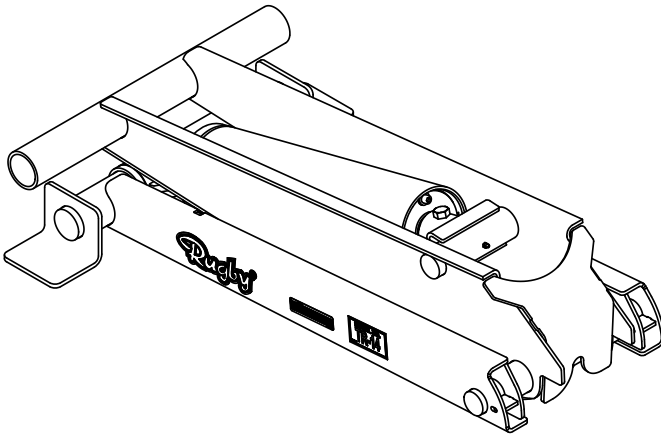




# INSTALLATION AND OPERATION MANUAL

## TR-SERIES HOIST

### 2559607



Serial Number: \_\_\_\_\_

In-Service Date: \_\_\_\_\_

Read this manual thoroughly prior to installation and operation. This manual outlines the installation and operation of an TR Series Hoist & Sub-frame manufactured by Rugby Manufacturing Co. This manual should be kept readily accessible for any potential operator at all times. Contact your dealer or a Rugby Manufacturing customer service representative at 800-869-9162 or [www.rugbymfg.com](http://www.rugbymfg.com) with any questions or concerns.

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## Section 1: Safety

This manual provides guidelines and instructions for correctly operating and maintaining your Rugby Manufacturing Co. product. Any and all people that own and operate a Rugby Manufacturing dump trailer are recommended to read and fully understand each section in this manual.

Throughout this manual, the three following types of labels will be used: Danger, Warning, and Caution. For the safety of the operator, it is imperative that all labels are obeyed.



### **DANGER**

Indicates imminent danger. Failure to follow this instruction will result in death or serious injury.



### **WARNING**

Indicates a possibly impending danger. Failure to follow this instruction can result in death or serious injury.



### **CAUTION**

Indicates a hazardous situation or unsafe practice which, if not avoided, could result in injury or component damage.

In all cases, Rugby products are sold with the understanding that the purchaser agrees to thoroughly train all operating and maintenance personnel in the correct and safe installation and operation of hoist equipment and to provide adequate supervision of personnel at all times.

Read the following in its entirety before connecting, operating or repairing equipment. Purchasers and operators also should be familiar with the current version of any applicable OSHA regulations, standards and guidelines.

Should any questions arise concerning safe and proper procedures, contact Rugby Manufacturing Co. to the installation or use at (800) 869-9162 or (701) 776-5722.

The hydraulic system supplied with an TR-Series hoist manufactured by Rugby Manufacturing Co. is made up of components (pump, valves, reservoir, hoses, cylinder, etc.) designed to be compatible with each other. Several different types of pump and hydraulic components are available to power the TR-Series hoists. Refer to the pump and hydraulic component Installation and Operation Manual for more information.

 **DANGER**

If the hydraulic system used to power the hoist was supplied by TBEI, an operation manual will be included with the hydraulic components. This manual **MUST BE** available for reference by the operator when needed.

If the hydraulic system used to power the hoist was supplied by a company other than TBEI, an operation manual will be included with the hydraulic components. This manual **MUST BE** available for reference by the operator when needed.

 **DANGER**

It is the installer's responsibility to ensure any substituted components are compatible with Rugby Manufacturing Co. components. Incompatible hydraulic components may cause failure of the hoist, which in turn, could damage the vehicle, damage other property, and cause death or injury.

If hydraulic components are substituted, it is the installer's responsibility to be sure they are compatible with the components supplied by Rugby Manufacturing Co. Incompatible hydraulic components may cause failure of the hoist which in turn could damage the truck, damage other property, and cause human injury or death. Rugby Manufacturing Company's liability and warranty for a given hoist will be voided if it is determined by Rugby Manufacturing Co. that substituted hydraulic components were used that were incompatible with those supplied by Rugby Manufacturing Co.

Several hoist parameters are given in the following table as a general guideline. To ensure component compatibility, contact Rugby Manufacturing Co.

Model	Measurement
Maximum Hydraulic Flow Rate: TR-8 / 10 / 12 / 14 TR-16 / 18 / 20	4 gpm 6 - 9 gpm
Maximum Pressure for Raising Portion of Dump Cycle	3200 PSI
Maximum Pressure for Lowering Portion of Dump Cycle	1000 PSI

 **DANGER**

Welding, oxy-fuel cutting, or grinding sparks can cause fuel to ignite which in turn can lead to injury or death. Always take adequate steps to avoid ignition of fuel tanks during equipment installation.

 **DANGER**

Not installing or operating equipment correctly can cause component damage or an accident which may cause injury or death. ALWAYS install and operate equipment in accordance with manufacturer's instructions. Read and understand this manual fully before proceeding.

 **DANGER**

Damage to brake lines during equipment installation, or installing bolts or equipment in such a way that the line will rub and become damaged can lead to brake failure which can cause an accident and can lead to severe injury or death. ALWAYS take adequate steps to prevent brake line damage during installation and isolate brake lines from installed equipment.

 **DANGER**

Malfunctioning equipment can cause property damage, injury or death. ALWAYS have faulty equipment repaired before continuing its use. If required, consult the manufacturer.

 **CAUTION**

To prevent damage to the truck's electrical system, disconnect the positive battery cable and alternator when arc welding on the truck.

 **DANGER**

The inadvertent shorting of the truck's electrical supply can cause a fire or equipment damage that could lead to injury or death. ALWAYS disconnect the vehicle battery prior to installing, servicing or repairing the pump.

 **DANGER**

NEVER install a cable on a truck while the body is raised without first blocking, bracing, or propping the body up to prevent the body from inadvertently falling when the control valve lever is moved. A falling body will result in serious injury or death if the control valve lever is moved while someone is under the non-supported body.

 **DANGER**

NEVER exceed the gross vehicle weight (GVW) or gross axle weight (GAW) rating of your vehicle. This may result in component damage, injury or death.

 **DANGER**

Avoid bouncing or jerking of the hoist. This may result in component failure, injury or death.

 **DANGER**

NEVER raise or drive a raised body against another object. This may result in property damage, injury or death.

 **DANGER**

NEVER connect the hoist to a hydraulic system with more pressure (psi) or flow (gpm) than is recommended. This may result in component failure, injury or death.

 **CAUTION**

Unlatch tailgate prior to elevating a loaded dump body as excessive forces on the rear of the dump body may result in component failure.

 **DANGER**

NEVER operate the hoist until bystanders are free & clear of the hoist and body. This may result in injury or death.

 **DANGER**

NEVER position yourself or allow others under a raised body as this can result in serious injury or death should the body inadvertently descend. ALWAYS prop up the **unloaded** body using the body props.

