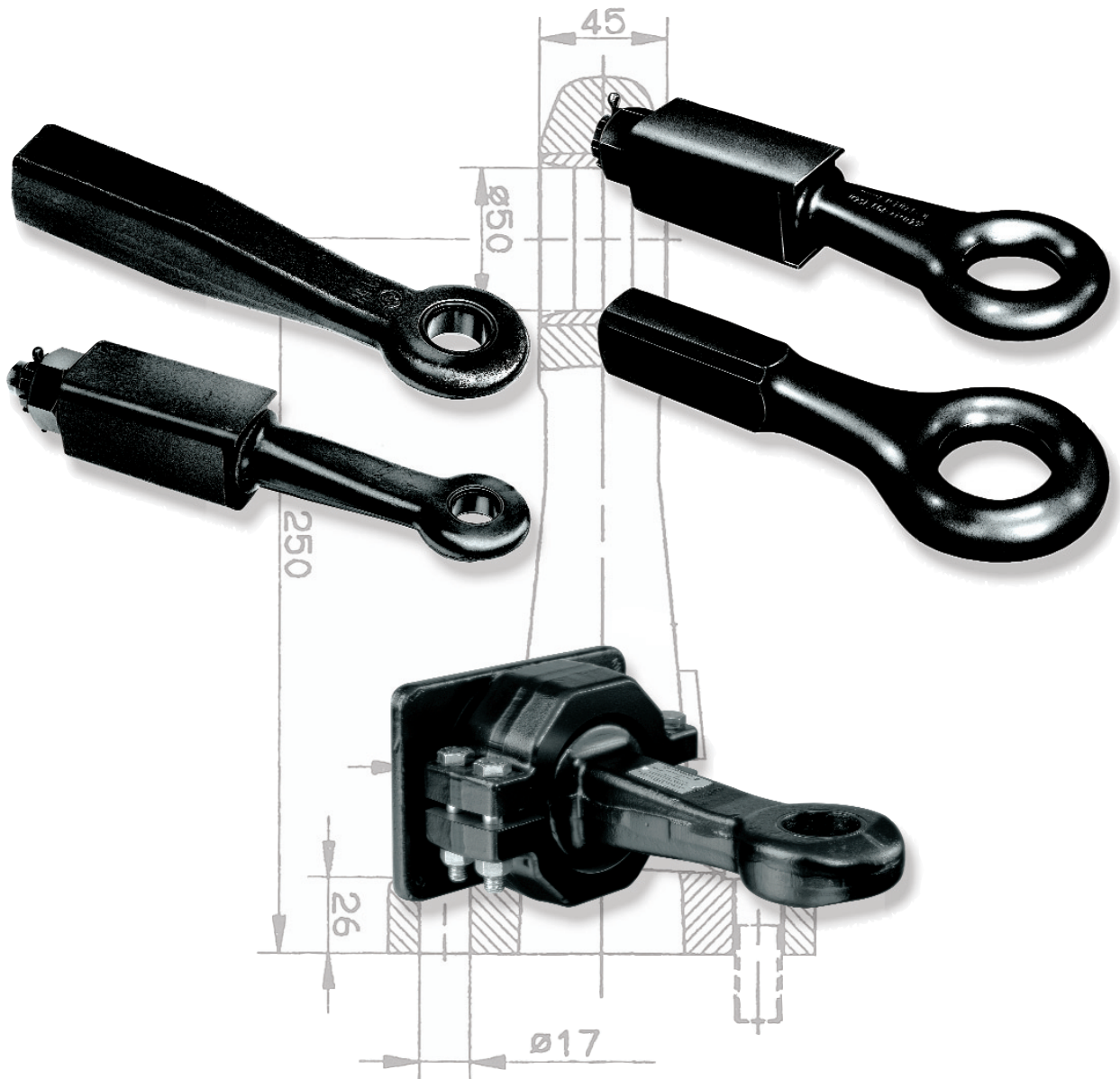


RINGFEDER

Drawbar Eyes weldable, screwable

Type 440, Type 470/471, Type 480



Drawbar eye



weldable

Type	Admissible D-Value kN	Admissible Supporting Load kg	Admissible Total Weight of the Rigid Drawbar Trailer kg	Shaft Dimension mm	Order No.
Drawbar eye 50 DIN 74053 Design A	120	1000	12000	60 x 70	7 990 812
50 mm heavy-duty drawbar eye	260	-	-	75 x 80	6 991 394
Towing eye acc. to VG 74059	120	-	-	55 x 65	7 990 820

