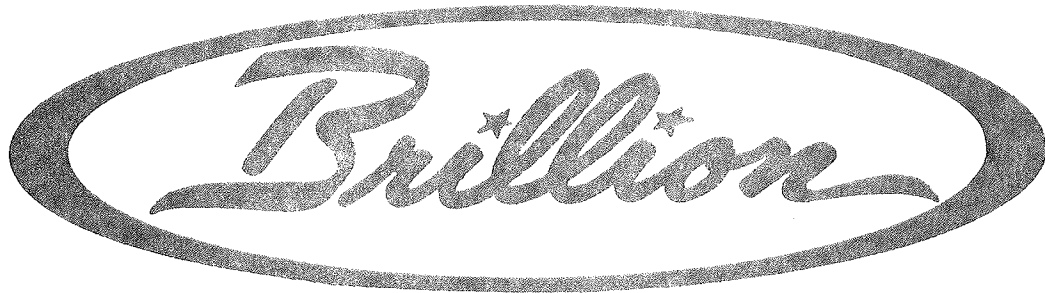


REPAIR PARTS CATALOG and OPERATOR'S MANUAL



MODEL BFH BUNK FEEDERS

MODEL BFH-01
MODEL BFH-02

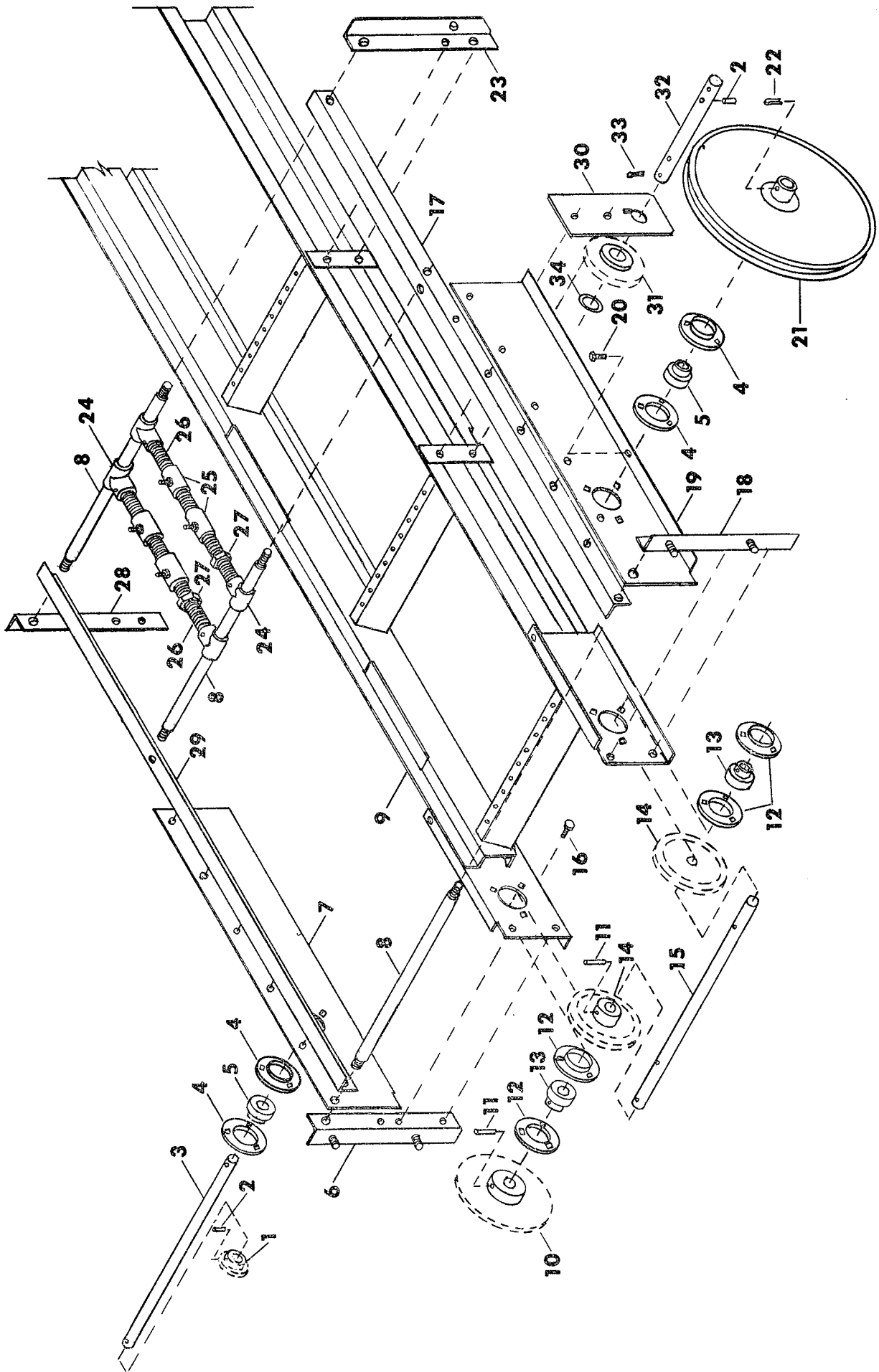
IMPORTANT!

Repairs cannot be purchased retail direct from factory. Order through your Brillion dealer or any established implement dealer.

