The Premier Line®

MARSHALLTOWN TRUSS SCREED

OPERATIONS MANUAL

12345
12345

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20073

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INFORMATION CONTAINED IN THIS MANUAL

The information contained in this manual provides important procedures to safely operate and maintain your 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. Disregarding these instructions could lead to personal injury or possibly even death.

ORDERING PARTS

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

- All orders for service parts must include a truss screed serial number. Shipment of your parts will be delayed if this information is not available when you contact Marshalltown Company.
- 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 Marshalltown without receiving written authorization from Marshalltown. All authorized returns must be shipped pre-paid.

To place an order contact MARSHALLTOWN Customer Service at 800-888-0127

MARSHALLTOWN®
The Premier Line

104 S 8th Ave
Marshalltown, IA 50158 U.S.A

SERIAL NUMBER LOCATION

NOTE: EVERY SECTION THAT LEAVES MARSHALLTOWN CO. HAS A SERIAL NUMBER DECAL ON THE TOP TRUSS 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

Truss Screed Part #	Serial #

MARSHALLTOWN®
The Premier Line

DISTRIBUTOR INFORMATION

PLACE DISTRIBUTOR INFORMATION HERE FOR FUTURE REFERENCE

DISTRIBUTOR NAME:_____ PHONE #:_____
ADDRESS:_____
CITY: _____STATE: _____ZIP:_____
SALESMAN :_____
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.

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 risk of fires. Consult the engine distributor or contact local authorities to make sure that you comply with regulations concerning spark arresters.

OPERATIONS SECTION 1

OPERATING SAFETY

Familiarity and proper training are required for the safe operation of this equipment. Equipment operated improperly or by untrained personnel can damage equipment and could be dangerous. Read the operating instructions contained in this 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 instructions. 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 truss screed. Individuals who operate this screed should have adequate training in operating procedures.

DO NOT attempt to fill hydraulic(winch) tanks while machine is running.

NEVER use over-the-counter hardware to replace manufacturers hardware. Contact MARSHALLTOWN Customer Service Department for information regarding replacement parts. 800-888-0127

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, hydraulic components.

SERVICE SAFETY

DO NOT attempt to clean or service screed while machine is running.

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 disconnect spark plug before servicing engine to prevent accidental start-up.

ALWAYS wear adequate hearing protection while running your truss screed.

AVERAGE EQUIVALENT SOUND PRESSURE LEVEL	SOUND PRESSURE LEVEL AT OPERATOR'S EAR	EQUIVALENT SOUND POWER LEVEL
89DB (A)	96DB (A)	106DB (A)

The information above was acquired through vibration and sound analysis. A certified sound and vibration technician was used to test several of our products. All of the data collected was measured according to OSHA standards ISO 3744. If there are any questions on this particular subject, contact MARSHALLTOWN Customer Service. 800-888-0127

DIMENSIONAL PICTORIALS

The dimensions of the truss screed 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.

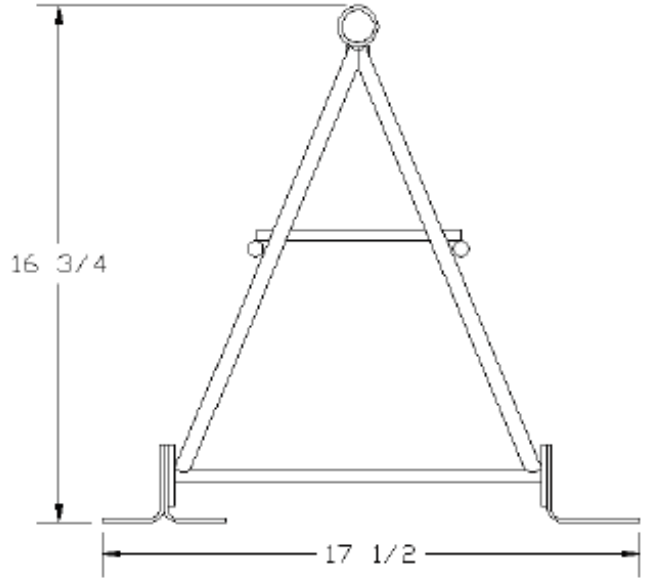


FIGURE 1

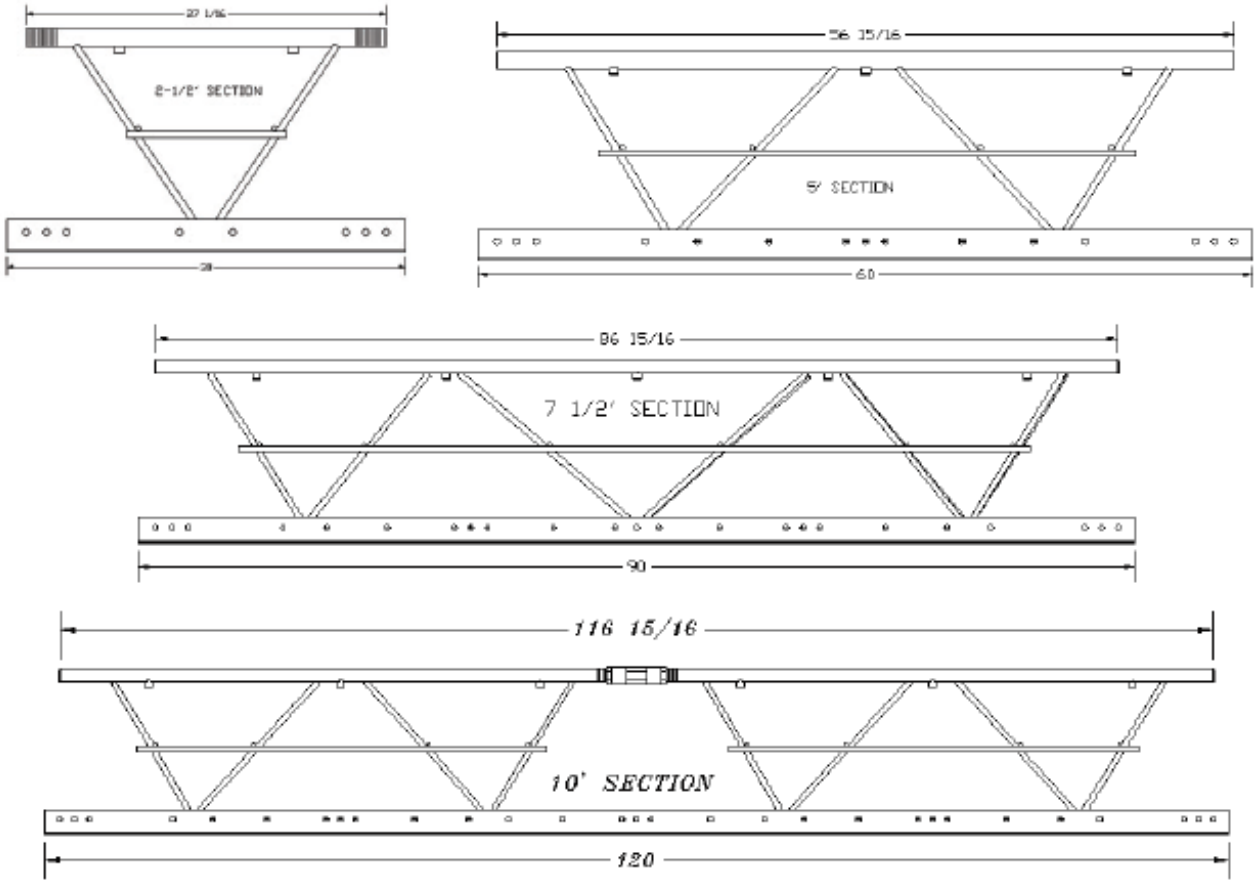


FIGURE 2

OPERATIONS SECTION 1

TECHNICAL DATA

SPECIFICATIONS ON THE MARSHALLTOWN TRUSS SCREED						
Truss Blades	**10'**	**7 1/2'**	**5'**	**2 1/2'**	**2'**	**Max Width**
10 GA. Galv. Steel	180lbs. (64kg)	135lbs. (47kg)	90lbs. (32kg)	50lbs. (16kg)	36lbs. (13kg)	65'

- Top pipe - coupling system - fine thread adjustment 1 5/16-16 tpi with full flow 1" non-restricting air system with dual locking jam nuts.
- Vibration proof welds with exclusive vibration-dampening system.
- Bolt-on blades with quick connecting 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 structural integrity.
- Top pipe coupling system provides for crowned or 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. The coupler bracket must be special ordered from MARSHALLTOWN.
- NOTE: select screed width to allow minimum overhang past forms; 6" overhangs are ideal, overhangs over 12" are not recommended
- NOTE: special make truss screeds are available upon request. Most special make screeds can be available in 4-6 weeks.

BEFORE STARTING

Before starting the truss screed, there are a few items that need to be checked to prevent damage or personal injury.

- Make sure that bolts are secure and will not vibrate loose.
- Check jam nuts on top pipe to ensure that they are tight against the top pipe coupler.
- Check the hydraulic level in the tank for the hydraulic winches (if applicable).
- 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 yourselves these 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?
- What size and type of screed is required for this pour?

OPERATING

Operating your engine driven screed correctly will assist you in achieving the desired outcome of a pour. Follow the instructions below to operate your screed correctly and you will be very pleased with your equipment.

- Start the 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 on the front blade, this causes the screed to be stressed and is strenuous on the operators controlling the manual winches. The concrete should not go above the bolts attaching the blades. If this happens, stop the screed and let the vibration do its job.
- If the concrete is not being added at the appropriate rate, slow the screed down to compensate.
- The speed at which the screed should be operated depends 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 in the drive shaft and bearing, etc. Pressure washers are recommended for this job.

