



HEAVY DUTY™

READ ALL INSTRUCTIONS BEFORE USING

Speed Scred '580 Series'

Serial #: _____

Engine #: _____

MANUFACTURED BY:



www.metalforms.com
3334 North Booth Street, Milwaukee, WI 53212
Ph: 414-964-4550 / Fax: 414-964-4503



METAL FORMS CORPORATION
SINCE 1909

BRP_11/20/2007

General Safety Guidelines Sheet

3334 North Booth Street
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Phone: (414)-964-4550
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EQUIPMENT DIVISION

Metal Forms Corporation™ - Truss Screed Set-Up

MFC-SGS1.1



ALWAYS read assembly instructions as per Speed Screed™ Equipment Division - Operations & Parts Manual

MFC-SGS1.2

DO NOT attempt to perform any assembly/setup while the equipment is running. Moving parts can cause severe injuries.

MFC-SGS1.3

ALWAYS make sure that cables are not under load prior to operation.

MFC-SGS1.4

ALWAYS use O.E.M. supplied hardware.

MFC-SGS1.5

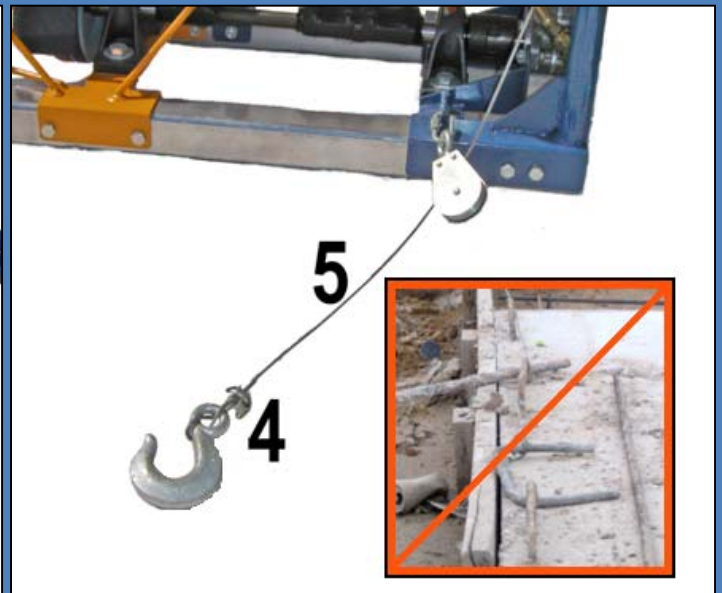
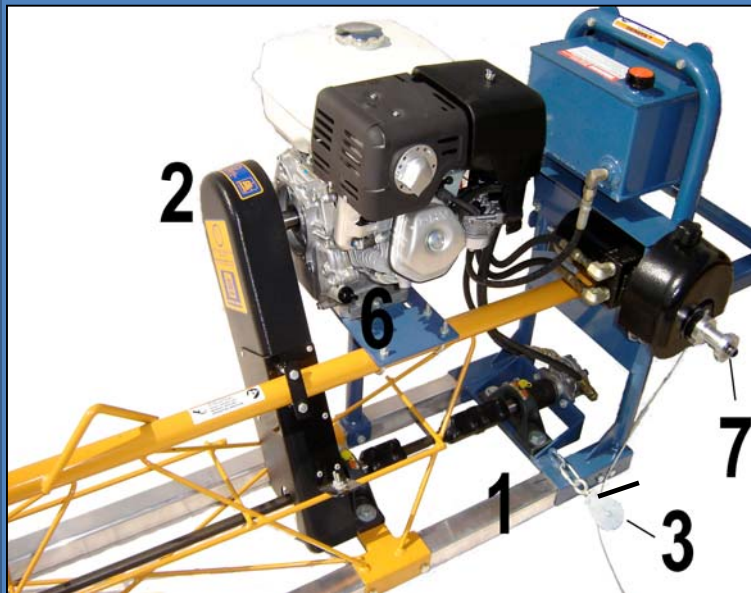
DO NOT bypass or modify in anyway factory installed safety features.

MFC-SGS1.6

ALWAYS check make sure mechanical fasteners are secured prior to operations.
(Drive Shaft set screws Turnbuckle assemblies Lap plates & saddles)

MFC-SGS1.7

ALWAYS refer all repairs to qualified service technicians.



Safety Inspection Checklist

- | | |
|------------------------|---------------------------|
| 1.) Safety Link | 5.) Frayed Cable |
| 2.) Belt Guard | 6.) Engine Oil Level |
| 3.) Snatch Block | 7.) Cable Spool Desengage |
| 4.) Cable Hook & Clamp | |

****DO NOT USE NON OEM CABLE HOOKS****

Legal Notice

The information contained in this General Safety Guidelines Sheet was considered the best available at the date of issue. However, no warranty is made or implied that the information is accurate or complete. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.



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EQUIPMENT DIVISION

Metal Forms Corporation™ - Truss Screenshot Operations Checklist

MFC-SGS2.0

****Operator Disclaimer****

Operator concentration is always an important factor when using mechanical equipment and anything that distracts the operator during operation is a clear and present danger



Familiarity and proper training are required for the safe operation of all Metal Forms Corporation™ equipment. Equipment operated improperly or by untrained personnel can be dangerous. All operators **MUST** read both the General Safety Guidelines Sheet and the Speed Screenshot manual prior to operation.

MFC-SGS2.1

NEVER allow anyone to operate this equipment without proper training. People operating this equipment must be familiar with all the risks and hazards associated with it.

MFC-SGS2.2

DO NOT operate any equipment while under the influences of drugs, alcohol or medications.

MFC-SGS2.3

ALWAYS check for proper Cable Anchoring prior to operation

- All cable must be stationary
- Anchoring must have minimum strength capacity of 800 Lbs.
- All cables must be secured low to the ground (6" or less)
- Always keep cables in alignment with spool

MFC-SGS2.4

ALWAYS maintain three wraps of cable around the spool

MFC-SGS2.5

DO NOT hook anchoring cables onto itself

MFC-SGS2.6

ALWAYS remain aware of moving parts and keep hands, feet, and loose clothing away from moving parts:

- Belt Drive
- Drive Shaft
- Winch Spool
- Snatch Block
- Winch Cable
- Hot Surfaces



MFC-SGS2.7

DO NOT leave winch controls unattended while the motor is in operation

MFC-SGS2.8

ALWAYS remove any obstacles or obstructions from the desired screenshot path. (Stakes, Forms & Equipment)

MFC-SGS2.9

ALWAYS make others aware of the cable hazard

(X) _____
Signature

(X) _____
Company

(X) _____
Date

I have read this RELEASE AND WAIVER OF LIABILITY, ASSUMPTION OF RISK, AND INDEMNITY, understand that I have given up substantial rights by signing it and have signed it freely and without any inducement or assurance of any nature and intend it be a complete and unconditional release of all liability to the greatest extent allowed by law and agree that if any portion of this agreement is held to be invalid

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INTRODUCTION

Assembly Before Operation: Adding a “screed extension” or non-engine-end “end-frame”.

1. Read the owner’s manual before starting or using your Screed unit.
2. Perform all assembly work on a level surface.
3. Referring to sketches on the following page, remove coupler half and key on machines equipped with hydraulic winches.
4. Remove bolts (A) and saddles (B). Loosen set screws “C” on shaft coupler.
5. Loosen turnbuckle nut. Turn turnbuckle until only 1-2 threads are engaged.
6. Move joining sections together. Line up turnbuckle (D) w/ opposing backbone.
7. Thread turnbuckle into adjoining section. As the turnbuckle draws the sections together, align shaft coupler and lap plates for assembly. A drift pin may be helpful for final line-up of bolt holes.
8. When sections are drawn together, install the saddles (B) with bolts (A) and tighten coupler set screws (C) on flat portion of adjoining shaft (E).
9. Follow the above procedure when adding or removing other screed extensions.

Important: *Be sure coupler headless set screws "C" engage on flat portion of the adjoining shaft (E). This provides proper alignment of eccentric weights, thus assuring even vibration over the entire length of the machine.*

Small gaps between screed bottoms are permissible and will not affect surface finish.

Check for Flatness:

1. Elevate screed on forms or blocks to check or adjust flatness or crown.
2. Loosen turnbuckle lock nuts and shaft coupler set screws.
3. Turn turnbuckles counter-clockwise to pull in crown, or clockwise to flatten.
4. Pull a string tight under the screed bottom of the rear finishing tube (finish grade is obtained from the rear finishing tube).
5. Measure for flatness or crown at each joint.
6. When desired crown or flatness is obtained, lock turnbuckle lock nuts, and tighten shaft coupler set screws. (Note: tighten all eight (8) lock nuts at each finishing tube joint.)

Optional: Wrap a good grade of tape over the shaft coupler’s headless set screws. This will keep concrete out of the headless set screw holes.