ALL PARTS NOT LISTED ARE STANDARD HARDWARE



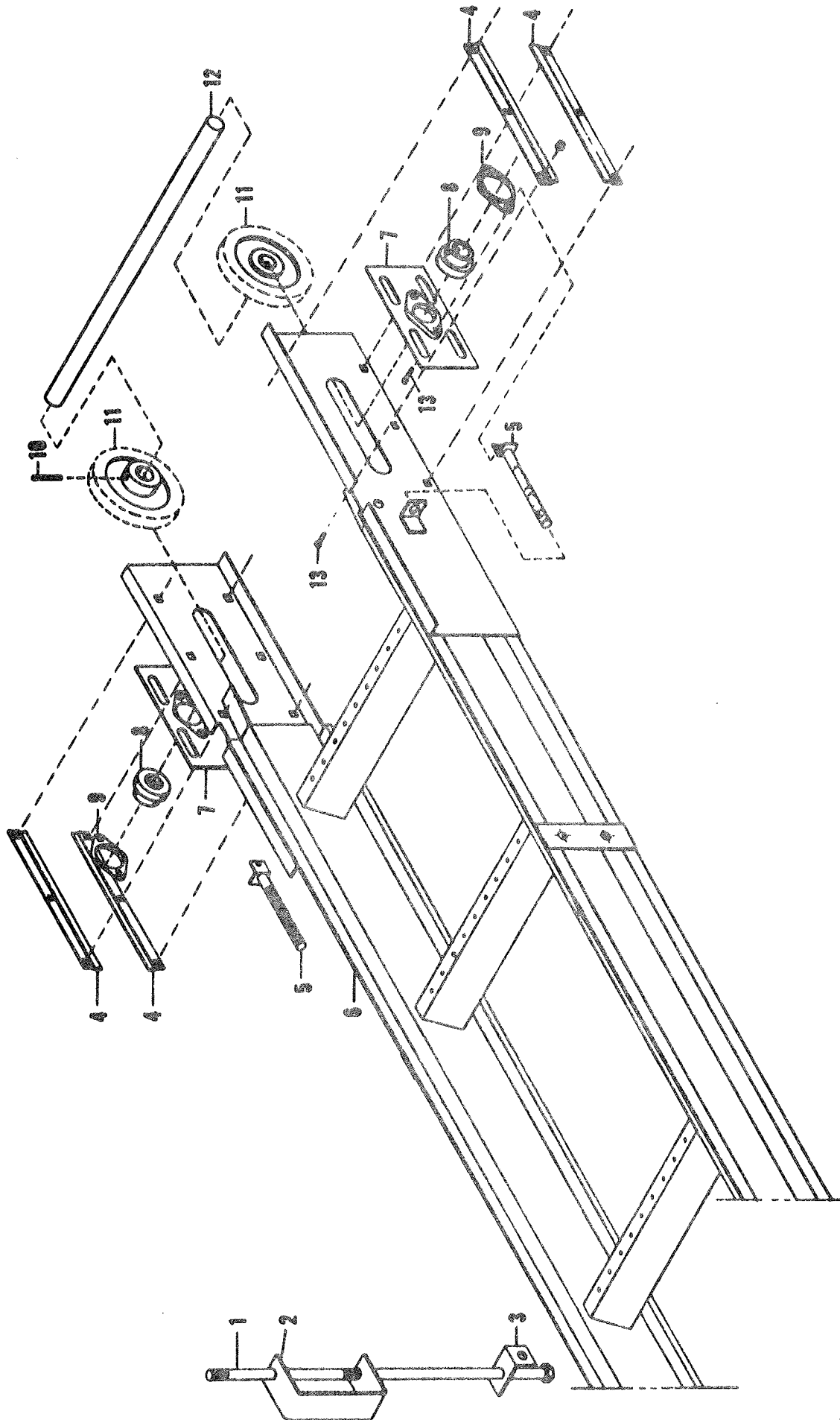
BRILLION IRON WORKS
BRILLION, WISCONSIN 54110



DRIVE SECTION ASSEMBLY

Index No.	Part No.	Description	No. Req'd.	Weight
1	1D-585	Sprocket - 14 Teeth	1	.5
2	1D-604	Roll Pin, 3/16 x 1-1/2" Long	2	
3	3D-157	Drive Shaft (For 3/16" Shear Pin)	1	3.0
4	1D-599	Flangette	2	.3
5	1D-598	3/4" Bearing & Collar	2	.45
6	2D-851	L.H. Rear Support Post	1	1.5
7	1D-656	L.H. Side Panel	1	6.0
8	1D-666	Tie Rod	3	2.4
9	3D-654	Drive End Track Section - Model 01 Obsolete Order (1) 9D-26, (1) 1D-604, (1) 8D-995, (1) 9D-33, (2) 8D-949, (1) 8D-993, (2) 8C-381, (3) 1C-788 cotter pins, (4) 1C-237 capscrews, (4) 1C-362 lockwashers, (4) 1C-385 nuts.		
	9D-26	Drive End Track Section - Model 02	1	63.5
10	1D-584	Sprocket - 48 Teeth	1	4.2
11	7C-305	Roll Pin, 1/4 x 2-1/4" Long	3	
12	9C-601	Flangette	2	.3
13	9C-627	1" Bearing & Collar	2	.35
14	1D-590	Sprocket - 10 Teeth	2	3.0
15	1D-660	Drive Shaft	1	4.8
16	5C-761	Carriage Bolt, 5/16-18 NC x 3/4" Long Rd. Hd.	12	
17	1D-686	R.H. Frame Angle	1	5.8
18	2D-850	R.H. Rear Support Post	1	1.5
19	1D-655	R.H. Side Panel	1	6.0
20	1C-259	Capscrew, 1/4-20 NC x 1/2" Long	2	
21	3D-158	Sheave - 16" O.D. (For 3/16" Shear Pin)	1	6.8
22	3D-154	Cotter Pin (Shear Pin) 3/16 x 2-1/2" Long	1	
23	1D-682	R.H. Front Support Post	1	1.5
24	1D-931	Tee Clamp	4	.3
25	6D-819	Motor Mount	4	.4
26	1D-680	Threaded Rod	2	1.9
27	1C-210	Nut, 3/4-10 NC	2	
28	1D-683	L.H. Front Support Post	1	1.5
29	1D-687	L.H. Frame Angle	1	5.8
30	8D-995	Idler Hanger (L.H. Shown, Use on opposite side)	1	.5
*	9D-33	Idler Hanger, R.H.	1	.48
31	8D-949	Idler Sprocket (with bushing)	2	2.45
*	2C-328	Bushing (for idler sprocket)		
32	8D-993	Idler Shaft	1	2.88
33	1C-788	Cotter Pin, 3/16 x 1-1/2 Long	3	
*	2D-212	Motor Sheave (5/8 Bore)	1	1.0
*	1D-597	Motor Sheave (7/8 Bore)	1	1.0
*	1D-602	Roller Chain #40-68 Pitches including connector	1	1.25
*	1D-601	V-Belt HA-105	1	.8
34	8C-381	Machinery Bushing 14 Ga. x 3/4 I.D. x 1-1/4 O.D.	2	