PERIODIC MAINTENANCE SCHEDULE

- Always make sure that the drive shaft is aligned properly.
- When connecting drive shafts, assemble with all the weights on each section facing the bull float blade. If weights are mismatched, the screed will not vibrate properly. Match the keyways on the drive shafts and connectors.
- Do not overspeed, engine RPM must not exceed 3600 RPM. Shaft speed will remain within the designed limitations if the engine maximums are adhered to.
- 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 hr. operating intervals. Use ONE stroke of a hand grease gun (No More). 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!
- Oil winch bushings at 10 hr. operation intervals. Use light lubricating oil.
- CAUTION! Change worn or frayed 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 stake can tilt under tension and snap back and cause severe injury.
- For cold weather operations, use cold weather bearing lubricant that operates from ~-22° F - ~350° F.
- CAUTION! For screeds over 65 ft. in length, consult MARSHALLTOWN.
- 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.

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.

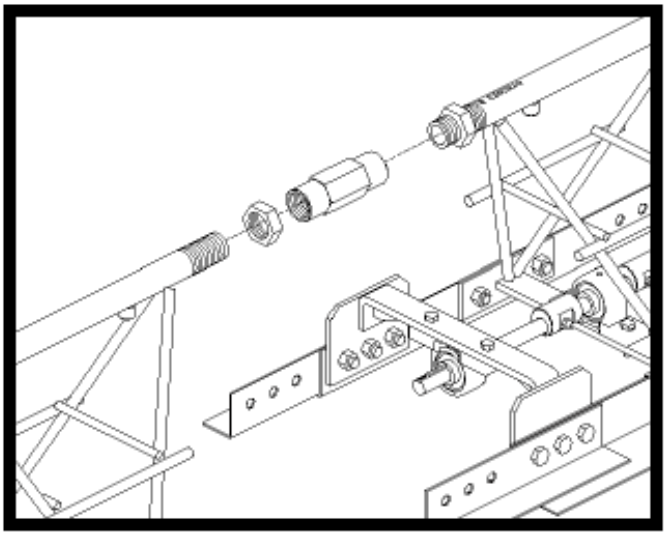
NOTE: Never lift more than what you personally feel that you can handle. The lifting handles at each end of the screed are not intended to be used as the only source to lift the screed. It is quite obvious that two large men will not be able to lift 70 feet of screed. Do not exceed 65 feet when using the Marshalltown Truss Screed.

MARSHALLTOWN TRUSS SCREED - MAXIMUM 65 FEET

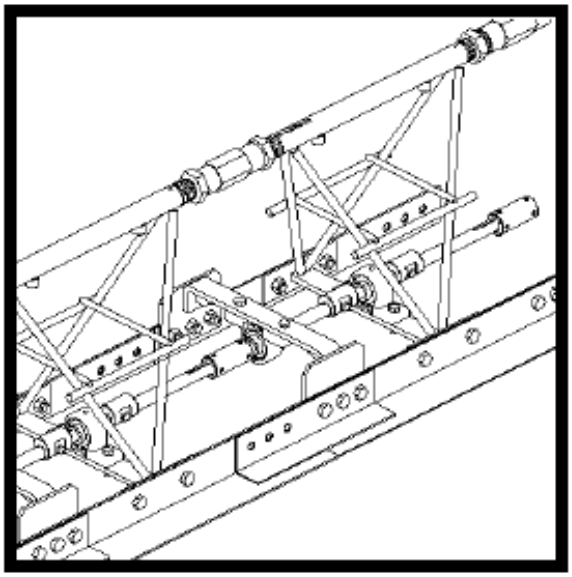
OPERATIONS SECTION 1

SECTION ASSEMBLY

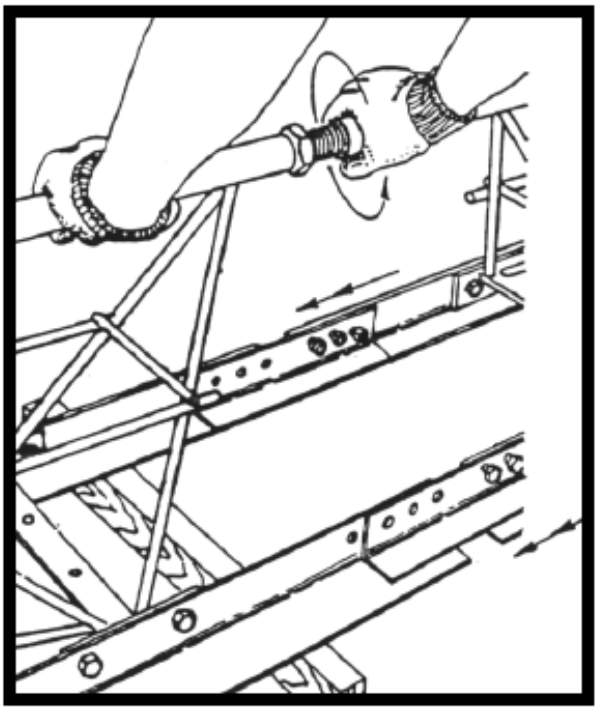
The following figures describe the proper instructions for correctly assembling engine driven screed. Make sure that you follow the instructions in order. If the assembling of your screed is not done in this order, there could be some problems in trying to maintain floor flatness because your screed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



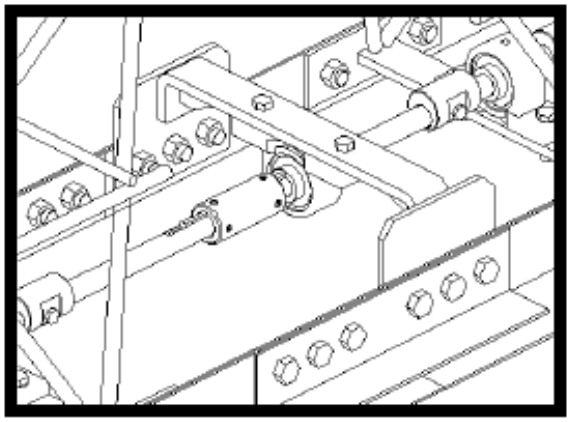
STEP 1: Screw jam nuts onto top pipe. Start the top pipe coupler onto the top pipe of the mating truss section. Only thread the coupler on about three turns.
NOTE: The right and left hand jam nuts will already be installed on the screed section.
TIGHTEN JAM NUTS AFTER SCREED IS LEVEL



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.



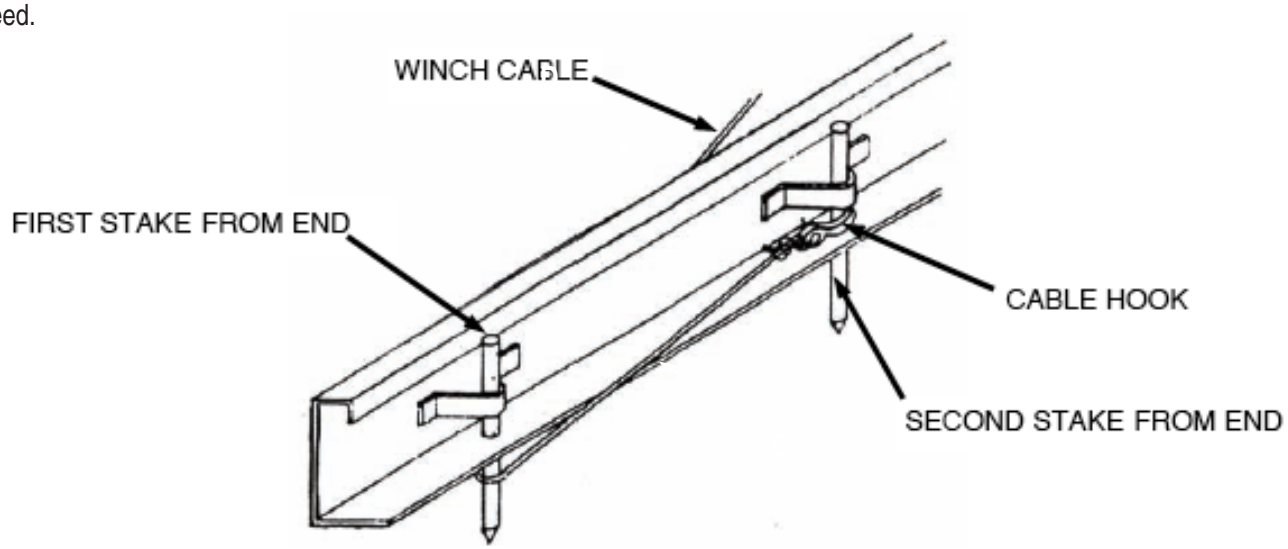
STEP 2: Slide screed sections together until top pipe threads on screed marked "R" line up with threads in coupler on the screed. Start coupler on adjoining threads by hand to prevent cross threading.



STEP 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.

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 surrounding the screed.



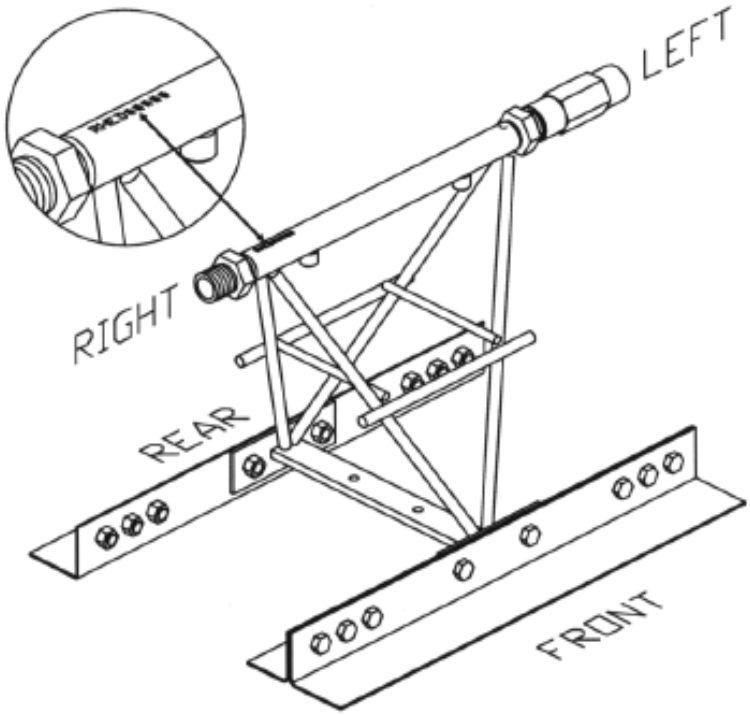
To attach the winch cables properly, adhere to the following instructions.
- Take the cable and go around the last form stake. Make sure that you go underneath the form.
- Attach the cable hook to the next form stake from the end.

