



OPERATING INSTRUCTIONS



Spindle support
 Typ 2044.0,5/1 2047.0,5/1/3 2048.0,5/1/3
 2083.0,5/1 2087.0,5/1/3 2088.0,5/1/3
 3208.3
 Manufactured by Haacon Hebetchnik GmbH

1. SAFETY INSTRUCTIONS

Where to use this winch

This spindle support may only be used in accordance with the following operating instructions.

- To be used only to lift, lower and shift freely moving loads by push loading.
- Exception: type 3208.3 can be push and pull loaded.
- To be used only if in perfect technical condition.
- To be used by trained personnel only.

Safe working practices

Read these operating instructions carefully before using the spindle support.

Work safely and be aware of dangers at all times.

Inform your supervisor immediately of any damage or faults to the spindle support. Do not operate the spindle support again until the damage or fault has been repaired.

Do not

- Exceed the maximum load (see tech. data and type-/capacity number plate).
- Transport people.
- Working within, above and under lifted loads without additional safety precautions (VBG 14).

Supervision

- Ensure that these operating instructions are always at hand.
- Do not allow this spindle support to be operated by untrained staff.
- Check regularly that the spindle support is operated safely and according to these instructions.

Installation, Maintenance and Repair

Installation, maintenance and repair may only be carried out by trained personnel.

Use only original manufacturer's replacement parts.

No changes or modifications may be carried out on parts relevant to safety. Additional equipment must not infringe on safety.

Additional instructions to be adhered to

- Safety and accident prevention regulations.
- National regulations, safety standards and guidelines.

3. GENERAL

Ergonomic fit and support, displacement and leveling to the nearest millimeter with manually operated spindle supports in different variations. The sturdy square tube, which is easy to mount, warrants built-on and built-in for multi-purposes. The self-locking trapezoid spindle and the maintenance-free bevel gears enable easy and reliable operation.

The spindle support complies with the accident-prevention rule VBG 8.

4. CONSTRUCTION / FUNCTION

The trapezoid spindle is driven by the crank handle across one spur bevel gearing. This spindle converts the rotation into a longitudinal motion, due to the stationary nut. To protect from mechanical damages, the spindle and gear parts are housed in telescopic square tubes, which additionally provide a high stability. The spindle supports are usually equipped with one rigid base plate to outer tube dimensions 60x60 mm inclusive, and with one base plate inclinable to all directions from 80x80 mm. The heights of lift can promptly be bridged by means of supports equipped with one additional telescopic tube.

2. TECHNICAL DATA

Type	2044.0,5 2047.0,5 2048.0,5	2083.0,5 2087.0,5 2088.0,5	2044.1 2047.1 2048.1	2083.1 2087.1 2088.1	2047.3 2048.3	2087.3 2088.3	3208.3
O / N	203466 203468 202620 203469	203467 203472 202578 203474	203522 203565 203652 203566	203520 203473 202579 203475	203509 202616 203567	203521 202223 203568	203661
Permitted load (kN)	5		10		30		30
Lift (mm) Spindel	300	300	300	300	350	350	400
Drop leg		200	-	300	-	300	
O/A height (mm)	500	550	525	585	670	720	860
Spindle thread	Tr 22x3		Tr 22x3		Tr 30x4		30x4
Crank force at full load (N)	140		140		260		260
Gear ratio	1		1,6		1,83		1,83
Lift/crank turn (mm)	3		1,875		2,18		2,18
Weight (kg)	4	4,5	5,5	7,5	16	20	16

Supports with ordering no. in () differ from the standard spindle support by the overall height, the lift and the weight.

5. INSTALLATION

The spindle support can be built-on and built-in in any position. It should be noted, that:

- the spindle support will only be push loaded (not on pull). (Exception: type 3208.3 is capable to be push loaded as well as pull loaded.)
- the safety, the manuability and the possibility of relubrication will not be impaired.

6. OPERATION

The extension of the spindle support is made by turning the crank clockwise. To pull in the spindle support it must be turned counter-clockwise. When the lift stop is reached (rise of the crank compression-force!), the cranking has to be stopped, in order to avoid damages of the spindle support.

When the crank is released, the load will be maintained in any position by the self-locking spindle.

Spindle supports with drop leg can be extended additionally by opening a locking mechanism (spring bolt) and extending the drop tube.

