

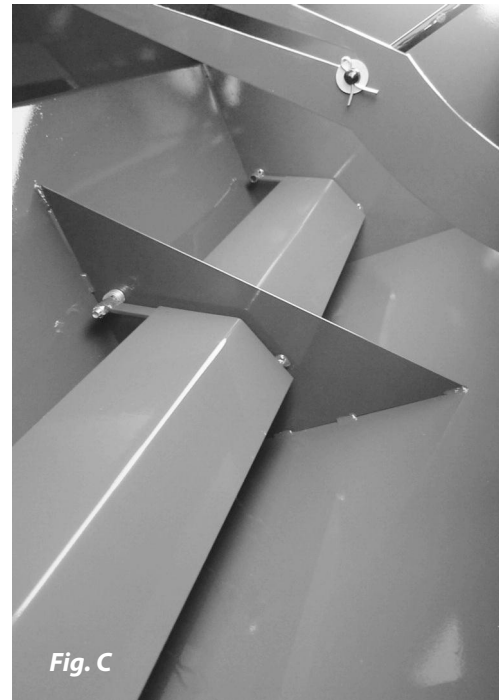
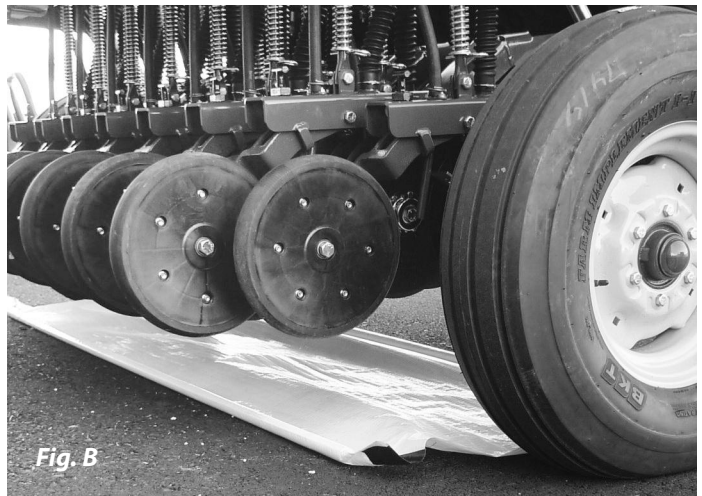
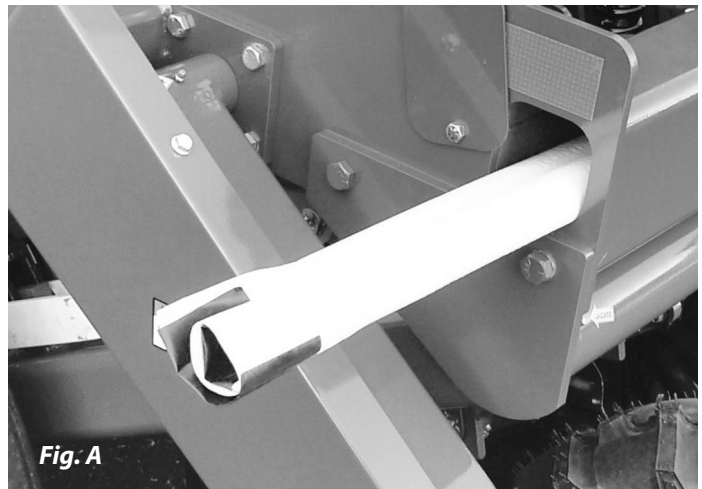
ESCH - 5603 DRILL

Operator's Manual and Parts List



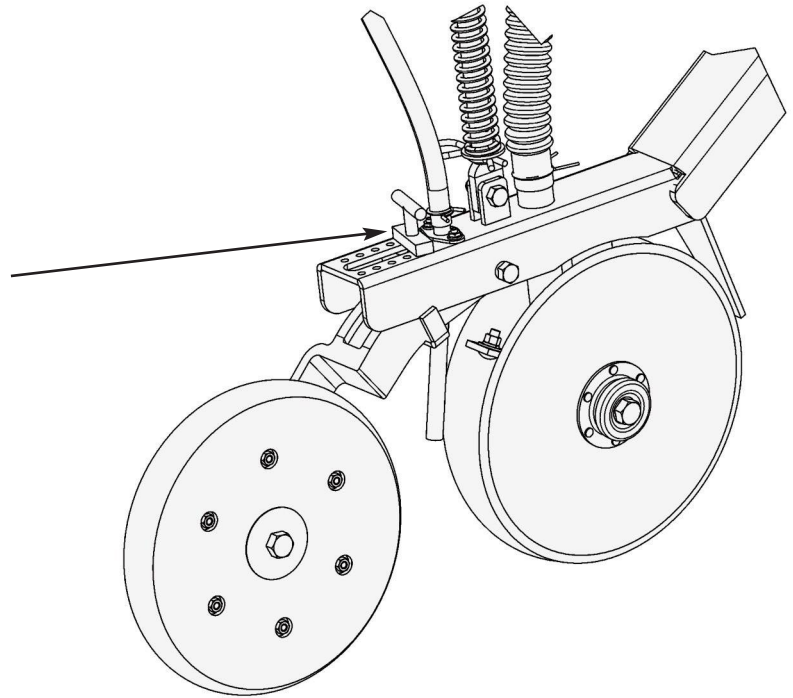
Seed Calibrations and Settings

- Remove plastic from frame (see Fig. A).
- Place plastic under drill to collect seeds for calibration (see Fig. B).
- See seed chart on lid for further instructions. Note: Be sure to turn drive wheel the correct direction. **WARNING: turning drive wheel too fast will result in wrong calibration. Turn wheel at ground speed.**
- When placing seed in hopper, keep seed baffles down (see Fig.C).
- Keep baffles in up position when seeding fluffy seed.



Setting Seeding Depth

- No-till coulters depth can only be set by lowering and raising drill.
- Set no-till coulters approximately 1/2" to 1" deeper than seeding depth.
- Seeding depth can be adjusted by sliding T-handle forward for shallow and backward for deeper.



Safety

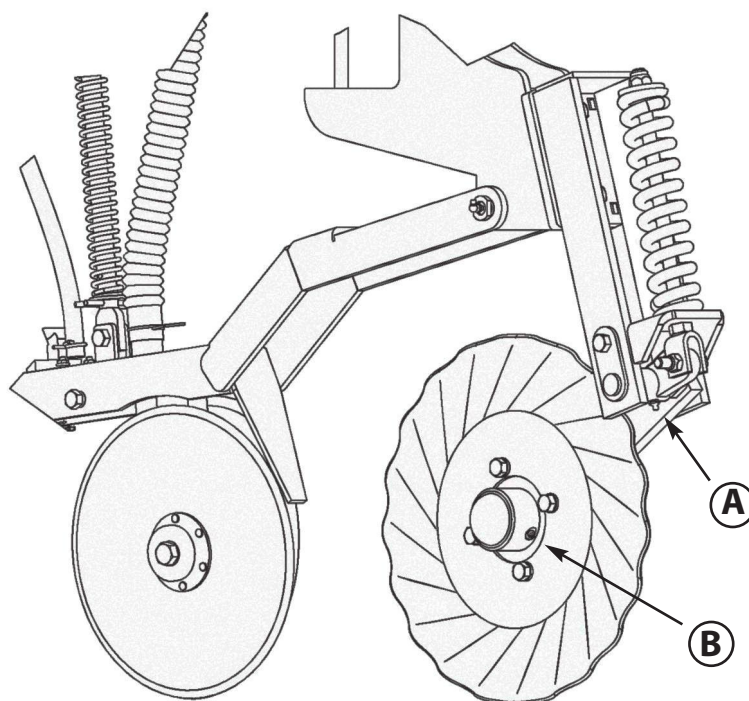
- Do not ride on drill while moving.
- Do not make sharp turns while drill is down.
- Raise drill when going over rocks that are above ground.

Storage

- Do not store in area where there are lots of mice. Mice like to chew the foams if they can get in the seed box.

