

H&S

TWIN MERGER



WARNING

READ AND UNDERSTAND THIS MANUAL
BEFORE OPERATING THIS EQUIPMENT

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

OPERATOR'S MANUAL AND PARTS LIST

HSMFG20208

Manufactured By
H&S MANUFACTURING CO.,INC.

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

H & S TWIN MERGER PARTS AND OPERATOR'S MANUAL

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WARRANTY

Mr. Owner: Before Operating-Read and Understand Operating and Safety Instructions.

H&S Manufacturing Co., Inc. truly believes you have made a wise choice and a sound and lasting investment. Many years of development have made available these quality machines to assure you the performance and reliability you need. **We ask you to read the following agreement as this unit is subject to this warranty and agreement and no other.**

H&S MANUFACTURING CO., INC. 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 120 days from the date of delivery of the product to the original purchaser by and authorized H&S dealer. Under this warranty H&S will repair or replace, at it's 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.

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 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 quality or performance or freedom from defect of its products other than these 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 representations or promise on behalf of H&S, or to modify the terms or limitations of this warranty in any way.

TM3/04

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

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



Remove Dealers File Copy At Perforation

AFTER COMPLETION, DEALER SHOULD REMOVE AND RETAIN FOR RECORDS

**H&S
DEALER PRE-DELIVERY CHECK LIST**

After the Windrow Merger 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.

- ' All shields and guards are in place and fastened
- ' All grease fittings have been lubricated - (See lubrication guide in this manual).
- ' All mechanisms are operating trouble free.
- ' Belts and drive chains properly adjusted.
- ' All bolts and fasteners are tight.
- ' All decals are in place and legible.
- ' All hydraulic hoses & fittings securely tightened.

_____	_____
(Dealer's Name)	Model Number

	Serial Number
_____	_____
(Signature of Pre-Delivery Inspector)	(Inspection Date)

DEALER DELIVERY CHECK LIST

This check list that follows is an important reminder of valuable information that should be passed on to the customer at the time this Windrow Merger 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 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 Owner's Manual and make sure they read and understand all operating and service instructions.
- ' Record Serial Number on page 21 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.



**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.

TRACTORS

This operator's manual uses the term "Tractor" when identifying the power source.

H & S MANUFACTURING CO. INC.

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.

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

! DANGER



5896B

**ROTATING DRIVELINE
CONTACT CAN CAUSE DEATH**

! WARNING



DO NOT GO NEAR LEAKS

- High pressure oil easily punctures skin causing serious injury, gangrene or death.
- If injured, seek emergency medical help. Immediate surgery is required to remove oil.
- Do not use finger or skin to check for leaks.
- Lower load or relieve hydraulic pressure before loosening fittings.

11599

! WARNING

HELP AVOID INJURY

- READ & UNDERSTAND THE OPERATORS MANUAL PROVIDED WITH THIS MACHINE. IF MISPLACED CALL H & S MANUFACTURING AT 715-387-3414 WITH MODEL AND SERIAL NUMBER.
- UNDERSTAND ALL SAFETY WARNINGS AND FUNCTION OF CONTROLS.
- KEEP SAFETY DEVICES IN PLACE AND WORKING.
- KEEP YOURSELF AND OTHERS WELL CLEAR OF MOVING PARTS.
- DISCONNECT ALL POWER BEFORE SERVICING OR CLEANING THIS MACHINE.
- DO NOT EXCEED 20 MPH

72203A

! WARNING



DO NOT REMOVE SHIELDS

MOVING PARTS INSIDE

1494K

! DANGER



STAY CLEAR OF MERGER WHEN OPENING OR CLOSING.

FAILURE TO HEED THIS WARNING MAY RESULT IN PERSONAL INJURY OR DEATH

KEEP CLOTHING, YOURSELF AND OTHERS WELL CLEAR.

31401

! 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.

82602

! DANGER




STAY CLEAR OF MOVING PARTS

FAILURE TO HEED THIS WARNING MAY RESULT IN PERSONAL INJURY OR DEATH

KEEP CLOTHING, YOURSELF AND OTHERS WELL CLEAR.

3398A

! DANGER



STAY CLEAR OF MOVING PARTS

FAILURE TO HEED THIS WARNING MAY RESULT IN PERSONAL INJURY OR DEATH

KEEP CLOTHING, YOURSELF AND OTHERS WELL CLEAR.

2204

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.

KNOW HOW TO STOP MACHINE BEFORE STARTING IT.

If the machine becomes clogged or requires servicing, disengage the tractor hydraulics. Stop the tractor engine, remove ignition key and allow all mechanisms to stop before cleaning or working on the machine.

DO NOT attempt to perform maintenance or repair with tractor running, or tractor or merger hydraulics engaged.

DO NOT step up on machine at any time.

NEVER manually feed material into the pickup.

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

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

STAY CLEAR of machine when raising or lowering pickups or positioning pole, also when changing pickup widths with hydraulics.

Keep hands and feet, and clothing away from pickup and conveyor belts WHEN THEY ARE IN MOTION.

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

Be sure the machine is clear of people, tools, and other objects before engaging tractor hydraulics or tractor PTO.

NEVER start Windrow Merger until all guards and safety shields are secured in place.

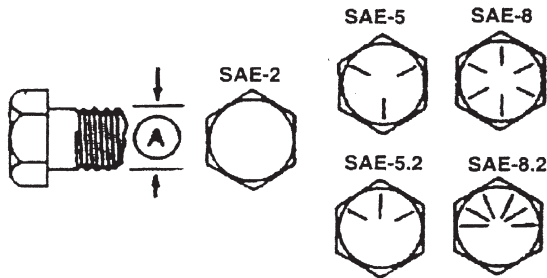
STAY CLEAR of hydraulic lines. They may be under extreme pressure or heat.

H&S Mfg. Co. always takes the operator and their 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.

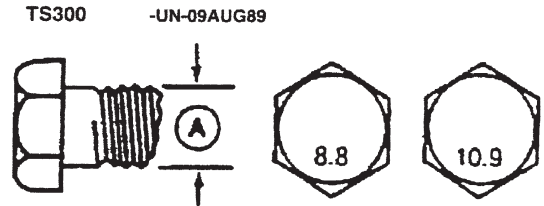
Study The Above Safety Rules

ATTENTION - BE ALERT - YOUR SAFETY IS INVOLVED

CAP SCREW TORQUE VALUES



Inch Cap Screw Head Markings



Metric Cap Screw Head Markings

INCH CAP SCREW TORQUE VALUES

Bolt Diameter (A)	Wrench Size	Cap Screw Grade					
		SAE 2		SAE 5		SAE 8	
		N-m	lb.-ft	N-m	lb.-ft	N-m	lb.-ft
1/4"	7/16"	7	(5)	11	(8)	16	(12)
5/16"	1/2"	14	(10)	23	(17)	33	(24)
3/8"	9/16"	24	(18)	41	(30)	54	(40)
7/16"	5/8"	41	(30)	68	(50)	95	(70)
1/2"	3/4"	61	(45)	102	(75)	142	(105)
9/16"	13/16"	88	(65)	142	(105)	203	(150)
5/8"	15/16"	122	(90)	197	(145)	278	(205)
3/4"	1-1/8"	217	(160)	353	(260)	495	(365)
7/8"	1-5/16"	224	(165)	563	(415)	800	(590)
1"	1-1/2"	332	(245)	848	(625)	1193	(880)
1-1/4"	1-7/8"	665	(490)	1492	(1100)	2393	(1765)

METRIC CAP SCREW TORQUE VALUES

Bolt Diameter (A)	Wrench Size	Markings on Cap Screw Heads			
		8.8		10.9	
		N-m	lb.-ft	N-m	lb.-ft
5 mm	8 mm	6	(4.5)	9	(6.5)
6 mm	10 mm	10	(7.5)	15	(11)
8 mm	13 mm	25	(18)	35	(26)
10 mm	16 mm	50	(37)	75	(55)
12 mm	18 mm	85	(63)	130	(97)
16 mm	24 mm	215	(159)	315	(232)
20 mm	30 mm	435	(321)	620	(457)
24 mm	36 mm	750	(553)	1070	(789)
30 mm	46 mm	1495	(1103)	2130	(1571)



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

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.

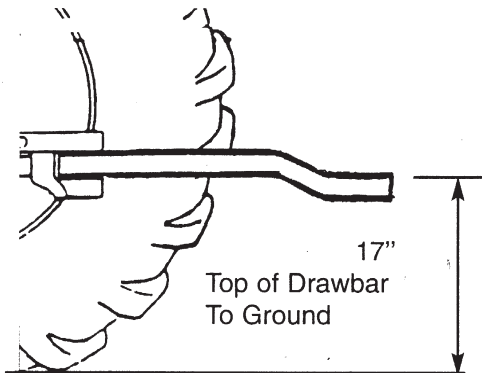
Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade. Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

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

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.

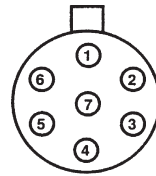
TRACTOR SET UP

There are a few things that can be done with the tractor set up to ensure the smooth efficient operation of the Twin merger. The drawbar should be set up at least 17 inches off the ground. This may require the drawbar to be "flipped". This gives more clearance between the pole and left head wind guard for opening and closing. Also the drawbar should be extended in the farthest position to allow for easier turning. The three point arms should be taken off the tractor to keep them from hitting the hydraulic shut-off valve located at the front of the pole. The tractor must be equipped with a 1000 RPM 1-3/8" 21 spline PTO shaft. The tractor should have a seven pin electric plug.



MAIN TRACTOR PLUG

- | | |
|----|-------------------------|
| 1. | Black (Ground) |
| 2. | Red (Work Lights) |
| 3. | Yellow (Left Turn) |
| 4. | Purple (+12V to C. Box) |
| 5. | Green (Right Turn) |
| 6. | Brown (Tail Lights) |
| 7. | Blue (+12V to Fan) |

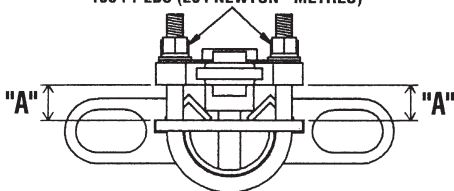


Tractor wiring may differ. Check your tractor manufacturers' electrical diagram to match to Twin Merger Electronics.

PRE-OPERATION

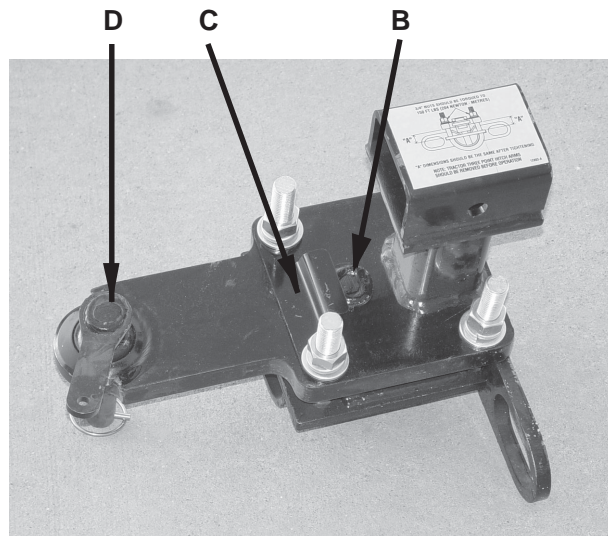
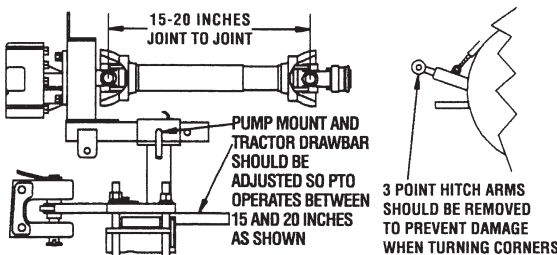
1. While in the transport position, check entire unit carefully before first operation. Tighten bolts, set screws, and chains that might have come loose in handling. Lubricate as explained in the lubrication guide.
2. Install drawbar extension on drawbar. Install hitch pin (B) and rotate pin lock (C) over hitch pin. Tighten 3/4" nuts to 150 ft. lbs. (204N-m). Nuts will secure pin lock and hold extension tight to the drawbar. Dimension "A" should be the same on each side as shown.
3. Attach Merger to tractor using 1" hitch pin (D) provided and install safety-locking device.

3/4" NUTS SHOULD BE TORQUED TO
150 FT LBS (204 NEWTON - METRES)



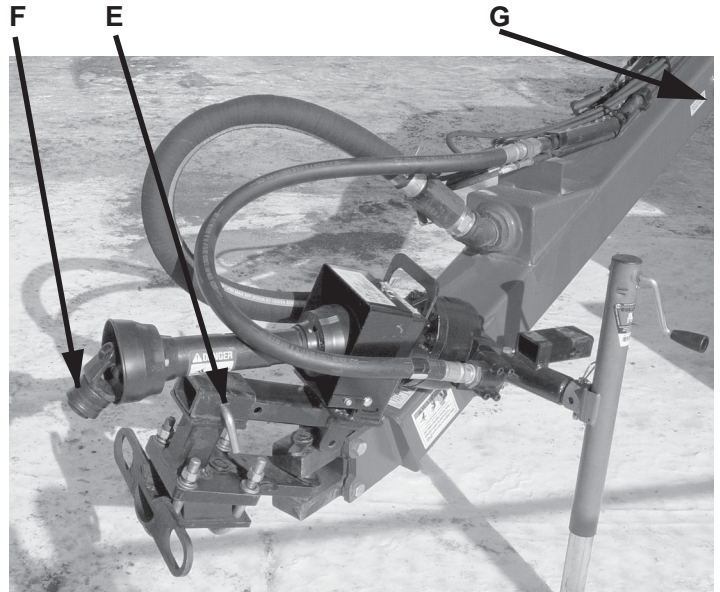
"A" DIMENSIONS SHOULD BE THE SAME AFTER TIGHTENING

NOTE: TRACTOR THREE POINT HITCH ARMS
SHOULD BE REMOVED BEFORE OPERATION



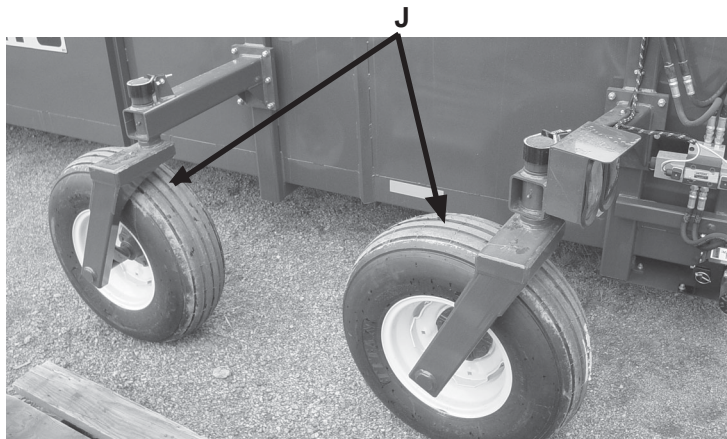
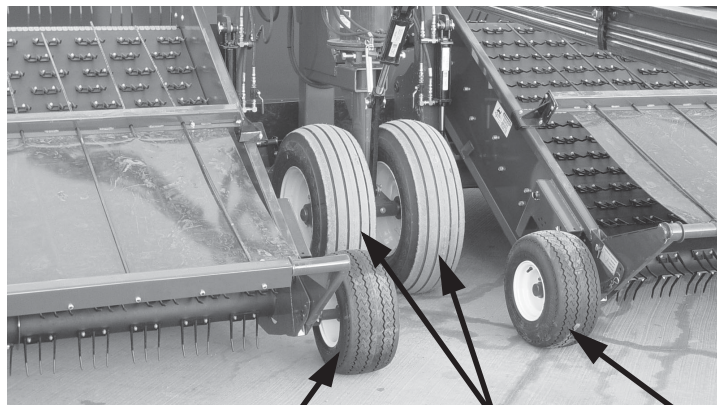
PRE-OPERATION *(Continued)*

- Slide pump on receiver and secure with pin (E) provided and install safety-locking device.
- Slide spring loaded locking collar (F) on PTO yoke rearward, and slide yoke onto the tractor PTO shaft. Release spring loaded collar. Be sure the pins fall into the groove of the tractor PTO shaft and collar snaps forward into position. **CAUTION:** Do not use steel hammer to aid in joining PTO parts.
- Remove weight from lift jack and place in storage position (G).
- Connect four hydraulic hoses to the tractor (9' pickups). Two hoses open and close the machine and the other two supply oil to the electric/hydraulic solenoid valve for pickup heads.
- Connect six hydraulic hoses to the tractor (12' pickups). Two hoses open and close the machine, two hoses raise and lower the left hand head and two hoses raise and lower the right hand head.



PRE-OPERATION *(Continued)*

9. Plug the joy stick control box cord into the main wiring harness on pole (9' head). Attach control box to a convenient place on the tractor. The tractor hydraulic circuit must now be locked in the open position to provide oil flow to the electric valve on merger. Operation of joysticks will now control raising/lowering and sliding of pickup heads. * Connect plug for cross conveyor reversing / shut-off valves.
10. Run pickup and conveyor for several minutes to ensure proper assembly and lubrication. Successful operation will be achieved by periodic adjustments and experience of the operator. Make sure to read and understand the adjustments.
11. Check tires and inflate to recommended pressure. The front two tires (H) should be inflated to 90 PSI, the gauge wheel tires (I) should be inflated to 50 PSI. The rear tires (J) should be inflated to 36 PSI.



HYDRAULICS

The tractor hydraulic system should have a minimum flow of 5 GPM and a minimum pressure of 2000 PSI. This system is used to operate the pole cylinders and the cylinders controlling pickup heads. The PTO driven self-contained hydraulic system on the Merger provides oil to the hydraulic motors operating the pickup belts and cross conveyor belts. The Merger pole is the hydraulic reservoir. In case of a blown suction hose, shut off tractor PTO and turn off valve located at the front of the pole. The fans for the oil cooler radiators are located on the merger pole must be turning properly to keep oil cool during merger operation. The oil filter should be replaced once a year and the oil should be replaced every other year or when the oil becomes discolored.

OPEN/CLOSED CENTER SYSTEM VALVE CONVERSION (9' HEAD)

The valve is supplied in a closed center configuration suitable for use in circuits utilizing pressure compensated pumps. For use in gear pumps (open center) circuits, a conversion is required. The valve outlet section has a "T" port, as shown in Fig. 1 with the tank return line plumbed into it. This internal plug must be removed for open center operation. The tank return line may then be plumbed into the port. Be sure to save the hex plug for possible future use.

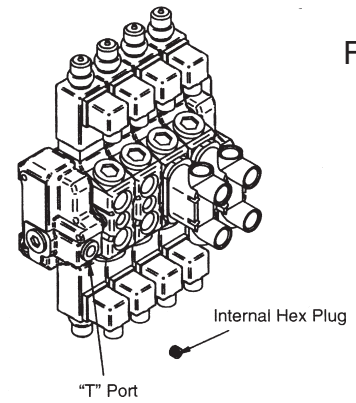


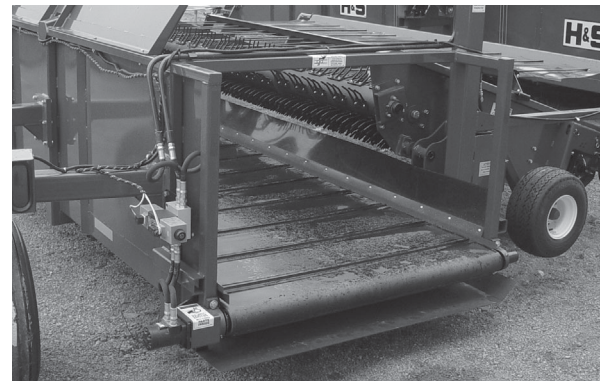
Fig. 1



OPERATION

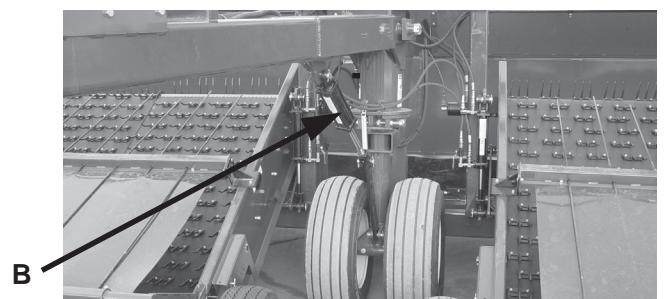
CROSS CONVEYOR

The Twin Merger can be set up to merge hay to the right, left, or right and left. This can be done by moving the toggle switches on the control box. These switches can not be moved from one direction to the other in one continuous motion. They are designed to stop in the center position. Momentarily relieving pressure on the switch will allow it to then be moved in the other direction. Bringing both switches to the center position will stop both cross conveyors. The pick up heads will still be operating. When both cross conveyors are stopped, this allows the operator to pick up small amounts of hay and store it in the cross conveyor. The operator can then go back to a windrow and select the direction of travel and resume merging. The pickup head and cross conveyor speed should be controlled by adjusting the tractor throttle. By controlling the speed this way, the hydraulics will run at a cooler temperature. Opening and closing should be done on level ground and not while moving.