*Parts Not Illustrated

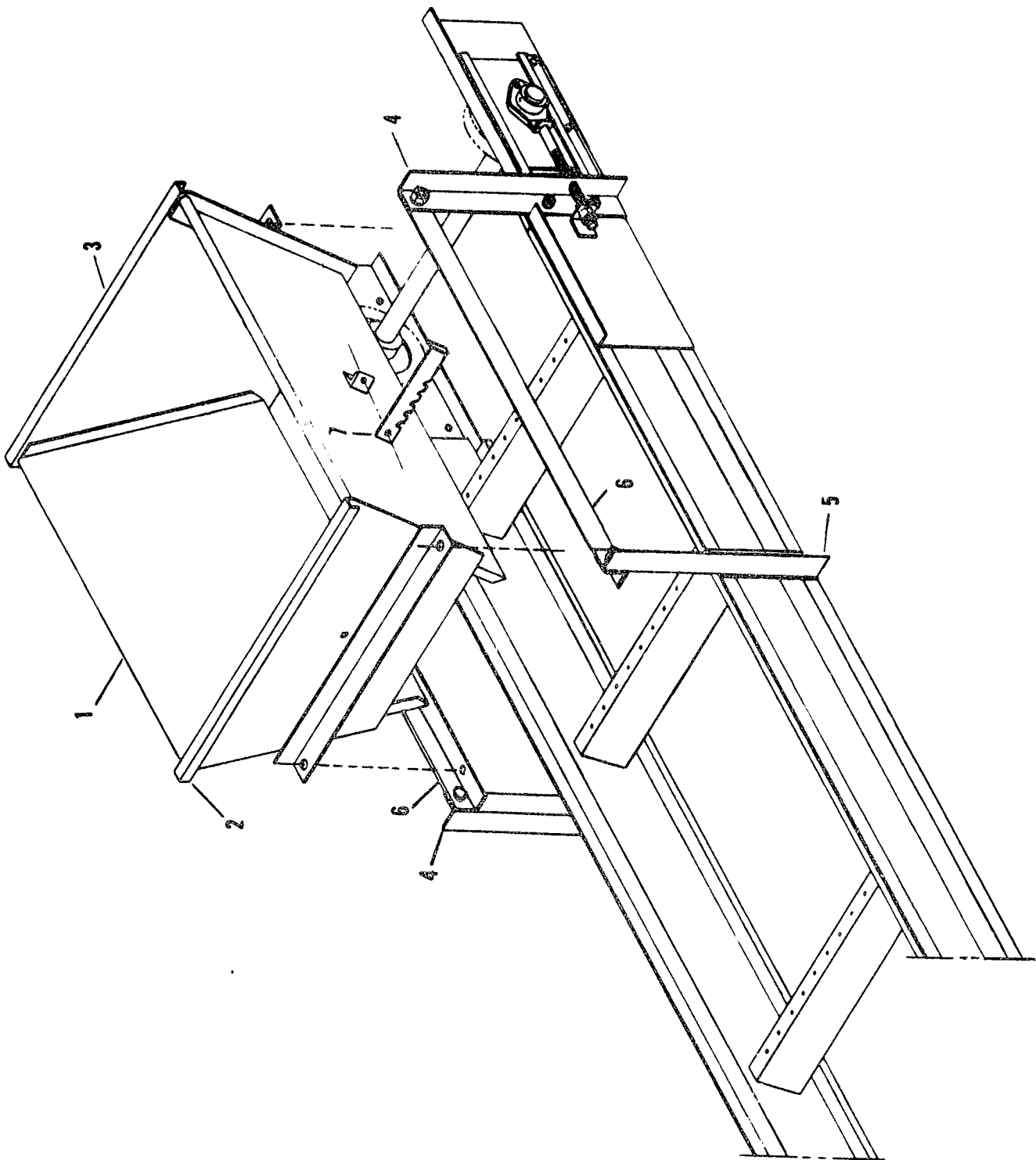


1071

8D-267

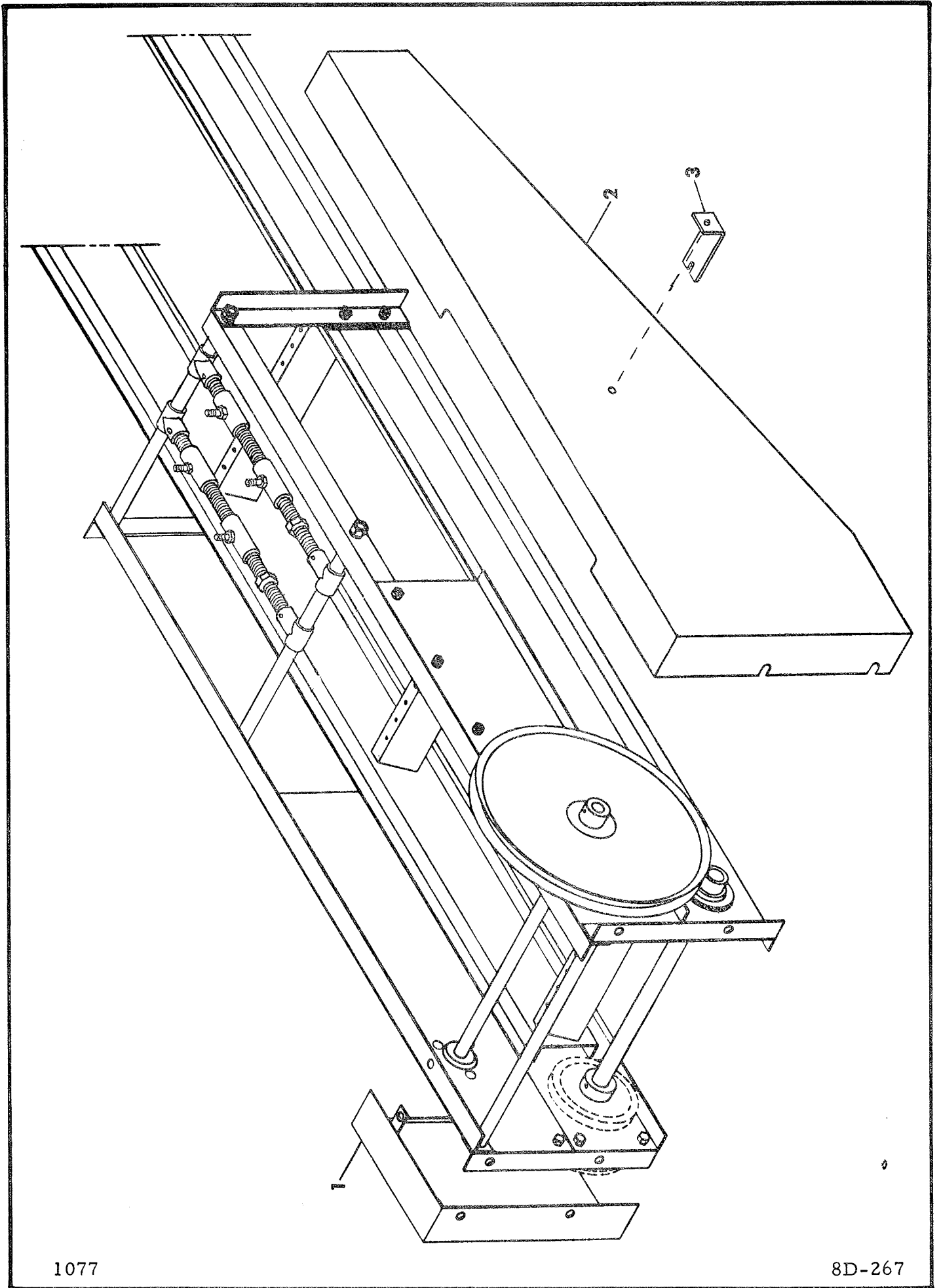
TAKE-UP SECTION ASSEMBLY

Index No.	Part No.	Description	No. Req'd.	Weight
1	1D-678	Bolt	Variable	1.0
2	2D-242	Support Bracket	"	1.1
3	1D-681	Support Clip	"	.8
4	1D-579	Take-Up Guide	4	.3
5	1D-667	Adjusting Rod	2	.5
6	2D-555	Take-Up End Track Section	1	83.0
7	1D-600	Take-Up Base Plate	2	.7
8	9C-627	1" Bearing & Collar	2	.35
9	1D-617	Flangette	2	.2
10	7C-305	Roll Pin (1/4 x 2-1/4" Long)	1	
11	1D-590	Sprocket - 10 Teeth	2	3.0
12	1D-659	Driven Shaft	1	3.0
13	5C-761	Carriage Bolt (5/16 x 3/4" Long)	16	
*	1D-568	Intermediate Track Section (10 Ft.)	Variable	60.0
*	4J-674	Conveyor Assembly 15' Long	1	25.0
*	7D-967	Conveyor Assembly 20' Long	Variable	33.0
*	1D-571	Conveyor Slat	"	.25
*	2D-832	Chain Link - #55 Detachable Steel Chain (8 Links)	"	.1
*	2D-149	Attachment Link - L.H. (#45-G27-L)	"	.25
*	2D-150	Attachment Link - R.H. (#45-G27-R)	"	.25
*	4D-341	Conveyor Slat Assembly (With 2D-149 & 2D-150 Links attached)	"	.75
*	2D-925	Intermediate Track Section (4 Ft.)	"	27.0
*	7D-969	Conveyor Assembly - 8 Ft. Long	"	13.0
*	8D-460	Intermediate Track Section (6 Ft.)	"	32.5
*	8D-463	Conveyor Assembly - 12 Ft. Long	"	19.5



