

**DRIESCHER**  
Indoor-  
Manual Drives and Accessories



**ELEKTROTECHNISCHE WERKE  
FRITZ DRIESCHER & SÖHNE GMBH**

D-85366 MOOSBURG • TEL. +49 87 61 6 81-0 • FAX +49 87 61 68 11 37  
<http://www.driescher.com> email: [Driescher@aol.com](mailto:Driescher@aol.com)



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## DRIESCHER - Indoor - Manual Drives and Accessories

### Plug-in lever drives SHA

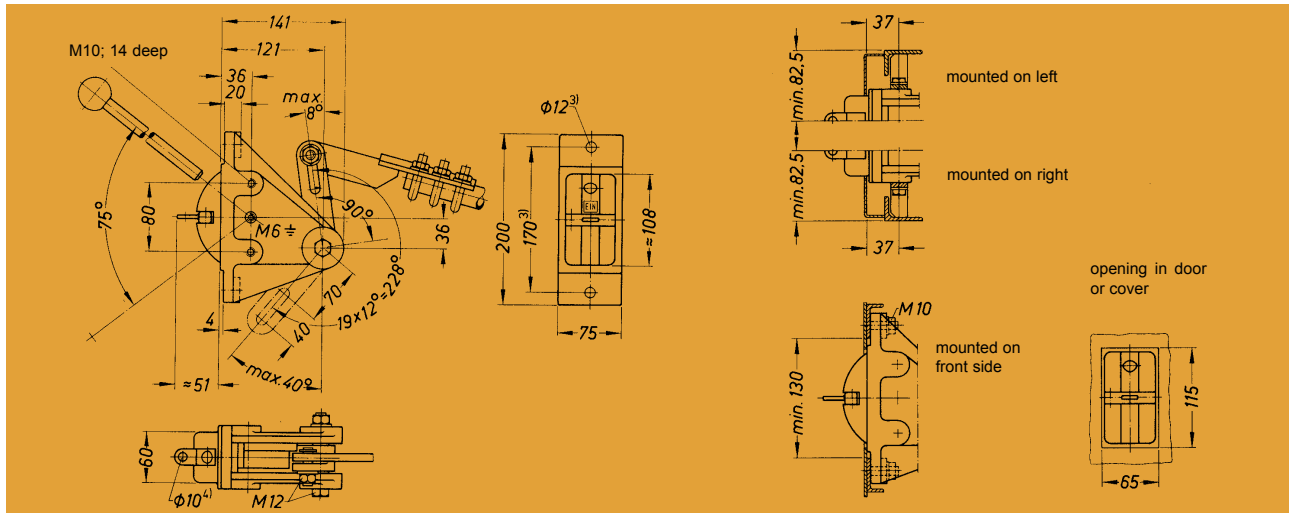
for the operation of indoor switchgears in medium voltage cubicle. The max. torque of the plug-in lever drives is 200 Nm.

The cranks are serrated on the side, 12° steps. The drive has a blocking lever and a removeable plug-in lever.

The operating crank is 16 x at 12° to adjust and is flexible for all rod position.

#### Included in delivery:

- 1 Plug-in lever (365 mm long) as well as
- 1 Joint bolt (ø 12 mm) in the crank drive.

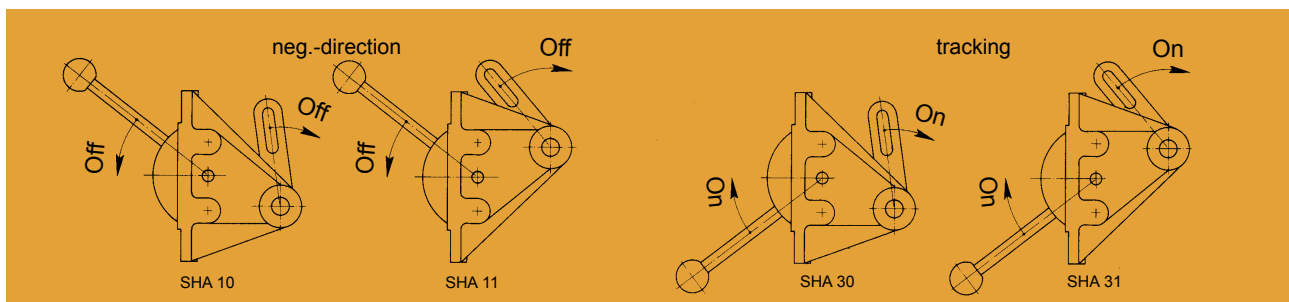


3) only when ordering for mounting on front side

4) in connection with locking lever AZ4-24680 (see page 8) for protection with a padlock

Type	Colour green <sup>1)</sup> RAL 7032	Colour red <sup>2)</sup> RAL 3002	Weight <sup>5)</sup> approx. kg	Sense of rotation	Mounting	Drawing-no.
SHA 10	774 41100	774 41600	3,58	neg.-direction	position of the adjustable	AZ 3-26932
SHA 30	774 43100	774 43600	3,58	tracking	tooth crank <b>under</b> driving middle	AZ 3-26932
SHA 11	774 42100	774 42600	3,58	neg.-direction	position of the adjustable	AZ 3-26932
SHA 31	774 44100	774 44600	3,58	tracking	tooth crank <b>over</b> driving middle	AZ 3-26932

1) for switchgear • 2) for earthing switch • 5) including plug-in lever, however without linkage rod and accessories



For the complete drive-situation we have 3 accessory-sets to choose from

- 1 clamping rod head with bearing bushing  
1 linkage rod 3/4", 1,5 m long with welded forked rod head and joint bolt  
1 clamping crank  $s_2 = 100$  mm for switching shaft  
total weight: approx. 8,0 kg
- 1 insulating rod 1080 mm long with joint bolt  
1 clamping crank  $s_2 = 100$  mm for switching shaft  
total weight: approx. 5,7 kg

to a) and b) for another rods, please look on page 15.