 **DANGER**

Place a complete hoist operation manual in the glove box of the truck that will pull the trailer OR in a place on the trailer that is sheltered from the weather and other elements. This manual **MUST BE** available for reference by the operator when needed.

## Section 2: Introduction

This manual covers the installation of the TR-series trailer scissor hoist.

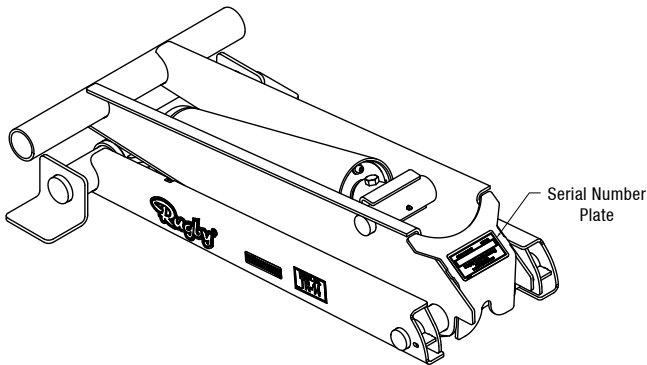
The following manuals cover other components:

- 1656299 - Body Prop Manual
- 1903326 - Split “M” (Direct Mount Pump with Remote 9-Quart Reservoir) & Tower Control / Electric Operated Solenoid Valve
- 1657475 - Electric Single- and Double-Acting Pump

Ensure the correct manuals are present when working on equipment. For help locating the correct manuals contact Rugby Manufacturing Co. at (800) 869-9162 or (701) 776-5722.

### Serial Number

This information is required for any warranty or service inquiries, and should be recorded on the front cover of this manual for easy reference. The serial number is located on the hoist serial number plate. Figure 1.



**Figure 1:** Serial Number Location



## Capacity Charts

The following charts are to be used as a reference when determining capacity based on overhang.

<b>TR-8</b>			
<b>Body Length (feet)</b>	<b>Rear Overhang (inches)</b>	<b>Capacity 45° Dump (tons)</b>	<b>Capacity 50° Dump (tons)</b>
8	12	5.0	4.5
8	18	6.0	5.4
8	24	7.5	6.8
10	18	4.3	3.9
10	24	5.0	4.5
Mounting Height		5.25"	
Mounting Distance		49.7"	45.3"

<b>TR-10</b>			
<b>Body Length (feet)</b>	<b>Rear Overhang (inches)</b>	<b>Capacity 45° Dump (tons)</b>	<b>Capacity 50° Dump (tons)</b>
10	12	9.0	8.1
10	18	10.3	9.3
10	24	12.0	10.8
12	12	7.2	6.5
12	18	8.0	7.2
12	24	9.0	8.1
Mounting Height		7.00"	
Mounting Distance		78.5"	70.0"

<b>TR-12</b>			
<b>Body Length (feet)</b>	<b>Rear Overhang (inches)</b>	<b>Capacity 45° Dump (tons)</b>	<b>Capacity 50° Dump (tons)</b>
10	18	10.3	9.3
12	18	8.0	7.2
14	24	7.2	6.5
Mounting Height		7.00"	
Mounting Distance		78.5"	70.0"

<b>TR-14</b>			
<b>Body Length (feet)</b>	<b>Rear Overhang (inches)</b>	<b>Capacity 45° Dump (tons)</b>	<b>Capacity 50° Dump (tons)</b>
10	18	12.2	11.0
12	18	9.5	8.6
14	18	7.7	7.0
Mounting Height		9.00"	
Mounting Distance		79.0"	71.5"

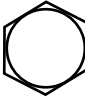


<b>TR-16</b>			
<b>Body Length (feet)</b>	<b>Rear Overhang (inches)</b>	<b>Capacity 45° Dump (tons)</b>	<b>Capacity 50° Dump (tons)</b>
14	12	11.0	9.7
14	18	12.0	10.6
14	24	13.2	11.7
16	12	9.4	8.3
16	18	10.2	9.0
16	24	11.0	9.7
18	18	8.8	7.8
18	24	9.4	8.3
Mounting Height		7.75"	
Mounting Distance		99.50"	90.25"

<b>TR-18</b>			
<b>Body Length (feet)</b>	<b>Rear Overhang (inches)</b>	<b>Capacity 45° Dump (tons)</b>	<b>Capacity 50° Dump (tons)</b>
16	12	12.1	11.0
16	18	13.0	11.8
16	24	14.1	12.8
18	12	10.6	9.6
18	18	11.3	10.2
18	24	12.1	11.0
Mounting Height		8.00"	
Mounting Distance		99.0"	90.0"

<b>TR-20</b>			
<b>Body Length (feet)</b>	<b>Rear Overhang (inches)</b>	<b>Capacity 45° Dump (tons)</b>	<b>Capacity 50° Dump (tons)</b>
18	18	12.7	11.7
18	24	13.6	12.5
20	12	10.5	9.7
20	18	11.2	10.3
20	24	11.9	10.9
22	24	10.5	9.7
Mounting Height		8.00"	
Mounting Distance		129.0"	119.0"

## Torque Chart

The following chart is to be used as a guide during installation.

Size	Grade 2 (lb-ft)	Grade 5 (lb-ft)	Grade 8 (lb-ft)
			
1/4-20	3-4	6-7	10-11
1/4-28	4-5	8-9	11-12
5/16-18	8-9	14-15	21-22
5/16-24	9-10	15-16	21-22
3/8-16	17-18	24-26	37-40
3/8-24	19-20	28-30	40-43
1/2-13	38-42	60-65	90-100
1/2-20	43-47	70-75	95-105
5/8-11	75-80	122-130	180-190
5/8-18	85-90	145-150	200-210
3/4-10	132-140	220-230	315-330
3/4-16	152-160	250-260	355-370

## Body Prop Application Chart

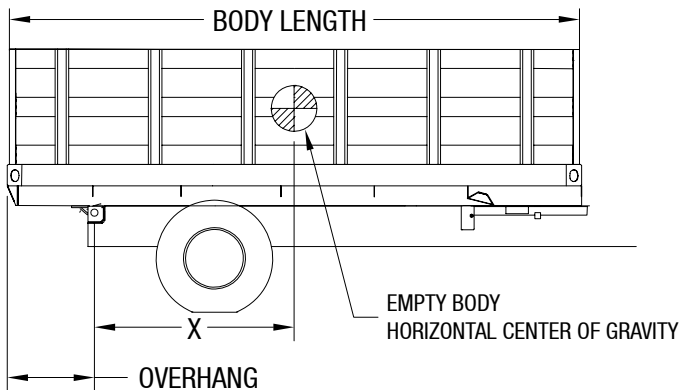
### DANGER

NEVER position yourself or allow others under a raised body as this can result in serious injury or death should the body inadvertently descend. ALWAYS prop up the **unloaded** body using the body props. When two props are required, both props must be used.

