

TRILLION

Models TR-60, TR-96, TR-120 and TR-144

OPERATOR'S MANUAL

PARTS CATALOG

MANUAL# 6999

Sept 2011



Model TR-60 Pictured

**TRUAX COMPANY
4300 QUEBEC AVE NORTH
NEW HOPE, MN 55428
Phone 763/537-6639**



TRUAX COMPANY, INC.

New Hope, Minnesota 55428 (763) 537-6639

PLEASE NOTE:

Information, figures, specifications, and parts in this operator's manual are based on the latest available at the time of publication. The right is reserved to make updates at any time without notice.

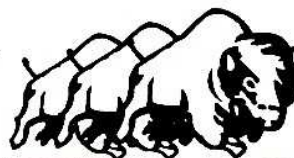
The model and serial numbers of your new Trillion are stamped on a serial plate that is mounted on your machine behind the derailleur speed changer for the fluffy seed box.

For your future reference and protection, we suggest that these numbers be recorded in the space provided below:

MODEL NUMBER: _____

SERIAL NUMBER: _____

DATE PURCHASED: _____



truax COMPANY, INC.

New Hope, MN 55428

Tel: (763) 537-6639

Fax: (763) 537-8353



WARRANTY

FARM EQUIPMENT LIMITED WARRANTY

TRUAX COMPANY, INC. ("Manufacturer") warrants to the original purchaser that the Farm Equipment will be free from defects in material and workmanship under normal use and condition for a period of one (1) year after the date of delivery. This warranty is limited to replacement or repair, at the Manufacturer's facilities in Minneapolis, Minnesota, USA, of such parts as shall under normal use and service appear to have been defective in material or workmanship. This warranty is null and void if parts other than the Manufacturer's parts are used. This warranty does not extend to Farm Equipment and parts that have been subject to misuse, accident, tampering, alteration or installation in a manner not approved by the Manufacturer in writing. **This warranty is exclusive, and the manufacturer makes no other warranty, express or implied, including but not limited to any warranty of merchantability or fitness for a particular purpose.**

Parts claimed to be defective shall be returned to the Manufacturer at Minneapolis, Minnesota, transportation prepaid. If upon inspection by the Manufacturer, the part(s) are determined to have been defective, the Manufacturer will replace or repair such defective part(s) without charge except for transportation. Prior to returning any Farm Equipment or part(s) alleged to be defective, the purchaser shall notify the Manufacturer in writing of the claimed defect. **This is the exclusive remedy for any breach of warranty.** The sole purpose of this remedy shall be to provide the purchaser with the replacement or repair of defective part(s). This exclusive remedy shall not be deemed to have failed its essential purpose so long as the Manufacturer is willing and able to replace or repair the defective part(s).

No person, agent, distributor, or dealer is authorized to give any warranty other than the one herein expressed on the Manufacturer's behalf or assume for it any liability pertaining to Farm Equipment. **In no event shall manufacturer or its dealers be liable for any amount in excess of the price paid by the purchaser for the farm equipment or for any incidental or consequential damages of any kind, whether for breach of any warranty, for breach or repudiation of any other term of condition of sale, for negligence, on the basis of strict liability or otherwise.**

A defect, within the meaning of this warranty, in any part of the Farm Equipment shall not, when such part is capable of being repaired or replaced, operate to condemn the entire Farm Equipment.

This warranty is expressly in lieu of all warranties, guarantees, allegations, or liabilities expressed or implied, by the Manufacturer, its dealers or its representatives.





SAFETY

RECOGNIZE SAFETY INFORMATION

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, become alert, as your safety is involved.

Follow recommended precautions and safe operating practices.



SAFETY ALERT SYMBOL

UNDERSTAND SIGNAL WORDS

These are typical safety signs that appear with the safety-alert symbol and signal words (**DANGER**, **WARNING**, and **CAUTION**). Safety signs are displayed to alert the operator and others of the risk of personal injury during normal operations and servicing.

DANGER identifies the most serious potential hazard. The sign is displayed in the area of the hazard.

WARNING identifies a serious hazard. The sign is displayed in the area of the hazard.

CAUTION is used for a general reminder of good safety practices or to direct attention to unsafe practices.



TYPICAL SAFETY SIGNS

SAFETY FIRST!

Carefully read, understand, and follow all safety instructions in each section prior to setting up, transporting, and operating your drill.

It is important that no one be allowed to operate **Truax** equipment until they have been properly trained on the safe operation of this equipment. All operators must clearly understand the importance of replacing **all** guards and safety devices before operating the equipment.





SAFETY

SAFETY DECALS

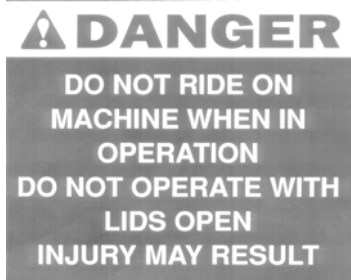
The maintenance and care given to the safety decals and features will result in a "user friendly" machine. It is important that decals be replaced if they become damaged or lost. It is also important that the decals be cleaned frequently.

When applying decals to the equipment, be sure to clean the surface to remove any dirt or residue. Firmly adhere the decals to the cleaned surface.

Keep safety decals in good condition. Replace torn, missing, or defective decals. If replacement safety decals are needed, they may be ordered by part number from the following address:

Truax Company, Inc.
4300 Quebec Avenue North
New Hope, Minnesota 55428
(763)537-6639

These are the safety decals provided for *Truax* drills:



Part #1046C3-A



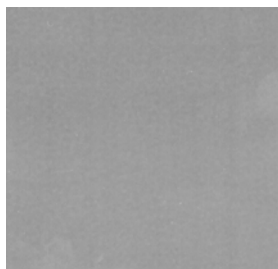
Part #1046C4-A



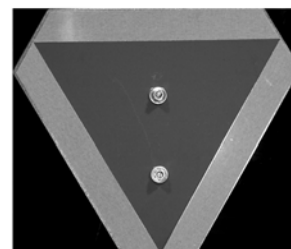
Part # 1046C2-A



Part #1046C8



Red Reflector 5" x 5"
Part #2008C2



Part #1046C71 (Decal)



SAFETY

PLACEMENT OF SAFETY DECALS

The placement of the safety decals is shown in the following pictures:



Rear of Trillion



Right End Covers From Rear of Trillion



Right From Rear of Trillion



SAFETY

SAFETY PRECAUTIONS



For your own safety and to avoid harm to yourself and others, please observe the following safety precautions:

- 1) **DO NOT** operate this machine without reading this Operator's Manual!
- 2) **ALWAYS** operate the Trillion with a tractor heavy enough and with sufficient counter weight for machine balance and stability.
- 3) **DO NOT** operate this machine with anyone riding on it!
- 4) **DO NOT** operate the Trillion when other people are near the machine!
- 5) **DO NOT** obstruct or paint over safety decals!
- 6) **DO NOT** operate machinery without guards and safety devices as injury may result!
- 7) **DO NOT** operate the machine with lids open - injury may result!
- 8) **DO NOT** operate without chain guards as injury may result!
- 9) Use caution when operating close to fences, tree lines, ditches or streams.
- 10) Reduce operating speed on inclines and rough terrain and shift to a lower gear before going up or down steep slopes.
- 11) Slow down when turning.
- 12) **DO NOT** turn sharply.
- 13) Use extra caution when moving farm equipment on roadways.
- 14) Be careful of over-sized equipment on narrow bridges.
- 15) When moving on a trailer, over-sized equipment must be permitted, flagged, and have approved lights.
- 16) **NEVER** work in or near seed boxes while tractor is running.
- 17) When servicing the machine turn the tractor "**off**" and put it in gear or park.
- 18) When servicing the machine always lower the three-point so the machine is resting on the ground.



SAFETY



HIGHWAY AND TRANSPORT PRECAUTIONS

- 1) Adopt safe driving practices:
 - Keep the tractor brake pedals latched together at all times. **Never use independent braking with machine in tow, as loss of control and/or upset of unit may result!**
 - Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed to a minimum.
 - **Always transport the Trillion with a heavy enough tractor with sufficient counter weights for stability of the load on the on the three-point.**
 - Reduce speed prior to turns to avoid the risk of overturning.
 - Avoid sudden uphill and downhill turns on steep slopes.
 - Always keep the tractor or towing vehicle in gear to provide engine braking when going downhill. **DO NOT** coast.
 - **DO NOT** eat, drink, or use a cell phone while driving.
- 2) Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- 3) Use approved accessory lighting, flags, and other necessary warning devices to protect operators of other vehicles on the highway during day and night transporting. Various safety lights and devices are available from your dealer.
- 4) The use of flashing amber lights is acceptable in most localities. However, some areas may prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
- 5) When driving the tractor and equipment on the road or highway under 20 m.p.h. at night or during the day, use flashing amber warning lights and a slow moving vehicle (**SMV**) identification emblem.
- 6) Always transport with a vehicle that is heavier than the Trillion.
- 7) Plan your route to avoid heavy traffic.
- 8) Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- 9) Be observant of bridge loading ratings. **DO NOT** cross bridges rated lower than the gross weight at which you are operating. Know the weight of your tractor and Trillion.
- 10) Watch for obstructions overhead and to the side while transporting.
- 11) Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.



OPERATING THE TRILLION

CALIBRATION

The first step in calibration of seeding equipment is to determine the desired seeding rate in terms of Pure Live Seed (PLS) per square foot or PLS pounds per acre. The applied seeding rate for bulk seed will depend on the species in the seed mixture as well as the purity and germination of the seed being used.

See **EXHIBIT**, Page 20-3 for determining seeding rates and seeds per square foot.

Once the seeding rate is determined, three methods for determining the seed being delivered from the Trillion may be used.

METHOD ONE – SIMULATE FIELD OPERATION

This procedure is on a decal on the inside of the fluffy seed box lid.

1. Disengage seed boxes from front drive roller using the lock out pin.
2. Place a tarp or plastic on rollers the full seeding width of the Trillion.
3. Place enough seed in box being calibrated to cover the agitator.
4. Turn calibration nut until seed drops from baffle onto tarp.

Wipe all seed from the baffle onto the tarp.

5. Empty seed from the tarp and reposition tarp on rollers.
6. Turn the calibration nut the prescribed number of turns:

For ounces: **5 Ft Trillion - 15.75 turns**
 8 Ft Trillion - 7 turns
 10 Ft Trillion - 5.5 turns
 12 Ft Trillion - 5 turns

For grams: **5 Ft Trillion - 7 turns**
 8 Ft Trillion - 3.25 turns
 10 Ft Trillion - 2.5 turns
 12 Ft Trillion - 2.25 turns

Wipe all seed from the baffle onto the tarp.

7. Collect the seed and weigh in ounces or grams.
8. Calculate the seeding rate for the seed box setting:

For ounces multiply by 6.25

For grams multiply by 0.5 or divide by 2

9. The result is Bulk Seed Lbs./Acre
10. Repeat at least three times and average results.

METHOD TWO - SEEDS PER SQUARE FOOT

1. Spread a large tarp or piece of plastic on a smooth level surface and anchor the edges to hold in place.
2. Place seed in the seed compartment(s) and travel across the tarp. Make one pass across the tarp to check seeding rate.
3. Using a one square foot frame count the seeds in one square foot. Count the seeds on three to five samples and average.
4. Compare the results from step # 3 with the planned seeding rate number of seeds per square foot of bulk seed for the seed mixture previously determined using the procedure shown in the **EXHIBIT**, Page 20-3. Use the planned seeds per square foot of bulk seed since you will be counting all seeds on the tarp. If necessary adjust the seed box settings and repeat the test until the desired seeding rate is achieved.
5. It may be desirable to check the seed being delivered from each seed compartment individually. In this case carryout Steps 2 through 4 independently for each seed compartment.



OPERATING THE TRILLION

METHOD THREE - POUNDS PER ACRE

1. Measure out some fraction of an acre for a test. One acre is 43,560 square feet. For example 1000 square feet is 2.3% (0.023) of an acre; 2000 square feet is 4.6% (0.046) of an acre; or 10890 square feet is 25% (0.25) of an acre.
2. Calculate the amount of seed required for the test area. Weigh out the appropriate amount of each seed type and place in the appropriate seed box.
3. Seed the measured area and check if you had sufficient seed to cover the area or ran out before covering the measured area.
4. Adjust the Trillion settings and repeat the trial on a new area as necessary.



OPERATING THE TRILLION

EXHIBIT - CALIBRATION AND DETERMINING SEEDING RATES

When preparing a seed mixture and purchasing seed, think in terms of Pure Live Seed (PLS). Pure Live Seed is an expression of the percent of a bulk seed lot that is viable seed and can be expected to germinate. Pure Live Seed (PLS) is calculated by multiplying the seed lot purity by the seed lot germination divided by 100. Germination should include both the percent germination and the percent hard seed.

$$\% \text{ Pure Live Seed (PLS)} = \% \text{ Purity} \times \% \text{ Germination} / 100$$

Bulk seed is a term used to describe the total material in a seed lot or bag. Bulk seed includes viable seed (PLS), weed seed (within allowable tolerances); inert material (stems, straw, etc.); and other crops. The seeding rate for bulk seed (the seed in the bag) is determined by dividing the planned PLS seeding rate by the percent PLS.

$$\text{Bulk Seeding Rate} = \text{PLS Seeding Rate Per Acre} / \% \text{ Pure Live Seed (PLS)}$$

When planning a seeding, think in terms of how many viable seeds per square foot should be planted for the seed mixture and for each species in the mixture.

Table 1 provides information on approximate number of seeds per pound and per square foot at a one pound seeding rate for several species. Number of seeds per square foot at 1 pound per acre is determined by dividing the number of seeds per pound by 43,560 square feet per acre.

$$\# \text{ Seeds Per Sq. Ft @ 1 LB Rate} = \# \text{ Seeds Per Pound} / 43,560 \text{ Sq. Ft Per Acre}$$

Seeds per pound at the one pound rate multiplied by the planned PLS seeding rate calculates viable seeds per square foot for the planned seeding.

Example: A three species mixture of big bluestem, Indiangrass, and switchgrass is planned. The desired plant community is 50% big bluestem, 35% Indiangrass, and 15% switchgrass. The seed will be applied as a broadcast seeding at a rate of 40 PLS seeds per square foot. Using information from Table 1 and seed tag purity and germination, an example is shown below.

Species	% Stand	PLS Seeds/Sq Ft ¹	PLS Rate/Ac ²	% Purity	% Germ	% PLS ³	Bulk Seed Lbs/Ac ⁴	Bulk Seed Seeds/Sq Ft ⁵
Big Bluestem	50%	20	5.25	85%	785	66.3%	7.90	30
Indiangrass	35%	14	3.50	85%	72%	61.25	5.70	23
Switchgrass	15%	6	0.67	98%	80%	78.4%	0.85	8
Total	100%	40	9.42				14.45	61

1. PLS Seeds/SqFt - Seeding rate of 40 PLS seeds per square foot multiplied by % Stand planned.
2. PLS Rate/Acre - Seeds per square foot divided by Table 1 value for Seeds/Sq. Ft @ 1 LB/Ac for each species.
3. Percent PLS - Percent purity multiplied by percent germination divided by 100.
4. Bulk Seed Pounds/Acre - PLS Rate/Acre divided by percent PLS.
5. Bulk Seed /SqFt - Bulk Seeding Rate multiplied by Table 1 value for Seeds/Sq. Ft @ 1 LB/Ac for each species.

In this example the bulk seeding rate is 14.5 lb/ac (13.6 lb/ac for the fluffy seeds and 0.85 lb/ac for the switchgrass). A calibration count of 60 total seeds per square foot on the tarp would indicate proper Trillion settings and operation.



OPERATING THE TRILLION

TABLE 1 - SEED INFORMATION¹

<u>SPECIES</u>	<u>NUMBER SEEDS PER POUND</u>	<u>SEEDS PER SQUARE FOOT @ 1 POUND PER ACRE²</u>
Native Warm Season		
Alkali sacaton	1,758,000	40.4
Big bluestem	165,000	3.8
Blue grama	825,000	18.9
Buffalograss (Burs)	56,000	1.3
Eastern gamagrass	7,280	0.17
Indiangrass	175,000	4.0
Little bluestem	260,000	6.0
Prairie cordgrass	183,000	4.2
Prairie sandreed	273,000	6.3
Sand bluestem	113,000	2.6
Sand dropseed	5,289,000	121.4
Sand lovegrass	1,300,000	29.8
Sideoats grama	191,000	4.4
Switchgrass	389,000	8.9
Native Cool Season		
Canada wildrye	115,000	2.6
Green needlegrass	181,000	4.2
Needle-and-thread	115,000	2.6
Reed canarygrass	533,000	12.2
Slender wheatgrass	159,000	3.7
Western wheatgrass	110,000	2.5
Introduced Cool Season		
Creeping foxtail	750,000	17.2
Creeping red fescue	615,000	14.1
Crested wheatgrass	175,000	4.0
Hard fescue	680,000	15.6
Intermediate wheatgrass	88,000	2.0
Kentucky bluegrass	2,177,000	50.0
Meadow brome	71,000	1.6
Orchardgrass	654,000	15.0
Perennial Ryegrass	227,000	5.2
Pubescent wheatgrass	100,000	2.3
Red top	4,990,000	114.6
Russian wildrye	175,000	4.0
Smooth brome	136,000	3.1
Tall fescue	227,000	5.2
Tall wheatgrass	79,000	1.8
Timothy	1,230,000	28.2



OPERATING THE TRILLION

TABLE 1 (CON'T) - SEED INFORMATION

<u>Species</u>	<u>NUMBER SEEDS PER POUND</u>	<u>SEEDS PER SQUARE FOOT @ 1 POUND PER ACRE²</u>
Legumes		
Alfalfa	200,000	4.6
Alsike clover	700,000	16.1
Birdsfoot trefoil	375,000	8.6
Cicer milkvetch	130,000	3.0
Crownvetch	109,000	2.5
Hairyvetch	20,000	0.50
Purple vetch	10,000	0.23
Korean lespedeza	225,000	5.2
Sericea lespedeza	350,000	8.0
Crimson clover	149,700	3.4
Ladino clover	871,650	20.0
Red Clover	275,000	6.3
Strawberry clover	300,000	6.9
Sweetclover	260,000	6.0
White clover	800,000	18.4
Forbs		
Maximillian sunflower	150,000	3.4
Purple prairiedlover	275,000	6.3
Pitcher sage	150,000	3.4
Roundhead lespedeza	151,000	3.5
Thickspike gayfeather	110,000	2.5
Dotted gayfeather	141,000	3.2
Shell-leaf penstemon	272,200	6.3
Cereal Grain		
Barley	14,000	0.32
Oats	13,000	0.30
Regreen	11,000	0.25
Rye	18,000	0.41
Wheat	15,000	0.34

1. Source - Grass, USDA Yearbook of Agriculture 1948

2. Seeds Per Sq. Ft @ 1 LB Per Acre - Number of Seeds Per Pound divided by 43,560 Sq. Ft Per Acre



OPERATING THE TRILLION

ADJUSTING THE CALIBRATION

SMALL SEED BOX:

The shift lever on the bottom left end of the box exposes or closes the flutes to control the seeding rate. The exposed flute area for each cup (inside the box) should equal at least twice the diameter of the largest seed being seeded from the box. **Carefully control the exposed flute so that no seeds are crushed or ground.** When very low seeding rates are desired from the small seed box, replace the sprocket on the end of the box with a larger one.

If the shaft walks (moves) left or right when in use, ensure that there is no free play in the shaft. A **machine bushing** (part #MB12-.15 or JD #N160437) next to the **shifter spool** (part #1130) will reduce shaft movement. By taking up free play in the shaft and preventing the start of shaft movement, it is easier for the retaining wing nut to hold the shaft in place.

To Correct Irregular Feeding From Different Cups:

First with the seed cup shaft shifted fully to the left, check if the drive **coupler** (part #1010) is touching the roll pin preventing full movement to the left. When there is contact between the coupler and the roll pin it will be necessary to loosen the set screws of the two bearings holding the coupler and move the coupler slightly to the left. The small seed box chain will then need to be realigned.

Second, if further adjustment is needed loosen up the cup mounting bolts and moving the cups so that the exposed flute is the same on all seed cups. This will result in equal feeding from the seed cups.

COOL SEASON OR GRAIN BOX:

Like the small seed box, exposing more of the flutes will result in a higher seeding rate. If irregular feeding is occurring from different cups, adjustment may be made by loosening up the cups and moving them so the exposed flute is the same on all seed cups to produce equal feeding.

If the seeding rate changes during planting, it may be caused from the **feed shaft** (part #3013) moving. This may be caused by a loose or worn **bolt** (part #B38-ISQ), a lost or broken **spring** (part #TS-72M), lost or broken **spring pin** (part #RP18-1.25), a worn or loose **shifter lever** (part #3205), a worn **shifter bearing** (part #M608621), or a worn **thrust washer** (part #TM60826).

When the output of cool season box can not be reduced low enough, the **double sprocket** (part #3095X) on the drive end of the box can be changed to the **low output sprocket** (part #3095X1).

If the **feed shaft** (part #3103) is difficult or impossible to shift left or right, it may be caused from dust and dirt in the cups or by seed jammed in the flutes. It may be necessary to clean the box and cups before shifting the feed shaft. Application of WD-40 or liquid graphite on contact points will help. Turn **feed shaft** (part #3103) with a 5/8" wrench while shifting.

We do not recommend the application of fertilizer with the Trillion.



OPERATING THE TRILLION

LARGE (FLUFFY SEED) BOX:

One of the most distinguishing features of the Trillion is the means to control output from the fluffy seed box. The Trillion uses a very simple derailleur to vary the RPM of the picker wheel shaft of the fluffy box and thereby the output of seed from the box.

The derailleur controls the output only from the fluffy seed box.

The derailleur consists of (two) five-step sprockets and a spring tensioned idler that takes the slack from the roller chain between the two stepped sprockets. There are five settings for seed output from the fluffy seed box. The idler is on top of the upper chain. To change output settings, lift the idler and move the chain from one set of sprockets to another. The rear sprocket is the drive and the front sprocket is the driven one. The lowest output RPM, and therefore the lowest seed output is achieved when the chain is on the furthest to the right combination of sprockets (when standing at the front of the Trillion looking back). As the chain is moved to different combinations to the left, the drive sprocket diameter increases in relation to the driven and therefore increases the RPM and the seed output.