DETERMINING LEFT AND RIGHT OF

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 product stamp.

This is 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 product stamp. 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.



STRING LINING

When you have assembled your screed it is important to string line it to make sure it is flat.

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.

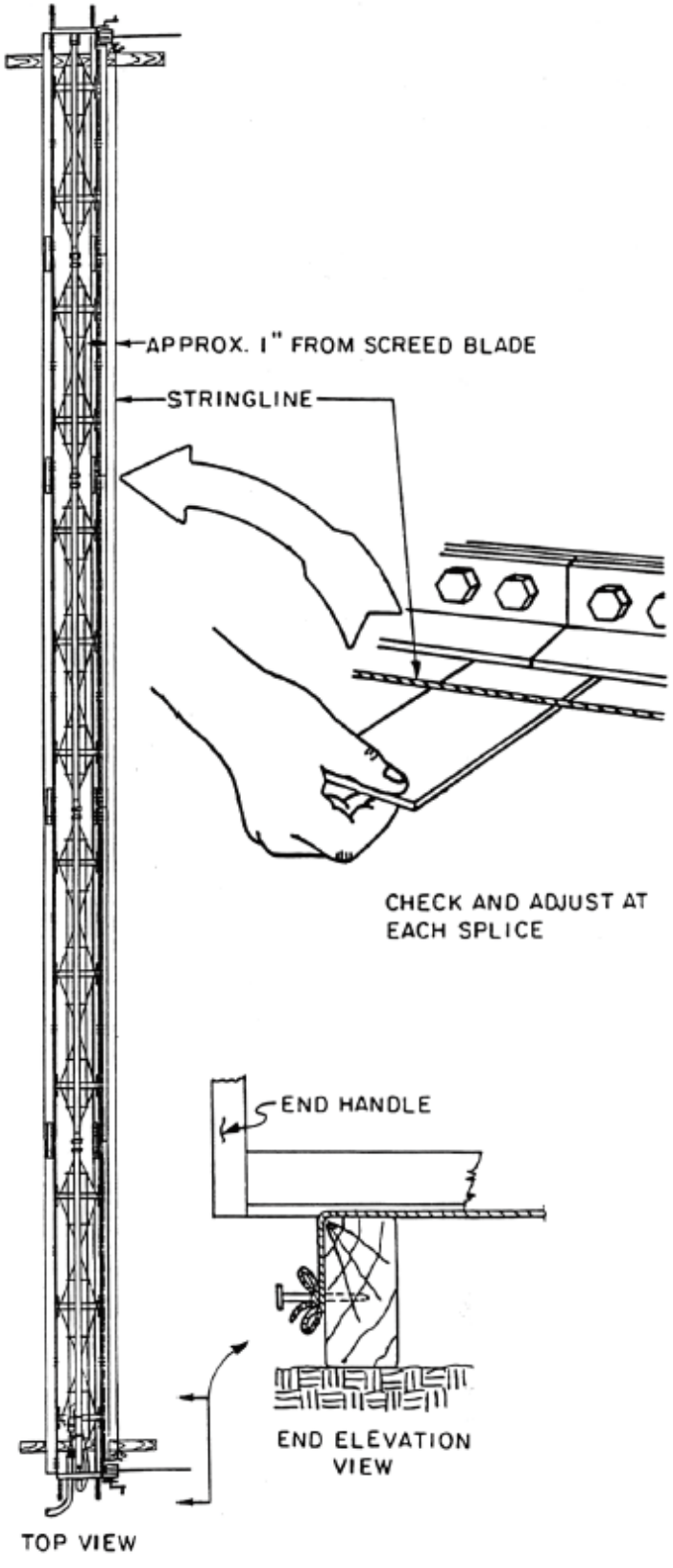
• At approximately 1" out from the leading edge of the screed blade, drive a nail into the wooden support. NOTE: Nail should be on the outside of the wooden support.

• 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 a gauge block to compare the string to the bottom surface of the screed blade and bullfloat blade.

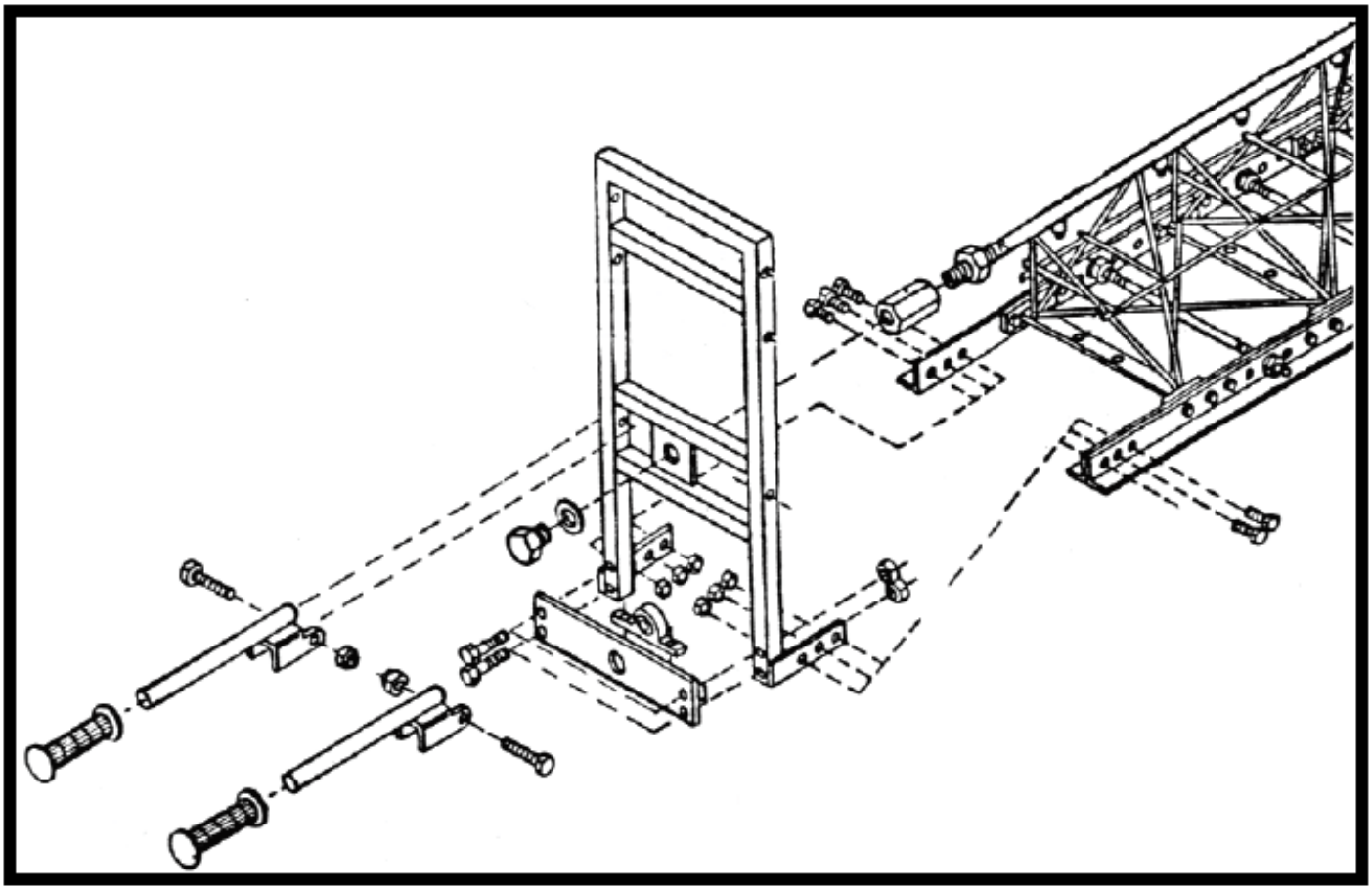
• The blades should be equal to each other at each splice. If they are not even, loosen jam nuts and tighten top pipe coupler as described on page S1-12.

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



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.



Always 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 stovernuts.

• Mount the end handle to the screed using three 1/2 x 3/4 bolts, three 1/2 x 1 bolts 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" flat washer , screw the end handle bolt onto the adaptor.

• Tighten all fasteners after the end handle is completely assembled.

