

18/20 - 22/24 - 24/26

CHASSIS



WARNING

READ AND UNDERSTAND THIS MANUAL
BEFORE OPERATING THIS EQUIPMENT

UNSAFE OPERATION OR MAINTENANCE OF THIS EQUIPMENT CAN RESULT IN
SERIOUS INJURY OR DEATH

Starting Serial#
18/20 -210073
22/24 -210147
24/26 -112030

**OPERATOR'S MANUAL
AND PARTS LIST**

HSMFG0412

Manufactured By

H&S MANUFACTURING CO.,INC.

P.O. BOX 768 (715) 387-3414 FAX (715) 384-5463
MARSHFIELD, WISCONSIN 54449

H & S CHASSIS
OPERATOR'S & PARTS MANUAL
CONTENTS

Warranty & Warranty Registration Card	1-2
Manufacturers Statement	2
Dealer Pre-Delivery	3-4
Delivery Checklist	5-6
Be Alert Symbol.	7
Explanation of Safety Signs.	8
Safety Instructions.	9
Mount Attachments Safely	10
Warning - Owner Must Read and Understand.	11
Safety Decals	12
Bolt Torque Chart.	13
Set-Up & Assembly.	14
Transporting.	15
Operation	16
Adjustment.	17
Service.	18
Options	19
Lubrication Guide.	20
Decal Location & Identification.	21-22
Instructions for Ordering Parts - About Improvements.	23
Parts.	24-33
Model 24/26 Box & Axle Location	34
Parts Notes.	Inside Back Cover
Specifications.	Inside Back Cover

H&S MFG. CO.

products approved

for the

FEMA

SEAL OF QUALITY



WARRANTY

H&S WARRANTY

H&S Manufacturing Co., Inc. ("H&S") warrants this product to be free from defect in material and workmanship. Except as noted below, this warranty term is twelve (12) months from the date of delivery of the product to the original purchaser by an authorized H&S dealer. Under this warranty, H&S will repair or replace, at its option, any covered part which is found to be defective in material or workmanship during the applicable warranty term. In no case will the covered repair cost of a part or parts exceed the replacement cost of that part. Warranty service must be performed by H&S or a dealer authorized by H&S to sell and/or service the product involved, which will use only new or remanufactured parts or components furnished by H&S. This warranty includes approved parts and labor to fix the product but does not include, and the purchaser is responsible for, any service call and/or transportation of the product to and from the dealer's place of business, for any premium charged for overtime labor requested by the purchaser, and for any service work not directly related to any defect covered under this warranty. This warranty includes only those components of the product manufactured by H&S. Warranty for any component not manufactured by H&S including, but not limited to, engines, batteries, tires, rims, hydraulic motors, pumps, etc. are covered by the warranty, if any, provided separately by their respective manufacturers.

This warranty in all its parts, is extended solely to the original purchaser of the product, is terminated upon any subsequent transfer or sale from or by the original purchaser and extends no third party benefits or rights whatsoever.

The warranty term for any product used in any commercial, custom, for hire or rental application, is limited to six (6) months from the date of delivery of the product to the original purchaser by an authorized H&S dealer.

Polybonded (polyethylene and plywood) panels utilized in H&S Manure Spreaders are warranted, to the original purchaser, to not wear through and the polyethylene overlay to not tear free of the plywood for the functional life of the spreader. This specific warranty on polybonded panels includes only replacement of any defective panel part without any allowance for labor beyond the terms of the general warranty (12 or 6 months), and is further limited to manure spreaders used to spread normal agricultural manure.

This warranty does not include: (1) Any product that has been altered or modified in ways not approved by H&S; (2) Depreciation or damage caused by normal wear, misuse, improper or insufficient maintenance, improper operation, accident or failure to follow the product Operator's Manual recommendations and product decal recommendations; (3) Normal maintenance parts and service; (4) Repairs made with parts other than those available from H&S or performed by anyone other than H&S or a dealer authorized by H&S to sell and/or service the product involved.

To secure warranty service the purchaser must report the product defect to a dealer authorized by H&S to sell and/or service the product involved within the applicable warranty term together with evidence of the warranty start date and make the product available to that dealer within a reasonable period of time.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. H&S and the companies affiliated with it makes no warranties, representations, or promises, express or implied, as to the performance or freedom from defect of its products other than those set forth above and NO IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS OR FITNESS FOR A PARTICULAR PURPOSE IS MADE. IN NO EVENT WILL THE DEALER, H&S OR ANY COMPANY AFFILIATED WITH H&S BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. The ONLY REMEDY the purchaser has in connection with the breach of performance of any warranty on H&S products are those set forth above.

The selling dealer has no authority to make any representation or promise on behalf of H&S, or to modify the terms or limitations of this warranty in any way.

2/04

FILL OUT AND MAIL
IMMEDIATELY TO MAKE
WARRANTY EFFECTIVE



WARRANTY REGISTRATION

Date of Purchase _____

Purchaser _____ Address _____

City _____ State _____ Zip _____

Product _____ Model# _____ Serial# _____

Dealer _____ Address _____

City _____ State _____ Zip _____

Signature of Original Buyer

MANUFACTURER'S STATEMENT

Your new H&S Chassis has been manufactured of the finest quality materials and components. The performance you get from your machine is largely dependent upon how well you read and understand this manual and apply this knowledge. There is a right and a wrong way to do everything. Please do not assume that you know how to operate and maintain your Chassis before reading this manual carefully. Keep this manual available for ready reference.

IMPORTANT!

Tear on dotted line, provide the information requested on the card. The H&S Warranty is valid "only" after this card is received and recorded at H&S Mfg. Co. Mail at once. No postage is required in the U.S.A.



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL Permit No. 195 Marshfield, WI 54449

POSTAGE WILL BE PAID BY ADDRESSEE

H&S Manufacturing Co., Inc.
PO Box 768
Marshfield WI 54449-9963



H&S DEALER PRE-DELIVERY CHECK LIST

AFTER COMPLETION, DEALER SHOULD REMOVE AND RETAIN FOR RECORDS

After the Chassis has been completely set-up, check to be certain it is in correct operating order before delivering to the customer. The following is a list of points to inspect. Check off each item as you have made the proper adjustments and found the item operating satisfactorily.

- Chassis was not damaged in shipment. Check for dents and loose or missing parts. Report damage immediately to H&S Manufacturing Co., Inc.
- Chassis has been correctly assembled according to instructions in this manual.
- Wheel nuts are tightly secured.
- Tires are equally inflated to proper pressure.
- All bolts and fasteners are tight.
- All components are operating trouble free.
- All grease fittings have been lubricated and wheel bearings properly packed and adjusted. (See lubrication guide in this manual).
- Hoses and fittings are properly attached and there are no visible leaks. (Brakes)
- All decals are in place and legible.

Model Number _____

Serial Number _____

Dealer Name _____

Inspection Date _____

Signature of Pre-Delivery Inspector _____

(Remove Dealers File Copy At Perforation)

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DEALER DELIVERY CHECK LIST

AFTER COMPLETION, DEALER SHOULD REMOVE AND RETAIN FOR RECORDS

This check list that follows is an important reminder of valuable information that should be passed on to the customer at the time this Chassis is delivered.

Check off each item as you explain it to the customer.

This delivery check list, when properly filled out and signed assures the customer that the Pre-delivery service was satisfactorily performed.

- Explain to the customer that the pre-delivery inspection was made.
- Explain to the customer all the safety precautions they must exercise when operating this unit.
- Explain recommended loads for different types of materials.
- Explain to customer that regular lubrication is required for proper operation and long life of machine.
- Show customer the lubrication section of Owner's Manual.
- Give the customer Operator's Manual and make sure they read and understand all operating and service instructions.
- Record Serial Number on page 23 of this Manual.
- Have customer sign a completed "Warranty Registration," and mail it promptly.

Date Delivered _____

Dealer's Name _____

By _____

Signature of Original Buyer _____

Note: Warranty is not valid until warranty card is completed and returned to H & S Mfg. Co., Inc.

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SAFETY INFORMATION



**BE
ALERT!**

**YOUR SAFETY
IS INVOLVED.**

THIS SYMBOL IS USED THROUGHOUT THIS BOOK WHENEVER YOUR PERSONAL SAFETY IS INVOLVED. TAKE TIME TO BE CAREFUL. REMEMBER: THE CAREFUL OPERATOR IS THE BEST OPERATOR. MOST ACCIDENTS ARE CAUSED BY HUMAN ERROR. CERTAIN PRECAUTIONS MUST BE OBSERVED TO PREVENT THE POSSIBILITY OF INJURY OR DAMAGE.

H & S MANUFACTURING CO. INC.

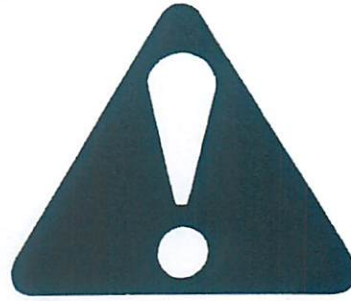
SAFETY INFORMATION

Keep signs in good condition. Immediately replace any missing or damaged signs.

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



UNDERSTAND SIGNAL WORDS

A signal word- DANGER, WARNING, or CAUTION - is used with the safety-alert symbol. DANGER identifies the most serious hazards.

Safety signs with signal word DANGER or WARNING are typically near specific hazards.

General precautions are listed on CAUTION safety signs.



WARNING



CAUTION



FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual, and all safety signs on your machine. Follow all recommended precautions and safe operating procedures.

OBSERVE MAXIMUM TRANSPORT SPEED

The maximum transport speed for this implement is 32 km/h (20 m.p.h.).

Some tractors are capable of operating at speeds that exceed the maximum transport speed of this implement. Regardless of the maximum speed capability of the tractor being used to tow this implement, do not exceed the implement's maximum transport speed.

Exceeding the implements maximum transport speed can result in:

- * Loss of control of the tractor/implement combination
- * Reduced or no ability to stop during braking
- * Implement tire failure
- * Damage to the implement structure or its components

Use additional caution and reduce speed when towing under adverse surface conditions, when turning, and when on inclines.

Do not attempt transport if the fully loaded implement weighs more than 1.5 times the weight of the tractor.



FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and all safety signs on the machine. Follow recommended safety precautions and safety operating practices.

Keep safety signs in good condition. Replace missing or damaged safety signs.

RUN-AWAY / BREAK AWAY



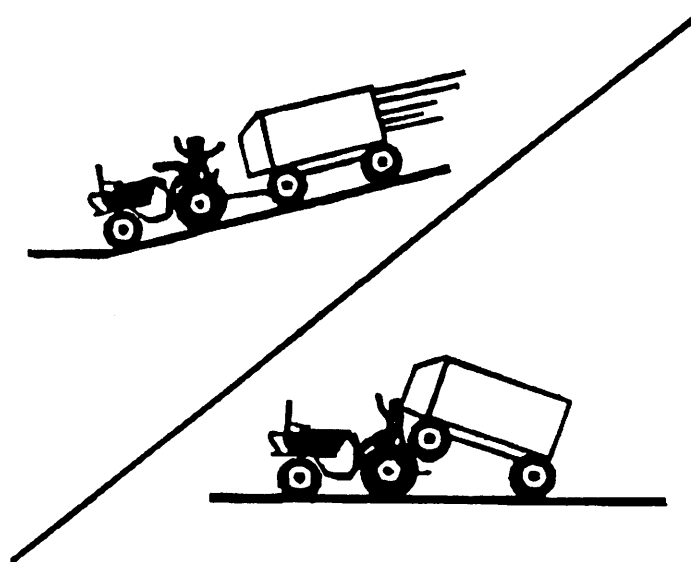
WARNING: TO PREVENT SERIOUS INJURY OR DEATH

Shift to lower gear before going down steep grades.

