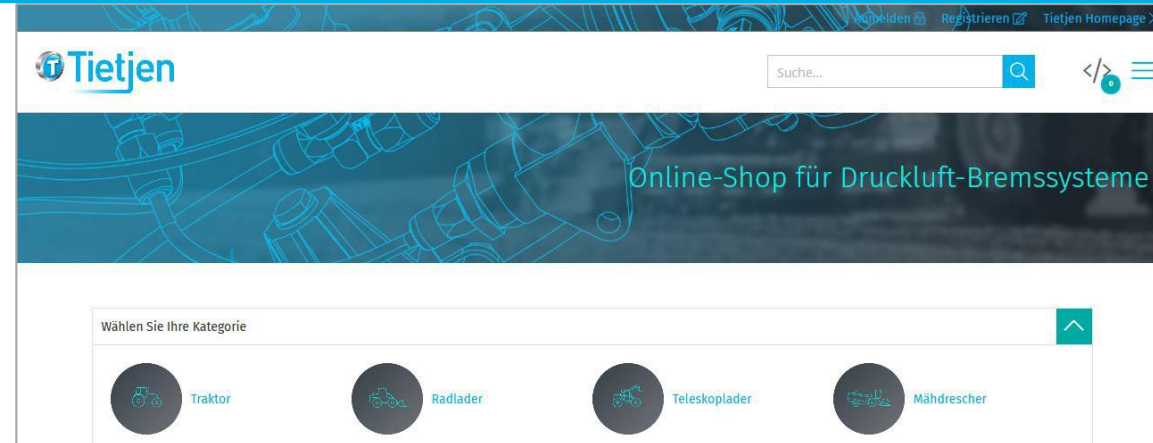


The screenshot shows the Tietjen ANTEROS Online Store interface. The top navigation bar includes links for 'Anmelden', 'Registrieren', and 'Tietjen Homepage'. Below this is a search bar with the placeholder text 'Suche...' and a magnifying glass icon. A green arrow points from the search bar to the first search path description. The main content area features a section titled 'Wählen Sie Ihre Kategorie' (Select your category) with a grid of icons representing different vehicle types: Traktor, Radlader, Teleskoplader, Mähdrescher, Feldhäcksler, Gabelstapler, Presse, Sonstige, Ersatzteile, and Bausätze. A red box highlights this category grid, with a red arrow pointing from the second search path description. Below the category grid are two dropdown menus: 'Wählen Sie den Hersteller' (Select the manufacturer) and 'Wählen Sie das Modell' (Select the model). A yellow box highlights these dropdowns, with a yellow arrow pointing from the third search path description. The bottom of the page features a blue footer with contact information and a link to learn more about products.

Search Function in the ANTEROS Online Store at Tietjen

Vehicle selection in multiple steps

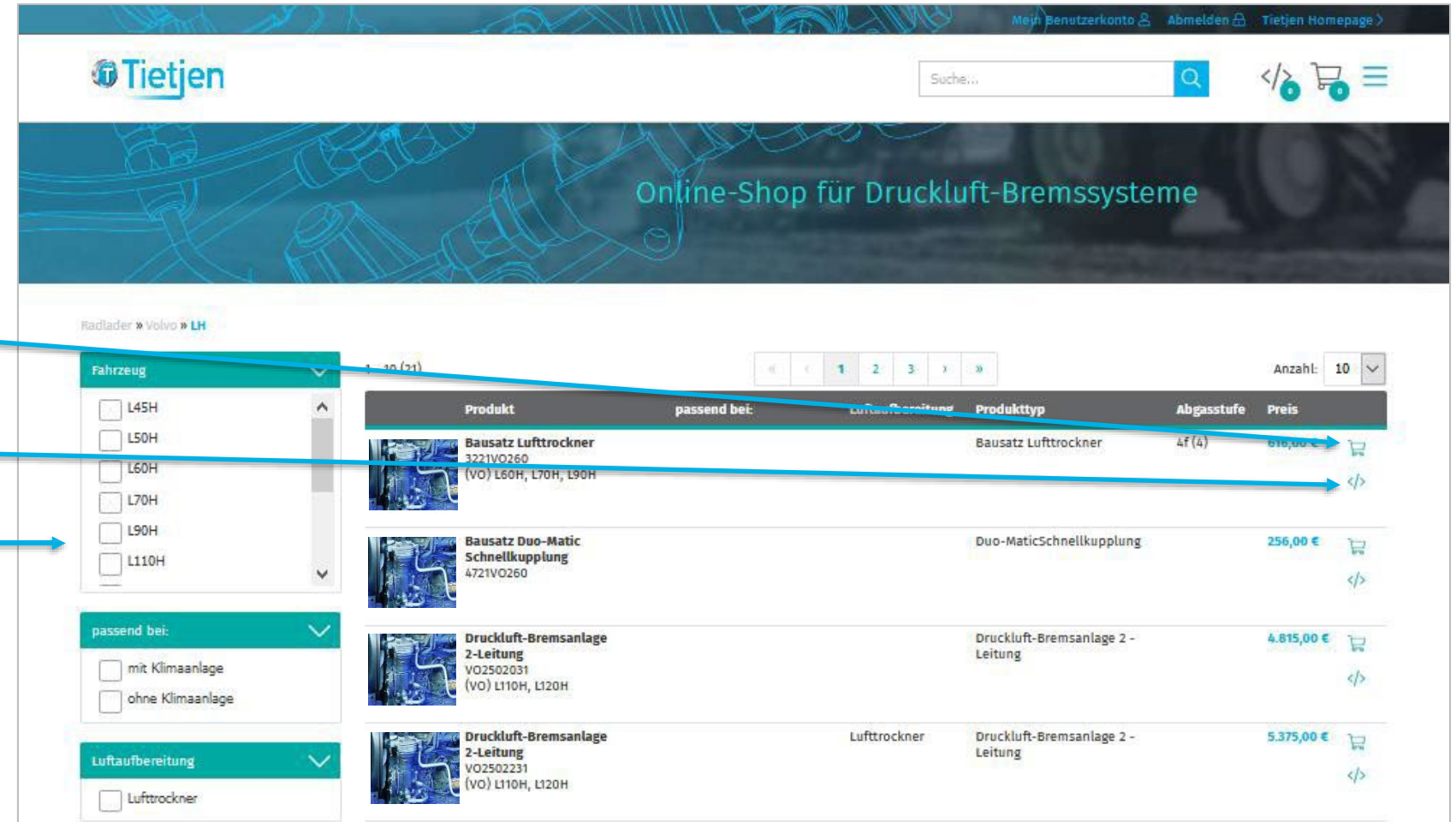
1. **Select vehicle type**, e.g. wheel loader
2. **Select manufacturer**, e.g. Volvo
3. **Select model series**, e.g. LH



Product List in the ANTEROS Online Store at Tietjen

Product listing

- Product overview** for searching by name, part no. and important parameters
- One-click ordering** via shopping cart
- Comparison function**
- Parameter filter on the left** for narrowing down the list via parameter values



The screenshot shows the Tietjen online store interface. The header includes the Tietjen logo, a search bar, and links for 'Mein Benutzerkonto', 'Abmelden', and 'Tietjen Homepage'. The main banner reads 'Online-Shop für Druckluft-Bremssysteme'. Below the banner, there's a breadcrumb trail 'Radlader » Volvo » LH'. The left sidebar contains filters for 'Fahrzeug' (with options L45H, L50H, L60H, L70H, L90H, L110H), 'passend bei:' (with options 'mit Klimaanlage' and 'ohne Klimaanlage'), and 'Luftaufbereitung' (with option 'Lufttrockner'). The main product list has columns: 'Produkt', 'passend bei:', 'Luftaufbereitung', 'Produkttyp', 'Abgasstufe', and 'Preis'. The list includes items like 'Bausatz Lufttrockner', 'Bausatz Duo-Matic Schnellkupplung', and 'Druckluft-Bremsanlage 2-Leitung'. Each item has a shopping cart icon and a comparison icon. The right side shows 'Anzahl: 10' and pagination controls.

