

# BLACKHAWK® LIFTING EQUIPMENT

## instructions & repair parts

### MODEL T-1-D TRANSMISSION JACK Capacity 1/2 Ton

#### OPERATING INSTRUCTIONS

1. Unpack and examine for damage caused in shipment.
2. Remove solid fill plug and replace with vented plug.
3. To raise Jack turn release valve clockwise and operate pump handle.
4. To lower Jack turn release valve in counter-clockwise direction.

(lowering speed may be controlled by the amount release valve is turned)

#### SERVICE INSTRUCTIONS

1. Fill Reservoir to the level of filler hole only when Jack Arm is in down position and Jack is on level floor (Avoid Over Filling)  
CAUTION: Use Only Blackhawk No. LX-21 Jack Oil — NEVER USE BRAKE FLUID.
2. To remove air pockets or vacuum, open the release valve and raise the Arm slowly by hand to the top position, then depress Arm slowly. Repeat this procedure, if necessary.

#### LUBRICATION

1. Oil all linkage with S.A.E. 20 Oil frequently.

#### TO REMOVE AND REPLACE CORVAIR POWER TRAIN

1. Vehicle must be placed on Horses at a sufficient height to allow engine to be removed from under vehicle while on the Jack Adaptor. Use Blackhawk AX-7 Garage Horses with Height Adjustments from 20" Min. to 30" Max., or equal.
2. Install proper Adaptor on Jack (See Installation Instructions included with Adaptor)
3. Follow vehicle manufacturers instructions for removal and replacement.

NOTE: TK-701 Adaptor required for Corvaire Power Train.

#### TO REMOVE PASSENGER CAR AND LIGHT TRUCK TRANSMISSIONS

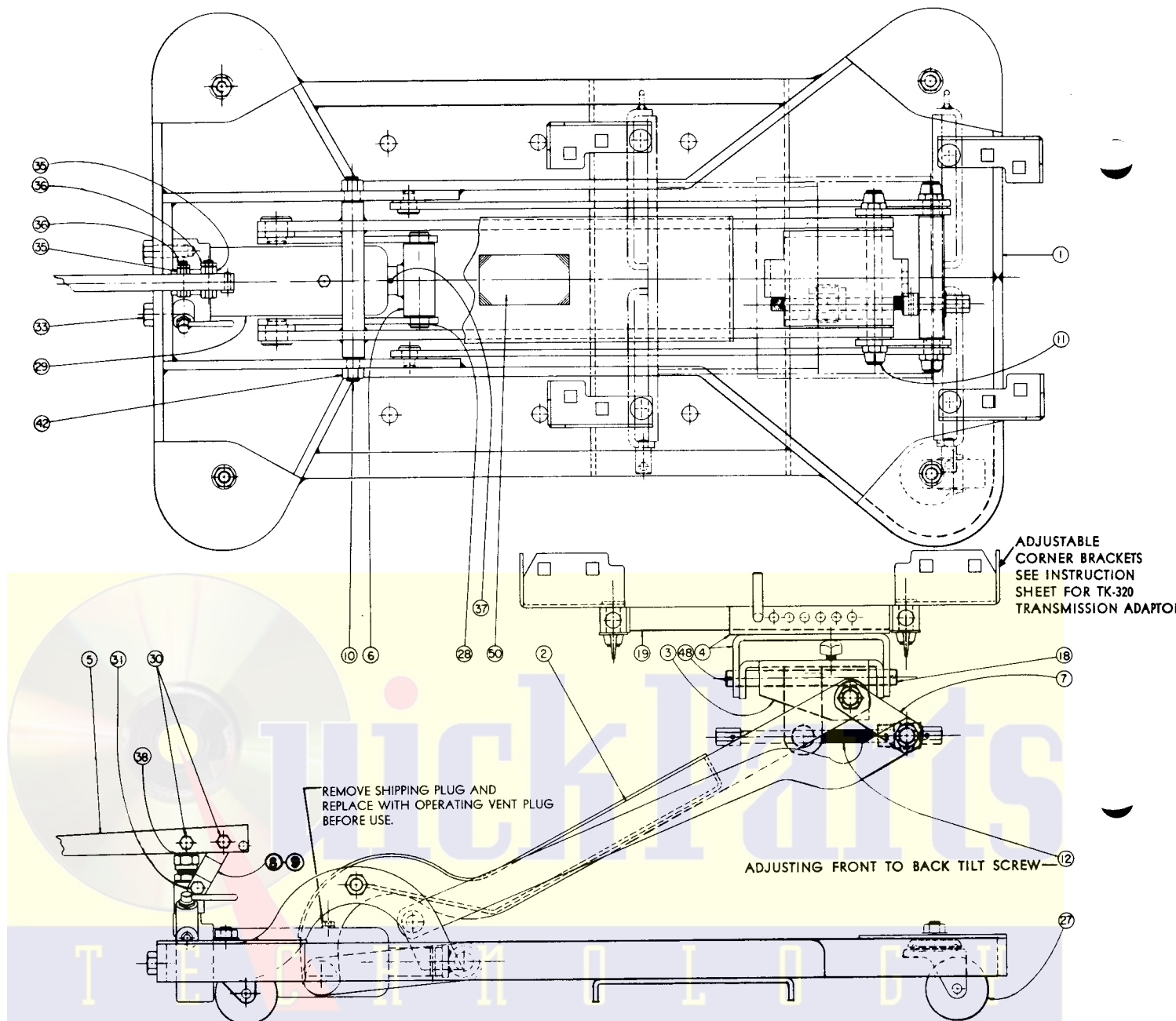
1. Place vehicle on Garage Horses at a convenient working height. Place transmission Jack under vehicle with the TK-320 Adaptor as marked "Toward Engine".
2. Adjust Corner Brackets to fit the transmission and align by means of side to side tilt screws and front to back tilt screw (see figure 16 on Parts Drawing). The tilting features may also be used for positioning when transmission is lowered or installed. Further instructions are shown on TK-320 Instructions and Parts Information. Always secure transmission to Adaptor by means of Safety Hold-Down Chains.
3. Use the Jack to raise the engine and transmission permitting the removal of rear engine mount when necessary.
4. After disassembly from rear engine mount, lower the engine and transmission to remove Bell Housing Screws. (This allows easier access to top screws.) Leave one screw in place on each side and raise the transmission and engine to a near normal position. Install auxiliary engine support bar, Blackhawk No. TK-11, or other means of holding engine if necessary. Remove the two remaining screws, lower the transmission and roll Jack from under vehicle. The back end of Jack may be lifted manually to clear the Bell Housing while removing complete unit from under the vehicle.