Keep towing vehicle in gear at all times.

Never exceed safe travel speed.

Always use safety pin with locking device and safety chain when attaching towing vehicle.



LOAD WAGON SAFELY



WARNING: Help prevent chassis and tractor rollover due to uneven load distribution. Distribute load evenly between front and rear, and side to side.

Distribute load evenly. Poor distribution can cause improper trailing of chassis.

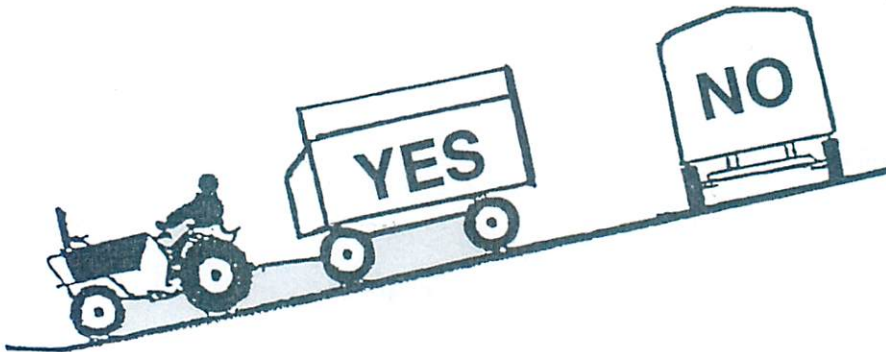
MOUNT ATTACHMENTS SAFELY



CAUTION: When mounting equipment to the chassis, refer to the manufacturer's mounting recommendations for that particular equipment.



WARNING: Help prevent serious injury or death resulting from tractor or chassis rollover. Travel uphill or downhill when working on inclines or slopes, avoid traveling across the grade.



BE AWARE OF LOW TIRES

Be aware of load height and height of electrical wires in the area.



**MAINTAIN SAFE CLEARANCE
FROM ELECTRIC POWER LINES
AND AVOID CONTACT WITH ANY
ELECTRICALLY CHARGED
CONDUCTOR**

**CONTACT WITH ELECTRIC
POWER SOURCES CAN RESULT
IN ELECTRICAL SHOCK OR
ELECTROCUTION**

**FAILURE TO HEED THIS
WARNING MAY RESULT IN
SERIOUS INJURY OR DEATH**

TRACTORS;

This operators manual uses the term "Tractor" when identifying the the power source.



WARNING

TO PREVENT SERIOUS INJURY OR DEATH

BEFORE YOU ATTEMPT TO OPERATE THIS EQUIPMENT, READ AND STUDY THE FOLLOWING INFORMATION. IN ADDITION, MAKE SURE THAT EVERY INDIVIDUAL WHO OPERATES OR WORKS WITH THIS EQUIPMENT, WHETHER FAMILY MEMBER OR EMPLOYEE, IS FAMILIAR WITH THESE SAFETY PRECAUTIONS.

Stop the tractor engine, remove ignition key, and allow all mechanisms to stop before cleaning, working, or adjusting on machine.

DO NOT ALLOW PERSONNEL OTHER THAN THE QUALIFIED OPERATOR NEAR THE MACHINE.

DO NOT allow riders on machine at any time.

ALWAYS use a safety pin with locking device.

DO NOT step up on machine at any time.

NEVER exceed safe travel speed.

DO NOT allow minors to operate or be near the machine.

STAY CLEAR of hydraulic lines, they may be under extreme pressure or heat.

Loose or floppy clothing should not be worn by the operator.

H&S Mfg. Co. always takes the operator and his safety into consideration and guards exposed moving parts for their protection. However, some areas cannot be guarded or shielded in order to assure proper operation. In addition, the Operators Manual and decals on the machine itself warn you of further danger and should be read and observed closely.

Study The Above Safety Rules

ATTENTION - BE ALERT - YOUR SAFETY IS INVOLVED

SAFETY INFORMATION

! WARNING



RUN-AWAY/BREAK-AWAY HAZARD

TO PREVENT SERIOUS INJURY OR DEATH:

- SHIFT TO LOWER GEAR BEFORE GOING DOWN STEEP GRADES.
- KEEP TOWING VEHICLE IN GEAR AT ALL TIMES.
- NEVER EXCEED A SAFE TRAVEL SPEED.
- ALWAYS USE SAFETY PIN WITH LOCKING DEVICE AND SAFETY CHAIN WHEN ATTACHING TOWING VEHICLE.

1495A

! WARNING



CRUSHING HAZARD

TO PREVENT SERIOUS INJURY OR DEATH:

- KEEP HANDS AND BODY OUT OF HITCH AREA WHEN ATTACHING TOWING VEHICLE.
- KEEP BODY CLEAR OF CRUSH POINT BETWEEN TOWING VEHICLE AND LOAD.
- KEEP FEET AND LEGS CLEAR FROM UNDER TONGUE AREA IN CASE OF POSSIBLE JACK FAILURE.

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! WARNING

TO PREVENT SERIOUS INJURY OR DEATH:

READ AND UNDERSTAND OWNER MANUAL BEFORE USING. REVIEW SAFETY PRECAUTIONS ANNUALLY.

DO NOT EXCEED 10 MPH WHEN GROSS TOWED LOAD WEIGHS MORE THAN THE TOWING VEHICLE. IF GROSS TOWED LOAD WEIGHS LESS THAN THE TOWING VEHICLE, MAXIMUM TOWING SPEED IS 20 MPH.

DO NOT TOW WAGONS IN TANDEM ON PUBLIC ROADS.

DO NOT OPERATE ON PUBLIC ROADS UNLESS PROPER LIGHTS AND REFLECTORS ARE INSTALLED AND WORKING.

DO NOT USE THIS RUNNING GEAR TO HAUL ANHYDROUS AMMONIA OR OTHER PRESSURIZED TANKS.

DO NOT ALLOW RIDERS ON MACHINE.

DO NOT OVERLOAD.

DO NOT EXCEED RATED CAPACITY OF WHEEL AND TIRE COMBINATION USED.

MAINTAIN WHEEL BOLTS AT TORQUE RECOMMENDED IN OPERATOR MANUAL.

BEFORE MAINTENANCE OR REPAIR STOP TOWING VEHICLE, SET PARKING BRAKE, AND REMOVE IGNITION KEY.

PLACE SAFETY STANDS UNDER FRAME AND CHOCK WHEELS BEFORE WORKING ON TIRES OR RUNNING GEAR.

IF EQUIPPED WITH BRAKES, MAINTAIN PROPER ADJUSTMENT.

91604

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of amount shown in chart. Tighten toothed or serrated-type lock nuts to full torque value.

Make sure fastener threads are clean and you properly start thread engagement. This will prevent them from falling when tightening.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade. Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

DO NOT use these values if a different torque value tightening procedure is listed for a specific application. Torque values listed are for general use only. Check tightness of cap screws periodically.

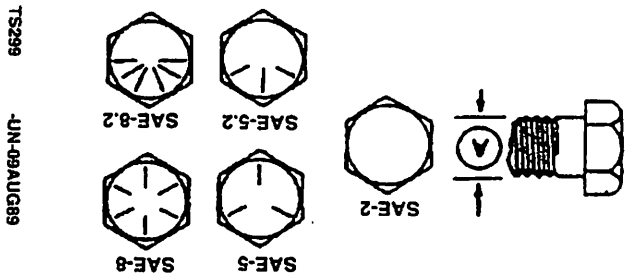
CAUTION: Use only metric tools on metric hardware. Other tools may not fit properly. They may slip and cause injury.



Cap Screw Grade	SAE 2	SAE 5	SAE 8	Bolt		
1-1/4"	665 (490)	1492 (1100)	2393 (1765)	30 mm	46 mm	30 mm
1"	332 (245)	848 (625)	1193 (880)	24 mm	36 mm	24 mm
7/8"	224 (165)	563 (415)	800 (590)	20 mm	30 mm	20 mm
3/4"	217 (160)	353 (260)	495 (365)	16 mm	24 mm	16 mm
5/8"	122 (90)	197 (145)	278 (205)	12 mm	18 mm	12 mm
9/16"	88 (65)	142 (105)	203 (150)	10 mm	16 mm	10 mm
1/2"	61 (45)	102 (75)	142 (105)	8 mm	13 mm	8 mm
5/8"	41 (30)	68 (50)	95 (70)	6 mm	10 mm	6 mm
3/8"	24 (18)	41 (30)	54 (40)	5 mm	8 mm	5 mm
5/16"	14 (10)	23 (17)	33 (24)	4 mm	6 mm	4 mm
1/4"	7 (5)	11 (8)	16 (12)	3 mm	5 mm	3 mm
Size	N-m	lb.-ft	N-m	lb.-ft	Size	lb.-ft
Diameter Wrench	7	11	16	12	8	9
Cap Screw Grade	SAE 2	SAE 5	SAE 8	Metric Cap Screw Head Markings		
1-1/2"	665 (490)	1492 (1100)	2393 (1765)	10.9	8.8	10.9
1-1/4"	332 (245)	848 (625)	1193 (880)	10.9	8.8	10.9
1"	224 (165)	563 (415)	800 (590)	10.9	8.8	10.9
7/8"	217 (160)	353 (260)	495 (365)	10.9	8.8	10.9
5/8"	122 (90)	197 (145)	278 (205)	10.9	8.8	10.9
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1/2"	61 (45)	102 (75)	142 (105)	10.9	8.8	10.9
5/8"	41 (30)	68 (50)	95 (70)	10.9	8.8	10.9
3/8"	24 (18)	41 (30)	54 (40)	10.9	8.8	10.9
5/16"	14 (10)	23 (17)	33 (24)	10.9	8.8	10.9
1/4"	7 (5)	11 (8)	16 (12)	10.9	8.8	10.9
Size	N-m	lb.-ft	N-m	lb.-ft	Size	lb.-ft
Diameter Wrench	7	11	16	12	8	9

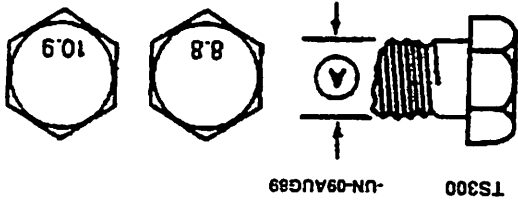
INCH CAP SCREW TORQUE VALUES

Inch Cap Screw Head Markings



METRIC CAP SCREW TORQUE VALUES

Metric Cap Screw Head Markings



CAP SCREW TORQUE VALUES

SET-UP & ASSEMBLY - DEALER

NOTE: Determine right or left side of the Chassis by viewing it from the rear. If instructions or parts lists call for hardened bolts, refer to bolt torque chart.

1. Check the Chassis for proper assembly and adjustment.
2. Make sure that all bolts are tightened.
3. Lubricate the Chassis completely. (See Lubrication Chapter in this manual).
4. Check the tires for proper air pressure. Refer to the manufacturers recommended PSI rating.
5. Check wheel bolts upon delivery, and periodically thereafter. Follow the recommended torque chart below for your model of Chassis.