LOAD LEVELER

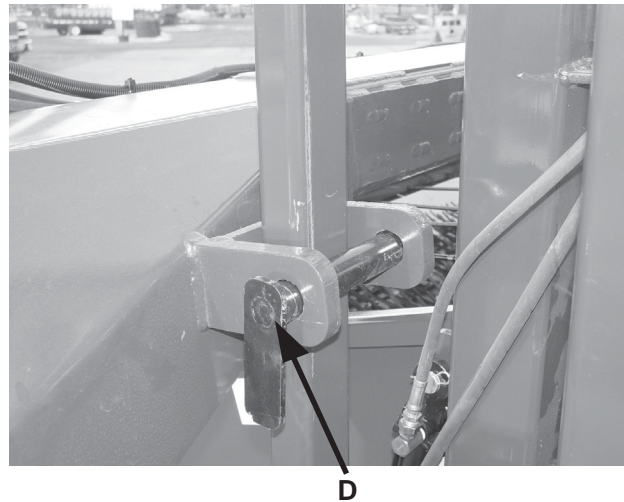
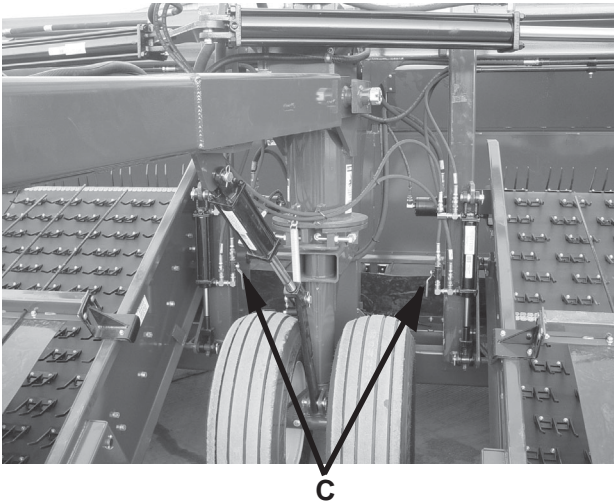
After engaging the PTO, the Load Leveler (B) automatically transfers a portion of the machine weight to the rear carry wheels, and to the tractor drawbar.



OPERATION *(Continued)*

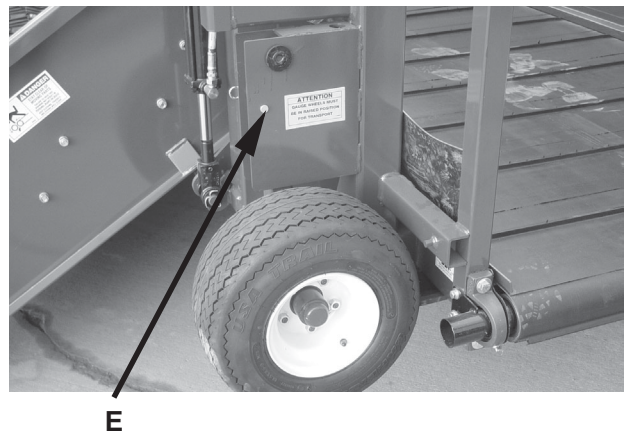
TRANSPORT LOCKS

There are three transport locks on the merger. All locks should be used when transporting the unit, and must be in the open or storage position when operating the merger. The transport locks (ball valves) (C) for the heads are located at the cylinders that are used to raise and lower the heads. These cylinders are located to the “inside” of the heads. The pole transport lock is located near the bend in the pole (D). **Transport speed should not exceed 20 M.P.H.**



FRAME GAUGE WHEELS

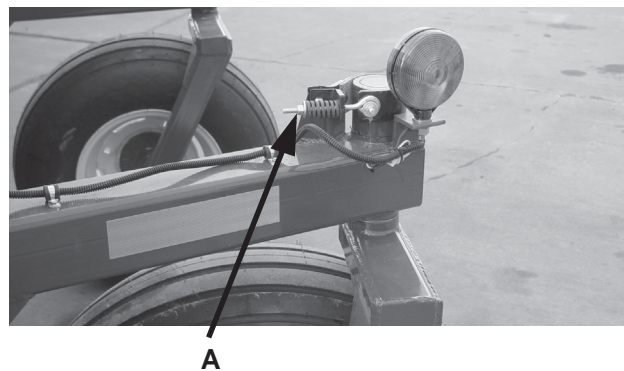
There are two frame gauge wheels used on each Twin Merger. Their sole purpose is to keep the frame from contacting the ground in uneven terrain. The picture to the right shows the frame gauge wheels in the working position. The gauge wheels **must be raised** to transport merger. Failure to do so may cause damage to the frame gauge wheel assembly. To raise gauge wheels remove pin (E) raise wheel and insert pin back into the same hole.



ADJUSTMENTS

TAIL WHEEL

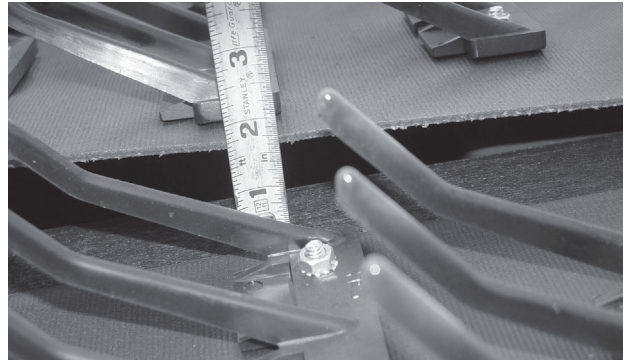
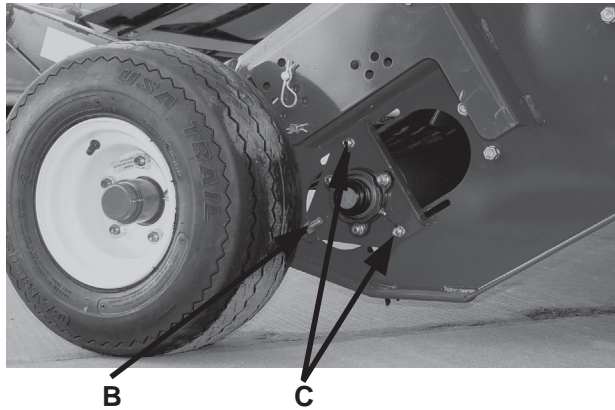
The tail wheels are located at the rear of the merger. Located on each tail wheel pivot spindle is an adjustable brake assembly. Adjust the brakes by tightening bolt (A). The brakes should have enough tension to prevent zig-zag motion, but still allow the wheel to pivot when making corners. Improper adjustment will cause severe tire wear and damage to merger.



ADJUSTMENTS *(Continued)*

PICKUP ADJUSTMENT

Pickup belts may be adjusted by tightening the take up bolt (B) located on both ends of the pickup. The flange bearing bracket bolts (C) must be loosened before adjustment, and tightened after the desired belt tension is attained. Proper belt tension will be achieved when 1-1/2" of slack can be pulled in the center of the two outside belts with minimal resistance. **DO NOT** tighten pickup belts excessively. Over tightening may cause damage to belts or rollers. Loose belts will cause unnecessary tooth wear and breakage.

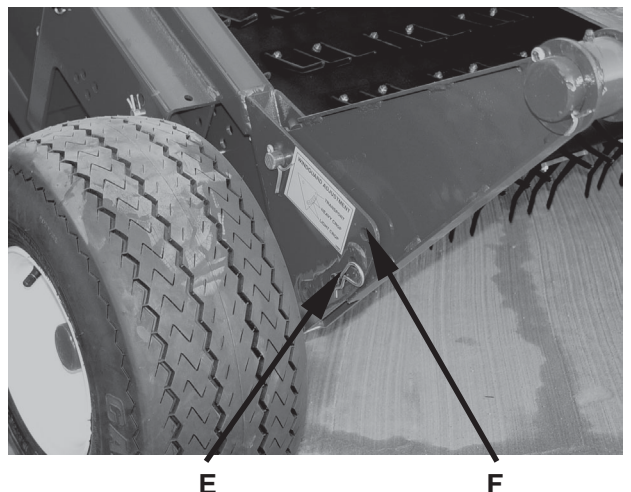


Pickup height may be adjusted by adjusting the gauge wheels located at both ends of the heads. Pull pins (D) and rotate gauge wheels until proper adjustment is achieved. Proper adjustment will allow teeth to run 1/2" above the ground. Excessive tooth wear and breakage will occur if teeth are touching the ground. Adjust both sides equally.



WIND DEFLECTOR ADJUSTMENT

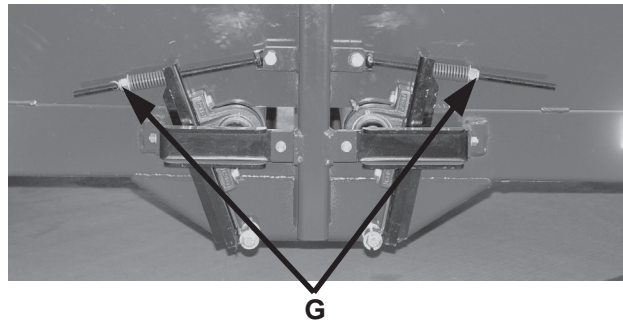
The wind deflector can be raised for heavy crop conditions, or lowered for lighter crops. The adjustment is made by repositioning the pins located on each end, in the front of each pickup head as shown (E). Overall transport width can be made considerable narrower, by removing pins (E) at each end of the pickup head. The entire wind deflector can be pivoted backward, toward the cross conveyor. To lock into transport position, reinsert pin (E) into hole (F) shown.



ADJUSTMENTS *(Continued)*

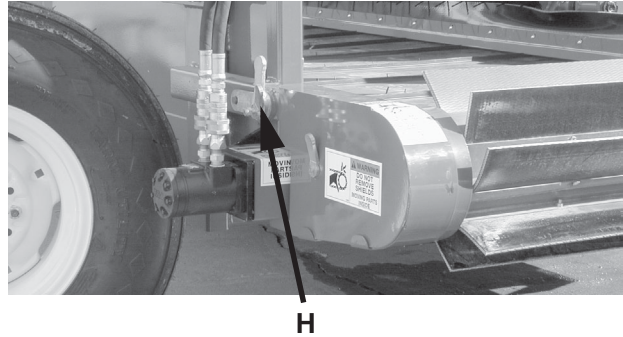
CONVEYOR ADJUSTMENTS

The cross conveyor belt tension can be adjusted by tightening the take up bolts (G) located on the two rollers located at the center of the machine. Proper tension may be achieved by compressing the springs to 3-1/4".



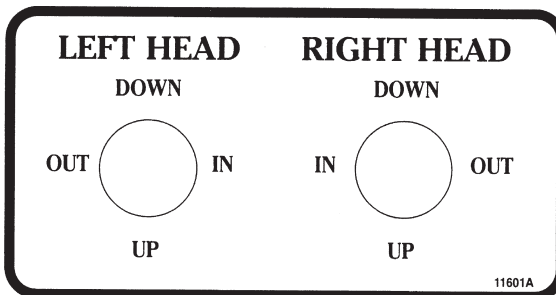
OPTIONAL ACCELERATOR ADJUSTMENTS

Adjust cam (H) evenly on both sides of the accelerator to tighten chain and square accelerator to frame. Improper adjustment will cause excessive chain wear.



WIRING DIAGRAM

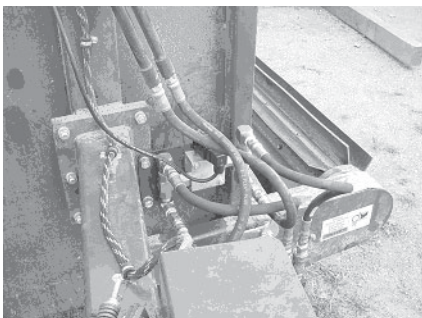
Joystick Plug (9' Head)



- | | |
|----|-----------------------------|
| 1. | Red-Blk. (Right Head Up) |
| 2. | Orange (Left Head In) |
| 3. | Green (Right Head In) |
| 4. | Purple (+12V) |
| 5. | Red (Right Head Down) |
| 6. | Blue (Left Head Down) |
| 7. | Orange-Blk. (Left Head Out) |
| 8. | Green-Blk. (Right Head Out) |
| 9. | Blk.-White (Left Head Up) |

OPTIONAL EQUIPMENT

The optional cross conveyor stop was designed to allow the operator to stop both cross conveyors and still have the pickup heads operate. This allows the operator to pick up small amounts of crop and store this crop on the cross conveyor to later discharge onto a windrow.



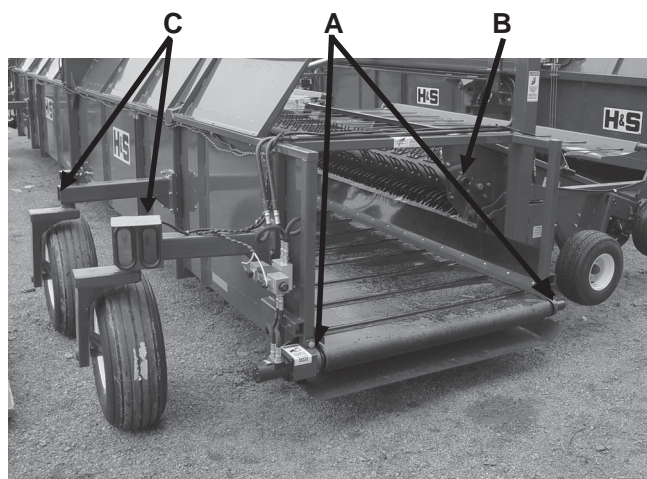
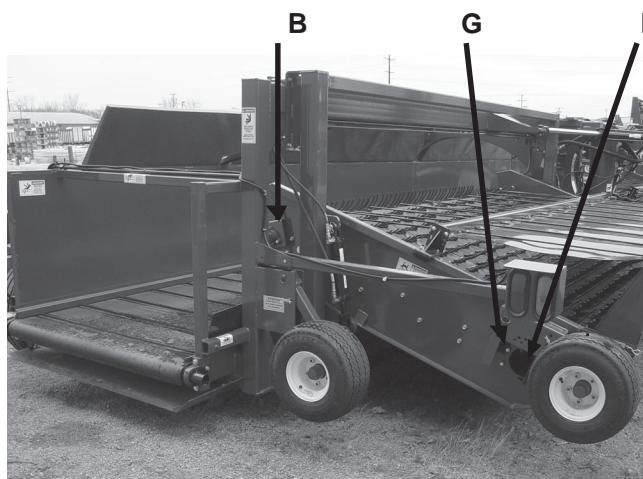
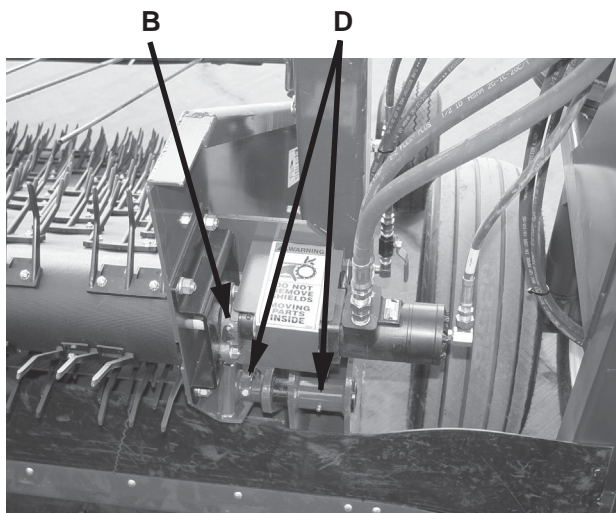
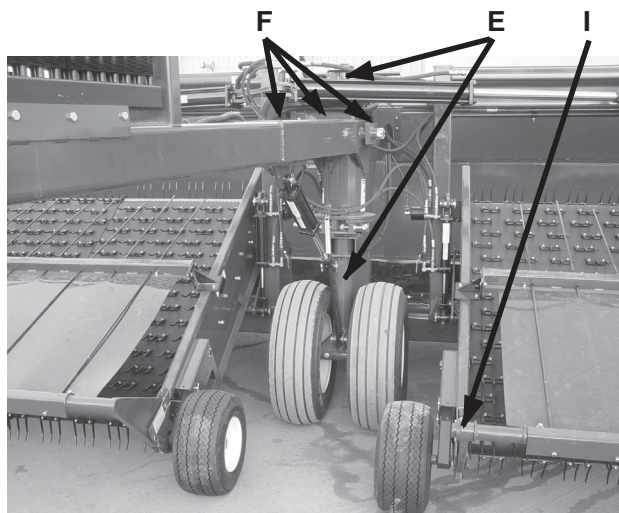
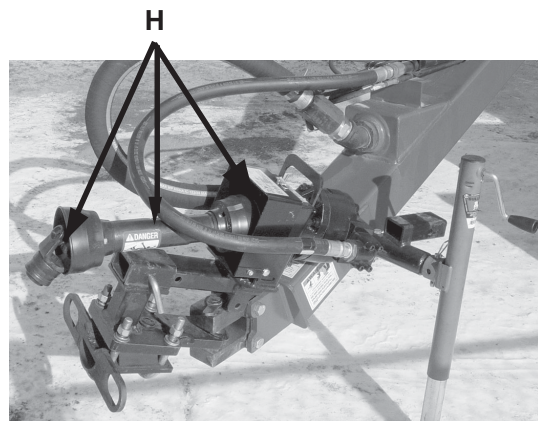
The optional accelerator is an attachment that is needed when merging windrow cuts larger than 16'. The accelerator gently moves the crop over the additional distance needed for the larger windrow cuts.



LUBRICATION

There are 42 grease fittings on your base merger. There are two zerks on the optional accelerator. If these are lubricated properly and often enough, it will prolong the life of the merger. Grease daily during normal use and **before and after storage and after power washing**. Use a good grade of high quality grease. Make sure grease comes out around the shaft on the sleeve type bearings. On the sealed ball bearings, grease should be added slowly until a slight bead forms at the seals indicating the correct amount of lubricant. Wipe off excess grease to prevent accumulation of grit around the bearings. During normal use, oil roller chains daily (Optional accelerator only).

- A. (8) Cross Conveyors - one on each pillow block bearing (2 each on ends, 4 in the center)
- B. (8) Pickup Heads - one on each end of each pickup idler roller (bottom) and one on each end of pickup drive roller (top).
- C. (4) One on each Tailwheel
- D. (8) Two on each side of each pickup head pivot.
- E. (2) Center Axle Mount.
- F. (3) Pole Pivot pin.
- G. (4) One on each pickup gauge wheel pivot.
- H. (3) One on each end of PTO shaft.
- I. (2) One on each wind deflector (Right End).



DECAL LOCATION

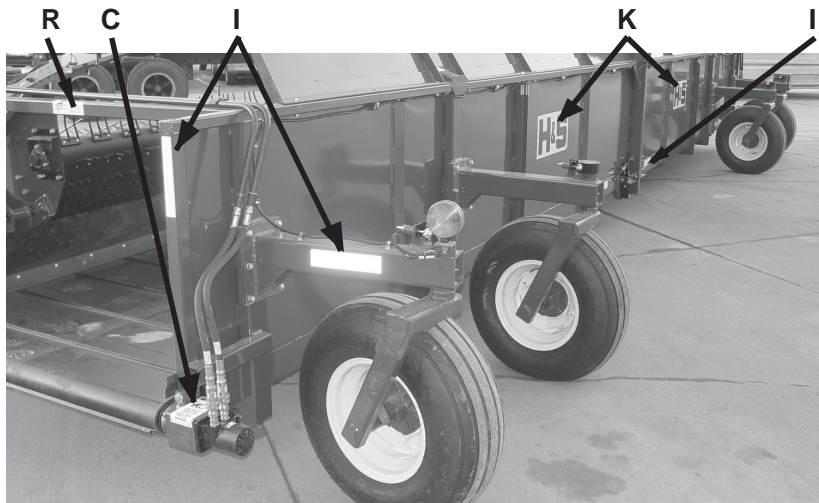
Your H&S Twin Windrow Merger was manufactured with operator safety in mind. Located on the windrow merger are various decals to aid in operation, and warn of danger or caution areas. Pay close attention to all the decals on your windrow merger.



