

Section G

Rake

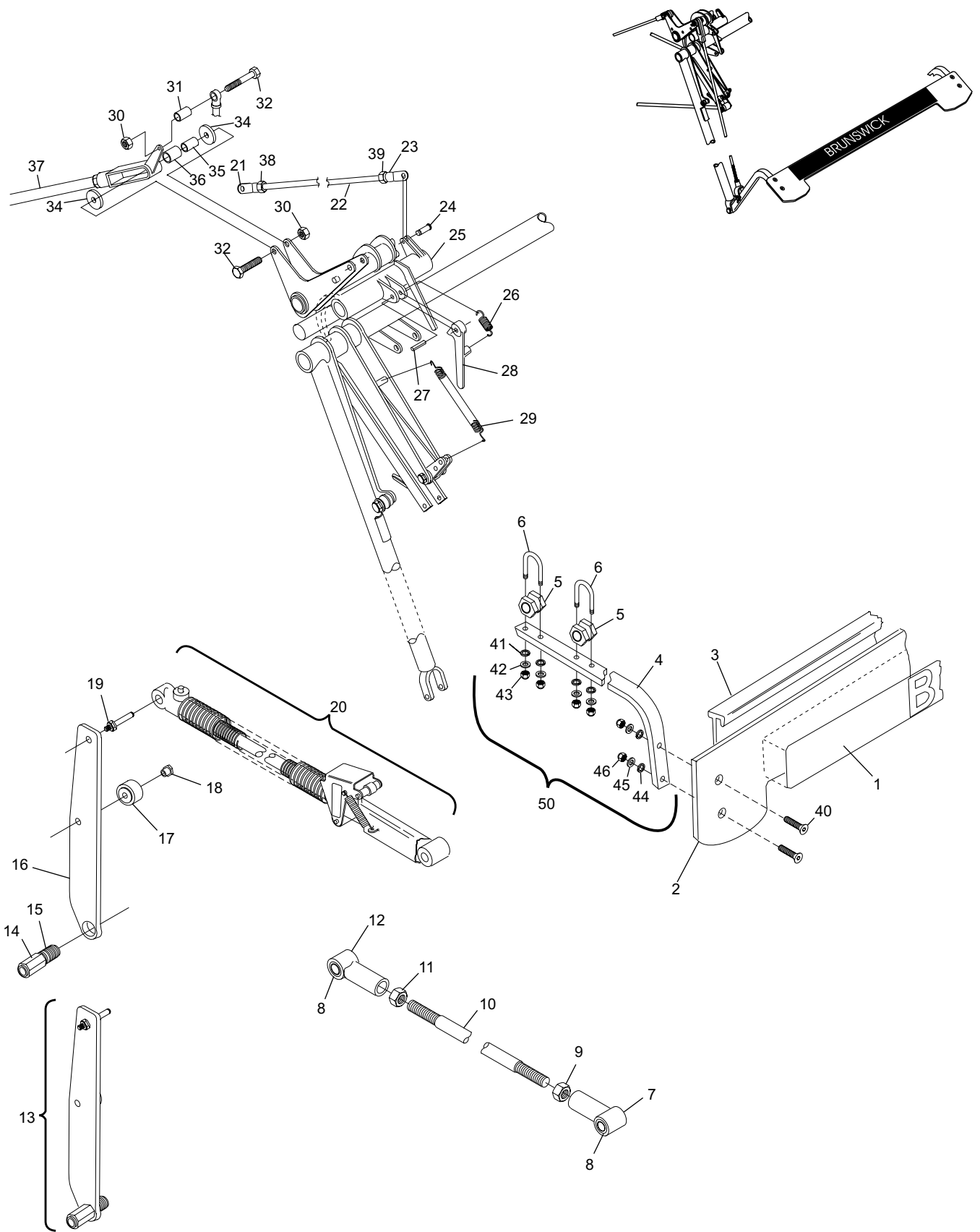
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No.	Part No.	Description
1.	N.A.	Decal
	12-252290-000	"Astroline" Rake Board Decal
	12-252290-010	"2000" Rake Board Decal
	N.A.	Decal, for straight rake boards
2.	12-252373-000	Gray Rake Board W/O Decal
	12-252373-010	Brown Rake Board W/O Decal
	12-252548-000	Gray Rake Board (5.5")
	12-252548-010	Rake Board - Brown Kickbacks (5.5")
3.	12-252372-000	Gray Rake Board Cushion
	12-252372-010	Brown Rake Board Cushion
	12-252284-000	Cushion
4.	12-252037-000	Sweep Arm, Note
	90-252037-000	Molded Sweep Arm Assembly
5.	12-252039-000	Pin Housing
6.	12-252009-000	U-Bolt
7.	12-250060-002	Rod End Assembly
8.	11-420035-000	Sleeve Oilite Bearing
9.	11-125206-001	Hex Jam Nut (7/16-14)
10.	12-250032-002	Rod
11.	11-125256-001	Hex Jam Nut (7/16-14)
12.	12-250060-003	Rod End Assembly
13.	12-252235-000	Cam Follower Arm Assembly, for Model A-2
14.	11-421019-000	Flanged Oilite Bearing
15.	12-250230-000	Hub & Bearing Assembly
16.	12-252234-000	Cam Follower Arm, for Model A-2
17.	11-460000-000	Needle Roller Bearing
18.	12-250244-000	Bearing Stud
19.	12-250229-000	Pivot Stud
20.	12-252301-000	Rake Latch Assembly
21.	12-250021-002	R.H. Rod End
22.	12-250031-002	Rod
23.	12-250021-003	L.H. Rod End
24.	12-250010-011	X-Washer Pin
25.	12-250265-000	Lever Shoe
26.	12-250127-000	Tension Spring
27.	11-345412-000	Roll Pin (1/4 x 1")
28.	12-250044-000	Latch
29.	12-250050-000	Spring
30.	11-170007-001	Hex Nut Nylock (1/4-20)
31.	12-252339-000	Spacer
32.	11-002008-001	Hex Head Socket Cap Screw (1/4-20 x 2")
33.	N.A.	Acorn Nut
34.	12-250076-003	Washer
35.	12-250091-000	Sleeve Oilite Bearing
36.	12-252090-000	Bumper
37.	N.A.	Line Assembly
38.	11-125200-001	Hex Jam Nut (1/4-20)
39.	11-125250-001	Hex Jam Nut (1/4-20)
40.	11-007386-001	Flat Head Socket Cap Screw (3/8-24 x 1-1/4")
41.	11-190012-001	Flat Washer - SAE (5/16)
42.	11-195015-001	Lockwasher (5/16)
43.	N.A.	Acorn Nut
44.	11-190014-001	Flat Washer (3/8)
45.	11-195016-001	Lockwasher (3/8)

N.A. = No Longer Available

NOTE: 12-252037-000 is no longer available, order 90-252037-000 as replacement.