Maintenance

- Grease coulters arms: every 10 hours. **(A)**
- Grease coulters hubs: every 50 hours. **(B)**
- Grease all other zerks: every 20 hours.



Replacing Foams

- Remove shield on back side of drill (wing nuts).
- Remove shield on left side of seed box.
- Loosen set screws where square shaft slides into round coupler.
- Now shaft is ready to pull out.
- Foam can be cut from plate with a sharp knife or razor.
- Set foams and plate on a piece of card board.
- Spray foams and plates with a spray adhesive.
- Leave set for approximately 1 minute before setting foam on plate.

Trouble Shooting

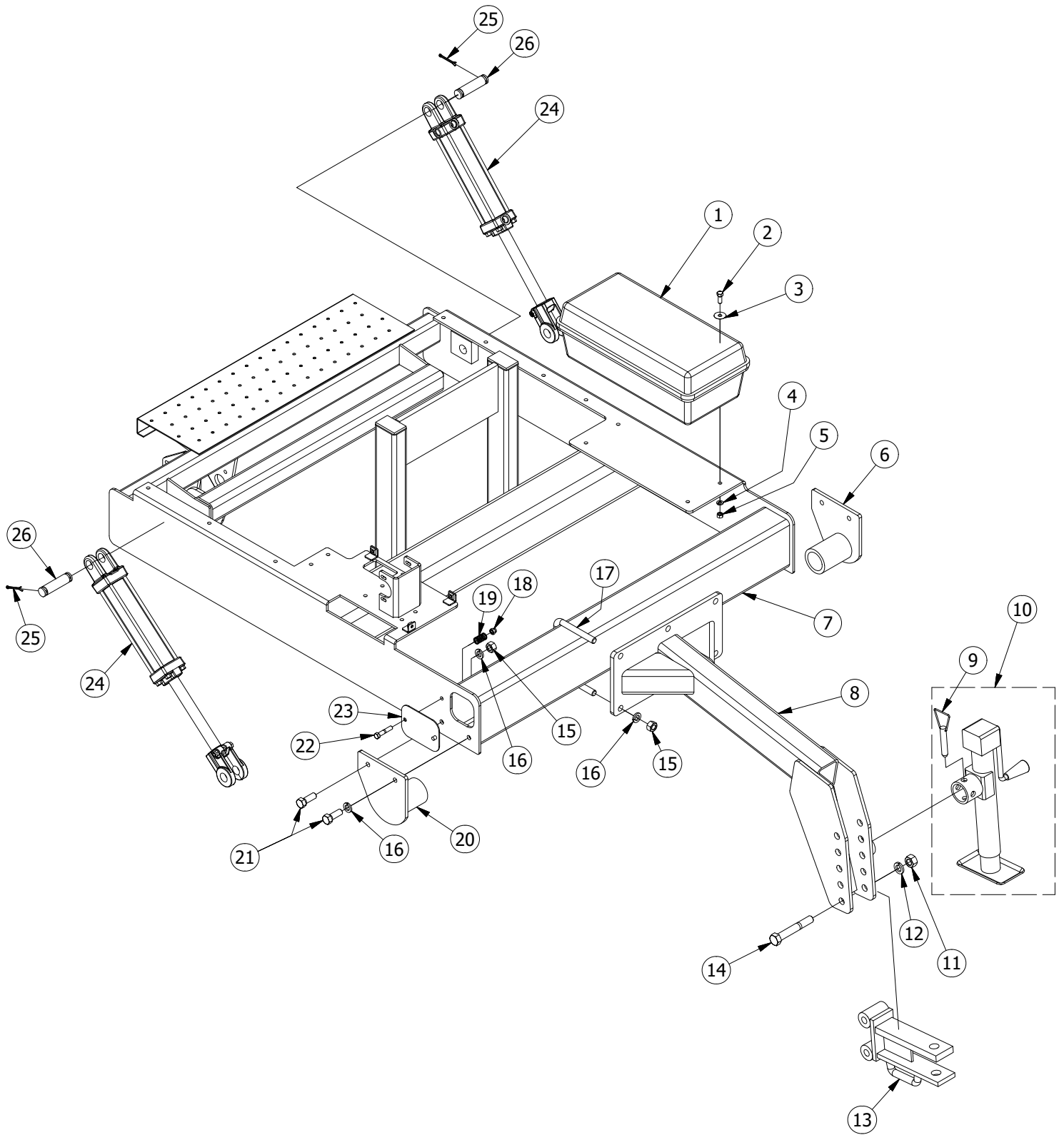
1 - Seed flows faster on one row:

Foam may be torn or mouse may have chewed a hole in the foam.

2 - One side of drill is lower than other side:

Raise drill the whole way up to reallign.