ATTENTION!

The locking mechanism is only to be released, when the spindle support is unloaded. The drop tube can fall out of the spindle support, if the section to be bridged is longer than the spindle support.

Drawing-out of the drop tube is only allowed to the last hole (max. drop lift).

Before the spindle support is loaded, it must be secured by means of the spring bolt which must visibly be engaged.

7. MAINTENANCE

If necessary, but at least twice a year, the spindle support has to be lubricated with grease, similar to "Shell Alvania R3" at the provided grease nipples, cranked out over the whole spindle lift to the limit stop and returned, in order to lubricate the spindle nut sufficiently. The bevel gearing is filled with long-term grease at the factory, which provides a sufficient lubrication for approx. 5 years in case of normal duty service (1 - 3 x per week). In case of hard or frequent duty service a new grease filling is necessary every second or third year. For that purpose the protective cap at the upper end of the spindle support will be removed (3208.3). Heavily deteriorated parts have to be replaced.

8. TESTING

The spindle support should be checked regularly by trained personnel depending on usage and conditions, but at least once a year. Trained personnel are people who by virtue of training and experience have gained sufficient knowledge in the field of winches, lifting and pulling equipment and who are adequately acquainted with national standards of accident prevention and safety regulations and who are able to judge the condition of winches, lifting and pulling equipment where working safety is concerned. Please observe the operating and maintenance instructions of the manufacturer in this case. Follow these instructions and you too will continue to be pleased with your haacon spindle support.

9. SPARE PARTS

The following data should be given with each order:

- Type number and serial number of rack jack / Pos. and Part number.

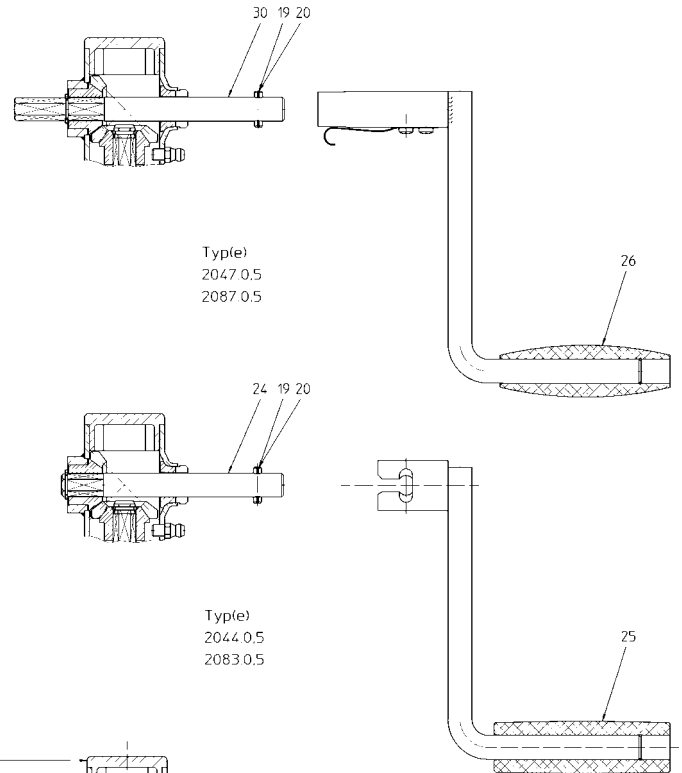
Power Jacks Ltd.
 Maconochie Road
 Fraserburgh
 AB43 8TE
 Scotland
 Tel: +44 (0) 1346 513131
 Fax: +44 (0) 1346 516827
 email: sales@powerjacks.co.uk
 http://www.powerjacks.com

Power Jacks Ltd. Authorised Distributor of Equipment
 Manufactured by Haacon Hebetchnik GmbH