As special version also available with magnetic interlocking. We ask for your inquiry.

## Clamping positions of switchgears and drives

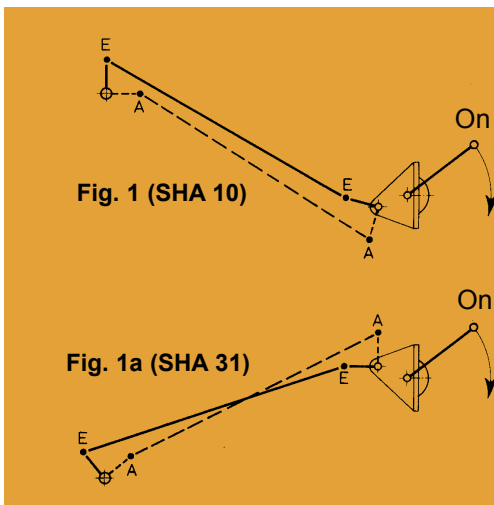
**Disconnecting and load-break switches in ON-position**  
The connecting rod should form an acute angle to the clamping crank of the switching shaft; and an obtuse angle to the actuating crank (Fig. 1 and 1a)

**Power circuit-breakers in OFF-position**  
The connecting rod should form an acute angle to the actuating crank, and to the clamping crank of the switching shaft, however, an obtuse angle (Fig. 2 and 2a)

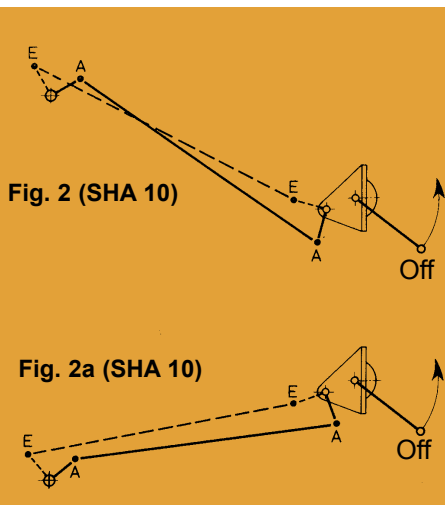
**Earthing switches in ON-position**  
The connecting rod should form an acute angle to the actuating crank and an obtuse angle to the clamping crank of the earthing switch shaft (Fig. 3 to 4a)