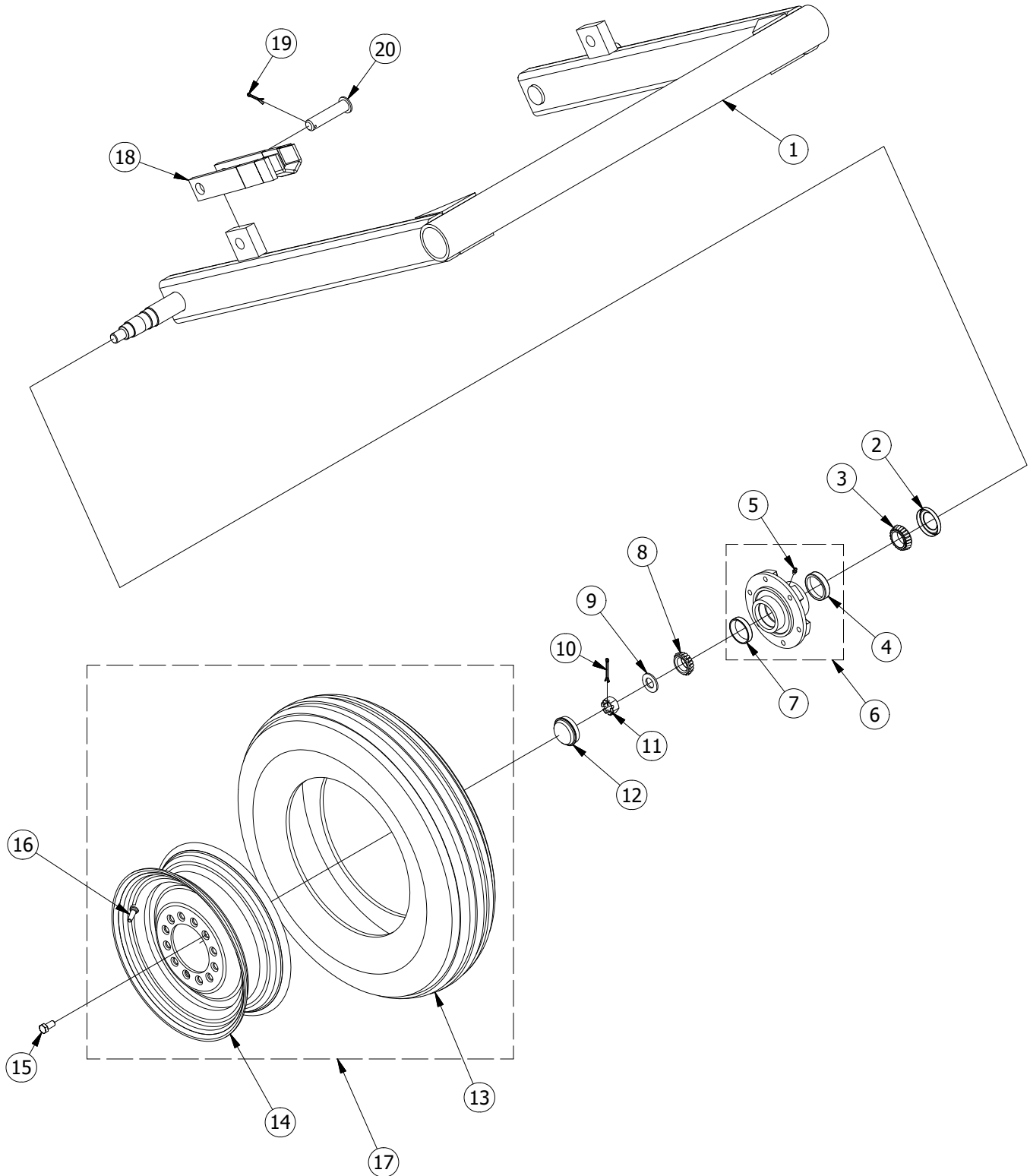
FRAME ASSEMBLY - 5603 DRILL



FRAME ASSEMBLY - 5603 DRILL

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	COMMENTS
1	1	1115	TOOL BOX	
2	4	12416045	3/8-16 UNC X 1 HEX BOLT	
3	4	72405000	FENDER WASHER	
4	4	62400000	3/8 LOCK WASHER	
5	4	32416005	3/8 - 16 HEX NUT	
6	1	108320	LIFT ARM SUPPORT - LEFT	
7	1	108020	FRAME	
8	1	108120	TONGUE	
9	1	1102	PIN	
10	1	1101	JACK	
11	2	34810005	3/4 - 10 HEX NUT	
12	2	64800000	3/4 LOCK WASHER	
13	1	108220	HITCH	
14	2	14810205	3/4-10 UNC X 5 HEX BOLT	
15	8	34011005	5/8 - 11 HEX NUT	
16	10	64000000	5/8 LOCK WASHER	
17	3	1118	U BOLT	
18	1	52416005	3/8 - 16 HEX LOCK NUT	
19	1	1613	SPRING	
20	1	108420	LIFT ARM SUPPORT - RIGHT	
21	4	14011075	5/8-11 UNC X 1.75 HEX BOLT	
22	1	12416085	3/8-16 UNC X 2 HEX BOLT	
23	1	112320	TARP COVER	
24	2	1085	CYLINDER	
25	4	91100800	5/32 x 2 COTTER PIN	
26	2	1124	PIN	

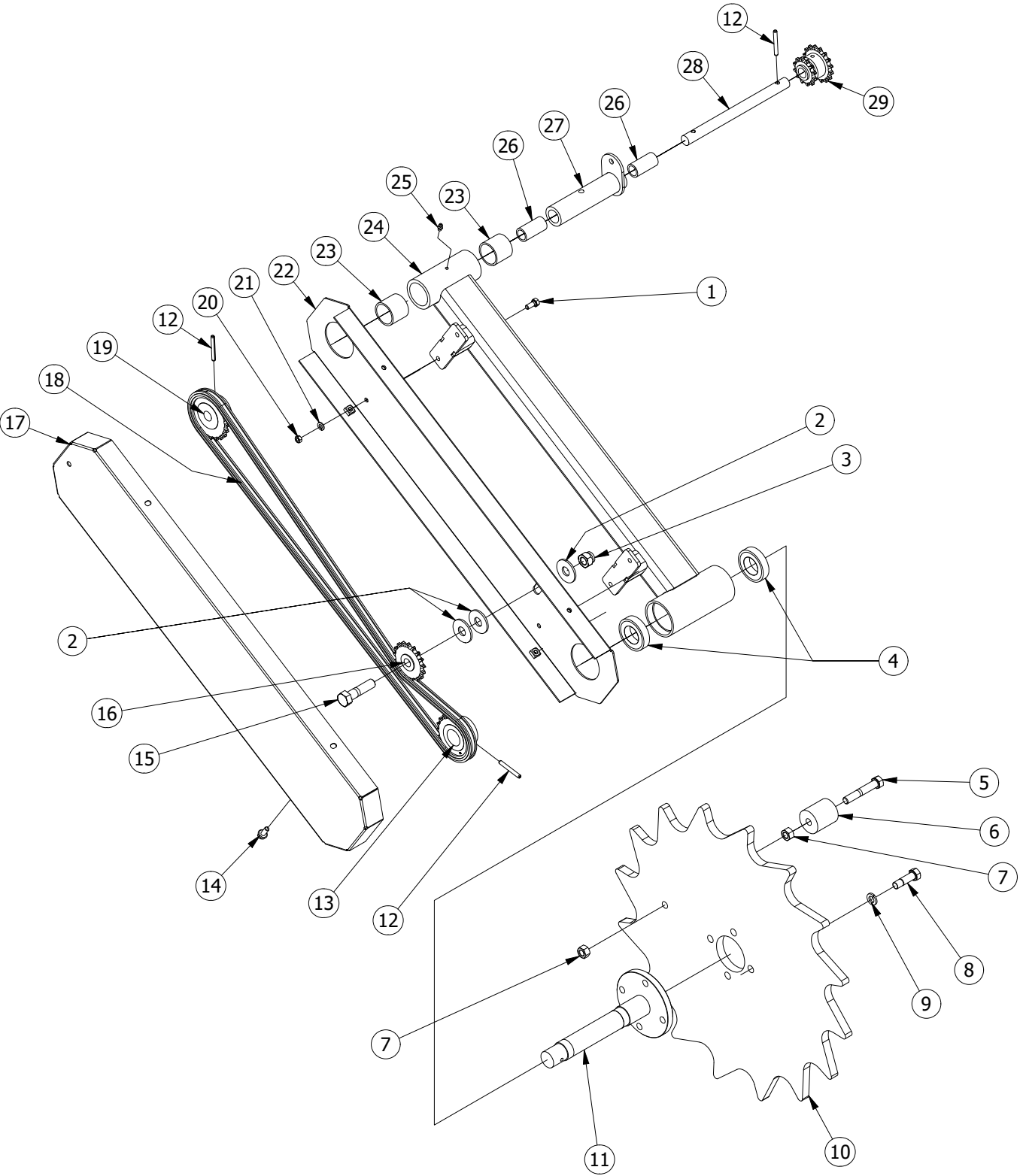
LIFT WHEEL - 5603 DRILL



LIFT WHEEL - 5603 DRILL

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	COMMENTS
1	1	108720	LIFT ARM	
2	2	1156	SEAL	
3	2	1158	BEARING	
4	2	1157	BEARING CUP	
5	2	Z1428	ZERK	
6	2	970420	HUB	INCLUDES 1157, Z1428
7	2	1159	BEARING CUP	
8	2	1160	BEARING	
9	2	85600000	7/8 SAE WASHER	
10	2	91100800	5/32 x 2 COTTER PIN	
11	2	1663	7/8 - 14 SLOTTED HEX NUT	
12	2	166420	HUB CAP	
13	2	1088	TIRE	
14	2	108920	RIM	
15	12	1512	LUG BOLT	
16	2	1190	VALVE STEM	
17	1	1090	WHEEL ASSEMBLY	INCLUDES 1088, 1089, 1190
18	2	1086	CYLINDER PROP	
19	2	91120600	3/16 x 1 1/2 COTTER PIN	
20	2	1167	PIN	