Typ 2044/2047/2048.0,5

Pos	Teile-Nr. Part-No. Référence			Abmessung Dimensions Dimensions	DIN-Nr. DIN-No. DIN-No.	Stück Qty. Quant.
	203 468 202 573	203 469	203 466			
1	113 225	113 225	113 225			1
2	119 786	119 786	119 786			1
6			114 230			1
7	106 949	106 949	106 949			1
8	119 784	119 784	119 784			1
9	116 307	116 307	116 307	Al 1226		1
10	110 370	110 370	110 370			1
12	101 201	101 201	101 201	40x40		1
13	106 870	106 870	106 870			1
14	106 832	106 832	106 832	A10x1	DIN 471	1
15	120 386	120 386	120 386			1
17	106 872	106 872	106 872			1
18	100 264	100 264	100 264	AS6x1	DIN 71412	1
19	100 076	100 076		2,5x18	DIN 8752	1
20	106 296	106 296		4x18	DIN 8752	1
24	113 267					1
25	200 374	200 374*				1
26	201 432*	201 432*	201 432			1
30		113 268				1

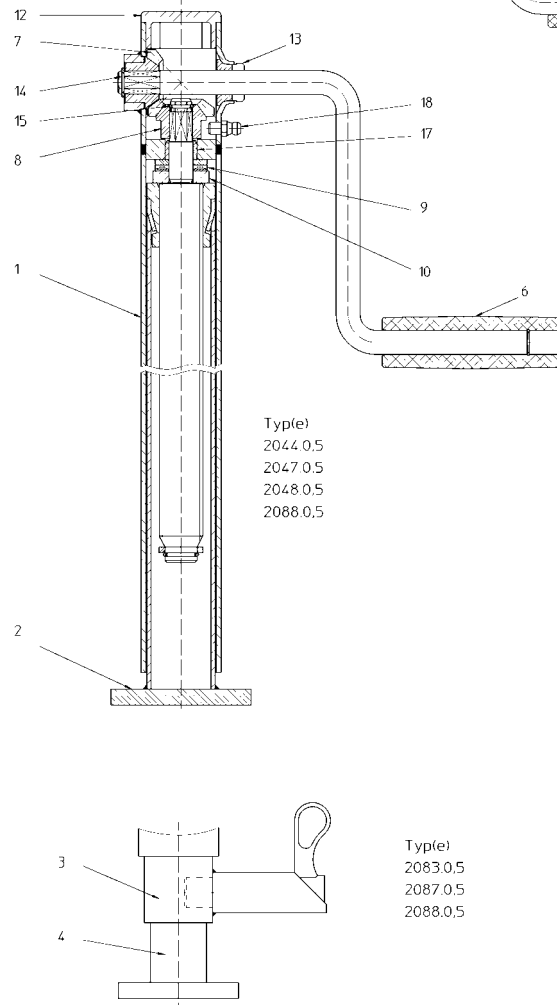
*) wahlweise / option / optional



Typ 2083/2087/2088.0,5

Pos	Teile-Nr. Part-No. Référence			Abmessung Dimensions Dimensions	DIN-Nr. DIN-No. DIN-No.	Stück Qty. Quant.
	203 468 202 573	203 469	203 466			
1	113 225	113 225	113 225			1
2	119 786	119 786	119 786			1
6			114 230			1
7	106 949	106 949	106 949			1
8	119 784	119 784	119 784			1
9	116 307	116 307	116 307	Al 1226		1
10	110 370	110 370	110 370			1
12	101 201	101 201	101 201	40x40		1
13	106 870	106 870	106 870			1
14	106 832	106 832	106 832	A10x1	DIN 471	1
15	120 386	120 386	120 386			1
17	106 872	106 872	106 872			1
18	100 264	100 264	100 264	AS6x1	DIN 71412	1
19	100 076	100 076		2,5x18	DIN 8752	1
20	106 296	106 296		4x18	DIN 8752	1
24	113 267					1
25	200 374	200 374*				1
26	201 432*	201 432*	201 432			1
30		113 268				1