THE SCREED IS NOW READY FOR OPERATION

INTRODUCTION

Figure 1: Assembly of Section-to-Section

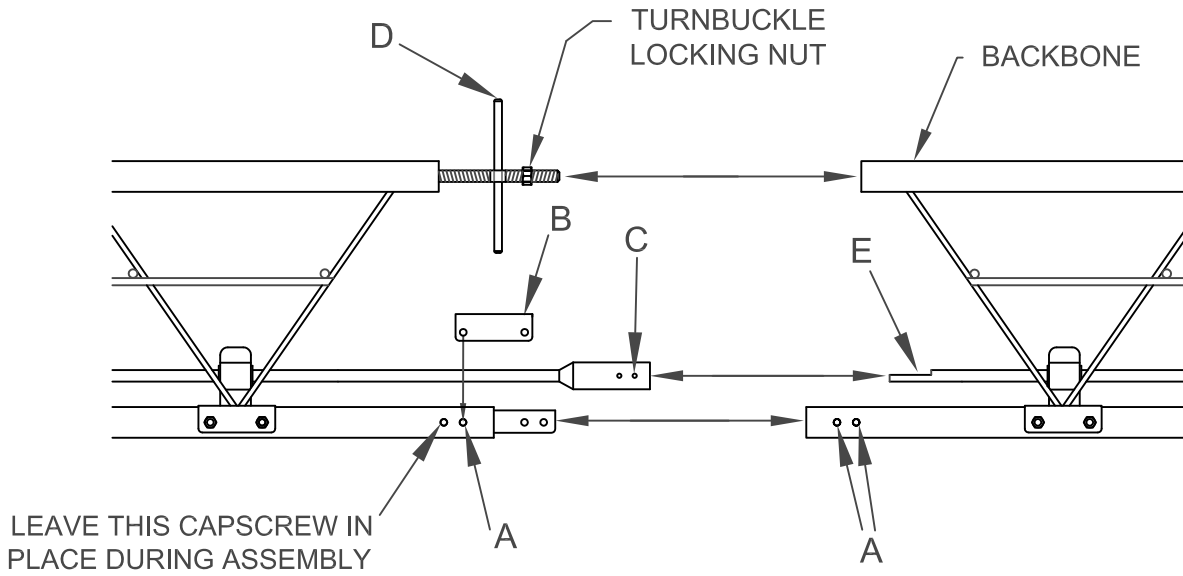
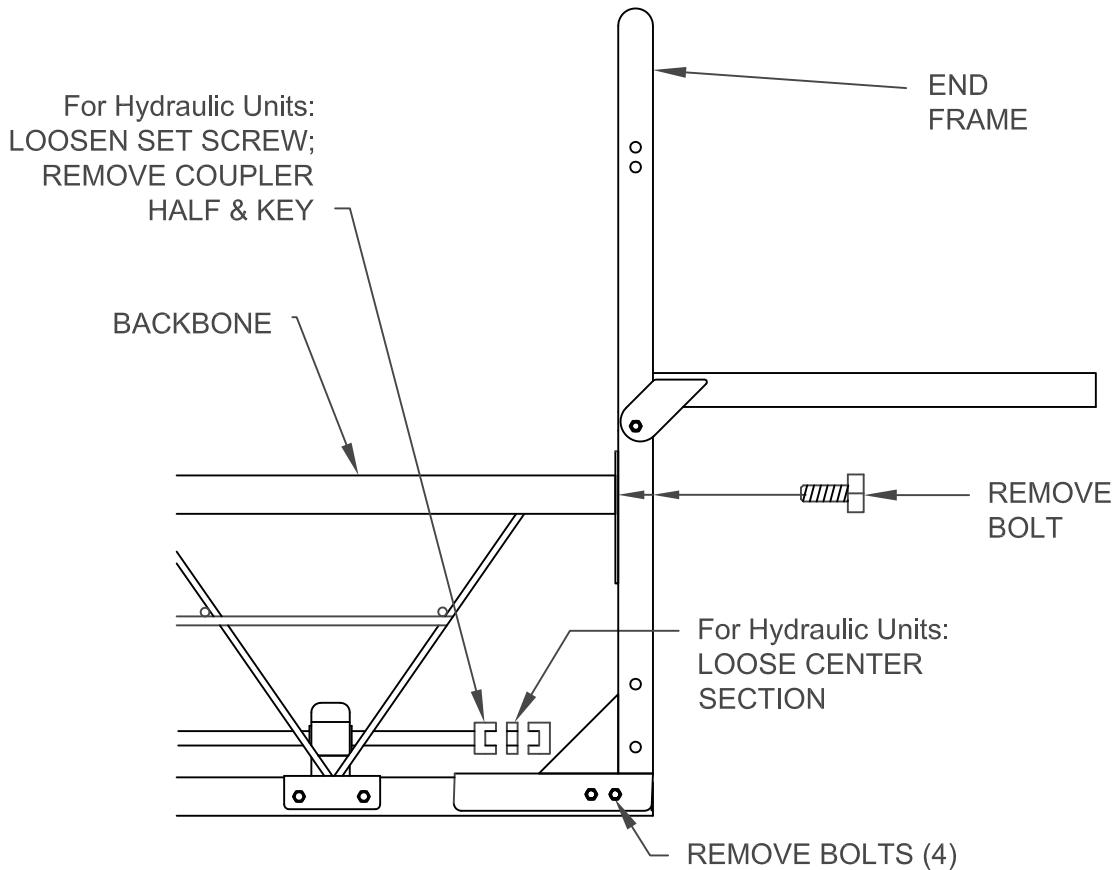


Figure 2: Assembly of End frame to Section)



INTRODUCTION

Hydraulic end frame installation: for addition of hydraulic winches

Mount and Align Pump:

pump # 580-107...engine end

580-108...extension end

Once you're new hydraulic end frame has arrived, follow the below instructions to change your existing end frame out with the new hydraulic end frame.

- Loosen end bearing from existing end frame.
- Remove existing end frame.
- Install "love-joy" coupler on the existing shaft.
- Install new hydraulic end frame.
- Align "love-joy" coupler to pump, and tighten the set screw to the pump shaft.
- Tighten end bearing.
- Rotate shaft to check for alignment.

**IF THE HYDRAULICS FAIL TO WORK PROPERLY,
REFER TO THE TROUBLESHOOTING PROCEDURES.**

INTRODUCTION

Attaching the Screed Extenders:

Screed Extenders attach to outside of End Frame Assembly using reinforcement angles, cap screws, and lock nuts.

Figure 1: View from operator's position.

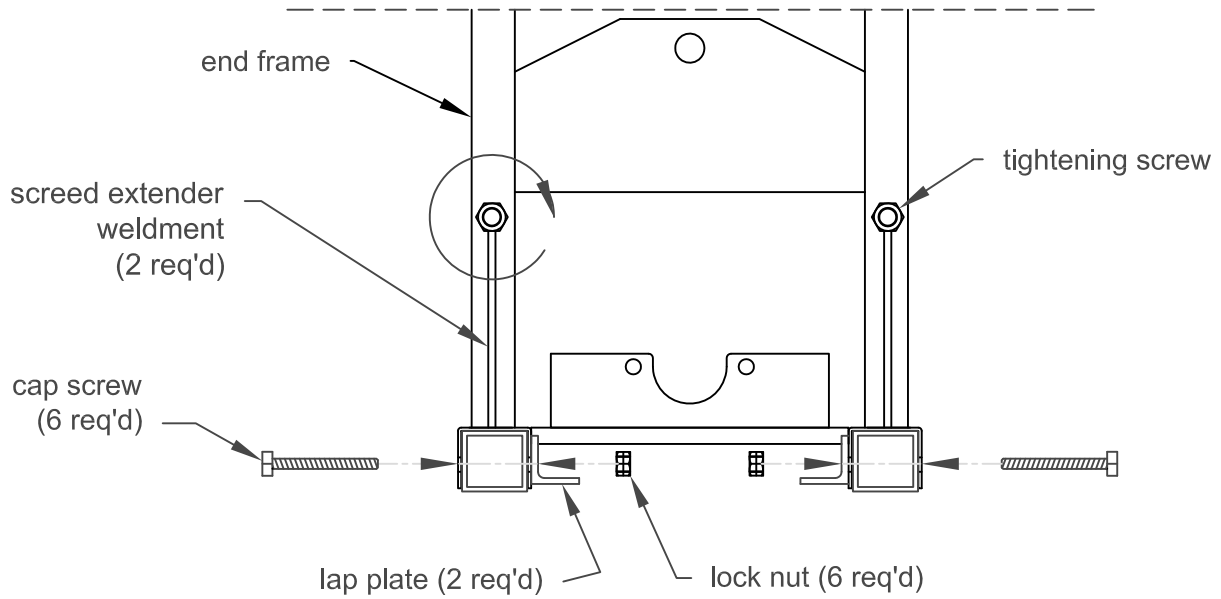
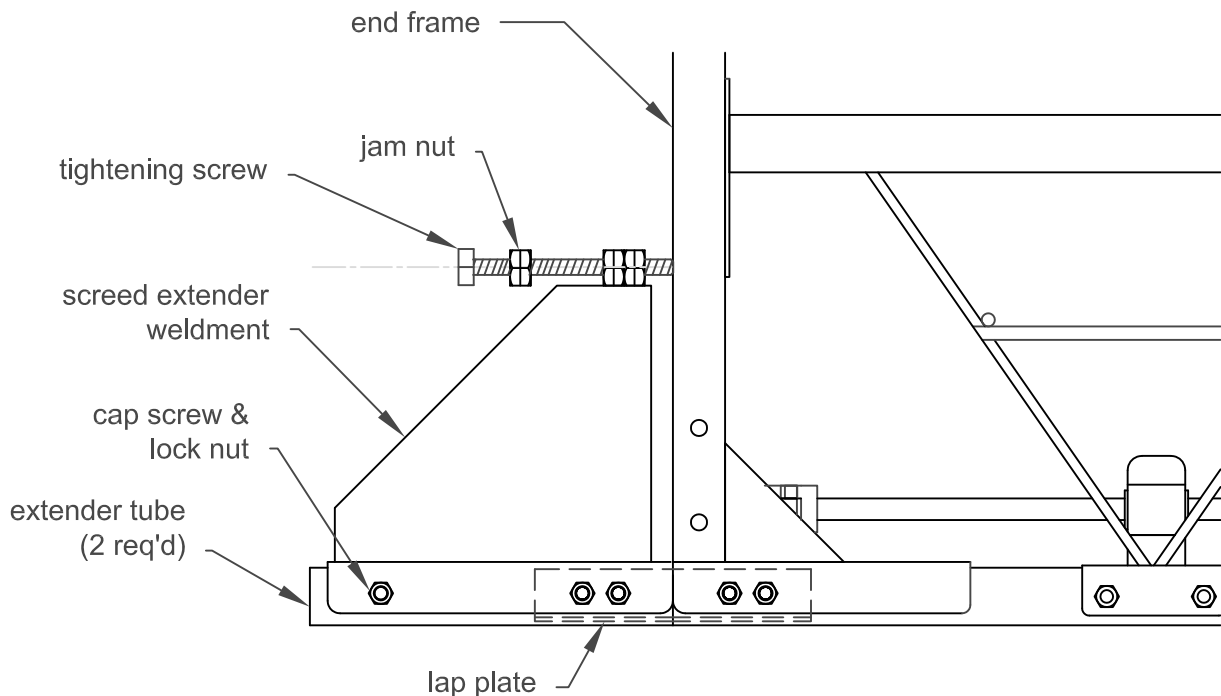