WHEEL BOLTS

Tighten wheel bolts to specifications below and again after chassis has been in use for a short period of time. **Check periodically thereafter.**

<u>CHASSIS</u>	<u>TORQUE</u>
18/20	90-100 ft. lbs
22/24	400 ft. lbs
24/26	400 ft. lbs.

TIRE INFLATION

Inflate tires to manufacture's recommended pressure, making sure all tires have equal pressure. Inadequate or unequal tire pressure can cause improper trailing and premature tire failure.

<u>CHASSIS</u>	<u>TIRE SIZE</u>	<u>PRESSURE</u>
18/20	425/65R22.5	85
22/24	425/65R22.5	85
24/26	425/65R22.5	85
24/26	600/50x22.5	38

TRANSPORTING

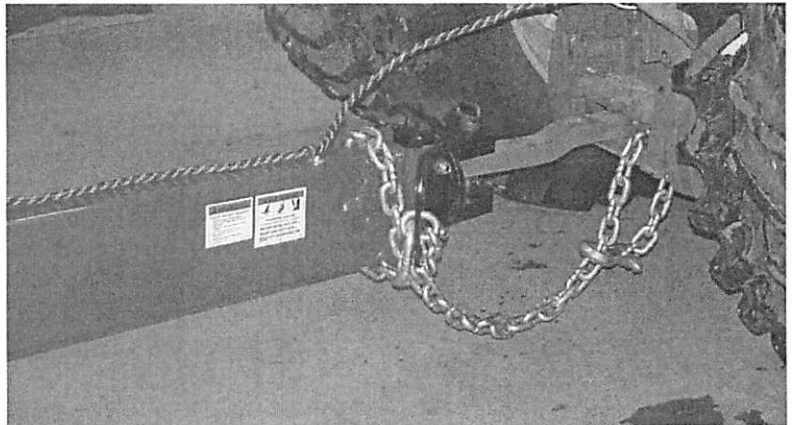
TOWING ON HIGHWAY

Follow state and local regulations when towing farm equipment on public highways. Never tow the chassis on a public highway at a speed greater than 20 mph (32 kph).

SAFETY CHAIN

To prevent break-away, always use a safety chain when attaching to the towing vehicle. The safety chain shall have a minimum tensile strength equal to, or greater than the ultimate gross weight of the towed machine. It must be replaced if one or more links are broken, stretched or otherwise damaged.

See photo at right for proper routing of the safety chain on 24/26 chassis.



OPERATION

GENERAL INFORMATION

After receiving your chassis, check entire unit carefully before first operation. Tighten bolts and set screws that might have come loose. Lubricate as explained in the Lubrication Chapter in this manual.

WHEEL BOLTS

Tighten wheel bolts to specifications below after chassis has been in use for a short period of time. Check periodically thereafter.

CHASSIS

18/20
22/24
24/26

TORQUE

90-100 ft. lbs
400 ft. lbs
400 ft. lbs.



TIRE INFLATION

Inflate tires to manufacture's recommended pressure, making sure all tires have equal pressure. Inadequate or unequal tire pressure can cause improper trailing and premature tire failure.

<u>CHASSIS</u>	<u>TIRE SIZE</u>	<u>PRESSURE</u>
18/20	425/65R22.5	85
22/24	425/65R22.5	85
24/26	425/65R22.5	85
24/26	600/50x22.5	38

ADJUSTMENTS

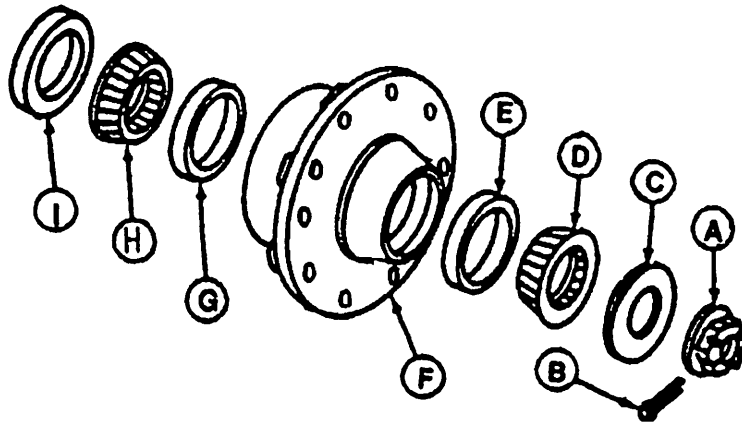
WHEEL BEARINGS

IF WHEEL BEARINGS BECOME LOOSE, ADJUST THEM IMMEDIATELY.

1. Block wheels to prevent rolling, jack up chassis until wheels turn freely.
2. Remove hub cap
3. Remove cotter pin (B) from adjusting nut and spindle.
4. Tighten hub nut (A) until there is a slight drag on hub when wheel is turning.
5. Check cotter pin hole location on spindle, back nut off one notch on nut, re-insert cotter pin
6. Replace hub cap, and lower to the ground.

CLEAN AND RE-PACK WHEEL BEARINGS

Annually disassemble and clean parts in a solvent. Pack bearings (D & H) with a high grade grease. Reassemble, and tighten hub nut (A) until there is a slight drag on hub when wheel is turning. Check cotter pin hole location on spindle, back nut off one notch on nut, re-insert cotter pin



- | | |
|------------------|------------------|
| A. Slotted nut | F. Hub |
| B. Cotter Pin | G. Inner Race |
| C. Washer | H. Inner Bearing |
| D. Outer Bearing | I. Seal |
| E. Outer Race | |

SERVICE

Your H&S Chassis has been designed and manufactured to provide years of trouble free service. You the operator, can help by performing the following:

FREQUENTLY:

- * Check wheel bearings, making sure of proper adjustment (See instructions above).
- * Check lug nuts. Be sure all are tightened to specifications prior to operation.
- * Check tire pressure. Make sure all tires are inflated equally to proper pressure.
- * Lubricate all points identified in this manual.

SEASONALLY:

- * Check all tires for wear.
- * Check all pivot points and bushings for wear.

ANNUALLY:

- * Remove and repack wheel bearings (See instructions above).

For further service information or questions, contact an authorized H&S Dealer.

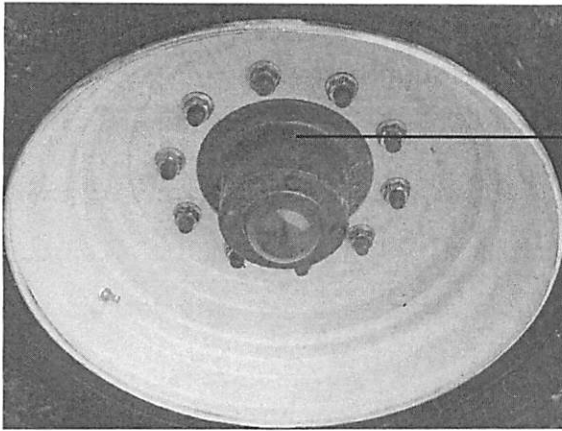
LUBRICATION

Become familiar with all lubrication points and establish a routine to ensure complete lubrication of the Chassis.

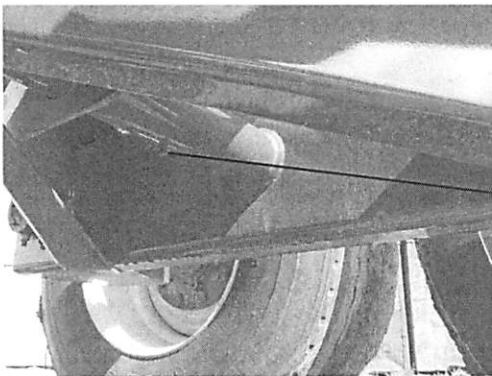
GENERAL INFORMATION

If lubricated properly and often enough, it will prolong the life of your Industrial Chassis. Grease daily during normal use and **before and after storage and after power washing**. Use a good grade of Lithium-base grease. Make sure that grease comes out around the shaft on sleeve type bearings. Wipe off excessive grease to prevent accumulation of chaff or grit around bearing.

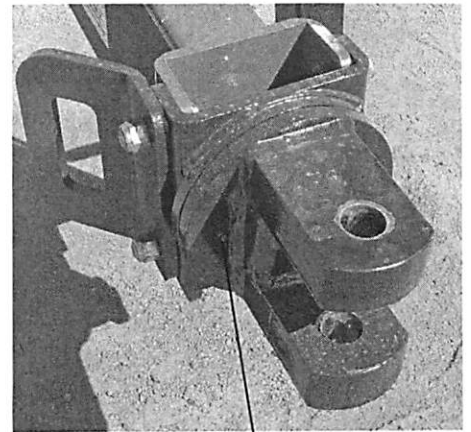
IMPORTANT: *Catch and dispose of fluid per local waste disposal regulations whenever service is performed on hydraulic components, valves, cylinders, hoses, etc.*



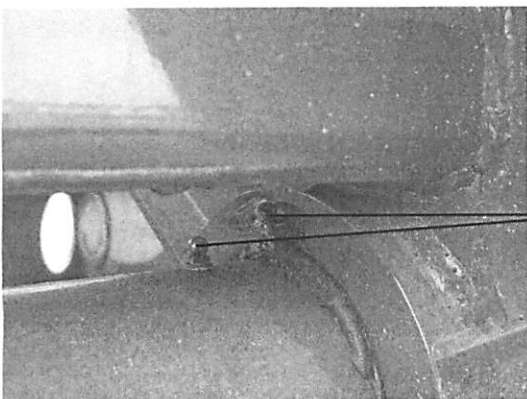
All
Models
Wheel
Hub
Zerk



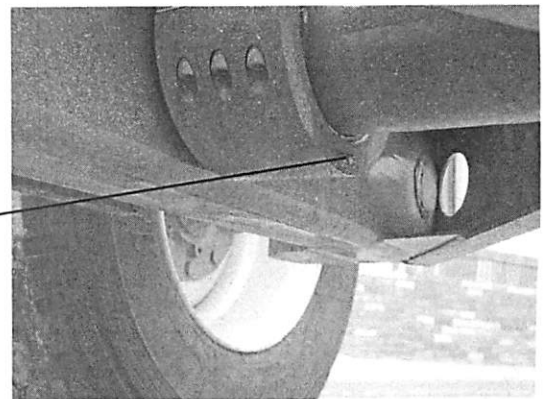
22/24 Walking
Beam Pivot
Zerk
(1 on each
Pivot)



24/26 Swivel
Hitch Zerk



24/26
Walking
Beam
Zerks
(Each Side)



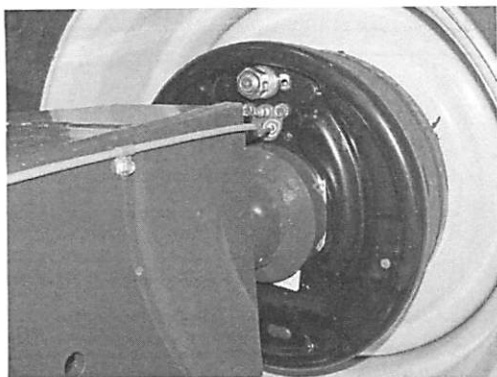
OPTIONS

ELECTRIC-OVER-HYDRAULIC BRAKES

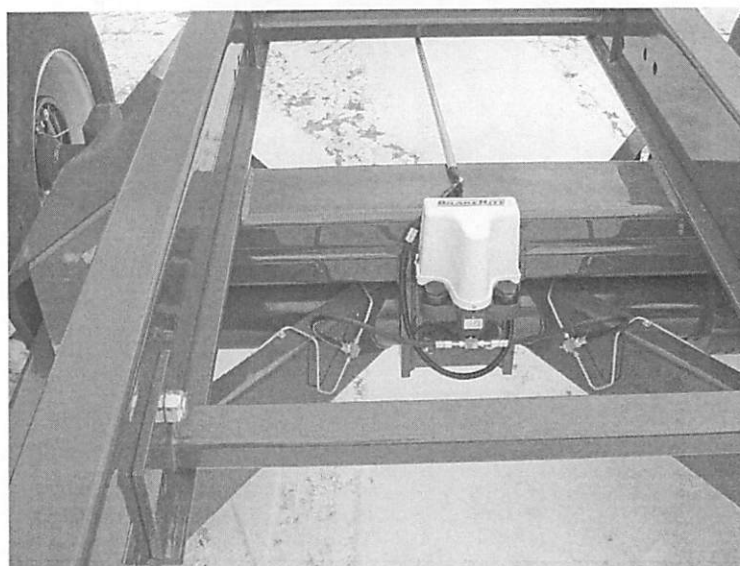
The brake system is electric-over-hydraulic (brake fluid) only. The controller must be located on the tractor for the brakes to operate. If the tractor is set up with the #4 pin in the seven in plug as being brakes (per new ASABE standard) it will be activated when the user pushes the brake pedal. The braking force can be adjusted by pressing the plus or minus on the gain of the controller.