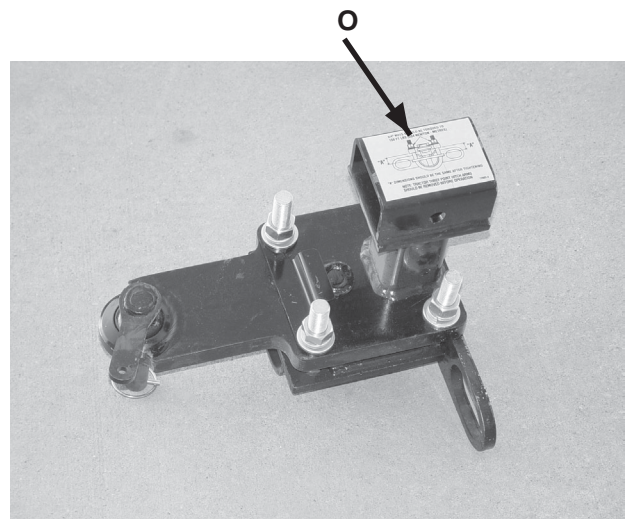
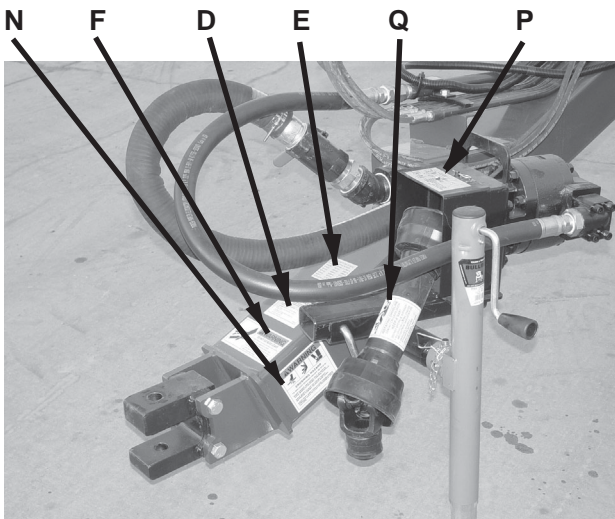
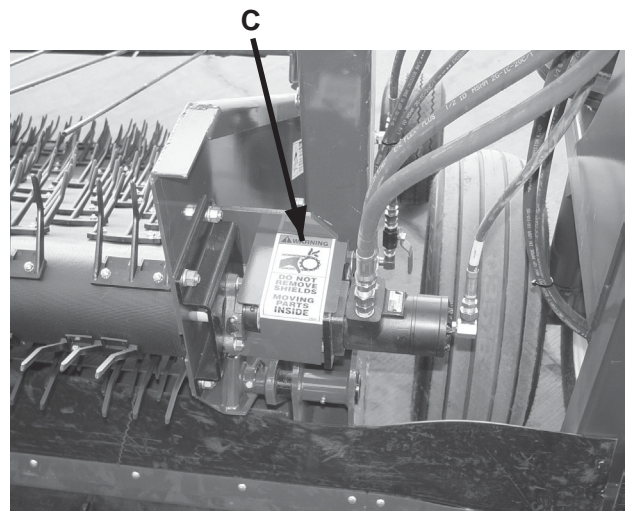
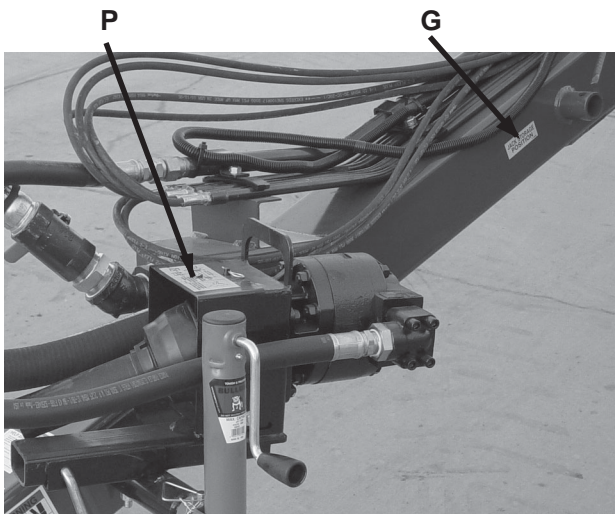
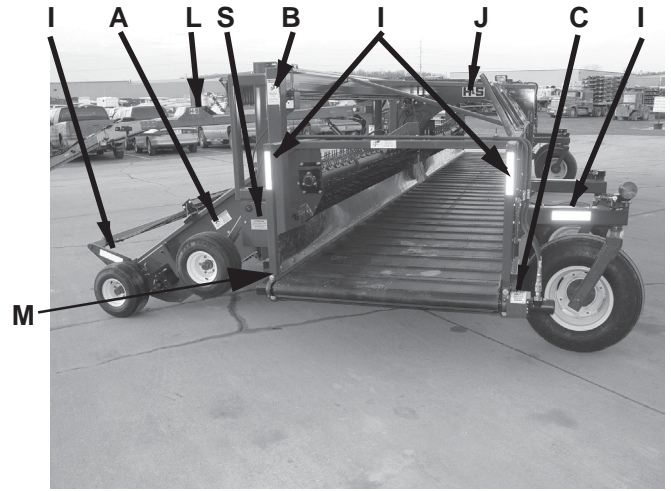
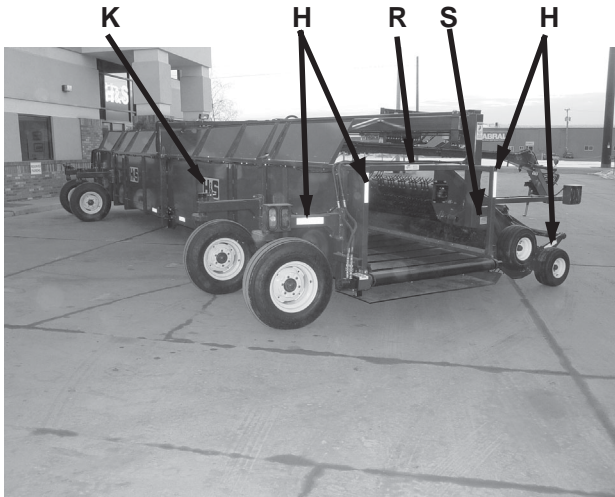
DO NOT REMOVE ANY OF THESE DECALS. IF DECALS ARE LOST, DAMAGED, OR IF WINDROW MERGER IS REPAINTED, REPLACE DECALS. REMEMBER: DECALS ARE FOR YOUR PROTECTION AND SAFETY.

Listed below are the decals on your Twin Merger. These decals may be ordered individually by part number or by ordering a complete set.

ITEM	PART NO.	DESCRIPTION
A.	3398A	(4) Danger - Stay Clear of Moving Parts
B.	31401	(3) Danger - Stay Clear of Merger
C.	1494K	(4) Warning - Do Not Remove Shields
D.	72203A	Warning - Help Avoid Injury
E.	H&S	Patent Numbers
F.	11599	(2) Warning - Do Not Go Near Leaks
G.	711888	Jack Storage Position
H.		(4) 2" x 9" Red Reflector
I.		(10) 2" x 9" Amber Reflector
J.	B12	(2) H&S Decal
K.	B22	(2) H&S Decal
L.	B8	(2) H&S Decal
M.	5896B	(2) Danger - Rotating Driveline
N.	82602	Warning - Crushing Hazard
O.	12803A	Hitch Mounting Instructions
P.	12803B	PTO & Hydraulic Pump Mounting Instructions
Q.	Weasler	Rotating Driveline (H&S Decal 1494L)
R.	2204	(4) Danger - Stay Clear of Moving Parts
S.	11591	Attention: Raise Gauge Wheels
	12306TM	Complete Set of Decals
Paint - H&S Red		
	ZX21	Gallon
	ZX22	Quart
	ZX23	Pint
	ZX79	Spray Can



DECAL LOCATION (Continued)



TROUBLE SHOOTING



WARNING

MAKE SURE THAT THE TRACTOR IS SHUT OFF AND THE MERGER CAN NOT MOVE BEFORE SERVICING THE TWIN WINDROW MERGER. MAINTENANCE AND REPAIR SERVICE WORK TO BE PERFORMED BY A QUALIFIED SERVICE PERSON ONLY.

<u>TROUBLE...</u>	<u>POSSIBLE CAUSE...</u>	<u>POSSIBLE REMEDY...</u>
Merger Will Not Swing Into Field or Transport Position	Transport Lock Pin Still Engaged	Remove Transport Lock Pin (See Page #14)
	Hydraulic Hoses Not Connected To Tractor Remotes	Connect Hoses To Tractor Remote Outlets
	Hydraulic Hoses Mixed Up With Pickup Lift Hoses	Sort Hydraulic Hoses Correctly And Re-Couple To Tractor Remote Outlets
Merger Pickup Heads Will Not Raise Or Lower	Hydraulic Hoses Not Connected To Tractor Remotes Outlets	Connect Hoses To Tractor Remote Outlets
	Hydraulic Hoses Mixed Up With Merger Swing Cylinder Circuit	Sort Hydraulic Hoses Correctly And Re-Couple To Tractor Remote Outlets
	Pickup Transport Locks Still Engaged	Rotate Transport Lock Valves (See Page #14)
	No Power To Control Box (9' Pickups)	Check Tractor 7-Pin Connector For Power (See Drawing and Description Page #10)
	Control Box Not Plugged Into Merger Main Harness (9' Pickups)	Plug Control Box Wiring Harness Into Main Harness
Merger Pick Or Cross Conveyor Will Not Run	PTO Shaft Not Connected To Tractor	Connect PTO Shaft To Tractor
	PTO Not Turning	Engage Tractor PTO
	Suction Ball Valve Turned Off	Turn Ball Valve At The Front Of The Merger Tongue
	System Relief Valve Sticking	Contact Your Dealer For Proper Testing
Cross Conveyor Will Not Run	Switches On Control Box In Neutral Position	Move Toggle Switch To Right or Left
	Control Box Not Properly Connected To Tractor Or Wire Harness	Properly Connect Control Box Plugs

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 front, right main frame near pole pivot of your unit.
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.

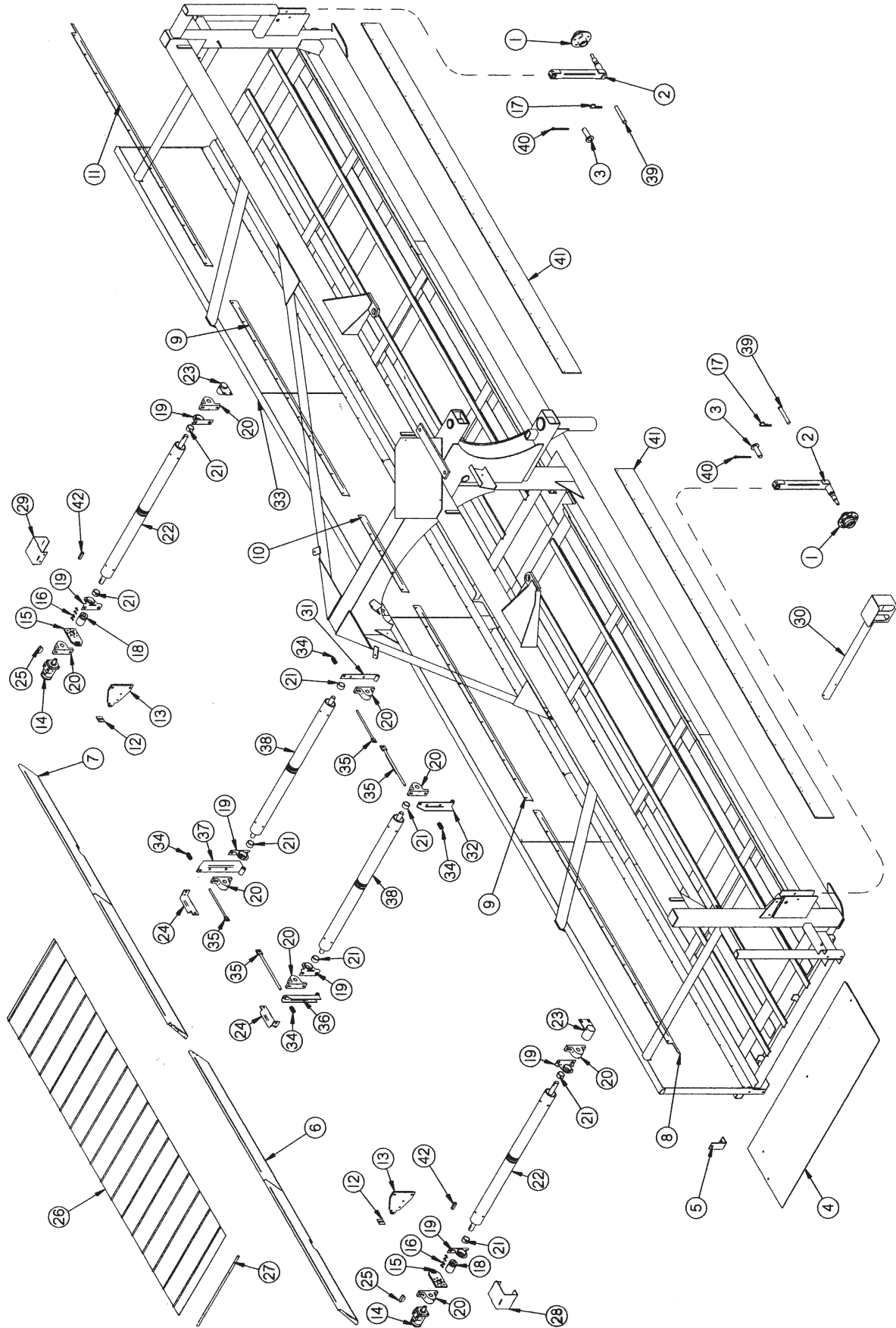


FIGURE 1
H&S 9' & 12' TWIN MERGER
MAIN FRAME

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	SHM17	Frame Gauge Wheel Hub	16.	DWM137	Cap Screw - Coupler
*	CAT5	Seal	17.	ES7	Hair Pin
*	CAT6	Inner Bearing	18.	DWM27	Coupler
*	CAT7	Inner Race	19.	DWM36	Anti-Wrap Guard
*	CAT128A	Stud Bolt	20.	DWM132	Bearing (Pillow Block)
*	CAT14	Stud Nut	21.	DWM57	Spacers
*	CAT9	Outer Race	22.	DWM14	Drive Roller
*	CAT10	Outer Bearing	23.	DWM31	Shaft Shield
*	BFR63	Washer	24.	DWM379	Bearing Bracket
*	T35	Slotted Nut	25.	5B10	1/4" x 1" Woodruff Key
*	CAT13	Hub Cap	26.	DWM160	Cross Conveyor Belt
*	CAT166	18.5 x 8.50 x 8 Tire	*	DWM318	Repair Dutchman
*	CAT211	8 x 7 (5 Bolt) Wheel	27.	DWM161	Cross Conveyor Lacing Pin
*	BFR65	Cotter Key	*	DWM162	Cross Conveyor Lacing
2.	DWM411	Frame Gauge Wheel Arm	28.	DWM42	Right Motor Shield
3.	DWM409	Frame Gauge Wheel Arm Pin	29.	DWM41	Left Motor Shield
4.	DWM408	Hay Deflector	30.	DWM341	Right Rear Light Bracket
5.	DWM410	Hay Deflector Bracket	31.	DWM23	Front Left Tightener
6.	DWM387	RH Wind Guard	32.	DWM24	Front Right Tightener
7.	DWM386	LH Wind Guard	33.	DWM22	Frame
8.	DWM335	Skirt RH	34.	DWM232	Spring (Blue)
9.	DWM46	Short Skirt	35.	DWM231	Tightener
10.	DWM47	Middle Skirt	36.	DWM377	RH Tightener Arm
11.	DWM334	Skirt LH	37.	DWM378	LH Tightener Arm
12.	DWM45	Motor Spacer	38.	DWM13	Conveyor Roller
13.	DWM51	Male Torque Arm	39.	DWM430	1/2" x 3-1/2" Clevis Pin
14.	DF1	Hydraulic Motor (101-2970)	40.	R70	3/16" x 2" Cotter Pin
*	WM225	Seal Kit	41.	DWM350	Poly Skirt
15.	DWM39	Torque Arm	42.	G23	5/16" x 1-3/8" Key

NOTE: * (MEANS NOT SHOWN)

FIGURE 2

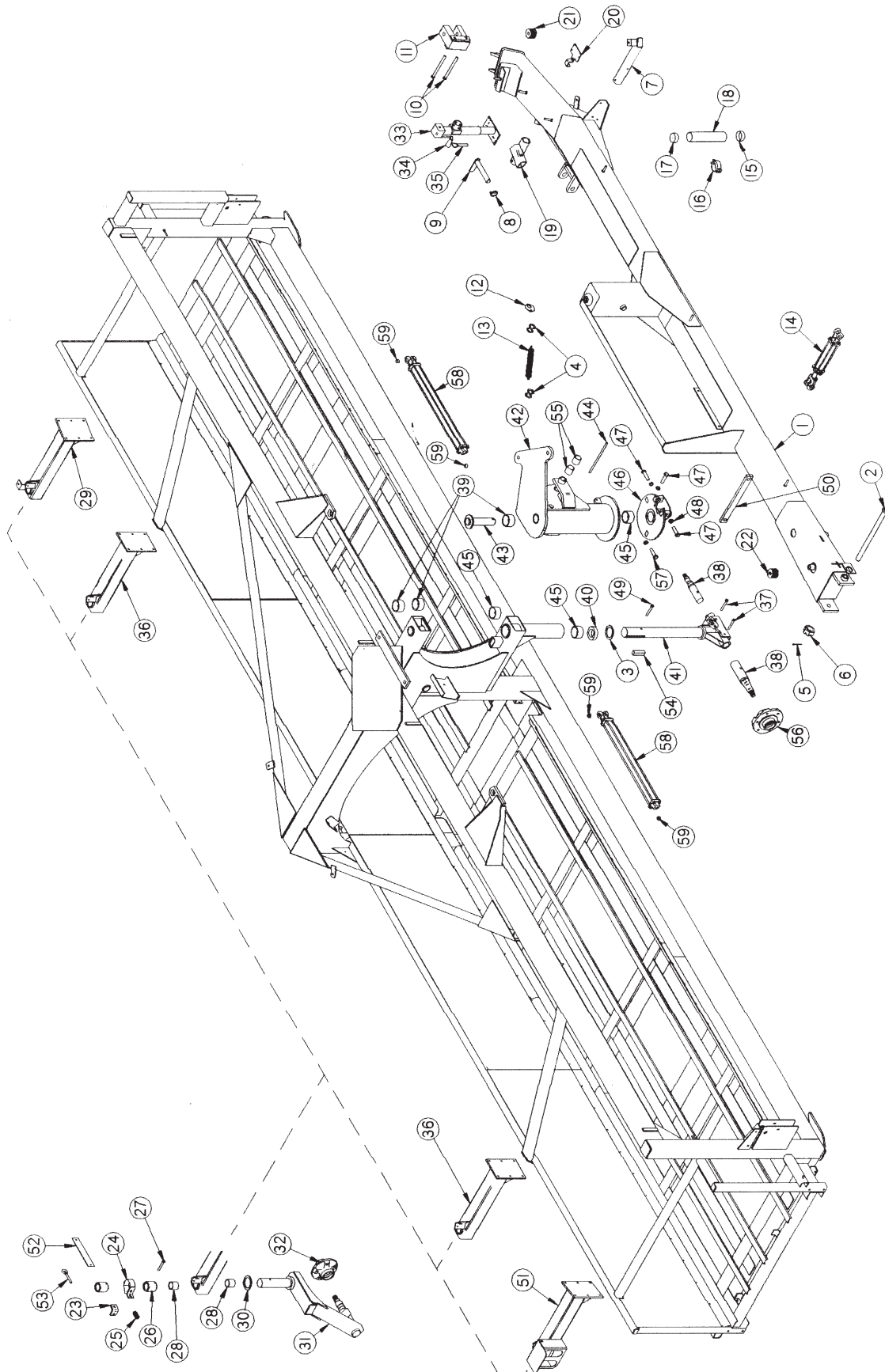


FIGURE 2
H&S 9' & 12' TWIN MERGER
MAIN FRAME (Continued)