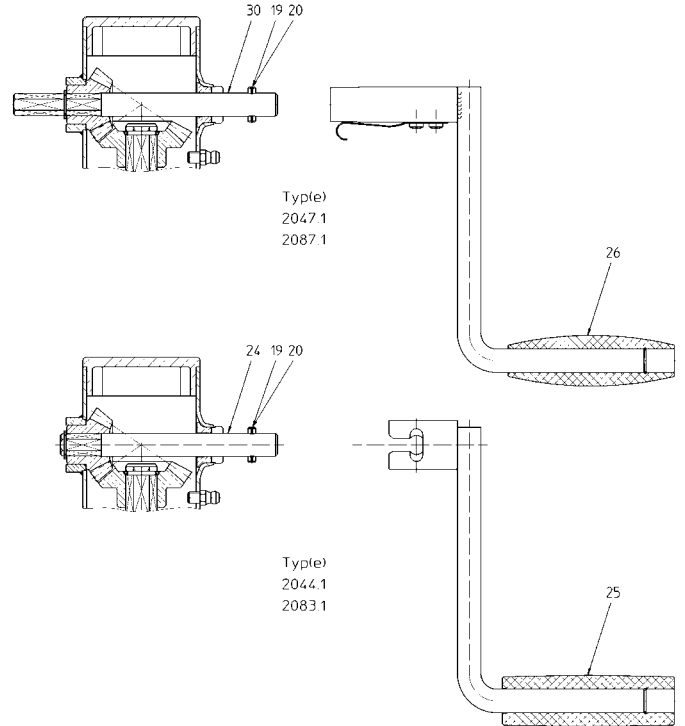
*) wahlweise / option / optional



Typ 2044/2047/2048.1

Pos	Teile-Nr. Part-No. Référence			Abmessung Dimensions Dimensions	DIN-Nr. DIN-No. DIN-No.	Stück Qty. Quant.
	203 565 202 791	203 566	203 522			
1	113 230	113 230	113 230			1
2	119 725	119 725	119 725			1
6			114 230			1
7	106 948	106 948	106 948			1
8	119 726	119 726	119 726			1
9	100 899	100 899	100 899			1
10	109 993	109 993	109 993			1
12	101 202	101 202	101 202	60x60		1
13	106 870	106 870	106 870			1
14	106 832	106 832	106 832	A10x1	DIN 471	1
15	120 187	120 187	120 187			1
17	106 752	106 752	106 752			1
18	100 264	100 264	100 264	AS6x1	DIN 71412	1
19	100 076	100 076		2,5x18	DIN 8752	1
20	106 296	106 296		4x18	DIN 8752	1
24	113 267					1
25	200 374	200 374*				1
26	201 432*	201 432*	201 432			1
30		113 268				1

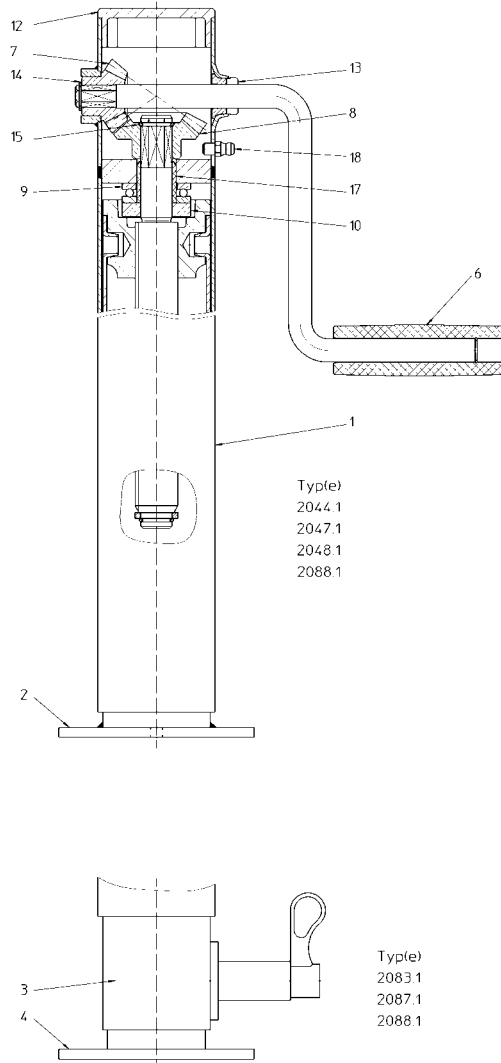
*) wahlweise / option / optional



Typ 2083/2087/2088.1

Pos	Teile-Nr. Part-No. Référence			Abmessung Dimensions Dimensions	DIN-Nr. DIN-No. DIN-No.	Stück Qty. Quant.
	203 473 202 772	203 475	203 320			
1	113 230	113 230	113 230			1
3	119 728	119 728	119 728			1
4	116 226	116 226	116 226			1
6			114230			1
7	106 948	106 948	106 948			1
8	119 726	119 726	119 726			1
9	100 899	100 899	100 899			1
10	109 993	109 993	109 993			1
12	101 202	101 202	101 202	60x60		1
13	106 870	106 870	106 870			1
14	106 832	106 832	106 832	A10x1	DIN 471	1
15	120 187	120 187	120 187			1
17	106 752	106 752	106 752			1
18	100 264	100 264	100 264	AS6x1	DIN 71412	1
19	100 076	100 076		2,5x18	DIN 8752	1
20	106 296	106 296		4x18	DIN 8752	1
24	113 267					1
25	200 374	200 374*				1
26	201 432*	201 432*	201 432			1
30		113 268				1

