



ALLEN

CONCRETE PAVERS™

MODEL 6036B BRIDGE DECK FINISHER

OPERATIONS AND PARTS MANUAL



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allen
ENGINEERING
CORPORATION

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SECTION 1 INTRODUCTION

WARRANTY

LIMITED WARRANTY and LIMITATION OF LIABILITY

Allen Engineering Corporation ("Allen") warrants its products to be free of defects in material or workmanship for the following periods:

A. New Machines and Parts One Year

The above listed warranty periods are effective for Allen Machines with a first day of use by End User on April 1, 2007 or later.

Warranty period begins on first day of use by End User. This first day of use is established by the date of a completed Allen Warranty Card or a Bill of Sale to the End User. All warranty is based on the following limited warranty terms and conditions, including the disclaimer of implied warranties and consequential damages.

1. Allen's obligation and liability under this warranty is limited to repairing or replacing parts if, after Allen's inspection, there is determined to be a defect in material or workmanship. Allen reserves the choice to repair or replace.
2. If Allen chooses to replace the part, it will be at no cost to the customer and will be made available to the Allen Distributor, Dealer, or Rental Center from whom the End User purchased the product.
3. Replacement or repair parts, installed in the product, are warranted only for the remainder of warranty period of the product as though they were the original parts.
4. Allen does not warranty engines. Engine warranty claims should be made directly to an authorized factory service center for the particular engine manufacturer.
5. Allen's warranty does not cover the normal maintenance of products or its components (such as engine tune-ups and oil & filter changes). The warranty also does not cover normal wear and tear items (such as belts and consumables).
6. Allen's warranty will be void if it is determined that the defect resulted from operator abuse, failure to perform normal maintenance on the product, modification to product, alterations or repairs made to the product without the written approval of Allen. Allen specifically excludes from warranty any damage to any trowels resulting from an impact to the rotors.
7. Impact damage is not covered under the Allen Gear Box warranty.
8. Allen will pay shop labor on warranty items at the Allen Shop Labor Rate in existence on the date of the warranty claim. An Allen Labor Chart will determine the time allowed to complete a repair and will govern the shop labor hours that will be allowed.
9. Allen will pay freight on warranty replacement parts at worldwide standard ground rates. No warranty replacement parts will be shipped air freight at the expense of Allen. Allen only pays outbound freight charges when sending warranty replacement parts to the customer via ground service. Allen does not pay any inbound freight. However, if Allen determines this to be a warranted item, only then will Allen reimburse the customer for inbound freight at standard ground rates.
10. ALLEN ENGINEERING CORPORATION'S WARRANTY POLICY WILL NOT COVER THE FOLLOWING: TAXES; SHOP SUPPLIES; ENVIRONMENTAL SURCHARGES; AIR FREIGHT; TRAVEL TIME; LOSS OF TIME; INCONVENIENCE; LOSS OF RENTAL REVENUE; RENTAL COSTS OF EQUIPMENT USED TO REPLACE THE PRODUCT BEING REPAIRED; LOSS OF USE OF THE PRODUCT; COMMERCIAL LOSS; OR ANY OTHER CHARGES WHATSOEVER OR ANY LIABILITIES FOR DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGE OR DELAY.
11. ALLEN ENGINEERING CORPORATION MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED. THIS LIMITED WARRANTY IS IN LIEU OF THE WARRANTY OF MERCHANTABILITY AND FITNESS. THERE ARE NO OTHER WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THIS DOCUMENT.
12. No Allen employee or representative is authorized to change this warranty in any way or grant any other warranty unless such change is made in writing and signed by an officer of Allen Engineering Corporation.

STANDARD UNIT

- Steel construction
- Crown changes at all hinge points or carriage rail.
- Machine automatically moves forward (0 to 12 Inches) at the end of each carriage pass.
- Machine Width.....36 Ft - (10.97 M) Can be extended to 90 Ft (27.43 M)
- Leg Span..... Max 33.4 Ft (10.18M) Min 15.0 Ft (4.57 M)
- Roller Finishing Width Max 31.3 Ft (9.54 M) Min 12 Ft (3.66 M)
- Jacks..... 4 Inch Standard, Heavy duty
- Bogie Assembly (2 Wheels per Bogie) 3 Ft Wheel Center to Wheel Center (0.914 M)
- Power UnitKohler Gasoline 25 HP

PAVING CARRIAGE

- Pivotal mounting to allow for decks that are skewed.
- Individually adjusted augers.
- Five foot long dual rollers.
- Individual roller rotation selection with automatic roller reversing or non-roller reversing.
- Automatic paving carriage travel reversal.
- Adjustable Drag Pan and Texturing Drag
- Roller Tamper Vibration System
- Power UnitKohler Gasoline 25 HP

OPTIONAL ACCESSORIES

- Extension Inserts - 18 Ft (5.49 M), 15 Ft (4.57 M), 12 Ft (3.65 M), 6 Ft (1.83 M), and 3 Ft (0.91 M)
- Power Assist Crown Adjustment
- Four Wheel Transport Dolly
- Adjustable Towing Tongue
- Skew Bar Kit
- Swing Out Legs
- Roller Tamper Vibration System
- Auxillary Internal Vibrator
- Carriage Lift
- 6-Wheel Bogie System
- Bogie Wheel Selection
- Automatic Grade Control

SERIAL NUMBER LOCATION

Always provide the Serial Number assigned to your machine when ordering parts or when requesting service or information. The Serial Number is stamped on Serial Plates and are located on the Power Unit and the Paving Carriage. We suggest that you write the serial number and other information below:

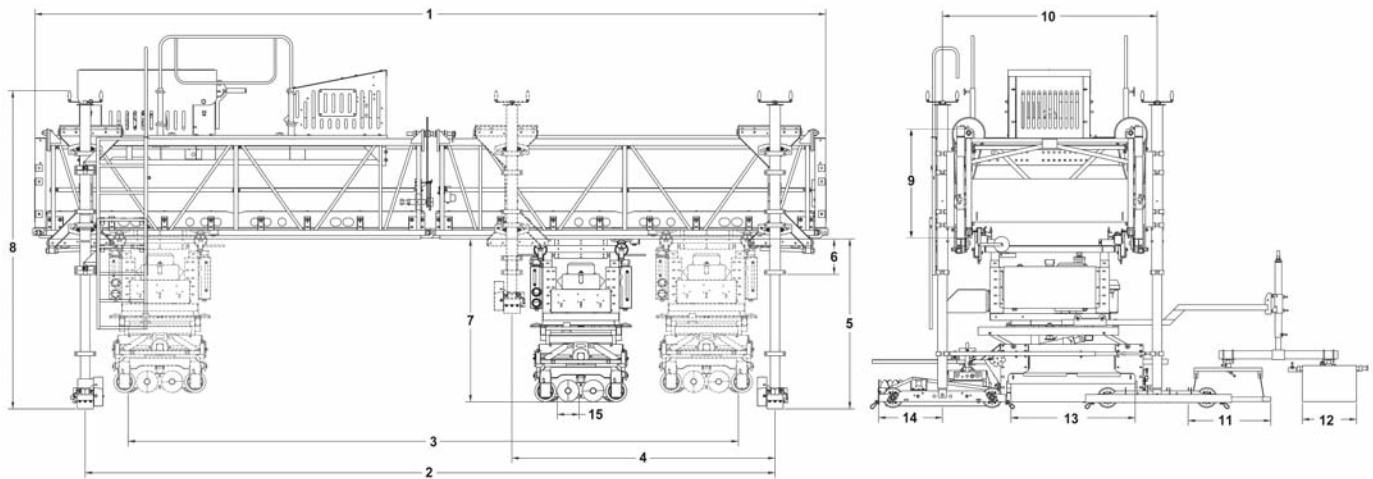
MODEL: _____

SERIAL NUMBER: _____

PRODUCTION YEAR: _____

SECTION 1 INTRODUCTION

SPECIFICATIONS (cont'd)



KEY	DESCRIPTION	MEASUREMENT	
1	Overall Machine Length	36 Ft 6 In	11.12 M
2	Leg Span - Independently Adjustable Jack Mounts	33 Ft 3 In	10.15 M
3	Finishing Width	31 Ft 4 In	9.55 M
4	Maximum Leg Travel -Independently Adjustable Jack Mounts	15 Ft 3 In	4.66 M
5	Maximum Frame Clearance Above Screed Rail	47 In	119.38 Cm
6	Minimum Frame Clearance Above Screed Rail	15 In	38.10 Cm
7	Frame Clearance Above Finished Concrete	36 In	91.44 Cm
8	Height to Top of Leg	103 In	2.62 M
9	Height of framework	36 In	91.44 Cm
10	Leg Center Spacing	67 3/8 In	1.71 M
11	Drag Pan Length	33 In	83.82 Cm
12	Burlap Drag Length	19 In	48.26 Cm
13	Finishing Roller Length	46 In	116.84 Cm
14	Auger Length	32 In	81.28 Cm
15	Auger Diameter	8 In	20.3 Cm

EXAMPLE					
DEAD LOADS	TOTAL WEIGHT (LBS)		IDLER END (LBS PER WHEEL)		POWER UNIT END (LBS PER WHEEL)
STD. MACHINE WEIGHT	4975	/8	622		622
EXTRA INSERTS	1016	/8	127		127
ACCESSORIES	480	/8	60		60
MACHINE TRANSFER WEIGHT		-	175	+	175
LIVE LOADS					
BASIC CARRIAGE WEIGHT	2750	/4	688		688
CARRIAGE ACCESSORIES	900	/4	225		225
OPERATOR WEIGHT	200	/4	50		50
TOTAL WEIGHTS	10321 (LBS)		1947 (LBS PER WHEEL)		1947 (LBS PER WHEEL)

YOUR MACHINE					
DEAD LOADS	TOTAL WEIGHT (LBS)		IDLER END (LBS PER WHEEL)		POWER UNIT END (LBS PER WHEEL)
STD. MACHINE WEIGHT		/8			
EXTRA INSERTS		/8			
ACCESSORIES		/8			
MACHINE TRANSFER WEIGHT		-		+	
LIVE LOADS					
BASIC CARRIAGE WEIGHT		/4			
CARRIAGE ACCESSORIES		/4			
OPERATOR WEIGHT		/4			
TOTAL WEIGHTS	(LBS)		(LBS PER WHEEL)		(LBS PER WHEEL)

SECTION 1 INTRODUCTION

MACHINE WEIGHTS (cont'd)

MACHINE WEIGHTS - All Weights are approximate and may change.

The standard weight of your machine is _____ lbs, assembled from _____ sections at the factory. Write the basic weight of your machine into the *total weight* column on Page 5. Divide the total weight by 8 (the number of machine wheels) to get the weight per wheel on the idle end and the driver end of the machine.

Example: 4376 lbs TOTAL WEIGHT / 8 = 547 lbs. Write the weight per wheel of your machine in the idle end and power unit end columns on Page 2.

Weight of Machine Insert Sections (Includes braces, framework and connecting hardware)

•3 Ft Section	With Leg Rail = 315 lbs (132 Kg)
•3 Ft Section	Without Leg Rail = 293 lbs (126 Kg)
•4 Ft Section	With Leg Rail = 360 lbs (164 Kg)
•4 Ft Section	Without Leg Rail = 342 lbs (147 Kg)
•6 Ft Section	With Leg Rail = 486 lbs (196 Kg)
•6 Ft Section	Without Leg Rail = 441 lbs (174 Kg)
•12 Ft Section	With Leg Rail = 813 lbs (334 Kg)
•12 Ft Section	Without Leg Rail = 700 lbs (281 Kg)
•15 Ft Section	With Leg Rail = 848 lbs (394 Kg)
•15 Ft Section	Without Leg Rail = 827 lbs (332 Kg)
•18 Ft Section	With Leg Rail = 1132 lbs (464 Kg)
•18 Ft Section	Without Leg Rail = 954 lbs (403 Kg)

Determine the number of each length and type of insert section that are going to be added to the basic machine. Add the weights of those sections to get the total weight of extra sections. Example: (2) 3 Ft Insert with rail 292 lbs + (1) 6 Ft Insert with rail 432 lbs = 1016 lbs. Write this weight in the total weight column. Divide the total weight of the extra inserts by the number of wheels (8) to determine weight per wheel on the idle end and the driver end of the machine.

Example 1016 lbs / 8 = 127 lbs PER WHEEL. Weight of machine accessories (These weights take into consideration any standard machine parts that the accessory replaced). Unfortunately, not all accessory weights are currently available. If your accessory is not included in the list below, contact the Allen Engineering Corporation Service Department.

• 4 Inch Swing Legs (2 Ends - Set of 4)	480 lbs (218 Kg)
• Power Crown Adjuster less 65 lbs Manual Crown	410 lbs (186 Kg)
• Towing Tongue	97 lbs (44 Kg)
• Power Widening (1 End)	100 lbs (45 Kg)
* Six Wheel Bogie System	840 lbs (381 Kg)

Determine the number of accessories being added to the standard machine. Add the additional weights of those accessories. Example: Swing Legs = 480 lbs. Write this weight in the total weight column. Divide the total weight of the extra inserts by the number of wheels (8) to determine weight per wheel on the idle end and the driver end of the machine. Example 480 lbs / 8 = 60 lbs PER WHEEL

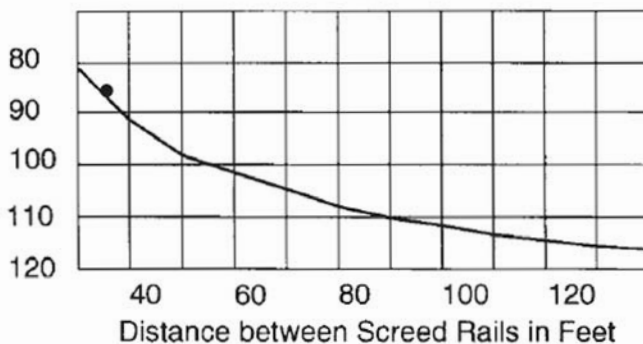
Weight Transfer of Power Units with Diesel and Gasoline Engines

The illustrations below show the additional weight that the power unit adds to the wheel load on the driver end of the machine. Graph A shows the weight to be deducted from the idler end of the machine and Graph B shows the weight to be added to the driver end of the machine. The total weight of the power unit is included in the standard machine weight. The longer the total length of the machine, the more the power unit weight is transferred to the driver end of the machine and away from the idler end of the machine. Consult the appropriate graph and determine the wheel loads for the idler end and the driver end of the machine. Write the wheel loads of your machine into the weight per wheel columns.

WEIGHT TRANSFER - GASOLINE ENGINES

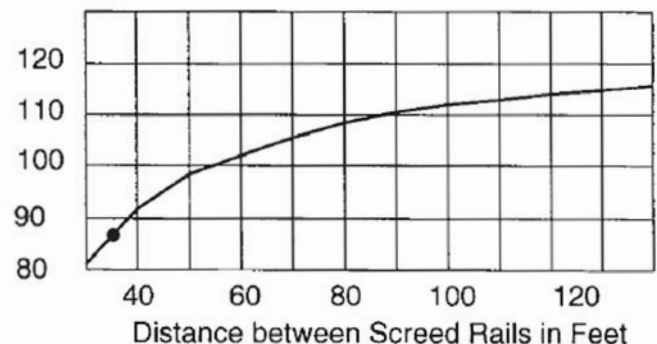
Lbs. per
Wheel

GRAPH A - IDLER END



Lbs. per
Wheel

GRAPH B - POWER UNIT END



Live Loads for 6036 Machines

The carriage, accessories and the operator are considered live loads because they move from one end of the machine to the other. It is necessary to figure that the entire weight of these live loads will be carried by only one end of the machine at a time. The standard weight of the carriage is listed below.

- **6036 Paving Carriage with Rollers (Gasoline Engine with full Fuel Tank)1860 lbs (844 Kg)**

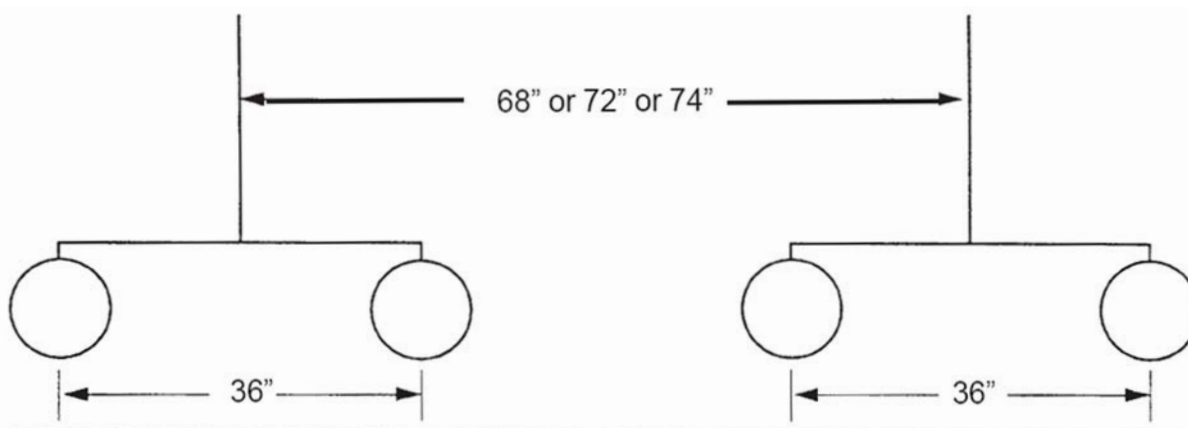
The weight per wheel is the standard weight assembled at the factory divided by the number of wheels at each end of the machine. Write the weight of the basic carriage into the total weight column. Divide the total weight by 4 to obtain the weight per wheel on the idler end and the driver end of the machine. Write the wheel loads of your machine into the weight per wheel columns. Example: 2130 lbs / 4 = 533 lbs PER WHEEL.

Weight of Carriage Accessories (These weights take into consideration any basic carriage parts that the accessory replaced). Unfortunately, not all accessory weights are currently available. If your accessory is not included in the list below, contact the Allen Engineering Service Department.

- Auxillary Internal Vibrator..... 285 lbs (129 Kg)
- Carriage Spray System (Includes the weight of 50 Gallons of water) 900 lbs (408 Kg)
- Skew Bar Kit 237 lbs (107 Kg)

SECTION 1 INTRODUCTION

Determine the number of accessories being added to the basic carriage. Add the additional weights of those accessories to get the total additional weight of the accessories. Example: Carriage Spray System = 900 lbs. Write this weight into the total weight column. Divide the total weight by 4 to obtain the weight per wheel on the idler end and the driver end of the machine. Example: $900 \text{ lbs} / 4 = 225 \text{ lbs}$. Write the wheel loads of your machine into the weight per wheel columns. The weight of 200 lbs has been used as an estimate for a typical operator. If your operator is heavier than 200 lbs, enter the appropriate weight. If other people, other than the operator, are required to be on the machine, their weights should be included. Divide the weight by the number of wheels. Write the wheel loads of your machine into the weight per wheel columns. Example: $200 \text{ lbs} / 4 = 50 \text{ lbs PER WHEEL}$



THE 6036 IS SUPPORTED BY 8 WHEELS, WITH 4 WHEELS TO EACH SIDE AS SHOWN ABOVE

EXAMPLE

DEAD LOADS	TOTAL WEIGHT (LBS)		IDLER END (LBS PER WHEEL)		POWER UNIT END (LBS PER WHEEL)
STD. MACHINE WEIGHT	4975	/8	622		622
EXTRA INSERTS	1016	/8	127		127
ACCESSORIES	480	/8	60		60
MACHINE TRANSFER WEIGHT		-	175	+	175
LIVE LOADS					
BASIC CARRIAGE WEIGHT	2750	/4	688		688
CARRIAGE ACCESSORIES	900	/4	225		225
OPERATOR WEIGHT	200	/4	50		50
TOTAL WEIGHTS	10321 (LBS)		1947 (LBS PER WHEEL)		1947 (LBS PER WHEEL)

INTRODUCTION

SECTION 1 INTRODUCTION

This manual has been generated to assist the owner/operator with the setup, operation and maintenance needed for the safe and efficient use of the 6036 Bridge Deck Paver. In order to increase the performance and efficiency of the paver it is VERY IMPORTANT that the owner/operator and other personnel read this manual thoroughly before operating or servicing the machine. A basic knowledge about the handling of concrete products is required and operators should be trained and licensed per state requirements before operating this equipment. Keep this manual in a convenient place for instant reference and never attempt to make repairs or adjustments that you do not fully understand. If you require any additional information or service do not hesitate to call the Allen Paver Service Department. (Tel: 800-643-0095 - Fax: 800-643-0097)

OPERATOR PREREQUISITE

Operation is limited to personnel with the following minimum qualifications:

1. Designated persons.
2. Trainees under the direct supervision of a designated person.
3. Maintenance and test personnel (when it is necessary in the performance of their duties).

Operators shall be required by the employer to pass a practical operating examination. Qualifications shall be limited to the specific type of equipment for which examined. Operators and operator trainees shall meet the following physical qualifications:

1. Vision of at least 20/30 Snellen in one eye and 20/50 in the other, with or without corrective lenses.
2. Ability to distinguish colors, regardless of position, if color differentiation is required for operation.
3. Adequate hearing, with or without hearing aid, for the specific operation.

Evidence of physical defects or emotional instability which could render a hazard to the operator or others, or which in the opinion of the examiner could interfere with the operator's performance, may be sufficient cause for disqualification. In such cases, specialized clinical or medical judgements and tests may be required.

Evidence that an operator is subject to seizures or loss of physical control shall be sufficient reason for disqualification. Specialized medical tests may be required to determine these conditions. Operators and operator trainees should have normal depth perception, field of vision, reaction time, manual dexterity, coordination and no tendencies to dizziness or similar characteristics.

In addition to the above listed requirements, the operator shall:

1. Demonstrate the ability to understand and interpret all labels, operator manuals, safety codes and other information relevant to the operation of the paver.
2. Possess knowledge of emergency procedures and execution of the same.
3. Demonstrate to the employer the ability to operate the specific equipment.
4. Be familiar with related safety regulations.
5. Understand responsibility for maintenance requirements.
6. Understand the operating procedures as outlined by the manufacturer.

OPERATOR CONDUCT

1. The operator shall not engage in any exercise which will divert his/her attention while actually engaged in operating the machine.
2. Each operator shall be responsible for those operations under the operator's direct control. Whenever there is any doubt as to safety, the operator shall consult with the supervisor.
3. If there is a warning sign on a switch, engine control or paver component, the operator shall not close the switch, start the engine or use the component until the warning sign has been removed or acknowledged by the appointed person.
4. Before operating the paver, the operator shall see that all controls are in the "off" or neutral position and that all personnel are in the clear.
5. In accordance with OSHA regulations 1928.51 and 1928.52, operating instructions must be provided initially to operators/employees before allowing them to operate the paver and should be reviewed annually thereafter.

The most **IMPORTANT** safety device on this equipment is an accomplished and safe operator. It is his/her responsibility to read and understand all safety and operating instructions in this manual. A person who has not read and understood all operating and safety instructions is not qualified to operate the paver. An untrained operator exposes himself/herself and bystanders to possible injury or death. All accidents can be avoided!!! **DO NOT** modify the paver in any way without consulting the factory. Unauthorized modification may impair function and/or safety and affect the working life of the equipment.

ALLEN ENGINEERING CORPORATION assumes NO LIABILITY for accidents or injury incurred through the improper use of this equipment.

SECTION 1 INTRODUCTION



SAFETY ALERT SYMBOL

The safety alert symbol recognizes important safety messages written on the paver decals, as well as, in this manual. When you see this symbol, be alert to possible danger that could result in serious injury or death.

Note the use of key signal words in association with the safety alert symbol:

DANGER - An immediate and specific hazard which will result in severe personal injury or death if the proper precautions are not taken.

WARNING - A specific hazard or unsafe practice which could result in severe personal injury or death if proper precautions are not taken.

CAUTION - Unsafe practices which could result in personal injury if proper precautions are not taken and as a reminder of good safety practices.

YOU are responsible for the safe operation and maintenance of your Allen Paver. You must ensure that you and anyone else who is going to operate, maintain or work around the machine be familiar with the operating and maintenance procedures and all related safety information contained in this manual.

GENERAL SAFETY PRECAUTIONS



1. Always read and fully understand the Operator's Manual and the safety decals on the machine before trying to operate or service this equipment.
2. It is wise to have a first aid kit available and to be familiar with its contents.
3. Keep a "charged" fire extinguisher within reach whenever you work in an area where fire may occur. Also, be sure you have the correct type of extinguisher for your situation:
 - Type A: Wood, paper, textile and rubbish.
 - Type B: Flammable liquids.
 - Type C: Electrical equipment.
4. Be sure to wear safe work clothing. It should be well fitted and in good repair. Do not wear rings,

wrist watches or loose fitting clothing when working on machinery, they could catch on moving parts causing serious injury. Wear sturdy, rough soled work shoes, safety glasses and any other protective gear that is warranted by the work environment.

5. Keep work area organized and clean. Wipe up oil spills of any kind. Keep tools and parts off floor. Eliminate the possibility of a fall which could result in serious injury.
6. Be sure to reinstall safety devices, guards or shields after adjusting and/or servicing the machine.
7. After servicing, be sure that all tools, parts or servicing equipment are removed from the vehicle or engine.
8. **Do not get into a rush!** Use recommended hand holds and steps with at least three points of support when getting on and off the paver. Keep steps, floors, hand holds and controls clean and free of grease. Face the machine when climbing up and down and never jump off the paver or dismount while it is in motion.
9. Keep all personnel clear of augers, rollers and carriage frame when operating the paver.
10. Do not permit riders on the paver.



HYDRAULIC SYSTEMS PRECAUTIONS

1. Make sure that all components are in good working condition. Replace any worn, cut, abraded, flattened or crimped hoses and metal lines.
2. Do not attempt makeshift repairs using tape, clamps or cements. The hydraulic system operates under extremely high pressure and such repairs could cause serious injury.
3. Wear proper hand and eye protection when searching for a high pressure leak. Use a piece of wood or cardboard as a back stop instead of hands to isolate and identify leaks.
4. If injured by concentrated high pressure steam or hydraulic fluid, seek medical attention immediately. Serious infections or toxic reaction can develop from hydraulic fluid penetrating the skin.



REFUELING PRECAUTIONS

1. When refueling, keep the hose nozzle or the funnel and container in contact with the metal of the fuel tank to avoid the possibility of an electrical spark igniting the fuel.
2. Do not overfill the fuel tank - overflow creates a fire hazard.
3. **DO NOT SMOKE** when refueling and never refuel when engine is running.
4. Prevent fires by keeping the machine clean of debris, grease and spilled fuel.

SECTION 1 INTRODUCTION



BATTERY PRECAUTIONS

1. Keep all sparks and flames away from battery, as gas given off by electrolyte is explosive.
2. If you come in contact with battery electrolyte solution wash off immediately.
3. Always disconnect the battery ground cable before working on the electrical system.
4. Do not tip battery more than 45 degrees to avoid electrolyte loss.



TRANSPORT PRECAUTIONS

1. Consult the 6036 Operator's Manual before attempting to lift your paver. Use extreme caution when lifting the machine. Make sure that the lifting device has enough capacity to lift the weight of the machine. Check all lifting cables, chains, clevises, cable clamps and spreader beams for any damage. Use ropes tied to the ends of the machine to prevent the machine from spinning. Keep all personnel away from the machine while it is being lifted.
2. Always comply with local regulations regarding moving equipment on public roads and highways.
3. Make sure that all lights and reflectors comply with state and local regulations. Make sure that they are clean, in good working order and can be seen clearly by all overtaking and on-coming traffic.



STORAGE PRECAUTIONS

1. Store paver in an area away from human activity.
2. Do not permit children to play on or around the stored paver.
3. Make sure the unit is stored in an area that is firm, level and free of debris.
4. Store the paver inside a building or cover securely with a weatherproof tarpaulin.



SAFETY DECALS

1. Keep Safety Decals and signs clean and legible at all times.
2. Replace decals and signs that are missing or become impossible to read.
3. When replacing parts that previously displayed a safety decal, be sure to replace the decal as well.
4. Obtain Safety Decals or signs from the Allen Parts and Service Department.
5. Become familiar with the content and the position of each Safety Decal. Important information is written on the decals.



ATTENTION
GREASE LEG SCREW DAILY;
TO AVOID GREASE LINE
BREAKAGE, APPLY
GREASE SLOWLY.



SECTION 1 INTRODUCTION

**DANGER**



INFLAMMABLE LIQUID WILL CAUSE EXPLOSION AND FIRE IF IGNITED BY ELECTRIC SPARK. TO AVOID SEVERE INJURY OR DEATH, DO NOT CONNECT BATTERY CHARGER OR JUMPER CABLES DIRECTLY TO BATTERY TERMINALS. KEEP RUBBER COVERS OVER BATTERY TERMINALS AND UNHOOK GROUND CABLE FROM CHASSIS BEFORE LOOSENING CABLE CLAMPS AT THE BATTERY TERMINALS.

**CAUTION**

GREASE SPLINE OF ENGINE DRIVE COUPLING EVERY 250 HOURS OR ANNUALLY!

ADD BEAD OF REMOVABLE HI-TEMP SILICONE SEAL TO PUMP MOUNTING FLANGE ON RE-ASSEMBLY

050135

ATTENTION

DO NOT PERMIT CARRIAGE WEIGHT AND / OR MACHINE WEIGHT TO REST ON FINISHING ROLLERS.

ATTENTION

1. STEERING BIAS VALVES INSTALLED IN CONSOLE ON 80 FT. PLUS MACHINES FROM FACTORY.
2. SLIGHTLY OPEN NEEDLE VALVE INSTALLED IN THE BOGIE LINES TO THE FASTEST MACHINE END, TO EQUALIZE TRAVEL SPEED.

**WARNING**



CRUSHING HAZARD
TO AVOID INJURY OR DEATH:

- SET POWER LEVER TO STOP BEFORE STARTING ENGINE
- DO NOT OPERATE AUGERS AND ROLLERS WITH PERSONNEL NEAR CARRIAGE.

**CAUTION**

AVOID INJURY OR MACHINE FAILURE.

- MAINTAIN 42" HANDRAIL HEIGHT WHILE OPERATING PAVER.
- REDUCE HANDRAIL HEIGHT WHEN REQUIRED, WHILE TRANSPORTING.

**CAUTION**

- SET POWER SELECTOR LEVER TO STOP BEFORE STARTING POWER UNIT ENGINE.
- SET CARRIAGE POWER LEVER TO STOP BEFORE STARTING CARRIAGE ENGINE.
- MAKE SURE ALL PERSONNEL ARE CLEAR OF MACHINE BEFORE OPERATING.
- VERIFY THAT ALL SAFETY SHIELDS AND COVERS ARE IN PLACE BEFORE OPERATING.
- CONSULT THE OWNER'S MANUAL FOR PROPER LIFTING PROCEDURE BEFORE LIFTING.
- NEVER ALLOW MACHINE WEIGHT TO REST ON FINISHING ROLLERS.
- STOP ENGINES BEFORE CLEANING OR SERVICING.

**DANGER**



SERIOUS INJURY OR DEATH RESULTS, WHEN CONTACTING AUGERS AND ROLLERS, WHILE IN OPERATION.

Section 2 - Controls and Components

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SECTION 2

CONTROLS

1. Components

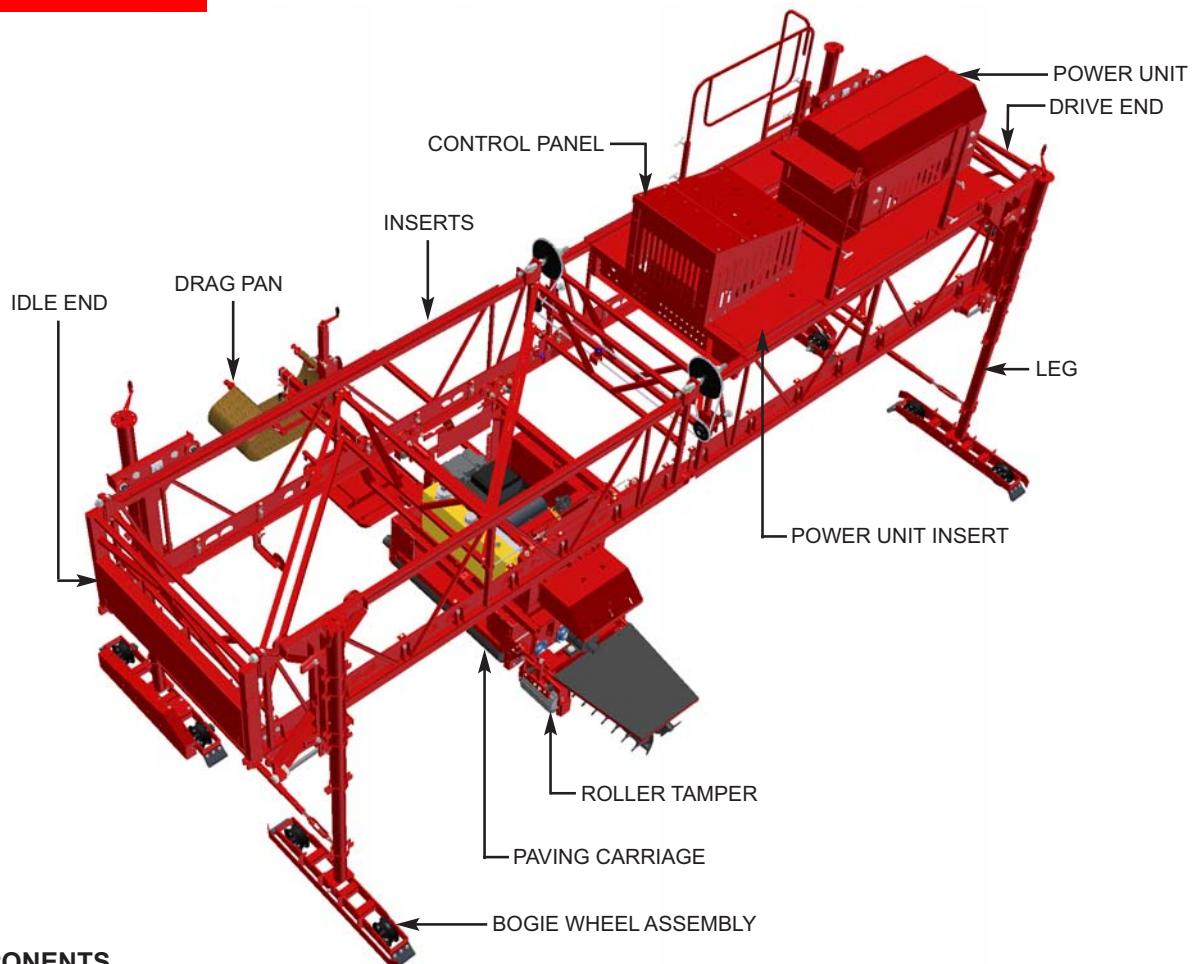
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SECTION 2 CONTROLS

COMPONENTS



PAVER COMPONENTS

A. Machine Frame

The 6036 Paver Frame is constructed from welded steel for maximum strength and light weight. Standard frame insert sections are 3, 6, 12, 15, and 18 feet long. The machine can be extended to a maximum of 90 feet. Check with the factory when lengths are in excess of 90 feet. Special length insert sections are available and can be ordered from the factory. The machine is equipped with crown adjusting bolts at each insert joint. The machine has 4" diameter, heavy duty legs and hydraulically driven, bogie travel assemblies. A variety of bogie wheel types and sizes are available from the factory. The machine direction is controlled by the dual chain controller located at the drive end of the machine. The machine automatically moves forward after each pass of the paving carriage.

B. Stationary Power Unit

Power is supplied by a 25 HP Kohler Gasoline Engine. The machine is equipped with a 12 volt electric starting system. All power functions are hydraulically driven. The stationary power unit

drives the Bogie Travel Wheels and the Carriage Travel Speed and Direction.

C. Paving Carriage

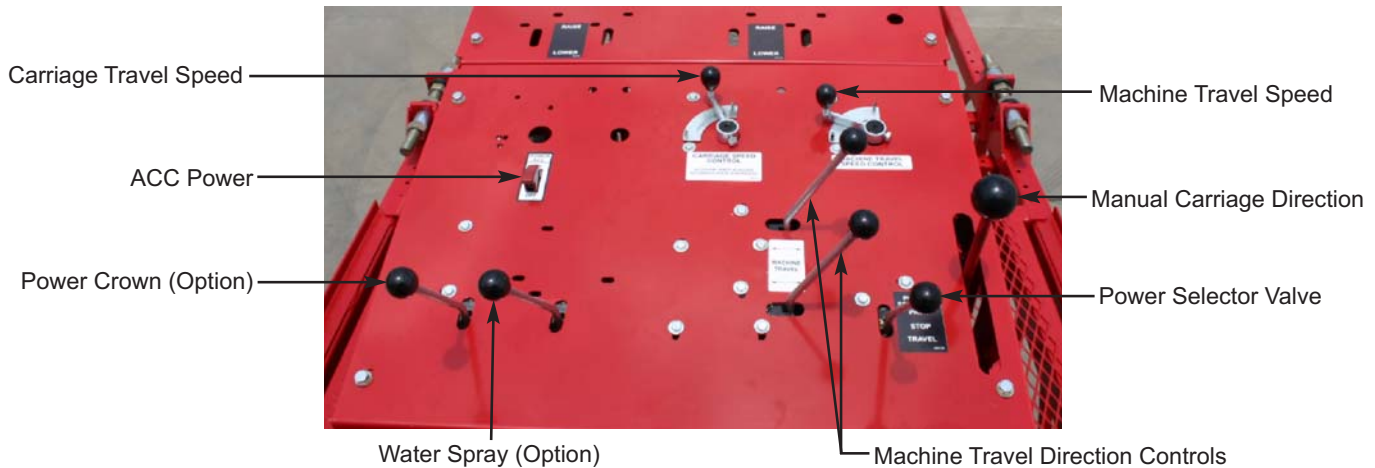
Power is supplied by a 25 HP Kohler Gasoline Engine and with a 12 Volt electric starting system. All power functions are hydraulically driven. The paving carriage is equipped with finishing rollers and dual augers suspended from a rigid, light weight frame. The finishing rollers are mounted on a skewable turntable and automatically reverse rotation after each pass. The dual augers plow excess concrete forward while moving in either direction. The augers and the finishing rollers can be adjusted up and down for optimum performance. The paving carriage includes a single drag pan with a burlap texturing cloth.

D. Paver Options

The 6036 Paver can be equipped with a variety of optional components. Contact the factory for additional information.

CONTROLS

SECTION 2 CONTROLS



PAVER CONTROLS



Before starting engines read the engine starting instructions and all warning decals located on the operators console and at other key points on the machine.

Both carriage travel and machine travel are controlled from the operator's control console as well as optional accessories.

A. Manual Carriage Directional Control - Can be used to change the direction of the carriage travel. When the carriage directional control is moved in either direction from the center position the carriage travel speed begins to slow down. To reverse the direction of the carriage travel move the control all the way in the direction of the desired travel. Move the control lever with a smooth, steady motion to avoid erratic carriage travel starts and stops. A different method to reverse travel is to stop the carriage travel using the Power Selector Control. Move the Power Selector Control to the "Stop" position. Reverse the carriage travel by moving the Carriage Directional Control in the desired travel direction and then return the Power Selector Control to the "Pave" position.



CAUTION: When the Carriage Directional Control is manually HELD in either direction the carriage will continue to travel if (A) the Power Selector Control is in the "Pave" position, (B) the

Machine Travel Direction Controls are engaged and (C) the Machine Travel Speed Control is not set at zero.

B. Power Selection Control - The power selection valve has three functions, Pave, Stop and Travel. To avoid erratic carriage travel, slowly ease the control to each new position. In the "Pave" position the carriage will move back and forth through the machine truss. The "Pave" position provides power to the carriage travel drive and delivers power to the automatic machine travel drive. The machine travel drive will be triggered each time the carriage automatically reverses direction.



CAUTION: Before engaging carriage travel be sure that all personnel are clear of the paving carriage. The paving carriage will not automatically reverse direction of travel when it reaches the end of the machine unless the carriage travel reversing lugs are installed on the carriage travel chain. For instructions on setting the reversing lugs see Section III - "Set-up" Instructions.

The "Stop" position is used when starting the power unit engine and to automatically stop all functions. The "Travel" position is used for manually moving the machine in either the forward or the reverse direction.

SECTION 2 CONTROLS

CONTROLS (cont'd)

C. Carriage Speed Control - The carriage speed control establishes the speed of both the paving carriage and any accessories installed on the unit. This valve regulates the amount of hydraulic oil going to any one of the control valves on the operator's console. The zero (0) location being no oil flow to the valves and the ten (10) location being full flow to the valves. Keep the carriage speed control scale location at 10 (maximum) except when slowing the paving carriage or when operating an accessory. When the carriage speed is set at 10 the accessory speed will be set at 0. To operate the carriage and an accessory concurrently set the control at the midpoint of both scales (5). The paving carriage speed is variable from 0 to 120 Ft/Min.

D. Machine Travel Direction Control - The machine travel direction valves control the forward or reverse travel of the machine. The two control levers control the drive bogie on the drive end of the machine and the drive bogie on the idler end of the machine. With separate controls for each end, the machine is capable of steering around a radius.

E. Machine Travel Speed Control - The machine travel speed control can be used in either a manual mode or an automatic mode. The manual mode is utilized to move the machine without starting the paving carriage.

Manual Mode:

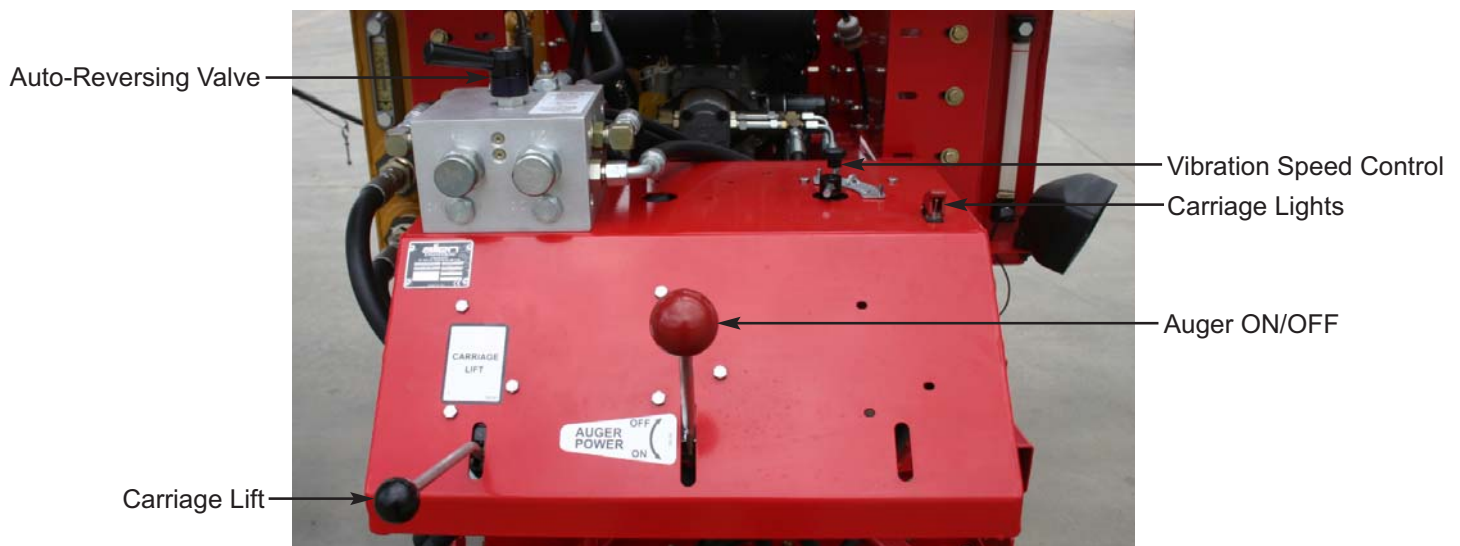
- 1) The carriage speed control setting should be at the 10 location on the scale.

- 2) BOTH machine direction controls need to be in either the forward or reverse location.
- 3) The power selector control should be in the "Travel" location.
- 4) When the machine travel speed control is eased off of the "0" location the machine will start to move.

Automatic Mode:

- 1) The carriage speed control should be off the "0" location. The higher the setting the faster the paving carriage will travel through the machine truss.
- 2) BOTH machine direction controls need to be in either the forward or reverse location.
- 3) The machine travel speed control should be set off "0". The higher the setting the longer the advance will be when the carriage stops and reverses direction.
- 4) Ease the power selector control to the "Pave" location. The paving carriage will travel across the truss and slow down and shift directions. At the same time the machine truss will advance forward. The length of advance depends on the machine travel speed control setting. The automatic machine advancement is variable from 0 to 15 inches with each carriage pass.

F. Carriage On/Off Valve - The hydraulic power needed to drive the rollers as well as the augers, is controlled by the carriage On/Off valve. The valve is located on the carriage control console. (See Figure 3).





Roller Directional Valves

G. Roller Direction Valves - The directional valves will permit the rollers to rotate forward, remain in neutral or rotate in reverse. The operator should choose the favored setting before the initial carriage pass and push the levers to the up, middle or down locations.

H. Automatic Roller Reversing Valve - The automatic roller reversing valve has two positions. When the handle is turned to the non-reversing position (left) the directional valves will continue to control the direction of the roller rotation. When the handle is turned to the reversing position (right) the rollers will reverse their rotation just before the carriage ends its pass and reverse its direction on the truss.

I. Carriage Lift Valve (Option) - Lifts and lowers carriage.

J. Roller Tamper Speed Control - Located on the roller tamper frame. Controls the vibration speed of the roller tamper. The vibration frequency ranges from 0 to 6000 VPMS.

SECTION 2 CONTROLS

[illegible]

Section 3 - Setup - Operation - Maintenance

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SECTION 3 OPERATION

Lifting the Machine



WARNING! Use extreme caution when lifting the Concrete paving machine. All lifting devices must meet or exceed the required capacity to lift the weight of the machine. Check all slings, chains, clevises, and cable clamps for strength and for structural damage. If any are damaged in anyway replace, before lifting machine



WARNING! Before lifting the machine make sure that the machine jacks are locked in place! To prevent the jacks from swing out and making the paver in balanced and causing personal injury.

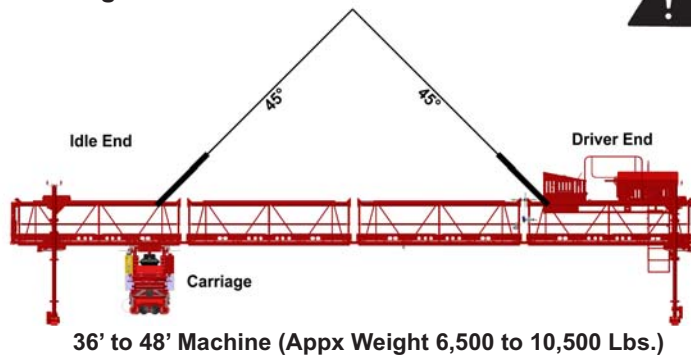


WARNING! Make Sure to keep all personnel back and away from the machine while it is being lifted.

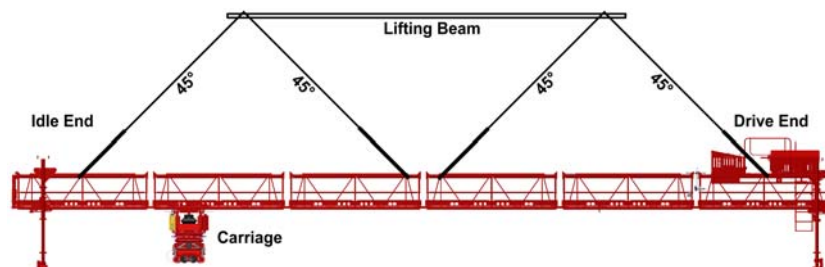
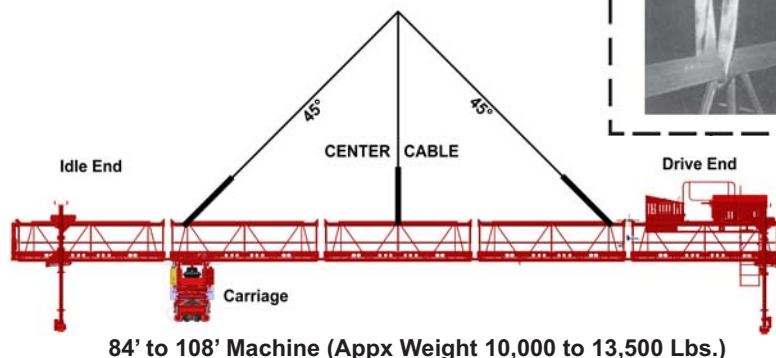
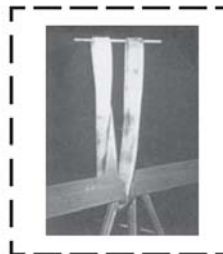
1. Use the lifting straps provided with the paving machine. The straps are rated at 28,000 lbs. when used in the basket configuration.
2. Attach ropes to each end of the machine to help preventing the machine from swinging while being lifted.
3. The center cable length should be carefully adjusted.
4. Keep all strap or chain lift angles at 45° or greater from horizontal.
5. To balanced machine, position the paving carriage opposite the power unit end. Lift the machine 10 to 12 inches off of the ground. Move the paving carriage until the machine is balanced. Lock the carriage down to prevent the carriage from moving while lifting preventing a unlevel load.



CAUTION! Do not allow the weight of the machine to rest on the carriage or the paving rollers. Damage to the carriage or the paving rollers could result.



LIFTING STRAPS



Loading the Machine

SECTION 3 OPERATION

LOADING THE MACHINE

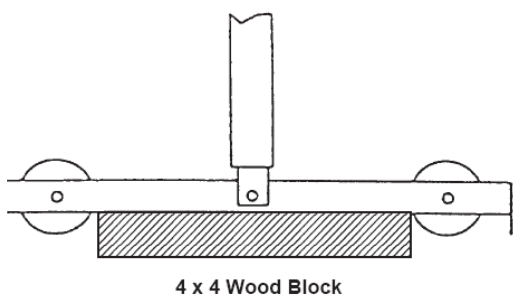
Before loading the machine. Check the height of the flat bed trailer to make sure that the machine not be too tall for transport. The carriage may have to be removed for transport. Because of height restriction for transport.

1. Loading Without Bogie Wheels - If Bogie drive are removed place 4" x 4" timber long enough to reach both jack legs. Set jack legs over tember and center machine on trailer. Add two pcs. Of 2" x4" to the inside of each jack leg prevent the machine from moving or sliding during transport. This same procedure will be repeated for other end of machine.



2. Loading With Bogie Wheels - Cut a 4 x 4 wood block to fit between the bogie wheels and up against the bogie frame. The block should be nailed to the truck bed to stop the machine from

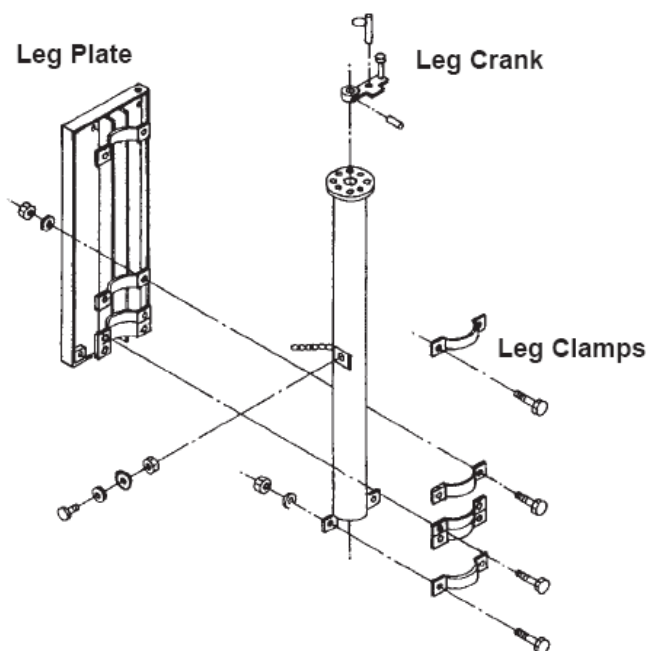
shifting.



3. Loading With Carriage - If the machine is to be loaded with the carriage still in the machine, you will need to block the carriage so that the machine or carriage weight does not set on the paving rollers. Cut two 4 x 4 wood blocks approximately 3 feet long. Place the blocks under the end pan-

With the carriage frame now setting on the blocks, readjust the hold down rollers, located on the carriage hanger frame at the top of the carriage, to the down position. Using the leg cranks lower the machine just enough so that the carriage rollers are not tight on the carriage rail but not so low that the hold down rollers are touching the carriage rail. This allows the machine truss to move when transporting and will not cause damage to the carriage rail. If the carriage is loaded by itself, use the same blocking procedure and secure the carriage to the truck.

4. Securing Machine to Truck - Tighten the leg clamps and secure the leg crank pins on all four legs. Never place a chain or strap over the truss frame in the center of the machine. Use the 6036 travel straps, if available, or a chain over the top of the machine's leg castings. Tighten the chains by pulling towards the center of the machine.



SECTION 3 OPERATION

Setup (Pipe Rail)



CAUTION! Do not allow the weight of the machine to rest on the carriage or the paving rollers. Damage to the carriage or the paving rollers could result.

TOWING THE MACHINE

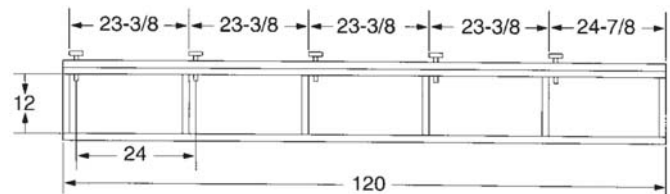
A Towing Hitch and a Transportation Dolly are accessories that are available from the factory.