screwable

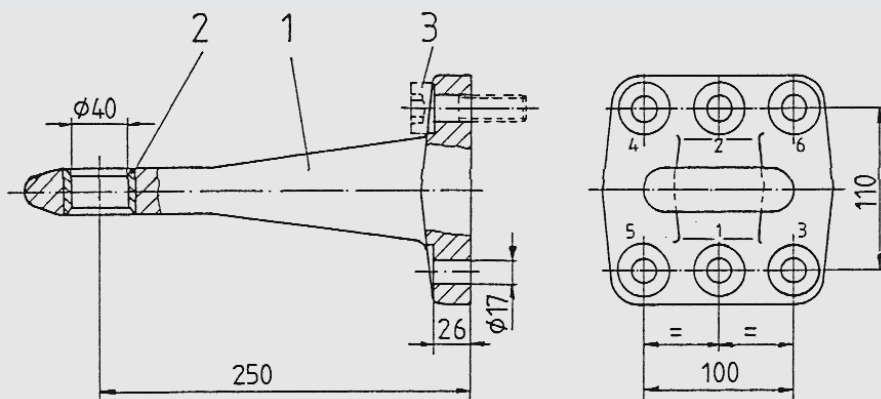
Type	Admissible D-Value kN	Admissible Supporting Load kg	Admissible Total Weight of the Rigid Drawbar Trailer kg	Shaft Dimension mm	Order No.
Drawbar eye 50 DIN 74053 Design B	120	1000	9500	90 for towing eye bush	5 992 885
Drawbar eye 50 reinforced	190	1000	9500	110 for towing eye bush	8 991 928
Towing eye acc. to VG 74059	120	1000	12000	90 for towing eye bush	5 992 966

Drawbar Eye Type 440 and Fastening Plate



Admissible D-Value kn	Admissible Supporting Load kg	Adm. Total Weight for Rigid Drawbar Trailer, kg	Type Approval	Flange Design	Fastening Screws	Order No.
Multi-axle trailer 120		13500	F 2198	100 x 110	6 Hexagon Socket Screws M 16	10 990 548
Rigid Drawbar Trailer 95	>25 km/h 1000 <25 km/h 2000					
Fastening plate 162 x 162, 8-holes						10 996 449