PARTS SECTION 2

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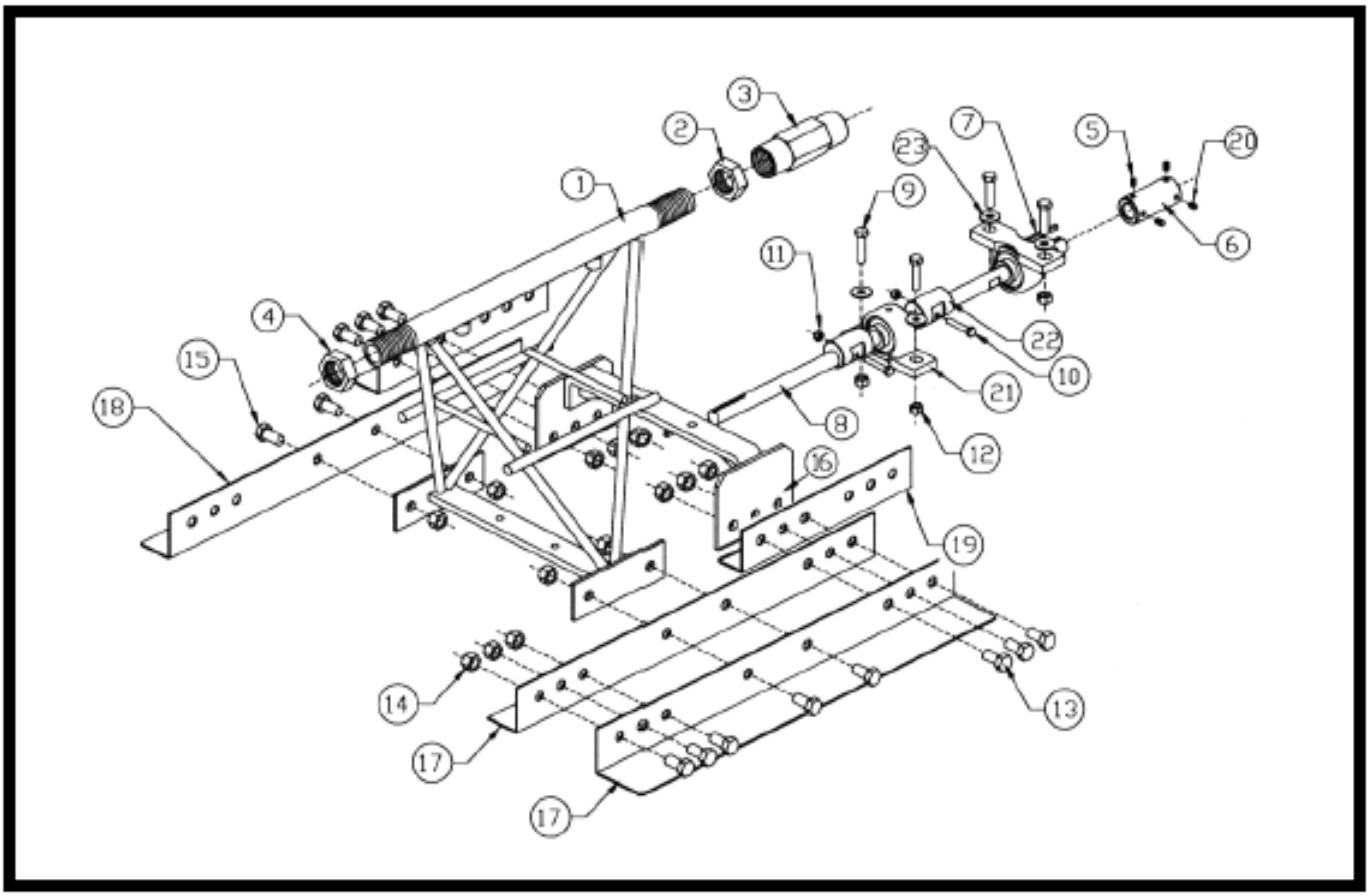
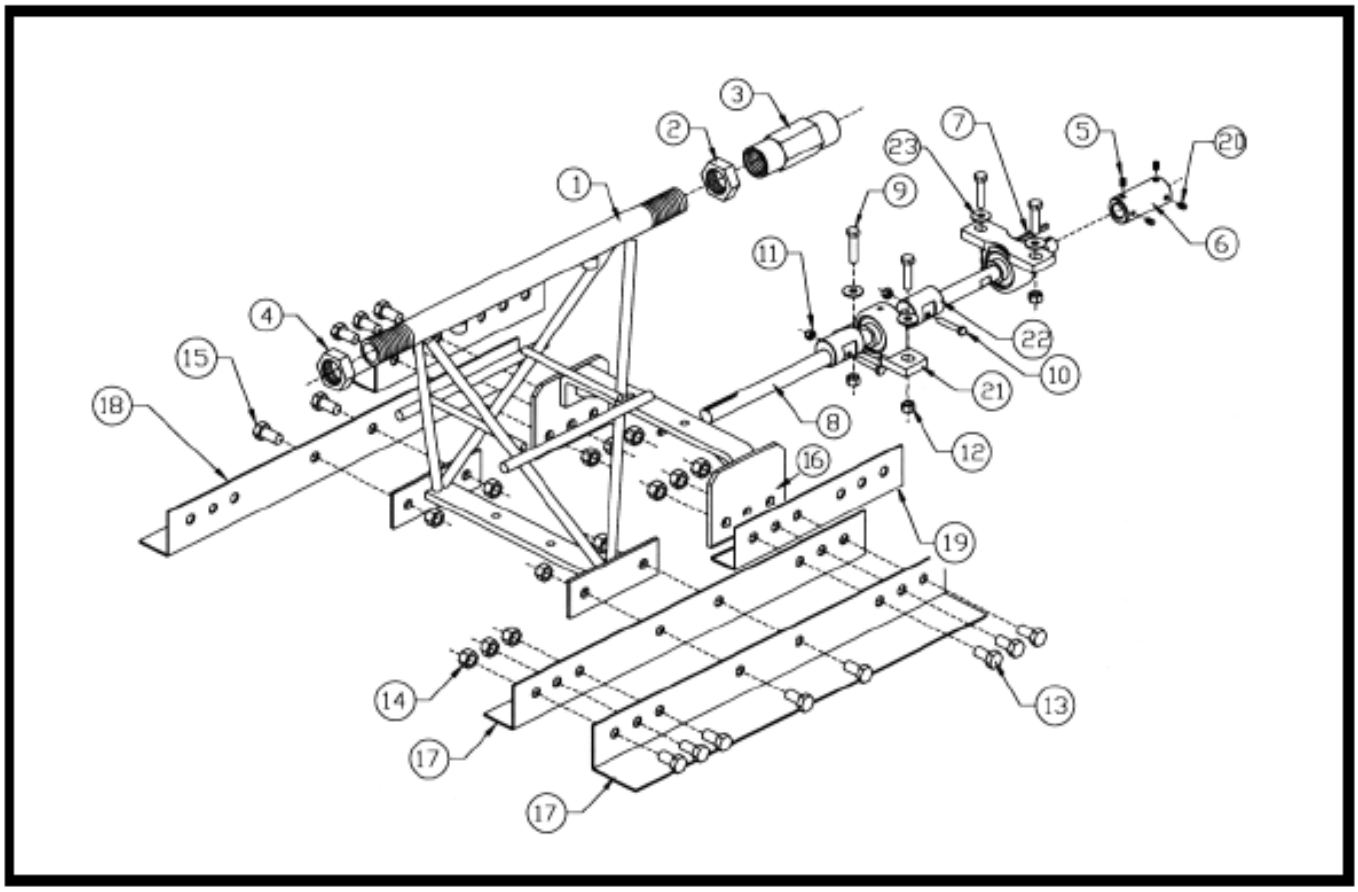
ASSEMBLY 2' SECTION - TS2S



	PART #	DESCRIPTION	QTY.
1.	M016564	2' TRUSS WELDMENT	1
2.	M108001	NUT, LH JAM	1
3.	M107000	TOP PIPE COUPLER	1
4.	M108000	NUT, RH JAM	1
5.	M013374	FSTN, SET SCREW 1/4-28 x 1/4	2
6.	M020635	COUPLER, DRIVE SHAFT	1
7.	M010273	KEY, 3/16 SQ. x 2" LONG	2
8.	M020716	DRIVE SHAFT	1
9.	M010038	FSTN, BOLT 3/8-16 x 1 1/2	4
10.	M010005	FSTN, BOLT 1/4-20 x 1 1/2	2
11.	M020542	FSTN, NUT STOVER LOCK 1/4-20	2
12.	M020514	FSTN, NUT STOVER LOCK 3/8-16	4
13.	M010067	FSTN, BOLT 1/2-13 x 1	11
14.	M010106	FSTN, NUT HEX 1/2-13	16
15.	M010066	FSTN, BOLT 1/2-13 x 3/4	5
16.	M135000	BEARING SUPPORT	1
	M010172	2' HED SCREED BLADE	2
	M010173	2' HED BULLFLOAT BLADE	1
19.	M106000	BLADE SPLICE - ED SCREED	2
	M106001	BLADE SPLICE - HED SCREED	2
	M022430	BLADE SPLICE - SHED SCREED	2
20.	M018999	FSTN, SET SCREW 1/4-28 x 3/8	2
21.	M020704	BEARING	2
22.	M010276	ECCENTRIC WEIGHT	2
23.	M 017751	FSTN, FLAT WASHER 3/8 HARDENED	4

