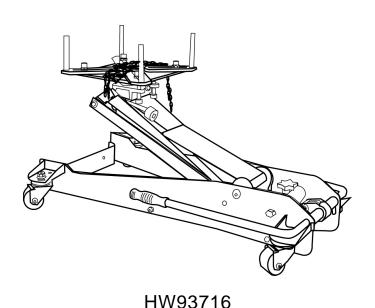


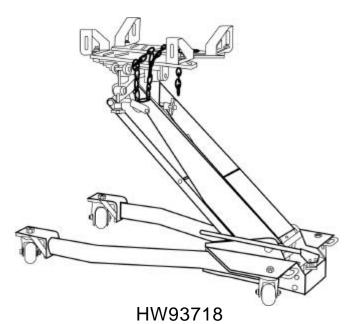
# Hydraulic Transmission Jack

# **Operating Instructions & Parts Manual**

Model Number Capacity
HW93716 1/2 Ton
HW93718 1 Ton







SFA Companies ©2004 10939 N. Pomona Ave. Kansas City, MO 64153 816-891-6390

customerservices@heinwerner-automotive.com

-Before using this product, read this manual and follow all its Safety Rules and Operating Instructions HW93716-M0

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#### TWO YEAR LIMITED WARRANTY

For a period of two (2) years from date of purchase, SFA Companies will repair or replace, at its option, without charge, any of its products which fails due to a defect in material or workmanship, or which fails to conform to any implied warranty not excluded hereby.

Performance of any obligation under this warranty may be obtained by returning the warranted product, freight prepaid, to SFA Companies Warranty Service Department, 10939 N. Pomona Ave., Kansas City, MO 64153. Except where such limitations and exclusions are specifically prohibited by applicable law:

- (1) THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY SHALL BE THE REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCTS AS DESCRIBED ABOVE.
- (2) SFA COMPANIES SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGE OR LOSS WHAT-SOEVER.
- (3) THE DURATION OF ANY AND ALL EXPRESSED AND IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO A PERIOD OF TWO (2) YEARS FROM DATE OF PURCHASE.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### SAVE THESE INSTRUCTIONS

For your safety, *read*, *understand*, *and follow* the information provided with and on this jack. The owner and operator of this equipment shall have an understanding of this jack and safe operating procedures before attempting to use. The owner and operator shall be aware that use and repair of this product may require special skills and knowledge. Instructions and safety information shall be conveyed in the operator's native language before use of this jack is authorized. If any doubt exists as to the safe and proper use of this jack, remove from service immediately.

**Inspect before each use.** Do not use if there are broken, bent, cracked, or damaged parts (including labels). Any jack that appears damaged in any way, operates abnormally or is missing parts, shall be removed from service immediately. If the jack has been or suspected to have been subjected to a shock load (a load dropped suddenly, unexpectedly upon it), immediately discontinue to use until jack has been checked by a Hein-Werner authorized service center. It is recommended that an annual inspection be done by qualified personnel. Labels and Operator's Manual are available from manufacturer.

#### PRODUCT DESCRIPTION

The Hein-Werner Hydraulicc Transmission Jack is designed to be used as an aid in the removal and installation of automotive and light truck transmissions, transfer cases and transaxles. It is intended for use under an overhead lift or in a garage pit.

#### **SPECIFICATIONS**

Model	Capacity	Low Height	High Height	Forward Tilt	Rearward Tilt	Sideways Tilt
HW93716	1000 lbs	3 1/4"	26 1/4"	70°	20°	25 ° L & R
HW93718	2000 lbs	10"	44"	40°	15°	10º L & R

#### SAFETY INSTRUCTIONS

#### **BEFORE USE**

- 1. Verify that the product and the application are compatible, if in doubt call Hein-Werner Technical Service (816) 891-6390.
- Read the operator's manual completely and familiarize yourself thoroughly with the product, its components and recognize the potential hazards associated with its use before using this product.
- 3. Lower saddle fully.
- 5. Locate and remove air vent screw / oil filler plug. (For HW93718, This will help to release any pressurized air that may be trapped within the reservoir.)
- 6. Ensure the oil level is just below the oil filler plug/screw hole.
- 7. Reinstall air vent screw / oil filler plug.