Rake Assembly



Rake Assembly

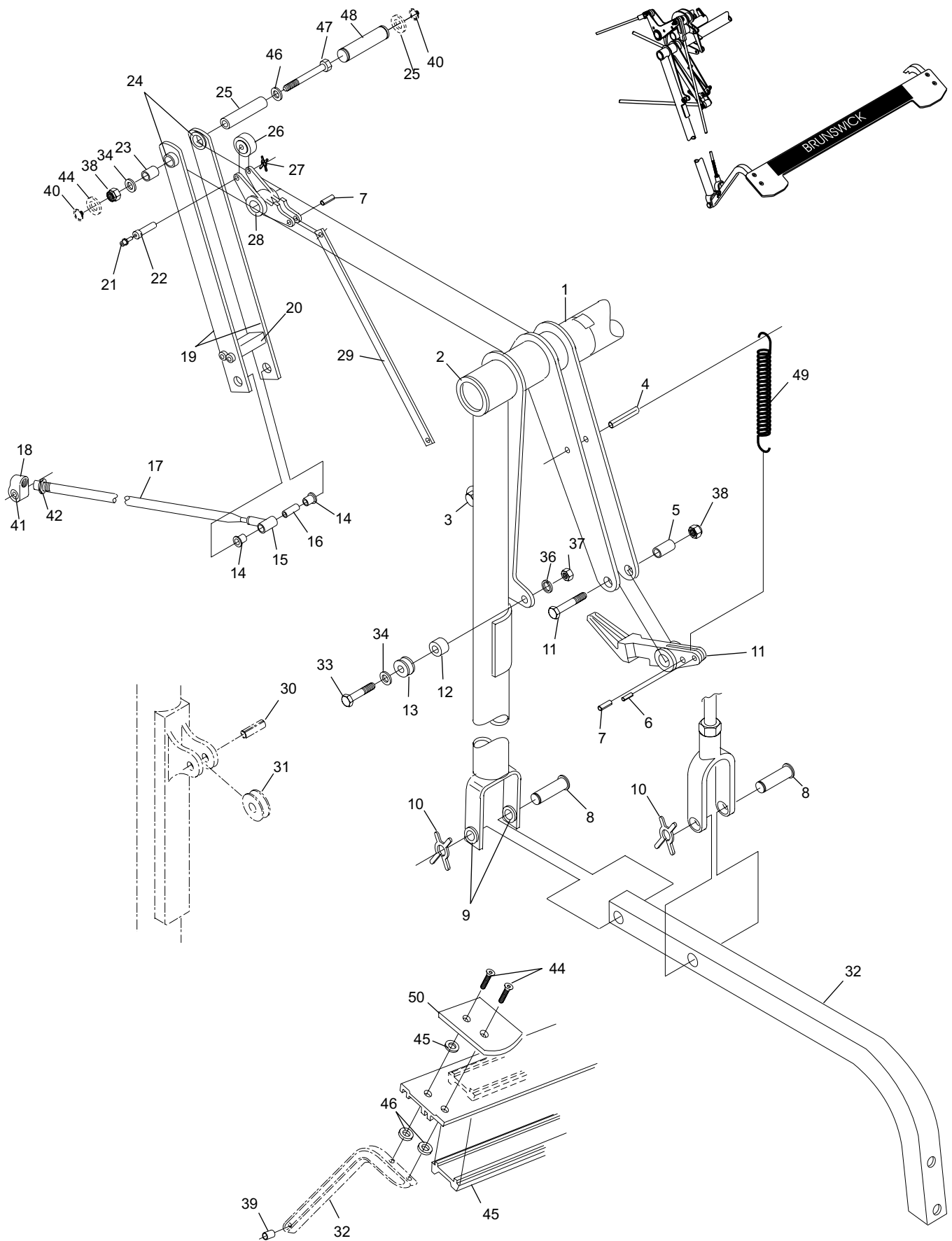
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No.	Part No.	Description
1.	12-862186-000	Modular Rake Shaft Assembly
2.	11-421030-000	Flanged Bronze Bearing
3.	11-420066-000	Sleve Oilite Bearing
4.	11-345418-001	Roll Pin (1/4 x 1-3/4")
5.	12-250011-013	Spacer
6.	11-345306-000	Roll Pin (3/16 x 5/8")
7.	11-345406-000	Roll Pin (1/4 x 5/8")
8.	12-250010-007	X-Washer Pin
9.	11-420063-000	Sleve Oilite Bearing
	11-421147-000	Bearing (.5145 I.D. X .6905 O.D.)
10.	11-230005-001	"X" Washer (1/4)
11.	12-250049-000	Hook
12.	12-250197-000	Stepped Spacer
13.	10-376007-000	Wheel
	10-376009-000	Spring Roller
14.	11-421027-000	Flanged Oilite Bearing
15.	12-250014-000	Pivot Assembly
	12-250273-000	Pivot Assembly
16.	12-250011-014	Spacer
17.	12-250022-002	Rod, Rake Crank, Tapered
	12-250278-002	Rod, Rake Crank, Tapered
	12-252309-000	Collapsible Rake Crank Rod - Straight
18.	12-250020-000	Pivot Assembly
	12-250275-000	Pivot Assembly
19.	12-250225-000	Link & Bearing Assembly
20.	12-250039-000	Block
21.	12-250085-000	Grease Fitting
22.	12-250066-000	Pin
23.	12-250011-012	Spacer
24.	11-421017-000	Flanged Oilite Bearing
25.	12-250011-011	Spacer
	12-250053-004	Washer
26.	11-450302-000	Ball Bearing
27.	11-230001-001	X-Washer (1/8)
28.	12-250029-000	Bell Crank
29.	12-250040-000	Link
30.	12-200152-003	Knurled Pin
31.	N.A.	Wheel (For machines prior to S/N 24,000)
32.	90-252037-000	Molded Sweep Arm Assembly, See Note
33.	11-001270-001	Hex Head Cap Screw (5/16-18 x 1-3/4")
34.	11-190012-001	Flat Washer - SAE (5/16)
35.	11-002068-001	Hex Head Socket Cap Screw (5/16-18 x 2")
36.	11-195015-001	Lockwasher (5/16)
37.	11-125102-000	Hex Nut (5/16-18)
38.	11-170009-000	Lock Nut
39.	11-420095-000	Sleve Oilite Bearing
40.	11-530017-001	External Retaining Ring
41.	11-420069-000	Bearing (.627 I.D. X 1.128 O.D.)
42.	11-125263-001	Hex Jam Nut (5/8-18)
43.	10-125002-001	Jam Nut R.H. (5/8-18)
44.	11-007388-001	Flat Head Socket Cap Screw (3/8-24 x 1-1/2")
45.	11-190018-001	Flat Washer (1/2)
46.	10-386128-000	Spacer
47.	11-002072-001	Hex Head Socket Cap Screw (5/16-18 x 3")
48.	12-250052-006	X-Washer Pin
49.	12-250050-000	Spring
50.	12-252295-000	L.H. End Plate