Produkt	passend bei:	Luftaufbereitung	Produkttyp	Abgasstufe	Preis
Bausatz Lufttrockner 3221VO260 (VO) L60H, L70H, L90H			Bausatz Lufttrockner	4f (4)	816,00 €
Bausatz Duo-Matic Schnellkupplung 4721VO260			Duo-MaticSchnellkupplung		256,00 €
Druckluft-Bremsanlage 2-Leitung VO2502031 (VO) L110H, L120H			Druckluft-Bremsanlage 2 - Leitung		4.815,00 €
Druckluft-Bremsanlage 2-Leitung VO2502231 (VO) L110H, L120H		Lufttrockner	Druckluft-Bremsanlage 2 - Leitung		5.375,00 €

Products in the ANTEROS Online Store at Tietjen

Product details

1. Overview data for all:

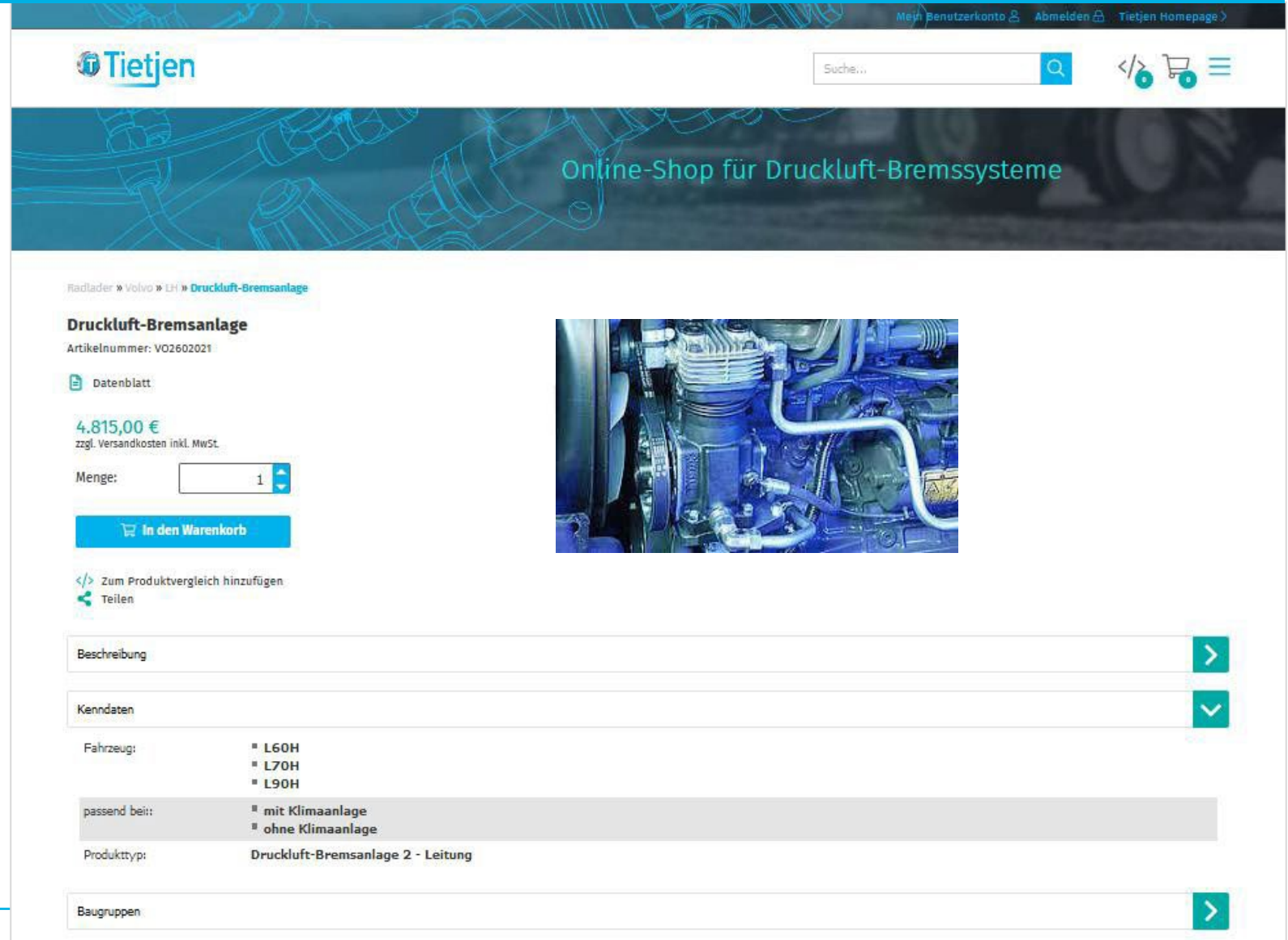
photos, name, item no.

description, identification data

2. For logged in users:

Price and assemblies

for spare parts



The screenshot shows the product page for a 'Druckluft-Bremsanlage' (Air Brake System) on the Tietjen website. The page features a blue header with the Tietjen logo and navigation links. Below the header is a search bar and a shopping cart icon. The main content area displays the product name, article number (VO2602021), and a price of 4,815.00 € including shipping and VAT. A quantity selector is set to 1. A blue button labeled 'In den Warenkorb' (Add to Cart) is visible. To the right of the text is a large image of the air brake system. Below the image are links for 'Datenblatt' (Data Sheet), 'Zum Produktvergleich hinzufügen' (Add to Product Comparison), and 'Teilen' (Share). The 'Beschreibung' (Description) and 'Kenndaten' (Key Data) sections are partially visible, showing details like 'Fahrzeug' (Vehicle) and 'passend bei' (suitable for).

Radlader » Volvo » LH » **Druckluft-Bremsanlage**

Druckluft-Bremsanlage
 Artikelnummer: VO2602021

Datenblatt

4,815,00 €
 zzgl. Versandkosten inkl. MwSt.