Additional changes in output from the large, fluffy box can be achieved by:

- 1) Adding **seed gaskets** (part #1005) and **retainer plates** (part #1006) inside the seed box to restrict output.
- 2) Increasing the size of the picker wheel sprocket located under the end cover on the drive side. The standard is a **30 tooth** (part #1055A1) square holed sprocket, and can be changed to a **36 tooth** (part #1055A2) or **42 tooth** (part #1055A212) sprocket to further reduce output.
- 3) After adding **seed gaskets** (part #1005) and **retainer plates** (part #1006) and/or changing sprockets, further reduction can be achieved with one of several fillers such as rice hulls, cotton hulls, bran, or ground corncobs.



OPERATING THE TRILLION

NOTE: Because of the wide variation in quality and texture of different lots and mixtures of grass seed, it is impractical to supply a seeding rate chart with the Trillion. With a little experience, each user can work out a chart for the materials used, by calibrating the Trillion for the job at hand. Follow calibration procedures located inside the fluffy box lid.

SEEDING CHARTS FOR TRUAX TRILLION FLUTED FEED ROLL – SMALL SEED BOX			
TYPE OF BOX	TYPE OF SEED	EXPOSED FLUTE	BULK SEED LBS/ACRE
SMALL SEED BOX Original equipment sprockets. Exposed fluted feed roll measured on inside of cup.	CAVE-IN ROCK SWITCHGRASS P-99.78%, G-84%, PLS-84%	1/2"	6.0
		1/8"	1.5
		1/32"	0.8
SMALL SEED BOX Changed driven sprocket to a 30-tooth from original 20-tooth sprocket.	SAME SEED AS ABOVE	1-1/16"	7.5
		1/2"	3.2
		1/4"	1.78
		1/8"	0.78
SMALL SEED BOX Original equipment sprockets. Exposed fluted feed roll measured on inside of cup.	ALFALFA & LADINO CLOVER	1/2"	27.1
		3/8"	18.9
		1/4"	14.2
		1/8"	7.7
	BIRDSFOOT TREFOIL & CRIMSON CLOVER	1/2"	24.3
		3/8"	17.8
		1/4"	11.8
		1/8"	6.6
	TIMOTHY & RED TOP	1/2"	16.3
		3/8"	11.5
		1/4"	8.1
		1/8"	4.4



OPERATING THE TRILLION



The "Sample Feed Rates" provided are to be used as a guide only - as several factors could affect the rate at which the seed will flow through the seedway passages. The operator of the equipment must constantly monitor the seed delivery and placement.

SPEED CHANGER VARIABLES – FLUFFY SEED BOX

TYPE OF BOX	TYPE OF SEED	OUTPUT SETTING	BULK SEED LBS/ACRE
FLUFFY SEED BOX Original equipment sprockets. DERAILLEUR STYLE SPEED CHANGER When standing in front of Trillion facing the speed changer: For lowest output, chain should be to the right side of the cone sprockets. The 16-tooth sprocket will be driving the 50-tooth sprocket. Any stepping of the chain to the left increases the output. Each step will increase the output between 40%-60% depending on the purity and germination of the seed. A higher purity will have a greater change in output with each step. Debearded seed will have the same effect.	SHARP'S COMMON MIX BIG BLUESTEM, SIDEOATS GRAMA, & LITTLE BLUESTEM	50 drive 16	54.7
		44 drive 26	28.4
		36 drive 36	16.8
		26 drive 44	10.7
		16 drive 50	5.3
	STOCK'S COMMON MIX BIG BLUESTEM, INDIANGRASS, & LITTLE BLUESTEM	50 drive 16	27.8
		44 drive 26	15.9
		36 drive 36	9.1
		26 drive 44	5.6
		16 drive 50	3.1
	CAMPER LITTLE BLUESTEM P-86%, G-54%, PLS-46.6%	50 drive 16	54.3
		44 drive 26	27.0
		36 drive 36	15.9
		26 drive 44	9.4
		16 drive 50	4.5
	BIG BLUESTEM	50 drive 16	59.5
		44 drive 26	33.9
		36 drive 36	19.4
		26 drive 44	11.0
		16 drive 50	6.3



OPERATING THE TRILLION

SEEDING CHARTS FOR TRUAX TRILLION FLUTED-FEED ROLL COOL SEASON/GRAIN SEED BOX

TYPE OF BOX	TYPE OF SEED	EXPOSED FLUTE	BULK SEED LB'S/ACRE
COOL SEASON/GRAIN BOX Original equipment sprockets with gates in full up position. Exposed fluted feed roll measured on inside of cup.	PUBESCENT WHEATGRASS P-97.5%, G-86%, PLS-84%	1-7/8"	28.4
		1"	16.4
		1/2"	8.95
		1/4"	3.28
	BUTTE SIDEOATS GRAMA P-90%, G-73%, PLS-65.5%	1-7/8"	6.5
		1"	3.4
		1/2"	1.5
		1/4"	0.8
	WHEAT	1-7/8"	276.5
		1"	161.9
		1/2"	78.3
		1/4"	42.5
	LODORM OATS	1-7/8"	38.0
		1"	21.0
		1/2"	11.4
		1/4"	4.8
	SOYBEANS Move all cup levers to the middle notch setting for medium to small soybeans. Use the lowest notch setting for large soybeans.	1-7/8"	460.1
		1"	227.5
		1/2"	99.3
		1/4"	47.1
	SMOOTH BROMEGRASS	1-7/8"	121.6
		1"	71.1
		1/2"	36.1
		1/4"	16.1



MAINTENANCE & SERVICE

PROPER MAINTENANCE & SERVICE

Proper maintenance and service of the Trillion will save time and increase the life of the machine.



CAUTION: When using cleaning solvents, use only in a well-ventilated area away from any sparks or flames.

LARGE (FLUFFY SEED) BOX

The box integrity including welds and bolted assemblies must be inspected and maintained. All seed, debris (such as seed sacks), and unused material must be removed before transport and storage.

DO NOT use any Truax equipment with the lids of the seed boxes open.

SMALL (LEGUME) BOX

Irregular seeding rates can be corrected by adjusting the individual cups. After loosening the cup mounting bolts it is possible to move each cup about 1/8" and thereby change the cup output in relation to the others. If a plastic seed cup is broken a field repair can be made with "**super glue**" (if all the parts can be found). All plastic seed tubes **should** be removed annually and cleaned thoroughly.

If the shaft tends to "walk" left or right when in use, the cause is usually wear of the shifter spool. This problem can be corrected by installing a thin **spacer** (part #MB 12-.15 or JD #N160437) over the 3/8" shaft between the roll pins and the shifter spool.



MAINTENANCE & SERVICE

COOL SEASON BOX

On a daily basis when planting dense seed that tends to settle and compact, before starting to seed it is a good idea to turn the feed shaft with a wrench in the direction it normally turns. If it turns hard, remove the drive chain to the box and apply a dry silicone based lubricant to each cup while turning feed shaft with a wrench.

When moving the shifter to a new position and the box is filled with seed, it may be necessary to turn the feed shaft with a 5/8" wrench while moving the lever.

If the feed shaft continues to **"walk"** after checking the above items, then check each seed cup. Loosen the two retaining bolts on each cup and tap (lightly) with a plastic hammer to check the alignment. Retighten and proceed to the next one.

Next check the **shifter bearing** (part #M60862) for excess endplay. When excessive endplay is present, install a new **thrust washer kit** (part #TM60820). See **Figure 30-1** for an illustration of the **shifter bearing** assembly.

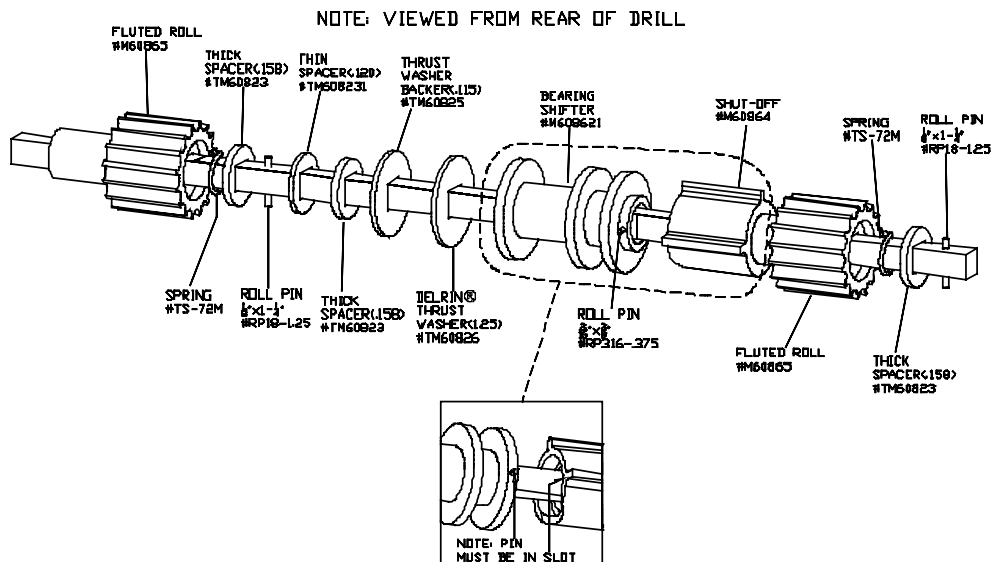


Figure 30-1

COOL SEASON FLUTED FEED CUPS

The feed gate latch on the right side of the cool season cup serves as an adjustment for seed size and as a means to clean out the cup. The setting may need to be changed when seeding larger seeds to prevent them from crushing. See **Figure 30-2** for cool season feed cup assembly.

A **repair kit** (AN161511) is available to repair a broken latch or gate.



MAINTENANCE & SERVICE

SERVICING THE COOL SEASON FLUTED FEED CUPS

It may be necessary to service the feed cups whenever the shaft becomes difficult to shift, the rolling torque is too high, or when one or more of the cups have been removed from the Trillion. **See Figure 30-2 for diagram of part identified below.**

- 1) Open the **feed gate levers**.
- 2) Start at the end of the drill near the shifter lever and loosen the bolts holding the **seed cups** to the bottom of the box.
- 3) Move the **seed cup** until the end of the **fluted feed roll** is flush with the inside surface of the seed retainer ring on the lower radius of the seed reservoir.
- 4) Reset all the **seed cups** in the same manner (beginning with the cups next to the shifter) working alternately in both directions.
- 5) Tighten the bolts on each **seed cup** as soon as resetting is complete.

Note: The cup retaining bolts require a **washer** (part #W14) between the bolt head and the seed cup.

- 6) Recheck the adjustment by moving the feed shaft shifter back and forth. Recheck all **fluted feed rolls** to insure that they are flush at the lower radius of each seed cup.
- 7) Close the **feed gates** to the desired setting, making sure that all gates are in identical positions.

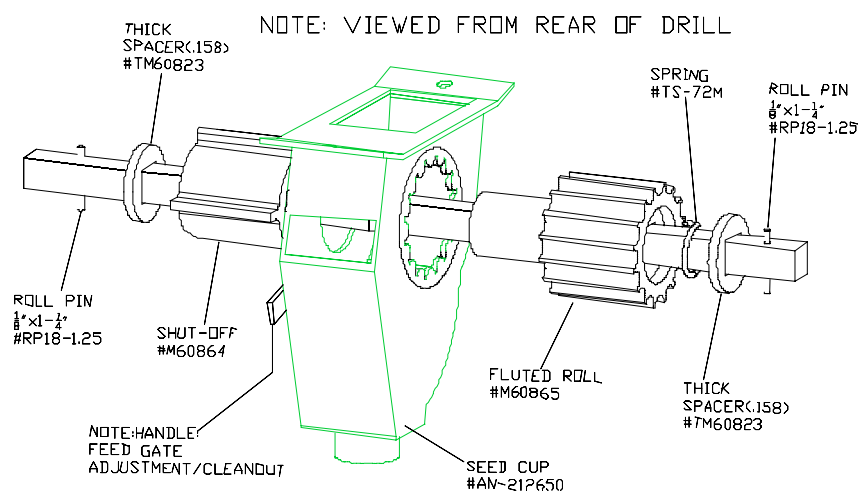


Figure 30-2



MAINTENANCE & SERVICE

IDLER ASSEMBLIES

The idler assemblies put tension on the chains to prevent them from “walking” off the sprockets. All idlers, using plastic rolls, are installed on the slack side of the chain. If it is necessary to install an idler on the drive side, then an idler sprocket with a sealed bearing is used as an idler. The following procedure should be followed when servicing idlers:

- 1) Before servicing chain idlers, be sure that the sprockets are in alignment and that the chain runs freely.
- 2) **Proper alignment of the chain from the front ground drive roller is critical. Check this alignment daily.**
- 3) The idler for the fluffy seed box agitator and picker wheel **must be positioned on the slack side in such a way as to allow the 3/8” bolt holding the derailleur idler assembly** (part #15-7116A) **to be installed in the end plate** (part #103625) and still allow clearance for the chain.



MAINTENANCE & SERVICE

LUBRICATION SCHEDULE & RECOMMENDED LUBRICANTS

Moving parts and bearings on all require regular lubrication..

At points requiring lubrication that do not have a grease zirk, it is recommended that a light lubricant, such as LPS Silicone lubricant, CRC Silicone lubricant be applied on a daily basis.

Sliding surfaces, such as the idler in the speed changer, should have a silicone-based lubricant applied frequently.

LUBRICATION QUICK CHECK – DAILY BASIS	
PARTS REQUIRING LUBRICATION	TYPE OF LUBRICATION
All Chains	LPS Silicone Lubricant
Feed Rolls	LPS Silicone Lubricant
Idler Bushings	LPS Silicone Lubricant
Main Drive Gear Zirk (Located Behind Derrailleur Cover)	Synthetic Grease
Model TR-60 Tapered Roller Bearings (On Brillion Rollers)	Synthetic Grease
Model TR-96 & TR-120 Brillion Roller Bearings	Synthetic Grease
Box Hinges	LPS Silicone Lubricant

REMEMBER: The first rule of good lubrication and maintenance is **common sense!**
Keep it clean and keep it oiled!

It is recommended that lubrication be done immediately after drill usage (while the surfaces are still warm). This will allow the grease to cover the bare metal parts before cooling and condensation has begun to form.



OPERATING THE TRILLION

LUBRICATION SCHEDULE:

ITEM	SCHEDULE
Chains	Apply LPS Silicone Lubricant, WD-40, or equivalent. At the end of the season, remove the chains and soak them in light oil for storage purposes.
Main Drive Gear	Main drive gear located behind the derailleur cover has a zirk that should be greased daily. Use synthetic grease, such as JT-6 (Truax part #9991) or equivalent.
Model TR-60	Tapered roller bearings in the ends of the rollers should be repacked annually. When servicing these bearings, clean, check for wear, and use synthetic grease, such as JT-6 (Truax part #9991) or equivalent.
Model TR-96, TR-120 & TR-144	The ends of Brillion Rollers have zirks. These should be greased after every 50 acres of machine use.
Seed Boxes (all styles)	Apply LPS Silicone Lubricant, WD-40, or equivalent to the hinges.
Speed Changer	The derailleur style of speed changer for the fluffy box requires lubrication maintenance. LPS Silicone should be applied to the idler bushing that retains tension on the chain between the two cone sprockets once a day. Also, LPS Silicone should be applied to the derailleur chain on a daily basis.
Idlers	All idlers have a steel bushing that should be lubricated weekly with a silicone lubricant.



TRILLION STORAGE

STORAGE & PLACING THE TRILLION BACK INTO SERVICE

- 1) Store the Trillion on a flat, level surface, preferably in a shed and on blocks. Custom made covers can be ordered from L & L Tarp, 47550 254th Street, Baltic, SD 57003. Phone 605/529-5264.
- 2) Vacuum the seed boxes.
- 3) Slide the cool season and small box shifter back and forth.
- 4) Remove the cool season box row dividers where installed and clean the bottom of the cool season box.
- 5) Drop the gates on the cool season box to the lowest level. The lever is located on the left side of the seed cup as you face the rear of the trillion.
- 6) Using an air hose, blow the seed (all of it) from the boxes, especially the small seed box cups and flutes.
- 7) Clean the Trillion with a high-pressure washer. Be careful to not Pressure Wash the Bearings.
- 8) Using an air hose, blow all the water from the machine, including from the inside of the boxes.
- 9) Paint all bare metal and rust spots. Use Ford Automotive Paint (Tampico Yellow - 1972) or Krylon (Warm Yellow Gloss #1941) and RUST-OLEUM Professional High Performance Enamel (Gloss Black #7579) for a close match to original paint color.
- 10) Spray all moving parts (sprockets, hinges, chains, etc) with a silicone based lubricate.
- 11) Check the machine for bent or broken parts and remove or replace them as needed. Pay particular attention to safety decals and the parts of the Trillion they refer to, repair or replace them as needed so that the machine is safety-conditioned.
- 12) On Model I-60 repack the tapered roller bearings on the ends of the Brillion Rollers. Clean, check for wear, and repack with synthetic grease, such as JT-6 (Truax part #9991) or equivalent.

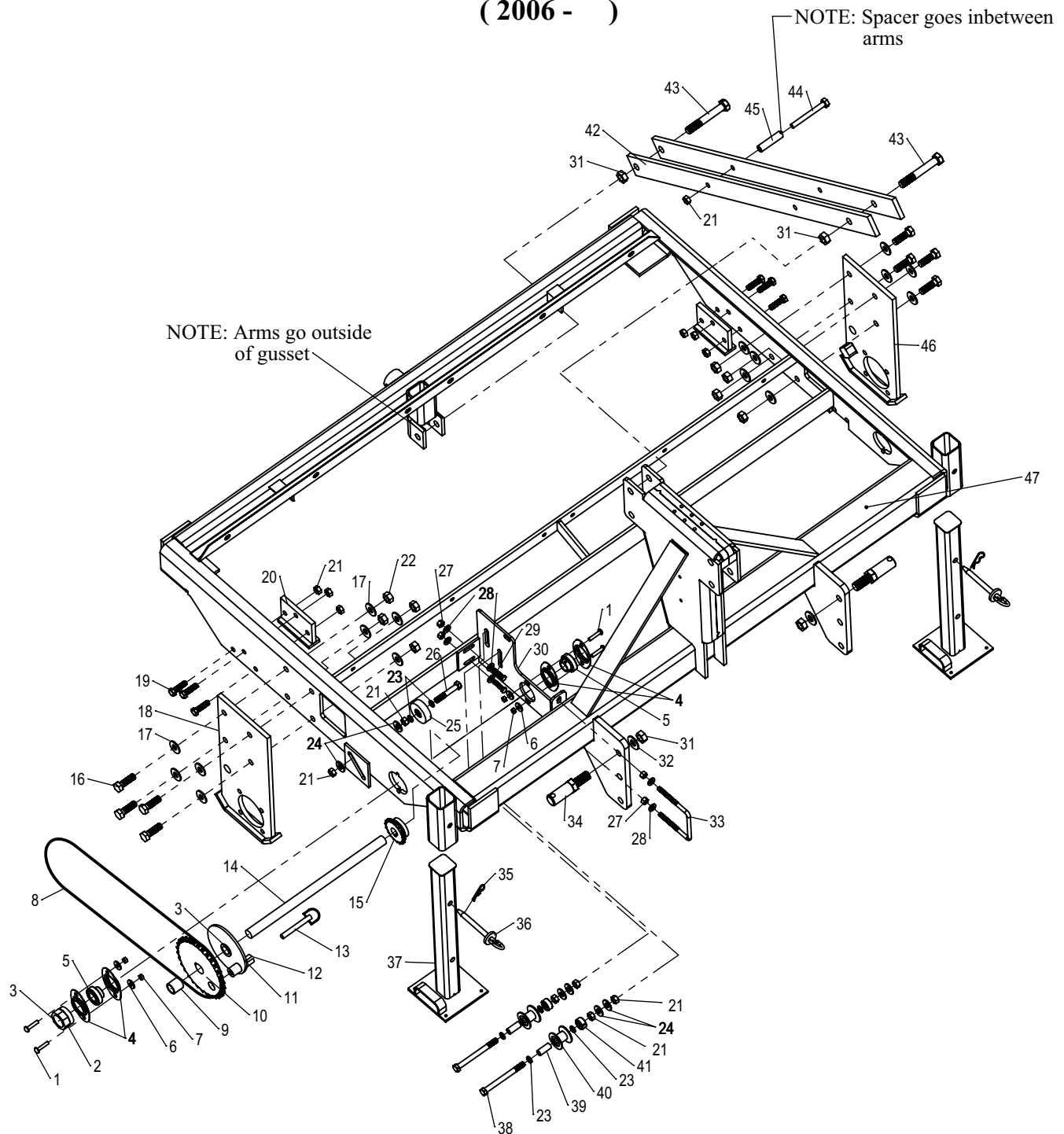


PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR60 FRAME ASSEMBLY

(2006 -)





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR60 FRAME ASSEMBLY 2 OF 3		
ITEM NO.	PART NUMBER	DESCRIPTION
1	CB516-0.75	Carriage Bolt, 5/16" X 3/4"
2	6092	Nut, Calibration (w/set screw)
3	1110	Key, Square 1/4" X 1-1/4"
4	3007A	Flangette, Bearing - 52MST
5	3007	Bearing, 1" Spherical
6	W14	Washer, 1/4"
7	N516-TL	Nut, 5/16" Top Locking
8	2060A	Chain, Trillion Roller to Jack Shaft (#60-31 Links), Offset and Full Links (#2040L, #2040L1)
9	1121	Bushing, 1" Bore
10	6072	Sprocket, 60A30 Lockout
11	60068	Lockout Pin Mechanism, Trillion (Includes Items # 12 and # 13)
12	(Not Available for Purchase)	Spring, Lockout
13	(Not Available for Purchase)	Pull Pin with "D" Ring (Cut "D" Ring to Remove)
14	103164	Jack Shaft, Trillion
15	1054	Sprocket, 40B18 1" Bore
16	B58-2GRD8	Bolt, 5/8" X 2" Grade 8
17	W58	Washer, 5/8"
18	600311A_02	Leg Plate, RH
19	B12-1.75	Bolt, 1/2" X 1-3/4"
20	6040A_01	Roller, Up Stop, Trillion 5ft
21	N12-TL	Nut, 1/2" Top Locking
22	N58-TL	Nut, 5/8" Top Locking
23	1040B	Machine Bushing
24	W12	Washer, 1/2"
25	6090	Spool, White Poly Idler - Recessed Style
26	B12-3	Bolt, 1/2" X 3"
27	N38-TL	Nut, 3/8" Top Locking
28	W38	Washer, 3/8"
29	B38-1.5	Bolt, 3/8 x 1-1/2"
30	60055	Trillion Shaft Mount
31	N34-TLGRD8	Nut, 3/4" Top Locking, Grade 8
32	W34GRD8	Washer, 3/4" Grade 8
33	UB38-4-4.5	U-Bolt, 3/8" X 4" X 4-1/2"
34	2051	Lift Pin, Cat II - 1-1/8"



