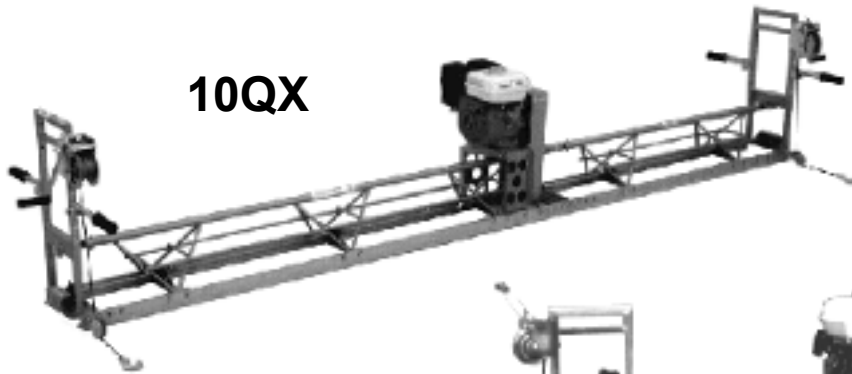




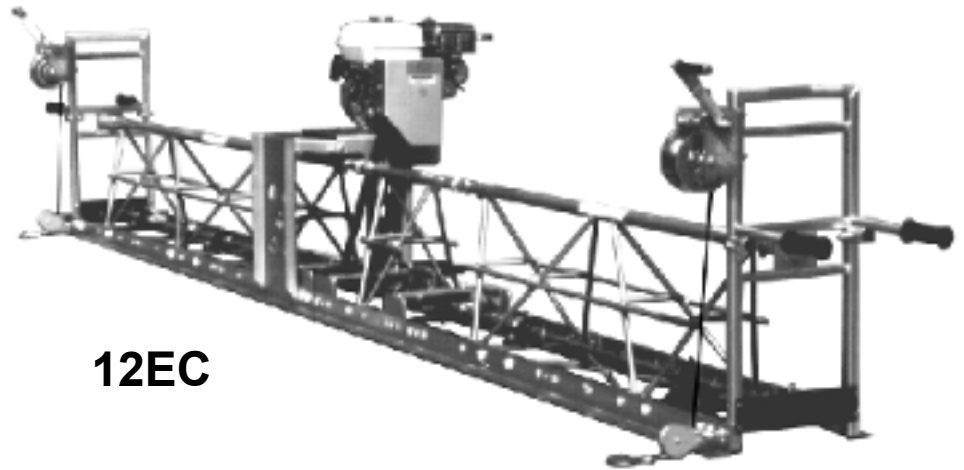
RAZORBACK

POWER SCREEDS



10QX

ALUMINUM TRUSS VIBRATORY SCREED



12EC

O P E R A T I O N S

MANUAL

MODELS

12ECS

12ECA

10QX

allen
ENGINEERING
CORPORATION

LIMITED WARRANTY

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

A. All New Machines and Part	6 Months
B. All New Gear Boxes	2 Years
C. All Factory Reconditioned Gear Boxes	1 Year

Warranty period begins on first day of use by End User. This first day of use is established by a completed warranty card or a Bill of Sale to the end user. All warranty is based on the following limited warranty terms and conditions.

1. Allen Engineering Corporation's obligation and liability under this warranty is limited to repairing or replacing parts if, after Allen's inspection, it is determined to be a defect in material or workmanship. Allen Engineering Corporation reserves the choice to repair or replace.
2. If Allen Engineering Corporation chooses to replace the part, it will be at no cost to the customer and will be made available to the Distributor/Dealer from whom the customer 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 Engineering Corporation's warranty applies only to the products that are manufactured by Allen Engineering and does not cover component parts such as engines and clutches. Allen Engineering Corporation **DOES NOT** warranty clutches. Engine warranty claims should be made directly to an authorized factory service center for the particular engine make.
5. Allen Engineering Corporation's warranty does not cover the normal maintenance of products or its components (such as engine tune-ups and oil changes). The warranty also does not cover normal wear and tear items (such as belts and consumables).
6. Allen Engineering Corporation'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 Engineering Corporation. Allen Engineering Corporation also excludes from warranty any failure of clutches on any engine driven piece of equipment.
7. If a new gear box has a factory defect within the first year of use, Allen Engineering Corporation will either repair the gear box or replace it with a new gear box. If a new gear box has a factory defect in the second year of use, Allen Engineering Corporation will either repair it or replace it with a factory reconditioned gear box. Impact damage is **NOT** covered under the gear box warranty.
8. Allen engineering Corporation will pay shop labor repair on warranty at the Allen Engineering Shop Labor Rate in existence on the date of the warranty claim. An Allen Engineering Labor Chart will determine the time allowed to complete a repair and will govern the shop labor hours that will be allowed.
9. Allen Engineering Corporation 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 Engineering Corporation. Allen Engineering only pays outbound freight charges when sending warranty replacement parts to the customer VIA ground service. Allen Engineering does not pay any inbound freight, however, if Allen Engineering determines this to be warranty defect only then will Allen Engineering 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 rental revenue, 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 Engineering Corporation 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

ALUMINUM TRUSS

VIBRATORY SCREED

O P E R A T I O N S MANUAL

NOTE: THIS MANUAL IS BROKEN UP INTO THE FOLLOWING

**OPERATIONS
SECTION 1**

**PARTS
SECTION 2**

MODELS - 12ECS 12ECA 10QX

**ALLEN RAZORBACK SCREEDS ARE COVERED BY ONE OR MORE OF THE FOLLOWING
PATENTS:**

U.S. PATENTS: 4,249,327; 4,316,715; 4,349,328; 4,363,618; 4,375,351; 4,412,803; 4,544,346; 4,630,964; 4,648,741; 4,685,826;

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RIDING TROWELS

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12 SHD

12 ED

12 HED

12 SHED

ALUMINUM POWER SCREEDS

12 ECA

12 ECS

10 QX

MAGIC SCREEDS

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WALK-BEHIND TROWELS

430

436

446

446SD

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HIGH PRESSURE WASHERS

DIAMOND HEAD GRINDERS

VIBRATORS

FLEX SHAFTS

TWO CYCLE BACKPACKS

FOUR CYCLE BACKPACKS

HBMS

GENERATORS

HANDY-VIBS

CONVERTORS

INVERTERS

ARIES FORMS

ALUMINUM TRUSS

VIBRATORY SCREED

**OPERATIONS
PARTS**

**MANUAL
BOOK**

PRINTED 12/02

THIS MANUAL COVERS ALUMINUM SCREED(S) BELOW:

**MODEL
10QX
12ECA
12ECS**

ALLEN RAZORBACK SCREEDS ARE COVERED BY ONE OR MORE OF THE FOLLOWING PATENTS: U.S. PATENTS: 4,249,232; 4,316,715; 4,349,328; 4,363,618; 4,375,351; 4,412,803; 4,544,346; 4,630,964; 4,648,741; 4,685,826; 5,288,166; 5,328,295; 5,567,075. **CANADIAN PATENTS:** 1,142,382; 1,174,070; 1,203,707; 1,247,860.

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**OPERATIONS
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INFORMATION CONTAINED IN THIS MANUAL

OPERATIONS SECTION 1

The information contained in this manual provides important procedures to safely operate and maintain your aluminum truss screed. The steps that are illustrated in this manual must be followed otherwise the life of the machine could be greatly shortened due to operator neglect. Remember that a machine that is well taken care of will provide many years of trouble free operation.

For your own protection and safety, always adhere to the safety warnings and notes that are pointed out in this manual. Disregard to these instructions could lead to personal injury or possibly even death.

Refer to your engine owners manual for warranty information and spare parts ordering. **Allen Engineering does not warrant the engine that came with your engine driven screed.**

ORDERING PARTS

This manual contains an illustrated parts list to help you in ordering replacement parts for your aluminum truss screed. Follow the instructions below carefully when ordering parts to insure that you get the exact parts that you are wanting.

All orders for service parts should include a serial number. Shipment of your parts will be delayed if this information is not available when you call Allen Engineering Customer Service.

Include the description and correct part number from Section 2, as well as the quantity needed.

For prompt and accurate shipments, specify exact shipping instructions, including preferred routing and complete destination address.

DO NOT return parts to Allen Engineering without receiving written authorization from Allen Engineering Corporation. All authorized returns must be shipped pre-paid.

When placing an order, please contact you nearest Allen Engineering Distributor or call Customer Service at 800-643-0095 or 870-236-7751.

THIS MANUAL COVERS TRUSS SCREED STARTING WITH THE FOLLOWING SERIAL NUMBERS:
ECA & ECS SCREED: 2' - AL20902005, 2-1/2' - AL30902015, 5' - AL50902025, 7-1/2' - AL70902002
10 QX SCREED: 2-1/2' - QX31102007, 5' - QX51102003, 7-1/2' - QX71102001

**WHEN ORDERING ADDITIONAL COPIES OF THIS MANUAL
PLEASE SPECIFY THE PART NUMBER BELOW.**
037535



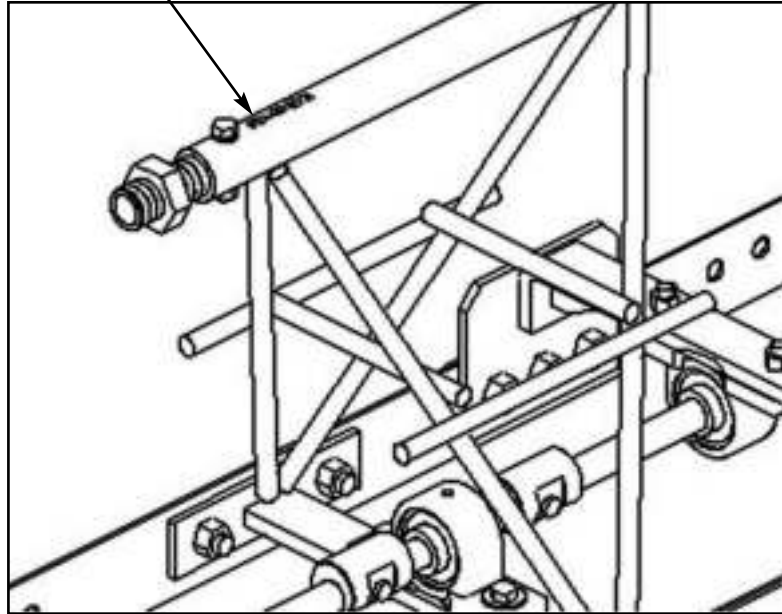
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OPERATIONS SECTION 1

SERIAL NUMBER LOCATION

LOCATION OF SERIAL #

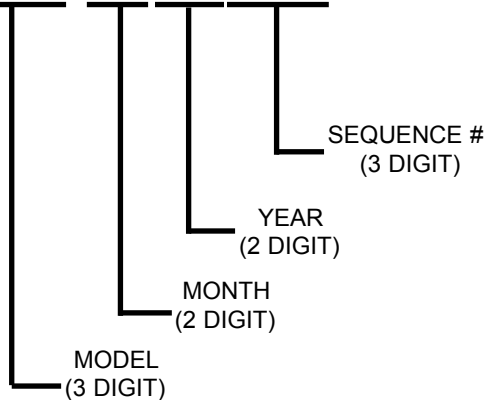


Information On Serial Number

The serial number found on the truss top pipe is a ten digit number. The model number identifies your machine and will ensure that you receive the correct replacement parts.

SAMPLE: **AL70902002**

- AL2 = 2' FT
- AL3 = 2-1/2' FT
- AL5 = 5' FT
- AL7 = 7-1/2' FT
- QX3 = 2-1/2' FT
- QX5 = 5' FT
- QX7 = 7-1/2' FT



NOTE: EVERY SECTION THAT LEAVES ALLEN ENGINEERING HAS A SERIAL NUMBER STAMPED ON THE RIGHT HAND SIDE OF THE TRUSS TOP PIPE. WHEN ORDERING PARTS, YOU WILL BE ASKED FOR THIS SERIAL NUMBER MAKE NOTE OF ALL YOUR SECTION SERIAL NUMBERS FOR FUTURE REFERENCE.

FILL OUT SERIAL #'S HERE FOR FUTURE REFERENCE

DISTRIBUTOR INFORMATION

OPERATIONS SECTION 1

PLACE DISTRIBUTOR INFORMATION HERE FOR FUTURE REFERENCE

DISTRIBUTOR NAME:	_____	PHONE #:	_____
ADDRESS:	_____		
CITY:	_____	STATE:	_____
SALESMAN:	_____	ZIP:	_____
ADDITIONAL COMMENTS:	_____		

SAFETY NOTATIONS

NOTE: Throughout this manual, there are **NOTES**, **CAUTIONS**, and **WARNINGS** which must be followed to reduce the possibility of improper service, damage to the equipment or personal injury.

NOTE - Contains additional information important to a procedure.

CAUTION - Provides information important to prevent errors which could damage the machine.

WARNING - Warns of conditions or practices which could lead to personal injury or death.

LAWS PERTAINING TO SPARK ARRESTERS

Some states require that spark arresters be used on internal combustion engines in some locations. A spark arrester is a device designed to prevent the discharge of sparks or flames from the engine exhaust. It is often required to have a spark arrester on an engine when operating equipment on forested areas to reduce the risk of fires. Consult the engine distributor or contact the local authorities to make sure that you comply with regulations concerning spark arresters.

Familiarity and proper training are required for the safe operation of this equipment. Equipment operated improperly or by untrained personnel can cause damage to the equipment and could be dangerous. Read the operating instructions contained in both this manual and the engine manual to familiarize yourself with the location and proper use of all the controls.

- DO NOT** operate this machine until you have read the operating and safety instruction. Operate the machine in accordance with the manufacturer's instructions.
- ALWAYS** inspect your screed upon arrival for damage or tampering that can sometimes occur during shipping. If damage is found, file a claim with your carrier immediately!! Mark freight bill of lading as "damaged shipment".
- NEVER** allow untrained personnel to operate your aluminum truss screed. Individuals who operate this screed should have adequate training in operating procedures.
- DO NOT** attempt to fill fuel or hydraulic (winch) tanks while machine is running. Allow engine to cool for five minutes before refueling.
- NEVER** use over-the-counter hardware to replace Allen hardware. Contact your nearest Allen Engineering authorized distributor or Allen Customer Service for genuine Allen parts.
- HAZARD** When operating machines with gas engines in confined areas, the fumes must be ventilated. Improper ventilation could lead to serious health problems or even death.
- ALWAYS** be aware of *HOT* components on this machine, such as, engines, and hydraulic components.
- ALWAYS** be aware of the rotating drive shaft on the aluminum truss screed. Failure to keep away from the shaft could lead to severe injury.
- ALWAYS** operate the aluminum truss screed with both ear and eye protection.

SERVICE SAFETY

- DO NOT** attempt to clean or service screed while machine is running. The rotating shaft could cause severe injury.
- DO NOT** attempt to start a flooded engine with the spark plug removed on gasoline powered engines. Fuel trapped in the cylinder will squirt out of the spark plug opening.
- DO NOT** test for spark on gasoline engines if engine is flooded or the smell of gasoline is present. A stray spark could ignite the fumes.
- DO NOT** use gasoline, other fuels, or any flammable solvent to clean parts, especially in enclosed areas. Fumes from fuels and solvents can cause serious health problems if you are exposed to them over an extended period of time.
- ALWAYS** keep area around muffler free of debris, such as, leaves, paper, cartons, etc. A hot muffler could ignite them starting a fire.
- ALWAYS** disconnect spark plug before servicing engine to prevent accidental start-up.