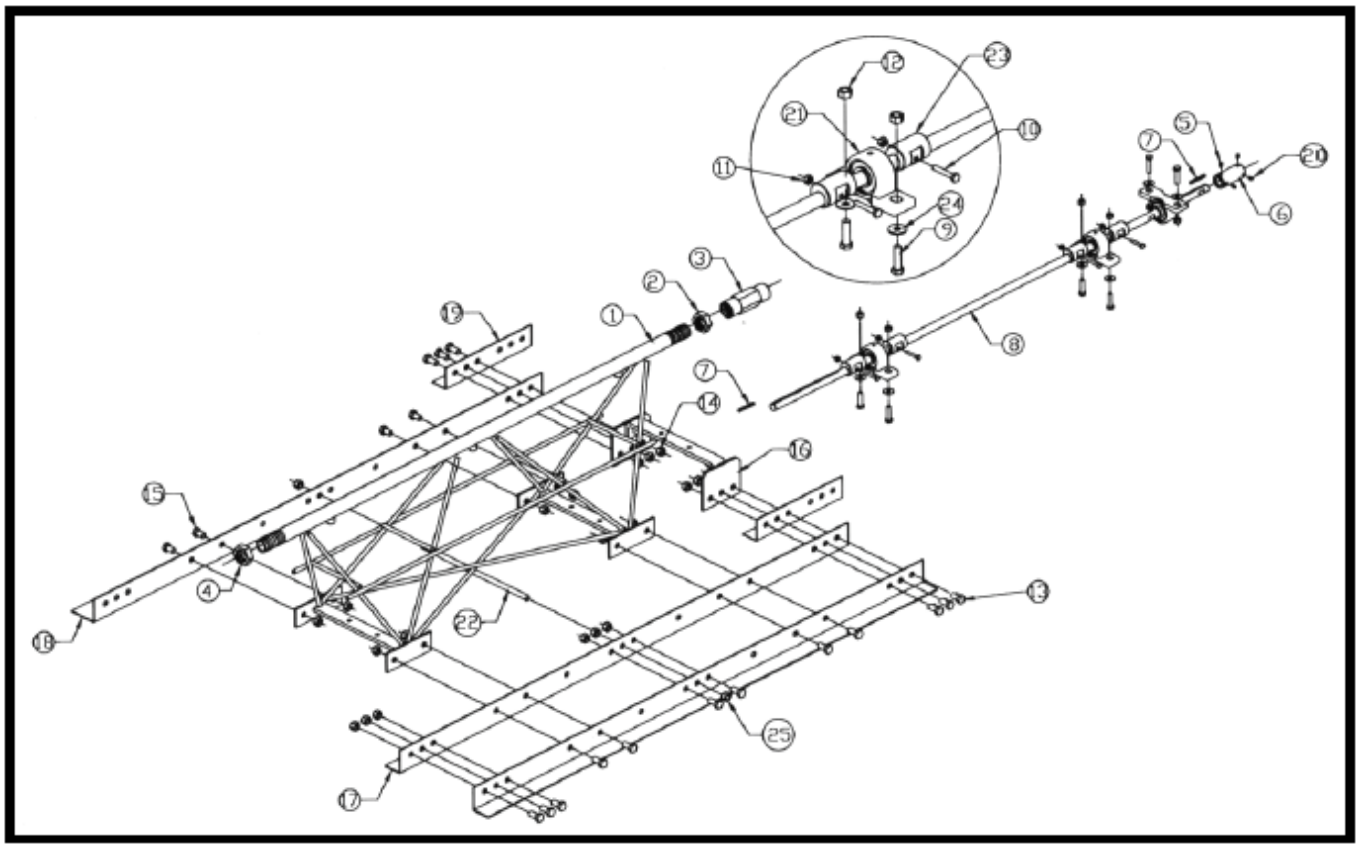
PARTS SECTION 2

ASSEMBLY 2 1/2' SECTION - TS25S



PART #	DESCRIPTION	QTY.
1. M028702	BLADE, BULLFLOAT HED	1
2. M108000	NUT, TOP PIPE RH	1
3. M028626	SHAFT, DRIVE	1
4. M020542	FSTN, NUT STOVER 1/4-20	2
5. M010005	BOLT, 1/4-20 x 1 1/2	2
6. M020704	BEARING, 3/4" PILLOW BLOCK	2
7. M010106	FSTN, NUT HEX 1/2-13	16
8. M010067	BOLT, 1/2-13 x 1	11
9. M010276	WEIGHT, ECCENTRIC	2
10. M028701	BLADE, SCREED HED	2
11. M135000	INTERMEDIATE BEARING SUPPORT	1
12. M010038	BOLT, 3/8-16 x 1-1/2	4
13. M017751	FSTN, HARDENED FLATWASHER 3/8	4
14. M020635	COUPLER, SHAFT	1
15. M020514	FSTN, NUT STOVER 3/8	4
16. M108001	NUT, TOP PIPE LH	1
17. M107000	COUPLER, TOP PIPE	1
18. M028700	TRUSS, 2-1/2' SECTION	1
19. M106000	PLATE, SPLICE ED	2
M106001	PLATE, SPLICE HED	2
M022430	PLATE, SPLICE SHED	2
20. M010273	KEY, 3/16 x 2	2
21. M010066	BOLT, 1/2- 13 X 3/4	5

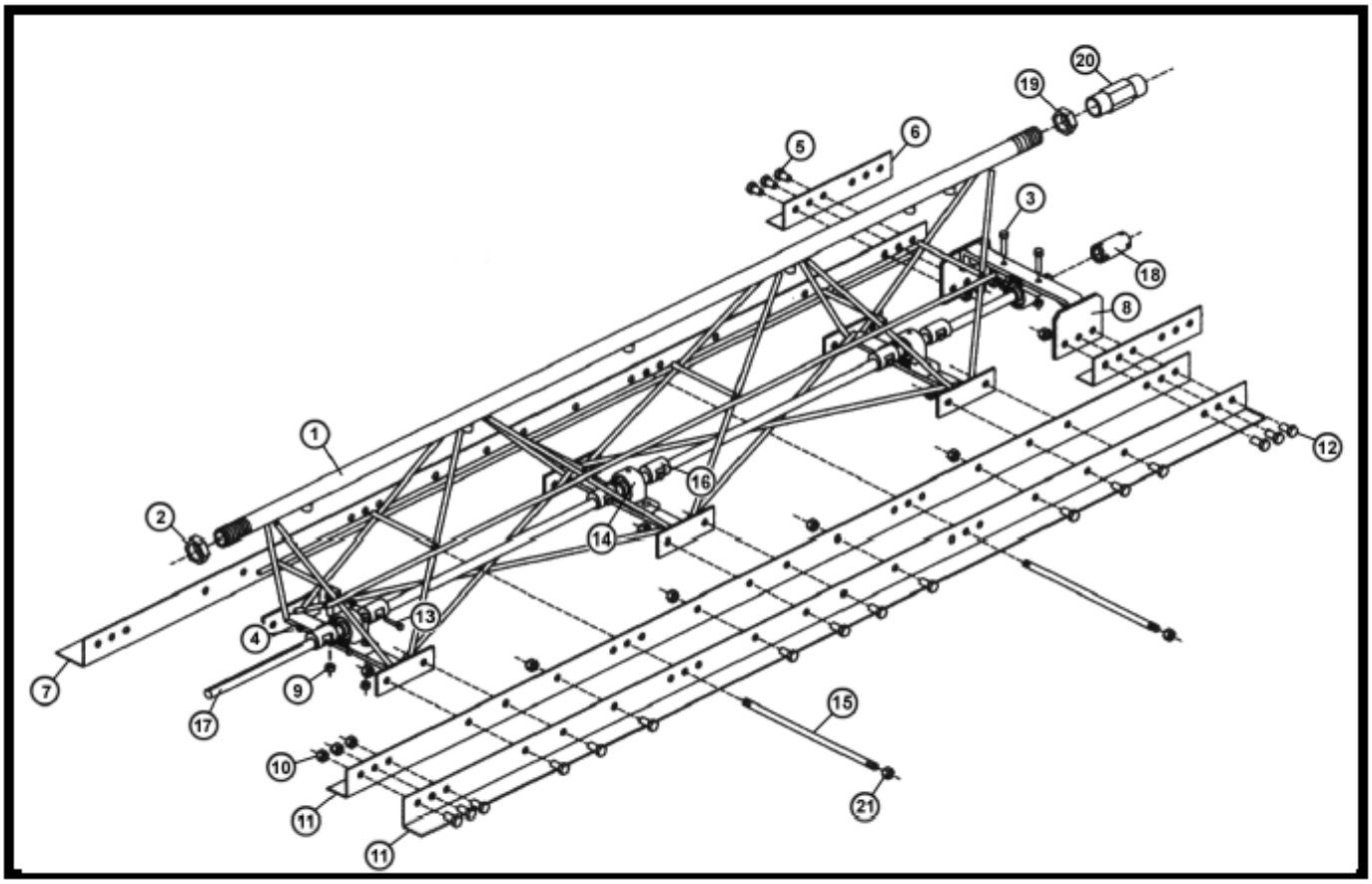
ASSEMBLY 5' SECTION - TS5S



PART #	DESCRIPTION	QTY.
1. M016565	5' TRUSS WELDMENT	1
2. M108001	NUT, LH JAM	1
3. M107000	TOP PIPE COUPLER	1
4. M108000	NUT, RH JAM	1
5. M013374	FSTN, SET SCREW 1/4-28 x 1/4	2
6. M020635	COUPLER, DRIVE SHAFT	1
7. M010273	KEY, 3/16 SQ. x 2" LONG	2
8. M032112	DRIVE SHAFT	1
9. M010038	FSTN, BOLT 3/8-16 x 1 1/2	4
10. M010005	FSTN, BOLT 1/4-20 x 1 1/2	4
11. M020542	FSTN, NUT STOVER LOCK 1/4-20	4
12. M020514	FSTN, NUT STOVER LOCK 3/8-16	4
13. M010067	FSTN, BOLT 1/2-13 x 1	13
14. M010106	FSTN, NUT HEX 1/2-13	24
15. M010066	FSTN, BOLT 1/2-13 x 3/4	9
16. M135000	BEARING SUPPORT	1
17. M103001	5' HED SCREED BLADE	2
18. M105001	5' HED BULLFLOAT BLADE	1
19. M106001	BLADE SPLICE - HED SCREED	2
20. M018999	FSTN, SET SCREW 1/4-28 x 3/8	2
21. M020704	BEARING	3
22. M136000	STABILIZER ROD	1
23. M010276	ECCENTRIC WEIGHT	4
24. M017751	FSTN, FLATWASHER 3/8 HARDENED	6
25. M012979	FSTN, NUT FLANGE 1/2	2

