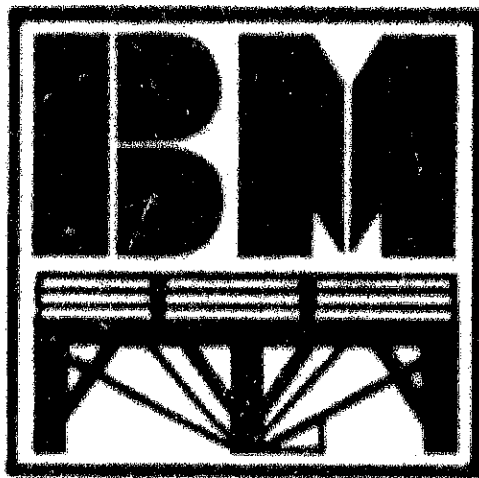


# PARTS MANUAL

# BALE KING

# VORTEX 880

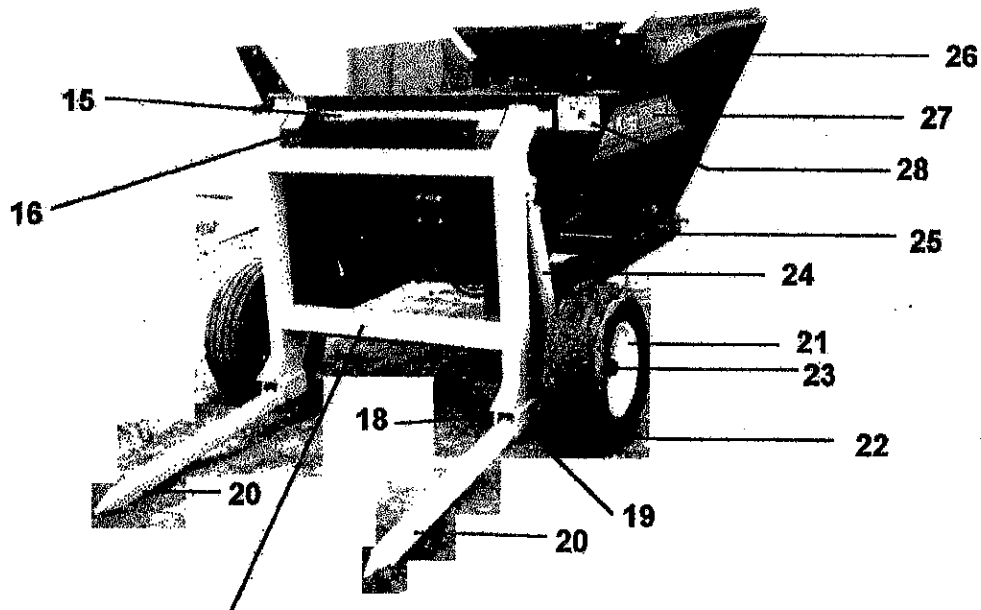
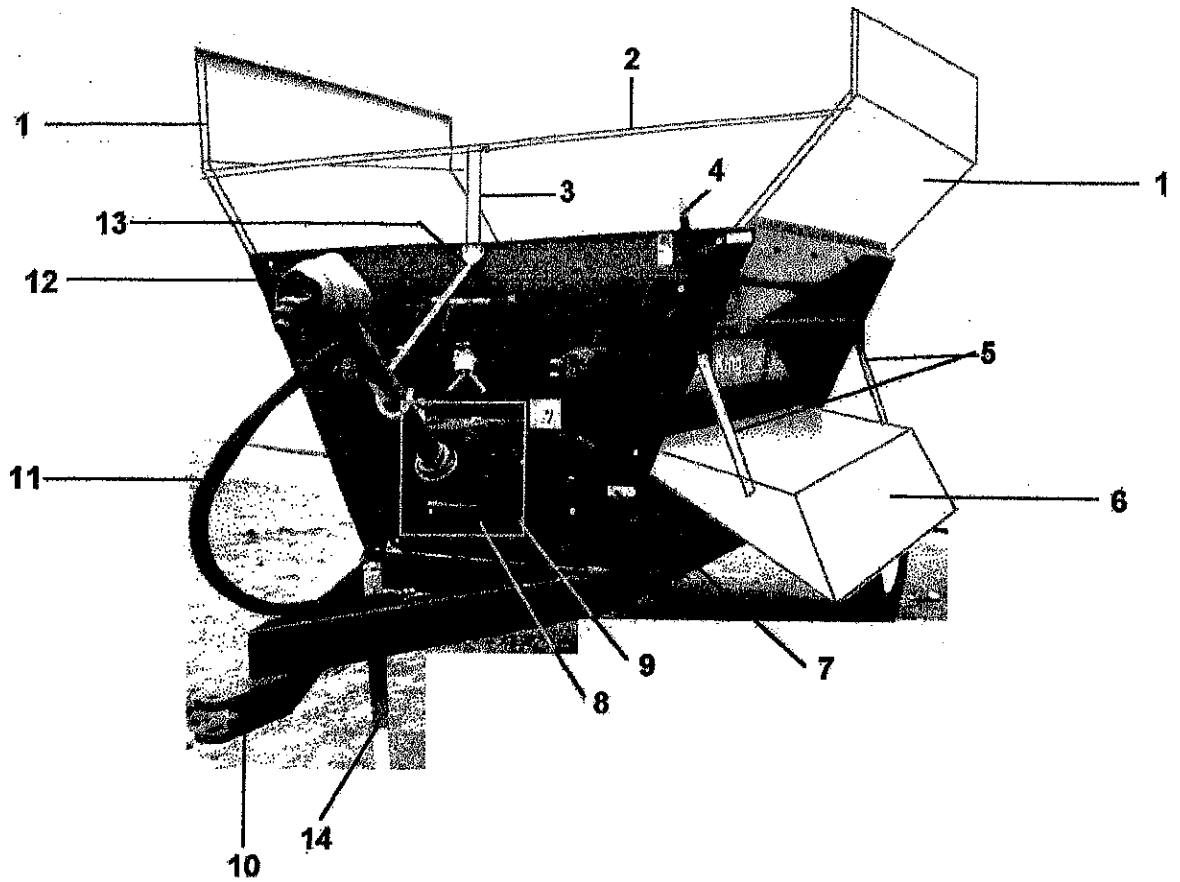