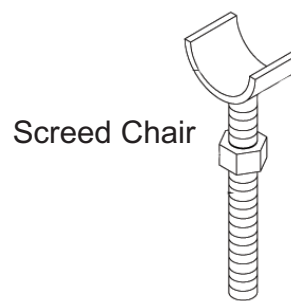
WARNING! The recommended maximum towing length is 36 feet. The recommended towing speed, on a smooth surface, is 40 MPH.

The transport system will be placed under the drive end of the machine. Move the carriage toward the drive end to obtain a good center of gravity of the machine. Now clamp transport system to machine with clamps. Remove carriage when traveling long distances. If moving the machine on the job site the carriage can be left on the frame track. Make sure that the carriage is secured and can't move during transport. Do not allow the carriage roller to rest on the carriage rail while transporting. This will prevent the carriage rail from being damaged.

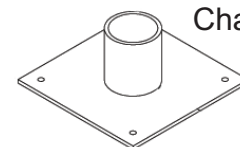
When the machine is riding on forms the first area to look at is the type and spacing of the overhang brackets. Consult with the factory about your machine load weight. After the machine loads have been determined refer to the manufacturer's specifications of the overhang brackets for spacing of the brackets. Screed rail must be accurate and conform to the grade required. ACP recommends 2 inch schedule 80 black pipe with an insert at one end to connect two sections. The adjustable screed chairs should be spaced 24 inches apart (maximum 30 inches). The screed chairs should not interfere with support studs. The rails and chairs should be double checked after the positioning of the machine.



When the machine is riding on bridge girders you will need to fabricate a screed chair stand that will normally be epoxied or welded to a bridge deck beam. It is also recommended that you tie the vertical tube to the rebar mats. The top of the vertical tube should be below finished grade. The screed rail needs to be adjusted to conform to the longitudinal profile. This can be accomplished many different ways. You can use an instrument to measure from quarter points on the deck to the top of the screed rail using a level and rule; then pulling a stringline between the two points or measuring from the grade line on the form to the top of the screed rail.



Screed Chair



Chair Stand

SCREED RAIL AND PAVING FORMS

The screed rail and paving form setup is as important to a successful operation as the machine itself. The setup of these two items is what determines the longitudinal profile of your bridge deck or slab. There are two screed rail setups for bridges. Normally, the specifications in your area will dictate if the paving machine will ride on the forms or on the bridge girders themselves.

Remember this is just an initial setup. After the machine has been set on the deck it will need to run up and down the screed rail to take out any timber crunch or settling of the form work. Then another check of the form must be performed.

Setup (Machine)

SECTION 3 OPERATION

Paving forms must have a good solid sub base to sit on to keep the paving forms from sinking. ACP recommends metal forms made especially to carry the weight of the paver. The 6036 Paver will be equipped with flat flange bogie wheels that are 3 inches in width to ride on top of the paving form. For special applications contact the ACP Service Department. (1-800-643-0095)

MACHINE SETUP

Assembly of the 6036 Paving Machine can normally be accomplished by two to three men with a set of hand tools and a strong lifting device. Plan ahead! Know where your crown is positioned and how many inserts need to be assembled. An open and level working area is necessary for the assembly of the paver.

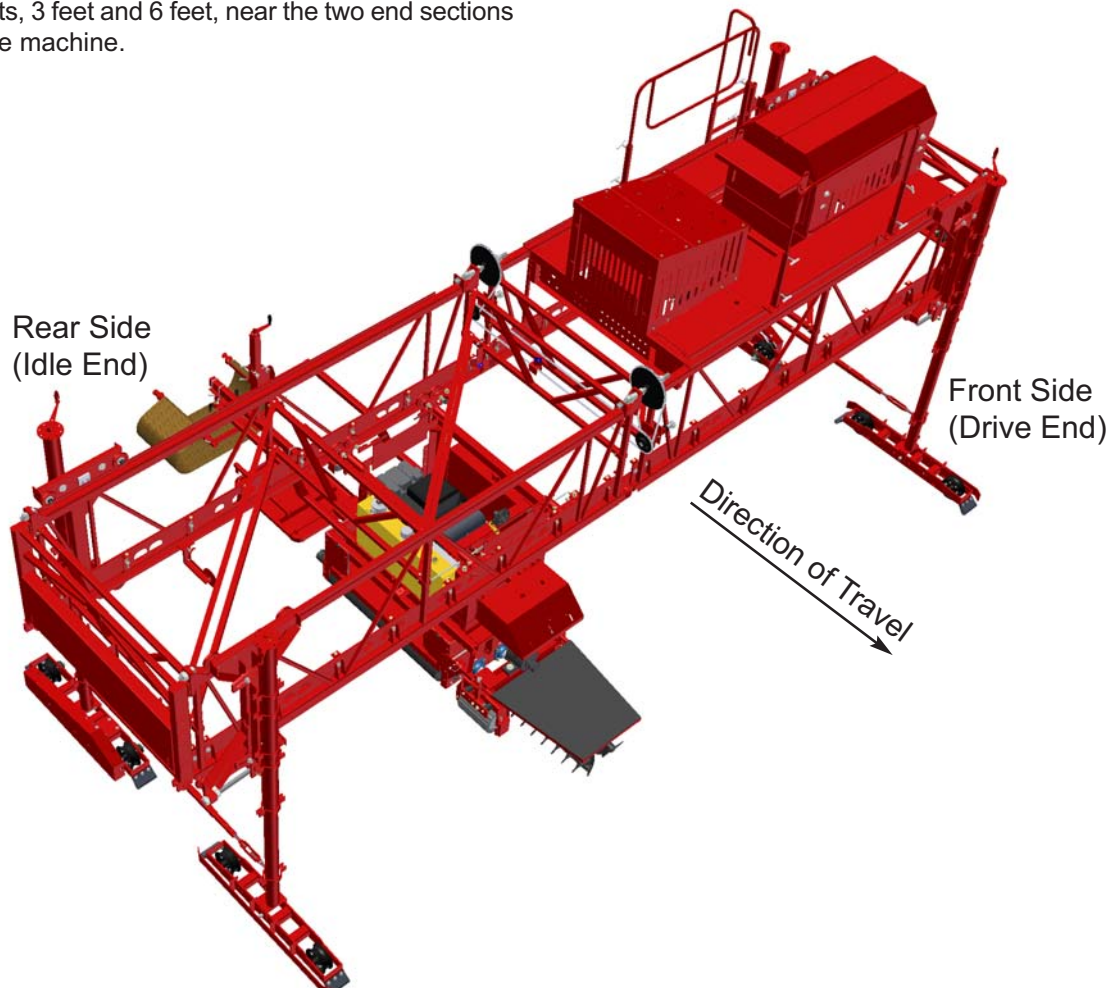
- 1. INSERT ASSEMBLY** - If your machine is longer than the standard 36 feet you will have to assemble additional inserts separately. Add or remove machine inserts between the drive end (Power Unit) and the idler end of the machine. For long machine lengths (over 60 feet) machine frame stress can be minimized by installing the shortest inserts, 3 feet and 6 feet, near the two end sections of the machine.

If the paving carriage is already installed, move the carriage to a position under the operator's platform.



WARNING! Before removing the carriage travel chain, the carriage needs to be secured to the carriage rail with wire or blocked on both sides with vise grips. This will stop the carriage from rolling when the chain is removed.

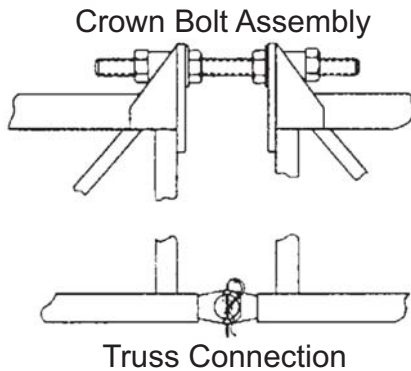
Disconnect the carriage travel chain at the carriage by loosening the chain tightener or by removing the chain master link. Pull the chain over the top of the idler sprocket, roll up the chain and store it by the paving carriage. Next roll up the hydraulic hoses that stretch across the top of the machine frame to the travel bogies on the idler end of the machine and store them by the power unit insert. Remove the carriage reversing paddles from the carriage rail for reinstallation after the carriage travel limits have been determined. Truss frame inserts are added to the machine by splitting the machine at the hinge point of the power unit insert section. Support the power unit insert at the hinge point with barrels or scaffolding so that when



SECTION 3 OPERATION

Setup (Machine) cont'd

the machine is split the power unit section is self supporting and stable. Hook up the idler end of the machine to a lifting device. Remove the crown bolts at the top of the truss frame and the hinge pins on the lower end of the truss frame.

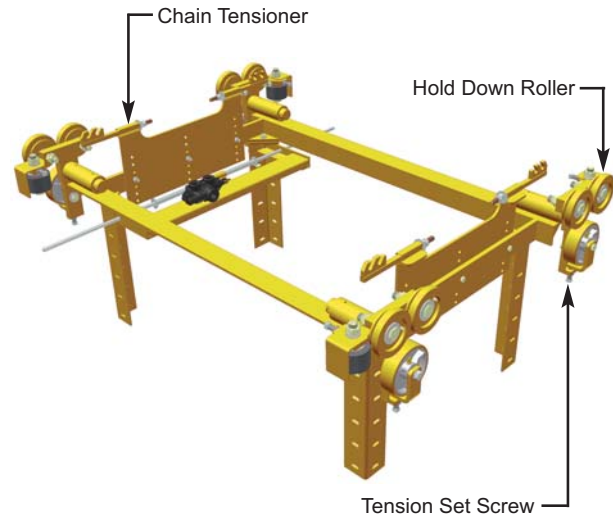


The idler insert section will now be free to lift and placed to the side. Add or remove the required frame inserts on the power unit insert and reconnect the idler end section of the machine. Keep the frame as straight as possible. When attaching the inserts together it is suggested that you lubricate the crown bolts. If the deck or slab has a crown, assemble the machine so that an insert hinge will be directly above the crown. The manual crown adjuster will have to be removed and relocated to the correct place on the machine for crowning the truss frame. When the sections have been assembled reconnect the carriage travel chain, release the paving carriage and add the additional bogie hose for the machine bogie wheels on the idler end of the machine.

2. INSTALLING PAVING CARRIAGE - If it is necessary to install the paving carriage use the following procedure:

- 1) With the paving carriage setting on blocks remove the carriage hanger frame and install the frame into truss. Move the machine over the top of the paving carriage so that the paving carriage is centered under the machine truss. Using the leg cranks, lower the machine down until the carriage hanger frame can be bolted back on to the carriage. Position the carriage in the middle of the machine and connect the travel chain. Adjust the hold down roller tension so that the rollers can be just turned by hand. The carriage travel chain will keep the carriage from moving when the machine is lifted onto the deck.

3. BOGIE INSTALLATION - Prepare the machine for lifting (See Lifting Instructions) and lift the machine high enough to install the machine leg bogies on to the machine legs. Install the drive bogies on the rear side and the idler



bogies on the front side of the machine. The drive chain shield can be on the outside or the inside of the leg, depending on clearance requirements. If necessary, add the additional hose provided with new frame inserts.



CAUTION! Make sure that the hydraulic hoses are connected so that the direction of machine travel is the same as indicated on the control console. If necessary, reverse the hose connections at the quick disconnect fittings to correct travel direction.

4. MACHINE LEG ADJUSTMENT - You can now lift the machine onto the prepared deck. Adjust the machine legs so that the leg span distance is the same as the center to center distance between the machine screed rails. Adjust the length of the machine legs so that the carriage will clear the deck or slab when the machine is placed on the rails. Position the carriage toward the idler end of the machine so that the machine will be balanced when it is lifted. Position the bogie wheels for clearance of the reinforcing steel.



WARNING! Use extreme caution when lifting the paving machine. Make sure the lifting device has enough capacity to lift the weight of the machine. Check all chains, slings, lifting cables, clevises and cable clamps for strength and for any structural damage.



WARNING! Keep all personnel away from the machine while it is being lifted.

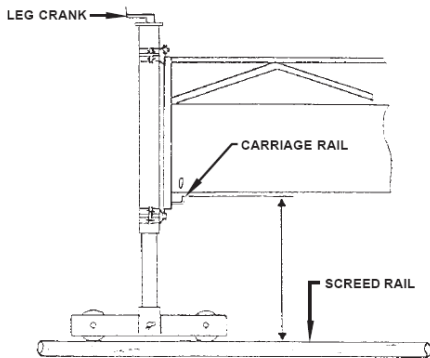


WARNING! Before lifting the machine, check to make sure that the Machine Legs are **LOCKED!** If the legs are not locked they could roll causing an unbalanced lift and personal injury.

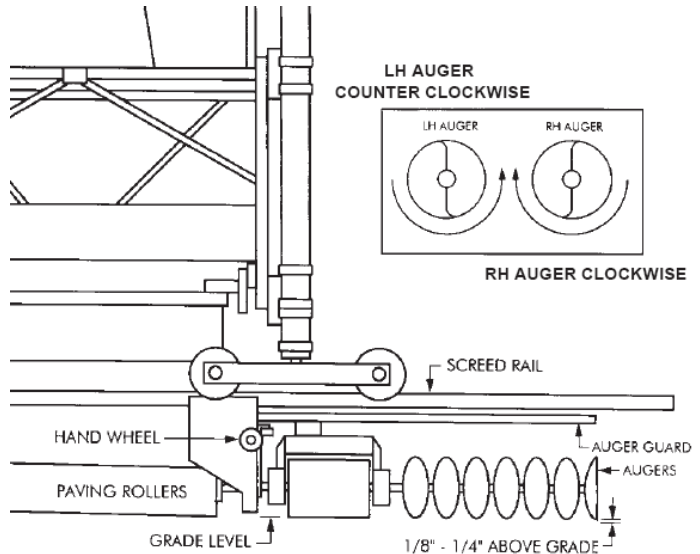
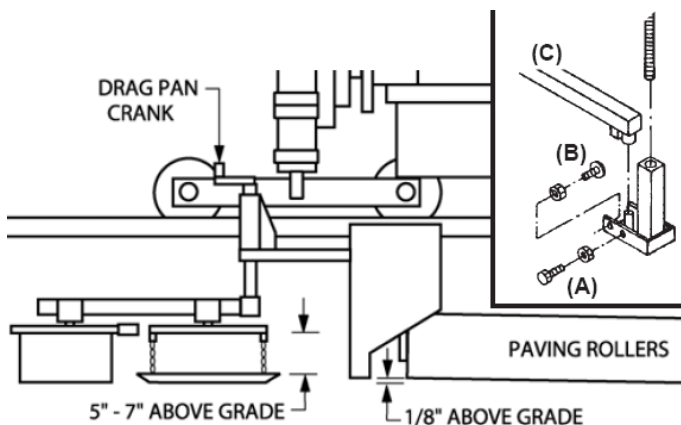
Setup (Machine) cont'd

SECTION 3 OPERATION

- 5. SQUARING TRUSS** - After the machine has been placed on the deck, center the paving carriage in the truss. All four corners of the machine must be set to the same height to assure that the truss does not have a twist. Measure the distance between the carriage rail and the top of the screed rail or paving form. Adjust the distance using the machine leg cranks until all four corners are equal.



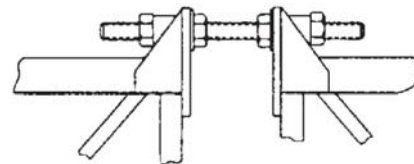
- 6. DRAG PAN INSTALLATION** - Attach the drag pan hanger frame to the upper carriage of the paving carriage and assemble the drag pan. Adjust the pitch of the mounting tube so that it hangs straight. Use the drag pan crank and adjust the "H" Frame of the drag pan so that it is 5" to 7" above the bottom of the paving rollers. Hook the loose end of the drag pan chain into the fifth link. Screws (A) are used ONLY when the carriage is positioned for a skewed deck. Tighten these screws when it is necessary to lock the drag pan tube (C) when the carriage does not pivot. Carriage bolts (B) serve as stops for the dragpan tube during normal operation. Pivot the carriage and hold the tube parallel to the centerline of the deck. Adjust the bolt so that it holds the tube parallel as it travels across the deck. Repeat procedure with the carriage pivoted in the opposite direction. Tighten jam nuts to hold bolts.



- 7. AUGER INSTALLATION** - Slide the augers onto the lower carriage auger shafts. Facing the lower carriage, slide the clockwise auger onto the right hand shaft and the counter clockwise auger onto the left hand shaft. Tighten auger hardware and mount the auger guard assembly. Turn the auger adjusting crank and set the augers 1/8" to 1/4" above the bottom of the paving rollers. NOTE: Grease the auger shafts.

- 8. STRAIGHTEN THE MACHINE** - After all attachments have been installed on the paving carriage it is time to align and straighten the machine frame. Maximize machine weight by filling the gas and hydraulic tanks. Be sure that the paving carriage has been moved to the center of the machine. There are many ways of straightening the truss. You can pull a stringline under the truss or simply use line of sight. Raise or lower the machine truss by adjusting the crown bolts at all of the hinge points until the truss appears straight to the naked eye. If your machine is equipped with a manual crown adjuster, both sides of the truss can be adjusted on either side by turning the nut on the lower side of the truss frame.

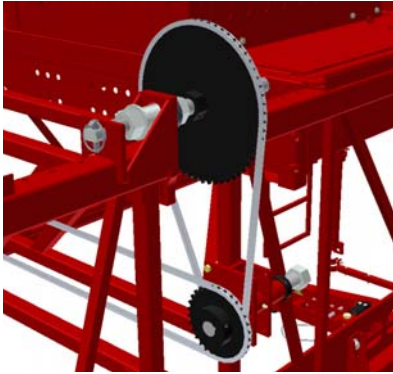
Crown Bolt Assembly



- 9. STRAIGHTEN CARRIAGE RAIL** - Next you should stringline the carriage rail. Use 120# masonry line and tie a stringline to the eye bolt on the idler frame end of the machine.

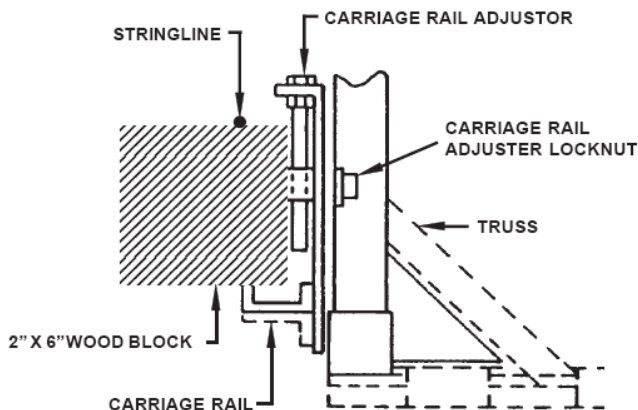
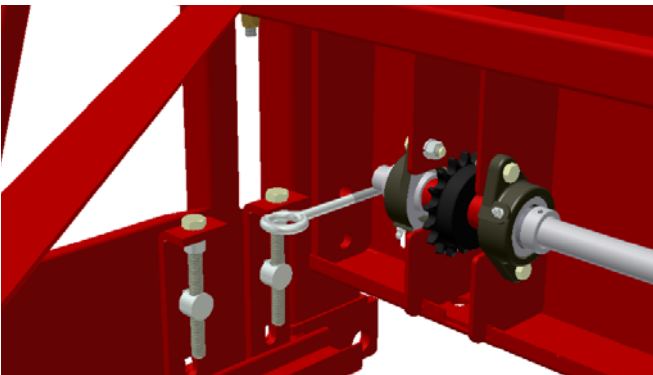
SECTION 3 OPERATION

Setup (Machine) cont'd



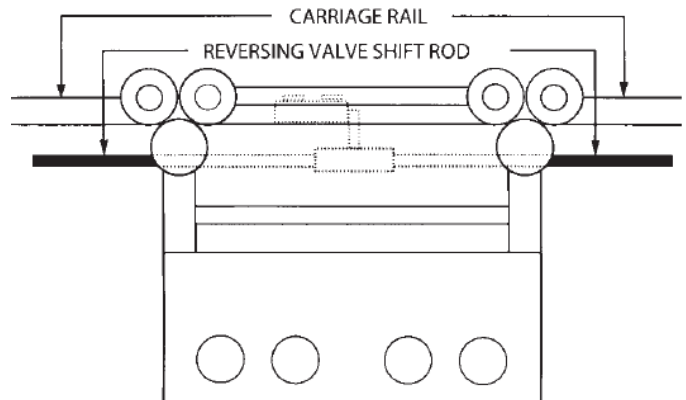
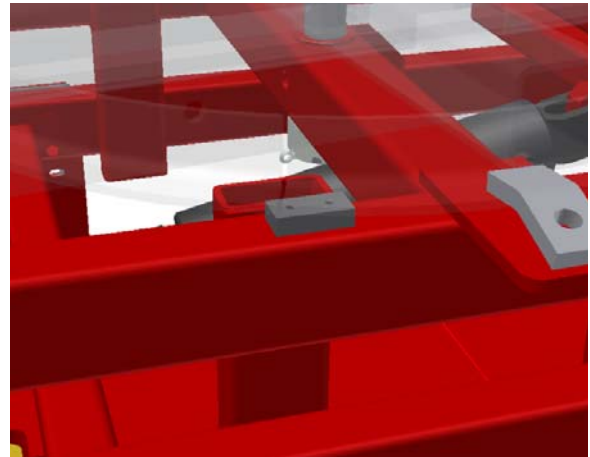
WARNING! Do Not Use Piano Wire. It could result in serious injury

Run the stringline along the carriage rail to the eyebolt on the drive frame end of the machine. Pull and tighten the stringline by hand until it is taut with no sag. If necessary turn the eyebolts for additional tension. Loosen the carriage rail adjuster locknuts on the outside of the truss no more than 1/2 turn. Cut three identical 2" x 6" wood blocks. Place one at each end of the carriage rail to push the stringline up so that it will clear the top of the carriage rail (See Figure 17). Set the third wood block on the carriage rail at each carriage rail adjuster. Turn the

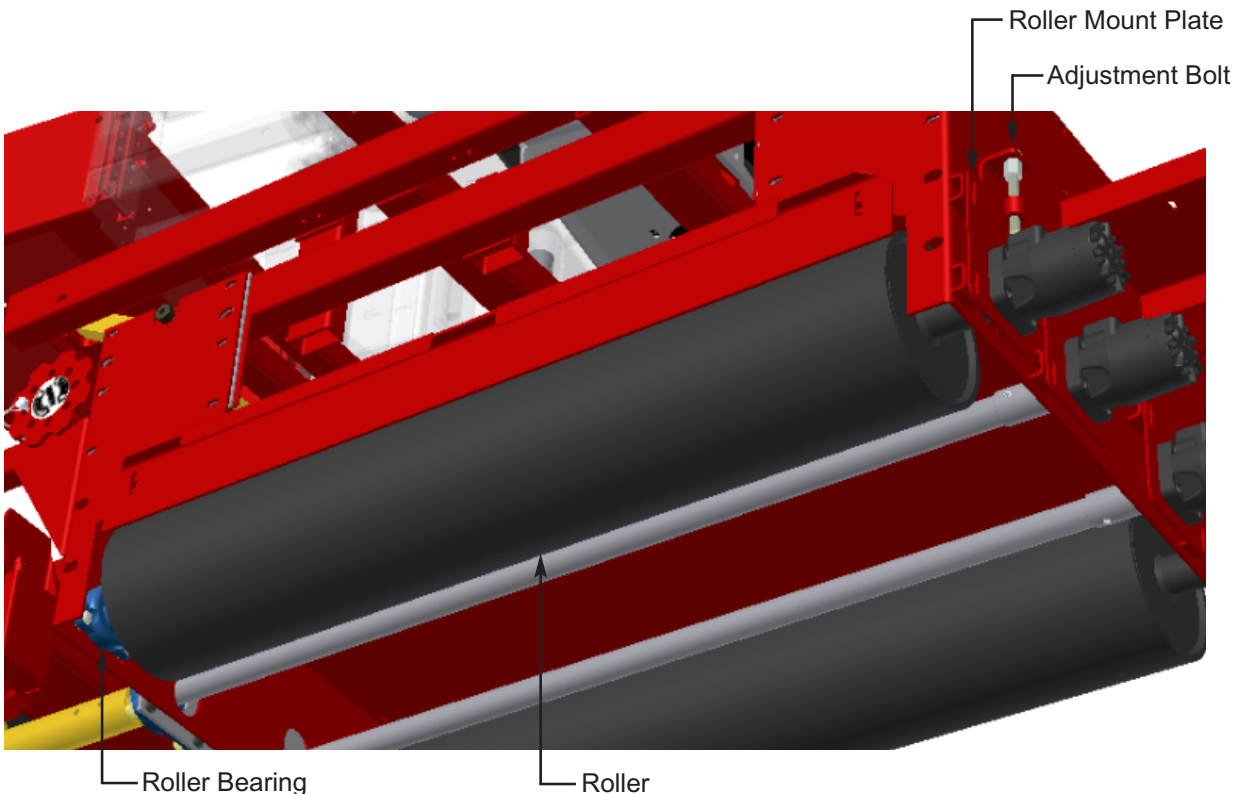
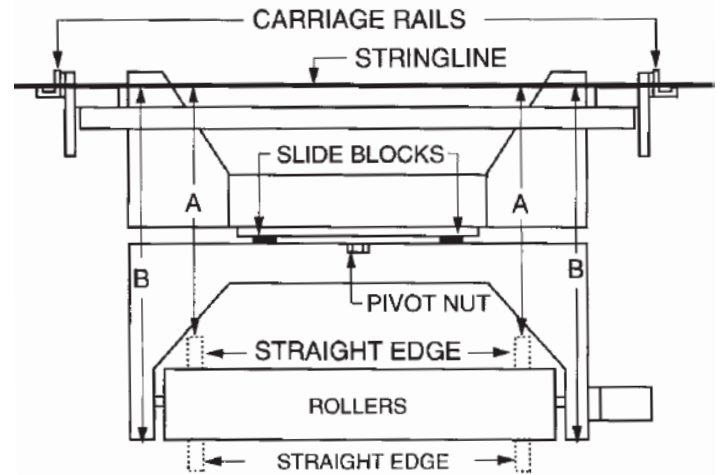


carriage rail adjuster up or down so that the stringline just touches the top of the wood block. After the carriage rail has been adjusted and is straight, retighten all of the carriage rail locknuts. Repeat the procedure on the opposite side of the machine.

10. SQUARE CARRIAGE - Before squaring the paving carriage, make sure that the lower carriage slide blocks make contact with the upper carriage skew ring. **If your machine is equipped with a carriage lift option, make sure that it is in the down position.** If contact is not made, turn the pivot nut located on the underside of the lower carriage. If contact is uneven, check for wear on the slide blocks. It may be necessary to replace the blocks or block shims. Start the paving carriage engine and engage the on/off lever. To pivot the lower carriage, manually push or pull the reversing valve shift rod to engage the pivot cylinder. Adjust the turntable pivot nut until lower carriage pivots freely. When you are satisfied that it does, shut off the engine and replace the cotter pin in the pivot nut.

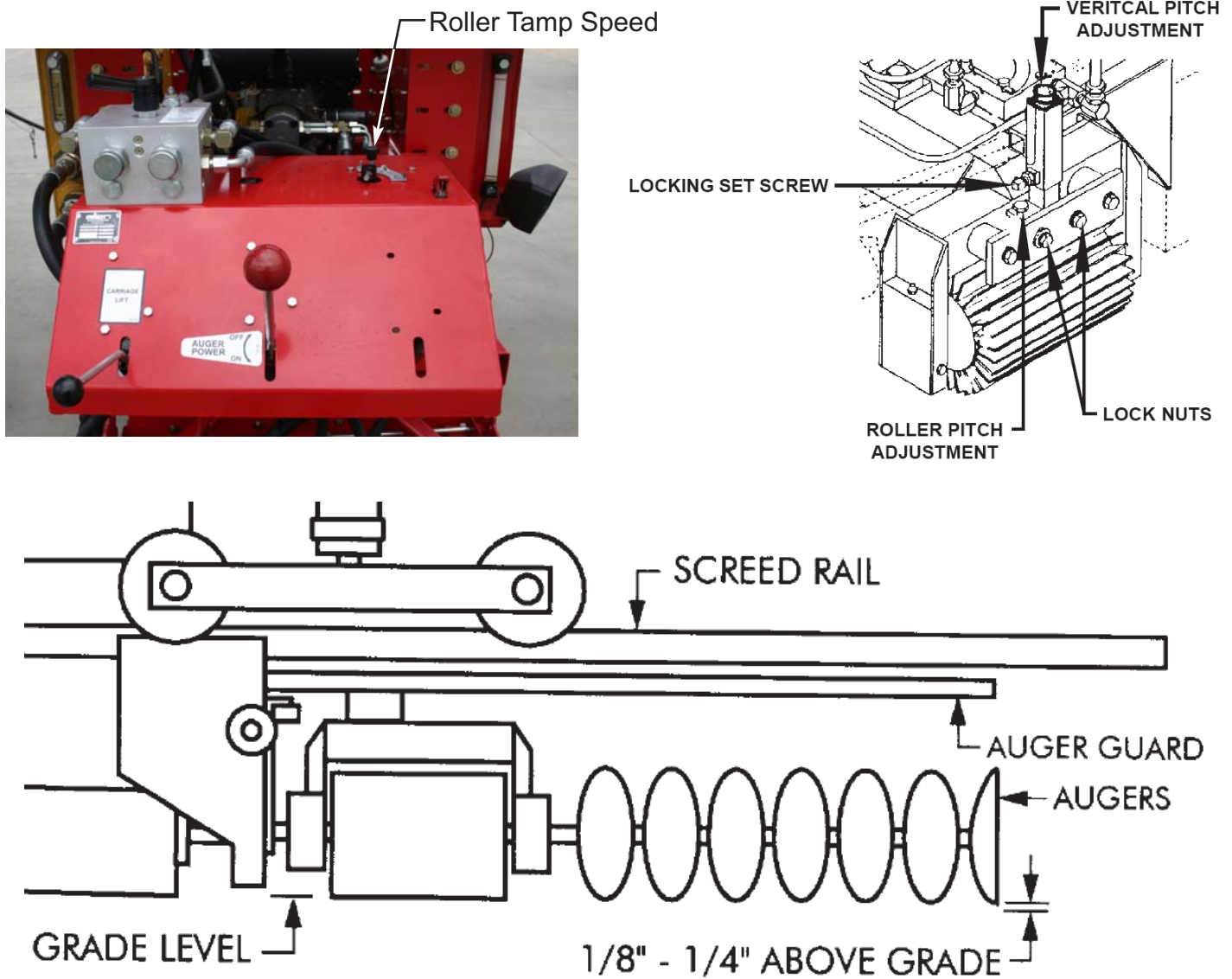


Physically align the paving rollers so that they are parallel with the upper carriage. Stretch a stringline across the top of each side of the upper carriage. Make sure that the stringline contacts the inner flange of the carriage rail. If your machine is equipped with a carriage lift option, make sure that it is in the down position. Place a 4 foot long straight edge across the top or the bottom of both ends of the paving rollers. Loosen the bolts holding the roller bearings on the front of the lower carriage and the bolts that support the roller motor mount plates on the back of the lower carriage. Do not remove the bolts. Using a tape or carpenter's rule, measure down from the stringline to the top of the straight edge. At this point the distance is arbitrary but must be the same at all four corners. Adjust the distance of each roller end by turning its adjustor bolt clockwise to raise the roller and counter clockwise to lower the roller. When all four corners are of equal distance from the stringline the paving rollers will be parallel with the carriage rail. Replace all shields and tighten all loose mounting bolts. Using the auger adjusting crank, reset the augers to 1/8" to 1/4" above the bottom of the paving rollers.



SECTION 3 OPERATION

Setup (Machine) cont'd



11. ROLLER TAMPER - The ACP Roller Tamper is an option that provides a means of achieving a more uniform concrete surface with the desired density. It seals difficult to finish concrete, due to harsh mix design, low slump specifications and wind exposure, causing abnormal surface drying and unforeseen delays.

Place a four foot level under the paving rollers and under the Roller Tamper's finned rollers. Loosen the locking set screws and the lock nuts for the roller pitch adjustment on both sides of the Roller Tamper. Normally the front and back of the finned rollers are set to grade.

The Roller Tamper finned rollers are vertically adjustable from 1/2 inch above concrete grade to 3/4 inch below concrete grade. The depth of penetration can vary according to job requirements. Pitching the front end of the rollers allows the Roller Tamper to remain parallel to the concrete grade when the rear of the machine is raised with the leg cranks. Maximum recommended depth is 3/16 inch.

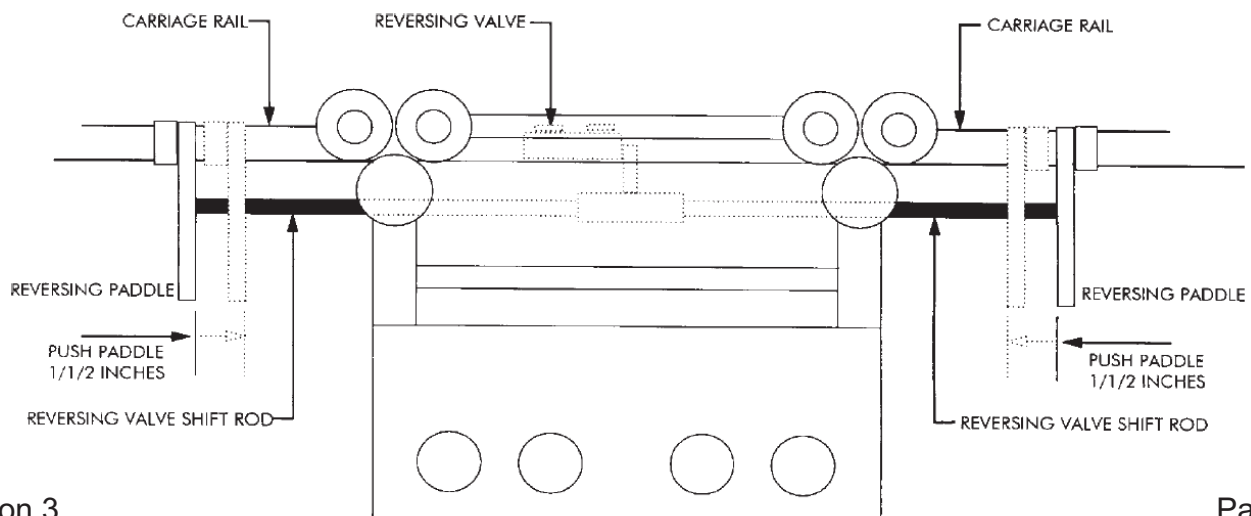
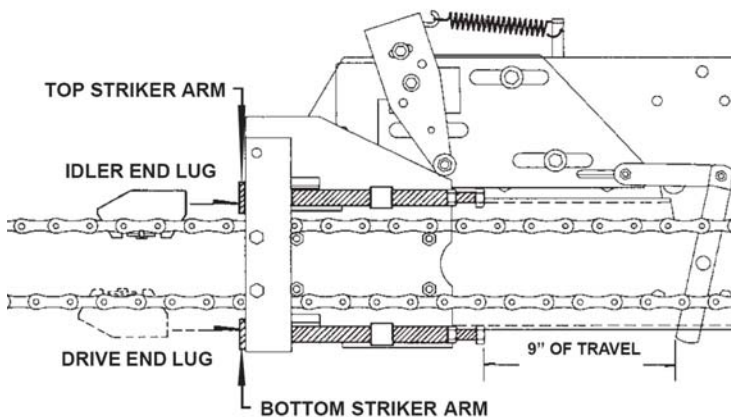
To check vibration levels use the Vibra-Tak provided and follow instructions. Run the vibrator at the speed that does the best job of keeping the fins of the rollers clean. Normally 3500 to 5000 VPMs is a good operating speed. **Do not exceed 5000 VPMs.**

12. CARRIAGE TRAVEL - The carriage travel distance can be adjusted to suit the job requirements by strategically positioning the reversing lugs on the upper and lower travel chain. Move the carriage to the desired travel distance at the idler end of the machine and stop the carriage. Use your hand and push the top striker arm of the controller until the reversing valve shifts. Holding back the striker arm, attach the reversing lug next to the striker arm on the top of the travel chain. Move the carriage to the desired travel distance at the drive end of the machine and stop the carriage. Use your hand and push the bottom striker arm of the controller until the reversing valve shifts. Holding back the striker arm attach the reversing lug next to the striker arm on the bottom of the travel chain.

After the reversing lugs have been installed, move the carriage to one of the points of direction reversal and stop the carriage. To set the paving roller pivot device, slide a

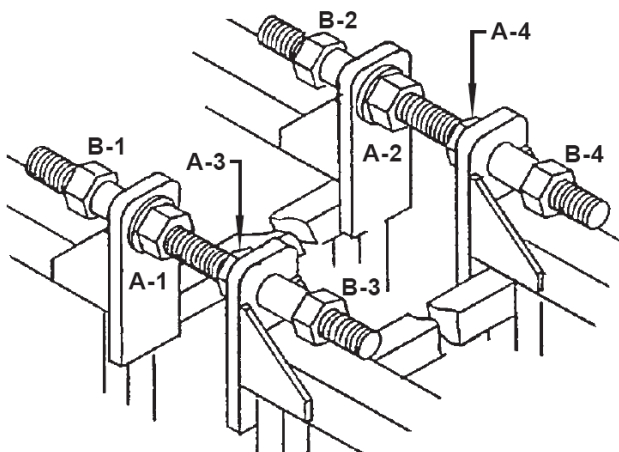
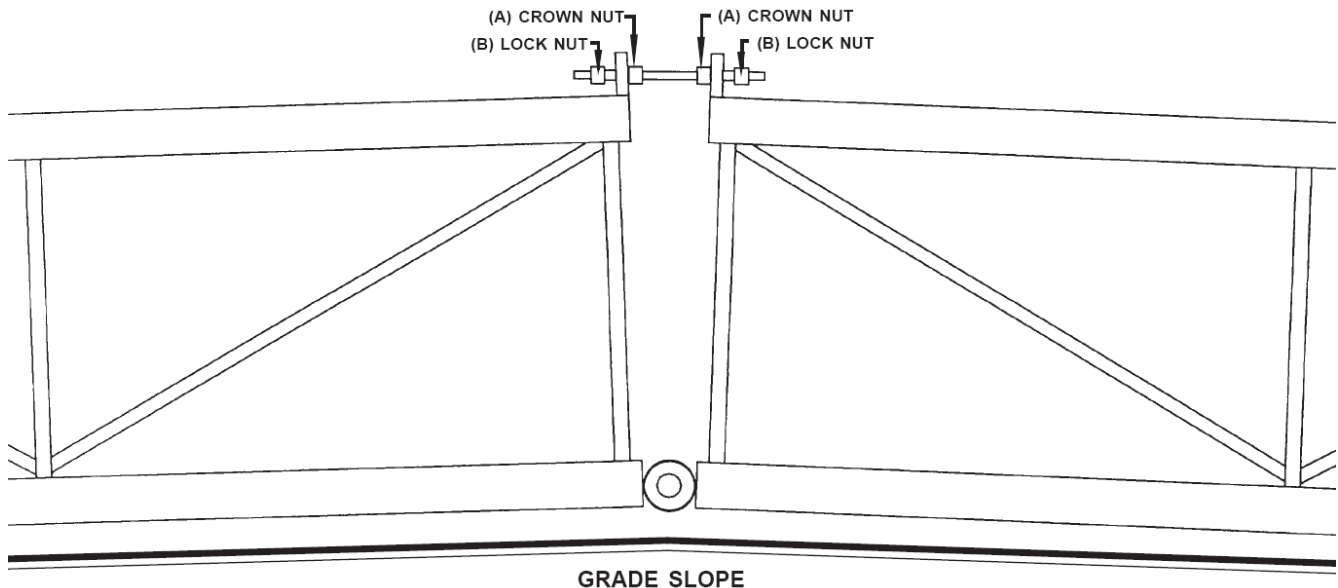
reversing paddle onto the carriage rail. When it makes contact with the paving roller reversing valve shift rod, push the paddle approximately 1-1/2 inches or until the rod spring shifts the reversing valve. Lock the reversing paddle in place by tightening the set screw. Move the carriage to the opposite direction reversal point and repeat the procedure on the other side of the carriage. Adjust the hold down rollers on the hanger frame by loosening the holder yoke set screws. Loosen the set screws so that the rollers exert slight pressure on the carriage rail but still allow you to turn them by hand.

13. CROWN ADJUSTMENT - When adjusting the crown, the frame should be assembled and positioned so that a hinge joint is directly above the crown center. The paving carriage should be moved to the



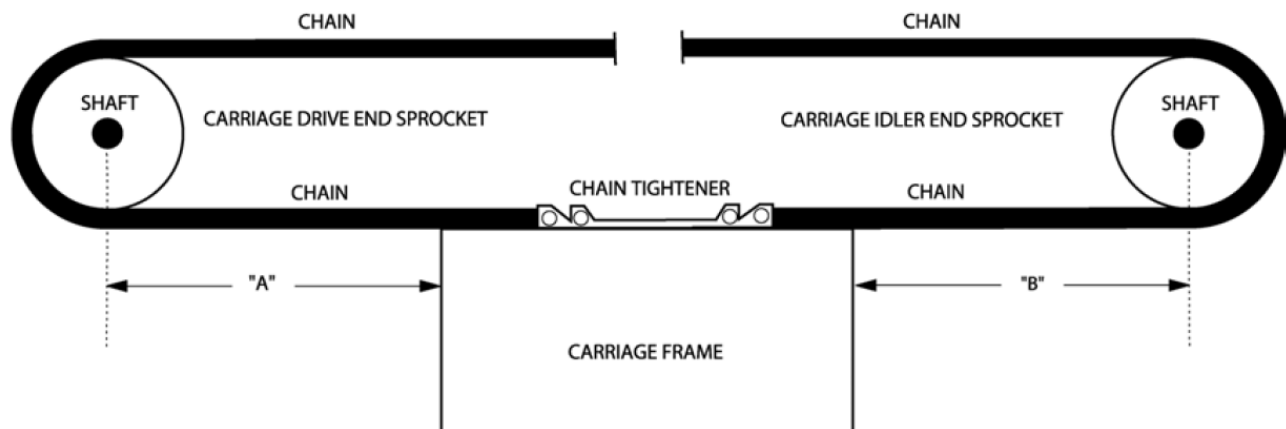
SECTION 3 OPERATION

Setup (Machine) cont'd

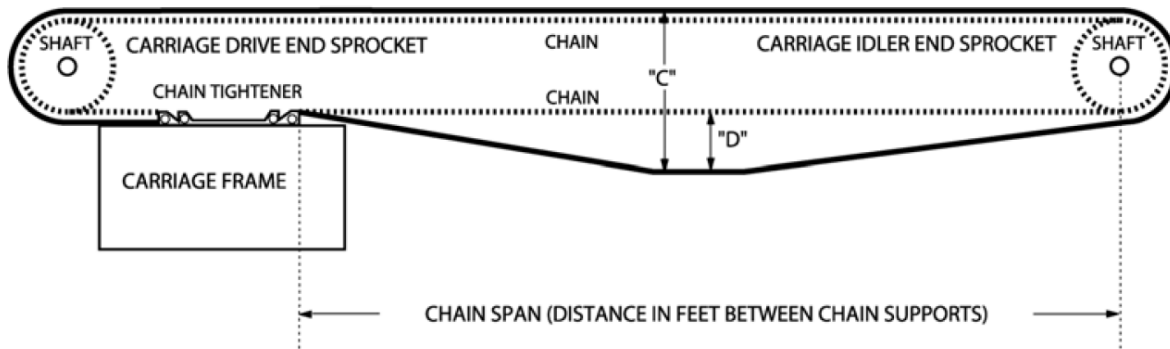


crown point to allow for the natural deflection of the truss frame. Measure up from a grade point to the top of the carriage rail on both sides of the machine (Note the measurement). Adjust the bolts until the machine frame slope matches the desired grade slope. It is recommended that the crown bolts be adjusted 1/2 inch at a time and alternated sequentially. This permits the crown bolt nuts to shift slightly to compensate for the angle change and requires less adjustment effort. Lock nuts "B" must be backed off at the same time that you adjust the crown nuts "A".

14. CHAIN TENSION - Use the chain tightener on the paving carriage to equalize the tension of each carriage travel chain (See Figure 28). Be careful to verify that the carriage is "square" with the carriage rails. For dual chain machines, run the carriage to the drive end of the machine and verify that the distance between the carriage frame



Setup (Machine) cont'd



and the carriage travel shaft (Dimension "A" & "B") is the same at each chain. Adjust the side thrust rollers to keep the carriage square.

The required chain sag can be found as follows. Move the carriage to one end of the machine and measure the distance between the upper and lower sections of chain near the middle of the span. The chain sag should not be more than the values shown for "C" and "D" shown in the tables below. Excessively tight chain can cause excessive wear on the chain. Excessively loose chain can cause excessive sprocket wear and may result in improper carriage reversal. The dimensions given are for a straight machine and will need to be adjusted for a machine with crown.

TABLE - DIMENSION "C"

CHAIN SPAN	MINIMUM CHAIN SAG
40 Feet	7 Inches
60 Feet	9 Inches
80 Feet	11 Inches

TABLE - DIMENSION "D"

CHAIN SPAN	MINIMUM CHAIN SAG
40 Feet	3 Inches
60 Feet	5 Inches
80 Feet	7 Inches
100 Feet	11 Inches
120 Feet	16 Inches
130 Feet	19 Inches

15. MACHINE GRADE - Set the machine to grade as follows. Place the carriage in a location where the front ends of the rollers are over the top of an end dam, blockhead or expansion joint that is on grade. Use the leg cranks to adjust the rollers to slightly above or just touching the part that is

on grade. The carriage should then be moved from one side to the other along the graded area. If the grade of the rollers is correct, measure each leg, front and rear, from the screed pipe to the carriage rail. The measurement should be the same on front and rear. If not, use the leg cranks to adjust.

16. DRY RUN - At this point, a dry run of the entire deck or slab may be performed. Bulkheads, end dams, and expansion joints should be checked by inspection personnel. During the dry run, the operator should become familiar with the controls and operation of the machine. Corrections and adjustments can usually be made by adjustments in the screed pipe.

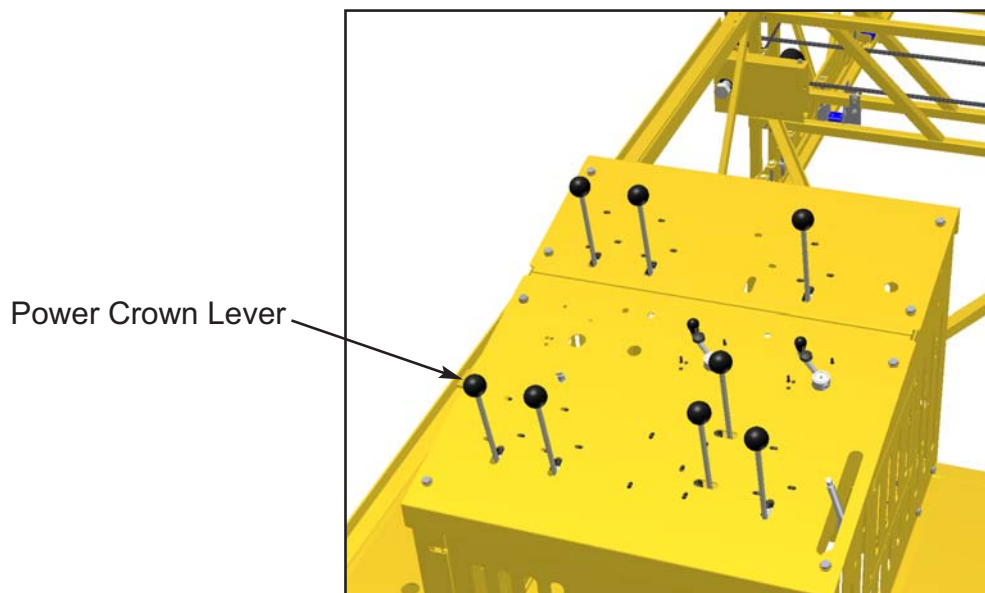
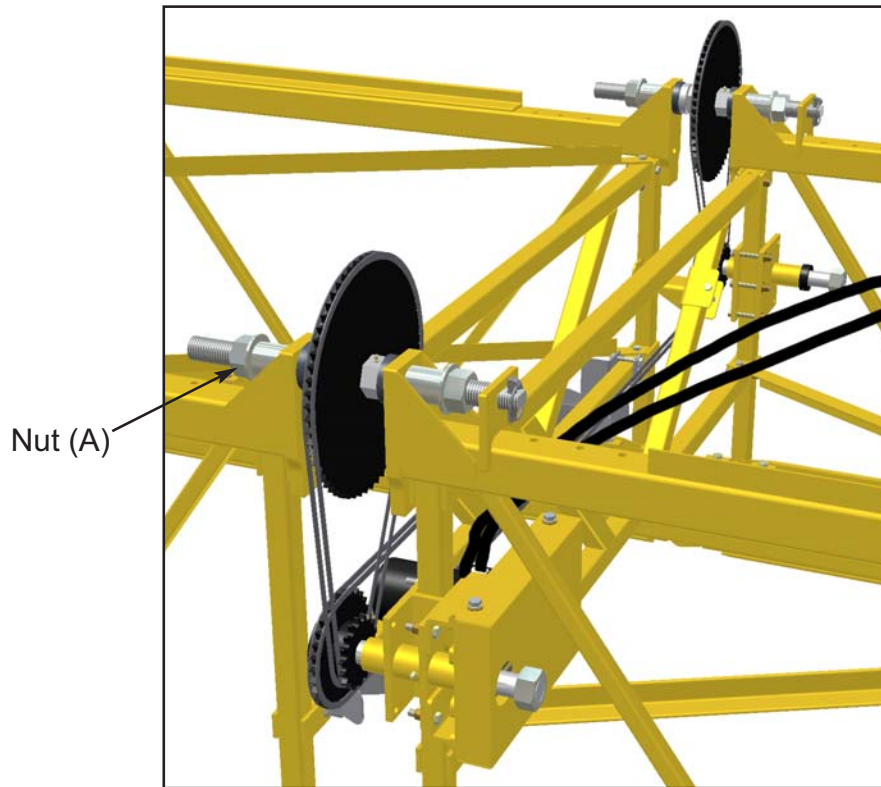
17. PRE-POUR INSPECTION - The machine should be inspected thoroughly before initiating the paving job. All moving parts should be lubricated and any parts that might be exposed to wet concrete should be coated with oil. Use only clean containers to add hydraulic fluid to avoid getting dirt into the system. All hydraulic components should be cleaned before disassembly and hydraulic disconnects should be cleaned before reassembly. Engines should be serviced properly.

PAVING PROCEDURE

1. ADJUST ROLLERS AND DRAG PAN - After the pour has been initiated and the machine has moved the length of the rollers from the end bulkhead, turn the leg cranks $\frac{1}{2}$ turn counter clockwise to raise the back of the machine about $\frac{1}{8}$ ". This will prevent the rollers from creating a small ridge of concrete at the rear edge. To obtain the correct roll of concrete in front of the rollers, about 1 $\frac{1}{2}$ " diameter, adjust the augers up or down. A burlap or astrograss drag can be attached to the drag pan when the machine has cleared the bulkhead or end dam. If using burlap, it should be wet. New burlap should be soaked for 24 hours to remove oils and increase absorbency. The texture created by the burlap can be controlled by adjusting the amount of burlap that is

SECTION 3 OPERATION

Power Crown (Optional)



Power Crown (Optional) cont'd

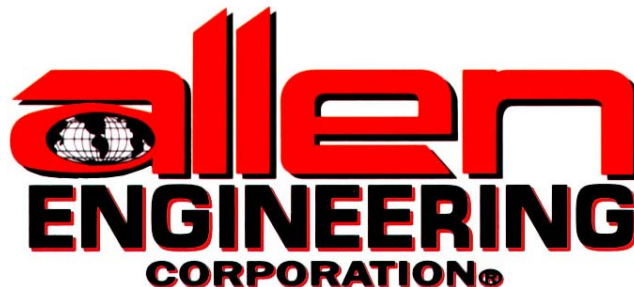
SECTION 3 OPERATION

The Power Crown (Optional) is an assisted system to help in the crowning of the bridge deck finisher. To operate the the power crowner follow the instructions below.

STEP 1) Loosen nut (A) off to allow the crowning shaft to turn freely.