N.A. = No Longer Available

NOTE: 90-252037-000 Standard Gray, 90-252037-224 GID Neon Banana, 90-252037-225 GID Nean Strawberry, 90-252037-602 GID Light Gray

Rake Assembly



Rake Assembly

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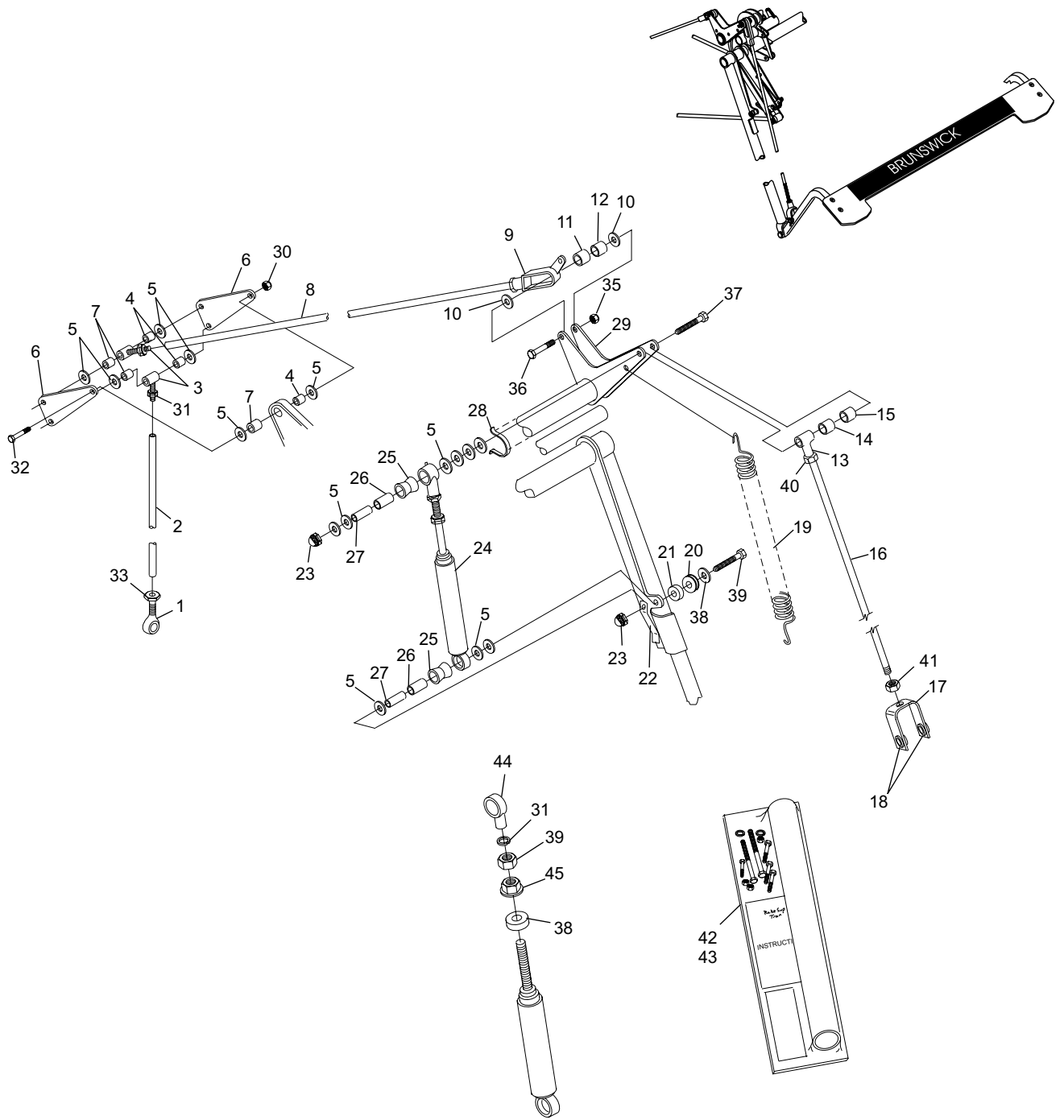
No.	Part No.	Description
1.	12-252060-000	Uniball Rod End
2.	12-252364-002	Tube
3.	12-252365-000	Rod End, for Model A-2
	12-250058-000	Rod End Assembly
4.	12-250011-003	Spacer
5.	12-250076-002	Fiber Washer
6.	12-252359-000	Link Plate
7.	12-250248-000	Sleeve Oilite Bearing
8.	12-252364-003	Tube
	12-250015-002	Rod
9.	12-252029-000	Slotted Pivot
	12-250028-000	Slotted Pivot Assembly
10.	12-250076-003	Washer
11.	12-252090-000	Bumper
12.	12-250091-000	Sleeve Oilite Bearing
	12-252092-000	Bumper & Bearing Assembly
13.	12-252000-053	Rod End Assembly
14.	11-420102-0	00 Sleeve Oilite Bearing
15.	12-250011-019	Spacer
	12-250183-005	Spacer
16.	12-252024-004	Rod
	12-250024-002	Rod
17.	12-250027-000	Pivot Assembly
18.	11-421147-000	Bearing (.5145 I.D. X .6905 O.D.)
19.	12-250051-000	Tension Spring
20.	10-376009-000	Spring Roller
21.	12-250197-000	Stepped Spacer
22.	12-252361-000	Bracket
23.	N.A.	Acorn Nut
24.	12-252338-000	Shock Absorber Assembly
25.	12-250189-000	Rubber Bushing
26.	12-250075-000	Sleeve Oilite Bearing
27.	12-250011-021	Spacer
28.	12-752015-000	Clip
29.	12-252048-000	Rake Lift Arm Assembly
	12-250048-000	Rake Lift Arm Assembly
30.	11-170011-001	Hex Nut Nylock (3/8-16)
31.	11-125209-001	Hex Jam Nut (1/2-20)
32.	11-001354-001	Hex Head Cap Screw (3/8-16 x 2-1/2")
33.	11-125259-001	Hex Jam Nut (1/2-20)
34.	11-195010-001	Lockwasher (#10)
35.	11-170007-001	Hex Nut Nylock (1/4-20)
36.	11-002008-001	Hex Head Socket Cap Screw (1/4-20 x 2")
37.	11-002075-001	Hex Head Socket Cap Screw (5/16-18 x 3-3/4")
38.	12-252342-000	Rubber Spacer
39.	11-195018-001	Lockwasher (1/2)
40.	11-125254-001	Hex Jam Nut (3/8-16)
41.	11-125204-001	Hex Jam Nut (3/8-16)
42.	12-860607-000	Rake Shaft Repair Kit- US pinsetters
43.	12-860665-000	Rake Shaft Repair Kit - Japanese pinsetters
44.	12-252338-003	Mounting Rod End
45.	11-131510-001	Flanged Nut