HOPPER ASSEMBLY

Index No.	Part No.	Description	No. Req'd.	Weight
1	5D-31	Hopper Side Panel	2	7.2
2	5D-29	Front Hopper Panel	1	6.9
3	5D-28	Rear Hopper Panel	1	7.4
4	1D-682	R. H. Front Support Post	2	1.5
5	1D-683	L. H. Front Support Post	2	1.5
6	2D-567	Angle	2	2.9
7	5D-32	Adjustment Lever	2	.4



1077

8D-267

DRIVE SECTION GUARDS

Index No.	Part No.	Description	No. Req'd.	Weight
1	1D-744	Chain Guard	1	4.7
2	1D-743	V-Belt Guard	1	13.5
3	8D-737	Belt Guard Bracket	1	.4

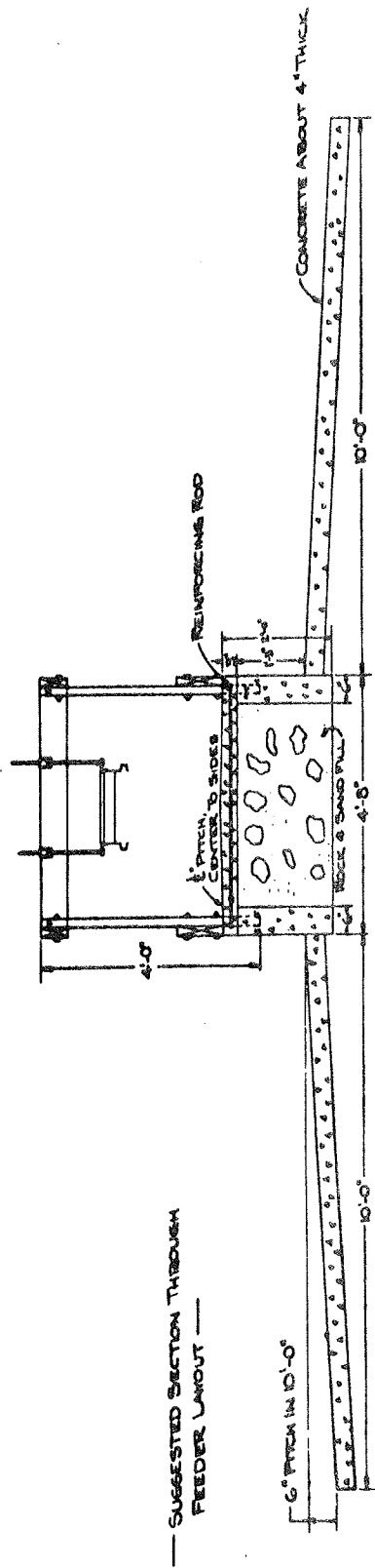


Figure 1

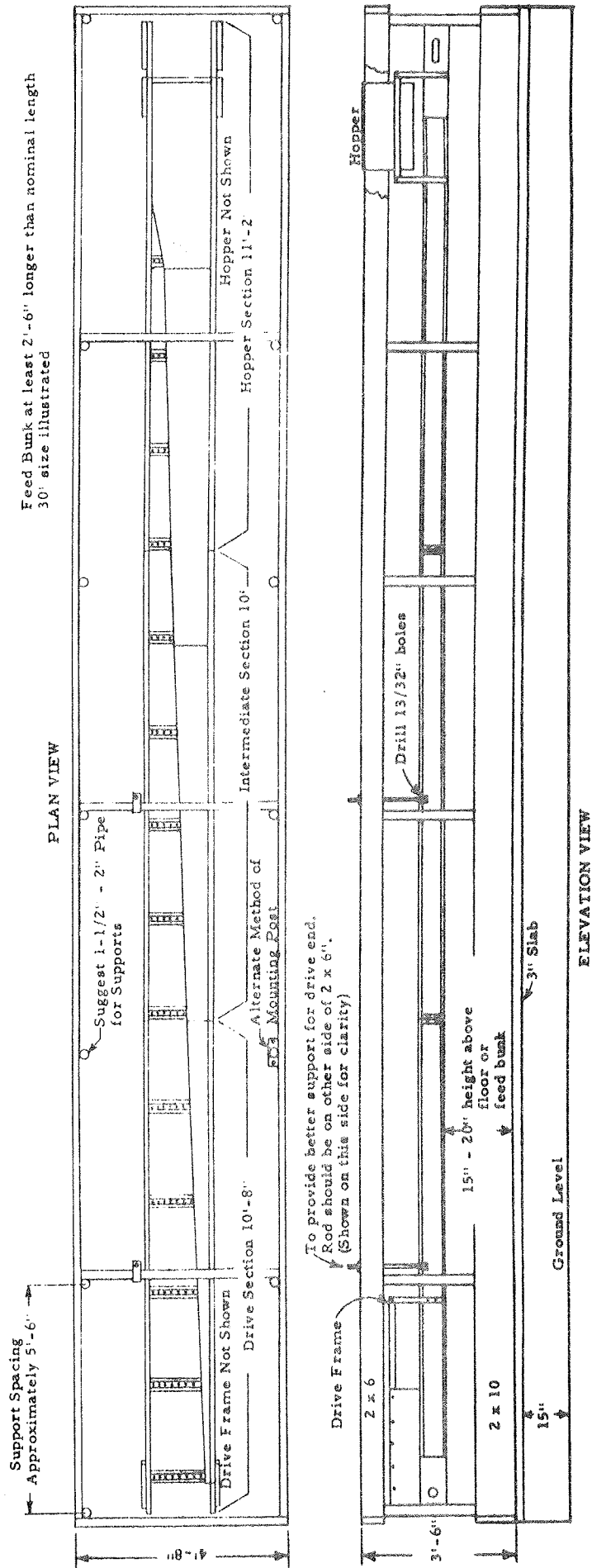


Figure 2

BRILLION MODEL BFH BUNK FEEDER

The Brillion Model BFH Bunk Feeder is constructed with the best materials and workmanship available. It is designed for ease of assembly, installation and operation.