# **A** WARNING

- Read and understand all printed material provided with and on this product before use.
- Do not exceed rated capacity.
- Ensure the center of gravity is centered on the saddle.
- Adequately support the vehicle before starting repairs.
- Use of this jack is limited to the removal, installation and transportation of transmissions, transfer cases and transaxles.
- Do not allow any part of your body under the load while jack is supporting a load.
- Use only the saddle assembly to lift. Never use any other part of the jack as a lifting surface.
- No alterations shall be made to this product.
- Only attachmens and/or adapters supplied by the manufacturer shall be used.
- This is a lifting and lowering device only. Transfer load immediately to appropriate support device for service or repair.
- Use the chain provided. If loaded jack must be moved, make certain that the load is secured by appropriate means, is stable, is in lowest position, is moved over smooth, hard, surfaces, and that the lifting platform is level.
- Use only on hard, level, surfaces capable of supporting rated capacity loads.
- Failure to heed these markings may result in personal injury and/or property damage.

# **A** ADVERTENCIA

- Leer, comprender, y seguir las instrucciónes antes de utilizar el aparato.
- El manual de instrucciónes y la información de seguridad deben estar comunicado en lengua del operador antes del uso.
- No seguir estas indicaciónes puede causar daños personales o materiales.

#### **ASSEMBLY**

Familiarize yourself with the illustrations in the operator's manual. Know your jack and how it operates before attempting to use.

#### **MODEL HW93716**

#### **SWINGING ARMS (See Figure 1)**

- 1. Locate the four bolts that are included in the transmission jack package.
- 2. Locate the four swinging arms included in the transmission jack package.
- 3. Align the hole of one swinging arm with one hole in the top plate assembly.
- 4. Insert one bolt through the swinging arm and through the top plate assembly.
- 5. Securely tighten the bolt.
- 6. Repeat steps 1-5 for the remaining swinging arms and bolts.

#### CHAIN (See Figure 1)

- 1. Locate the chain, the eyebolt, the hook, and the wingnut.
- 2. Insert the eyebolt through the roller that is attached to the attachment bar.
- 3. Securely fasten with the provided wingnut.
- 4. Ascertain the chain, the eyebolt, hook, and wingnut are all securely fastened.

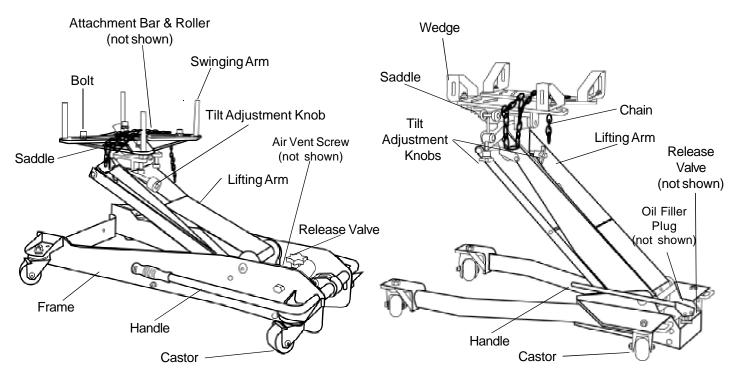


Figure 1: HW 93716 Hydraulic Transmission Jack Components

Figure 2: HW 93718 Hydraulic Transmission Jack Components

#### ASSEMBLY contd...

#### **MODEL HW93718**

#### WEDGES (See Figure 2)

- 1. Locate one of the four wedges.
- Align the hole in the wedge with the hole in the saddle assembly.
- 3. Secure with the nut, washer, and bolt.
- 4. Repeat steps 1-3 for the other three wedges.

#### CHAIN (See Figure 2)

- Insert the bolt through one hole of the saddle assembly (the holes that are lowest to the ground) if accessible. If the assembly is extended, insert the bolt through one hole of the adjustment plate.
- 2. Secure with washer and wingnut.