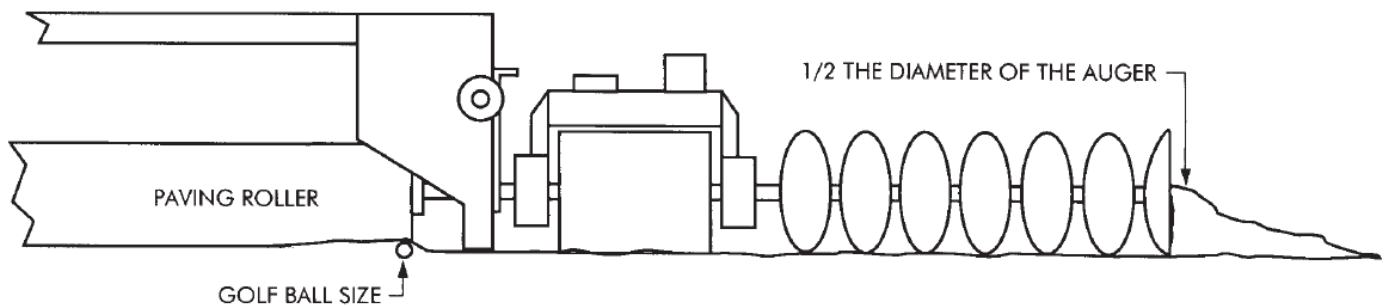
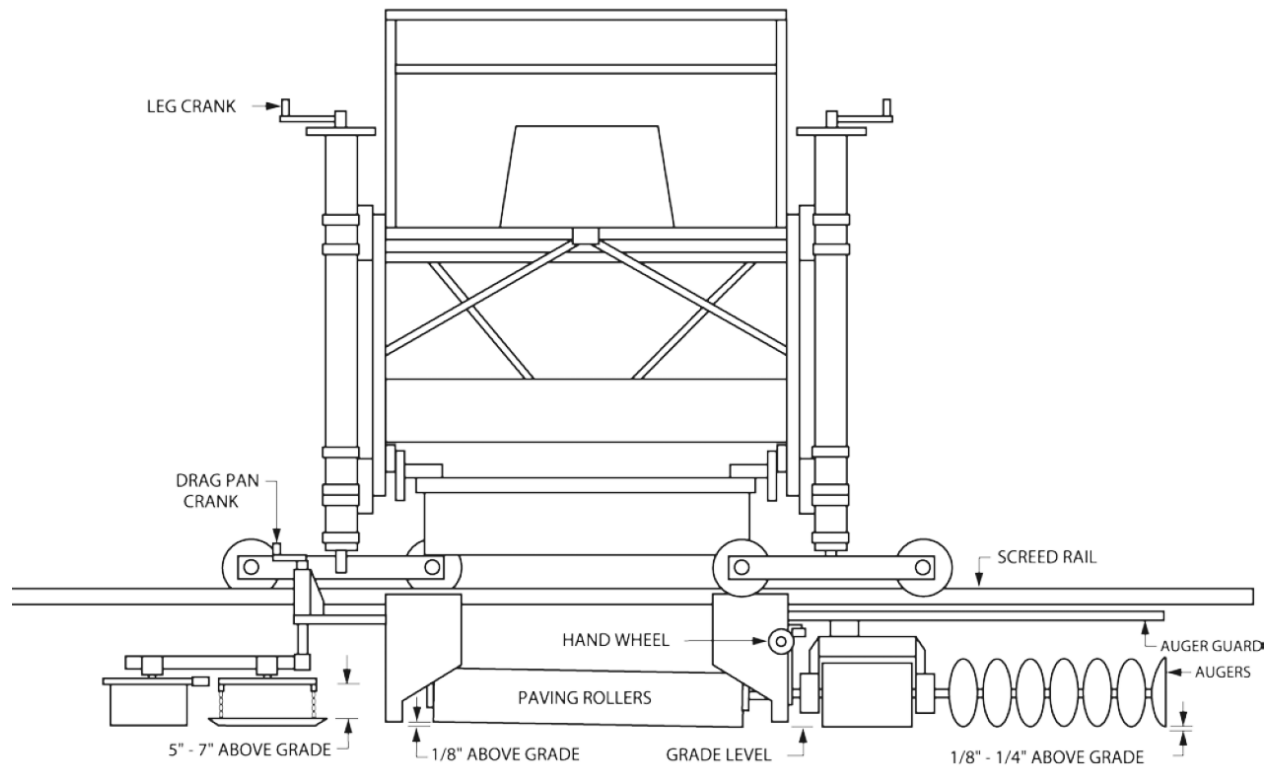
STEP 2) Crown the machine using the power crown lever on the control panel. Push the lever up to crown the machine and pull the lever down to lower the machine.

STEP 3) After desired crown is achieved tighten nut (A) to ensure that the crown will stay and the possibility of the crown slipping does not occur.



SECTION 3 OPERATION

Paving Operations



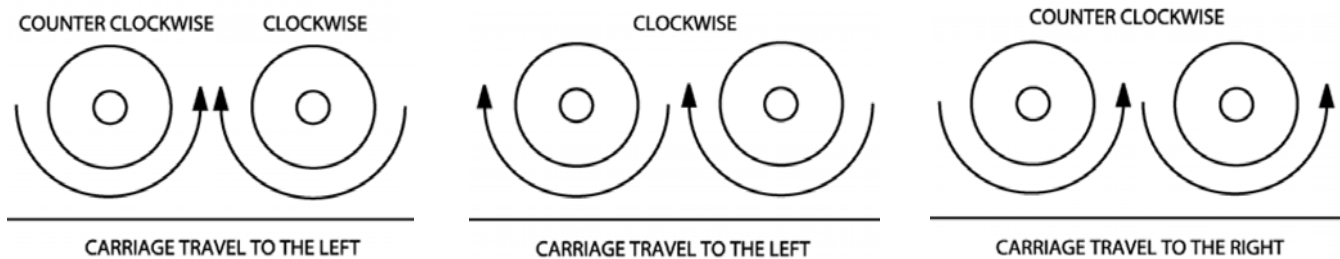
suspended between the retaining tubes. If the drag pan has a tendency to hop as it is being pulled across the deck, the H-frame may be too high or the chains may be too tight.

NOTE: The burlap drag should be wet. If new burlap is being used the burlap should soak in water for at least 24 hours. This will remove all oils in the burlap and make it more absorbent.

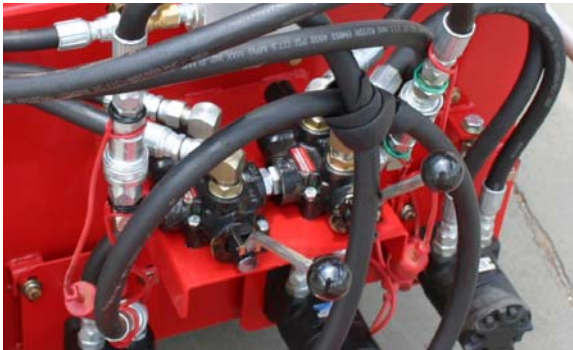
The texture given by the burlap can be easily adjusted. If the burlap is dragging to hard, remove one of

the retaining tubes and roll up the burlap so that the drag is not so heavy. If the burlap does not seem to drag enough, increase the length of the burlap so that it hangs down more.

NOTE: If the drag pan H-Frame is too high or the chains are hooked too tight, the pan will have a tendency to hop as it is being dragged across the deck.



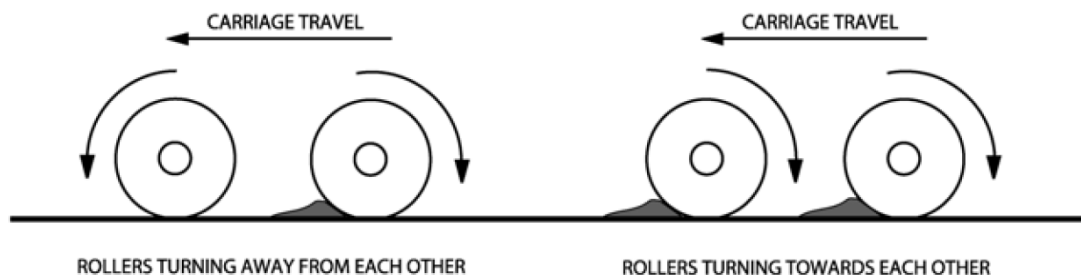
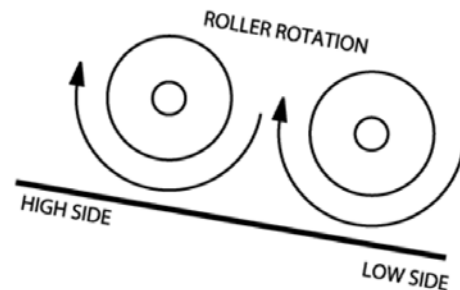
2. ROLLER ROTATION - The rotation of the rollers can be set in various ways depending on the desired finish and the conditions of the concrete mix. In most cases it is desirable to make both rollers rotate in the same direction for the first few passes. The two valve levers on the roller directional valves should be positioned in the same direction. When facing the augers, the rollers should turn counter



clockwise when the carriage moves from left to right and clockwise when moving from right to left. The automatic roller reversing valve should be in the REVERSING position. In this position the rollers will change direction at the end of each pass of the carriage. The direction of one roller should be changed after a couple of passes, then put the automatic roller reversing valve in the NON REVERSING position. In this position, the direction of the rollers will not change with each pass of the carriage. When facing the augers, the left roller turns counter clockwise and the right roller turns clockwise. By having the rollers to rotate in this manner, the leading roller will consolidate the concrete and the trailing roller will pave the surface. When pouring a flat bridge or deck, this roller

rotation will give the best finish. The automatic pivot device on the carriage will keep excess material moving in front of the rollers. The speed of the pivoting can be controlled by adjusting the set screws on the automatic roller reversing valve.

3. SUPER ELEVATIONS - There are situations that require that both rollers turn in the same direction. These include super elevated slabs, bridge decks and skewed decks. The automatic roller reversing valve should be set in the NON REVERSING position. The roller direction will be set to push the concrete from the low side to the high side of the elevation. Paving will only be done when the carriage is going from the low side to the high side.



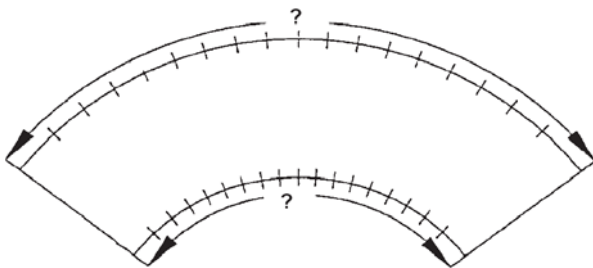
SECTION 3 OPERATION

Paving Operations (cont'd)

4. PAVING UP & DOWN GRADES - When paving up a grade there may be a tendency for excess concrete to move down hill toward the paving rollers. To counteract this, it may be necessary to raise the rear of the paving rollers $\frac{1}{8}$ " to $\frac{1}{4}$ ". The back of the machine can be raised $\frac{1}{8}$ " by turning the leg crank $\frac{1}{2}$ turn counterclockwise. It may then be necessary to lower the augers by using the auger adjusting crank. When paving down a grade, the opposite adjustments may be necessary. Ensure that the paving rollers are in total contact with the slab or deck. When paving down a grade, you want maximum contact with the surface of the concrete without allowing a ridge of concrete to come off the rear of the paving rollers.

5. PAVING CURVES - To aid the operator in negotiating a curve, put an equal number of marks on the rail or curb along the inside arc and the outside arc of the curve. The distance between the marks on the inside arc should be 1 to 2 ft. and the distance between the marks on the outside arc should be such that they are equally spaced and the number of spaces is the same as on the inside arc. The operator will periodically place the machine direction control lever in neutral to allow the end of the machine on the outside of the curve more travel time. To keep the machine aligned properly, keep the front wheels aligned with the marks on the rail or curb.

OUTER DISTANCE - SAME AMOUNT OF MARKS AS INNER
DISTANCE BUT SPACED MORE THAN 1 FT TO 2 FT IN
ORDER TO KEEP THE MACHINE SQUARE GOING THROUGH
THE CURVE



INNER DISTANCE - DIVIDED INTO 1 FT TO 2 FT SECTIONS
MARKS ARE MADE ON FORM OR RAIL

6. MACHINE ADVANCEMENT - The rate of advancement of the machine after each pass is determined by the rate of the concrete being poured. Pace the advancement so that fresh concrete is being placed 6' to 8' in front of the machine. The normal advancement of the machine will vary from 3" to 12" for each carriage pass. This will prevent the concrete from dehydrating before moving into the paving rollers. In hot and windy weather, the decking and sub-base should be

wet to slow down the dehydration process.

7. CARRIAGE TRAVEL SPEED - When paving super plasticized or latex modified concrete, it may be advantageous to slow down the carriage travel. This can be done by reducing engine speed or by adjusting the carriage speed control on the operator's console. Keep the engine speed between 2800 and 3200 rpm. This will result in a carriage speed of 85 to 90 feet per minute.

8. BEFORE PAVING SKEWED DECKS - When paving skewed decks it is important that all job specifications and details are determined prior to setting up your paver. You must know: (a) the skew angle measured perpendicular to centerline, (b) the distance between the screed rails measured perpendicular to the centerline of the deck, (c) if the deck is to be super elevated, and (d) if the deck is to be crowned.

The total length of the machine may be determined using the chart below. "A" is the skew angle, "B" is the conversion factor, "L" is the distance between rails measured perpendicular to the centerline, "C" is the extra machine length required for the skew.

The total machine length = $B \times L + C$.

"A" - Skew Angle in Degrees	"B" x "L" Rail to Rail Length	"C" - Extra Length
15	1.04 x Length	4-1/2 Ft
20	1.06 x Length	5 Ft
25	1.10 x Length	6 Ft
30	1.15 x Length	6-1/2 Ft
35	1.22 x Length	7-1/2 Ft
40	1.31 x Length	8 Ft
45	1.41 x Length	9 Ft
50	1.56 x Length	10-1/2 Ft
55	1.74 x Length	12 Ft
60	2.00 x Length	13-1/2 Ft

9. PAVING SKEWED DECKS - BASIC MACHINE

Follow standard machine setup procedures for initial roller and drag pan adjustments, roller rotation, and truss and carriage rail straightening. Disconnect the hydraulic skew cylinder and secure it out of the way. Manually rotate the lower carriage to align the paving rollers parallel to the centerline of the deck and lock in place with the skew ring clamps.

Turn the drag pan and burlap "H" frames parallel to the carriage rail to allow the pan and texturing material to follow the skew angle as the carriage travels across the deck.

String line the paving rollers to the carriage rail to ensure that the rollers are parallel to the carriage rail. Use the standard setup procedures but ensure that the string line is run across the top of the carriage rail adjacent or parallel to the paving rollers.

10. PAVING SKEWED FLAT DECKS AND SUPER ELEVATIONS WITH NO CROWN

No special equipment is required to pave skewed flat decks and super elevations. If allowed by the specifications, the machine can be positioned at an angle equal to the skew angle. The lower carriage should be positioned so that the rollers are parallel to the centerline of the deck. Finishing of the deck should be from the leading end of the machine to the trailing end of the machine. Ensure that the paving rollers are rotating in the same direction and the automatic roller reversing valve is set in the NON REVERSING position. Push the concrete from the low side to the high side of the elevation and roll over the concrete going down the super elevation. Pave from the leading end to the trailing end. The leading end must be the low side and the trailing end must be the high side.

11. PAVING SKEWED DECKS WITH CROWN

Review the project specifications and requirements and contact the ACP Service Department if the crowned deck requires a special length insert. The frame and carriage rail should be crowned on opposite corners of the insert. You should remove the diagonal angle braces in the sections being crowned. When the pave skewed to pave skewed decks with a crown, the carriage travel rails must be crowned exactly above the crown line of the deck. Skew the lower carriage so that the paving rollers are parallel to the centerline of the deck. Reposition the carriage wheels on the upper carriage to be centered over the crown line. The Optional Skew Bar Kit will allow you to offset the carriage wheels so that the carriage rollers pass over the crown parallel to the crown line. The skew bar kit is pre-drilled for skew angles of 22° through 45°.

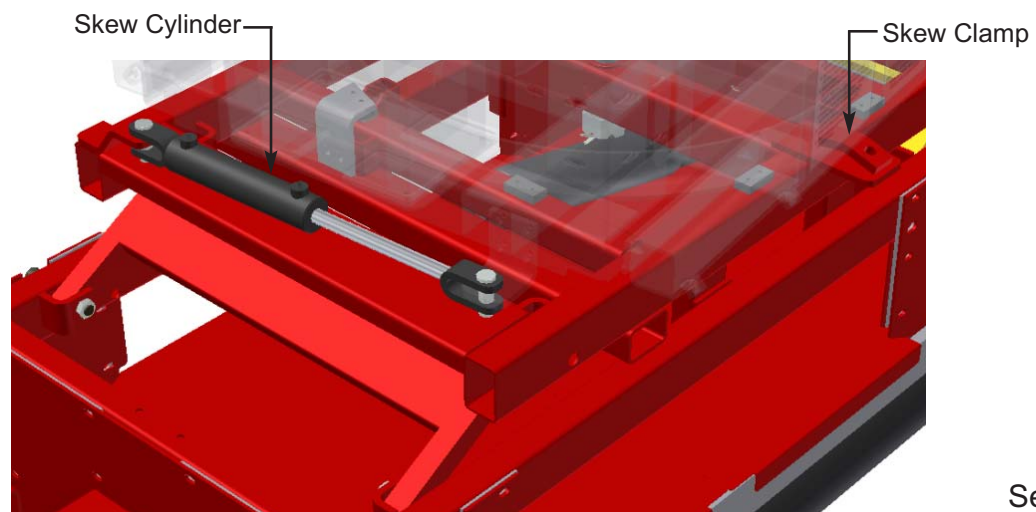
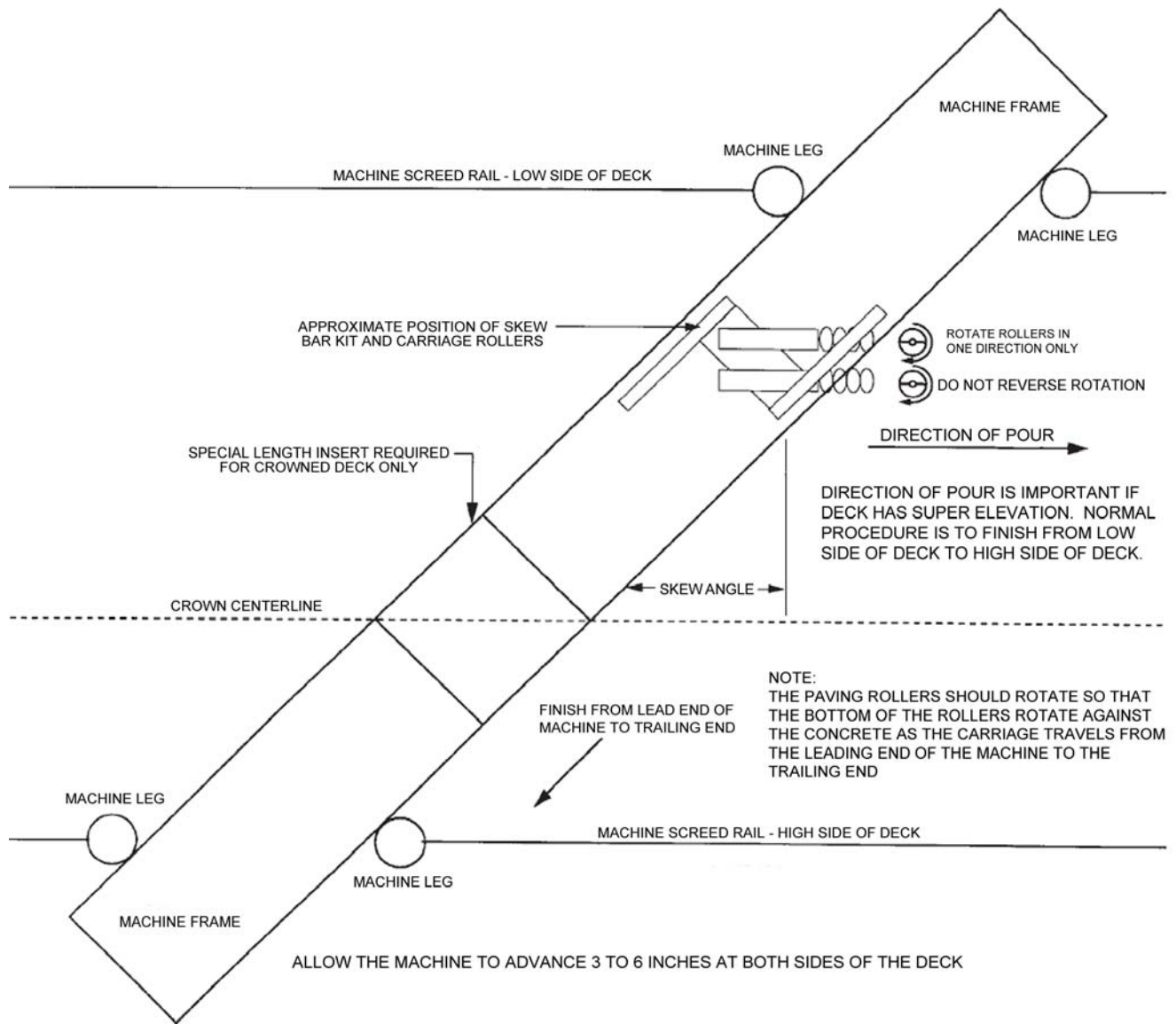
The installation of the skew bar kit can be performed by removing the carriage when the machine is split for installation of additional inserts. When ordering the Optional Skew Bar Kit, the ACP service department will need to know the following: (a) skew angle, (b) Is the skew angle measured from a line perpendicular to or parallel to the centerline of the bridge deck? (c) Is the skew clockwise or counterclockwise from a line perpendicular to the centerline of the deck? (d) Is the deck crowned? (e) What is the % cross slope of each side of the crown? (e) Distance between screed rails, measured perpendicular to the centerline of the deck, (f) model and serial number of your paving machine.

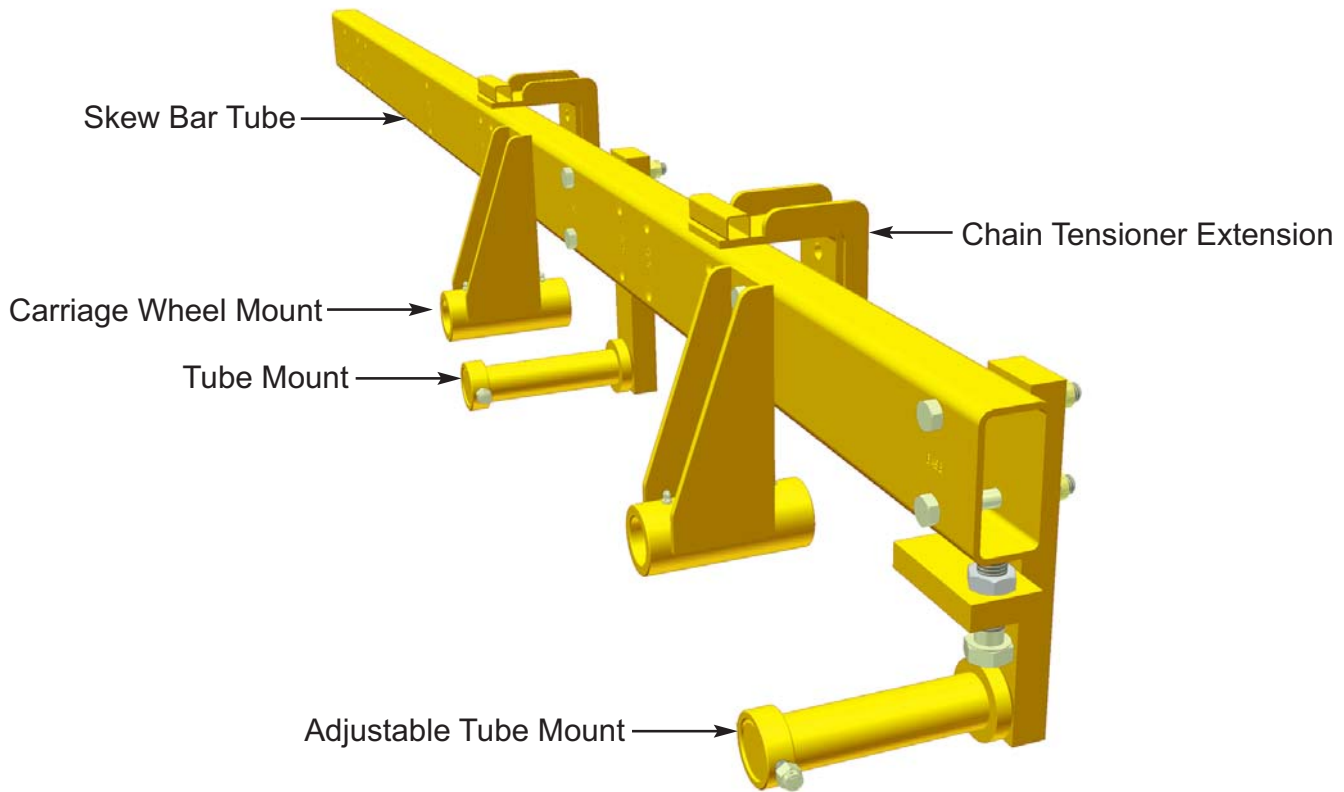
Skew Bar Kit Installation:

- (1) The carriage should be removed from the machine and supported such that the weight of the carriage does not rest on the paving rollers.
- (2) Remove the carriage skew cylinder
- (3) Remove the carriage wheel assemblies and put aside.
- (4) Add extension chain tightener plates onto the existing chain tightener plates.
- (5) Install tube mount brackets on the upper carriage frame. Mount the skew bar tubes at the locations marked "Base."
- (6) Install the carriage wheel mounts onto the skew bar tubes using the bolt holes that correspond to the angle determined by your job specifications. Reinstall the carriage wheel assemblies that were removed in step (3) into the carriage wheel mounts on the skew bar.
- (7) After ensuring that all bolts are secure, install the complete carriage assembly with skew bar kit into the machine frame.

SECTION 3 OPERATION

Paving Operations (cont'd)





It may be necessary to order a special length frame insert to crown the carriage rail exactly over the crown centerline. The machine should be positioned so that the crown centerline is at the ends of the special length insert. When paving skewed decks, the paving rollers must always rotate in only one direction and finishing of the concrete is only done when the carriage travels from the leading end of the machine to the trailing end. The paving rollers can be turned to any angle for finishing skewed decks.

Follow these steps to skew the paving rollers:

- (1) Disconnect the skew cylinder.
- (2) Loosen the skew stop clamps then rotate the paving rollers to the skew angle.
- (3) Position the two roller direction valves in the same direction. When facing the augers, both rollers turn counterclockwise when the carriage travels to the right and clockwise when it travels to the left. The automatic roller reversing valve should be in the "NON-REVERSING" position. In this position, the roller direction will not change with each pass of the carriage.

When paving a skewed deck that is super elevated, the leading end of the machine must be at the low side of the deck to permit the carriage to finish as it travels from the low side to the high side.

SECTION 3 OPERATION

Paving Operations (cont'd)

12. PAVING THIN BONDED CONCRETE OVERLAYS

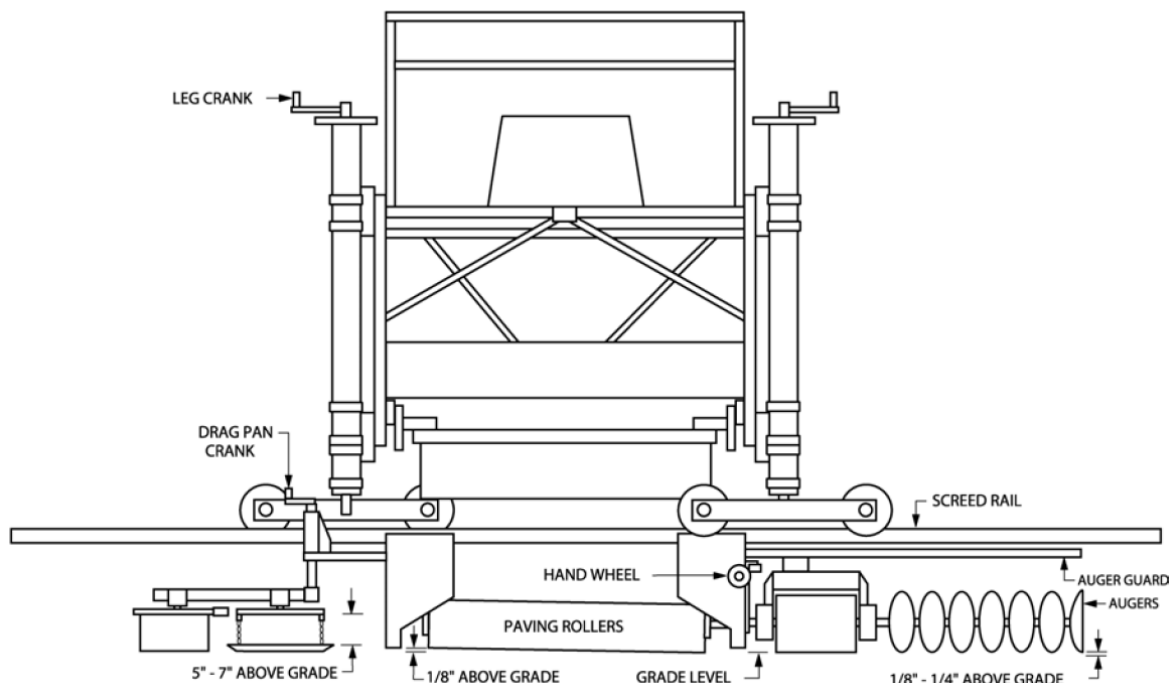
It is very important that the screed rails straight and solid. In most cases, round pipe is superior to square tubing or beam rails. It is recommended that you use 2" schedule 80 black iron pipe and low profile overlay adjustable screed chairs spaced on 24" centers. This pipe is easier to align, set into screed chairs and conform to radius turns. If you will be using several passes to make the overlay, a nail strip can be used to help maintain a straight edge and to prevent slumping at the outer edge. Material should be placed within 5' of the front of the machine.

Vibration attachments are controlled at the front of the carriage. Vibration speed can be changed to match the requirements of the job and the depth of the mix. When properly adjusted, the vibration attachments will create a more uniform material and remove voids and air pockets. If you machine is equipped with a Roller Tamper, the finned rollers should be set to $\frac{1}{2}$ " to $\frac{3}{4}$ " below finished grade. The Roller Tamper should be set to run between 4000 and 5500 vibrations per minute. It is important that the quality and consistency of the mix be controlled. Partial depth pockets and deep holes should be filled and vibrated with hand vibrators.

The time required for the film or latex skin to form on the surface is 10 to 15 minutes with a normal slump of 4 $\frac{1}{2}$ to 7". The finishing process must be completed within 10 minutes to allow adequate time for hand finishing along curb edges and for the surface texturing required before the surface film or skin forms.

Weather conditions are an important factor because latex modified concrete dries quickly. Latex modified concrete should not be poured if the temperature is above 85°F or in high winds. These conditions will speed up the setup time and create serious finishing problems. It is best to pour latex modified concrete between 2 AM and 7 AM when temperature and wind conditions are correct.

The machine should be set up according to standard procedures. The burlap drag should be soaked with water and continuously sprayed during the pour. You should also wet the deck surface before the pour and do not allow it to dry out. Spread and broom the material onto the deck ahead of the machine, removing most of the large aggregate. The slurry should be brushed onto the curbs and adjoining slabs at least 3" to ensure a good bond. The material must be placed within 5' of the front of the machine.



Maintenance

SECTION 3 OPERATION

MAINTENANCE

For maximum performance we recommend that you service and maintain your 4836 Paver on a regular basis. Do not hesitate to call the ACP Service Department if, at any time, you have a question about the service and maintenance of your machine.

LUBRICATION CHART		
DAILY		
PAVING CARRIAGE	Check	
Carriage Wheels (4)	Lubricate	NLGI-2 Lithium Base Grease - Lubricate slowly until excess lubricant is observed.
Carriage Hold Down Rollers (4)	Lubricate	NLGI-2 Lithium Base Grease - Lubricate slowly until excess lubricant is observed.
Auger Bearings (2)	Lubricate	NLGI-2 Lithium Base Grease - Lubricate slowly until excess lubricant is observed. Grease bearings immediately- after pour to flush concrete from bearing seal.
Paving Roller Bearings (4)	Lubricate	NLGI-2 Lithium Base Grease - Lubricate slowly until excess lubricant is observed. Grease bearings immediately- after pour to flush concrete from bearing seal.
Reversing Valve Slide Bracket	Lubricate	NLGI-2 Lithium Base Grease - Lubricate slowly until excess lubricant is observed.
Hydraulic Oil Reservoir (1)	Inspect	Dextron II AFT - Add hydraulic oil if necessary. replace oil filter with a 10 micron filter element after the first 50 hours and every 250 hours thereafter.
Engine Crankcase (1)	Inspect	Engine Oil SAE 30, MS SD or SE - Add oil if necessary.
POWER UNIT	Check	
Hydraulic Oil Reservoir (1)	Inspect	Dextron II AFT - Add hydraulic oil if necessary.
Engine Crankcase (1)	Inspect	See "Engines" - Add oil if necessary.
LEGS AND TRAVEL BOGIES	Check	
Power Leg Screws (4)	Lubricate	NLGI-2 Lithium Base Grease - Extend Inner Leg 5 Inches. Apply 5 to 10 pumps of grease. Retract leg to its original position.
Bogie Wheels (8)	Lubricate	NLGI-2 Lithium Base Grease - Lubricate slowly until excess lubricant is observed.
SHIFTING MECHANISM	Check	
Shifter Cam Rollers (4)	Lubricate	Engine Oil SAE 30, MS SD or SE
Shifter Sliding Parts	Lubricate	"Never Seez" or graphite filled grease. - Brush "Never Seez" or graphite filled grease around slots and on shifting mechanism rail and striker arms. Apply to finish-ing roller reversing rod.
Idler Sprocket Bearings (2)	Lubricate	NLGI-2 Lithium Base Grease - Lubricate slowly until excess lubricant is observed.
EVERY 25 HOURS		
PAVING CARRIAGE	Check	
Engine Crankcase (1)	Replace	See "Engines" - Add oil if necessary.
POWER UNIT	Check	
Engine Crankcase (1)	Replace	Engine Oil SAE 30, MS SD or SE - Add oil if necessary.

SECTION 3 OPERATION

Maintenance (cont'd)

LUBRICATION CHART (cont'd)		
EVERY 100 HOURS		
LEGS AND TRAVEL BOGIES	Check	
Drive Bogie Axle Bearings (4)	Lubricate	NLGI-2 Lithium Base Grease - Lubricate slowly until excess lubricant is observed.
Bogie Drive Chains (2)	Lubricate	Chain Lube
CONTROLLER	Check	
Carriage Travel Chains (2)	Lubricate	Chain Lube
SEASONAL OR AS REQUIRED		
PAVING CARRIAGE	Check	
Hydraulic Oil Reservoir (1)	Replace	Dextron II AFT - Remove and clean suction screen.
POWER UNIT	Check	
Hydraulic Oil Reservoir (1)	Replace	Dextron II AFT - Remove and clean suction screen. Replace oil filter element with a 10 micron element.
LEGS AND TRAVEL BOGIES	Check	
Manual Leg Screws (4)	Lubricate	NLGI-2 Lithium Base Grease - Disassemble leg and brush grease onto leg screw and fill leg thrust bearing with grease.
Leg Rollers (16)	Lubricate	NLGI-2 Lithium Base Grease - Remove leg rollers and work grease into bearings.

DAILY ROUTINE SERVICE

1. Check the engine oil level on both power units.
2. Check the battery water level on both power units.
3. Inspect all hydraulic hoses for damage or leaks.
4. **IMPORTANT** - After each pour, clean the machine as soon as possible. Coat the paving rollers with light oil.
5. Inspect engine hydraulic pump drive coupling for alignment and wear.

MACHINE ENGINES

The 4836 Paver uses gasoline engines.

• Kohler Gasoline Engines

One engine is mounted on the stationary power unit to power machine travel and paving carriage travel. The other is mounted on the paving carriage to power the paving rollers, augers and various optional carriage accessories. Consult your Engine Owner's Manual for recommended service procedures.

To insure the best engine performance and life, a strict schedule of routine service and maintenance is recommended. Change the engine oil after the first 5 Hours of operation and every 25 Hours thereafter.

Kohler specifies clean, fresh, unleaded gasoline with a pump sticker octane rating of 87 or higher. In countries using the Research method, it should be 90 octane minimum. Unleaded gasoline is recommended, as it leaves fewer combustion chamber deposits. Leaded gasoline may be used in areas where unleaded is not available and exhaust emissions are not required. Beware, however, that the cylinder head will require more frequent service. Gasoline (up to 10% ethyl alcohol, 90% unleaded gasoline by volume) is approved as a fuel by Kohler engines. Other gasoline/ alcohol blends are not approved. Methyl Tertiary Butyl Ether (MTBE) and unleaded gasoline blends (up to a maximum of 15% MTBE by volume) are approved as a fuel for Kohler engines. Other gasoline/ether blends are not approved. **IMPORTANT:** Lubricate pump mounting splines every 500 hours with Dow Corning G-N Metal Assembly Paste or Dow Corning #77 Assembly Paste.

The engine used on your 4836 Concrete Paver is warranted by the engine manufacturer. Contact your authorized engine dealer for warranty repair and replacement parts. If there is not an authorized dealer available, call the ACP Service Department.

• **Kohler** - API Service Classifications SF, SG, SH

HYDRAULIC OIL AND OIL FILTERS

Check the level of hydraulic oil in the oil reservoir on a daily basis. Check the oil before starting the engine. Run the engine for a few minutes to purge any air from the lines and then check the oil again. Maintain the oil level within 2 inches of full but leave at least 1 inch of air space for expansion. The reservoir level should be checked after hose length has been added and after the machine is lengthened. Approximately one gallon of hydraulic oil is required to fill 100 feet of 1/2" hose. Use Dexron automatic transmission fluid or Hydraulic Transmission Fluid Type C-2. Do not use engine oil. Use clean containers when adding hydraulic oil to the reservoir. Take every precaution, to avoid contaminating the oil in the system. Thoroughly clean all hydraulic components before loosening or removing for repairs.

The hydraulic oil filter element(s) should be replaced with a 10 micron filter element after the first 50 hours of operation and every 250 hours thereafter. Replace hydraulic filters each time the hydraulic oil is replaced.

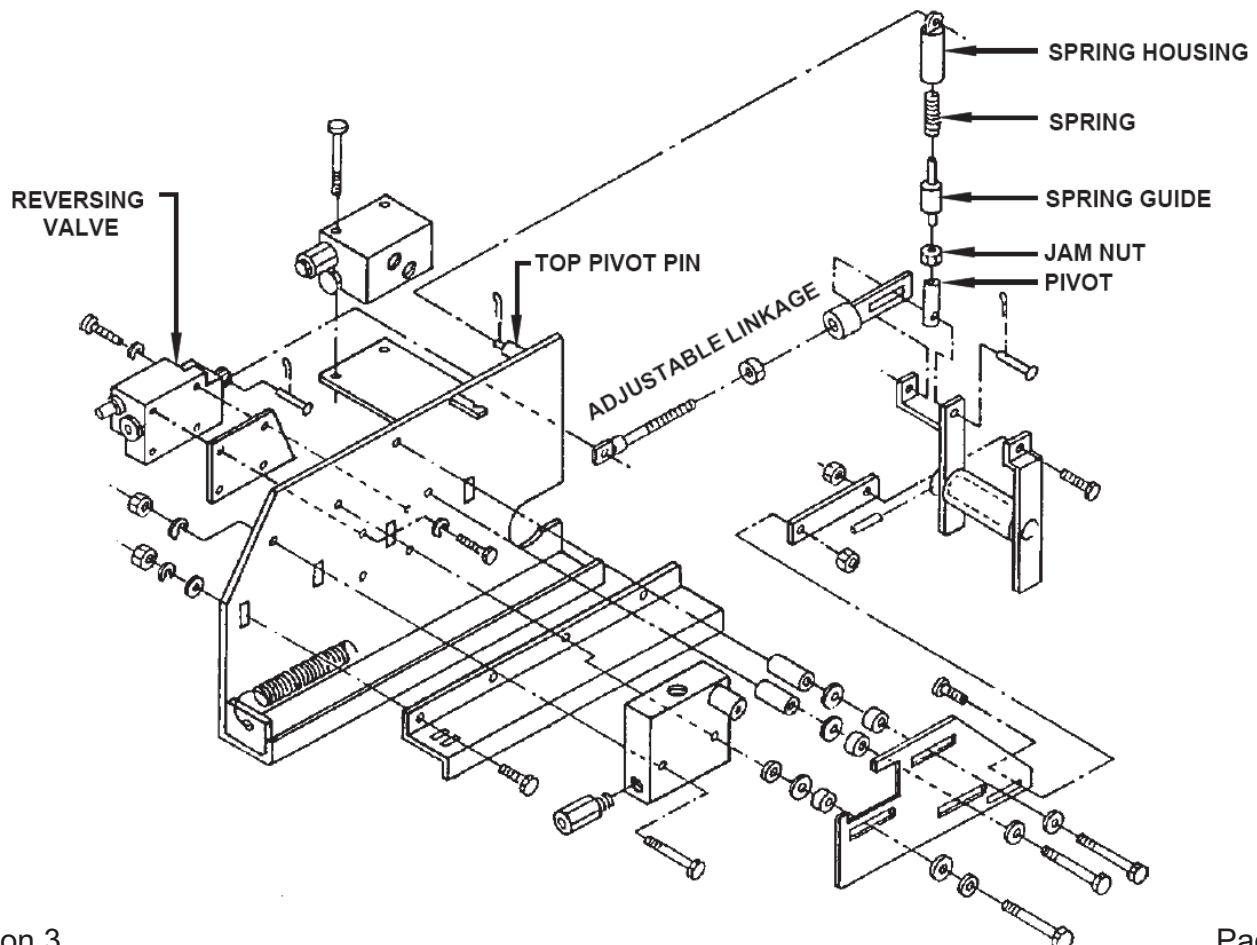
Before paving or transporting the machine, secure all hoses to keep them away from sharp edges and moving parts. Before connecting hoses clean the quick disconnects and fittings.

SHIFTING MECHANISM ADJUSTMENT

The shifting mechanism automatically decelerates, reverses and accelerates the carriage each time the carriage makes a pass and allows the operator to manually start or reverse carriage travel. In addition, the shifting mechanism can automatically advance the machine a manually selected distance. The over center assembly provides the spring force to shift the hydraulic valve that reverses the carriage motor. To replace the over center assembly or to adjust spring tension:

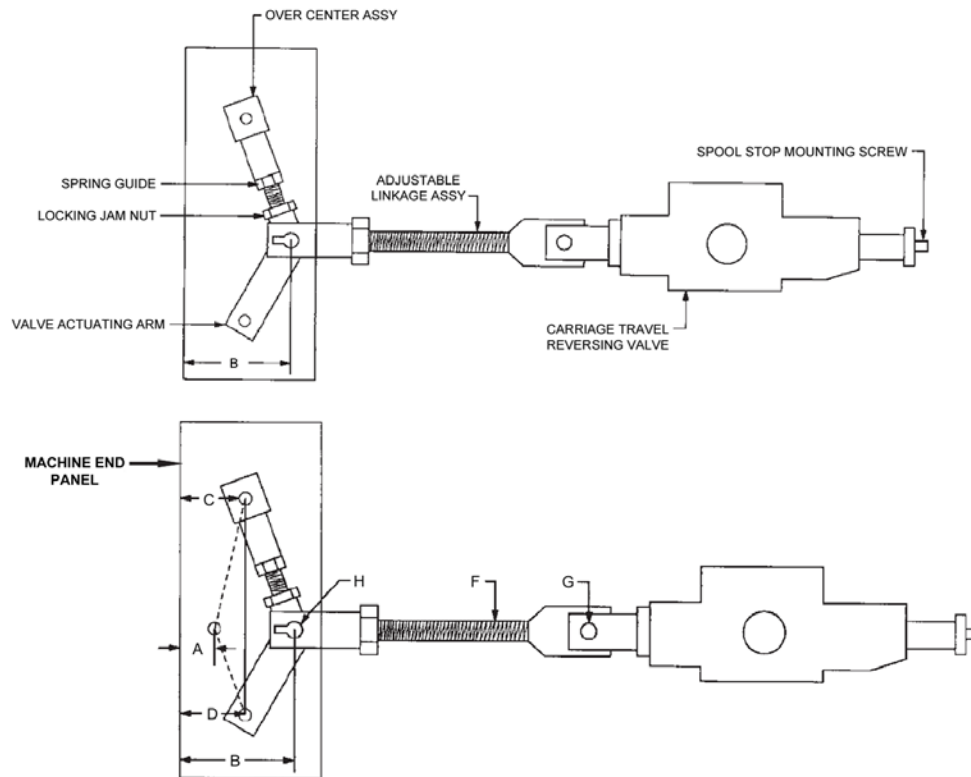
1. Remove the cotter pin from the top pivot pin.
2. Use a bar or hammer handle to compress the spring slightly.
3. Remove the assembly from the pivot pin, noting the position of the components.
4. If more spring force is required, adjust the pivot and jam nut closer to the screw. You do not have to disassemble.
5. Reassemble in reverse in order.

After assembly check the operation of the machine to insure that the over center assembly shifts the valve spool a full 1/2 inch with sufficient force.



SECTION 3 OPERATION

Shifting Mechanism Adjustment



ADJUSTABLE LINKAGE ADJUSTMENT CHECK

1. Using a tape measure, measure and record the dimensions A, B, C, and D. You will have to shift the valve once to measure both A and B.
2. Calculate $(A \div B)$ and $(C \div D)$

When the length of "F" is correct $(A \div B) = (C \div D)$.

3. If $(A \div B)$ is greater than $(C \div D)$, length "F" linkage.
4. If $(A \div B)$ is less than $(C \div D)$, shorten "F" linkage.

TROUBLE SHOOTING		
SYMPTOM	CAUSE	REMEDY
While in the pave position, the carriage doesn't reverse direction and the machine will continue to travel.	The reversing valve on the shifting mechanism is not completely shifted.	Check the adjustment of the adjustable linkage assembly. Use the formula provided.

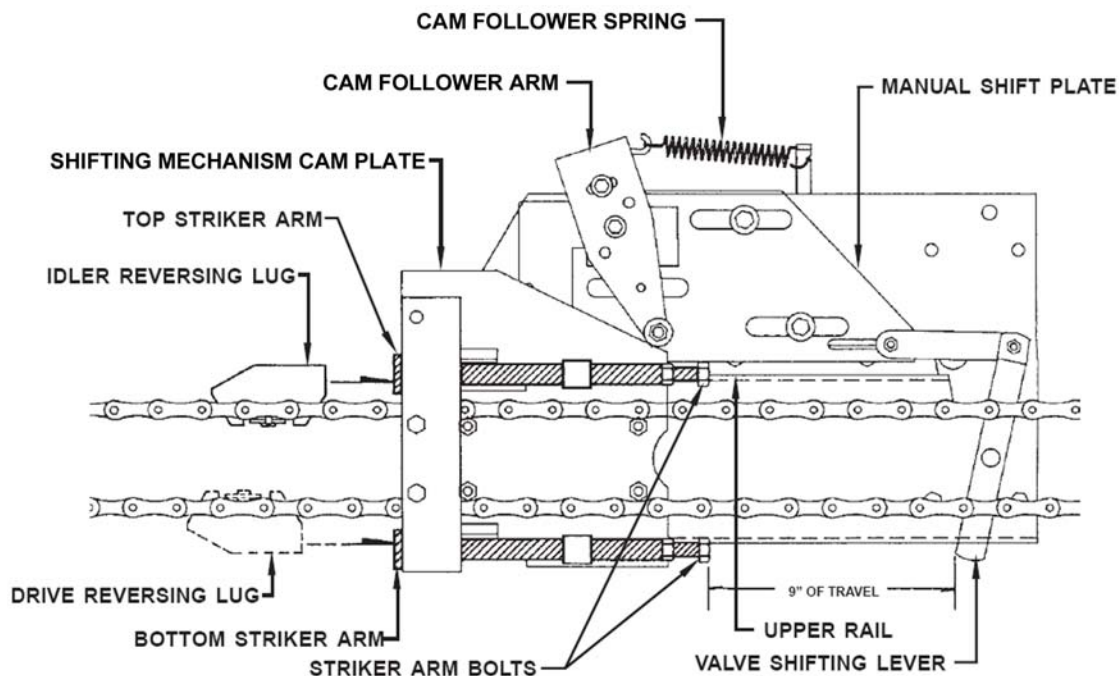
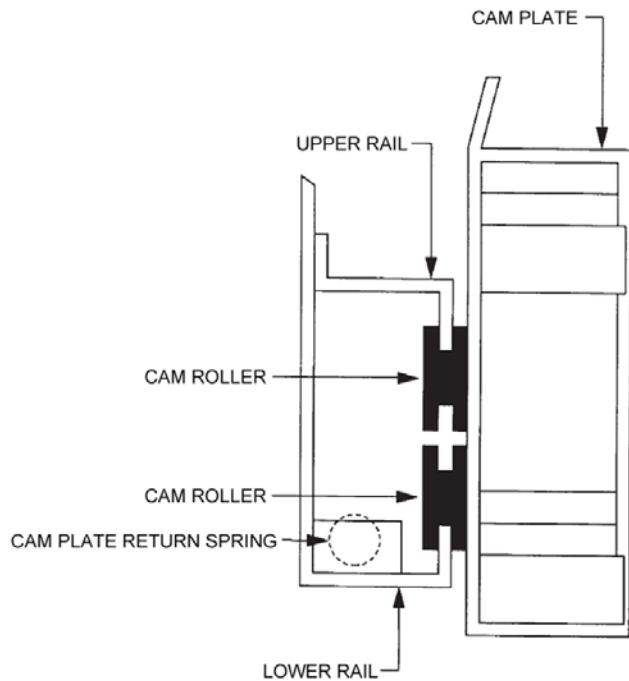
Shifting Mechanism Adjustment

SECTION 3 OPERATION

Periodically, check the fit of the controller cam rollers between the upper and lower rails. Occasionally the upper rail needs to be adjusted downward to compensate for the wear of the cam rollers and rail edges. If the machine automatically advances noticeably farther when the carriage is at one end, the roller fit may be loose and the upper rail should be adjusted downward to remove the excess clearance. Then move the cam to both ends of the rail and verify that the cam moves freely. Periodically lubricate the cam rollers and wearing edges of the rails with grease to prevent undue wear. Check the cam rollers for flat spots and replace if necessary.

When the controller is properly adjusted, the carriage decelerates to slow motion, the machine moves forward and the carriage travel reverses and accelerates smoothly. If the carriage does not slow, but goes in and out too fast during travel reversal, the cam arm needs to be adjusted. The cam arm is provided with a slot to fine tune the carriage travel shift speed. Adjust the cam arm clockwise, relative to the valve shift, to reduce the travel speed and counter clockwise to increase the travel speed.

For maximum automatic machine travel and to avoid carriage jerking it is important that the carriage does not move in and out of travel reversal to fast. If the cam arm is adjusted to far, however, the carriage travel will be stopped and only machine travel will result. In this case, the cam arm should be "backed up" to obtain a slower carriage movement during shift and also allow maximum automatic machine travel.



SECTION 3 OPERATION

Trouble Shooting

SYMPTOM	CAUSE	REMEDY
FINISHING Open or pitted surface left by the rollers (rollers are plowing concrete).	Paving rollers are carrying too much concrete (the roll of concrete on the side of the rollers is too large).	Adjust the augers lower to leave a golf ball size roll at the front edge of the leading roller.
	Concrete may be placed too far ahead of the machine. Concrete may be drying out.	Limit concrete placement to within a maximum of 10 feet ahead of the paving machine.
Open or pitted surface left by the rollers (no concrete on side of the leading roller).	Augers are set too low and are removing too much concrete (paving rollers carrying no concrete roll).	Raise augers to leave golf ball size of concrete at the front end of the leading roller.
Roll of concrete coming off the rear of paving rollers (rollers are leaving a ridge in the slab).	This condition may exist if the rear of the paving rollers is too low.	Raise the rear of the paving rollers by raising the rear of the machine using the machine leg cranks until the excess roll or ridge disappears. Normally, the rear of the paving rollers will be 1/8 to 3/16 inch higher than the front of the leading edge of the paving rollers. Note: The augers may need to be readjusted at this time.
Drag Pan is leaving an indentation in the surface, at the curb line or slab edge.	There may be too much additional weight on the drag pan.	Remove some or all of the added weight (usually concrete) from the pan.
	The pan is not being pulled straight.	Adjust and hook the chains to the pan so that all the chains are hooked the same number of links from the pan.
	The pan is being pulled at a point too high by the pan hanger frame.	Adjust the height of the hanger frame distance to the top of the pan to approximately 6 inches.
The total finished surface is not sealed behind the drag pan.	The concrete may be abnormally dry (the surface may be drying from hot winds).	The use of pre-wetted burlap drag is suggested. Keep burlap wet.
Finish coming from rollers seems to be washboard looking (possible vibration on lower paving carriage).	Auger shaft may be bent or augers are out of balance. One or more slide blocks on lower carriage frame may not be contacting skew ring on upper carriage.	Remove augers and inspect shafts for straightness. Attach the augers and check for visual imbalance by looking at the very end of the augers for abnormal oval rotation. Tighten center pivot bolt so slide blocks contact skew ring; still allowing skewing if skew cylinder is used.
MACHINE OPERATION Engine does not start after "Shutdown".	Engine ran out of fuel or water in fuel.	Replace water contaminated fuel. For best performance use unleaded gasoline and avoid alcohol blended fuels. Use only straight weight SAE 30 oil in engine crankcase.
No hydraulic power or loss in speed and/or power.	Low hydraulic oil level in tank.	Add hydraulic oil to within two inches of the top of tank.
Carriage does not move when power is applied. Engine is under strain.	Improper hose hookup to carriage shifting mechanism.	Hookup hoses properly.