For tractors that do not have this feature, the handset is used to apply the brakes.

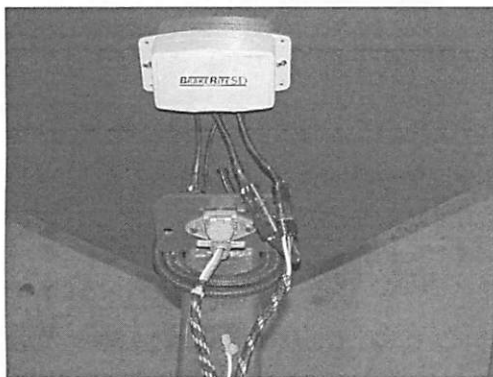
Brake Drum



Brake System



Brake Module



DECAL PLACEMENT

Your H&S Chassis was manufactured with operator safety in mind. Located on the chassis are various decals to aid in operation, and warn of danger or caution areas. Pay close attention to all the decals on your chassis.



DO NOT REMOVE ANY TO THESE DECALS. IF DECALS ARE LOST, DAMAGED, OR IF CHASSIS IS REPAINTED, REPLACE DECALS. REMEMBER: DECALS ARE FOR YOUR PROTECTION AND SAFETY.

Listed below are the decals for the 18/20 Chassis.

<u>Part #</u>	<u>Qty</u>	<u>Description</u>
1495A	1	Run-Away/Break-Away Hazard
82602	2	Crushing Hazard(One on each side of Tongue)
91604	1	Warning-To Prevent Serious Injury or Death
71188B	1	Jack Storage Position
8683	1	H&S/Model 18/20 Right Side
8682	2	H&S/Model 18/20 Rear & Left Side

Listed below are the decals for the 22/24 Chassis.

<u>Part #</u>	<u>Qty</u>	<u>Description</u>
1495A	1	Run-Away/Break-Away Hazard
82602	2	Crushing Hazard(One on each side of Tongue)
91604	1	Warning-To Prevent Serious Injury or Death
71188B	1	Jack Storage Position
8685	1	H&S/Model 22/24 Right Side
8684	2	H&S/Model 22/24 Rear & Left Side

Listed below are the decals for the 24/26 Chassis.

<u>Part #</u>	<u>Qty</u>	<u>Description</u>
1495A	1	Run-Away/Break-Away Hazard
82602	2	Crushing Hazard(One on each side of Tongue)
91604	1	Warning-To Prevent Serious Injury or Death
71188B	1	Jack Storage Position
8687	1	H&S/Model 24/26 Right Side
8686	1	H&S/Model 24/26 Left Side
8710	1	H&S/Model 24/26 Rear Decal

DECAL PLACEMENT

18/20 & 22/24 Chassis



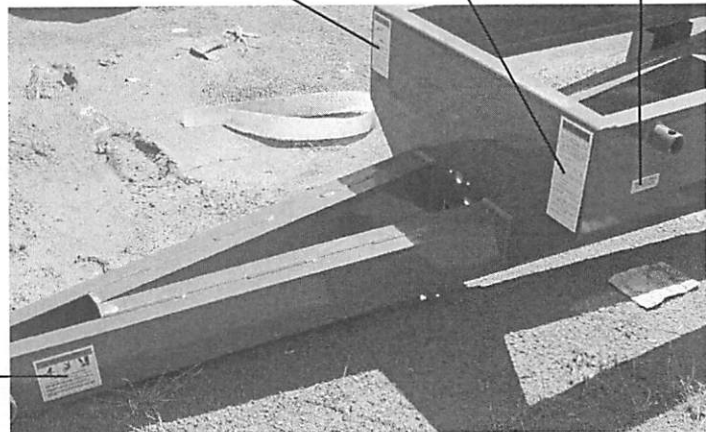
- H&S/Model 18/20 Right Side -8683
- H&S/Model 18/20 Left Side -8682
- H&S/Model 22/24 Right Side -8685
- H&S/Model 22/24 Left Side -8684

1495A

91604

71188B

18/20 & 22/24 Chassis



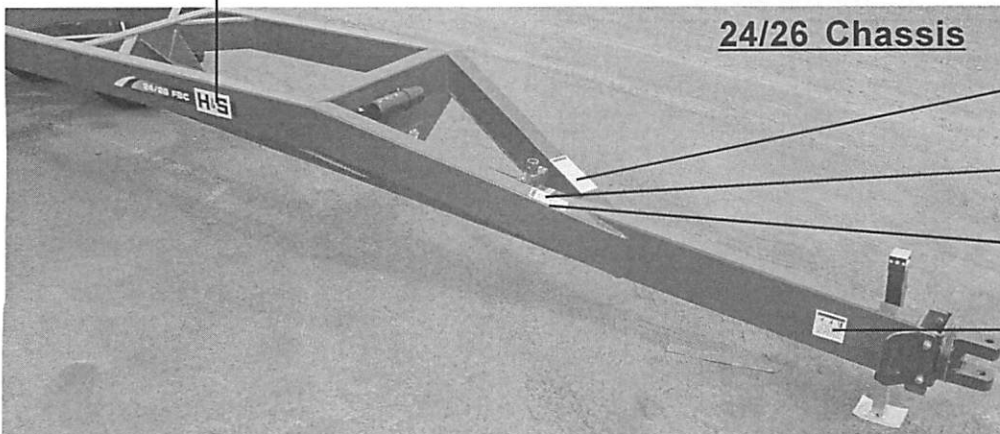
82602
Both sides
of Tongue

- H&S/Model 18/20 Rear -8682
- H&S/Model 22/24 Rear -8684
- H&S/Model 24/26 Rear -8710



- H&S/Model 24/26 Right Side -8687
- H&S/Model 24/26 Left Side -8686

24/26 Chassis



1495A

71188B

91604

82602
Both sides
of Tongue

INSTRUCTIONS FOR ORDERING PARTS

All service parts should be ordered through your authorized H&S dealer. They will be able to give you faster service if you will provide them with the following

1. Model & Serial number is located on the center, front, main frame.
2. All reference to left or right apply to the machine as viewed from the rear.
3. Parts should not be ordered from illustration only. Please order by complete part number.
4. If your dealer has to order parts - give shipping instructions:

VIA truck - large pieces (please specify local truck lines)

VIA United Parcel Service (include full address)

H&S MFG. CO. INC.	
MARSHFIELD, WIS.	
MOD. NO.	<input type="text"/>
SER. NO.	<input type="text"/>
DESCR.	<input type="text"/>

PLEASE RECORD NUMBERS FOR YOUR UNIT FOR QUICK REFERENCE

ABOUT IMPROVEMENTS

H&S IS CONTINUALLY STRIVING TO IMPROVE IT'S PRODUCTS

We must therefore, reserve the right to make improvements or changes whenever it becomes practical to do so without incurring any obligation to make changes or additions to the equipment previously sold.

FIGURE 1

MODEL 18/20 CHASSIS FRAME

<u>ITEM</u>	<u>PART #</u>	<u>DESCRIPTION</u>
1	SFBC1	MAIN FRAME
2	50N151	LEFT TANDEM BEAM
3	50N152	RIGHT TANDEM BEAM
4	50N153	TANDEM PIN
5	YBHH20085	BOLT 5/8"-11 X 5" GR. 5
6	YWFL20005	5/8" FLAT WASHER
7	YWLO20005	5/8" LOCK WASHER
8	YNHX20005	5/8"-11 NUT
9	50N5	SPINDLE
10	33SV95	SPINDLE WASHER
11	YNSL32005	SPINDLE NUT
12	YPCT07005	COTTER PIN
13	33SV42	SEAL
14	33SV43	INNER BEARING
15	33SV44	INNER RACE
16	33SV45	HUB
17	RG169	OUTER RACE
18	RG170	OUTER BEARING
19	RG171	HUB CAP
20	YNWL20005	STUD NUT
21	YBSD20010	STUD
22	RG59	SPACER
23	16SV89	WHEEL (22.5 X 13.5, 8 BOLT)
*	50N6	WHEEL (16.1 X 18, 8 BOLT)
24	16SV88	TIRE (425 X 22.5 TRUCK)
*	UR12	TIRE (21.5L X 16.1 FLOTATION)
25	50N8	TANDEM PIN BUSHING
26	FBC2	JACK 7000# COMPLETE
27	FBC7	JACK HANDLE
28	FBC8	JACK PIN & CHAIN
29	SFBC2	FRONT WOOD CHASSIS SPACER
30	SFBC3	REAR WOOD CHASSIS SPACER
31	FBC6	TIE DOWN BOLTS
32	YNNY24006	3/4"-16 NF NYLON LOCK NUT
33	FBC5	TIE DOWN PLATE
34	RG51	1/4"-28 90° GREASE ZERK #1911
35	YSST10010	5/16" X 1-1/4" SELF-TAPPING BOLT
36	S522	MANUAL HOLDER
*	FBC37	SAFETY CHAIN 60,000# (OPTIONAL)