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	DWM337	Pole	*	DWM164	11Lx15 HD Front Tire
2.	DWM33	Pole Pin	*	12N24	Wheel (Front & Rear)
3.	DWM73	Bronze Washer 3" ID	*	DWM163	11Lx15 Rear Tire
4.	F87	S-Hook	*	B3	7/8" Slotted Nut
5.	DWM255	3/16" x 2-1/2" Cotter Key	*	B31	5/32" x 1-3/4" Cotter Key
6.	BFR228	1-1/4"-12 Slotted Hex Nut	33.	DWM124	Jack (2000#)
7.	DWM340	Light Bracket	34.	12N12	Jack Handle
8.	F56	Lynch Pin	35.	BFR4	Jack Pin & Chain
9.	DWM34	Pole Lock Pin	36.	SWM3	Caster Mount
10.	50N129	3/4" x 6" Bolt GR. 5	37.	DWM172	3/8" x 3-1/2" Bolt GR. 5
11.	WM43	Hitch - Adjustable	38.	DWM252	Spindle
12.	DWM331	Spring Clip	39.	RG26	Bushing (Steel)
13.	K103	Spring	40.	DWM49	Steel Washer
14.	T188A	Cylinder	41.	DWM352	Steering Fork
15.	S418	Cap w/Hole	42.	DWM16	Steering Pivot
16.	S416	Hanger Bracket	43.	DWM18	Steering Pin
17.	S414	Cap	44.	DWM72	Bolt (Ready Rod)
18.	S415	Tube	45.	B58	Bushing (Phenolic)
19.	DWM338	Pump Storage Bracket	46.	DWM17	Steering Flange
20.	DWM366	Module Holder	47.	DWM168	3/4" x 4" Bolt Full Thread GR. 5
21.	DWM159	3/4" Black Pipe Plug	48.	DWM169	3/4" Coarse Thread Jam Nut
22.	DWM158	1" Black Pipe Plug	49.	DWM170	3/8" x 5" Bolt GR. 5
23.	WM211	Brake Angle	50.	DWM353	Lift Bar
24.	WM286	Brake Band	51.	DWM254	Right Tail Wheel
25.	WM210	Spring (Red)	52.	WM288	Brake Pad
26.	DWM59	Brake Bushing	53.	WM287	I-Bolt
27.	BFR313	5/16" x 2-3/4" Roll Pin	54.	DWM126	1/2"x2-1/2" Sq.Key w/Round Ends
28.	BFR527	2"ID x 2-1/4"OD x 2" Bushing	55.	RG132	1-1/4"ID x 2" Bushing
29.	DWM253	Left Tail Wheel	56.	DWM394	Hub
30.	RG24	2"IDx3"ODx1/8" Bronze Washer	*	17G151	Seal
31.	DWM26	Casters	*	RG172	Inner Bearing -Timkin
32.	RG101	Hub - Road Wheels	*	RG148	Inner Race-Timkin
*	RG98	Seal	*	17G147	Hub Bolt
*	RG99	Inner Bearing	*	RG47	Outer Race - Timkin
*	RG100	Inner Race	*	RG45	Outer Bearing - Timkin
*	RG102	Stud Bolt	*	DWM121	Washer (Hardened)
*	BFR144	Nut	*	B31	Cotter Pin
*	RG47	Outer Race	*	B3	Nut
*	RG48	Outer Bearing	*	17G144	Hub Cap
*	DWM121	Washer (Hardened)	57.	DWM173	3/4"x2-1/2" Full Thread Bolt GR. 5
*	RG103	Hub Cap	58.	DWM406	3-1/2" x 30" Cylinder
			59.	DWM141	Spacer 1/2"

NOTE: * (MEANS NOT SHOWN)

FIGURE 3

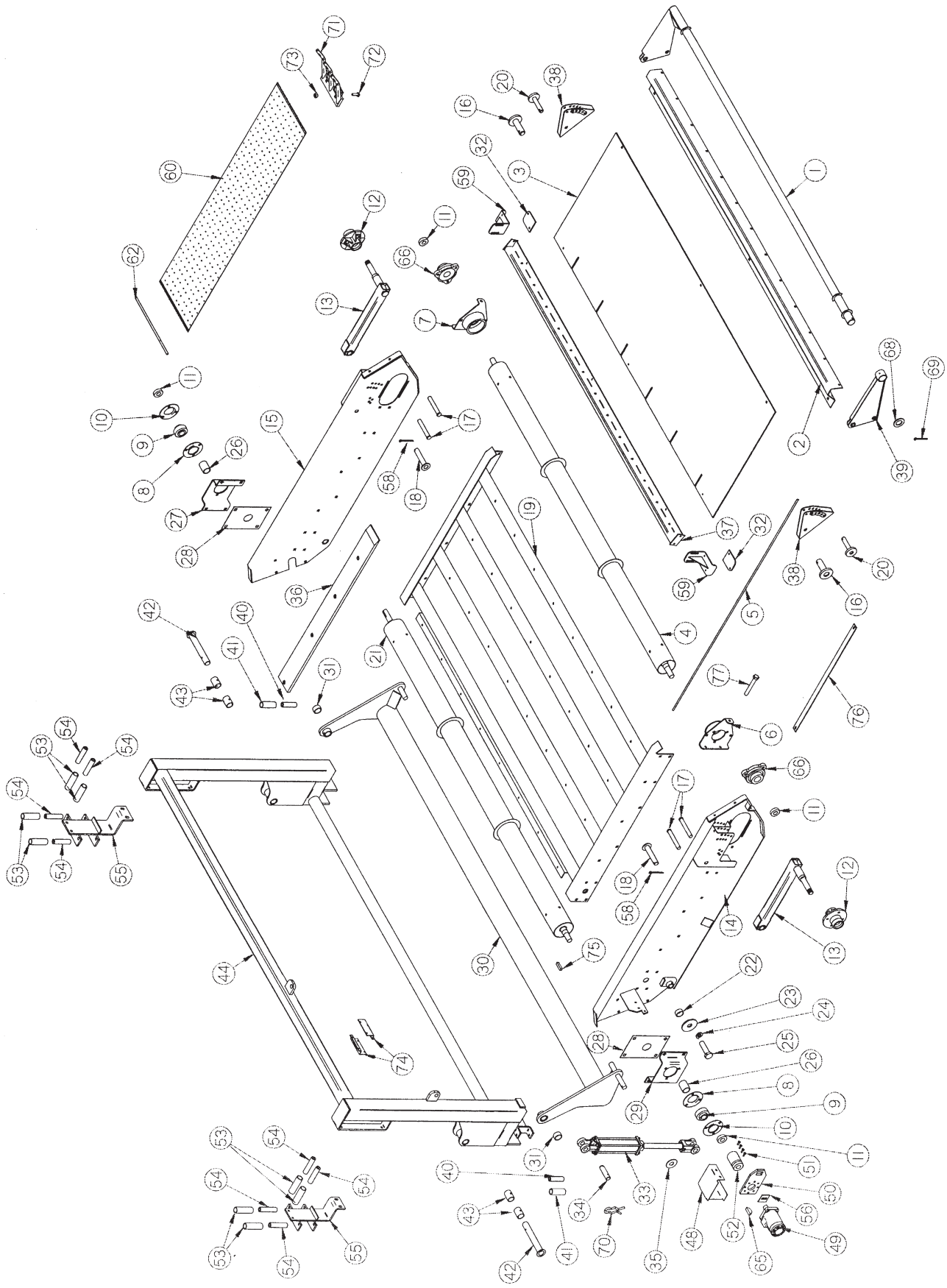


FIGURE 3
H&S 9' TWIN MERGER
LEFT PICK-UP HEAD

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.**	DWM333	Wind Guard	31.	DWM57	Spacer
2.**	DWM2	Double Wind Guard	32.**	DWM368	Wind Guard Poly
3.**	DWM351	Poly Wind Guard	33.	BFR69A	Hydraulic Cylinder
4.	WM342	Front Idler Roller	34.	T143	Cylinder Pin
5.**	DWM349	Wind Guard Rods	35.	16SV136	Washer
6.	WM179	Right Roller Adjustment Bracket	36.	DWM358	Slides
7.	WM192	Left Roller Adjustment Bracket	37.	DWM355	Poly Support
8.	F145	Flange	38.**	DWM374	Wind Guard Bracket
9.	WM29	Bearing	39.**	DWM332	Right Wind Guard Side
10.	F143	Flange (Greaseable)	40.	DWM55	Short Slider Spacer
11.	WM27	1-1/4" Lock Collar w/Set Screw	41.	DWM67	Short Back Slider Roller
12.	CAT177	Hub - Complete	42.	DWM21	Head Pin
*	CAT135A	Seal	43.	RG132	1-1/4"ID x 2" Bushing
*	CAT10	Bearing (2)	44.	DWM375	Left Head Slide
*	CAT9	Race (2)	48.	DWM43	Left Head Shield
*	CAT136A	Hub w/Races	49.	DWM84	Hydraulic Motor (101-3048)
*	CAT128	Stud	*	WM225	Seal Kit
*	BFR144	Lug Nut	50.	DWM39	Hydraulic Motor Mount
*	BFR65	Cotter Pin	51.	DWM137	Cap Screw - Coupler
*	CAT13	Hub Cap	52.	DWM27	Coupler
*	CAT211	8 x 7 Wheel (5-Bolt)	53.	DWM66	Back Slider Roller
*	CAT166	18.5 x 8.5 x 8 Tire	54.	DWM54	Slider Spacer
*	CAT12	Spindle Nut	55.	DWM32	Hanger Slide
*	CAT52	Tire/Wheel Assembly	56.	DWM45	Motor Spacer
13.	DWM229	Gauge Arms	58.	R70	3/16" x 2" Cotter Pin
14.	DWM344	Left Head - Right Panel	59.**	DWM385	Poly Brackets
15.	DWM345	Left Head - Left Panel	60.	DWM359A	Pick-up Belt Section
16.**	DWM347	Wind Guard Pivot Pin	*	DWM364A	Complete Belt w/Teeth & Pin
17.	DWM127	1/2" x 5" Clevis Pins	*	DWM367	Repair Dutchman Assembly
18.	DWM7	Pivot Pin	*	DWM373	Complete Dutchman Repair Kit
19.	DWM339	Z-Channel Frame			w/Nuts, Bolts and Clips
20.**	DWM348	Wind Guard Adjustment Pins	62.	SWM41	Lacing Pin
21.	WM341	Head Drive Roller	65.	5B10	1/4" x 1" Woodruff Key
22.	WM183	Pivot Bushing	66.	SWM35	3-Bolt Bearing Assembly
23.	WM218	Washer	68.**	DWM227	Wind Guard Washer
24.	DWM171	1" Lock Washer	69.**	SWM55	1/4" x 2-1/2" Cotter Pin
25.	DWM177	1" x 2-1/2" Bolt Full Thread GR.	70.	T144	Clip Pins
26.	WM343	Spacer PVC	71.	SWM1	Pick-up Tooth
27.	WM186	Bearing Bracket LH	72.	SWM26	Bolt
28.	WM180	Side Panel Slot Plate	73.	SWM27	Nut
29.	WM187	Bearing Bracket RH	74.	DWM380	Cylinder Stop
30.	DWM10	Left Pick-up Lifter	75.	G23	5/16" x 1-3/8" Key
			76.**	DWM412	Wind Guard Strap

NOTE: * (MEANS NOT USED)

** (MEANS USED ON 2007 & PRIOR MODELS ONLY)

FIGURE 4

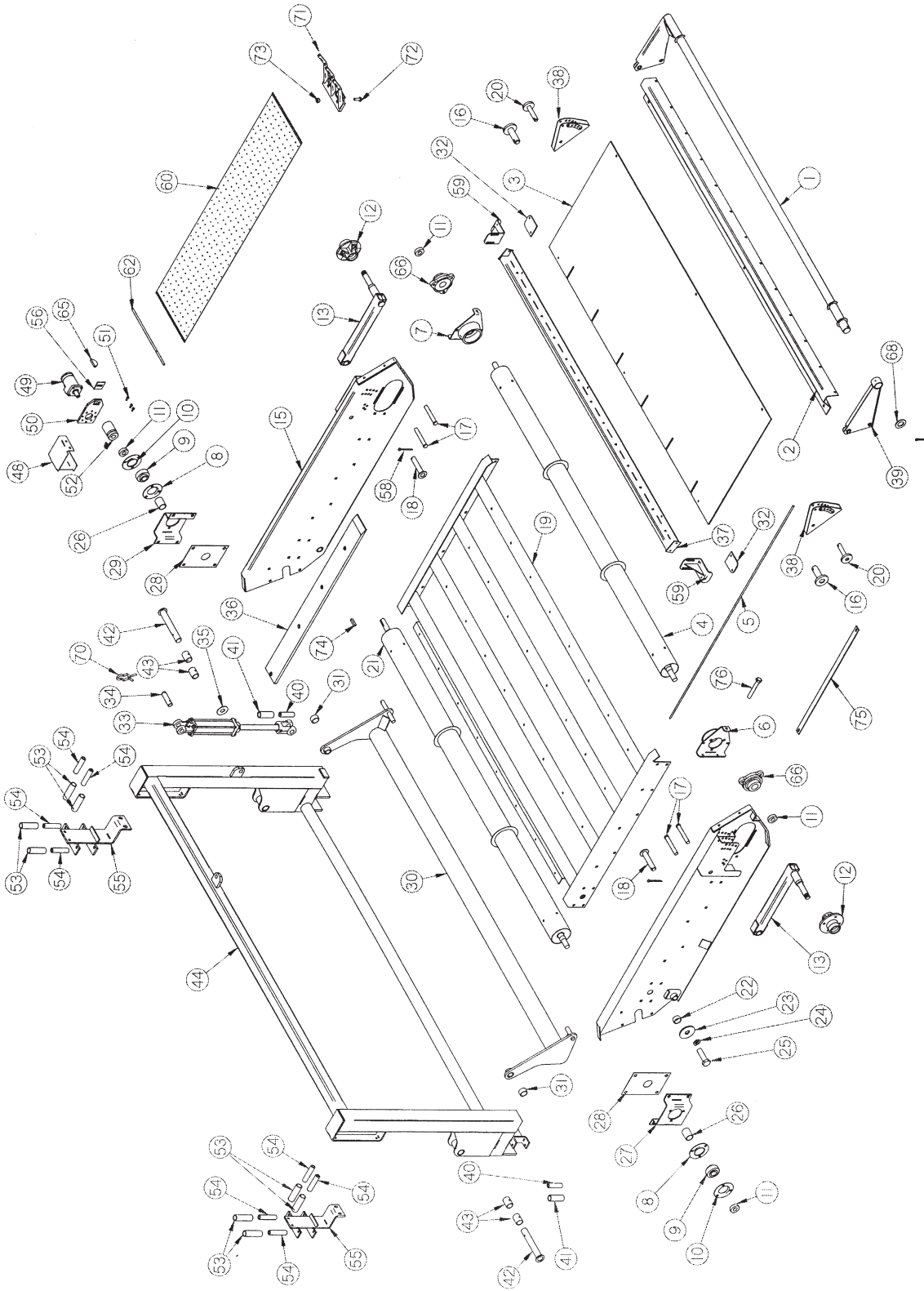


FIGURE 4
H&S 9' TWIN MERGER
RIGHT PICK-UP HEAD

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.**	DWM333	Wind Guard	31.	DWM57	Spacer
2.**	DWM2	Double Wind Guard	32.**	DWM368	Wind Guard Poly
3.**	DWM351	Poly Wind Guard	33.	BFR69A	Hydraulic Cylinder
4.	WM342	Front Idler Roller	34.	T143	Cylinder Pin
5.**	DWM349	Wind Guard Rods	35.	16SV136	Washer
6.	WM179	Right Roller Adjustment Bracket	36.	DWM358	Slides
7.	WM192	Left Roller Adjustment Bracket	37.**	DWM355	Poly Support
8.	F145	Flange	38.**	DWM374	Wind Guard Bracket
9.	WM29	Bearing	39.**	DWM332	Right Wind Guard Side
10.	F143	Flange (Greaseable)	40.	DWM55	Short Slider Spacer
11.	WM27	1-1/4" Lock Collar w/Set Screw	41.	DWM67	Short Back Slider Roller
12.	CAT177	Hub - Complete	42.	DWM21	Head Pin
*	CAT135A	Seal	43.	RG132	1-1/4"ID x 2" Bushing
*	CAT10	Bearing (2)	44.	DWM376	Right Head Slide
*	CAT9	Race (2)	48.	DWM40	Right Head Shield
*	CAT136A	Hub w/Races	49.	DWM84	Hydraulic Motor (101-3048)
*	CAT128	Stud	*	WM225	Seal Kit
*	BFR144	Lug Nut	50.	DWM39	Hydraulic Motor Mount
*	BFR65	Cotter Pin	51.	DWM137	Cap Screw - Coupler
*	CAT13	Hub Cap	52.	DWM27	Coupler
*	CAT211	8 x 7 Wheel (5-Bolt)	53.	DWM66	Back Slider Roller
*	CAT166	18.5 x 8.5 x 8 Tire	54.	DWM54	Slider Spacer
*	CAT12	Spindle Nut	55.	DWM32	Hanger Slide
*	CAT52	Tire/Wheel Assembly	56.	DWM45	Motor Spacer
13.	DWM229	Gauge Arms	58.	R70	3/16" x 2" Cotter Pin
14.	DWM342	Right Head - Right Panel	59.**	DWM385	Poly Brackets
15.	DWM343	Right Head - Left Panel	60.	DWM359A	Pick-up Belt Section
16.**	DWM347	Wind Guard Pivot Pin	*	DWM364A	Complete Belt w/Teeth & Pin
17.	DWM127	1/2" x 5" Clevis Pins	*	DWM367	Repair Dutchman Assembly
18.	DWM7	Pivot Pin	*	DWM373	Complete Dutchman Repair Kit
19.	DWM339	Z-Channel Frame			w/Nuts, Bolts and Clips
20.**	DWM348	Wind Guard Adjustment Pins	62.	SWM41	Lacing Pin
21.	WM341	Head Drive Roller	65.	5B10	1/4" x 1" Woodruff Key
22.	WM183	Pivot Bushing	66.	SWM35	3-Bolt Bearing Assembly
23.	WM218	Washer	68.**	DWM227	Wind Guard Washer
24.	DWM171	1" Lock Washer	69.	SWM55	1/4" x 2-1/2" Cotter Pin
25.	DWM177	1" x 2-1/2" Bolt Full Thread GR. 5	70.	T144	Clip Pins
26.	WM343	Spacer PVC	71.	SWM1	Pick-up Tooth
27.	WM187	Bearing Bracket RH	72.	SWM26	Bolt
28.	WM180	Side Panel Slot Plate	73.	SWM27	Nut
29.	WM186	Bearing Bracket LH	74.	G23	5/16" x 1-3/8" Key
30.	DWM9	Right Pick-up Lifter	75.**	DWM412	Wind Guard Strap

NOTE: * (MEANS NOT SHOWN)