Trouble Shooting (cont'd)

SECTION 3 OPERATION

SYMPTOM	CAUSE	REMEDY
MACHINE OPERATION		
Carriage does not move when power is applied. Engine is under strain.	Carriage Shifting Mechanism cam arm follower is not in "pave" position.	Check cam arm follower tension and verify that cam arm movement is not obstructed.
Carriage decelerates, stops and then will not accelerate.	Carriage Shifting Mechanism cam arm follower is not adjusted properly.	Adjust upper rail or adjust cam arm. See Maintenance - Shifting Mechanism.
	Carriage Shifting Mechanism reversing valve spool does not shift.	Check for cause and correct. See Maintenance - Shifting Mechanism.
	If valve mount bolts have recently been tightened, the reversing valve body may be distorted causing the spool to "bind".	Loosen valve body mount bolts and tighten bolts evenly a little at a time.
Automatic machine travel is more when carriage is near drive end.	Upper rail on shifting mechanism requires adjustment.	Adjust upper rail down. See Maintenance - Shifting Mechanism.
Carriage travel does not slow down enough before automatic reversing. The result is excessive jerking.	Cam arm requires adjustment.	Adjust cam arm. See Maintenance - Shifting Mechanism.
Automatic machine advance is not functioning. Manual bogie advance is functioning.	Check valve is stuck.	Lightly tap check valve. Replace valve if malfunction recurs. Valve is located beneath Power Unit. See Parts Book
Speed and power loss for carriage travel drive motor when carriage return direction is normal.	Clevis end or rear spool stop is unscrewing from reversing valve spool.	Clean oil from clevis end threads. Assemble and loctite.
	Carriage travel reversing valve is worn or faulty.	Replace valve.
	Hydraulic motor worn or damaged.	Replace motor.
Paving roller stops under load while augers operate normally.	On reversing valve, relief valve pressure setting is too low or foreign material is unseating relief valve	Adjust relief pressure setting * or disassemble relief valve and remove material or replace with a valve with correct relief setting. * 1200 PSI relief valve pressure should be verified for replacement valves before installation.
Paving roller does not operate or stops under load. Relief valve is okay. Augers operate normally.	Roller motor is damaged or worn. Reversing valve may have developed internal damage.	Replace motor. Replace reversing valve.
Paving roller slows or stops under load. Excessive bearing noise when roller spins or bearing excessively hot.	Paving roller shaft bearings damaged.	Replace bearings.
Paving roller operates when carriage travels in one direction but does not operate properly and/or reverse when carriage travel direction is reversed.	Hydraulic hose quick disconnect is malfunctioning.	Replace quick disconnect.
Augers slow or stop but roller functions normally under load.	Auger is overloaded with concrete.	Reduce concrete in front of augers.
	Auger motor is damaged or worn.	Replace auger motor.
	Hydraulic hose quick disconnect is malfunctioning.	Replace quick disconnect.

Trouble Shooting (cont'd)

SECTION 3 OPERATION

SYMPTOM	CAUSE	REMEDY
MACHINE OPERATION Auger and roller stop under load.	On/Off Valve relief valve pressure is set too low.	Adjust relief valve setting to 1800 * or replace with valve with the correct relief pressure setting. * 1800 PSI relief valve pressure should be verified for replacement valves before installation.
Paving roller does not skew in proper direction but roller is spinning in proper direction.	Improper hookup of hydraulic lines to hydraulic skew cylinder.	Reverse hoses leading to hydraulic skew cylinder.
Paving roller does not automatically skew full travel in one or both directions.	Foreign object blocking full travel.	Remove obstruction.
	Nut on carriage center pivot shaft is too tight.	Adjust nut tension.
	Carriage center pivot shaft is binding.	Disassemble, clean and relubricate before reassembling.
Speed and power loss for paving roller and auger.	Worn hydraulic pump.	Replace hydraulic pump.
AUTOMATIC REVERSING VALVE Carriage rollers only work in Non-Reversing Mode and will not go into Auto-Reversing Mode after shifting the selector handle to Auto-Reversing Mode.	Both the MV1 and MV2 Cartridge Valves are stuck and not shifting.	Replace both Cartridges.
Carriage rollers only work in Auto-Reversing Mode and will not go into Non-Reversing Mode after shifting the selector handle to Non-Reversing Mode.	Both the MV1 and MV2 Cartridge Valves are stuck and not shifting.	Replace both Cartridges.
Carriage blows relief in one direction in the Auto-Reversing Mode.	If the carriage works in all modes except for one direction in the Auto-Reversing Mode, either the MV1 or MV2 Cartridge Valve is stuck in the shifted mode.	Remove the 9/16 Hex Vent Cap on both the MV1 and MV2 Cartridge Valves. Insert a small screwdriver or allen wrench into the vent cap holes. The cartridge with the shallowest hole is the cartridge that is stuck. In order to run the carriage until a replacement cartridge can be obtained, use the small screw driver or allen wrench to manually push the cartridge spool in. If the depth of the vent hole is the same on each cartridge, you have successfully shifted the stuck cartridge. The carriage will run in the Auto-Reversing Mode until the selector handle is moved.

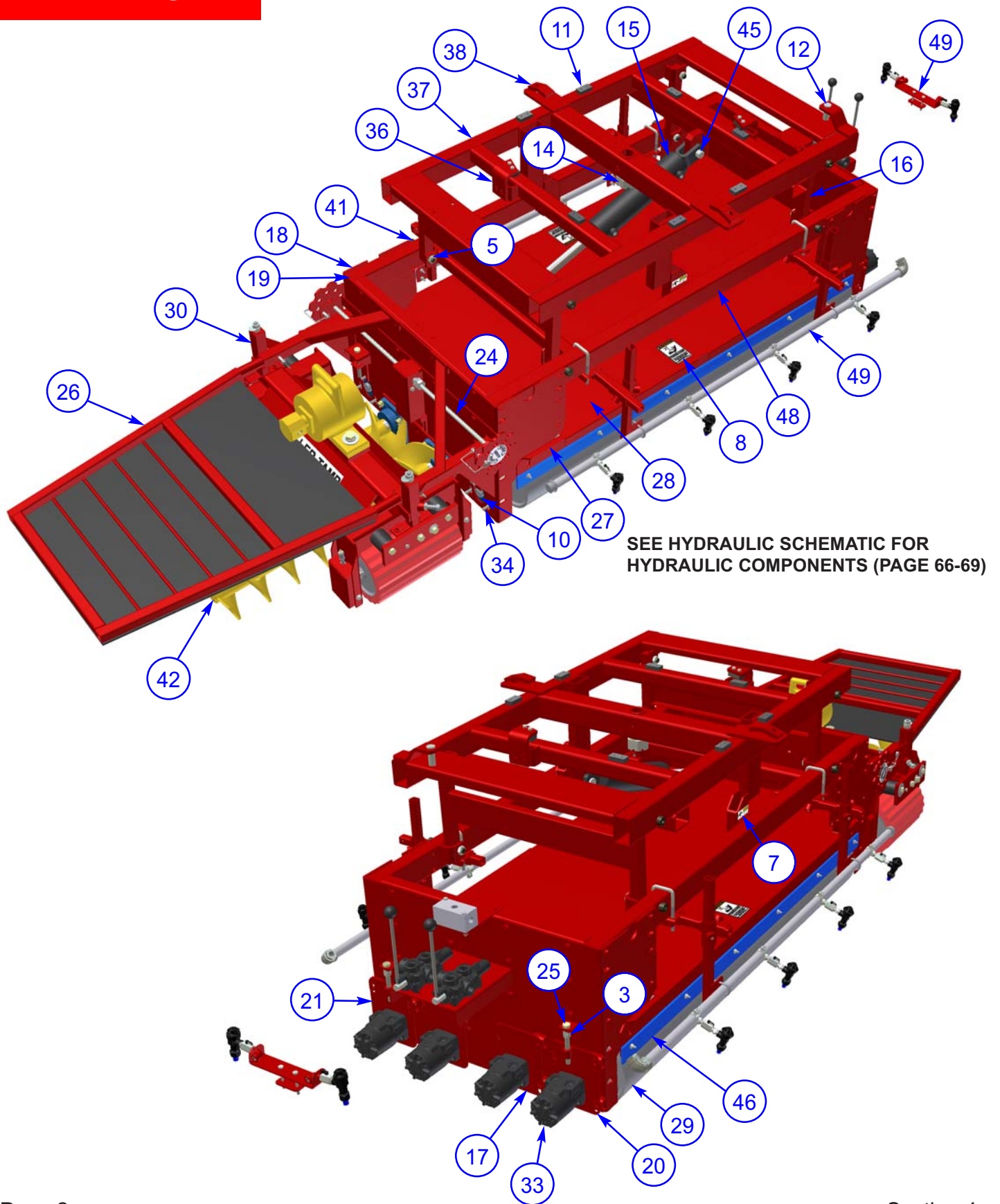
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SECTION 4 PARTS

LOWER CARRIAGE ASSEMBLY - 053020



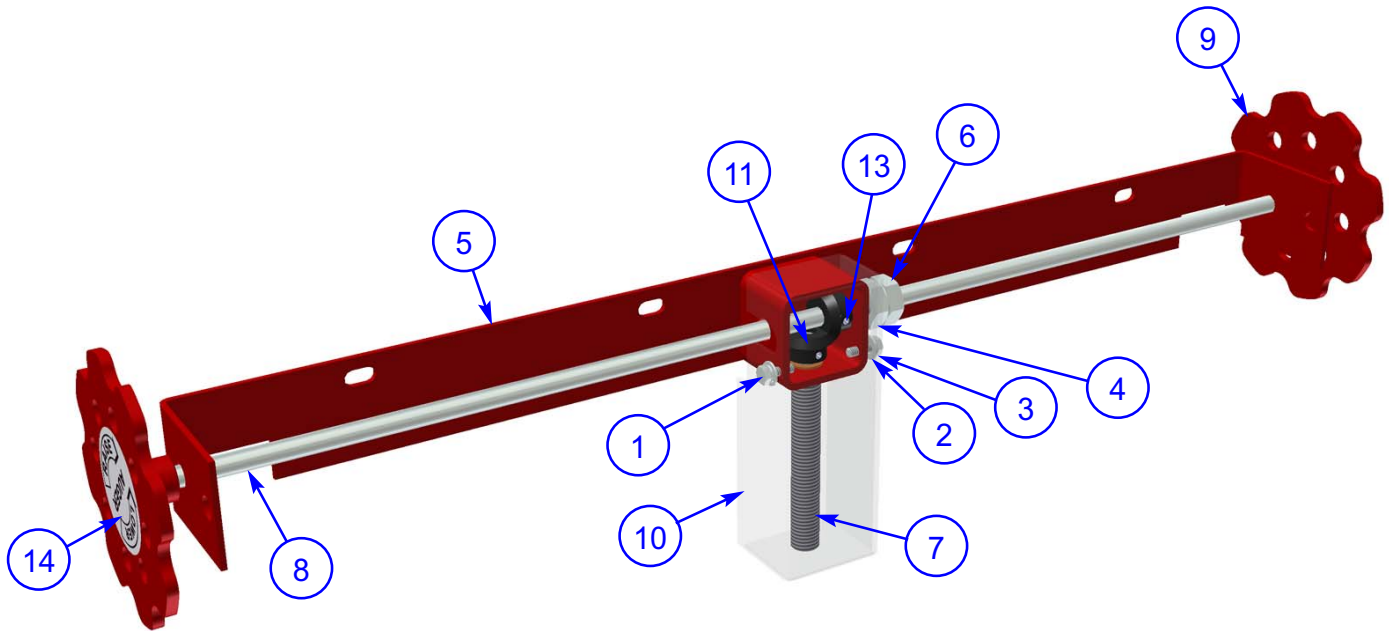
LOWER CARRIAGE ASSEMBLY - 053020 (cont'd)

SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010003	FSTN, HHCS 1/4-20 X 1	12
2	010081	FSTN, FW 1/4	12
3	010106	FSTN, NUT HEX 1/2-13	6
4	020542	FSTN, NUT STOVER LOCK 1/4-20	12
5	025888	FSTN, JAM NUT HEX 5/8-11	8
6	028216	FSTN, CABLT 1/2-13 X 1-1/2 GR8	8
7	028787	DECAL, CAUTION PINCH POINT	2
8	050136	DECAL, WARNING CRUSHING HAZARD	2
9	050234	BEARING, 1 1/2" 4 BOLT FLANGE SET SCREW COLAR	2
10	050235	BEARING, 3 BOLT FLANGE 1 1/4"	2
11	050265	WEAR STRIP COMPOSITE CARRIAGE CLAMP 6048	8
12	050304	CLEVIS PIN 3/4" X 2" LONG	1
13	050323	WASHER, 1.500 I.D. X 2.250 O.D. CARRIAGE PIVOT PIN	1
14	050324	FSTN, NUT, HEX, HEAVY SLOTTED , 1 1/2-12 UNF	1
15	050326	LIFT CYLINDER 3"X10"X1-1/4"	1
16	050333	HINGE, CARRIAGE LIFT	2
17	050343	HYD. MOTOR PLATE, AUGER & FINISH TUBES	2
18	050345	REAR CHANNEL MNT WELDMENT, FOR LOWER CARRIAGE ASSEMBLY	1
19	050346	SPACER PLATE FOR BOTTOM CARRIAGE BDF	4
20	050348	MOUNT, HYD LEFT HAND FINISH TUBE MOTOR BDF CARRIAGE	1
21	050349	MOUNT, HYD RH FINISH TUBE MOTOR BDF CARRIAGE	1
22	050353	FRONT PLATE OUTER WELDMENT, 6048/ BRF CARRIAGE ASSEMBLY	1
23	050357	BAR, HOLD DOWN AUGER ADJUST	1
24	050368	AUGER ADJUST GEAR ASSEMBLY	1
25	050375	FSTN, HHCS1/2-13 X 4 1/2 BOLT TAP GRADE 8 ZIC PLATED	4
26	050392	AUGER COVER ASSEMBLY BDF CARRIAGE	1
27	050393	TUBE SCRAPER 6048B CARRIAGE	2
28	050394	COVER, LOWER CARRIAGE 6048B	2
29	050396	FINSH TUBE FOR 6048 BDF	2
30	050420	ROLLER TAMPER ASSEMBLY	1
31	050443	3/8 X 2-3/4 Quick Pin	2
32	050450	VALVE, FINISH TUBES AO100T4LD	2
33	050464	HYD MOTOR	4
34	050491	FST, CARRIAGE BOLT 3/8-16 X 1 1/2"	6
35	050492	FSTN, SPLIT LOCK NUT 1/2-13	8
36	050795	CARRIAGE HOLD DOWN BRACKET ASSEMBLY	2
37	050800	TOP 4836 CARRIAGE LIFT FRAME WELDMENT	1
38	050815	TAB, HOLD DOWN CARRIAGE ASSEMBLY	2
39	050833	AUGER TEE MOUNT 4836	1
40	050871	SHAFT, 4836 AUGER DRIVE	2
41	050874	FSTN, SHLDR 3/4 X 3 1/2" LONG	8
42	050876	AUGER RH, 4836B WELDMENT	1
43	050877	AUGER LH, 4836B WELDMENT	1
44	050942	BRACKET, TUBE ADJUST 4836&6048 CARRIAGE	2
45	050985	PIN, CLEVIS FOR LIFT CYL. PIN, Ø1" x 3"	2
46	051241	SCRAPER TIVAR FOR 4836B CARRIAGE	2
47	052171	SPACER, 1 1/2 X 3/16 X 2	2
48	053019	6036 FRAME BOTTOM CARRIAGE WELDMENT	1
49	050749	ASSEMBLY, CARRIAGE FOG BAR 6048 (OPTIONAL)	

SECTION 4 PARTS

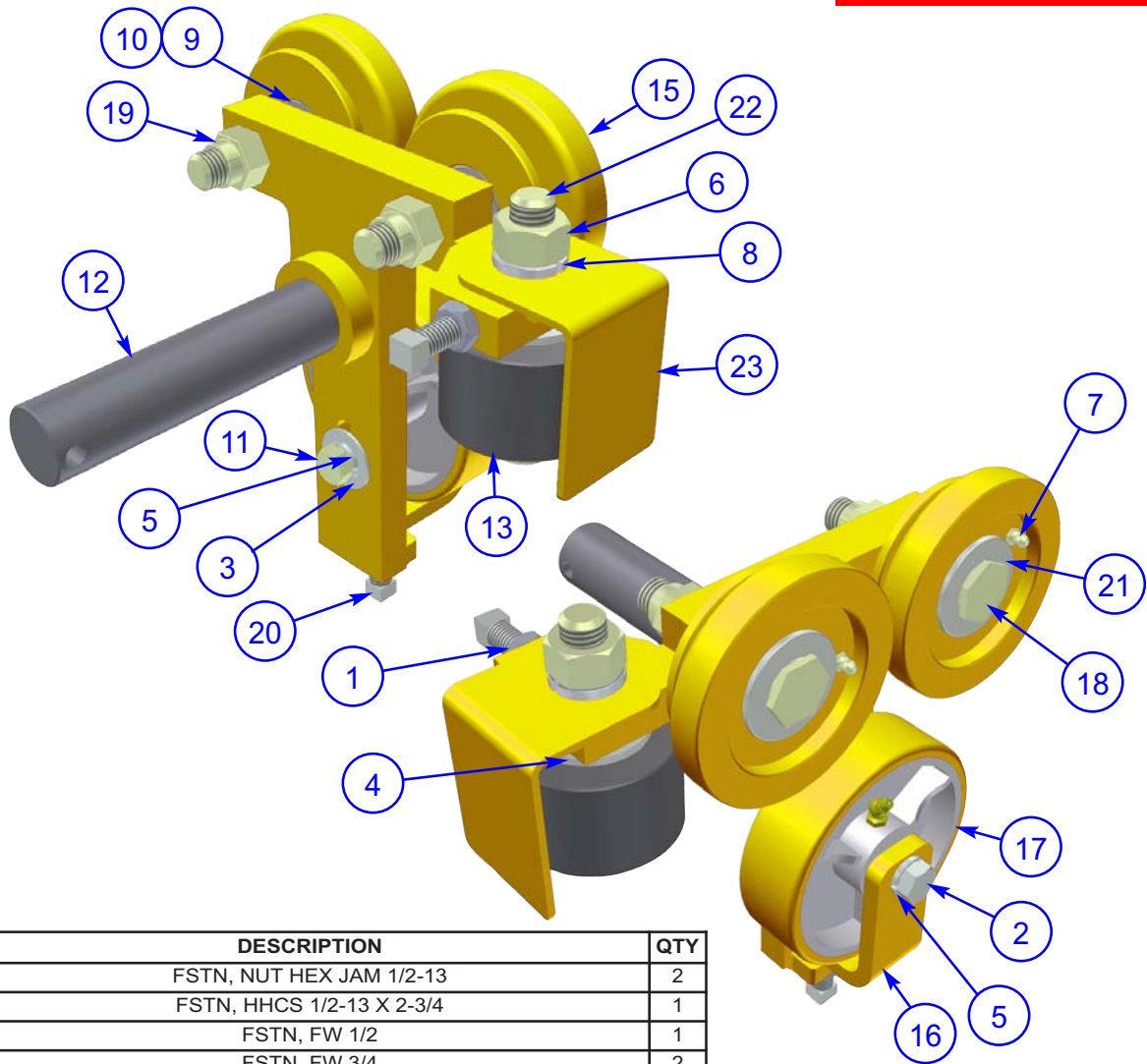
AUGER ADJUSTMENT ASSEMBLY



ITEM	PART #	DESCRIPTION	QTY
1	010002	FSTN, HHCS 1/4-20 X 3/4	2
2	010081	FSTN, FW 1/4	2
3	010089	FSTN, LW 1/4	2
4	035565	FSTN, NUT JAM 3/4-10	1
5	050360	AUGER ADJUST BRACKET FOR CARRIAGE ASSEMBLY	1
6	050361	BOLT CARRIAGE LIFT TENSION BOLT	1
7	050363	SHAFT, ACME FOR AUGER ADJUST ASSEMBLY	1
8	050364	ROD, AUGER ADJUST SHAFT BDF CARRIAGE	1
9	050367	KNOB, AUGER ADJUST BDF CARRIAGE	2
10	050401	COVER FOR AGUGER ADJUST (NOT SHOWN)	1
11	050866	GEAR MITER 20 DEGREE 12 PITCH 1/2 BORE	2
12	050867	FLANGED BUSHING BEARING, AUGER LIFT	1
13	050676	PIN, ROLL 3/16 X 1-3/8 SPIROL	4
14	050142	DECAL, AUGER RAISE LOWER	2

SECTION 4 PARTS

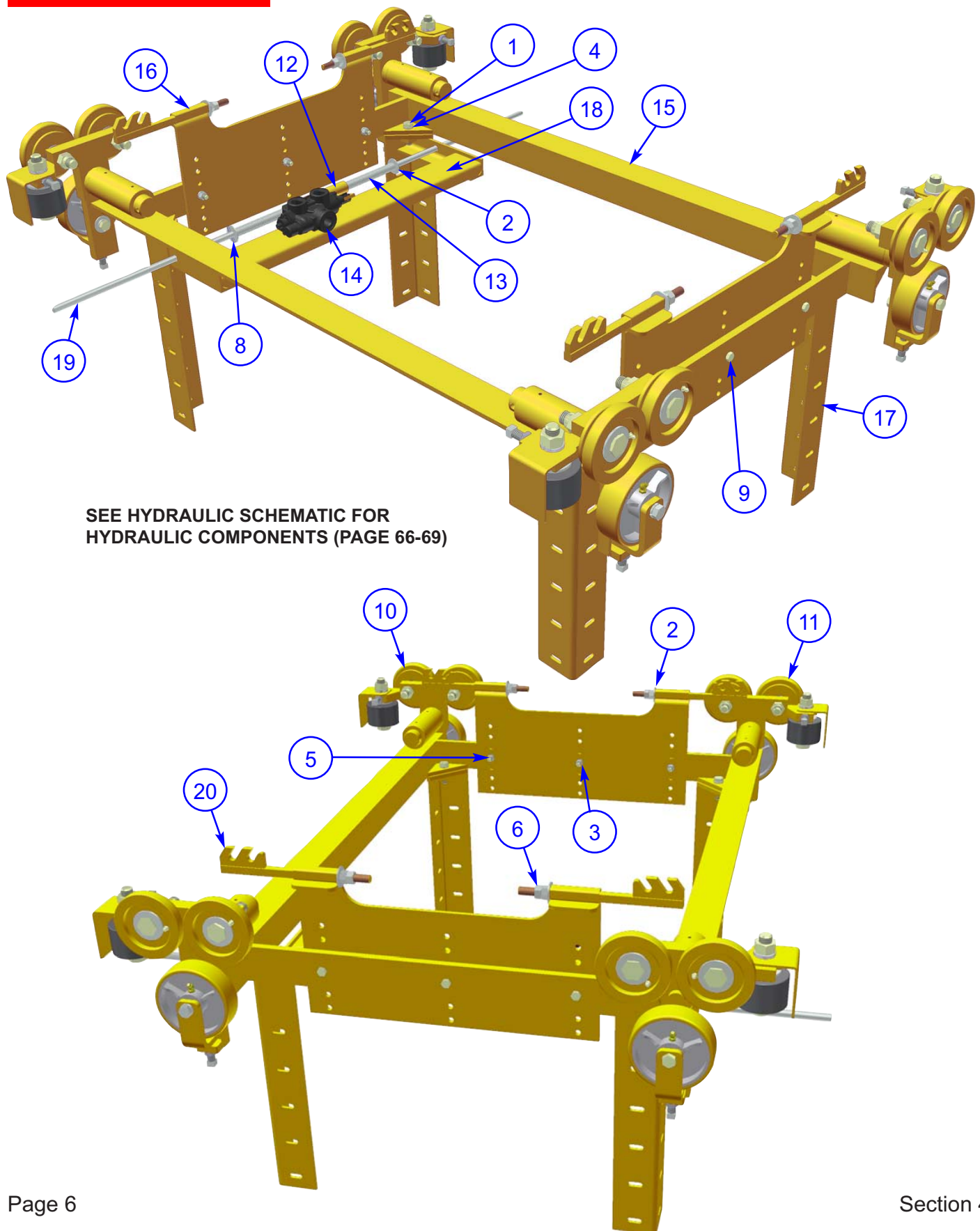
CARRIAGE WHEEL ASSEMBLY



ITEM	PART #	DESCRIPTION	QTY
1	010050	FSTN, NUT HEX JAM 1/2-13	2
2	010074	FSTN, HHCS 1/2-13 X 2-3/4	1
3	010085	FSTN, FW 1/2	1
4	010087	FSTN, FW 3/4	2
5	010093	FSTN, LW 1/2	2
6	010112	FSTN, NUT HEX 3/4-10	1
7	010513	FITTING, 1/4-28 STR GREASE	2
8	018097	FSTN, LW 3/4	1
9	035205	BEARING, MR16 MCGILL	2
10	035206	RACE, IR1220 MCGILL	2
11	043444	FSTN, HHCS 1/2-13 X 1 GR8	1
12	050221	LH CARRIAGE WHEEL TROLLEY	1
	050222	RH CARRIAGE WHEEL TROLLEY	1
13	050223	ROLLER, SIDE FOR CARRIAGE WHEEL TROLLEY	1
14	050224	SPACER TUBE, SIDE ROLLER FOR CARRIAGE WHEEL TROLLEY	1
15	050225	WHEEL, CARRIAGE TRACK	2
16	050228	SIDE CARRIAGE WHEEL & BRACKET ASSEMBLY	1
17	050230	SIDE ROLLER WHEEL FOR CARRIAGE	1
18	050231	BOLT, CARRIAGE WHEEL BRIDGE DECK	2
19	050232	FSTN, SPLIT LOCK NUT 3/4-10 GR 5	2
20	050233	FSTN, SQSS (SQ. HEAD SET SCREW) 1/2-13 X 2" LONG	2
21	050236	FSTN, FLAT WASHER LARGE 3/4"	2
22	050237	FSTN, HHCS 3/4-10 X 4 1/2" GRADE 8 ZINC	1
23	050765	GUARD, FOR CARRIAGE SIDE ROLLER	1

SECTION 4 PARTS

TOP CARRIAGE ASSEMBLY - 050771

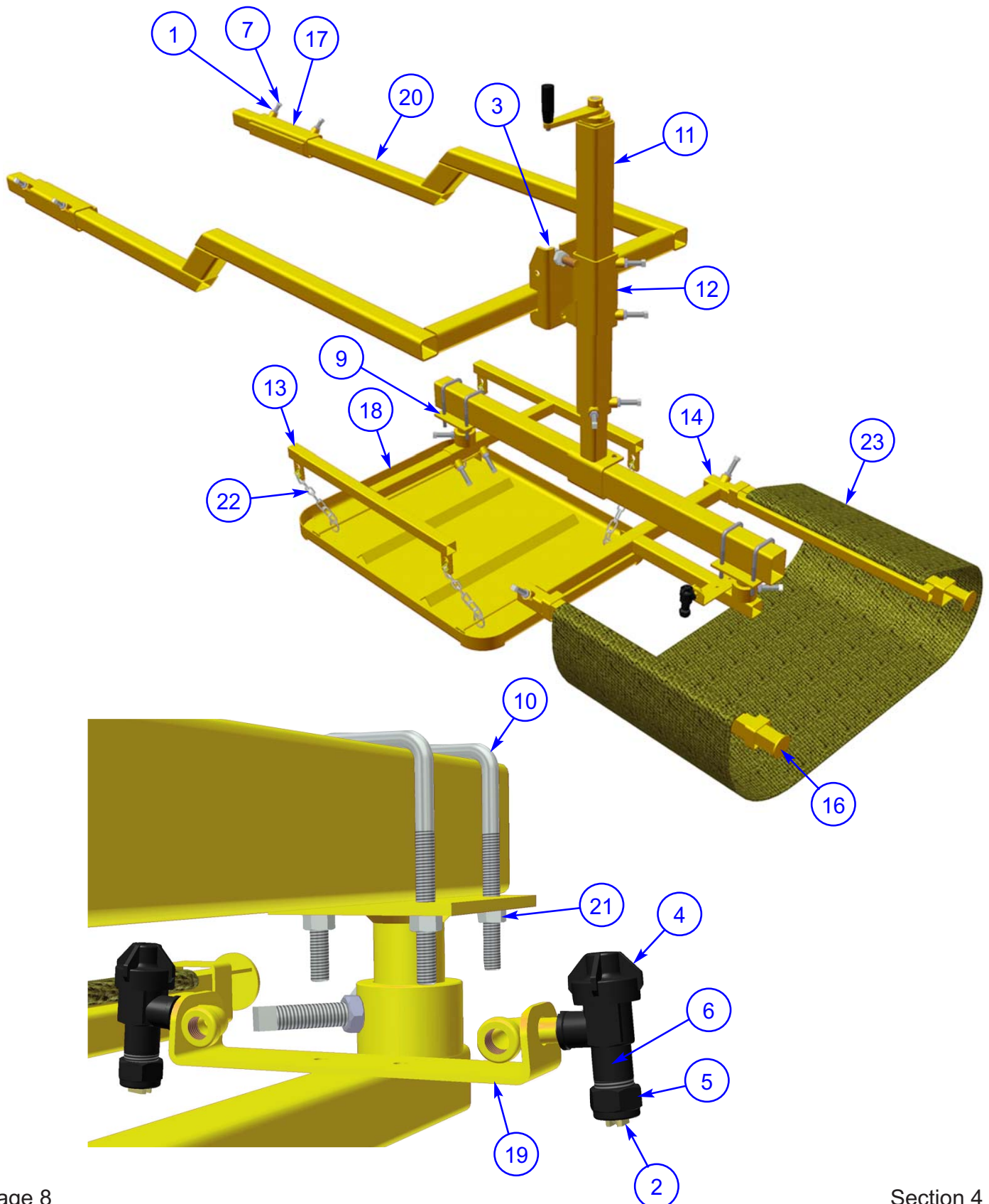


TOP CARRIAGE ASSEMBLY - 050771 (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010070	FSTN, HHCS 1/2-13 X 1-3/4 GR 5	4
2	010085	FSTN, FW 1/2	6
3	010091	FSTN, LW 3/8	6
4	010093	FSTN, LW 1/2	4
5	010102	NUT, 3/8-16 HEX	6
6	010106	FSTN, NUT HEX 1/2-13	8
7	010513	FITTING, 1/4-28 STR GREASE	1
8	015747	PIN, ROLL 3/16 X 1-3/8 SPIROL	2
9	028402	FSTN, HHCS 3/8-16 X 1-1/2 GR 8	6
10	050240	LEFT HAND CARIAGE WHEEL & BRACKET ASSEMBLY	2
11	050241	RIGHT HAND CARIAGE WHEEL & BRACKET ASSEMBLY	2
12	050290	VALVE SHIFT BRACKT, FOR CARRIAGE WELDMENT	1
13	050291	COMPRESSION SPRING 3/4" OD X .091 WIRE X3.125 LONG	4
14	050452	VALVE, CONTROL (BRAND A01004ANR35)	1
15	050751	4836B TOP CARRIAGE WELDMENT	1
16	050768	BRACKET, CHAIN TENSION 4836 BDF	2
17	050776	PLATE, TOP CONECTING FOR BRACKET TOP CARRIAGE FRAME	2
18	050862	BRACKET SCEW VALVE MNT 4836	1
19	050863	ROD, CARRIAGE SHIFT MECHENISM 4836 CARRIAGE	1
20	050865	CHAIN ADJUSTER FOR 4836 CARRIAGE ASSEMBLY	4

SECTION 4 PARTS

DRAG PAN ASSEMBLY - 051237

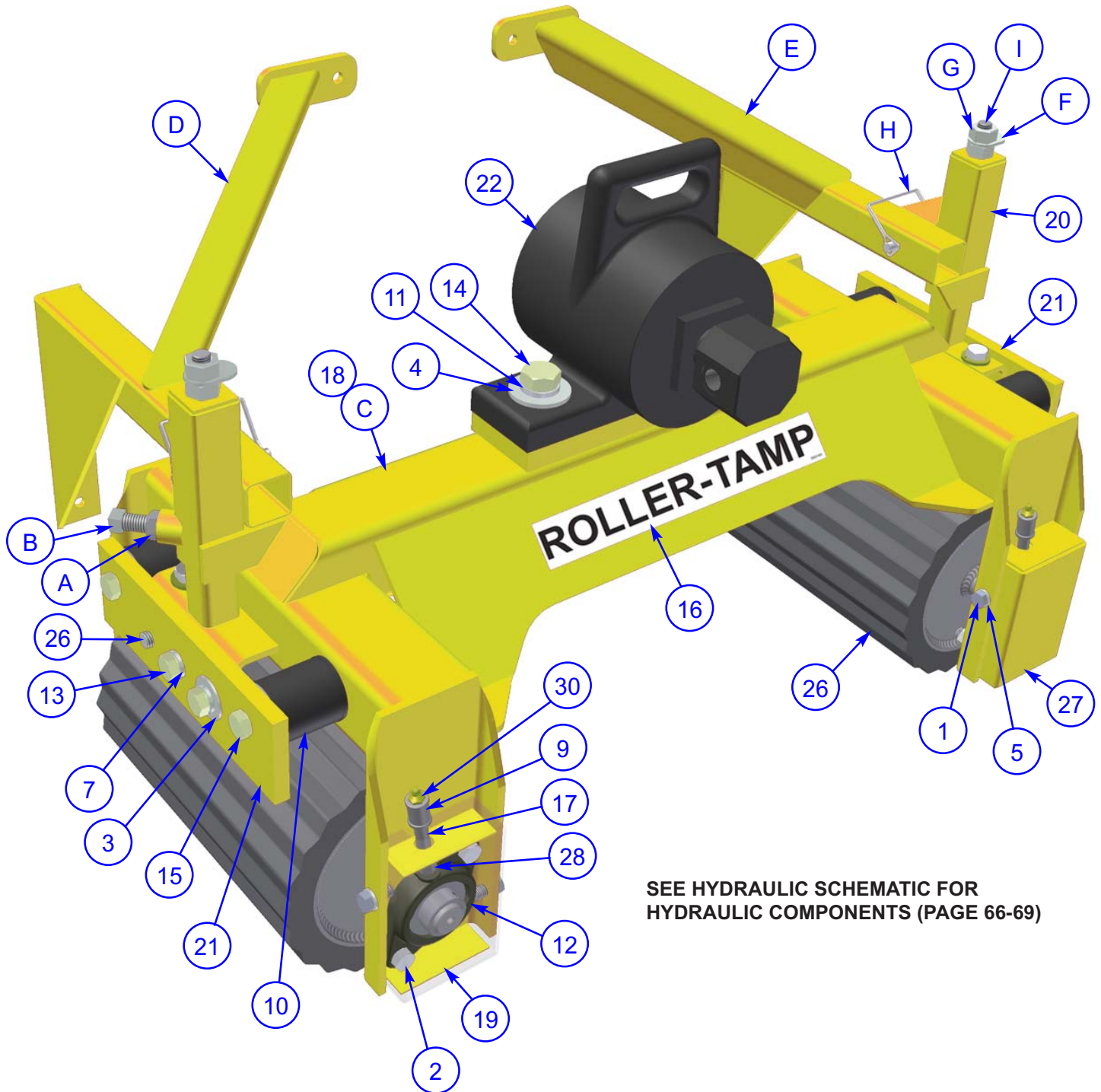


DRAG PAN ASSEMBLY (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010050	FSTN, NUT HEX JAM 1/2-13	16
2	051286	TIP, SPRAY TXV-S1 FOR BDF SPRAY	2
3	035565	FSTN, JAM NUT 3/4-10	8
4	041604	BODY, NYLON CHECK VALVE NOZ	2
5	041624	RETAINER, NYLON SPRAY TIP	2
6	047579	STRAINER, POLY 100 MESH	2
7	050233	FSTN, SQSS (SQ. HEAD SET SCREW) 1/2-13 X 2" LONG	16
8	050495	DRAG PAN TUBE, BRIDGE DECK	1
9	050498	DRAG PAN REATING BRACKET	2
10	050885	U BOLT SQUARE 2" WIDE	4
11	050900	JACK ASSEMBLY, DRAG PAN	1
12	050904	RECEIVER TUBE WELDMENT FOR DRAG PAN JACK	1
13	050910	HANGER, DRAG PAN	1
14	050914	HANGER BRACKET FOR BURLAP	1
15	050916	TUBE, BURLAP RETAINING	2
16	050919	BURLAP RETAINING BRACKET	2
17	050923	RECIEVER TUBE WELDMENT DRAG PAN	2
18	050937	DRAG PAN WELDMENT	1
19	050961	BRACKET, SPRAY FOR BURLAP	1
20	050980	DRAG PAN MNT FRAME 4836B	1
21	010102	FSTN, NUT HEX 3/8-16	8
22	Chain		4
23	Burlap		1

SECTION 4 PARTS

ROLLER TAMPER ASSEMBLY



SEE HYDRAULIC SCHEMATIC FOR
HYDRAULIC COMPONENTS (PAGE 66-69)

ROLLER TAMPER ASSEMBLY (cont'd)

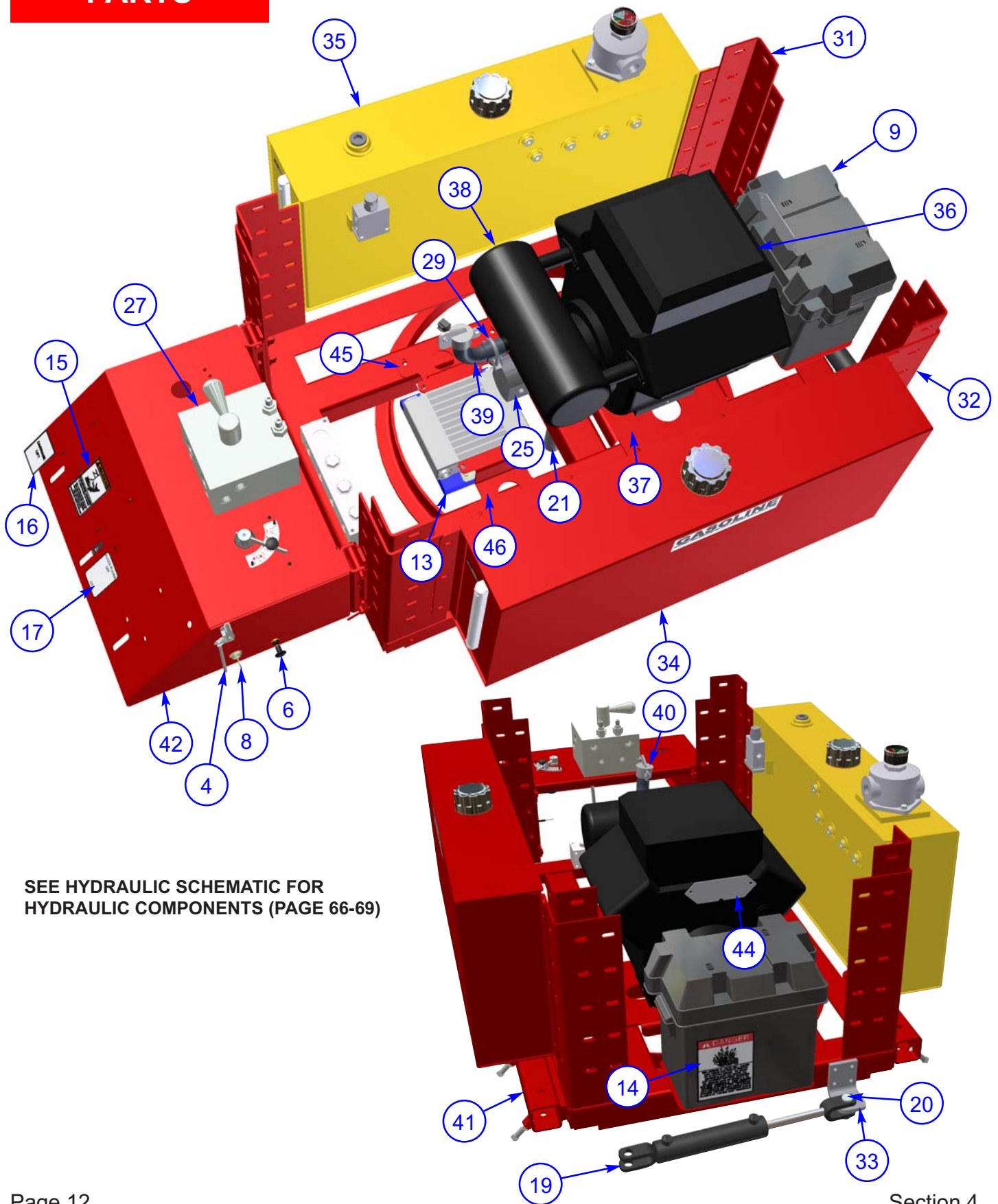
SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010035	FSTN, HHCS 3/8-16 X 3/4	8
2	010054	FSTN, HHCS 7/16-14 X 1-1/2	8
3	010085	FSTN, FW 1/2	2
4	010087	FSTN, FW 3/4	2
5	010091	FSTN, LW 3/8	8
6	010092	FSTN, LW 7/16	8
7	010093	FSTN, LW 1/2	4
8	010104	FSTN, NUT HEX 7/16-14	8
9	010333	1/8 COUPLING, FULL, 125 LB RED BRASS, NPT	4
10	012725	ISOLATORS, RUBBER MOUNTS	4
11	018097	FSTN, LW 3/4	2
12	019334	BEARING, Ø1 ID SCJT-1 FLANGE	4
13	037798	FSTN, HHCS 1/2-13 X 1 1/2 GR8	4
14	038677	FSTN, HHCS 3/4-10 X 2 1/2 GR. 8	2
15	043444	FSTN, HHCS 1/2-13 X 1 GR8	4
16	050140	DECAL, ROLLER-TAMP	1
17	050374	NIPPLE, 1/8" X 2"	4
18	050408	FRAME, ROLLER TAMPER MOUNT	1
19	050410	PLATE, BEARING INNER MOUNT ROLLERTAMPER	4
20	050414	INNER JACK TUBE WELDMENT FOR ROLLER TAMPER	2
21	050415	PLATE, ADJUSTMANT FOR ROLLER VIBRATOR	2
22	050418	VIBRATOR, FOR ROLLER TAMPER	1
23	050419	SPACER, FOR ROLLER TAMPER MOUNTING	4
24	050428	BRACKET LEFT HAND ROLLER TAMPER JACK MNT	1
25	050429	BRACKET, RIGHT HAND ROLLER TAMPER MNT.	1
26	050438	ROLLER, FOR ROLLER TAMPER	2
27	050448	COVER, BEARING FOR ROLLER TAMP	4
28	050449	GREASE FITTING ADAPTER 1/4-28 STRAIGHT	4
29	052108	BOLT, TRACK ADJUSTMENT	2
30	201163	FITTING, 1/8-27 PTF STR GREASE	4

ITEM	PART #	DESCRIPTION	QTY
A	010050	FSTN, NUT HEX JAM 1/2-13	2
B	050233	FSTN, SQSS (SQ. HEAD SET SCREW) 1/2-13 X 2" LONG	2
C	050420	ROLLER TAMPER ASSEMBLY	1
D	050428	BRACKET LEFT HAND ROLLER TAMPER JACK MNT	1
E	050429	BRACKET, RIGHT HAND ROLLER TAMPER MNT.	1
F	050431	TAB, INDICATOR FOR ROLLER TAMPER ADJUSTMENT	2
G	050433	FSTN, ACME 1/2-10 HEX NUT	4
H	050443	3/8 X 2-3/4 Quick Pin	2
I	050445	SCREW SHAFT WELDMENT, FOR ROLLER TAMPER JACK MNT	2

SECTION 4 PARTS

MIDDLE CARRIAGE ASSEMBLY - 050493



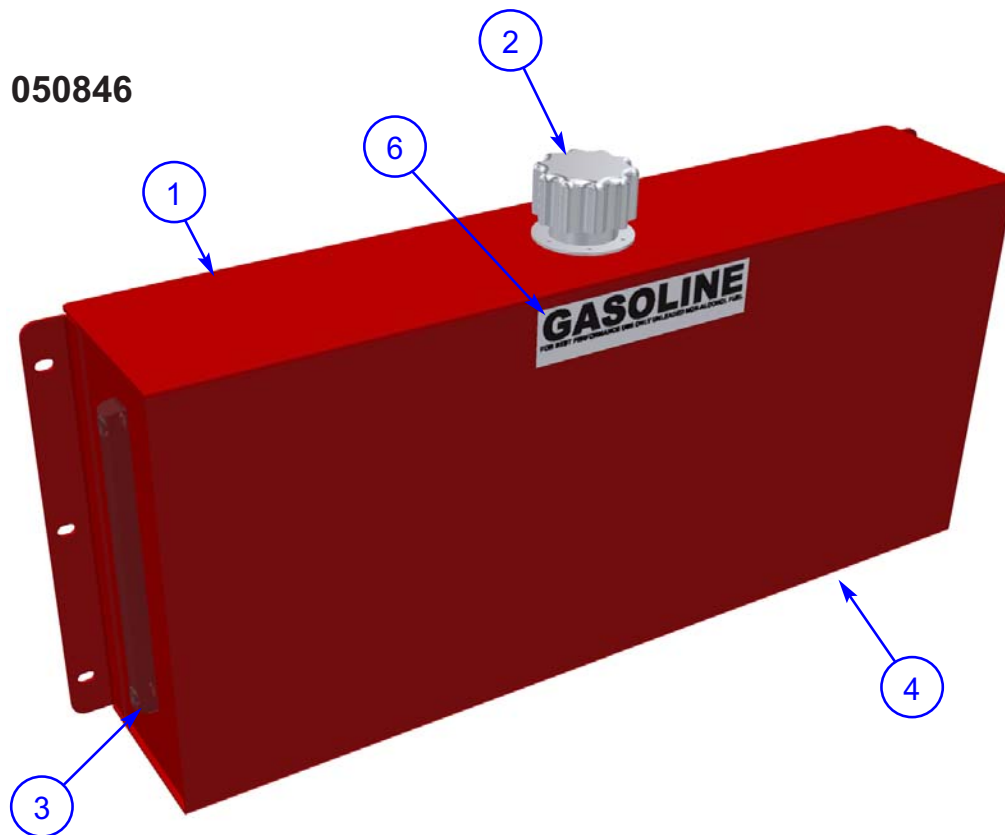
MIDDLE CARRIAGE ASSEMBLY (cont'd) - 050493

SECTION 4 PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	010050	FSTN, NUT HEX JAM 1/2-13	4
2	010066	FSTN, HHCS 1/2-13 X 3/4 GR 5	4
3	010093	FSTN, LW 1/2	4
4	015735	THROTTLE AND CABLE ASSEMBLY	1
5	023869	BATTERY TERMINAL	2
6	029928	CHOKE CABLE ASSEMBLY	1
7	037771	BATTERY, 12 V GRAY 655CA	1
8	039750	KEY SWITCH KOHLER ENGINE (SUPPLIED WITH ENGINE)	1
9	046696	BOX, STANDARD BATTERY	1
10	047251	PAD, 10-7/8x7-1/4x1 BARRIER	1
11	047294	PAD, 7-7/16x5-11/16x1-1/2 BARRIER	2
12	048476	HARNESS, KOHLER 27-25 HP WIRING (NOT SHOWN)	1
13	049024	EXCHANGER, 12 VDC AIR-OIL HEAT	1
14	050111	DECAL, DANGER INFLAMMABLE LIQUID	1
15	050136	DECAL, WARNING CRUSHING HAZARD	1
16	050141	DECAL, CARRIAGE LIFT	1
17	050150	DECAL, AUGER POWER OFF/ON FOR 4836 CARRIAGE	1
18	050233	FSTN, SQSS (SQ. HEAD SET SCREW) 1/2-13 X 2" LONG	4
19	050303	SKEW CYLINDER	1
20	050304	CLEVIS PIN 3/4" X 2" LONG	1
21	050322	SHAFT, CENTER PIVOT CARRIAGE	1
22	050325	FSTN, 1/4" X 3" COTTER KEY	1
23	050450	VALVE, FINISH TUBES AO100T4LD	1
24	050451	FLOW CONTROL, (FC-10SAE)	1
25	050459	PUMP TANEM, BRIDGE DECK	1
26	050460	MANIFOLD, AH0000408S	1
27	050462	MANIFOLD, AUTOMATIC CONTROL	1
28	050467	VALVE, AUGERS (A012004-JD2)	1
29	050667	1 1/4" MUFFLER CLAMP	1
30	050687	KNOB, 2" RED PLASTIC	1
31	050781	ANGLE BRACKET, INTERMEDIATE FOR 4836 CARRIAGE	4
32	050782	4836 CARRIAGE POWER UNIT FRAME WELDMENT	1
33	050811	BRACKET, HYD CYLINDER MNT FOR CARRIAGE POWER UNIT CARRIAGE FRAME	1
34	050846	FUEL TANK ASSEMBLY 4836	1
35	050847	HYDRAULIC TANK ASSEMBLY 4836 CARRIAGE	1
36	050850	ENGINE, 25 HP KOHLER WITH 13 TOOTH SPLINE SHAFT "B" MOUNT	1
37	050851	ENGINE PLATE, KOHLER CARRIAGE POWER UNIT	1
38	050856	MUFFLER, CENTER OUTLET KOHLER 1205402-S	1
39	050857	ELBOW FOR, CENTER OUTLET KOHLER 1205402-S	1
40	050868	RAIN CAP, MUFFLER 1 7/16 TAIL PIPE EXHAUST	1
41	050923	RECIEVER TUBE WELDMENT DRAG PAN	2
42	050932	CONTROL PANEL ASSEM., 4836B CARRIAGE ASSEMBLY	1
43	051946	FLOW CONTROL STOP PLATE FOR BRIDGE DECK CARRIAGE	1
44	052389	COVER PLATE	1
45	052936	BRACKET, HYD. OIL COOLER MNT. LH 4836B VIBRATOR OPTION	1
46	052937	BRACKET HYD. OIL COOLER MNT. RH 4836B VIBRATOR OPTION	1

SECTION 4 PARTS

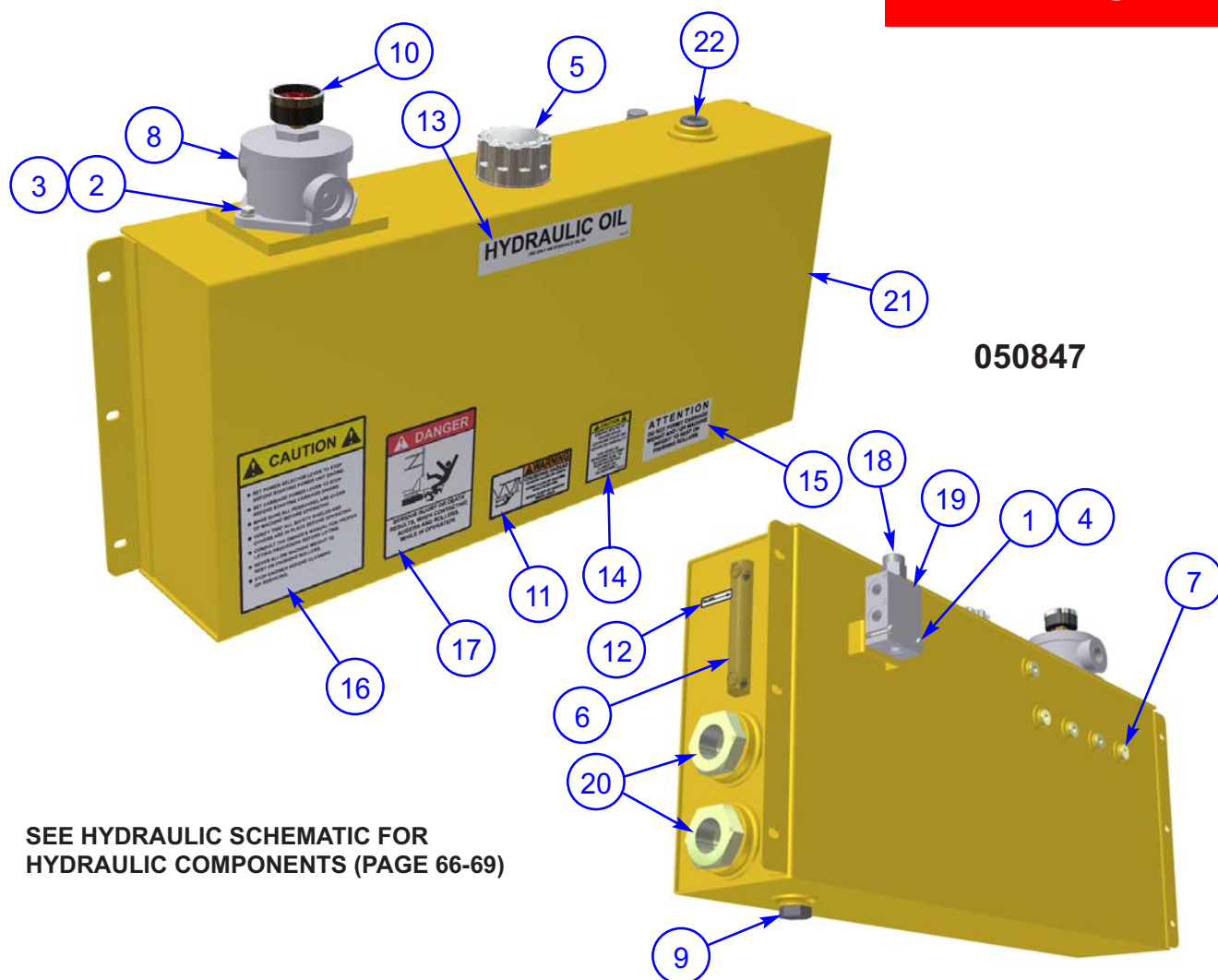
CARRIAGE FUEL TANK ASSEMBLY



ITEM	PART #	DESCRIPTION	QTY
1	050840	WELD'T, FUEL TANK 4836 BDF	1
2	050845	FILLER BRATHER ZINGA FB-04-100-0-0	1
3	050844	10" CLEAR SIGHT GAUGE SG-010A-0-0	1
4	045948	PLUG MAGNETIC, SAE	1
5	050963	PLUG, 18" NPT HEX SOCKET COATED	1
6	050147	DECAL, GASOLINE BEST PERFORMANCE	1