MANUFACTURED BY: BRIDGEVIEW MANUFACTURING INC.  
GERALD, SASK. CANADA  
PHONE 306-745-2711  
FAX 306-745-3364

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## BMI BALE KING VORTEX 880

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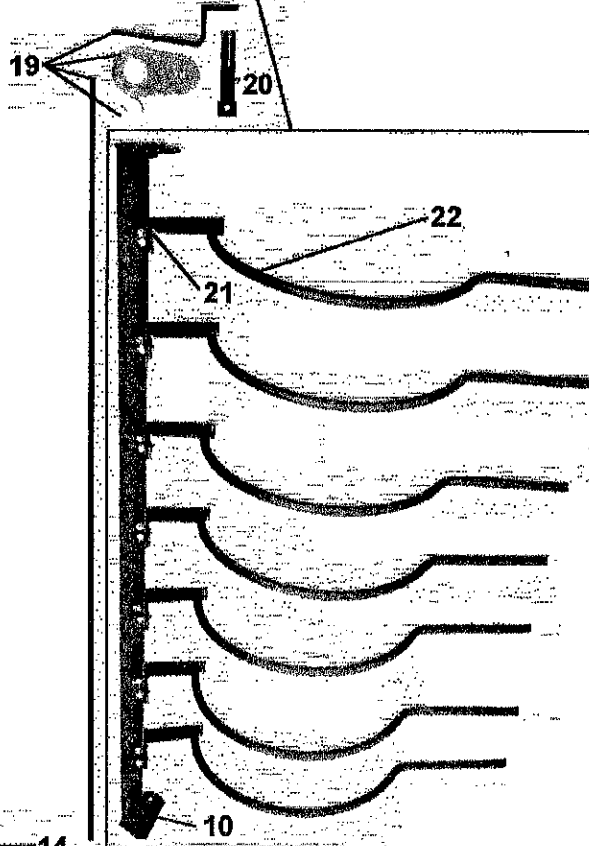
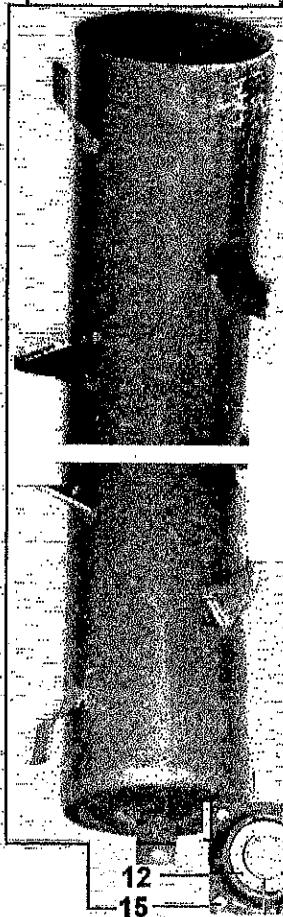
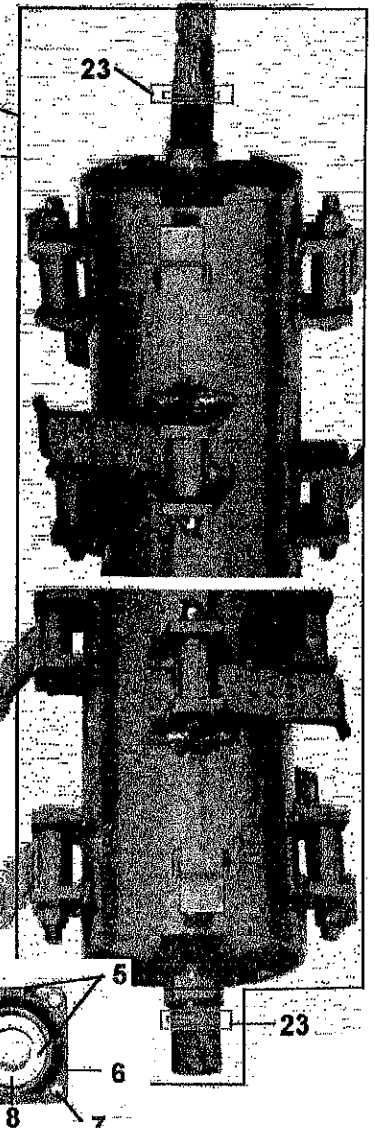
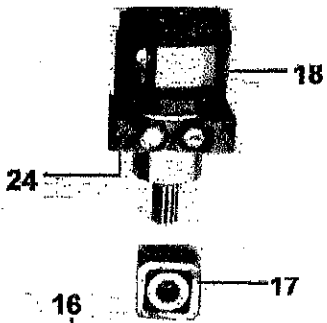
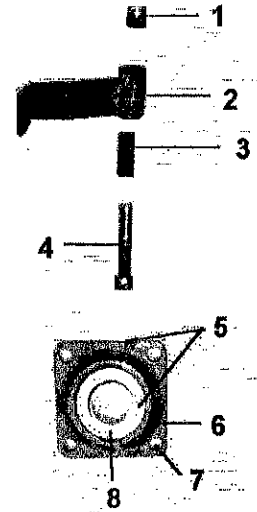
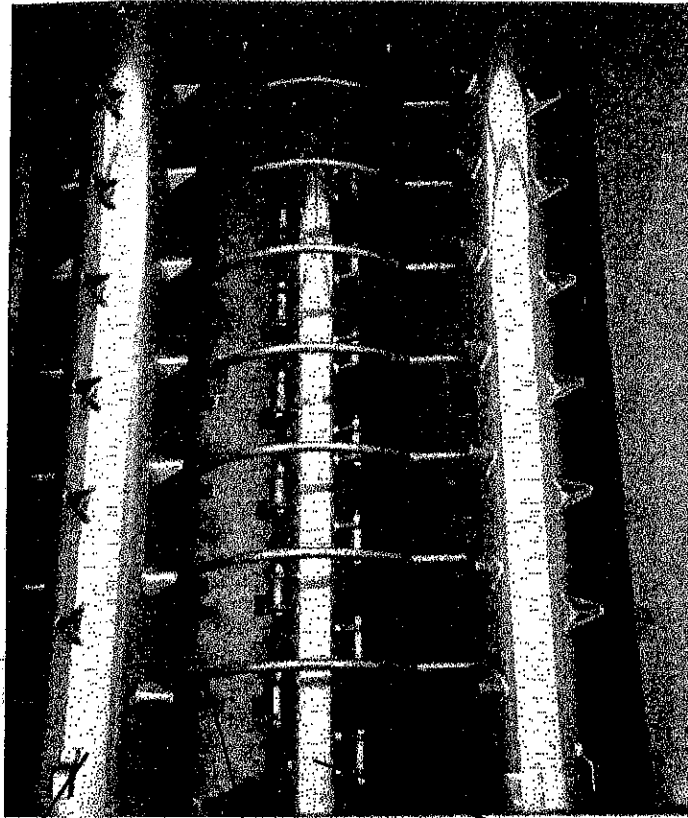