**** (MEANS USED ON 2007 & PRIOR MODELS ONLY)**

FIGURE 5

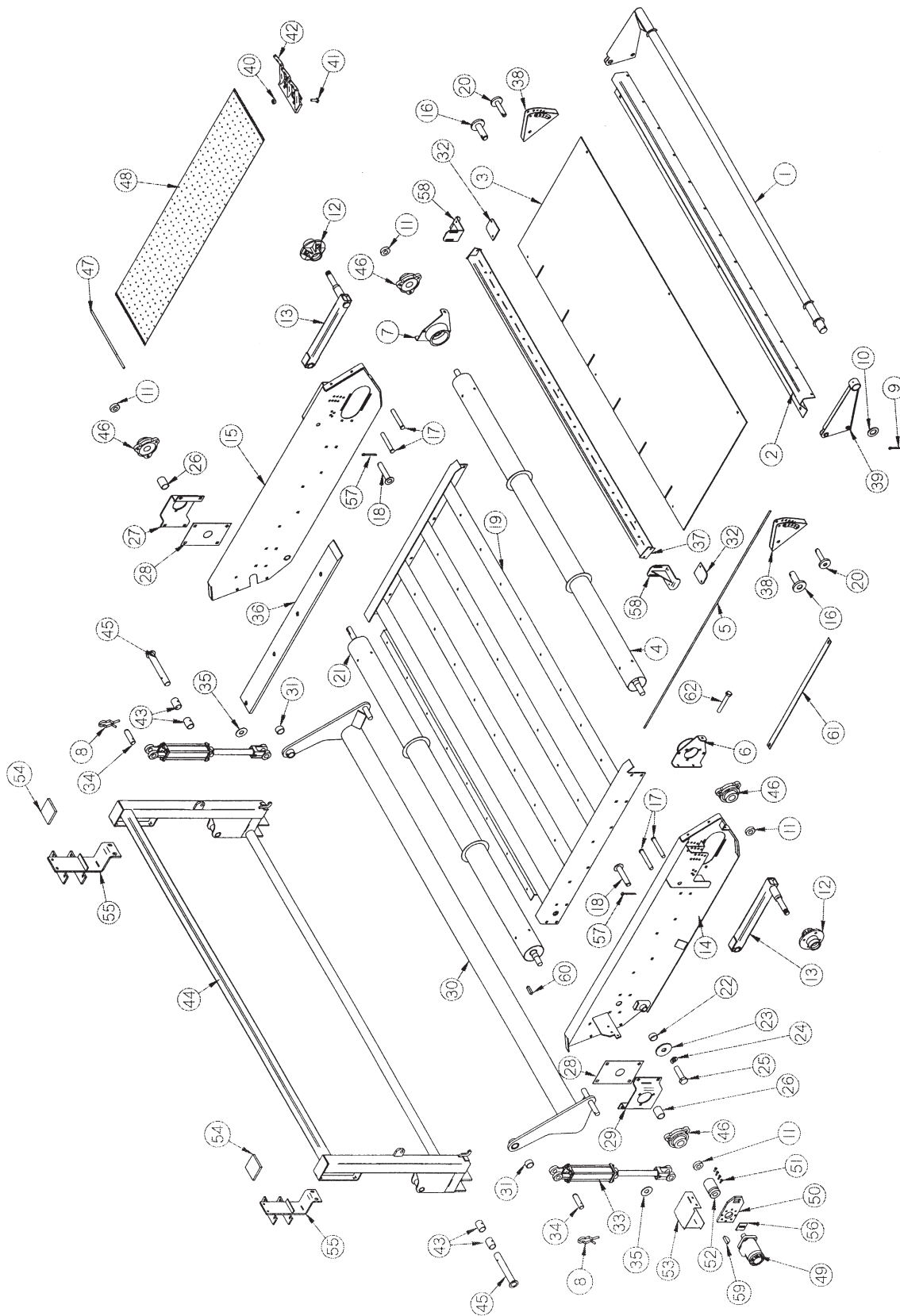


FIGURE 5
H&S 12' TWIN MERGER
LEFT PICK-UP HEAD

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	SHM3**	Wind Guard	27.	SHM12	Bearing Bracket LH
2.	SHM9**	Double Wind Guard	28.	WM180	Side Panel Slot Plate
3.	SHM11 **	Poly Wind Guard	29.	SHM13	Bearing Bracket RH
4.	SHM21	Front Idler Roller	30.	SHM8	Pickup Lifter
5.	DWM349**	Wind Guard Rods	31.	DWM57	Spacer
6.	WM179	Right Roller Adjustment Bracket	32.	DWM368**	Wind Guard Poly
7.	WM192	Left Roller Adjustment Bracket	33.	BFR69A	Hydraulic Cylinder
8.	T144	Clip Pins	34.	T143	Cylinder Pin
9.	SWM55**	1/4" x 2-1/2" Cotter Pin	35.	16SV136	Washer
10.	DWM227**	Wind Guard Washer	36.	DWM358	Slides
11.	WM27	1-1/4" Lock Collar w/Set Screw	37.	SHM2**	Poly Support
12.	CAT177	Hub - Complete	38.	DWM374**	Wind Guard Bracket
*	CAT135A	Seal	39.	DWM332**	Right Wind Guard Side
*	CAT10	Bearing (2)	40.	SWM27	Nut
*	CAT9	Race (2)	41.	SWM26	Bolt
*	CAT136A	Hub w/Races	42.	SWM1	Pickup Tooth
*	CAT128	Stud	43.	RG132	1-1/4"ID x 2" Bushing
*	BFR144	Lug Nut	44.	SHM7	Head Mount
*	BFR65	Cotter Pin	45.	DWM21	Head Pin
*	CAT13	Hub Cap	46.	SWM35	3-Bolt Bearing Assembly
*	CAT211	8 x 7 Wheel (5-Bolt)	47.	SWM41	Lacing Pin
*	CAT166	18.5 x 8.5 x 8 Tire	48.	DWM359A	Pickup Belt Section
*	CAT12	Spindle Nut	*	DWM364A	Complete Belt w/Teeth & Pin
*	CAT52	Tire/Wheel Assembly	*	DWM367	Repair Dutchman Assembly
13.	DWM229	Gauge Arms	*	DWM373	Complete Dutchman Repair Kit
14.	DWM344	Left Head - Right Panel			w/Nuts, Bolts and Clips
15.	DWM345	Left Head - Left Panel	49.	DWM84	Hydraulic Motor (101-3048)
16.	DWM347**	Wind Guard Pivot Pin	*	WM225	Seal Kit
17.	DWM127	1/2" x 5" Clevis Pins	50.	DWM39	Hydraulic Motor Mount
18.	DWM7	Pivot Pin	51.	DWM137	Cap Screw - Coupler
19.	SHM4	Z-Channel Frame	52.	DWM27	Coupler
20.	DWM348**	Wind Guard Adjustment Pins	53.	DWM43	Left Head Shield
21.	SHM22	Head Drive Roller	54.	SHM10	Head Spacer
22.	WM183	Pivot Bushing	55.	DWM32	Hanger Slide
23.	WM218	Washer	56.	DWM45	Motor Spacer
24.	DWM171	1" Lock Washer	57.	R70	3/16" x 2" Cotter Pin
25.	DWM177	1" x 2-1/2" Bolt Full Thread GR. 5	58.	DWM385**	Poly Brackets
26.	SHM23	Spacer PVC	59.	5B10	1/4" x 1" Woodruff Key
			60.	G23	5/16" x 1-3/8" Key
			61.	DWM412**	Wind Guard Strap
			62.	LW131	1/2 X 3-1/2" Gr. 5 Bolt

NOTE: * (MEANS NOT SHOWN)

**** (MEANS USED ON 2007 & PRIOR MODELS ONLY)**

FIGURE 6

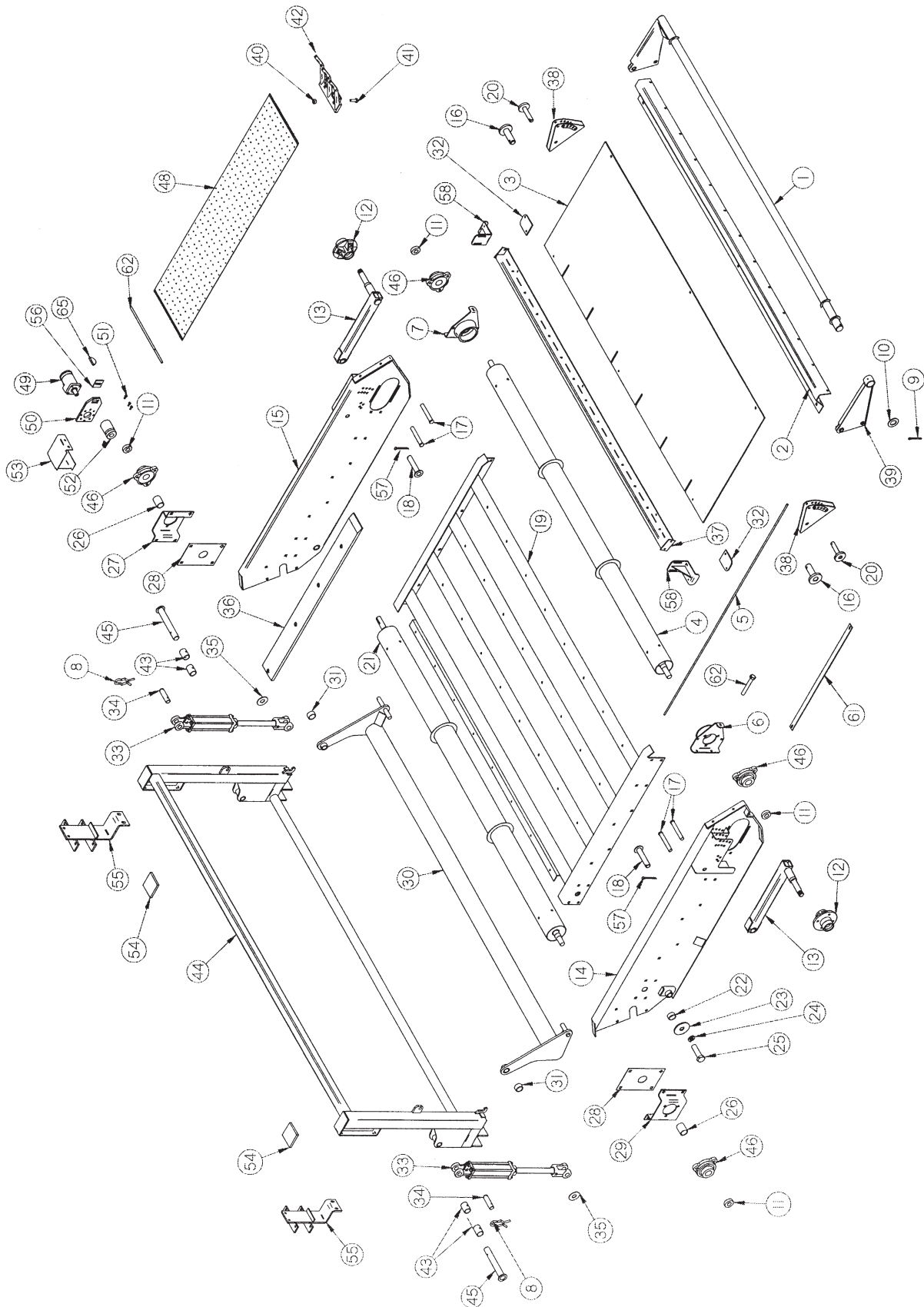


FIGURE 6
H&S 12' TWIN MERGER
RIGHT PICK-UP HEAD

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	SHM3**	Wind Guard	29.	SHM13	Bearing Bracket RH
2.	SHM9**	Double Wind Guard	30.	SHM8	Pick-up Lifter
3.	SHM11**	Poly Wind Guard	31.	DWM57	Spacer
4.	SHM21	Front Idler Roller	32.	DWM368**	Wind Guard Poly
5.	DWM349**	Wind Guard Rods	33.	BFR69A	Hydraulic Cylinder
6.	WM179	Right Roller Adjustment Bracket	34.	T143	Cylinder Pin
7.	WM192	Left Roller Adjustment Bracket	35.	16SV136	Washer
8.	T144	Clip Pins	36.	DWM358	Slides
9.	SWM55**	1/4" x 2-1/2" Cotter Pin	37.	SHM2**	Poly Support
10.	DWM227**	Wind Guard Washer	38.	DWM374**	Wind Guard Bracket
11.	WM27	1-1/4" Lock Collar w/Set Screw	39.	DWM332**	Right Wind Guard Side
12.	CAT177	Hub - Complete	40.	SWM27	Nut
*	CAT135A	Seal	41.	SWM26	Bolt
*	CAT10	Bearing (2)	42.	SWM1	Pickup Tooth
*	CAT9	Race (2)	43.	RG132	1-1/4"ID x 2" Bushing
*	CAT136A	Hub w/Races	44.	SHM7	Head Mount
*	CAT128	Stud	45.	DWM21	Head Pin
*	BFR144	Lug Nut	46.	SWM35	3-Bolt Bearing Assembly
*	BFR65	Cotter Pin	47.	SWM41	Lacing Pin
*	CAT13	Hub Cap	48.	DWM359A	Pickup Belt Section
*	CAT211	8 x 7 Wheel (5-Bolt)	*	DWM364A	Complete Belt w/Teeth & Pin
*	CAT166	18.5 x 8.5 x 8 Tire	*	DWM367	Repair Dutchman Assembly
*	CAT12	Spindle Nut	*	DWM373	Complete Dutchman Repair Kit w/Nuts, Bolts and Clips
*	CAT52	Tire/Wheel Assembly			
13.	DWM229	Gauge Arms	49.	DWM84	Hydraulic Motor (101-3048)
14.	DWM342	Right Head - Right Panel	*	WM225	Seal Kit
15.	DWM343	Right Head - Left Panel	50.	DWM39	Hydraulic Motor Mount
16.	DWM347**	Wind Guard Pivot Pin	51.	DWM137	Cap Screw - Coupler
17.	DWM127	1/2" x 5" Clevis Pins	52.	DWM27	Coupler
18.	DWM7	Pivot Pin	53.	DWM40	Right Head Shield
19.	SHM4	Z-Channel Frame	54.	SHM10	Head Spacer
20.	DWM348**	Wind Guard Adjustment Pins	55.	DWM32	Hanger Slide
21.	SHM22	Head Drive Roller	56.	DWM45	Motor Spacer
22.	WM183	Pivot Bushing	57.	R70	3/16" x 2" Cotter Pin
23.	WM218	Washer	58.	DWM385**	Poly Brackets
24.	DWM171	1" Lock Washer	59.	5B10	1/4" x 1" Woodruff Key
25.	DWM177	1" x 2-1/2" Bolt Full Thread GR. 5	60.	G23	5/16" x 1-3/8" Key
26.	SHM23	Spacer PVC	61.	DWM412**	Wind Guard Strap
27.	SHM12	Bearing Bracket LH	62.	LW131	1/2" x 3-1/2" Gr. 5 Bolt
28.	WM180	Side Panel Slot Plate			

NOTE: * (MEANS NOT SHOWN)

**** (MEANS USED ON 2007 & PRIOR MODELS ONLY)**

FIGURE 7

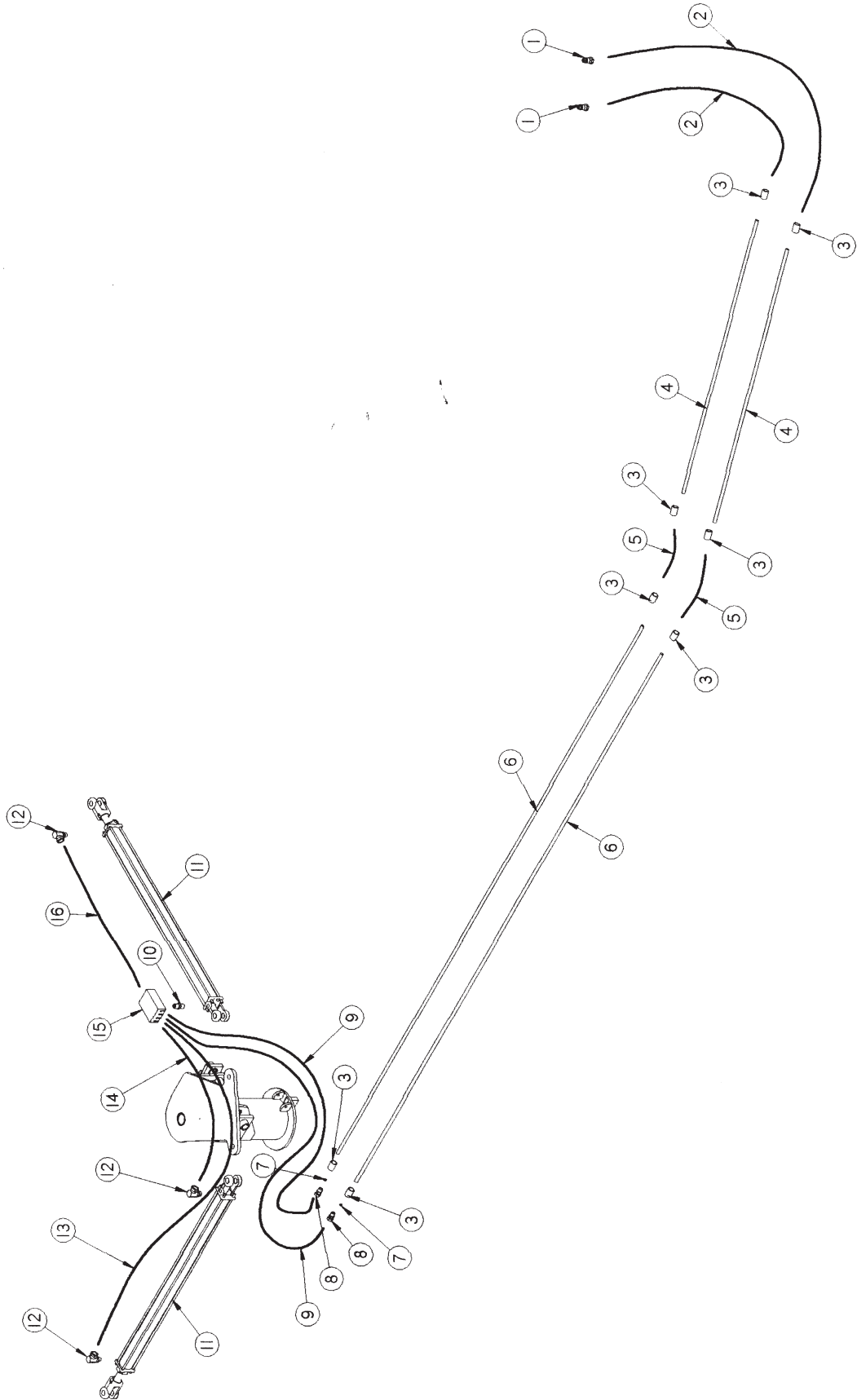


FIGURE 7
H&S 9' & 12' TWIN MERGER
POLE CIRCUIT HYDRAULICS

ITEM	PART NO.	DESCRIPTION
1.	DWM205	1/2" Quick Male Couplers
2.	DWM85	Hydraulic Hose 1/4" x 66" 3/8"MP & 1/2" MP
3.	HE60	3/8" Pipe Coupler
4.	DWM63	Short Pole Pipe
5.	DWM154	Hydraulic Hose 1/4" x 24" 3/8"MP & 3/8"MP
6.	DWM62	Long Pole Pipe
7.	DWM135	Orifice .094
8.	BFR122	3/8" Union Adapter
9.	DWM92	Hydraulic Hose 1/4" x 30" 3/8"MP & 3/8"MP
10.	WM141	1/2" Nipple Nut
11.	DWM406	3-1/2" x 30" Hydraulic Cylinder
12.	DWM415	1/2" 90° Swivel Adapter
13.	DWM428	Hydraulic Hose 1/2" x 55" 1/2"MP & 1/2"MP
14.	DWM429	Hydraulic Hose 1/2" x 22" 1/2"MP & 1/2"MP
15.	DWM414	Pole Locking and Relieving Valve
16.	DWM106	Hydraulic Hose 1/2" x 33" 1/2"MP & 1/2"MP

FIGURE 8

1 = RIGHT HEAD OUT

2 = RIGHT HEAD IN

3 = RIGHT HEAD UP

4 = RIGHT HEAD DOWN

5 = LEFT HEAD OUT

6 = LEFT HEAD IN

7 = LEFT HEAD UP

8 = LEFT HEAD DOWN

9 = PISTON END LEFT SHIFT CYLINDER

10 = ROD END LEFT SHIFT CYLINDER

11 = PISTON END RIGHT SHIFT CYLINDER

12 = ROD END RIGHT SHIFT CYLINDER

13 = ROD END LEFT HEAD LIFT CYLINDER

14 = PISTON END LEFT HEAD LIFT CYLINDER

15 = ROD END RIGHT HEAD LIFT CYLINDER

16 = PISTON END RIGHT HEAD LIFT CYLINDER

17 = PRESSURE PORT (FROM TRACTOR)

18 = TANK PORT (RETURN TO TRACTOR)