NOTE: To remove the Pontiac Tempest Trans-axle it is necessary to use the TK-321 Adaptor which fastens to the TK-320 All-Make Adaptor, and bolts directly to Trans-axle Case.

**DO NOT ATTEMPT TO LIFT THE ENTIRE VEHICLE. SEVERE DAMAGE TO THE JACK FRAME WILL RESULT.**

#### TO REMOVE PASSENGER CAR AND LIGHT TRUCK DIFFERENTIALS

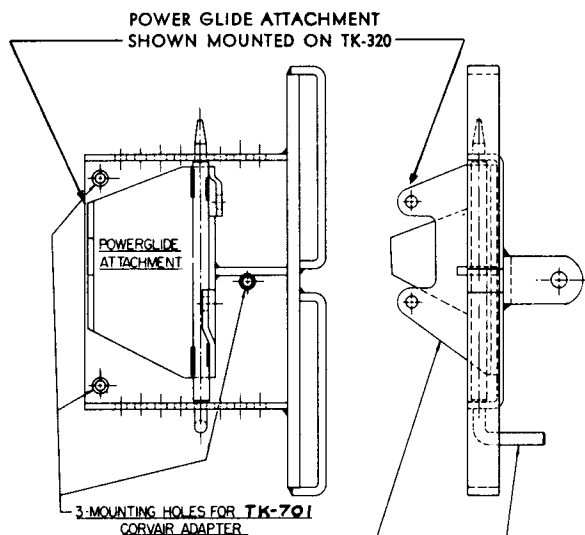
1. The Adaptor Corner Brackets may be bolted directly to the Flange or adjusted to one of their many positions to cradle the Differential Carrier. The Jack also may be used on many other bulky units such as the complete Front Cross Member, Gas Tanks and Etc.



