



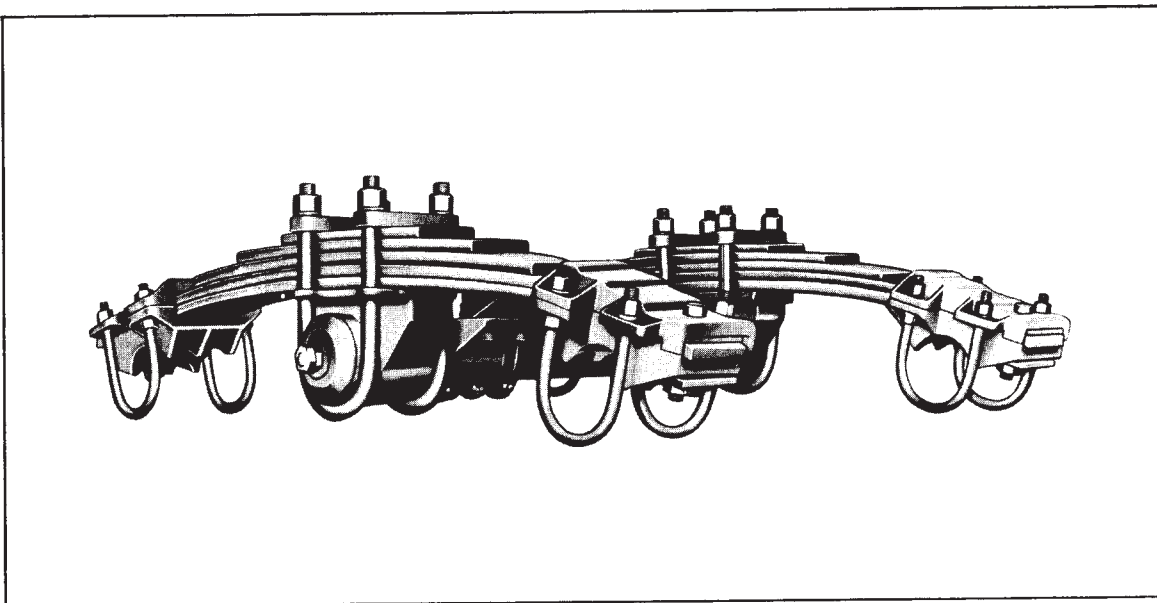
'HUTCH' H-800 MODEL (SINGLE POINT) TRAILER SUSPENSIONS

Contents of This Section

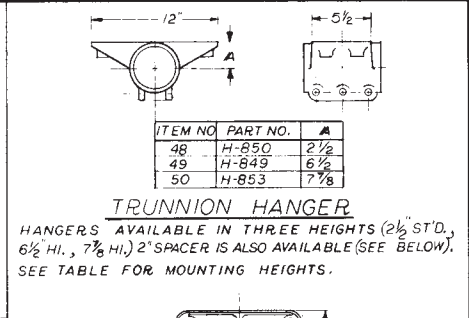
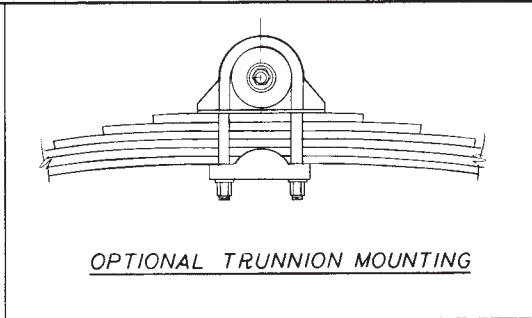
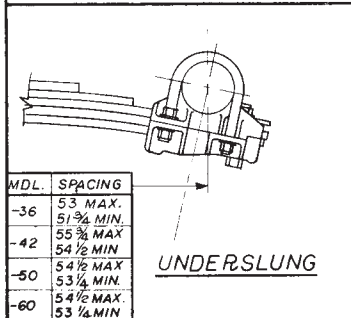
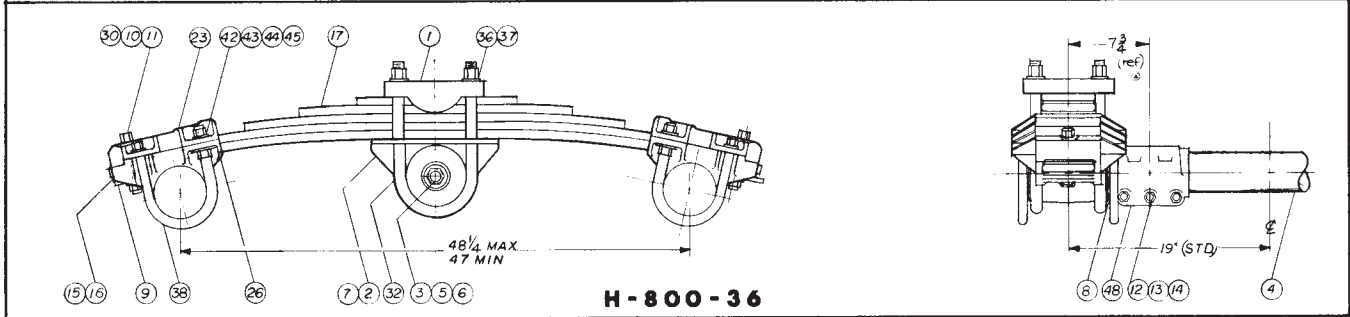
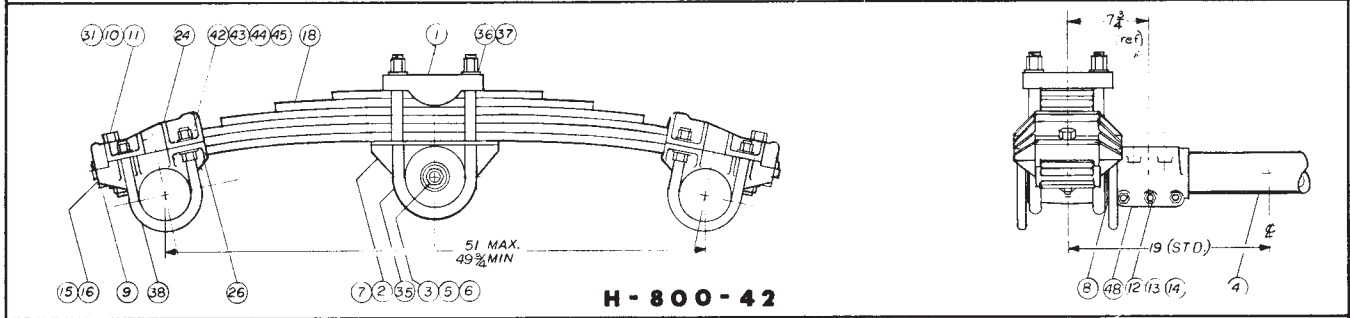