**Please avoid over dead-centre positions!!!**

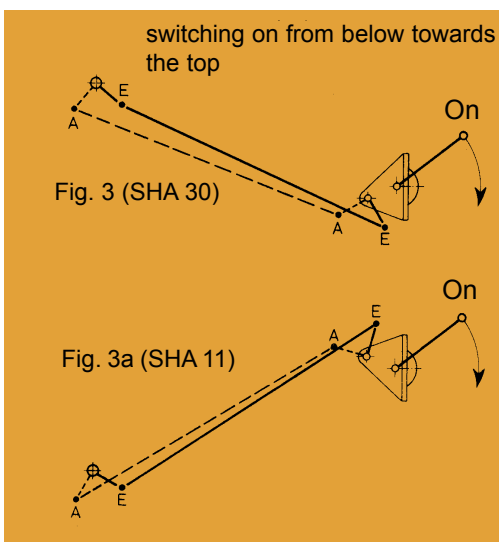
• Disconnecting and load-break switch



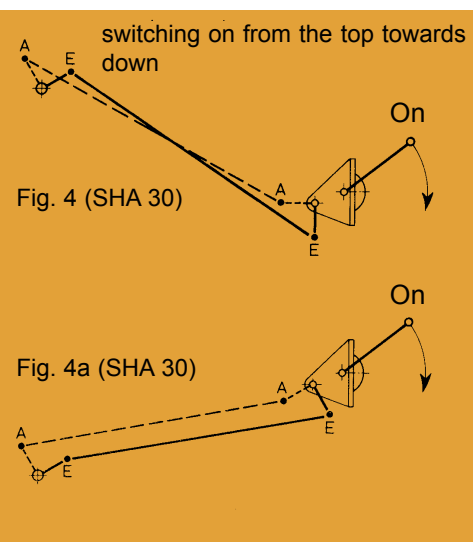
• Power circuit-breaker



• Earthing switches



• Earthing switches



## DRIESCHER - Indoor - Manual Drives and Accessories

### Universal-Drive U/v

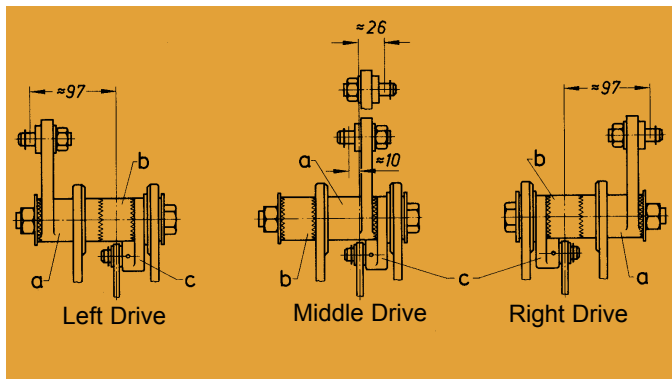
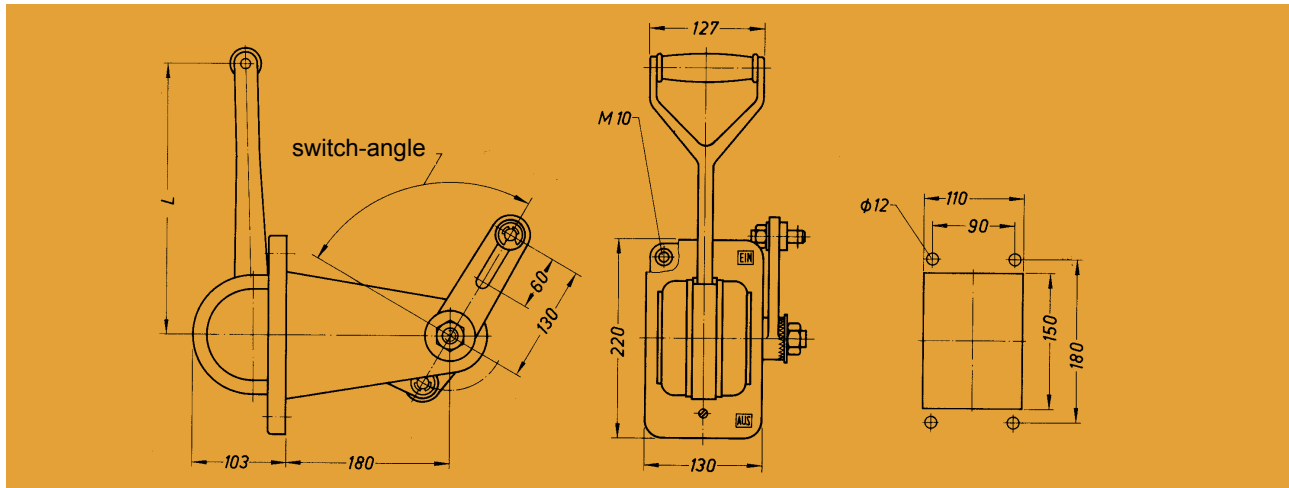
with stirrup-handle, suitable for manual operation and manual emergency operation of indoor switch-gears; mainly for load-break switches and power circuit-breakers.

handle is replaced by a plug-in lever.

The maximal torque of the universal-drive u/v is 500 Nm.

For manual emergency operation the drive is manufactured without dead-centre position and the stirrup-

The turn of the crank drive in next to no time.



The cranks a and c as well as the connecting piece b are serrated on the side, 12° steps.

Therefore, crank a can be adjusted about 30 x 12° concerning right and left drive, about 20 x 12° concerning middle drive and consequently can be adjusted to every linkage rod position.

Depending on requirement, crank a can be turned from the right - delivery ex works - to the left or to the middle.

1) Weight including linkage rod and accessories

#### Hints for crank positions according page 4.

The upperside drive will be delivered in grey (RAL 7032) and the cover in black (RAL 9005).

#### In the delivery are included:

- 1 flat clamping rod head with bearing bushing
- 1 linkage rod 3/4" 1,5 m long - forked cover welded - with joint bolt
- 1 clamping crank  $s_2 = 100$  mm for the switching shaft

Part.no.	L	weight <sup>1)</sup> approx. kg	Drawing-no.
774 53300	300	17,70	AZ 3-15932
774 53400	400	18,20	AZ 3-15932

**For longer rodes, please look on page 15.**

## DRIESCHER - Indoor - Manual Drives and Accessories

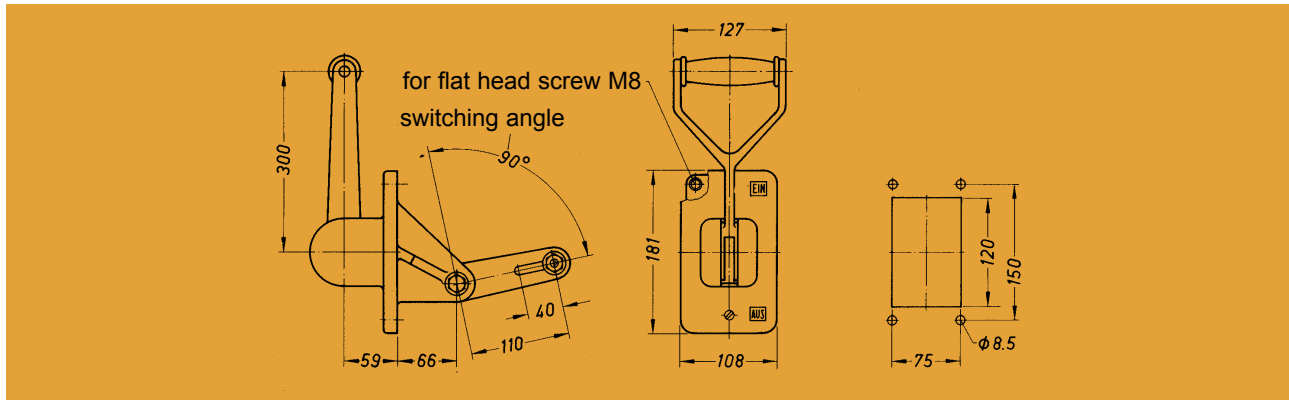
## Stirrup-handle drive n/u

For the operation of disconnecting and load-break switches.

possibility of adjusting of  $16 \times 12^\circ$  and therefore good adaptation to necessary linkage rod positions.

The max. torque of the Stirrup-handle Drive is 200 Nm. cranks serrated on the front side,  $12^\circ$  steps, through that

**Hints for crank positions according to Fig. 1 page 4.**



For the operation of disconnecting and load-break switches colour green RAL 6013, cover shell black RAL 9005.