N.A. = No Longer Available

NOTE: 12-862015-000 Rod End Conversion Kit (Uniball) Consists of the Following

- 2 each - 12-252060-000 Uniball Rod ends
- 2 each - 12-100185-036 Spacer
- 8 each - 11-190520-000 Washer
- 2 each - 11-125259-000 Hex Nut
- 2 each - 11-121523-000 Nylon Cap Nut
- 2 each - 10-002006-000 Hex Hd. Bolt
- 4 each - 12-252346-000 Follower Link

Rake Assembly



Rake Assembly

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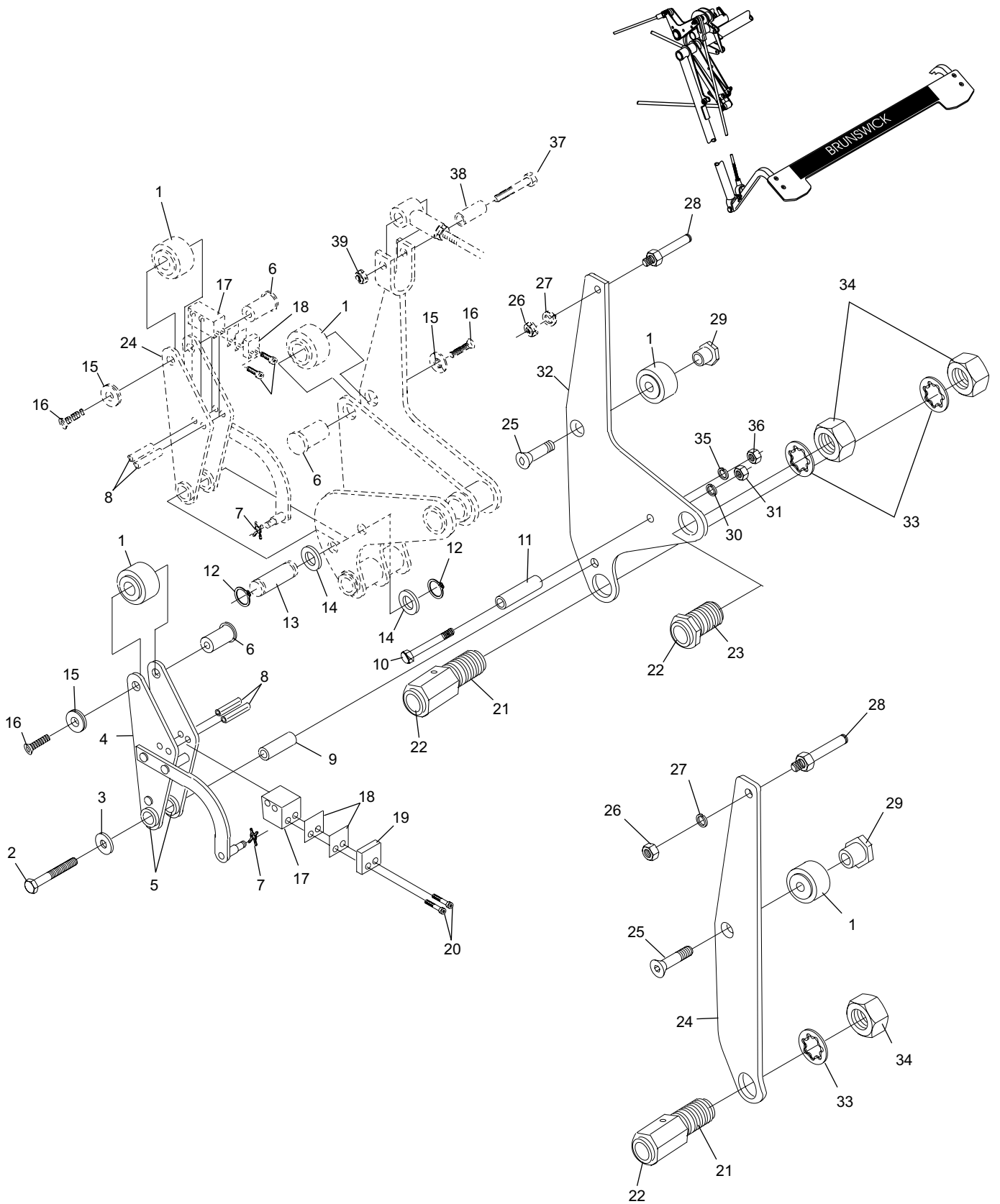
No.	Part No.	Description
1.	11-460000-000	Needle Roller Bearing
2.	11-001474-001	Hex Head Socket Cap Screw (7/16-20 x 2-1/2")
3.	11-191014-001	Flat Washer (3/8)
4.	12-250242-000	Rake Cam Follower Assembly
5.	11-421060-000	Bearing (.626 I.D. X .815 O.D.)
6.	12-250140-000	Cam Follower Pin
7.	12-230001-006	"X" Washer
8.	N.A.	Roll Pin
9.	12-250011-017	Spacer
10.	11-001191-001	Hex Head Socket Cap Screw
11.	12-250011-016	Spacer
12.	11-530021-001	External Retaining Ring
13.	12-250052-003	X-Washer Pin
14.	12-250053-002	Washer
15.	12-250141-000	Clamp Washer
16.	11-007086-001	Flat Head Socket Cap Screw (10-24 x 3/8")
17.	12-250143-000	Block
18.	12-250144-002	Shim 0.030
	12-250144-003	Shim
19.	12-250145-000	Cam Follower Arm Stop
20.	11-005094-000	Hex Head Socket Cap Screw (10-24 x 1")
21.	12-250230000	Hub & Bearing Assembly
22.	N.A.	Bearing (2 required)
23.	12-250231-000	Hub Assembly
24.	12-252234-000	Cam Follower Arm, for A-2 model only
	12-252235-000	Cam Follower Arm Assembly
25.	11-007386-001	Flat Head Socket Cap Screw (3/8-24 x 1-1/4")
25.	11-002155-000	Hex Head Socket Cap Screw (3/8-24 x 1-1/4")
26.	11-125104-001	Hex Nut (3/8-16)
27.	11-195016-001	Lockwasher (3/8)
28.	12-250229-000	Pivot Stud
29.	12-250244-000	Bearing Stud
30.	11-195017-001	Lockwasher (7/16)
31.	11-125107-001	Hex Nut (7/16-20)
32.	12-250234-000	Cam Follower Arm
	12-250235-000	Cam Follower Arm Assembly - See Note 1
33.	11-199019-000	Internal Tooth Lockwasher (1-1/8"), See Note 2
34.	11-125221-001	Hex Jam Nut (1-1/8 x 12)
35.	11-195014-001	Lockwasher (1/4)
36.	11-125100-001	Hex Nut (1/4-20)
37.	11-001311-000	Hex Head Socket Cap Screw
38.	12-250183-004	Spacer
39.	11-170010-001	Hex Nut Nylock (5/16-24)

N.A. = No Longer Available

NOTE 1: 12-250235-000 consists of 12-250242-000 assembled to 12-250234-000 with all attached hardware and bearings.

NOTE 2: 11-199019-000 is no longer available, order 11-199019-001 for a replacement