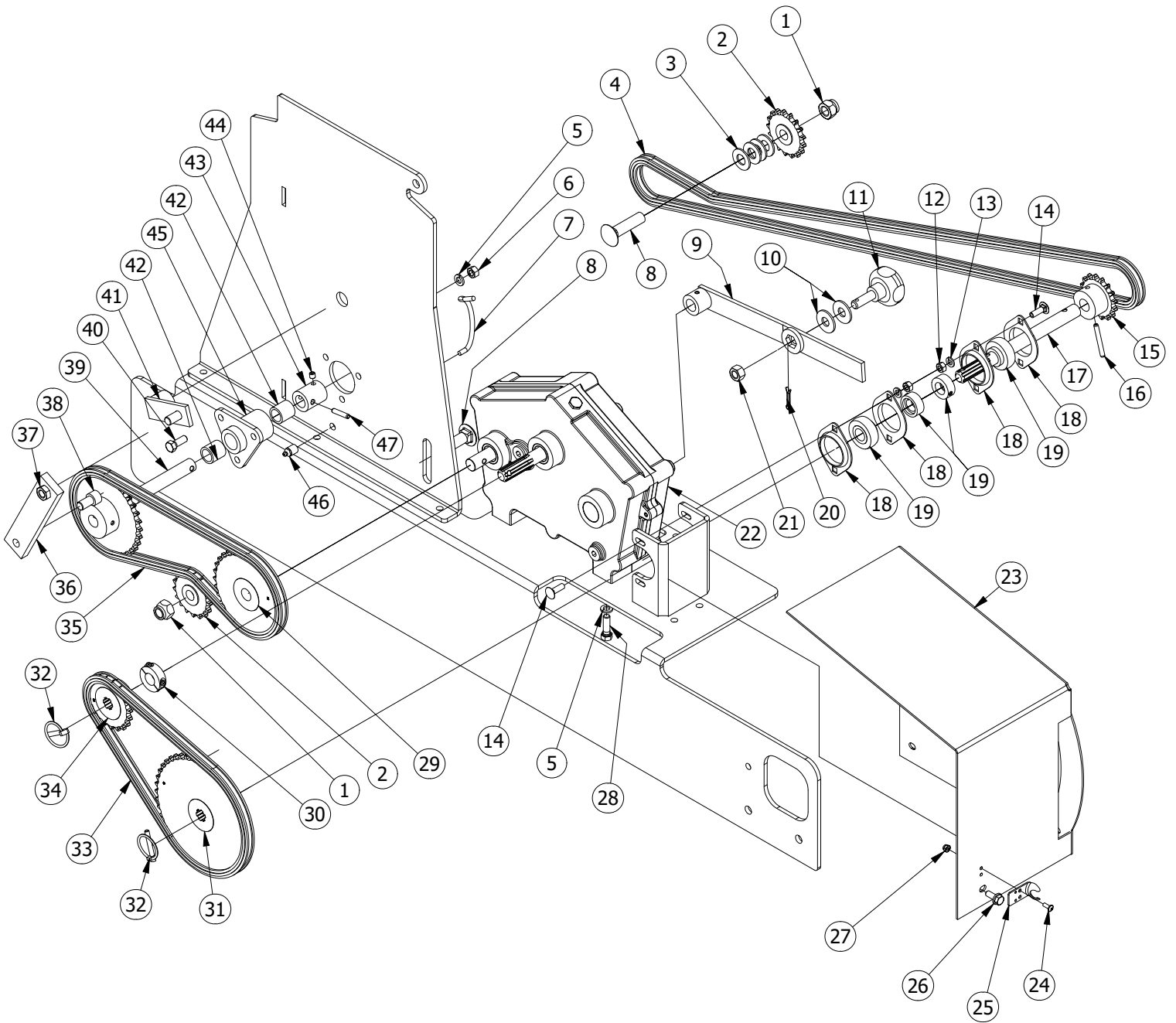
DRIVE ARM - 5603 DRILL



DRIVE ARM - 5603 DRILL

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	COMMENTS
1	4	12018035	5/16-18 UNC X 0.75 HEX BOLT	
2	3	74000000	5/8 WASHER	
3	1	54011005	5/8 - 11 HEX LOCK NUT	
4	2	153320	BEARING	
5	1	13213128	1/2-13 UNC X 3 HEX BOLT	
6	1	1511	SLEEVE	
7	2	33213005	1/2 - 13 HEX NUT	
8	4	13220075	1/2-20 UNF X 1.75 HEX BOLT	
9	4	63200000	1/2 LOCK WASHER	
10	1	1521	STEEL DRIVE WHEEL	
11	1	153220	DRIVE WHEEL SPINDLE	
12	3	93160800	1/4 x 2 ROLL PIN	
13	1	3504	SPROCKET - 20T	
14	4	12018032	5/16-18 X 0.75 FLANGE BOLT	
15	1	14011105	5/8-11 UNC X 2.5 HEX BOLT	
16	1	1409	IDLER SPROCKET	
17	1	153620	DRIVE ARM OUTER SHEILD	
18	1	3507	#40 CHAIN 135 LINKS	
19	1	1527	SPROCKET - 22T	
20	4	31620005	1/4 - 20 HEX NUT	
21	4	62000000	5/16 LOCK WASHER	
22	1	153520	DRIVE ARM INNER SHIELD	
23	2	1518	BUSHING	
24	1	153120	DRIVE WHEEL ARM	
25	1	Z1428	ZERK	
26	2	1519	BUSHING	
27	1	152220	DRIVE ARM PIN	
28	1	1520	SHAFT	
29	1	1523	DOUBLE SPROCKET - 16T, 12T	