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR60 FRAME ASSEMBLY 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
35	HP116	Hitch Pin, 1/16"
36	3204JHP	Hitch Pin, 3/4" X 4-1/2"
37	10695_01	Parking Leg, Trillion, Short
38	B12-5.5	Bolt, 1/2" X 5-1/2"
39	1041A2	Bushing, Idler Spool
40	1041A	Spool, Plastic
41	1040C	Collar 1/2"ID 3/4"OD (w/ set screw)
42	20672	Support Arm
43	B34-5	Bolt, 3/4" X 5"
44	B12-4.5	Bolt, 1/2" X 4-1/2"
45	2067A	Spacer
46	600301A_03	Leg Plate, LH
47	1036-660E	Frame, TR60



(2006 -)





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

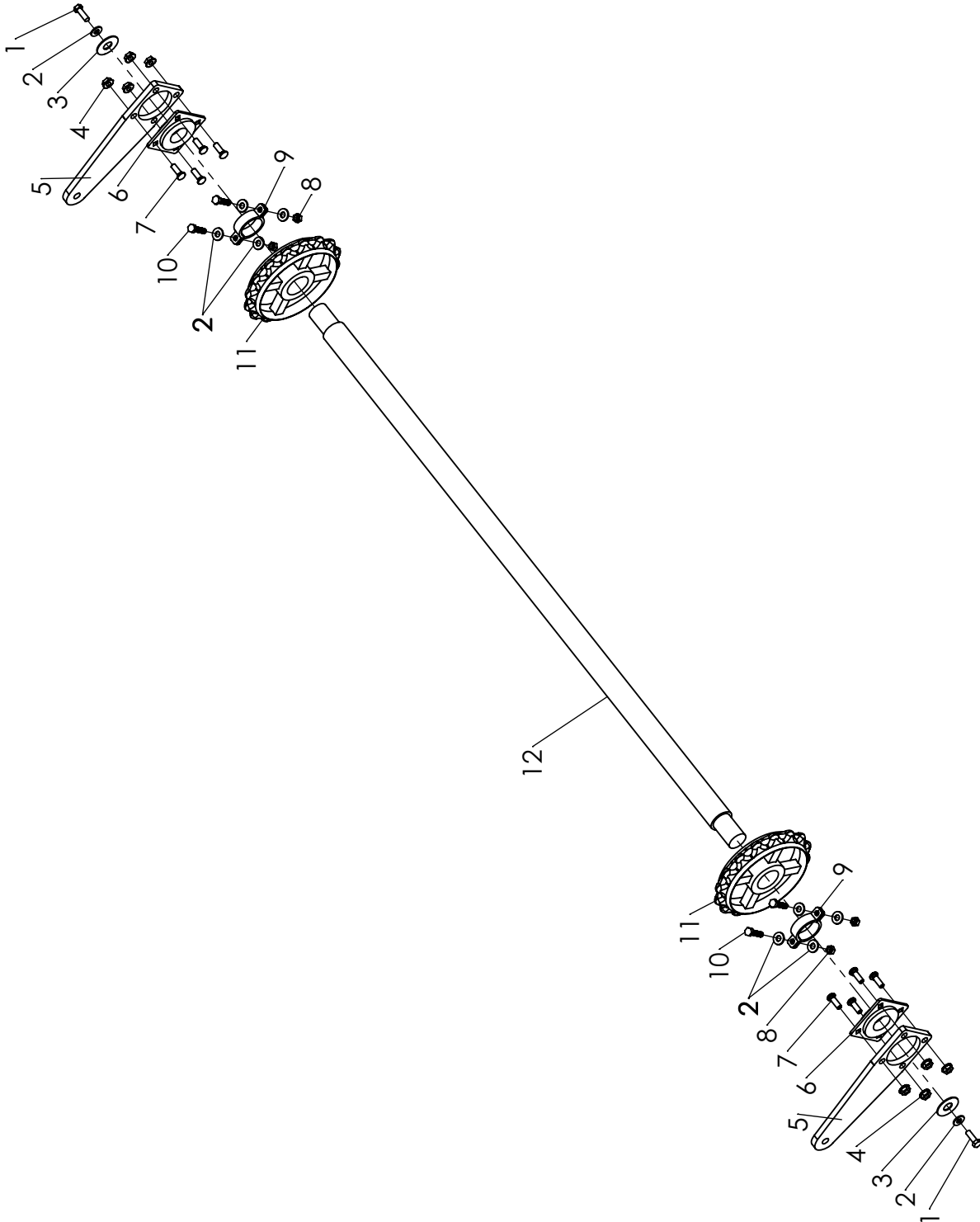
TR60 FRONT ROLLER ASSEMBLY 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
1	B12-1.5NF	Bolt, 1/2" X 1-1/2" National Fine Thread
2	LW12	Washer, 1/2" Locking
3	6085	Washer/Cap
4	CB12-1.5	Carriage Bolt, 1/2 x 1-1/2"
5	6084	Bearing, 1-1/2" Riveted Flange, F0209RB
6	N34	Nut, 3/4" with Set Screw
7	600311A	Leg Plate, RH
8	4224003	Rear Roller Arm
9	W34GRD8	Washer, 3/4" Grade 8
10	N12-TL	Nut, 1/2" Top Locking
11	N38-CL	Nut, 3/8" Clincher
12	6073	Sprocket, 50B15 Drive-2009-60B15
13	2060A	(Before 2009) Chain, Trillion Roller to Jack Shaft (#50-31 Links), Offset and Full Links (#2050L, #2050L1),(After 2009), Switched to #60
14	B38-3	Bolt, 3/8" x 3"
15	B34-3.5GRD8	Bolt, 3/4" X 3-1/2" Grade 8
16	SHCS12-2.25	Socket Head Cap Screw, 1/2" X 2-1/4"
17	6061	Cultipacker Roller, End Clamp 9". © Brillion #2C801
18	N12	Nut, 1/2"
19	6066	Cultipacker Roller, End Wheel 9". © Brillion #2C524
20	6064	Cultipacker Roller, Wheel 9". © Brillion #4C689
21	N58-TL	Nut, 5/8" Top Lock
22	<i>See Axle Guide</i>	Front Axle , Trillion
23	606410	End Plate (Part of Axle Tube #60641, Welded 3 Bolt Style)
24	600301A	Leg Plate, LH
25	60641	Axle Tube, 9" - 3 Bolt. © Brillion #5C330 - TR60



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

TR60 REAR ROLLER ASSEMBLY





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

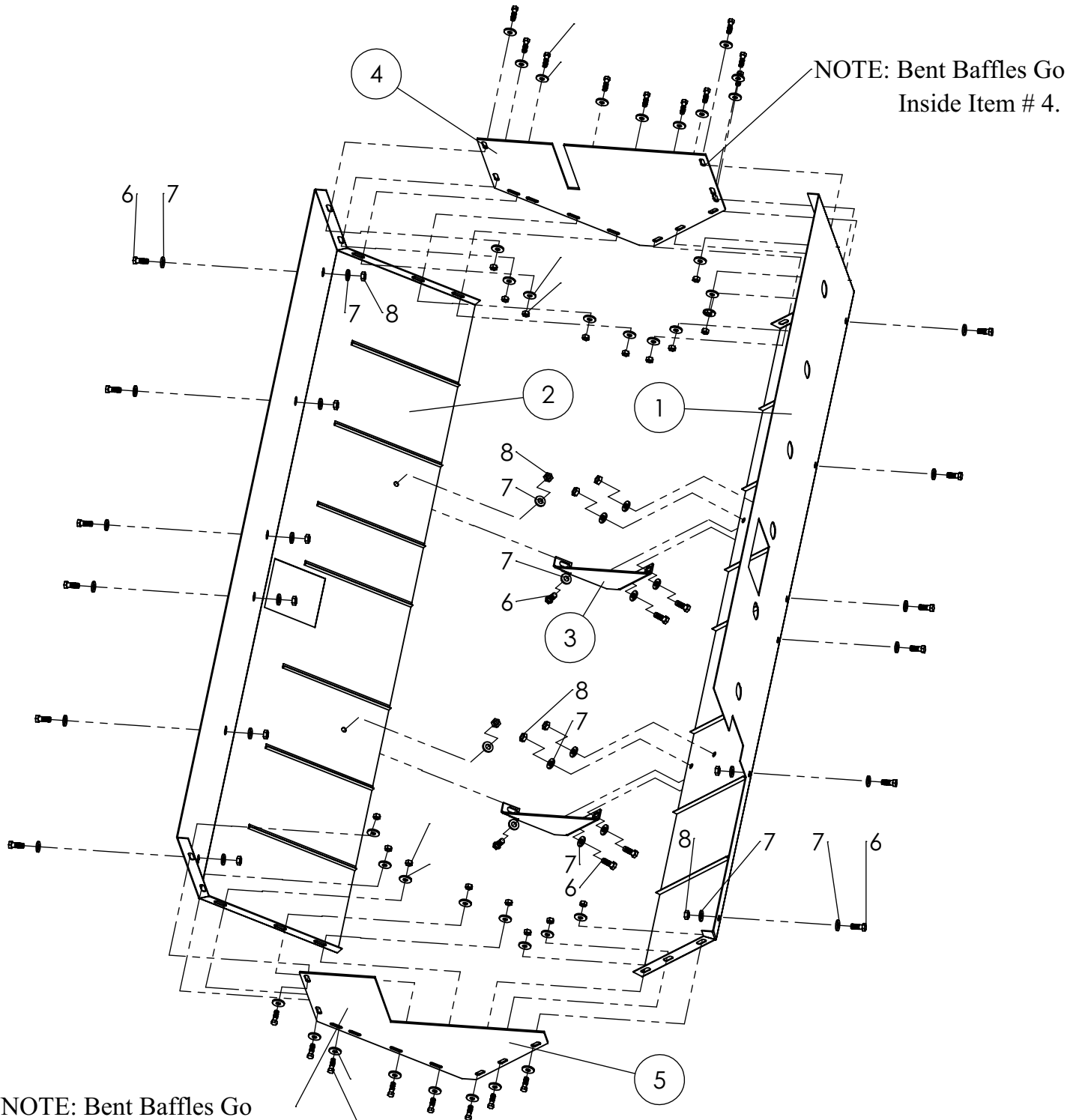
TR60 REAR ROLLER ASSEMBLY 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
1	B12-1.5-NF	Bolt, 1/2" X 1-1/2" National Fine Thread
2	LW12	Washer, 1/2" Locking
3	6085	Washer/Cap
4	N12-TL	Nut, 1/2" Top Lock
5	4224003_01	Rear Roller Arm
6	6084	Riveted Flange Bearing - 1-1/2", F0209RB
7	CB12-1.5	Carriage Bolt, 1/2 X 1-1/2"
8	N12	Nut, 1/2"
9	6060 (DO NOT OVER TIGHTEN)	Cultipacker Roller, Axle Clamp. © Brillion #OA010
10	B12-3	Bolt, 1/2" X 3"
11	6065	Cultipacker Roller, Wheel 7" © Brillion #5C284
12	60651	Rear Axle. © Brillion #5C297 (See 90-56)



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR60 BAFFLE ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR60 BAFFLE ASSEMBLY		
ITEM NO.	PART NUMBER	DESCRIPTION
1	60020	Baffle, Front TR60
2	60021	Baffle, Rear TR60
3	300177	Angle, Baffle
4	60019	Baffle End, Non Drive Side
5	60022	Baffle End, Drive Side
6	B38-1	Bolt, 3/8" X 1"
7	W38	Washer, 3/8"
8	N38	Nut, 3/8"
9	B516-1	Bolt, 5/16" X 1"
10	W516	Washer, 5/16"
11	N516	Nut, 5/16"

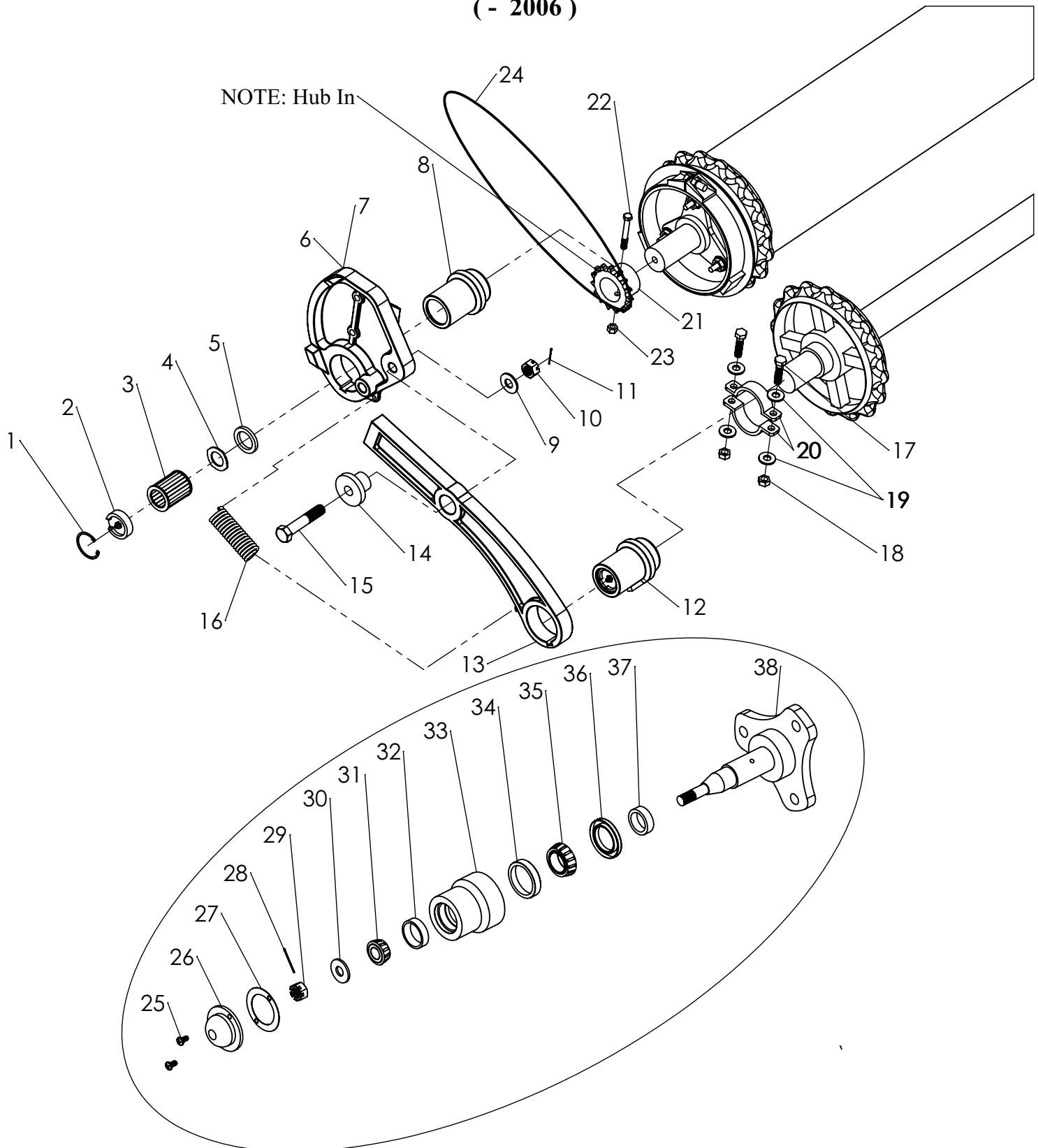


PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

©BRILLION LEG ASSEMBLY 1 OF 2

(- 2006)



Note: Pre 2006 Production models have roller bearing assemblies. Used with rear axle #8C-344



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

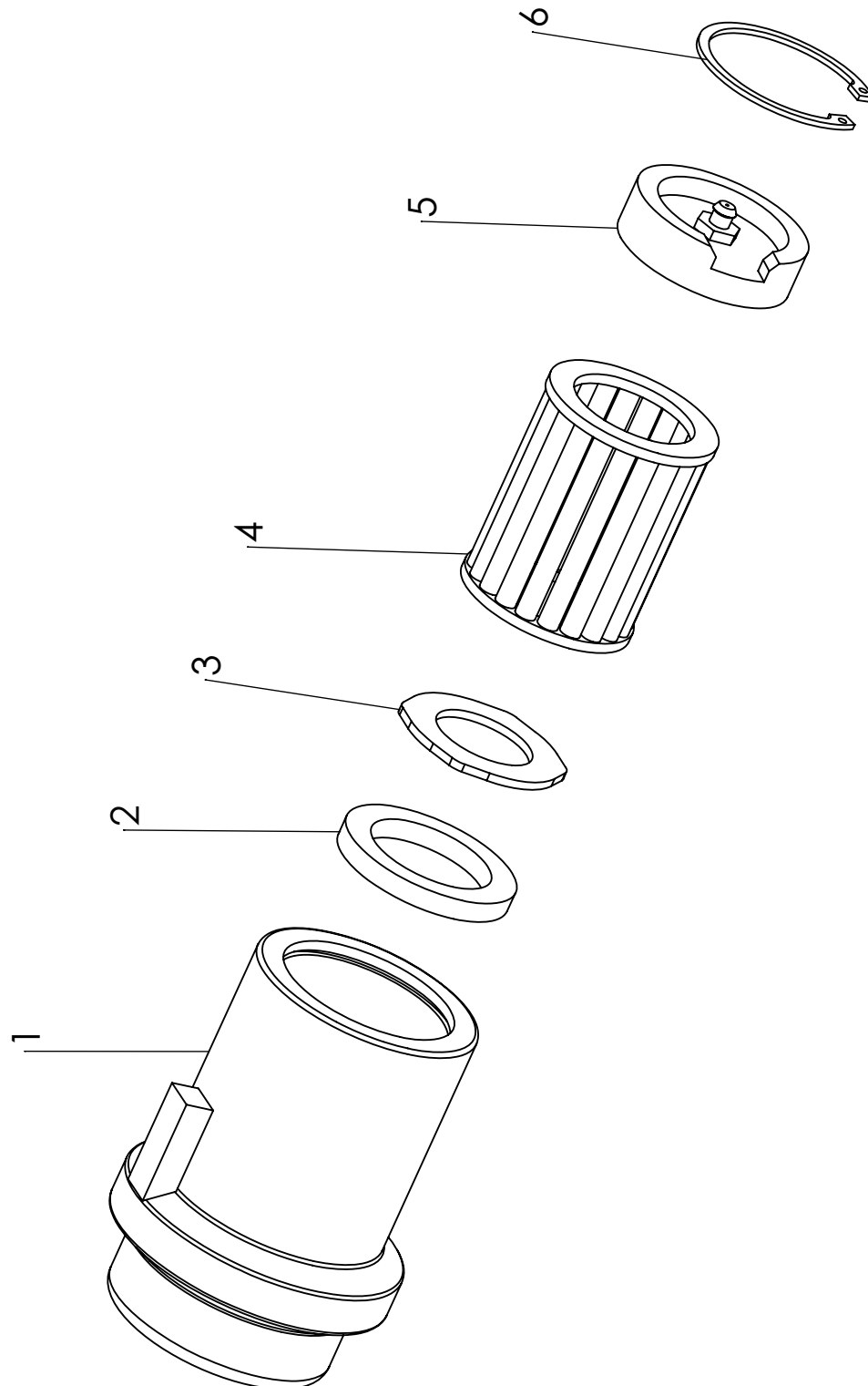
©BRILLION LEG ASSEMBLY 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
1	60682	Snap Ring. © Brillion #2C818
2	60683	Bearing Cap Assembly. © Brillion #3C036
3	60684	Bearing, Roller. © Brillion #1C087
4	60685	Washer, Flat Locking. © Brillion #2C683
5	60686	Washer, Felt. © Brillion #3C037
6	60191	End Bracket, LH. © Brillion #3C466
7	60181	End Bracket, RH. © Brillion #3C465
8	60687	Bearing Box. © Brillion #2C668
9	W34	Washer, 3/4"
10	N34-SL	Nut, 3/4"-12 Slotted
11	CP532-1.5	Cotter Pin, 5/32" X 1-1/2"
12	606870	Roller Bearing Assembly
13	60681	Arm, LH Trillion. © Brillion #1C902
	60701	Arm, RH Trillion. © Brillion #2C194
14	6075	Arm Bushing, Trillion. © Brillion #1C903
15	B34-4	Bolt, 3/4" X 4"
16	6059	Cultipacker Roller, Spring. © Brillion #2C194
17	B12-2.25GRD8	Bolt, 1/2" X 2-1/4" Grade 8
18	N12-TL	Nut, 1/2" Top Lock
19	W12GRD8	Washer, 1/2" Grade 8
20	6060	Cultipacker Roller, Axle Clamp. © Brillion #OA010
21	2060A	Sprocket Hub (For Size #60 Chain)
22	B38-3	Bolt, 3/8" x 3"
23	N38-CL	Nut, 3/8" Clincher
24	2060A1	Chain, Axle Roller to Speed Changer (#60-41 Links), Offset and Full Links (#2060L , #2060L1)
25	S14-12	Screw, 1/4" X1/2"
26	6058	Cultipacker Roller, Bearing Cap. © Brillion #4C131
27	6057	Gasket. Brillion #4C132
28	CP532-1.5	Cotter Pin, 5/32" X 1-1/2"
29	N58-SL	Nut, Slotted 5/8" - 11
30	W58	Washer, 5/8"
31	1076W	Bearing, Outer LM11910
32	1076WW	Cup, Outer LM11949
33	606871	Bearing Box. © Brillion #8C341
34	1077	Bearing, Inner LM67048
35	1077W	Cup, Inner LM67010
36	1.14E+04	Seal, Trillion, TR-60. © Brillion #8C351
37	606873	Spacer
38	606872	Stub Shaft. © Brillion #8C338