### DANGER

NEVER use a body prop that is bent or damaged. A damaged body prop has reduced holding capacity and may break during use. This may result in injury or death. Replace all damaged parts before using equipment.

The body prop is designed for use **ONLY** when the body is empty. The purpose of the body prop is to hold an **UNLOADED** body in the raised position when performing maintenance or inspection to the hoist, body, or any component that requires working under an **UNLOADED** body. Some applications may require 2 or more body props to support the **EMPTY** body. To determine how many body props your application requires use the Body Prop Application Chart along with the below instructions.



**Figure 2:** Body Prop Measurements

**For TR-8, TR-10, TR-12, and TR-14 Hoists**

Install body prop item number 1654931. To determine how many body props will be necessary for your application, refer to the below steps.

**For TR-16, TR-18, and TR-20 Hoists**

Install body prop item number 1654934 on the hoist arm. To determine if additional body props will be necessary for your application, refer to the below steps.

1. Pick the X value equal to or immediately larger than the X value for your application.
2. The weights shown below each “X” value reflect the maximum empty body weights that can be supported by the body prop included with the TR series hoists. If your body weighs more than the amount listed, an additional body prop will need to be installed. Contact Rugby Manufacturing to order an additional body prop.

Distance Rear Hinge Body Prop (P)	Maximum Body Weight (lbs) per Body Prop 1654931/1654934									
	Distance Rear Hinge - Center of Gravity (X)									
	36	48	60	72	84	96	108	120	132	144
42-47	6100	4500	3500	2800	2300	2000	1700	1500	1300	1100
48-53	6600	4800	3800	3000	2500	2100	1800	1600	1400	1200
54-59	7200	5200	4100	3300	2800	2300	2000	1800	1600	1400
60-65	7700	5700	4400	3600	3000	2600	2200	1900	1700	1500
66-71	8300	6100	4800	3900	3300	2800	2400	2100	1900	1700
72-77	8900	6600	5100	4200	3500	3000	2600	2300	2000	1800
78-83	9500	7000	5500	4500	3800	3200	2800	2500	2200	2000
84-89	10200	7500	5900	4800	4000	3500	3000	2700	2400	2100
90-95	10800	7900	6200	5100	4300	3700	3200	2800	2500	2300
96-101	11400	8400	6600	5400	4600	3900	3400	3000	2700	2400
102-107	12100	8900	7000	5800	4900	4200	3700	3200	2900	2600
108-115	12700	9400	7400	6100	5100	4400	3900	3400	3100	2800
114-119	13400	9900	7800	6400	5400	4700	4100	3600	3200	2900
120-125	14000	10400	8200	6700	5700	4900	4300	3800	3400	3100
126-131	14700	10900	8600	7100	6000	5200	4500	4000	3600	3300
132-137	15300	11400	9000	7400	6300	5400	4700	4200	3800	3400
138-143	16000	11800	9400	7700	6500	5600	5000	4400	4000	3600
144+	16600	12300	9800	8000	6800	5900	5200	4600	4100	3700

## Section 3: Installation



### DANGER

Welding, oxy-fuel cutting, or grinding sparks can cause fuel to ignite which in turn can lead to injury or death. Always take adequate steps to avoid ignition of fuel tanks during equipment installation.



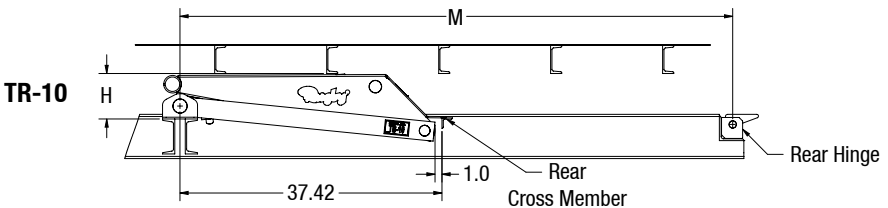
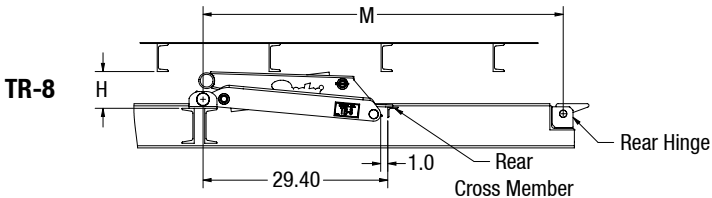
### DANGER

Exhaust system heat can cause hydraulic component failure and may lead to a fire which could cause injury or death. Always install equipment in locations where heat from the exhaust system will not damage any hydraulic components.