#### **OPERATION**

Follow the instruction for removal and installation of transmission, transfer case or transaxle according to the vehicle manufacturer's service manual.

#### RAISE SADDLE ASSEMBLY:

- Locate and close release valve by turning the valve clockwise firmly.
- 2. Pump the handle until the load is contacted.

**IMPORTANT:** Ensure the transmission is centered on the jack. An off-center transmission could cause the jack to tip over resulting in property damage or personal injury.

#### LOWER SADDLE ASSEMBLY:

- 1. Slowly, gently, turn release valve counterclockwise to lower load. No more than 1/2 full turn untill load is fully lowered.
- 2. Secure the transmission to the jack with the chain.
- 3. For model HW93718, adjust the bolt to the desired chain link. The transmission should be tightly secured to the jack if proper adjustment is used.

# **AWARNING**

Be sure all tools and personnel are clear before lowering load. Dynamic shock loads are created by quickly opening and closing the release valve as the load is being lowered. The resulting overload may cause hydraulic system failure.

#### **MAINTENANCE**

**IMPORTANT:** Use only a good grade hydraulic jack oil. Avoid mixing different types of fluid and **never** use brake fluid, turbine oil, transmission fluid, motor oil, or glycerin. Improper fluid can cause failure of the jack and the potential for sudden and immediate loss of load.

#### ADDING OIL:

- 1. Lower saddle fully.
- 2. Remove the oil filler plug / air vent screw.
- Fill with oil until just below the rim of the oil filler plug / air vent screw.
- 4. Reinstall the oil filler plug / air vent screw.

#### **CHANGING OIL**

- 1. Lower saddle fully.
- 2. Remove the oil filler plug / air vent screw.
- 3. Lay the jack on its side and drain the fluid into a suitable container.

**NOTE:** Dispose of hydraulic fluid in accordance with local regulations.

- Fill with oil until just below the rim of the oil filler plug / air vent screw hole.
- 5. Reinstall the oil filler plug / air vent screw.

#### **LUBRICATION**

- A periodic coating of light lubricating oil to pivot points, axles, and hinges will help to prevent rust and assure that wheels, castors, and pump assemblies move freely.
- When used on a daily basis, air pump model should be internally lubricated before each use. Use only good quality air tool lubricant.

#### **CLEANING**

Periodically inspect the ram for signs of rust or corrosion. Clean as needed and wipe with an oily cloth.

**NOTE:** Never use sandpaper or abrasive material on these surfaces!

#### **STORAGE**

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When not in use, store the jack with ram fully retracted.



To avoid crushing and related injuries: NEVER work on, under or around a load supported only by a jack. Immediately transfer load to an appropriate work station.

### **TROUBLESHOOTING**

Symptom	Possible Causes	Corrective Action		
Jack will not lift load	Release valve not tightly closed.     Overload Condition	Contact technical service     Remedy overload condition		
Jack bleeds off after lift	Hydraulic unit malfunction	Contact technical service		
Jack will not lower after unloading Oil leaking through filler plug	Reservoir overfilled	Ensure correct amount of oil		
Poor lift performance	Oil level is low Air trapped (Apply for HW93718 only)	Ensure proper oil level     With ram fully retracted, remove oil filler plug to let pressurized air escape, then reinstall oil filler plug.		
Will not lift to full extension	• Fluid level low	Ensure proper fluid level		

#### REPLACEMENT PARTS

Not all components of the jack are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence. When ordering parts, give Model number, parts number and description on pages 7-11. Call or write for current pricing: Phone: (888) 332-6419 or contact Hein-Werner Customer Support, customerservices@heinwerner-automotive.com or 10939 N. Pomona Ave. Kansas City, MO 64153

# **REPLACEMENT PARTS FOR HW93716**

(Refer to Figure 3 on Page 8)