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

BRILLION BEARING ASSEMBLY





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

©BRILLION BEARING ASSEMBLY 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
1	60687	Bearing Box. © Brillion #2C668
2	60686	Washer, Felt. © Brillion #3C037
3	60685	Washer, Flat Locking. © Brillion #2C683
4	60684	Bearing, Roller. © Brillion #1C087
5	60683	Bearing Cap Assembly. © Brillion #3C036
6	60682	Snap Ring. © Brillion #2C818



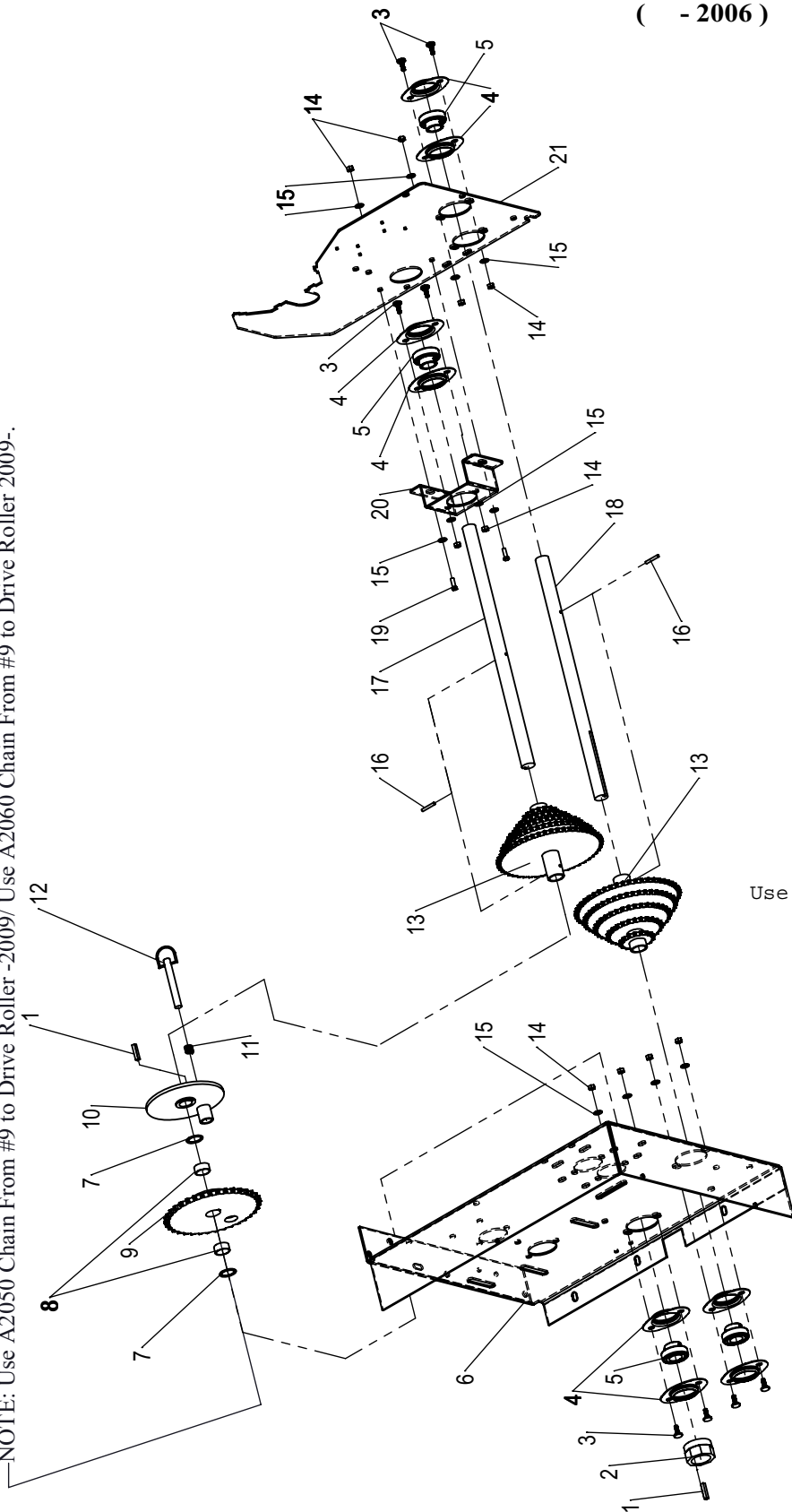
PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

TRILLION LOCKOUT ASSEMBLY - OLD PRODUCTION 1 OF 2

(- 2006)

NOTE: Use A2050 Chain From #9 to Drive Roller -2009/ Use A2060 Chain From #9 to Drive Roller 2009-.



Use A 2040 Chain on These



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TRILLION LOCKOUT ASSEMBLY – OLD PRODUCTION 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
1	1110	Key, Square 1/4" X 1/4" X 1-1/4"
2	6092	Nut, Calibration
3	CB516-0.75	Carriage Bolt, 5/16" X 3/4"
4	3007A	Flangette, Bearing - 52MST
5	3007	Bearing, 1" Spherical
6	103624	End Plate, RH
7	MB1-0.062	Machine Bushing, 0.062 Thick
8	1121	Brass Bushing, 1" Bore
9	6074	Sprocket, Lockout Trillion, 50B36 (Zirk Back)
10	60068	Lockout, Trillion
11	Included With Item # 10	Spring, Lockout
12	Included With Item # 10	Pull Pin with "D" Ring (Cut "D" Ring to Remove)
13	13-201	Sprocket, Cone, 5-Step
14	N516-CL	Nut, 5/16" Clincher
15	W 14	Washer, 1/4"
16	RP316-1.25	Roll Pin, 3/16" X1-1/4"
17	15-7102	Shaft, Input
18	15-711	Shaft, Output
19	B516-0.75	Bolt, 5/16" X 3/4"
20	103626	Support, Bearing
21	1036251	Support, Bearing & Clutch, Mounted Style





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

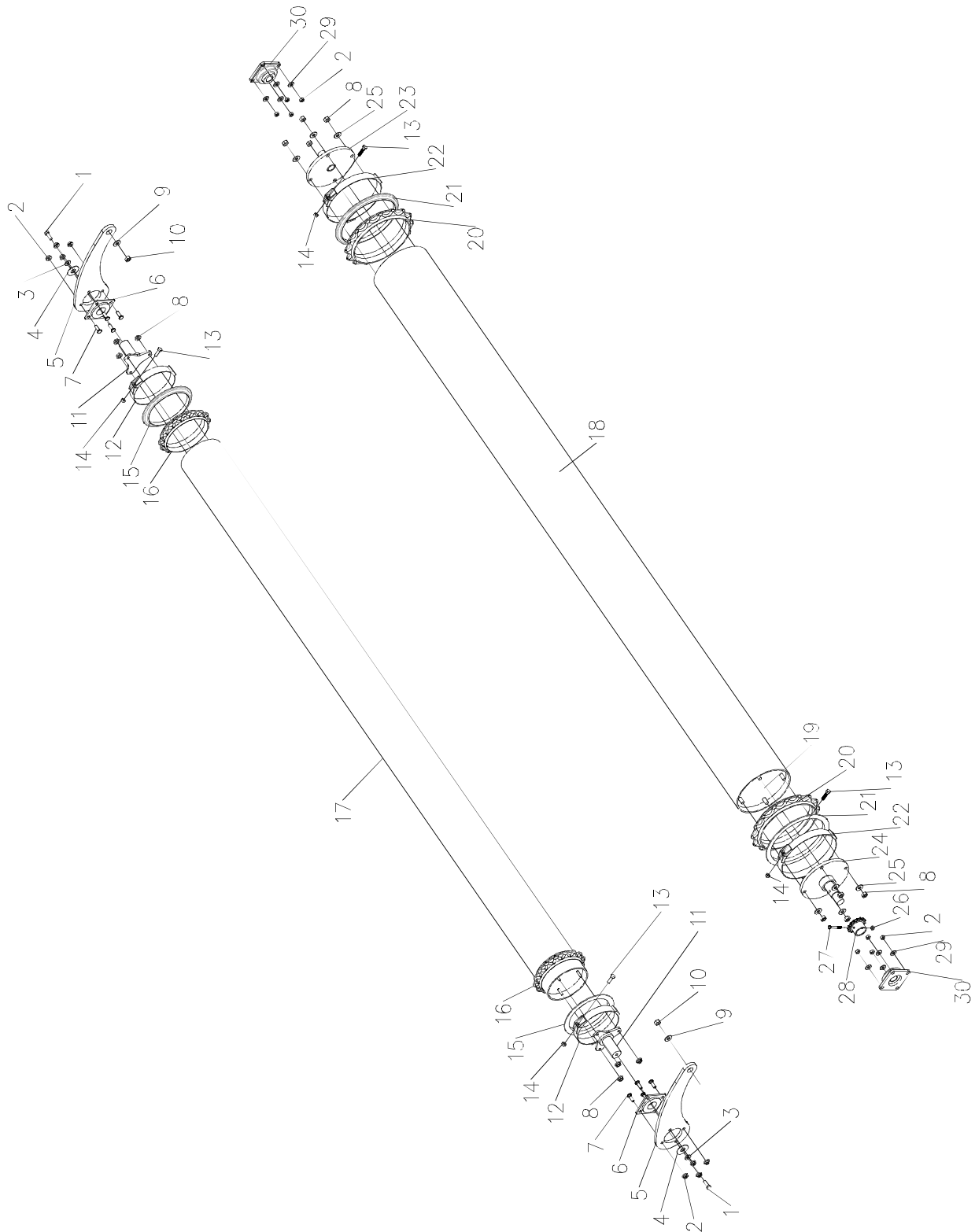
TR96, 120, 144 FRAME W_O ROLLERS ASSEMBLY 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
1	1036-660 1036-660F 1036-660I	Frame, TR96 Frame, TR120 Frame, TR144
2	B12-3	Bolt, 1/2" X 3"
3	B34-5	Bolt, 3/4" X 5"
4	6086	Spool, White Poly Idler
5	1110	Key, Square 1/4" x 1-1/4"
6	6092	Nut Calibration (w/ set screw)
7	CB516-0.75	Carriage Bolt, 5/16" X 3/4"
8	3007A	Flangette, Bearing - 52MST
9	3007	Bearing, 1" Spherical
10	W516	Washer, 5/16"
11	N516-CL	Nut, 5/16" Clincher
12	1121	Bushing, 1" Bore
13	6072	Sprocket, Lockout 1" with Brass Bushing
14	60068	Lockout, Trillion (w/ key)
15	Included in Item # 14	Spring, Lockout
16	Included in Item # 14	Pull Pin with "D" Ring (Cut "D" Ring to Remove)
17	103164	Jack Shaft - Trillion
18	1054	Sprocket, 40B18 1" Bore (w/ set screw)
19	10695	Parking Stand
20	HP116	Hitch Pin, 1/16"
21	3204JHP	Hitch Pin, 3/4" x 4-1/2"
22	B12-2.25GRD8	Bolt, 1/2" x 2-1/4" Grade 8
23	B34-2.5	Bolt, 3/4" x 2-1/2"
24	6092	Chain guard, Trillion
25	60030_RH	Leg Plate, RH
26	60030_LH	Leg Plate, LH
27	B12-5.5	Bolt, 1/2" x 5-1/2"
28	1040B	Machine Bushing
29	1041A2	Bushing, Idler Spool
30	1041A	Spool, Plastic
31	1040C	Collar 1/2" ID 3/4" OD (W/ Set Screw)
32	W12	Washer, 1/2"
33	20673	Support Arm
34	N34-TL	Nut, 3/4" Top Locking
35	W12Grd8	Washer, 1/2" Grade 8
36	N12-TL	Nut, 1/2" Top Locking



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

TR96,120,144 ROLLER ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR96, 120, 144 ROLLER ASSEMBLY 2 OF 2

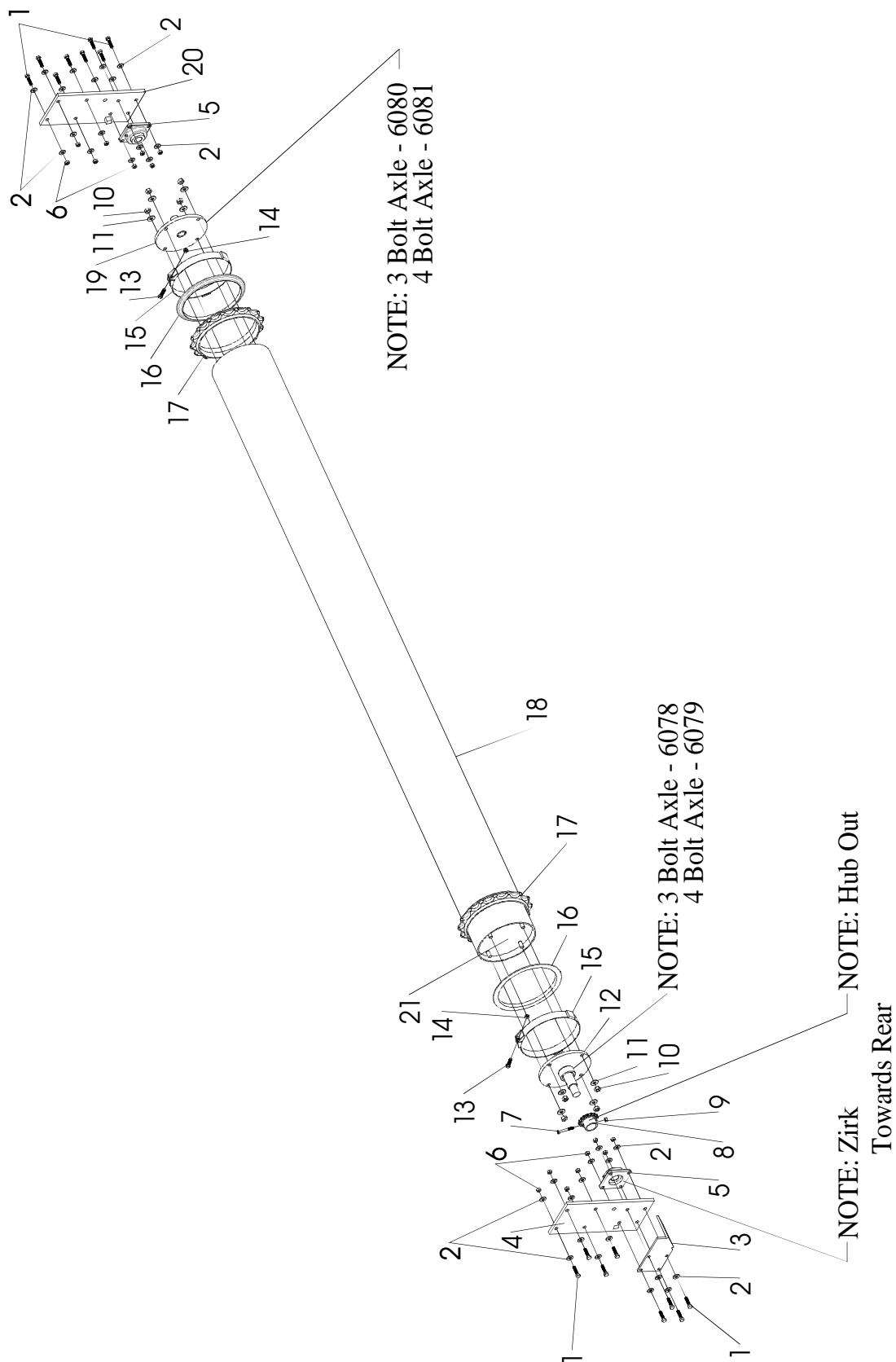
ITEM NO.	PART NUMBER	DESCRIPTION
1	B12-1.5NF	Bolt, 1/2" X 1-1/2" National Fine Thread
2	N12-TL	Nut, 1/2" Top Locking
3	LW12	Washer, 1/2" Locking
4	6085	Washer/Cap
5	6076	Rear Arm, Trillion. © Brillion #2K522
6	6084	Bearing, 1-1/2" Riveted Flange, F0209RB
7	CB12-1.5	Carriage Bolt, 1/2 X 1-1/2"
8	N58-TL	Nut, 5/8" Top Locking
9	W34GRD8	Washer, 3/4" Grade 8
10	N34	Nut, 3/4 With Set Screw
11	<i>See Axle Guide</i>	Axle, Trillion
12	6061	Cultipacker Roller, End Clamp 9". © Brillion #2C801
13	SHCS12-2.25	Socket Head Cap Screw, 1/2" X 2-1/4"
14	N12-CL	Nut, 1/2" Clincher
15	6066	Cultipacker Roller, End Wheel 9". © Brillion #2C524
16	6064	Cultipacker Roller, Wheel 9". © Brillion #4C689
17	60623	Axle Tube, 3-Bolt, 9". © Brillion #9J895 - TR96
	60624	Axle Tube, 3-Bolt, 9". © Brillion #9J337 - TR120
	60625	Axle Tube, 3-Bolt, 9". © Brillion #2K455 - TR144
18	60620	Axle Tube, 4 Bolt, 12". © Brillion #5C330 – TR96
	60621	Axle Tube, 4 Bolt, 12". © Brillion #5C330 – TR120
	60622	Axle Tube, 4 Bolt, 12". © Brillion #5C330 – TR144
	60630	Axle Tube, 3 Bolt, 12". © Brillion #9J896 – TR96
	60631	Axle Tube, 3 Bolt, 12". © Brillion #9J350 – TR120
19	606211	End Plate, 12" (Part of Axle Tube, Welded 4 Bolt)
	606311	End Plate, 12" (Part of Axle Tube, Welded 3 Bolt)
20	6063	Cultipacker Roller, Wheel 12". © Brillion #4C688
21	6067	Cultipacker Roller, End Wheel 12". © Brillion # 1C968
22	6062	Cultipacker Roller, End Claml 12". © Brillion # 2C802
23	<i>See Axle Guide</i>	Front Axle, Non Drive
24	<i>See Axle Guide</i>	Front Axle, Drive
25	W58GRD8	Washer, 5/8" Grade 8
26	N38-TL	Nut, 3/8" Top Locking
27	B38-3	Bolt, 3/8" x 3"
28	6071	Sprocket, 60B15 Drive
29	W12GRD8	Washer, 1/2" Grade 8
30	6069	Bearing, Front Roller 4 Bolt Casting 1-1/2"
31	1041A	Spool, Plastic



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

TR96/120/144 FRONT ROLLER ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

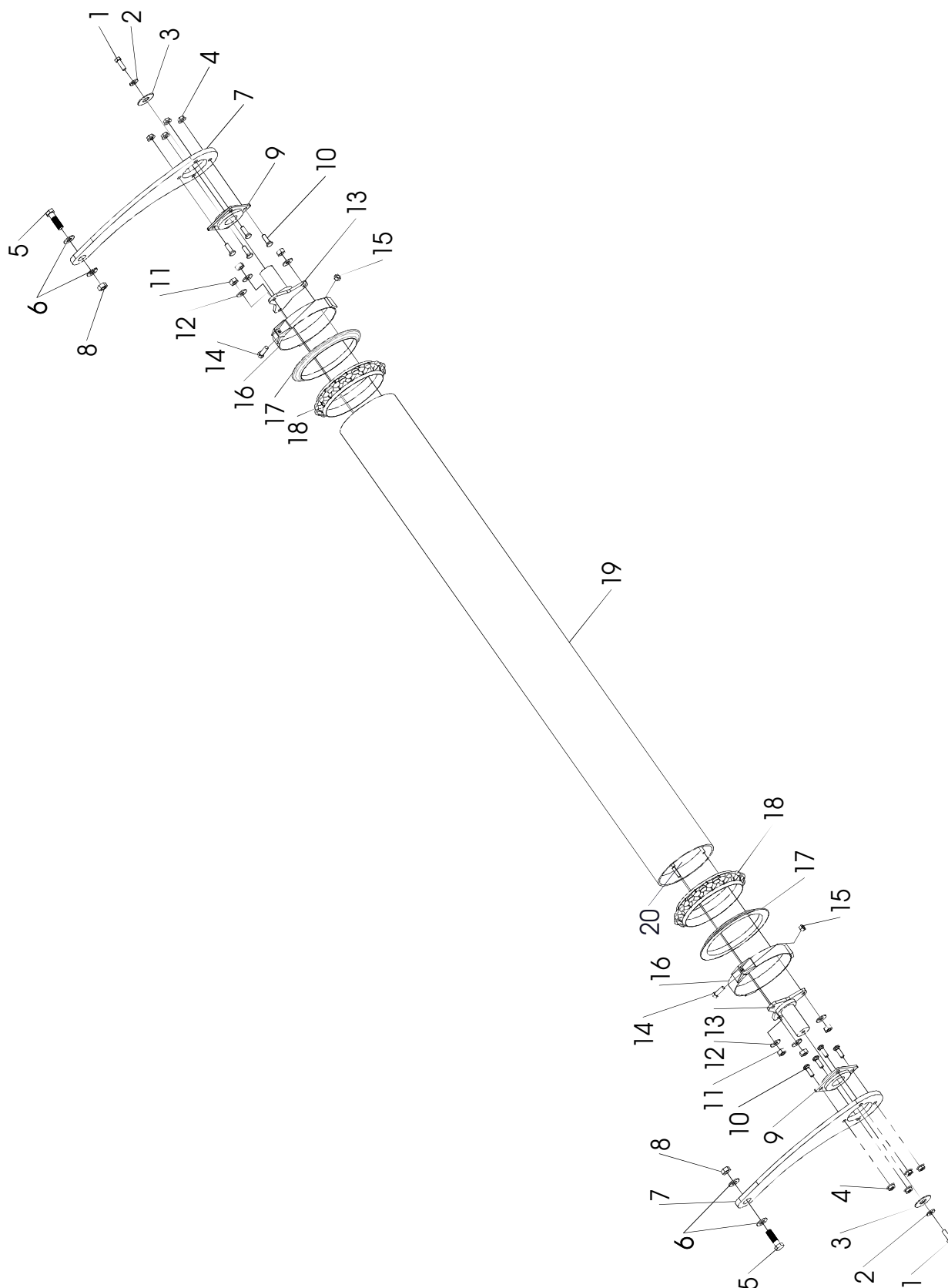
TR96/120/144 FRONT ROLLER ASSEMBLY 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
1	B12-2.25GRD8	Bolt, 1/2" X 2-1/4" Grade 8
2	W12GRD8	Washer, 1/2" Grade 8
3	6092	Chain Guard, Trillion
4	60030_RH	Leg Plate, RH
5	6069	Bearing, Front Roller 4 Bolt Casting 1-1/2" Bearing
6	N12-TL	Nut, 1/2" Top Locking
7	B38-3	Bolt, 3/8" x 3"
8	6071	Sprocket, Drive 60B15
9	N38-TL	Nut, 3/8" Top Locking
10	N58-TL	Nut, 5/8" Top Locking
11	W58GRD8	Washer, 5/8" Grade 8
12	See 90-56	RH- Front Axle, Drive
13	SHCS12-2.25	Socket Head Cap Screw, 1/2" X 2-1/4"
14	N12-CL	Nut, 1/2" Clincher
15	6062	Cultipacker Roller, End Clamp 12". © Brillion #2C802
16	6067	Cultipacker Roller, End Wheel 12". © Brillion #1C968
17	6063	Cultipacker Roller, Wheel 12". © Brillion #4C688
18	60620	Axle Tube, 4-Bolt, 12". © Brillion #9K262 -TR96
	60621	Axle Tube, 4-Bolt, 12". © Brillion #9K261 -TR120
	60622	Axle Tube, 4-Bolt, 12". © Brillion #9K260 -TR144
	60630	Axle Tube, 3-Bolt, 12". © Brillion #9J896 - TR96
	60631	Axle Tube, 3-Bolt, 12". © Brillion #9J350 - TR120
	60632	Axle Tube, 3-Bolt, 12". © Brillion #2K454 - TR144
19	See 90-56	LH - Front Axle, Non Drive
20	60030_LH	Leg Plate, LH
21	606211	End Plate, 12" (Part of Axle Tube, Welded 4 Bolt)
	606311	End Plate, 12" (Part of Axle Tube, Welded 3 Bolt)