Future problems can be avoided by following carefully the setting up and operating instructions.

Study the operator's manual and follow carefully the instructions regarding adjustments before operating the machine.

SPECIFICATIONS

Drive Unit: Speed reduction by V-belt from motor to jackshaft, and roller chain from jackshaft to conveyor drive shaft. Shear pin protected.

Bearings: Precision ball bearings with lifetime lubrication.

Recommended Motor Sizes: 1/2 h.p. - 20' to 40'; 3/4 h.p. - 50' to 60';
1 h.p. - 70' to 80'; 1-1/2 h.p. - 80' to 120'.

Hopper: 22" long x 14" deep. Standard equipment. Mounts directly above conveyor. Adjustable sides.

Track Sections: 20-1/8" wide. Drive section: 10'8" long. Take up section: 11'2" long. Intermediate sections: 10' long.

Slat Conveyor: 18-1/8" wide. Length of slat: 15". #55 steel detachable chain.

Tapered Bed: Special exterior plywood, permanently faced with a high density combination of fiber and phenolic resins.

SETTING UP INSTRUCTIONS

Refer to pages 2, 4, 6 & 8 in the parts list for identification and relative positions of parts for ease in assembly.

Refer to Figure 2, page 10 for positioning and suspending feeder in bunk.

ASSEMBLY OF FEEDER:

1. Place 2 x 4's (or other firm supports) across the feed bunk approximately every 5 feet.
2. Place hopper (take-up) track section in position over two 2 x 4's at the end of the feed bunk next to the silo (Figure 2).
3. Place intermediate track sections in position next to the hopper section as shown in Figure 2. Support each section on two 2 x 4's. Note that cross members are equally spaced the full length of the feeder.
4. Follow above with the drive track section.
5. Bolt track sections together using 3/8" x 3/4" long capscrews, lock washers and nuts. Make sure that the top edges of the tracks align with each other to provide a smooth joint for the chain to pass over.
6. Assemble the drive unit as shown on page 2. LEAVE ALL BOLTS LOOSE UNTIL ROLLER CHAIN HAS BEEN INSTALLED. THEN TIGHTEN ALL BOLTS. Be sure that 3/16 x 2-1/2 cotter pin is used as shear pin in 16" sheave (pulley). DO NOT USE A ROLL PIN.
7. Assemble the hopper frame-work as shown on page 6. Do not attach the hopper at this point.
8. Assemble the take-up unit as shown on page 4. Only ONE sprocket (1D-590) is pinned to the 1D-659 driven shaft.
9. Assemble the conveyor idler components to the drive track section (refer to page 2 - index no. 30, 31, 32). Secure the idler shaft with a cotter pin provided. Be certain the hub of the sprocket is toward the outside of the machine, i. e. adjacent to the hanger.
"For safety it is important not to assemble the idler hangers as shown on page 2. The hanger with the pin stop welded to it is the hanger illustrated and it is located on the side opposite the belt drive."

SAFETY INSTRUCTIONS



- A. **HAVE A SAFE INSTALLATION:** Have a licensed electrician install the wiring. Have both the motor and the bunk feeder grounded. Failure to have a proper ground could result in a severe electrical hazard.

Use an electric motor which has manual reset thermal protection. Install a separate electrical disconnect switch for the bunk feeder. This disconnect switch must have an exclusive, positive, locking switch which can be operated only by the person working on the machine.

- B. **OPERATE SAFELY:** Federal regulations require that at the time of initial assignment and at least annually thereafter, each employee shall be instructed in the safe operation and servicing of all equipment which he will be operating. This instruction shall cover the following safe operating practices:

1. Keep all guards and shields in place when machine is operating.
2. Turn off motor, disconnect and lock out electrical power, and wait for all movement to stop before servicing, adjusting, cleaning or unclogging machine.
3. Make sure everyone is clear of machine before connecting power and starting motor.
4. If servicing or adjusting requires the removal of any shield, wait until all movement has stopped before attempting to remove shield. Replace shield when finished.