NOTE: NUMBERS 1-8 APPLY TO ELECTRICAL CONNECTIONS ON HARNESS, NUMBERS 9-18 APPLY TO HYDRAULIC HOSES

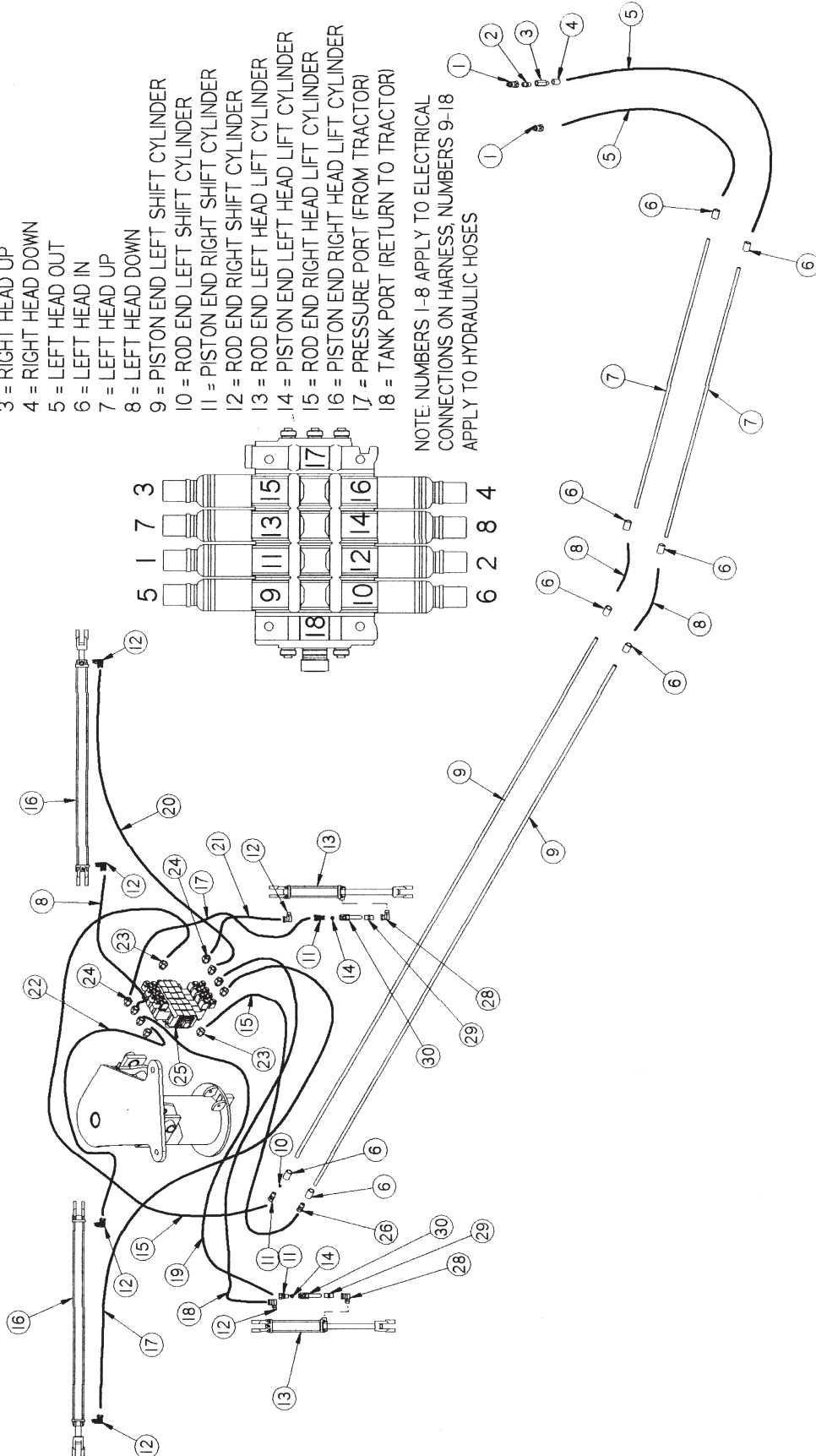
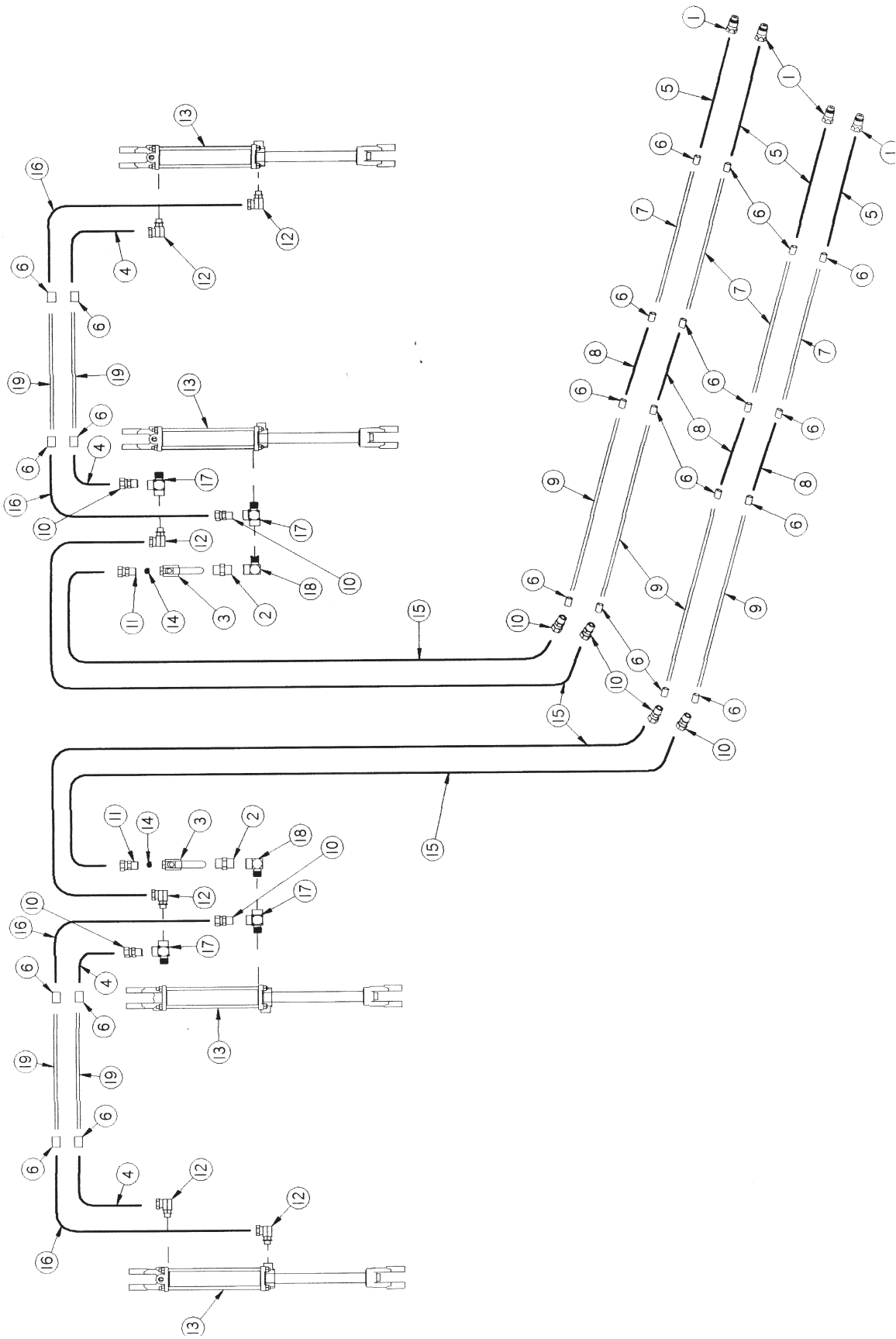


FIGURE 8
H&S 9' TWIN MERGER
ELECTRIC HEAD HYDRAULICS

ITEM	PART NO.	DESCRIPTION
1.	DWM205	1/2" Male Quick Coupler
2.	WM141	1/2" Nipple Nut
3.	DF18	1/2" Check Valve
4.	PB105	1/2" Coupler
5.	DWM85	Hydraulic Hose 1/4" x 66" 3/8"MP & 1/2"MP
6.	HE60	3/8" Pipe Coupler
7.	DWM63	Hydraulic Line
8.	DWM154	Hydraulic Hose 1/4" x 24" 3/8"MP & 3/8"MP
9.	DWM62	Hydraulic Line
10.	DWM135	Orifice .094
11.	BFR122	3/8" Union Adapter
12.	DWM110	3/8" Street Elbow w/90° Swivel
13.	BFR69A	Complete Hydraulic Cylinder
14.	DWM250	Orifice .042
15.	DWM88	Hydraulic Hose 1/4" x 60" 3/8"MP & 3/8"MP
16.	DWM152	Hydraulic Cylinder
17.	DWM89	Hydraulic Hose 1/4" x 78" 3/8"MP & 3/8"MP
18.	DWM381	Hydraulic Hose 1/4" x 90" 3/8"MP & #6SAE O-Ring 90°
19.	DWM382	Hydraulic Hose 1/4" x 96" 3/8"MP & #6SAE O-Ring 90°
20.	DWM156	Hydraulic Hose 1/4" x 56" 3/8"MP & 3/8"MP
21.	DWM383	Hydraulic Hose 1/4" x 66" 3/8"MP & #6SAE O-Ring 90°
22.	DWM155	Hydraulic Hose 1/4" x 38" 3/8"MP & 3/8"MP
23.	DWM269	3/4" Male O-Ring to 3/8" Pipe Union Adapter
24.	DWM268	9/16" Male O-Ring to 3/8" Pipe Union Adapter
25.	DWM388	Electric Solenoid Valve
26.	DWM233	3/8" Union Adapter
27.	DWM384	Hydraulic Hose 1/4" x 78" 3/8"MP & #6SAE O-Ring 90°
28.	23N234	3/8" Street Elbow
29.	16SV351	3/8" Nipple Nut
30.	16SV338	3/8" Ball Valve

FIGURE 9



**FIGURE 9
H&S 12' TWIN MERGER
HEAD HYDRAULICS**

ITEM	PART NO.	DESCRIPTION
1.	DWM205	1/2" Male Quick Coupler
2.	16SV351	3/8" Nipple Nut
3.	16SV338	3/8" Ball Valve
4.	DWM92	Hydraulic Hose 1/4" x 30" 3/8"MP & 3/8"MP
5.	DWM85	Hydraulic Hose 1/4" x 66" 3/8"MP & 1/2"MP
6.	HE60	3/8" Pipe Coupler
7.	DWM63	Hydraulic Line
8.	DWM154	Hydraulic Hose 1/4" x 24" 3/8"MP & 3/8"MP
9.	DWM62	Hydraulic Line
10.	DWM233	3/8" Union Adapter
11.	BFR122	3/8" Adapter Union
12.	DWM110	3/8" Street Elbow w/90° Swivel
13.	BFR69A	Complete Hydraulic Cylinder
14.	BFR120	.062 Restrictor
15.	DWM88	Hydraulic Hose 1/4" x 60" 3/8"MP & 3/8"MP
16.	SHM15	Hydraulic Hose 1/4" x 40" 3/8"MP & 3/8"MP (5000 PSI)
17.	23N116	3/8" Street Tee
18.	23N234	3/8" Street Elbow
19.	DWM416	Head Lift Pipe

FIGURE 10

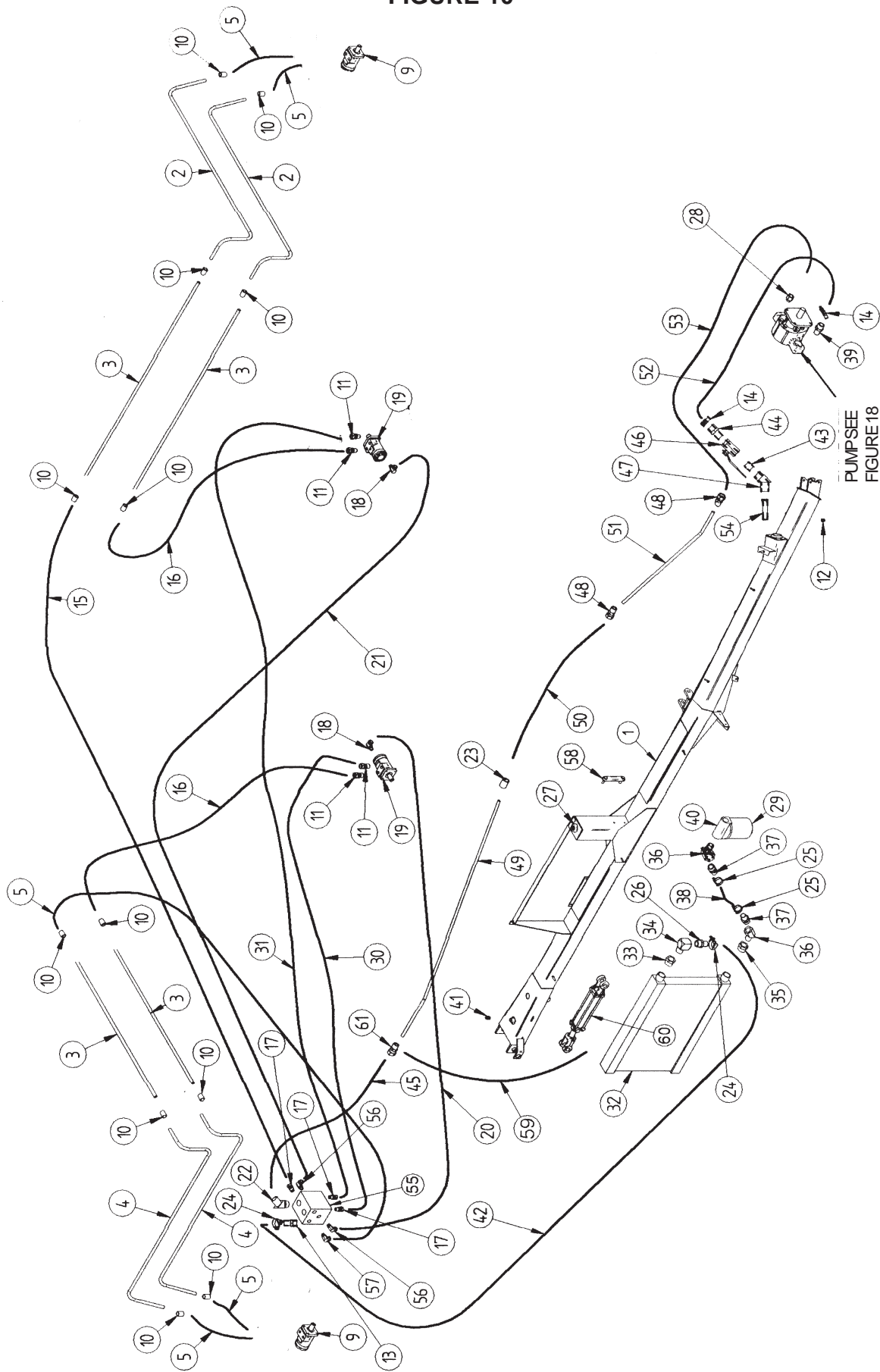


FIGURE 10
H&S 9' & 12' TWIN MERGER
MAIN FRAME HYDRAULICS

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	DWM337	Pole Tank	31.	DWM100	Hyd. Hose 1/2"x77" 1/2"MP&1/2"MP
2.	DWM234	Motor Tubing A	**	DWM103	Hyd.Hose1/2"X40"1/2"MPX1/2"MP
3.	DWM235	Motor Pipe	32.	DWM78	Oil Cooler
4.	DWM236	Motor Tubing B	*	DWM319	Fan Assembly
5.	DWM102	Hyd. Hose 1/2"x25" 1/2"MP&1/2"MP	33.	DWM239	1-1/2" to 1" Bushing (Black Iron)
9.	DF1	Cross Conveyor Motor (101-2970)	34.	DWM240	1" Street Elbow (Black Iron)
*	WM225	Seal Kit	35.	DWM241	1-1/2" to 1-1/4" Bushing (Black Iron)
10.	PB105	1/2" Coupler (Black Iron)	36.	DWM242	1-1/4" 45° Street Elbow (Black Iron)
11.	LW174	1/2" Union Adapter	37.	DWM143	1-1/4" Hose Barb
12.	DWM159	3/4" Pipe Plug	38.	DWM95	Hydraulic Hose 1-1/4" x 10"
13.	DWM257	1" Hose Barb	39.	DWM260	Hose Barb
14.	DWM122	2" Hose Clamp	40.	DWM82	Filter Base
15.	DWM103	Hyd. Hose 1/2"x40" 1/2"MP&1/2"MP	41.	DWM261	1" Hex Socketed Pipe Plug
16.	DWM101	Hyd. Hose 1/2"x49" 1/2"MP&1/2"MP	42.	DWM96	Hydraulic Hose 1" x 148"
17.	DWM258	1"-16 O-Ring to 1/2" Pipe Union	43.	DWM147	2" Nipple Nut
18.	DWM119	7/16" to 3/8" 90°Pipe Union	44.	DWM144	2" Hose Barb
19.	DWM84	Pickup Motor (101-3048)	45.	DWM98	Hyd. Hose 1"x48" 1"MP&1"MP
*	WM225	Seal Kit	46.	DWM83	Ball Valve
20.	DWM108	Hyd. Hose 1/4"x56" 3/8"MP&1/2"MP	47.	DWM267	2" - 45° Elbow
**	SHM14	Hyd. Hose 1/4"x30" 3/8"MP&1/2"MP	48.	DWM109	1" Adapter Union
21.	DWM107	Hyd. Hose 1/4"x84" 3/8"MP&1/2"MP	49.	DWM64	1" x 161" Pipe
**	DWM108	Hyd.Hose1/4"X56"3/8"MPX1/2"MP	50.	DWM99	Hyd. Hose 1"x24" 1"MP&1"MP
22.	DWM413	45° Adapter	51.	DWM65	1" x 66" Pipe
23.	DWM146	1" Coupling	52.	DWM262	Suction Hose 2" x 50"
24.	DWM123	1" Hose Clamp	53.	DWM263	Two Wire Hyd. Hose 1" x 60"
25.	DWM138	1-1/4" Hose Clamp	54.	DWM80	2" Strainer
26.	DWM145	1" Hose Barb	55.	DWM264	Flow Divider
27.	DWM81	Strainer Filler	*	DWM401	Relief Valve Cartridge
28.	DWM259	1-5/8" O-Ring to 1" Pipe Connector	56.	DWM265	3/4" O-Ring to 3/8" Pipe 90° Adp.
29.	STM23	Filter	57.	DWM266	1-1/16" O-Ring to 1/2" Pipe Adp.
30.	DWM105	Hyd. Hose 1/2"x63" 1/2MP&1/2"MP	58.	DWM204	Temp. & Oil Level Gauge
**	DWM102	Hyd. Hose 1/2"x25" 1/2"MP&1/2"MP	59.	DWM363	Hose 1/4" x 31.25"
			60.	T188A	Hydraulic Cylinder 2-1/2" x 8"
			61.	DWM365	1" Adapter Union w/Hole

NOTE: * (MEANS NOT SHOWN)
**** (12' TWIN MERGER ONLY)**

FIGURE 11

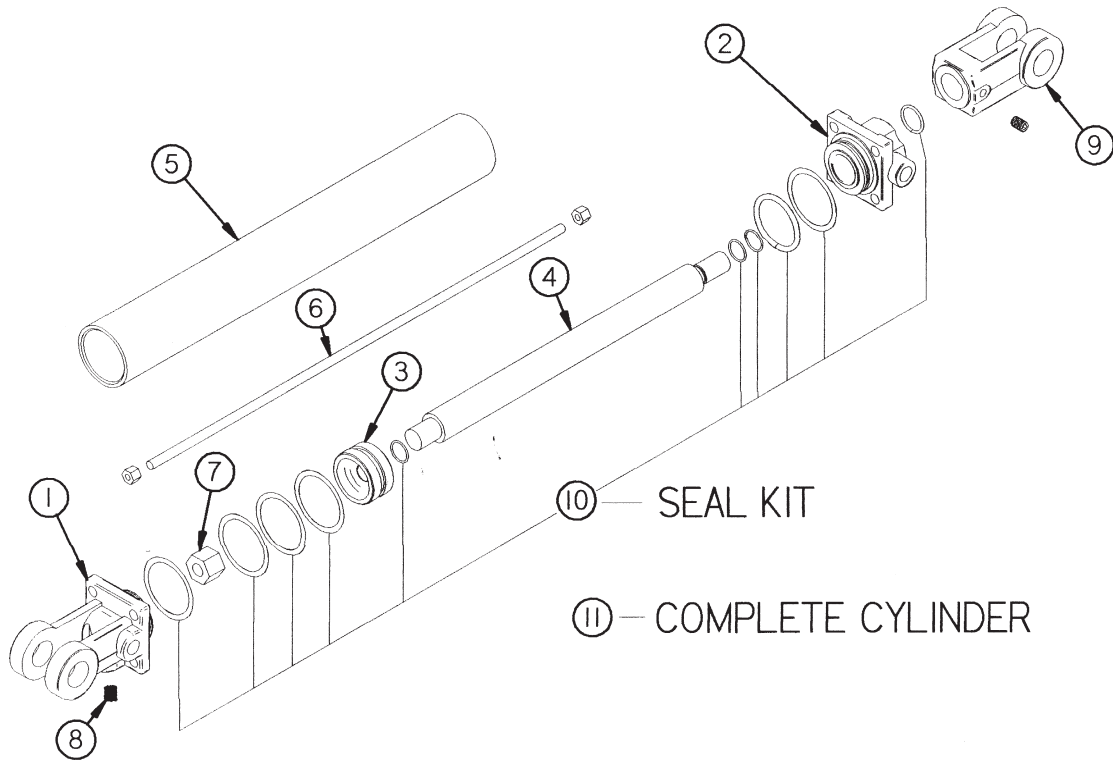


FIGURE 11
H&S 9' & 12' TWIN MERGER PICK-UP HEAD 2" x 8"
HYDRAULIC CYLINDER

ITEM	PART NO.	DESCRIPTION
1.	23N142A	Clevis Cap
2.	23N143A	Rod Cap
3.	23N144	Piston
4.	T134A	Rod
5.	BFR68	Cylinder Tube
6.	T186	Tie Rod
7.	23N148	Piston Nut
8.	23N149	Plug
9.	23N150A	Rod Clevis
10.	23N151	Seal Kit
11.	BFR69A	Complete Cylinder

FIGURE 12

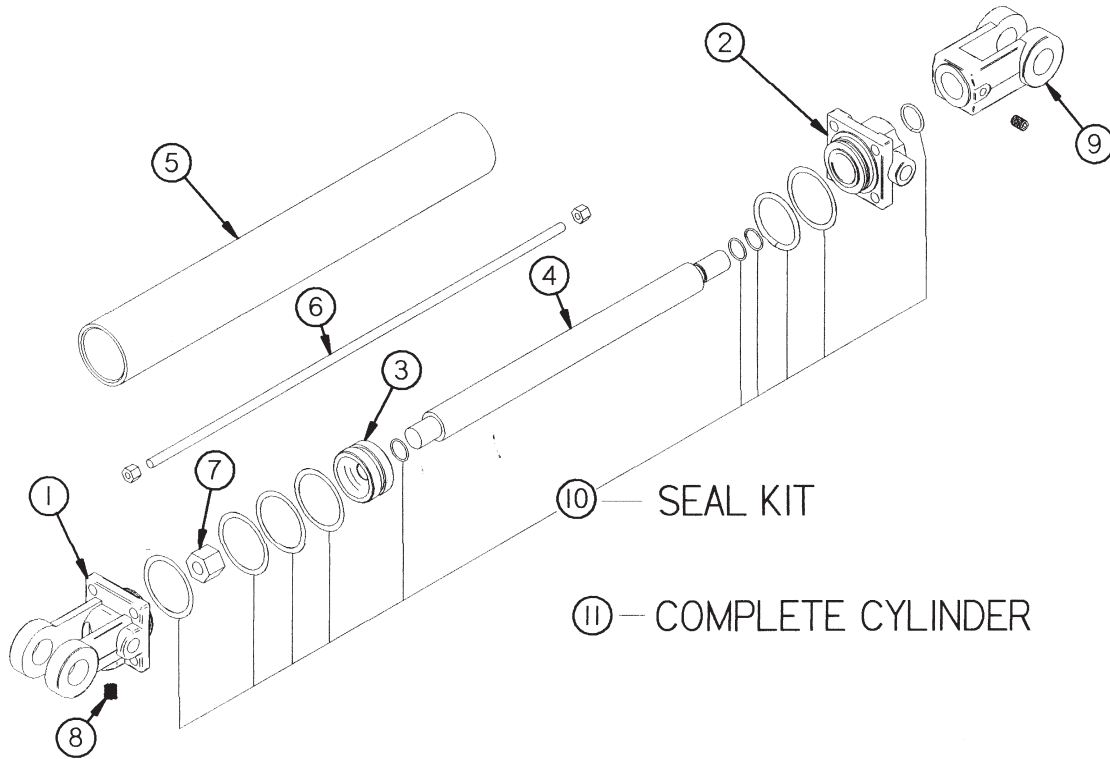


FIGURE 12
H&S 9' & 12' TWIN MERGER POLE 3-1/2" x 30"
HYDRAULIC CYLINDER

ITEM	PART NO.	DESCRIPTION
1.	DWM417	Clevis Cap
2.	DWM418	Rod Cap
3.	DWM419	Piston
4.	DWM420	Rod
5.	DWM421	Cylinder Tube
6.	DWM422	Tie Rod
7.	DWM423	Piston Nut
8.	DWM424	Plug
9.	DWM425	Rod Clevis
10.	DWM426	Seal Kit
11.	DWM406	Complete Cylinder