NOTE: * MEANS NOT SHOWN

FIGURE 2

MODEL 22/24 CHASSIS FRAME

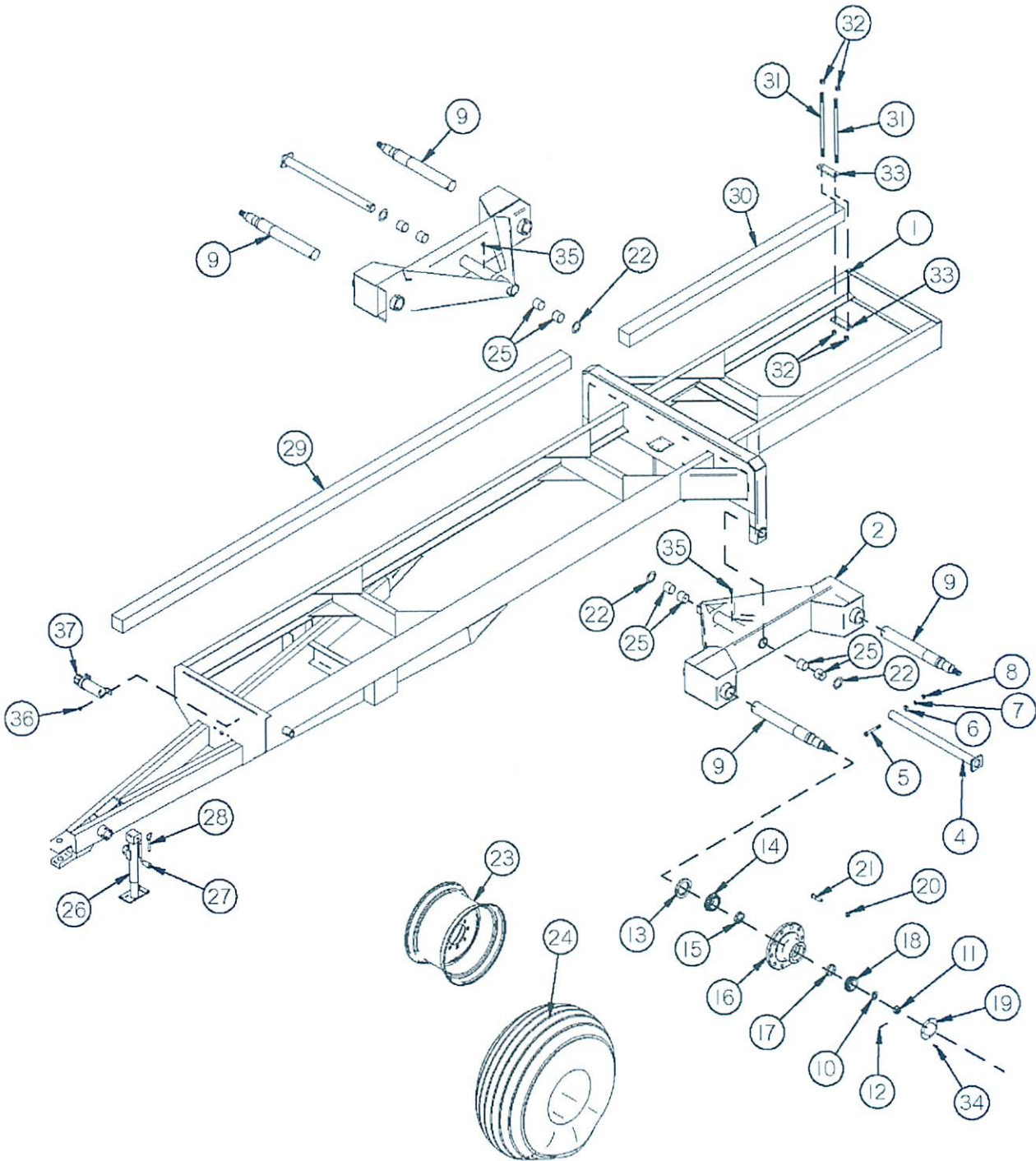


FIGURE 2

MODEL 22/24 CHASSIS FRAME

<u>ITEM</u>	<u>PART #</u>	<u>DESCRIPTION</u>
1	FBC1	MAIN FRAME
2	50N151	LEFT TANDEM BEAM
3	50N152	RIGHT TANDEM BEAM
4	50N153	TANDEM PIN
5	YBHH20085	BOLT 5/8"-11 X 5" GR. 5
6	YWFL20005	5/8" FLAT WASHER
7	YWLO20005	5/8" LOCK WASHER
8	YNHX20005	5/8"-11 NUT
9	60N1	SPINDLE
10	60N2	SPINDLE WASHER
11	YNCA36005	SPINDLE NUT
12	YPCT05010	COTTER PIN
13	60N5	SEAL
14	60N7	INNER BEARING
15	60N6	INNER RACE
16	60N8	HUB
17	60N10	OUTER RACE
18	60N9	OUTER BEARING
19	60N11	HUB CAP
20	YNWL24005	STUD NUT
21	YBSD24010	STUD
22	RG59	SPACER
23	60N15	WHEEL (22.5 X 13.5, 10 BOLT)
*	60N16	WHEEL (16.1 X 18, 10 BOLT)
24	16SV88	TIRE (425 X 22.5 TRUCK)
*	UR12	TIRE (21.5L X 16.1 FLOTATION)
25	50N8	TANDEM PIN BUSHING
26	FBC2	JACK 7000# COMPLETE
27	FBC7	JACK HANDLE
28	FBC8	JACK PIN & CHAIN
29	FBC3	FRONT WOOD CHASSIS SPACER
30	FBC4	REAR WOOD CHASSIS SPACER
31	FBC6	TIE DOWN BOLTS
32	YNNY24006	3/4"-16 NF NYLON LOCK NUT
33	FBC5	TIE DOWN PLATE
34	60N12	HUB CAP BOLT
35	RG51	1/4"-28 90° GREASE ZERK #1911
36	YSST10010	5/16" X 1-1/4" SELF-TAPPING BOLT
37	S522	MANUAL HOLDER
*	FBC37	SAFETY CHAIN 60,000# (OPTIONAL)

NOTE: * MEANS NOT SHOWN

FIGURE 3

MODEL 24/26 CHASSIS FRAME

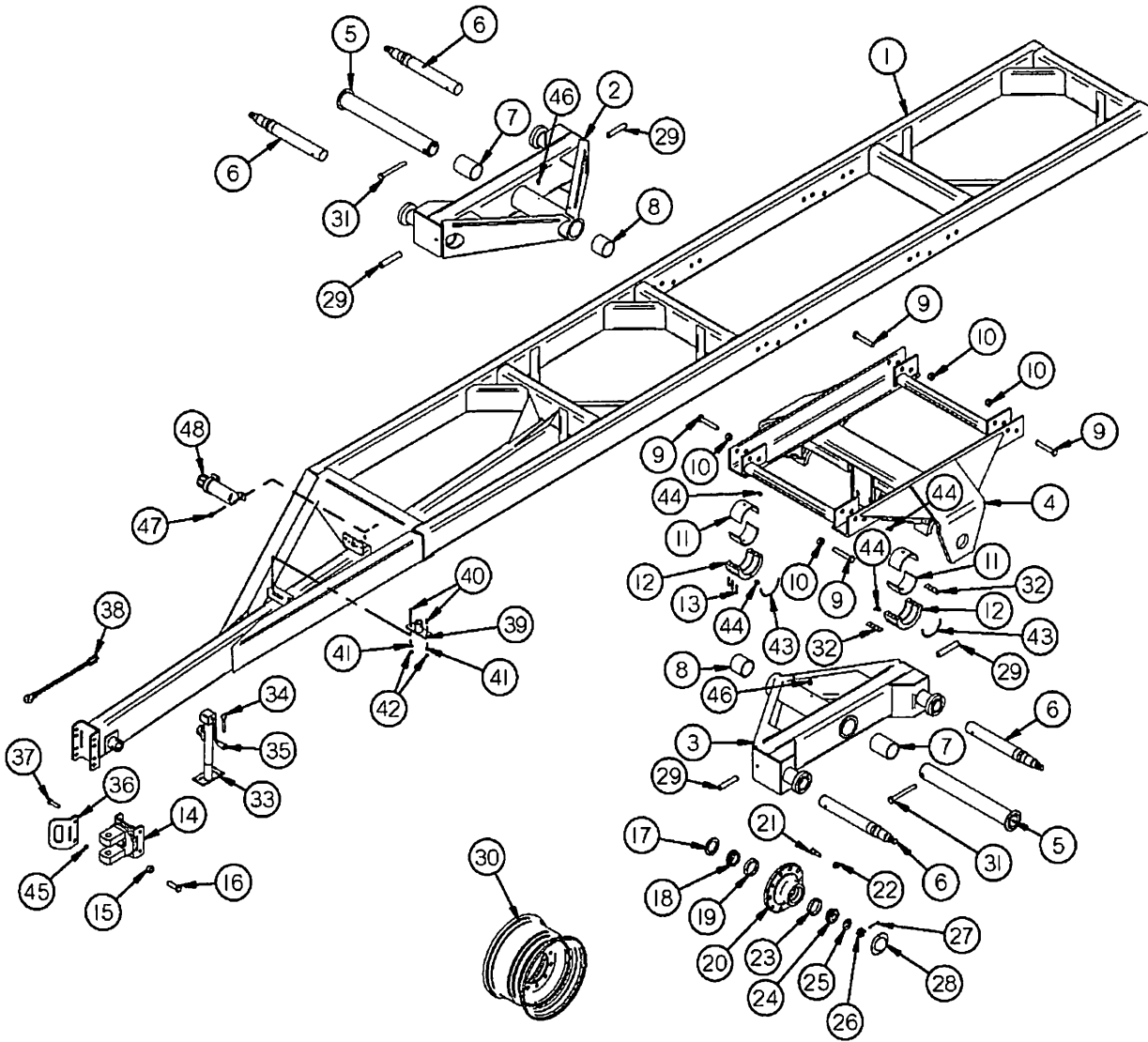


FIGURE 3

MODEL 24/26 CHASSIS FRAME

<u>ITEM</u>	<u>PART #</u>	<u>DESCRIPTION</u>
1	FBC10	FRAME
2	FBC33	TANDEM BEAM RIGHT
3	FBC32	TANDEM BEAM LEFT
4	FBC13	SLIDER
5	FBC14	AXLE PIVOT TUBE
6	FBC31	SPINDLE
7	FBC16	PHENOLIC BEARING OUTER
8	FBC17	PHENOLIC BEARING INNER
9	YBHH32025	1" X 6" GR.5 BOLT
10	YNNY32005	1" LOCK NUT
11	FBC18	PHENOLIC BEARING CENTER
12	FBC19	SADDLE CAP BOTTOM
13	YSHS14017	7/16-20 X 2-1/4 SOCKET HEAD BOLT
14	FBC9	SWIVEL HITCH
15	YNNY24006	3/4"-16 LOCK NUT
16	YBHH24017	3/4"-16 X 2" GR. 8 BOLT
17	60N5	SEAL
18	60N7	INNER BEARING
19	60N6	INNER RACE
20	60N8	HUB
21	YBSD24010	STUD
22	YNWL24005	LUG NUT
23	60N10	OUTER RACE
24	60N9	OUTER BEARING
25	60N2	WASHER
26	YNCA36005	NUT
27	YPCT05010	COTTER PIN
28	60N11	HUB CAP
29	YPEX16020	1/2" X 4" EXPANSION PIN
30	60N15	WHEEL (22.5 X 13-1/2- 10 BOLT)
*	16SV88	TIRE (425 X 22.5)
OPT.	FBC35	WHEEL
OPT.	FBC36	TIRE (600/50 X 22.5)
31	YBHH32040	1" X 9" GR. 5 BOLT
32	FBC24	SADDLE SHIM
33	TS306	JACK
34	56N8	JACK PIN & CHAIN
35	56N9	JACK HANDLE
36	FBC27	SAFETY CHAIN MOUNT
37	YBHH24031	3/4"-16 X 2-1/2" GR. 8 BOLT
38	FBC37	SAFETY CHAIN 60,000# (OPTIONAL)
39	FBC67	JACK STORAGE
40	YBHH12010	BOLT 3/8" X 1"
41	YWLO12005	3/8" LOCK WASHER
42	YNHX12005	3/8" NUT
43	FBC29	PHENOLIC KEEPER
44	GM503	1/8" 90° PIPE ZERK
45	G89	1/4"-28 STRAIGHT-STANDARD GREASE ZERK #1641
46	RG51	1/4"-28 90° GREASE ZERK #1911
47	YSST10010	5/16" X 1-1/4" SELF-TAPPING BOLT
48	S522	MANUAL HOLDER