Menge:

In den Warenkorb

Zum Produktvergleich hinzufügen
 Teilen

Beschreibung

Kenndaten

Fahrzeug: ☐ L60H
☐ L70H
☐ L90H

passend bei: ☐ mit Klimaanlage
☐ ohne Klimaanlage

Produkttyp: Druckluft-Bremsanlage 2 - Leitung

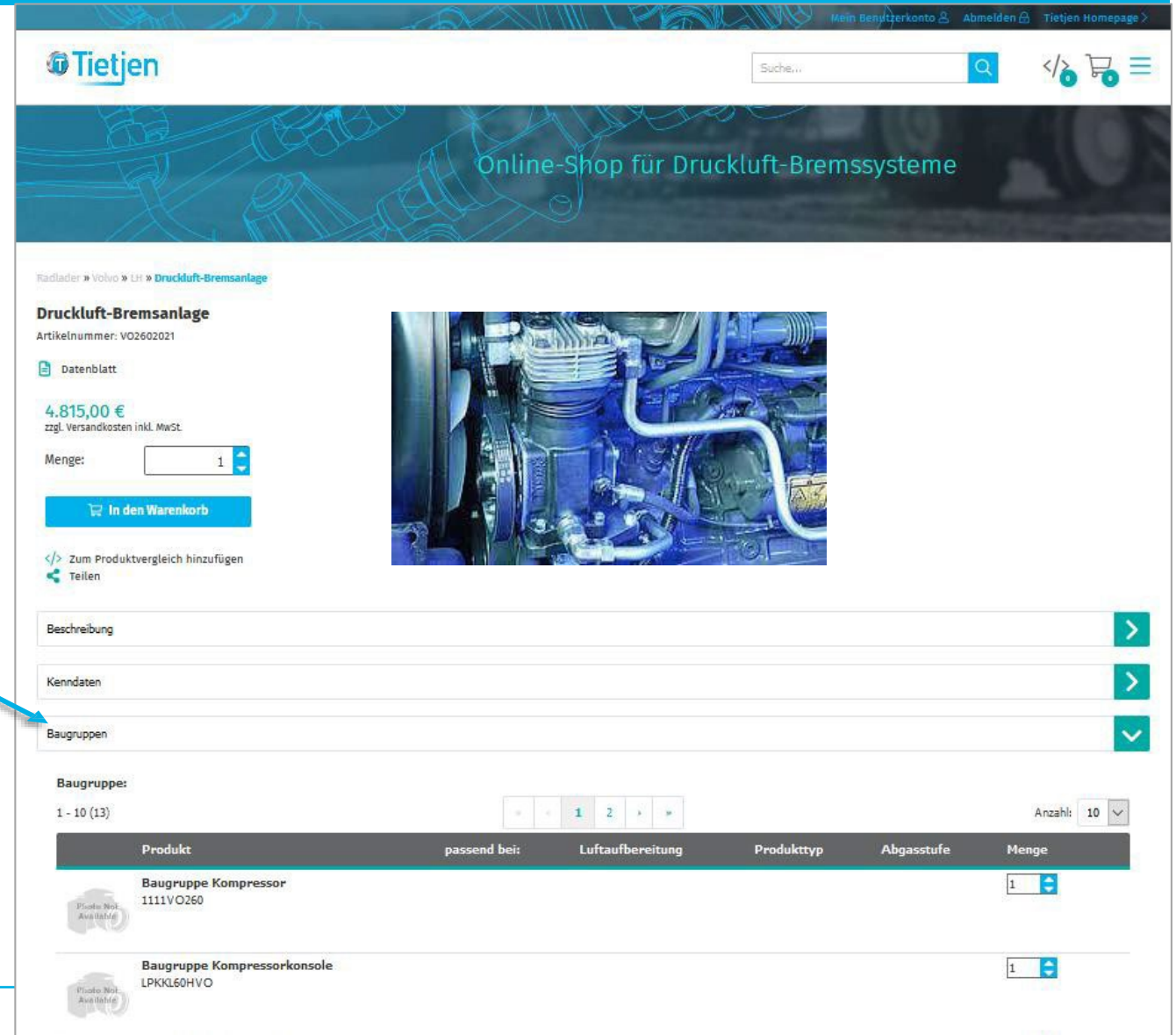
Baugruppen

Spare Parts in the ANTEROS Online Store at Tietjen

Control spare parts via assemblies

List of assemblies directly on the product detail page.

By **clicking on an assembly** you get to the **exploded view**



Online-Shop für Druckluft-Bremssysteme

Radlader » Volvo » LH » **Druckluft-Bremsanlage**

Druckluft-Bremsanlage
 Artikelnummer: VO2602021

Datenblatt

4.815,00 €
 zzgl. Versandkosten inkl. MwSt.

Menge:

In den Warenkorb

Zum Produktvergleich hinzufügen
 Teilen

Beschreibung >

Kenndaten >

Baugruppen ✓

Baugruppe:

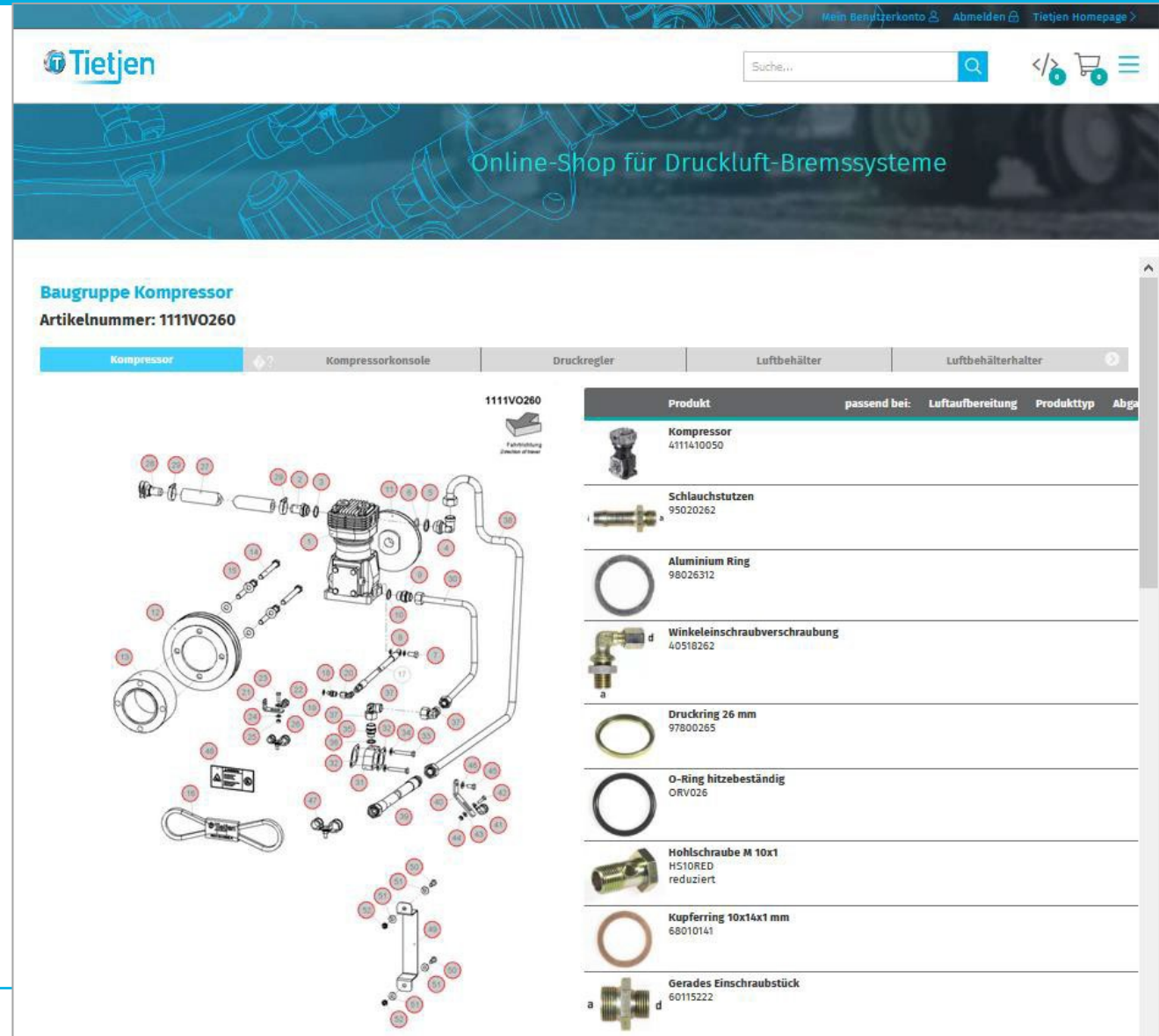
1 - 10 (13) Anzahl: 10

Produkt	passend bei:	Luftaufbereitung	Produkttyp	Abgasstufe	Menge
Baugruppe Kompressor 1111VO260					<input type="text" value="1"/>
Baugruppe Kompressorkonsole LPKKL60HVO					<input type="text" value="1"/>