SOUND & VIBRATION DATA

MODEL & ENGINE	AVERAGE EQUIVALENT SOUND PRESSURE LEVEL	SOUND PRESSURE LEVEL AT OPERATORS EAR	EQUIVALENT SOUND POWER LEVEL
10QX SCREED 5.5 HP HONDA	85.8 dB(A)	88.6 dB(A)	102.5 dB(A)
ECA SCREED 5.5 HP HONDA	86.6 dB(A)	89.6 dB(A)	103.6 dB(A)
ECA SCREED 8.0 HP HONDA	87.3 dB(A)	80.6 dB(A)	104.4 dB(A)
ECA SCREED 9.5 HP KAWASAKI	85.0 dB(A)	88.4 dB(A)	102.1 dB(A)

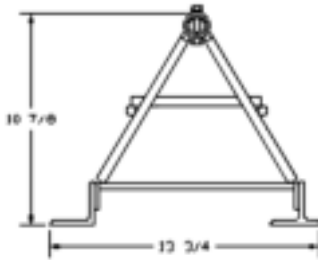
The information above was determined in accordance with ISO 3744 and satisfies the essential health and safety reporting requirements of the European Economic Community. Vibration levels are not reported since there is no physical contact with screed in normal operation. **WARNING:** Always operate your Allen screed with appropriate ear protection.

OPERATIONS SECTION 1

DIMENSIONAL PICTORIALS

The dimensions of the aluminum truss screed in this manual are illustrated on this page. The height and width are in Figure 1 and the lengths of the different screed sections available are illustrated in Figure 2.

10 QX



12 EC

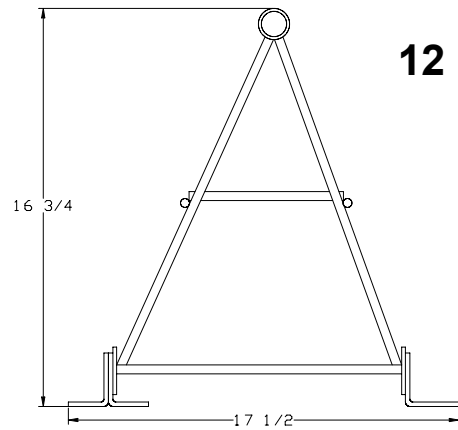
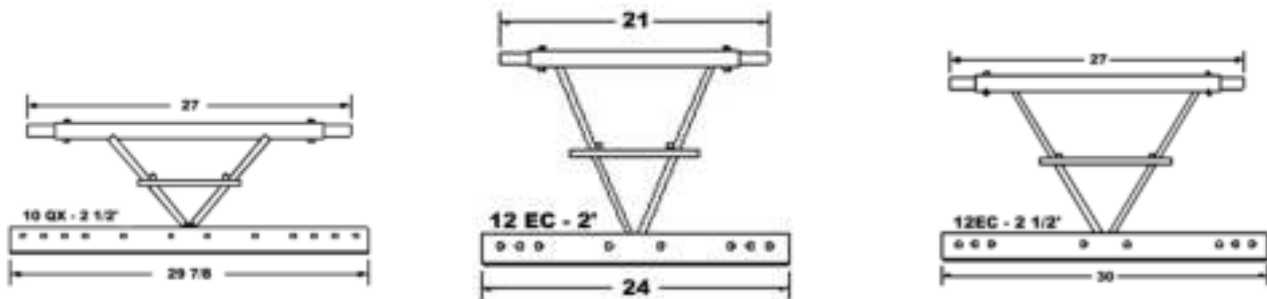
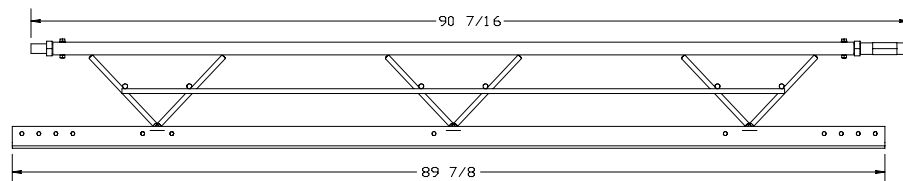
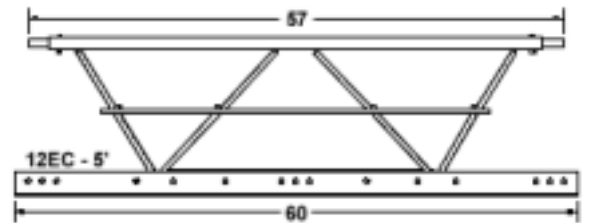
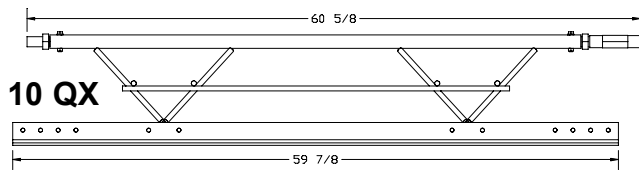


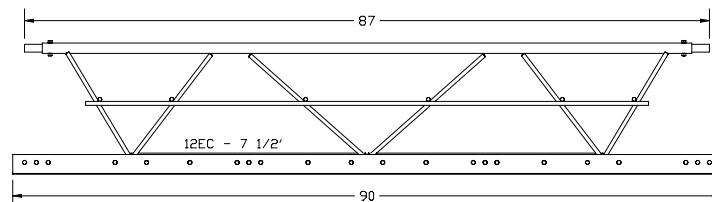
FIGURE 1



10 QX



10 QX



S1-7

FIGURE 2

SPECIFICATIONS ON THE ALUMINUM TRUSS FRAMES

MODEL	BLADES	7 1/2'	5'	2 1/2'	2'	MAXIMUM WIDTHS ft/mtrs
		lbs/kg	lbs/kg	lbs/kg	lbs/kg	
12ECS	12 GA. STEEL	90/41	60/28	34/17	24/11	50/15
12ECA	HARD COAT ALUMINUM	73/34	49/22	25/11	N/A	40/12
10QX	HARD COAT ALUMINUM	57/26	38/17	19/9	N/A	30/9

- Vibration proof welds with exclusive vibration-dampening system.
- Bolt-on blades with quick connection splice plates front and back at each truss section using 1/2-13 nuts and bolts throughout.
- Balanced design truss height to overall base width provides equilateral triangle strength for obtaining precise grade control and structure integrity.
- Top pipe coupling system provides for crowned on invert slab section without loosening bottom splice blade bolts. Special crowns or inverts are obtainable with ball joint top pipe coupler or crown invert bracket. Crowns greater than 1/8" per foot are considered special.
- NOTE: Select screed width to allow minimum overhangs past forms; 6" overhangs are ideal, overhangs over 12" are not recommended.

SPECIFICATIONS ON THE ALUMINUM TRUSS VIBRATORY SCREED:

MODEL	ENGINE KITS					
	HONDA KAWASAKI	5.5 HP 5.5 HP	8 HP 9 HP	STRADDLE MOUNT	DUAL BELTS	CENTRIFUGAL CLUTCH
12ECS	✓	✓	✓	✓	✓	✓
12ECA	✓	✓	✓	✓	✓	✓
10QX	✓			✓	✓	✓

- Rotating eccentric shaft (RES) produces over 8000 vibration cycles per minute.
- 3/4" diameter high alloy steel. Plated vibratory shaft with 1 3/8" diameter dual eccentric vibrators mounted on 30" centers. Running in 3/4" diameter pillow block bearings with shaft locking collars.
- ENGINE SPEED: up to 3600 RPM with throttle control.
- Vibrator shaft with synchronization key way and four each square head set screws mounted with an intermediate bearing support.
- Eccentric vibrators attached to shaft with 1/4" bolt with stover lock nut.
- Crowned selections - up through 1/8" per foot use flex couplers, over 1/8" per foot crown use u-joint kit. Screeds are shipped standard with rigid shaft couplers for running flat without crowns.
- WINCHES: DL1200 or DL2500 manual winches available. Powered hydraulic winches are optional.

OPERATIONS

SECTION 1

BEFORE STARTING

Before starting the aluminum truss screed, the following items need to be looked over:

- Make sure that bolts are secure and will not vibrate loose.
- Check for loose set screws on all eccentric weights.
- Check jam nuts on top pipe to ensure that they are tight against the top pipe coupler.
- Check the oil and fuel levels in the engine.
- Check the hydraulic level in the tank for the hydraulic winches (if applicable).
- Check bearings for grease. NOTE: bearings are pre-greased from the manufacturer.
- Check winch cables to make sure that they will not loosen during the screed run.
- Look over the forms to check for unevenness so that the screed will not hang up.

Ask yourself the following questions when preparing your screed for a job:

- What is the “exact” pour width?
- What is the slump?
- Is the slab flat, crowned, or inverted?
- What is the required surface tolerance?
- Choose screed type and size based on the above information.
- Are any accessories required?
- Do the winches work properly?
- Are the hydraulic pressure settings ok?
- Is the drive shaft aligned properly?

OPERATING

Operating your aluminum truss screed correctly will greatly improve the outcome of the pour. Follow the instructions below to operate your screed correctly and you will be very pleased with your equipment.

- Start engine and slowly increase the throttle.
- Engage or turn winch handles simultaneously to keep the screed even.
- DO NOT adjust the throttle on the engine to slow down or speed up the hydraulic winches, use the flow controls instead.
- NEVER let the concrete build up to the top of the front blade, this causes the screed to be stressed and is strenuous on the operators controlling the manual winches. The concrete could not go above the bolts attaching the blades. If this happens, stop the screed, and remove the concrete from the front blade.
- If the concrete is not being placed at the appropriate rate, slow the screed down to compensate.
- The speed that the screed should be operated at is based on the slump of the concrete. Pay close attention to the aggregates, slump, and concrete modifying agents so that you can compensate for them. REMINDER! - DO NOT OVER-VIBRATE THE CONCRETE
- Make sure that when you have completed the pour(s) that you clean the screed immediately to prevent concrete from curing on the drive shaft, and bearings, etc.. Also, Allen Engineering High Pressure Washer is the ideal machine for this job.

The following list contains information regarding the maintenance and operations procedures that must be adhered to improve the life of your machine. A well maintained piece of machinery will provide you years of satisfaction.

- Always make sure that the drive shaft is aligned properly. To make sure that you do this correctly you will need to utilize an Allen tool, part number 020255.
- When connecting drive shafts, assemble with all the weights on each section facing the bullfloat blade. If weights are mis-matched, the screed will not vibrate properly. Match the keyways on the drive shafts and the connectors.
- The engine RPM must not exceed 3600 RPM. Shaft speed will exceed design limits if engine speed is over 3600 RPM.
- DO NOT crown or invert without universal joints or flex couplers on the shaft connectors.
- Maintain engine in accordance with the manufacturer's instructions.
- Use Loctite anti-seize MIL A 907D to lubricate the top pipe coupler threads before assembly.
- Grease screed bearings at 40 hours operating intervals. Use one stroke of a hand grease gun. Use Shell Alvonia #21, Texaco L-15, or Chevron SR1. Clean fittings before greasing. For low temperatures, use Dow Molykote BR-2. DO NOT OVER GREASE BEARING!
- Oil winch bushings at 10 hours operation intervals. Use light lubricating oil.
- CAUTION! Change worn or frayed winch cables. Cables under tension may snap and cause severe injury. Use proper methods illustrated in this manual to properly attach cables. Always connect cables properly. Wrap cable under last form pin then connect cable hook to the next form pin towards the screed.
- DO NOT hook cables to a stake driven into the ground, the pin can tilt and allow cable under tension to snap back and cause severe injury.
- For cold weather operations, use bearing lubricant Allen BR-2. This grease flows at ambient temperatures of -22° F thru 356° F.
- CAUTION! When installing pillow block bearings, be sure that the bottom flat surface does not have nicks or deep marks. This can cause the bearing to ride off of the mounted surface; when vibration occurs this small deformation can wear off quickly, allowing the bearing to loosen. With the bearing loose on its mounting, failure can occur prematurely.

OPERATIONS SECTION 1

LIFTING PROCEDURES

The following procedures describe proper lifting techniques for screed. There is no OSHA standard weight limit for manual lifting. Therefore, rather than stating a regulated limit, they ask that employers or contractors do the following:

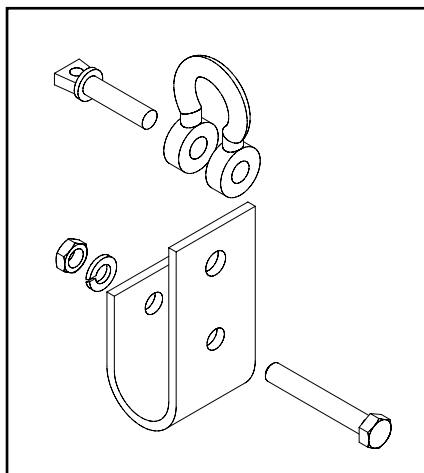
- A) Identify each hazard to which a person at the work place (jobsite) is likely to be exposed to.
- B) Assess the risk of injury or harm to a person resulting from each hazard.
- C) Consider the means by which the risk may be reduced.

NOTE: Never lift more that what you personally feel that you can handle!!

The lifting handles at each end of the screed are not intended to be used as the only source to lift the screed. It is quite obvious that two large men will not be able to lift 70 feet of screed. The following list of maximum screed lengths is very important so that the length of your screed will not be too long:

SX SCREED - MAXIMUM 55 FEET
HD SCREED - MAXIMUM 65 FEET
SHD SCREED - MAXIMUM 75 FEET

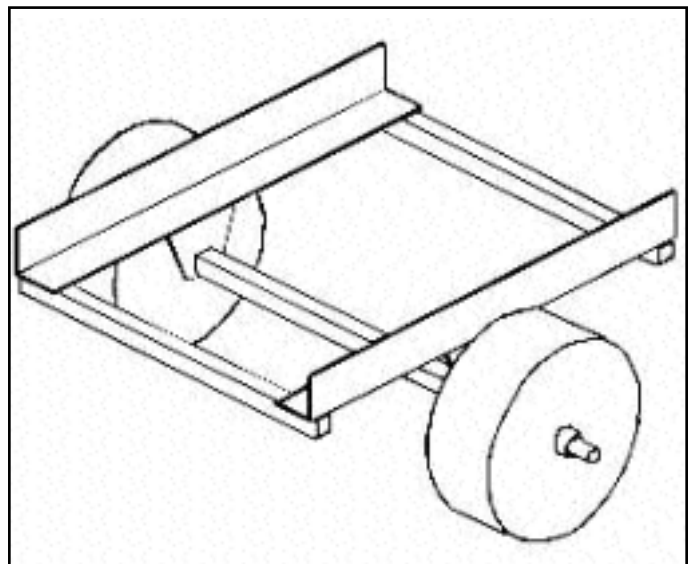
For proper lifting of an average screed (30 ft.), the screed lifting hook is an ideal item to use. This instrument should be placed at equal distances from each end. A special lifting bridle is then used by a forklift, crane, front-end loader, etc. to raise and transport the screed. Also, available from Allen Engineering is the screed cart. This item is used to move the screed around on the job site only.