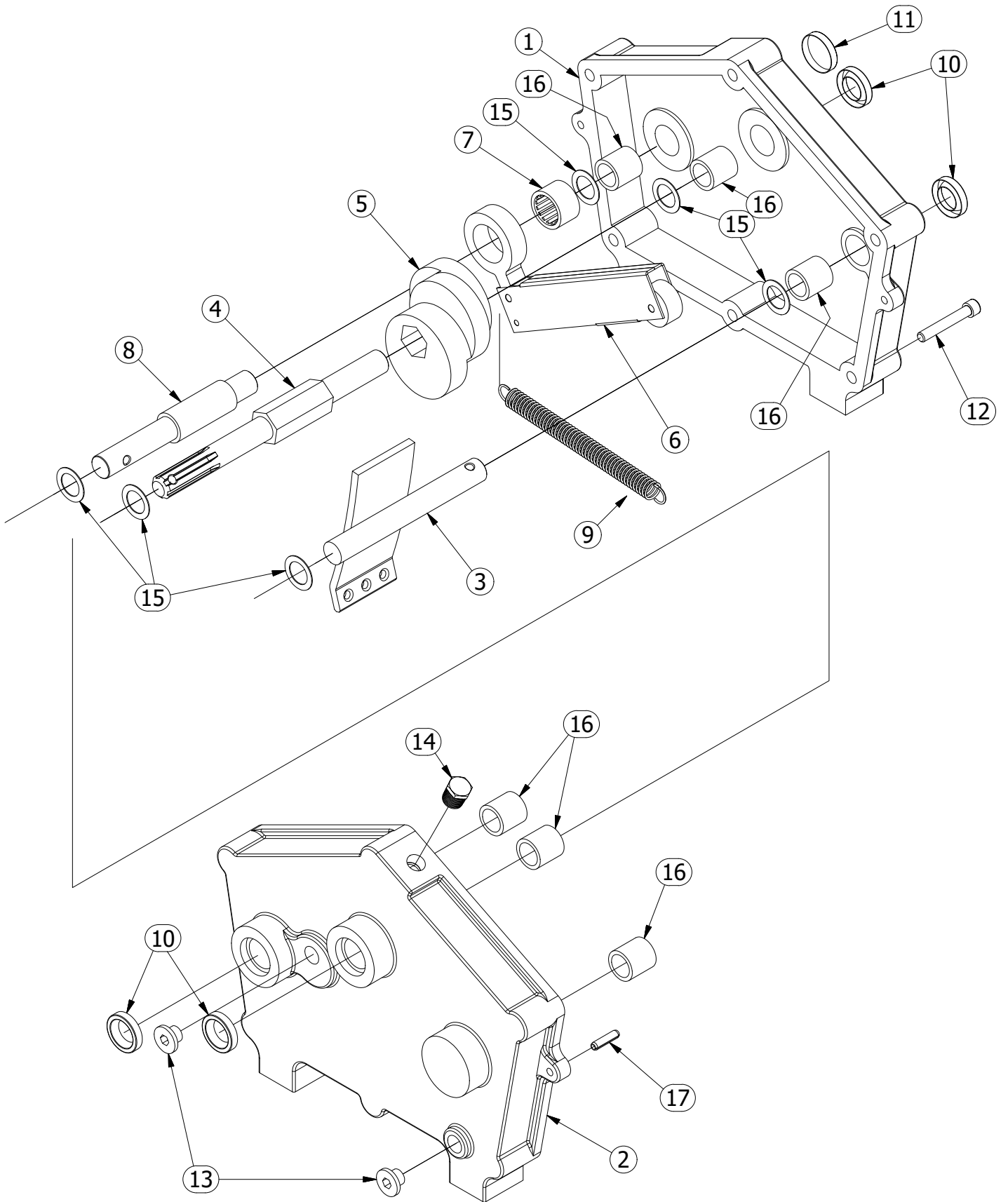
DRIVE ASSEMBLY - 5603 DRILL



DRIVE ASSEMBLY - 5603 DRILL

PARTS LIST				
ITEM	QTY	PART #	DESCRIPTION	COMMENTS
1	2	54011005	5/8 - 11 HEX LOCK NUT	
2	2	1409	IDLER SPROCKET	
3	6	84000000	5/8 SAE WASHER	
4	1	1463	#40 CHAIN 169 LINKS	
5	7	62400000	3/8 LOCK WASHER	
6	3	32416005	3/8 - 16 HEX NUT	
7	1	1417	GREASE HOSE	
8	2	24011105	5/8-11 X 2.5 CARRIAGE BOLT	
9	1	1402	GEARBOX LEVER	
10	2	73200000	1/2 WASHER	
11	1	1405	KNOB	
12	4	32018005	5/16 - 18 HEX NUT	
13	4	62000000	5/16 LOCK WASHER	
14	4	22018042	5/16-18 X 1 CARRIAGE BOLT	
15	1	1437	SPROCKET - 16T	
16	3	93160800	1/4 x 2 ROLL PIN	
17	1	1422	SPLINE SHAFT	
18	4	1424	BEARING FLANGE	
19	2	1423	BEARING	
20	1	91100400	5/32 x 1 COTTER PIN	
21	1	33213005	1/2 - 13 HEX NUT	
22	1	1401	GEARBOX	
23	1	140320	GEARBOX SHIELD	
24	2	11024022	10 - 24 X 1/2 PAN HEAD SCREW	
25	1	1404	HOOD LATCH SUPPORT	
26	3	12018032	5/16-18 X 0.75 FLANGE BOLT	
27	2	51024002	No. 10 - 24 HEX LOCK NUT	
28	4	12416055	3/8-16 UNC X 1.25 HEX BOLT	
29	1	1410	SPROCKET - 32T	
30	1	1433	SHAFT COLLAR	
31	1	1419	SPROCKET - 45T	
32	2	1421	LINCH PIN	
33	1	1420	#40 CHAIN 67 LINKS	
34	1	1418	SPROCKET - 20T	
35	1	1462	#40 CHAIN 78 LINKS	
36	1	1464	AGITATOR LINK	
37	1	53213002	1/2 - 13 HEX JAM NUT	
38	1	1461	SPROCKET - 32T	
39	1	1412	SEED BOX JACK SHAFT	
40	3	12416045	3/8-16 UNC X 1 HEX BOLT	
41	1	1465	AGITATOR ARM	
42	2	1415	BRONZE BUSHING	
43	1	1411	SQUARE COUPLER	
44	2	1414	5/16-18 X 0.31	
45	1	141620	TRIANGLE HUB	
46	1	Z18FP	ZERK	
47	3	93160500	1/4 x 1 1/4 ROLL PIN	

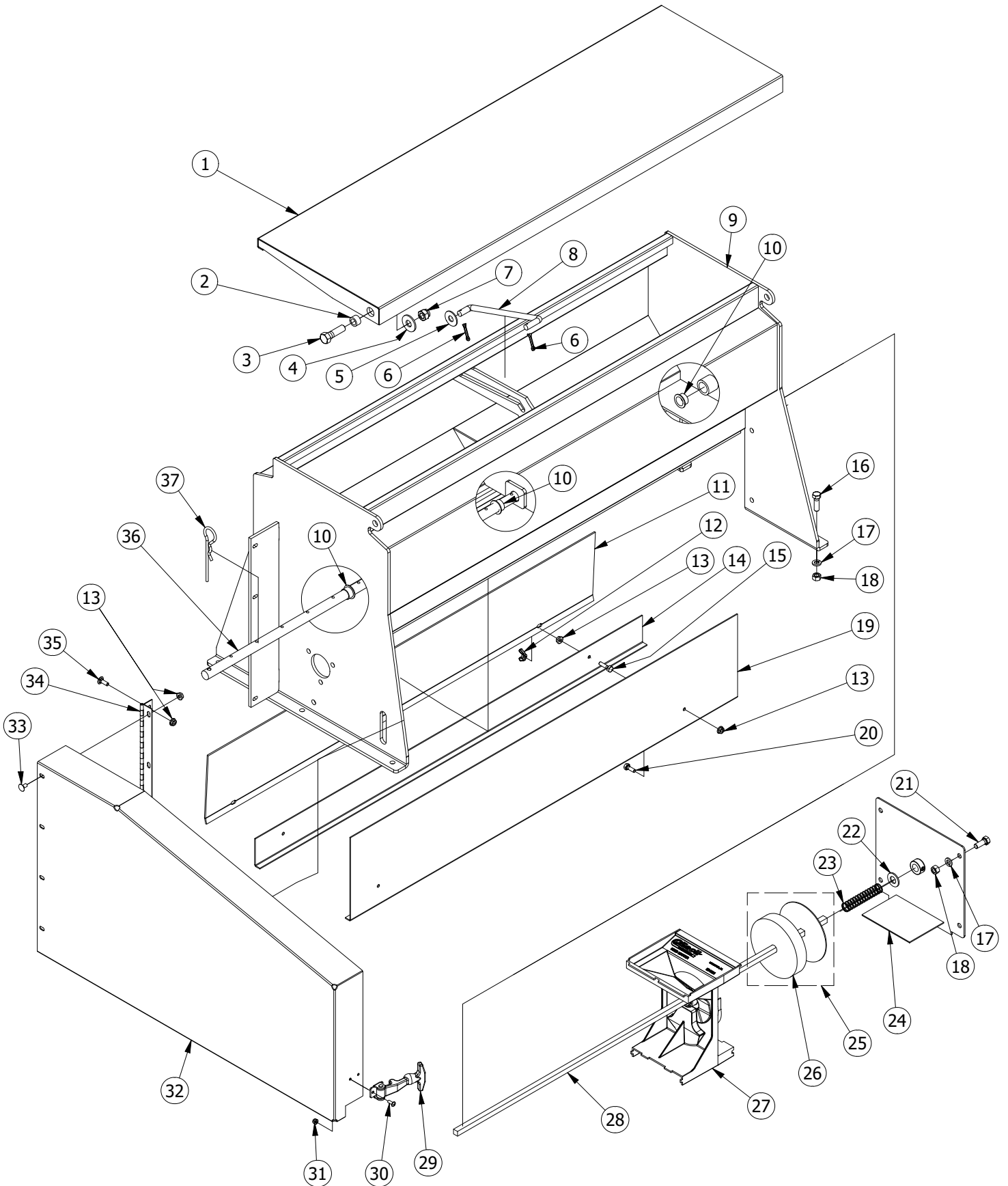
GEARBOX - 5603 DRILL



GEARBOX - 5603 DRILL

PARTS LIST				
ITEM	QTY	PART #	DESCRIPTION	COMMENTS
1	1	1301	GEARBOX LEFT CASTING	INCLUDES #1310, 1311, 1415
2	1	1302	GEARBOX RIGHT CASTING	INCLUDES #1310, 1415
3	1	1303	CAM GUIDE	
4	1	1304	SHAFT	
5	1	1305	GEARBOX CAM	
6	3	1306	GEARBOX ARM	
7	3	1307	CLUTCH BEARING	
8	1	1308	CAM ARM SHAFT	
9	3	1309	GEARBOX SPRING	
10	4	1310	SEAL	
11	1	1311	CAP	
12	6	1312	SOCKET HEAD BOLT	
13	2	1314	PLUG	
14	1	1315	BREATHER PLUG	
15	6	1316	SHIM WASHER	
16	6	1415	BRONZE BUSHING	
17	2	93160400	ROLL PIN	