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

TR 96,120,144 REAR ROLLER 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

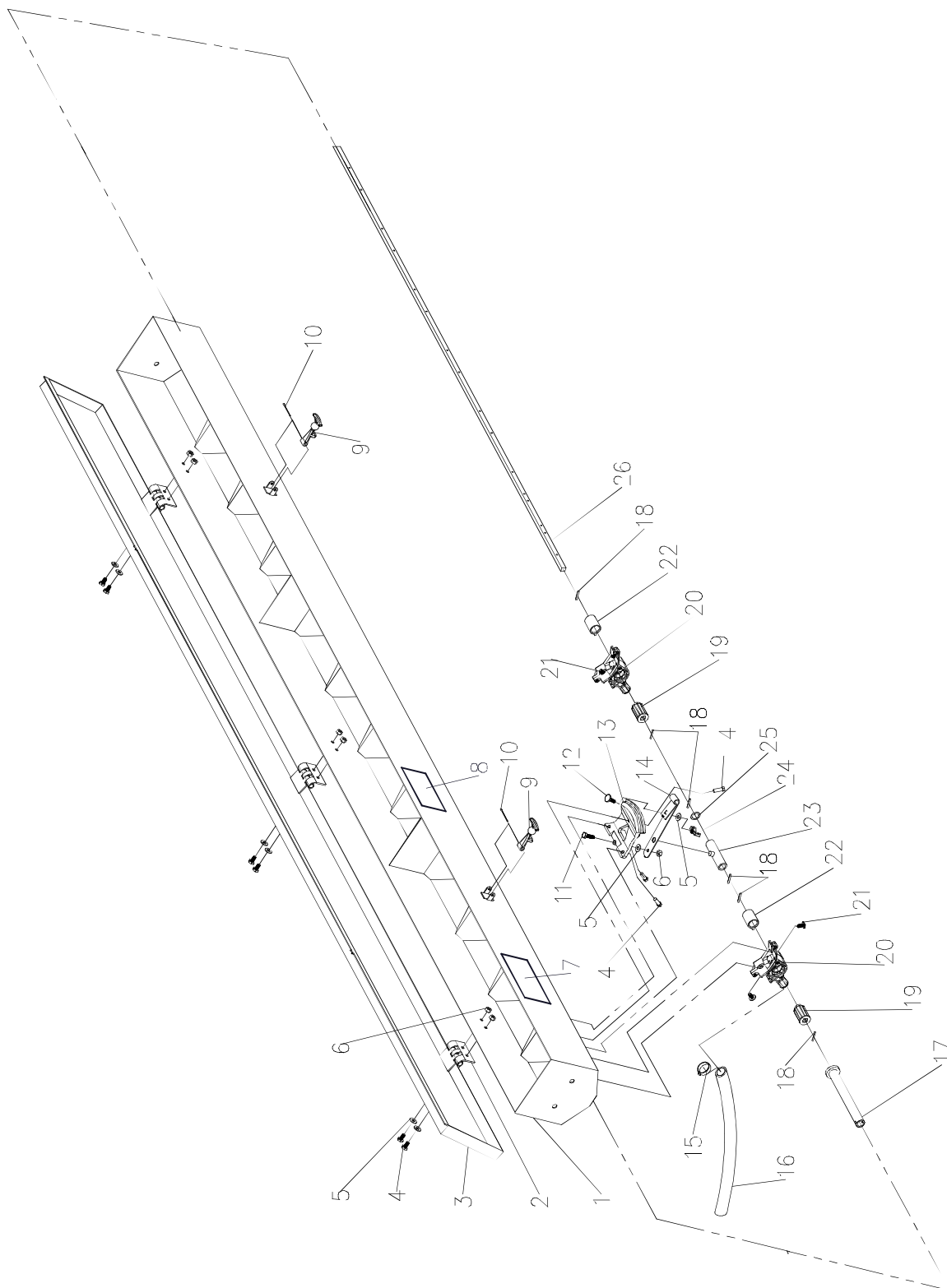
TR96/120/144 REAR ROLLER ASSEMBLY 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
1	B12-1.5NF	Bolt, 1/2" X 1-1/2" National Fine Thread
2	LW12	Washer, 1/2" Locking
3	6085	Washer/Cap
4	N12-TL	Nut, 1/2" Top Locking
5	B34-2.5GRD8	Bolt, 3/4" X 2-1/25" Grade 8
6	W34GRD8	Washer, 3/4" Grade 8
7	6076	Rear Arm, Trillion. © Brillion #2K522
8	N34-TL	Nut, 3/4" Top Locking w/ set screw
9	6084	Bearing, 1-1/2" Riveted Flange, F0209RB
10	CB12-1.5	Carriage Bolt, 1/2 X 1-1/2"
11	N58-TL	Nut, 5/8" Top Locking
12	W58GRD8	Washer, 5/8" Grade 8
13	<i>See 90-56</i>	Axle, Trillion
14	SHCS12-2.25	Socket Head Cap Screw, 1/2" X 2-1/4"
15	N12-CL	Nut, 1/2" Clincher
16	6061	Cultipacker Roller, End Clamp 9". © Brillion #2C801
17	6066	Cultipacker Roller, End Wheel 9". © Brillion #2C524
18	6064	Cultipacker Roller, Wheel 9". © Brillion #4C689
19	60640	Axle Tube, 9" – 3 Bolt. © Brillion #9J895 - TR96
	606401	Axle Tube, 9" – 3 Bolt. © Brillion #9J337 - TR120
	606402	Axle Tube, 9" – 3 Bolt. © Brillion #2K455 - TR144
20	606410	End Plate (Part of Axle Tube, Welded 3 Bolt, All 9" Sizes)



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

SMALL SEED BOX ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

SMALL SEED BOX ASSEMBLY 2 OF 2

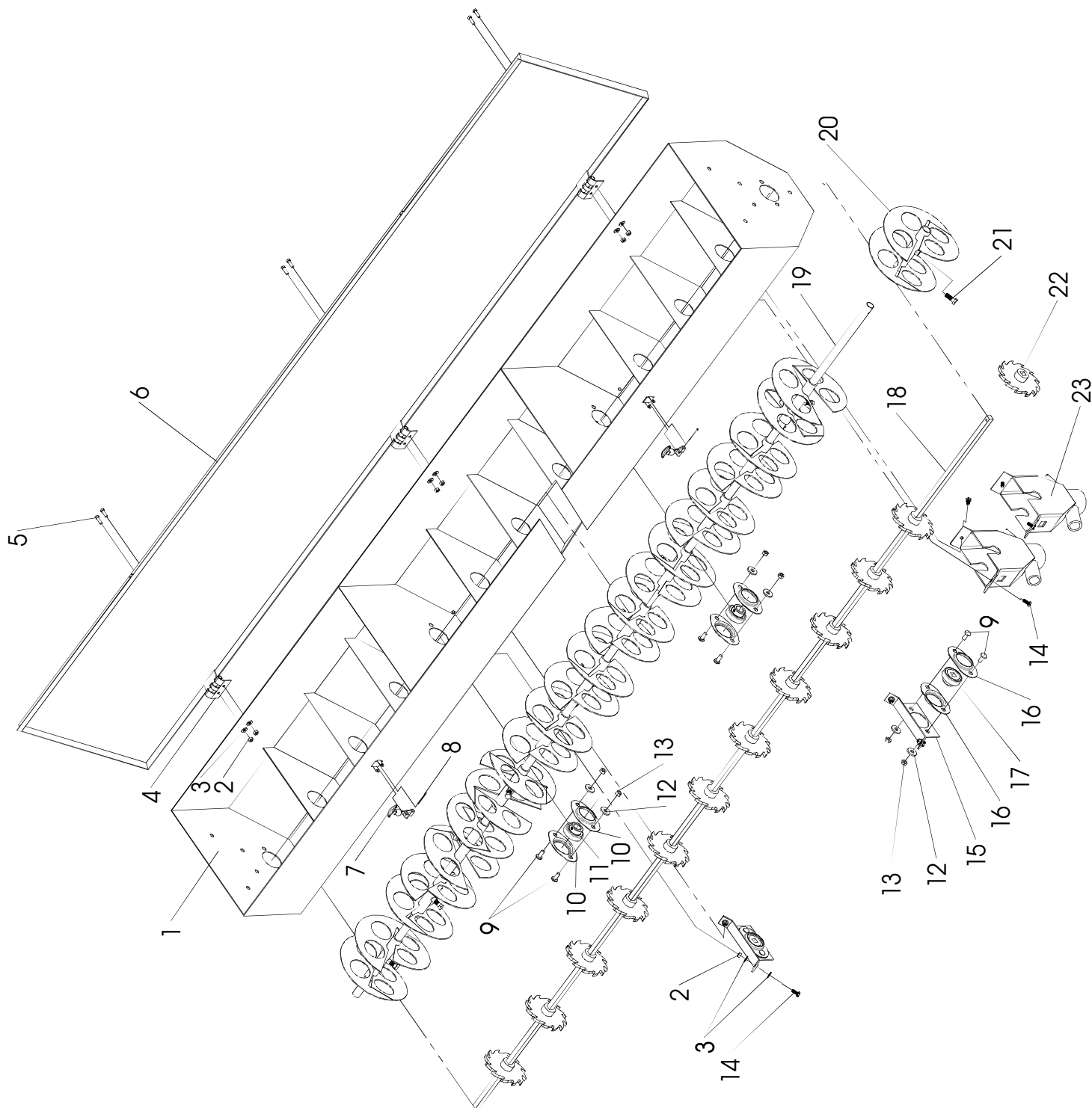
ITEM NO.	PART NUMBER		DESCRIPTION
1	1038 1038E 1038F 1038I	(12 Row, 8" Sp.) (8 Row, 8" Sp.) (16 Row, 8" Sp.) (18 Row, 8" Sp.)	Seed Box, Small
2	1038H		Hinge, Lid
3	1038I 1038E1 1038F1 1038I1	(12 Row, 8" Sp.) (8 Row, 8" Sp.) (16 Row, 8" Sp.) (18 Row, 8" Sp.)	Lid, Small Seed Box
4	B14-0.75		Bolt, 1/4" X 3/4"
5	W14		Washer, 1/4"
6	N14		Nut, 1/4"
7	1046C2		Decal, Chain Drive Keep Clear
8	1046C4		Decal, Do Not Tow Over 8 MPH
9	1038J		Lid Retainer
10	CP532-1.5		Cotter Pin, 5/32" X 1-1/2"
11	B14-1		Bolt, 1/4" X 1"
12	CB14-0.75		Carriage Bolt, 1/4" X 3/4"
13	1129		Mount, Shifter
14	1131		Lever, Shifter
15	1013		Clamp, Hose, #10 or #12
16	1012A		Hose, Small, Black Plastic, 1991-
17	1010		Coupler
18	RP18-.875		Roll Pin, 1/8" X 7/8"
19	M10274		Roll, Feed (After Serial #385 use part #731274)
20	AN-162555		Cup Assembly w/ Snap Ring (After Serial #385 use part #73102A)
21	SHC14-0.5		Socket Head Cap Screw 1/4" - 20 X 1/2"
22	M10017		Cut-Off, Feed (After Serial #385 use part #731017)
23	1130		Shifter Spool
24	WN14		Wing Nut, 1/4"
25	MB12-0.015		Spacer, 0.015 Thick, (Use as Needed)
26	1048 1048E 1048F 1048I	(12 Row, 8" Sp.) (8 Row, 8" Sp.) (16 Row, 8" Sp.) (18 Row, 8" Sp.)	Shaft, 3/8" Square



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

LARGE (FLUFFY) SEED BOX ASSEMBLY 1 Of 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

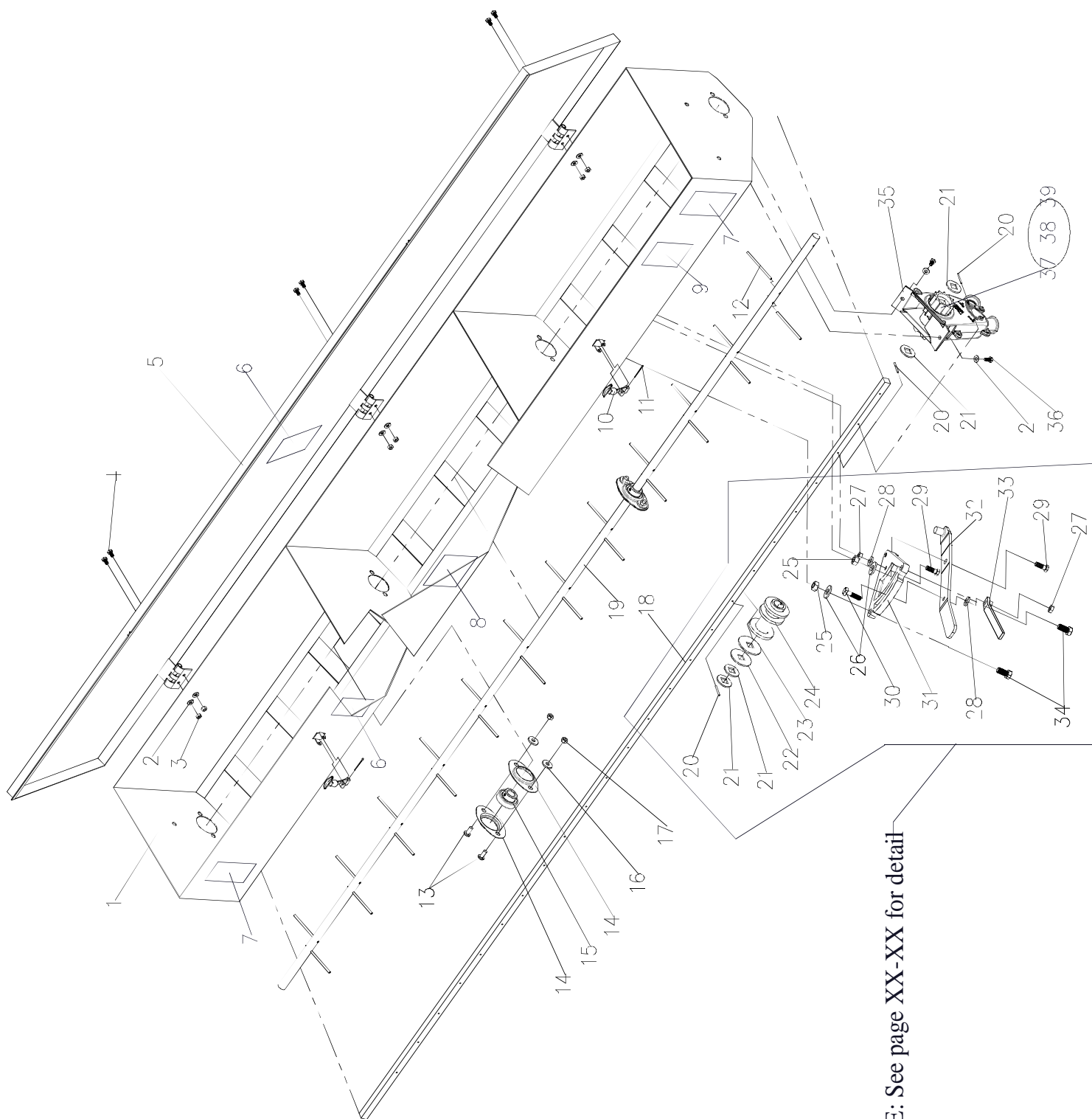
LARGE (FLUFFY) SEED BOX ASSEMBLY 2 OF 2		
ITEM NO.	PART NUMBER	DESCRIPTION
1	1001 (12 Row - 8" Sp.)	Seed Box, Large (Fluffy)
	1001E (8 Row - 8" Sp.)	
	1001F (16 Row - 8" Sp.)	
	1001I (18 Row - 8" Sp.)	
2	N14	Nut, 1/4"
3	W14	Washer, 1/4"
4	1038H	Hinge, Lid
5	B14-0.75	Bolt, 1/4" X 3/4"
6	3001I (12 Row, 8" Sp.)	Lid, Cool Season
	3001E1 (8 Row, 8" Sp.)	
	3001F1 (16 Row, 8" Sp.)	
	3001I1 (18 Row, 8" Sp.)	
7	1038J	Lid Retainer
8	CP532-1.5	Cotter Pin, 5/32" X 1-1/2"
9	CB516-0.75	Carriage Bolt, 5/16" X 3/4"
10	1007A	Flangette, Bearing - 47MST
11	1007	Bearing, 3/4" Spherical
12	W516	Washer, 5/16"
13	N516	Nut, 5/16"
14	B14-0.625	Bolt, 1/4" X 5/8"
15	10316	Bearing Support
16	1007B	Flangette, Bearing - 47MST (Flattened Edge)
17	2007	Bearing, 1/2" Square Bore
18	2003 (12 Row - 8" Sp.)	Shaft, 1/2" Square
	2003E (8 Row - 8" Sp.)	
	2003F (16 Row - 8" Sp.)	
	2003I (18 Row - 8" Sp.)	
19	1004 (12 Row - 8" Sp.)	Shaft, 3/4" Round
	1004E (8 Row - 8" Sp.)	
	1004F (16 Row - 8" Sp.)	
	1004I (18 Row - 8" Sp.)	
20	1049A	Agitator, Auger
21	B38-1	Bolt, 3/8" X 1"
22	2002	Picker Wheel, 1/2" Square Bore
23	1033	Transition



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

COOL SEASON/GRAIN SEED BOX ASSEMBLY 1 OF 3



NOTE: See page XX-XX for detail



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

COOL SEASON/GRAIN SEED BOX ASSEMBLY 2 OF 3		
ITEM NO.	PART NUMBER	DESCRIPTION
1	3001 (12 Row - 8" Sp.) 3001E (8 Row - 8" Sp.) 3001F (16 Row - 8" Sp.) 3001I (18 Row - 8" Sp.)	Seed Box, Cool Season/Grain
2	W14	Washer, 1/4"
3	N14	Nut, 1/4"
4	B14-0.5	Bolt, 1/4" X 1/2"
5	3001I (12 Row, 8" Sp.) 3001E1 (8 Row, 8" Sp.) 3001F1 (16 Row, 8" Sp.) 3001I1 (18 Row, 8" Sp.)	Lid, Cool Season
6	1046C8	Decal, Rotating Parts
7	2008C2	Reflector, 5" X 5"
8	1046C7	Decal, Truax Buffalo
9	1046C3-A	Decal, DO NOT Ride (Danger)
10	1038J	Lid Retainer
11	CP532-1.5	Cotter Pin, 5/32" X 1-1/2"
12	3225	Agitator, 3/16" X 3-1/2"
13	CB516-0.75	Carriage Bolt, 5/16" X 3/4"
14	1007A	Flangette, Bearing - 47MST
15	1007	Bearing, 3/4" Spherical
16	W516	Washer, 5/16"
17	N516	Nut, 5/16"
18	3103 (12 Row - 8" Sp.) 3103E (8 Row - 8" Sp.) 3103F (16 Row - 8" Sp.) 3103I (18 Row - 8" Sp.)	Shaft, 5/8" Square
19	3221 (12 Row - 8" Sp.) 3221E (8 Row - 8" Sp.) 3221F (16 Row - 8" Sp.) 3221I (18 Row - 8" Sp.)	Shaft, 3/4" Round
20	RP18-1.25	Roll Pin, 1/8" X 1-1/4"
21	TM608231	Spacer, 5/8" Square Hole - .120" Thickness
22	TM60825	Thrust Washer, Backer - .115" Thickness
23	TM60826	Thrust Washer, Delrin - .125" Thickness
24	M608621	Shifter, Bearing
25	N12	Nut, 1/2"
26	W12	Washer, 1/2"
27	N38	Nut, 3/8"
28	W38	Washer, 3/8"
29	B38-1	Bolt, 3/8" X 1"
30	B38-1SQ	Bolt, 3/8" X 1" Square Head



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

COOL SEASON/GRAIN SEED BOX ASSEMBLY 3 OF 3		
ITEM NO.	PART NUMBER	DESCRIPTION
31	3229	Shifter Quad
32	3205	Handle, Shifter
33	NH38	Nut Handle, 3/8"
34	B12-1	Bolt, 1/2" X 1"
35	AN-212650 -2010/ 73103A 2010-	Seed Cup, Cool Season Box
36	B14-0.625	Bolt, 1/4" X 5/8"
37	M60864 -2010/ 731864 2010-	Shut-Off
38	M60865 -2010/ 731865 2010-	Fluted Roll
39	TS-72M	Spring