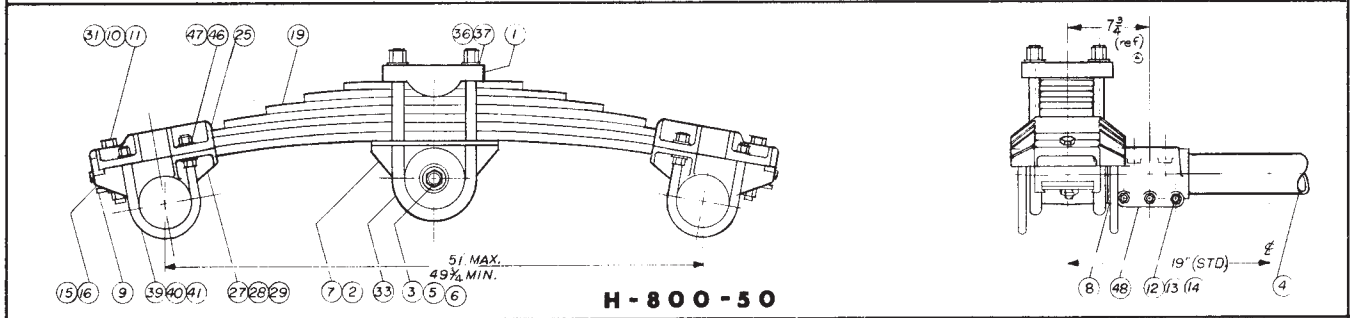
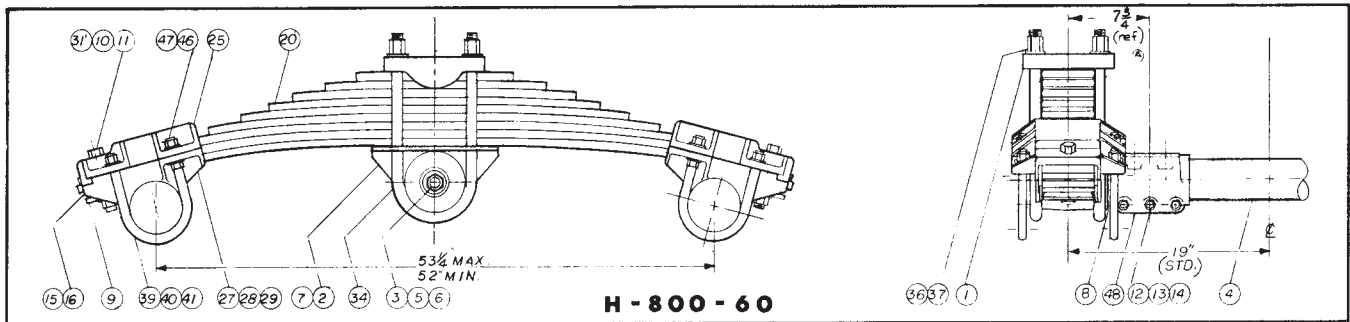
- | | |
|---------------------------------|------------------------------------|
| 1. Model Features and Photo | 3. H-800 Bill of Materials |
| 2. Model Variations and Options | 4. H-800 Installation Instructions |