Figure 2: View from in-front of machine



INTRODUCTION

Attaching Offset Plates & Guide Plates

Figure 1: Offset Plate

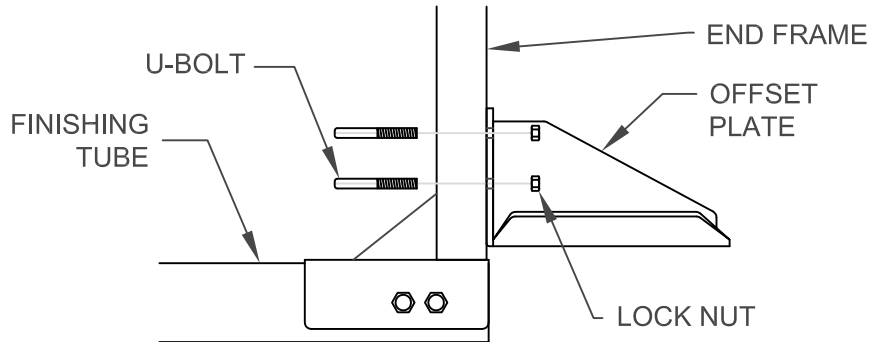


Figure 2: Outside Guide Plate

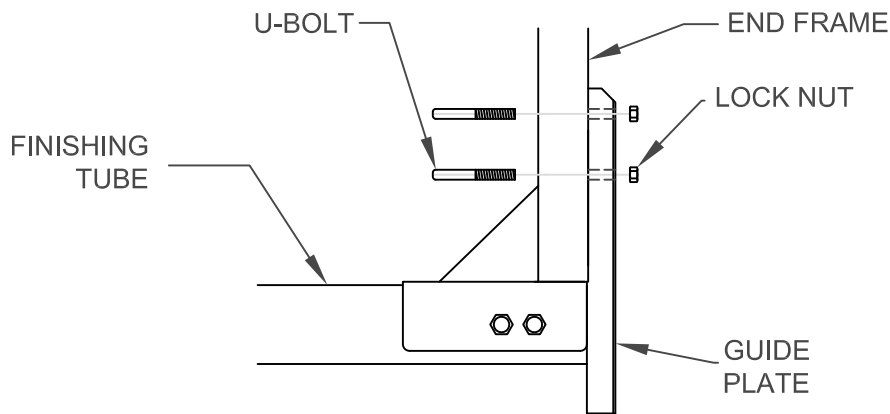
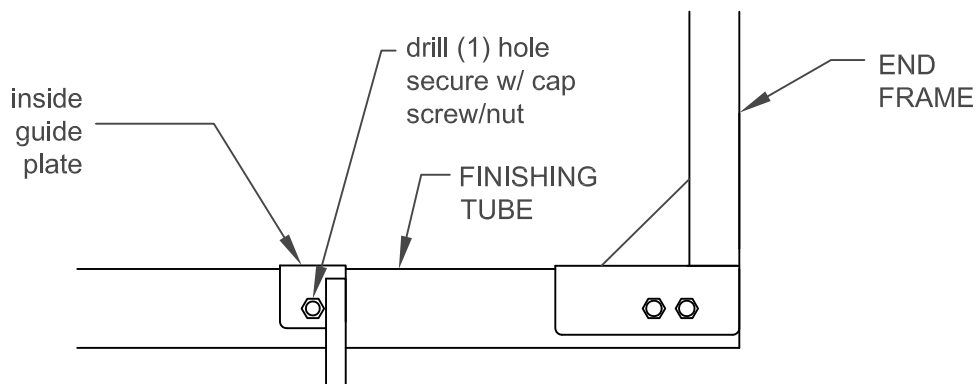


Figure 3: Inside Guide Plate



OPERATING and SERVICING

Operating the Screed:

WARNING! Keep Clear of Rotating Shaft!

NOTE: Always run engine at either idle speed or full throttle.

Clutch failure will occur within moments if engine is run at partial throttle.

IMPORTANT: When changing crown or flatness of screed: Loosen the set screws on the drive shaft couplers before adjusting the turnbuckles to prevent clutch or bearing damage.

Slump & Roll: Concrete slump should be high enough for good workability, but stiff enough to hold crown. Normally this would require a slump of approximately 3" or less. As the screed moves forward, a minimum 1" roll of concrete should be maintained ahead of the front screed tube. A ½" roll of concrete should be kept in front of the rear finishing tube. Travel speed should be adjusted (see instruction below) according to concrete supply and finish.

Vibration: Vibration frequency and amplitude is preset at the factory. Winch speed should be used to control the duration of vibration seen by the concrete.

Hand Winch Operation:

1. Before the pour begins, extend the cables out by disengaging the winch ratchet lever. However, always keep three (3) wraps of cable around the spool drum.
2. Hook the cable to any stationary member strong enough to support the load. Make sure the cable is in-line with the winch.
3. Roll excess cable back on the winch by turning the winch handle, eliminating any "slack".
4. Review the engine operating and maintenance instructions.
5. Start engine, run at maximum throttle position. Operating the engine below maximum throttle position can result in malfunctioning clutch.
6. Crank speed forward with winches

Hydraulic winch operation:

1. Before the pour begins, extend the cables out by pulling the quick disconnect knob out and turning so that it sets in the grooves of the spool. However, always keep three (3) wraps of cable around the spool drum.
2. Hook the cable to any stationary member strong enough to support the load. Make sure the cable is in-line with the winch.
3. Roll the excess cable back on the spool, eliminating any "slack".
4. Review the engine operating and maintenance instructions.
5. Make sure speed control knob on hydraulic flow control valve (p/n 580-374) is turned all the way open (counter clockwise).
6. Start engine, run at maximum throttle position. Operating the engine below maximum throttle position can result in malfunctioning clutch.
7. With clutch engaged, travel speed may be varied by rotating each controller knob clockwise, to increase rate of travel, or counter-clockwise, to decrease the rate of travel.

Engine: Most engines will not operate properly when operated at angles of more than 20 degrees to the horizon. Always run the engine at 100% throttle position when not idling.

Clutch: The clutch is designed to provide load free idle of the engine and slippage under excessive overloading of the driven application. Clutch will overheat if not fully engaged. Failure will occur of clutch drum is overheated by not enough torque from engine. Clutch is bolted to crank shaft with 5/16"-24 UNF threads (14-19 ft.lbs).

OPERATING and SERVICING

Maintenance:

Before each use: Spray form-release agent over entire machine.

After each use: Clean off entire machine using brush and water. Cleaning agents may be used, such as "CleanOff" liquid concrete remover.

After every 20 hours of operation: Grease main shaft bearings.

On a Yearly Basis: Drain and flush hydraulic oil reservoirs;
Replace oil filter element

(Further maintenance information is available on specification sheets covering engine, winches, pumps, and motors.)

OPERATING and SERVICING

Troubleshooting Hydraulics:

There are 5 main components to the hydraulic winching system:

1. Oil Reservoir
2. Integrated Hydraulic Control (IHC): speed control, filter, & relief valve
3. Pump
4. Motor with spool
5. Lovejoy coupler

Oil Reservoir: Having enough oil in the reservoir keeps the system from overheating. The fill cap on top also acts as a breather valve.

Oil Reservoir Capacity:

Speed Screed 280 - Approximately 1.1 U.S. GALLONS

Speed Screed 580 - Approximately 2.7 U.S. GALLONS

Hydraulic fluid recommendations:

Mobile DTE 26 or good quality hydraulic oil with a viscosity range between 150-250 SSU (32-54 CST) at 100 degree F (38 degrees C)

IHC: The IHC contains the flow control valve, the relief valve, and the oil filter. The flow control valve determines the winching speed. The relief valve is provided for your safety. The oil filter is provided to increase longevity of all the hydraulic components.

Pump: A different pump is used on each end of the screed, as one turns clockwise, and the other turns counter-clockwise.

Motor/Spool: The motor with quick-release spool attached to it contains a knob, spring, shaft, and set screws. See the hydraulic components diagram for replacement parts and assembly.

Lovejoy Coupler: The love-joy coupler has 3 components: 1) the shaft coupler, the pump coupler, and the spider. The spider works as a damper, and will eventually wear out and require replacement. The couplers secure with set screws. Ensure the set screws are installed with thread locking compound. If the spider fails, the couplers will likely need replacement as well.

OPERATING and SERVICING

Notes:

OPERATING and SERVICING

Belt Maintenance and Replacement:

1. Replacement Procedure for hand winch assembly:

Caution: *If belt(s) break while in operation, take extra care around motor. It will be HOT*

1. Loosen belt guard.
2. Loosen engine mount bolts, and slide motor toward backbone to relieve belt tensions.
3. Remove bolts from bearing blocks. (see drawing – item “A”)
4. While lifting shaft assembly, pull belt(s) out.
5. Reverse procedure for assembling screed. See detail for proper belt tension.

2. Replacement Procedure for hydraulic winch assembly:

Caution: *If belt(s) break while in operation, take extra care around motor. It will be HOT*

1. Loosen belt guard.
2. Loosen engine mount bolts, and slide motor toward backbone to relieve belt tensions.
3. Remove bolts from bearing blocks. (see drawing – item “A”)
4. Remove the hydraulic pump, but *do not* disconnect the hydraulic hoses.
5. While lifting shaft assembly, pull belt(s) out.
6. Reverse procedure for assembling screed. See detail for proper belt tension.

Note: Alignment of coupler to spider is ***extremely important***. It must be within 1/16”.

