



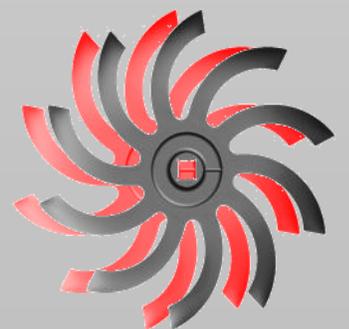
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71 SOUTH 215 WEST-RUPERT, ID- PHONE: (208) 436-1770 - FAX: (208) 436-1776



Norwest Spider Cultivator





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NORWEST SPIDER CULTIVATORS

This manual contains valuable information about your new *Norwest Spider Cultivator*. It has been carefully prepared to give you helpful suggestions for operating, adjusting, and servicing of your equipment. If assistance is needed to understand the information within this manual, please contact Norwest Manufacturing.

Keep this information in a convenient place for quick and easy reference. You have purchased dependable and sturdy equipment, but only with proper care, operation and maintenance can you expect to receive the service and long life designed and built into it. Give this equipment proper attention during slack periods and it will always be ready when you need it.

Norwest Manufacturing proudly displays the FEMA seal of quality on this and other equipment manufactured by our company. All our equipment must meet the following standards.

1. The company will provide replacement parts promptly and at a fair price for a maximum of ten years on all machines from the date of manufacture to which the seal will be affixed so long as the company produces that particular piece.
2. The majority of Norwest's farm equipment distribution is through servicing bona fide retailers and/or wholesalers with a majority of their sales related to agriculture.
3. The Company will reproduce the FEMA seal on a majority of its farm and trade press advertisements and is entitled to reproduce said seal on its company letterhead, sales literature, operators manuals, and parts books.
4. The company will apply the FEMA seal only to new machines either accompanied by repair parts lists or by notification that a parts list is available.
5. The seal will be attached only to new machines that carry a written warranty.
6. Norwest Manufacturing will discontinue use of the seal, in any form, upon notification by the Farm Equipment Manufacturers Association that it has violated any terms of this agreement.





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LIMITED WARRANTY

Norwest Manufacturing warrants, to the original retail customer, the new Norwest equipment identified in this owners manual to be free of defects in material and workmanship. Any part of said equipment that in Norwest's judgment shows evidence of such defects will be repaired without charge, provided that the failure of part(s) shall have occurred within twelve (12) months from the date of delivery of said equipment to the retail customer. Tires, batteries, engines, electrical and hydraulic components and other trade accessories may be warranted by their respective manufacturers and those warranties, if any, are hereby extended to the retail customer. Expendable components such as blades, teeth, chain, sprockets, springs, sweeps and the like are excluded from this warranty.

The retail customer must pay the transportation cost to and from the Norwest dealer's service shop for warranty service. Warranty service will be performed by the Norwest dealer from whom the equipment was purchased, in his service shop and during his regularly scheduled days and hours of operation.

All Norwest obligations under this warranty shall be terminated if the equipment is modified or altered in any way not approved in writing by Norwest, if repair parts other than genuine Norwest repair parts have been used, or if the equipment has been subjected to misuse, neglect, accident, improper maintenance or improper protection in storage.

Norwest reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to owners of equipment previously sold.

No agent or person has the authority to alter, add to or waive the above warranties which are agreed to be the only warranties, representations or promises, expressed or implied, as to the quality or performance of the products covered and which do not include any implied warranty of merchantability or fitness. In no event will Norwest be liable for incidental or consequential damages or injuries, including, but not limited to, loss of crops, loss of profits, rental of substitute equipment or other commercial loss.

SAFETY

Most accidents, whether they occur in industry, on the farm, at home, or on the highway, are caused by failure of some individual to follow simple and fundamental safety rules or precautions.

Study and Heed the Following Safety Rules and precautions when operating your tractor. Personal injury may result if these precautions are ignored.

WHEN OPERATING YOUR TRACTOR (CAUTION)

- Securely fasten your seat belt if the tractor has a ROPS.
- Where possible, avoid operating the tractor near ditches, embankments and holes.
- Reduce speed when turning, crossing slopes, and on rough, slick, or muddy surfaces.
 - Stay off slopes too steep for safe operation.
- Watch where you are going, especially at edges of worksite, on roads, and around trees.
 - Do not permit others to ride
 - Operate the tractor smoothly; no jerky turns, starts, or stops.
- Hitch only to the drawbar and hitch points recommended by the tractor manufacturer.
 - When stopped, set brake securely and use park lock if available.



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WHEN OPERATING YOUR TRACTOR **(CAUTION)**

- Stop engine, disengage PTO, and wait for all movements to stop before attempting to unclog, clean, adjust or service this machine unless otherwise recommended in the “Operations Manual”.
 - Always lower cultivator to the ground when not in use.
- Do not unhitch cultivator from tractor until supporting stands are in place and secured. Pipe stands are required if the cultivator is not equipped with guage wheels or front mounted coulters.
 - Keep hands, feet, and clothing away from moving parts.
 - Keep off equipment unless an operator’s seat or platform is provided.
 - Keep others off equipment.
 - Make sure everyone is clear of machine before starting tractor engine or operating cultivator.
 - Use extreme care when operating close to ditches, fences or on hillsides.
- Before moving cultivator on highway, make sure the triangular SMV (Slow Moving Vehicle) sign is free of dust or dirt, and make sure the propelling vehicles’ flashing lights are operating properly. In this regard, check local governmental regulations.
- Before transporting cultivator on highway, all transport pins must be in place, to prevent accidental lowering of the cultivator and components.
- When assembling cultivator, be sure that supporting and lifting devices are stable and have sufficient capacity to withstand the weight of the cultivator during assembly.
- Never attach cables, chains, or ropes to cultivator for the purpose of lifting, towing, or pulling. Personal injury or damage of equipment may result.
- Never stand or work under the toolbar wings without locking the transport braces to prevent accidental lowering.
- Be alert to electrical wires and other overhead obstacles when transporting the cultivator with a folding tool bar.
- Be careful when working around the coulter blades. The edge of the coulter is sharp enough to cause injury if accidentally contacted.
 - The maximum towing speed for the Norwest Spider Cultivator is 20 MPH.