Features of This Model

1. A single point suspension - that is connected to the trailer frame only at a trunnion tube located at the center of the suspension.
2. A heavy duty suspension, especially good for off-the-road and dump operations.
3. Available in four different load capacities: H-800-36; H-800-42; H-800-50 & H-800-60. The last number indicates in thousands of pounds the approximate maximum load under normal conditions for which the unit is designed.
4. All models available either as standard units, or as under slung units. The spring is normally installed over the trunnion but is available with the spring under the trunnion, when optional trunnion mounting is specified.
5. This is the first single point tandem to provide adjustable alignment to help keep your unit in track.
6. The trunnion rubber bushing is totally enclosed, and is pre-loaded at the time of assembly to insure live action in the rubber. You get more flexibility, easier ride, and reduced wear.
7. Proper alignment of spring box to the spring is insured by exclusive arrangement which places a bolt through the spring box, rubber bushing and spring. This allows greater twist in the spring box through additional rubber pads above and below the spring.



General appearance of all models is the same.



Available Options

1. PICTURED HERE ARE THE OPTIONAL CONFIGURATIONS AVAILABLE. NOTE THAT ON THE UNDERSLUNG OPTION, THE PART NUMBERS ARE THE SAME, EXCEPT FOR THE SPRINGS ON THE H-800-50 US, AND H-800-60 US MODELS
2. NOTE THAT ON THE OPTIONAL TRUNNION MOUNTING THE PARTS ARE THE SAME, BUT THE SPRING IS MOUNTED BELOW THE TRUNNION HUB.
3. NOTE THE OPTIONAL HANGERS (2 1/2" STD.) FOR INCREASED MOUNTING HEIGHTS, 2" SPACER (SHOWN) IS ALSO AVAILABLE. FOR MOUNTING HEIGHTS USING THESE PARTS, SEE "MOUNTING HEIGHTS" TABLE