Spare Parts in the ANTEROS Online Store at Tietjen

Spare parts of an assembly

- **Exploded view** of the assembly
- **List of spare parts** next to it
- At the top you can switch directly to **other assemblies of this compressed air system** in tabs












Baugruppe Kompressor
Artikelnummer: 1111V0260

Kompressor | Kompressorkonsole | Druckregler | Luftbehälter | Luftbehälterhalter

1111V0260

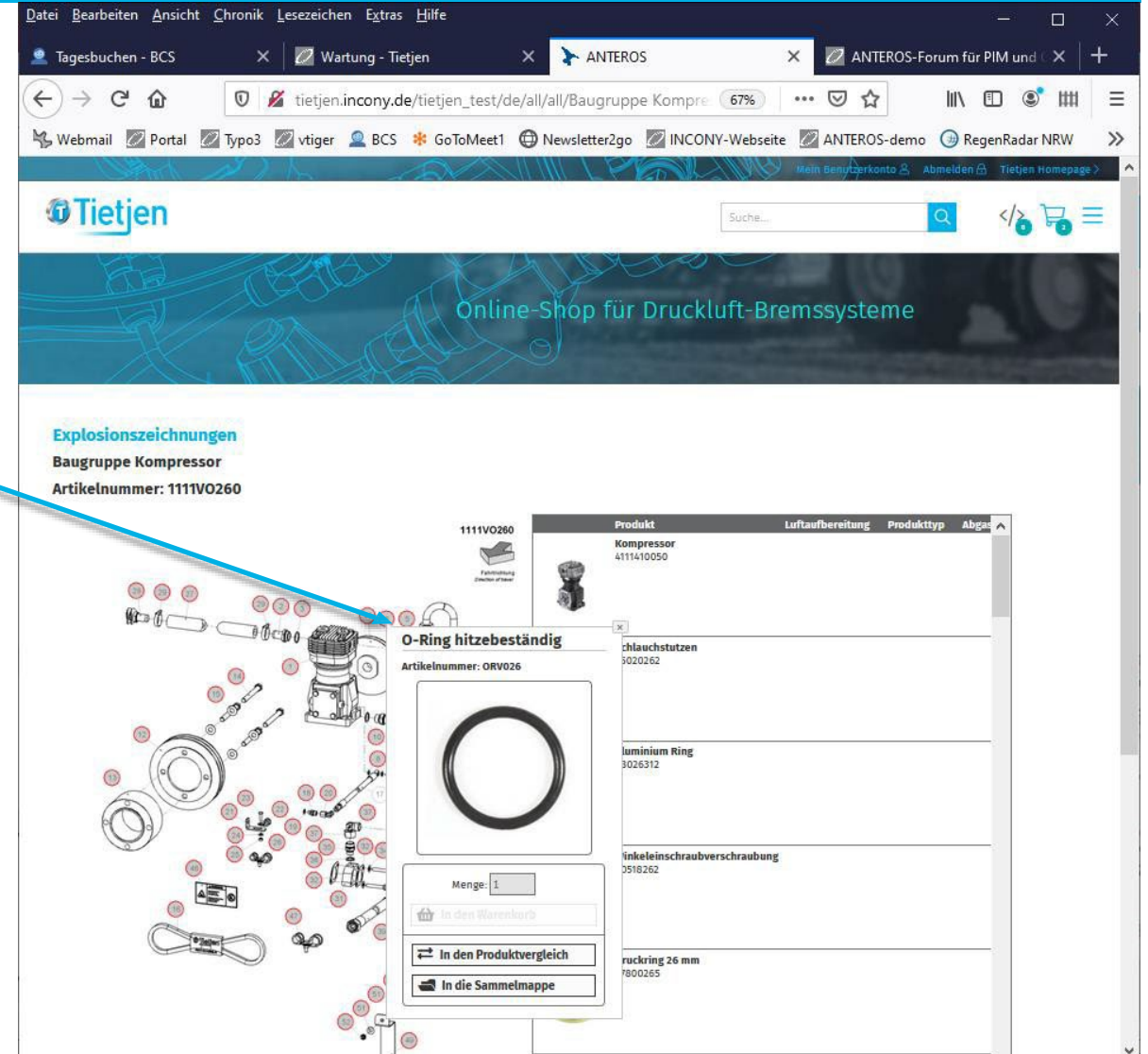
Produkt | passend bei: | Luftaufbereitung | Produkttyp | Abg.

	Kompressor 4111410050
	Schlauchstutzen 95020262
	Aluminium Ring 98026312
	Winkelschraubverschraubung 40518262
	Druckring 26 mm 97800265
	O-Ring hitzebeständig ORV026
	Hohlsschraube M 10x1 H510RED reduziert
	Kupferring 10x14x1 mm 68010141
	Gerades Einschraubstück 60115222

Spare Parts in the ANTEROS Online Store at Tietjen

Spare parts of an assembly

- **Parts in the exploded view** are marked as **hotspots**
- **Mouse-over** on a part number to get **details of the spare part** (hotspot) and add the part to the **shopping cart** or **compare it** here