# BMI External Parts List

Ref#	BMI#	Description	Qty
1	10009	Top Bale Shield	2
2	10015	Front Brace 2 x 2	1
3	10033	Front Brace 2 x 2 center support	1
not shown	10180	Flat Rubber Grip	1
4	10024	Deflector Shield Adjuster	1
5	10011	Arm for Side Deflector Shield	2
6	10010	Side Deflector	1
7	10028	Eccentric Hoop Adjuster	1
not shown	10180	Flat Rubber Grip	1
8	10027	Front Plate (rotor bearing)	1
9	10175	Bolt 1/2 x 1 NC used on front bearing plate	8
10	10030	Hitch only (weld on)	1
11	-----	See page with hydraulic elsewhere in this manual	
12	-----	See PTO shaft breakdown elsewhere in manual	
13	10014	PTO shaft holder	1
14	10001	Top Wind Implement Jack	1
not shown	10181	Replacement Stub (weld in)	
15	10019	Bale Fork Pivot Pipe	1
16	10023	Rear Frame Weldment (green)	1
17	10017	Bale Fork Frame (yellow)	1
18	10178	Cotter Key 1/4 x 2 1/4 for tine pin	2
19	10031	Headed Pin (Tine to bale fork frame)	2
20	10018	Bale Tine 3 x 3	2
21	10076	Rim 8"x15" 6 bolt	2
22	10077	Tire 11L x 15	2
23	-----	See Wheel Hub elsewhere in this manual.	
24	-----	See Hydraulic cylinders elsewhere in this manual.	
25	10029	Main Frame (Not Sold Separately)	
26	10032	Tub Assembly (Not Sold separately)	
27	10035	Decal Set (Bale King Vortex 880)	1
28	10182	Safety Decal Set	1

## Available but not shown

10016	Replacement Bottom Pan (weld in)	
10036	Green Paint (liter)	
10037	Yellow Paint (liter)	
10034	Gusset Rear Upright Frame	2
10186	Bomerang Gusset (Support cylinder bracket to bale fork frame;not on older models)	2



# BMI Inside Tub Parts

Ref#	BMI#	Description	Qty
1	10007	Locknut 3/4 NC	30
2	10004	Flail (Must replace in pairs for balance)	30
3	10005	Brass Bushing for flail pivot	30
4	10006	Bolt 3/4 x 5 NC	30
5	10039	Bearing Assembly 1 15/16 w/block Lock collar part of brg.2	
6	10179	Brg. Block (less insert) for 1 15/16 brg.	
7	10173	Bolt 5/8 x 1 1/2 NC to bolt brg. assy. to tub	8
not shown	10176	Nut 5/8 NC	8
8	10044	Bearing Insert 1 15/16 lock collar part of brg.	
9	10013	Rotor Complete with flails 1 15/16 shaft **see Note**	1
10	10003	Hoop Angle Iron 2 1/2x 3 1/2	1
11	10040	Lock Collar 1 3/4 used on previous style rotor and also on beater	
12	10043	Bearing Insert 1 3/4 GRA112NPPB Used on beater and on previous style rotor with 1 3/4 shaft	
13	10038	Bearing Assembly 1 3/4 w/block. Used on beater and previous style rotor.	
14	10041	Bearing Block (less insert)	
15	10174	Bolt 1/2 x 1 1/2 NC	8
not shown	10177	Nut 1/2 NC	8
16	10020	Beater Assembly	2
17	10021	Coupler Assembly beater to hydraulic motor	2
not shown	10022	Spline only used on older beater (weld in)	
18	10045	Hydraulic Motor Assembly OEM# RE32070500	2
19	10028	Eccentric Hoop Adjustment Kit (welded)	1
20	10008	Bolt 5/8 x 2 1/2 Full Thread NC Used to attach Eccentric to hoop frame.	2
not shown	10176	Hex Nut 5/8 NC	4
21	10174	Bolt 1/2 1 1/2 NC	14
not shown	10177	Hex Nut 1/2 NC	14
22	10002	Rotor Hoop 1"	7
23	10042	Bearing Shield Installed on rotor shaft before bearing	2
24	10172	Sockethead Bolt 1/2 x 2 1/2 NC	8
not shown	10183	High Collar Lock Washer (special)	8