NOTE: * MEANS NOT SHOWN

FIGURE 4

MODEL 18/20 & 22/24 BRAKES

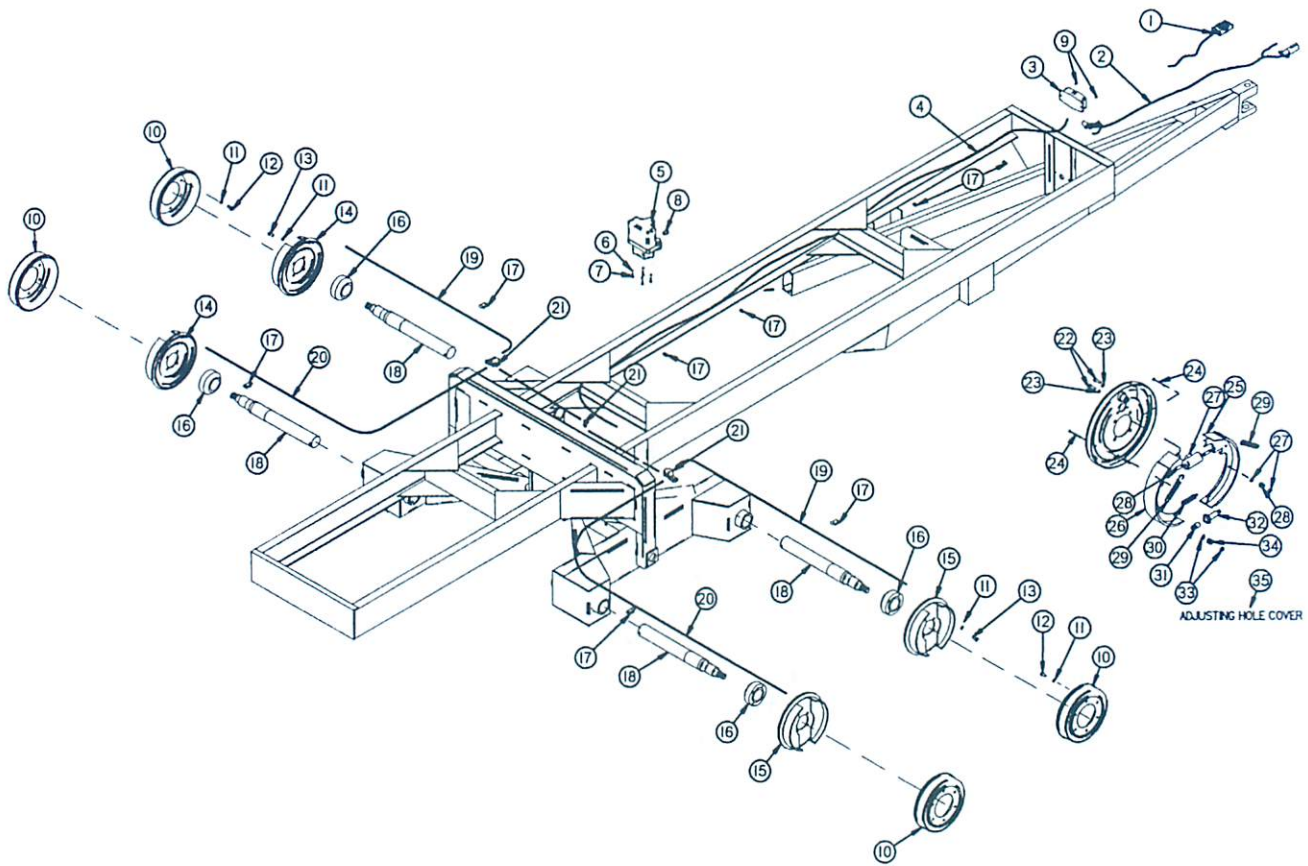


FIGURE 4

MODEL 18/20 & 22/24 BRAKES

<u>PART #</u>			
<u>ITEM</u>	<u>18/20</u>	<u>22/24</u>	<u>DESCRIPTION</u>
1	FBC38	"	Brake Control
2	FBC30	"	Electric Brake Harness
3	FBC39	"	Brake Control Module
4	FBC40	"	Pump/Master Cylinder Harness
5	FBC41	"	Pump/Master Cylinder
6	YWLO08005	"	1/4" Lock Washer
7	YBHH08010	"	1/4" x 1" Bolt GR.5
8	FBC57	"	Pump Bushing
9	YBST68005	"	#14 x 1" Self Drilling & Tapping Bolt
10	RGB106	RGE10	Brake Drum
11	YWLO16005	"	1/2" Lock Washer
12	YBHH16011	"	1/2"-20 x 1" Bolt GR.5
13	YBHH16010	"	1/2"-13 x 1" Bolt GR.5
14	FBC48	"	Back Plate Assembly (Left)
15	FBC49	"	Back Plate Assembly (Right)
16	CB17	"	Backing Plate Mount
17	CB15	"	Metal Chassis Clamp
18	50N5	60N1	Spindle
19	RGB36	"	Brake Line 36"
20	RGB93	"	Brake Line 48"
21	RGB26	"	Tee
22	YBHH10132	"	5/16"-18 x 5/8" Bolt GR.5
23	YWSI10005	"	5/16" Star Lock Washer
24	RGB56	"	Shoe Hold Down Pin
25	FBC50	"	Rear Brake Shoe Assembly
26	FBC51	"	Front Brake Shoe Assembly
27	FBC52	"	Wheel Cylinder Assembly (Left)
*	FBC53	"	Wheel Cylinder Assembly (Right)
28	FBC54	"	Push Rod
29	RGB76	"	Spring Shoe
30	RGB50	"	Spring Adjusting Screw
31	RGB61	"	Socket
32	RGB49	"	Adjusting Screw Assembly
33	RGB57	"	Shoe Hold Down Cup
34	RGB59	"	Hold Down Spring
35	FBC55	"	Adjusting Hole Cover
*	FBC59	FBC60	Complete Brake Kit Assembly
*	RG51	"	1/4"-28 90° GREASE ZERK #1911
*	YSST10010	"	5/16" X 1-1/4" SELF-TAPPING BOLT
*	S522	"	MANUAL HOLDER

NOTE: * (MEANS NOT SHOWN)

" (MEANS SAME AS PRECEDING NUMBER)