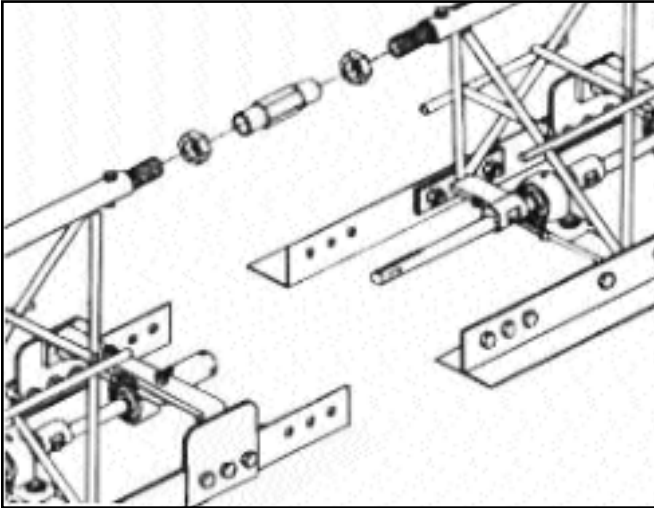
LIFTING HOOK PART # 532000
QTY. REQUIRED - 2

STANDARD SCREED CART
MAXIMUM 500 lbs. - 543000

HEAVY DUTY SCREED CART
MAXIMUM 1,000 lbs. - 543001

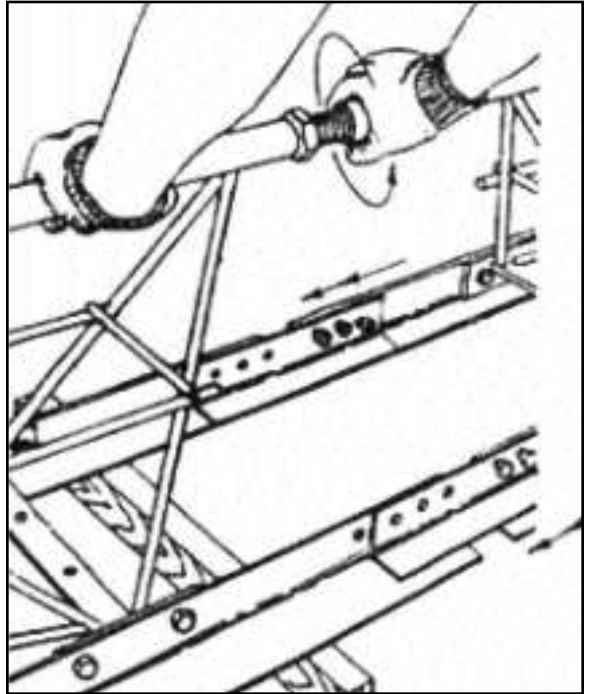


The following figures describe the proper instructions for correctly assembling engine driven screed. Make sure that you follow the instructions in order. If the assembling of your screed is not done in this order, there could be some problems in trying to maintain floor flatness because your screed is not level. Levelness of your screed is critical!

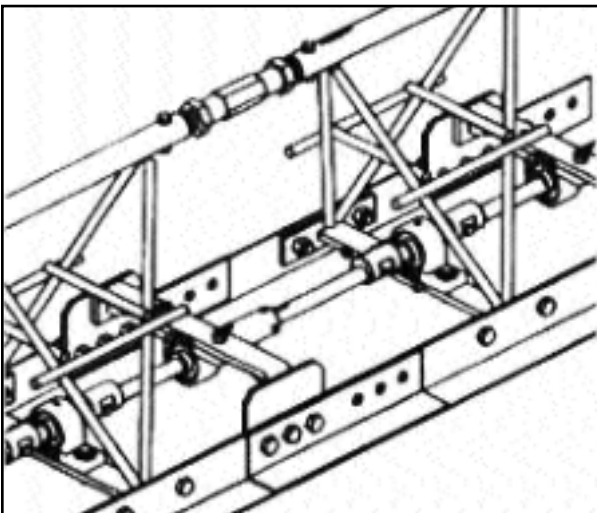


STEP 1: Screw jam nuts onto top pipe. Start the top pipe coupler onto the top pipe of the mating truss section. Only thread the coupler on about three turns.

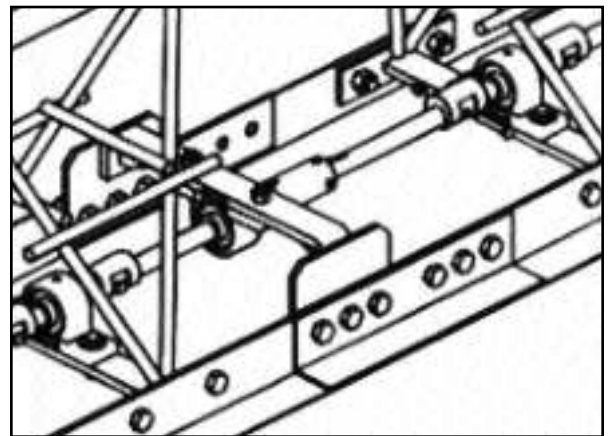
NOTE: The right and left hand jam nuts will already be installed on the screed section.
ONLY TIGHTEN JAM NUTS AFTER SCREED IS ASSEMBLED AND LEVEL!



STEP 2: Slide screed sections together until top pipe threads on screed marked "R" line up with threads in coupler on the screed. Start coupler on adjoining threads by hand to prevent cross threading.



STEP 3: Bearing support bolts should be loose so that splice plate can move in clearance holes. With 15" adjustable wrench, turn top pipe coupler until screed and bull float blades contact, then back the coupler off slightly so that the blades touch without tension.

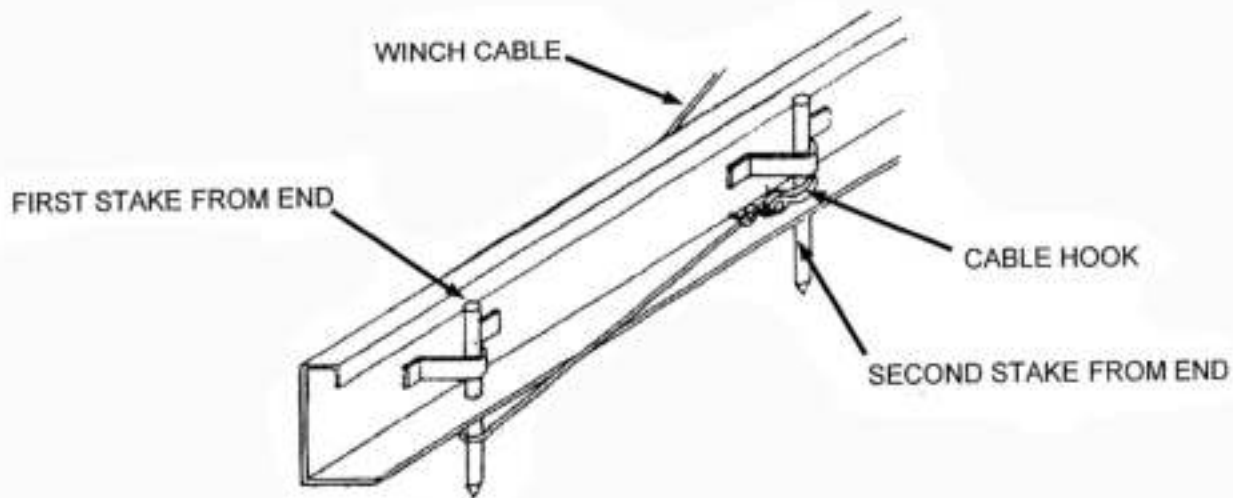


STEP 4: Tighten bolts on splice plates. Next slide the shaft coupler onto the adjoining section and tighten the set screws provided. Make sure that the 3/16 key is on the shaft before sliding sections together. Repeat these steps for attaching all engine driven screed sections.

OPERATIONS SECTION 1

ATTACHING WINCHES TO FORM STAKES

The figure below illustrates the proper way to attach the winch cables to the form stakes. This is the only way that the cables should be attached. If the cables are not attached properly, the cables could snap loose causing severe injury to finishing personnel surround the screed.



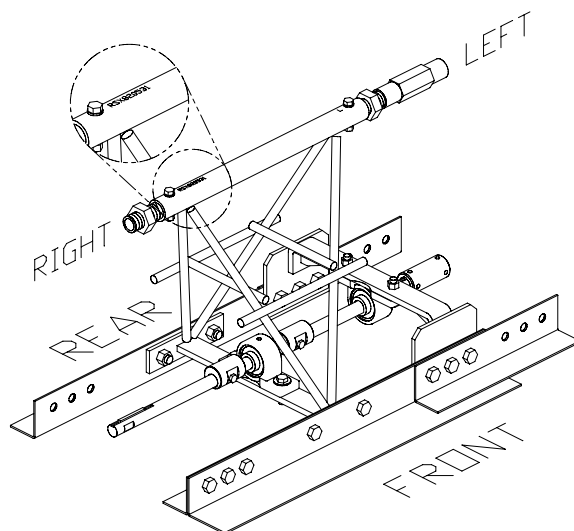
To attach the winch cables properly, adhere to the following instructions.

- Take the cable and go around the last form stake. Make sure that you go underneath the form.
- Attach the cable hook to the next form stake from the end.
- Always insure that these two stakes are driven into the ground firmly and will not come loose under stress.

ATTACHING WINCHES TO FORM STAKES

The following illustration shows all the key information on how to determine the left and right and the front and rear of a screed section.

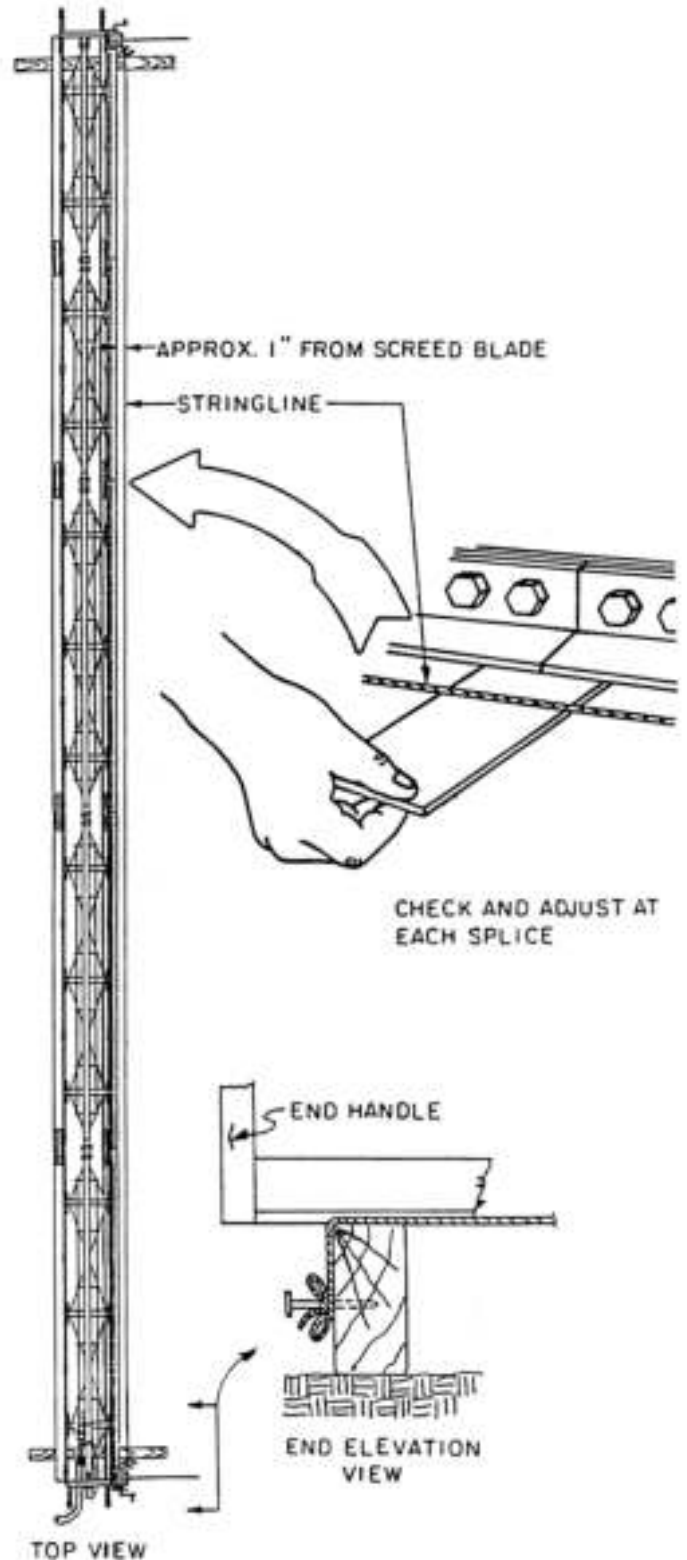
Note the circle with the serial number. This probably the easiest way to determine the left and right sides of the screed assembly. The right side has the model number and the a 5-digit serial number. The left hand side is only stamped with an "L". Also, the front of the screed is determined by the two screed blades mounted back-to-back. The rear of the screed has only one bullfloat blade.



To string line your screed, there are a few important steps that need to be followed.

- Place screed ends on a 2 x 6 or other wooden type support.
- At approximately 1" out from the leading edge of the screed blade, drive a nail into the wooden support. NOTE: Nail should be on the outside of the wooden support.
- Stretch a line as tight as possible from nail to nail. Make sure that the nail is contacting each support at the point of blade contact.
- NOTE: The supports do not have to be on the same level.
- Use a short, flat piece of metal or wood as gauge block to compare the string to the bottom surface of the screed blade and bullfloat blade.
- The blades should be equal to each other at each splice. If they are not even, loosen jam nuts and tighten top pipe coupler as described on page S1-12.

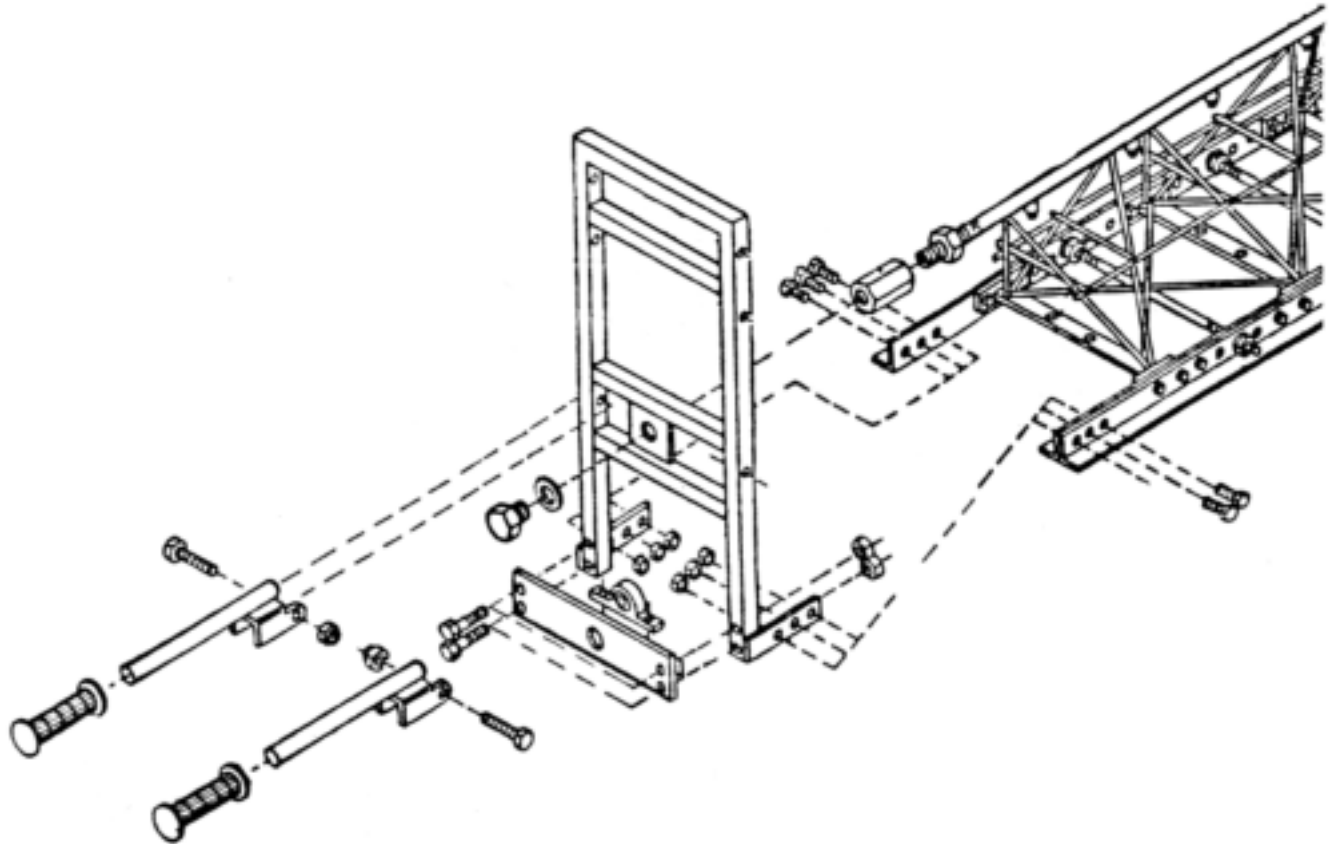
NOTE: Always string line your screed before each pour to ensure that you get the desired flatness and levelness rating.