CARRIAGE HYDRAULIC TANK ASSEMBLY

SECTION 4 PARTS

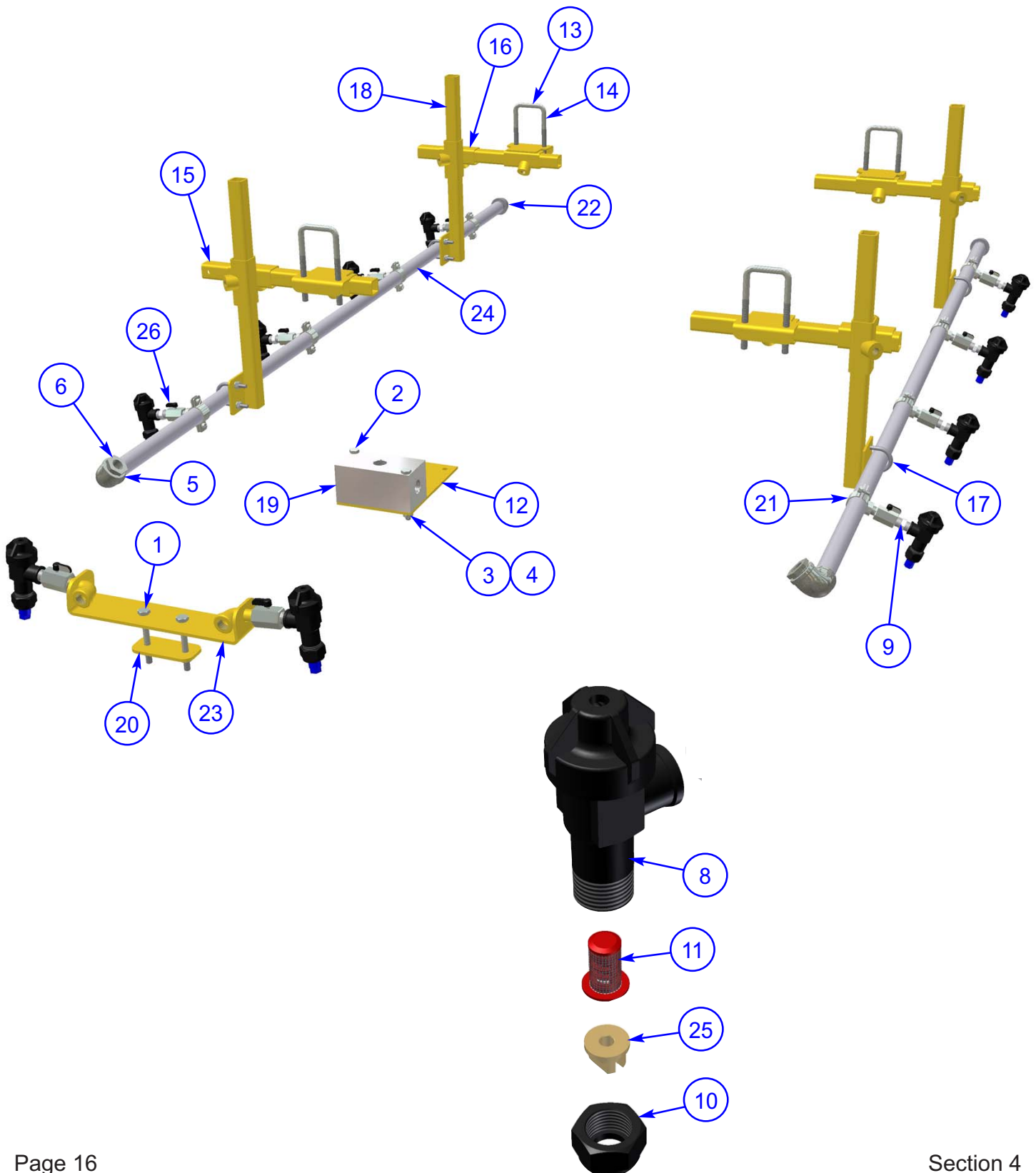


SEE HYDRAULIC SCHEMATIC FOR
HYDRAULIC COMPONENTS (PAGE 66-69)

ITEM	PART #	DESCRIPTION	QTY
1	010006	BOLT, 1/4-20x1-3/4 GR 5 HHC	2
2	010019	FSTN, HHCS 5/16-18 X 3/4 GR 5	2
3	010090	FSTN, LW 5/16	2
4	020542	FSTN, NUT STOVER LOCK 1/4-20	2
5	032268	UNIT, CHROME LOCKABLE GAS-HYDRA TANK CAP	1
6	042844	5" SIGHT GAUGE WITH THERMOMTR	1
7	044077	FTG, SAE #8 HEX PLUG WITH O-RING	5
8	045134	FILTER, RETURN LINE	1
9	045948	PLUG MAGNETIC, SAE	1
10	046241	GAUGE, RETURN FILTER	1
11	050107	DECAL, WARNING CRUSHING HAZAED	1
12	050110	DECAL, FILL WITH AROW	1
13	050127	DECAL, HYDRAULIC OIL USE ONLY	1
14	050135	DECAL, GREASE SPLINE OF ENGINE	1
15	050137	DECAL, ATTENTION DO NOT PERMIT CARR.	1
16	050139	DECAL, SET POWER, SET CARRIAGE	1
17	050144	DECAL, DANGER SERIOUS INJURY OR DEATH (BRIDGE DECK)	1
18	050465	VALVE, PILOTED DIRECTIONAL (HYDRAFORCE PD-10-41-110-0340)	1
19	050466	BLOCK, CIRCUIT (VICKERS PD16-40-0-N-110)	1
20	050677	STRAINER 2" TO 1 1/4"	2
21	050837	HYD TANK 4836 BDF	1
22	050849	PLUG 1" NPT SOCKET PLUG	1

SECTION 4 PARTS

CARRIAGE FOG BAR ASSEMBLY - 050749

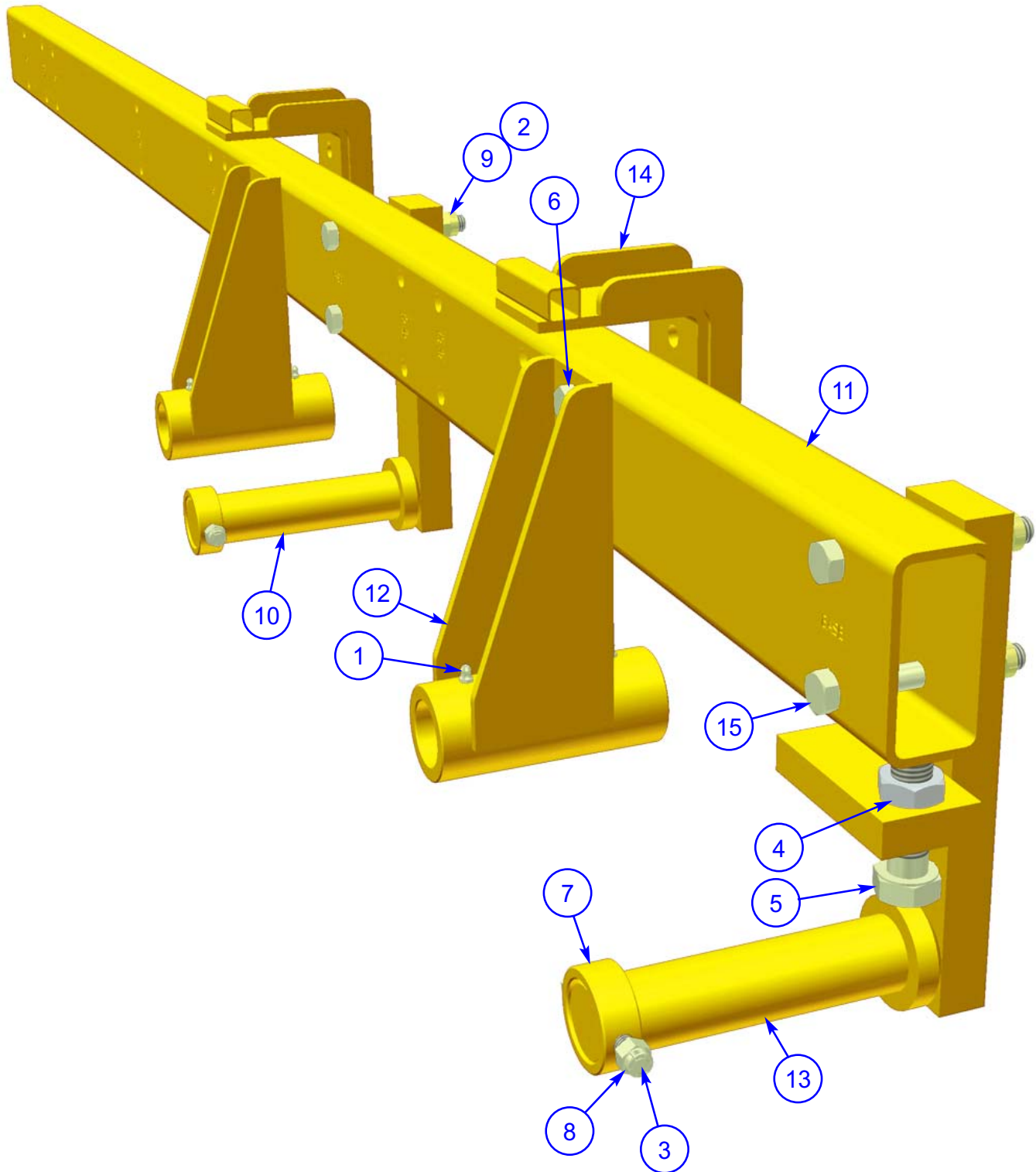


CARRIAGE FOG BAR ASSEMBLY - 050749 (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010008	FSTN, HHCS 1/4-20 X 2-1/4 GR 5	2
2	010009	FSTN, HHCS 1/4-20 X 2 1/2	2
3	010089	FSTN, LW 1/4	10
4	010098	FSTN, NUT HEX 1/4-20	10
5	010244	3/4 ELBOW, 90 DEG, NPT	2
6	012944	3/4 x 3/8 BUSHING, REDUCING, NPT	2
7	020542	FSTN, NUT STOVER LOCK 1/4-20	2
8	041604	VALVE, CHECK BODY	10
9	041606	PLASTIC 1/4 NPT CLOSE NIPPLE	8
10	041624	RETAINER, NYLON SPRAY TIP	10
11	047579	STRAINER, POLY 100 MESH	10
12	050661	PLATE, MANIFOLD MNT. FOR FOG SPRAY SYSTEM.	1
13	050885	U BOLT SQUARE 2" WIDE	4
14	050948	RECIEVER TUBE WELDMENT FOR SPRAY BAR SUPPORT	4
15	050949	TUBE, HORIZONTAL FOR FOG SPRAY SYSTM.	4
16	050950	BRACKET, HORIZONTAL AND VERTICAL	4
17	050952	U-BOLT, 1 1/8"	4
18	050954	VERTICAL ADJUST SPRAY BAR BRACKET MNT.	4
19	050956	MANAFOLD FOR FOG BAR SYSTEM	1
20	050958	PLATE, CLAMP FOR SPRAY NOZZLE BRACKET BURLAP	1
21	050959	SPLIT EYELET CONNECTOR 1/4" NPT	8
22	050960	3/4 CAP, PIPE, STEEL GALV. NPT	2
23	050961	BRACKET, SPRAY FOR BURLAP	1
24	050991	BAR, SPRAY FOR 6048/6036 CARRIAGE SPRAY SYS.	2
25	051286	TIP, SPRAY TXV-S1	10
26	053024	1/4" NPT BALL VALVE, MINATURE CHROME PLATE FEMALE TO MALE	10

SECTION 4 PARTS

CARRIAGE SKEW BAR ASSEMBLY



CARRIAGE SKEW BAR ASSEMBLY (cont'd)

SECTION 4 PARTS

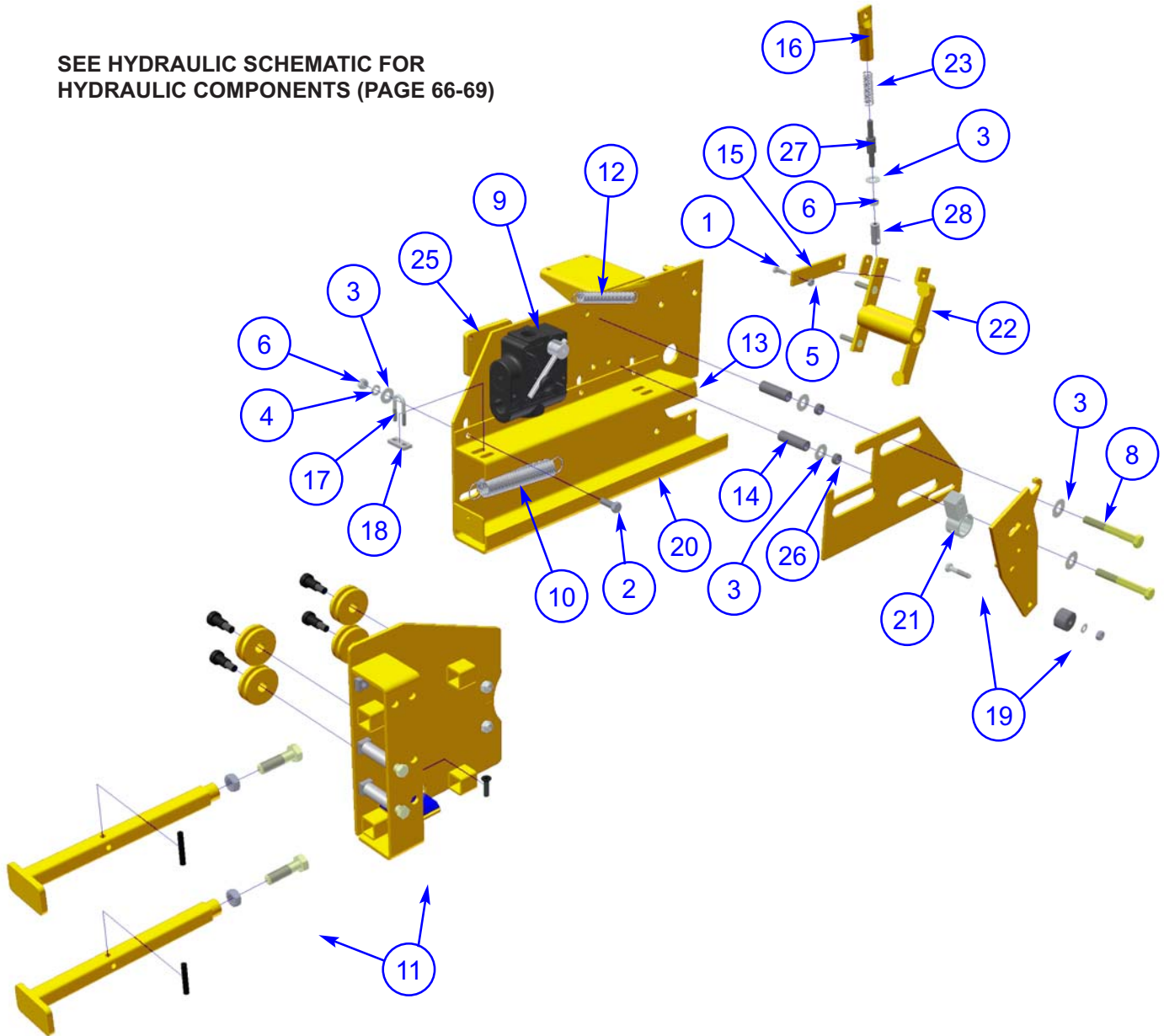
ITEM	PART #	DESCRIPTION	QTY
	050986	SKEW BAR ASSEMBLY 4836B	2

ITEM	PART #	DESCRIPTION	QTY
1	010513	FITTING, 1/4-28 STR GREASE	4
2	011490	FSTN, FW HARDENED 1/2	8
3	028898	FSTN, HHCS 3/8-16 X 2-3/4 GR 8	2
4	035565	FSTN, JAM NUT 3/4-10	1
5	038677	FSTN, HHCS 3/4-10 X 2 1/2 GR. 8	1
6	045855	FSTN, HHCS 1/2-13 X 3 1/2" GR. 8	4
7	050209	KEEPER, FOR CARRAIGE WHEEL TO TOP CARRIAGE	2
8	050239	FSTN, SPLIT LOCK NUT 3/8-16 GR 5	2
9	050492	FSTN, SPLIT LOCK NUT 1/2-13	8
10	050966	SKEW BAR MNT BRACKET	1
11	050967	TUBE, SKEW BAR BEAM	1
12	050970	WHEEL BRACKET EXTINTION FOR SKEW BAR ASSEM.	2
13	050972	SKEW BAR MNT. BRACKET REAR	1
14	050974	BRACKET, CHAIN TENSIONER SKEW BAR ASSEMBLY	2
15	050987	FSTN, HHCS 1/2-13 X 4 GR. 8 YELLOW ZINC	4

SECTION 4 PARTS

CARRIAGE SHIFTING MECHANISM ASSEMBLY

SEE HYDRAULIC SCHEMATIC FOR
HYDRAULIC COMPONENTS (PAGE 66-69)

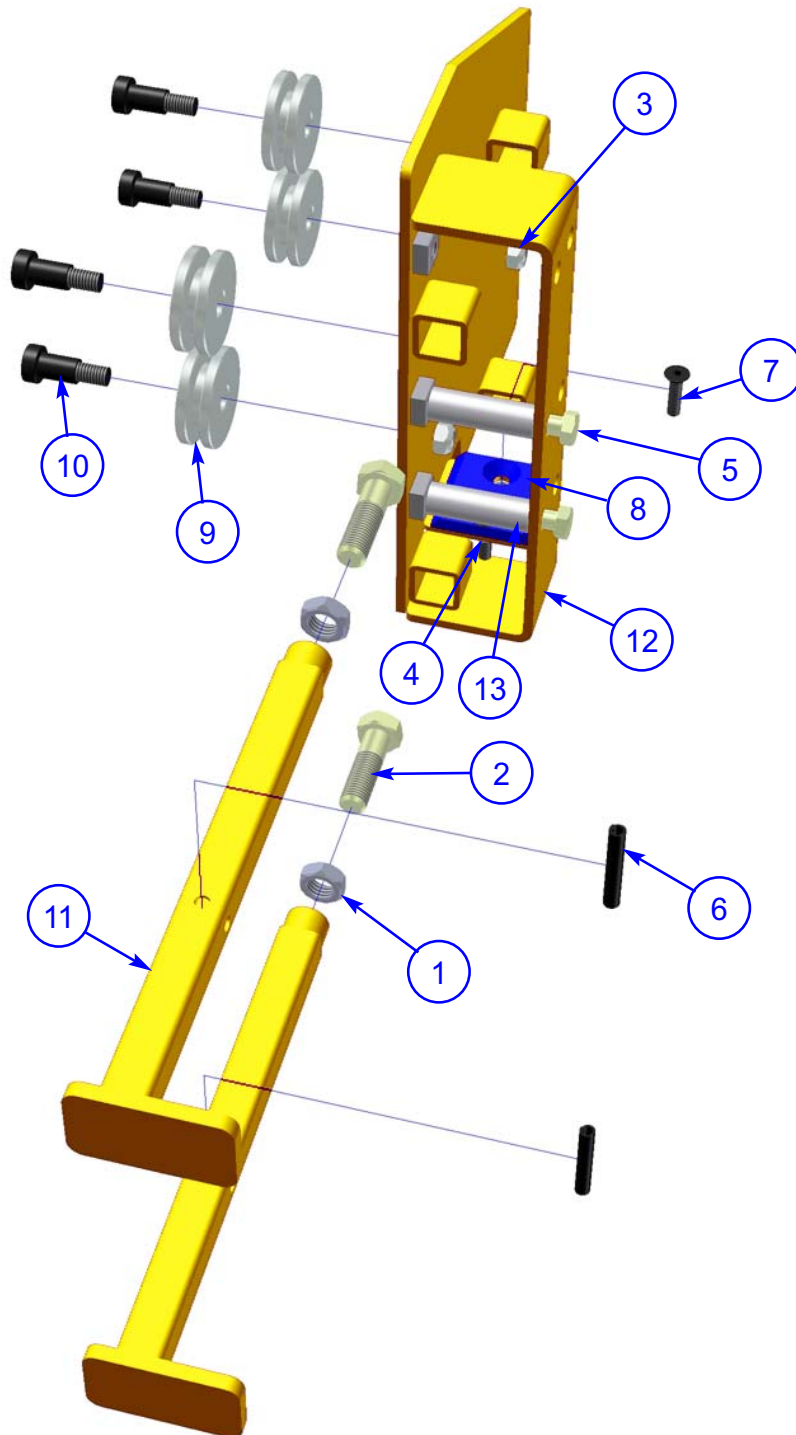


CARRIAGE SHIFTING MECHANISM ASSEMBLY (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010002	FSTN, HHCS 1/4-20 X 3/4	1
2	010036	FSTN, HHCS 3/8-16 X 1	3
3	010083	WSHR, Ø3/8 ID USS FLAT	8
4	010091	FSTN, LW 3/8	3
5	010098	FSTN, NUT HEX 1/4-20	1
6	010102	NUT, 3/8-16 HEX	4
7	010464	FSTN, NUT NYLOK 3/8-16	2
8	040663	FSTN, HHCS 3/8-16 X 3 GR8	2
9	050451	FLOW CONTROL, (FC-10SAE)	1
10	060766	EXTENSION SPRING	1
11	052347	SWITCH SLIDE ASSEMBLY (SEE PAGE 24)	1
12	060766	EXTENSION SPRING	1
13	052355	UPPER SHIFTING RAIL	1
14	052356	SPACER	2
15	052357	MANUAL CONTROL LINKAGE	1
16	052360	HOUSING, SPRING	1
17	052361	CONTROL CABLE CLAMP	1
18	052361	CONTROL CABLE PLATE	1
19	052364	CAM FOLLOWER ARM ASSEMBLY (SEE PAGE 26)	1
20	052365	MAIN SHIFTER RAIL	1
21	052368	CAM FOLLOWER SPACER	1
22	052374	VALVE ACTUATING ARM	1
23	052380	SPRING, COMP 5/8 X 2 1/4	1
24	052383	MANUAL CONTROL PLATE	1
25	052384	VALVE ADAPTOR PLATE	1
26	052385	MANUAL SHIFT PLATE SPACER	2
27	052387	OUTER BUSHING	1
28	052388	PIVOT PIN	1
29	052396	ADJUSTABLE LINKAGE LINK	1
30	052470	CABLE, CONTROL (WITH CLEVIS)	1

SECTION 4 PARTS

CARRIAGE SHIFTING MECHANISM ASSEMBLY (cont'd)



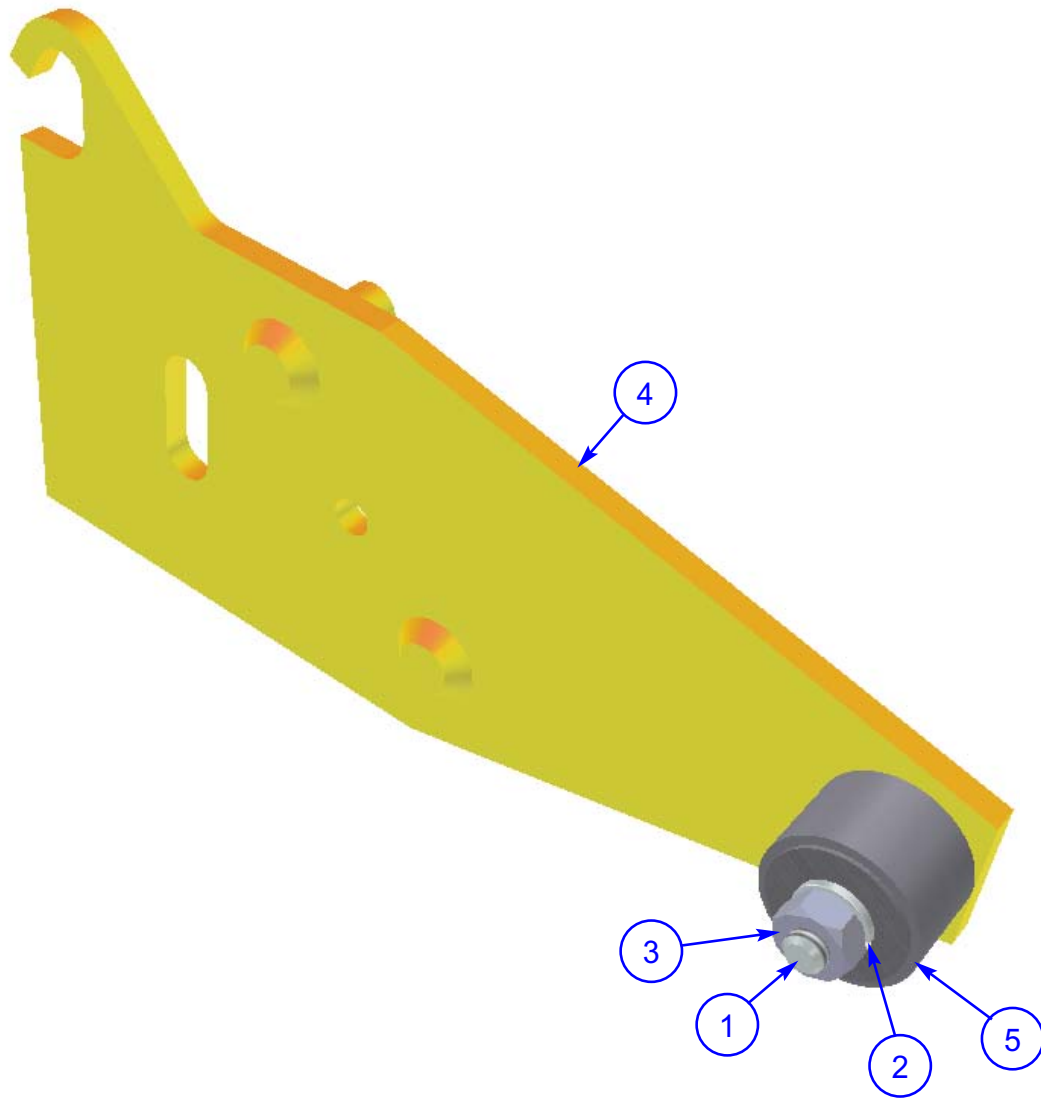
CARRIAGE SHIFTING MECHANISM ASSEMBLY (cont'd)

SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010050	FSTN, NUT HEX JAM 1/2-13	2
2	010070	FSTN, HHCS 1/2-13 X 1-3/4 GR 5	2
3	020514	NUT, 3/8-16 GRADE-C STOVER	4
4	020542	FSTN, NUT STOVER LOCK 1/4-20	2
5	028898	FSTN, HHCS 3/8-16 X 2-3/4 GR 8	2
6	040276	PIN, ROLL 1/4 X 1-1/2 SPIROL	2
7	049352	SCREW, 1/4-20x1 SKT FLT HD CAP	2
8	052254	WEAR PLATE, CHAIN GUIDE	1
9	052335	GUIDE WHEEL, 2"	4
10	052336	SHOULDER BOLT, 1/2 X 3/4	4
11	052341	PLUNGER TUBE WMNT	2
12	052346	SWITCH HSNG WMNT	1
13	052348	SPACER, 5/8 X 12 GA	2

SECTION 4 PARTS

CARRIAGE SHIFTING MECHANISM ASSEMBLY (cont'd)



ITEM	PART #	DESCRIPTION	QTY
1	010004	FSTN, HHCS 1/4-20 X 1-1/4	1
2	010089	FSTN, LW 1/4	1
3	010098	FSTN, NUT HEX 1/4-20	1
4	052363	CAM FOLLOWER ARM	1
5	052378	CAM FOLLOWER BEARING	1

NOTES

SECTION 4 PARTS

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

SECTION 4 PARTS

NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Section 4 - Parts 2
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4. Ladder AssemblyPage 36

5. Idler Bogie AssemblyPage 37

6. Driver Bogie AssemblyPage 38-39

7. Idle End Chain Mount AssemblyPage 40

8. Drive End Chain Mount AssemblyPage 41

9. Skew Brace AssemblyPage 42-43

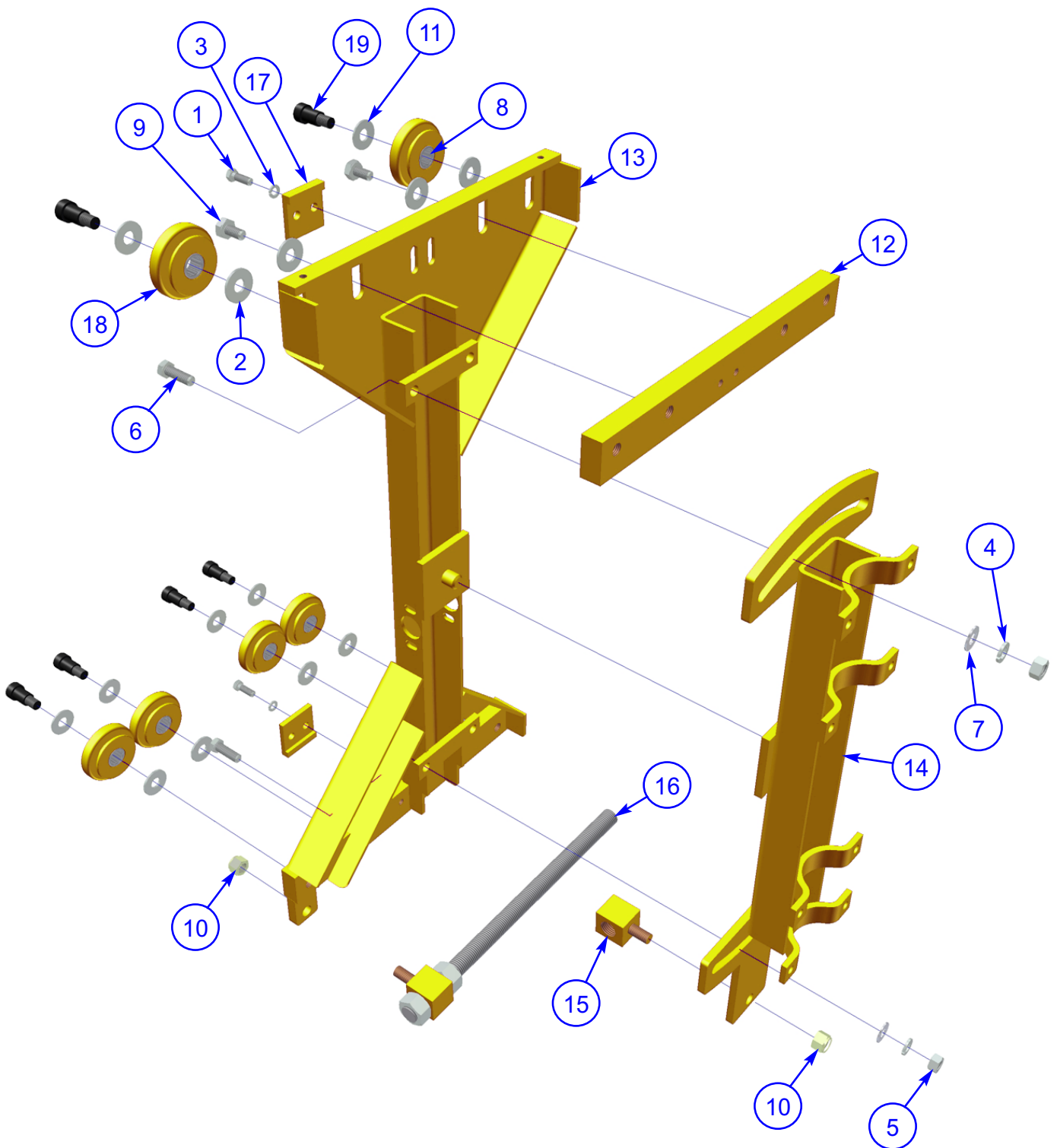
10. Idle End Frame AssemblyPage 44-45

11. Upper Fog System AssemblyPage 46-47

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SECTION 4 PARTS

JACK PLATE ASSEMBLY



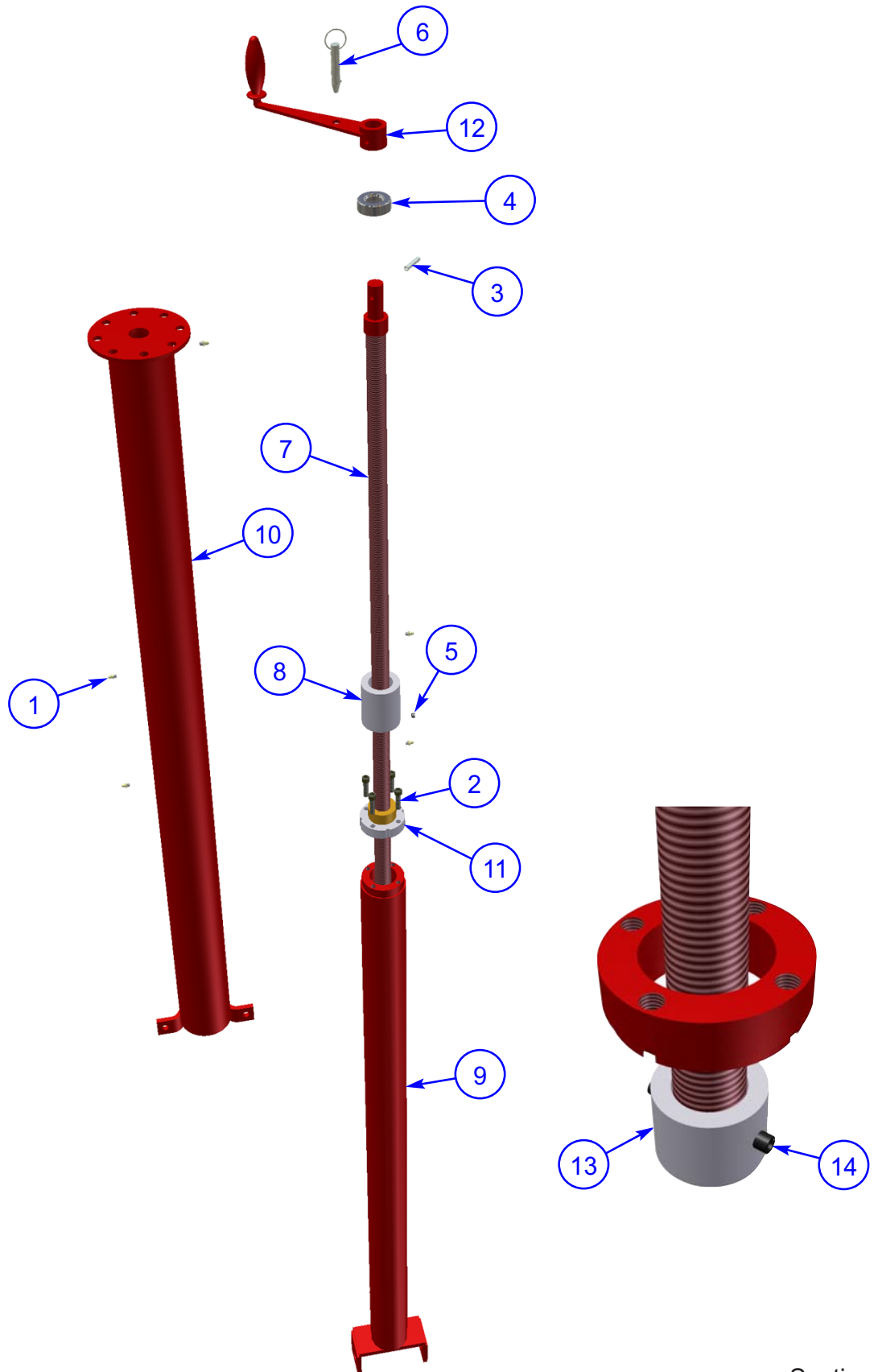
JACK PLATE ASSEMBLY (cont'd)

SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010069	FSTN, HHCS 1/2-13 X 1-1/2	4
2	010087	FSTN, FW 3/4	8
3	010093	FSTN, LW 1/2	4
4	010095	WSHR, Ø5/8 ID ZINC SPLIT LOCK	4
5	010110	FSTN, NUT HEX 5/8-11 GR 8	4
6	010632	FSTN, HHCS 5/8-11 X 2 GR 8	4
7	012982	FSTN, FW 5/8	4
8	035205	BEARING	6
9	042547	FSTN, HHCS 3/4-10 x 1 1/4 GR 8	2
10	049351	FSTN, NUT 3/4-10 GR 8 NYLOCK HEX	2
11	050236	FSTN, FLAT WASHER LARGE 3/4"	6
12	052056	BAR, F/ ROLLER MNT	1
13	052144	LEG PLATE, PIVOT LH	1
14	052149	PIVOT BRKT WMNT	1
15	052153	ADJ LUG, THREADED	1
16	052159	ADJUSTING ROD WMNT	1
17	052166	CLAMP PLATE WMNT	2
18	052229	WHEEL, CARRIGE TRACK 6048	6
19	052235	SHOULDER BOLT	6

SECTION 4 PARTS

4" JACK ASSEMBLY



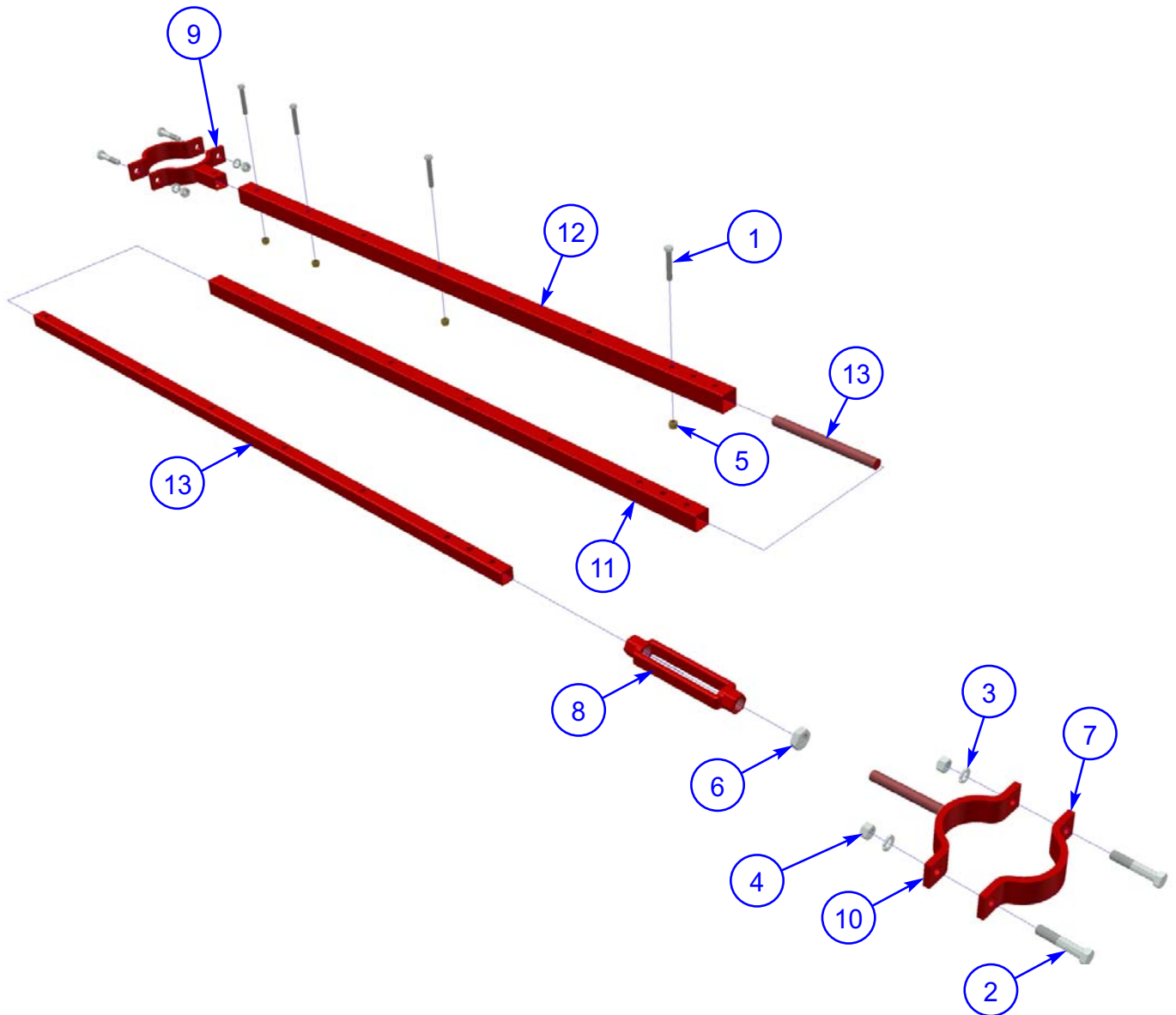
4" JACK ASSEMBLY (cont'd)

SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010513	FITTING, 1/4-28 STR GREASE	5
2	016877	SCREW, 3/8-16x1-1/2 SCKT CAP	4
3	029092	ROLL PIN, 5/16 X 1 1/2	1
4	040280	BEARING, THRUST	1
5	046698	SCREW, 5/16-18 X 1/4 SLFLKG SKT SET	2
6	051859	PIN, QUICK RELEASE 1/2" DIA 1.8 USABLE LENGTH	1
7	052120	ADJUSTING SCREW WMNT, 1 1/4 ACME	1
8	052121	STOP, UPPER	1
9	052131	LOWER LEG WMNT	1
10	052132	UPPER LEG WELDMENT	1
11	052133	BUSHING ASSEMLBY	1
12	052135	HANDLE FOR 4" JACKS	1
13	052436	STOP F/ ADJ SCR	1
14	099297	PIN, ROLL 5/16 X 2.5	1

SECTION 4 PARTS

LEG BRACE ASSEMBLY



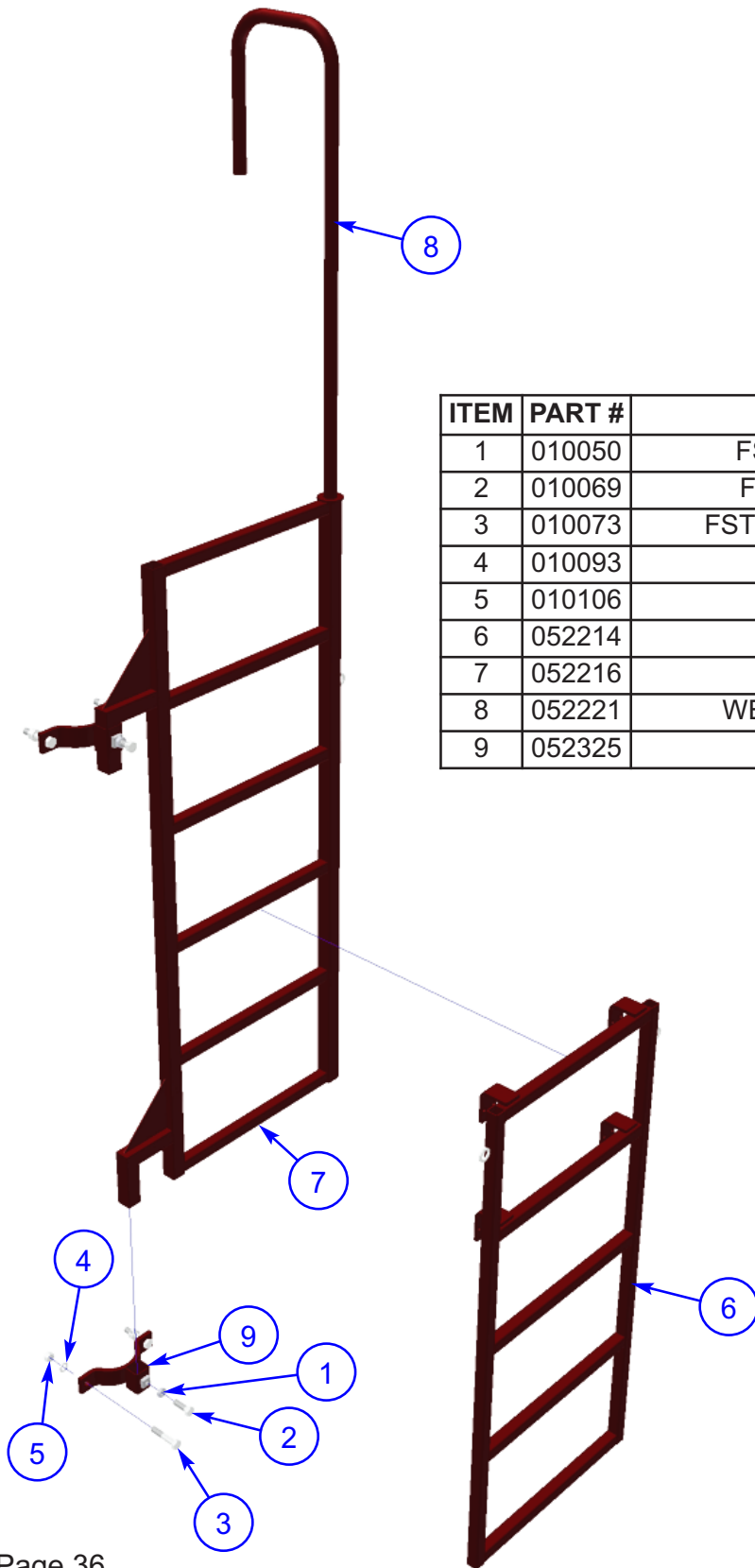
LEG BRACE ASSEMBLY (cont'd)

SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010040	FSTN, HHCS 3/8-16 X 2 GR 5	4
2	010073	FSTN, HHCS 1/2-13 X 2-1/2 GR 5	4
3	010093	FSTN, LW 1/2	4
4	010106	FSTN, NUT HEX 1/2-13	4
5	010464	FSTN, NUT NYLOK 3/8-16	4
6	035565	FSTN, JAM NUT 3/4-10	1
7	052022	CLAMP, 4"	2
8	052198	3/4 TURNBUCKLE	1
9	052262	CLAMP, JACK STABILIZER SQUARE END	1
10	052264	CLAMP, JACK STABILIZER ADJ.	1
11	052265	TUBE, MIDDLE JACK STABILIZER	1
12	052267	OUTER LEG BRACE	1
13	052269	INNER STUB BRACE	1

SECTION 4 PARTS

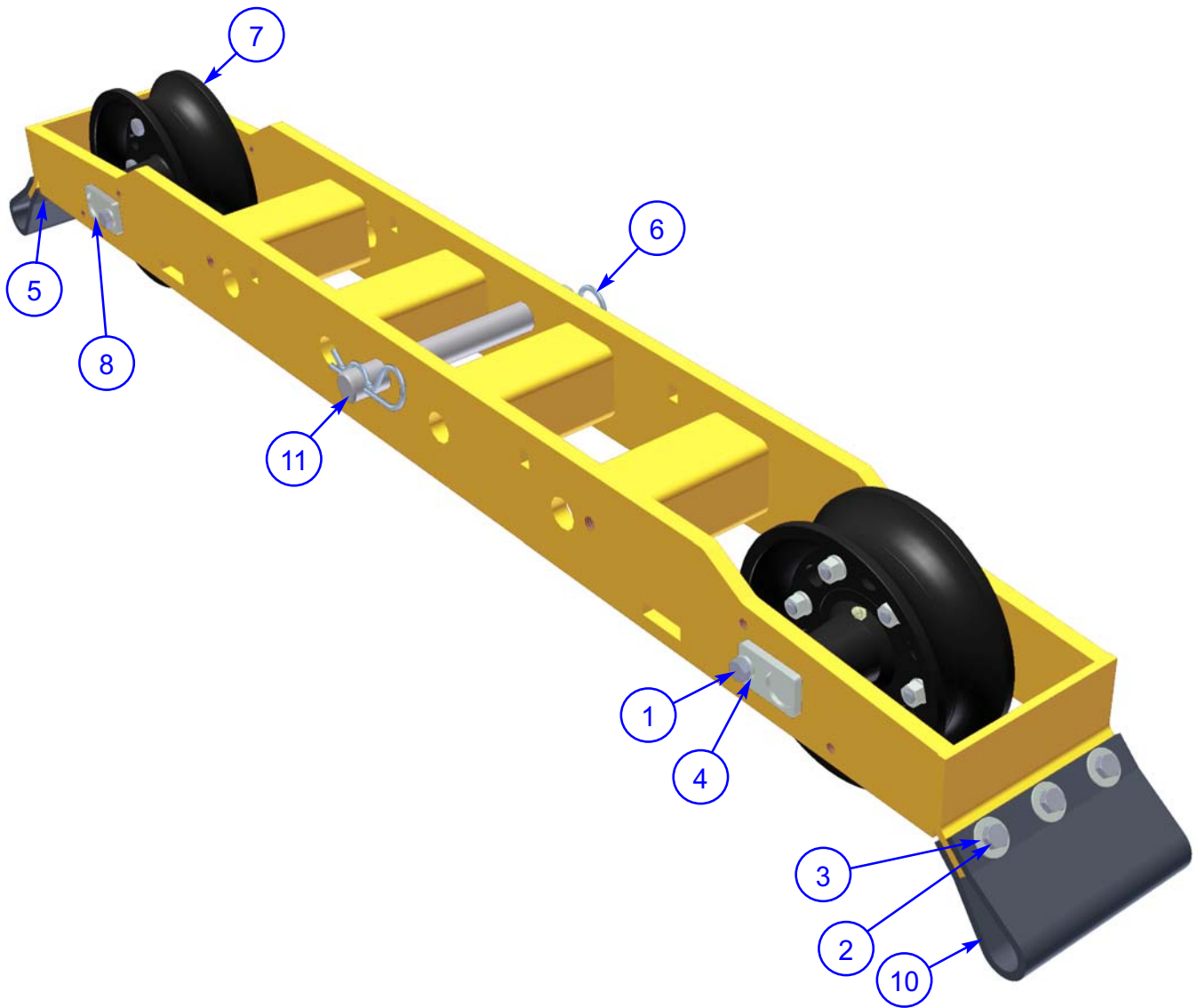
LADDER ASSEMBLY



ITEM	PART #	DESCRIPTION	QTY
1	010050	FSTN, NUT HEX JAM 1/2-13	2
2	010069	FSTN, HHCS 1/2-13 X 1-1/2	2
3	010073	FSTN, HHCS 1/2-13 X 2-1/2 GR 5	4
4	010093	FSTN, LW 1/2	4
5	010106	FSTN, NUT HEX 1/2-13	4
6	052214	LADDER, SMALL BDF	1
7	052216	LADDER, LARGE BDF	1
8	052221	WELDMNT, LADDER HANDLE	1
9	052325	CLAMP, LADDER LEG	2

IDLER BOGIE ASSEMBLY

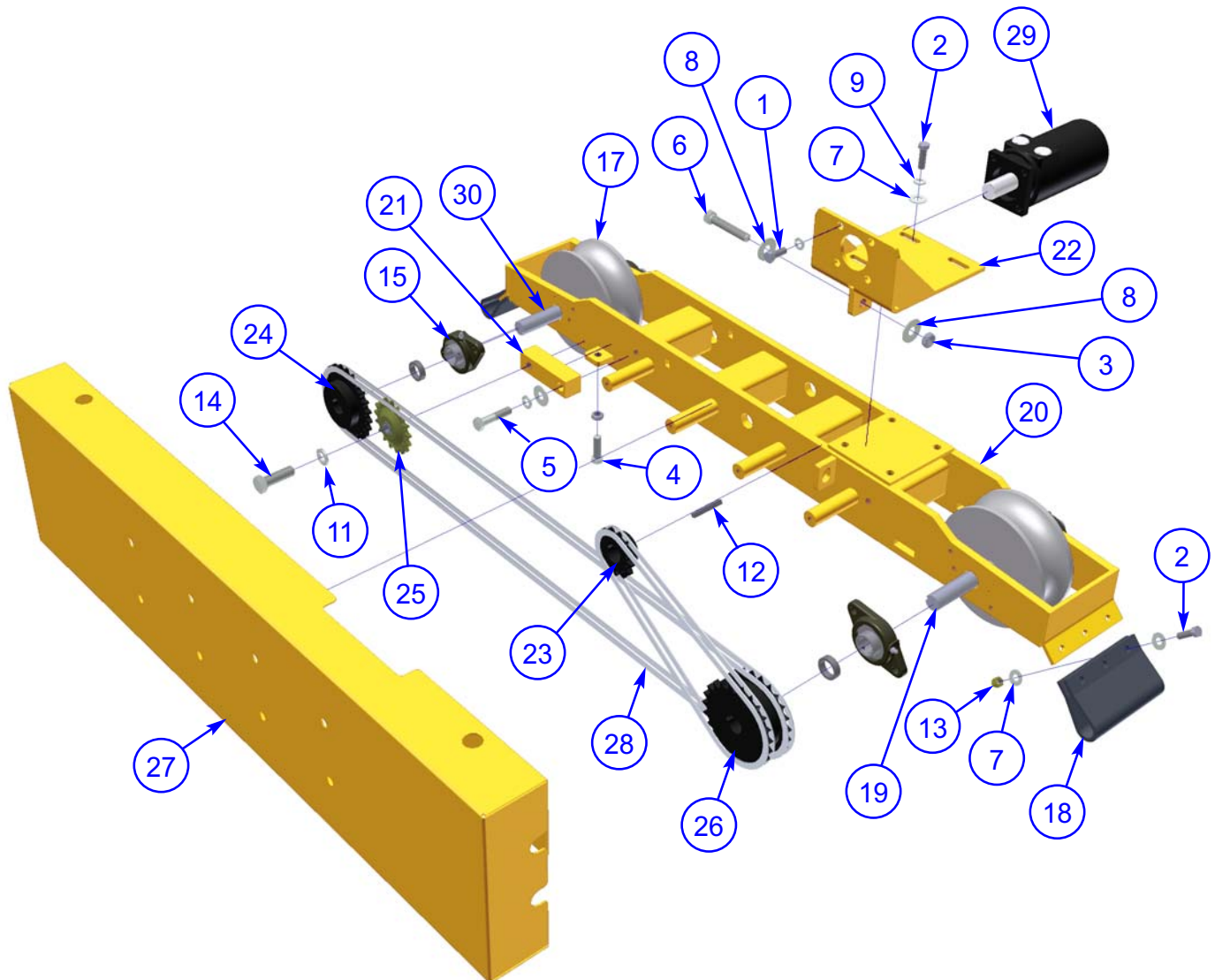
SECTION 4 PARTS



ITEM	PART #	DESCRIPTION	QTY
1	010036	FSTN, HHCS 3/8-16 X 1	2
2	010038	BOLT, 3/8-16x1-1/2 GR 5 HHCS	6
3	010083	WSHR, Ø3/8 ID USS FLAT	12
4	010091	FSTN, LW 3/8	2
5	010464	FSTN, NUT NYLOK 3/8-16	6
6	022110	COTTERS, HAIRPIN	2
7	052001	WHEEL ASSEMBLY	2
8	052008	AXLE F/ PIPE WHEEL	2
9	052016	BOGIE WELDMENT	1
10	052019	RUBBER SCRAPER	2
11	052136	PIN, 1 X 8 1/2	1