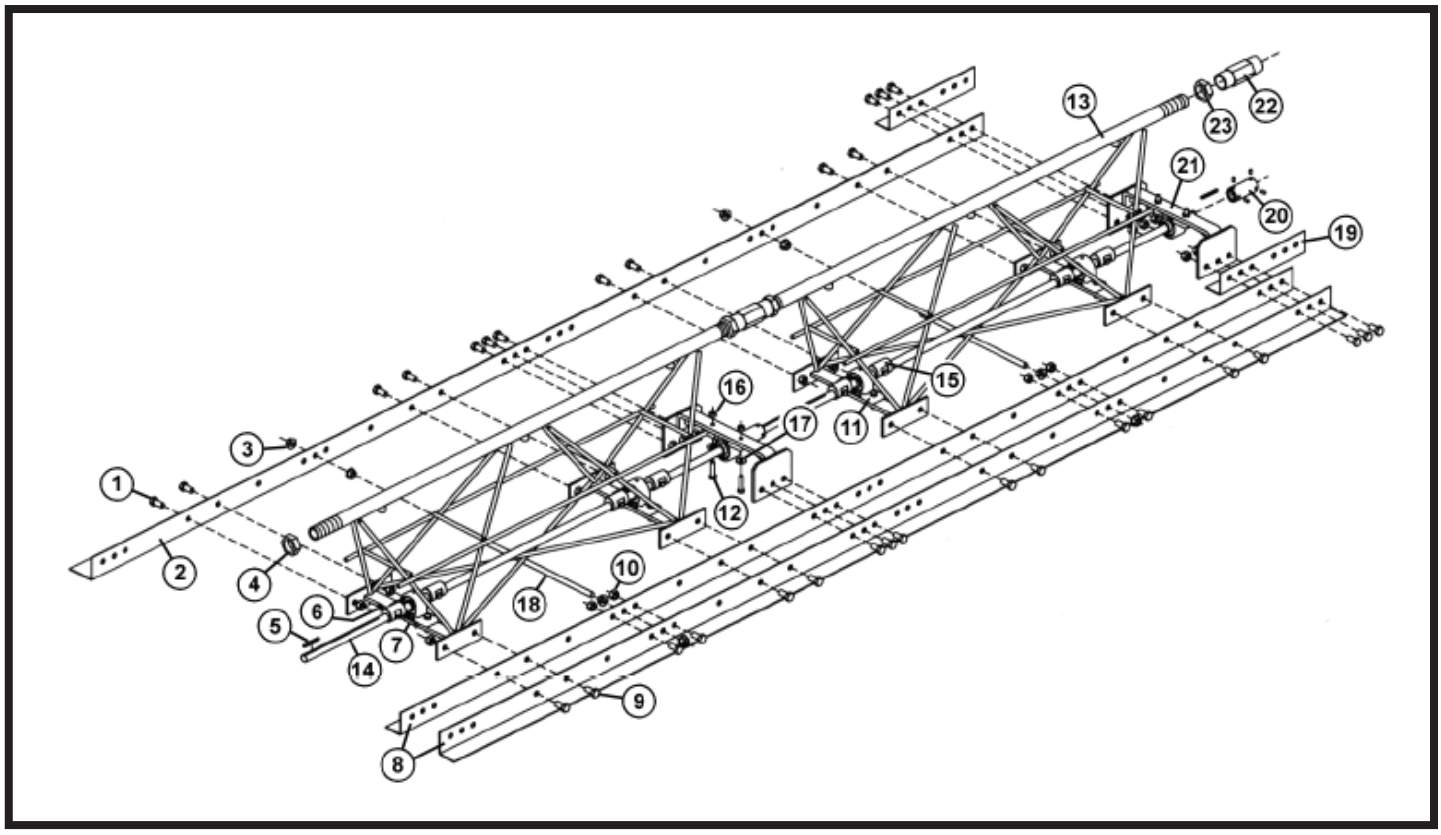
PARTS SECTION 2

ASSEMBLY 7 1/2' SECTION - TS75S



PART #	DESCRIPTION	QTY.
1. M016566	TRUSS F/ 7-1/2' SECTION	1
2. M108000	NUT, RIGHT HAND F/ TOP PIPE	1
3. M028402	FSTN, BOLT 3/8 x 1-1/2	8
4. M020542	FSTN, NUT 1/4 STOVER LOCK	6
5. M010066	FSTN, BOLT 1/2 x 3/4	17
6. M106001	BLADE, SPLICE - HED SCREED	2
7. M104001	7-1/2' HED BULLFLOAT BLADE	1
8. M135000	INTERMEDIATE BEARING SUPPORT	1
9. M020514	FSTN, NUT 3/8 STOVER LOCK	8
10. M010106	FSTN, NUT 1/2 HEX	32
11. M102001	7-1/2' HED SCREED BLADE	2
12. M010067	FSTN, BOLT 1/2 x 1	15
13. M010005	FSTN, BOLT 1/4 x 1-1/2	6
14. M020704	BEARING, 3/4" PILLOW BLOCK	4
15. M136000	STABILIZER ROD	2
16. M010276	ECCENTRIC WEIGHT	6
17. M029041	SHAFT F/ 7-1/2' SECTION	1
18. M020635	COUPLER, SHAFT	1
19. M108001	NUT, LEFT HAND F/ TOP PIPE	1
20. M107000	TOP PIPE COUPLER	1
21. M012979	FSTN, NUT FLANGE 1/2	4

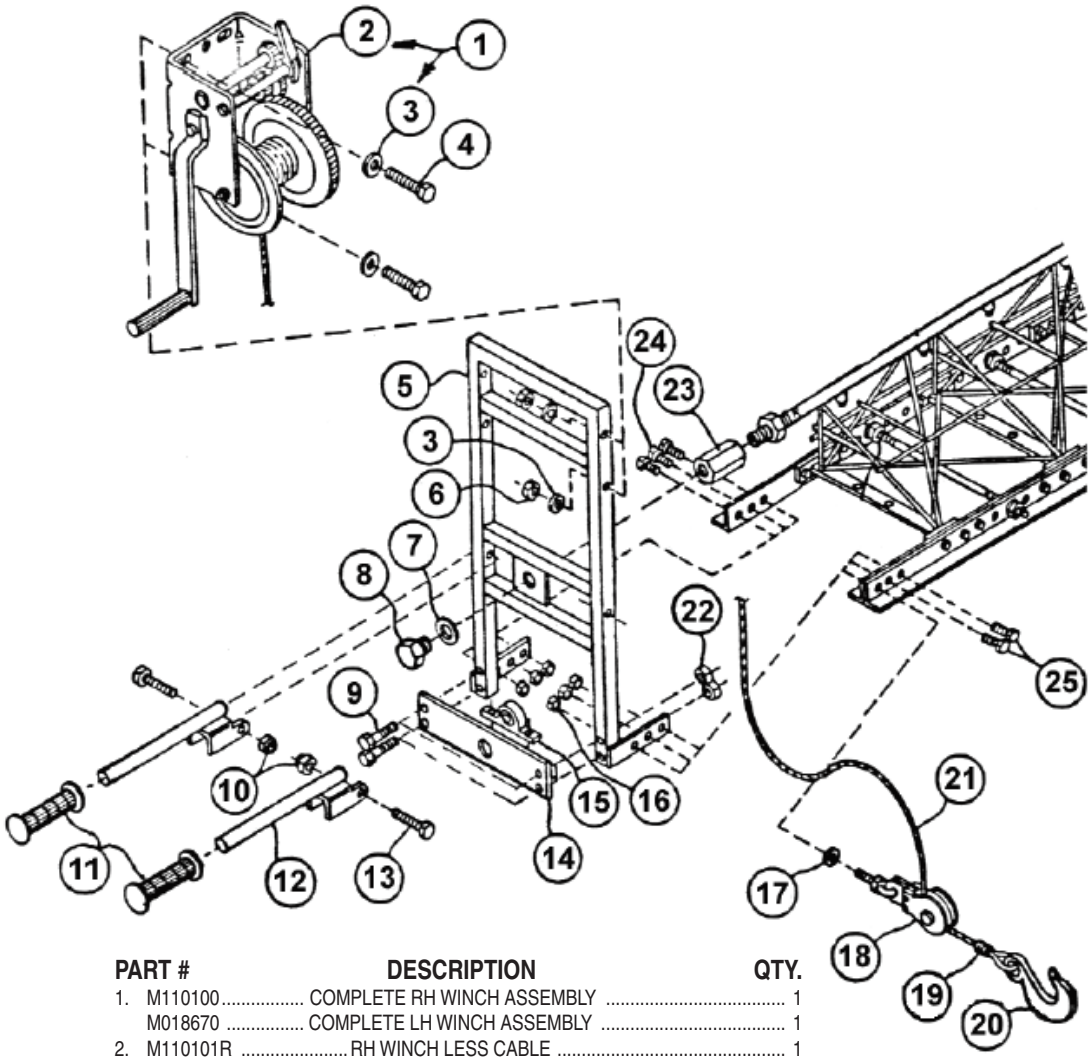
ASSEMBLY 10' SECTION - TS10S



PART #	DESCRIPTION	QTY.
1. M010066	BOLT, 1/2-13 x 3/4	22
2. M032139	BLADE, BULLFLOAT HED	1
3. M012979	FSTN, NUT FLANGE 1/2-13	4
4. M108000	NUT, TOP PIPE RH	2
5. M010273	KEY, 3/16 x 2	4
6. M020542	FSTN, NUT STOVER 1/4-20	8
7. M010005	BOLT, 1/4-20 x 1 1/2	8
8. M032138	BLADE, SCREED HED	2
9. M010067	BOLT, 1/2-13 x 1	26
10. M010106	FSTN, NUT 1/2-13	48
11. M020704	BEARING 3/4" PILLOW BLOCK	6
12. M010038	BOLT, 3/8-16 x 1 1/2	6
13. M016565	TRUSS, 5' WELDMENT	2
14. M032112	SHAFT, DRIVE 5' 10"	2
15. M010276	WEIGHT, ECCENTRIC	8
16. M020514	FSTN, NUT STOVER 3/8-16	12
17. M017751	FSTN, FLATWASHER 3/8 HARDENED	12
18. M136000	ROD, STABILIZER	2
19. M106000	PLATE, SPLICE	2
20. M020635	COUPLER, SHAFT	2
21. M135000	BEARING SUPPORT (INTERMEDIATE)	2
22. M107000	COUPLER, TOP PIPE	2
23. M108001	NUT, TOP PIPE LH	2