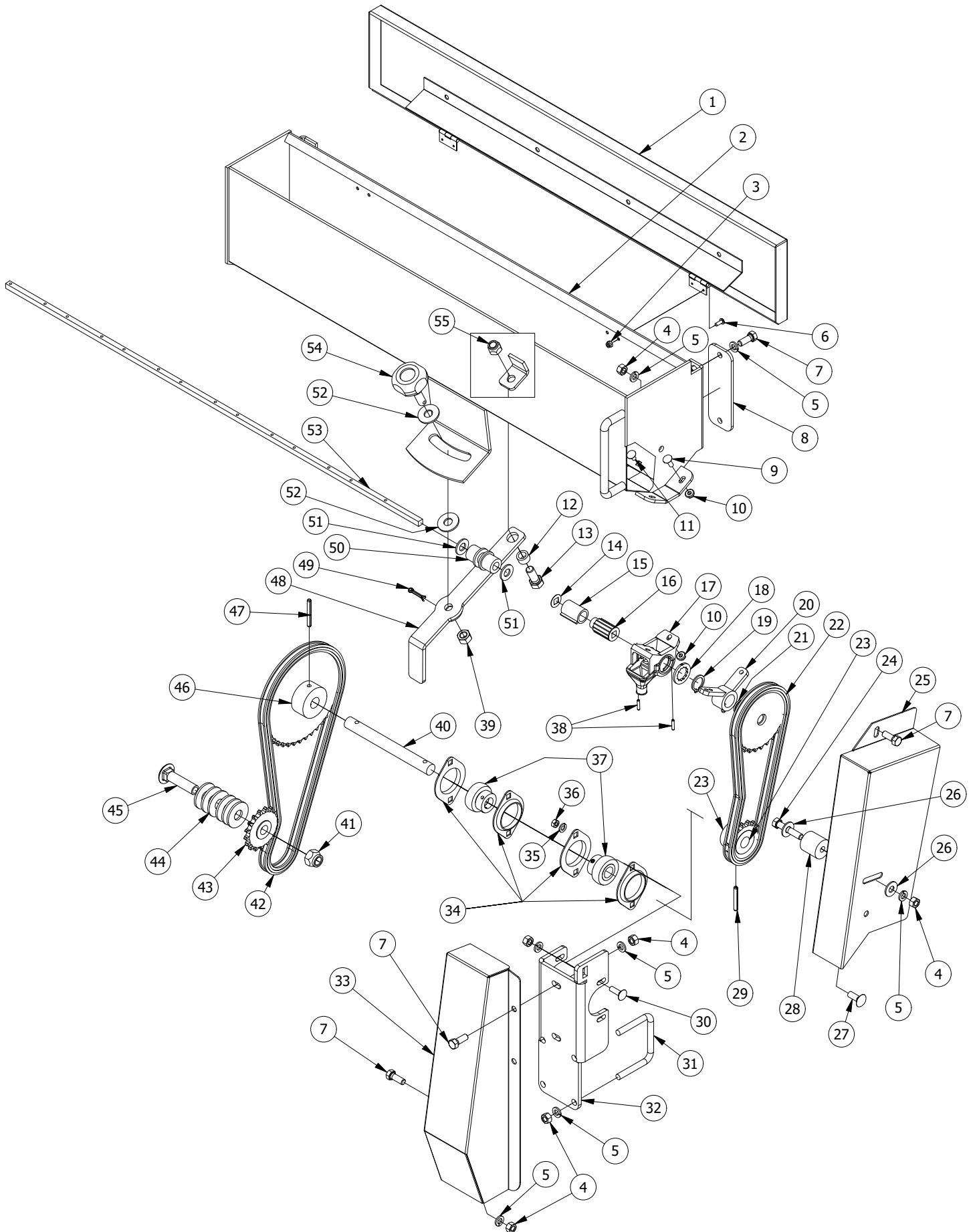
SEED BOX ASSEMBLY - 5603 DRILL



SEED BOX ASSEMBLY - 5603 DRILL

PARTS LIST				
ITEM	QTY	PART #	DESCRIPTION	COMMENTS
1	1	126220	SEED BOX LID	
2	2	1658	BUSHING	
3	2	13213075	1/2-13 UNC X 1.75 HEX BOLT	
4	2	73200000	1/2 WASHER	
5	1	72800000	7/16 WASHER	
6	2	91100400	5/32 x 1 COTTER PIN	
7	2	53213005	1/2 - 13 HEX LOCK NUT	
8	1	1268	LID GUIDE	
9	1	126120	SEED BOX	
10	3	1214	BUSHING	
11	1	126520	REAR SHEILD REMOVABLE	
12	2	1207	WING NUT	
13	12	41620005	1/4 - 20 HEX FLANGE NUT	
14	1	126420	REAR SHIELD	
15	2	11620045	1/4-20 UNC X 1 HEX BOLT	
16	7	12416055	3/8-16 UNC X 1.25 HEX BOLT	
17	11	62400000	3/8 LOCK WASHER	
18	11	32416005	3/8 - 16 HEX NUT	
19	1	1263	FRONT SHIELD	
20	2	11620035	1/4-20 UNC X 0.75 HEX BOLT	
21	4	12416045	3/8-16 UNC X 1 HEX BOLT	
22	7	83600000	9/16 SAE WASHER	
23	7	1212	SPRING	
24	1	127120	COVER	
25	7	1210	FOAM PLATE	
26	7	1211	FOAM	
27	7	1209	SEED CHUTE	
28	1	1266	SEED BOX DRIVE SHAFT	
29	1	1219	HOOD LATCH	
30	2	11024022	10 - 24 X 1/2 PAN HEAD SCREW	
31	2	51024002	No. 10 - 24 HEX LOCK NUT	
32	1	127020	SHIELD	
33	4	21620022	1/4-20 X 0.5 CARRIAGE BOLT	
34	1	121720	HINGE	
35	4	21620032	1/4-20 X 0.75 CARRIAGE BOLT	
36	1	1267	AGITATOR SHAFT	
37	7	1216	AGITATOR CLIP	