SECTION 4 PARTS

DRIVER BOGIE ASSEMBLY

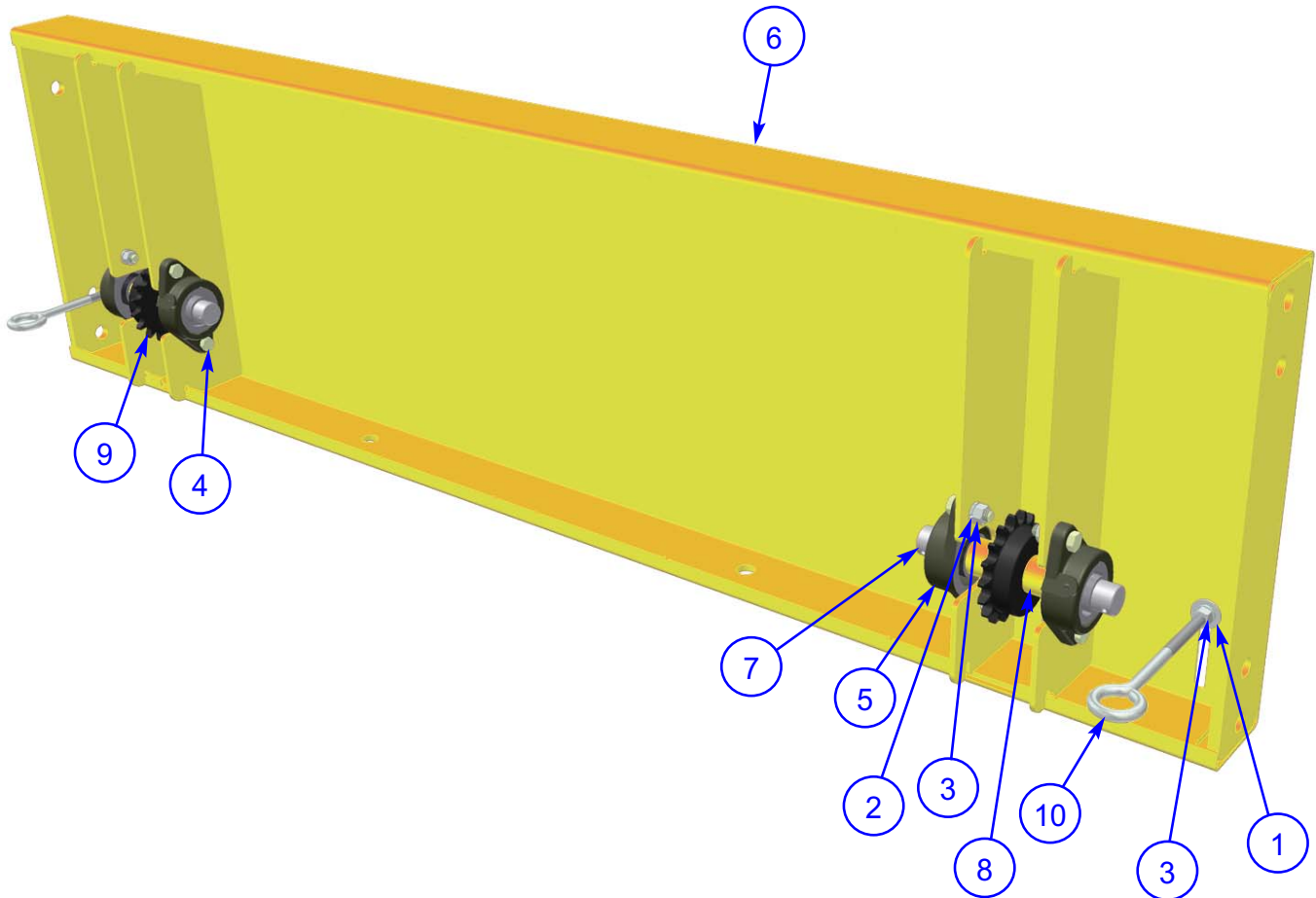


DRIVER BOGIE ASSEMBLY (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010036	FSTN, HHCS 3/8-16 X 1	8
2	010037	FSTN, HHCS 3/8-16 X 1-1/4 GR 5	10
3	010050	FSTN, NUT HEX JAM 1/2-13	2
4	010070	FSTN, HHCS 1/2-13 X 2-1/4 GR 5	1
5	010072	FSTN, HHCS 1/2-13 X 2-1/4 GR 5	1
6	010075	FSTN, HHCS 1/2-13 X 3 GR 5	1
7	010083	WSHR, Ø3/8 ID USS FLAT	16
8	010085	FSTN, FW 1/2	3
9	010091	FSTN, LW 3/8	12
10	010093	FSTN, LW 1/2	1
11	010095	WSHR, Ø5/8 ID ZINC SPLIT LOCK	1
12	010307	KEY, 1/4" SQ X 2" LG	1
13	010464	FSTN, NUT NYLOK 3/8-16	6
14	010632	FSTN, HHCS 5/8-11 X 2 GR 8	1
15	019344	BEARING, Ø1 ID SCJT-1 FLANGE	4
16	024820	STOCK, 1/4 SQx4 LG KEY	2
17	052004	BOGIE WHEELS	2
18	052019	RUBBER SCRAPER	2
19	052032	AXLE, DRIVE F/ BOGIE	1
20	052033	BOGIE WELDMENT, 36" DRIVER, LH	1
21	052034	BLOCK, CHAIN TENSIONING	1
22	052037	MOTOR MOUNT BRKT	1
23	052195	SPROCKET, 50BS13HT 1"	1
24	052196	SPRKT, 50BS23HT X 1"KW, 2SS	1
25	052197	PULLEY, IDLER AG 2416	1
26	052199	SPRKT, 50DSA23Hx1" 2SS DBLE "A"	1
27	052465	COVER, RH BOGIE WMNT	1
	052466	COVER, LH BOGIE WMNT	1
28	052273	CHAIN 50 AQUA RIV 10FT	
29	050468	MOTOR, HYDRAULIC	1
30	052503	AXLE, SHORT, DRIVE BOGIE BDP	1

SECTION 4 PARTS

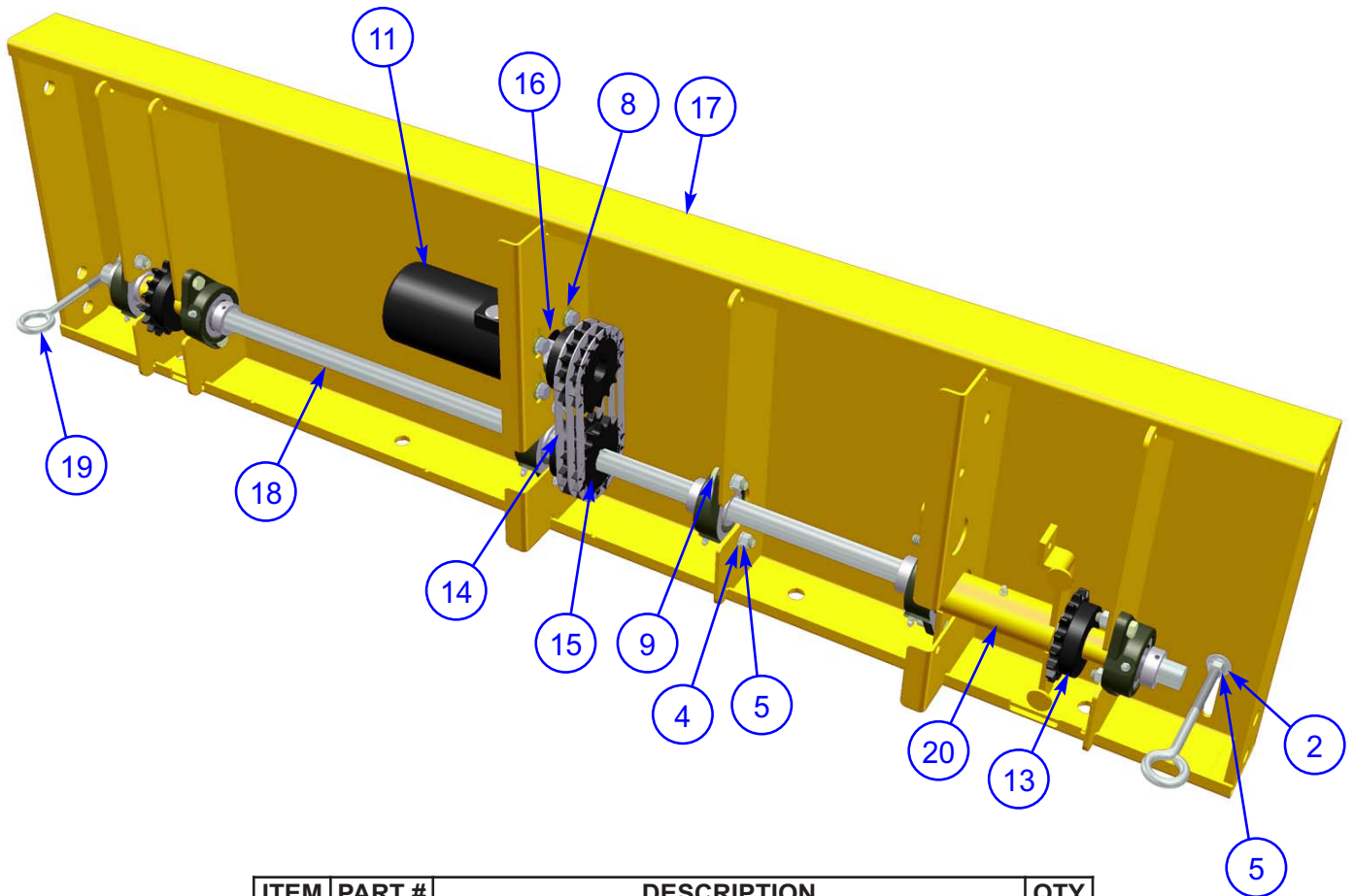
IDLE END CHAIN MOUNT ASSEMBLY



ITEM	PART #	DESCRIPTION	QTY
1	010083	FSTN, FW 3/8	4
2	010091	FSTN, LW 3/8	12
3	010102	FSTN, NUT HEX 3/8-16	12
4	032875	FSTN, HHCS 3/8-16 X 1-1/2 GR 8	8
5	019334	BEARING, Ø1 ID SCJT-1 FLANGE	4
6	052070	END PANEL WMNT, 3648 IDLE	1
7	052071	AXLE , 1" X 7"	2
8	052096	SPACER, 1 1/4 X 1 1/16	4
9	052189	SPROCKET, 50BS17HT	2
10	052315	FSTN, EYE BOLT 3/8-16 X 6 1/4	2

DRIVE END CHAIN MOUNT ASSEMBLY

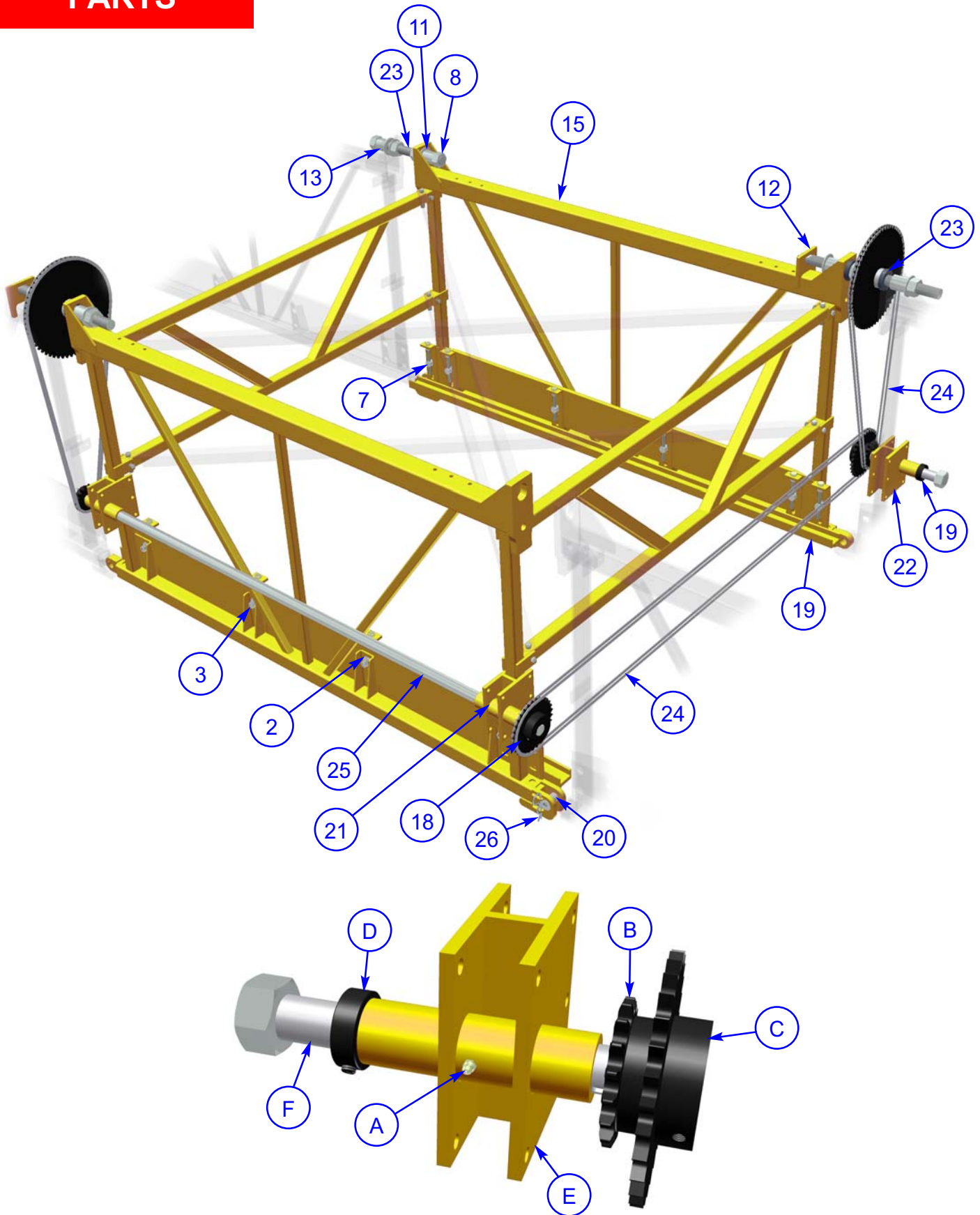
SECTION 4 PARTS



ITEM	PART #	DESCRIPTION	QTY
1	010036	FSTN, HHCS 3/8-16 X 1	4
2	010083	FSTN, FW 3/8	4
3	010088	FSTN, FW 1	1
4	010091	FSTN, LW 3/8	21
5	010102	FSTN, NUT HEX 3/8-16 (p)	17
6	010464	FSTN, NUT NYLOK 3/8-16	1
7	010513	FITTING, 1/4-28 STR GREASE	1
8	017751	FSTN, FW HARD A325 3/8	4
9	032875	FSTN, HHCS 3/8-16 X 1-1/2 GR 8	11
10	019334	BEARING, Ø1 ID SCJT-1 FLANGE	6
11	050469	MOTOR, HYDRAULIC VICKERS 146-1019-002	1
12	052096	SPACER, 1 1/4 X 1 1/16	3
13	052189	SPROCKET, 50BS17HT	2
14	052190	CHAIN, ROLLER 50-2 RIV (MORSE)	1
15	052502	SPROCKET, D50BS17H 1 (MARTIN)	2
16	052300	ADJUSTING PLATE	1
17	052301	END PANEL WMNT, 4836, DRIVER	1
18	052303	SHAFT, 1 X 52	1
19	052315	FSTN, EYE BOLT 3/8-16 X 6 1/4	2
20	052374	VALVE ACTUATING ARM	1

SECTION 4 PARTS

SKEW BRACE ASSEMBLY



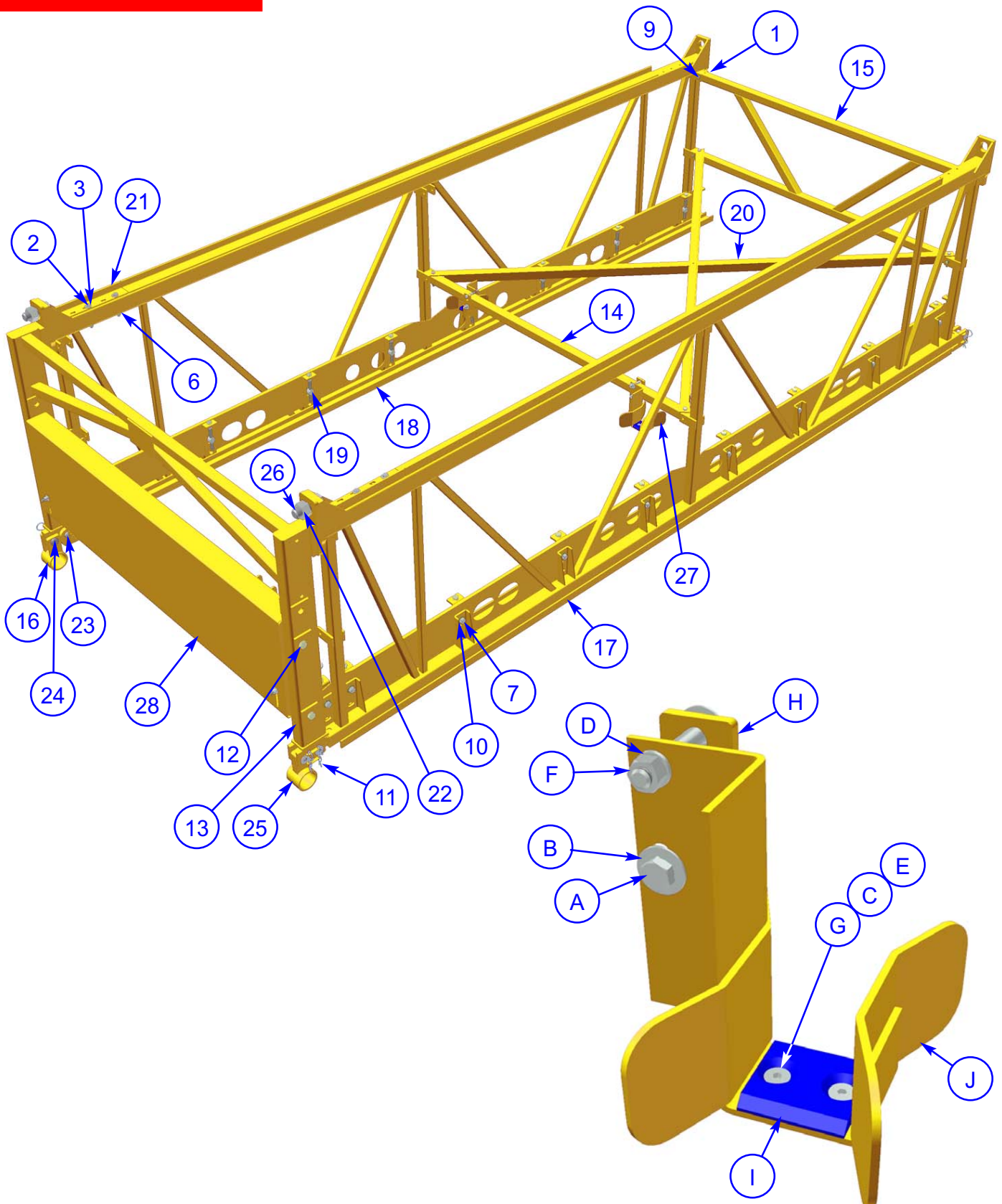
SKEW BRACE ASSEMBLY (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010042	FSTN, HHCS 3/8-16 X 2-1/2 GR 5	16
2	010085	FSTN, FW 1/2	12
3	010106	FSTN, NUT HEX 1/2-13	12
4	010464	FSTN, NUT NYLOK 3/8-16	16
5	052021	SPROCKET ASSEMBLY	2
6	052085	CROSS FRAME, 3648	2
7	052108	ADJUST BOLT, BRIDGE DECK TRACK	12
8	052156	HEX NUT, 1 1/4-7	8
9	052167	CROWN ADJ BOLT	2
10	052168	SPHERICAL WASHER SET, 1 1/4	4
11	052169	FLAT WASHER, 1 1/4	8
12	052170	BOLT RETAINER	2
13	052171	SPACER, 1 1/2 X 3/16 X 2	6
14	052172	THRUST BEARING, 1 1/4"	2
15	052180	FRAME WMTN, 72 X 36	8
16	052186	ANGLE BRACE, 85 3/4"	4
17	052189	SPROCKET, 50BS17HT	1
18	052192	SPROCKET, 50BS30HT 1-1/4 (MARTIN)	1
19	052207	RAIL ASSEMBLY, 6'	2
20	052233	PIN, 1"	2
21	052240	WELD'T, CROWN ADJ BDF	2
22	052241	CROWNER ASSEMBLY (SEE BELOW)	1
23	052243	ALL THREAD, 1 1/4-7 X 13 BDF	1
24	052271	CHAIN, AQUA C2050AQ RIV	
25	052326	SHAFT, CROWN ADJ	1
26	022110	FSTN, PIN HAIR 3/16 X 3-3/4	1

ITEM # 22 - CROWNER ASSEMBLY			
ITEM	PART #	DESCRIPTION	QTY
A	010513	FITTING, 1/4-28 STRAIGHT GREASE	1
B	052189	SPROCKET, 50BS17HT 1 MARTIN	1
C	052192	SPROCKET, 50BS30HT 1-1/4 (MARTIN)	1
D	052200	COLLAR, SHAFT 1C-125 SPLIT (CLIMAX)	1
E	052240	WELD'T, CROWN ADJ BDF	1
F	052242	WELD'T, CROWN ADJ SHAFT BDF	1

SECTION 4 PARTS

IDLE END FRAME ASSEMBLY



IDLE END FRAME ASSEMBLY (cont'd)

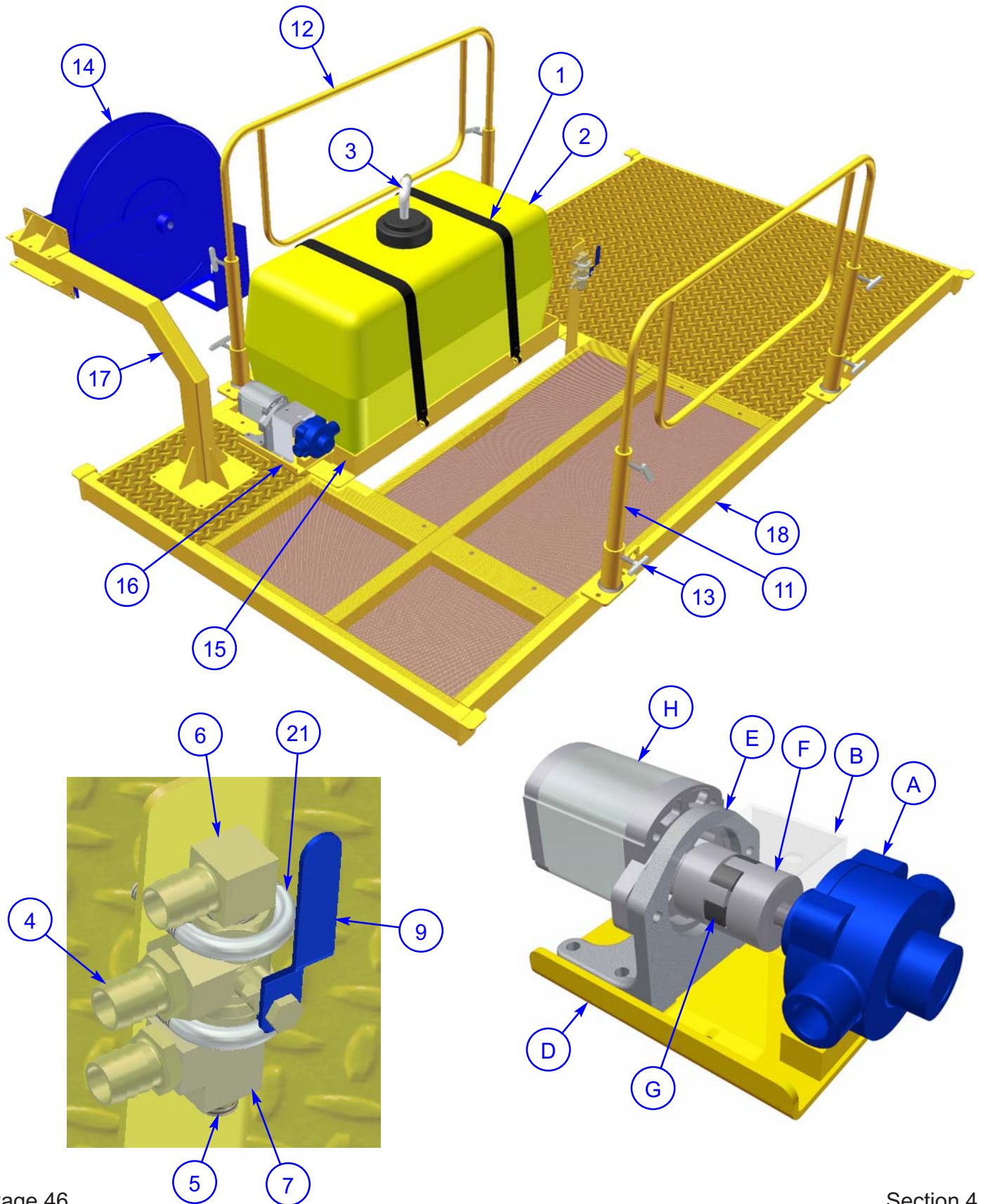
SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010042	FSTN, HHCS 3/8-16 X 2-1/2 GR 5	8
2	010046	FSTN, HHCS 3/8-16 X 3-1/2	4
3	010083	WSHR, Ø3/8 ID USS FLAT	8
4	010091	FSTN, LW 3/8	4
5	010095	WSHR, Ø5/8 ID ZINC SPLIT LOCK	4
6	010102	NUT, 3/8-16 HEX	4
7	010106	FSTN, NUT HEX 1/2-13	20
8	010110	FSTN, NUT HEX 5/8-11 GR 8	4
9	010464	FSTN, NUT NYLOK 3/8-16	8
10	011490	FSTN, FW HARDENED 1/2	20
11	022110	COTTERS, HAIRPIN	5
12	049346	FSTN, HHCS 5/8-11x3-3/4 GR 8	4
13	052081	END FRAME WMNT	1
14	052083	CROSS TUBE	1
15	052085	CROSS FRAME, 3648	1
16	052088	LIFTING RING	1
17	052095	FRAME SIDE WMNT, 3648 X 12'	2
18	052107	RAIL ASSEMBLY	2
19	052108	ADJUST BOLT, BRIDGE DECK TRACK	20
20	052113	ANGLE BRACE, 89"	2
21	052114	ANGLE FILLER	2
22	052156	HEX NUT, 1 1/4-7	2
23	052233	PIN, 1"	4
24	052275	CLEVIS PIN, 1"	1
25	052302	LIFTING RING	1
26	052323	HEX BOLT, 1 1/4 X 3	2
27	052475	CHAIN HANGER ASSEMBLY	2
28	052477	END PANEL ASSEMBLY, IDLE, 3648	1

ITEM # 27 PARTS LIST			
ITEM	PART #	DESCRIPTION	QTY
A	010042	FSTN, HHCS 3/8-16 X 2-1/2 GR 5	2
B	010083	WSHR, Ø3/8 ID USS FLAT	2
C	010089	FSTN, LW 1/4	2
D	010091	FSTN, LW 3/8	2
E	010098	FSTN, NUT HEX 1/4-20	2
F	010102	NUT, 3/8-16 HEX	2
G	043265	FSTN, FHCSS 1/4-20 X 1	2
H	052250	PLATE, CHAIN GUIDE CLAMP BDF	1
I	052254	WEAR PLATE, CHAIN GUIDE	1
J	052260	WELDMNT, CHAIN GUIDE 4836	1

SECTION 4 PARTS

UPPER FOG SYSTEM ASSEMBLY



UPPER FOG SYSTEM ASSEMBLY (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	029139	STRAP, BARREL BRACKET TRTF	2
2	029317	TANK, WATER 55 GAL W/ HOLE IN CAP	1
3	038233	ASSEMBLY, RETURN TUBE F/ TRTP	1
4	040108	FTG, 3/4 MPT x 3/4 HOSE BARB	2
5	040109	FTG, 3/4 MPT x 3/4 GARDEN	1
6	040110	FTG, 3/4 MPT x 3/4 90° HOSE BARB	1
7	040114	FTG, 3/4 FPT TEE	1
8	040116	FTG, 3/4 CLOSE NIPPLE	1
9	047412	VALVE, 3-WAY BALL 3/4"	1
10	048382	Y-STRAINER, POLY 3/4 NPT F/ TRTP	1
11	050582	HANDRAIL EXT TUBE	4
12	050599	HANDRAIL WELDMNT	2
13	050601	TEE BOLT WELDMNT	8
14	050607	HOSE REEL W/ BLUE HOSE	1
15	050609	BRKT, MOD 255BD BARREL	1
16	050614	PUMP ASSY SPRAY SYSTEM	1
17	050626	REEL MNT BRKT	1
18	050627	MAIN DECK WELDMNT	1
19	050666	HOSE REEL MOUNTING BRACKET	2
20	050697	PLATE, BALL VALVE MOUNT F/ SPRAY	1
21	116008	FSTN, CLAMP U-BOLT #320	2

ITEM # 16 PARTS LIST			
ITEM	PART #	DESCRIPTION	QTY
A	029418	PUMP, HYPRO 6500C-R	1
B	039788	GUARD, F/HYD. WATER PUMP TRTP	1
C	039789	SPACER, BLOCK F/WATER PUMP F/TRTP	1
D	039790	PLATE, F/HYD. MOTOR & H2O PUMP F/TRTP	1
E	040059	FOOT BRACKET, WATER PUMP TRTP	1
F	040060	COUPLER, JAW F/ WATER PUMP (TRTP)	2
G	040061	INSERT, JAW COUPLER WATER PUMP TRTP	1
H	040065	MOTOR, WATER PUMP (TRTP)	1

SECTION 4 PARTS

NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

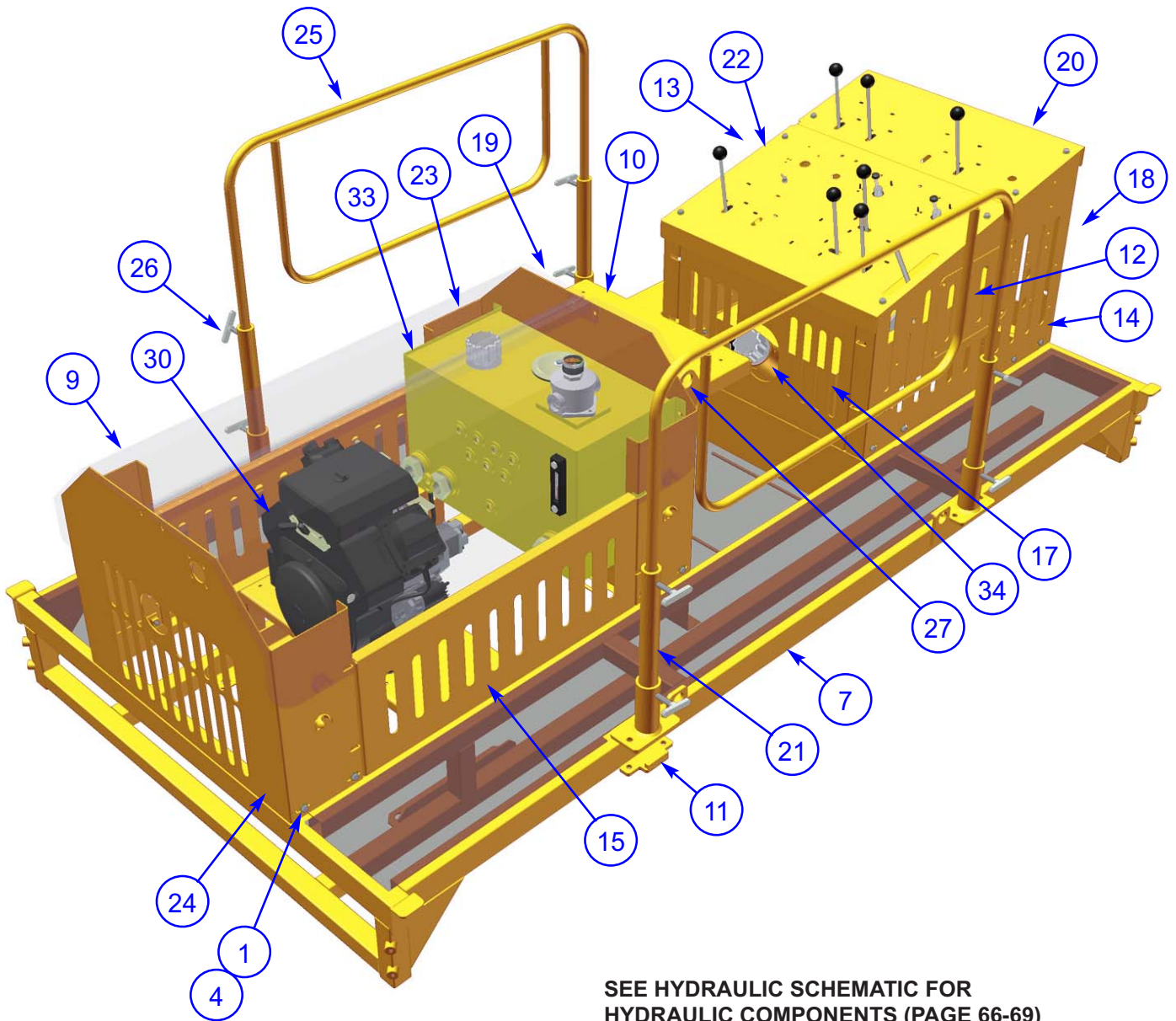
Section 4 - Parts 3 Table of Contents

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10. Carriage Hydraulic Schematic	Page 68-69
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13. Dual Drag Pan (Optional)	Page 76-77

SECTION 4 PARTS

POWER UNIT ASSEMBLY



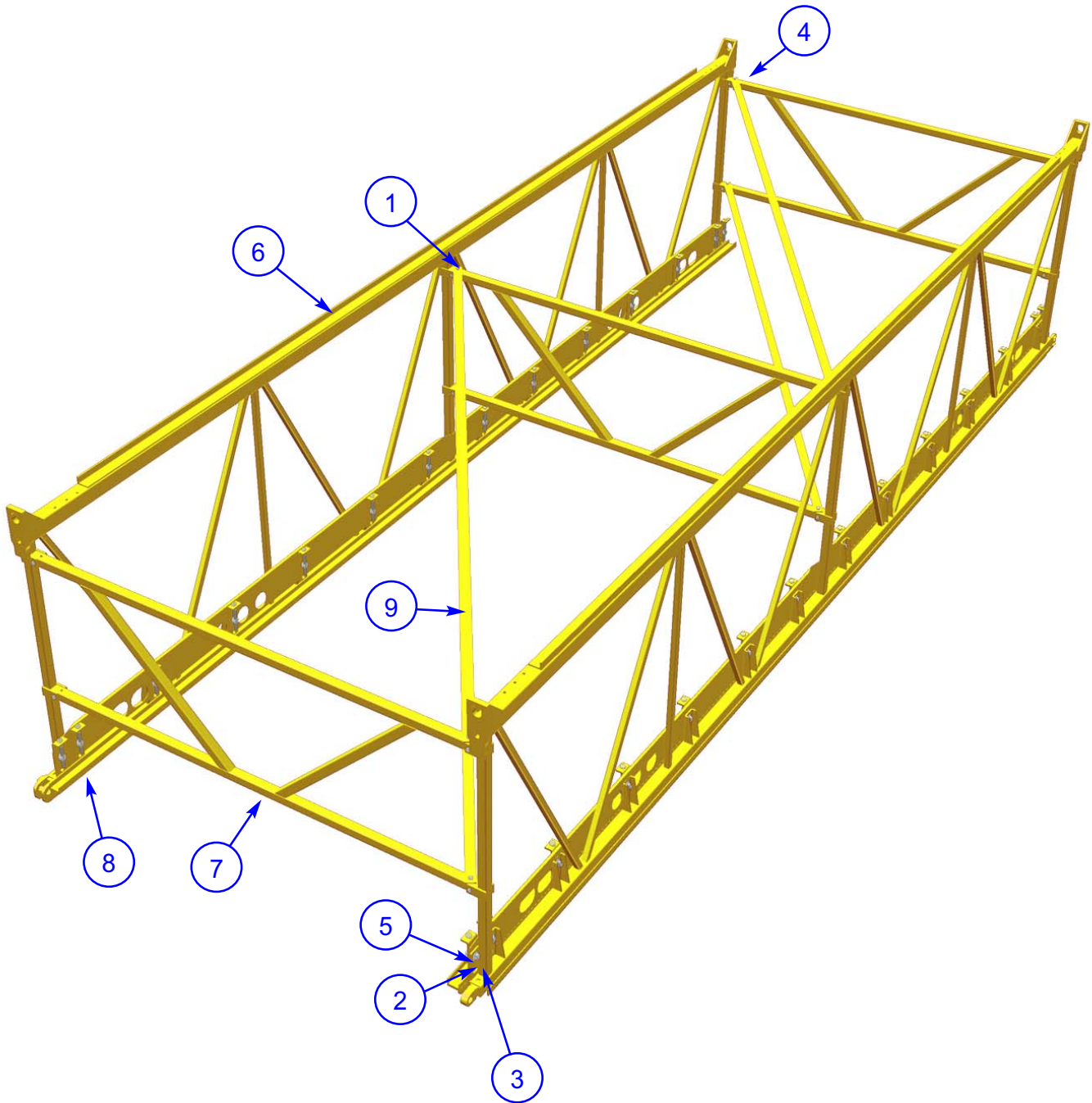
SEE HYDRAULIC SCHEMATIC FOR
HYDRAULIC COMPONENTS (PAGE 66-69)

POWER UNIT ASSEMBLY (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010036	FSTN, HHCS 3/8-16 X 1	24
2	010089	FSTN, LW 1/4	6
3	010098	FSTN, NUT HEX 1/4-20	2
4	017751	FSTN, FW HARD A325 3/8	25
5	050450	VALVE, FINISH TUBES AO100T4LD	8
6	050458	VALVE, FLOW CONTROL(BRAND FC5110-37)	2
7	050533	WELDMNT POWER UNIT MAIN FRAME	1
8	050544	ENGINE PLATE F/ 4836B	1
9	050550	WELD'T, ENGINE COVER PU MAIN FRAME	1
10	050552	WELD'T, SEAT PLATE F/POWER UNIT BDF	1
11	050555	WELD'T, PU CLAMP PLATE BDF	1
12	050558	SIDE PANEL OPERATOR CONSOLE	2
13	050561	LEFT HAND CONSOLE PANEL WELDMNT	1
14	050562	RIGHT CONSOLE PANEL WELDMNT	1
15	050569	WELD'T, LOWER ENGINE SIDE PANEL BDF	2
16	050570	WELD'T, SHIFT LEVER BDF	1
17	050577	WELD'T, REAR HYD CONSOLE BDF	1
18	050578	WELD, FRONT HYD CONSOLE BDF	1
19	050580	SEAT MNT BRKT RH	1
20	050581	UPPER CONTROL PANEL POWER UNIT	1
21	050582	HANDRAIL EXT TUBE	4
22	050583	CONTROL PANEL F/ MAIN FRAME	1
23	050586	HYD TANK SIDE WELDMNT	1
24	050587	REAR HOOD MNT WELDMNT	1
25	050599	HANDRAIL WELDMNT	2
26	050601	TEE BOLT WELDMNT	8
27	050602	SEAT MNT BRKT LH	1
28	050603	SWITCH, ON-OFF TOGGLE	1
29	050658	ISOLATOR, 2" OD X 1 5/8" TALL 3/8-16	4
30	050850	ENGINE, KOHLER 25HP	1
31	050851	ENGINE PLATE, KOHLER CARRIAGE POWER UNIT	1
32	050856	MUFFLER, CENTER OUTLET KOHLER 1205402-S	1
33	051047	ASSEMBLY, HYDRAULIC TANK F/ BDF MAINFRAME	1
34	051048	ASSEMBLY, FUEL TANK F/ BDF MAINFRAME	1
35	052361	PLATE, CONT'L CABLE SPACER F/SW PLAT	1
36	052481	U BOLT	1

SECTION 4 PARTS

18' FRAME ASSEMBLY



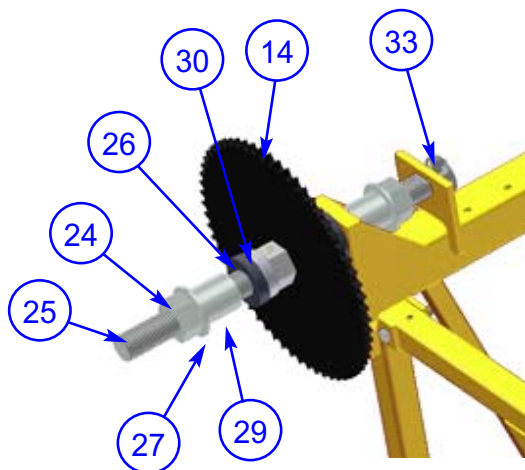
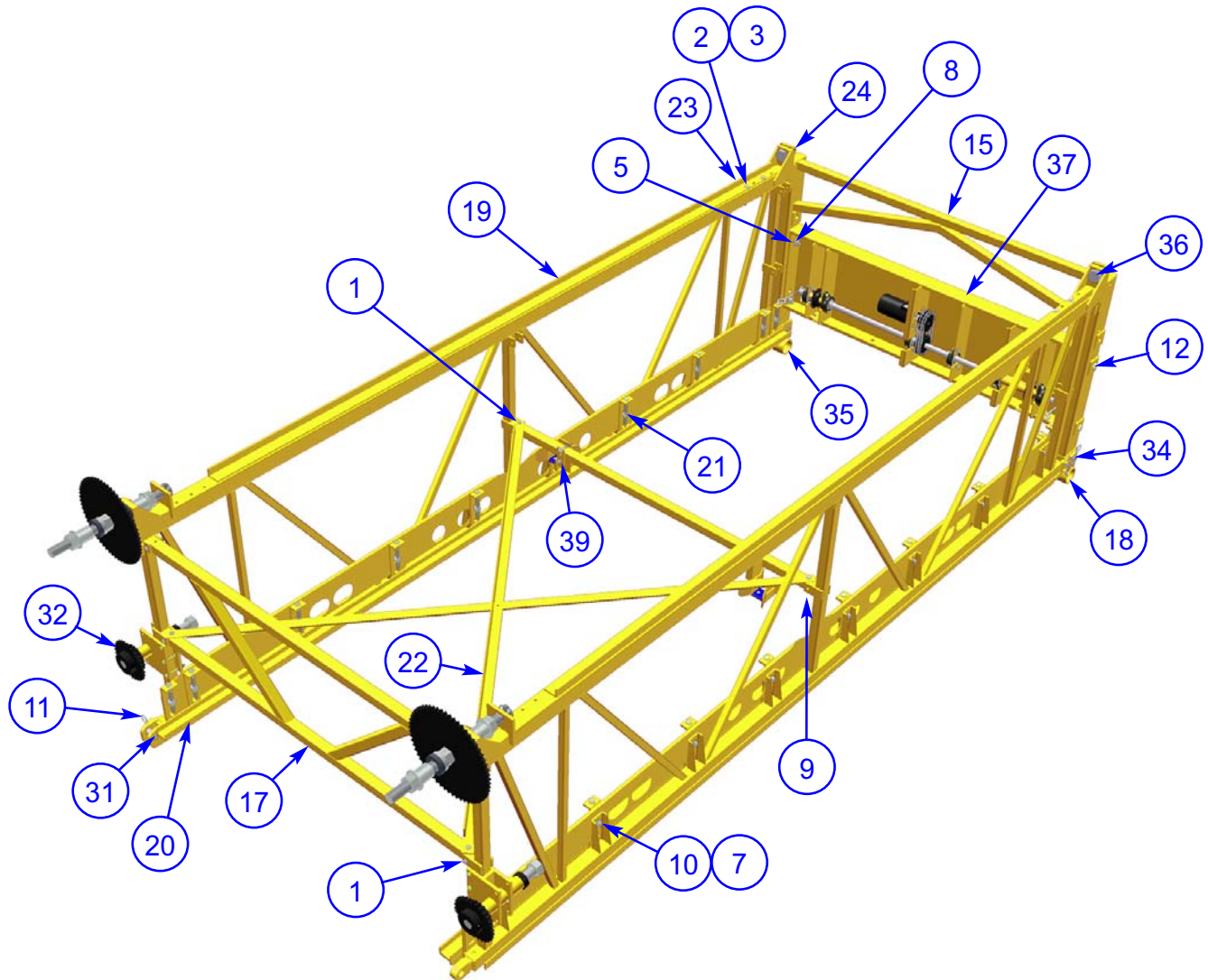
18' FRAME ASSEMBLY (cont'd)

SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010042	FSTN, HHCS 3/8-16 X 2-1/2 GR 5	24
2	010085	FSTN, FW 1/2	28
3	010106	FSTN, NUT HEX 1/2-13	28
4	010464	FSTN, NUT NYLOK 3/8-16	24
5	052108	ADJUST BOLT, BRIDGE DECK TRACK	28
6	052400	PANEL, SIDE 18'	2
7	052418	FRAME STIFFENER	4
8	052420	RAIL ASSEMBLY	2
9	052465	ANGLE BRACE, 89"	4

SECTION 4 PARTS

12' DRIVE FRAME ASSEMBLY

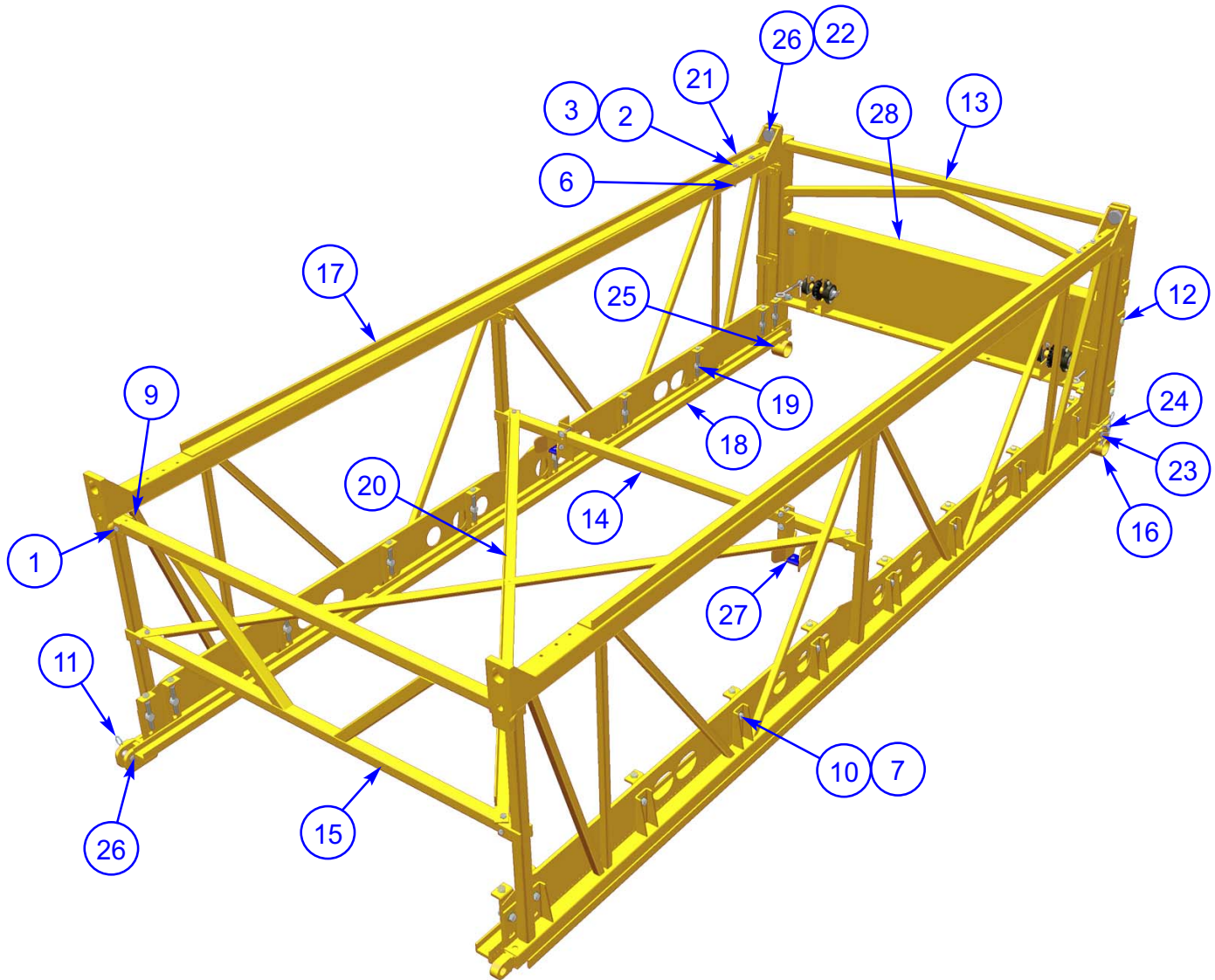


12' DRIVE FRAME ASSEMBLY (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010042	FSTN, HHCS 3/8-16 X 2-1/2 GR 5	8
2	010046	FSTN, HHCS 3/8-16 X 3-1/2	4
3	010083	WSHR, Ø3/8 ID USS FLAT	8
4	010091	FSTN, LW 3/8	4
5	010095	WSHR, Ø5/8 ID ZINC SPLIT LOCK	4
6	010102	NUT, 3/8-16 HEX	4
7	010106	FSTN, NUT HEX 1/2-13	20
8	010110	FSTN, NUT HEX 5/8-11 GR 8	4
9	010464	FSTN, NUT NYLOK 3/8-16	8
10	011490	FSTN, FW HARDENED 1/2	20
11	022110	COTTERS, HAIRPIN	5
12	049346	FSTN, HHCS 5/8-11x3-3/4 GR 8	4
13	050543	ASSY, CONTROL PANEL AND POWER UNIT (NOT SHOWN)	1
14	052021	SPROCKET ASSEMBLY	2
15	052081	END FRAME WMNT	1
16	052083	CROSS TUBE	1
17	052085	CROSS FRAME, 4836	1
18	052088	LIFTING RING	1
19	052095	FRAME SIDE WMNT, 4836 X 12'	2
20	052107	RAIL ASSEMBLY	2
21	052108	ADJUST BOLT, BRIDGE DECK TRACK	20
22	052113	ANGLE BRACE, 89"	2
23	052114	ANGLE FILLER	2
24	052156	HEX NUT, 1 1/4-7	8
25	052167	CROWN ADJ BOLT	2
26	052168	SPHERICAL WASHER SET, 1 1/4	4
27	052169	FLAT WASHER, 1 1/4	4
28	052170	BOLT RETAINER	2
29	052171	SPACER, 1 1/2 X 3/16 X 2	4
30	052172	THRUST BEARING, 1 1/4"	2
31	052233	PIN, 1"	4
32	052241	CROWNER ASSEMBLY	2
33	052244	7/16 x 1 3/4 Lynch Pin	2
34	052275	CLEVIS PIN, 1"	1
35	052302	LIFTING RING	1
36	052323	HEX BOLT, 1 1/4 X 3	2
37	052381	END PANEL ASSEMBLY, DRIVER END, 4836	1
38	052390	CARRIAGE SHIFTING MECHANISM (NOT SHOWN)	1
39	052475	CHAIN HANGER ASSEMBLY	2