FIGURE 5

MODEL 24/26 BRAKES

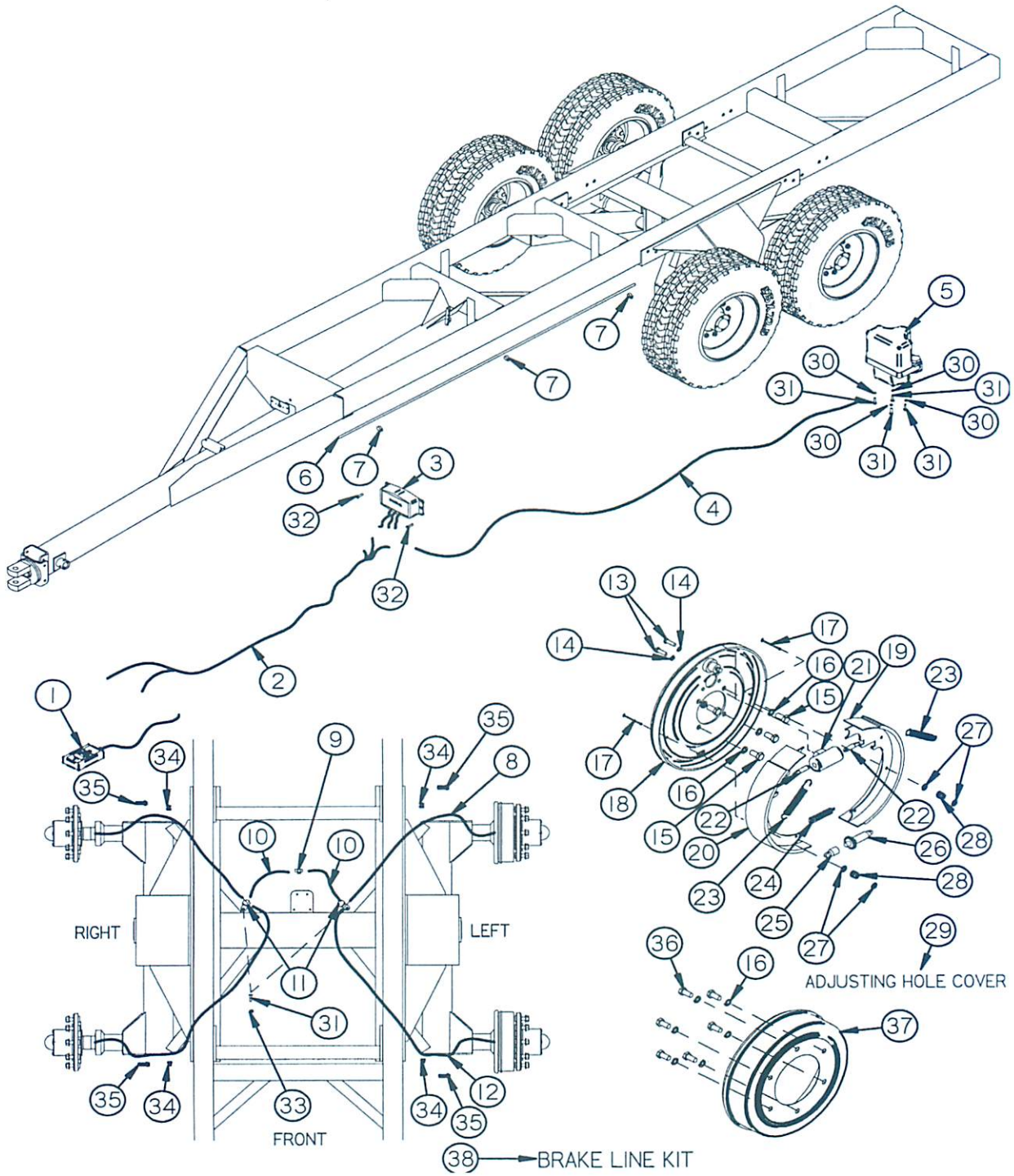


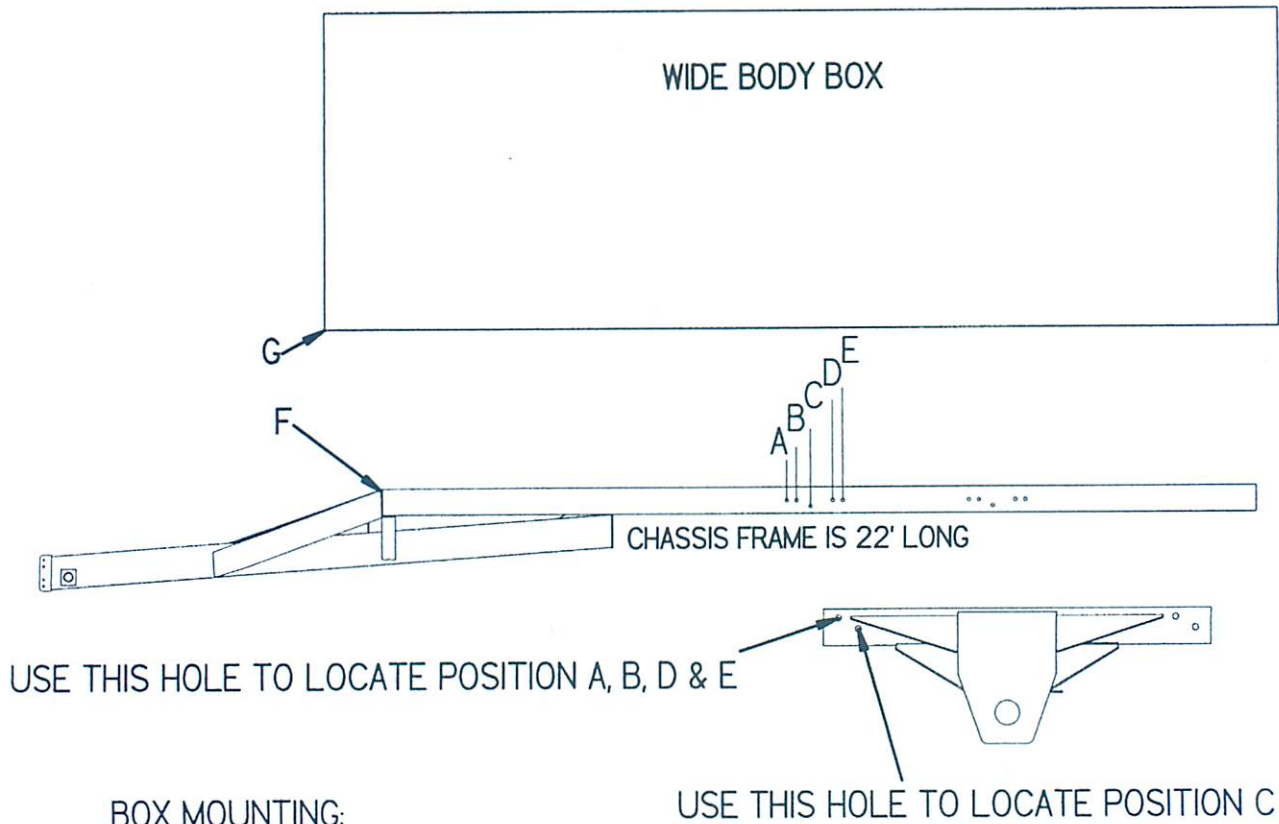
FIGURE 5

MODEL 24/26 BRAKES

<u>ITEM</u>	<u>PART #</u>	<u>DESCRIPTION</u>
1	FBC38	Brake Control
2	FBC30	Electric Brake Harness
3	FBC39	Brake Control Module
4	FBC40	Pump/Master Cylinder Harness
5	FBC41	Pump/Master Cylinder
6	FBC42	Wire Shield
7	FBC43	Wire Clamp #12
8	FBC44	Hydraulic Brake Line (51" Left Rear)
*	FBC62	Hydraulic Brake Line (51" Right Rear)
9	FBC45	Branch Tee
10	FBC46	Hydraulic Brake Hose
11	RGB26	Brake Line Tee
12	FBC47	Hydraulic Brake Line (60" Left Front)
*	FBC63	Hydraulic Brake Line (60" Right Front)
13	YBHH10132	5/16"-18 x 5/8" Bolt GR.5
14	YWSI10005	5/16" Star Lock Washer
15	YBHH16010	1/2"-13 x 1" Bolt GR.5
16	YWLO16005	1/2" Lock Washer
17	RGB56	Shoe Hold Down Pin
18	FBC48	Back Plate Assembly (Left)
*	FBC49	Back Plate Assembly (Right)
19	FBC50	Rear Brake Shoe Assembly
20	FBC51	Front Brake Shoe Assembly
21	FBC52	Wheel Cylinder Assembly (Left)
*	FBC53	Wheel Cylinder Assembly (Right)
22	FBC54	Push Rod
23	RGB76	Spring Shoe
24	RGB50	Spring Adjusting Screw
25	RGB61	Socket
26	RGB49	Adjusting Screw Assembly
27	RGB57	Shoe Hold Down Cup
28	RGB59	Hold Down Spring
29	FBC55	Adjusting Hole Cover
30	YWLO08005	1/4" Lock Washer
31	YBHH08010	1/4" x 1" Bolt GR.5
32	YBST68005	#14 x 1" Self Drilling & Tapping Bolt
33	YNNY08005	1/4" Lock Nut
34	FBC64	Brake Line Cup
35	YSDR64005	#10-16 x 5/8" Hex Washer Head Self Drilling Screw
36	YBHH16011	1/2"-20 x 1" Bolt GR.5
37	RGB10	Brake Drum
*	FBC61	Complete Brake
38	FBC65	Brake Line Kit (Includes: FBC44, FBC62, FBC45 (2) FBC46, (2) FBC26 FBC47, FBC63, (4) FBC64
*	GM503	1/8" 90° PIPE ZERK
*	G89	1/4"-28 STRAIGHT-STANDARD GREASE ZERK #1641
*	RG51	1/4"-28 90° GREASE ZERK #1911
*	YSST10010	5/16" X 1-1/4" SELF-TAPPING BOLT
*	S522	MANUAL HOLDER

NOTE: * (MEANS NOT SHOWN)

FIGURE 6
MODEL 24/26 BOX & AXLE LOCATION



BOX MOUNTING:

ALL FRONT & REAR BOXES MOUNT WITH 2-1/2" OF BOX FRAME OVERHANGING FRONT OF CHASSIS FRAME.

WIDE BODY FRAMES:

22' FRAMES ARE EQUAL LENGTH (F & G)

24' BOX FRONT OF FRAMES ARE EQUAL, (F & G) AND OVERHANGS REAR OF CHASSIS FRAME BY 2 FEET.

26' BOX OVERHANGS FRONT (F & G) & REAR OF CHASSIS FRAME BY 2 FEET

USE THIS HOLE TO LOCATE POSITION C

- A 26' WIDE BODY
- B 24' FRONT & REAR
- C 22' WIDE BODY
- D 24' WIDE BODY
- E 26' FRONT & REAR

FIGURE 4

MODEL 18/20 & 22/24 BRAKES

<u>PART #</u>			
<u>ITEM</u>	<u>18/20</u>	<u>22/24</u>	<u>DESCRIPTION</u>
1	FBC38	"	Brake Control
2	FBC30	"	Electric Brake Harness
3	FBC39	"	Brake Control Module
4	FBC40	"	Pump/Master Cylinder Harness
5	FBC41	"	Pump/Master Cylinder
6	YWLO08005	"	1/4" Lock Washer
7	YBHH08010	"	1/4" x 1" Bolt GR.5
8	FBC57	"	Pump Bushing
9	YBST68005	"	#14 x 1" Self Drilling & Tapping Bolt
10	RGB106	RGE10	Brake Drum
11	YWLO16005	"	1/2" Lock Washer
12	YBHH16011	"	1/2"-20 x 1" Bolt GR.5
13	YBHH16010	"	1/2"-13 x 1" Bolt GR.5
14	FBC48	"	Back Plate Assembly (Left)
15	FBC49	"	Back Plate Assembly (Right)
16	CB17	"	Backing Plate Mount
17	CB15	"	Metal Chassis Clamp
18	50N5	60N1	Spindle
19	RGB36	"	Brake Line 36"
20	RGB93	"	Brake Line 48"
21	RGB26	"	Tee
22	YBHH10132	"	5/16"-18 x 5/8" Bolt GR.5
23	YWSI10005	"	5/16" Star Lock Washer
24	RGB56	"	Shoe Hold Down Pin
25	FBC50	"	Rear Brake Shoe Assembly
26	FBC51	"	Front Brake Shoe Assembly
27	FBC52	"	Wheel Cylinder Assembly (Left)
*	FBC53	"	Wheel Cylinder Assembly (Right)
28	FBC54	"	Push Rod
29	RGB76	"	Spring Shoe
30	RGB50	"	Spring Adjusting Screw
31	RGB61	"	Socket
32	RGB49	"	Adjusting Screw Assembly
33	RGB57	"	Shoe Hold Down Cup
34	RGB59	"	Hold Down Spring
35	FBC55	"	Adjusting Hole Cover
*	FBC59	FBC60	Complete Brake Kit Assembly
*	RG51	"	1/4"-28 90° GREASE ZERK #1911
*	YSST10010	"	5/16" X 1-1/4" SELF-TAPPING BOLT
*	S522	"	MANUAL HOLDER

NOTE: * (MEANS NOT SHOWN)

" (MEANS SAME AS PRECEDING NUMBER)