*) wahlweise / option / optional



Typ 2047/2048.3

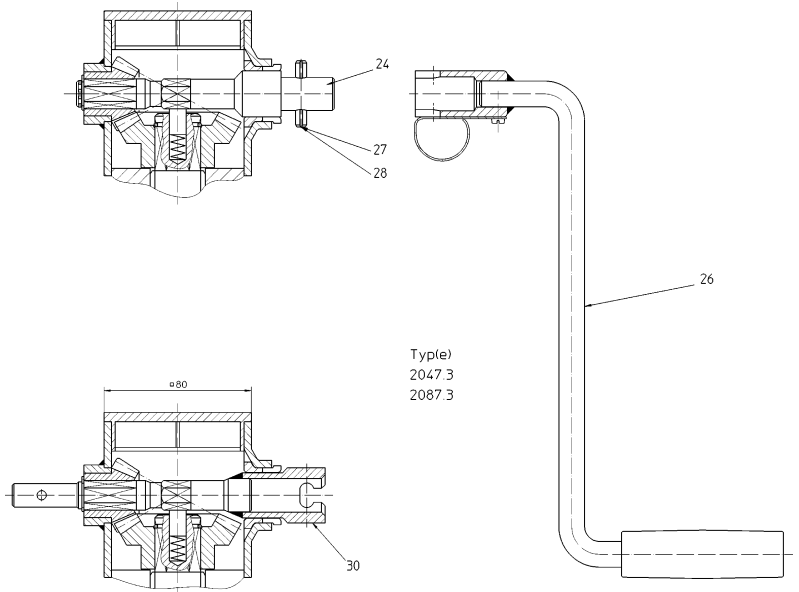
Pos	Teile-Nr. Part-No. Référence	Abmessung Dimensions Dimensions	DIN-Nr. DIN-No. DIN-No.	Stück Qty. Quant.	
	203 567 202 815	203 509 202 616			
1	118 952	118 952		1	
2	108 933	108 933		1	
5	118 954	118 954		1	
6		108 938		1	
7	106 304	106 304		1	
8	118 951	118 951		1	
9	102 634	102 634		1	
11	108 944	108 944		1	
12	106 454	106 454	80x80	1	
13	100 506	100 506		1	
14	100 721	100 721	A14x1	DIN 471	1
15	106 223	106 223	8x14	DIN 5402	1
16	101 127	101 127		1	
17	106 453	106 453		1	
18	100 264	100 264	AS6x1	DIN 71412	1
19	111 072	111 072		2	
20	106 142	106 142	A24	DIN 7993	1
21	100 361	100 361	M10	DIN 4032	1
22	101 118	101 118	40x14,3x2	DIN 2093	1
24		111 656*		1	
25	202 614	202 614		1	
26		201 032*		1	
27		100 141*	6x36	DIN 8752	1
28		100 096*	3,5x36	DIN 8752	1
30	110 409			1	