H-800 TANDEM, SINGLE POINT, ROUND AXLE, SUSPENSION

REQUIRED	PART NO.	ITEM	DESCRIPTION
2	H-820	1	SPRING CLAMP PLATE
2	H-825	2	TRUNNION HUB
2	H-827	3	END CAP
1	H-828 - SEE NOTE	4	TRUNNION TUBE
1	H-829	5	TIE ROD
2	H-227	6	WASHER-TIE ROD
4	H-833	7	RUBBER BUSHING
4	H-834	8	RETAINER WASHER
4	H-816	9	ADJUSTMENT PLATE
2	H-736	10	HEX HEAD LOCK NUT 1" X 14 TI
2	H-774	11	LOCKWASHER 1" SHAKEPROOF
6	H-759	12	BOLT 3/8" (TRUNNION HANGER)
6	H-37	13	NUT 3/8"
6	H-229	14	LOCKWASHER 3/8"
6	H-813	15	RUBBER PAD W/ HOLE
6	H-814	16	RUBBER PAD W/O HOLE
2	H-801	17	SPRING 5 LEAF 36,000* MAX.
2	H-868 A	18	SPRING 6 LEAF 42,000* MAX.
2	H-847	19	SPRING 7 LEAF STD. 50,000* MAX.
2	H-848	20	SPRING 9 LEAF STD. 60,000* MAX.
2	H-872	21	SPRING 7 LEAF UNDERSLUNG 50,000* MAX.
2	H-873	22	SPRING 9 LEAF UNDERSLUNG 60,000* MAX.
4	H-811	23	SPRING BOX HALF - 36
4	H-815-2	24	SPRING BOX HALF - 42
4	H-805	25	SPRING BOX HALF
4	H-812	26	SPRING BOX HALF 5" ROUND AXLE
4	H-807	27	SPRING BOX HALF 5 1/2" ROUND AXLE
4	H-807-5 3/4	28	SPRING BOX HALF 5 3/4" ROUND AXLE
4	H-807-6	29	SPRING BOX HALF 6" ROUND AXLE
4	H-719	30	HEX HEAD BOLT 1" X 14 TI X 5 1/2" LONG
4	H-719 A	31	HEX HEAD BOLT 1" X 14 TI X 5 3/8" LONG
4	H-835-1	32	U-BOLT TRUNNION HUB 13 3/8" LONG
4	H-835-2	33	U-BOLT TRUNNION HUB 15 1/8" LONG
4	H-835-3	34	U-BOLT TRUNNION HUB 16 3/4" LONG
4	H-835-4	35	U-BOLT TRUNNION HUB 14 7/8" LONG
8	H-836	36	U-BOLT-NUT TRUNNION HUB
8	H-837-B	37	U-BOLT FLAT WASHER
8	H-840-1	38	U-BOLT 3/4" DIA. 8 1/2" LONG, 5" DIA. AXLE
8	H-840-2	39	U-BOLT 1" DIA. 9 1/2" LONG, 5 1/2" DIA. AXLE
8	H-840-3	40	U-BOLT 1" DIA. 9 7/8" LONG, 5 3/4" DIA. AXLE
8	H-840-4	41	U-BOLT 1" DIA. 9 1/2" LONG, 6" DIA. AXLE
8	H-841	42	NUT U-BOLT 3/4" HEX
8	H-842	43	LOWER NUT 3/4" HEX
8	H-843	44	LOCKWASHER 3/4"
8	H-817	45	FLAT WASHER 3/4"
8	H-774A	46	FLAT WASHER 1"
8	H-870	47	LOWER NUT 1"
2	H-850	48	TRUNNION HANGER (STD.) 2 1/2" HIGH
2	H-849	49	TRUNNION HANGER (OPT) 6 1/2" HIGH
2	H-853	50	TRUNNION HANGER (OPT) 7 7/8" HIGH
2	H-852	51	HANGER SPACER 2" HIGH (OPT)
2	H-855	52	MOUNTING BRACKET (OPT) SEE BELOW.
2	H-802	53	(REF) BUSHING H-801 SPRING 5 LEAF
2	H-866	54	(REF) BUSHING ALL OTHERS

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

(B)