OPERATIONS SECTION 1

•END HANDLE ASSEMBLY•

The following figure shows the proper way to mount a standard end handle to the screed section. Do not try to modify this mounting procedure, this is the only way to mount the end handles where they will work properly.



Follow the steps below to properly mount the end handles to your screed.

- Mount the bearing onto the bearing support bracket.
- Mount the handle grips onto the lifting handles.
- Mount the lifting handles onto the end handle using two 3/8 x 2 bolts and 3/8 nylon lock nuts.
- Mount the bearing support bracket to the end handle using four 1/4 x 1 1/2 bolts and 1/4 stover nuts.
- Mount the end handle to the screed using three 1/2 x 3/4 bolts, three 1/2 x 1 bolt and six 1/2 hex nuts. Screw the appropriate adaptor for the end you are working on onto the top pipe. Next, using a 1" flatwasher, screw the end handle bolt onto the adaptor.
- Tighten all fasteners after the end handle is completely assembled.

Always use these instructions for mounting the end handles.

NOTES

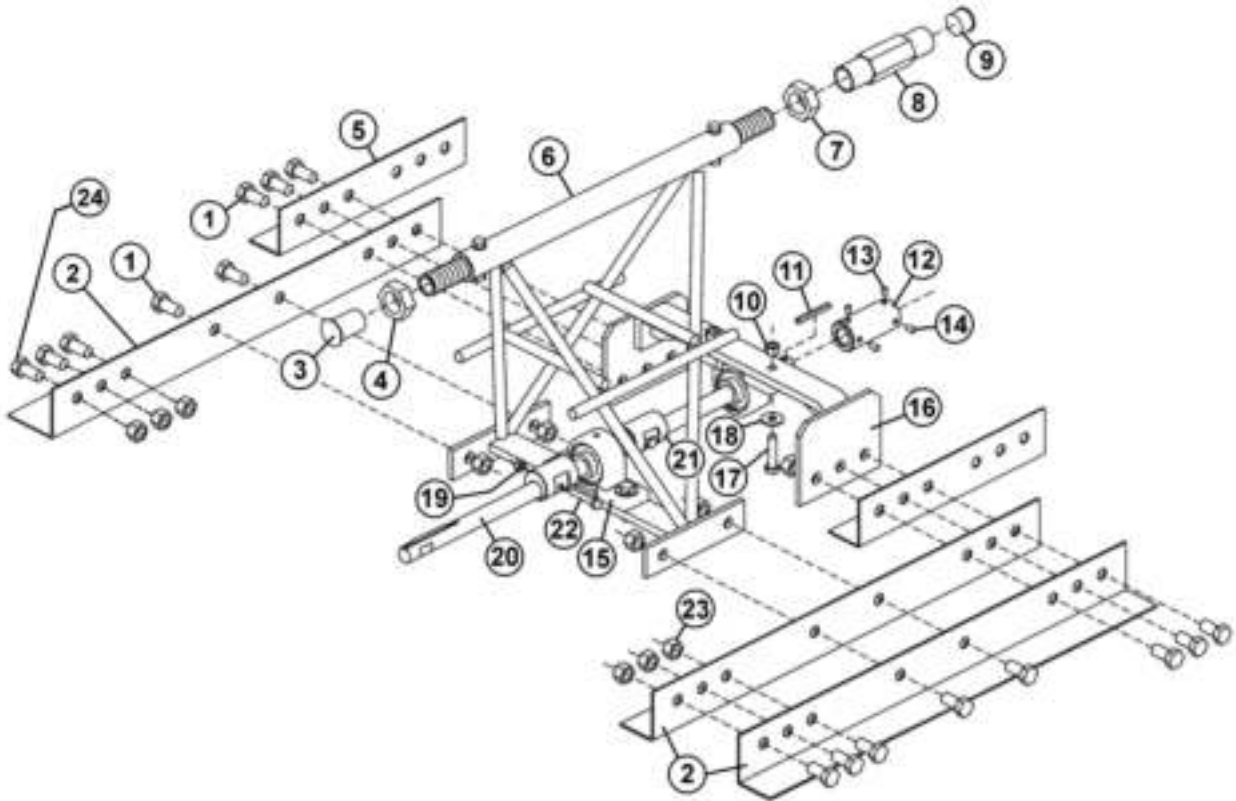
PARTS SECTION 2

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•ASSEMBLY 2' SECTION•
(MODELS 12 ECS & 12 ECA)

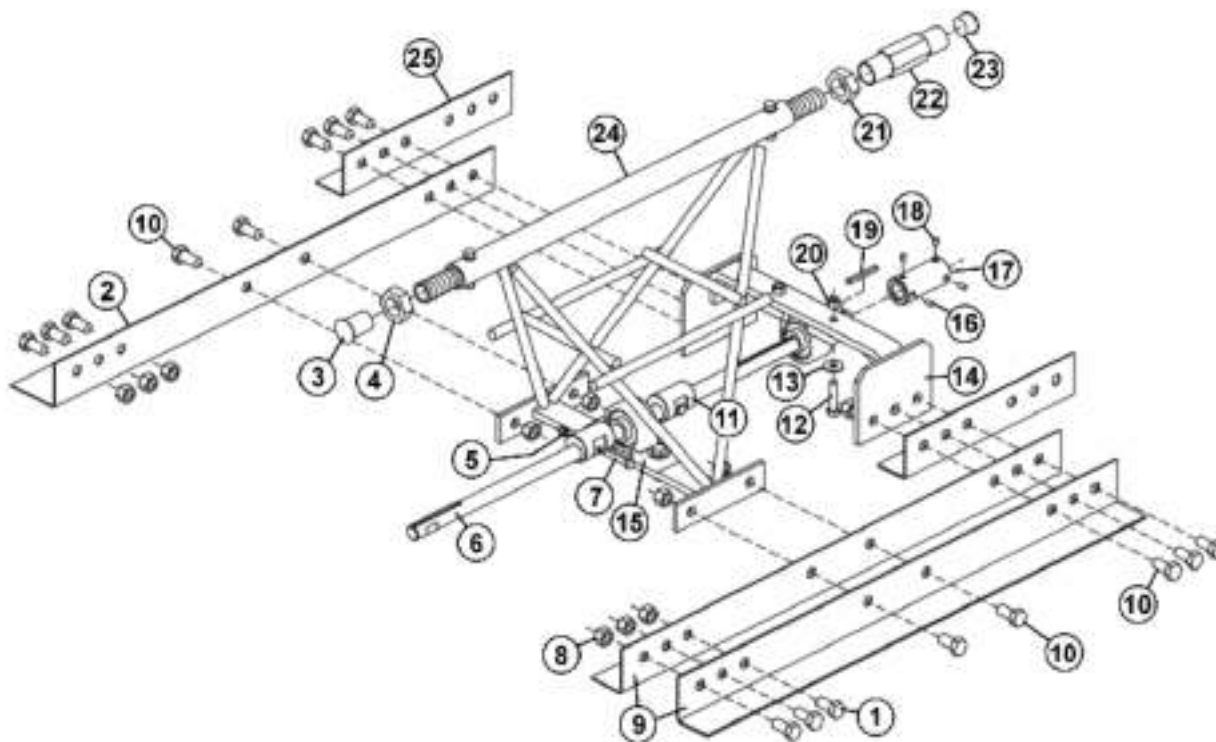
**PARTS
SECTION 2**



PART #	DESCRIPTION	QTY.
1. 010067	BOLT, 1/2-13 X 1"	10
2. 152000	BLADE, SCREED 2' - 12 GA. (ECS ONLY)	3
025811	BLADE, SCREED 2' - ALUMINUM (ECA ONLY)	1
025808	BLADE, BULLFLOAT 2' - ALUMINUM (ECA ONLY)	1
3. 020477	CAPLUG, TOP PIPE	1
4. 010294	NUT, RH JAM	1
5. 106000	PLATE, SPLICE - 12 GA. (ECS ONLY)	2
6. 017291	TRUSS, SCREED 2' EC	1
7. 010270	NUT, LH JAM	1
8. 221161	COUPLER, TOP PIPE EC	1
9. 020274	CAPLUG, TOP PIPE COUPLER	1
10. 020514	NUT, 3/8-16 STOVER	4
11. 010273	KEY, 3/16 X 2"	2
12. 020635	SHAFT COUPLER	1
13. 013374	SET SCREW 1/4-28 X 1/4	2
14. 018999	SET SCREW 1/4-28 X 3/8	2
15. 020704	BEARING, 3/4 PB	2
16. 017739	INTERMEDIATE BEARING SUPPORT (ECS ONLY)	1
029525	INTERMEDIATE BEARING SUPPORT (ECA ONLY)	1
17. 010038	BOLT, 3/8-16 X 1 1/2	4
18. 017751	WASHER, FLAT 3/8 HARDENED	4
19. 020542	NUT, 1/4-20 STOVER	2
20. 020716	SHAFT, SCREED 2'	1
21. 010276	ECCENTRIC WEIGHT	2
22. 010005	BOLT, 1/4-20 X 1 1/2"	2
23. 010106	NUT, 1/2-13 HEX	16
24. 010066	BOLT, 1/2-13 X 3/4"	8

PARTS SECTION 2

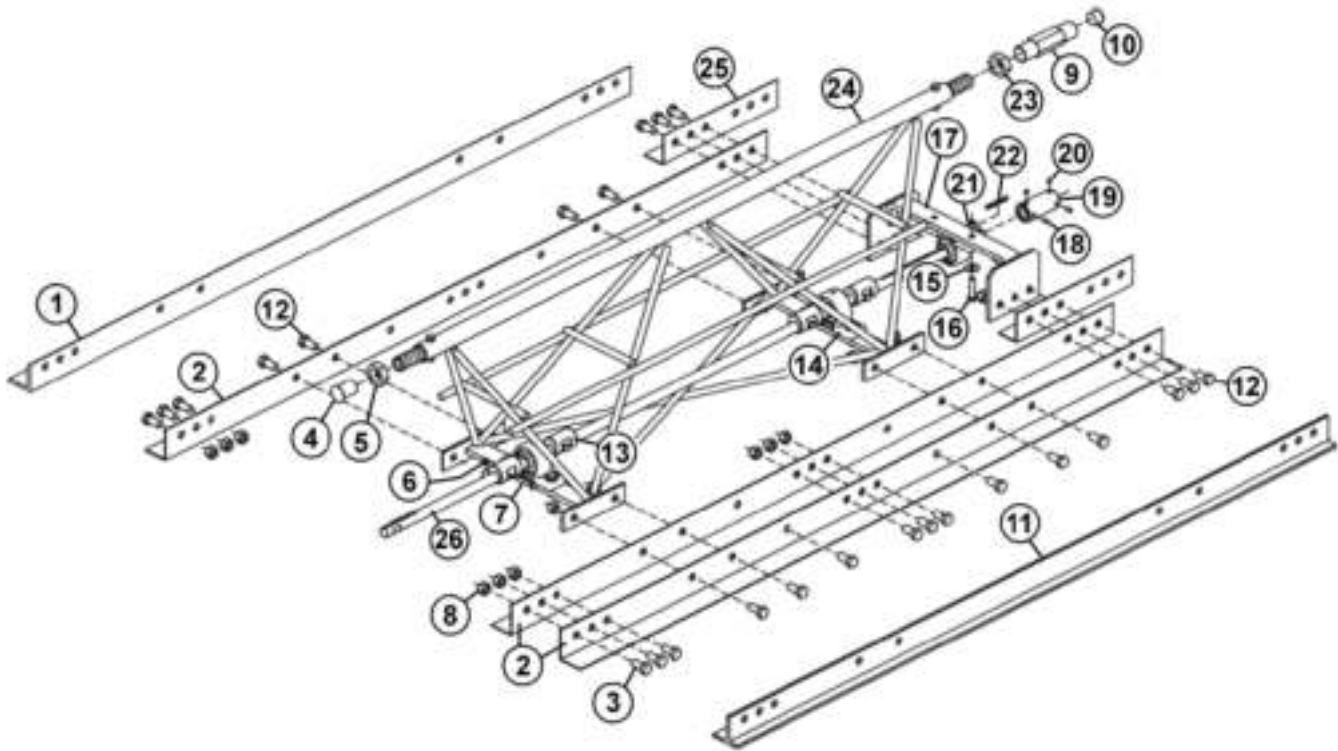
ASSEMBLY 2-1/2' SECTION (MODELS 12 ECS & 12 ECA)



PART #	DESCRIPTION	QTY.
1. 010066	BOLT, 1/2-13 X 3/4"	3
2. 032369	BLADE, BULLFLOAT - ALUMINUM (ECA ONLY)	1
3. 020477	CAPLUG, TOP PIPE	1
4. 010294	NUT, RH JAM	1
5. 020542	NUT, 1/4-20 STOVER	2
6. 028626	SHAFT, 2-1/2' SCREED	1
7. 010005	BOLT, 1/4-20 X 1 1/2"	2
8. 010106	NUT, 1/2-13 HEX	13
9. 028743	BLADE, SCREED 2 1/2' - 12 GA (ECS ONLY)	3
032368	BLADE, SCREED 2 1/2' - ALUMINUM (ECA ONLY)	1
10. 010067	BOLT, 1/2-13 X 1"	8
11. 010276	ECCENTRIC WEIGHT	2
12. 010038	BOLT, 3/8-16 X 1 1/2"	4
13. 017751	WASHER, FLAT 3/8 HARDENED	4
14. 017739	INTERMEDIATE BEARING SUPPORT (ECS ONLY)	1
029525	INTERMEDIATE BEARING SUPPORT (ECA ONLY)	1
15. 020704	BEARING, 3/4 PB	2
16. 018999	SET SCREW 1/4-28 X 3/8	2
17. 020635	SHAFT COUPLER	1
18. 013374	SET SCREW 1/4-28 X 1/4	2
19. 010273	KEY, 3/16 X 2"	2
20. 020514	NUT, 3/8-16 STOVER	4
21. 010270	NUT, LH JAM	1
22. 221161	TOP PIPE COUPLER (EC)	1
23. 020274	CAPLUG, TOP PIPE COUPLER	1
24. 029599	TRUSS, 2 1/2' EC	1
25. 106000	PLATE, SPLICE - 12 GA. (ECS ONLY)	2
025812	PLATE, SPLICE - ALUMINUM (ECA ONLY)	2

•ASSEMBLY 5' SECTION•
(MODELS 12 ECS & 12 ECA)