## Available but not shown

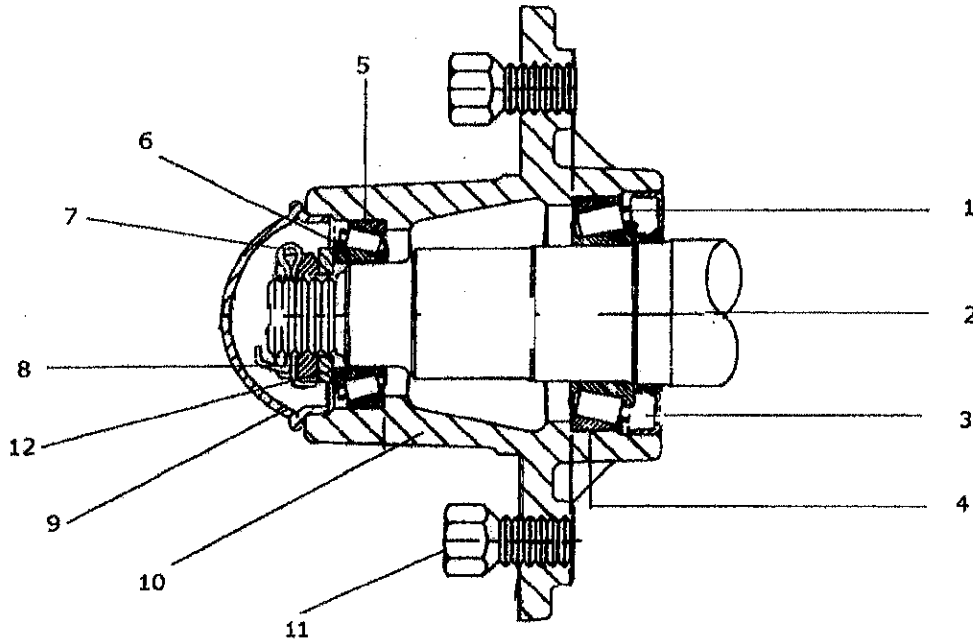
10025	Rotor Twine Guard
10026	Beater Twine Guard
10184	4 Bolt Shim; used to adjust rotor to bearing clearance(only as needed)

**\*\* NOTE\*\*** Previous style rotor with 1 3/4 shaft can be changed up to 1 15/16 rotor assembly by ordering 2 bearing assemblies #10039



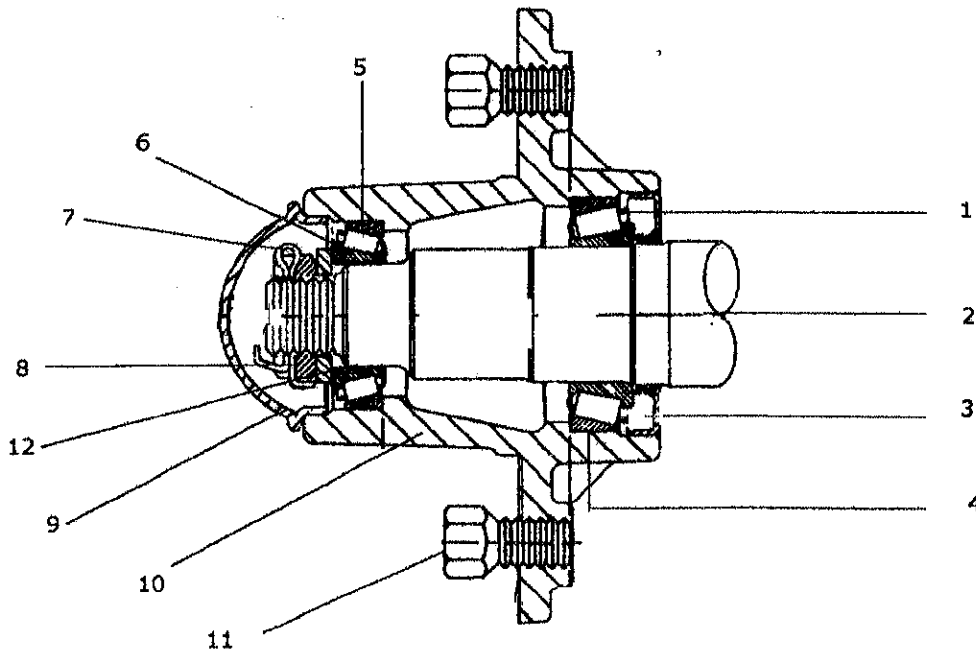
# STANDARD HUB ASSEMBLY

## 6 BOLT HUB W/ 2" SPINDLE



# STANDARD HUB ASSEMBLY

## 6 BOLT HUB W/ 1 3/4 SPINDLE



# BMI WHEEL HUB PARTS LIST

## 6 BOLT HUB W/2" SPINDLE

<u>REF#</u>	<u>BMI#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	10067	Cone Inside Bearing LM603049	1
2	10065	Spindle w/nut 2"	1
3	10066	Dirt Seal (CR20045 used on EM5000 hub)	1
3	10199	Dirt Seal (SE16 used on CTD H-614 hub)	1
4	10068	Cup Outside Bearing LM603011 or LM603012	1
5	10070	Cup Outside bearing LM48510	1
6	10069	Cone Outside Bearing LM48548	1
7	10072	Cotter Key 3/16 x 1 1/2	1
8	10153	Castle Nut 1" 14thr.	1
9	10073	Dust Cap (D5000 used on EM5000 hub)	1
<i>D. Schman</i> 9 131701	10202	Dust Cap (DC15 used on CTD H-614 hub)	1
10	10074	Hub 6 bolt EM5000	1
10	10218	Hub 6 bolt CTD H614	1
11	10075	Wheel Stud 9/16 x 1 1/2 NF	6
12	10071	Washer 1 1/16 x 2	1