FIGURE 13

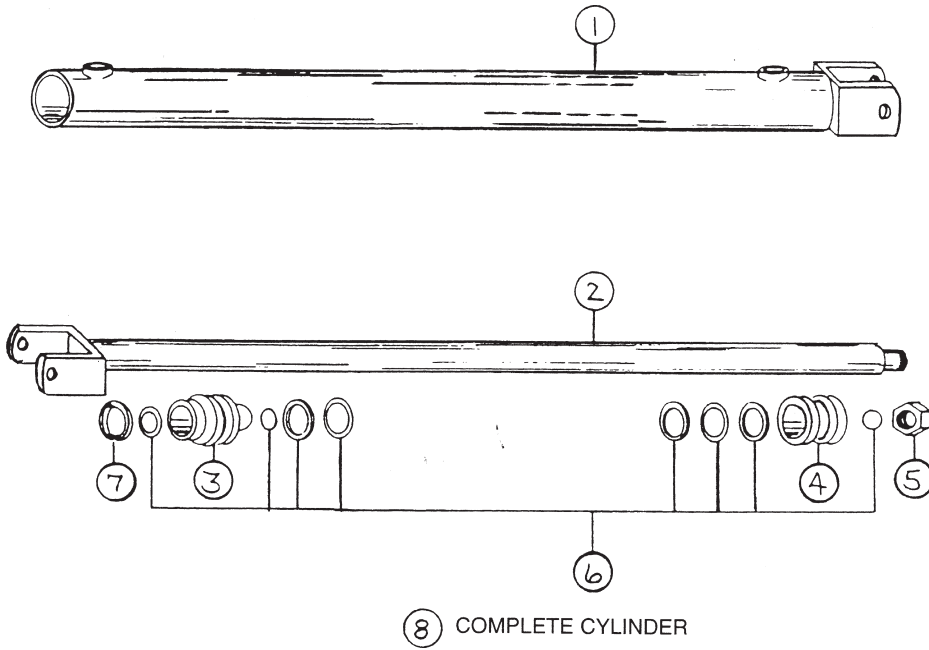


FIGURE 13
H&S 9' TWIN MERGER HEAD SHUTTLE 2" x 38"
HYDRAULIC CYLINDER

ITEM	PART NO.	DESCRIPTION
1.	DWM202	Case Weldment
2.	DWM203	Rod Weldment
3.	BFR330	Head Gland
4.	BFR331	Piston
5.	BFR332	Jam Nut
6.	BFR333	Seal Kit
7.	BFR334	Snap Ring
8.	DWM152	Complete Cylinder

FIGURE 14

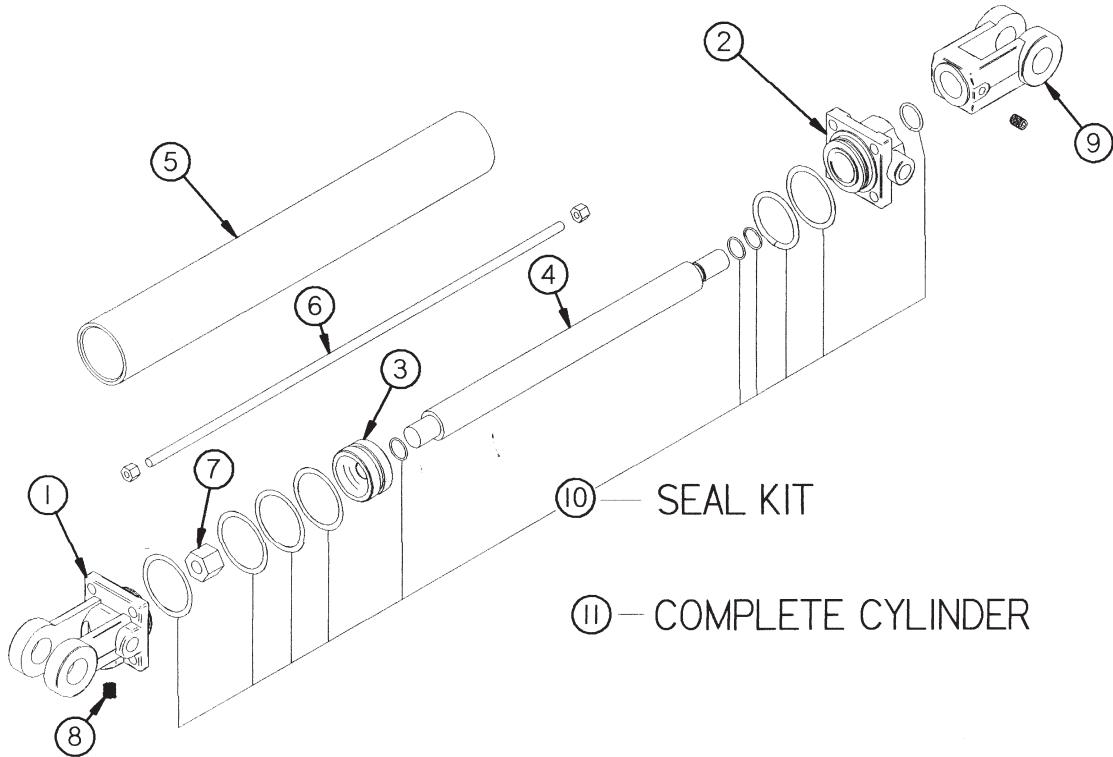


FIGURE 14
H&S 9' & 12' TWIN MERGER LOAD LEVELER 2-1/2" x 8"
HYDRAULIC CYLINDER

ITEM	PART NO.	DESCRIPTION
1.	T181A	Clevis Cap
2.	T182A	Rod Cap
3.	T183	Piston
4.	T184A	Rod
5.	T185	Cylinder Tube
6.	T186	Tie Rod
7.	23N148	Piston Nut
8.	23N149	Plug
9.	23N150A	Rod Clevis
10.	T187	Seal Kit
11.	T188A	Complete Cylinder

FIGURE 15

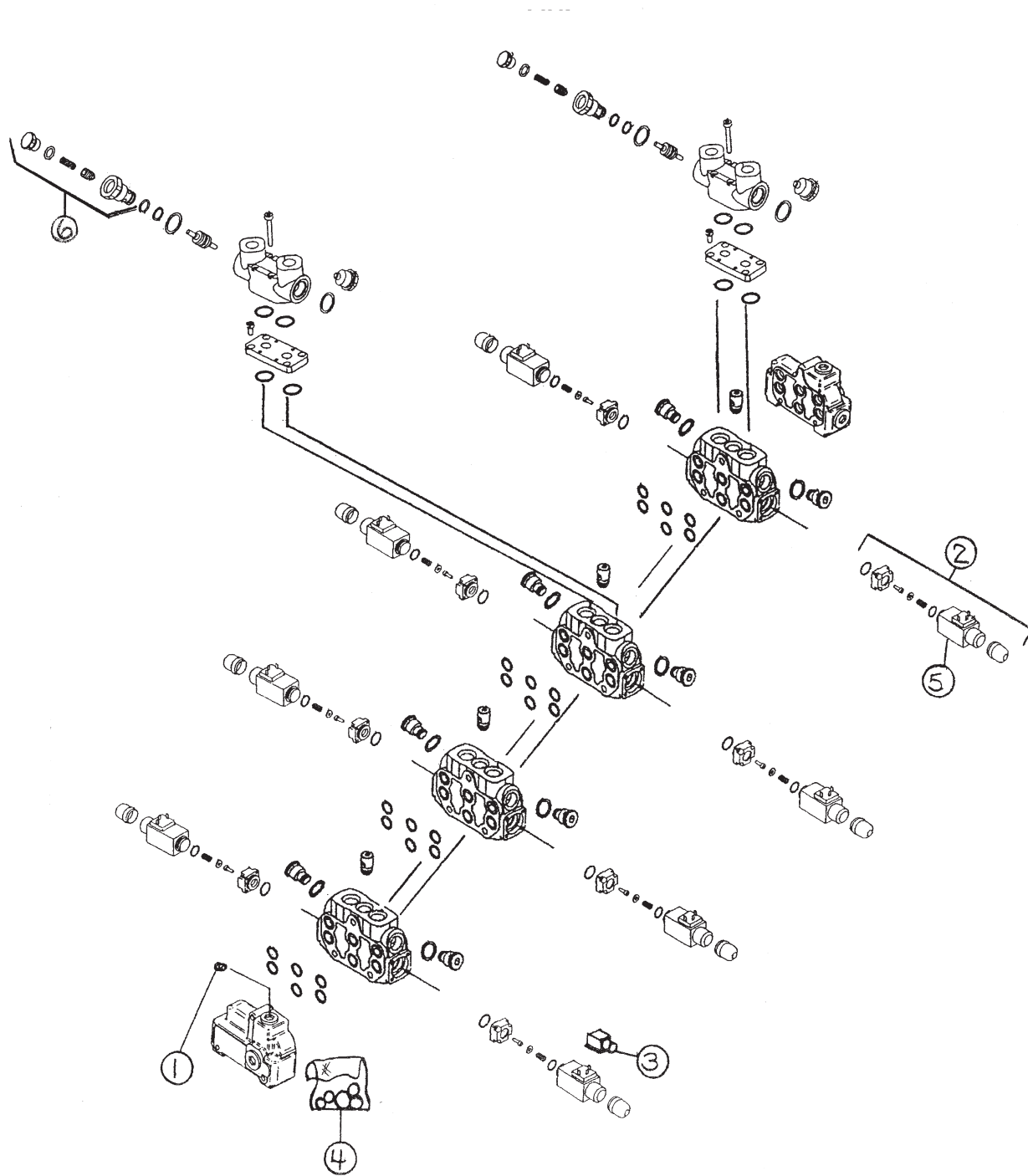


FIGURE 15
H&S 9' TWIN MERGER ELECTRIC/HYDRAULIC
VALVE BREAKDOWN

ITEM	PART NO.	DESCRIPTION
1.	DWM389	Close Center Plug
2.	DWM390	Solenoid Assembly
3.	DWM305	Din Connector
4.	DWM391	Seal Kit
5.	DWM392	Solenoid Block & Pin
6.	DWM393	Check Valve Repair Kit
*	DWM388	Complete Valve

NOTE: * (MEANS NOT SHOWN)

FIGURE 16

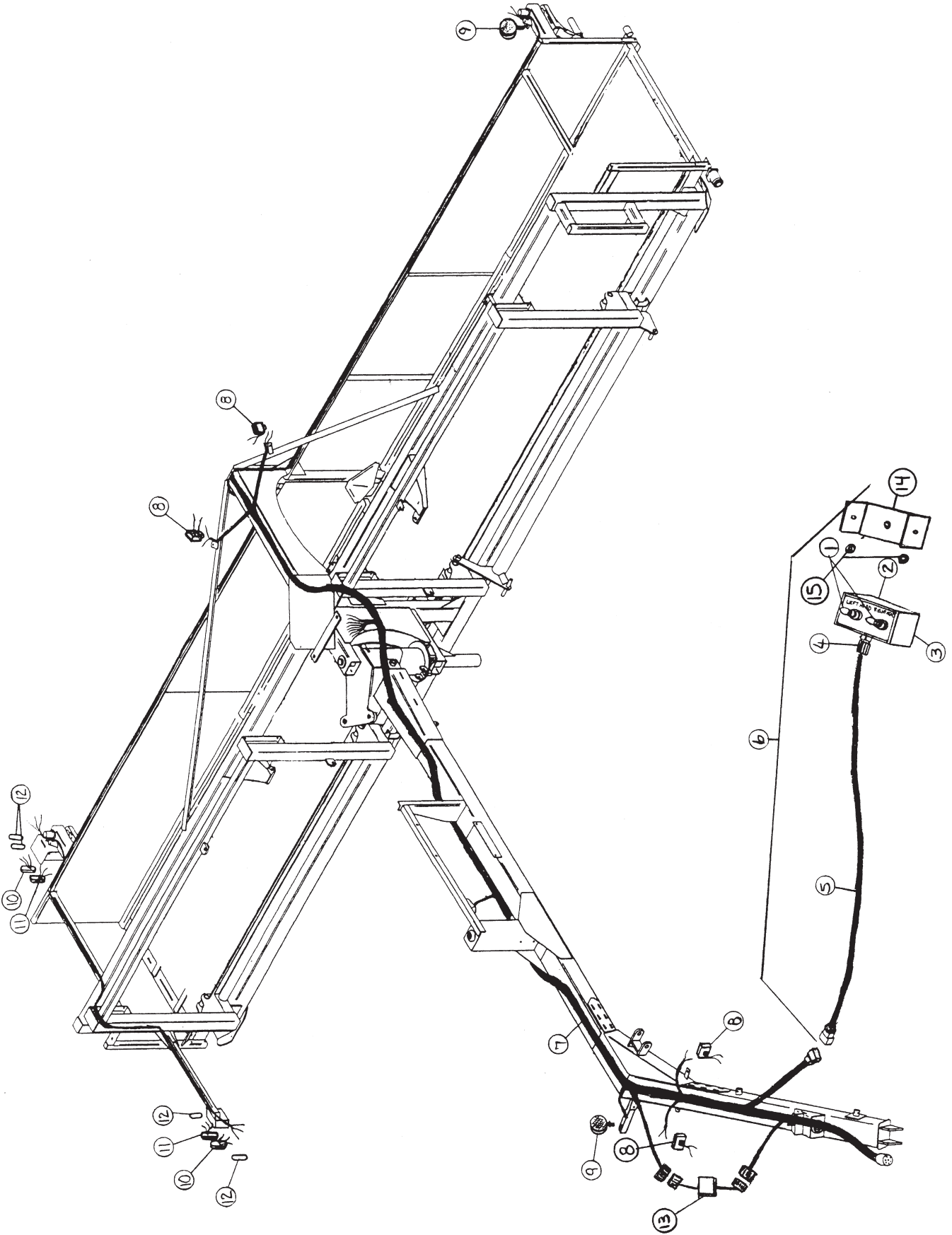
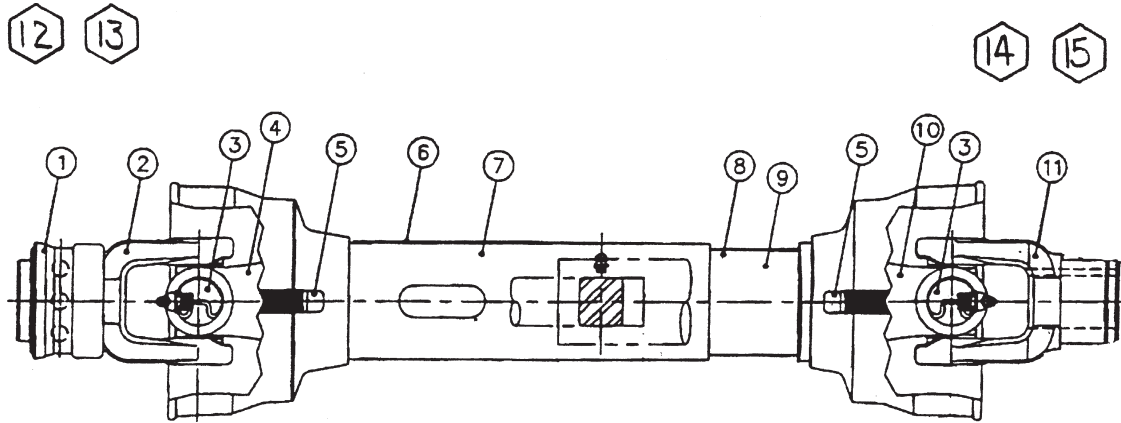


FIGURE 16
H&S 9' & 12' TWIN MERGER
ELECTRIC WIRING HARNESS

ITEM	9' HEAD	12' HEAD	DESCRIPTION
1.	DWM174	-	Joy Stick & Switch
2.	DWM139	-	Control Box Top
3.	DWM140	-	Control Box Bottom
4.	DWM175	-	Strained Relief (Cord Grip)
5.	DWM176	-	Cord
6.	DWM167	-	Complete Control Box
7.	DWM362	SHM16	Main Wiring Harness
8.	DWM130	"	Flood/Work Lights
9.	DWM129	"	Yellow Hazard Lights
10.	DWM131	"	Yellow Tail Lights
11.	S310	"	Red Tail Lights
12.	S308	"	Rubber Light Mount
13.	S441	"	Light Module
14.	DWM326	-	Control Box Yoke
15.	DWM327	-	Poly Washer
*	DWM406	-	Knob (2)
*	DWM404	-	Rubber Washer (2)

NOTE: - (MEANS NOT USED ON THIS MODEL)
" (MEANS SAME PART AS PREVIOUS MODEL)
*** (MEANS NOT SHOWN)**

FIGURE 17

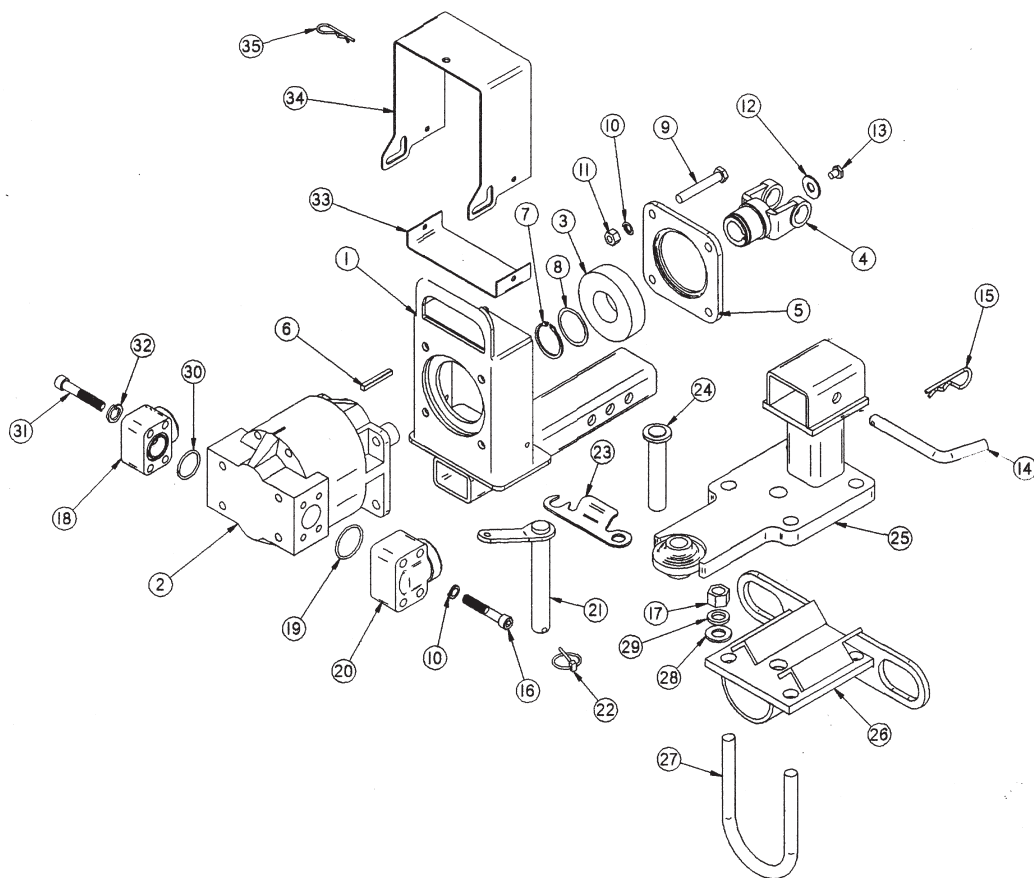


**FIGURE 17
H&S 9' & 12' TWIN MERGER
PTO ASSEMBLY**

ITEM	PART NO.	DESCRIPTION
1.	S225	Spring Lock Repair Kit
2.	37N73	Spring Lock Yoke Assembly #14121-1012
3.	14NW KIT	Cross & Bearing Kit (14R)
4.	DWM289	Yoke & Shaft
5.	4N20	Nylon Repair Kit
6.	DWM290	Safety Sign
7.	DWM291	Outer Guard
8.	DWM292	Inner Guard
9.	DWM293	Safety Sign (Not Shown)
10.	DWM294	Yoke, Tube & Slip Sleeve
11.	DWM295	Yoke
12.	DWM296	Joint & Shaft Half Assembly w/Guard
13.	DWM297	Joint & Shaft Half Assembly
14.	DWM298	Joint & Tube Half Assembly w/Guard
15.	DWM299	Joint & Tube Half Assembly
*	DWM300	Complete PTO