SECTION 4 PARTS

12' IDLE FRAME ASSEMBLY

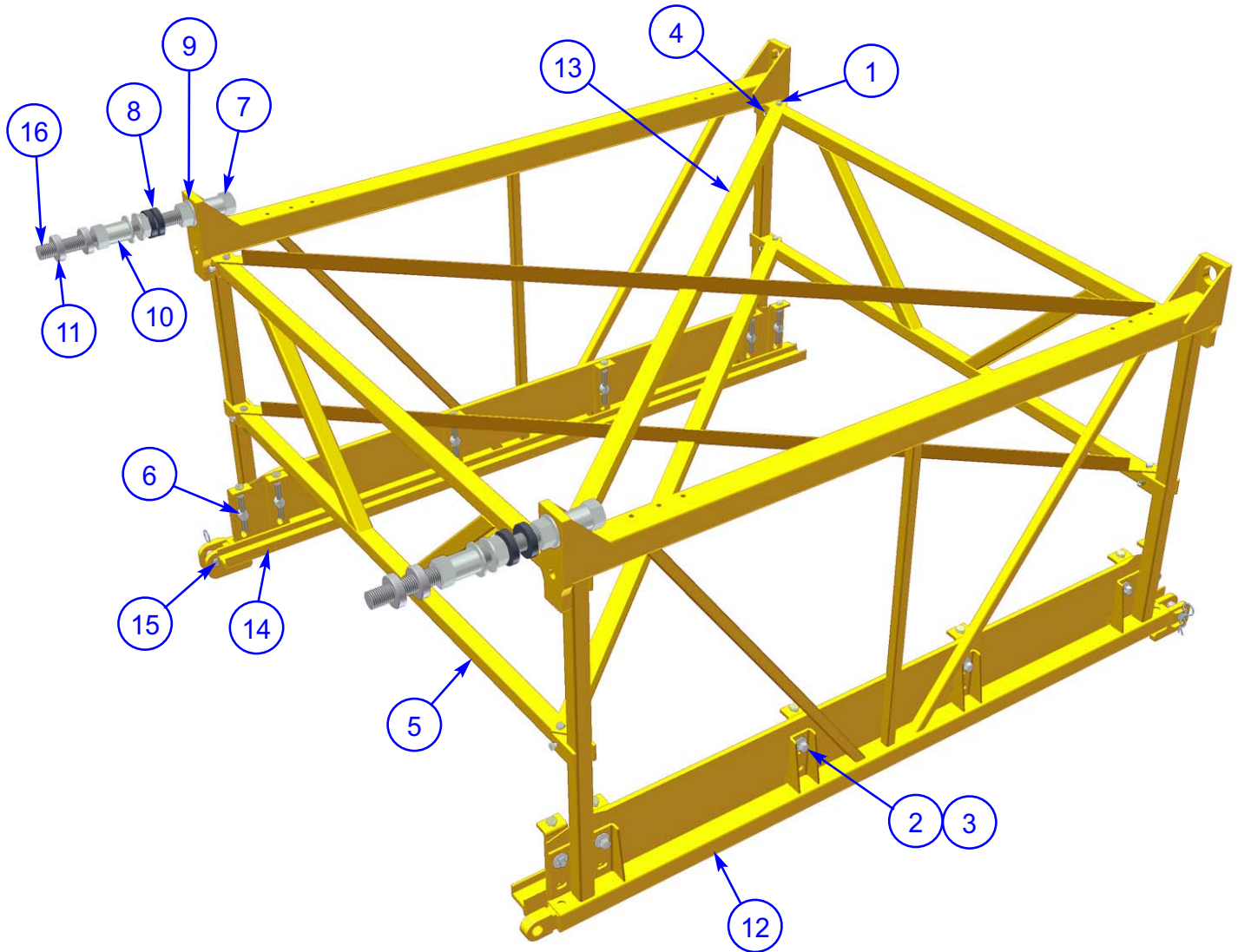


12' IDLE FRAME ASSEMBLY (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010042	FSTN, HHCS 3/8-16 X 2-1/2 GR 5	8
2	010046	FSTN, HHCS 3/8-16 X 3-1/2	4
3	010083	WSHR, Ø3/8 ID USS FLAT	8
4	010091	FSTN, LW 3/8	4
5	010095	WSHR, Ø5/8 ID ZINC SPLIT LOCK	4
6	010102	NUT, 3/8-16 HEX	4
7	010106	FSTN, NUT HEX 1/2-13	20
8	010110	FSTN, NUT HEX 5/8-11 GR 8	4
9	010464	FSTN, NUT NYLOK 3/8-16	8
10	011490	FSTN, FW HARDENED 1/2	20
11	022110	COTTERS, HAIRPIN	5
12	049346	FSTN, HHCS 5/8-11x3-3/4 GR 8	4
13	052081	END FRAME WMNT	1
14	052083	CROSS TUBE	1
15	052085	CROSS FRAME, 4836	1
16	052088	LIFTING RING	1
17	052095	FRAME SIDE WMNT, 4836 X 12'	2
18	052107	RAIL ASSEMBLY	2
19	052108	ADJUST BOLT, BRIDGE DECK TRACK	20
20	052113	ANGLE BRACE, 89"	2
21	052114	ANGLE FILLER	2
22	052156	HEX NUT, 1 1/4-7	2
23	052233	PIN, 1"	4
24	052275	CLEVIS PIN, 1"	1
25	052302	LIFTING RING	1
26	052323	HEX BOLT, 1 1/4 X 3	2
27	052475	CHAIN HANGER ASSEMBLY	2
28	052477	END PANEL ASSEMBLY, IDLE, 4836	1

SECTION 4 PARTS

6' FRAME ASSEMBLY



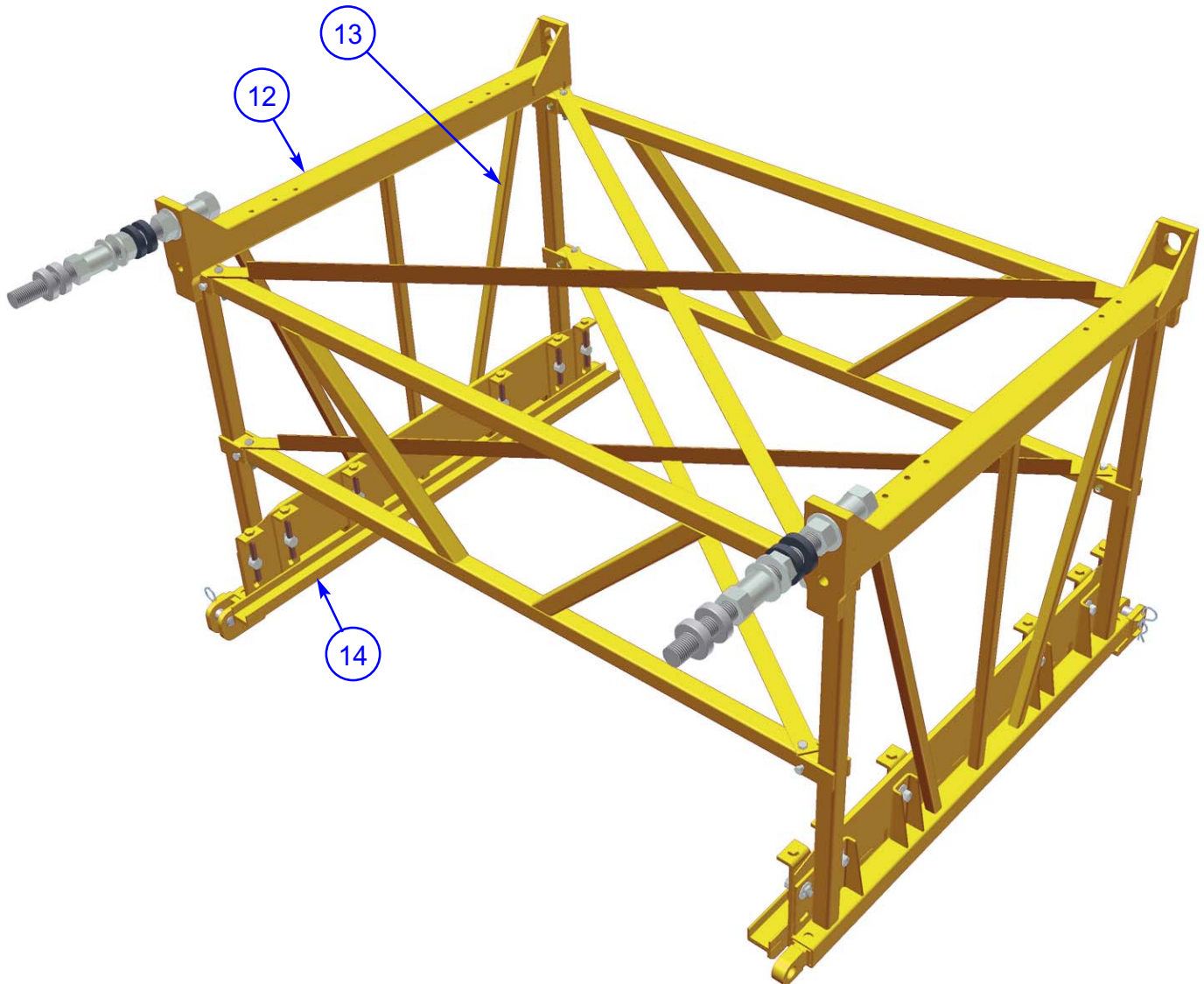
6' FRAME ASSEMBLY (cont'd)

SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010042	FSTN, HHCS 3/8-16 X 2-1/2 GR 5	16
2	010085	FSTN, FW 1/2	12
3	010106	FSTN, NUT HEX 1/2-13	12
4	010464	FSTN, NUT NYLOK 3/8-16	16
5	052085	CROSS FRAME, 4836	2
6	052108	ADJUST BOLT, BRIDGE DECK TRACK	12
7	052156	HEX NUT, 1 1/4-7	8
8	052168	SPHERICAL WASHER SET, 1 1/4	4
9	052169	FLAT WASHER, 1 1/4	8
10	052171	SPACER, 1 1/2 X 3/16 X 2	4
11	052172	THRUST BEARING, 1 1/4"	4
12	052180	FRAME WMTN, 72 X 36	2
13	052186	ANGLE BRACE, 85 3/4"	4
14	052207	RAIL ASSEMBLY, 6'	2
15	052233	PIN, 1"	2
16	052472	ALL THREAD, 1 1/4-7 X 18	2

SECTION 4 PARTS

4' FRAME ASSEMBLY



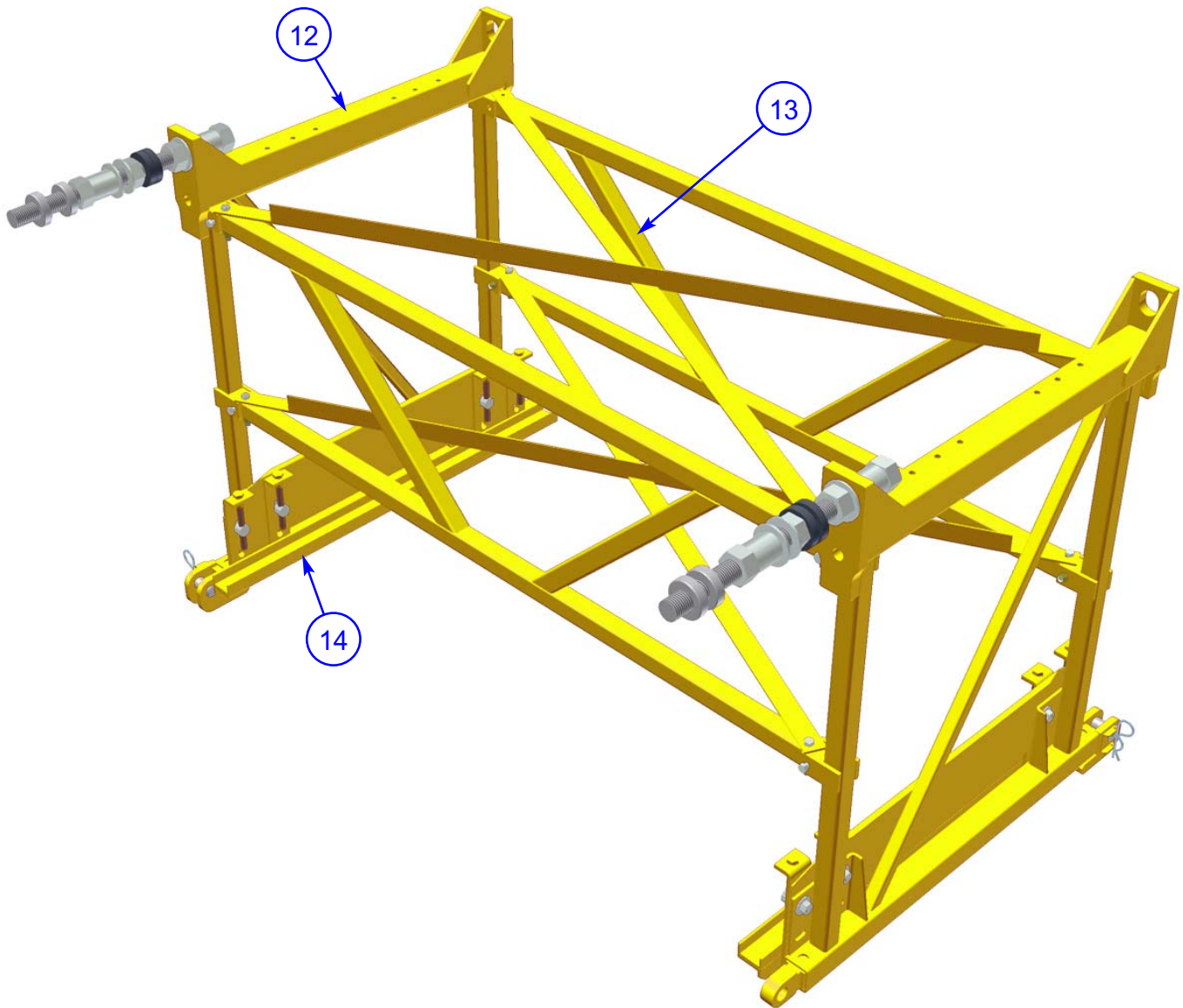
4' FRAME ASSEMBLY (cont'd)

SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010042	FSTN, HHCS 3/8-16 X 2-1/2 GR 5	16
2	010085	FSTN, FW 1/2	12
3	010106	FSTN, NUT HEX 1/2-13	12
4	010464	FSTN, NUT NYLOK 3/8-16	16
5	052085	CROSS FRAME, 4836	2
6	052108	ADJUST BOLT, BRIDGE DECK TRACK	12
7	052156	HEX NUT, 1 1/4-7	8
8	052168	SPHERICAL WASHER SET, 1 1/4	4
9	052169	FLAT WASHER, 1 1/4	8
10	052171	SPACER, 1 1/2 X 3/16 X 2	4
11	052172	THRUST BEARING, 1 1/4"	4
12	052182	FRAME WMNT, 48 X 36	2
13	052187	ANGLE BRACE, 69 1/2	4
14	052208	RAIL ASSEMBLY, 4'	2
15	052233	PIN, 1"	2
16	052472	ALL THREAD, 1 1/4-7 X 18	2

SECTION 4 PARTS

3' FRAME ASSEMBLY

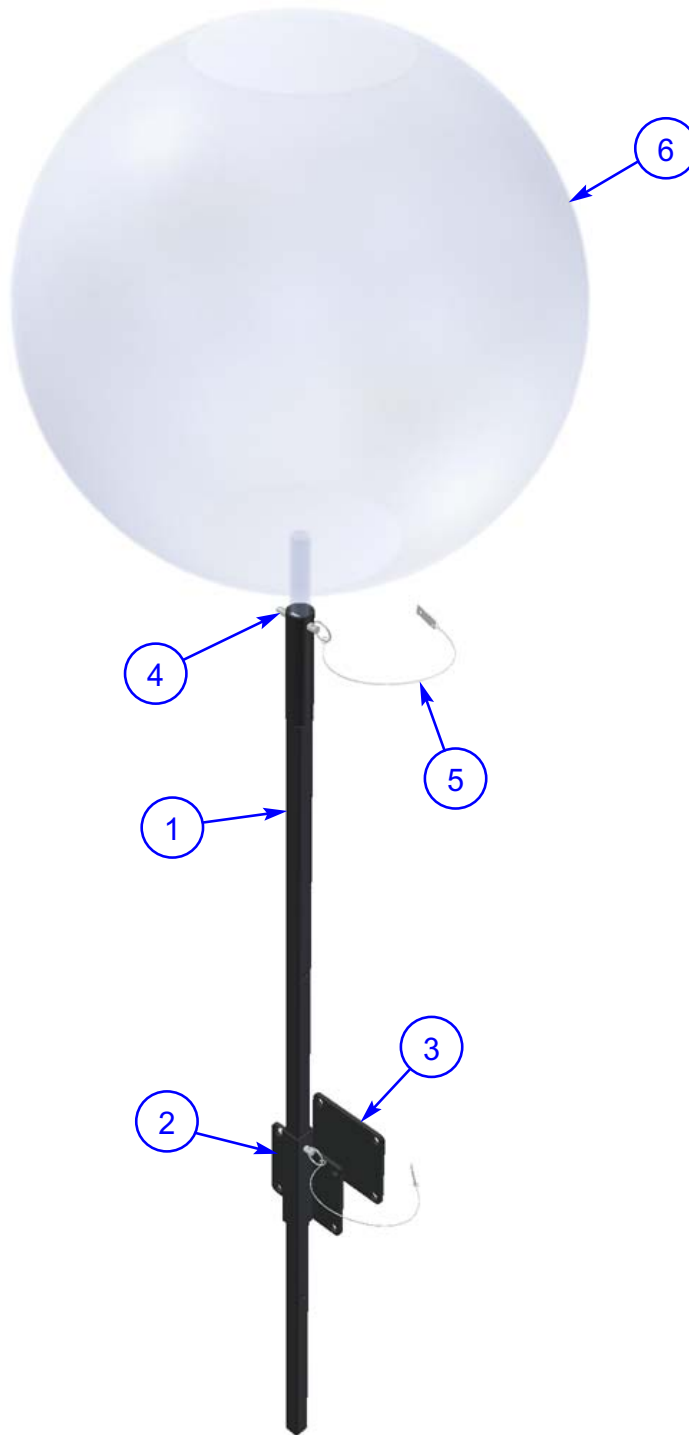


3' FRAME ASSEMBLY (cont'd)**SECTION 4
PARTS**

ITEM	PART #	DESCRIPTION	QTY
1	010042	FSTN, HHCS 3/8-16 X 2-1/2 GR 5	16
2	010085	FSTN, FW 1/2	10
3	010106	FSTN, NUT HEX 1/2-13	10
4	010464	FSTN, NUT NYLOK 3/8-16	16
5	052085	CROSS FRAME, 4836	2
6	052108	ADJUST BOLT, BRIDGE DECK TRACK	8
7	052156	HEX NUT, 1 1/4-7	8
8	052168	SPHERICAL WASHER SET, 1 1/4	4
9	052169	FLAT WASHER, 1 1/4	8
10	052171	SPACER, 1 1/2 X 3/16 X 2	4
11	052172	THRUST BEARING, 1 1/4"	4
12	052184	FRAME WMNT, 36 X 36	2
13	052188	ANGLE BRACE, 63 7/16	4
14	052209	RAIL ASSEMBLY, 3'	2
15	052233	PIN, 1"	2
16	052472	ALL THREAD, 1 1/4-7 X 18	2

SECTION 4 PARTS

BALLOON LIGHT ASSEMBLY



BALLOON LIGHT ASSEMBLY (cont'd)

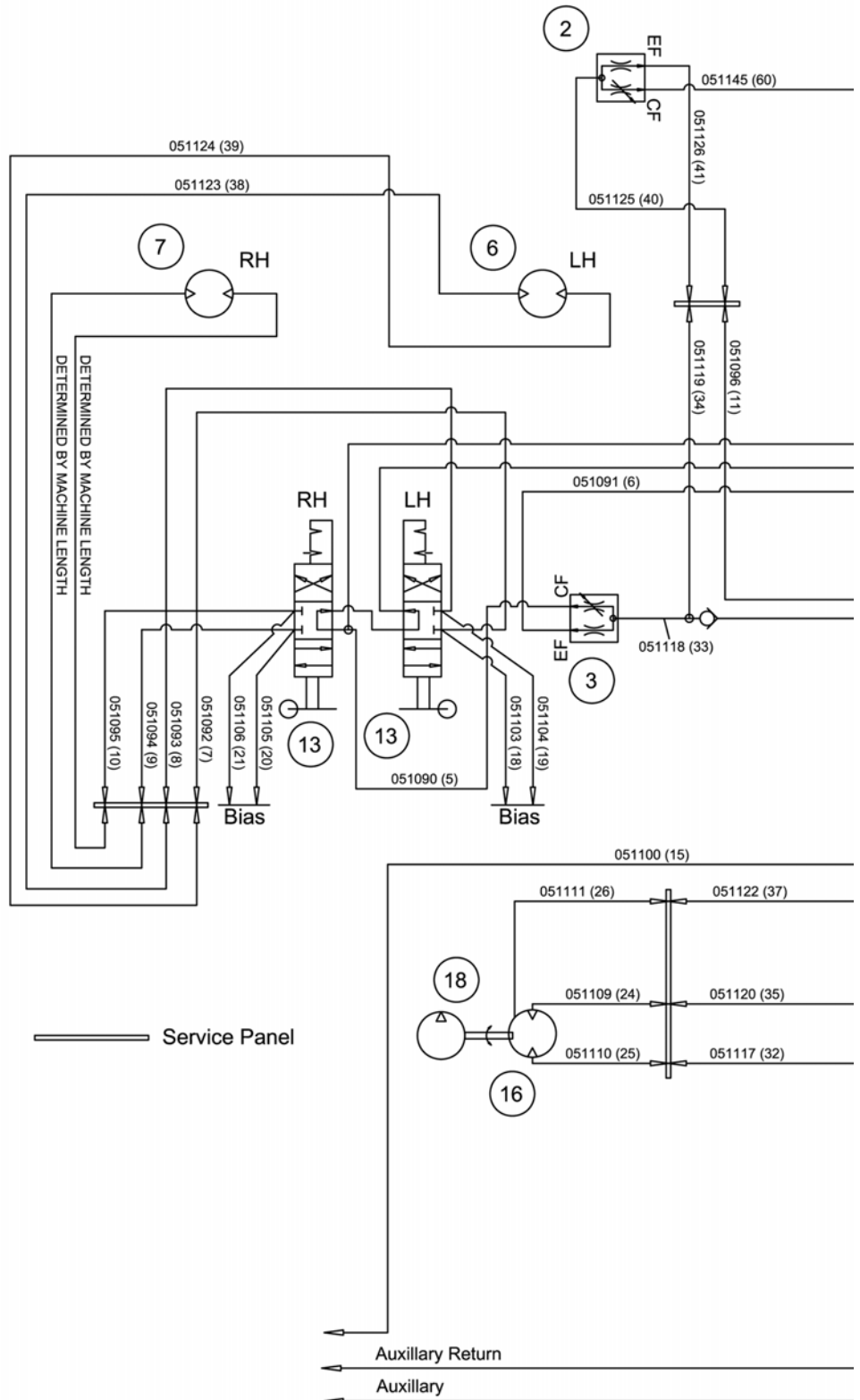
SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	050640	UPRIGHT TUBE WELDMNT LIGHT	1
2	050641	LIGHT TOWER MNT BRKT WELDMNT	1
3	050642	PLATE F/ LIGHT BRKT	1
4	050643	QUICK RELEASE PIN 3/8" X 1 1/2 USABLE	2
5	050644	LANYARD 8" LONG	2
6	050646	LIGHT, BALLON	1

SECTION 4 PARTS

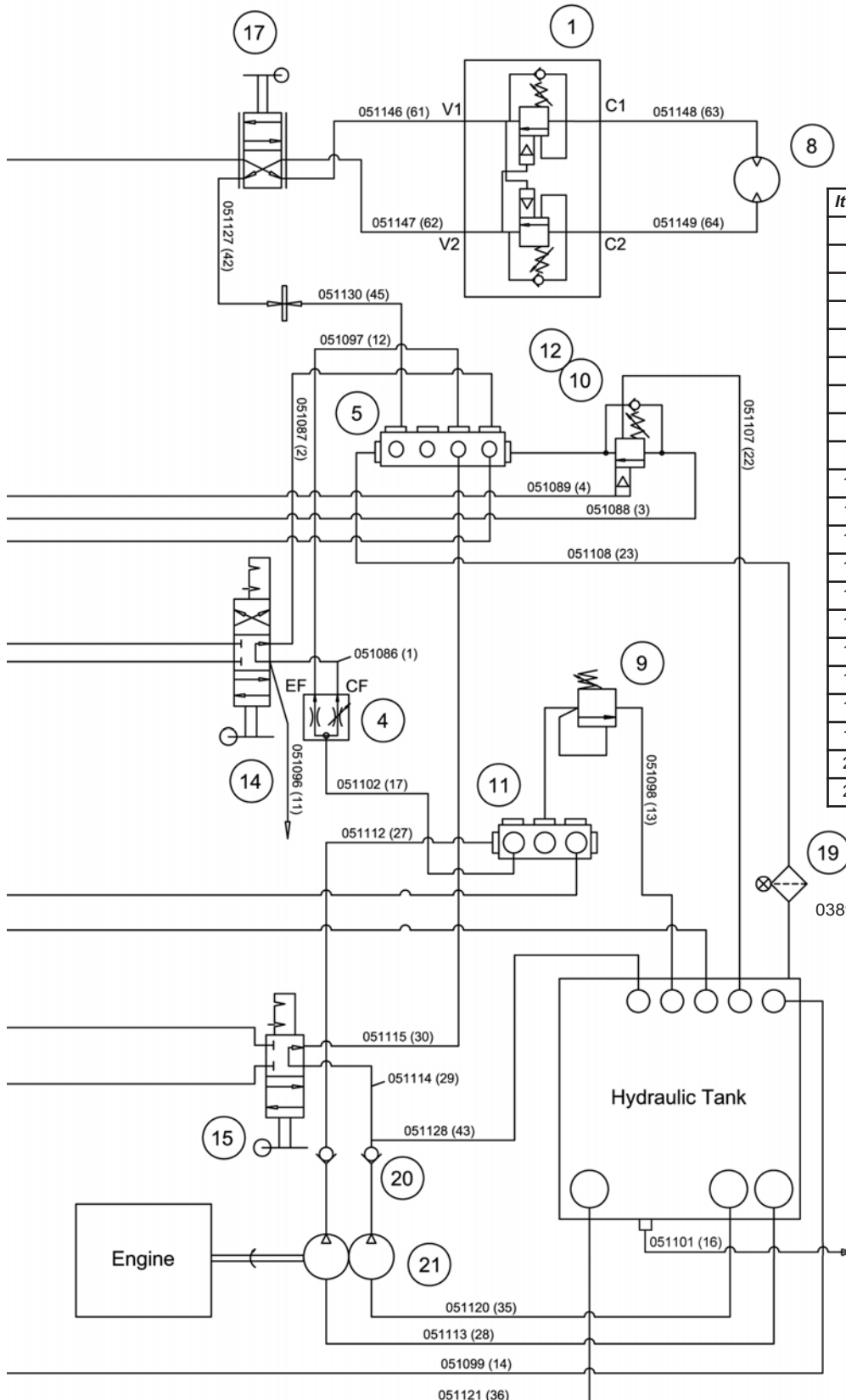
MAINFRAME HYDRAULIC SCHEMATIC

Item	Part #	Description	QTY
1	050452	Travel Holding Valve	1
2	050458	Travel Control Valve	1
3	050458	Machine Travel Speed Valve	1
4	050458	Carriage Speed Valve	1
5	050460	Return Header	1
6	050468	Bogie Motor/Drive End	1
7	050468	Bogie Motor/Idler End	1
8	050469	Carriage Travel Motor	1
9	050473	Relief Valve Carriage	1
10	050477	Counterbalance Valve	1
11	050478	Pressure Header	1
12	050481	Counterbalance Valve Housing	1
13	050485	Machine Travel Valves	2
14	050485	Power Selector Valve	1
15	050485	Water Spray Control Valve	1
16	050486	Water Spray Motor	1
17	050488	Reversing Valve	1
18	029418	Water Spray Pump	1
19	045134	Return Filter	1
20	050686	Pump Check Valves	1
21	050459	Hydraulic Pumps	1



MAINFRAME HYDRAULIC SCHEMATIC (cont'd)

SECTION 4 PARTS

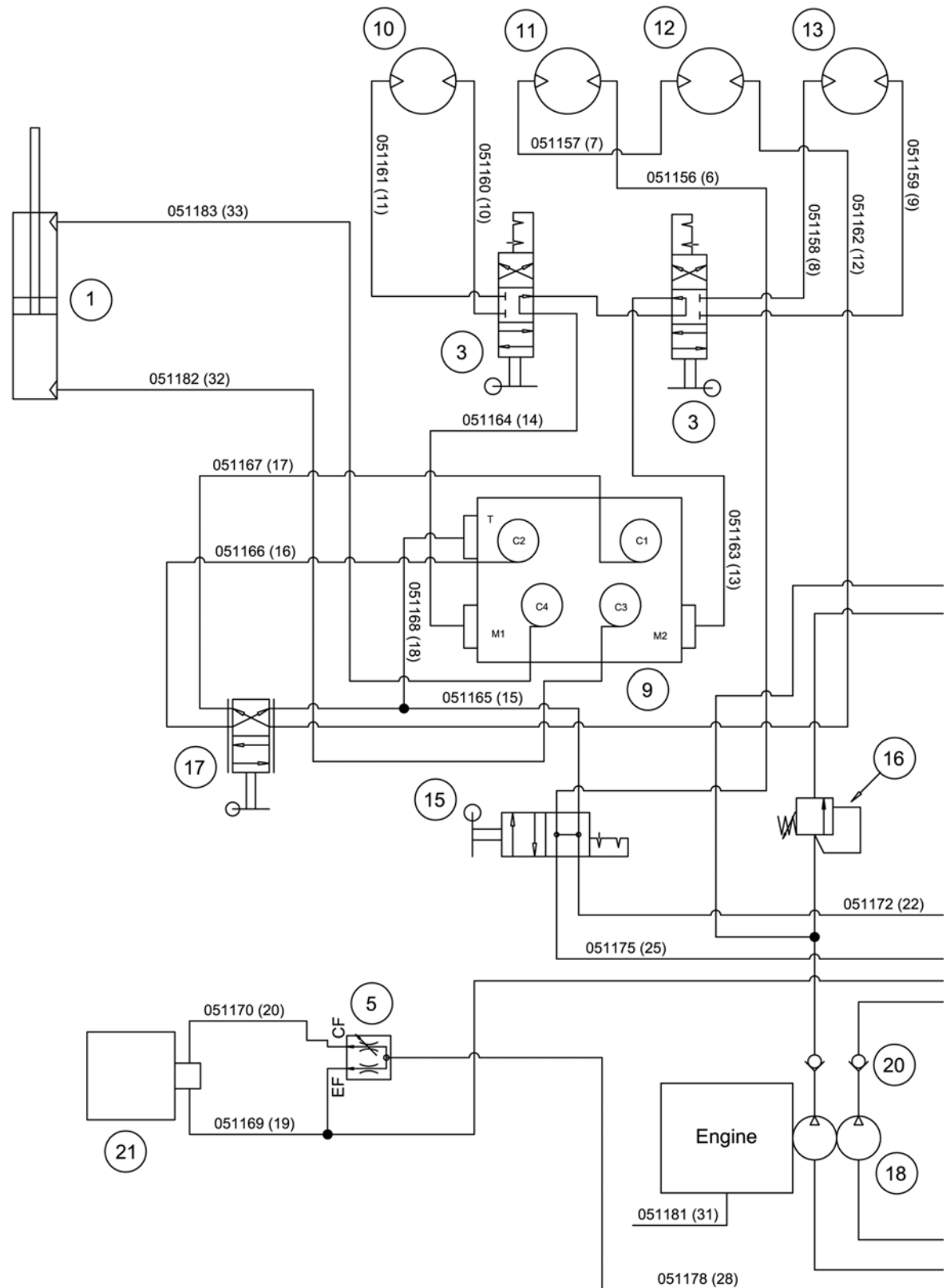


Item	Part #	Description	QTY
1	050452	Travel Holding Valve	1
2	050458	Travel Control Valve	1
3	050458	Machine Travel Speed Valve	1
4	050458	Carriage Speed Valve	1
5	050460	Return Header	1
6	050468	Bogie Motor/Drive End	1
7	050468	Bogie Motor/Idler End	1
8	050469	Carriage Travel Motor	1
9	050473	Relief Valve Carriage	1
10	050477	Counterbalance Valve	1
11	050478	Pressure Header	1
12	050481	Counterbalance Valve Housing	1
13	050485	Machine Travel Valves	2
14	050485	Power Selector Valve	1
15	050485	Water Spray Control Valve	1
16	050486	Water Spray Motor	1
17	050488	Reversing Valve	1
18	029418	Water Spray Pump	1
19	045134	Return Filter	1
20	050686	Pump Check Valves	1
21	050459	Hydraulic Pumps	1

038950 - Filter Element

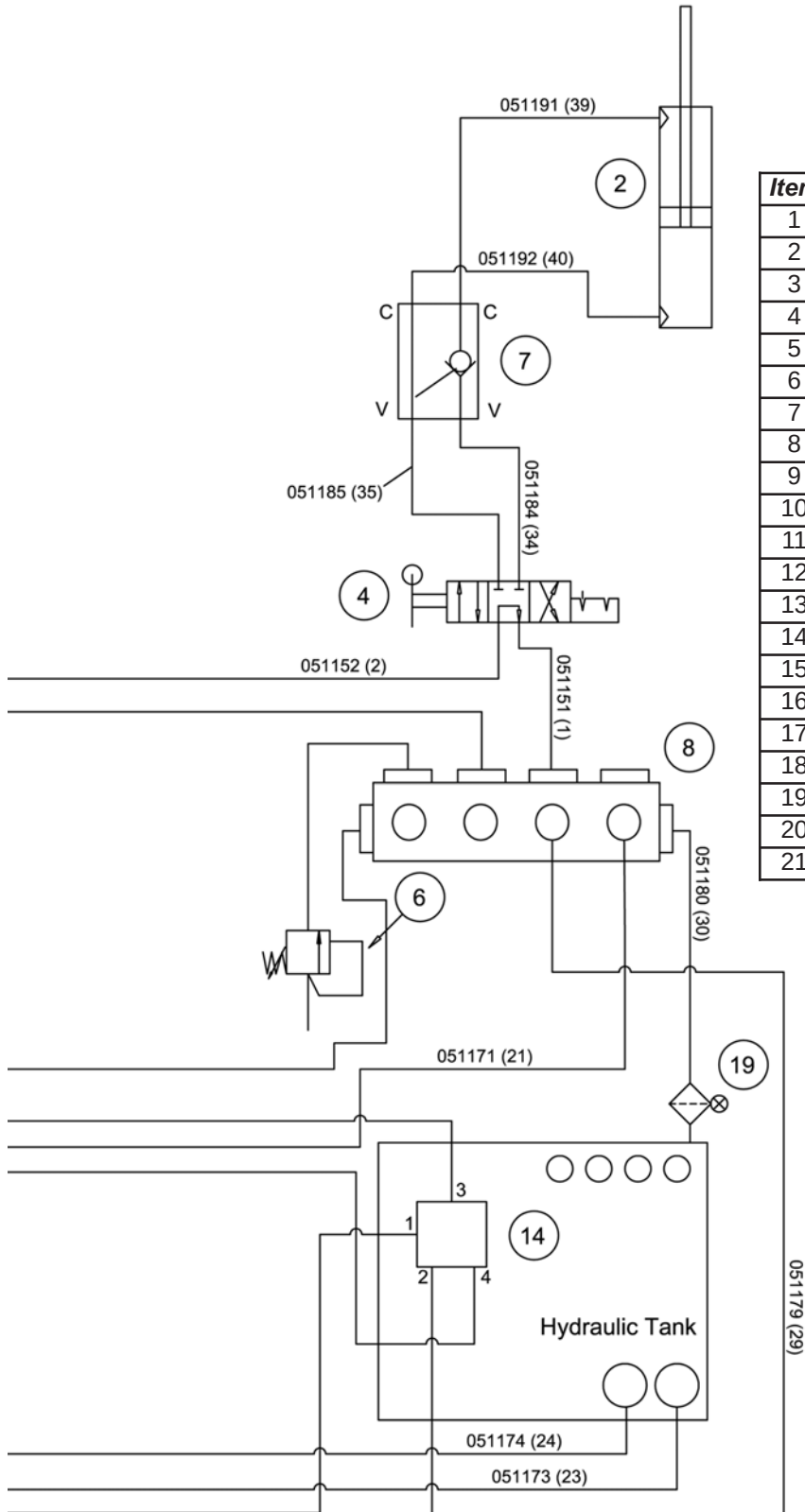
SECTION 4 PARTS

CARRIAGE HYDRAULIC SCHEMATIC



CARRIAGE HYDRAULIC SCHEMATIC (cont'd)

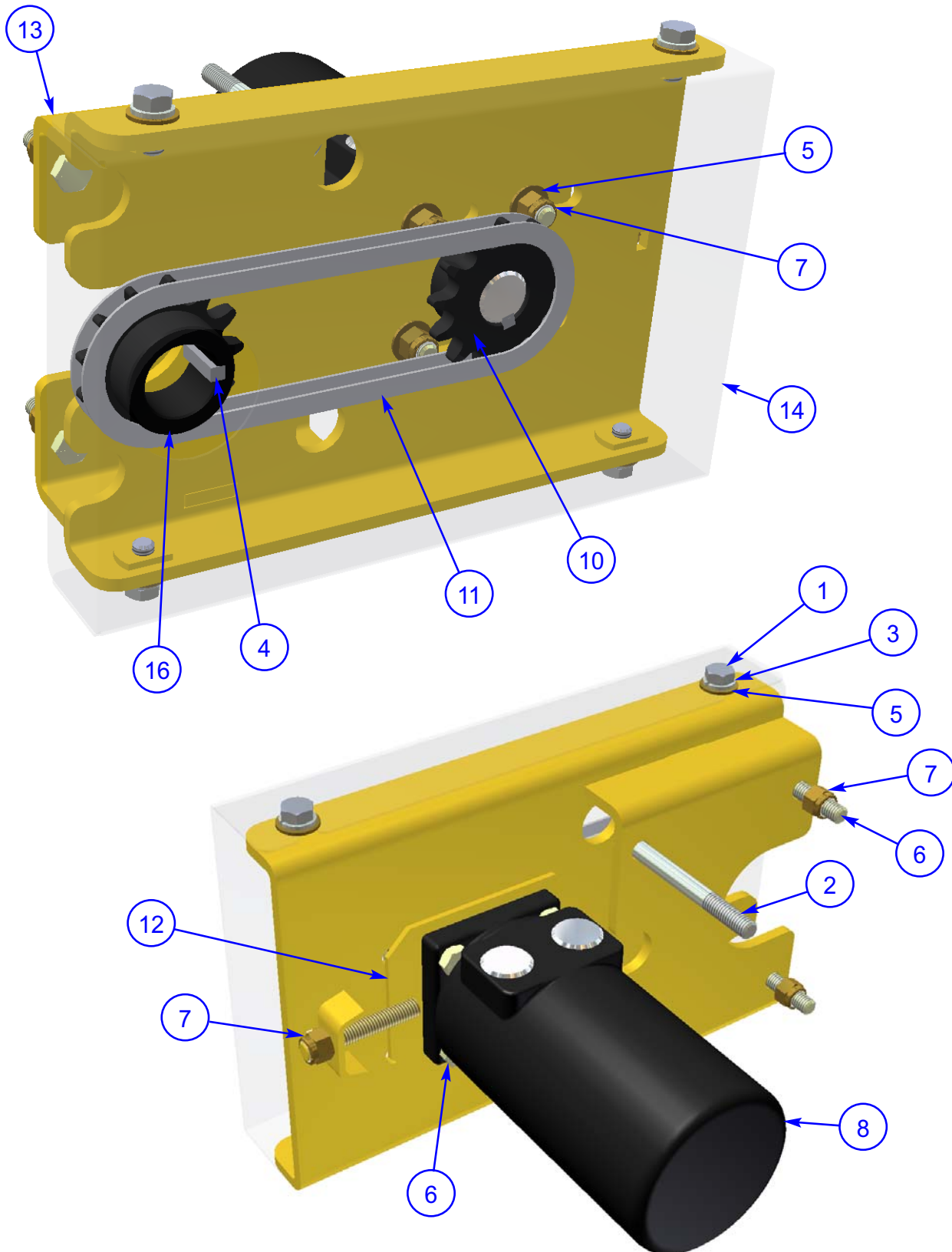
SECTION 4 PARTS



Item	Part #	Description	QTY
1	050303	Skew Cylinder	1
2	050326	Lock Cylinder	1
3	050450	Roller Directional Valves	2
4	050450	Carriage Lift Valve	1
5	050451	Roller Tamper Speed Control	1
6	050453	Roller Tamper Relief Valve	1
7	050455	Lock Valve	1
8	050460	Return Header	1
9	050462	Reversing Manifold	1
10	050464	LH Paver Motor	1
11	050464	LH Auger Motor	1
12	050464	RH Auger Motor	1
13	050464	RH Paver Motor	1
14	050466	Directional Valve	1
15	050467	Carriage On/Off Valve	1
16	050473	Carriage Relief Valve	1
17	050542	Reversing Valve	1
18	050459	Hydraulic Pumps	1
19	045134	Return Filter	1
20	050686	Pump Check Valves	1
21	050418	Roller Tamper Vibrator	1

SECTION 4 PARTS

052559 - POWER CROWN KIT (OPTIONAL)



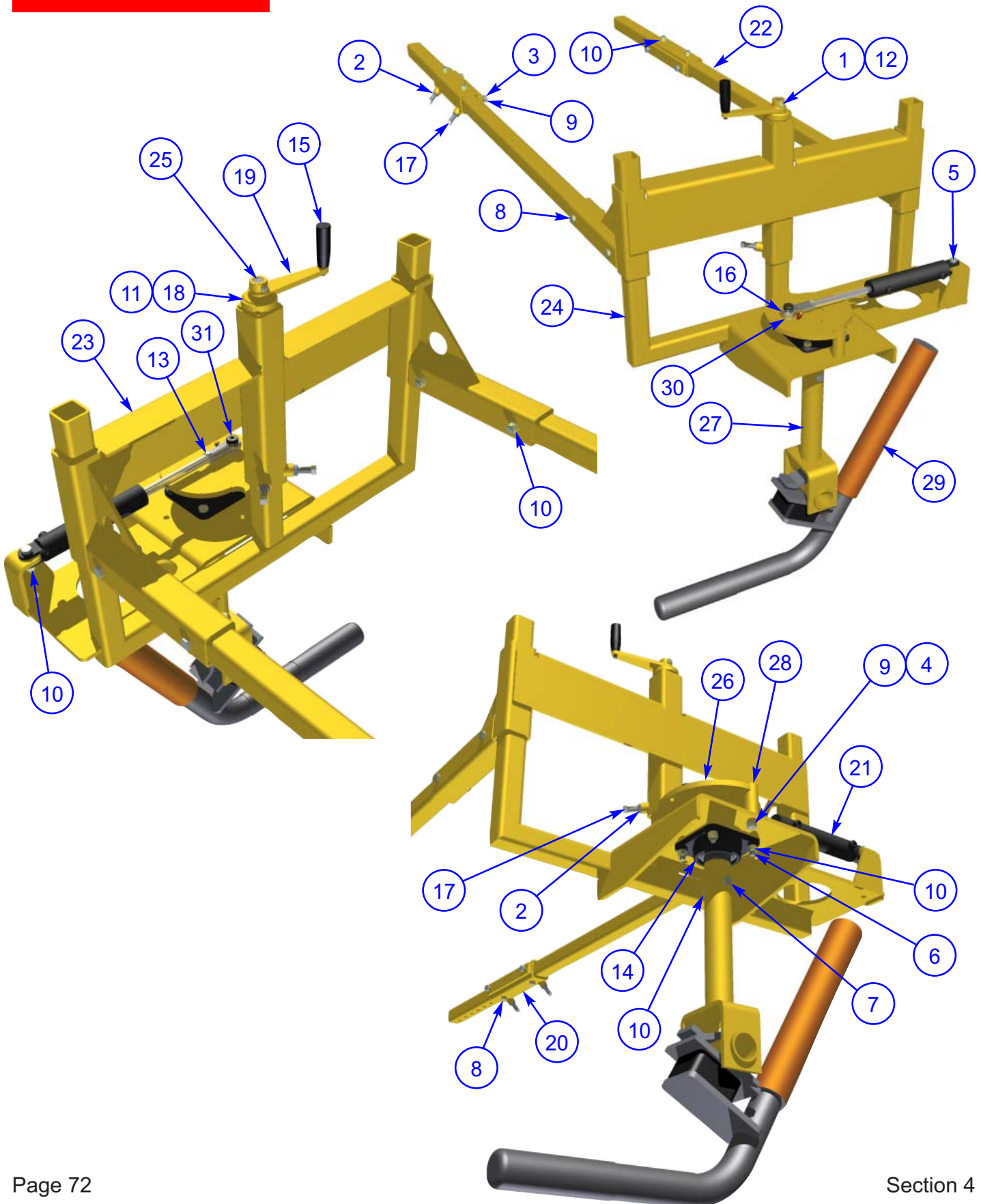
052559 - POWER CROWN KIT (cont'd)**SECTION 4
PARTS**

ITEM	PART NO.	DESCRIPTION	QTY
1	010035	FSTN, HHCS 3/8-16 X 3/4	4
2	010046	FSTN, HHCS 3/8-16 X 3-1/2	2
3	010091	FSTN, LW 3/8	4
4	011791	KEY, 1/4 SQ X 1 LG MACHINE	2
5	017751	FSTN, FW HARD A325 3/8	8
6	028402	FSTN, HHCS 3/8-16 X 1-1/2 GR 8	6
7	040630	FSTN, 3/8-16 GR8 360 LOCKNUT	7
8	050134	DECAL, RAISE LOWER	1
9	050468	MOTOR, HYDRAULIC VICKERS146-1233-002	1
10	052195	SPROCKET, 50BS13HT 1" (MARTIN)	1
11	052271	CHAIN AQUA C2050AQ	2'
12	052300	ADJUSTING PLATE	1
13	052557	MTR MNT WMNT	1
14	052564	CHAIN GUARD	1
15	052747	HYDRAULIC KIT (SEE BELOW)	1
16	052991	SPROCKET, 1-1/4" 50BS13HT	1

POWER CROWNING HYDRAULIC KIT - #052747		
QTY	PART #	DESCRIPTION
2	NV-12-SAE-F	1/2 IN 3/4 - 16 ORB Quick CPLG
2	TF-12-R	1/2 IN Dust Cap
2	TM-12-R	1/2 IN Dust Plug
2	F2700-8-8-LN-O	BulkHead Union Fitting
2	568-908	Non Std1/4 Cross Section Buna N O'Ring
2	F6801-8-10 NWO	90 DEG Straight Thread Elbow Fitting
2	F6400-8-10-O	Straight Thread Connector Fitting
3	F6400-8-8-O	Straight Thread Connector Fitting
2	NV-12-SAE-M	1/2 IN 3/4 - 16ORB Push Pull DISC CPLG
1	A0-100-T-4-L-S	Hydraulic Valve
1	F6804-8-8-8 NWO	Straight Thread Run Tee Fitting
1	SP.1676	SOL. Valve Assembly

SECTION 4 PARTS

052960 - CARRIAGE VIBRATOR KIT (OPTIONAL)



052960 - CARRIAGE VIBRATOR KIT (OPTIONAL) cont'd

SECTION 4 PARTS

ITEM	PART #	DESCRIPTION	QTY
1	010005	FSTN, HHCS 1/4-20 X 1-1/2 GR 8	1
2	010050	FSTN, NUT HEX JAM 1/2-13	6
3	010066	FSTN, HHCS 1/2-13 X 3/4 GR 5	4
4	010067	FSTN, HHCS 1/2-13 X 1	1
5	010071	FSTN, HHCS 1/2-13 X 2-1/4 GR 5	1
6	010072	FSTN, HHCS 1/2-13 X 2-1/4 GR 5	4
7	010075	FSTN, HHCS 1/2-13 X 3 GR 5	1
8	010076	FSTN, HHCS 1/2-13 X 3 GR 5	8
9	010093	FSTN, LW 1/2	5
10	011238	FSTN, NUT HEX NYLOK 1/2-13	14
11	015742	THRUST BEARING	1
12	020542	FSTN, NUT STOVER LOCK 1/4-20	1
13	020688	FSTN, JAM HEX NUT 5/8-18	1
14	029223	BEARING, 1 3/4" 4 BOLT FLANGE	2
15	032115	KNOB,PITCH CONTROL HANDLE (RT)	1
16	043125	1/2" FEMALE ROD END	1
17	050233	FSTN, SQSS (SQ. HEAD SET SCREW) 1/2-13 X 2" LONG	6
18	050891	BEARING COVER, DRAG PAN JACK	1
19	050899	JACK HANDLE WELDMENT, FOR DRAG PAN JACK ASSEM	1
20	050923	RECIEVER TUBE WELDMENT DRAG PAN	2
21	051382	CYLINDER, F/ SAW HEAD ASSEMBLY	1
22	052961	TUBE, HORIZONTAL FOR CARRIAGE VIBRATOR OPTION	2
23	052962	FEMALE JACK ASSEMBLY WELDMENT, CARRIAGE VIBRATOR OPTION	1
24	052963	MALE JACK ASSEMBLY WELDMENT, CARRIAGE VIBRATOR OPTION	1
25	052964	SHAFT, WELDMENT FOR CARRIAGE VIBRATOR JACK	1
26	052966	TOP PIVOT ASSEMBLY WELDMENT CARRIAGE VIBRATOR OPTION	1
27	052967	BOTTOM PIVOT ASSEMBLY WELDMENT CARRIAGE VIBRATOR OPTION	1
28	052968	STOP BAR, FOR CARRIAGE VIBRATOR OPTION	1
29	052969	VIBRATOR HV-2P (CARRIAGE VIBRATOR OPTION)	1
30	052988	SPACER, FOR CARRIAGE VIB OPTION	1
31	052989	FSTN, SHLD BOLT 5/8" X 1" LONG	1

SECTION 4 PARTS

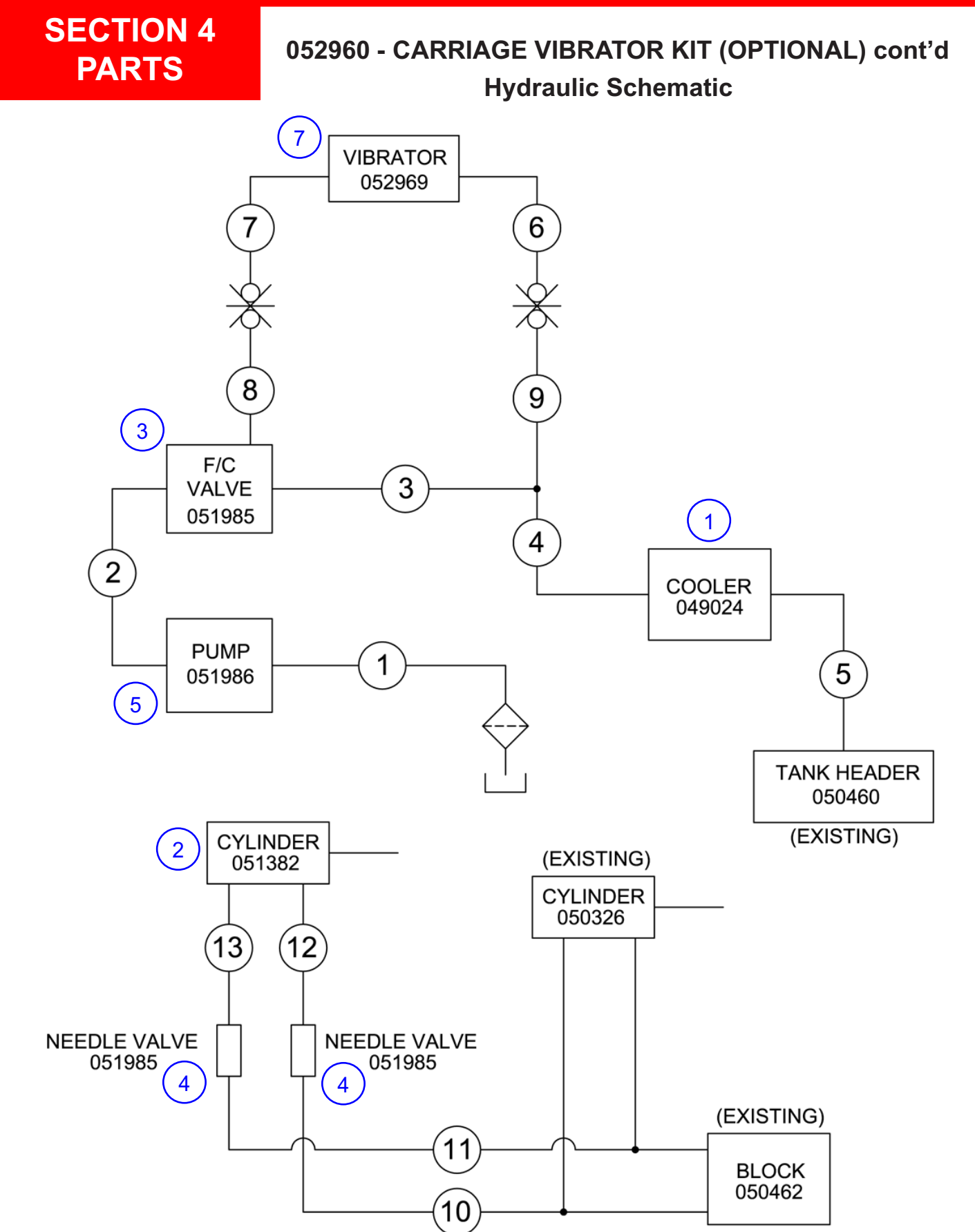
052960 - CARRIAGE VIBRATOR KIT (OPTIONAL) cont'd