1) Weight including linkage rod and accessories

**In the delivery are included:**

- flat clamping rod head with bearing bushing
- linkage rod 3/4" 1,5 m long - forked cover plate welded - with joint bolt
- clamping crank  $s_2 = 100$  mm for the switching shaft

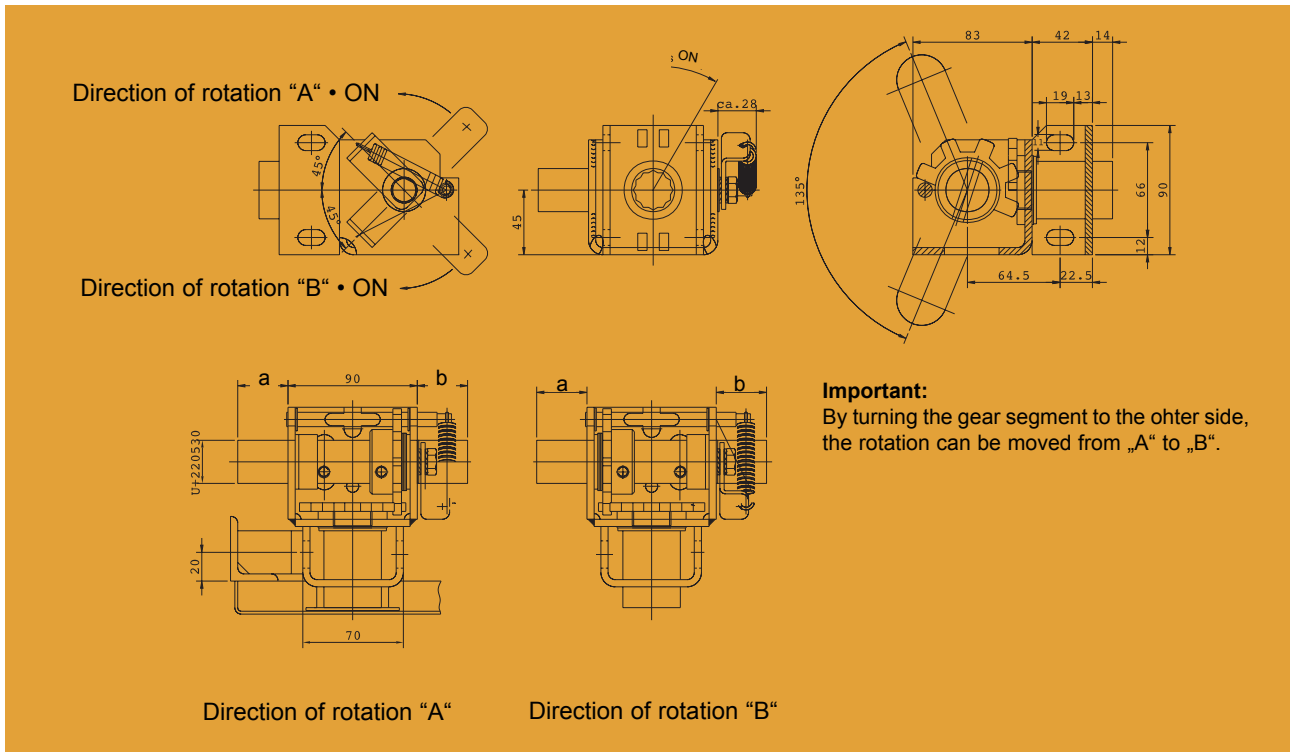
**For longer rodes, please look on page 15.**

Part-no.	Weight <sup>1)</sup> approx. kg	Drawing-no.
774 63000	9,50	AZ 3-10400

## DRIESCHER - Indoor - Manual Drives and Accessories

### D-Z-drive

For the operating of disconnecting and load-break in switchgears. The max. torque of the D-Z drives are 180 Nm. **Hints for crank positions according to page 4.**



The upperside drive will be delivered galvanized.

#### In the delivery are included:

- 1 front fitting with I-O-sign

Operating lever with keys size 24 according page 14

Check with clamping cranks and interconnecting linkage (made of GFK) ,page 13 and 15.

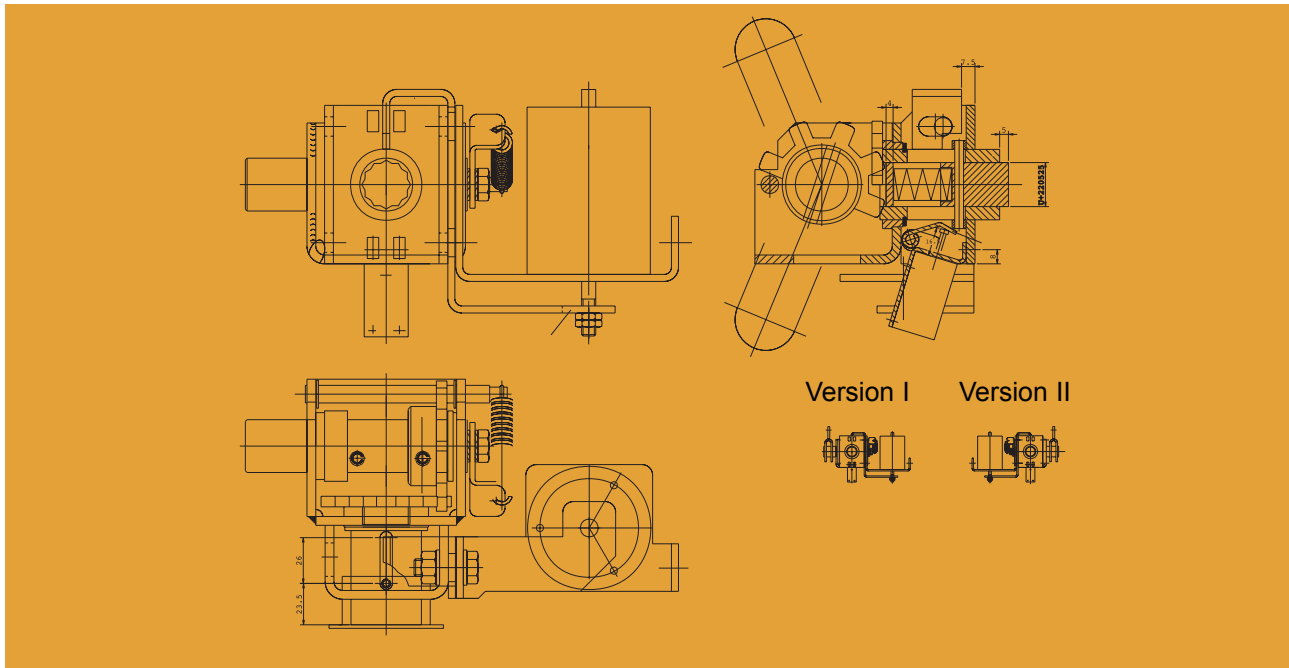
Part-no.	Weight approx. kg	Drawing-no.	Direction of rotation	a	b
720 40104	2,9	AZ 2-60473/1	A	35	-
720 40105	2,9	AZ 2-60473/2	B	35	-
720 40106	2,9	AZ 2-60473/3	A	-	35
720 40107	2,9	AZ 2-60473/4	B	-	35