OPERATING and SERVICING

Figure 2: Belt Tension

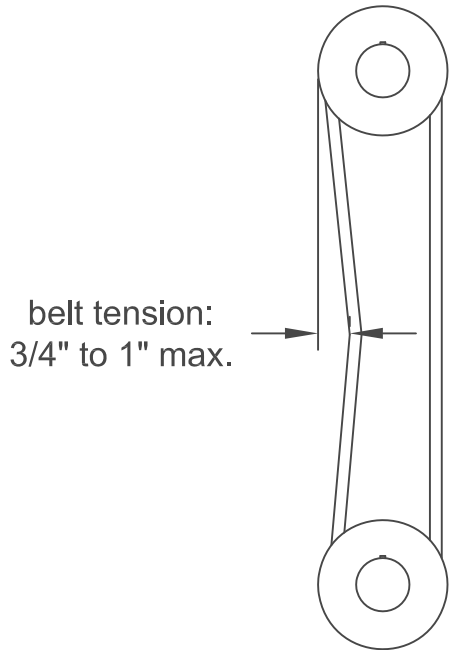
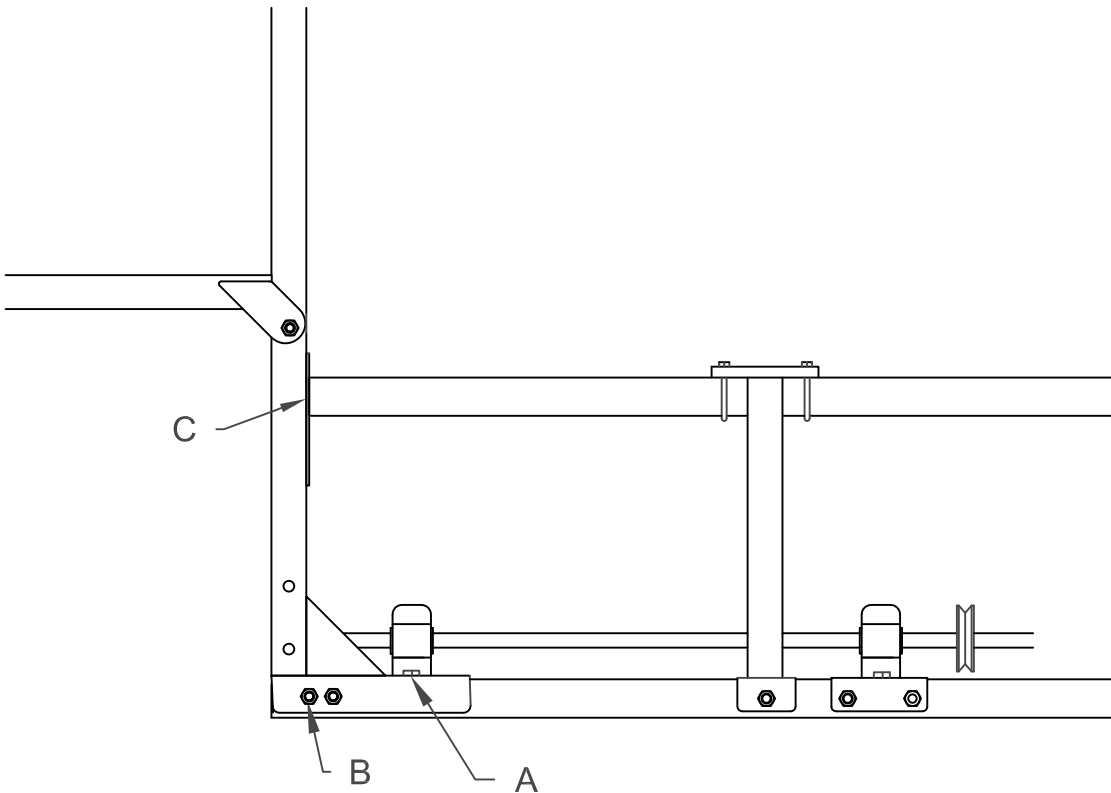


Figure 2: Belt Replacement



OPERATING and SERVICING

Motor Mount Components:

Table 1: Bill of Materials

ITEM	PART NO	DESCRIPTION	QTY
1	580-98	ENGINE MOUNT	1
2	580-049	CLUTCH ASSEMBLY	1
3	280-37	SHEAVE	1
4	580-106	V-BELT B-58	2
5	046-850	3/16" x 2" KEY	1
6	580-174	BELT GUARD	1
7	044-105	U-BOLT	1
8	044-138	U-BOLT	3
9	046-852	1/4" x 2-3/8" KEY	1
10	040-438	3/8" LOCKNUT	6
11	040-425	1/4" LOCKNUT	2

NOTE: FOR PROPER BELT TENSION, SEE REPLACEMENT PROCEDURE.

Figure 1: engine mount assy.

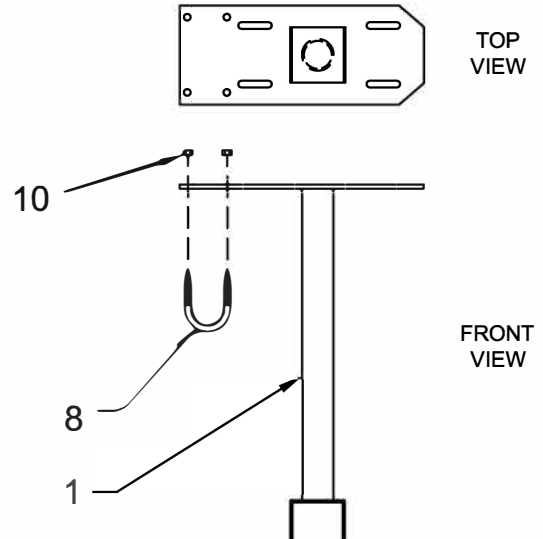
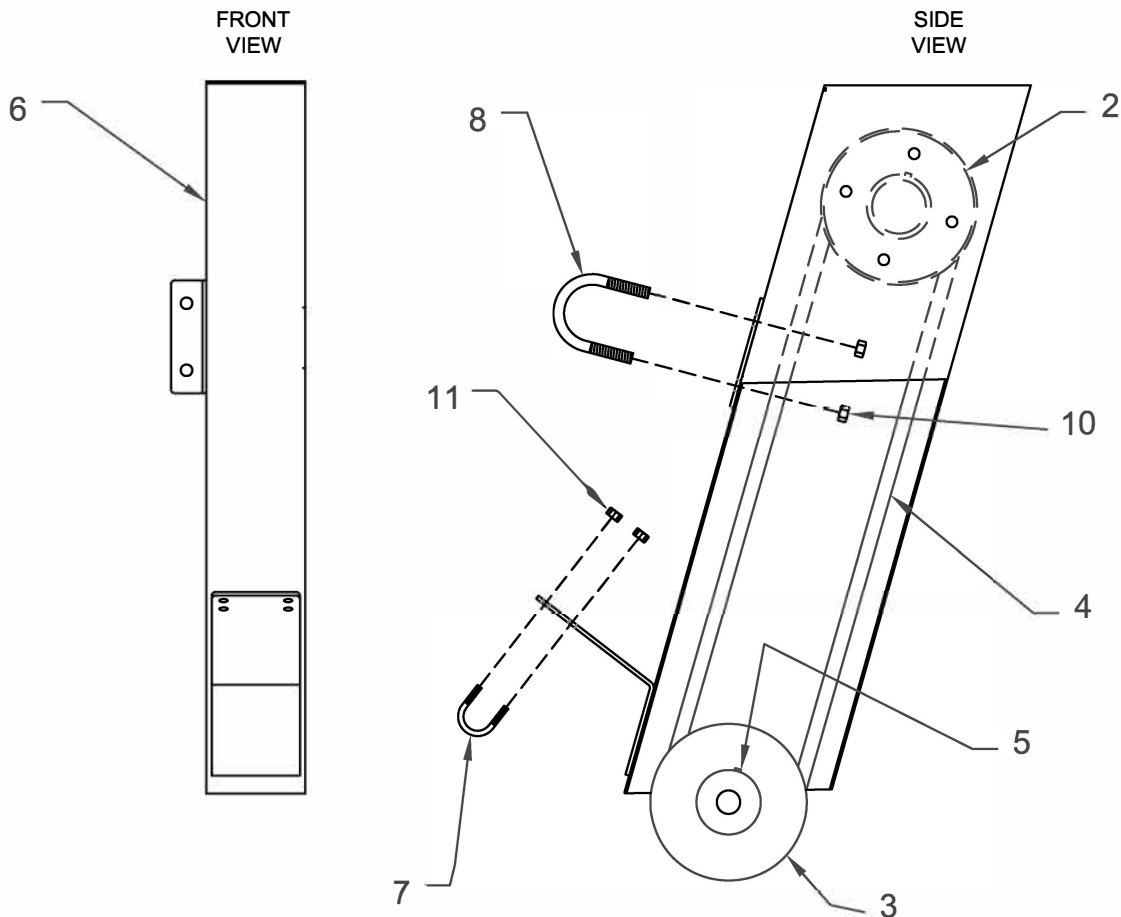


Figure 2: belt drive arrangement



OPERATING and SERVICING

Notes:

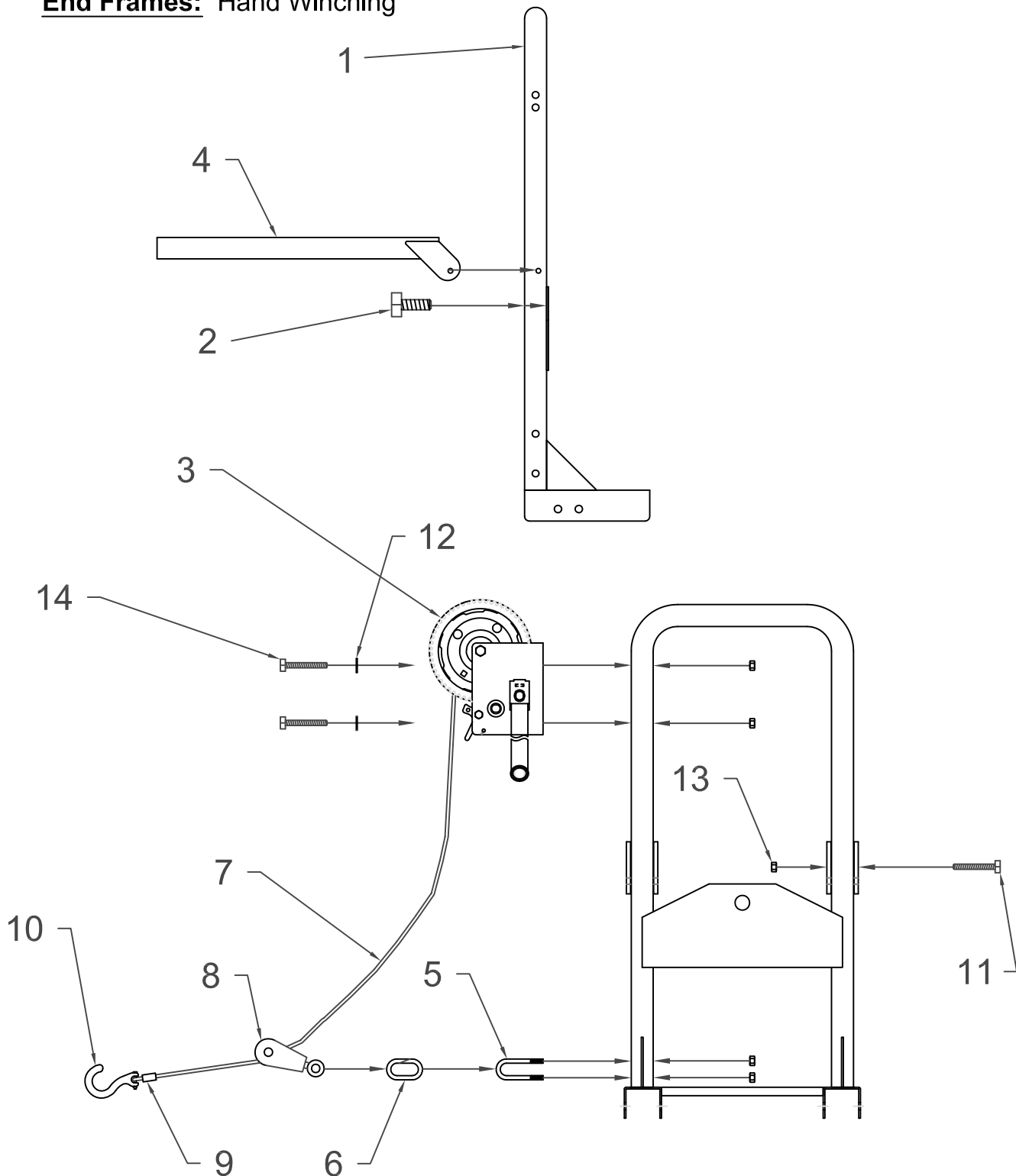
SPECIFICATIONS - STANDARD ITEMS

End Frames: Hand Winching

ITEM	PART NO	DESCRIPTION	QUANTITY
1	580-80	END FRAME (ENGINE END)	1
	580-81	END FRAME (EXTENSION END)	1
2	020-880	CAP SCREW	1
3	580-67	HAND WINCH	1
4	580-240	LIFT HANDLE	1
5	044-138	U-BOLT (3/8"-16 FOR 1-1/2" PIPE)	1
6	580-179	SAFETY LINK	1
7	580-180	1/8" DIA. AIRCRAFT CABLE	75'
8	580-48	SNATCH BLOCK	1
9	580-51	1/8"x5/8" ALUMINUM CABLE CRIMP	1
10	580-50	CABLE HOOK	1
11	020-430	3/8" x 3" HEX HEAD CAP SCREW	2
12	041-138	3/8" FLAT WASHER	2
13	040-438	3/8" SELF LOCKING NUT	6
14	020-427	3/8" x 2-3/4" HEX HEAD CAP SCREW	2