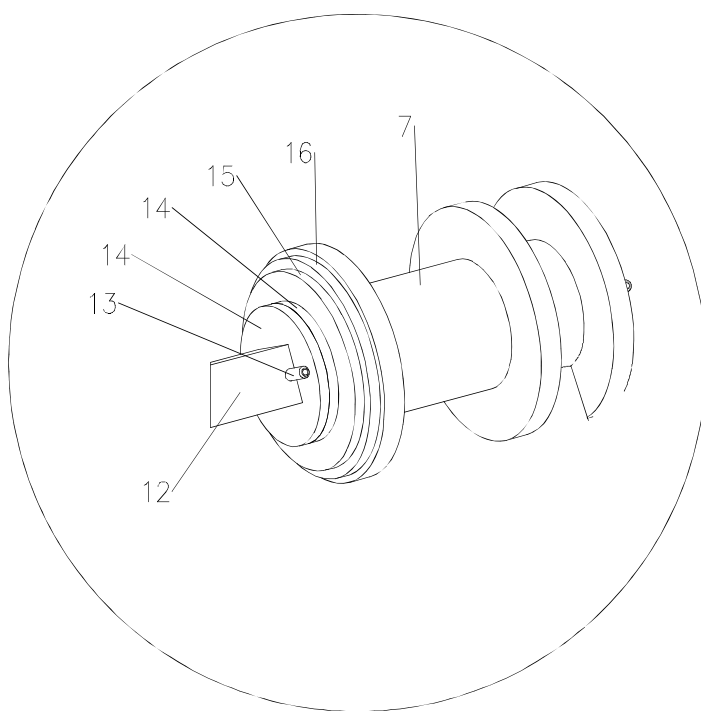
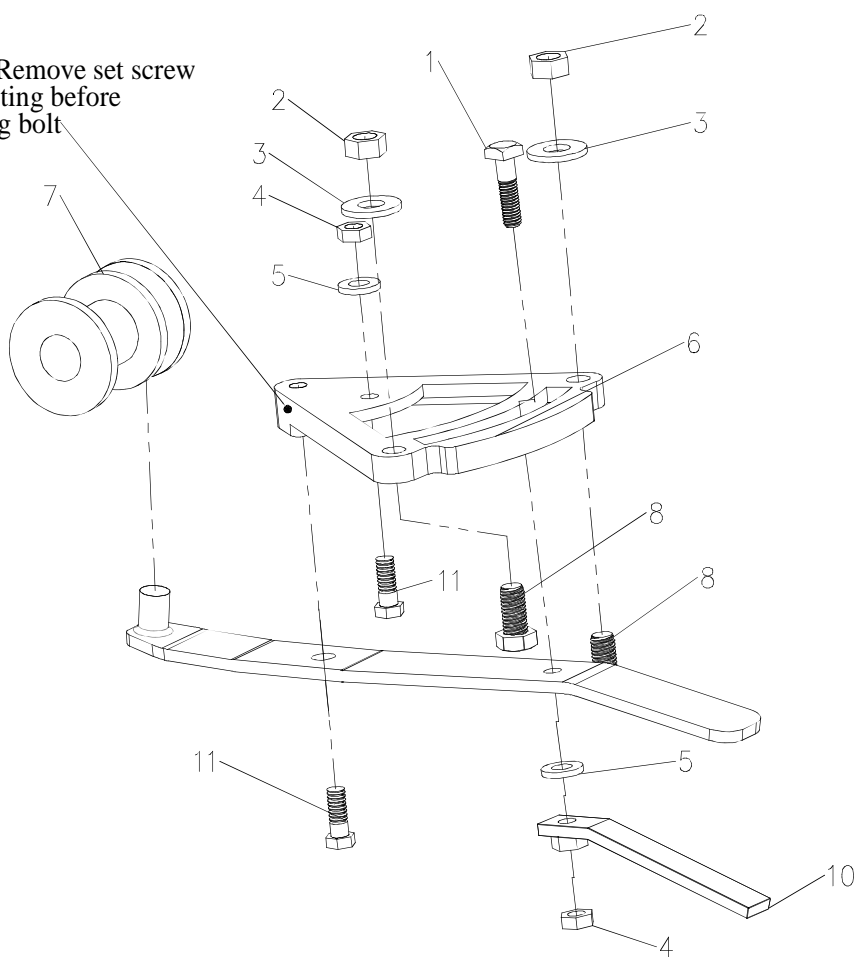


PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

COOL SEASON SHIFTER ASSEMBLY 1 OF 2

NOTE: Remove set screw
from casting before
removing bolt





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

COOL SEASON SHIFTER ASSEMBLY 2 OF 2

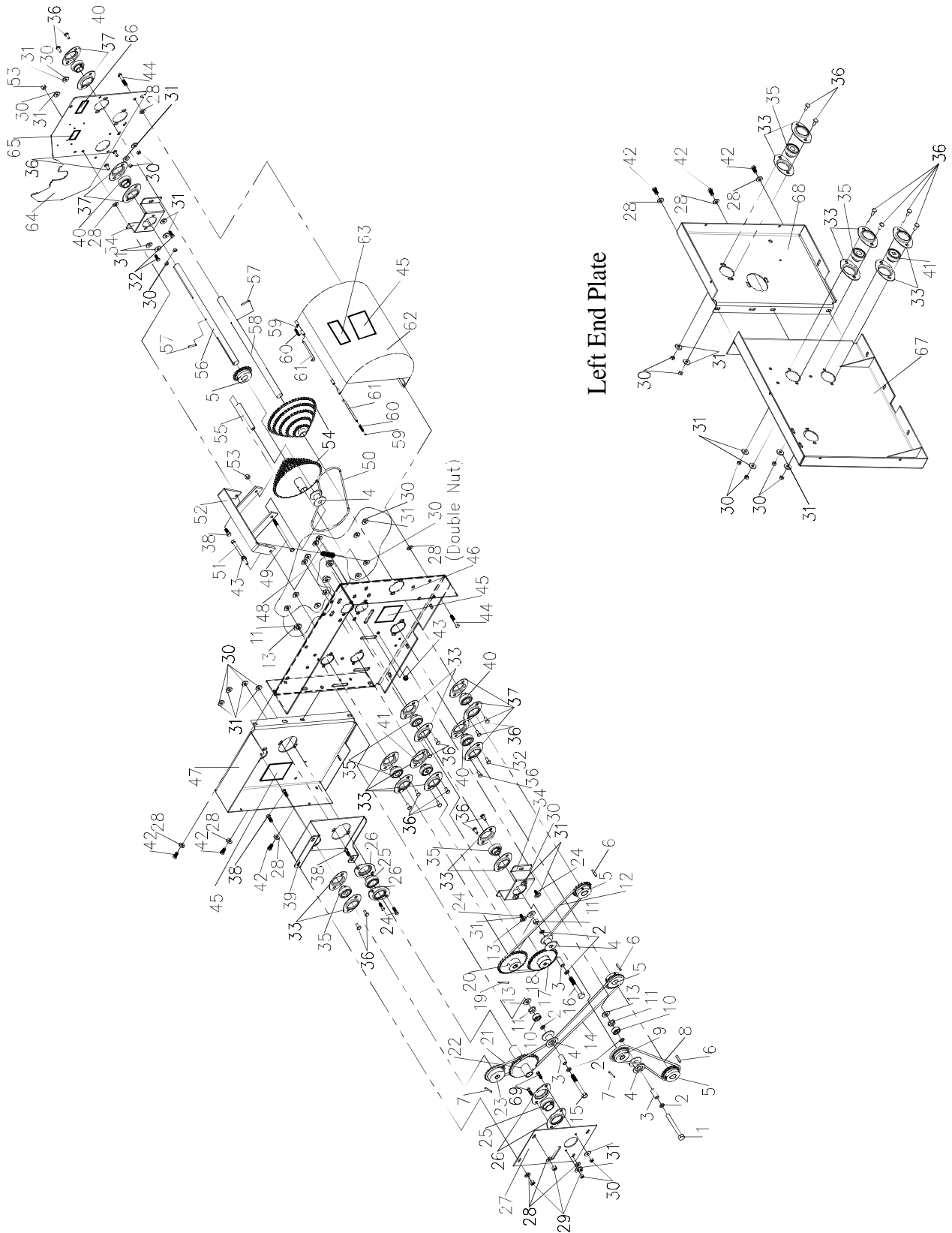
ITEM NO.	PART NUMBER	DESCRIPTION
1	B38-1SQ	Bolt, 3/8" X 1" Square Head
2	N12	Nut, 1/2"
3	W12	Washer, 1/2"
4	N38	Nut, 3/8"
5	W38	Washer, 3/8"
6	3229	Shifter Quad
7	M608621	Shifter, Bearing
8	B12-1	Bolt, 1/2" X 1"
9	3205	Handle, Shifter
10	NH38	Nut Handle, 3/8"
11	B38-1	Bolt, 3/8" X 1"
12	3103 3103E 3103F 3103I (12 Row - 8" Sp.) (8 Row - 8" Sp.) (16 Row - 8" Sp.) (18 Row - 8" Sp.)	Shaft, 5/8" Square
13	RP18-1.25	Roll Pin, 1/8" X 1-1/4"
14	TM608231	Spacer, 5/8" Square Hole - .120" Thickness
15	TM60825	Thrust Washer, Backer - .115" Thickness
16	TM60826	Thrust Washer, Delrin - .125" Thickness



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

SPEED CHANGER ASSEMBLY 1 OF 3





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

SPEED CHANGER ASSEMBLY 2 OF 3

ITEM NO.	PART NUMBER	DESCRIPTION
1	B12-4.5	Bolt, 1/2" X 4-1/2"
2	1040B	Machine Bushing
3	1041A2	Bushing, Idler Spool
4	1041A	Spool, Plastic
5	1045A	Sprocket, 1" Round Bore - KY & SS
6	1110	Key, Square 1/4" X 1/4" X 1-1/4"
7	RP316-2	Roll Pin, 3/16" X 2"
8	2040E	Chain, Small Seed Box (39 Links), Offset and Full Links (#2040L , #2040L1)
9	1055 (40B20) Standard 1054A (40B30) Optional	Sprocket, 3/4" Round Bore
10	1040C	Collar 1/2"ID 3/4"OD (w/ set screw)
11	N12-TL	Nut, 1/2" Top Locking
12	2040C	Chain, Picker Wheel (51 Links), Full Link (#2040L1)
13	W12	Washer, 1/2"
14	2040GX	Chain, Cool Season Box Drive (51 Links), Full Link or Offset and Half Links (#2040L1 or #2040L, #2040L2)
15	B12-4	Bolt, 1/2" X 4"
16	B12-3.5	Bolt, 1/2" X 3-1/2"
17	1055A1 (40B30)	Sprocket, 1/2" Square Bore
18	CP532-3	Cotter Pin, 5/32" X 3"
19	RP316-2.5	Roll Pin, 3/16" X 2-1/2"
20	1054A (40B30)	Sprocket, 3/4" Round Bore
21	2040F	Chain, Cool Season Box Agitator (17 Links), Offset and Full Links (#2040L, #2040L1)
22	3095X	Sprocket, Double 30/20 (93-)
23	1055	Sprocket, 40B20, 3/4" Bore
24	B516-1	Bolt, 5/16" X 1"
25	3175	Bearing, 1-1/4" Spherical
26	3181	Flangette, Bearing - 62MST
27	3177	Bearing Support Plate
28	W38	Washer, 3/8"
29	N38-CL	Nut, 3/8" Clincher
30	N516-CL	Nut, 5/16" Clincher
31	W516	Washer, 5/16"
32	B516-1.5	Bolt, 5/16" X 1-1/2"
33	1007A	Flangette, Bearing - 47MST
34	103626	Support, Bearing



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

SPEED CHANGER ASSEMBLY 3 OF 3

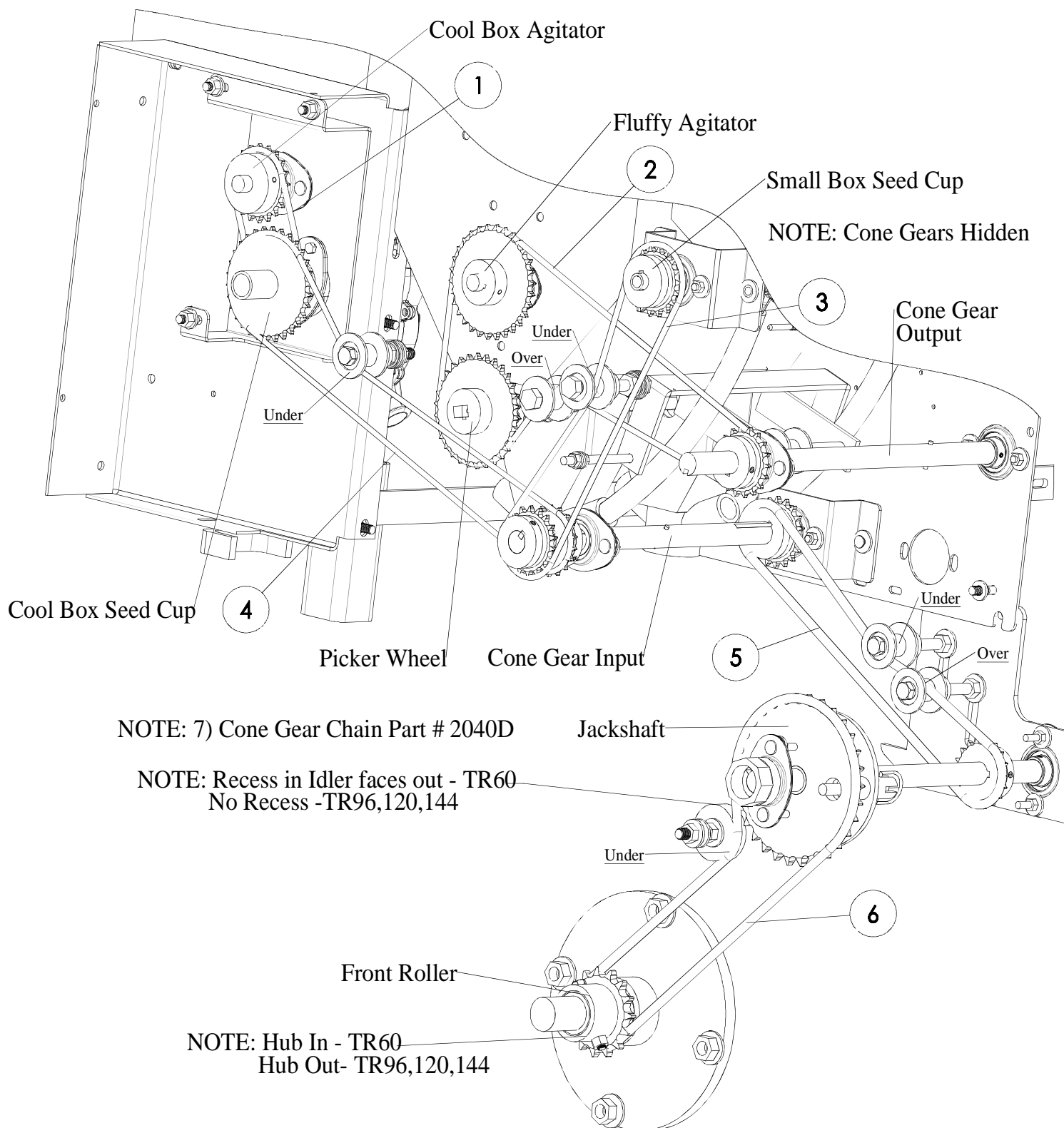
ITEM NO.	PART NUMBER	DESCRIPTION
35	1007	Bearing, 3/4" Spherical
36	CB516-.75	Carriage Bolt, 5/16" X 3/4"
37	3007A	Flangette, Bearing - 52 MST
38	B38-1	Bolt, 3/8" X 1"
39	3176	Bearing Support, Cool Season
40	3007	Bearing, 1" Spherical
41	2007	Bearing, 1/2" Square Bore
42	B38-0.75	Bolt, 3/8" X 3/4"
43	N38-FL	Nut, 3/8" Flange
44	B38-2	Bolt, 3/8" X 2"
45	1046C4-A	Decal, Safety
46	103624	End Plate, RH
47	1036241	End Plate, RH CS
48	10462	Spring, Derailler
49	B38-6	Bolt, 3/8" X 6"
50	2040D	Chain, Speed Changer (39 Links), Offset and Full Links (#2040L, #2040L1)
51	B38-4.5	Bolt, 3/8" X 4-1/2"
52	15-7117	Bracket, Derailler
53	N38-CL	Nut, 3/8" Clincher
54	13-201	Sprocket Cone, 5 Step
55	1041A3	Bushing Sleeve, Derailler Idler - 5" Length
56	15-7102	Shaft, Input
57	RP316-1.25	Roll Pin, 3/16" X 1-1/4"
58	15-711	Shaft, Output
59	(Not Available for Purchase)	Clip, Cover Pin
60	(Not Available for Purchase)	Spring, Cover Pin
61	(Not Available for Purchase)	Cover Pin
62	10596	Cover, Speed Changer
63	1046C9	Decal, Speed Changer Instructions
64	1036255A	Support, Bearing
65	1075	Serial Plate
66	1046C12	Decal, Patent Information
67	103623	End Plate, LH
68	1036231	End Plate, LH CS
69	CB38-1	Carriage Bolt, 3/8" X 1"



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TRILLION CHAIN ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TRILLION CHAIN ASSEMBLY 2 OF 2

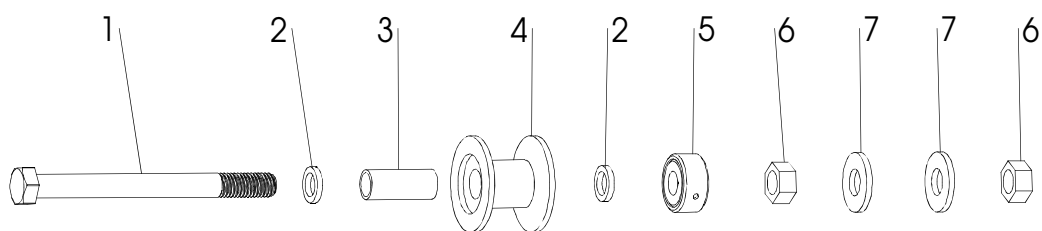
ITEM NO.	PART NUMBER	DESCRIPTION
1	2040F	Chain, Cool Season Box Agitator (17 Links), Offset and Full Links (#2040L, #2040L1)
2	2040C	Chain, Picker Wheel (51 Links), Full Link (#2040L1)
3	2040E	Chain, Small Seed Box (39 Links), Offset and Full Links (#2040L , #2040L1)
4	2040GX	Chain, Cool Season Box Drive (51 Links), Full Link or Offset and Half Links (#2040L1 or #2040L, #2040L2)
5	2040N	Chain, Trillion Jack Shaft/Speed Changer (45 Links), Offset and Full Links (#2040L , #2040L1)
6	2060A	Chain, Trillion Roller to Jack Shaft (#60-31 Links), Offset and Full Links (#2040L , #2040L1)
7	2040D	Chain, Speed Changer (39 Links), Offset and Full Links (#2040L, #2040L1)



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

IDLER ASSEMBLY 1 OF 2



NOTE: Omit #5 and reverse #4 direction on fluffy seed Idler



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

IDLER ASSEMBLY 2 OF 2

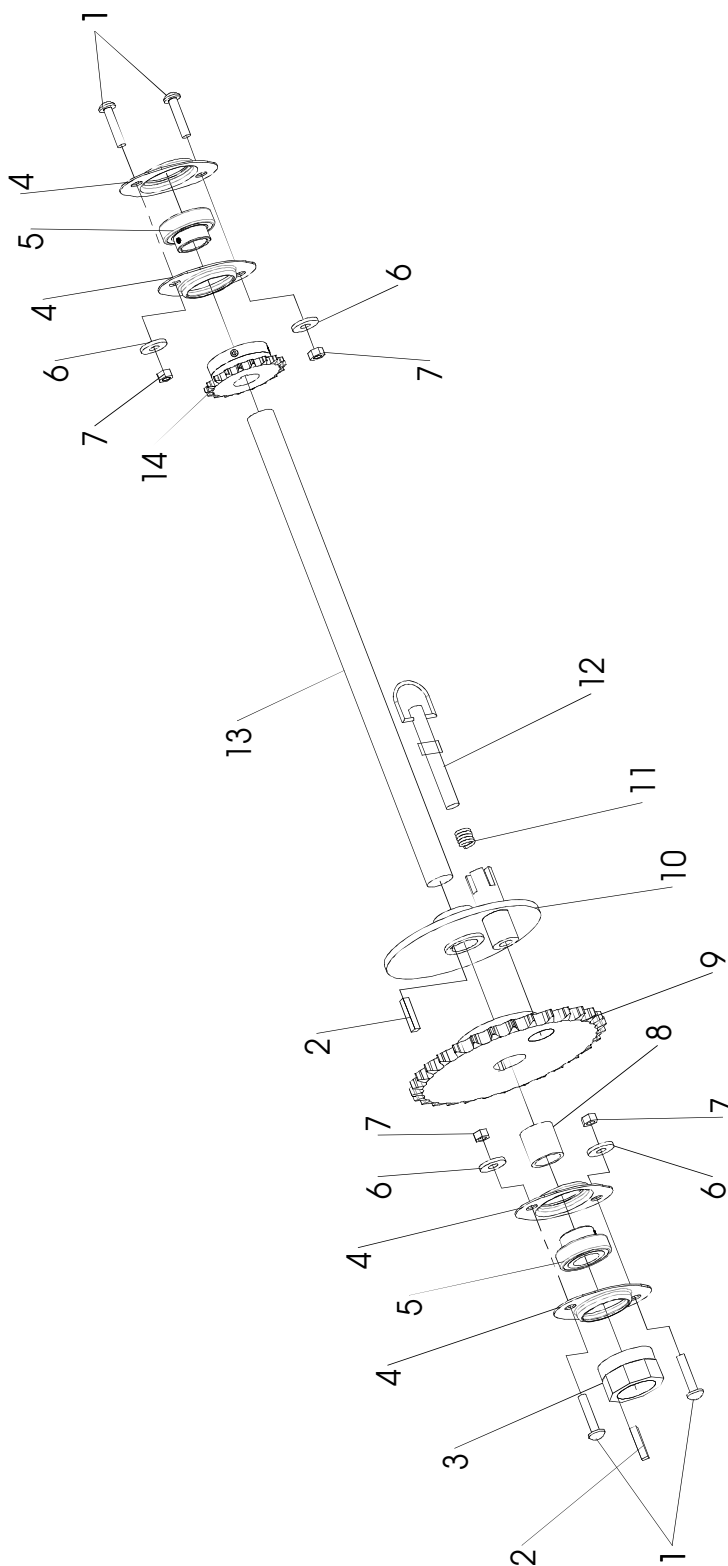
ITEM NO.	PART NUMBER	DESCRIPTION
1	B12-5.5	Bolt, 1/2" X 5-1/2"
2	W12	Washer, 1/2"
3	1041A2	Bushing, Idler Spool
4	1041A	Spool, Plastic
5	1040C	Collar 1/2"ID 3/4"OD (w/ set screw)
6	N12-CL	Nut, 1/2" Clincher
7	1040B	Machine Bushing