## DRIESCHER - Indoor - Manual Drives and Accessories

### D-Z-drives with magnet interlocking

For the operating of disconnecting and load-break in switchgears. The max. torque of the D-Z drives are 180 Nm.

Hints for crank positions according to page 4.



The upperside drive will be delivered galvanized.

#### In the delivery are included:

- 1 front fitting with I-O-sign

Operating lever with keys size 24 according page 14.

Check with clamping cranks and interconnecting linkage (made of GFK) ,page 13 and 15.



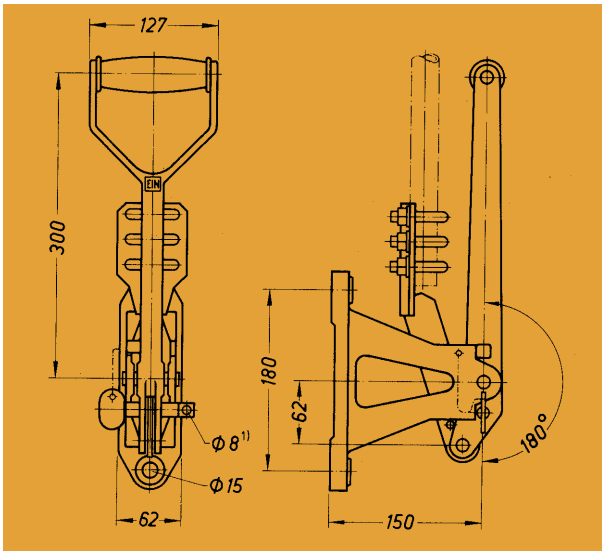
Page-no.	Weight approx. kg	Drawing-no.	Direction of rotation <sup>1)</sup>	Version
720 40141	7,1	AZ 2-91156/1	A	I
720 40142	7,1	AZ 2-91156/2	B	I
720 40143	7,1	AZ 2-91156/3	A	II
720 40144	7,1	AZ 2-91156/4	B	II

1) Explantation for rotation according page 7



## DRIESCHER - Indoor - Manual Drives and Accessories

## Lever-operation mechanism for wall mounting



1) Drill hole in lock bolt to interlock by a padlock

For the operating of disconnecting and load-break in Switchgears.

The upperside drive will be delivered in grey (RAL 7032)

**In the delivery are included:**

- flat clamping rod head
- linkage rod 3/4" 3 m long - forked cover plate welded - with joint bolt
- clamping crank  $s_2 = 100$  mm for the switching shaft

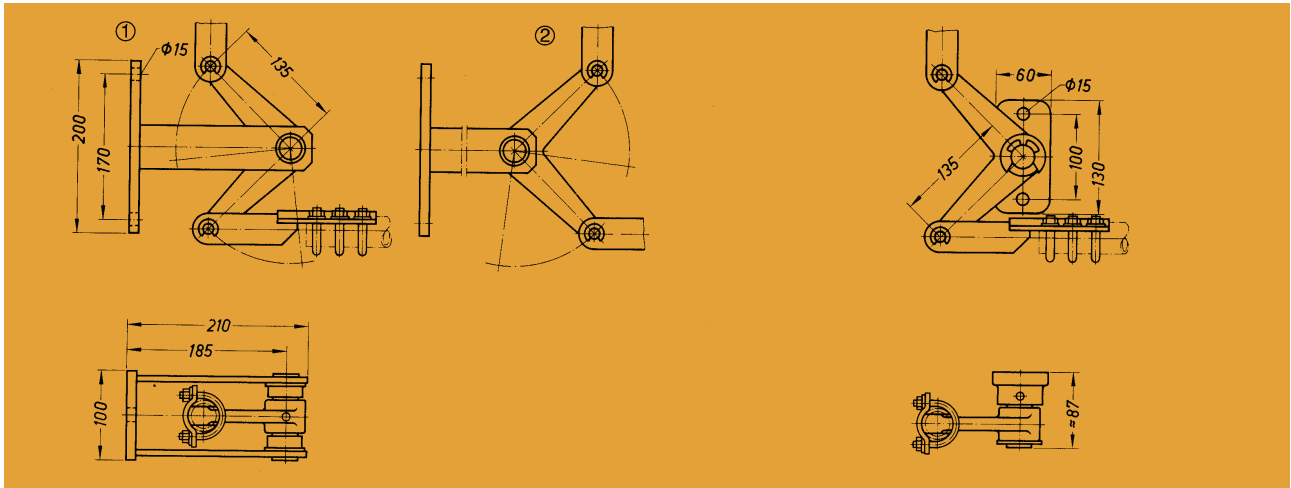
Part-no.                      Weight compl. approx. kg                      Drawing-no.