SPECIFICATIONS - STANDARD ITEMS

End Frames: Hand Winching



SPECIFICATIONS - STANDARD ITEMS

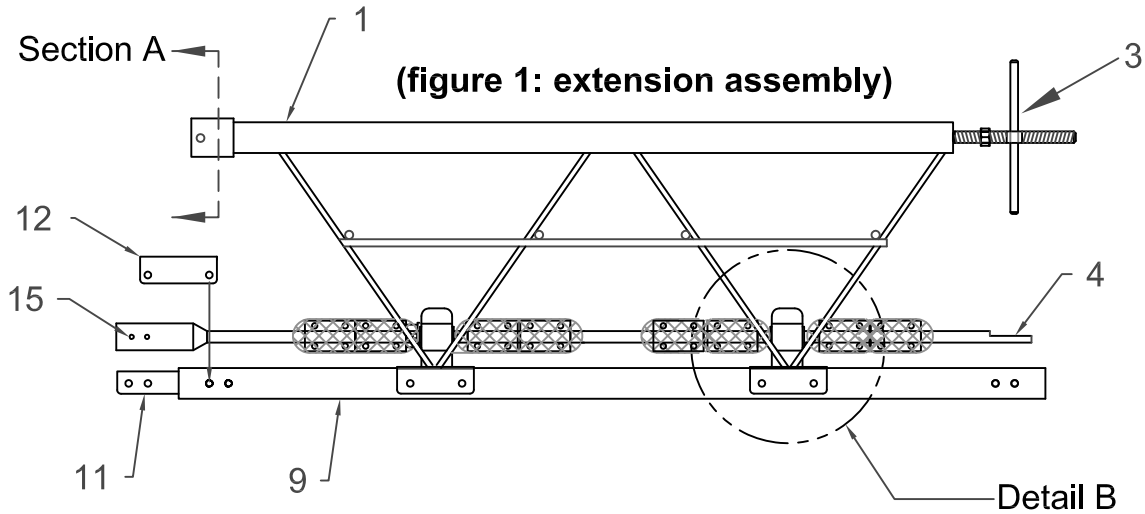
EXTENSION SECTION:

ITEM	PART NO	DESCRIPTION	QTY. PER END FRAME
1	580-85	FRAME ASSEMBLY, 2 FT. 6 IN.	AS REQUIRED
	580-92	FRAME ASSEMBLY, 5 FT.	AS REQUIRED
	580-93	FRAME ASSEMBLY, 10 FT.	AS REQUIRED
2	580-304	SHRINK TUBE	AS REQUIRED
3	580-27	TURNBUCKLE W/ NUT	1
4	580-88	MAIN SHAFT ASSEMBLY, 2 FT. 6 IN.	1
	580-87	MAIN SHAFT ASSEMBLY, 5 FT.	1
	580-86	MAIN SHAFT ASSEMBLY, 10 FT.	1
5	580-75	BEARING SPACER	AS REQUIRED
6	580-44	BEARING	AS REQUIRED
7	020-594	1/2" X 1-1/2" HEX HEAD CAP SCREW	AS REQUIRED
8	020-539	1/2" X 3-3/4" HEX HEAD CAP SCREW	AS REQUIRED
9	580-32	FINISHING TUBE, 2 FT. 6 IN.	2
	580-31	FINISHING TUBE, 5 FT.	2
	580-29	FINISHING TUBE, 10 FT.	2
10	040-450	1/2" SELF LOCKING NUT	AS REQUIRED
11	580-28	LAP PLATE	2
12	580-016	SADDLE	2
13	028-226	1/4"-28 X 1/4" SET SCREW	AS REQUIRED
14	028-239	1/4"-28 X 3/8" SET SCREW	AS REQUIRED
15	028-450	3/8"-16 X 1/2 SET SCREW	1
16	580-74*	ECCENTRIC WEIGHT	AS REQUIRED
17	044-109*	U-BOLT	AS REQUIRED
18	040-425*	1/4"-20 SELF LOCK NUT	AS REQUIRED
19	580-14	LEFT HAND NUT	1
20	045-438	PIN	2

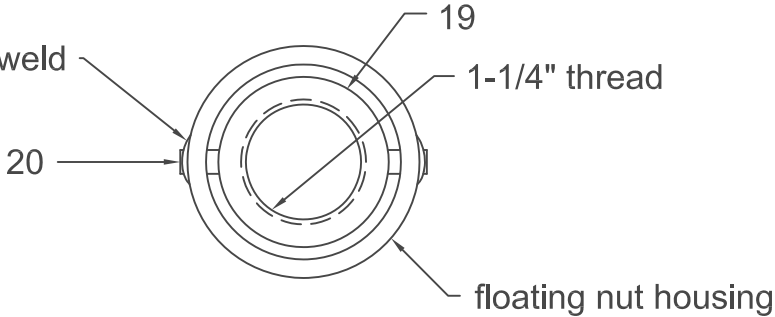
*Encase weight, u-bolts, and nuts with shrink tube (item 2) BEFORE operating machine.

SPECIFICATIONS - STANDARD ITEMS

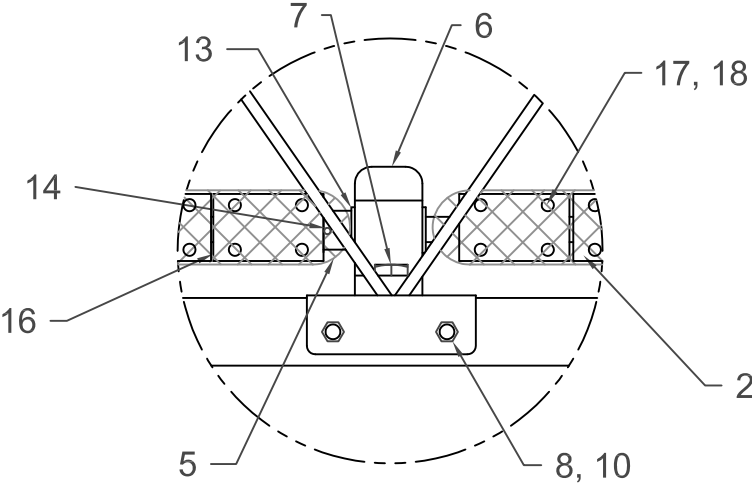
EXTENSION SECTION:



(figure 2: zoomed in view of Section A)



(figure 3: zoomed in view of Detail B)



SPECIFICATIONS - STANDARD ITEMS

POWER SECTION:

ITEM	PART NO	DESCRIPTION	COMMENT
1	580-95	FRAME ASSEMBLY-10ft.-6in.	
	580-82	FRAME ASSEMBLY-5ft.-6in.	
2	580-46	FINISHING TUBE 10ft.-6in.	2 REQ'D
	580-30	FINISHING TUBE 5ft.-6in.	2 REQ'D
3	580-23	MAIN SHAFT 10ft.-6in.	1 REQ'D
	580-24	MAIN SHAFT 5ft.-6in.	1 REQ'D
4	580-75	BEARING SPACER	
5	580-44	BEARING	
6	020-594	HEX HEAD CAP SCREW 1/2"-13x1-1/2"	2 REQ'D / BEARING
	041-150	FLAT WASHER 1/2"	2 REQ'D / BEARING
	040-450	LOCKNUT 1/2"	2 REQ'D / BEARING
7	028-226	SETSCREW 1/4"-28x1/4"	1 REQ'D / BEARING
8	028-239	SETSCREW 1/4"-28x3/8	1 REQ'D / BEARING
9	020-539	HEX HEAD CAP SCREW 1/2"-13x3-3/4"	
10	040-450	LOCKNUT 1/2"	
11	580-74*	ECCENTRIC WEIGHT	
12	044-109	U-BOLT	2 REQ'D PER ECC. WT.
13	040-425	LOCKNUT 1/4"-20	2 REQ'D PER U-BOLT
14	580-13	RIGH HAND NUT	2 REQ'D
15	580-304	SHRINK TUBE	1 REQ'D PER ECC. WT.

*ENCASE WEIGHT, U-BOLTS & NUTS WITH SHRINK TUBE (ITEM#15) BEFORE OPERATING MACHINE.