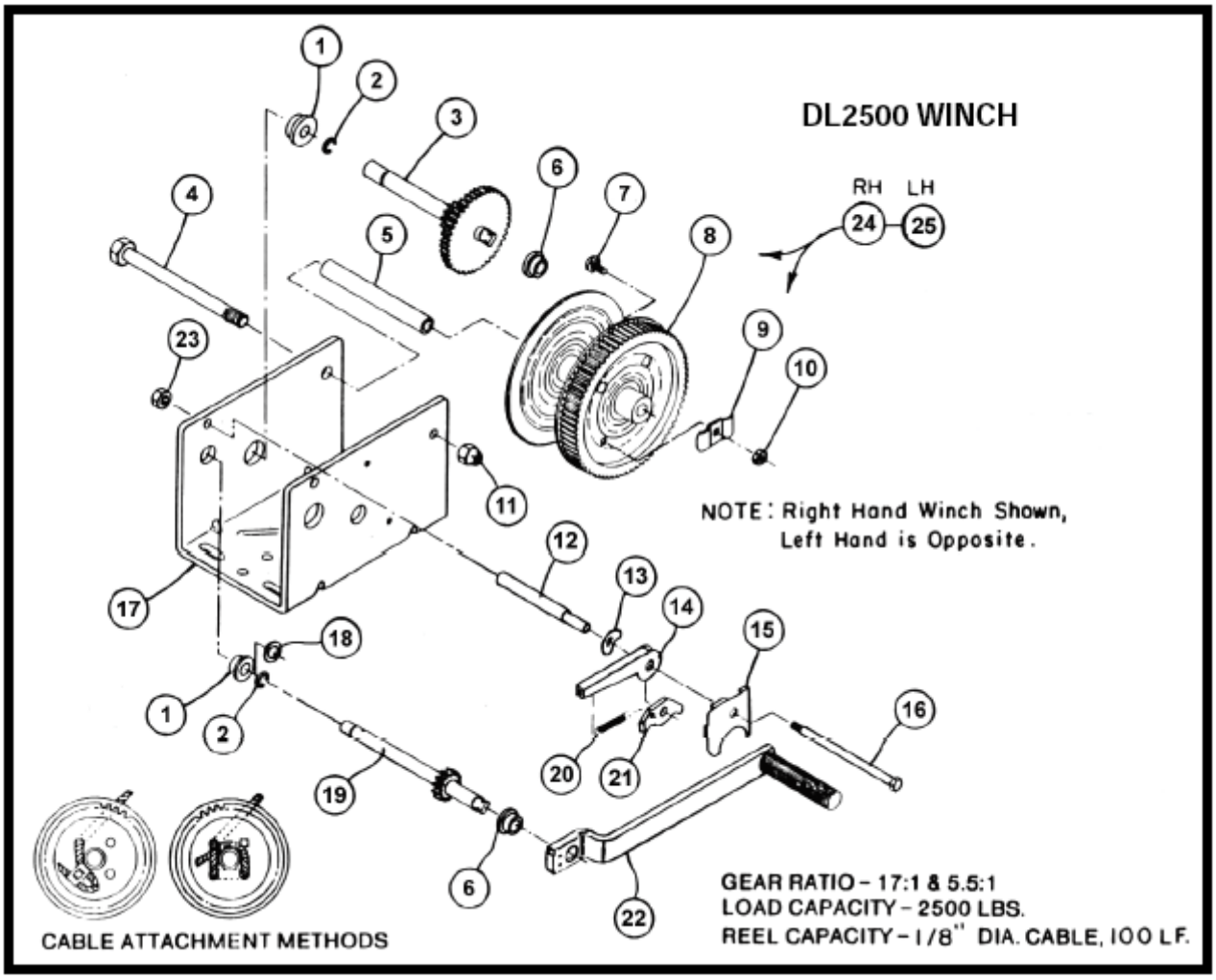
PARTS SECTION 2

END HANDLE ASSEMBLY- TSEHG



PART #	DESCRIPTION	QTY.
1. M110100	COMPLETE RH WINCH ASSEMBLY	1
M018670	COMPLETE LH WINCH ASSEMBLY	1
2. M110101R	RH WINCH LESS CABLE	1
M110101L	LH WINCH LESS CABLE	1
3. M010082	FSTN, 5/16 FLATWASHER	4
4. M010023	FSTN, BOLT 5/16-18 x 1 3/4	2
5. M109000	END HANDLE	1
6. M010100	FSTN, NUT 5/16	2
7. M010088	FSTN, 1" FLATWASHER	1
8. M113000	FSTN, NUT F/ END HANDLE	1
9. M010005	FSTN, BOLT 1/4-20 x 1 1/2	4
10. M010464	FSTN, NUT NYLON LOCK 3/8-16	2
11. M015767	HANDLE GRIP	2
12. M017066	LIFTING HANDLE	2
13. M010040	FSTN, BOLT 3/8-16 x 2	2
14. M112000	BEARING SUPPORT BRACKET	1
15. M020704	BEARING	1
16. M010106	FSTN, NUT HEX 1/2-13	6
17. M010085	FSTN, 1/2 FLATWASHER	1
18. M110005	PULLEY BLOCK W/ EYEBOLT	1
19. M012391	CABLE CLAMP	1
20. M110008	SLIP HOOK	1
21. M110103	CABLE F/ WINCH (1/8 AIRCRAFT)	100 ft.
22. M020542	FSTN, NUT STOVER LOCK 1/4-20	4
23. M114000	ADAPTOR, R.H. AIR END	1
M115000	ADAPTOR, L.H. AIR END	1
24. M010066	FSTN, BOLT 1/2-13 x 3/4	3
25. M010067	FSTN, BOLT 1/2- 13 x 1	2

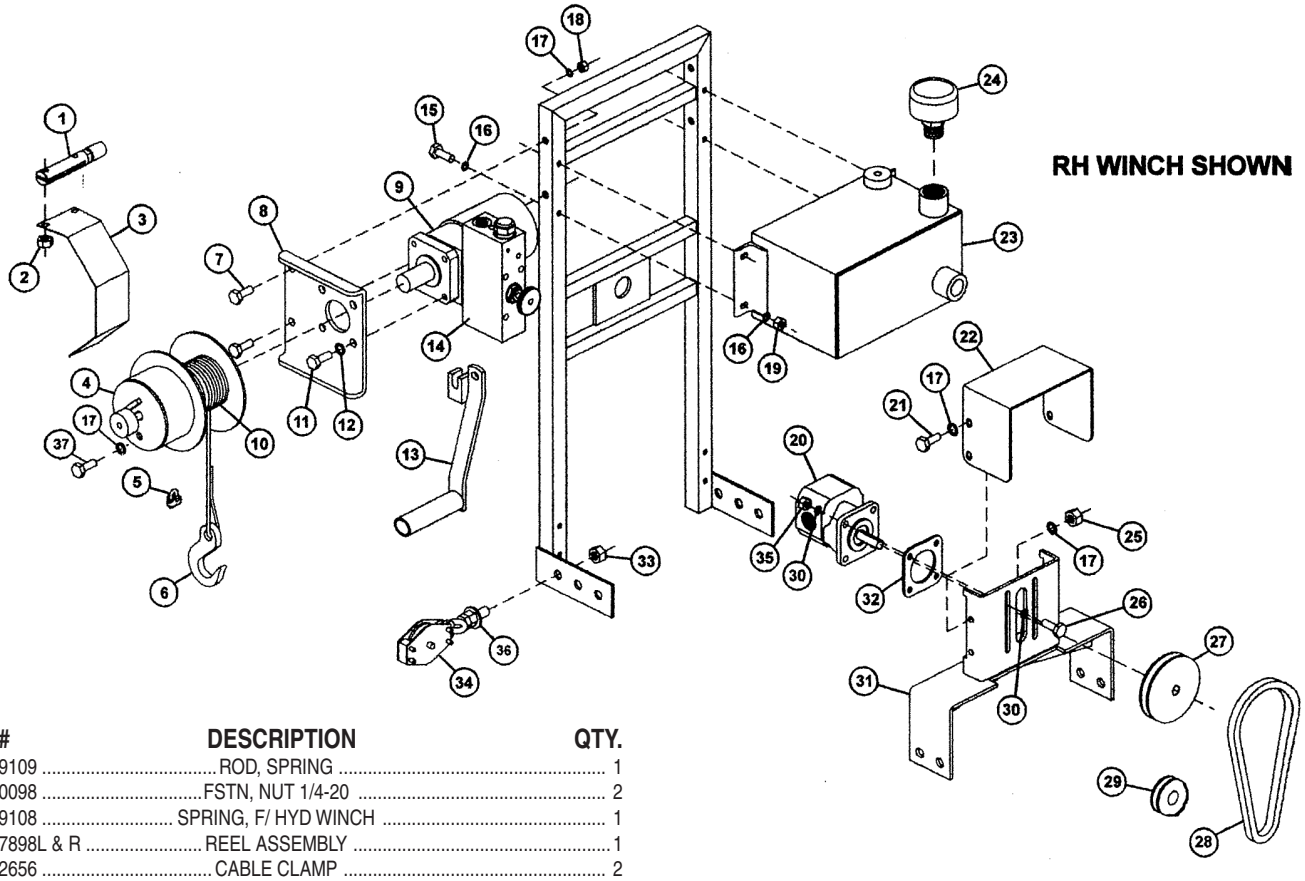
WINCH ASSEMBLY - TSMWG



PART #	DESCRIPTION	QTY.
1. M250002	BUSHING	2
2. M250003	E-RING	2
3. M250022	INTERMEDIATE DRIVE SHAFT	1
4. M250014	SHAFT REEL	1
5. M012826	SPACER	1
6. M250024	BUSHING	2
7. M120013	FSTN, BOLT CARRAGE 1/4 x 3/4	1
8. M250017	WINCH REEL 2 1/2 DIA	1
9. M120012	CABLE CLAMP	1
10. M120011	FSTN, NUT HEX 1/4	1
11. M120015	FSTN, STOVER LOCK 3/8	1
12. M250009	SLEEVE RATCHET	1
13. M120017	COMPRESSION SPRING	1
14. M120018	LEVER RATCHET	1
15. M020471	PLATE, LATCH LH	1
M250026	PLATE, LATCH RH	1
16. M250007	BOLT, RATCHET	1
17. M250001	BASE WINCH, 2500	1
18. M250025	SPACER	1
19. M250006	DRIVE SHAFT	1
20. M120021	SPRING EXTENSION	1
21. M120020	PAWL RATCHET	1
22. M110102	HANDLE	1
23. M120016	FSTN, NUT STOVER LOCK 1/4	1
24. M110101R	HD WINCH RH (WINCH ONLY)	1
25. M110101L	HD WINCH LH (WINCH ONLY)	1