**WHEN ORDERING PARTS INCLUDE BOTH JACK MODEL AND SERIAL NUMBER AS WELL AS PART NAME AND NUMBER**

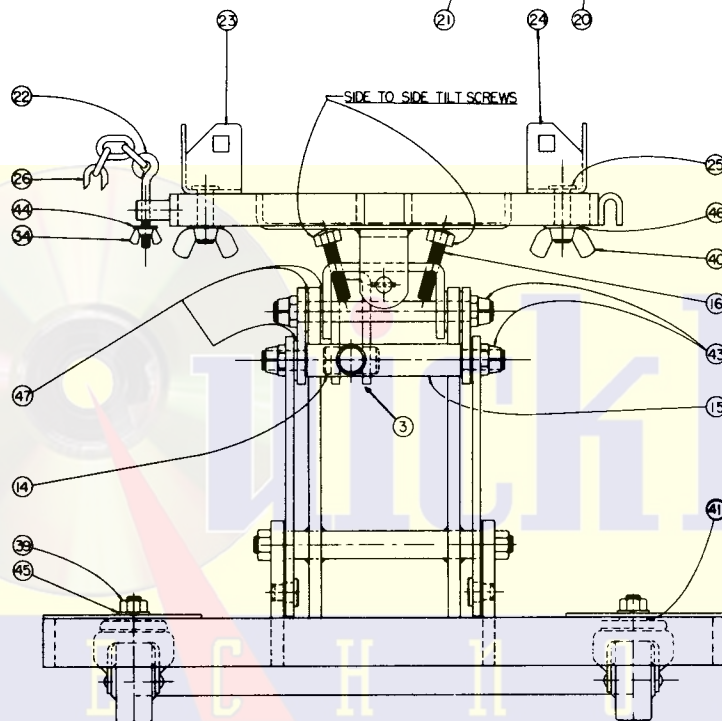
Item No.	Part No.	Description	No. Req.
1	D289.001	Frame Assembly	1
2	D290.103	Lift Arm Assembly	1
3	D291.111	Head Assembly	1
4	D292.111	Bottom Channel Assembly	1
5	D293.135	Pump Handle Assembly	1
6	D294.111	Ram Nose Assembly	1
7	D295.062	Links	2
8	D296.062	Clevis Links	2
9	D297.039	Spacer	1
10	D298.061	Hinge Pin	1
11	D299.061	Hinge Pin	1
12	D300.900	Tilt Screw Assembly	1
14	D302.055	Pivot Nut	1
15	D303.055	Parallel Nut	1
16	D304.028	Tilt Screw	2
18	D81.104	Shaft	1
19	D103.101	Top Channel Assembly	1
20	D106.061	Locating Pin	1
21	D109.111	Powerglide Attachment	1
22	D110.028	Eye Bolt	1
23	D105.111	Corner Bracket L.H.	2
24	D104.111	Corner Bracket R.H.	2
25	D274.028	Screw	4
26	D111.066	Chain-Hold Down	1

Item No.	Part No.	Description	No. Req.
27	D221.154	Caster	4
28	D306.044	Spirolox Retaining Ring	2
29	T1.05A-3	Power Unit	1
30	D225.028	$\frac{3}{16}$ -24 x $1\frac{1}{4}$ Hex Cap Screw	2
31	D337.028	$\frac{3}{16}$ -24 x $1\frac{3}{4}$ Hex Cap Screw	1
33	D309.028	$\frac{1}{2}$ -20 x $1\frac{1}{4}$ Hex Cap Screw	2
34	D262.055	$\frac{1}{4}$ -20 Wing Nut	1
35	D229.055	$\frac{3}{16}$ -24 Hex Nut — Jam	3
36	D230.055	$\frac{3}{16}$ -24 Hex Nut — Jam	3
37	D339.061	$\frac{3}{16}$ Dia. x $1\frac{1}{8}$ Roll Pin	1
38	D342.108	$\frac{1}{16}$ Plain S.A.E. Washer	1
39	D233.055	$\frac{1}{4}$ -14 Hex Nut — Automotive	4
40	D263.055	$\frac{1}{2}$ -13 Wing Nut	2
41	D343.108	$\frac{1}{16}$ Plain Washer Ex. Large O.D.	8
42	D234.055	$\frac{1}{2}$ -20 Hex Nut	2
43	D310.055	$\frac{3}{8}$ -18 Hex Nut—Jam Self Locking	4
44	D215.108	$\frac{1}{4}$ Plain Washer	1
45	D236.108	$\frac{1}{16}$ Shakeproof Washer	4
46	D257.108	$\frac{1}{2}$ Plain S.A.E. Washer	4
47	D311.108	$\frac{3}{8}$ Plain S.A.E. Washer	6
48	D288.061	$\frac{3}{32}$ Dia. x 1 Cotter Pin	2
	D316.026	Decal — Name Plate	1
Not Shown S-276		Instr. and Repair Parts Sheet	1



USE ONLY BLACKHAWK  
LX-21 JACK OIL AND  
GENUINE FACTORY PARTS.

USE OF OTHER  
HYDRAULIC FLUIDS OR  
NON-GENUINE PARTS  
VOIDS WARRANTY. NEVER  
USE BRAKE FLUID.



#### SPECIFICATIONS

Capacity .....	1000 Lbs.
Overall Length .....	34½
Overall Width .....	21½
Low Lifting Height .....	6
Max. Lifting Height.....	29
Caster Dia. ....	2½ Dia.
Forward Tilt .....	64°
Back Tilt .....	6°
Side Tilt R.H. ....	12°
Side Tilt L.H. ....	12°