FINISHING TUBES:

PART NUMBER	DESCRIPTION	QUANTITY
580-46	10'-6" POWER SECTION	2
580-30	5'-6" POWER SECTION	2
580-29	10'-0" EXTENSION	2
580-31	5'-0" EXTENSION	2
580-32	2'-6" EXTENSION	2

SPECIFICATIONS - STANDARD ITEMS

POWER SECTION:

figure 1: power section assembly

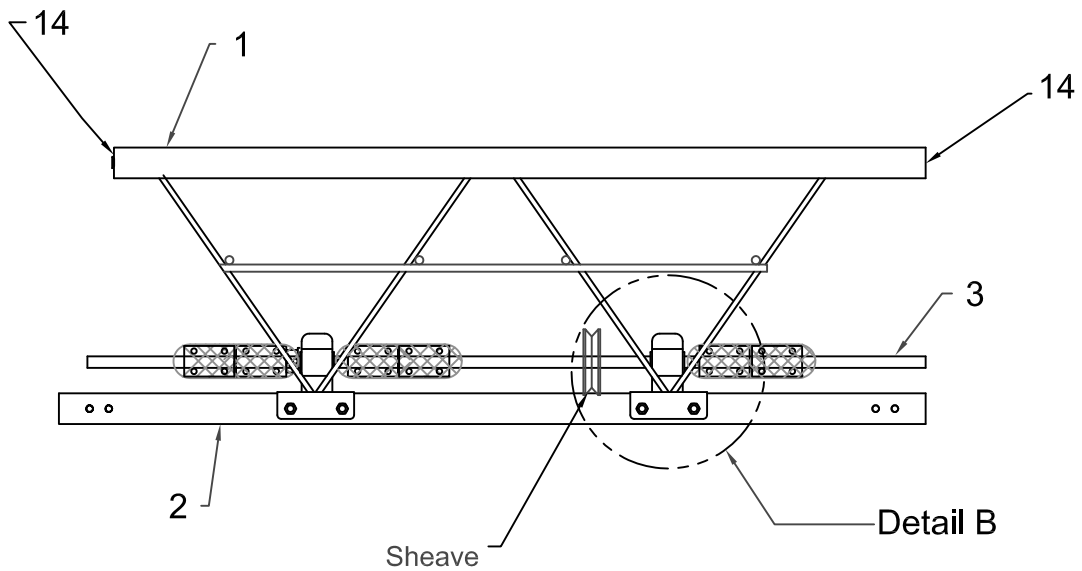
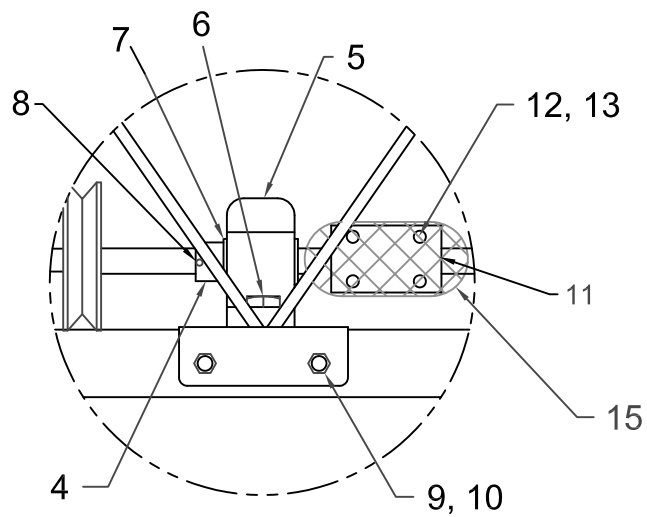


figure 2: zoomed in view of Detail B



OPERATING and SERVICING

Notes:

SPECIFICATIONS - ACCESSORY ITEMS

Options and Accessories:

HYDRAULIC WINCHING:	END FRAMES CONTAIN HYDRAULIC OIL TANKS, MOTORS, PUMPS, HOSES, FLOW CONTROL VALVES, AND RELIEF VALVES. ALLOWS MACHINE TO BE WINCHED THROUGH USE OF THE SAME MOTOR ALREADY RUNNING THE VIBRATING SHAFT.
INSIDE & OUTSIDE GUIDE PLATES:	AVAILABLE FOR SPECIAL APPLICATIONS SUCH AS PAVING ON SUPER ELEVATIONS AND PAVING CURB TO CURB OR SLAB TO SLAB.
OFFSET PLATE:	ADJUSTABLE ADAPTOR PLATE MOUNTS ON END FRAME(S) FOR RECESS PAVING OR POURING AGAINST WALLS.
SCREED EXTENDERS:	AN 8" EXTENSION, MADE OUT OF FINISHING TUBE MATERIAL, EXTENDING FROM BACK SIDE OF THE END FRAME ASSEMBLY. WITH THE USE OF FOUR (4) EXTENDERS THE OVERALL SCREEDLENGTH WILL INCREASE BY 16 INCHES.
TRANSPORT WHEEL ASSEMBLY:	TRANSPORTATION UNIT FOR MANEUVERING SCREED ON JOBSITE.
WINCHING FROM ONE END:	FOR SITUATIONS THAT REQUIRE A ONE-MAN OPERATION, THIS IS SET-UP WITH BOTH HAND WINCHES ADAPTED TO ONE END FRAME.

SPECIFICATIONS - ACCESSORY ITEMS

End Frames, Hydraulic Winching:

ITEM	PART NO	DESCRIPTION	QUANTITY
1	580-80	END FRAME (ENGINE END)	1
	580-81	END FRAME (EXTENSION END)	1
2	020-880	CAP SCREW 1-1/4"-7	1
3	580-155	HYDRAULIC OIL TANK (ENGINE END)	1
	580-156	HYDRAULIC OIL TANK (EXT. END)	1
4	580-324	OIL FILL CAP / BREATHER FILTER	1
5	580-044	BEARING	1
6	580-107	PUMP, ENGINE END	1
	580-108	PUMP, EXTENSION END	1
7	580-240	LIFT HANDLE	2
8a	580-104-1	PUMP DRIVE COUPLING -3/4" BORE	1
8b	580-104-2	PUMP DRIVE COUPLING -1/2" BORE	1
8c	580-104-3	PUMP DRIVE SPIDER	1
9	580-179	SAFETY LINK	1
10	580-48	SNATCH BLOCK*	1
11	580-180	1/8" DIA. AIRCRAFT CABLE*	75'
12	020-499	3/8"-16 x 2-1/2" HEX HD CAP SCREW	5
13	040-438	3/8"-16 SELF LOCKING NUT	7
14	020-430	3/8"-16 x 3" HEX HEAD CAP SCREW	2
15	041-138	3/8" FLAT WASHER	2
16	580-51	1/8"X5/8" ALUMINUM CABLE CRIMP	1
17	580-50	HOOK*	1

*not shown in drawing

OIL RESERVOIR CAPACITY:

SPEED SCREED 580-APPROXIMATELY 2.7 U.S. GALLONS

SPEED SCREED280 -APPROXIMATELY 1.1 U.S. GALLONS

HYDRAULIC FLUID RECOMMENDATIONS:

MOBILE DTE 26 OR GOOD QUALITY HYDRAULIC OIL WITH A VISCOSITY RANGE BETWEEN 150-250 SSU (32-54 CST) AT 100° F (38° C)

OIL FILTER: CANISTER TYPE (Please Recycle)

PUMP: GEAR TYPE. 5000 PSI RATING. ENGINE SIDE SPINS CCW. EXTENSION SIDE CW.

DRIVE MOTORS: OVERSIZE HIGH TORQUE, LOW SPEED CONTINUOUS DUTY.

FLOW CONTROL VALVE: FULL RANGE ACHIEVED (0-12 F.P.M.) W/i 1 REV. OF KNOB.

PRESSURE RELIEF VALVE: SET AT 1,500 P.S.I.

PUMP DRIVE COUPLING: OVERSIZE HIGH-SPEED W/ REPLACEABLE FLEXING CENTER ELEMENT. SHAFT END: 3/4"BORE. PUMP END: 1/2" BORE

SPECIFICATIONS - ACCESSORY ITEMS

End Frames, Hydraulic Winching:

Figure 1 (right): Side View of Hydraulic End Frame (some components not shown)

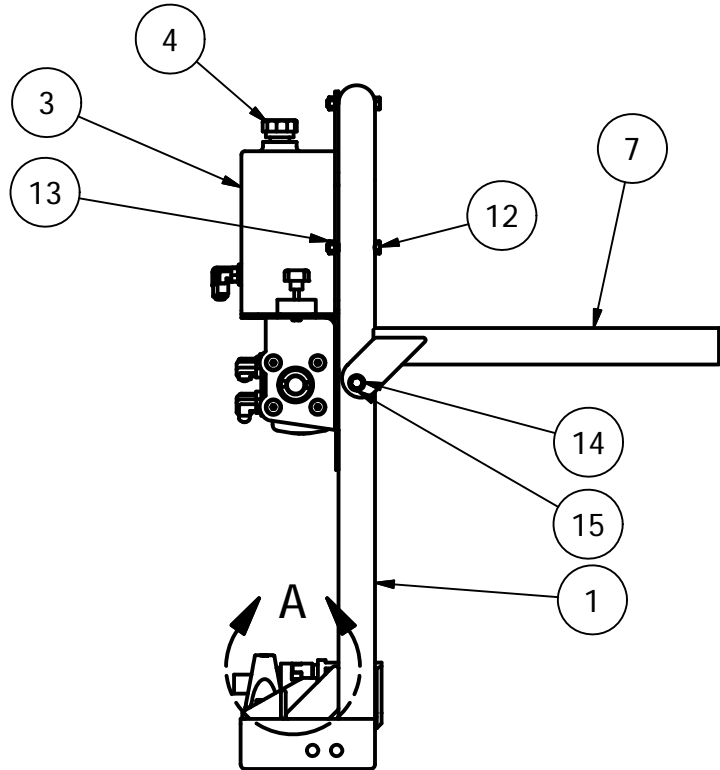
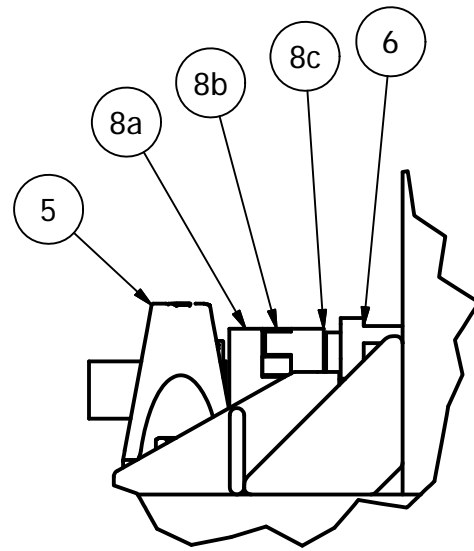
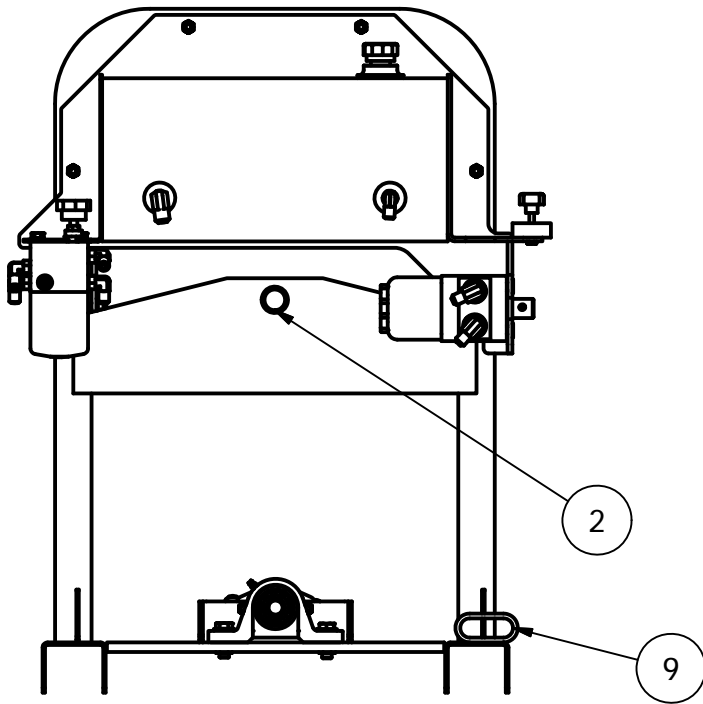


Figure 2 (below): Front View of Hydraulic End Frame

Detail A: Detail view of Pump Drive Coupling Assembly.