Item #	Part #	DESCRIPTION	QTY.	Item #	Part #	DESCRIPTION	QTY
1	200003	Gasket	1	45	227670	Pump Ass'y.	1
2	201733	Plug	2	46	227671	Cylinder	1
3	201789	Lockwasher	4	47	227672	Piston	1
4	201801	Retaining Ring	7	48	227673	Washer	1
5	*203196	Ball	1	49	227692	Tilt Pad Ass'y.	1
6	*203198	Ball	1	50	227715	Tilt Pin	1
7	*203201	Ball	1	51	227717	Washer	3
8	203265	Nut	2	52	227718	Tilt Screw	1
9	203275	Nut	6	53	227719	Pin	1
10	203349	Nut	4	54	227720	Link	2
11	*204842	Gasket	1	55	227721	Cradle	1
12	209910	Pump Clip	1	56	227723	Handle- R.H.	1
13	209970	Lockwasher	4	57	227724	Pivot Nut	1
14	210311	Plug	1	58	227726	Tilt Screw	2
15	211013	Plug	1	59	227766	Cotter Pin	2
16	211014	Spacer	1	60	227919	U-Cup Packing	1
17	212227	Poppet	1	61	228002	Cradle & Tilt Pad Ass'y.	1
18	212638	Bolt	4	62	228247	Pin	1
19	214599	Pin	2	63	228570	Pin	1
20	*216143	O-Ring	2	64	228789	Handle- L.H.	1
21	217782	Roll Pin	1	65	231316	Plug & Gasket Ass'y.	1
22	217898	Roll Pin	1	66	231589	Bolt	4
23	218962	Knob	1	67	231603	Caster	4
24	219531	Roll Pin	3	68	231638	Filler Plug & Vent Valve	1
25	220018	Retaining Ring	1	69	231641	Oil Tank	1
26	220861	Chain, Eyebolt & Hook	1	70	231951	Side Plate Ass'y R.H.	1
27	220865	Wing Nut	1	71	231952	Side Plate Ass'y L.H.	1
28	*221318	Screen	1	72	231960	Spacer	1
29	221365	Handle Grip	2	73	233032	Screw	4
30	221408	Cotter Pin	1	74	233033	Swing Arm Ass'y.	4
31	*221748	Quad Ring	1	75	233037	Bolt	4
32	*224760	Heel Plate	1	76	233143	Top Plate Ass'y.	1
33	224867	Washer	1	77	233893	Chain & Terminal Ass'y.	1
34	224889	Pin	1	78	*233917	Spring	1
35	225518	Ram Ass'y.	1	79	233920	Release Stem	1
36	226330	Spacer	1	80	233977	Hand Knob	1
37	226357	Pump Sleeve	1	81	234005	Release Stem Ass'y.	1
38	226373	Screw	1	82	234571	Cylinder	1
39	226375	Spring	1	83	234665	Tank Nut	1
40	226376	Adapter	1	84	234666	Ram	1
41	226738	Lockwasher	2	85	234794	Unit Block	1
42	227571	Grommet	1	86	234983	Hydraulic Unit Ass'y.	1
43	227576	Handle Socket	1	87	234984	Bell Crank Ass'y.	1
44	227579	Tube	1		* Sold Sepa	rately in 240521 Repair Kit	