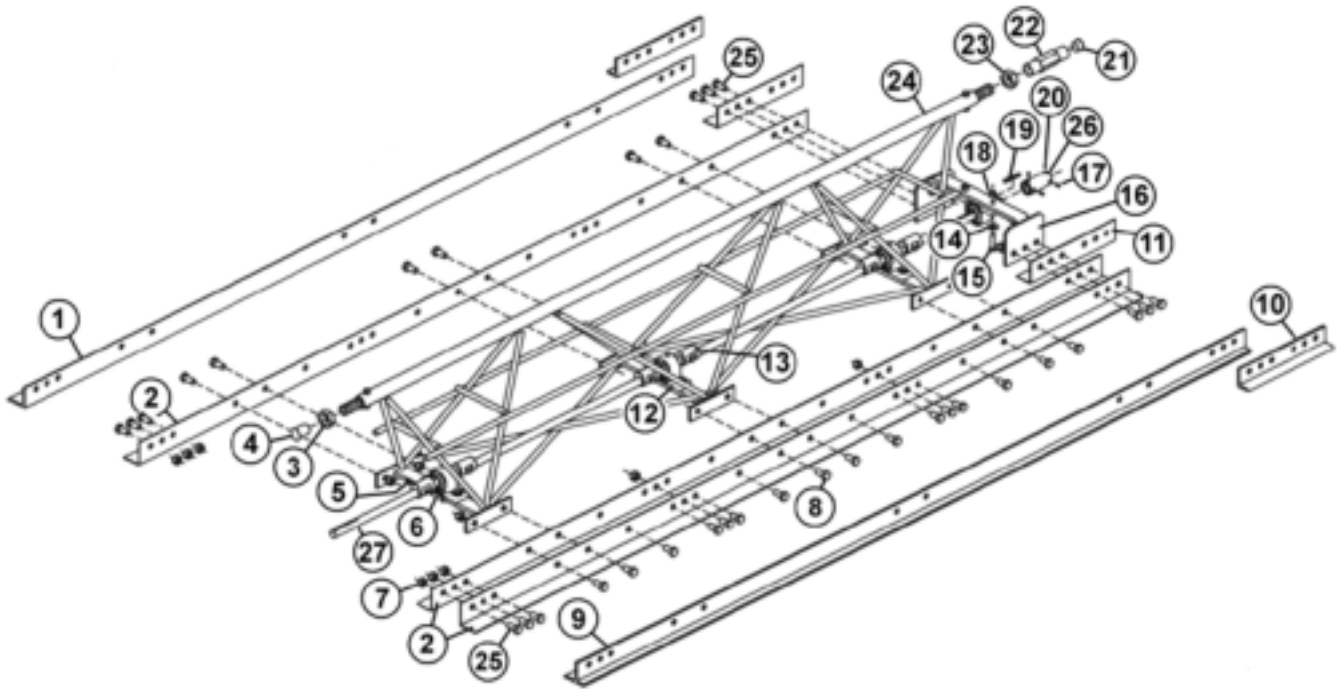
**PARTS
SECTION 2**



PART #	DESCRIPTION	QTY.
1. 025807	BLADE, BULLFLOAT 5' - ALUMINUM (ECA ONLY)	1
2. 103000	BLADE, SCREED 5' - 12 GA (ECS ONLY)	3
3. 010066	BOLT, 1/2-13 X 3/4"	8
4. 020477	CAPLUG, TOP PIPE	1
5. 010294	NUT, RH JAM	1
6. 020542	NUT, 1/4-20 STOVER	4
7. 010005	BOLT, 1/4-20 X 1 1/2"	4
8. 010106	NUT, 1/2-13 HEX	25
9. 221161	TOP PIPE COUPLER	1
10. 020274	CAPLUG, TOP PIPE COUPLER	1
11. 025810	BLADE, SCREED 5' - ALUMINUM (ECA ONLY)	1
12. 010067	BOLT, 1/2-13 X 1"	17
13. 010276	ECCENTRIC WEIGHT	4
14. 020704	BEARING, 3/4 PB	3
15. 017751	WASHER, FLAT 3/8 HARDENED	6
16. 010038	BOLT, 3/8-16 X 1 1/2"	6
17. 017739	INTERMEDIATE BEARING SUPPORT (ECS ONLY)	1
029525	INTERMEDIATE BEARING SUPPORT (ECA ONLY)	1
18. 018999	SET SCREW, 1/4-28 X 3/8	2
19. 020635	SHAFT COUPLER	1
20. 013374	SET SCREW, 1/4-28 X 1/4	2
21. 020514	NUT, 3/8-16 STOVER	6
22. 010273	KEY, 3/16 X 2"	2
23. 010270	NUT, LH JAM	1
24. 017292	TRUSS, 5' EC	1
25. 106000	PLATE, SPLICE - 12 GA (ECS ONLY)	2
025812	PLATE, SPLICE - ALUMINUM (ECA ONLY)	2
26. 032112	SHAFT, DRIVE 5'	1

PARTS SECTION 2

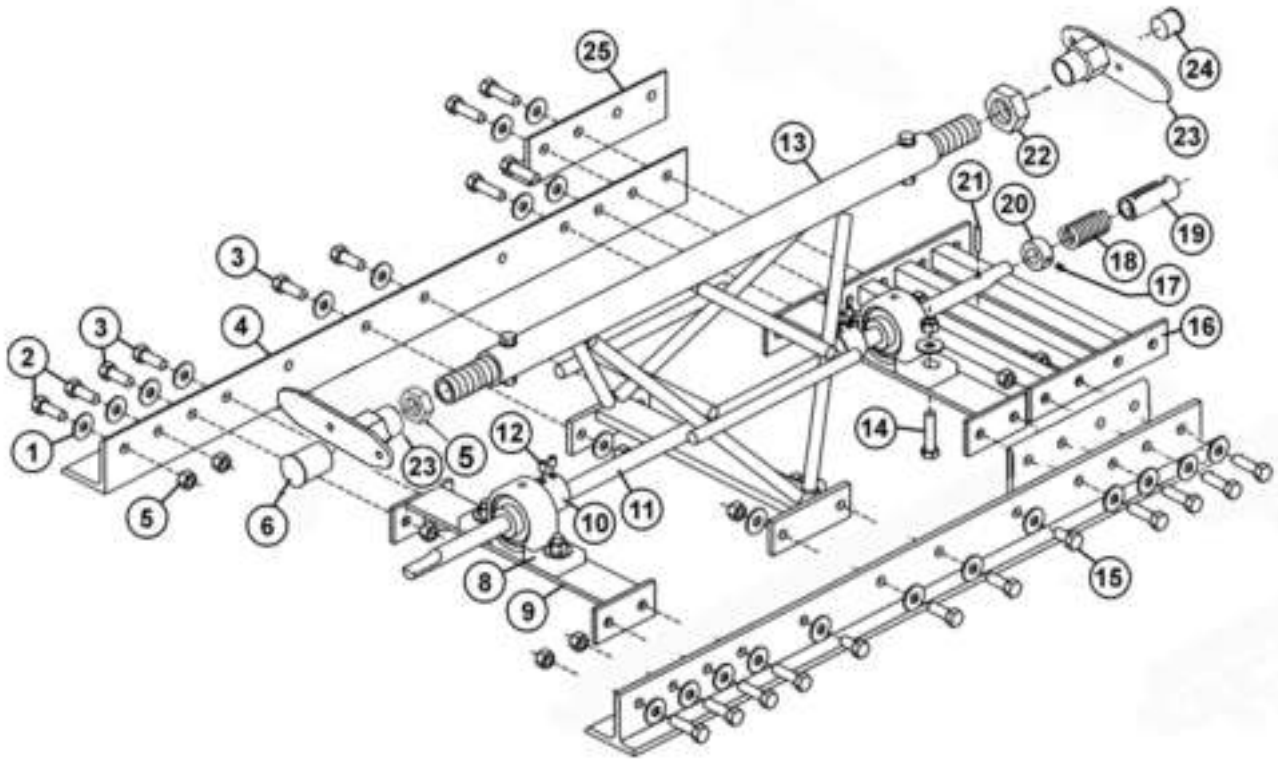
ASSEMBLY 7-1/2' SECTION (MODELS 12 ECS & 12 ECA)



PART#	DESCRIPTION	QTY.
1. 025806	BLADE, BULLFLOAT 7 1/2' - ALUMINUM (ECA ONLY)	1
2. 102000	BLADE, SCREED 7 1/2' - 12 GA. (ECS ONLY)	3
3. 010294	NUT, RH JAM	1
4. 020477	CAPLUG, TOP PIPE	1
5. 020542	NUT, 1/4-20 STOVER	6
6. 010005	BOLT, 1/4-20 X 1 1/2"	6
7. 010106	NUT, 1/2-13 HEX	24
8. 010066	BOLT, 1/2-13 X 3/4"	13
9. 025809	BLADE, SCREED 7 1/2' - ALUMINUM (ECA ONLY)	1
10. 025812	PLATE, SPLICE - ALUMINUM (ECA ONLY)	2
11. 106000	PLATE, SPLICE - 12 GA. (ECS ONLY)	2
12. 020704	BEARING, 3/4 PB	4
13. 010276	ECCENTRIC WEIGHT	6
14. 017751	WASHER, FLAT 3/8 HARDENED	8
15. 010038	BOLT, 3/8-16 X 1 1/2"	8
16. 017739	INTERMEDIATE BEARING SUPPORT (ECS ONLY)	1
029525	INTERMEDIATE BEARING SUPPORT (ECA ONLY)	1
17. 018999	SET SCREW, 1/4-28 X 3/8	2
18. 020514	NUT, 3/8-16 STOVER	8
19. 010273	KEY, 3/16 X 2"	2
20. 013374	SET SCREW, 1/4-28 X 1/4	2
21. 020274	CAPLUG, TOP PIPE COUPLER	1
22. 221161	TOP PIPE COUPLER (EC)	1
23. 010270	NUT, LH JAM	1
24. 017293	TRUSS, 7 1/2' EC	1
25. 010067	BOLT, 1/2-13 X 1"	21
26. 020635	SHAFT COUPLER	1
27. 029041	SHAFT, 7 1/2' SCREED	1

•ASSEMBLY 2-1/2' 10QX SECTION•

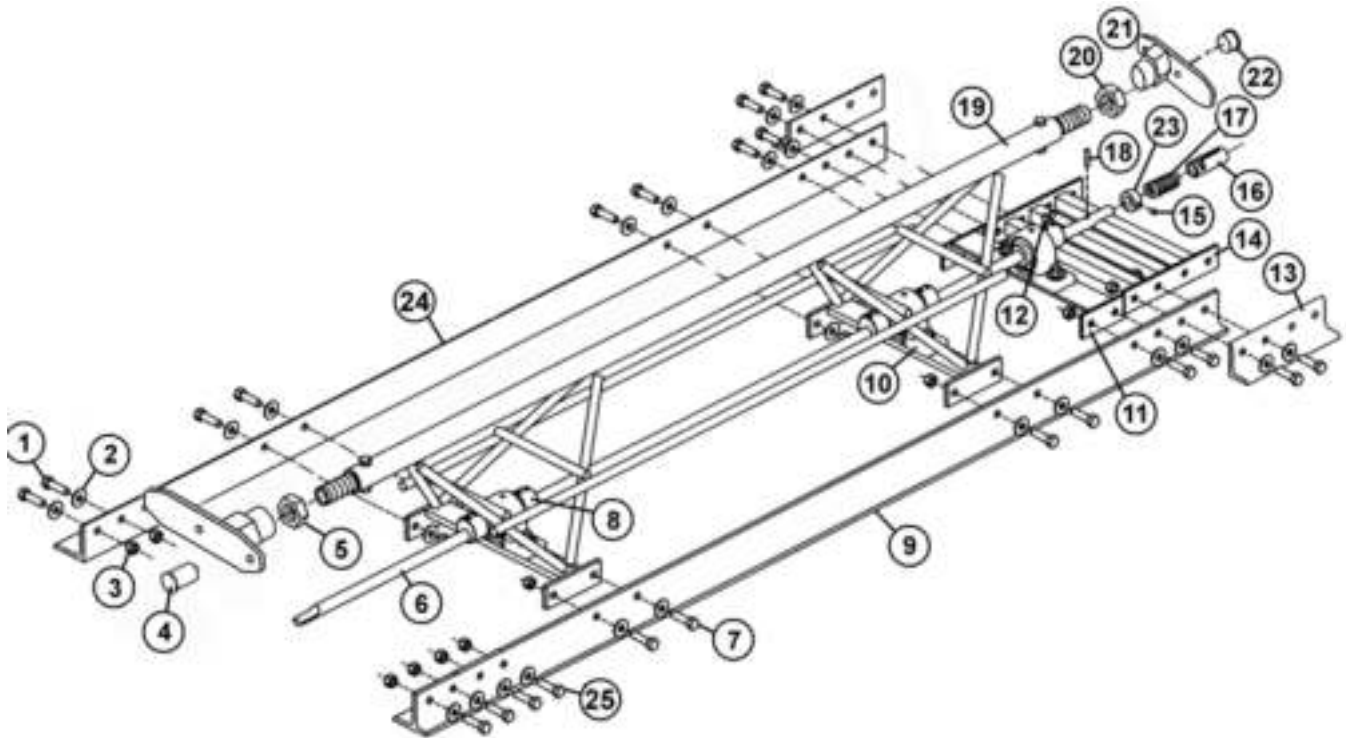
**PARTS
SECTION 2**



PART #	DESCRIPTION	QTY.
1. 017751	FSTN, FLATWASHER 3/8 HARDENED	26
2. 010037	BOLT, 3/8-16 X 1 1/4	8
3. 010036	BOLT, 3/8-16 X 1	12
4. 028840	BLADE, BULLFLOAT (10QX)	1
5. 010102	NUT, HEX 3/8 - 16	18
6. 020477	CAPLUG, EC TOP PIPE	1
7. 010294	NUT, RH JAM	1
8. 017619	BEARING 5/8 PB	2
9. 022486	BEARING SUPPORT	2
10. 017622	WEIGHT, ECCENTRIC	2
11. 017438	SHAFT, 2-1/2' DRIVE (10QX)	1
12. 018999	SET SCREW 1/4-28 X 3/8	4
13. 020809	TRUSS, 2-1/2' (10 QX)	1
14. 028402	BOLT, 3/8-16 X 1-1/2	4
15. 010035	BOLT, 3/8-16 X 3/4	2
16. 022574	BOX, REINFORCEMENT	1
17. 010316	SET SCREW, 1/4-20 X 1/4	1
18. 011752	SPRING, F/10QX	1
19. 017539	COUPLER, SHAFT (10QX)	1
20. 017540	COLLAR, SET 5/8"	1
21. 010478	PIN, ROLL 3/16 X 1	1
22. 010270	NUT, LH JAM	1
23. 039753	COUPLER, TOP PIPE (LEFT HAND)	1
039754	COUPLER, TOP PIPE (RIGHT HAND)	1
24. 020274	CAPLUG, EC TOP PIPE COUPLER	1
25. 022577	PLATE, SPLICE (10QX)	2
26. 017436	BLADE, SCREED (10 QX)	1