Rake Drive



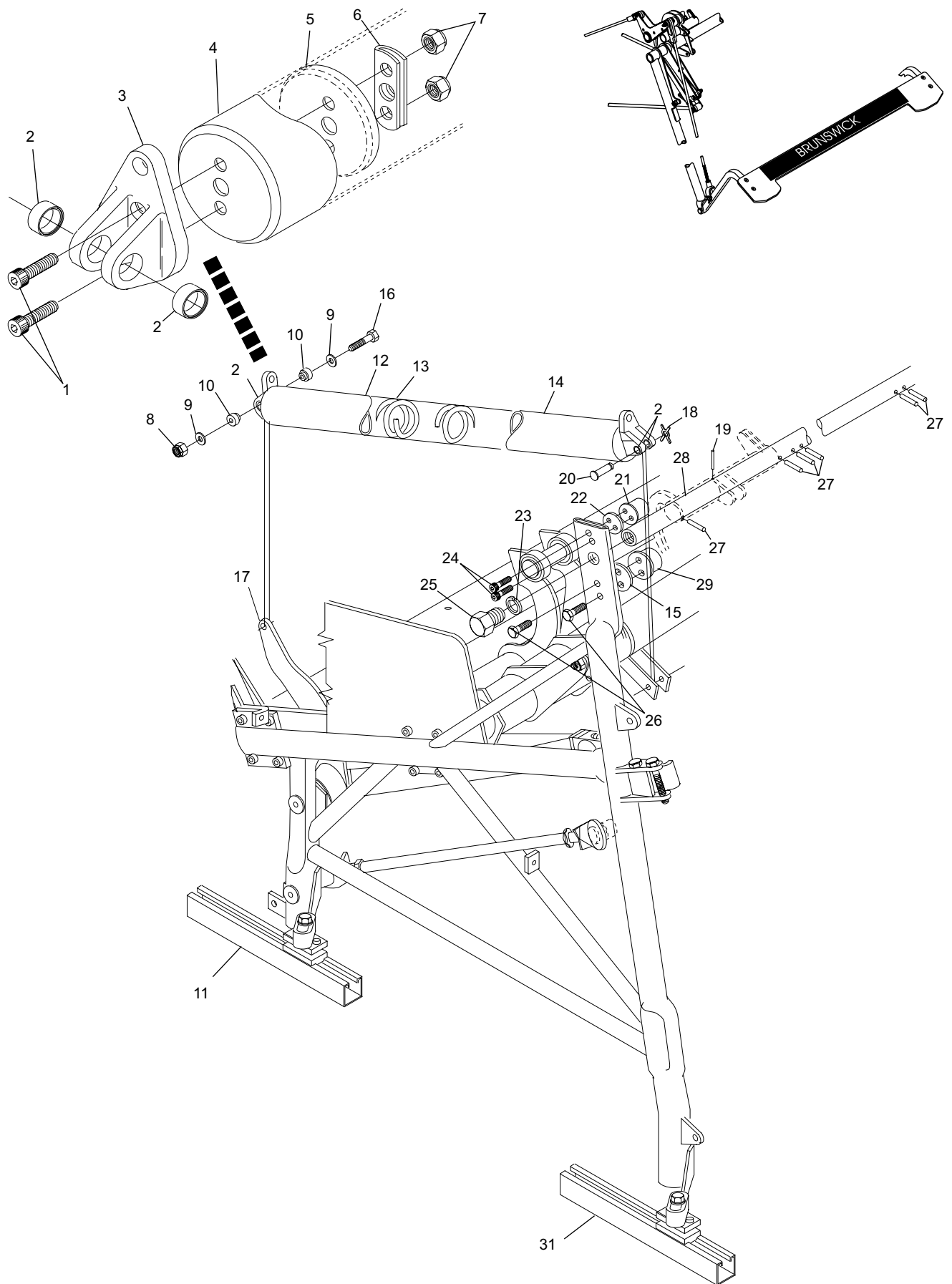
Rake Drive

Index No.	Part No.	Description
1.	11-005304-001	Hex Head Socket Cap Screw (5/16-24 x 1")
2.	11-420009-000	Sleve Oilite Bearing (.5015 I.D.X.628 O.D.)
	11-420019-000	Sleve Oilite Bearing (.627 I.D. X .753 O.D.)
3.	12-350163-002	Spring Guide Tube Cap
	N.A.	Spring Guide Tube Cap
4.	12-350170-000	Outside Spring Guide Tube
	12-350171-000	Inside Spring Guide Tube
5.	12-350164-002	Washer
	12-350164-003	Washer
6.	12-350167-000	Nut Retainer
7.	11-170010-001	Hex Nut Nylock (5/16-24)
8.	11-170011-001	Hex Nut Nylock (3/8-16)
	11-170114-000	Flexlock Thin Hex Nut (1/2-13)
9.	11-190014-001	Flat Washer (3/8)
10.	12-350120-000	Bushing (9/16")
	12-350123-000	Bushing
	12-350165-000	Bushing (3/4")
11.	12-350131-000	Channel
12.	N.A.	Spring Guide Tube Cap Assembly (Outside)
13.	12-350126-000	Compression Spring
14.	N.A.	Spring Guide Tube Cap Assembly (Inside)
15.	12-350118-003	Shim (.060)
16.	11-001352-001	Hex Head Socket Cap Screw (3/8-16 x 2")
	11-001353-001	Hex Head Socket Cap Screw (3/8-16 x 2-1/4")
	11-001512-000	Hex Head Socket Cap Screw (1/2-13 x 2")
17.	12-350821-000	Deck Lift Shaft Assembly, See Note
18.	11-230005-001	"X" Washer (1/4)
19.	11-345420-001	Roll Pin - (1/4 x 2)
20.	12-350023-002	Pin
21.	12-350010-000	Bearing Stud
22.	12-350118-004	Shim (.030)
	12-350118-005	Shim (.060)
23.	11-195020-001	Lockwasher (5/8)
24.	11-005264-001	Hex Head Socket Cap Screw (5/16-18 x 1")
25.	11-002365-001	Hex Head Cap Screw (5/8-11 x 1-1/4")
26.	11-002124-001	Hex Head Socket Cap Screw (3/8-16 x 1")
27.	11-345418-001	Roll Pin (1/4 x 1-3/4)
28.	N.A.	Cross Brace
29.	12-350011-000	Bearing Stud
30.	12-350118-002	Shim (.030)