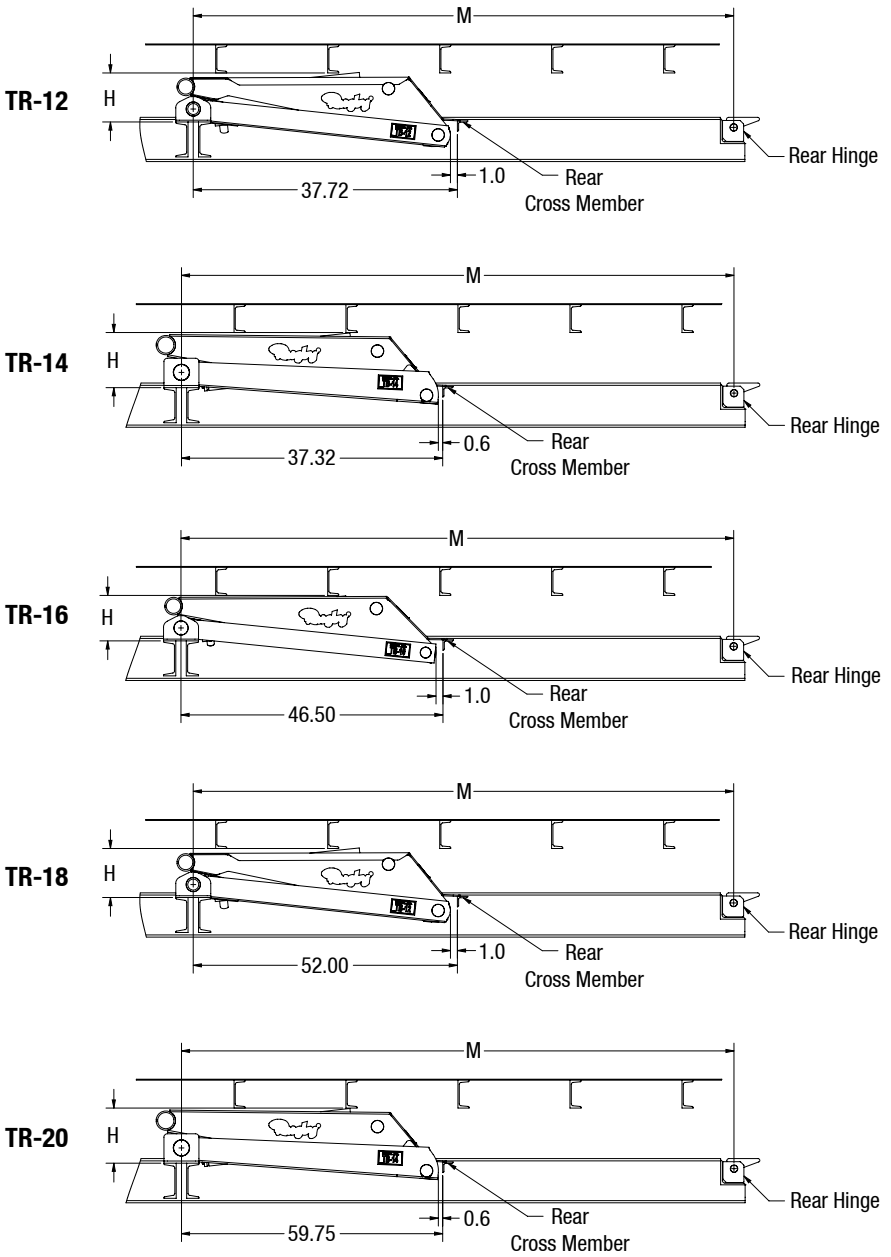
### Hoist Installation

The following steps are to be used as a guideline when installing the TR-Series hoist. It is not possible to be specific about every aspect of the hoist installation due to the wide range in trailer designs.

1. Determine the correct mounting distance for the dump angle and capacity required prior to installation. Refer to the “Capacity Charts” on page 9 for TR-series scissor hoist capacities.
2. Position the cross members, hoist, & rear hinge onto the trailer frame as shown in the following illustrations. The top of the front and rear cross members should be at the same height.

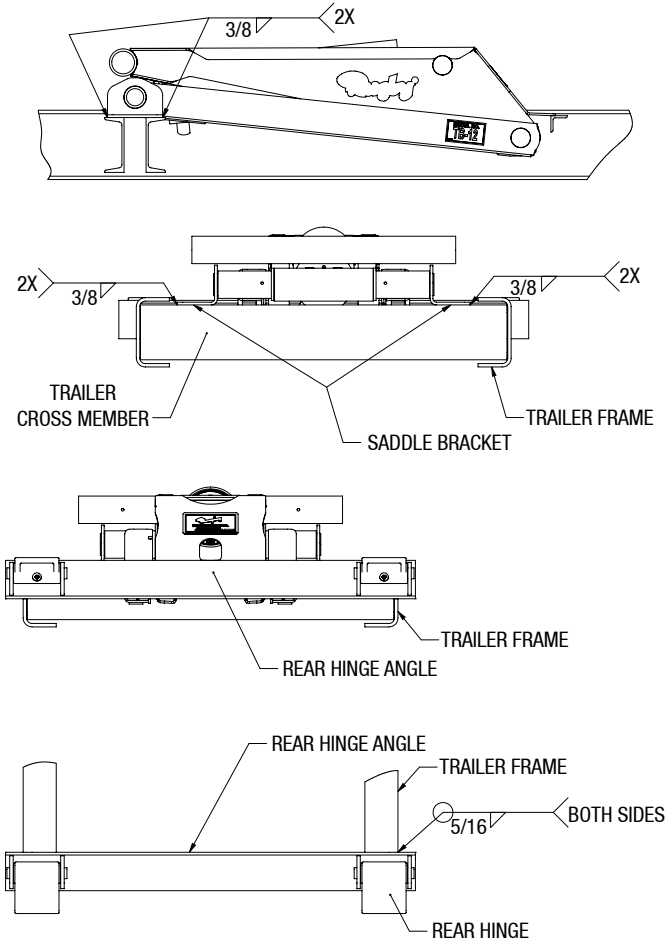






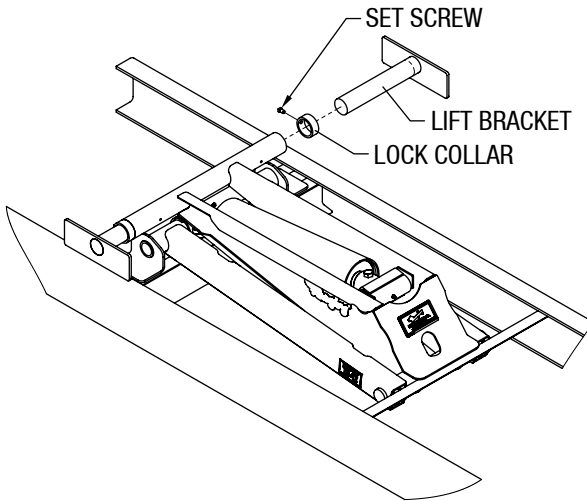
**Figure 3: Mounting Distance Measurements**

3. Once the hoist is positioned, weld the saddle brackets and the rear hinge to the trailer frame as shown below. Be sure to maintain clearance between the rear cross member and the rear of the hoist as shown in Step 2.



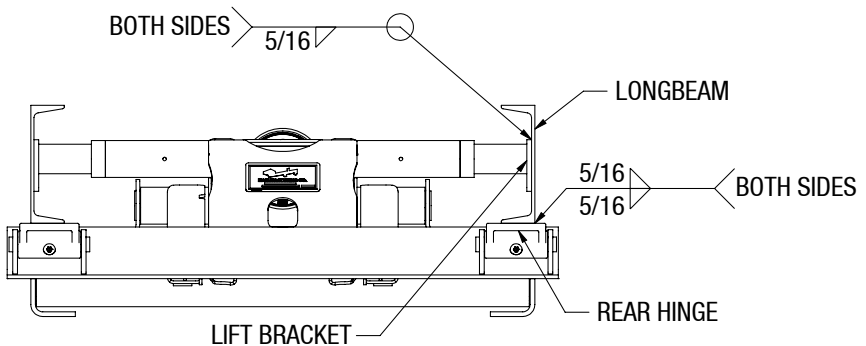
**Figure 4: Saddle Bracket Location**

- Slide a lock collar onto each lift shaft. Slide a lift shaft with lock collar into each end of the hoist lift tube.



**Figure 5:** Lift Bracket Installation

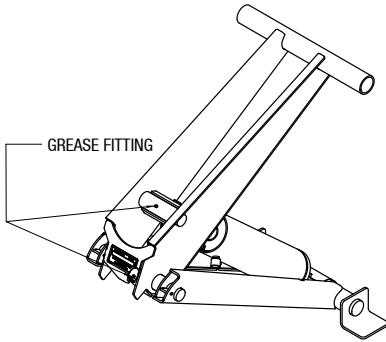
- Position the body onto the trailer frame and weld the longbeams to the rear hinge as shown below.