Technical Drawing

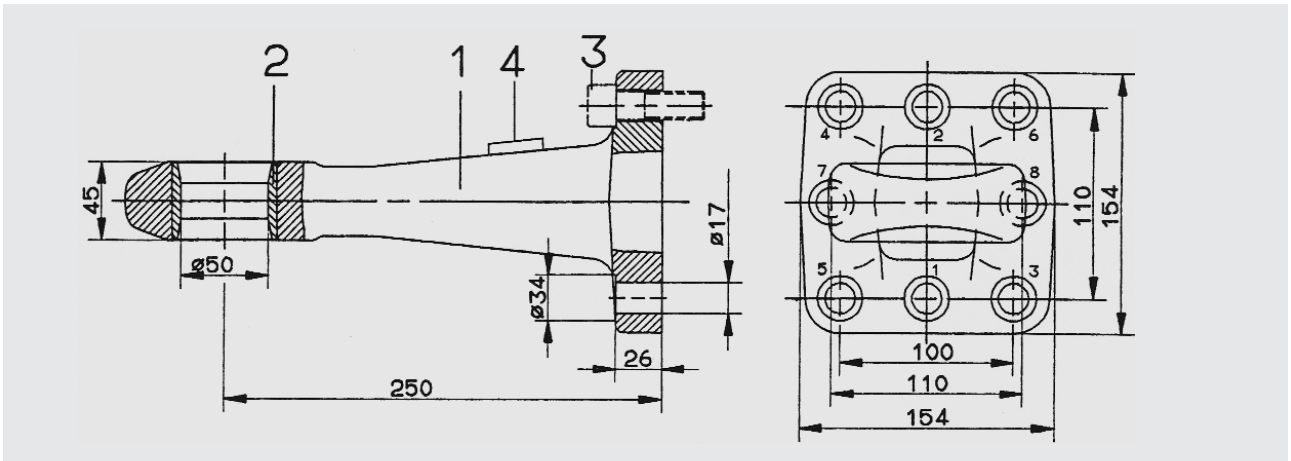


Drawbar Eyes Type 470 and Type 471 and Fastening Plates

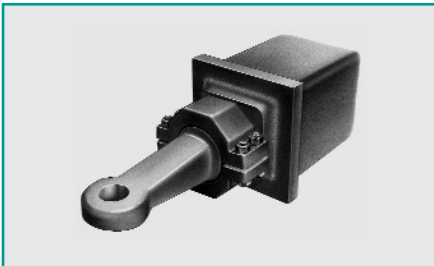


Type	DIN-standard or 94/20 EC-class	Gen. Type-Approval/ EEC Type Approval	D-Value kN	Dc-Value kN	Admiss. Static Supporting Load kg	V-Value kN	Admissible Total Weight of the Rigid Drawbar Trailer kg	Fastening Screws quality 10.9	Order No.
470	D50-X	e1 00-0800	190	125	1000	75	acc. to V-value	M 16	14990683
470	D50-X	e1 00-0800	190	125	2500	50	acc. to V-value	M 16	14990683
471	D50-C1 DIN 74053	e1 00-0633	190	125	1000	50	acc. to V-value	M 16	14990683
Fastening plate 162 x 162, 8 holes									10 996 449