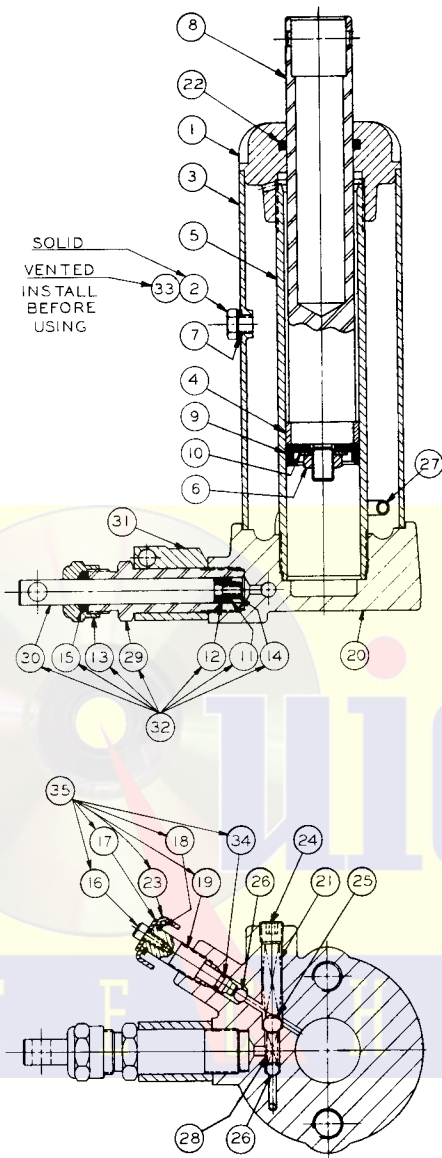
#### TRANSMISSION ADAPTOR ADJUSTMENT

Length Min. ....	9¼
Length Max. ....	18¾
Width Min. ....	4½
Width Max. ....	19½

SHIPPING WEIGHT ..... 114 Lbs.

# T1.05A-3 POWER UNIT FOR T-1-D TRANSMISSION JACK

WHEN ORDERING PARTS INCLUDE BOTH JACK MODEL AND SERIAL NUMBER AS WELL AS PART NAME AND NUMBER



Item No.	Part No.	Description	No. Req.
1	BA85.20-5	Top Cap	1
2	C9.22-2	Filler Plug (SOLID)	1
3	BA85.25-2	Reservoir	1
4	BA85.29-3	Plunger Ring	1
5	BA85.30-3	Cylinder	1
6	MJ.35	Hex. Nut	1
* 7	C9.37	Filler Plug Gasket	1
8	D922.040	Plunger	1
* 9	1.41-1	Plunger Cup	1
10	BA85.43	Washer	1
* 11	F11.52	Pump Cup Spreader	1
* 12	F11.53	Pump Cup	1
13	CB9.54-1	Pump Gland Nut	1
* 14	CB9.55	Retaining Nut	1
* 15	5.75	Pump Packing	1
16	D945.028	Lockscrew	1
17	D944.108	Washer	1
18	D943.044	Retaining Ring	1
19	D991.010	Release Valve Spindle	1
20	D907.005	Base	1
* 21	D98.183	Spring — Exhaust	1
* 22	CJ100.104	Quad Ring	1
23	D942.135	Release Valve Handle	1
24	D99.006	Valve Plug	1
* 25	S1.16	Ball — Exhaust (5/16 Dia.)	1
* 26	1.16	Ball-Intake (7/32 Dia.)	2
27	D95.268	Intake Tube	1
* 28	D97.183	Spring — Intake	1
29	D322.030	Cylinder	1
30	AJ100.370	Piston	1
31	D324.151	Swivel — Pump Handle	1
32	D322.900	Pump Assembly	1
33	AJ100.406	Vent Plug	1
* 34	AJ100.312	"O" Ring	1
35	D991.900	Release Valve Assembly	1

Use Jack/Saver Kit No. T1K-3 Containing Items Indicated by Asterisk (\*).

NOTE: Complete T1.05A-3 Power Unit is available as either exchange or outright purchase.

## Guarantee

Blackhawk guarantees its Lifting Equipment against defects in workmanship and material for 90 days from date of delivery to the user. Only exception is chain, which follows the trade custom of its manufacturers and cannot be guaranteed.

When question of warranty arises, the user should send his unit to the nearest Blackhawk Franchised Service Depot for inspection, transportation to be prepaid and evidence of delivery date furnished. Contact Blackhawk Mfg. Co., Milwaukee, Wis., for list of Franchised Service Depots.

If the difficulty comes under the terms of our guarantee, the Franchised Service Depot will repair or replace parts affected and return prepaid. Our guarantee does not cover ordinary wear and tear, abuse, misuse, overloading, altered products or use of improper fluid.

## Franchised Service Depots



For quality workmanship with genuine Blackhawk parts select a Franchised Blackhawk Service Depot for your repair work. Only repairs performed by a franchised service depot displaying this official franchise service depot sign are backed with full factory guarantee. The Classified Section in your Phone Book lists your nearest Franchised Service Depot.

**BLACKHAWK MFG. CO.**  
MILWAUKEE 46, WISCONSIN