\*\*\*\*\*

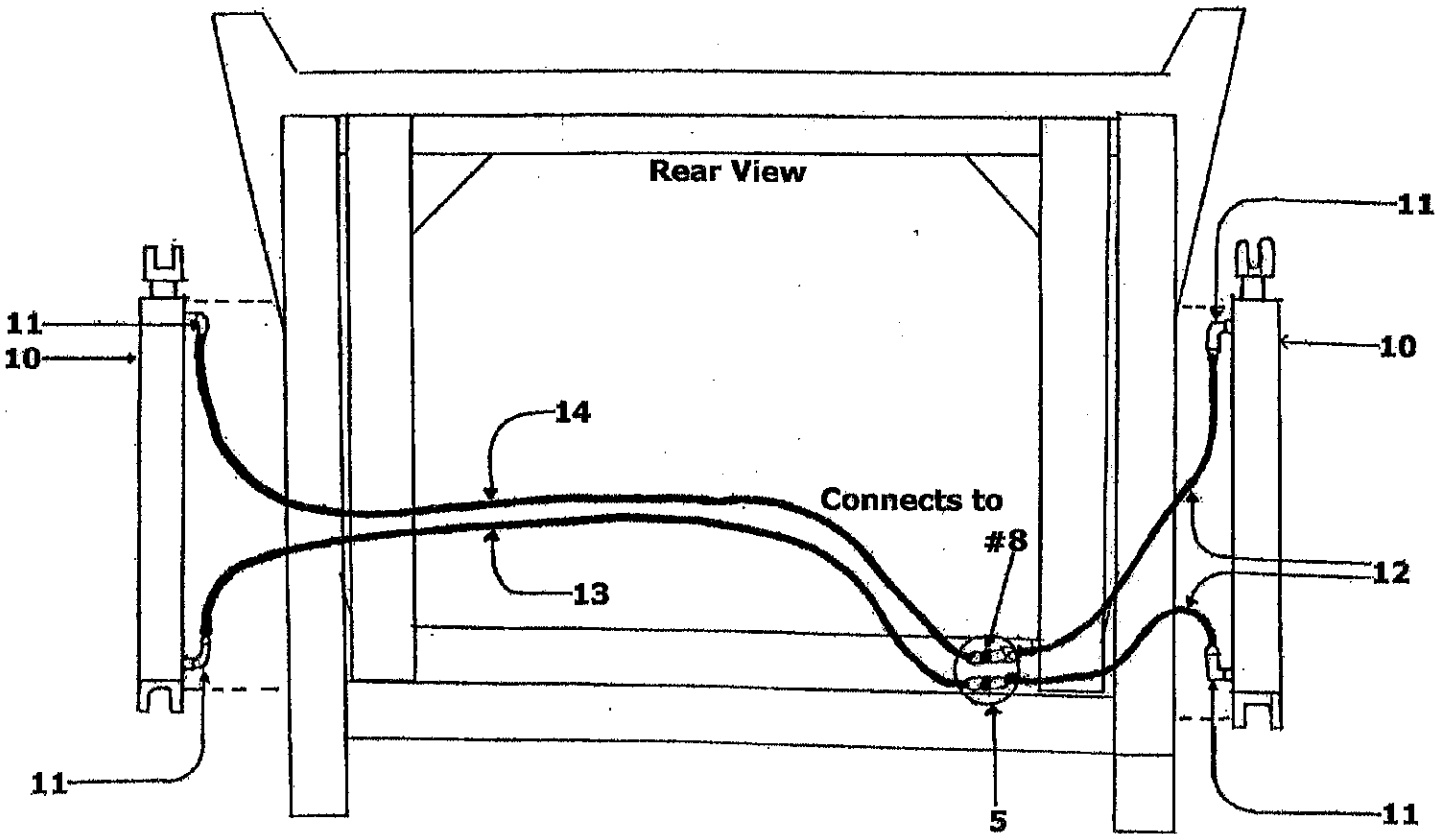
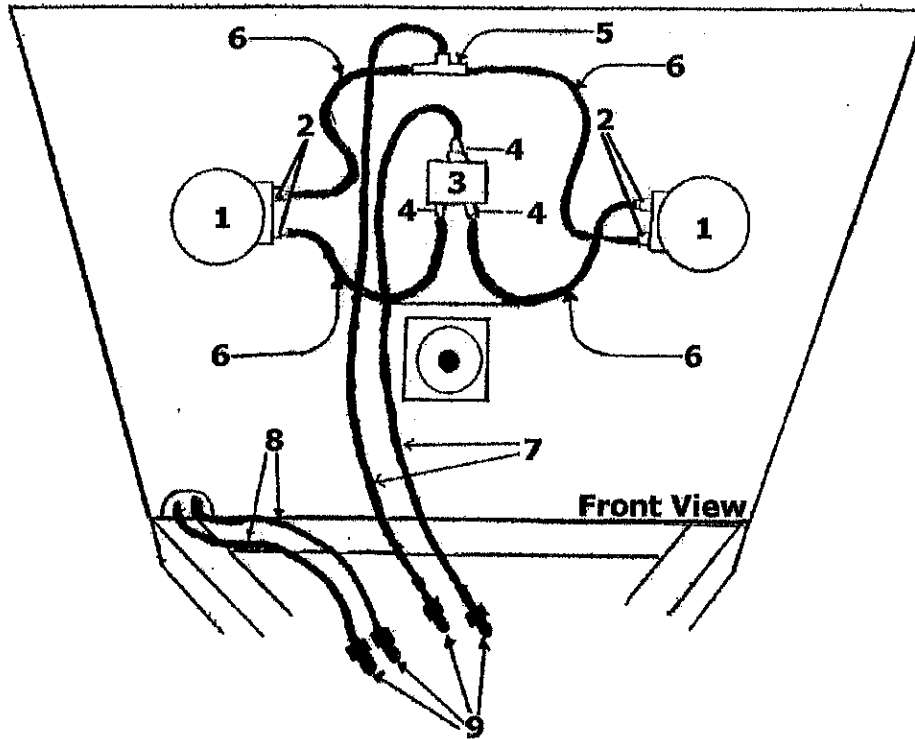
## 6 BOLT HUB W/1 3/4" SPINDLE

<u>Ref#</u>	<u>BMI#</u>	<u>Description</u>	<u>QTY</u>
1	10080	Cone Inside Bearing LM29749	1
2	10078	Spindle w/ nut S611-A04	1
3	10079	Dirt Seal SE 13	1
4	10081	Cup Inside Bearing LM29710	1
5	10083	Cone Outside Bearing LM67010	1
6	10082	Cone Outside Bearing LM67048	1
7	10072	Cotter Key 3/16 x 1 1/2	1
8	10153	Castle Nut 1" 14thr.	1
9	10085	Dust Cap DC13	1
10	10086	Hub 6 bolt H611	1
11	10154	Wheel Stud 1/2 x 1 1/4 NF	6
12	10071	Washer 1 1/16 x 2	1