PARTS SECTION 2

HYDRAULIC WINCH ASSEBMLY- TSPWG



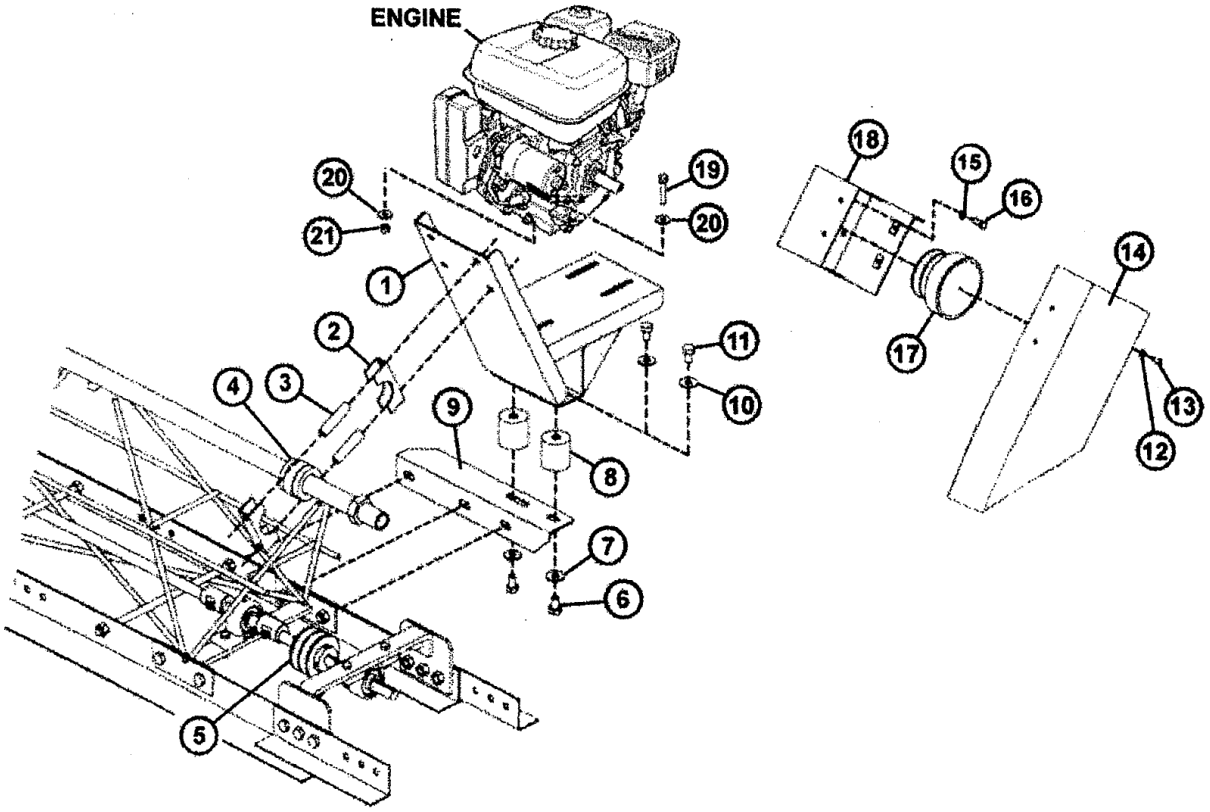
PART #	DESCRIPTION	QTY.
1. M029109	ROD, SPRING	1
2. M010098	FSTN, NUT 1/4-20	2
3. M029108	SPRING, F/ HYD WINCH	1
4. M027898L & R	REEL ASSEMBLY	1
5. M022656	CABLE CLAMP	2
6. M110008	SLIP HOOK	1
7. M010039	FSTN, BOLT 3/8 x 1-3/4	2
8. M029112	REEL BRACKET	1
9. M034011	MOTOR, HYDRAULIC	1
10. M000751	CABLE 1/8" (AIRCRAFT STYLE)	100'
11. M010036	FSTN, BOLT 3/8-16 x 1	4
12. M010091	FSTN, 3/8 LOCK WASHER HARDENED	4
13. M027906L & R	HANDLE, MANUAL WINCH	1
14. M029107	VALVE BLOCK	1
15. M010005	FSTN, BOLT 1/4-20 x 1 1/2	4
16. M010081	FSTN, 1/4 FLATWASHER	8
17. M017751	FSTN, 3/8 FLATWASHER HARDENED	4
18. M010464	FSTN, NUT NYLON 3/8	2
19. M020542	FSTN, NUT STOVER 1/4-20	4
20. M029105L & R	PUMP, HYDRAULIC	1
21. M010019	FSTN, BOLT 5/16-18 x 3/4	4
22. M027903	PUMP COVER	1
23. M029117	TANK, HYDRAULIC (RH)	1
M029116	TANK, HYDRAULIC (LH)	1
24. M034013	CAP, FILLER BREATHER	1
25. M010109	FSTN, NUT NYLON 5/16-18	4
26. M010021	FSTN, BOLT 5/16 x 1 1/4	4
27. M010500	PULLEY 1/2"	1
28. M026486	V-BELT	1
29. M011896	PULLEY 3/4"	1
30. M010090	FSTN, HARD LOCKWASHER 5/16	8
31. M029114	PUMP BRACKET	1
32. M029111	PLATE	1
33. M010106	FSTN, NUT 1/2-13	1

RH WINCH
027847R

LH WINCH
027847L

PART #	DESCRIPTION	QTY.
34. M025992	PULLEY BLOCK HD W/ EYEBOLT	1
35. M010100	FSTN, NUT 5/16	4
36. M010085	FSTN, FLATWASHER 1/2	1
37. M010035	FSTN, BOLT 3/8 x 3/4	1
38. M221207	HOSE, INTAKE 1/2 TO MOTOR (NOT SHOWN)	1
39. M018344	HOSE ASSY. 3/8 PUMP TO WINCH (NOT SHOWN)	1
40. M221203	HOSE ASSY. 3/8 FLOW CONTROL TO TANK (NOT SHOWN)	1
41. M018355	HOSE ASSY. 3/8 FLOW CONTROL TO MOTOR (NOT SHOWN)	1
42. M221205	HOSE ASSY. 3/8 MOTOR TO RETURN (NOT SHOWN)	1
43. M012557	HOSE ADAPTOR FITTING, 3/4-3/8 HOSE (NOT SHOWN)	1
44. M012558	HOSE ADAPTOR 7/8-1/2 HOSE (NOT SHOWN)	1

LOW PROFILE ENGINE KIT - TSLPEK9 & TSLPEK11



PART #	DESCRIPTION	QTY.
1. M027872	ENGINE MOUNT F / 9 OR 11HP ENGINE	1
2. M027884	CLAMP LOPRO ENGINE MOUNT	4
3. M027885	SPACER, F/CLAMP	4
4. M027883	BUSHING, RUBBER SPLIT	2
5. M020698	PULLEY, 2BK30 X 3/4	1
6. M010066	BOLT, 1/2 X 3/4	2
7. M011490	FSTN, FLATWASHER 1/2"	2
8. M012725	RUBBER ISOLATOR	2
9. M027871	BRACKET, ANGLE	1
10. M011490	FSTN, FLATWASHER 1/2"	2
11. M010066	BOLT, 1/2 X 3/4	2
12. M010081	FSTN, FLATWASHER 1/4"	4
13. M010002	BOLT, 1/4 X 3/4	4
14. M027877	BELT GUARD - F / 9 OR 11 HP ENGINE	1
15. M010090	FSTN, LOCKWASHER 5/16"	4
16. M012974	BOLT, 5/16 X 3/4	4
17. M126003	CLUTCH, 1" BORE 2 GRV. 1300 F / 9 OR 11HP ENGINE	1
18. M027878	BELT GUARD BRACKET	1
19. M027882	BOLT, 3/8 X 3-3/4	4
20. M017751	FSTN, FLATWASHER 3/8"	4
21. M010102	FSTN, NUT HEX 3/8"	4
22. M027917	V-BELT, B40 F / 9 HP ENGINES(NOT SHOWN)	2
M028325	V-BELT, B42 F / 11 HP ENGINE(NOT SHOWN)	2

LIMITED WARRANTY

Marshalltown Company warrants all truss screed sections to be free of defects in material or workmanship for One 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. Marshalltown Company's obligation and liability under this warranty is limited to repairing or replacing parts if, after Marshalltown's inspection, it is determined to be a defect in material or workmanship. Marshalltown Company reserves the choice to repair or replace.

2. If Marshalltown Company 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 the warranty period of the product as though they were the original parts.

4. Marshalltown Company's warranty applies only to the products that are manufactured by Marshalltown Company and does not cover component parts such as engines. Engine warranty claims should be made directly to an authorized factory service center for the particular engine make.

5. Marshalltown Company'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. Marshalltown Company'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 Marshalltown Company.

7. Marshalltown Company will pay shop labor repair on warranty at the Marshalltown Company Shop Labor Rate in existence on the date of the warranty claim. A Marshalltown Company Labor Chart will determine the time allowed to complete a repair and will govern the shop labor hours that will be allowed.

8. Marshalltown Company 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 Marshalltown Company. Marshalltown Company only pays outbound freight charges when sending warranty replacement parts to the customer VIA ground service. Marshalltown Company does not pay any inbound freight, however, if Marshalltown Company determines this to be warranty defect only then will Marshalltown Company reimburse the customer for inbound freight at standard ground rates.

9. Marshalltown Company'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.

10. Marshalltown Company 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.

11. No Marshalltown Company 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 Marshalltown Company.

MARSHALLTOWN

The Premier Line

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