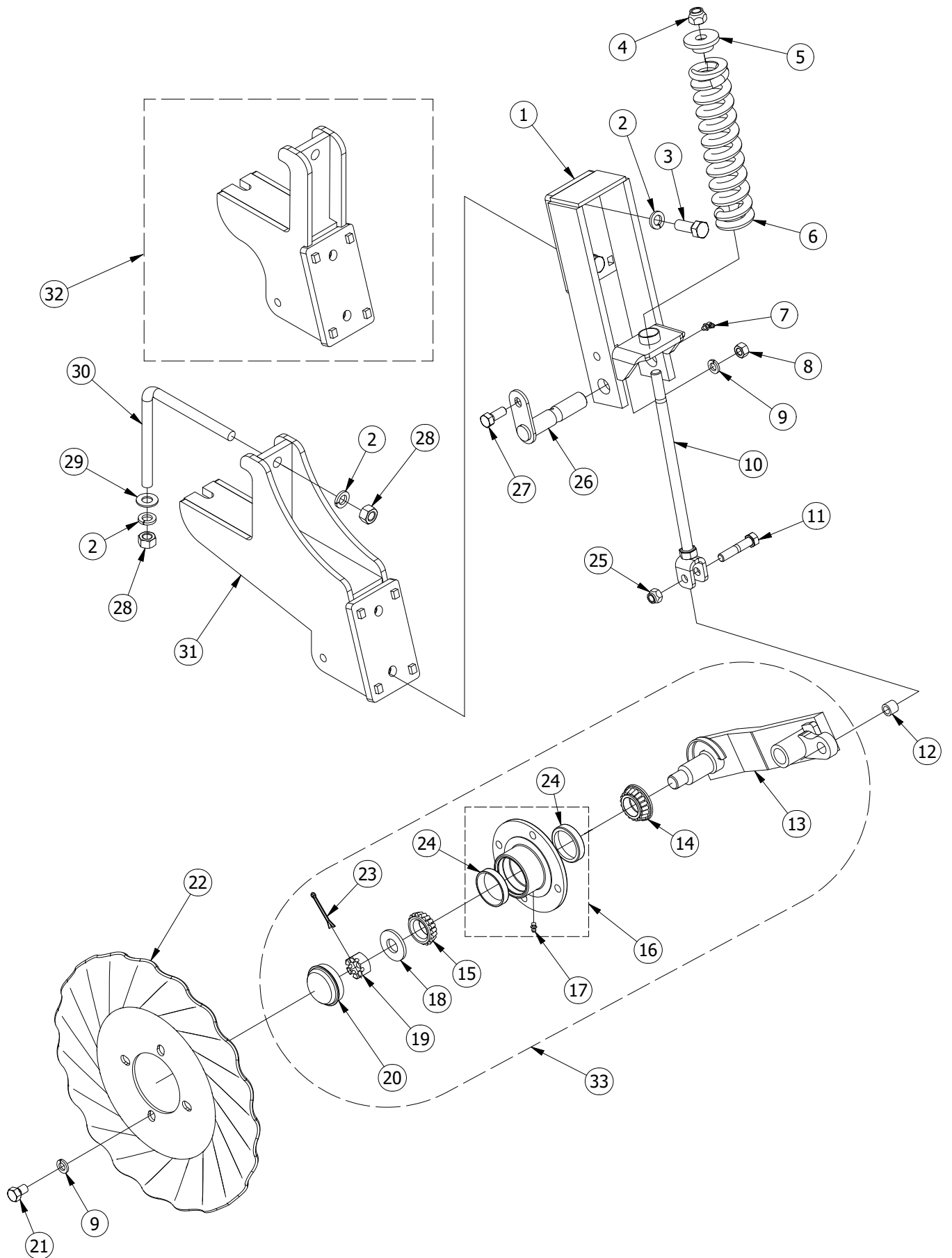
SMALL SEED BOX - 5603 DRILL



SMALL SEED BOX - 5603 DRILL

PARTS LIST				
ITEM	QTY	PART #	DESCRIPTION	COMMENTS
1	1	195220	LID	
2	1	195120	SMALL SEED BOX	
3	4	51024002	10 - 24 HEX LOCK NUT	
4	10	32416005	3/8 - 16 HEX NUT	
5	14	62400000	3/8 LOCK WASHER	
6	4	11024022	10 - 24 X 1/2 PAN HEAD SCREW	
7	8	12416045	3/8-16 UNC X 1 HEX BOLT	
8	2	190020	SMALL SEED BOX SUPPORT	
9	2	21620032	1/4-20 X 0.75 CARRIAGE BOLT	
10	16	41620005	1/4 - 20 HEX FLANGE NUT	
11	14	21620022	1/4-20 X 0.5 CARRIAGE BOLT	
12	1	1228	BUSHING	
13	1	13213055	1/2-13 UNC X 1.25 HEX BOLT	
14	7	1908	WASHER	
15	7	1907	SLEEVE	
16	7	1906	SEED SPROCKET	
17	7	1904	SEED CUP	
18	7	1905	SEED WASHER	
19	1	1913	EXTERNAL RETAINING RINGS	
20	1	1911	BEARING	
21	1	1912	SPROCKET 27T	
22	1	1954	#40 CHAIN 57 LINKS	
23	1	1437	SPROCKET - 16T	
24	1	12416085	3/8-16 UNC X 2 HEX BOLT	
25	1	193420	SMALL SEED BOX SHIELD - 3 FT AND 5 FT	
26	2	72400000	3/8 WASHER	
27	1	22416042	3/8-16 X 1 CARRIAGE BOLT	
28	1	1915	CHAIN TIGHTNER	
29	1	93160700	1/4 x 1 3/4 ROLL PIN	
30	4	22018042	5/16-18 X 1 CARRIAGE BOLT	
31	2	1956	U BOLT 3/8	
32	1	195520	REAR JACK SHAFT BEARING MOUNT	
33	1	195720	SHIELD	
34	4	1424	BEARING FLANGE	
35	4	62000000	5/16 LOCK WASHER	
36	4	31620005	1/4 - 20 HEX NUT	
37	2	1423	BEARING	
38	14	93100300	ROLL PIN	
39	1	33213005	1/2 - 13 HEX NUT	
40	1	1436	SHAFT	
41	1	54011005	5/8 - 11 HEX LOCK NUT	
42	1	1958	#40 CHAIN 75 LINKS	
43	1	1409	IDLER SPROCKET	
44	6	74000000	5/8 WASHER	
45	1	24011105	5/8-11 X 2.5 CARRIAGE BOLT	
46	1	1435	SPROCKET - 42T	
47	1	93160800	1/4 x 2 ROLL PIN	
48	1	1910	SMALL BOX LEVER	
49	1	91100400	5/32 x 1 COTTER PIN	
50	1	1909	ADJUSTMENT COLLAR	
51	2	83200000	1/2 SAE WASHER	
52	2	73200000	1/2 WASHER	
53	1	1953	SMALL SEED BOX SHAFT	
54	1	1405	KNOB	
55	1	53213005	1/2 - 13 HEX LOCK NUT	