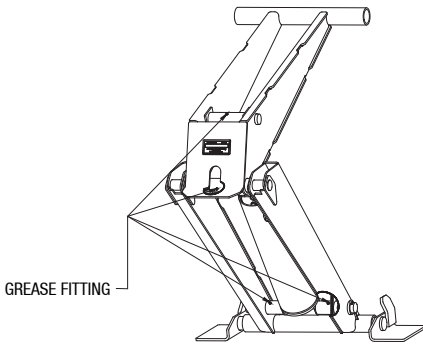
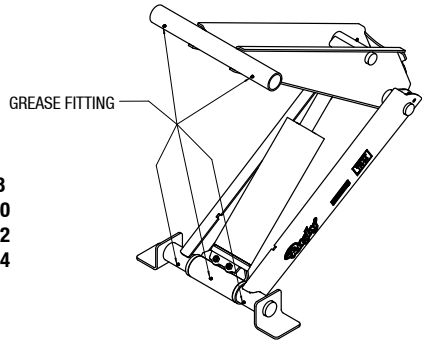
**Figure 6:** Longbeam Weld Location

- Slide each lift bracket all the way out against the trailer long beams and weld as shown above.
- With the lift brackets secured, slide each lock collar against the hoist lifting tube and secure by tightening each set screw.

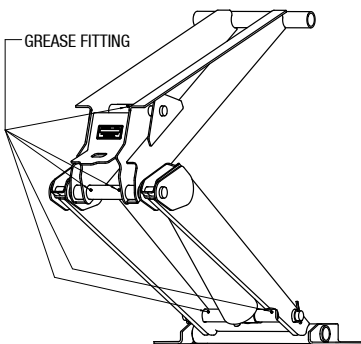
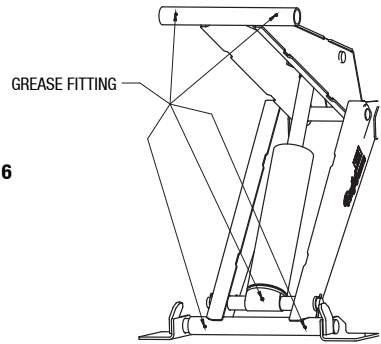
8. Install grease fittings to a torque of 70 in-lb and grease the fittings as shown below.



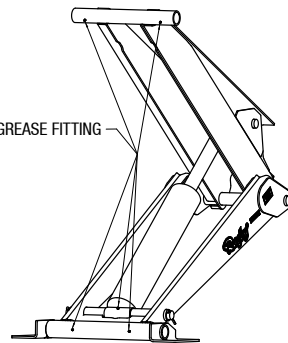
TR-8  
TR-10  
TR-12  
TR-14



TR-16



TR-18  
TR-20



**Figure 7: Grease Fitting Locations**

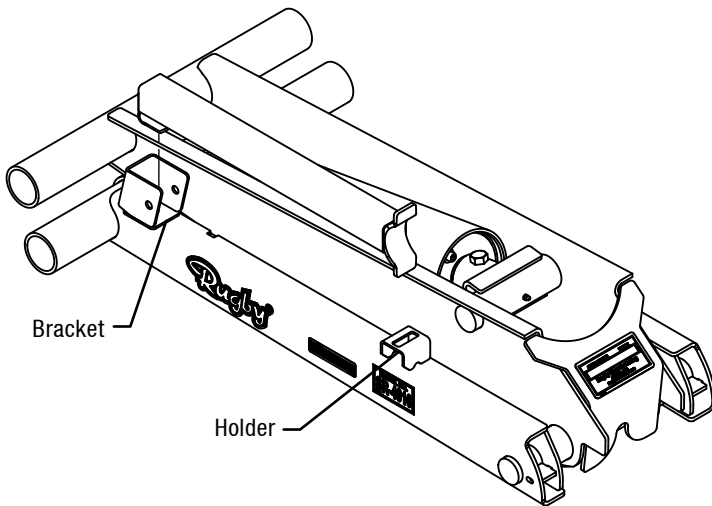
## Body Prop Installation

In order to comply with paragraph 10 of Federal Regulation 1926.601, all TBEI hoists will be sold with one body prop. It is the responsibility of the installer to determine whether one body prop is sufficient. See “Body Prop Application Chart” on page 13 to determine whether a second body prop will be necessary for your application.

### DANGER

NEVER position yourself or allow others under a raised body as this can result in serious injury or death should the body inadvertently descend. ALWAYS prop up the **unloaded** body using the body props.

A body prop and the required hardware is supplied with every TR-series hoist package. For instructions on how to raise and lower the body prop, refer to the Operation section of this manual on page 23.



**Figure 8:** Body Prop Installation Location

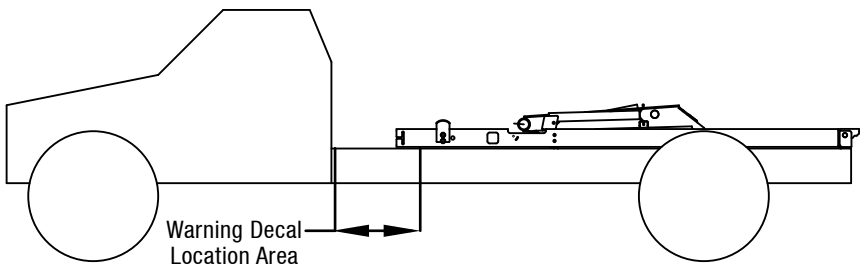
1. Insert the body prop into the body prop bracket (Figure 8).
2. Fasten the body prop to the body prop bracket using the supplied hardware.
3. Lower the body prop to the down position and align with slot until the body prop rests against the top of the holder.

## Section 4: Decal Locations

**⚠ DANGER**

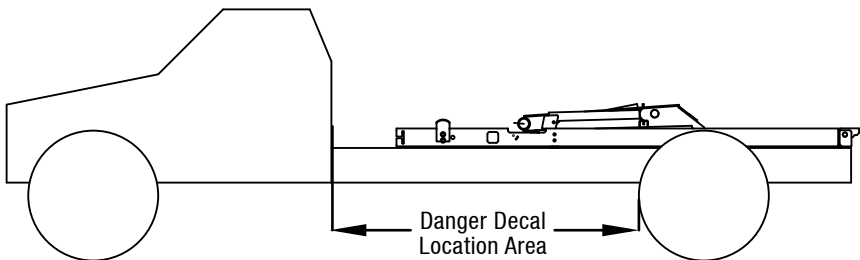
Missing or damaged decals can lead to accidents which may cause serious injury or death. Replace any missing or damaged decals immediately by contacting a Rugby dealer or Rugby Manufacturing Co..

One Warning decal is supplied with each TR-series hoist. This decal must be positioned on the driver's side of the trailer near the front. The decal must be in a location where any person can read the decal without going under the body and must be free of any viewing obstructions.



**Figure 9:** Body Prop Decal Location

Two Danger decals are supplied with each TR-series hoist. These decals must be positioned as shown in Figure 10 on both the left- and right-hand sides of the truck. The chosen decal locations should be free of any viewing obstructions.



**Figure 10:** Danger Decal Location

## Section 5: Operation

### **DANGER**

NEVER position yourself or allow others under a raised body as this can result in serious injury or death should the body inadvertently descend. ALWAYS prop up the **unloaded** body using the body props.