N.A. = No Longer Available

NOTE: 12-350821-000 is no longer available, order 12-862581-000 for replacements

Rake - Left Hand Frame



Rake - Left Hand Frame

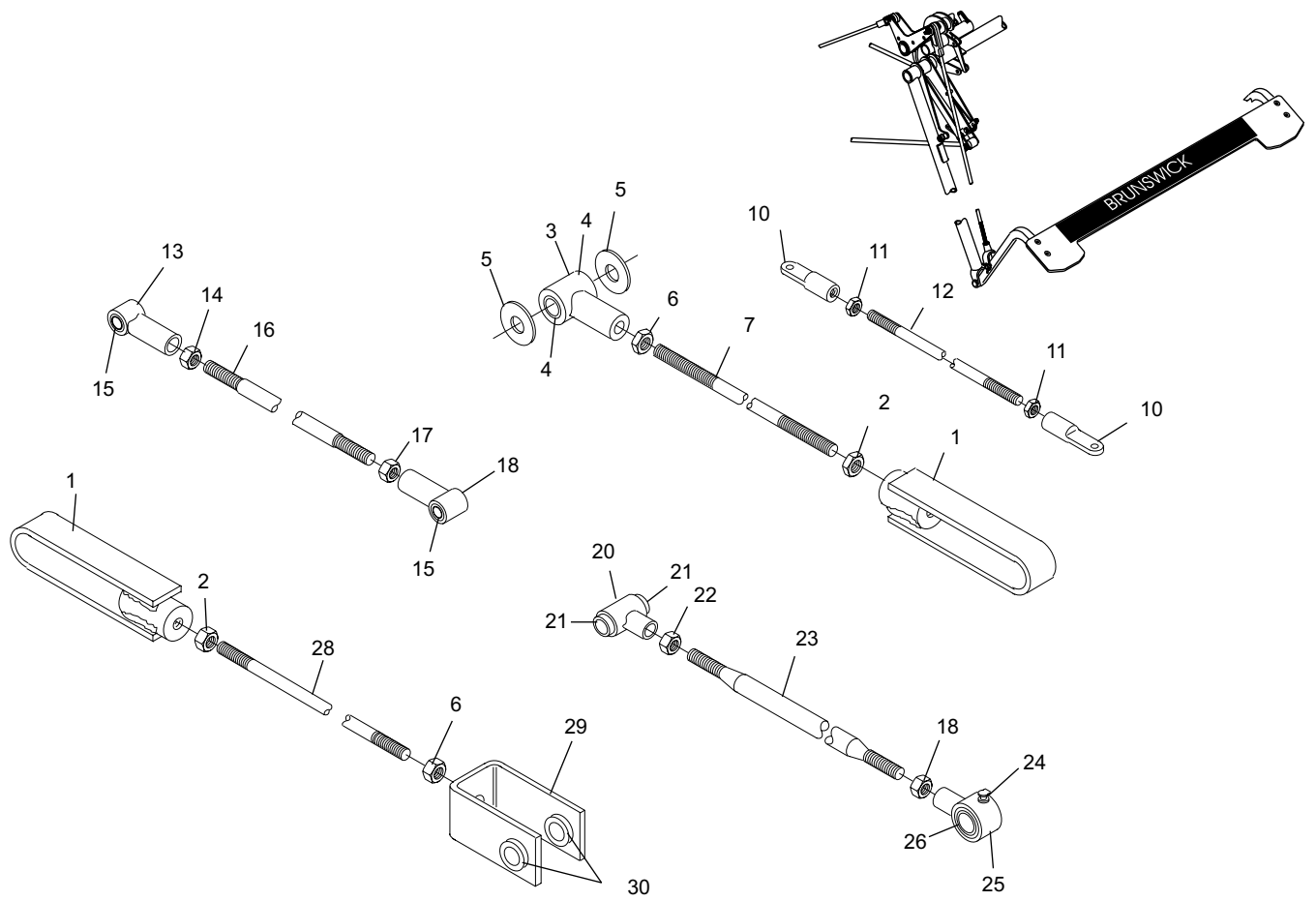
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No.	Part No.	Description
1.	12-250028-000	Slotted Pivot Assembly
2.	11-125254-001	Hex Jam Nut (3/8-16)
3.	12-250058-000	Rod End Assembly, See Note
4.	12-250248-000	Sleve Oilite Bearing
5.	N.A.	Fibre Washer
6.	11-125204-001	Hex Jam Nut (3/8-16)
7.	N.A.	Rod (43-7/16")
8.	N.A.	Rod End (R.H. thread 1/4-20)
9.	11-125200-001	Hex Jam Nut (1/4-20)
10.	N.A.	Rod End (L.H. thread 1/4-20)
11.	11-125250-001	Hex Jam Nut (1/4-20)
12.	N.A.	Rod (18-1/8")
13.	N.A.	Rod End Assy. with bearing (L.H. thread)
14.	11-125256-001	Hex Jam Nut (7/16-14)
15.	11-420035-000	Sleve Oilite Bearing
16.	N.A.	Rod (20-5/8")
17.	11-125206-001	Hex Jam Nut (7/16-14)
18.	N.A.	Rod End Assy. with bearing (R.H. thread)
19.	11-125257-000	Hex Jam Nut (7/16-20)
20.	12-250014-000	Pivot Assembly
21.	11-421027-000	Flanged Oilite Bearing
22.	11-125207-001	Hex Jam Nut (7/16-20)
23.	N.A.	Rod (40")
24.	11-590000-000	Oil Hole Cover
25.	12-250020-000	Pivot Assembly
26.	11-420069-000	Bearing (.627 I.D. X 1.128 O.D.)
27.	12-250275-000	Pivot Assembly
28.	N.A.	Rod (56-3/4")
29.	12-250027-000	Pivot Assembly
30.	11-420063-000	Sleve Oilite Bearing
31.	12-252365-000	Rod End
32.	N.A.	Spacer
33.	11-125209-001	Hex Jam Nut (1/2-20)
34.	N.A.	Tube (46-5/8")
35.	11-125259-001	Hex Jam Nut (1/2-20)
36.	12-252029-000	Slotted Pivot
37.	11-125263-001	Hex Jam Nut (5/8-18)
38.	N.A.	Rod (40-7/8")
39.	10-125002-001	Jam Nut R.H. (5/8-18)
40.	12-250273-000	Pivot Assembly
41.	N.A.	Spacer
42.	N.A.	Rod (59-1/2")
43.	N.A.	Rod End with Bearing
44.	11-420102-000	Sleve Oilite Bearing
45.	N.A.	Spacer