PARTS SECTION 2

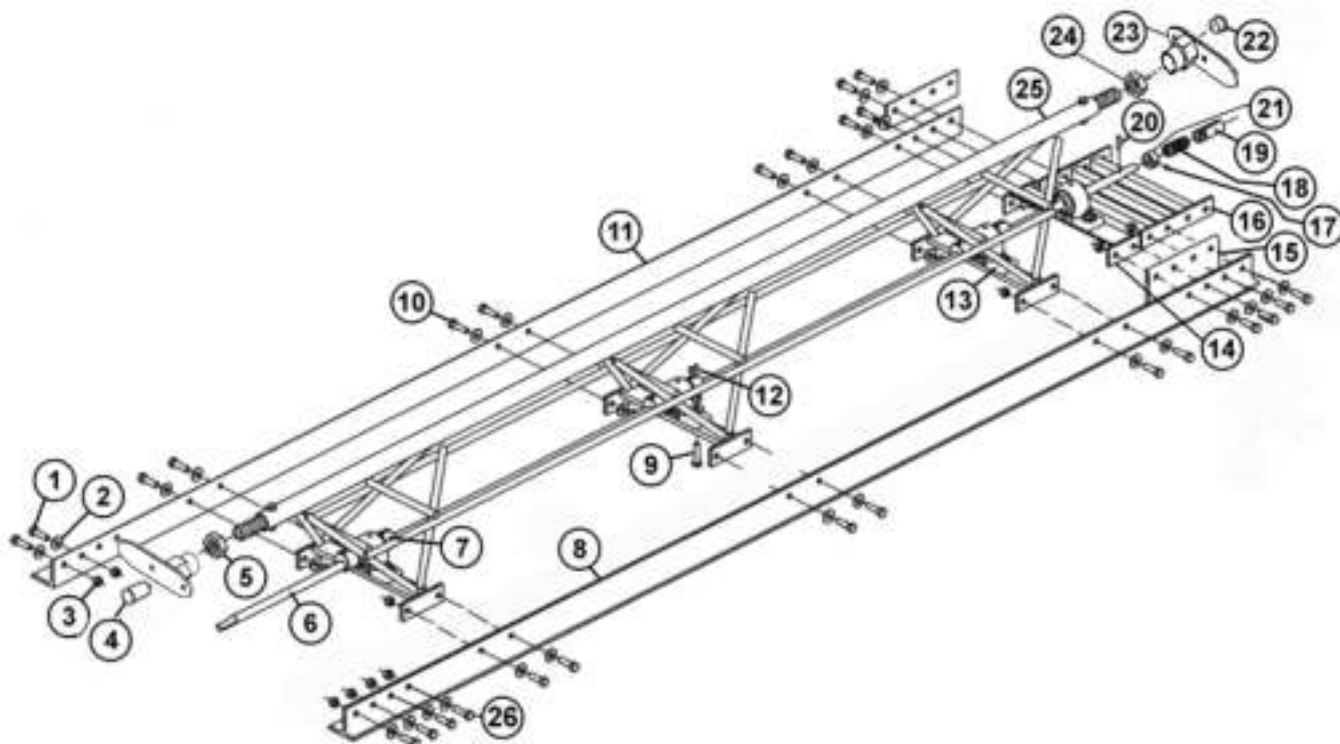
•ASSEMBLY 5' 10 QX SECTION•



PART #	DESCRIPTION	QTY.
1. 010037	BOLT, 3/8-16 X 1 1/4	8
2. 017751	FSTN, FLATWASHER 3/8 HARDENED	30
3. 010102	FSTN, 3/8-16 HEX NUT	23
4. 020477	CAPLUG, EC TOP PIPE	1
5. 010294	NUT, RH JAM	1
6. 017441	SHAFT, 5' (10QX)	1
7. 010036	BOLT, 3/8-16 X 1	12
8. 017622	WEIGHT, ECCENTRIC	4
9. 017439	BLADE, SCREED 5' (10QX)	1
10. 017619	BEARING, 5/8 PB	3
11. 022486	BEARING SUPPORT	1
12. 018999	FSTN, SET SCREW 1/4-28 X 3/8	8
13. 022577	PLATE, SPLICE	2
14. 022574	BOX, REINFORCEMENT	1
15. 010316	FSTN, SET SCREW 1/4-20 X 1/4	1
16. 017539	COUPLER, SHAFT	1
17. 011752	SPRING	1
18. 010478	FSTN, ROLL PIN 3/16 X 1	1
19. 020810	TRUSS 5' 10QX	1
20. 010270	NUT, LH JAM	1
21. 039753	COUPLER, TOP PIPE (LEFT HAND)	1
039754	COUPLER, TOP PIPE (RIGHT HAND)	1
22. 020274	CAPLUG, TOP PIPE COUPLER	1
23. 017540	COLLAR, SET 5/8	1
24. 028839	BLADE, BULLFLOAT 5' (10QX)	1
25. 010035	BOLT, 3/8-16 X 3/4	2

•ASSEMBLY 7-1/2' 10QX SECTION•

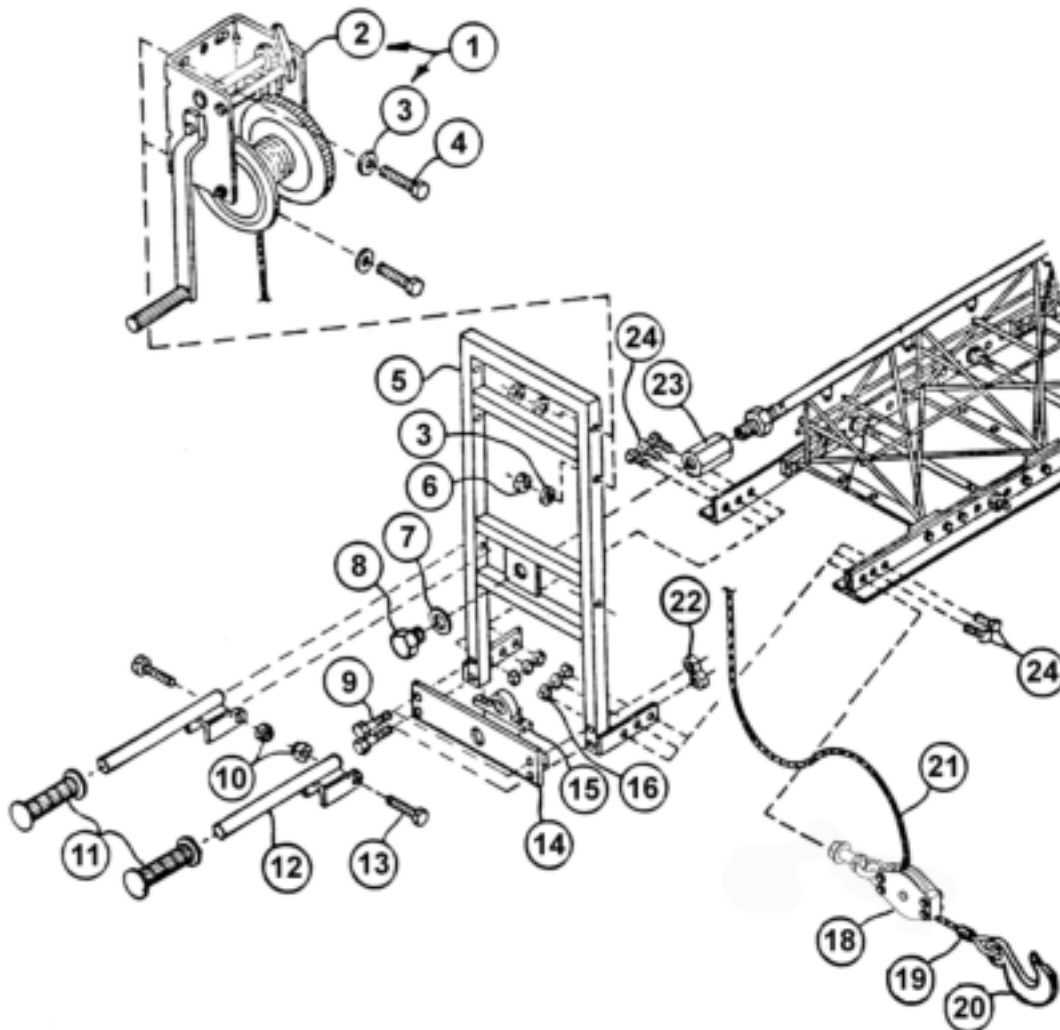
**PARTS
SECTION 2**



PART #	DESCRIPTION	QTY.
1. 010037	BOLT, 3/8-16 X 1 1/4	8
2. 017751	FSTN, FLATWASHER 3/8 HARDENED	30
3. 010102	FSTN, 3/8-16 HEX NUT	28
4. 020477	CAPLUG, TOP PIPE	1
5. 010294	NUT, RH JAM	1
6. 017444	SHAFT, 7 1/2' (10QX)	1
7. 017622	WEIGHT ECCENTRIC	6
8. 017442	BLADE, SCREED 7-1/2' (10QX)	1
9. 028402	BOLT, 3/8-16 X 1-1/2	6
10. 010036	BOLT, 3/8-16 X 1	14
11. 028838	BLADE, BULLFLOAT 7-1/2' (10QX)	1
12. 018999	FSTN, SET SCREW 1/4-28 X 3/8	12
13. 017619	BEARING, 5/8 PB	3
14. 022486	BEARING SUPPORT	1
15. 022577	PLATE, SPLICE	2
16. 022574	BOX, REINFORCEMENT	1
17. 010316	FSTN, SET SCREW 1/4-20 X 1/4	1
18. 011752	SPRING	1
19. 017539	SHAFT COUPLER (10QX)	1
20. 010478	FSTN, ROLL PIN 3/16 X 1	1
21. 017540	COLLAR, SET 5/8	1
22. 020274	CAPLUG, EC TOP PIPE COUPLER	1
23. 039753	TOP PIPE COUPLER (LEFT HAND)	1
039754	TOP PIPE COUPLER (RIGHT HAND)	1
24. 010270	NUT, LH JAM	1
25. 020811	TRUSS, 7-1/2' 10QX	1
26. 010035	BOLT, 3/8-16 X 3/4	2

PARTS SECTION 2

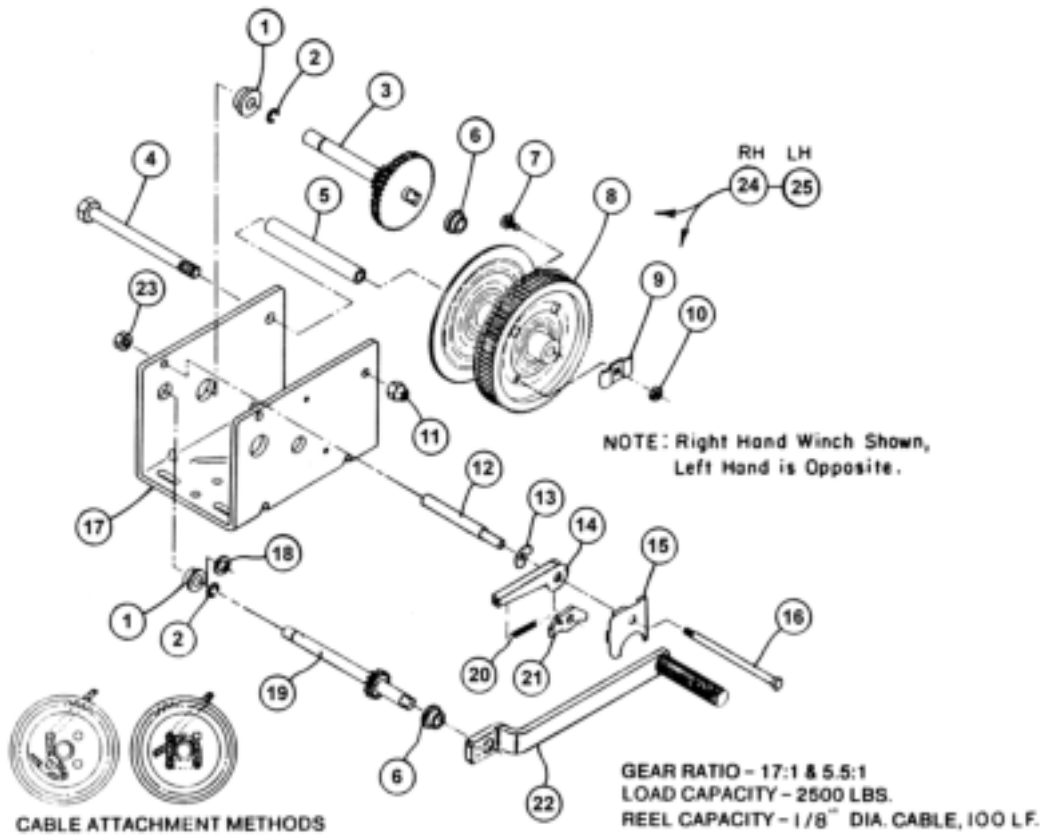
•END HANDLE ASSEMBLY•



PART #	DESCRIPTION	QTY.
1. 110100	COMPLETE RH WINCH ASSEMBLY	1
018670	COMPLETE LH WINCH ASSEMBLY	1
2. 110101	RH WINCH LESS CABLE	1
027482	LH WINCH LESS CABLE	1
3. 010082	FSTN, 5/16 FLATWASHER	4
4. 010023	FSTN, BOLT 5/16-18 X 1 3/4	2
5. 109000	END HANDLE	1
6. 010100	FSTN, NUT 5/16	2
7. 010088	FSTN, 1" FLATWASHER	1
8. 113000	FSTN, NUT F/END HANDLE	1
9. 010005	FSTN, BOLT 1/4-20 X 1 1/2	4
10. 010464	FSTN, NUT, NYLON LOCK 3/8-16	2
11. 015767	HANDLE GRIP	2
12. 017066	LIFTING HANDLE	2
13. 010040	FSTN, BOLT 3/8-16 X 2	2
14. 112000	BEARING SUPPORT BRACKET	1
15. 020704	BEARING	1
16. 010106	FSTN, NUT HEX 1/2-13	6
18. 025992	PULLEY BLOCK W/EYEBOLT	1
19. 012391	CABLE CLAMP	1
20. 110008	SLIP HOOK	1
21. 110103	CABLE F/WINCH (1/8 AIRCRAFT)	100 FT.
22. 020542	FSTN, NUT STOVER LOCK 1/4-20	4
23. 010300	ADAPTOR, R.H. AIR END	1
010269	ADAPTOR, L.H. AIR END	1
24. 010067	FSTN, BOLT 1/2-13 X 1	5

WINCH ASSEMBLY

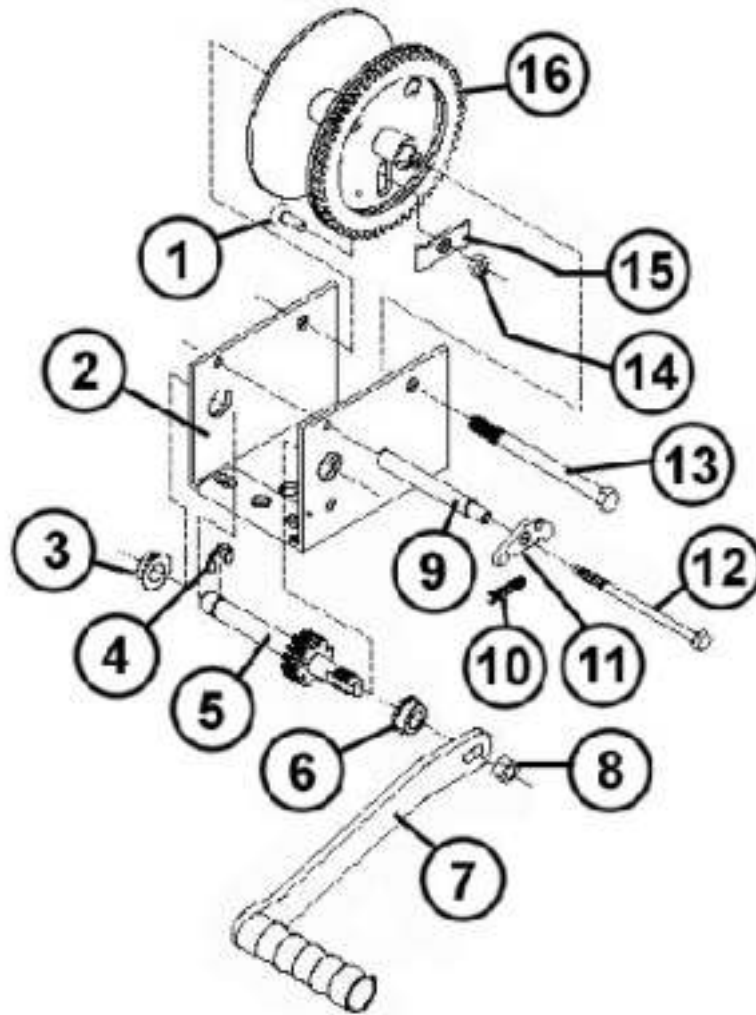
PARTS SECTION 2



PART #	DESCRIPTION	QTY.
1. 250001	BUSHING	2
2. 250003	E-RING	2
3. 250022	INTERMEDIATE DRIVE SHAFT	1
4. 250014	SHAFT REEL	1
5. 012826	SPACER	1
6. 250024	BUSHING	2
7. 120013	FSTN, BOLT CARRIAGE 1/4 X 1/2	1
8. 250017	WINCH REEL 2 1/2 DIA.	1
9. 120012	CABLE CLAMP	1
10. 120014	FSTN, NUT HEX 1/4	1
11. 120015	FSTN, STOVER LOCK 3/8	1
12. 250009	SLEEVE RATCHET	1
13. 120017	COMPRESSED SPRING	1
14. 120018	LEVER RATCHET	1
15. 020471	PLATE, LATCH LH	1
250026	PLATE, LATCH RH	1
16. 250007	BOLT, RATCHET	1
17. 250001	BASE WINCH, 2500	1
18. 250025	SPACER	1
19. 250006	DRIVE SHAFT	1
20. 120021	SPRING EXTENSION	1
21. 120020	PAWL RATCHET	1
22. 110102	HANDLE	1
23. 120016	FSTN, NUT STOVER LOCK 1/4	1
24. 110101	HD WINCH RH (WINCH ONLY)	1
25. 027482	HD WINCH LH (WINCH ONLY)	1