# Hydraulics

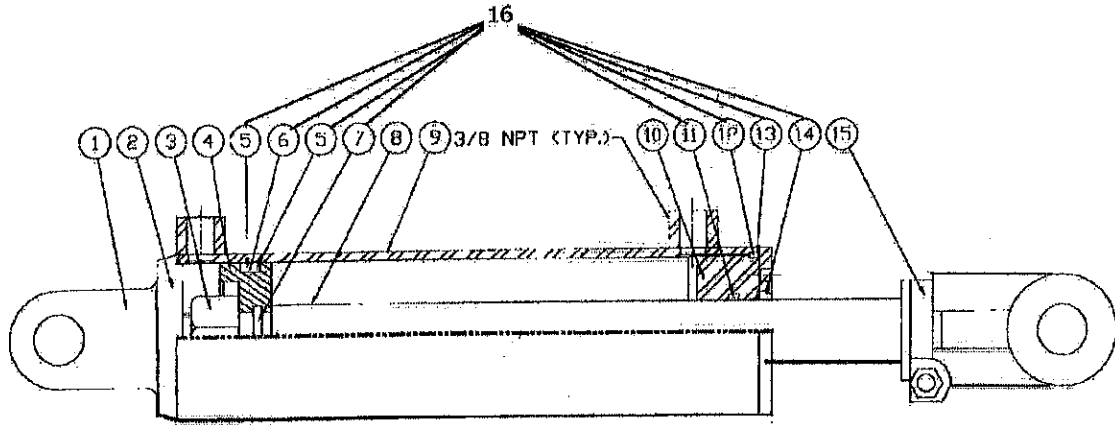


# BMI Hydraulic Parts List

Ref#	BMI#	Description	Qty
1	10045	Hydraulic Orbit Motor RE32070500	2
	10048	Seal Kit Hydraulic Motor (not Shown) PE444002	
2	10161	Adaptor 7/8" oring boss to 9/16" male JIC (10MB-8MJ)	4
3	10046	Modular Control 50/50 flow divider FDC1-10-6T-88 (Vickers)	1
3	10185	Modular Control 50/50 flow divider CP340-1-B-3P-66 (Sterling)	1
4	10162	Adaptor 3/8" oring boss to 3/8" male JIC (6MB-6MJ)	3
5	10163	3/8 Male JIC Tee (6MJT)	3
6	10164	Hose Assembly 3/8 dia. overall length 24" w/ends. Hose ends 3/8 female JIC swivel and 9/16 female JIC swivel.	4
7	10165	Hose Assembly 3/8 dia. overall length 99". Hose ends 3/8 female JIC and 1/2 Male NPT.	2
8	10166	Hose Assembly 3/8 dia. overall length 201". Hose ends 3/8 female JIC swivel and 1/2 Male NPT.	2
9	10167	1/2 male ISO coupler (S71-4)	4
10	-----	Hydraulic Cylinder (see Cylinder breakdown for parts)	
11	10168	Elbow Fitting 3/8 male JIC to 3/8 male NPT90.	4
12	10169	Hose Assembly 3/8 dia. overall length 23". Hose ends 3/8 female JIC swivel both ends.	2
13	10170	Hose Assembly 3/8 dia. overall length 49". Hose ends 3/8 female JIC swivel both ends.	1
14	10171	Hose Assembly 3/8 dia. overall length 55". Hose ends 3/8 female JIC swivel both ends.	1
not shown	10047	Complete hydraulic hose kit.	