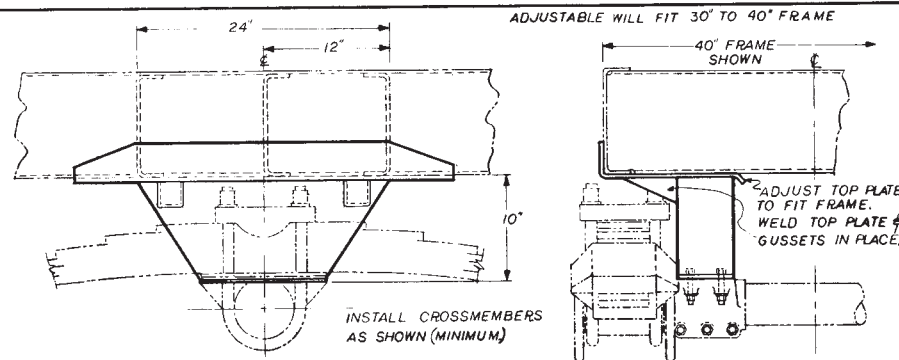
TORQUE RECOMMENDATIONS WITH CLEAN DRY THREADS FOR H-800			
H-835-2	1/2" U-BOLT	500 POUND FEET	
H-719A	1" STRAIGHT BOLT	350-375 LB. FT.	
H-838-2	1" U-BOLT	275 POUND FEET	
H-840-2,3,4	1" U-BOLT	275 POUND FEET	
H-829	1" TIE ROD	275 POUND FEET	
H-759	5/8" STRAIGHT BOLT	90 POUND FEET	

AXLE SIZE - ROUND-	CAPACITY (DASH NO.)
60	50
50	40
40	30
30	20
20	10
10	0

UNDERSLUNG STANDARD

HUTCHENS & SON METAL PRODUCTS INC.
P.O. BOX 1000, BIRMINGHAM, ALABAMA

- NOTES:**
- THE DASH NUMBER OF THE SUSPENSION INDICATES THE MAXIMUM RATED CAPACITY OF THE UNIT. (EXAMPLE: H-800-60 = 60,000 LBS. MAX. SPRUNG LOAD.)
 - H-800-36, H-800-42 ARE AVAILABLE IN 5" ROUND ONLY. H-800-50, H-800-60 AVAILABLE IN 5 1/2", 5 3/4", 6" ROUND AXLES
NOTE: SEATS FOR FRUEHAUF 3/4" AXLE AVAILABLE UPON REQUEST. (H-800-36, H-800-42)
 - IT IS RECOMMENDED THAT A MOUNTING BRACKET BE USED (H-855 OR EQUAL) OR FRAME DESIGNED FOR OR REINFORCED FOR THIS UNIT (SEE BELOW).
 - WHEN MOUNTING TO A FRAME WIDER THAN HANGERS- PROVIDE CLEARANCE FOR FULL OSCILLATION OF UNIT IT MAY BE NECESSARY TO ADD HANGER SPACERS OR SPECIFY AN OPTIONAL HIGHER HANGER.
 - STANDARD UNITS INCLUDE; 2 1/2" HI. HANGER (H-850), OVERSLUNG, WITHOUT OPTIONAL H-855 MOUNTING BRACKET, SPRING CENTERS 38", (OTHERS AVAILABLE - SPECIFY). HEIGHTS SHOWN IN UPPER PORTION OF MOUNTING HEIGHTS CHART ARE WITH OPTIONAL H-855 MOUNTING BRACKET (10" HI). HEIGHTS SHOWN LOWER PORTION OF CHART (OPTIONAL TRUNNION MTG.) ARE WITHOUT OPTIONAL H-855 MOUNTING BRKT. (BRACKET CAN BE USED ON OPTIONAL TRUNNION MTG. IF DESIRED IT WILL ADD 10" TO MOUNTING HEIGHTS SHOWN ON OPTIONAL TRUNNION MOUNTING HEIGHTS.)