FIGURE 4
MODEL 18/20 & 22/24 BRAKES

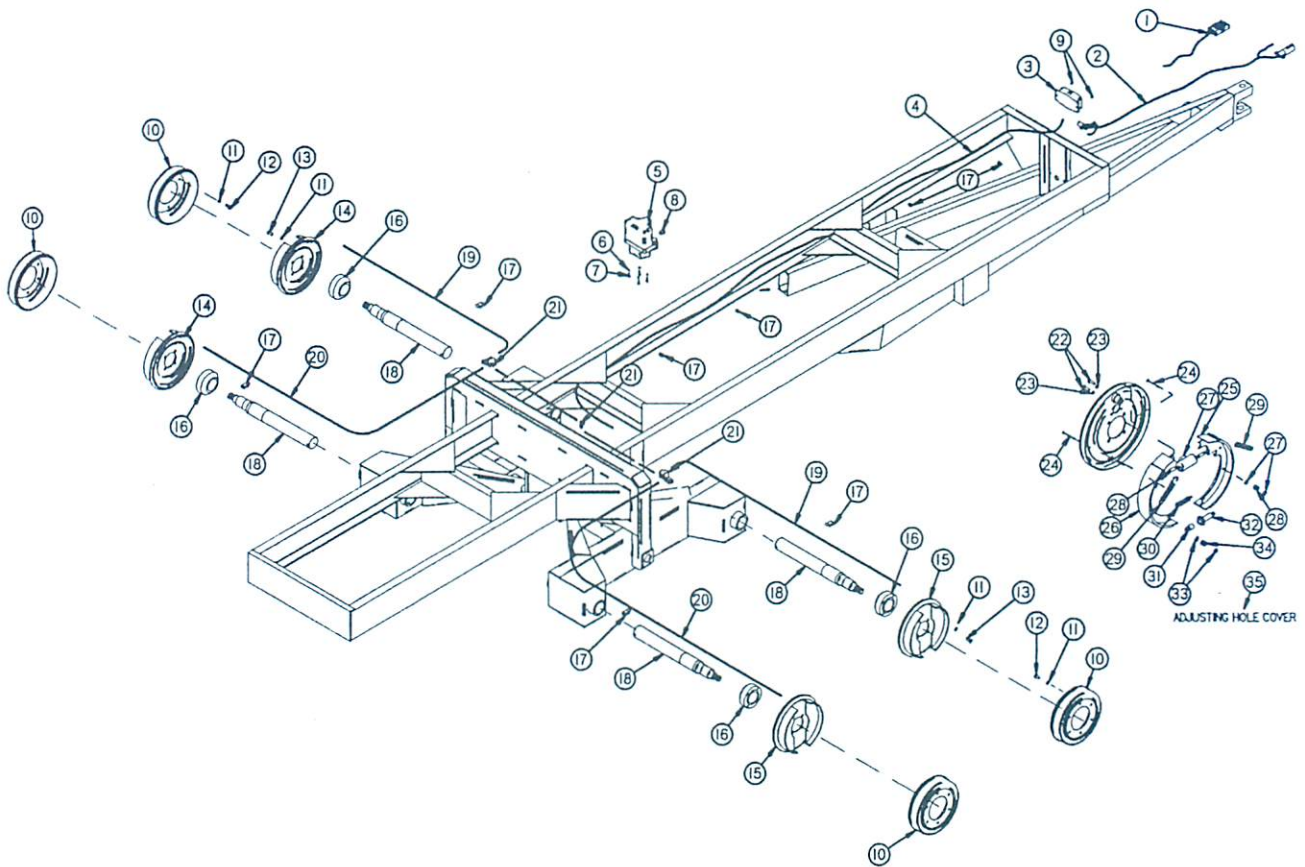
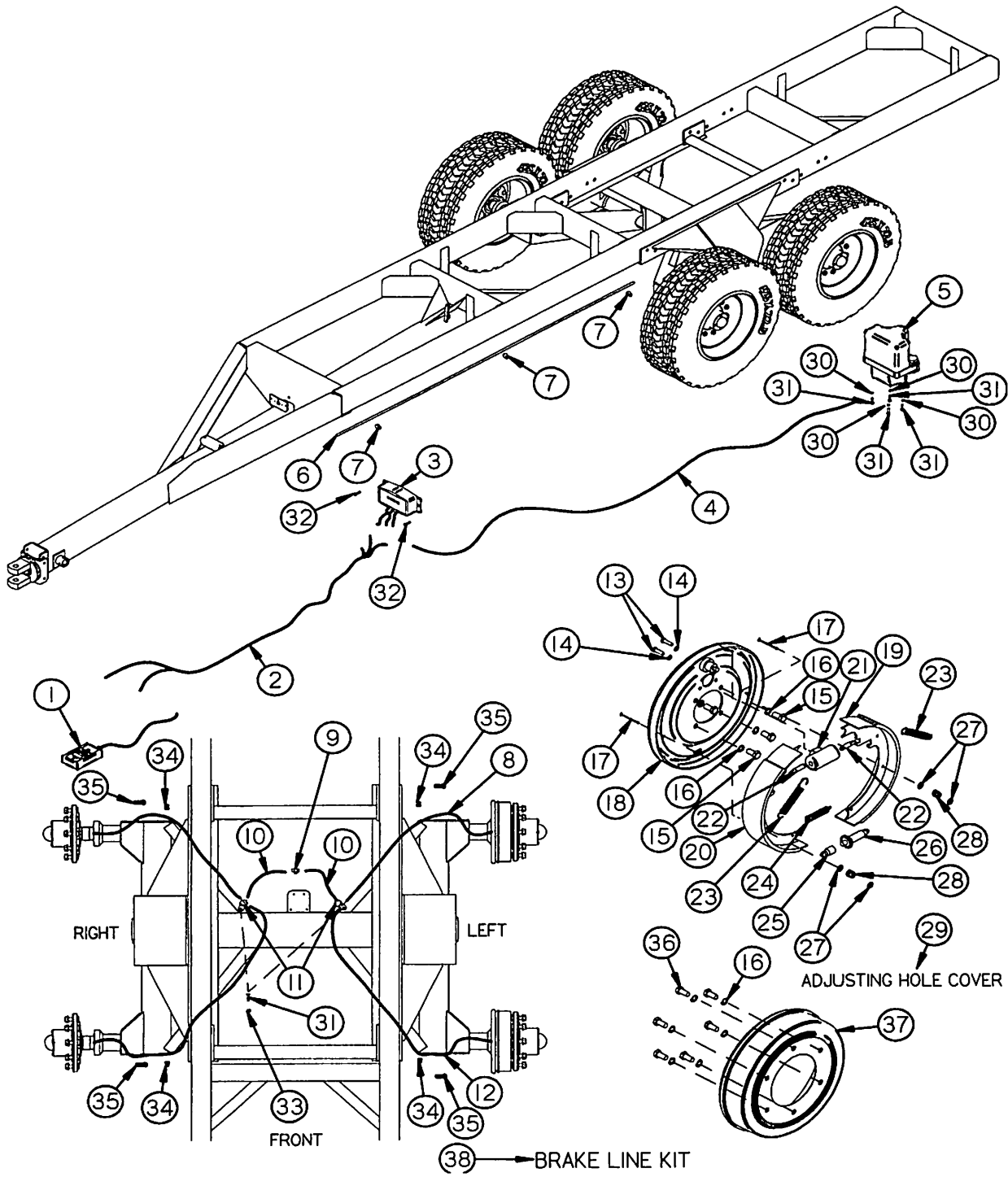


FIGURE 5

MODEL 24/26 BRAKES



450-549-5377

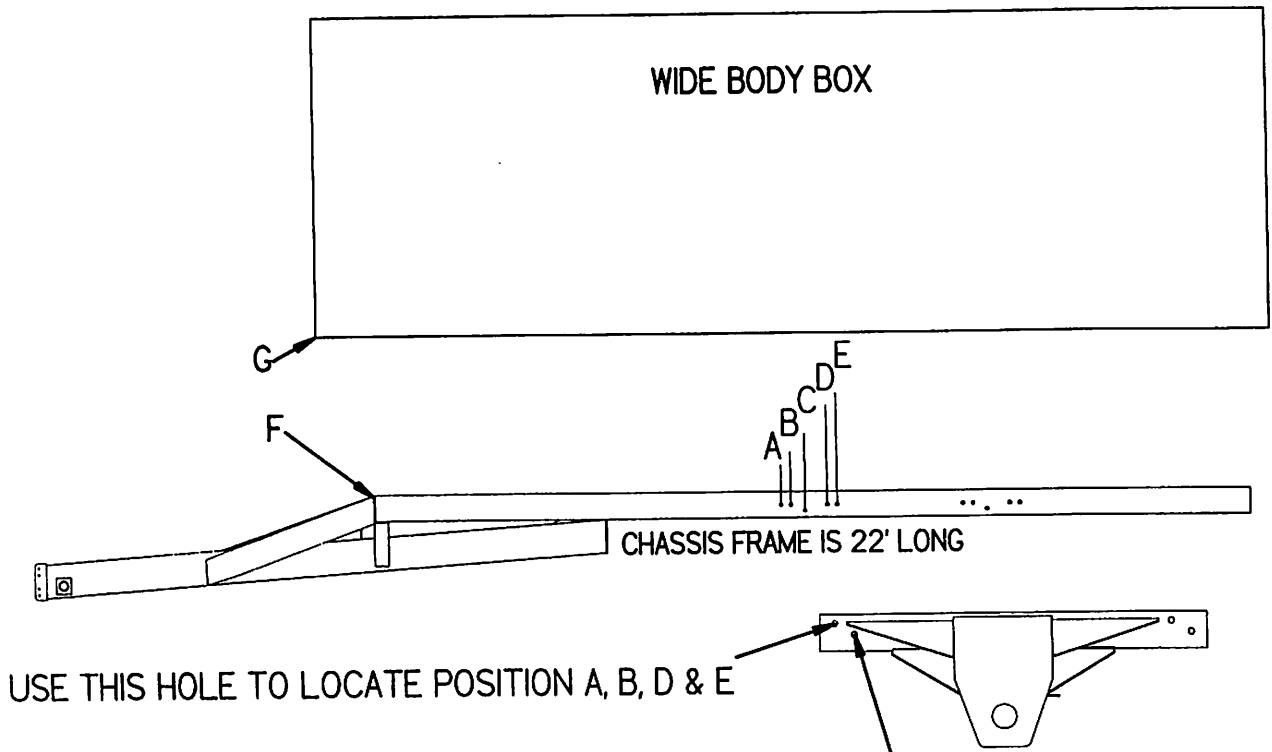
FIGURE 5

MODEL 24/26 BRAKES

<u>ITEM</u>	<u>PART #</u>	<u>DESCRIPTION</u>
1	FBC38	Brake Control
2	FBC30	Electric Brake Harness
3	FBC39	Brake Control Module
4	FBC40	Pump/Master Cylinder Harness
5	FBC41	Pump/Master Cylinder
6	FBC42	Wire Shield
7	FBC43	Wire Clamp #12
8	FBC44	Hydraulic Brake Line (51" Left Rear)
*	FBC62	Hydraulic Brake Line (51" Right Rear)
9	FBC45	Branch Tee
10	FBC46	Hydraulic Brake Hose
11	RGB26	Brake Line Tee
12	FBC47	Hydraulic Brake Line (60" Left Front)
*	FBC63	Hydraulic Brake Line (60" Right Front)
13	YBHH10132	5/16"-18 x 5/8" Bolt GR.5
14	YWSI10005	5/16" Star Lock Washer
15	YBHH16010	1/2"-13 x 1" Bolt GR.5
16	YWLO16005	1/2" Lock Washer
17	RGB56	Shoe Hold Down Pin
18	FBC48	Back Plate Assembly (Left)
*	FBC49	Back Plate Assembly (Right)
19	FBC50	Rear Brake Shoe Assembly
20	FBC51	Front Brake Shoe Assembly
21	FBC52	Wheel Cylinder Assembly (Left)
*	FBC53	Wheel Cylinder Assembly (Right)
22	FBC54	Push Rod
23	RGB76	Spring Shoe
24	RGB50	Spring Adjusting Screw
25	RGB61	Socket
26	RGB49	Adjusting Screw Assembly
27	RGB57	Shoe Hold Down Cup
28	RGB59	Hold Down Spring
29	FBC55	Adjusting Hole Cover
30	YWLO08005	1/4" Lock Washer
31	YBHH08010	1/4" x 1" Bolt GR.5
32	YBST68005	#14 x 1" Self Drilling & Tapping Bolt
33	YNNY08005	1/4" Lock Nut
34	FBC64	Brake Line Cup
35	YSDR64005	#10-16 x 5/8" Hex Washer Head Self Drilling Screw
36	YBHH16011	1/2"-20 x 1" Bolt GR.5
37	RGB10	Brake Drum
*	FBC61	Complete Brake
38	FBC65	Brake Line Kit (Includes: FBC44, FBC62, FBC45 (2) FBC46, (2) FBC26 FBC47, FBC63, (4) FBC64
*	GM503	1/8" 90° PIPE ZERK
*	G89	1/4"-28 STRAIGHT-STANDARD GREASE ZERK #1641
*	RG51	1/4"-28 90° GREASE ZERK #1911
*	YSST10010	5/16" X 1-1/4" SELF-TAPPING BOLT
*	S522	MANUAL HOLDER

NOTE: * (MEANS NOT SHOWN)

FIGURE 6
MODEL 24/26 BOX & AXLE LOCATION



USE THIS HOLE TO LOCATE POSITION A, B, D & E

USE THIS HOLE TO LOCATE POSITION C

BOX MOUNTING:

ALL FRONT & REAR BOXES MOUNT WITH 2-1/2" OF BOX FRAME OVERHANGING FRONT OF CHASSIS FRAME.

WIDE BODY FRAMES:

22' FRAMES ARE EQUAL LENGTH (F & G)

24' BOX FRONT OF FRAMES ARE EQUAL, (F & G) AND OVERHANGS REAR OF CHASSIS FRAME BY 2 FEET.

26' BOX OVERHANGS FRONT (F & G) & REAR OF CHASSIS FRAME BY 2 FEET

- A 26' WIDE BODY
- B 24' FRONT & REAR
- C 22' WIDE BODY
- D 24' WIDE BODY
- E 26' FRONT & REAR