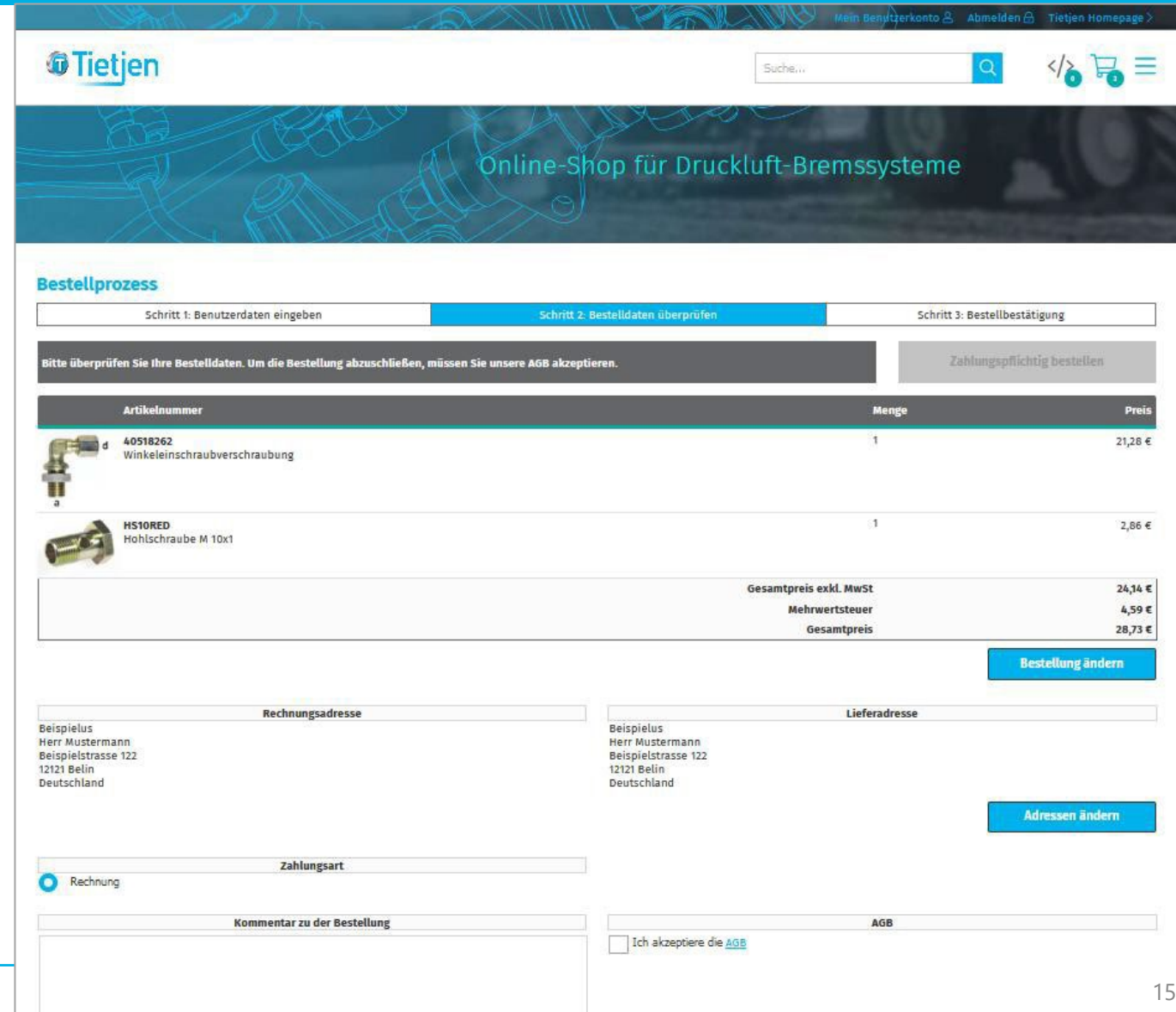


The screenshot displays the Tietjen ANTEROS online store interface. The browser window shows the URL `tietjen.incony.de/tietjen_test/de/all/all/Baugruppe Kompre`. The page features a search bar and a navigation menu. The main content area shows an exploded view of a compressor assembly (Baugruppe Kompressor) with the article number 1111V0260. A blue line points from the text 'details of the spare part (hotspot)' to a specific part in the exploded view. A pop-up window displays the details for the selected part, 'O-Ring hitzebeständig' (Article number: ORV026), including a quantity field set to 1 and buttons for 'In den Warenkorb', 'In den Produktvergleich', and 'In die Sammelmappe'. The right sidebar lists other products like 'Schlauchstutzen', 'Aluminium Ring', 'Inkeleinschraubverschraubung', and 'Ruckring 26 mm'.

Order from the Shopping Cart

Order directly from the shopping cart

- Listing of all **parts with price**
- Display of **invoice and delivery address** from user data, can optionally be changed for this order or in user data maintenance
- **Comment field**
- "**Order with obligation to pay**" = Order placed with us



The screenshot shows the Tietjen online shop interface. At the top, there's a navigation bar with the Tietjen logo, a search bar, and links for 'Mein Benutzerkonto', 'Abmelden', and 'Tietjen Homepage'. Below this is a banner for 'Online-Shop für Druckluft-Bremssysteme'. The main section is titled 'Bestellprozess' and shows a progress bar with three steps: 'Schritt 1: Benutzerdaten eingeben', 'Schritt 2: Bestelldaten überprüfen' (which is the current step), and 'Schritt 3: Bestellbestätigung'. A message states: 'Bitte überprüfen Sie Ihre Bestelldaten. Um die Bestellung abzuschließen, müssen Sie unsere AGB akzeptieren.' There are two buttons: 'Zahlungspflichtig bestellen' and 'Bestellung ändern'. Below this is a table of items in the cart:

Artikelnummer	Menge	Preis
40518262 Winkelschraubverschraubung	1	21,28 €
HS10RED Hohlschraube M 10x1	1	2,06 €

Below the table, the price summary is shown:

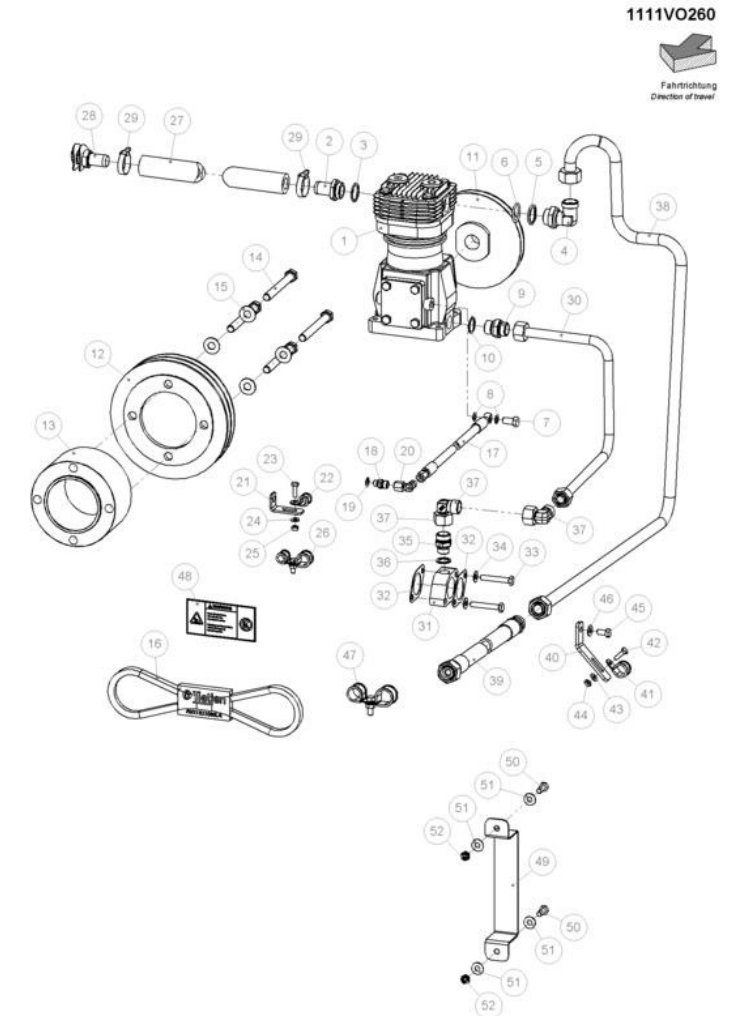
Gesamtpreis exkl. MwSt	24,14 €
Mehrwertsteuer	4,59 €
Gesamtpreis	28,73 €

There are two buttons: 'Bestellung ändern' and 'Adressen ändern'. Below this, there are two address fields: 'Rechnungsadresse' and 'Lieferadresse'. Both fields show a default address: 'Beispielus, Herr Mustermann, Beispielstrasse 122, 12121 Berlin, Deutschland'. Below these are two buttons: 'Rechnung' and 'Adressen ändern'. At the bottom, there is a 'Zahlungsart' field with a radio button selected for 'Rechnung'. There is also a 'Kommentar zu der Bestellung' field and an 'AGB' checkbox with the text 'Ich akzeptiere die AGB'.