DETAIL A

SPECIFICATIONS - ACCESSORY ITEMS

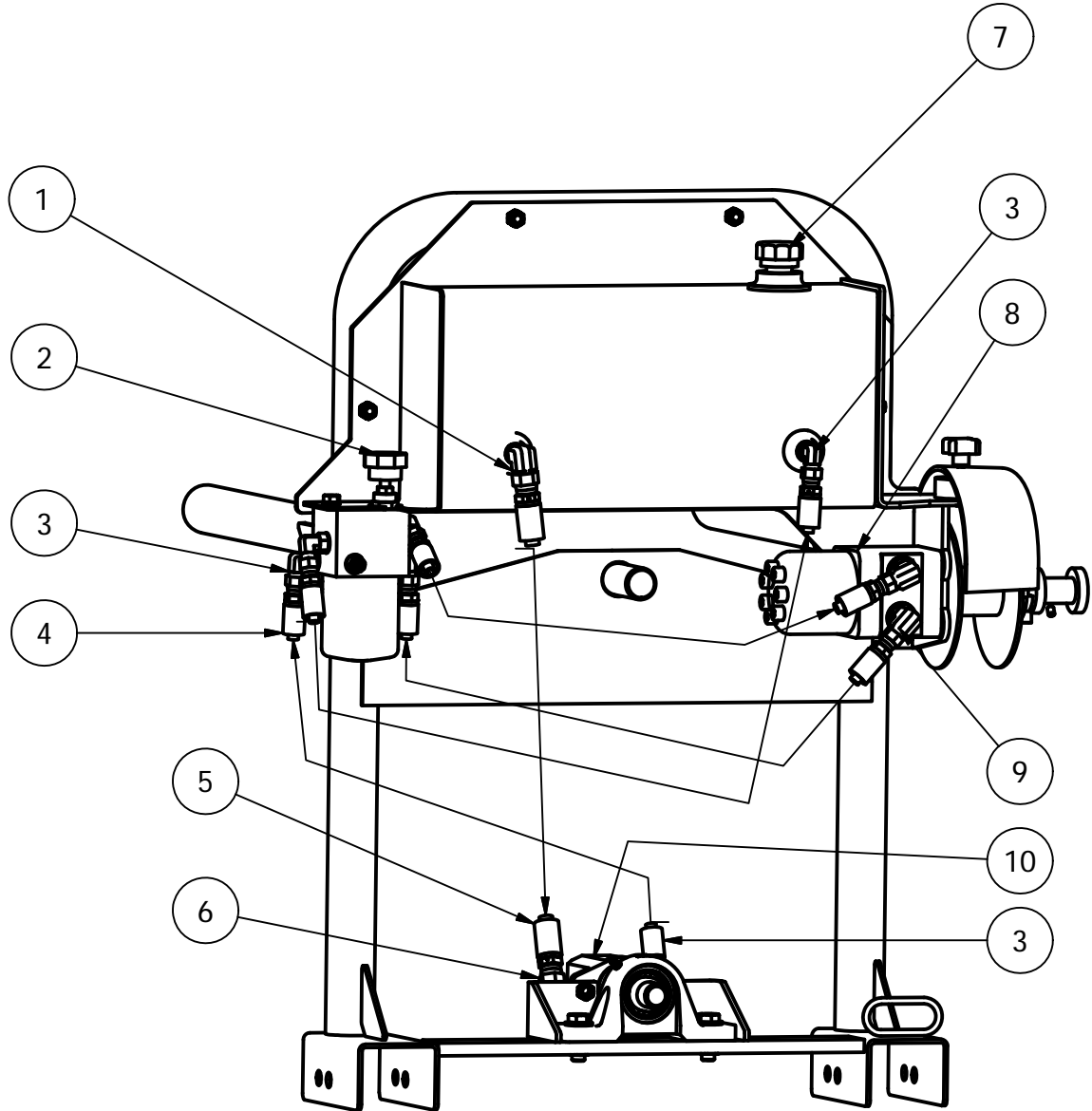
Hydraulic Components: Bill of Materials

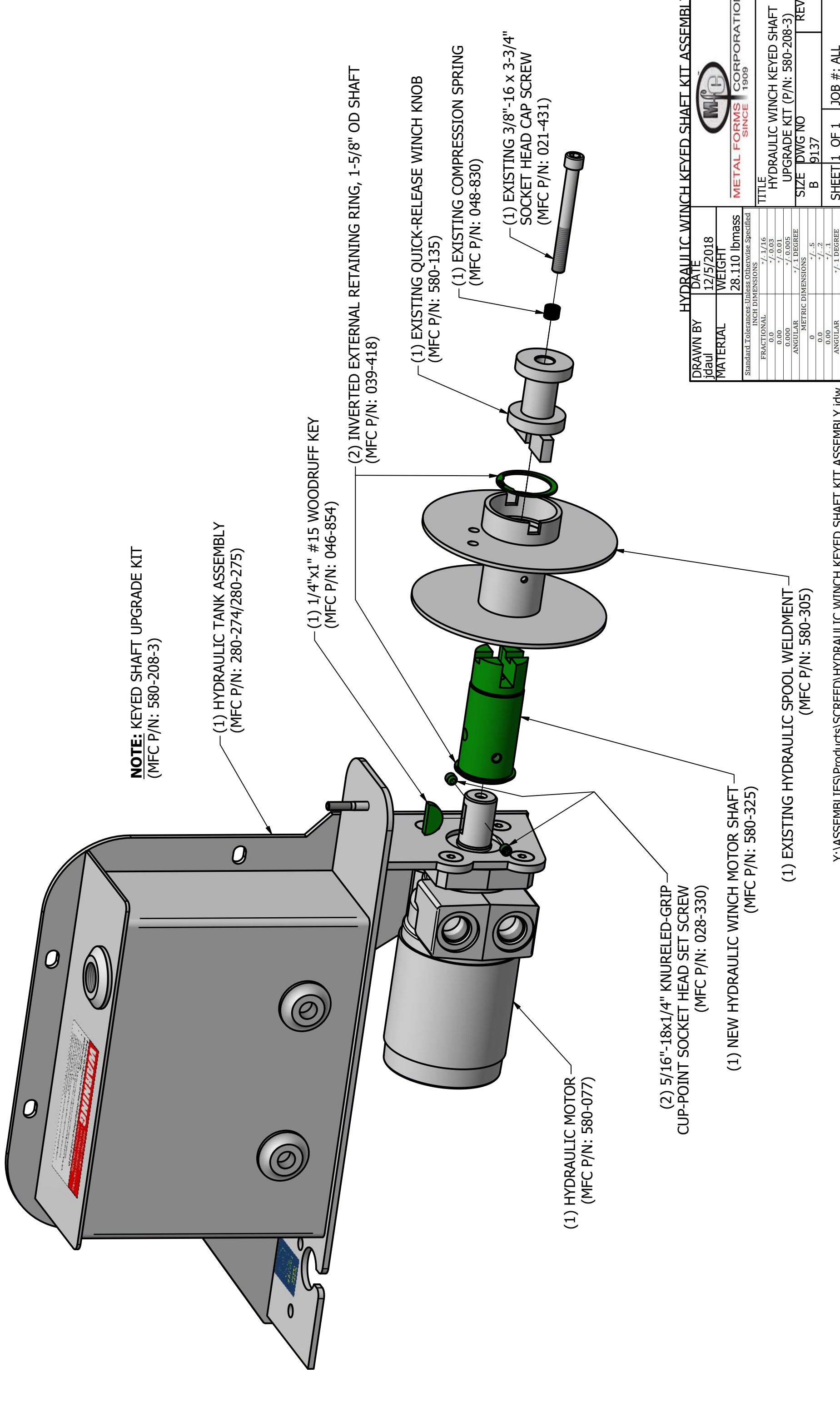
ITEM	PART NO	DESCRIPTION	QTY. PER END FRAME
1	580-109	90 deg. Elbow orb-6 M to JIC-8 M	1
2	580-374	Integrated Hydraulic Control Unit	1
3	580-375	3/8" ORB - 1/4" JIB 90 deg. Elbow	6
4	580-308	hose, 1/4" x 30, JIC-6 swivel female ends	4
5	580-309	hose, 1/2" x 26", JIC-8 swivel female ends	1
6	580-112	90 deg. Elbow. Orb-8 M to JIC-8 M	1
7	580-324	filler breather cap 1" NPT	1
8	580-077	Hydraulic Motor (ORB-10)	1
9	580-111	90 deg. Elbow, ORB-10 M to JIC-6 M	2
10	580-107	Pump, Hydraulic, RH (engine end) 5000 psi CCW	1
	580-108	Pump, Hydraulic, LH (ext. end) 5000 PSI CW	1

NOTE: Reference drawing is for engine-side end bail. The only difference between the engine-side and the extension-side is the hydraulic motor being turned 180 deg.