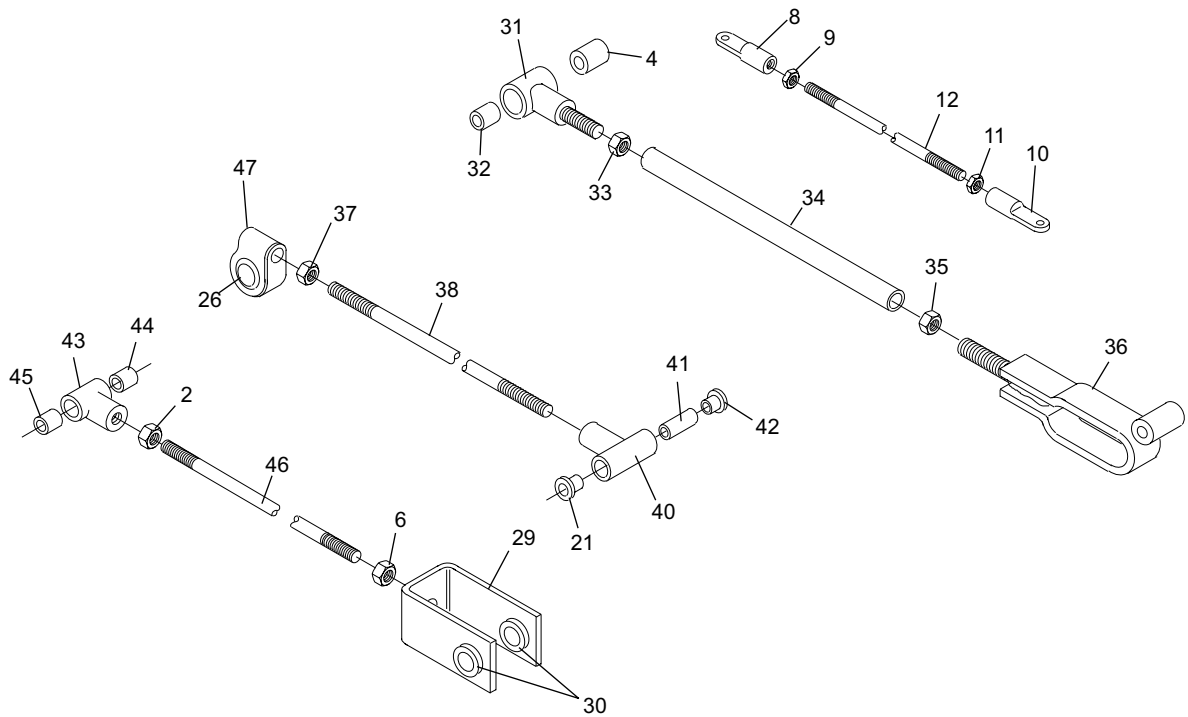
N.A. = No Longer Available

NOTE: 12-250058-000 consists of Rod End with 12-250248-000 bearing plus 2 each 12-250076-200 fibre washers.

Rake Crank Rod



"A" MACHINE ASSEMBLIES



"A-2" MACHINE ASSEMBLIES

Rake Crank Rod

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No.	Part No.	Description
1.	12-252373-000	Gray Rake Board W/O Decal
	12-252373-010	Brown Rake Board W/O Decal
2.	12-252374-000	Gray Rake Board Assembly
	12-252374-010	Brown Rake Board Assembly
3.	12-252548-000	Gray Rake Board (5.5")
	12-252548-010	Rake Board - Brown Kickbacks (5.5")
4.	12-252372-000	Gray Rake Board Cushion, See Note 1
	12-252372-010	Brown Rake Board Cushion, See Note 1
5.	N.A.	Rake Board Cushion, See Note 2
6.	12-252284-000	Cushion