H-855 Mounting Bracket
OPTIONAL-INSTALL AS SHOWN. (FOUR 5/8 X 3" LONG BOLTS, NUTS, WASHERS REQD. (NOT FURNISHED))

Mounting Heights													
SEE NOTE 5	OVERSLUNG				UNDERSLUNG								
	UNIT	-36	-42	-50	-60	-36	-42	-50	-60				
STD. 2 1/2" HANGER	14 1/2	14 3/4	15	15 1/4	6 1/4	6 1/2	6 1/2	6 1/2					
6 1/2" HANGER (H-849)	18 1/2	18 3/4	19	19 1/4	10 1/2	10 1/2	10 1/2	10 1/2					
7 1/2" HANGER (H-853)	19 1/2	20	20 1/2	20 3/4	11 1/8	11 1/8	11 1/8	11 1/8					
2 1/2" HANGER STD. W/SPACER (H-852)	16 1/2	16 3/4	17	17 1/4	8 1/4	8 1/2	8 1/2	8 1/2					
6 1/2" HANGER W/SPACER (H-852)	20 1/2	20 3/4	21	21 1/4	12 1/4	12 1/2	12 1/2	12 1/2					
7 1/2" HANGER W/SPACER (H-852)	21 1/2	22 1/8	22 1/2	22 3/4	13 1/8	13 1/8	13 1/8	13 1/8					
TRUNNION MTG.													
STD. 2 1/2" HANGER	15 1/4	16 1/4	17	18 1/2	7	8	9	10 1/2					
6 1/2" HANGER (H-849)	19 1/4	20 1/4	21	22 1/2	11	12	13	14 1/2					
7 1/2" HANGER (H-853)	20 1/2	21 1/2	22 1/2	24 1/2	12 3/8	13 3/8	14 3/8	15 3/8					
OPTIONAL 2 1/2" HANGER W/SPACER (H-852)	17 1/4	18 1/4	19	20 1/2	9	10	11	12 1/2					
6 1/2" HGR. (H-849)	21 1/4	22 1/4	23	24 1/2	13	14	15	15 1/2					
7 1/2" HGR. (H-853)	22 1/2	23 1/2	24 1/2	26 1/2	14 3/8	15 3/8	16 3/8	17 3/8					
W/SPACER (H-852)	22 3/8	23 3/8	24 3/8	26 1/8									

H-800 INSTALLATION NOTES

1. Locate top center of axles midway between spring boxes. Center spring box about top center line of axle and weld spring boxes to axles. Follow axle manufacturer's welding recommendations. Use a solid fillet weld along end of spring box mounting flange.
2. Align trunnion shaft with king pin before bolting. Bolt trunnion hanger casting to mounting on trailer frame. Care should be taken to align trunnion shaft from king pin. Weld hanger casting to mounting on all sides. When using H-852 spacer, insert spacer between hanger casting and bracket. Weld solid top and bottom. Do not stack spacers.
3. With spring box U-Bolts and 1" diameter bolt loosened, slide lower half of spring box (carrying axle) so that it measures half the desired axle spacing shown for appropriate model. Tighten U-Bolts and 1" bolt on the spring box to hold this setting.
4. Obtain alignment of front axle by jacking opposite end of axle until alignment is accomplished, measuring from the king pin. Tighten U-Bolts and 1" bolt on this spring box.
5. Locate rear axle (by adjusting spring boxes) by following appropriate dimension (see drawing) from the center of the front axle. Tighten spring box U-Bolts and 1" bolt.
6. Upon completion of alignment and with all spring box bolts and U-Bolts tightened, weld lower adjustment plates to lower half of spring box along overhanging end of plate to secure adjustment. The 1" bolts through the spring boxes should be tightened approximately 600 pound feet, or as much as an average man can pull on a 30" wrench.

In the event of damage of suspension in usage, this adjustment may be changed by cutting the adjustment plate loose from the spring box and re-locating as outlined above.

World's Leading Manufacturer of Trailer Suspension Systems

HUTCHENS & SON METAL PRODUCTS, INC. P. O. Box 1427 SSS SPRINGFIELD, Mo. 65805 Telephone Area Code 417, UNiversity 2-5012
--

Printed in U.S.A.