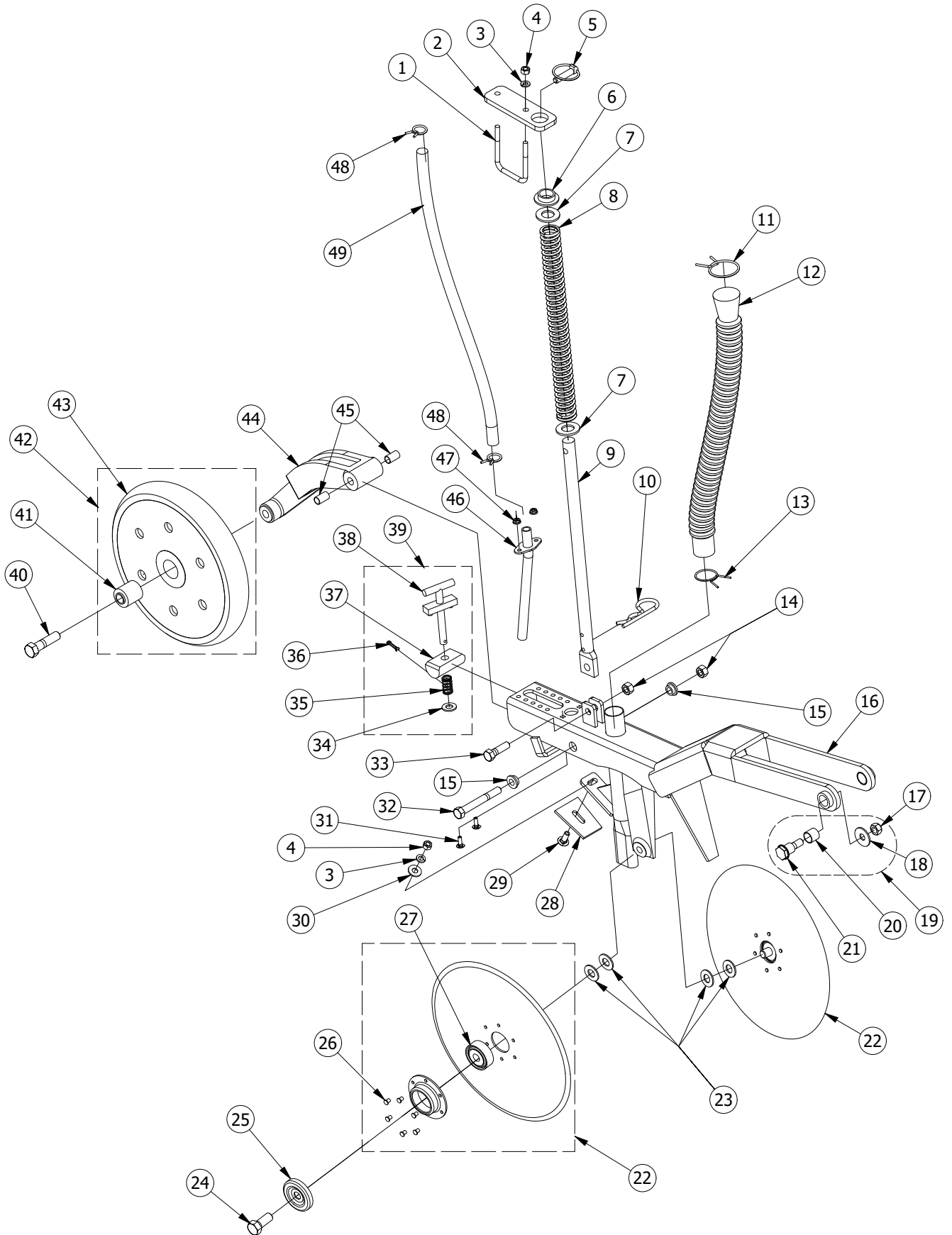
COULTER UNIT - 5603 DRILL



COULTER UNIT - 5603 DRILL

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	COMMENTS
1	7	165320	COULTER ARM MOUNT	
2	28	64000000	5/8 LOCK WASHER	
3	14	14011075	5/8-11 UNC X 1.75 HEX BOLT	
4	7	54011005	5/8 - 11 HEX LOCK NUT	
5	7	1655	COULTER SPRING CAP	
6	7	1656	COULTER SPRING	
7	7	Z1490	ZERK , 90 deg	
8	7	33213005	1/2 - 13 HEX NUT	
9	35	63200000	1/2 LOCK WASHER	
10	7	1657	COULTER SPRING BOLT	
11	7	13213108	1/2-13 UNC X 2.5 HEX BOLT	
12	7	1658	WEAR BUSHING	
13	7	165920	COULTER ARM	
14	7	1660	BEARING WITH SEAL	
15	7	1661	BEARING	
16	7	166520	COULTER HUB	INCLUDES 1662, Z1428
17	4	Z1428	ZERK	
18	7	1667	COULTER SPINDLE WASHER	
19	7	1663	7/8 - 14 SLOTTED HEX NUT	
20	7	166420	HUB CAP	
21	28	13220035	1/2-20 UNF X 0.75 HEX BOLT	
22	7	1666	COULTER BLADE	
23	7	91100800	5/32 x 2 COTTER PIN	
24	14	1662	BEARING CUP	
25	7	53213005	1/2 - 13 HEX LOCK NUT	
26	7	165420	COULTER ARM PIN	
27	7	13213055	1/2-13 UNC X 1.25 HEX BOLT	
28	14	34011005	5/8 - 11 HEX NUT	
29	7	84000000	5/8 SAE WASHER	
30	7	1652	L BOLT	
31	4	165020	LONG MOUNTING BRACKET	
32	3	165120	SHORT MOUNTING BRACKET	
33	7	166920	COULTER ARM ASSEMBLY	

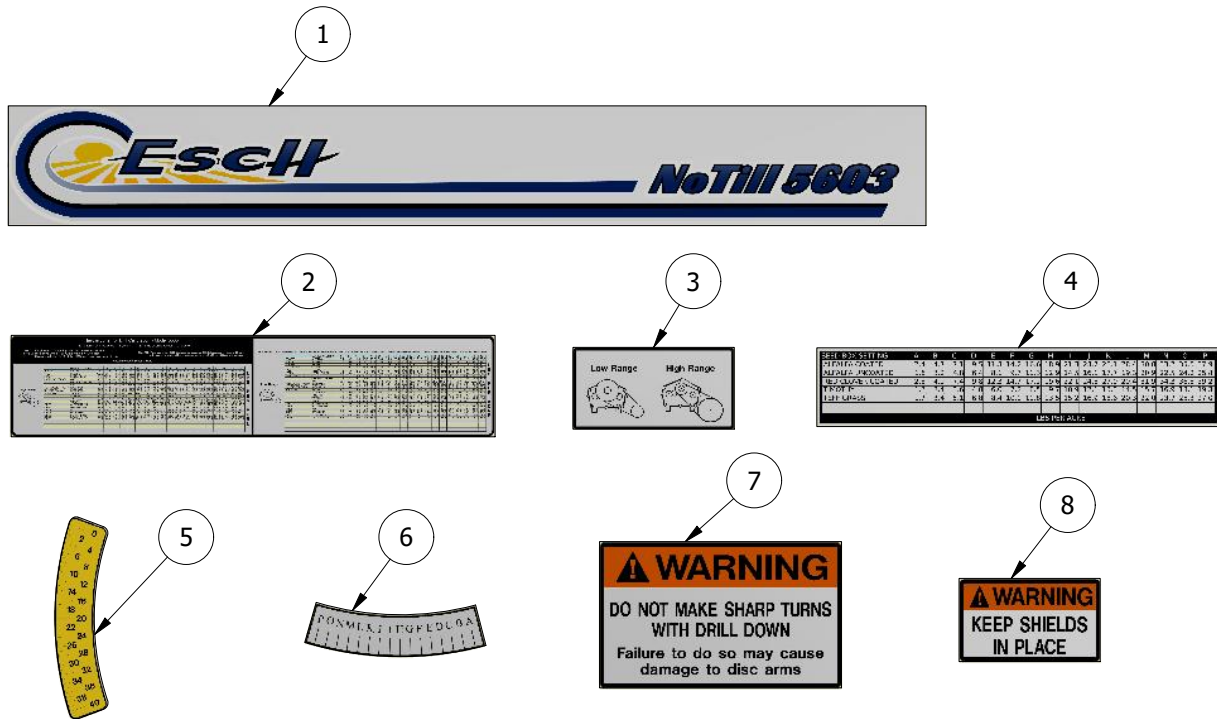
DISC UNIT - 5603 DRILL



DISC UNIT - 5603 DRLL

PARTS LIST				
ITEM	QTY	PART #	DESCRIPTION	COMMENTS
1	7	1623	U BOLT	
2	7	162220	ROD PLATE	
3	21	62400000	3/8 LOCK WASHER	
4	21	32416005	3/8 - 16 HEX NUT	
5	7	1620	LINCH PIN	
6	7	1621	BUSHING	
7	14	85600000	7/8 SAE WASHER	
8	7	1619	SPRING	
9	7	161720	SPRING ROD	
10	7	1618	HAIRPIN	
11	7	1626	TOP HOSE CLAMP	
12	7	1625	HOSE	
13	7	1624	BOTTOM HOSE CLAMP	
14	14	53213006	1/2 - 13 REV LOCK NUT	
15	14	1608	BUSHING	
16	7	160320	DOUBLE DISC ARM	
17	14	53220008	STOVER LOCK NUT	
18	14	1600	SPRING WASHER	
19	7	1645	WEAR BOLT KIT	
20	14	1642	DISC ARM BUSHING	
21	14	1641	SHOULDER BOLT	
22	14	1605	DISC BLADE	
23	28	84000000	5/8 SAE WASHER	
24	14	14011065	5/8-11 UNC X 1.5 HEX BOLT	
25	14	1604	DUST CAP	
26	14	1627	BOLT KIT	
27	14	1606	BEARING	
28	7	1607	SCRAPER	
29	7	22416042	3/8-16 X 1 CARRIAGE BOLT	
30	7	72400000	3/8 WASHER	
31	14	21620032	1/4-20 X 0.75 CARRIAGE BOLT	
32	7	13213168	1/2-13 UNC X 4 HEX BOLT	
33	7	13213075	1/2-13 UNC X 1.75 HEX BOLT	
34	7	83200000	1/2 SAE WASHER	
35	7	1613	SPRING	
36	7	91100400	5/32 x 1 COTTER PIN	
37	7	1612	DEPTH BLOCK	
38	7	1611	T HANDLE	
39	7	1628	T HANDLE ASSEMBLY	
40	7	14011105	5/8-11 UNC X 2.5 HEX BOLT	
41	7	1630	PRESS WHEEL BEARING	
42	7	1610	PRESS WHEEL	
43	7	1631	PRESS WHEEL TIRE	
44	7	160920	PACKER WHEEL ARM	
45	14	1640	PACKER ARM BUSHING	
46	7	161420	SEED TUBE	
47	14	41620005	1/4 - 20 HEX FLANGE NUT	
48	14	1616	SMALL HOSE CLAMP	
49	7	1615	SEED HOSE	

DECALS - 5603 DRILL



PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	COMMENTS
1	1	1851	5603 - FRONT LOGO DECAL	
2	1	1852	5603 - SEED CHART	
3	1	1803	GEARBOX RANGE DECAL	
4	1	1809	SMALL SEED BOX CHART	
5	1	1801	NUMBER GAUGE DECAL	
6	1	1802	LETTER GAUGE DECAL	
7	1	1804	WARNING SHARP TURN DECAL	
8	2	1805	WARNING SHIELDS DECAL	