774 25000                      11,2                      AZ 4-1473

## Wall bearing with fulcrum crank

## • for rear mounting

## • for lateral mounting



For the operation of disconnecting switches and earthing switches mounted below:

- 1) by means of coupling drives
- 2) by means of plug-in or n/u-drives

For the operation of earthing switches mounted ex above:

- 1) by means of plug-in or n/u-drives
- 2) by means of coupling drives

The upperside drive will be delivered galvanized.

**In the delivery are included:**

- 2 forked clamping rod heads (installation works)

	Part-no.	Weight approx. kg	Drawing-no.
for rear mounting	774 98100	6,80	AZ 3-16296
for lateral mounting	774 98200	5,00	AZ 4-46680



## DRIESCHER - Indoor - Manual Drives and Accessories

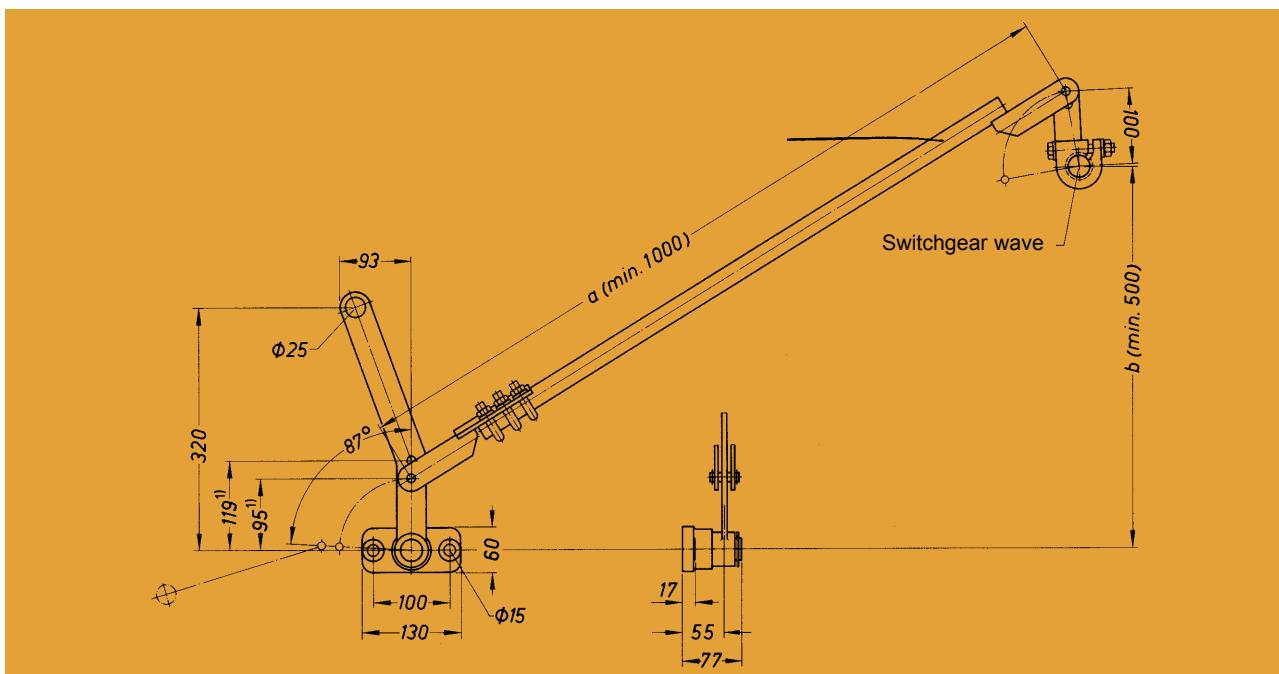
### Ring-level mechanism

For the operation of all indoor disconnecting and earthing switches.

During the fixing of the lengths of the linkage rod (measure a) and the installation you have to take

care that the switching crank to the drive does not reach the dead-centre position.

The upperside drive will be delivered galvanized.



#### In the delivery are included:

- 1 forked clamping rod head with joint bolt
- 1 linkage rod 3/4" 1,5 m long - forked cover plates welded - with joint bolt
- 1 clamping crank  $s_2 = 100$  mm for switching shaft
- 1 connecting rod according page 16

impossible rods according page 16

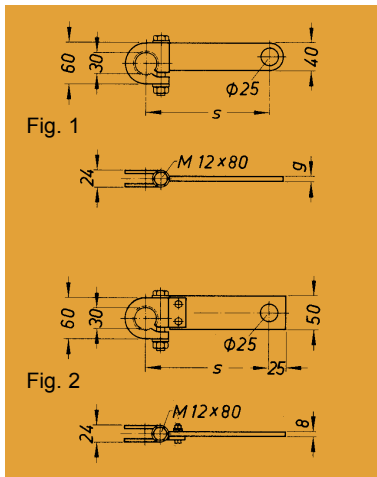
1) when hanging in the forked rod head at measure 95, the switching angle on the switching shaft is 90°, at measure 119 it is 110°.