### **Raising the Prop Body**

1. Raise the unloaded body to the sufficient height and shut off all power.
2. While positioning yourself as far as possible from underneath the truck, grasp the prop from the latched position.
3. Rotate the prop upwards to the vertical position.
4. Push down until the prop locks into the vertical position.

### **Lowering the Prop Body**

1. Push down until the prop locks into the vertical position.
2. Rotate the prop upwards to the vertical position.
3. While positioning yourself as far as possible from underneath the truck, grasp the prop from the latched position.
4. Lower the unloaded body to the sufficient height and shut off all power.

## **Section 6: Maintenance**

Every 100 cycles or every two months, whichever comes first:

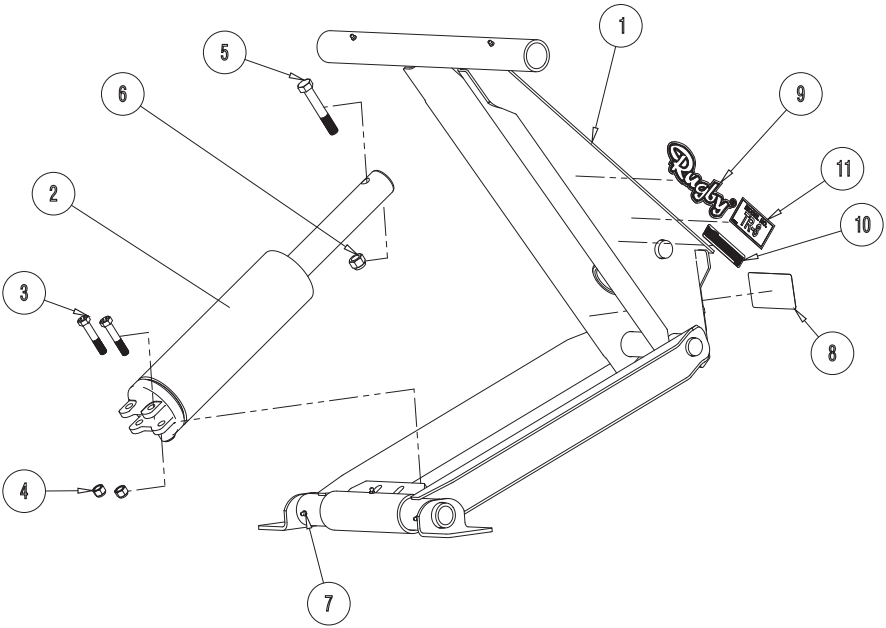
- Grease all hoist and rear hinge grease fittings. Some grease fittings are in hard to find locations. Refer to “Section 7: Exploded Views” on page 25 for all grease fitting locations.
- Check hardware regularly and re-tighten as needed. Refer to page 12 for torque guidelines.
- Check hydraulic components regularly for any leaks or signs of wear. Replace damaged or leaking components as needed.

Refer to the pump or hydraulic components installation and operation manual for more service information.



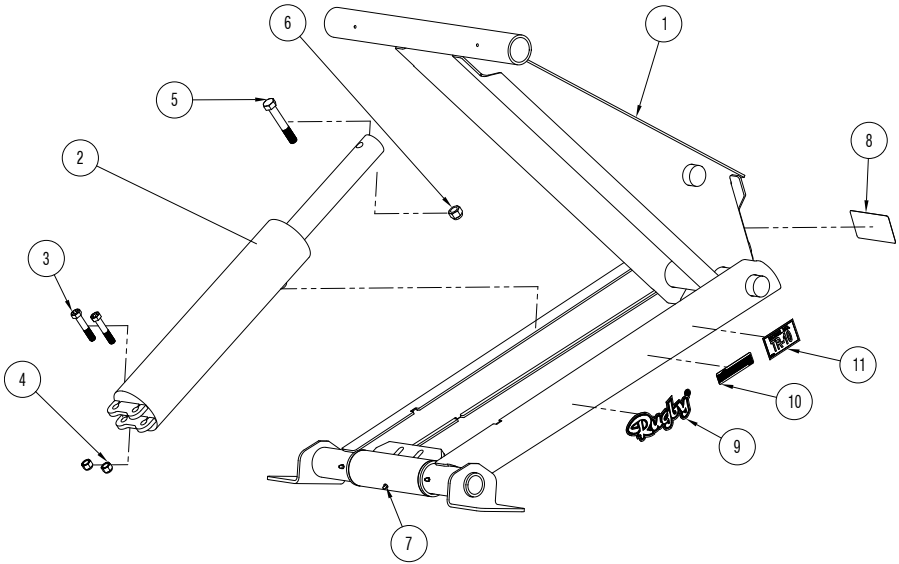
# Section 7: Exploded Views

## TR-8 Model



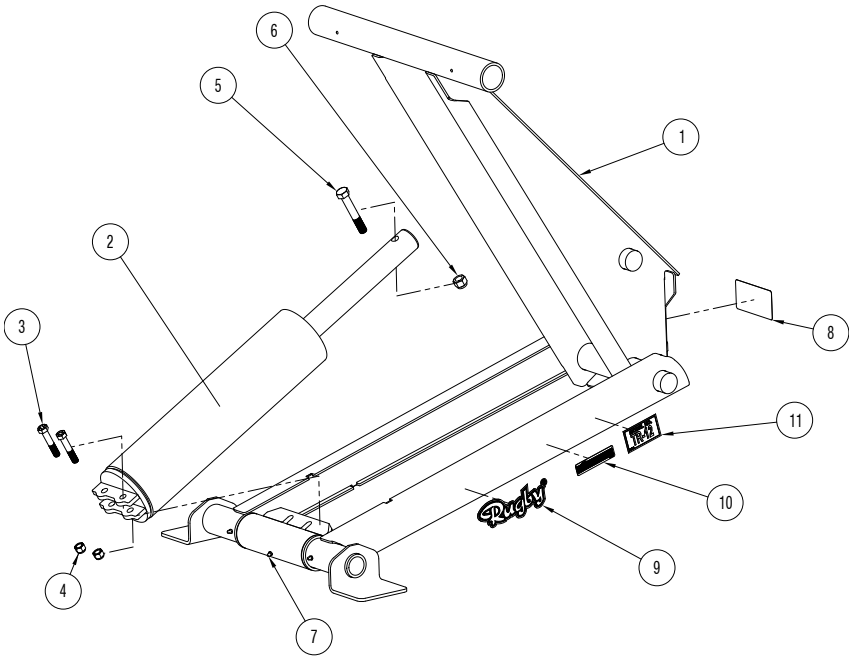
TR-8 Parts List			
Item	Part #	Description	Qty
1	2482570	FRAME, TR-8 HOIST PCBLK	1
2	2496446	ASSY, CYLINDER 4 x 10 PNT	1
3	1643730	SCREW, 1/2-13 X 2-3/4 HHC GR8 PLT	2
4	1642984	NUT, 1/2-13 NYLOCK - NE GR8 STL	2
5	1653838	SCREW, 5/8-11 X 4 HHC GR8 PLT	1
6	1643070	NUT, 5/8-11 NYLOCK - NE, GR. 5 STL	1
7	1520370	FITTING, 1/4-28 THREAD FORMING GREASE	7
8	1581116	SERIAL NO. PLATE, POLY W/MASK	1
9	1313141	DECAL, RUGBY LOGO MEDIUM	1
10	1313146	DECAL, MADE IN USA	1
11	2383663	DECAL, TR-8	1