### **MODEL HW93716**

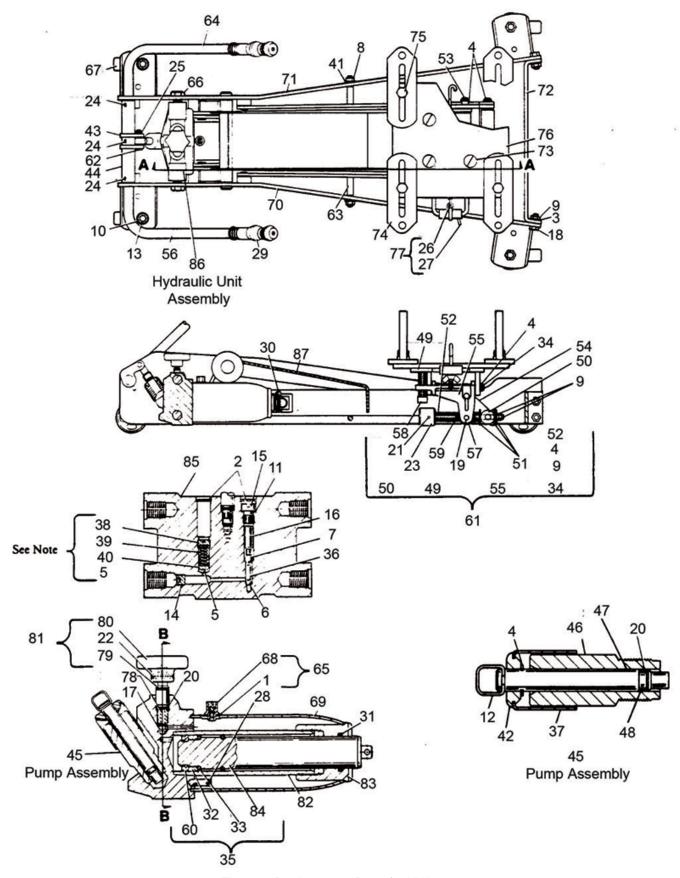


Figure 3: Replacement Parts for HW93716

# **REPLACEMENT PARTS FOR HW93718**

(Refer to Figure 4)

Item #	Part #	Description	Qty.	Item #	Part #	Description	Qty.
2	245582	Ram	1	23	H0267500*	Ball	1
3	224867*	Back- Up Washer	1	24	H0218500*	Spring	1
4	224760*	Heel Plate	1	25	H0301000*	Ball	1
5	227919*	U-Cup	1	26	H1185500	Valve	1
6	221748*	Quad Ring	1	27	H1152000*	Valve Seal	1
7	245586	Tank Nut	1	28	H2383500*	Spring	1
8	245583	Cylinder	1	29	H0391000*	U-Cup	1
9	H6599200	Oil Tank	1	30	201733	Expansion Plug	1
10	H6014100	Filler Screw	1	31	226373	Adjusting Screw	1
11	200003*	Washer	1	32	226375	Spring	1
12	H0933000	Handle Grip	1	33	226376	Spring Cup	1
13	245828	Handle Assembly	1	34	203196	Ball	1
14	220021	Pin	2	35	245845	Bolt	4
15	220018	Retaining Ring	2	36	H0218000	Lock Washer	4
16	217898	Roll Pin	1	37	261172	Unite Block	1
17	233920	Release Stem	1	38	209910	Piston Clip	1
18	216143*	O Ring	1	39	248908	Pump	1
19	233917	Plastic Spring	1	40	248909	Pump Guide	1
20	212227*	Release Valve	1	41	245546	Socket Bracket	1
21	233977	Knob	1	42	210311	Pipe Plug	1
22	234005	Release Stem Ass'y	1	43	245892	Repair Kit	
				44	261169	Hyd.Unit w/o Handle	
*	Sold Separat	ely in 245892 Repair k	it				