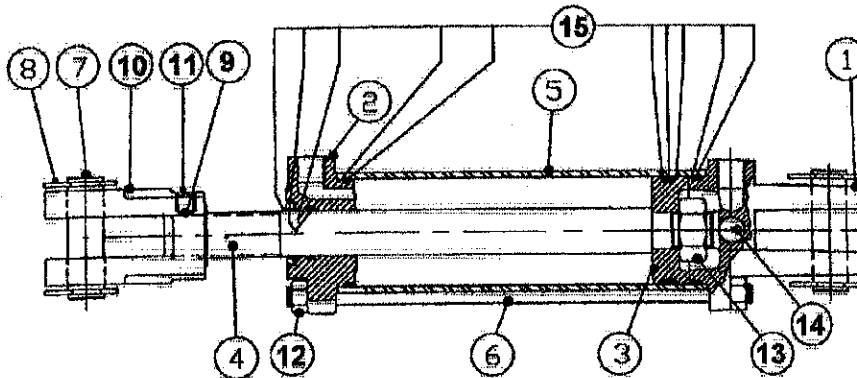


### Ram Ind. 2 1/2 x 20 Welded Cylinder



### Monarch Tierod Series Cylinder

2 1/2 x 20



# BMI Hydraulic Cylinder Parts List

## Ram Industries 2 1/2 x 20 Welded Cylinder

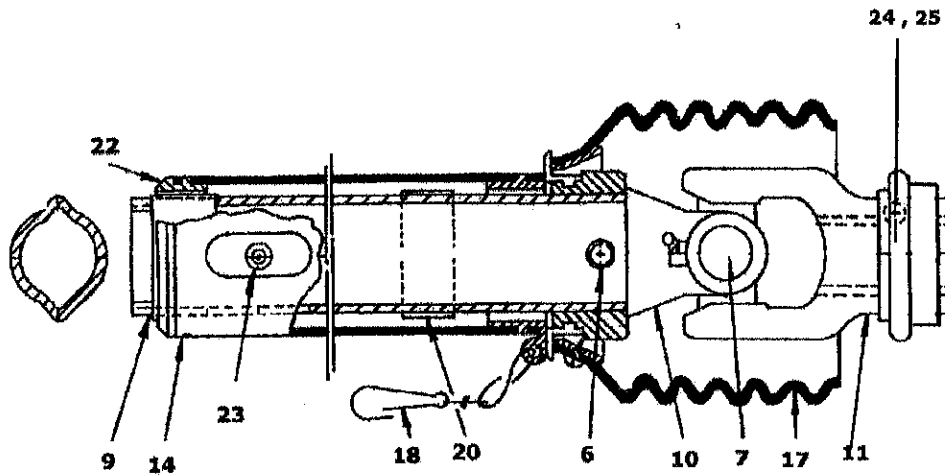
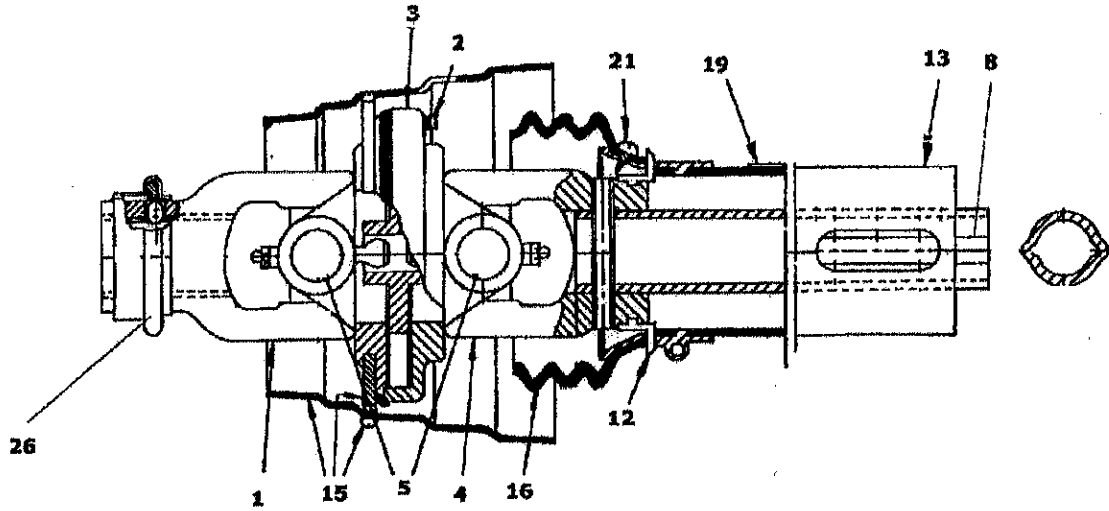
<u>Ref#</u>	<u>BMI#</u>	<u>Description</u>	
	10056	Complete Cyl. Assembly 4503090 model RWCC25020	
1	10154	Barrel Assembly w/clevis	R7600004
2	N/A	Butt Plate	(not sold separately)
3	10062	Lock Nut Piston Rod 1-14 th.	R3005007
4	10059	Piston 2.5 dia.	4603090
5	N/A	Part of Seal Kit	
6	N/A	Part of Seal Kit	
7	N/A	Part of Seal Kit	
8	10058	Cylinder Shaft	4203090
9	N/A	Barrel (sold as part of #1)	
10	10060	Gland	4703090
11	N/A	Part of Seal Kit	
12	N/A	Part of Seal Kit	
13	N/A	Part of Seal Kit	
14	N/A	Part of Seal Kit	
15	10061	Clevis	R7600043
16	10063	Seal Kit	3603090

## Monarch Industries 2 1/2 x 20 TieRod Cylinder

<u>Ref#</u>	<u>BMI#</u>	<u>Description</u>	
	10049	Complete Cylinder Assembly 25TL	
1	10051	Clevis Cap	492807
2	10155	Rod Cap	492809
3	10052	Piston 2.5 dia.	492529
4	10054	Cylinder Shaft	492643
5	10156	Barrel	491680
6	10055	Tie Rod	492230
7	10064	1" Clevis Pin w/clip	640091
8	N/A	Clip (sold with #7)	
9	N/A	Thread Lock( not sold separately)	
10	10053	Rod Clevis	492650
11	10157	Set Screw	148390
12	10158	Nut Tie Rod	128230
13	10159	Nut Piston Rod	129090
14	10160	Pipe Plug	186530
15	10050	Seal Kit 1 1/8 shaft	639573
15	10084	Seal Kit 1 1/4 shaft	639574



# Walterscheid Pto Assembly



# BMI PTO Parts List

## WalterScheid PTO Assembly

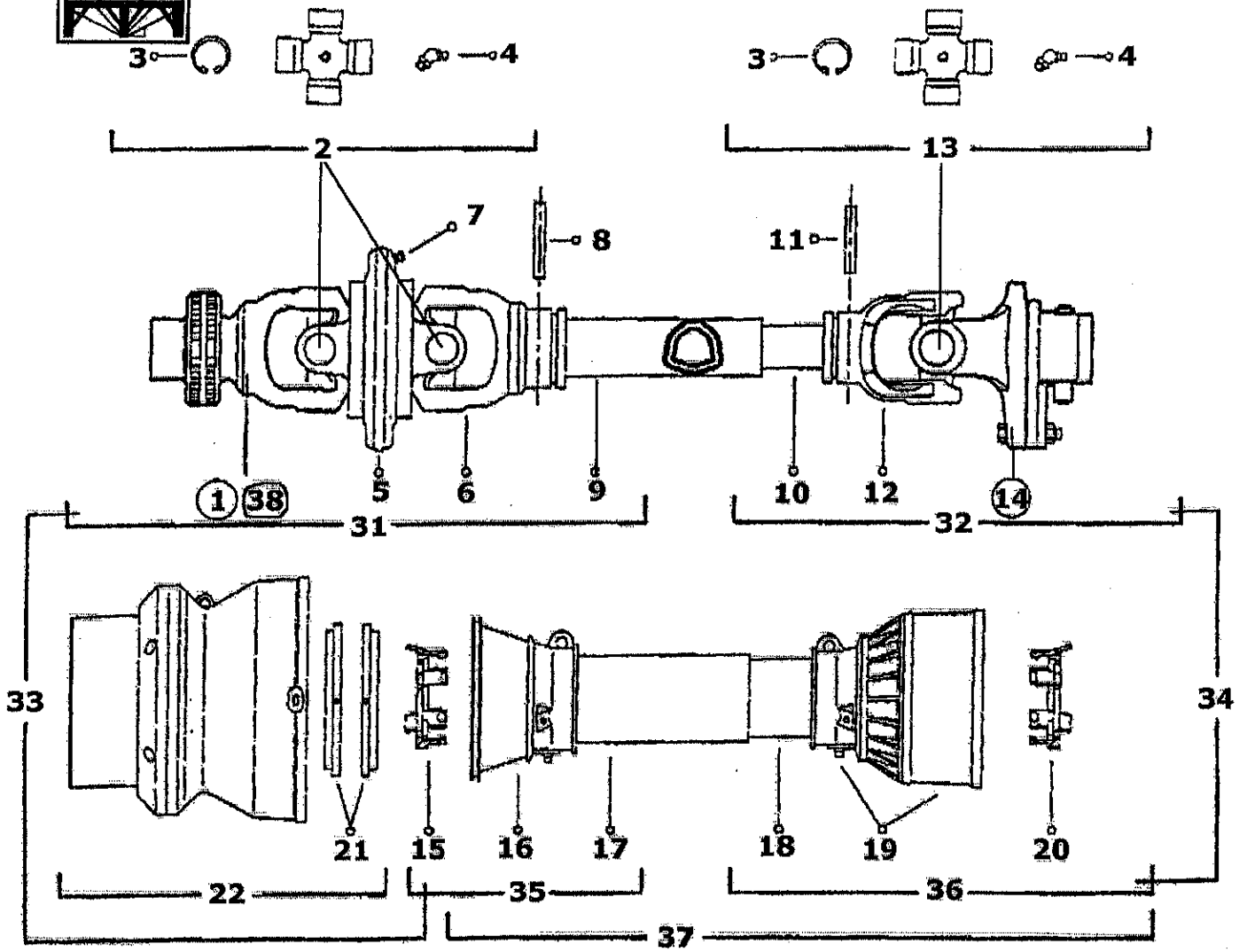
Ref#	BMI#	Description	
	10087	Complete PTO Sfaft Assembly	
1	10088	Yoke 1 3/8 21-sp tractor end	380883
2	10089	Grease Zerk (in item #3)	020672
3	10090	Double Yoke	365722
4	10091	Inboard Yoke 1b	341586
5	10092	U-joint Kit 2480	342221
6	10093	Roll Pin 10x80mm	020617
7	10094	U-joint Kit 2400	312410
8	10095	Inner Profile 1b GA	059041
9	10096	Profile & Sleeve Wa	382280
10	10097	Inboard Yoke 2a	019519
11	<del>10098</del> 10591	Shearbolt Clutch	391119
12	10099	Bearing Ring SC25	087276
13	10100	Outer Shield Tube	381451
14	10101	Inner Shield Tube	381450
15	10102	CV Cone & Bearing Assembly	386164
16	10103	Shield Cone 3 Rib	160012
17	10104	Shield Cone 6 Rib	365366
18	10105	Safety Chain	044321
19	10106	Decal Outer (in item #13)	383333
20	10107	Decal Inner (in item #9)	383334
21	10108	Screw	365305
22	10109	Support Bearing	355155
23	10110	Grease Zerk 3/16 (profile)	380371
24	10111	Shearbolt	391118
25	10112	Hex Nut 8mm	020575
26	10113	AS Collar Kit (in item #1)	381908