INSTALLING FEEDER IN BUNK

1. Suspend feeder from feed bunk cross members, starting approximately 5 feet from the drive end and approximately every 10 feet thereafter, Refer to Figure 2. It will be necessary to drill a 13/32 hole in each side of the track section to attach the support clips (#3, page 4). Attach the support clips with 3/8" x 3/4" long capscrews, lockwashers and nuts. Position the support clamps (#2, page 4) over the feed bunk cross members and hold in place with long bolt (#1, page 4), placing 1/2" washer and nut on from top.
2. Level the suspended feeder from side to side and end to end. Align with a chalk line and a carpenter's level from end to end both horizontally and vertically.
3. Align the assembled track sections from end to end, using a chalk line. Starting at the hopper end, assemble the SILAGE FEED BOARD to the track sections as shown in the plan view of Figure 2. Feed boards are keyed together with 1/8" thick keys. Position the beveled end of the first board in line with the level end of the take-up track section. After positioning each board, drill from underneath with a 3/16" drill through holes in the board supports. DO NOT DRILL THROUGH BOARD. Use the set collar provided as depth gauge for the drill. Attach boards with wood screws included.
4. Assemble the conveyor chain to feeder. Assemble on top of feeder, feeding over hopper end sprockets into lower track. Draw completely through lower track as each conveyor chain section is attached. When completely assembled, take up chain looseness with chain take-up. Take up both sides evenly. Standing at the drive end, advance the conveyor chain by turning the large pulley by hand. Observe the conveyor chain as it leaves the drive sprockets. If the conveyor chain feeds straight onto the lower track, with no tendency to buckle or follow the sprocket around, it is probably tight enough. Check again with the chain being advanced by the motor.
5. Assemble the hopper to the hopper frame as shown on page 6.
6. Attach the motor to the motor mounts. Assemble the motor sheave to the motor, flush with the end of the shaft, with the hub toward the motor. Place the V-belt over both sheaves and align. Align by loosening set screws in the T-clamps, positioning the motor and tightening set screws. Tighten V-belt by taking up on the 3/4" nuts on the threaded support rods.

NOTE: BE SURE MOTOR SHEAVE TURNS IN COUNTER-CLOCKWISE DIRECTION BEFORE ATTACHING V-BELT.

7. Install roller chain and idler to the drive unit. Instructions for the installation of the idler are included with the idler and is the last page of this manual.
8. Attach chain guard and V-belt guard to drive unit. V-belt guard is held in place with wing nuts for easy removal. Attach the V-belt guard bracket to the guard - see page 8 for identification. Install capscrews, flat washers, and wing nuts before attaching V-belt guard.

ADJUSTMENTS

Hopper: The adjustment lever toward the straight side of the feed board should rest in the first notch on the 2D-567 angle, or the notch next to it, for feeding silage. The opposite side panel should be moved in until the silage feeds relatively uniform from one end of the feeder to the other.

In feeding free flowing grain, move both of the side panels to the outer most notches.

Conveyor: The conveyor chain tightness is adjusted by taking up on the adjusting screws on the take-up end of the feeder. Take up both sides evenly. When adjustment screw is fully extended, remove links from the conveyor chain to provide further adjustment. **IMPORTANT** - check chain tightness frequently during the first months of operation.

Feeder Height: The feeder can be leveled from side to side, from end to end, and raised and lowered by taking up or backing off on the nut supporting the support bolt. A periodic inspection may be necessary. An improperly leveled feeder may not distribute the feed evenly.

LUBRICATION

Bearings are pre-lubricated and require no further lubrication.

A dry lubricant such as molybdenum disulfide or graphite can be used between the chain and the track sections. This should reduce wear between these parts.

An all purpose grease may be used on the conveyor sprockets to reduce wear between sprockets and conveyor chain. The floating sprocket on the driven shaft (1D-659) should be lubricated periodically to insure that it will not become frozen in position.

Roller chain is made of oil-impregnated sintered rollers and requires no further lubrication.

MAINTENANCE

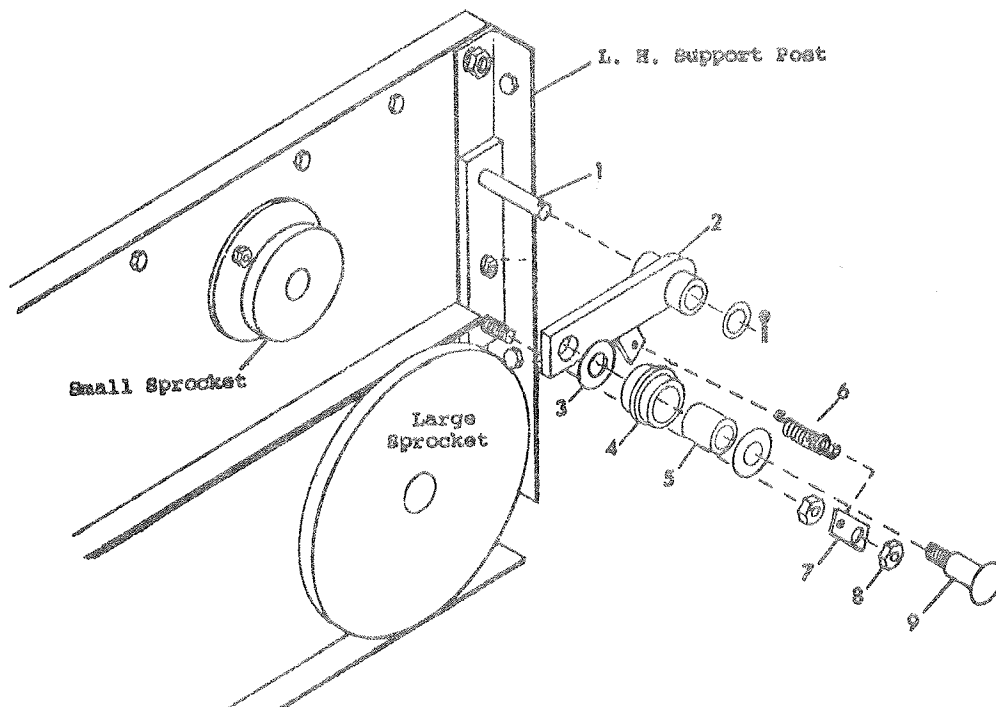
If the board facing (fiber and phenolic surface) appears to be wearing through, resurface with two coats of polyurethane finish.