NOTE: * (MEANS NOT SHOWN)

FIGURE 18



**FIGURE 18
H&S 9' & 12' TWIN MERGER
HITCH ASSEMBLY**

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	DWM336	Receiver Pump Mount	18.	DWM283	Pressure L-Flange
2.	DWM276	PTO Pump	19.	DWM284	O-Ring
*	DWM302	Replacement Shaft Seal	20.	DWM285	Return L-Flange
3.	DWM277	Thrust Roller Bearing	21.	DWM273	Draw Pin
4.	DWM295	PTO Yoke (See Figure 17)	22.	F56	Clip Pin
5.	DWM278	Outside Bearing Housing	23.	DWM286	Drawbar Pin Lock
6.	DWM279	5/16"x2-1/4" Key (Round Edges)	24.	DWM274	Hitch Pin
7.	DWM280	Snap Ring 2"	25.	DWM271	Hitch Extension
8.	G92	Shim (As Needed)	26.	DWM272	Hitch Plate
9.	16SV91	1/2" x 3-1/4" Bolt GR. 5	27.	DWM287	U-Bolt (2)
10.	R35	1/2" Lock Washer	28.	DWM288	3/4" Flat Washer
11.	R29	1/2" Nut	29.	RG199	3/4" Lock Washer
12.	DWM320	1/2" Flat Washer	30.	DWM311	O-Ring
13.	DWM301	Bolt - Metric	31.	DWM312	7/16" Socket Head Cap Screw
14.	10WR14	5" Bent Pin	32.	DWM313	7/16" Lock Washer
15.	DWM310	Hair Pin	33.	DWM330	Lower PTO Shield
16.	DWM281	1/2" Socket Head Cap Screw	34.	DWM329	Upper PTO Shield
17.	DWM282	3/4" Nut	35.	X97	Hair Pin

NOTE: * (MEANS NOT SHOWN)

FIGURE 19

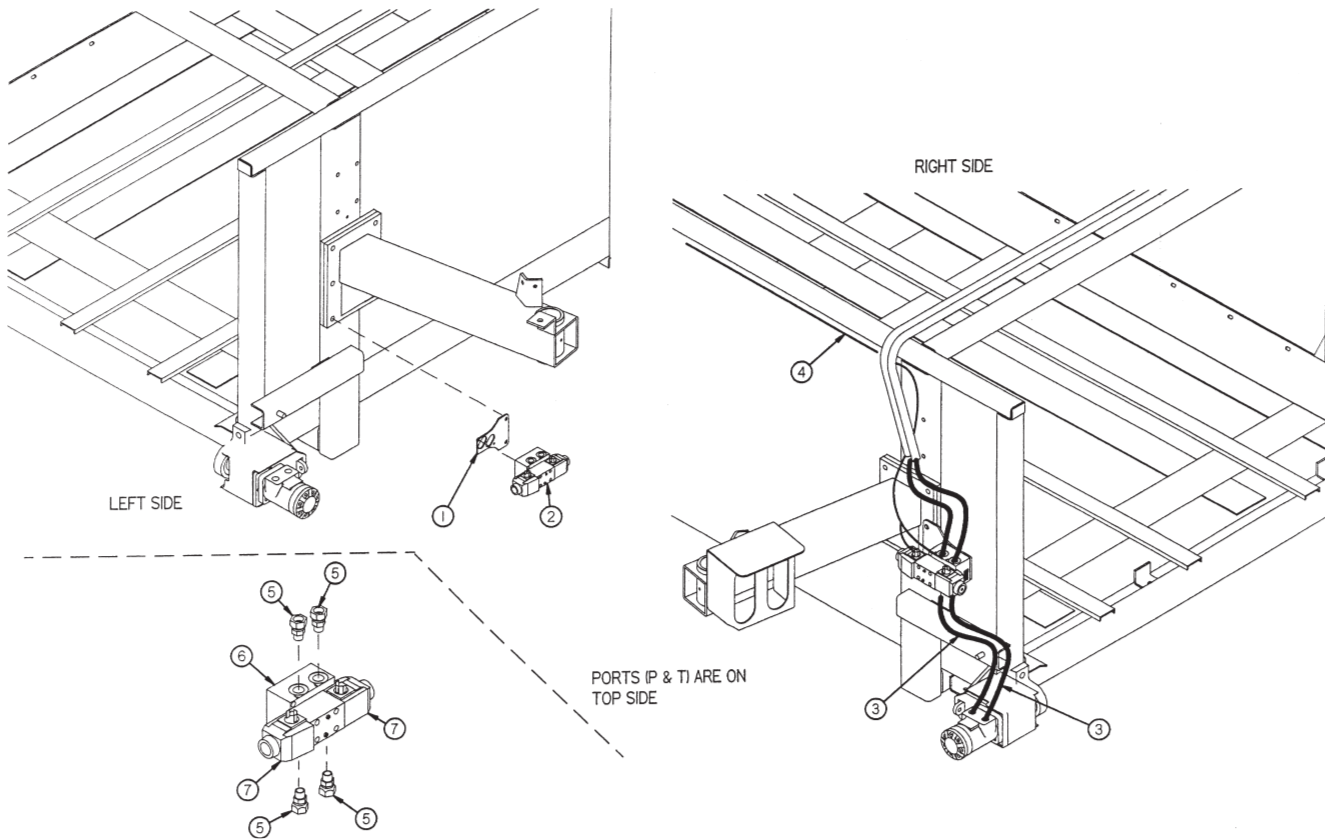
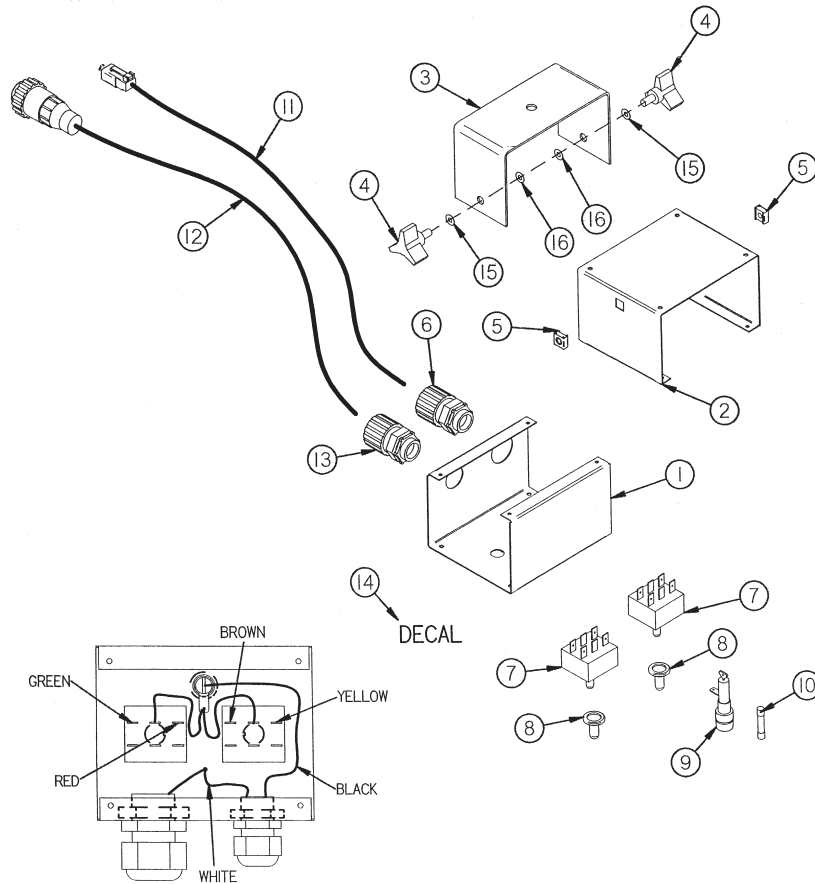


FIGURE 19
H&S 9' & 12' TWIN MERGER
VALVE MOUNTING

ITEM	PART NO.	DESCRIPTION
1.	DWM450	Conveyor Reverse Bracket
2.	DWM446	Valve (Complete)
3.	DWM104	Hydraulic Hose 1/2" X 19" - 1/2 MP X 1/2" MP
4.	DWM445	Wiring Harness
5.	DWM454	Union Adapter (6900-8-8)
6.	DWM457	Valve Base
7.	DWM458	Coil

FIGURE 20



**FIGURE 20
H&S 9' & 12' TWIN MERGER
CROSS CONVEYOR CONTROL BOX**

ITEM	PART NO.	DESCRIPTION
1.	DWM447	Control Box Top
2.	DWM448	Control Box Bottom
3.	DWM449	Control Box Mount
4.	HD174	Knob
5.	HD173	Panel Nut
6.	DWM455	Strain Relief
7.	DWM453	Switch (Hesitation)
8.	16SV235	Switch Boot
9.	16SV231	Fuse Holder
10.	DWM456	Fuse (15 Amp)
11.	DWM444	Implement Cord
12.	16SV271	Power Cord
13.	16SV316	Strain Relief (Cord Grip)
14.	120406	Decal
15.	DWM327	Poly Washer
16.	DWM404	Rubber Washer
*	DWM452	Complete Cross/Reverse Box

NOTE: * (MEANS NOT SHOWN)

FIGURE 21

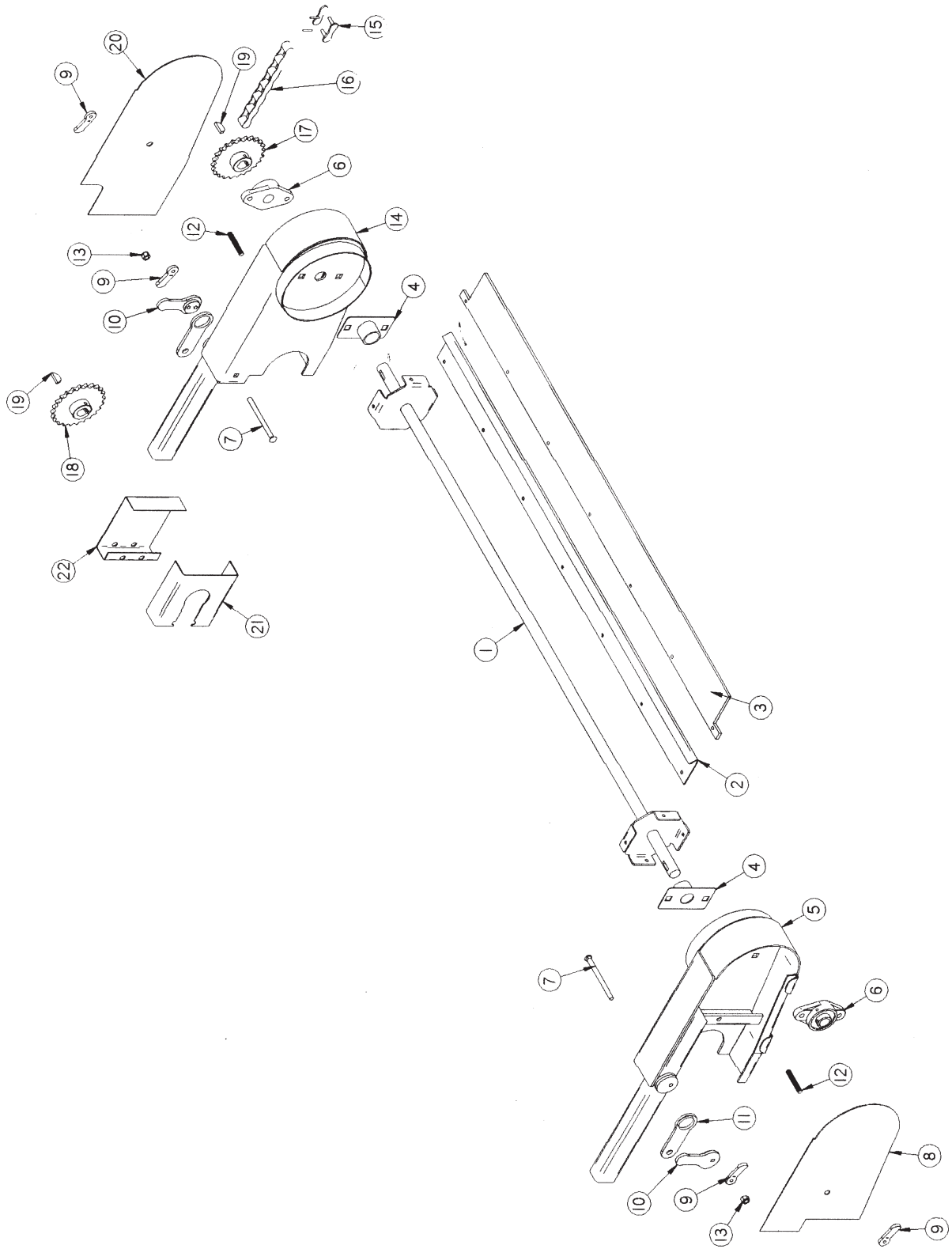


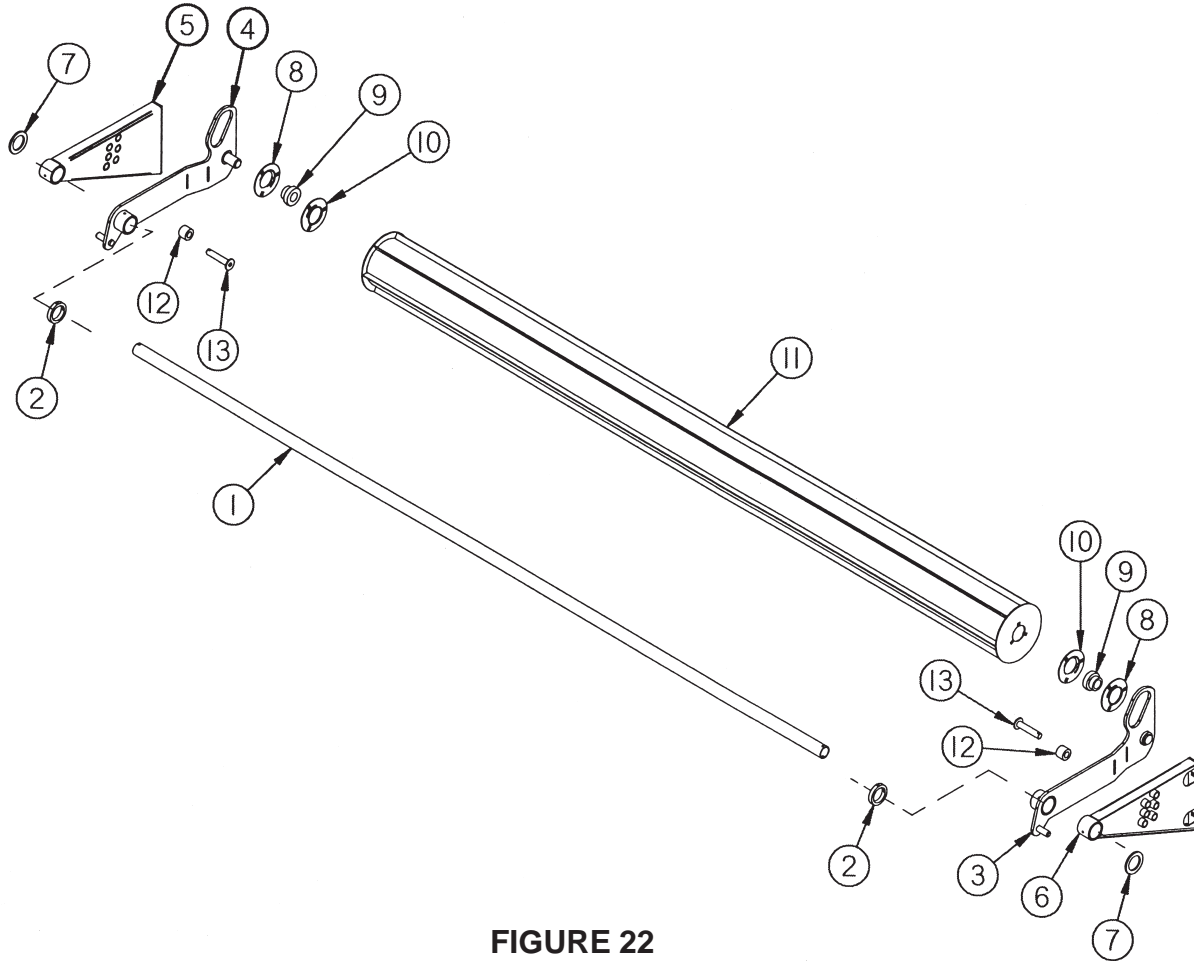
FIGURE 21
H&S 9' & 12' TWIN MERGER
OPTIONAL ACCELERATOR

ITEM	PART NO.	DESCRIPTION
1.	DWM207	Accelerator Shaft
2.	DWM212	Accelerator Plate
3.	DWM220	Rubber
4.	DWM211	Wrap Guard
5.	DWM208	Mounting Bracket (1)
6.	DWM221	1" Bearing
7.	DWM222	3/8" x 5-1/2" Carriage Bolt GR. 2
8.	DWM214	Shield (1)
9.	DWM219	Handle Nut
10.	DWM210	Latch Handle
11.	DWM217	Latch
12.	DWM218	Ready Rod
13.	A14	3/8" Nylock Nut
14.	DWM209	Mounting Bracket (2)
15.	X61	#50 Connector Link
16.	SWM53	#50 Roller Chain (57 Pitches)
17.	X106	Sprocket 24T 1" Bore
18.	SWM45	Sprocket 17T 1-1/4" Bore
19.	5B10	1/4" x 1" Woodruff Key
20.	DWM213	Shield
21.	DWM216	Sprocket Shield Back
22.	DWM215	Sprocket Shield
23.	S135	1/4" x 1-1/4" Square Key
*	DWM323	Complete Accelerator Kit

NOTE: * (MEANS NOT SHOWN)

NOTE: RIGHT HAND DRIVE SHOWN

FIGURE 22



**FIGURE 22
H&S TWIN MERGER 9' & 12' CROP ROLLER**

	9'	12'	
ITEM	PART #	PART #	DESCRIPTION
1.	WM357	WM346	Front Support
2.	WM347	"	Collar
3.	WM348	"	Left Arm
4.	WM349	"	Right Arm
5.	WM350	"	Right Bracket
6.	WM351	"	Left Bracket
7.	DWM227	"	Wind Guard Washer
8.	F114A	"	Bearing Flange(45° Zerk)
9.	F115	"	1-1/4" Bearing
*	F16	"	1-1/4" Lock Collar
10.	F14	"	Bearing Flange
11.	WM356	WM352	Crop Roller
12.	WM353	"	Poly Bumper
13.	WM354	"	Adjustment Pin

NOTE: *(MEANS NOT SHOWN)

H&S 9' & 12' TWIN MERGER

Your new H&S Twin Merger 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 Twin Merger before reading this manual carefully. Keep this manual available for ready reference.

9' & 12' TWIN MERGER SPECIFICATIONS

	9' Pickup	12' Pickup
Base Unit Height (Transport).....	7'3"	7'3"
Base Unit Height (Working Position).....	7'3"	7'3"
Base Unit Width (Transport).....	13'3"	13'3"
Base Unit Width (Working Position).....	33'8"	33'8"
Base Unit Length (Transport).....	39'11"	39'11"
Base Unit Length (Working Position).....	34'	34'
Base Unit Weight.....	10,000 lbs.	10,500 lbs.
Tongue Weight (Transport).....	800 lbs.	800 lbs.
Individual Pickup Width.....	9'	12'
Cross Conveyor Width.....	54"	54"
Tire Size (Frame) Tail Wheels.....	11L x 15 - 8 Ply.....	
Tire Size (Frame) Front Wheels.....	11L x 15 LRF Hiway Service....	
Tire Size (Frame) Frame Gauge Wheels.....	18.5 x 8.5 - 8.....	
Tire Size (Pickup) Gauge Wheels.....	18.5 x 8.5 - 8.....	
Merging Capabilities.....	12' to 20' Width of Cut.....	
Tractor Size.....	Minimum 100 H.P..... Recommended 120 H.P.	
	1000 RPM 1-3/8" - 21 Spline	
Warranty.....	120 Days - Parts & Limited Labor.	

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:

Determine right or left side of Twin Merger by viewing it from the rear. If instructions or parts lists call for hardened bolts see page 9 to identify.

H&S MANUFACTURING CO. INC.

2608 S. Hume Ave.
P.O. Box 768 - Telephone (715) 387-3414
FAX (715) 384-5463
MARSHFIELD, WI 54449



H&S WAREHOUSE Rt #5 and 76
P.O. Box 1260 - Telephone (716) 736-7595
FAX (716) 736-7596
RIPLEY, NY 14775

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