Hydraulic Schematic

SECTION 4 PARTS

052960 - CARRIAGE VIBRATOR KIT (OPTIONAL) cont'd

Hydraulic Schematic



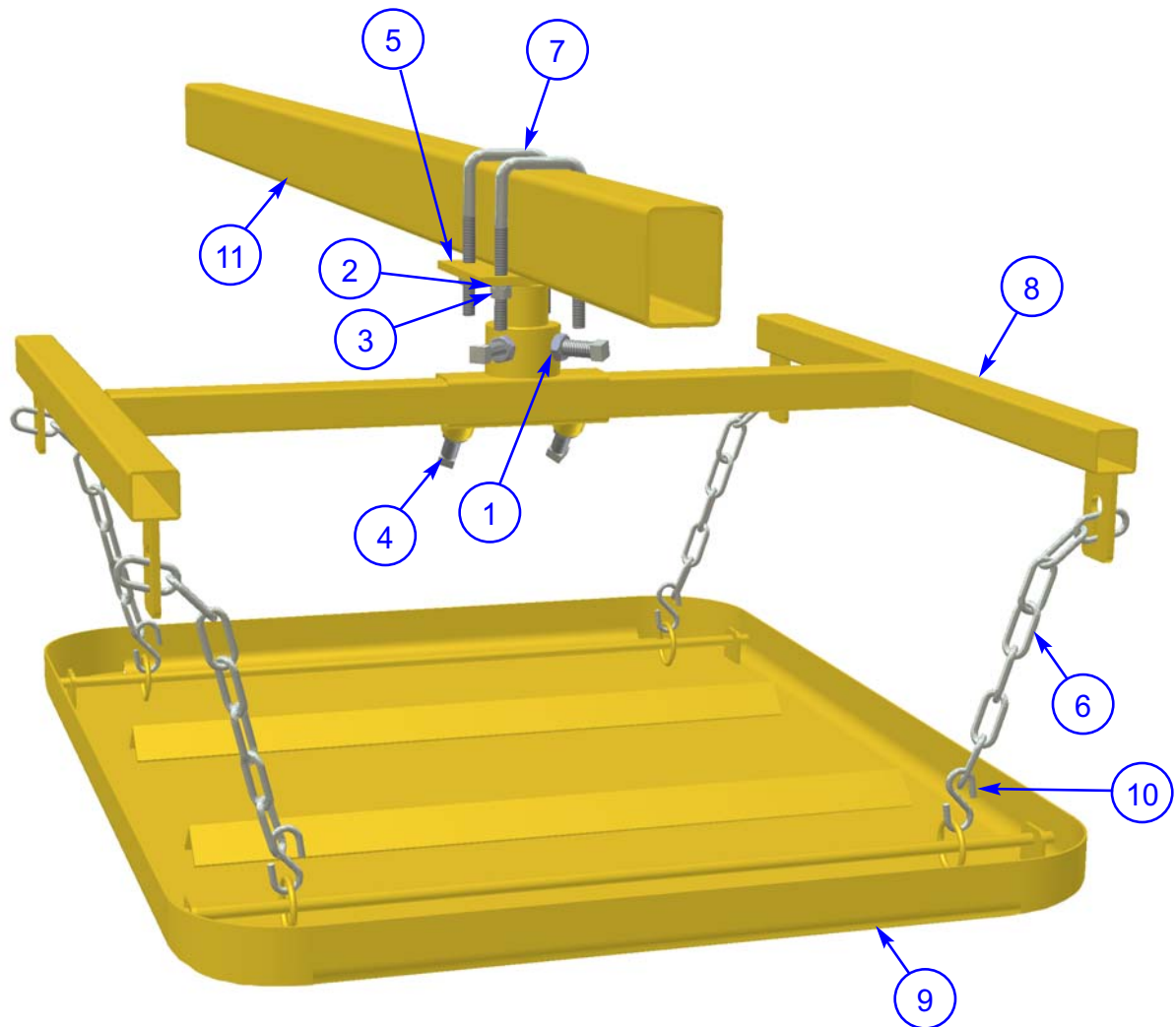
Hydraulic Components

ITEM	PART #	DESCRIPTION	QTY
1	049024	EXCHANGER, 12 VDC AIR-OIL HEAT	1
2	051382	CYLINDER, F/ SAW HEAD ASSEMBLY	1
3	051984	VALVE, FLOW CONTROL W/ RELIEF	1
4	051985	VALVE, FLOW CONTROL (NDRV-8-N)	2
5	051986	PUMP, TRIPLE F/ VIBRATOR OPTION BDF	1
6	052992	KIT, FITTING F/ VIBRATOR OPTION BDF	1
7	052969	VIBRATOR HV-2P (CARRIAGE VIBRATOR OPTION)	1

ITEM	PART #	DESCRIPTION	QTY
1	051213	HOSE, VIB001	1
2	051214	HOSE, VIB002	1
3	051215	HOSE, VIB003	1
4	051216	HOSE, VIB004	1
5	051218	HOSE, VIB005	1
6	051219	HOSE, VIB006	1
7	051220	HOSE, VIB007	1
8	051306	HOSE, VIB008	1
9	051307	HOSE, VIB009	1
10	051308	HOSE, VIB010	1
11	051309	HOSE, VIB011	1
12	051310	HOSE, VIB012	1
13	051313	HOSE, VIB013	1

SECTION 4 PARTS

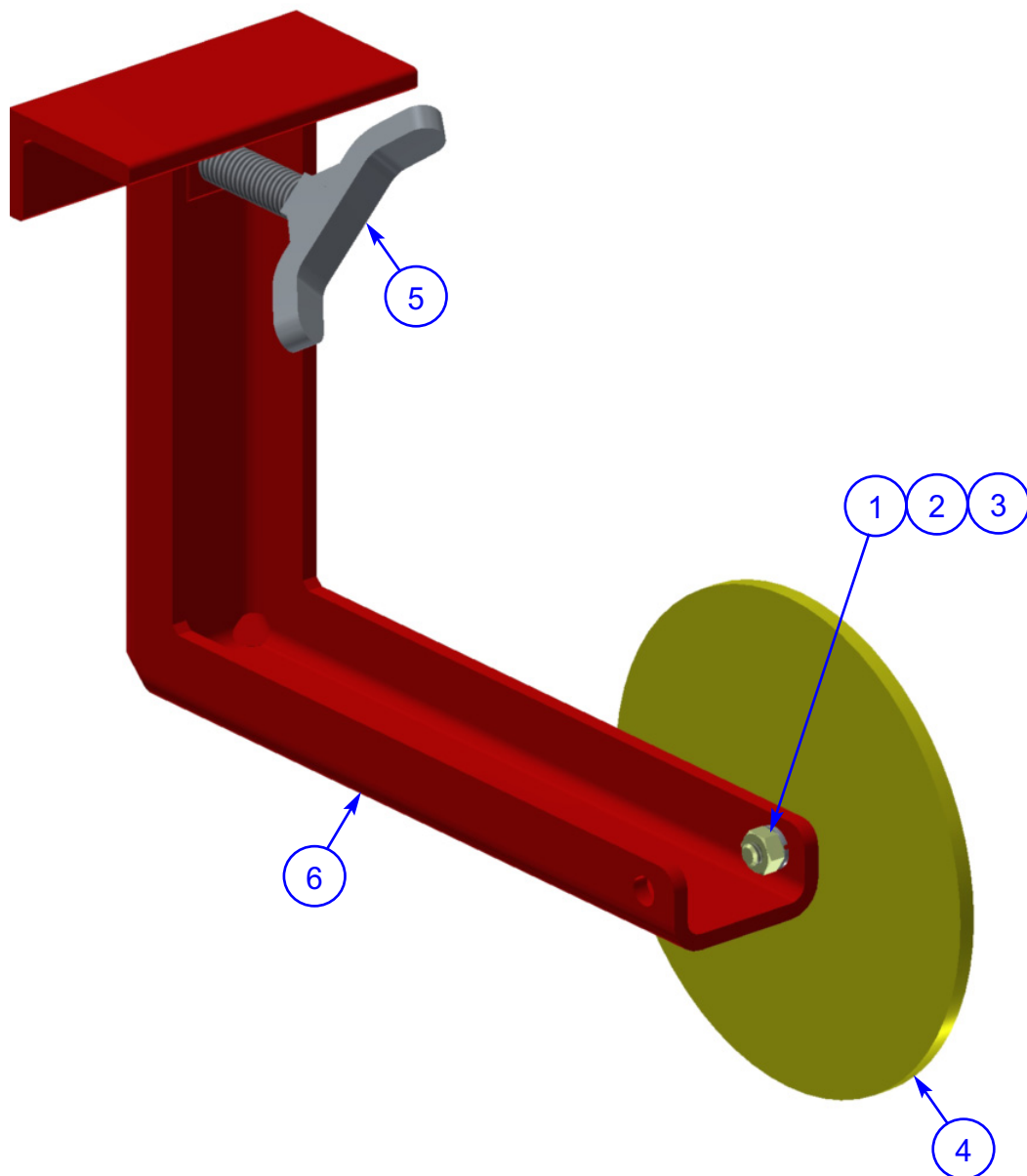
051994 - DUAL DRAG PAN ASSEMBLY (OPTIONAL)



ITEM	PART NO.	DESCRIPTION	QTY
1	010050	FSTN, NUT HEX JAM 1/2-13	4
2	010091	FSTN, LW 3/8	4
3	010102	NUT, 3/8-16 HEX	4
4	050233	FSTN, SQSS (SQ. HEAD SET SCREW) 1/2-13 X 2" LONG	4
5	050498	DRAG PAN RET. BRACKET	1
6	050682	CHAIN, CUT TO 20" LONG	2
7	050885	U BOLT SQUARE 2" WIDE	2
8	050910	HANGER, DRAG PAN	1
9	050937	DRAG PAN WELDMENT	1
10	050943	S HOOK #117 3/16" DIA.	4
11	051995	DUAL DRAG PAN TUBE, BRIDGE DECK	1

SECTION 4 PARTS

052333 - TARGET ASSEMBLY

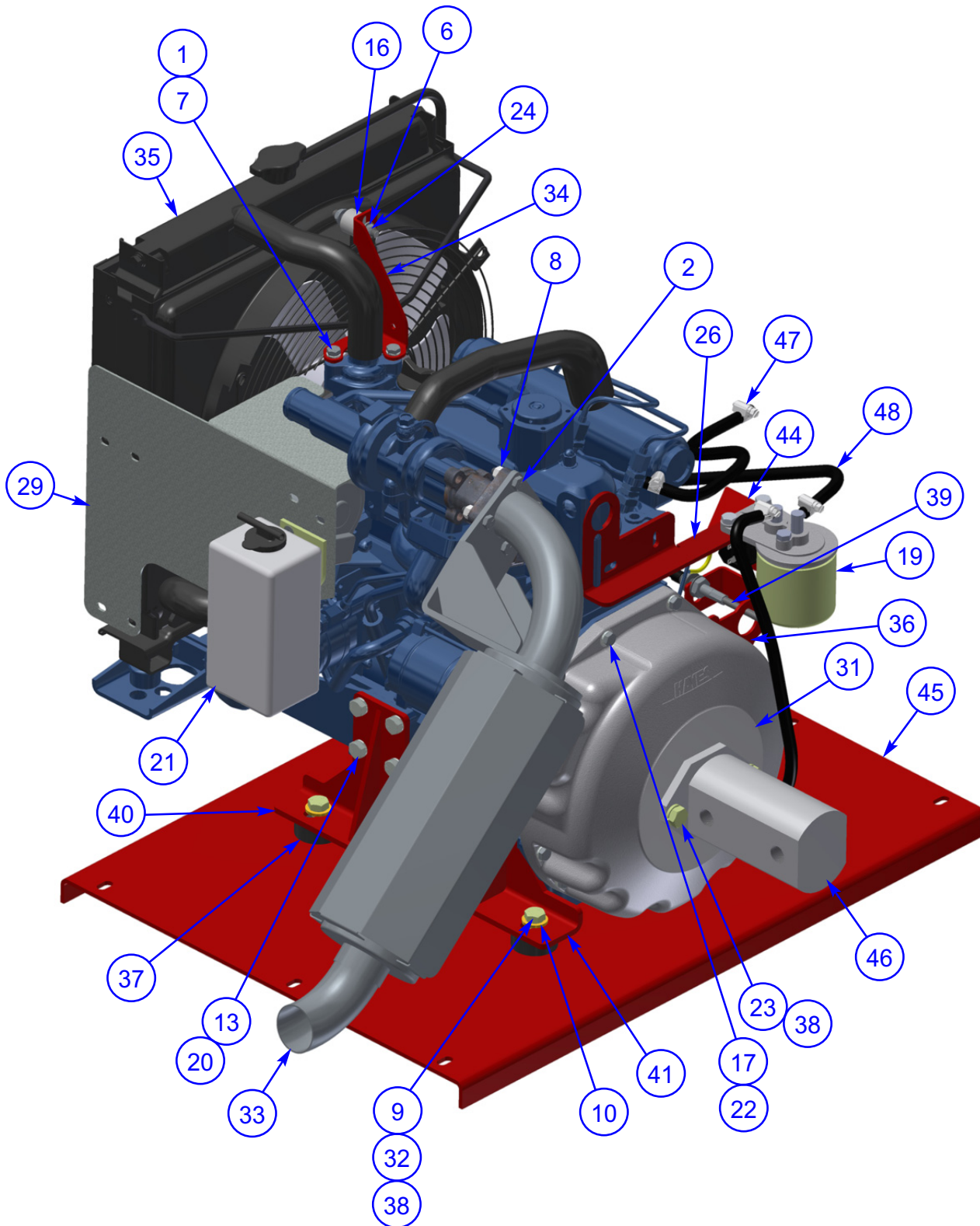


052333 - TARGET ASSEMBLY cont'd**SECTION 4
PARTS**

ITEM	PART NO.	DESCRIPTION	QTY
1	010002	FSTN, HHCS 1/4-20 X 3/4	1
2	010089	FSTN, LW 1/4	1
3	010098	FSTN, NUT HEX 1/4-20	1
4	052317	PLATE, TARGET BDF	1
5	052320	WELD'T, SET SCREW TARGET	1
6	052332	WELDMNT, TARGET PLATE BRKT	1

SECTION 4 PARTS

KUBOTA ENGINE OPTION - 058988 (Mainframe)



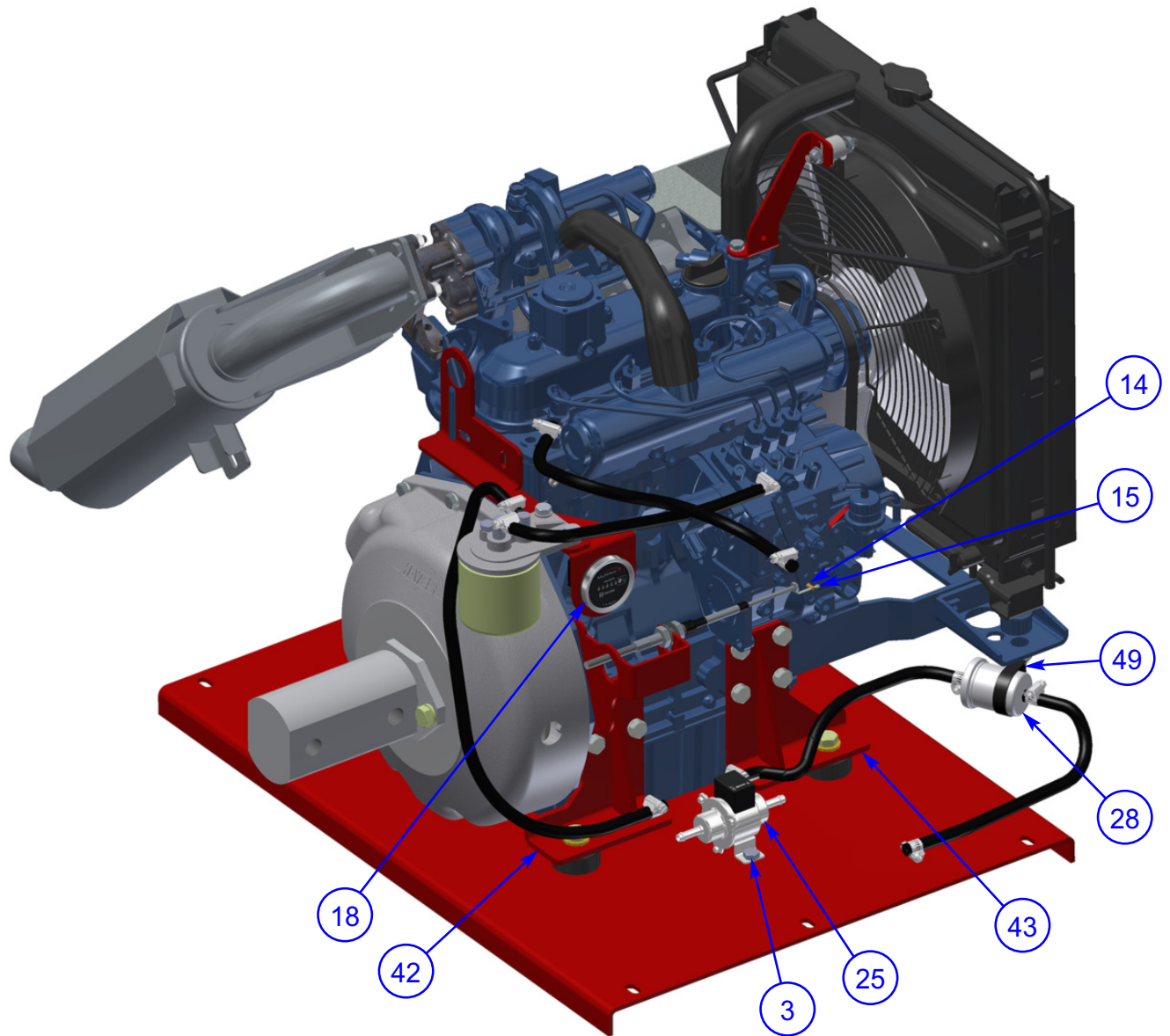
KUBOTA ENGINE OPTION - 058988 (cont'd) Mainframe

SECTION 4 PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	010019	FSTN, HHCS 5/16-18 X 3/4 GR 5	2
2	010021	FSTN, HHCS 5/16-18 X 1-1/4 GR5	4
3	010035	FSTN, HHCS 3/8-16 X 3/4	2
4	010036	FSTN, HHCS 3/8-16 X 1	2
5	010081	FSTN, FW 1/4	2
6	010082	FSTN, FW 5/16	2
7	010090	FSTN, LW 5/16	6
8	010100	FSTN, NUT HEX 5/16-18	4
9	011489	BOLT, 1/2-20x 3-1/2 GR 8 HHC	4
10	011490	FSTN, FW HARDENED 1/2	4
11	020514	FSTN, NUT STOVER LOCK 3/8-16	4
12	020542	FSTN, NUT STOVER LOCK 1/4-20	2
13	021072	FSTN, LW 10MM	16
14	024984	PIVOT, THROTTLE CABLE	1
15	026226	PIN, Ø3/32 X 3/4 ZP STL COTTER	1
16	028556	ISOLATOR, 25MM X 20MM "A" BUFFER	1
17	029032	DIN 127 - M8	8
18	029824	HOURLMETER, Ø2 OPERATING TIME	1
19	037777	ASSY, FUEL FILTER	1
20	037778	SCR, 10MMx1.25x30 HHC	16
21	037791	OVERFLOW TANK WITH BRACKET	1
22	037820	8MM x 1.25 x 30MM HHCS	8
23	038508	FSTN, HHCS 1/2-13 X 1 1/4 GR 8	2
24	040004	FSTN, 5/16-18 GR-C STOVER HEX NUT	2
25	040330	PUMP, 12 V ELECTRONIC FUEL	1
26	041586	BRACKET, FUEL FILTER KUBOTA ENGINE	1
27	043265	BOLT, FLAT HD, ALLEN, 1/4-20	2
28	043920	FILTER, IN-LINE DIESEL	1
29	046394	COVER, ALTERNATOR	1
30	046441	COVER, FUEL PUMP	1
31	046688	HOUSING, HS530A 952057 COUPLING	1
32	046843	NUT, 1/2-20 Y-ZINC GR 8 HEX	4
33	048639	MUFFLER, X1	1
34	049028	BRACKET, RAD SUPPORT MSP460	1
35	049859	ENGINE, KUBOTA D1105-T-E3B	1
36	051044	BRACKET, THROTTLE 1105T KUBOTA GANG VIBRATION	1
37	052595	MOUNT, DAMPING F/ DH1105B-1 ENGINE	4
38	055039	FSTN, LW 1/2 GR8 YELLOW ZINC	6
39	057228	THROTTLE CABLE, 155" LONG	1
40	057610	WELDMNT, RH FRONT ENGINE MOUNT RS800	1
41	057611	WELDMNT, LH REAR ENGINE MOUNT RS800	1
42	057612	WELDMNT,RH REAR ENGINE RS800	1
43	057613	WELDMNT, RH REAR ENGINE MOUNT	1
44	057861	BRACKET, HOUR METER MOUNT FOR RS800 SERIES	1
45	058987	ENGINE PLATE, KUBOTA 32 HP FOR BRIDGE DECK POWER UNIT	1
46	059706	PUMP TANEM, BRIDGE DECK	1
47	019430	FSTN, CLAMP SIZE 4 MINI HOSE	10
48	019429	HOSE, 5/16" FUEL LINE	8'
49	040389	CLIP, 1 3/4" WIRE LOOM	1

SECTION 4 PARTS

KUBOTA ENGINE OPTION - 058988 (cont'd)



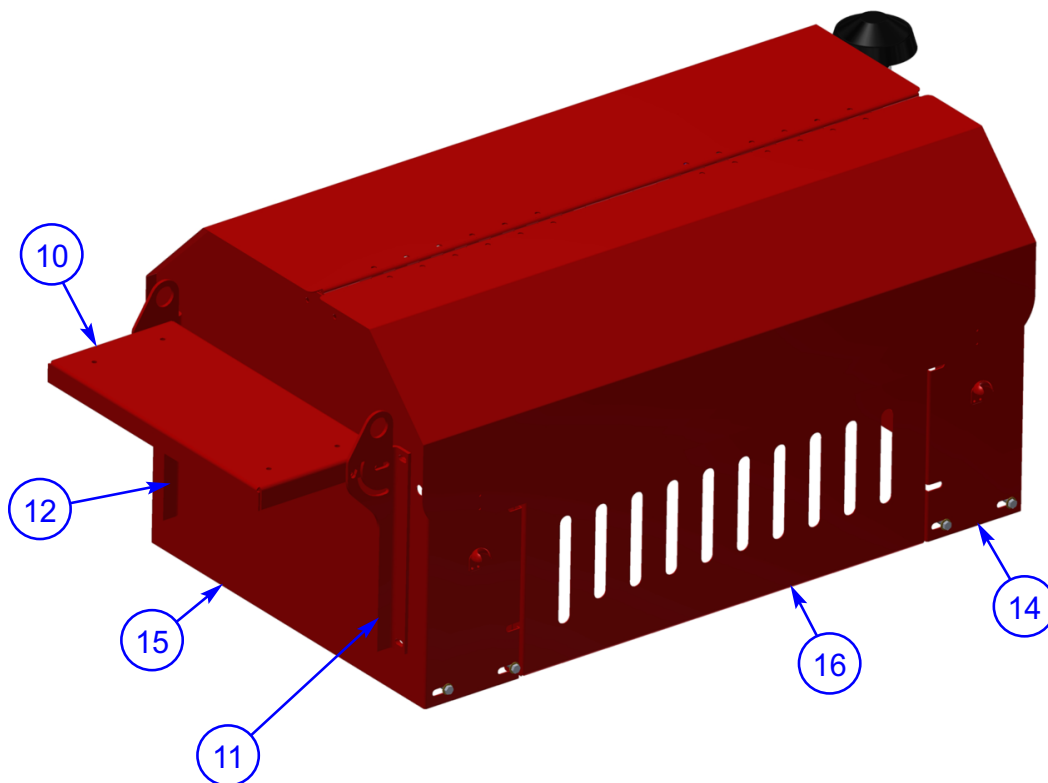
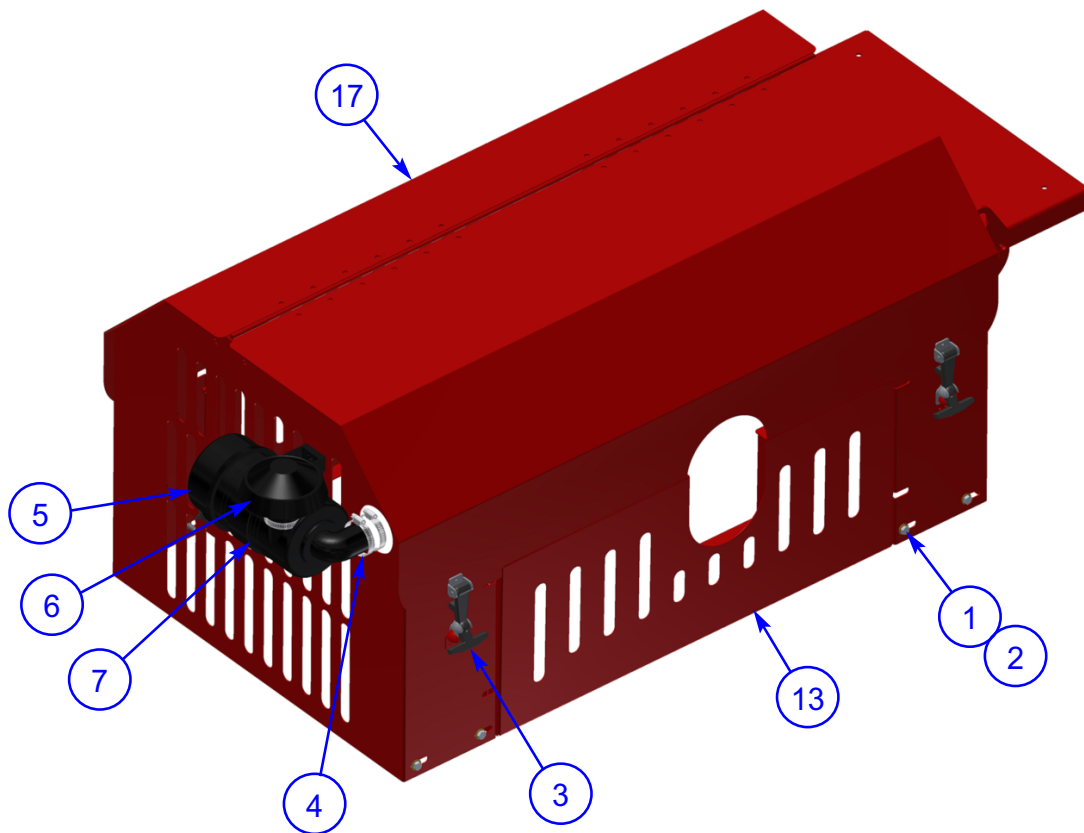
KUBOTA ENGINE OPTION - 058988 (cont'd)

SECTION 4 PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	010019	FSTN, HHCS 5/16-18 X 3/4 GR 5	2
2	010021	FSTN, HHCS 5/16-18 X 1-1/4 GR5	4
3	010035	FSTN, HHCS 3/8-16 X 3/4	2
4	010036	FSTN, HHCS 3/8-16 X 1	2
5	010081	FSTN, FW 1/4	2
6	010082	FSTN, FW 5/16	2
7	010090	FSTN, LW 5/16	6
8	010100	FSTN, NUT HEX 5/16-18	4
9	011489	BOLT, 1/2-20x 3-1/2 GR 8 HHC	4
10	011490	FSTN, FW HARDENED 1/2	4
11	020514	FSTN, NUT STOVER LOCK 3/8-16	4
12	020542	FSTN, NUT STOVER LOCK 1/4-20	2
13	021072	FSTN, LW 10MM	16
14	024984	PIVOT, THROTTLE CABLE	1
15	026226	PIN, Ø3/32 X 3/4 ZP STL COTTER	1
16	028556	ISOLATOR, 25MM X 20MM "A" BUFFER	1
17	029032	DIN 127 - M8	8
18	029824	HOURLMETER, Ø2 OPERATING TIME	1
19	037777	ASSY, FUEL FILTER	1
20	037778	SCR, 10MMx1.25x30 HHC	16
21	037791	OVERFLOW TANK WITH BRACKET	1
22	037820	8MM x 1.25 x 30MM HHCS	8
23	038508	FSTN, HHCS 1/2-13 X 1 1/4 GR 8	2
24	040004	FSTN, 5/16-18 GR-C STOVER HEX NUT	2
25	040330	PUMP, 12 V ELECTRONIC FUEL	1
26	041586	BRACKET, FUEL FILTER KUBOTA ENGINE	1
27	043265	BOLT, FLAT HD, ALLEN, 1/4-20	2
28	043920	FILTER, IN-LINE DIESEL	1
29	046394	COVER, ALTERNATOR	1
30	046441	COVER, FUEL PUMP	1
31	046688	HOUSING, HS530A 952057 COUPLING	1
32	046843	NUT, 1/2-20 Y-ZINC GR 8 HEX	4
33	048639	MUFFLER, X1	1
34	049028	BRACKET, RAD SUPPORT MSP460	1
35	049859	ENGINE, KUBOTA D1105-T-E3B	1
36	051044	BRACKET, THROTTLE 1105T KUBOTA GANG VIBRATION	1
37	052595	MOUNT, DAMPING F/ DH1105B-1 ENGINE	4
38	055039	FSTN, LW 1/2 GR8 YELLOW ZINC	6
39	057228	THROTTLE CABLE, 155" LONG	1
40	057610	WELDMENT, RH FRONT ENGINE MOUNT RS800	1
41	057611	WELDMENT, LH REAR ENGINE MOUNT RS800	1
42	057612	WELDMENT,RH REAR ENGINE RS800	1
43	057613	WELDMENT, RH REAR ENGINE MOUNT	1
44	057861	BRACKET, HOUR METER MOUNT FOR RS800 SERIES	1
45	058987	ENGINE PLATE, KUBOTA 32 HP FOR BRIDGE DECK POWER UNIT	1
46	059706	PUMP TANEM, BRIDGE DECK	1
47	019430	FSTN, CLAMP SIZE 4 MINI HOSE	10
48	019429	HOSE, 5/16" FUEL LINE	8'
49	040389	CLIP, 1 3/4" WIRE LOOM	1

SECTION 4 PARTS

KUBOTA ENGINE CABINET

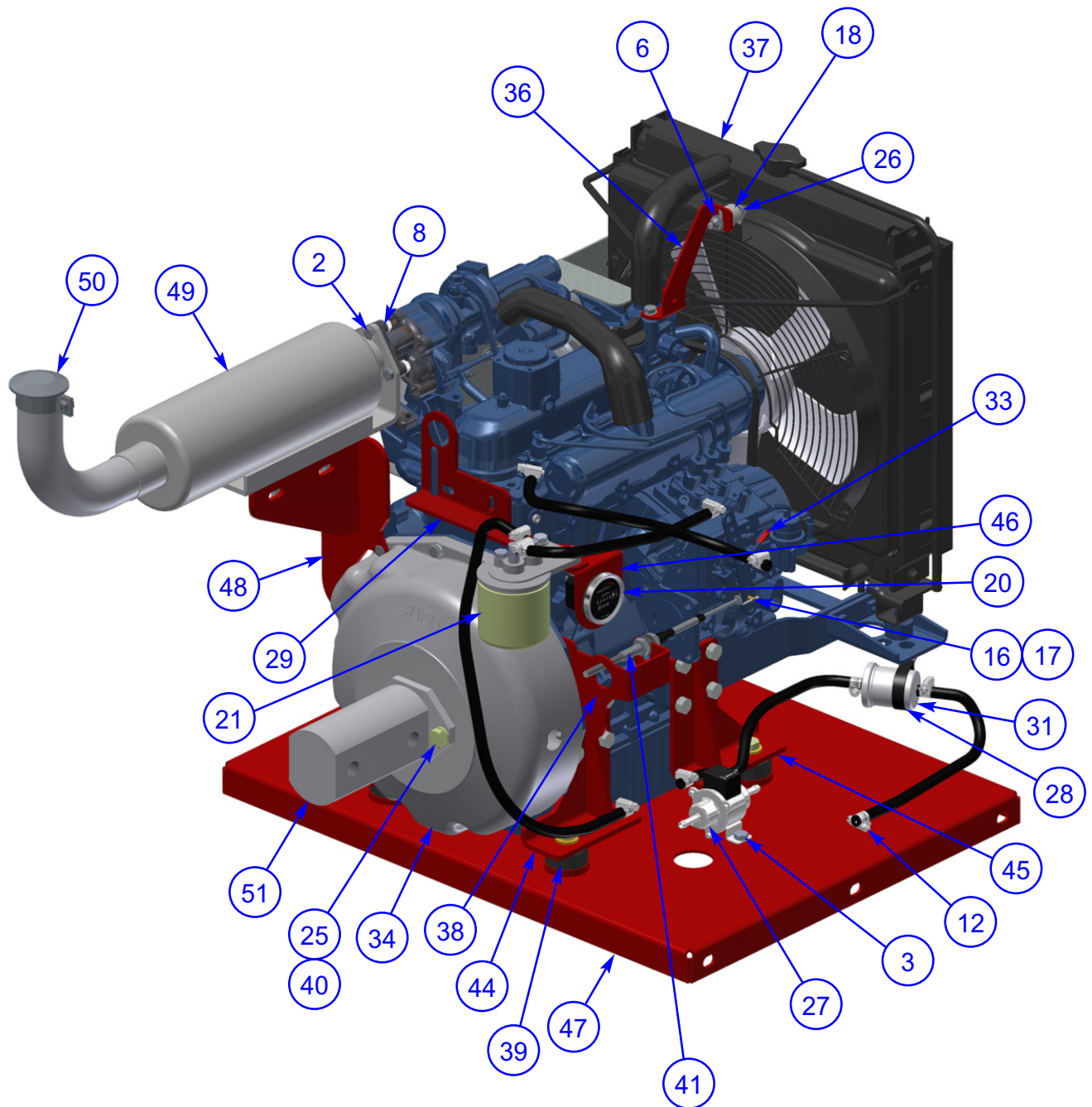


KUBOTA ENGINE CABINET (cont'd)**SECTION 4
PARTS**

ITEM	PART NO.	DESCRIPTION	QTY
1	010036	FSTN, HHCS 3/8-16 X 1	8
2	017751	FSTN, FW HARD A325 3/8 (p)	8
3	042260	LATCH, T-HANDLE EXTRA-LARGE DRAW	2
4	048352	CLAMP, #20 HOSE	3
5	048673	BREATHER, 90° ELBOW X1	1
6	048674	HOOD, INLET (STYLE E) X1	1
7	048675	BAND, POLYMER MOUNTING X1	1
8	048728	TUBE, ELBOW/HUMP CONNECTION X1 (NOT SHOWN)	1
9	048797	ELBOW, SAMCO MODIFIED F/ HDX600 (NOT SHOWN)	1
10	050552	SEAT PLATE WELDMNT	1
11	050580	SEAT MNT BRKT RH	1
12	050602	SEAT MNT BRKT LH	1
13	058990	LOWER RH ENGINE SIDE PANEL WELDMNT FOR DIESEL ENGINE OPTION	1
14	058993	REAR HOOD MNT WELDMNT FOR DIESEL OPTION POWER UNIT	1
15	058994	ASSY, ENGINE ENCLOSURE HYD TANK SIDE DIESEL OPTION	1
16	058996	LOWER LH ENGINE SIDE PANEL WELDMNT DIESEL POWER UNIT OPTION	1
17	058998	ENGINE COVER WELDMNT POWER UNIT FOR DIESEL ENGINE OPTION	1
18	??????	PIPE, INLET F/ B53 KUBOTA BREATHER (NOT SHOWN)	1

SECTION 4 PARTS

KUBOTA ENGINE OPTION - 059565 (Carriage)



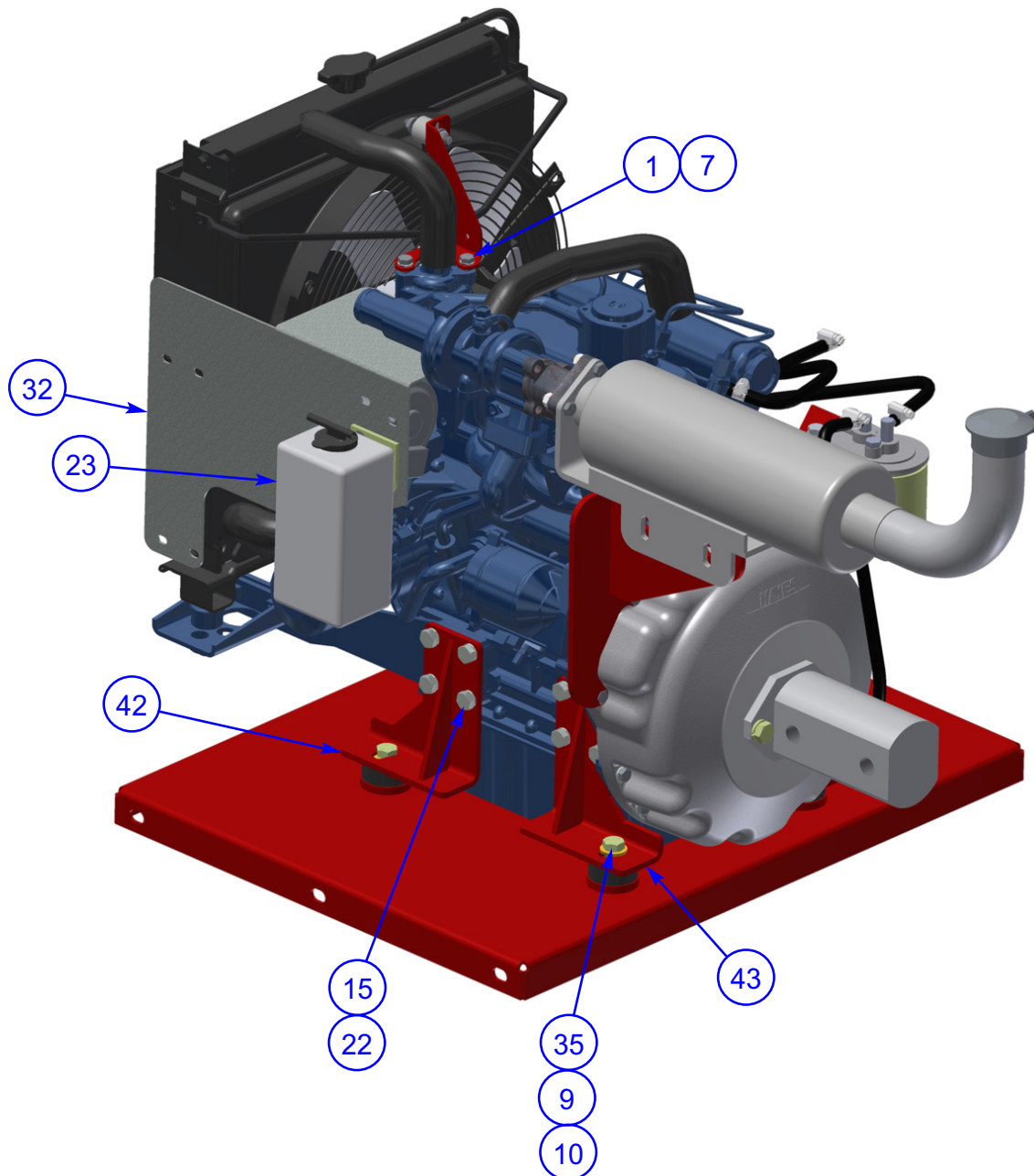
KUBOTA ENGINE OPTION - 059565 (cont'd) Carriage

SECTION 4 PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	010019	FSTN, HHCS 5/16-18 X 3/4 GR 5	2
2	010021	FSTN, HHCS 5/16-18 X 1-1/4 GR5	4
3	010035	FSTN, HHCS 3/8-16 X 3/4	2
4	010036	FSTN, HHCS 3/8-16 X 1	2
5	010081	FSTN, FW 1/4	2
6	010082	FSTN, FW 5/16	2
7	010090	FSTN, LW 5/16	6
8	010100	FSTN, NUT HEX 5/16-18	4
9	011489	BOLT, 1/2-20x 3-1/2 GR 8 HHC	4
10	011490	FSTN, FW HARDENED 1/2	4
11	019429	HOSE, 5/16" FUEL LINE	1
12	019430	FSTN, CLAMP SIZE 4 MINI HOSE	10
13	020514	FSTN, NUT STOVER LOCK 3/8-16	4
14	020542	FSTN, NUT STOVER LOCK 1/4-20	2
15	021072	FSTN, LW 10MM	16
16	024984	PIVOT, THROTTLE CABLE	1
17	026226	PIN, Ø3/32 X 3/4 ZP STL COTTER	1
18	028556	ISOLATOR, 25MM X 20MM "A" BUFFER	1
19	029032	DIN 127 - M8	8
20	029824	HOURLMETER, Ø2 OPERATING TIME	1
21	037777	ASSY, FUEL FILTER	1
22	037778	SCR, 10MMx1.25x30 HHC	16
23	037791	OVERFLOW TANK WITH BRACKET	1
24	037820	8MM x 1.25 x 30MM HHCS	8
25	038508	FSTN, HHCS 1/2-13 X 1 1/4 GR 8	2
26	040004	FSTN, 5/16-18 GR-C STOVER HEX NUT	2
27	040330	PUMP, 12 V ELECTRONIC FUEL	1
28	040389	CLIP, 1 3/4" WIRE LOOM	1
29	041586	BRACKET, FUEL FILTER KUBOTA ENGINE	1
30	043265	BOLT, FLAT HD, ALLEN, 1/4-20	2
31	043920	FILTER, IN-LINE DIESEL	1
32	046394	COVER, ALTERNATOR	1
33	046441	COVER, FUEL PUMP	1
34	046688	HOUSING, HS530A 952057 COUPLING	1
35	046843	NUT, 1/2-20 Y-ZINC GR 8 HEX	4
36	049028	BRACKET, RAD SUPPORT MSP460	1
37	049859	ENGINE, KUBOTA D1105-T-E3B	1
38	051044	BRACKET, THROTTLE 1105T KUBOTA GANG VIBRATION	1
39	052595	MOUNT, DAMPING F/ DH1105B-1 ENGINE	4
40	055039	FSTN, LW 1/2 GR8 YELLOW ZINC	6
41	057228	THROTTLE CABLE, 155" LONG	1
42	057610	WELDMENT, RH FRONT ENGINE MOUNT RS800	1
43	057611	WELDMENT, LH REAR ENGINE MOUNT RS800	1
44	057612	WELDMENT,RH REAR ENGINE RS800	1
45	057613	WELDMENT, RH REAR ENGINE MOUNT	1
46	057861	BRACKET, HOUR METER MOUNT FOR RS800 SERIES	1
47	059561	ENGINE MNT PLATE FOR 6048B CARRIAGE DIESEL ENGINE	1
48	059566	MUFFLER SUPPORT BRACKET, 6048 BDF CARRIAGE DIESEL OPTION	1
49	059572	MUFFLER, WELDMENT DIESEL POWER OPTION 6048 BDF CARRIAGE	1
50	059580	STACK CAP, 2" (P270532)	1
51	059706	PUMP TANDEM, BRIDGE DECK (KUBOTA ENGINE)	1

SECTION 4 PARTS

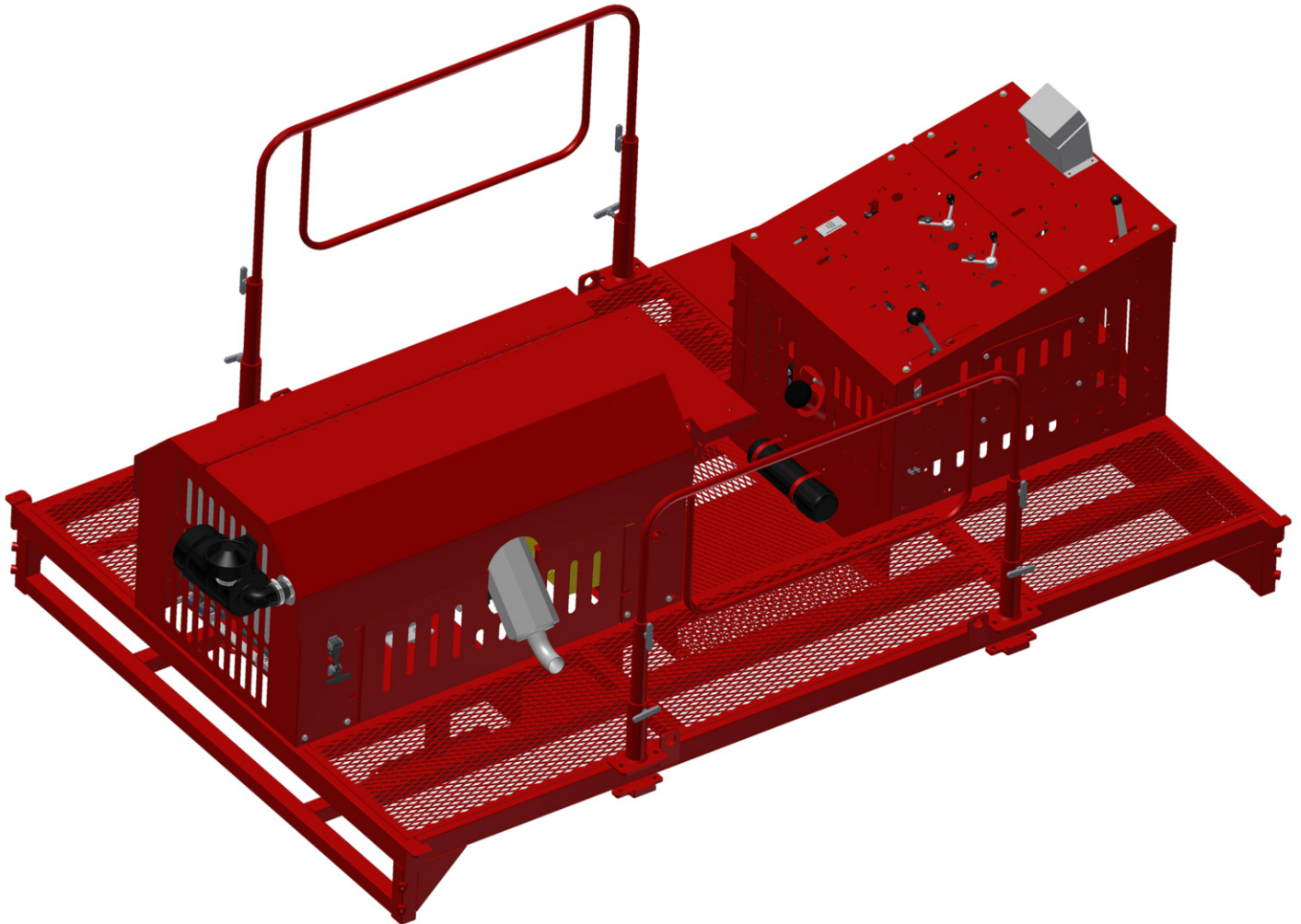
KUBOTA ENGINE OPTION - 059565 (cont'd) Mainframe



ITEM	PART NO.	DESCRIPTION	QTY
1	010019	FSTN, HHCS 5/16-18 X 3/4 GR 5	2
2	010021	FSTN, HHCS 5/16-18 X 1-1/4 GR5	4
3	010035	FSTN, HHCS 3/8-16 X 3/4	2
4	010036	FSTN, HHCS 3/8-16 X 1	2
5	010081	FSTN, FW 1/4	2
6	010082	FSTN, FW 5/16	2
7	010090	FSTN, LW 5/16	6
8	010100	FSTN, NUT HEX 5/16-18	4
9	011489	BOLT, 1/2-20x 3-1/2 GR 8 HHC	4
10	011490	FSTN, FW HARDENED 1/2	4
11	019429	HOSE, 5/16" FUEL LINE	1
12	019430	FSTN, CLAMP SIZE 4 MINI HOSE	10
13	020514	FSTN, NUT STOVER LOCK 3/8-16	4
14	020542	FSTN, NUT STOVER LOCK 1/4-20	2
15	021072	FSTN, LW 10MM	16
16	024984	PIVOT, THROTTLE CABLE	1
17	026226	PIN, Ø3/32 X 3/4 ZP STL COTTER	1
18	028556	ISOLATOR, 25MM X 20MM "A" BUFFER	1
19	029032	DIN 127 - M8	8
20	029824	HOURLMETER, Ø2 OPERATING TIME	1
21	037777	ASSY, FUEL FILTER	1
22	037778	SCR, 10MMx1.25x30 HHC	16
23	037791	OVERFLOW TANK WITH BRACKET	1
24	037820	8MM x 1.25 x 30MM HHCS	8
25	038508	FSTN, HHCS 1/2-13 X 1 1/4 GR 8	2
26	040004	FSTN, 5/16-18 GR-C STOVER HEX NUT	2
27	040330	PUMP, 12 V ELECTRONIC FUEL	1
28	040389	CLIP, 1 3/4" WIRE LOOM	1
29	041586	BRACKET, FUEL FILTER KUBOTA ENGINE	1
30	043265	BOLT, FLAT HD, ALLEN, 1/4-20	2
31	043920	FILTER, IN-LINE DIESEL	1
32	046394	COVER, ALTERNATOR	1
33	046441	COVER, FUEL PUMP	1
34	046688	HOUSING, HS530A 952057 COUPLING	1
35	046843	NUT, 1/2-20 Y-ZINC GR 8 HEX	4
36	049028	BRACKET, RAD SUPPORT MSP460	1
37	049859	ENGINE, KUBOTA D1105-T-E3B	1
38	051044	BRACKET, THROTTLE 1105T KUBOTA GANG VIBRATION	1
39	052595	MOUNT, DAMPING F/ DH1105B-1 ENGINE	4
40	055039	FSTN, LW 1/2 GR8 YELLOW ZINC	6
41	057228	THROTTLE CABLE, 155" LONG	1
42	057610	WELDMENT, RH FRONT ENGINE MOUNT RS800	1
43	057611	WELDMENT, LH REAR ENGINE MOUNT RS800	1
44	057612	WELDMENT,RH REAR ENGINE RS800	1
45	057613	WELDMENT, RH REAR ENGINE MOUNT	1
46	057861	BRACKET, HOUR METER MOUNT FOR RS800 SERIES	1
47	059561	ENGINE MNT PLATE FOR 6048B CARRIAGE DIESEL ENGINE	1
48	059566	MUFFLER SUPPORT BRACKET, 6048 BDF CARRIAGE DIESEL OPTION	1
49	059572	MUFFLER, WELDMENT DIESEL POWER OPTION 6048 BDF CARRIAGE	1
50	059580	STACK CAP, 2" (P270532)	1
51	059706	PUMP TANDEM, BRIDGE DECK (KUBOTA ENGINE)	1

SECTION 4 PARTS

KUBOTA POWER UNIT - 058999 Mainframe



KUBOTA POWER UNIT - 058999 Mainframe (cont'd)

SECTION 4 PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	010036	FSTN, HHCS 3/8-16 X 1	24
2	010089	FSTN, LW 1/4	6
3	010098	FSTN, NUT HEX 1/4-20	2
4	017751	FSTN, FW HARD A325 3/8 (p)	25
5	042260	LATCH, T-HANDLE EXTRA-LARGE DRAW	1
6	047643	LOCKING CONTROL, QUADRASTAT (Q14020)	1
7	048352	CLAMP, #20 HOSE	1
8	048601	BRACKET, THROTTLE CABLE X1	1
9	048658	PUMP, AUXILIARY X1	1
10	048665	TUBE, MANUAL PACK PLASTIC 9000-14	1
11	048666	CLAMP, MANUAL PACK TUBE	2
12	048673	BREATHER, 90° ELBOW X1	1
13	048674	HOOD, INLET (STYLE E) X1	1
14	048675	BAND, POLYMER MOUNTING X1	1
15	048682	CONNECTOR, HOSE (HUMP) X1	1
16	048728	TUBE, ELBOW/HUMP CONNECTION X1	1
17	048797	ELBOW, SAMCO MODIFIED F/ HDX600	1
18	050450	VALVE, FINISH TUBES AO100T4LD	8
19	050458	VALVE, FLOW CONTROL	2
20	050552	SEAT PLATE WELDMNT	1
21	050555	WMNT, PU CLAMP PLATE BDF	4
22	050558	SIDE PANEL OPERATOR CONSOLE	2
23	050561	LEFT HAND CONSOLE PANEL WELDMNT	1
24	050562	RIGHT CONSOLE PANEL WELDMNT	1
25	050567	KNOB, 2" BLACK PHENOLIC BALL	1
26	050570	SHIFT LEVER WELDMNT	1
27	050577	REAR HYD CONSOLE PANEL WELDMNT	1
28	050578	FRONT HYD CONSOLE PANEL WELDMNT	1
29	050580	SEAT MNT BRKT RH	1
30	050582	HANDRAIL EXT TUBE	4
31	050583	CONTROL PANEL F/ MAIN FRAME	1
32	050595	FLOW CONTROL LEVER	2
33	050596	KNOB, TEARDROP, 3/8-16	2
34	050599	HANDRAIL WELDMNT	2
35	050601	TEE BOLT WELDMNT	8
36	050602	SEAT MNT BRKT LH	1
37	050603	SWITCH TOGGLE, ON/OFF 12VDC	1
38	050604	COVER, TOGGLE, SAFETY	1
39	050632	TERMINAL STRIP 6 GANG BLOCK	1
40	051047	HYD TANK ASSEMBLY	1
41	052361	PLATE, CONTROL CABLE SPACER	1
42	052481	U BOLT	1
43	052517	WELDMNT POWER UNIT MAIN FRAME	1
44	053471	ASSEMBLY, FUEL TANK F/ BDF MAINFRAME	1
45	058940	CONTROL PANEL, ENGINE START DIESEL POWERD OPRION 6048 BDF	1
46	058946	COVER, ENGINE CONTROL PANEL DIESEL OPTION BDF	1
47	058964	UPPER CONTROL PANEL 6048 DIESEL POWER UNIT OPTION	1
48	058988	ENGINE ASSEMBLY, 32 KUBOTA BRIDGE DECK POWER UNIT DIESEL OPTION	1
49	058990	LOWER RH ENGINE SIDE PANEL WELDMNT FOR DIESEL ENGINE OPTION	1
50	058993	ASSY, REAR HOOD MNT F/ DIESEL OPTION	1
51	058994	ASSY, ENGINE ENCLOSURE HYD TANK SIDE DIESEL OPTION	1
52	058996	LOWER LH ENGINE SIDE PANEL WELDMNT DIESEL POWER UNIT OPTION	1
53	058998	ENGINE COVER WELDMNT POWER UNIT FOR DIESEL ENGINE OPTION	1
54	059722	DECAL, FOGGING VALVE	1
55	INTAKE HOSE	PIPE, INLET F/ B53 KUBOTA BREATHER	1

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