SPECIFICATIONS - ACCESSORY ITEMS

Hydraulic Components & Flow Diagram:





HYDRAULIC WINCH KEYED SHAFT KIT ASSEMBLY	
DRAWN BY	DATE
jdaul	12/5/2018
MATERIAL	WEIGHT
	28.110 lbmass
Standard Tolerances-Unless Otherwise Specified	
INCH DIMENSIONS	
FRACTIONAL	+/- 1/16
0.0	+/- 0.03
0.00	+/- 0.01
0.000	+/- 0.005
ANGULAR	+/- 1 DEGREE
METRIC DIMENSIONS	
0	+/- .5
0.0	+/- .2
0.00	+/- .1
ANGULAR	+/- 1 DEGREE



TITLE	
HYDRAULIC WINCH KEYED SHAFT UPGRADE KIT (P/N: 580-208-3)	
SIZE	DWG NO
B	9137
REV	
SHEET 1 OF 1 JOB #: ALL	

OPERATING and SERVICING

Notes:

SPECIFICATIONS – ACCESSORY ITEMS

**Spare parts kit # 580-900
(for hand winch units)**

Parts Included:	<u>p/n</u>	<u>qty.</u>
turnbuckle w/locknut	580-27	1
lap plate	580-28	2
saddle	580-016	2
safety link	580-179	2
hex head cap screw	020-593	8
set screw	028-450	4
lock nut, 1/2"	040-450	8

**Spare parts kit # 580-902
(for hydraulic winch units)**

Parts Included:	<u>p/n</u>	<u>qty.</u>
turnbuckle w/locknut	580-27	1
lap plate	580-28	2
saddle	580-016	2
safety link	580-179	2
hex head cap screw	020-593	8
set screw	028-450	4
lock nut, 1/2"	040-450	8
pump drive coupling, 3/4" bore	580-104-1	1
pump drive coupling 1/2" bore	580-104-2	1
pump drive spider	580-104-3	1

NOTE: PARTS MAY BE ORDERED SEPERATELY

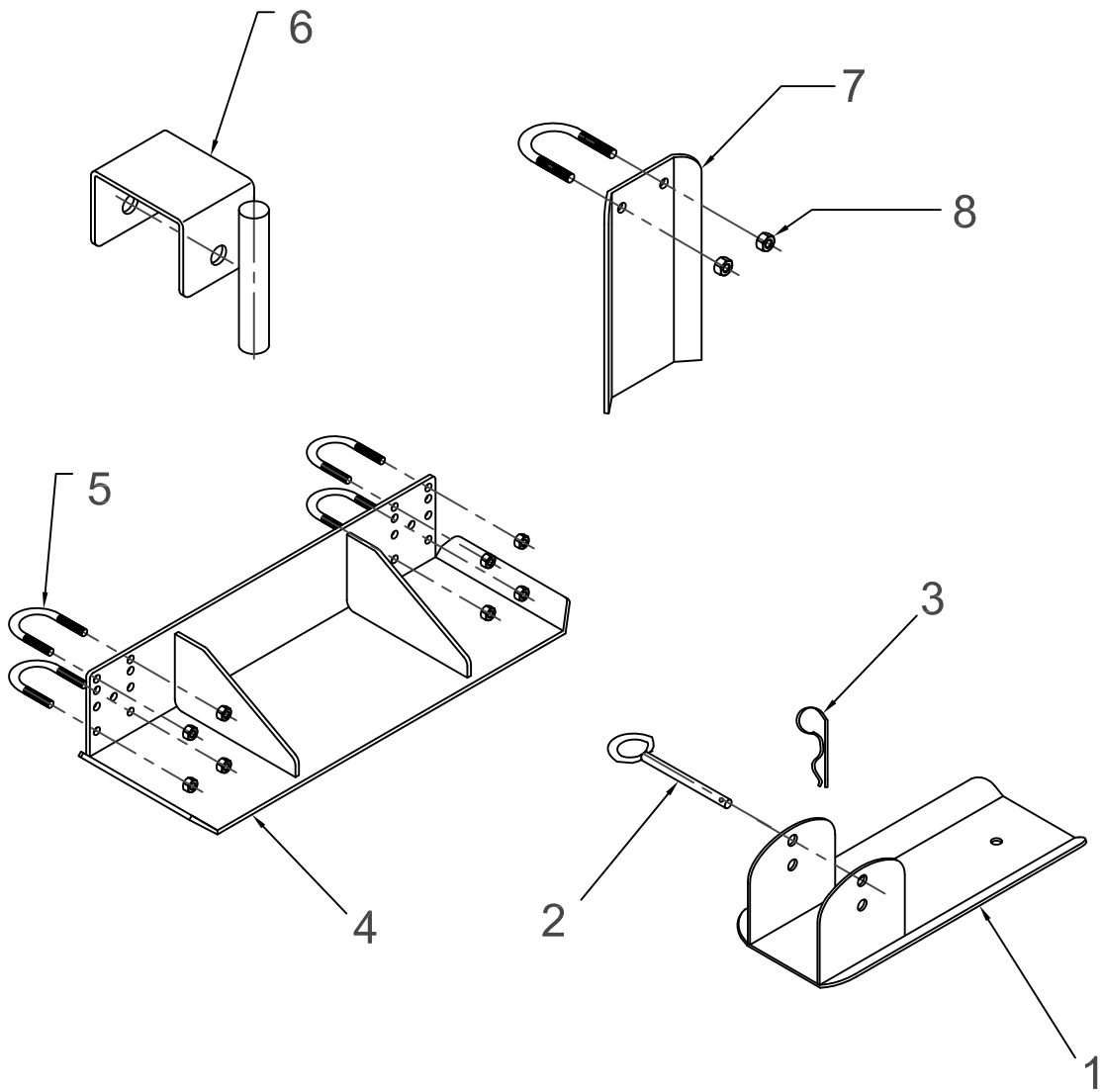
SPECIFICATIONS - ACCESSORY ITEMS

Offset Plates & Guide Plates:

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	580-99	SKI (WITH CLEVIS PIN)	2
2	046-655	CLEVIS PIN (W/ COTTER PIN)	2
3	580-147	CLINCH PIN	2
	046-238	HAIR PIN COTTER PIN	2
4	580-062	OFFSET PLATE	AS REQUIRED
5	044-138	U-BOLT	AS REQUIRED
	040-438	SELF LOCK NUT	AS REQUIRED
6	580-148	INSIDE GUIDE PLATE	AS REQUIRED
7	580-122	OUTSIDE GUIDE PLATE	AS REQUIRED

SPECIFICATIONS - ACCESSORY ITEMS

Offset Plates & Guide Plates:



SPECIFICATIONS – ACCESSORY ITEMS

Hydraulic Winch Assembly

WARNING

Failure to observe these instructions could lead to severe injury.

General Safety:

- Take time to fully read and understand all instructions regarding the hydraulic winch.
- Always use factory-approved switches, controls, accessories, and installation components.
- Always keep loose clothing away from operating winch.
- Never modify the cable hook by welding or attaching to it.
- Never obscure warning or instruction label.
- Never use cable as a ground for welding.
- Always turn off engine before performing any maintenance or repair, or before working around winch spool.
- Never work on or around winch spool when winch is under load.
- Always refer repairs to qualified technicians.
- Never machine or weld any part of winch.
- Never use winch to hold loads.
- Never use as a hoist for lifting, supporting, or transporting people, or over areas where people are present.
- Always use Grade 5 or better hardware.
- Never weld bolts and never use longer bolts than those supplied from factory.

Installation Safety:

- Always take your time when rigging for a winch pull.
- Always wear heavy gloves when handling cable. Do not allow cable to slide through hands.
- Never put finger through hook. If fingers should become trapped in hook, they can be lost.
- Always choose a stationary object as an anchor.
- Always choose an anchor that is sufficiently strong to withstand the maximum pulling capacity of your winch.
- Never winch with less than 3 wraps of cable around the spool. The cable could come loose from the spool.
- Always hook the cable as low as possible.
- Always be certain the hook will not slip.
- Always lay a heavy blanket or tarp over cable near hook end, when operating winch under heavy loads. If cable or hook failure should occur, cloth will help prevent rope whipping.
- Always, prior to using winch, remove any obstacle that may interfere with safe operation.
- Always pre-stretch cable and re-spool under load before use.
- Never step over cable or allow anyone else to do so.

Winch Safety:

- Always require operator and bystanders to be aware of cable during winch operation.
- Always inspect winch installation and cable condition before operating winch. If cable has a fray, kink, or other damage, it must be replaced immediately. Loose or damaged winch installation must be corrected immediately.
- Never hook cable back onto itself. This damages the cable.
- Never exceed winch, cable, or accessory's rated capacity.
- Always keep the cable in close alignment with the spool.
- Always keep others away from cable, hook, and spool while winch is in operation.
- Never operate with wet or oily hands.
- Never guide wire rope onto drum with hands.
- Never allow shock loads to be applied to winch or cable.
- Never leave the winch controls unattended while in operation.
- Never touch the cable or hook while in tension or under load.
- Always stand clear of cable and spool during winch operation.
- Never operate this winch when under the influence of drugs, alcohol, or medication.

SUPPLEMENTS

Extra Safety Link:

We have included an extra safety link, in order to emphasize its importance in protecting the machine and its operators from damage and injury.

If the machine becomes caught, stuck, or held in place, and the winches continue to turn, the safety link is designed to uncoil itself, momentarily releasing the machine from the tension implied by the winch. **The winch operation must cease immediately after the safety link uncoils.** Some examples of catch points include 1) forms not lining up correctly, 2) stakes sticking up too high, 3) manhole covers, 4) plumbing stacks, and 5) protruding re-bar.

WARNING: The absence of a safety link can result in serious injury to workers, and significant damage to the machine. Do not remove the Safety Link. Do not modify the Safety Link (for example, do not weld the link closed).

If the machine becomes caught, and there is no safety link, the cable tension may become so great that the cable or cable-keeper may fail. This could result in a violent whip of the stainless steel cable, exerted by hundreds of pounds (or more) of force.

To avoid injury, follow these operating guidelines:

- 1) Always inspect the cable and hook before each use to make sure they are not damaged. Replace the cable if it has one or more frays or kinks. If the cable or hook breaks, the cable can act like a whip, and can inflict serious injury to anyone in the cable's path.
- 2) Never stand alongside the winch cable.
- 3) Never guide the winch cable with your hands.
- 4) Never operate with wet or oily hands.
- 5) Never leave winch unattended, as unauthorized persons may attempt to operate the winch, thereby creating an unsafe condition.
- 6) Always keep loose clothing away from operating winch.
- 7) Always keep at least three (3) wraps of cable around spool.
- 8) Do not modify the cable hook by welding or attaching anything to it.

NOTE: IF A SAFETY LINK UNCOILS FOR ANY REASON, WE RECOMMEND REPLACEMENT.

- ✓ ALWAYS HAVE A SPARE WITH YOU.
- ✓ USE NO SUBSTITUTES.
- ✓ NEVER USE A THREADED CHAIN LINK, SPRING-LOADED CLIP, OR ANY OTHER DEVICE.
- ✓ ORDER ADDITIONAL SAFETY LINKS AT (414)964-4550

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