Part-no.	Weight compl. approx. kg	Drawing-no.
774 21000	7,10	AZ 4-46602

## DRIESCHER - Indoor - Manual Drives and Accessories

### Pulling eyes

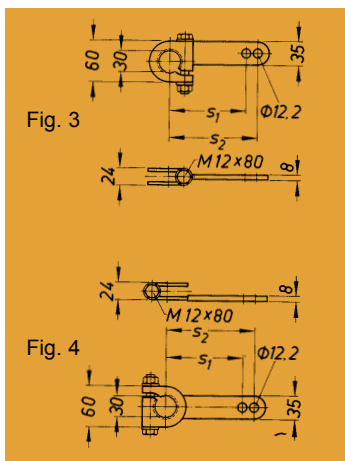
for shaft diameter 30 mm, with hardened interior gearing.  
Steel parts, except screws, washers and nuts, are dacrometed  
1) for earthing switches additionally provided with red colour, please name when ordering



Type	Fig.	Part-no.	g	s	Weight approx kg.	Drawing-no.
eye-lever made of steel	1 <sup>1)</sup>	774 11180	6	180	0,60	AZ 4-9750
eye-lever made of steel	1 <sup>1)</sup>	774 11245	6	245	0,73	AZ 4-9750
eye-lever made of steel	1 <sup>1)</sup>	774 11320	6	320	0,88	AZ 4-9750
eye-lever made of steel	1 <sup>1)</sup>	774 11500	8	500	1,49	AZ 4-9750
eye-lever made of GFK	2	774 15180	-	180	0,60	AZ 4-42005
eye-lever made of GFK	2	774 15245	-	245	0,73	AZ 4-42005
eye-lever made of GFK	2	774 15320	-	320	0,87	AZ 4-42005
eye-lever made of GFK	2	774 15500	-	500	1,22	AZ 4-42005

### Clamping cranks

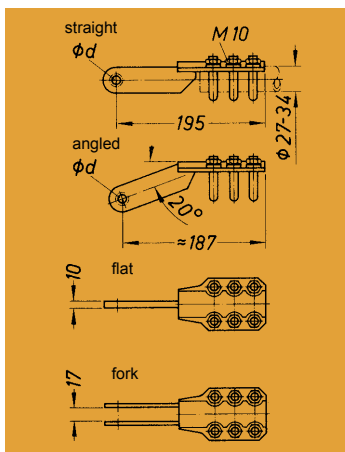
for shaft diameter 30 mm, with hardened interior gearing  
galvanized, except screw, washers and nut.



Type	Fig.	Part-no.	s <sub>1</sub>	s <sub>2</sub>	Weight approx.kg	Drawing-no.
Crank lug in the middle of the clamping screw side	3	774 11600	66	83	0,44	AZ 4-9602
	3	774 11601	83	100	0,48	AZ 4-9602
	3	774 11602	111	128	0,54	AZ 4-9602
Crank lug lateral opposite the clamping screw side	3	774 11603	158	175	0,65	AZ 4-9602
	4	774 11700	-	60	0,39	AZ 4-17137
	4	774 11701	66	83	0,44	AZ 4-17137
	4	774 11702	83	100	0,48	AZ 4-17137
4	774 11703	111	128	0,54	AZ 4-17137	

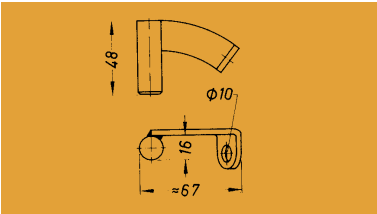
### Clamping rod heads

hot-galvanized



Type	Fig.	ød	Weight approx. kg	Drawing-no.
straight, flat	775 71000	12,5	1,0	AZ 3-9609
straight, flat with bush	775 71011	12,2	1,0	AZ 3-9609
straight, fork	775 71200	12,5	1,1	AZ 3-9609
angled, flat	775 72000	12,5	1,0	AZ 3-14001
angled, fork	775 72200	12,5	1,1	AZ 3-14001

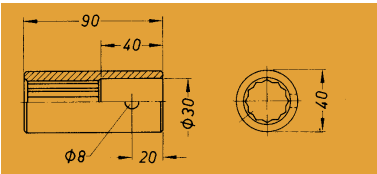
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### Locking lever for plug-in lever operation

galvanized

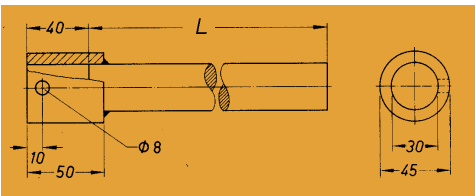
Part-no.	Weight approx. kg	Drawing-no.
641 09570	0,13	AZ 4-24680



### Box for D-drives

galvanized

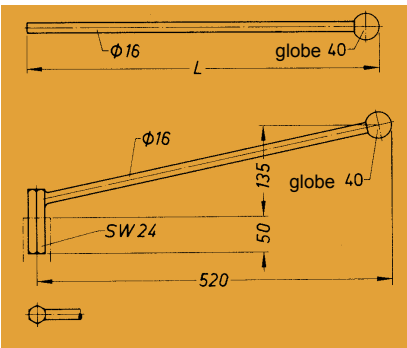
Part-no.	Weight approx. kg	Drawing-no.
641 30560	0,5	AZ 4-41400



### Shaft prolongation

galvanized

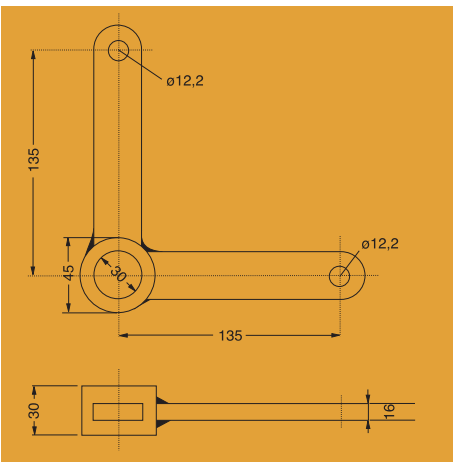
Part-no.	L	Weight approx. kg	Drawing-no.
641 36900	300	1,9	AZ 4-43851
641 09070	500	3,0	AZ 4-43851
641 38870	800	4,6	AZ 4-43851
641 39470	1000	5,8	AZ 4-43851
641 52480	2000	11,4	AZ 4-43851