*) wahlweise / option / optional

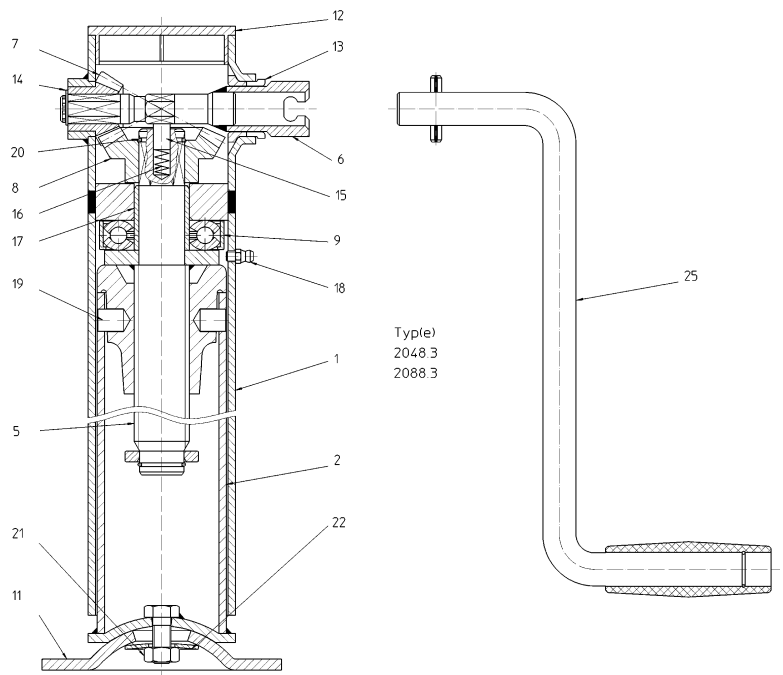
Typ 2087/2088.3

Pos	Teile-Nr. Part-No. Référence	Abmessung Dimensions Dimensions	DIN-Nr. DIN-No. DIN-No.	Stück Qty. Quant.	
	20 3 477 204 572	203 323 207 514			
1	118 952	118 952		1	
3	114 216	114 216		1	
4	109 174	109 174		1	
5	118 954	118 954		1	
6		108 938		1	
7	106 304	106 304		1	
8	118 951	118 951		1	
9	102 634	102 634		1	
10	102 603	102 603		1	
11	108 944	108 944		1	
12	106 454	106 454	80x80	1	
13	100 506	100 506		1	
14	100 721	100 721	A14x1	DIN 471	1
15	106 223	106 223	8x14	DIN 5402	1
16	101 127	101 127		1	
17	106 453	106 453		1	
18	100 264	100 264	AS6x1	DIN 71412	1
19	111 072	111 072		2	
20	106 142	106 142	A24	DIN 7993	2
21	100 361	100 361	M10	DIN 4032	1
22	101 118	101 118	10x14,3x2	DIN 2093	1
24		11 656*		1	
25	202 614	202 614		1	
28		201 032*	3,5x36	DIN 8752	1
27		100 141*	6x36	DIN 8752	1
28		100 096*	3,5x36	DIN 8752	1
30	110 409			1	

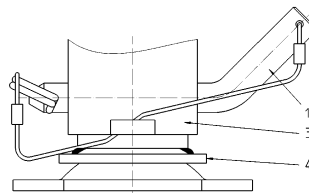
*) wahlweise / option / optional



Typ(e)
2047.3
2087.3



Typ(e)
2048.3
2088.3



Typ(e)
2087.3
2088.3

**E.C. Manufacturers Declaration
to 98/37/EEC IIB**

haacon hebetechnik gmbh
Josef-Haamann-Straße 6
D-97896 Freudenberg/Main



Name and address: haacon hebetechnik gmbh Telefon: 09375/84-0
Josef-Haamann-Straße 6 Telefax: 09375/8466
97896 Freudenberg/Main

Description:

Designation: Spindle support
Type: 2044, 2047, 2048, 2083, 2087, 2088, 2758, 2843, 2894, 2949, 3090, 3091,
3092, 3094, 3114, 3124, 3188, 3208, 3235, 3290, 3293, 3298, 3364, 3378, 3379,
3394, 8207, 8208, 8209, 8210, 8220, 8223, 8230, 8255, 8304, 8306, 8682,
207614
Capacities 0,3 - 3 t

Relevant E.C. Directives:

89/392/EEC EC-machinery directive
91/368/EEC EC-machinery directive
93/44/EEC EC-machinery directive
93/68/EEC EC-machinery directive

Harmonised standards:

EN292 parts 1 & 2 safety of machines

National standards and technical specifications:

VBG 1 Unfallverhütungsvorschriften (Allgemeine Vorschriften)
VBG 8 Unfallverhütungsvorschriften (Winden, Hub-Zuggeräte)

This product must not be used until it is established that the equipment of which it forms part complies with the guidelines of the EC Directive 98/37/EEC IIB.

Signed:

Freudenberg, 07.02.2001

ppa. F. Hartmann

i.V. K. Lazarus