Hotspots for the Exploded Drawings

Automatically generate hotspots - Why is it important for Tietjen?

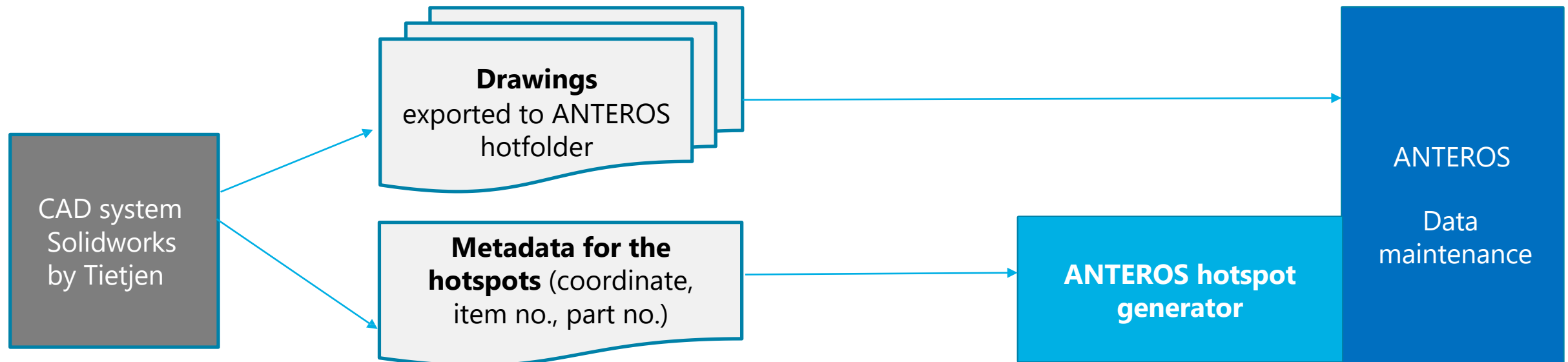
- We have approx. **4000 shop-relevant exploded drawings** for the assemblies of our compressed air systems
- Drawings created in CAD system
- **Approx. 30-100 parts per drawing**
- Order by click in exploded drawing is very user-friendly, suits our customers, but manually setting the hotspots would be much too time-consuming:
approx. 200,000 hotspots



Hotspots for the Exploded Drawings

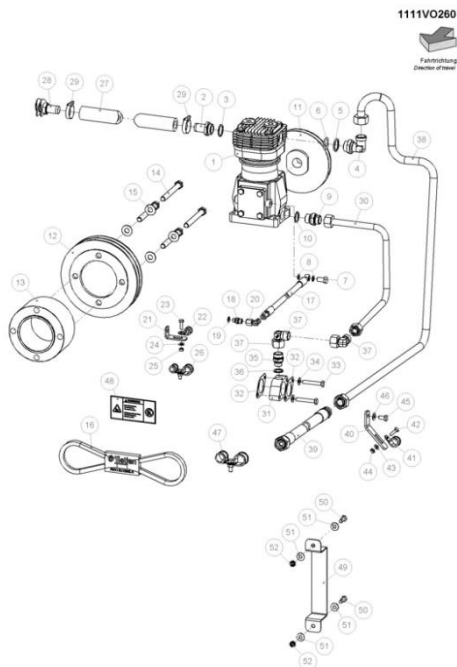
Hotspots automatically generated in ANTEROS

CAD file exports drawings and metadata, which are processed and imported into ANTEROS.



Hotspots for the Exploded Drawings

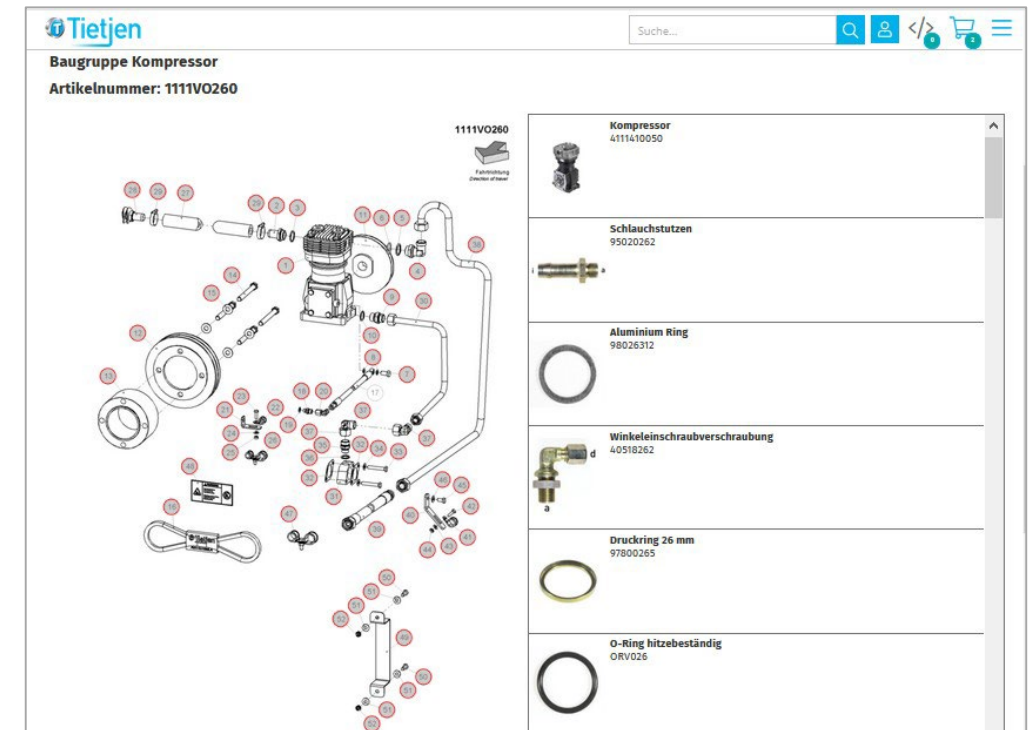
Automatically generate hotspots with ANTEROS



+

```
muster_hotspot_import_1111UD1700.txt - Notepad2
File Edit View Settings ?
1 Pos; X_Pos; Y_Pos; Pos_dia; Teilenummer
2 1; 112. 9803371181150; 351. 3509252587080; 4. 5906912922454; 4111410000
3 2; 56. 3526430254370; 361. 6063344250990; 4. 5906912922454; NS8PK147285
4 3; 38. 9630361780794; 393. 2643366343910; 4. 5906912922454; 40518262
5 4; 50. 3583752574569; 391. 7902966403430; 4. 5135704880184; 97800265
6 5; 60. 4709082409078; 390. 6038379603830; 4. 5135704880184; ORV026
Ln 7: 12 Col 31 Sel 0 675 Bytes ANSI CR+LF INS Default Text
```

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Drawing of the assembly

Assembly metadata: list of parts with part no., item no., x/y coordinate,...