7.	N.A.	Decal for Straight Rake Boards
8.	N.A.	Decal for Straight Rake Boards
9.	12-252290-010	"2000" Rake Board Decal
	12-252290-000	"Astroline" Rake Board Decal
10.	11-676010-000	Cement (1/2 Pint), See Note 3

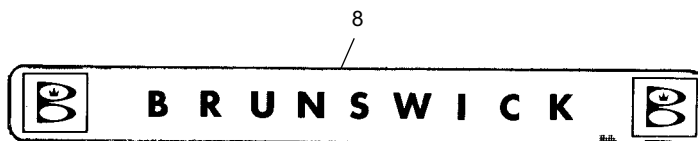
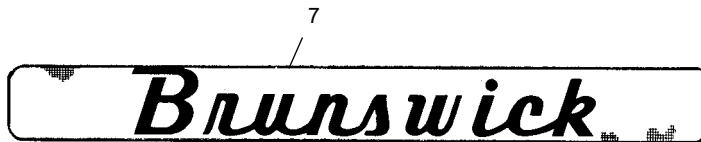
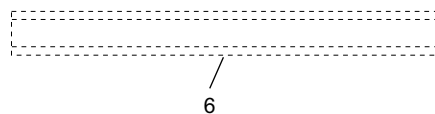
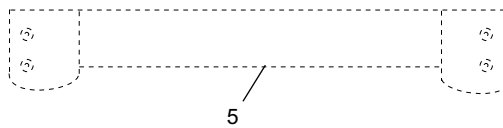
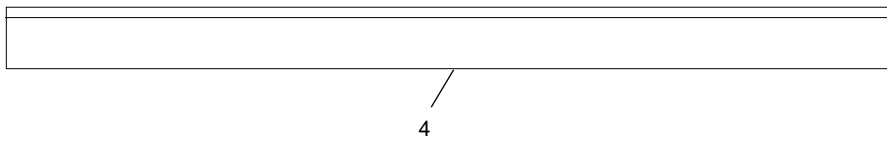
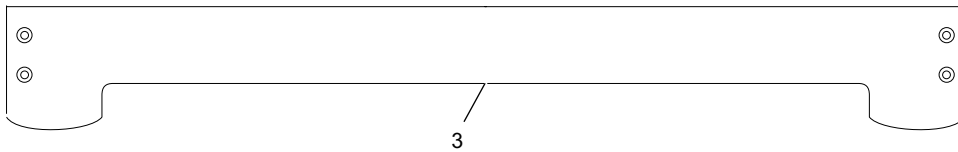
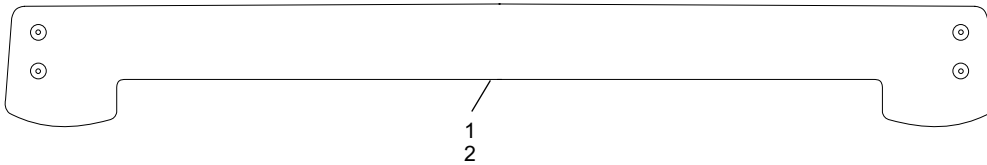
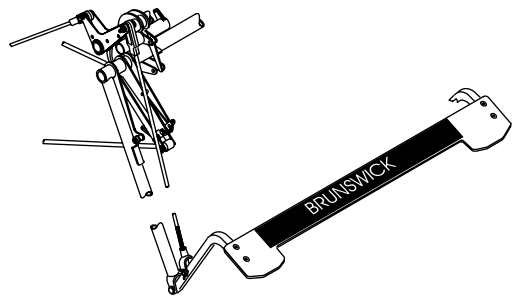
N.A. = No Longer Available

NOTE 1: For all machines with Fiberglass Rake Board

NOTE 2: For use on metal Rake Boards only

NOTE 3: One can of Part No. 11-676010-000 will be sufficient to glue eight (8) cushions to Fiberglass Rake Board

Rake Board



Rake Board