# TR-10 Model



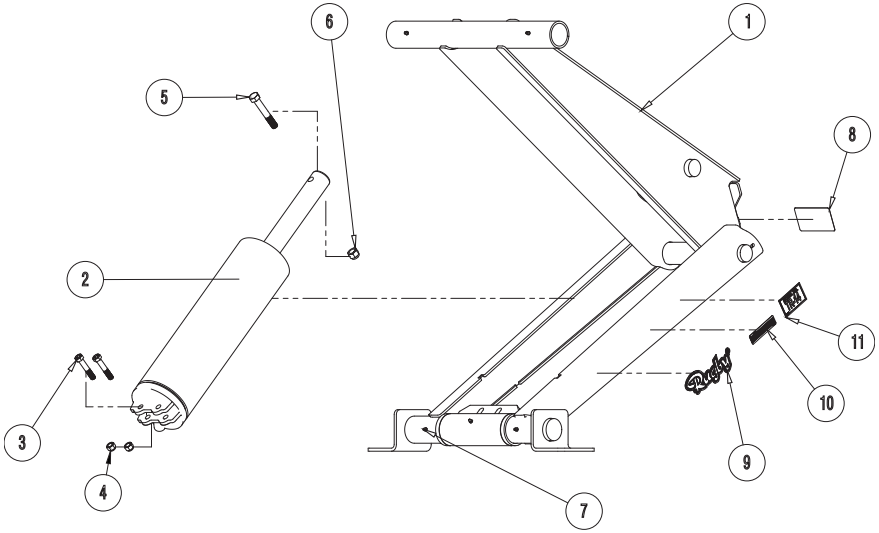
TR-10 Parts List			
Item	Part #	Description	Qty
1	2401098	FRAME, SR-2016 HOIST PCBLK	1
2	1621265	CYLINDER, 4X16, TH-410	1
3	1643730	SCREW, 1/2-13 X 2-3/4 HHC GR8 PLT	2
4	1642984	NUT, 1/2-13 NYLOCK - NE GR8 STL	2
5	1653838	SCREW, 5/8-11 X 4 HHC GR8 PLT	1
6	1643070	NUT, 5/8-11 NYLOCK - NE, GR. 5 STL	1
7	1520370	FITTING, 1/4-28 THREAD FORMING GREASE	5
8	1581116	SERIAL NO. PLATE, POLY W/MASK	1
9	1313141	DECAL, RUGBY LOGO MEDIUM	1
10	1313146	DECAL, MADE IN USA	1
11	2383664	DECAL, TR-10	1

# TR-12 Model



TR-12 Parts List			
Item	Part #	Description	Qty
1	2401098	FRAME, SR-2016 HOIST PCBLK	1
2	1621474	CYLINDER, 5 X 16 HR-520	1
3	1643730	SCREW, 1/2-13 X 2-3/4 HHC GR8 PLT	2
4	1642984	NUT, 1/2-13 NYLOCK - NE GR8 STL	2
5	1653838	SCREW, 5/8-11 X 4 HHC GR8 PLT	1
6	1643070	NUT, 5/8-11 NYLOCK - NE, GR. 5 STL	1
7	1520370	FITTING, 1/4-28 THREAD FORMING GREASE	5
8	1581116	SERIAL NO. PLATE, POLY W/MASK	1
9	1313141	DECAL, RUGBY LOGO MEDIUM	1
10	1313146	DECAL, MADE IN USA	1
11	2383665	DECAL, TR-12	1

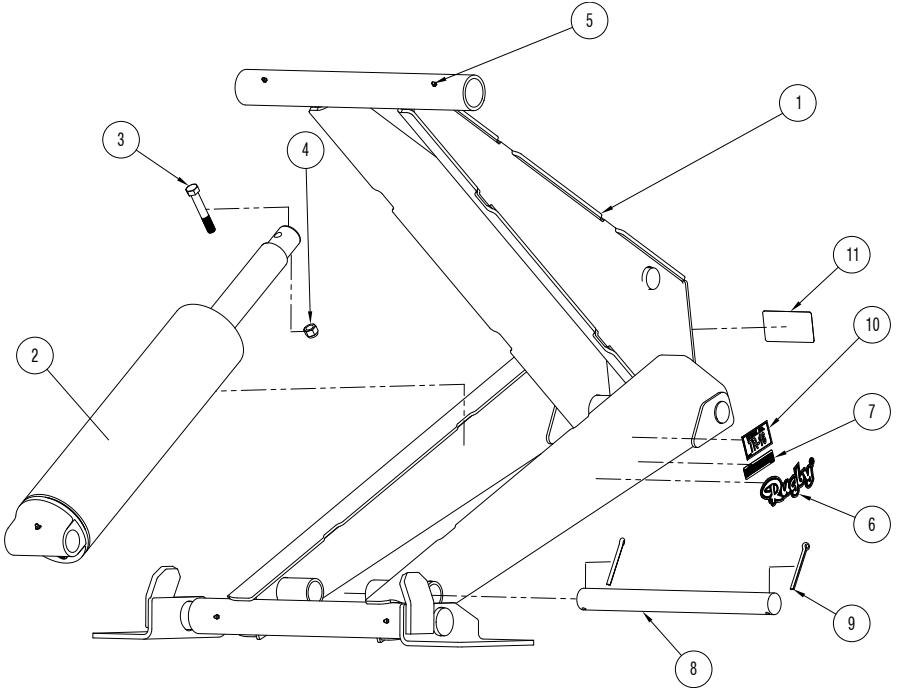
# TR-14 Model



## TR-14 Parts List

Item	Part #	Description	Qty
1	2383653	FRAME, TR-14 PCBLK	1
2	2377975	ASSY CYLINDER 5.5 X 16 PNT	1
3	1643730	SCREW, 1/2-13 X 2-3/4 HHC GR8 PLT	2
4	1642984	NUT, 1/2-13 NYLOCK - NE GR8 STL	2
5	1653838	SCREW, 5/8-11 X 4 HHC GR8 PLT	1
6	1643070	NUT, 5/8-11 NYLOCK - NE, GR. 5 STL	1
7	1520370	FITTING, 1/4-28 THREAD FORMING GREASE	7
8	1581116	SERIAL NO. PLATE, POLY W/MASK	1
9	1313141	DECAL, RUGBY LOGO MEDIUM	1
10	1313146	DECAL, MADE IN USA	1
11	2383666	DECAL, TR-14	1