ASSEMBLY INSTRUCTIONS AND PARTS LIST

FOR BUNK FEEDER DRIVE CHAIN IDLER KIT (8D-812)

Refer to the parts illustration below for identification and relative positioning of the idler kit components.

To begin assembly of the idler kit to your Brillion Bunk Feeder, remove the two center 3/8" capscrews which attach the left hand support post to the panels. Then using the longer capscrews (3/8-13 NC x 1-1/4 long, 3/8-13 NC x 1-3/4 long) attach the idler bracket (8D-819) to the L.H. support post. The longer capscrew is used in the lower hole. Next assemble the idler assembly to the idler arm (8D-818). It is assembled in the sequence as shown below. Insert the idler shaft (8D-820) through the machinery bushing (8C-892), the idler assembly (8D-822 & 8D-823), and another machinery bushing (8C-892). Secure these parts to the idler arm with the lock nut (5C-392). Attach the spring (4C-872) to the spring clip (4C-266) and install the spring clip on the 3/8 x 1-3/4 capscrew and secure in place with a lock nut (3C-954). Finally attach the spring to the assembled idler arm and slide the idler arm on to idler bracket. Secure to the idler bracket with the flat washer and cotter pin provided.



Sym.	Part No.	Part Name	No. Req'd.	Weight
1	8D-819	Idler Bracket	1	.88
2	8D-818	Idler Arm	1	.80
3	8C-892	Machinery Bushing	2	
4	8D-822	Idler	1	.26
5	8D-823	Bearing	1	.06
4 & 5	8D-824	Idler Assembly	1	.32
6	4C-872	Spring	1	.02
7	4C-266	Spring Clip	1	
8	5C-954	Lock Nut	1	
9	8D-820	Idler Shaft	1	.18
*	5C-392	Lock Nut (use with idler shaft)	1	

INSTRUCTIONS FOR BUILDING AND INSTALLING WIND SHIELDS ON BRILLION BUNK FEEDERS

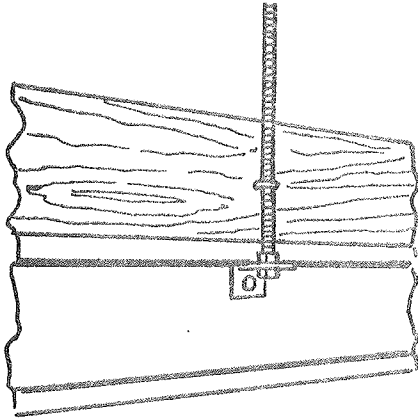


FIGURE 1

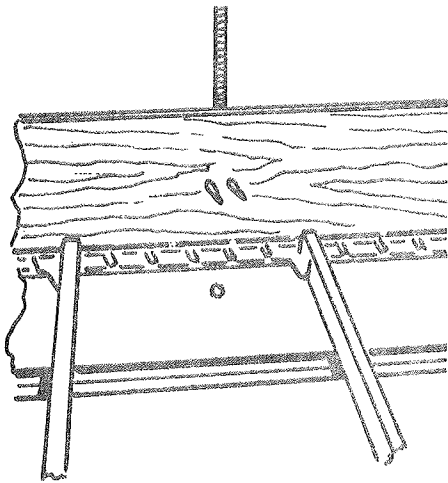


FIGURE 2

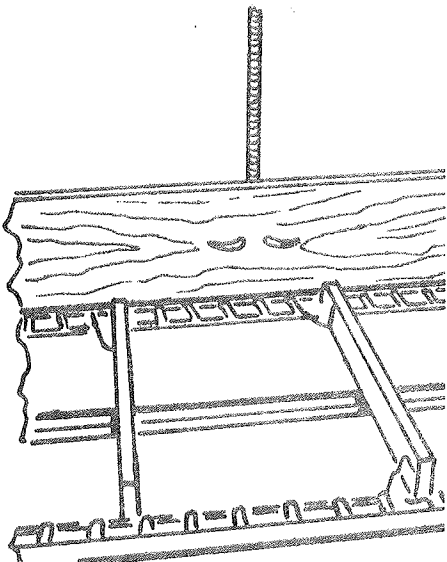


FIGURE 3

Although the wind usually does not create a problem, it is a simple matter to build a wind shield if needed. The common materials needed are available at any lumber yard or farm store. You can install a wind board on either or both sides of the track section, but usually it is sufficient to shield only the side from which the prevailing winds blow.

Materials needed are:

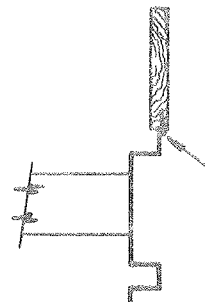
(a) $3/4$ " exterior plywood or 1" lumber 4" to 12" wide.

(b) 3" bright steel staples - one or two are required per hanger rod. If lumber used is 6" wide or less, only one staple is required per hanger.

(c) Wood strips or cleats to join the end of the boards together.

Starting at the hopper end, position the first board on the upper edge of the track section, up tight to the hanger rod. Drive a staple (pre-drilling holes for the staples may be desirable) through the board, straddling the hanger rod. (See figures one and two.) Using a pair of pliers, spread the points of the staples and clinch with a hammer and weight. (See figure three.) Proceed to the next hanger and position each board in place following the same procedure until all the boards are positioned. Splice the board ends together using wood strips or cleats made from scraps of lumber.

To prevent interference between the windboards and the conveyor chain in case of board warpage, drive a small nail or screw into the bottom edge of the board midway between the hanger rods. See sketch #4.



Insert nail or
screw as shown

FIGURE 4