PARTS SECTION 2

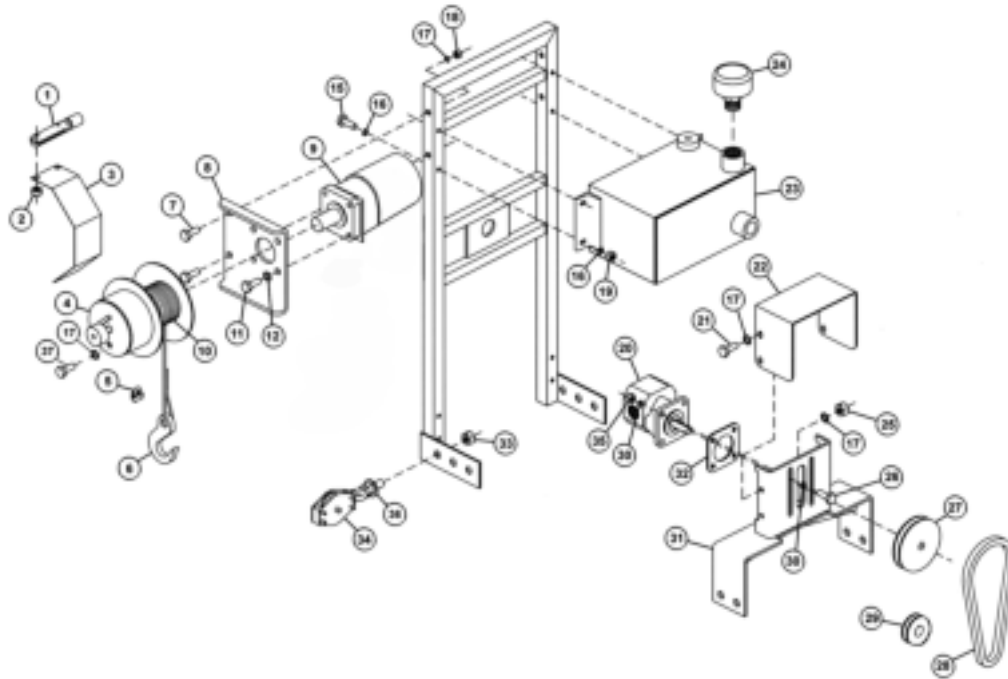
•DL1200 WINCH ASSEMBLY•



PART #	DESCRIPTION	QTY.
1. 120013	CARRIAGE BOLT	1
2. 120001	WINCH BASE	1
3. 016719	SHAFT BUSHING	1
4. 120003	E-CLIP	1
5. 120004	DRIVE SHAFT	1
6. 016972	SHAFT BUSHING	1
7. 110002	WINCH HANDLE	1
8. 120006	HANDLE NUT	1
9. 120009	RATCHET SLEEVE	1
10. 120021	EXTENSION SPRING	1
11. 120020	PAWL RATCHET	1
12. 120007	BOLT F/RATCHET	1
13. 120010	REEL SHAFT	1
14. 120011	NUT	1
15. 120012	ROPE CLAMP	1
16. 120014	WINCH REEL	1

**•HYDRAULIC WINCH ASSEMBLY•
(MODELS 12 ECS & 12 ECA)**

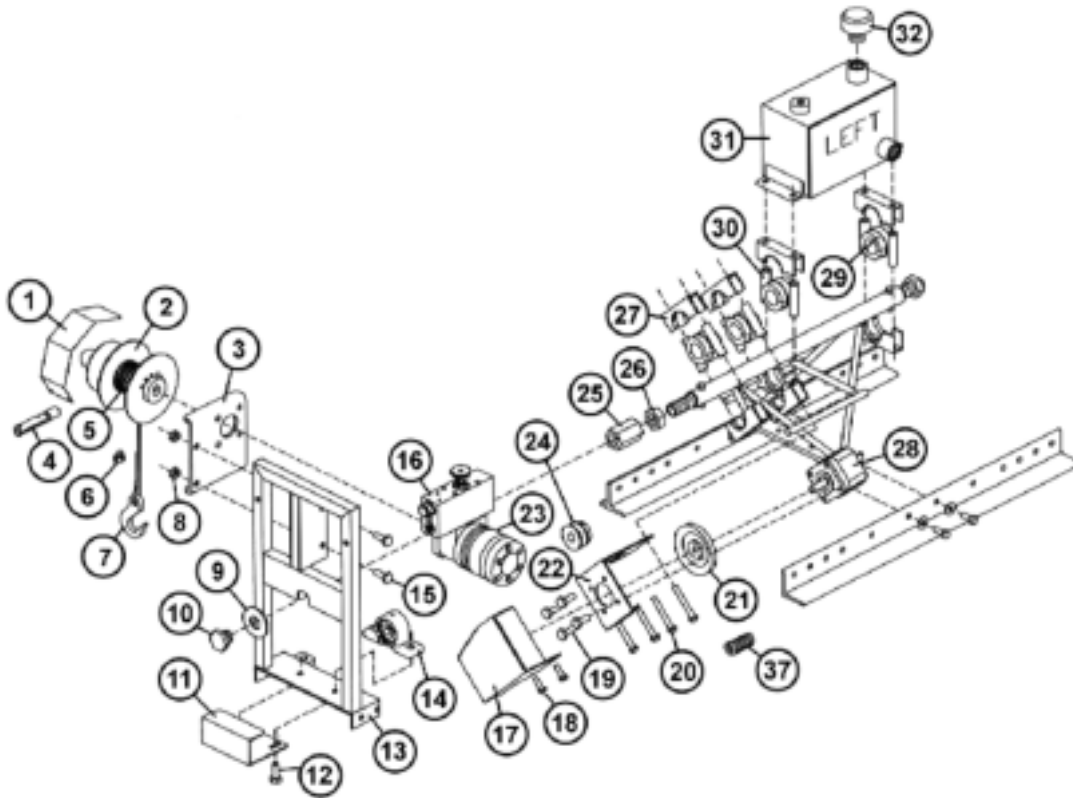
**PARTS
SECTION 2**



PART#	DESCRIPTION	QTY.
1. 029109	ROD, SPRING	.1
2. 010098	FSTN, NUT 1/4-20	.2
3. 029108	SPRING, F/HYD WINCH	.1
4. 038280	REEL ASSEMBLY	.1
5. 022656	CABLE CLAMP	.2
6. 110008	SLIP HOOK	.1
7.		
8. 029112	REEL BRACKET	.1
9.		
10. 000751	CABLE, 1/8" (AIRCRAFT STYLE)	.100'
11. 010036	FSTN, BOLT 3/8-16 X 1	.4
12. 010091	FSTN, 3/8 LOCKWASHER HARDENED	.4
15. 010005	FSTN, BOLT 1/4-20 X 1 1/2	.4
16. 010081	FSTN, 1/4 FLATWASHER	.8
17. 017751	FSTN, 3/8 FLATWASHER HARDENED	.8
18. 010464	FSTN, NUT NYLON 3/8	.2
19. 020542	FSTN, NUT STOVER 1/4-20	.4
20.		
21. 010019	FSTN, BOLT 5/16-18 X 3/4	.4
22. 027903	PUMP COVER	.1
23. 038272	TANK, HYDRAULIC	.1
24.		
25. 015020	FSTN, NUT NYLON 5/16-18	.4
26. 010021	FSTN, BOLT 5/16 X 1 1/4	.4
27. 010500	PULLEY 1/2"	.1
28. 026486	V-BELT	.1
29. 022676	PULLEY, 5/8	.1
30. 010090	FSTN, HARD LOCKWASHER 5/16	.8
31. 029114	PUMP BRACKET	.1
32. 029111	PLATE	.1
33.		
34. 025992	PULLEY BLOCK HD W/EYEBOLT	.1
35. 010100	FSTN, NUT 5/16	.4
36. 010085	FSTN, FLATWASHER 1/2	.1
37. 010035	FSTN, BOLT 3/8 X 3/4	.1
38.		
39.		
40.		
41.		
42.		
43.		
44.		

PARTS SECTION 2

•HYDRAULIC WINCH ASSEMBLY (10QX)•



**RH WINCH
027847R**

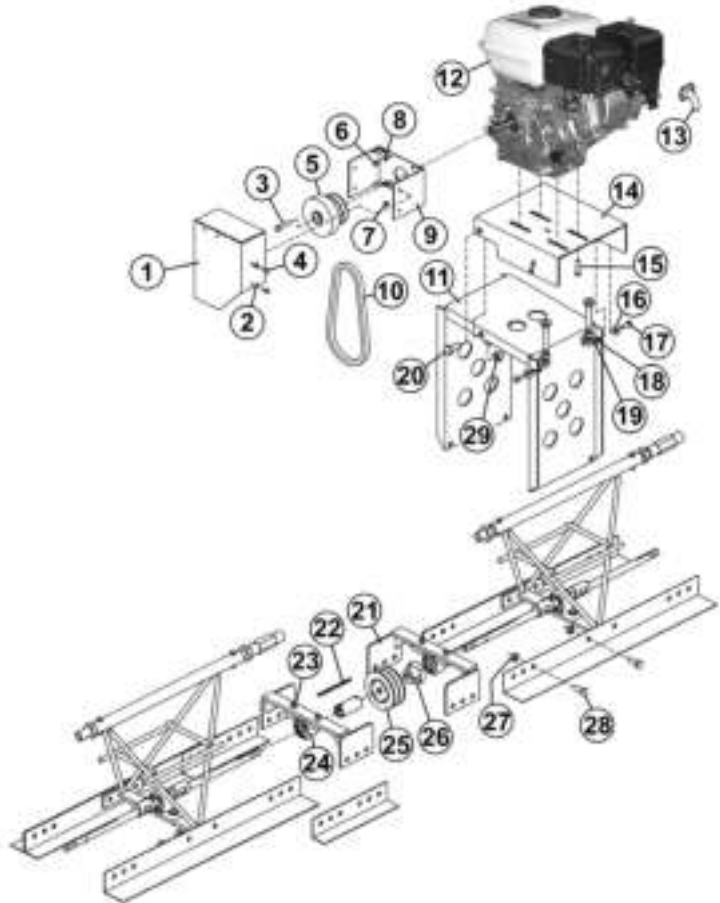
**LH WINCH
027847L**

PART #	DESCRIPTION	QTY.
1. 029108	SPRING, HYDRAULIC WINCH	1
2. 027898L & R	REEL ASSEMBLY	1
3. 029112	REEL BRACKET	1
4. 029109	ROD, SPRING	1
5. 000751	CABLE, 1/8" (AIRCRAFT STYLE)	1
6. 022656	CABLE, CLAMP	2
7. 110008	SLIP HOOK	1
8. 010464	FSTN, NUT NYLON 3/8	2
9. 010088	FSTN, FW 1"	1
10. 113000	NUT, END HANDLE	1
11. 028979	COVER, BEARING	1
12. 010038	BOLT, 3/8 X 1 1/2	2
13. 034747L & R	END, HANDLE 10QX	1
14. 017619	BEARING, 5/8 PB	1
15. 010039	BOLT, 3/8 X 1 3/4	2
16. 029107	VALVE BLOCK	1
17. 035762	BELT COVER F/PUMP (LH)	1
035763	BELT COVER F/PUMP (RH)	1
18. 010019	BOLT, 5/16 X 3/4	2
19. 010036	BOLT, 3/8 X 1	4
20. 027882	FSTN, HHCS 3/8-16 X 3-3/4	4
21. 027882	BOLT, 3/8 X 3 3/4	8
22. 033685L & R	BELT GUARD MOUNTING BRACKET	1
23. 034011	MOTOR HYDRAULIC	1
24. 022676	PULLEY, AK20 X 5/8	1
25. 010269	ADAPTOR, END (LH)	1
010300	ADAPTOR, END (RH)	1
26. 010270	NUT, JAM LH	1
27. 027884	CLAMP, TOP PIPE	8
28. 029104	HYDRAULIC PUMP	1
29. 027883	BUSHING, RUBBER	4
30. 027885	SPACER, CLAMP	8
31. 034733L & R	TANK, HYDRAULIC	1
32. 010495	CAP, FILLER BREATHER	1
33. 010494	FILTER (NOT SHOWN)	1
34. 037586	HOSE, 1/2" FROM PUMP TO HYDRAULIC TANK (NOT SHOWN)	2
35. 037587	HOSE, 1/4" FROM "T" ON VALVE TO TANK (NOT SHOWN)	2
36. 037588	HOSE, 1/4" FROM "P" ON VALVE TO PUMP (NOT SHOWN)	2
37. 017538	SPRING, 6"	1
38. 035767	TAB F/SPRING (NOT SHOWN)	2

•STRADDLE MOUNT ENGINE KIT•

PARTS SECTION 2

PART #	DESCRIPTION	QTY
1.	020062 BELT GUARD	1
•	025070 BELT GUARD	1***
2.	010089 LW 1/4"	4
3.	020829 BOLT, 5/16 X 1 3/4	1
4.	010002 BOLT, 1/4 X 3/4	4
5.	100620 CLUTCH 3/4" BORE	1*
•	126003 CLUTCH 1" BORE	1
•	020165 CLUTCH 3/4" BORE	1***
6.	012974 BOLT, 5/16 X 3/4	4
7.	020542 NUT, 1/4-20	4
8.	010090 LW, 5/16	4
9.	020776 BELT GUARD BRKT	1
•	020159 BELT GUARD BRKT	1(*)
10.	022447 V-BELT, #6955	2*
•	025925 V-BELT, #6956	2
•	020729 V-BELT, B-36	1***
11.	020849 STRADDLE STAND	1
•	018601 STRADDLE STAND	1***
12.	018961 ENGINE 5.5 HP	1*
•	018735 ENGINE 8 HP	1
13.	020983 MUFFLER	1*
14.	010408 MOTOR PLATE	1*
•	010414 MOTOR PLATE	1
•	018602 MOTOR PLATE	1***
15.	010038 BOLT, 3/8 X 1 1/2	4
16.	017751 FW 3/8	2
17.	010036 BOLT, 3/8 X 1	2
18.	010091 LW 3/8 HARD	2
19.	010102 NUT, 3/8-16	2
20.	036787 BOLT, 5/8 X 1 1/4	2
21.	016876 BEARING SUPPORT	2
•	032928 BEARING SUPPORT	2
22.	010412 KEY, 3/16 X 5	
23.	020514 NUT, 3/8-16 STVR	
24.	020704 BEARING, 3/4 PB	2
25.	010265 PULLEY	1
•	020905 PULLEY	1***
26.	012387 H-BUSHING 3/4	1
•	012776 H-BUSHING 5/8	1***
27.	010106 NUT, 1/2-13	4
28.	010068 BOLT, 1/2 X 1 1/4	4
29.	037139 NUT, 5/8-11	2