Click and order from the drawing in the ANTEROS online store

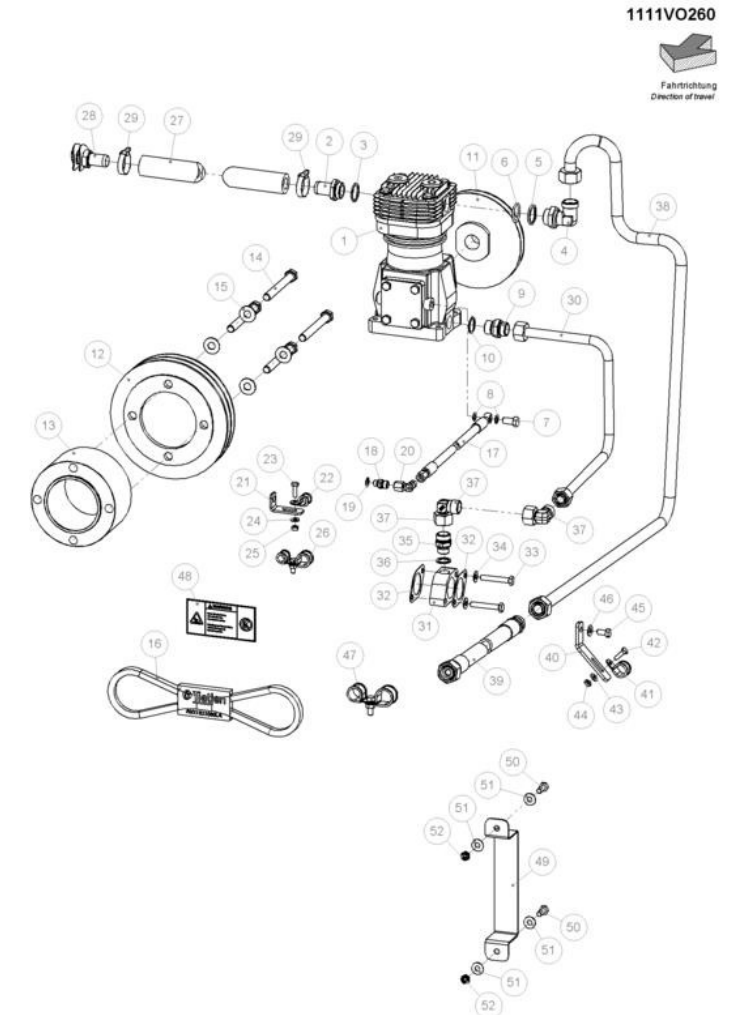
Integrate Spare Parts Data and Product Master Data

Automated transfer of spare parts data from ERP

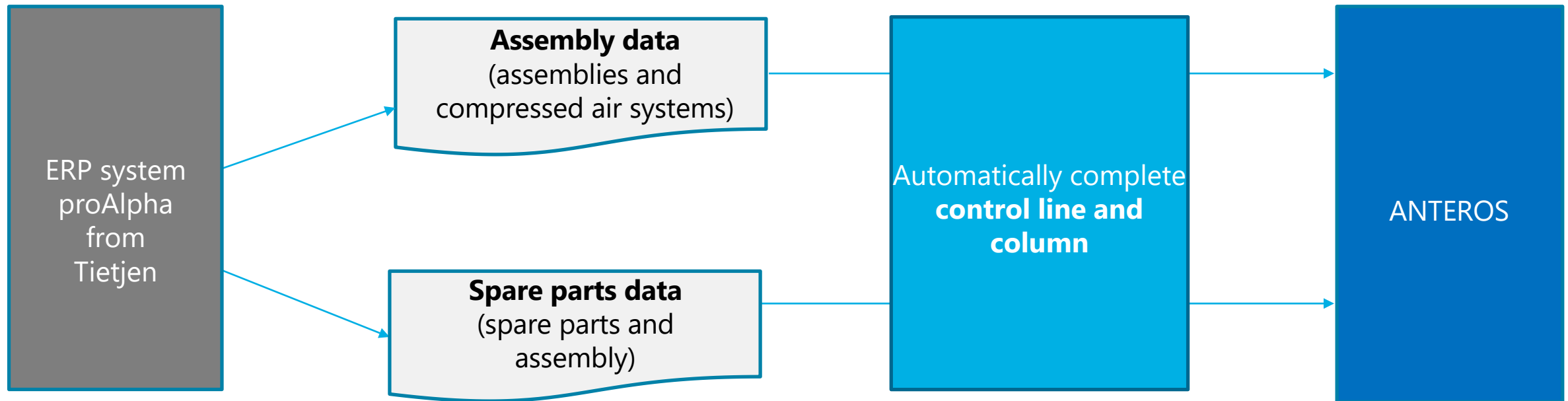
- We have several thousand spare parts
- Spare parts data with part no., name and price are already available in our ERP
- In ERP we also group the spare parts into assemblies and assemblies to compressed air systems
- Also transfer master data to the products



Export data from ERP and import into ANTEROS



Integrate Spare Parts Data and Product Master Data



PIM Data Maintenance

Easy data maintenance in ANTEROS.pim



- All data for spare parts comes from the ERP
- For main products we maintain more information: Marketing texts, images, characteristics, relations
- For vehicle search paths we maintain the vehicles for single parts and kits the categories
- Before the online store, we had already used the data for our print catalogs, which we derive fully automatically from the data with ANTEROS.print:

Maintain data once, use it multiple times;
that was much more tedious before PIM




PIM Data Maintenance

Product data: add much data to imported master data: marketing texts, relations, images,...



ANTEROS
technologieführende Software
für PIM, MAM und Crossmedia

[Home](#)
[Datenpflege](#)
[Stammdaten](#)
[Web](#)
[Import-Export](#)
[Admin](#)
[Teamarbeit](#)










Datenpflege / Produkte: Liste+Editor



Produkt "Frostschutzpumpe"
 Code 9320021000

☒ Einfach
 ☐ Erweitert

Anzahl: 4.734

Foto	Code	Name
	9320021000	Frostschutzpumpe
	9735000000	Schnellöseventil
	10108102	Gerade Einschraubverschraubung
	30506102	Winkeleinschraubverschraubung
	30826162	L-Einschraubverschraubung
	LSW15	Rohrbogen 90°
	ANS001	Ansaugstutzen
	10306062	Verbinder
	47800105	Druck- & O-Ring

[Allgemein](#)
[Stammdaten](#)
[Kategorien](#)
[Parameterwerte](#)

Produkte [1]

- Druckluftanlagen
- Reparatursätze
- Produktreihen
- Kellriemen
- Ersatzteile
 - Kompressoren
 - Luftfilter und Zubehör
 - Luftaufbereitung
 - Frostschutzpumpe**
 - Lufttrockner



ANTEROS
technologieführende Software
für PIM, MAM und Crossmedia
[Home](#)
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[Stammdaten](#)
[Web](#)
[Import-Export](#)
[Admin](#)
[Teamarbeit](#)
[Hilfe](#)
[Hotspot](#)