\*\*\*\*NOTE\*\*\*\*

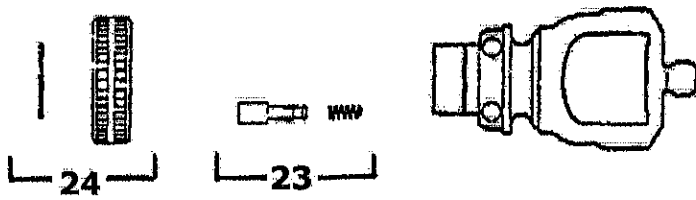
Walterscheid Shaft can be identified by accordian style bell shield on machine end of PTO assembly.



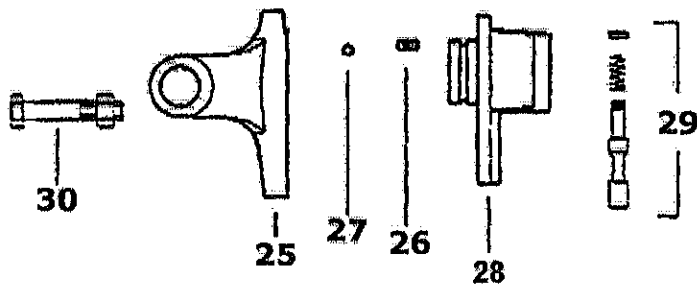
# BONDIOLI PTO ASSEMBLY



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# BMI PTO Parts List

## Bondioli PTO Assembly

Ref#	BMI#	Description	
	10114	Complete PTO Assembly	
1	10115	Yoke w/bridge 1 3/8 21- spline	573063775
2	10116	U-joint Cross Kit	412060012
3	10117	Circlip (in cross kit)	338020000
4	10118	Grease Zerk (in cross kit)	348004000
5	10119	Central Body CV joint	511060051
6	10120	Yoke	215066854
7	10121	Grease Zerk	348017000
8	10122	Roll Pin	341042000
9	10123	Cardan Tube	225270836
10	10124	Cardan Tube CM	245160836
11	10125	Roll Pin	341043000
12	10126	Inner Tube Yoke	204066852
13	10127	U-joint Cross Kit	41206
14	10128	Torque Limiter SB6	606606064
15	10129	Shield Support 6-7	255060005
16	10130	Safety Cone	254050001
17	10131	CM Safety Tube	236830776
18	10132	SM Safety Tube	236820776
19	10133	I Cone Sets F5-6-7	517050020
20	10134	Shield Support 6-7	255060006
21	10135	Ring Nut Dowel	255060351
22	10136	Complete Shell	517068001
23	10137	Complete Push Button	403000013
24	10138	Hub	240080061
25	10139	Yoke	213060020
26	10140	Grease Zerk	348012000
27	10141	Ball 5/16	362003000
28	10142	Splined Hub	513083807
29	10143	Complete Push-Button	401000037
30	10144	Shear Bolt	432000008
31	10145	Half shaft (tractor end no shield)	7E5610100T08
32	10146	Half shaft (impl. end no shield)	8IR610100009
33	10147	Half Shaft (tractor end w/shield)	7E56101R1T08
34	10148	Half Shaft (impl. end w/shield)	8IR6101FF003
35	10149	Half Safety Shield (trac. end)	5FE6101E1656
36	10150	Half Safety Shield (impl. end )	5F16101FF
37	10151	Safety Shield complete	5F06101E1656
38	10152	Yoke 1 3/4 20-spline	573063875

\*\*\*\*NOTE\*\*\*\*

Bondioli Shaft Can be identified by cone shaped shield on machine end. Also see Walterscheid PTO to check identification.