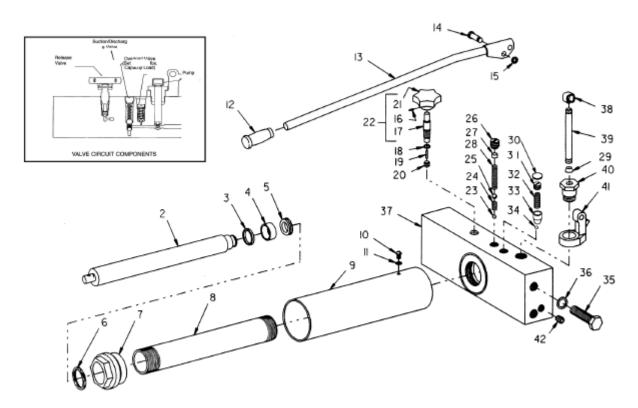


Figure 4: Replacement Parts for HW93718

### **REPLACEMENT PARTS FOR HW93718**

Item #.	Part #	Description	Qty.	Item #.	Part #	Description	Qty.
1*	H0763000	Adj. Angle Assembly	2	26	H661600	Lift arm Assembly	1
2*	H2224000	Adj. Stud Bracket	2	27	245012	Wedge	4
3*	H5579300	Washer	6	28	H2220500	Adj Trans. Plate L.H.	1
4*	H2672500	Hex Hd. Cap Screw	6	29	H2223000	Adj Trans. Plate R.H.	1
5*	H2221000	Yoke Clamp	2	30	H2535900	Bolt	8
6*	H2524000	Washer	4	31	H1103000	Washer	8
7*	H2609500	Hex Nut	4	32	H2533500	Hex nut	8
8*	H2207000	Adj. Yoke Rod	2	33	203301	Jam Nut	4
9*		Adj. Yoke Bracket	1	34	H0249000	Bearings	4
10*	H2222500	Adjusting Screw	4	35	245395	Caster Assembly	4
11	H6662100	Chain Assembly	1	36	H6661800	Frame Assembly	1
12	H2205500	Saddle	1	37	H6599300	Parallel Link spacer	1
13	H2176000	Retaining Ring	1	38	H2544500	Hex Jam Nut	2
14	H2213500	Pin-Side Pivot	1	39	H2608400	Cotter Pin	1
15	H2205000	Saddle Holder	1	40	H2680600	Slotted Hex Nut	1
16	H1896000	Hex Jam Nuts	2	41	H5579500	.063 Thick Washers	4
17	H6597900	Thrust Bearing	2	42	H2214500	Pin-Side Anchor	1
18	H6599700	Pin-Forward Tilt	1	43		Pin-Side Tilt	1
19	H5579600	Washer	2	44	H0762000	Adj. Screw Assembly Side Tilt	1
20	H2176000	Retaining Ring	2	45	H6662700	Rivet	1
21	H2215500	Pin-Forward Tilt	1	46	H6598900	Main Pivot Pin	1
22	H6660700	Adj.Screw Assembly Forward Tilt	1	47	H1308500	Retaining Ring	2
23	H2176000	Retaining Ring	2	48	H0975000	Grease Fitting	1
24	H2213000	Saddle Pivot Pin	1	49	H6665200	Open Eye Bolt	1
25	H2216000	Saddle Links	2	50	H2524500	Washer	1
				51	H6665300	Wing Nut	1
* Sol	l d Separately	in Attachment Kit # HW93249					

## **MODEL HW93718**

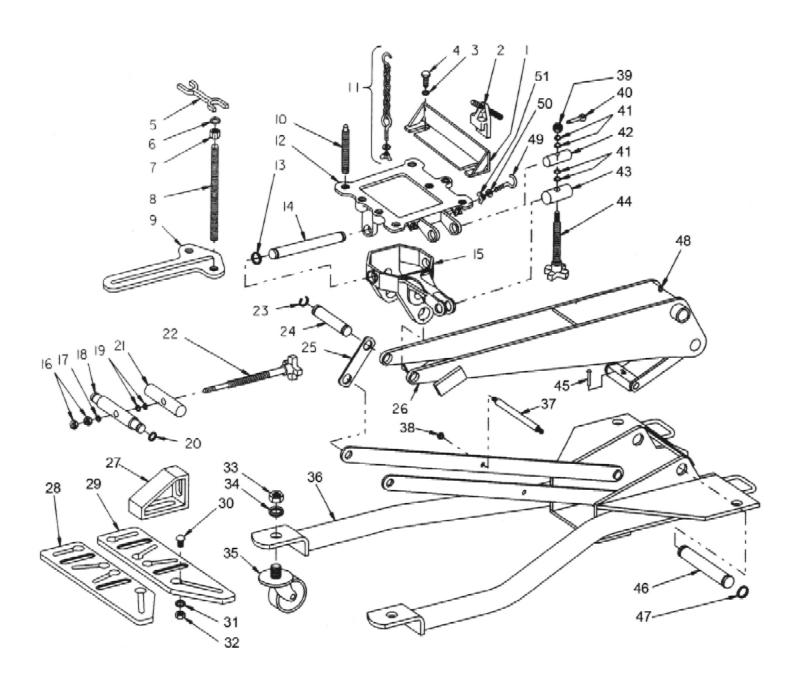


Figure 5: Replacement Parts for HW93718