Datenpflege / Produkte: Liste+Editor



Produkt "Verbinder (Code: A0603)"
 Code A0603

☒ Einfach
 ☐ Erweitert

 Anzahl: 4.734

[Allgemein](#)
[Stammdaten](#)
[Kategorien](#)
[Parameterwerte](#)
[Relationen](#)
[Medien](#)
[Texte](#)
Verschraubungen für Bremsrohre

 passend für

 Fahrzeuge

 Info

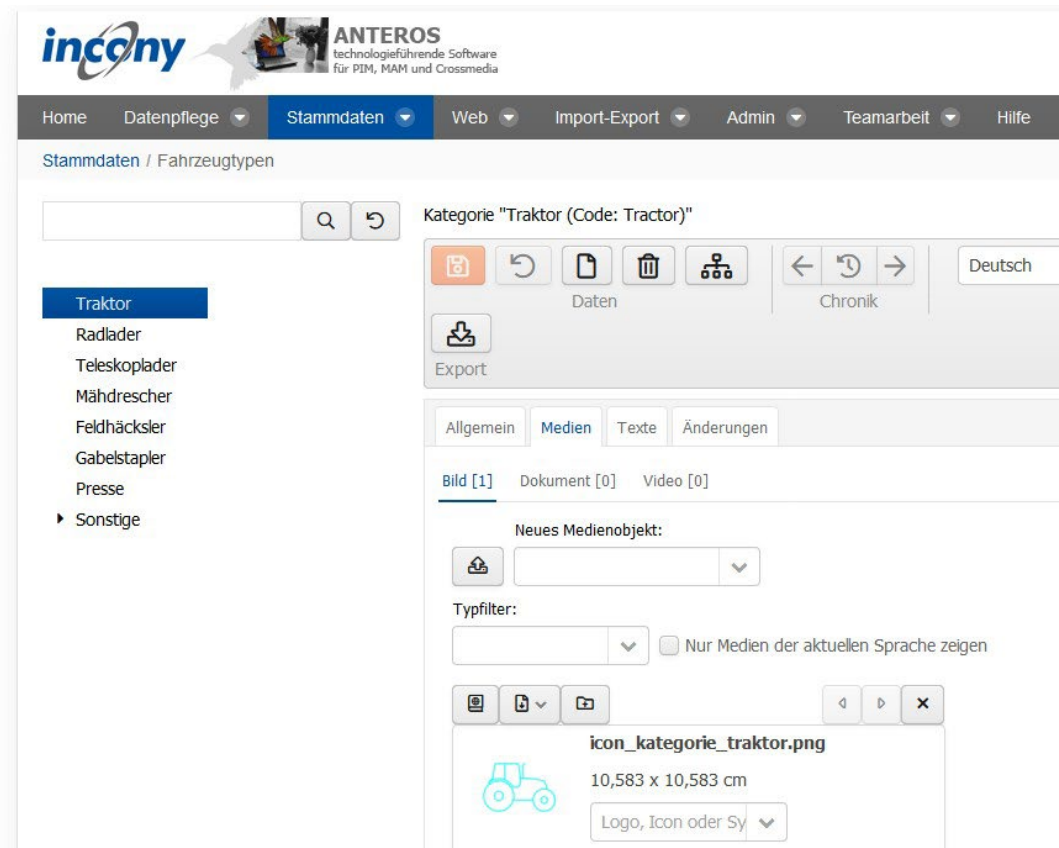
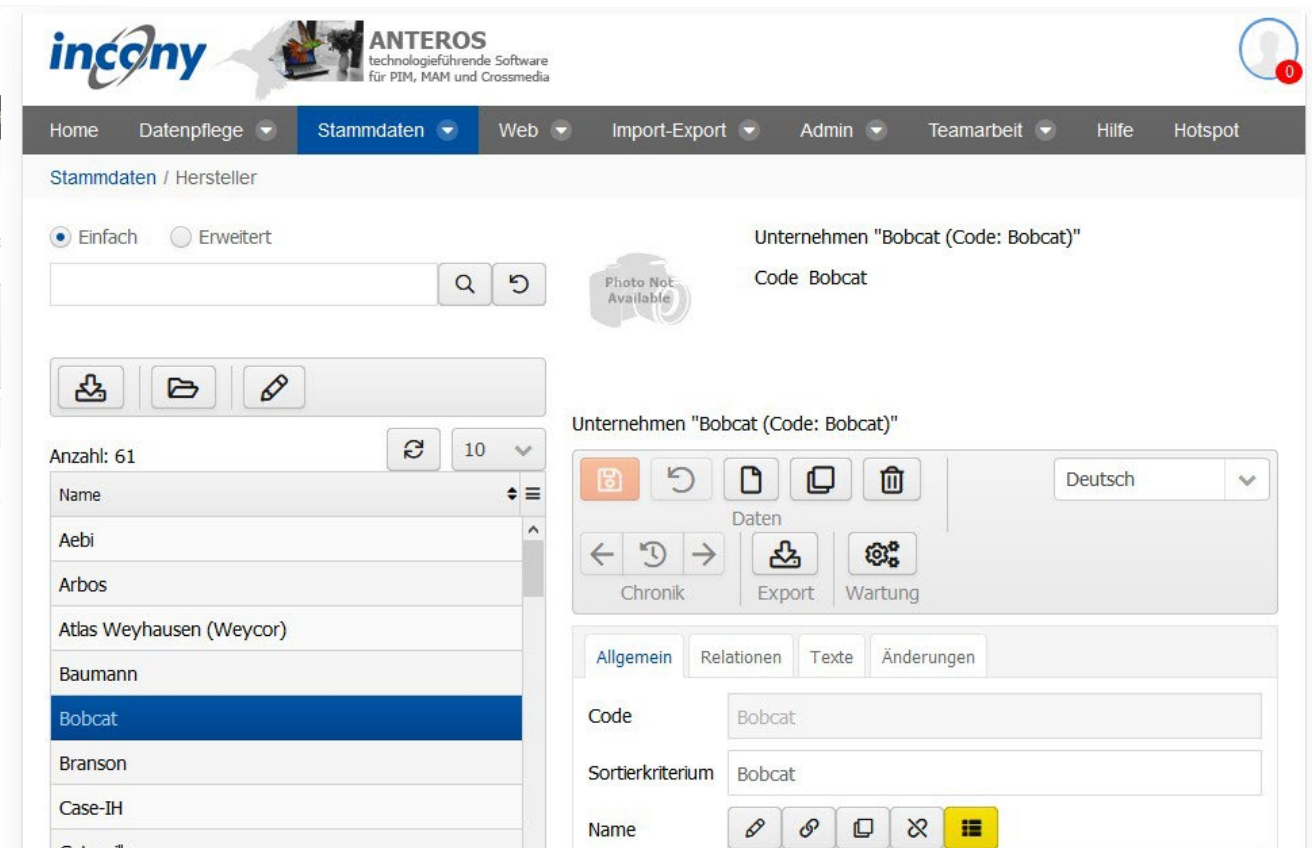
 Außen Ø [mm]

 Bördel F

PIM Data Maintenance

Master data for vehicle type, manufacturer and model series

easy for us to maintain, so that customers can specifically find the parts by vehicle search

Summary

Online store with ANTEROS.web

- Very good guided search to our products and their spare parts
- Quick reduction of products via filters
- Spare parts can be ordered from exploded view via hotspots
- Hotspots are automatically generated from CAD data from ANTEROS
- Much product data adopted from ERP, further data maintained in PIM

Cooperation with INCONY:

- Still impressive after over 10 years
- Competent employees, excellent consultation, great service



Thank you for your time