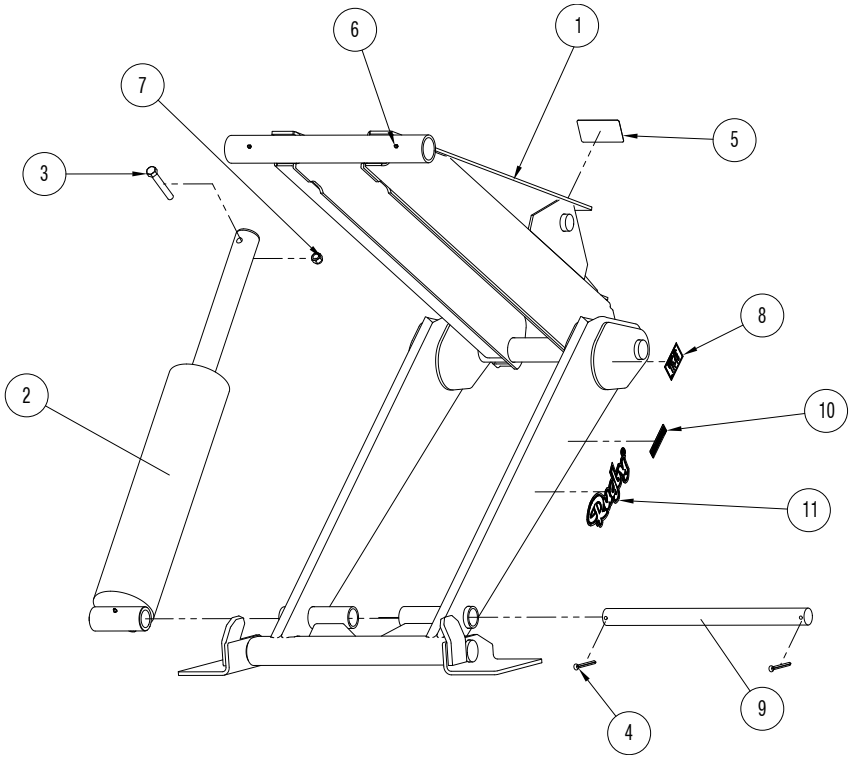
# TR-16 Model



## TR-16 Parts List

Item	Part #	Description	Qty
1	2383556	FRAME, TR-16 PCBLK HOIST	1
2	2377961	CYLINDER 6 X 20, 2.5 R CB 2.0 NECK	1
3	1653838	SCREW, 5/8-11 X 4 HHC GR8 PLT	1
4	1643070	NUT, 5/8-11 NYLOCK - NE, GR. 5 STL	1
5	1520370	FITTING, 1/4-28 THREAD FORMING GREASE	3
6	1313141	DECAL, RUGBY LOGO MEDIUM	1
7	1313146	DECAL, MADE IN USA	1
8	1844096	SHAFT, 5020 CYL PINNING	1
9	1653921	PIN, 5/16" X 3-1/2" ZP COTTER	2
10	2383667	DECAL, TR-16	1
11	1581116	SERIAL NO. PLATE, POLY W/MASK	1

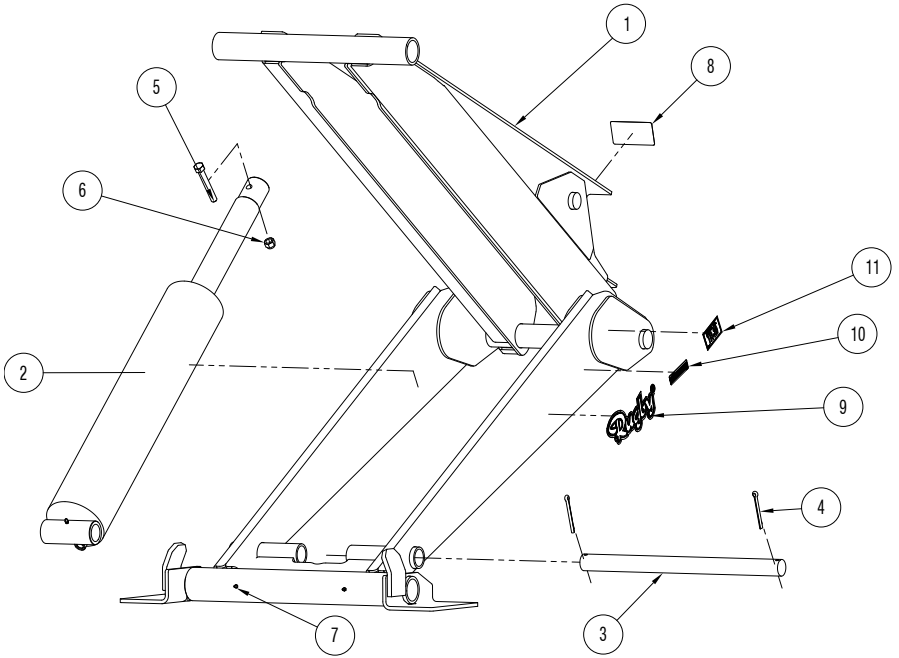
# TR-18 Model



## TR-18 Parts List

Item	Part #	Description	Qty
1	1656880	FRAME, TB-18 PCBLK HOIST	1
2	1621264	CYLINDER, 6 X 23	1
3	1653840	SCREW, 5/8-11 X 4-1/2 HHC GR8 PLT	1
4	1653921	PIN, 5/16" X 3-1/2" ZP COTTER	2
5	1581116	SERIAL NO. PLATE, POLY W/MASK	1
6	1520370	FITTING, 1/4-28 THREAD FORMING GREASE	6
7	1643070	NUT, 5/8-11 NYLOCK - NE, GR. 5 STL	1
8	2383668	DECAL, TR-18	1
9	1654950	SHAFT, LR-28/26 CYLINDER PIN	1
10	1313146	DECAL, MADE IN USA	1
11	1654049	DECAL, RUGBY LOGO LARGE	1

# TR-20 Model



TR-20 Parts List			
Item	Part #	Description	Qty
1	2392508	FRAME, TR-20 PCBLK HOIST	1
2	1621270	CYLINDER, 6X28, 2.75 ROD, 2.5 NECK	1
3	1654950	SHAFT, LR-28/26 CYLINDER PIN	1
4	1653921	PIN, 5/16" X 3-1/2" ZP COTTER	2
5	1653840	SCREW, 5/8-11 X 4-1/2 HHC GR8 PLT	1
6	1643070	NUT, 5/8-11 NYLOCK - NE, GR. 5 STL	1
7	1520370	FITTING, 1/4-28 THREAD FORMING GREASE	6
8	1581116	SERIAL NO. PLATE, POLY W/MASK	1
9	1654049	DECAL, RUGBY LOGO LARGE	1
10	1313146	DECAL, MADE IN USA	1
11	2383669	DECAL, TR-20	1



If questions exist, call your Rugby representative at 1-800-869-9162 for further information.

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Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Rugby Mfg Co; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.