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

JACK SHAFT ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

JACK SHAFT ASSEMBLY 2 OF 2

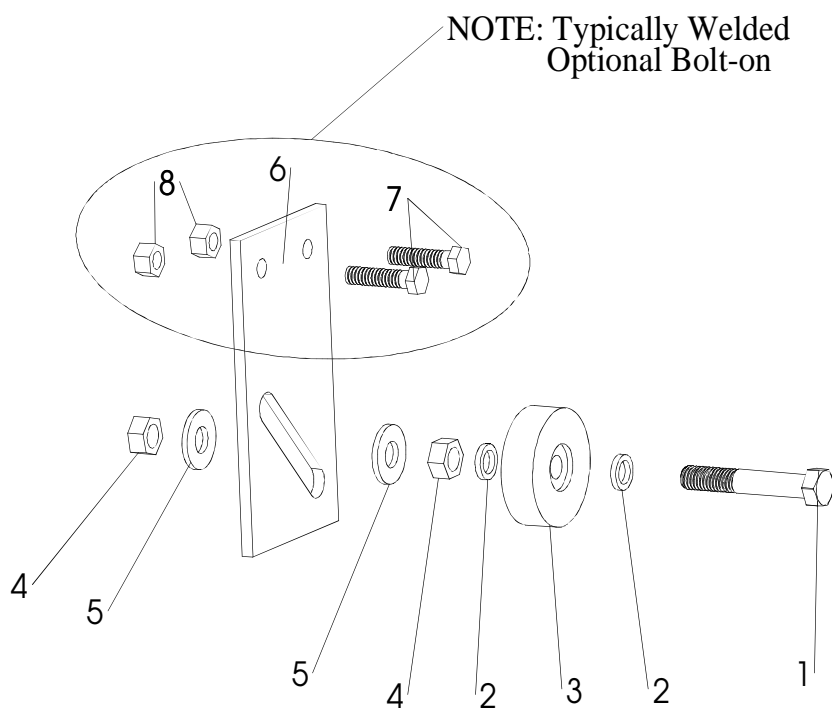
ITEM NO.	PART NUMBER	DESCRIPTION
1	CB516-0.75	Carriage Bolt, 5/16" X 3/4"
2	1110	Key, Square 1/4" X 1/4" X 1-1/4"
3	6092	Nut, Calibration (w/ set screw)
4	3007A	Flangette, Bearing - 52MST
5	3007	Bearing, 1" Spherical
6	W516	Washer, 5/16"
7	N516-CL	Nut, 5/16" Clincher
8	1121	Bushing, 1" Bore
9	6072	Sprocket, Lockout 1" with Brass Bushing
10	60068	Lockout, Trillion (w/ key)
11	Included in Item # 10	Spring, Lockout
12	Included in Item # 10	Pull Pin with "D" Ring (Cut "D" Ring to Remove)
13	103164	Jack Shaft - Trillion
14	1054	Sprocket, 40B18 1" Bore (w/ set screw)



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

WHITE POLY IDLER ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

WHITE POLY IDLER ASSEMBLY 2 OF 2

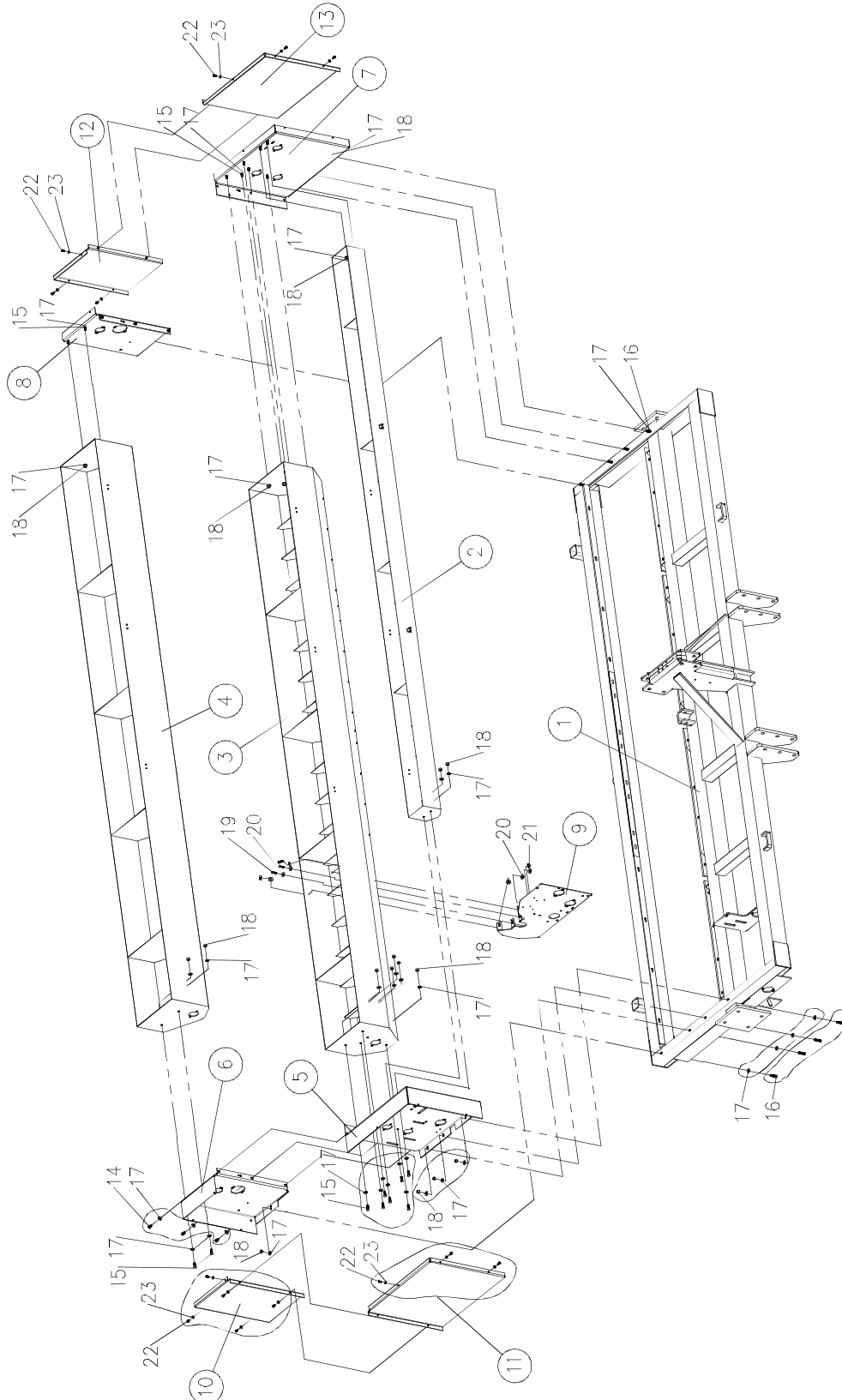
ITEM NO.	PART NUMBER	DESCRIPTION
1	B12-2.5	Bolt, 1/2" X 2-1/2"
2	1040B	Machine Bushing
3	6086 6090	Spool, Idler - White Poly (TR96,120,144) Spool, Idler - White Poly Recessed Style (TR60)
4	N12-CL	Nut, 1/2" Clincher
5	W12GRD8	Washer, 1/2"
6	4224005_01	Drive Support Plate, Outside
7	B38-1.5	Bolt, 3/8" X 1-1/2"
8	N38-TL	Nut, 3/8" Top Locking



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

TRILLION END PLATES AND BOX ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TRILLION END PLATES AND BOX ASSEMBLY 2 OF 2

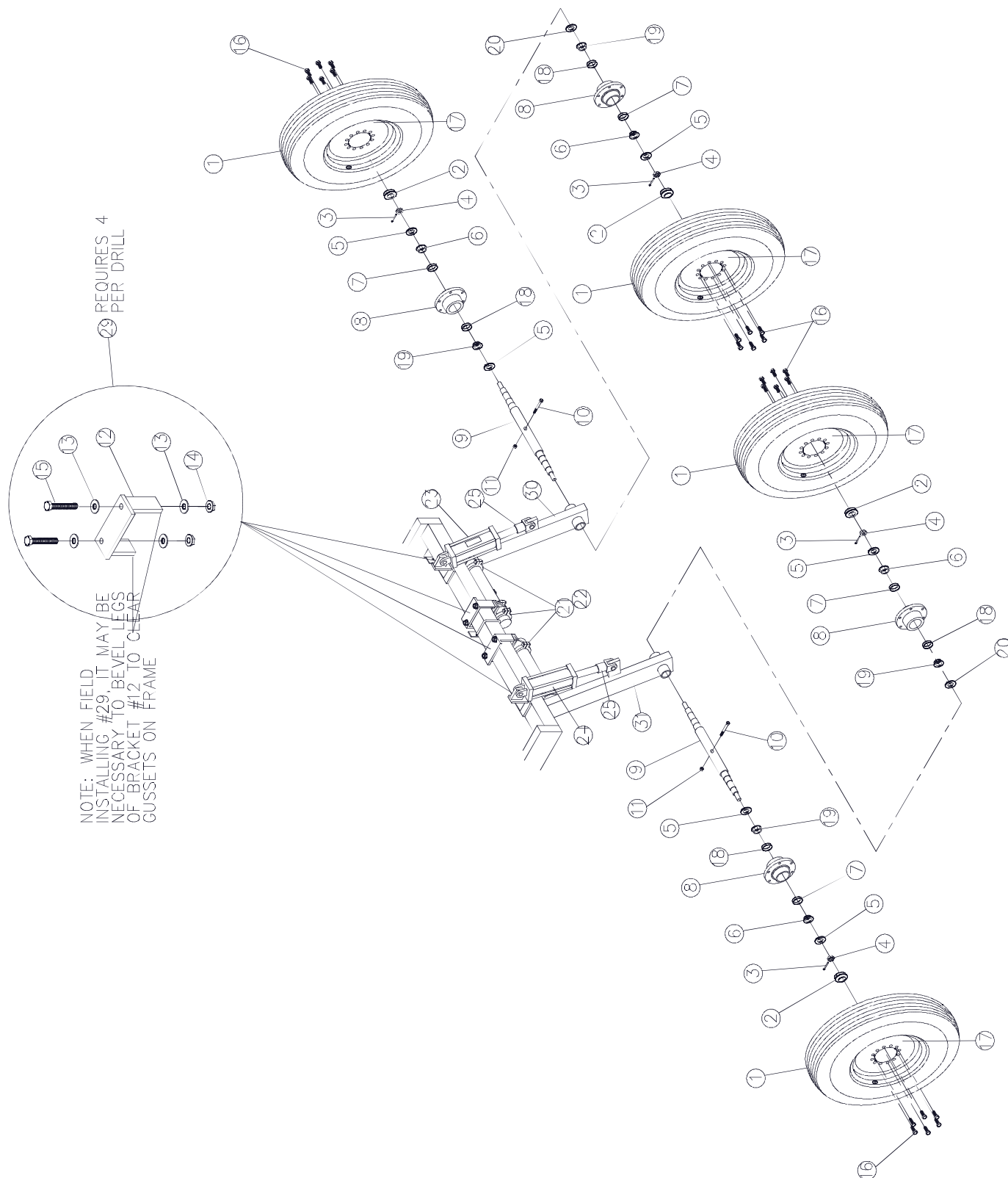
ITEM NO.	PART NUMBER		DESCRIPTION
1	4224001		Frame, TR60
	4224002		Frame, TR96
	4224003		Frame, TR120
	4224004		Frame, TR144
2	1038	(12 Row, 8" Sp.)	Seed Box, Small
	1038E	(8 Row, 8" Sp.)	
	1038F	(16 Row, 8" Sp.)	
	1038I	(18 Row, 8" Sp.)	
3	1001	(12 Row - 8" Sp.)	Seed Box, Large (Fluffy)
	1001E	(8 Row - 8" Sp.)	
	1001F	(16 Row - 8" Sp.)	
	1001I	(18 Row - 8" Sp.)	
4	3001	(12 Row - 8" Sp.)	Seed Box, Cool Season/Grain
	3001E	(8 Row - 8" Sp.)	
	3001F	(16 Row - 8" Sp.)	
	3001I	(18 Row - 8" Sp.)	
5	103624		End Plate, RH
6	1036241		End Plate, RH CS
7	103623		End Plate, LH
8	1036231		End Plate, LH CS
9	1036255A		Bearing Support
10	1036245		Cover, End RH
11	1036243		Cover, Front RH
12	1036236		Cover, End LH
13	1036233		Cover, Front LH
14	B38-0.75		Bolt, 3/8" X 3/4"
15	B38-1		Bolt, 3/8" X 1"
16	B38-1.5		Bolt, 3/8" X 1-1/2"
17	W38		Washer, 3/8"
18	N38-CL		Nut, 3/8" Clincher
19	B516-1		Bolt, 5/16" X 1"
20	W516		Washer, 5/16"
21	N516		Nut, 5/16"
22	B14-0.5		Bolt, 1/4" X 1/2"
23	W14		Washer, 1/4"



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER - NOT BY ITEM NUMBER

REAR TRANSPORT WHEELS (DUAL DRIVE) 1 OF 3





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

REAR TRANSPORT WHEELS (DUAL DRIVE) 2 OF 3		
ITEM NO.	PART NUMBER	DESCRIPTION
0	09902 & 09902	Rear Transport Wheels with Dual Tires (Mdl 812, 816, 818, 822)
1	1072BA1 (Standard) 1072BA2 (Optional) 107204 (Optional) 107214 (Optional)	Tire, 7.60" x 15SL 8 ply Rib Implement. Tubeless Style Tire, ST225/75R15 Load Rating D Highway Truck Tire Tire, ST225/75R15 Load Rating E Heavy Duty Truck Tire Tire, 9.5L-15SL, 8 Ply Rib Implement Flotation Tire
2	1082B	Cap, Dust For 6-Bolt Hub
3	CP316-1.75 (1110B)	Cotter Pin, 3/16"x 1-3/4"
4	CN78-NF (1073B)	Castle Nut, 7/8" National Fine Thread
5	W78 (1080B)	Washer, 7/8"
6	1076C1 (After Early '93)	Outer Bearing, 6-Bolt Hub
7	1076CC (After Early '93)	Cup, 6-Bolt Hub - Outer
8	1085C (After '93)	Hub, 6-Bolt
9	2036C0	Axle, 6-Bolt Dual Wheels (Pinned), 1992- (Cold Rolled Steel)
10	B38-3.25	Bolt, 3/8"x 3-1/4"
11	N38-CL	Nut, 3/8" Clincher
12	10365	Bracket, Support on Rear Drive & Rear Transport Legs
13	W58GRD8	Washer, 5/8" Hardened
14	N58-TL	Nut, 5/8" Top Lock
15	B58-7GRD8	Bolt, 5/8"x 7" Grade 8
16	WB12-20-1.25	Wheel Bolts, 1/2"-20 x 1-1/4" With 45° Bevel from Centerline These are wheel bolts for agriculture equipment not automotive wheel bolts.
17	1072B1 (After Early '93)	Rim, 15" Wheel, Offset, 6-Bolt (Valve Stem Reversed)
18	1077CC (After Early '93)	Cup, 6-Bolt Hub, Inner
19	1077C (After Early '93)	Inner Bearing, 6-Bolt Hub
20	1138C (After Early '93)	Seal, 6-Bolt Hub
21	1037BHX (Mdl.88, 812 RD,RT) 1037BHX2 (Mdl.88, 812 RD,RT) 1037BHX3 (Mdl.816, 818, 822 RD,RT) 1037BHX4 (Mdl.816, 818, 822 RD,RT)	Bearing Mount, Casting Bearing Mount, Casting - Zirk Repositioned Bearing Mount, Casting - 5/8" Bolt Holes In Casting Bearing Mount, Casting - 5/8" Bolt Holes In Casting & Zirk Repositioned
22	1037FLB	FLXII Bearing, 3-1/4"x 3"x 2" (NOTE: Bearing is installed inside of each Bearing Mount Casting)
23	4226XD - Right Side (Viewed From Rear of Drill) (PMS-AF-1062)	Hydraulic Cylinder, 3-1/2"x 8" Rephasing Tie Rod
24	4226XND - Left Side (Viewed From Rear of Drill) (PMS-AF-1068)	Hydraulic Cylinder, 3-1/4"x 8" Rephasing Tie Rod



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

REAR TRANSPORT WHEELS (DUAL WHEELS) 3 OF 3

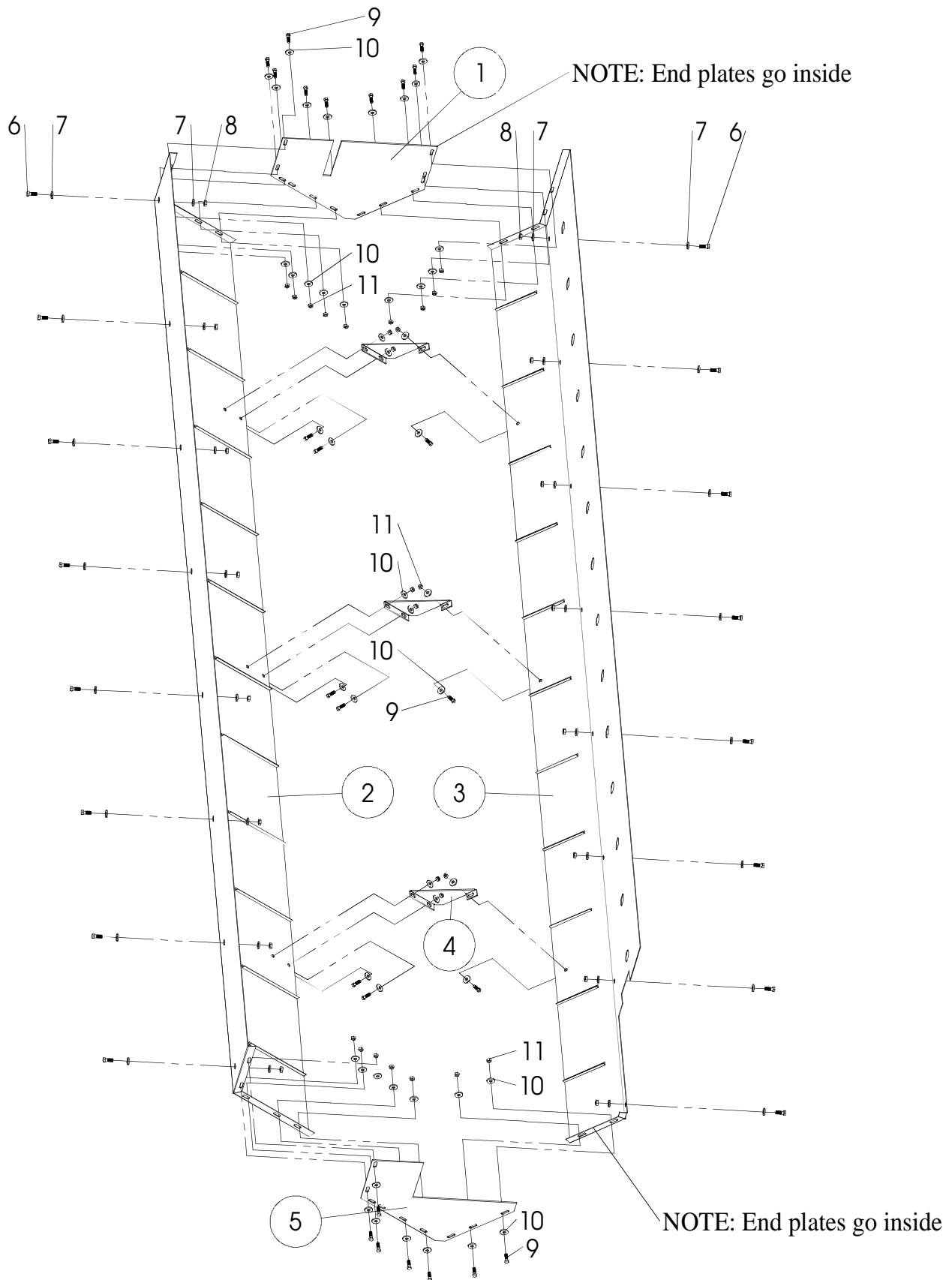
ITEM NO.	PART NUMBER	DESCRIPTION
25	1036FF2	Spacer, Cylinder Arm - 1-1/2"X 1-1/4" ID
26	4226XG3	Hydraulic Transport Guard, 8-1/4"
27	4226XG0	Retainer, Hydraulic Transport
28	1046C13	Decal, Transport Lock
29	10365A	Bracket, Support - Assembly w/Hardware (Requires 4 per drill)
30	60120RH	Transport Leg - Right Side for Dual Wheels
31	60120LH	Transport Leg - Left Side for Dual Wheels



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR96 BAFFLE ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR96 BAFFLE ASSEMBLY 2 OF 2