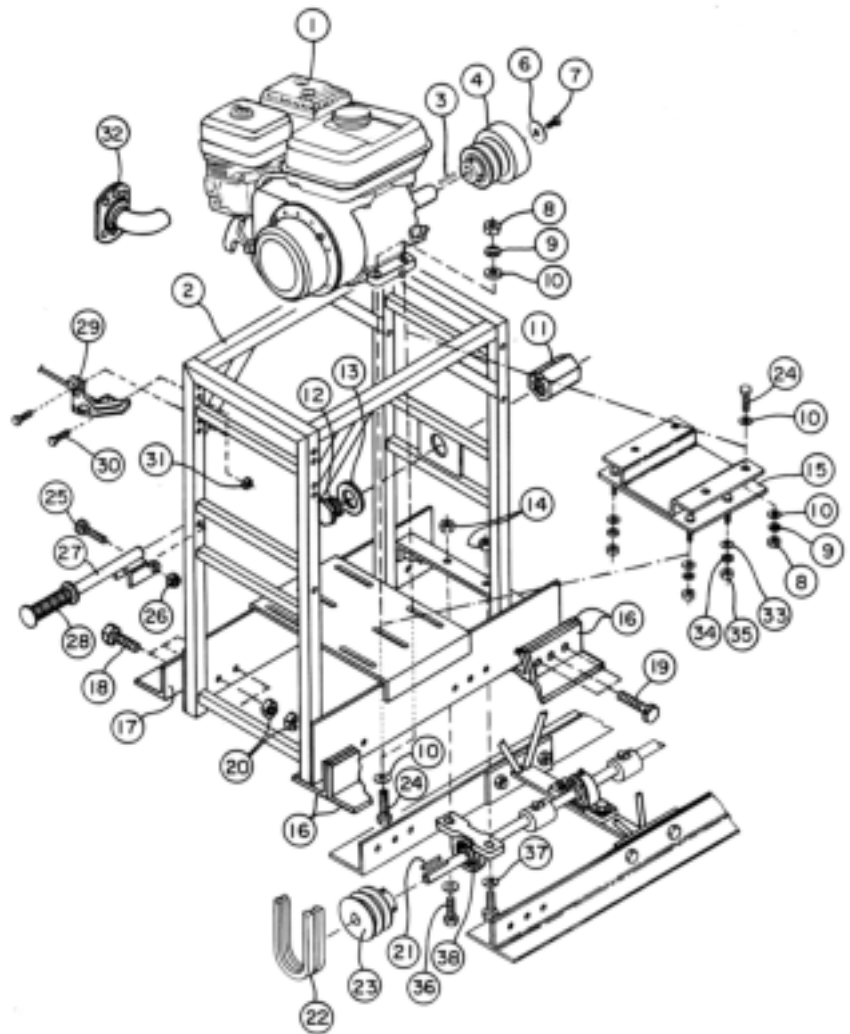
- =SAME ILLUSTRATION BUT HAS A DIFFERENT PART #
- * =USED ON 5.5 HP ENGINE ONLY
- ** =USED ONLY ON ECA SCREED
- *** =USED ONLY ON 10QX
- (*) =USED ON 5.5 HP & 10QX

PART#	DESCRIPTION	QTY.
• 035781	.....ECS STRAD. MT. KIT LESS 5.5 HP ENGINE	.....1
• 037425	.....ECA STRAD. MT. KIT LESS 5.5 HP ENGINE	.....1
• 020269	.....ECS STRAD. MT KIT 5.5 HP HONDA	.....1
• 037426	.....ECA STRAD. MT KIT 5.5 HP HONDA	.....1
• 035783	.....ECS STRAD. MT KIT LESS 8 HP ENGINE	.....1
• 037427	.....ECA STRAD. MT KIT LESS 8 HP ENGINE	.....1
• 020272	.....ECS STRAD. MT KIT 8 HP HONDA	.....1
• 037428	.....ECA STRAD. MT KIT 8 HP HONDA	.....1
• 035796	.....10QX STRAD. MT KIT LESS 5.5 HP ENGINE	.....1
• 020907	.....10QX STRAD. MT KIT 5.5 HP HONDA	.....1

PARTS SECTION 2

•END MOUNT ENGINE ASSEMBLY•

PART#	DESCRIPTION	QTY.
1. 020203	ENGINE 5.5 HP	1*
020426	ENGINE 8 HP	1
2. 126001	HANDLE	1
3. 010273	KEY	1
4. 100620	CLUTCH	1*
126003	CLUTCH	1
5.	NOT USED	
6. 010082	WASHER FLAT	1*
010084	WASHER FLAT	1
7. 020829	BOLT 5/16 X 1 3/4	1*
017898	BOLT 7/16 X 1 1/2	1
8. 010100	NUT HEX 5/16	4*
010102	NUT HEX 3/8	4
9. 010090	WASHER LOCK	4*
010091	WASHER LOCK	4
10. 010082	WASHER FLAT	8*
010083	WASHER FLAT	8
11. 114000	R.H. ADAPTOR	1
12. 113000	NUT, END	1
13. 010088	WASHER	1
14. 020514	NUT STOVER 3/8	2
15. 027483	ENGINE MOUNT	1*
16.	SEE BELOW	
17.	SEE BELOW	
18. 010066	BOLT 1/2 X 3/4	6
19. 010067	BOLT 1/2 X 1	6
20. 010106	NUT, HEX 1/2	12
21. 010273	KEY	1
22. 020720	V-BELT	2
23. 020698	PULLEY	1
24. 010023	BOLT 5/16 X 1 3/4	4*
010039	BOLT 3/8 X 1 3/4	4
25. 010040	BOLT 3/8 X 2	2
26. 010464	NUT, NYLON	2
27. 017066	HANDLE	2
28. 015767	GRIP, HANDLE	2
29. 124000	THROTTLE ASSY	1
30. 010002	BOLT 1/4 X 3/4	2
31. 020542	NUT, STOVER	2
32. 020983	MUFFLER	1
33. 010083	WASHER FLAT	4
34. 010091	WASHER LOCK	4
35. 010102	NUT, HEX	4
36. 010038	BOLT 3/8 X 1 1/2	2
37. 017751	WASHER, FLAT	2
38. 020704	BEARING	1

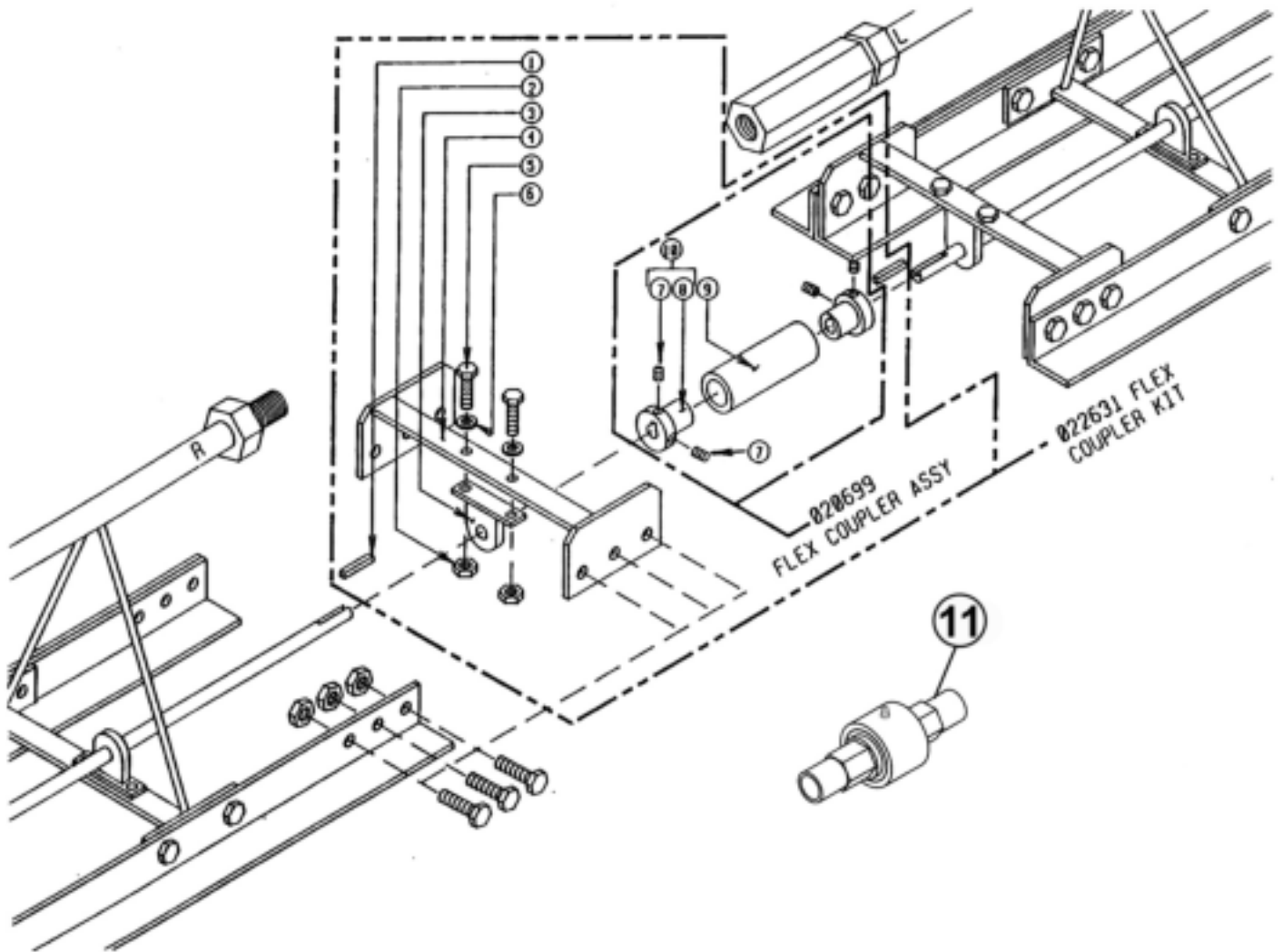


NOTE: * = ONLY USED ON 5.5 HP ENGINE

16. 102003	BLADE, SCREED 18" (12 GA)	2
018655	BLADE, SCREED 18" (10 GA)	2
17. 104003	BLADE, BULLFLOAT 18" (12 GA)	1
018656	BLADE, BULLFLOAT 18" (10 GA)	1

•FLEX COUPLER ASSEMBLY•

**PARTS
SECTION 2**



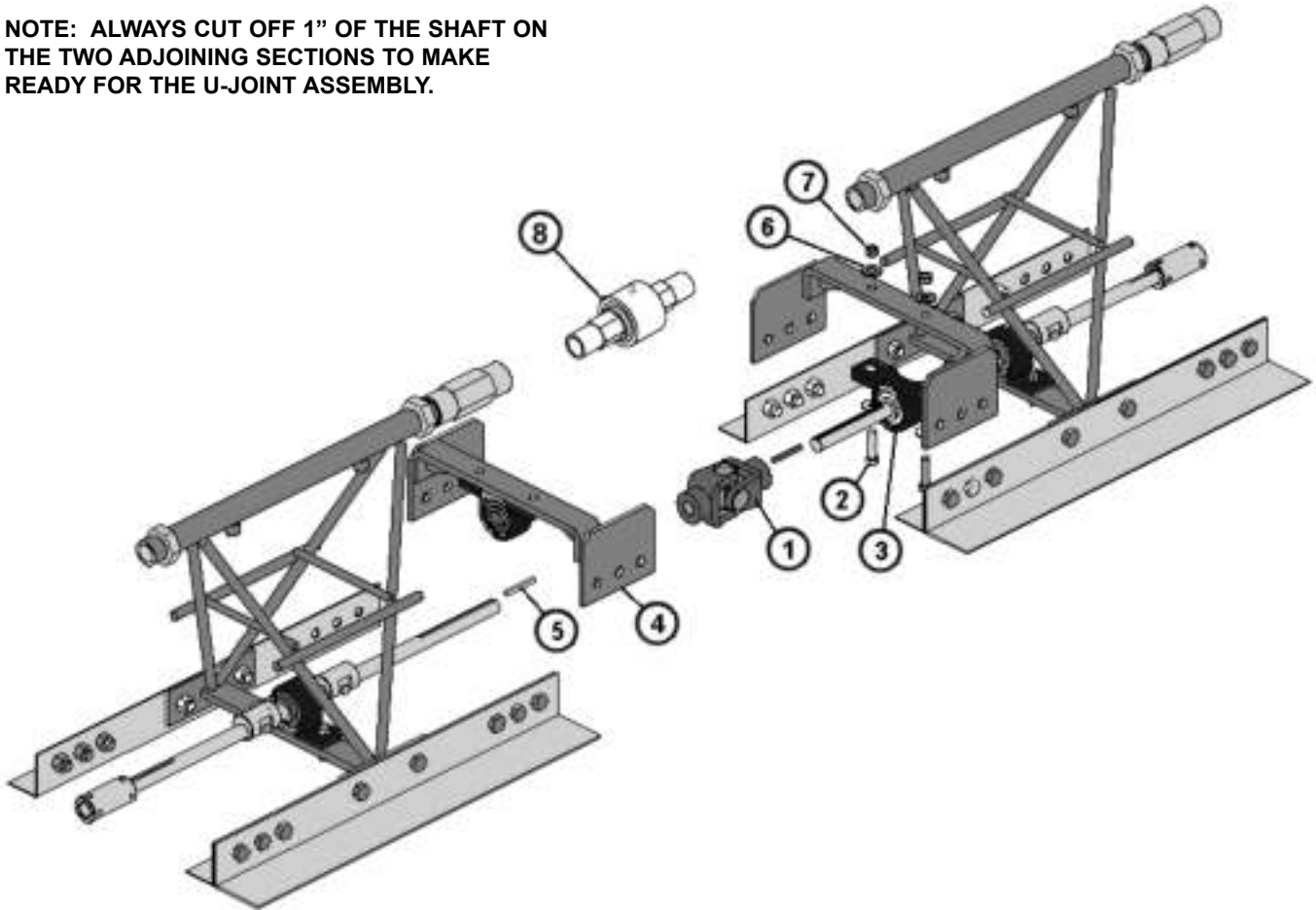
The above illustration is the flex coupler kit. This kit should be used for crowns up to 2% grade. DO NOT use this system for crowns over this amount. For crowns up to 1% grade, use items 1 thru 10 only. For crowns up to 2% grade, use item number 11 also.

PART #	DESCRIPTION	QTY.
1. 010273	KEY 3/16 X 2	2
2. 020514	FSTN, NUT STOVER 3/8	2
3. 020704	BEARING	1
4. 221155	OFFSET BEARING SUPPORT	1
5. 010038	FSTN, BOLT 3/8 X 1 1/2	2
6. 017751	FSTN, FLATWASHER 3/8	2
7. 022954	FSTN, SET SCREW 5/16 X 1/2	1
8. 020870	BUSHING	2
9. 020867	COUPLER	1
10. 020868	END FLEX ASSEMBLY	2
11. 035378	TOP PIPE BALL JOINT COUPLER (SEE NOTE ABOVE)	1
• 035929	FLEX COUPLER KIT FOR ECS SCREED	1
• 035928	FLEX COUPLER KIT FOR ECA SCREED	1

PARTS SECTION 2

•U-JOINT KIT ASSEMBLY•

NOTE: ALWAYS CUT OFF 1" OF THE SHAFT ON THE TWO ADJOINING SECTIONS TO MAKE READY FOR THE U-JOINT ASSEMBLY.



PART #	DESCRIPTION	QTY.
1. 022635	U-JOINT ASSEMBLY	1
2. 028402	BOLT, 3/8 X 1 1/2	4
3. 020704	BEARING, 3/4"	2
4. 016876	SUPPORT, EC OFFSET INTM BEARING	2
5. 010273	KEY, 3/16 X 2	2
6. 017751	FSTN, FLATWASHER 3/8	4
7. 020514	FSTN, NUT STOVER 3/8	4
8. 035378	TOP PIPE BALL JOINT COUPLER	1
• 035381	U-JOINT KIT FOR ECS SCREED	1
• 035377	U-JOINT KIT FOR ECA SCREED	1