Technical Drawing

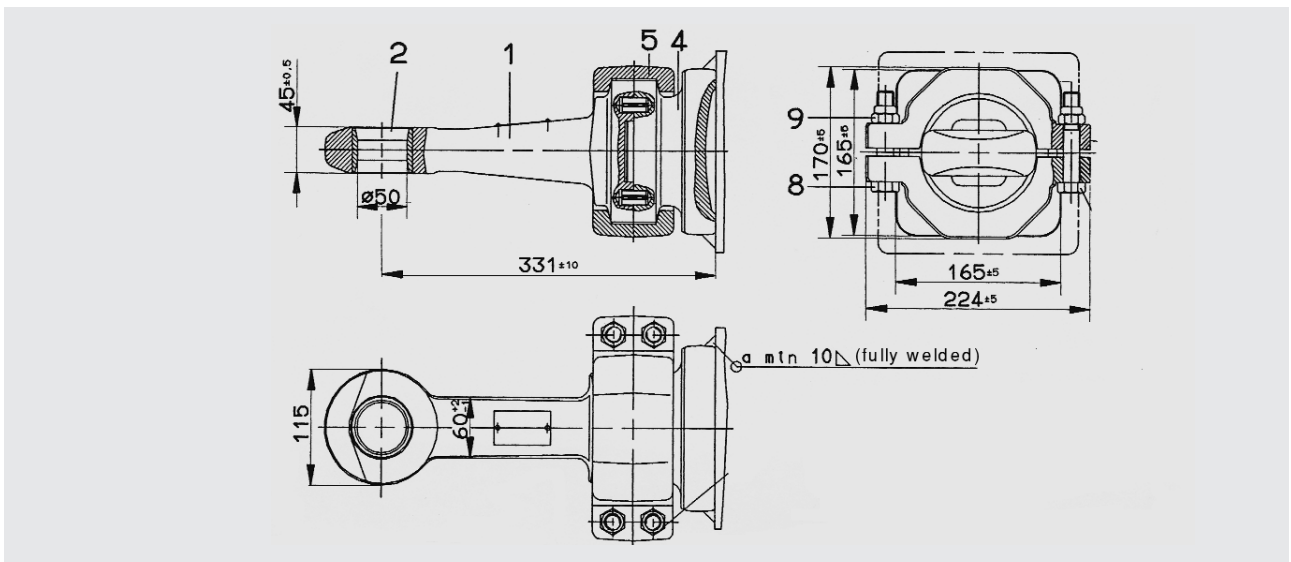


Drawbar Eye Type 480



Type	DIN-standard or 94/20 EC-class	Gen. Type-Approval/ EEC Type Approval	D-Value kN	Dc-Value kN	Admiss. Static Supporting Load kg	V-Value kN	Admissible Total Weight of the Rigid Drawbar Trailer kg	Fastening Plate	Order No.
480	-	F 2183	260	135	1000	75	25000	165 x 165	9994939
480	-	F 2183	260	135	2500	63	20500	165 x 165	9994939
480	D50-X	e1 00-0166	260	135	1000	75	acc. to V-value	165 x 165	9994939
480/1	-	F 2183	260	135	1000	75	25000	240 x 165	11999158
480/1	-	F 2183	260	135	2500	63	20500	240 x 165	11999158
480/1	D50-X	e1 00-0166	260	135	1000	75	acc. to V-value	240 x 165	11999158

Technical Drawing



Towing Eye Bushes



	VE	Da/Di	Da/Di	Da/Di	Da/Di	Da/Di
DIN 74054 Order No.	10	48/40 10 995 469	48,5/40 10 995 485	49/40 10 995 558	49,5/40 10 995 540	50/40 10 995 477
DIN 74053 Order No.	1	60,3/50 10 996 597	60,6/50 10 996 589	60,9/50 10 996 520	61,2/50 10 996 570	- -
Thorn for 40 mm drawbar eyes Thorn for 50 mm drawbar eyes					Order No. 10 996 651 Order No. 10 996 600	

Technical Data:

D-value for towing vehicle and semi-trailer:

$$D \text{ (kN)} = g \cdot \frac{T \cdot R}{T + R}$$

The calculated D-value may be **less or equal** to the D-value of the coupling.

T: max. mass in tonnes of the towing vehicle
R: max. mass in tonnes of the semi-trailer
g: acceleration due to gravity 9,81 m/s²

Dc-value for the towing vehicle and centre axle trailer

(only applicable in connection with the V-value):

$$Dc \text{ (kN)} = g \cdot \frac{T \cdot C}{T + C}$$

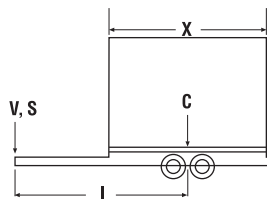
The calculated Dc-value may be **less or equal** to the Dc-value of the coupling.

T: max. mass in tonnes of the towing vehicle
C: sum of the axle loads of the centre axle trailer carrying maximum permissible load, in tonnes.
g: acceleration due to gravity 9.81 m/s²

V-value for the centre axle trailer

(only applicable in connection with the Dc-value)

$$V \text{ (kN)} = a \cdot \frac{X^2}{l^2} \cdot C$$



The calculated V-value may be **less or equal** to the V-value of the coupling.

a: equivalent vertical acceleration in the coupling point, in m/s²
a = 1.8 for vehicles with air suspension
a = 2.4 for vehicles with other suspension

l: theoretical drawbar length in metres
X: length of the loading area of the trailer in m
 X^2/l^2 **at least 1.0** (for the calculation).
C: sum of the axle loads of the centre axle trailer carrying maximum permissible load, in tonnes.



A certified company in accordance with DIN EN ISO 9001 and VDA 6.1