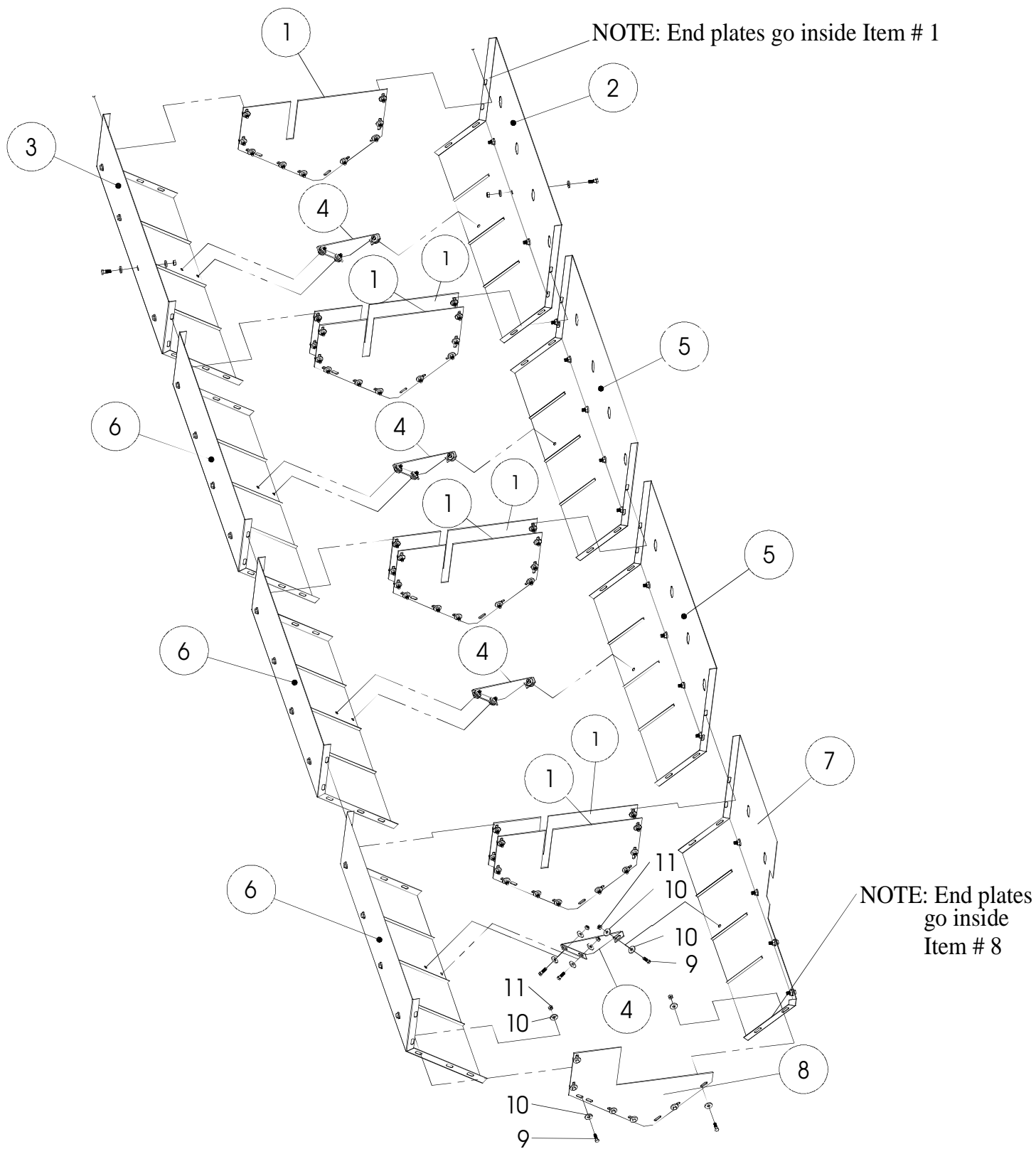
ITEM NO.	PART NUMBER	DESCRIPTION
1	60019	Baffle End, Non Drive Side
2	60021B1	Baffle, Rear 8ft
3	60020B1	Baffle, Front 8Ft
4	300177	Angle, Baffle
5	60022	Baffle End, Drive Side
6	B38-1	Bolt, 3/8" X 1"
7	W38	Washer, 3/8"
8	N38	Nut, 3/8"
9	B516-1	Bolt, 5/16" X 1"
10	W516	Washer, 5/16"
11	N516	Nut, 5/16"



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR120 BAFFLE ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR120 BAFFLE ASSEMBLY 2 OF 2

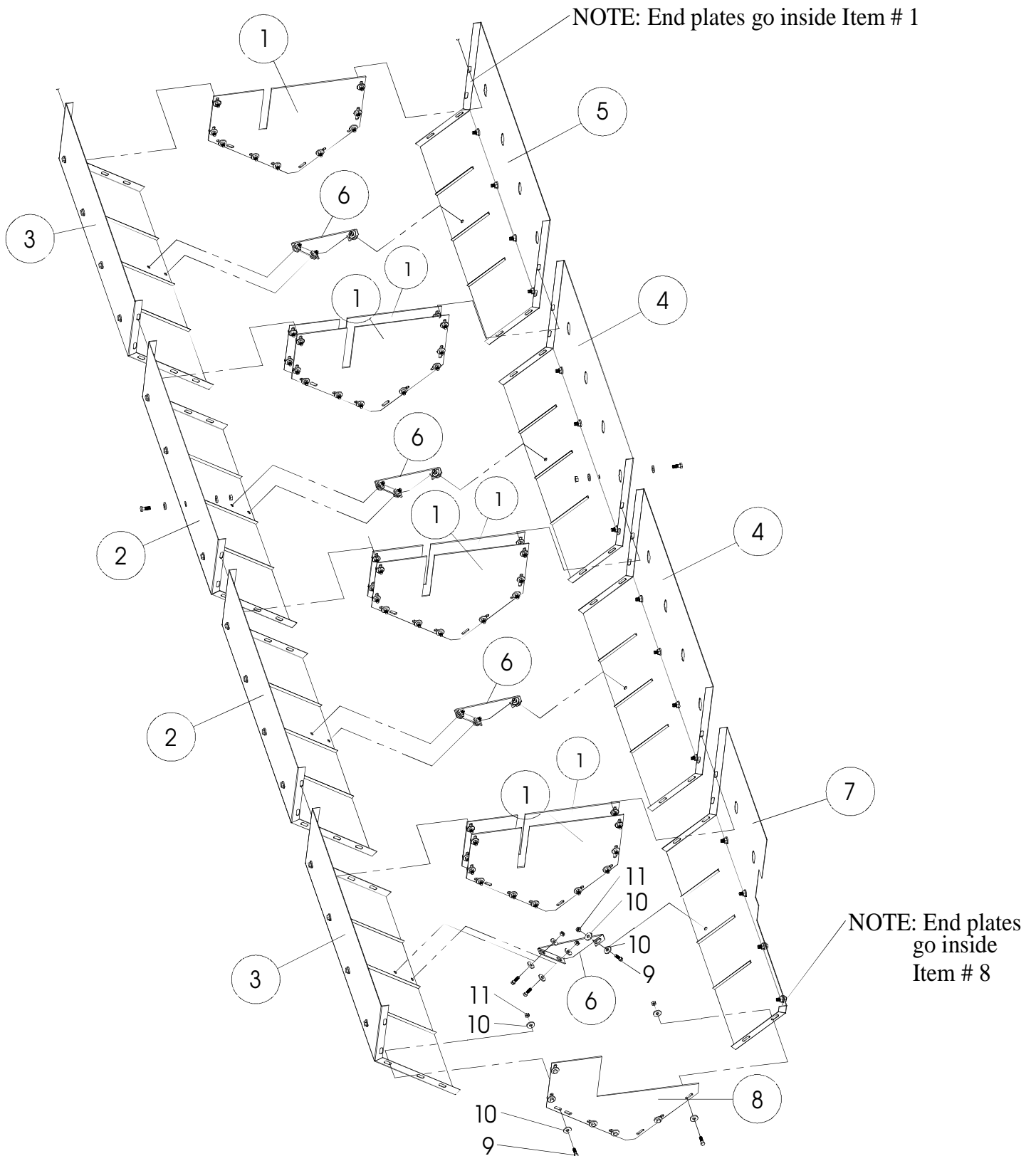
ITEM NO.	PART NUMBER	DESCRIPTION
1	60019	Baffle End, Non Drive Side
2	60025A1	Baffle, Front 29-3/4"
3	60026A1	Baffle, Rear 29-3/4"
4	300177	Angle, Baffle
5	60025B	Baffle, Front 31-1/2"
6	60026B	Baffle, Rear 31-1/2"
7	60026C	Baffle, Front, Notch 31-1/2"
8	60022	Baffle End, Drive Side
9	B516-1	Bolt, 5/16" X 1"
10	W516	Washer, 5/16"
11	N516	Nut, 5/16"



PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR144 BAFFLE ASSEMBLY 1 OF 2





PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

TR144 BAFFLE ASSEMBLY 2 OF 2

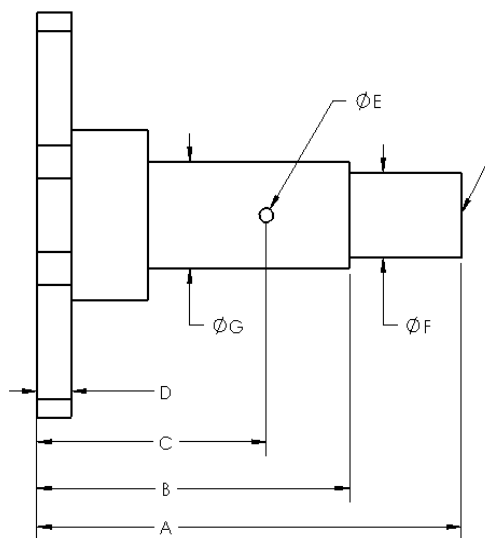
ITEM NO.	PART NUMBER	DESCRIPTION
1	60019	Baffle, Non Drive Side
2	60026A	Baffle, Front 31-1/2"
3	60026B	Baffle, Rear 31-1/2"
4	60025A	Baffle, Front 37-3/4"
5	60026A	Baffle, Back 37-3/4"
6	300177	Angle, Baffle
7	60026C	Baffle, Front 31-1/2" (Notch)
8	60022	Baffle, Drive Side
9	B516-1	Bolt, 5/16" X 1"
10	W516	Washer, 5/16"
11	N516	Nut, 5/16"



PARTS CATALOG

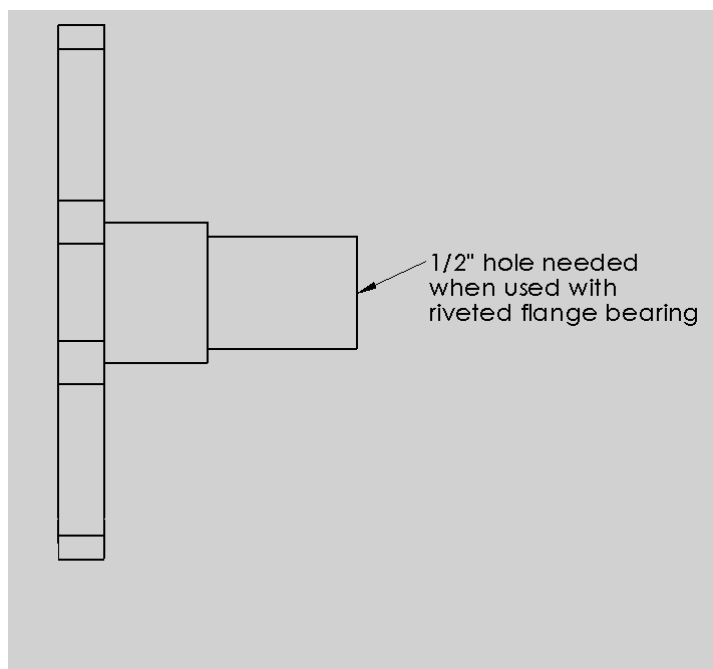
ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

3 BOLT



DRIVE #6078

TR60 FRONT, DRIVE
TR96 FRONT, DRIVE
TR120 FRONT, DRIVE
TR144 FRONT, DRIVE
9"/12" ROLLERS



ROLLERS

NON DRIVE # 6080 & REAR #6082

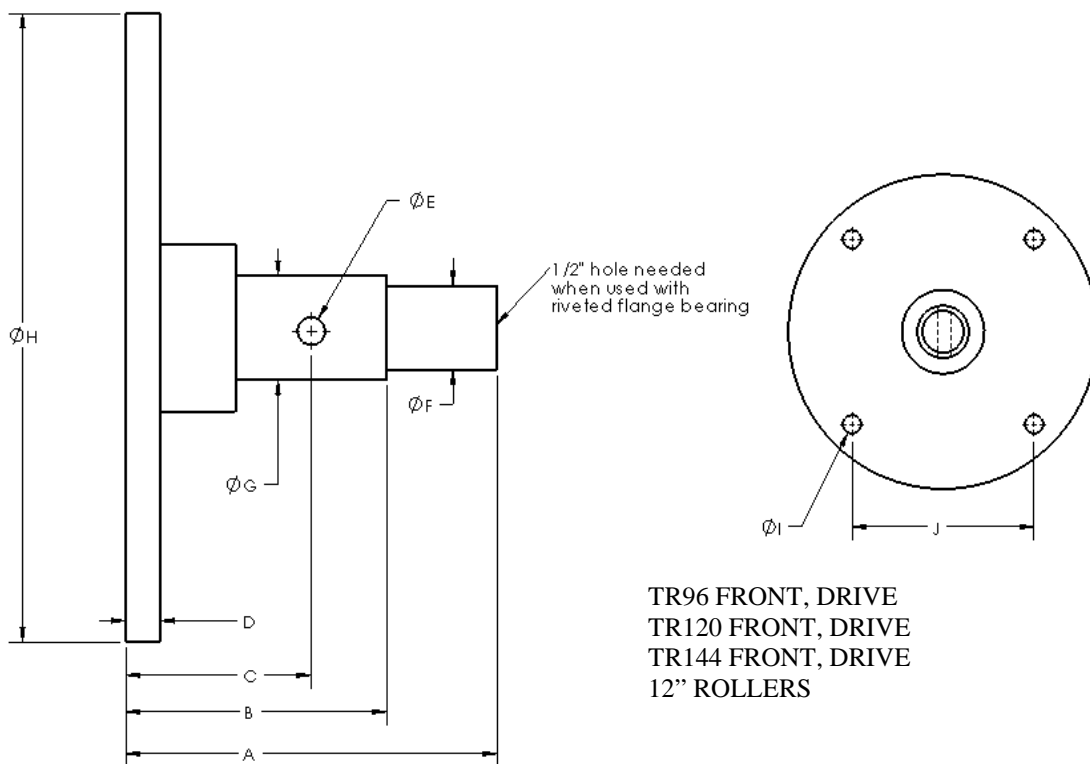
TR60 FRONT, NON DRIVE
TR96 FRONT/REAR
TR120 FRONT/REAR
TR144 FRONT/REAR
9"/12"



PARTS CATALOG

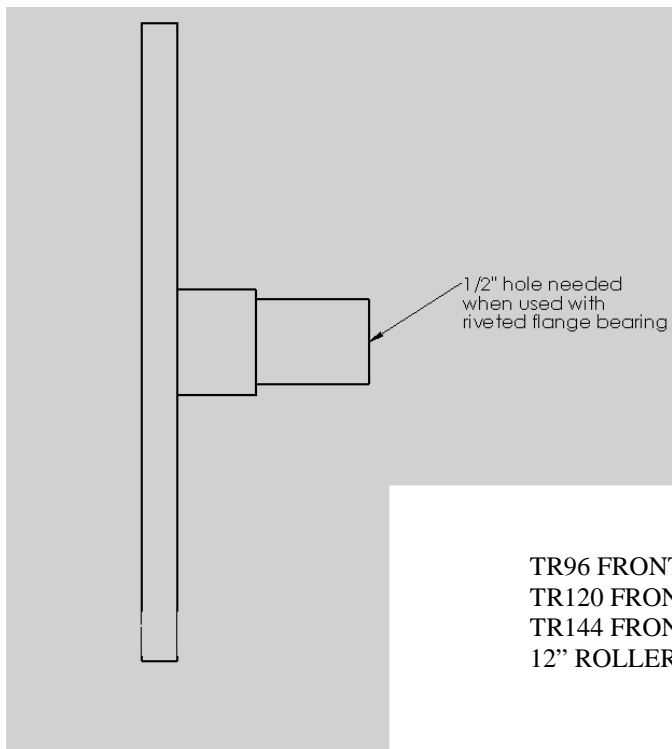
ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

4 BOLT



TR96 FRONT, DRIVE
TR120 FRONT, DRIVE
TR144 FRONT, DRIVE
12\"/>

DRIVE #6079



TR96 FRONT, NON DRIVE
TR120 FRONT, NON DRIVE
TR144 FRONT, NON DRIVE
12\"/>

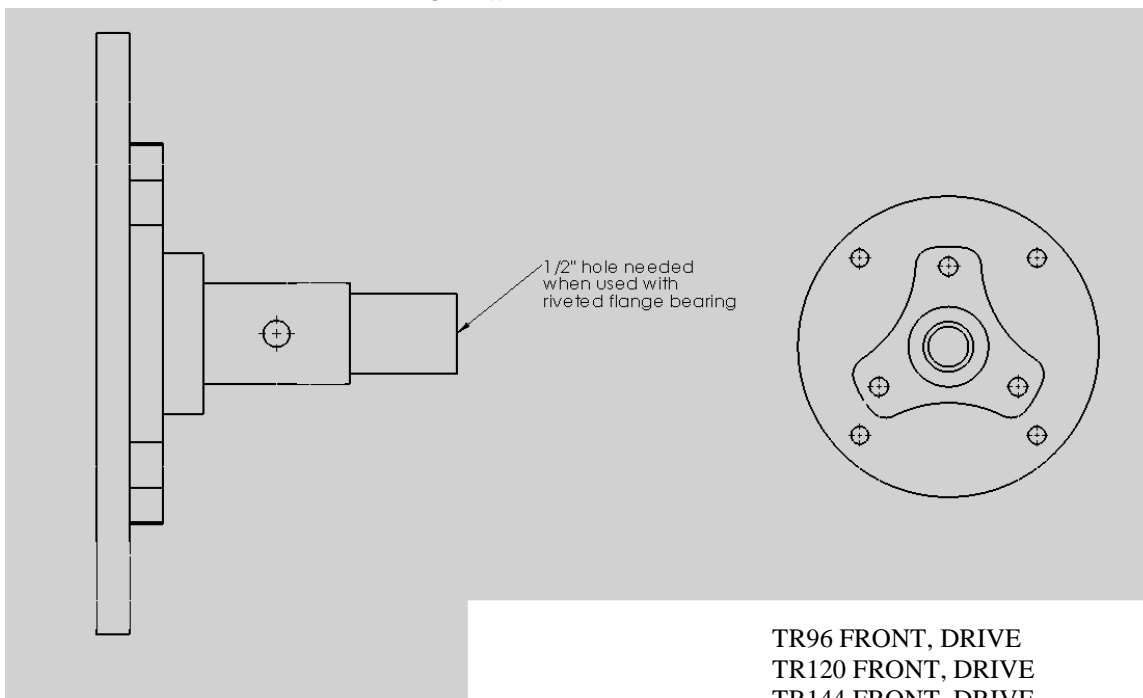


PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

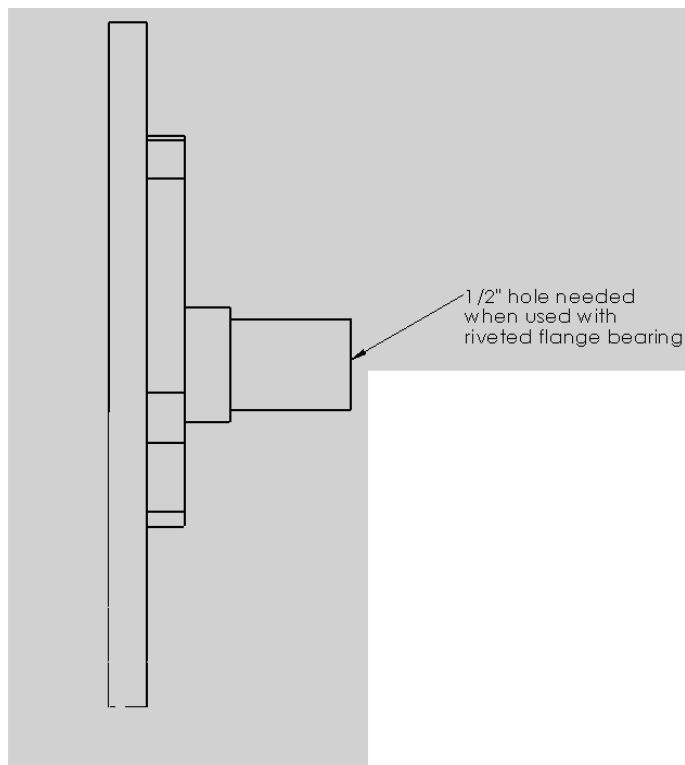
NON DRIVE #6081

4 BOLT WITH ADAPTER PLATE



TR96 FRONT, DRIVE
TR120 FRONT, DRIVE
TR144 FRONT, DRIVE
12" ROLLERS

DRIVE #60791



TR96 FRONT, NON DRIVE
TR120 FRONT, NON DRIVE
TR144 FRONT, NON DRIVE
12" ROLLERS

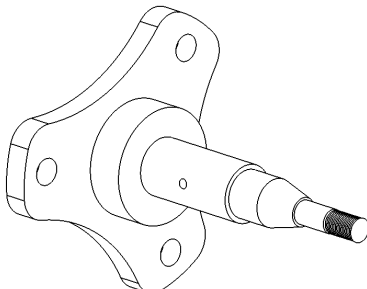
NON DRIVE #60811



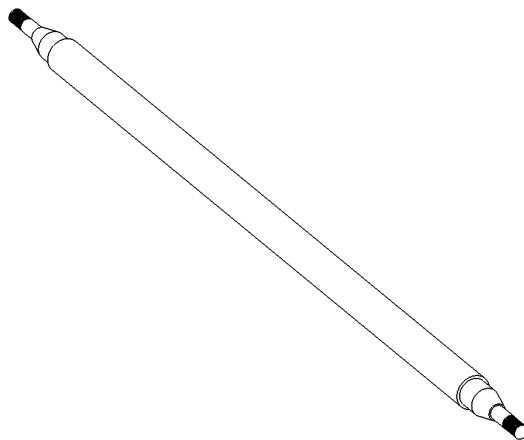
PARTS CATALOG

ALWAYS ORDER BY PART NUMBER – NOT BY ITEM NUMBER

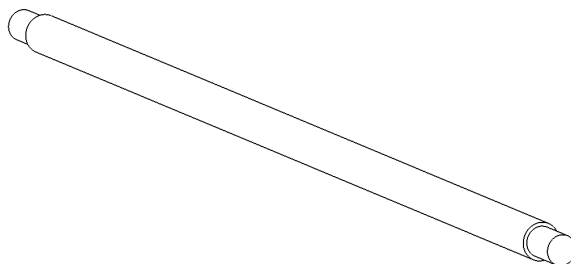
SPECIAL CASES
TR60 W/ **TAPER BEARINGS**
Front axle #8C-358



Rear axle #8C-344



TR60 W/ **ROLLER BEARINGS**
Rear axle #5C-297



TR60 W/ **RIVETED FLANGED BEARINGS**
Rear axle w/ 1/2" holes #5C-297