### Plug-in lever

galvanized

Type	Part-no.	L	Weight approx. kg	Drawing-no.
straight for plug-in lever	774 91350	365	0,7	AZ 4-37694
straight for plug-in lever	774 91500	515	0,9	AZ 4-37694
with hexagon attachment for D-drives	774 92500	-	1,25	AZ 4-41399

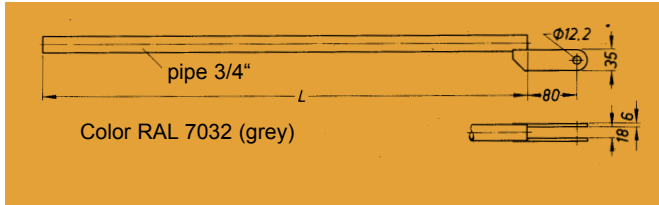


### Fulcrum crank

galvanized

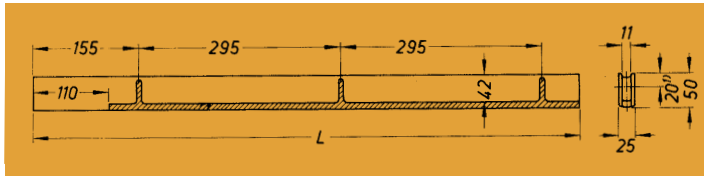
Part-no.	Weight approx. kg	Drawing-no.
641 37450	1,3	AZ 4-46679

## DRIESCHER - Indoor - Manual Drives and Accessories



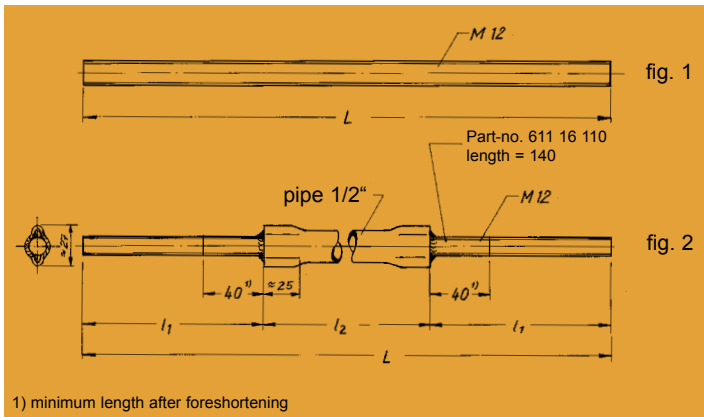
### Linkage rod with forked cover plates

Part-no.	L	Weight approx. kg	Drawing-no.
641 25650	1500	2,7	AZ 4-13157
641 25660	2000	3,5	AZ 4-13157
641 25670	2500	4,3	AZ 4-13157
641 25680	3000	5,1	AZ 4-13157



### Insulating rod made of GFK

Part-no.	L	Weight approx. kg	Drawing-no.
452 35505	1080	1,40	AZ 3-20697
452 35506	1200	1,75	AZ 3-20697
452 65135	1600	2,30	AZ 3-20697

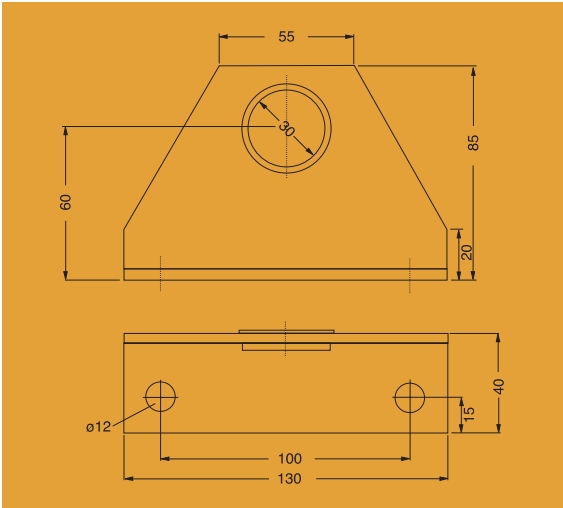


### Connecting rod for D-drives

galvanized

Fig.	Part-no.	L	$l_1$	$l_2$	for Z from - to bzw. „L“ really from - to	Weight approx. kg	Drawing-no.
1	611 15170	350	-	-	150 - 405	0,34	AZ 4-43531
2	641 32830	510	120	270	405 - 565	0,82	AZ 4-43531
2	641 32840	670	120	430	565 - 725	1,00	AZ 4-43531
2	641 32850	830	120	590	725 - 885	1,22	AZ 4-43531
2	641 32860	990	120	750	885 - 1045	1,42	AZ 4-43531
2	641 32870	1150	120	910	1045 - 1205	1,62	AZ 4-43531

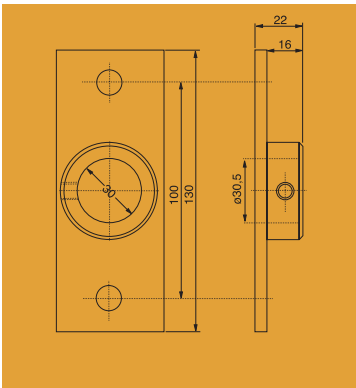
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### Bearing pedestal for waves $\varnothing$ 30 mm

galvanized

Part-no.	Weight approx. kg	Drawing-no.
621 27140	0,4	AZ 3-46600



### Endbearing

galvanized

Part-no.	Weight approx. kg	Drawing-no.
641 37120	0,4	AZ 4-46604

Measures, weights, drawings and descriptions in this list are not binding and are subject to change without notice!

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ELEKTROTECHNISCHE WERKE  
FRITZ DRIESCHER & SÖHNE GMBH

D-85366 MOOSBURG • TEL. +49 87 61 6 81-0 • FAX +49 87 61 68 11 37  
<http://www.driescher.com> email: [Driescher@aol.com](mailto:Driescher@aol.com)