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NORWEST SPIDER CULTIVATOR NUMBERING SYSTEM

The following is a brief explanation of the method Norwest uses to calculate our cultivators.
This might be helpful when you are ordering a Norwest Spider Cultivator.
This explanation is based on cultivator model number **14P-716845**

14	P	7	168	4	5
<u>Spider Diameter</u>	<u>Spider Surface</u>	<u>Horizontal Bar Size</u>	<u>Tool Bar Length</u>	<u># of Rows</u>	<u># of Spiders per Gang</u>
14 = 14 -1/2" 16 = 16"	P = Plain D = Tuff Koat	7 = 7" x 7"	"Inches"	4, 6, 8, & 15	3, 4, or 5

Norwest Spider Cultivator Example Part Numbers

14P-716843	14D-716843	16P-716843	16D-716843
14P-716844	14D-716844	16P-716844	16D-716844
14P-716845	14D-716845	16P-716845	16D-716845
14P-718863	14D-718863	16P-718863	16D-718863
14P-718864	14D-718864	16P-718864	16D-718864
14P-718865	14D-718865	16P-718865	16D-718865
14P-724863	14D-724863	16P-724863	16D-724863
14P-724864	14D-724864	16P-724864	16D-724864
14P-724865	14D-724865	16P-724865	16D-724865
14P-724883	14D-724883	16P-724883	16D-724883
14P-724884	14D-724884	16P-724884	16D-724884
14P-724885	14D-724885	16P-724885	16D-724885
14P-732883	14D-732883	16P-732883	16D-732883
14P-732884	14D-732884	16P-732884	16D-732884
14P-732885	14D-732885	16P-732885	16D-732885

*Cultivators and Cultivator Gangs are available in Plain or DuraFace™ surfaces

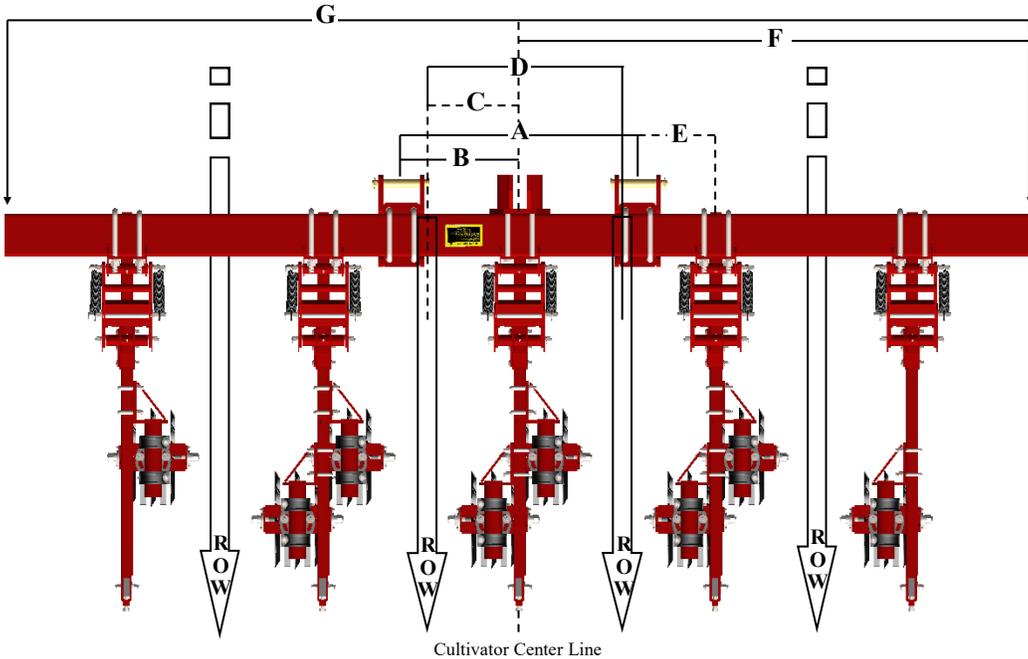


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BASIC ASSEMBLY DIAGRAM



Cultivator Center Line

Cultivator Dimension Chart

Set Up Dimensions	A	B	C	D	E	F	G
Category II Hitches (1-1/8")	32-1/2"	16-1/4"					
Category III Hitches (1-7/16")	38"	19"					
168" Tool Bar						84"	168"
188" Tool Bar						94"	188"
248" Tool Bar						124"	248"
328" Tool Bar						164"	328"
24" Row Spacing			12"	24"	8"		
28" Row Spacing			14"	28"	9-1/2"		
30" Row Spacing			15"	30"	10"		
32" Row Spacing			16"	32"	11"		
34" Row Spacing			17"	34"	11-1/2"		
36" Row Spacing			18"	36"	12"		
38" Row Spacing			19"	38"	12-1/2"		
40" Row Spacing			20"	40"	13"		
42" Row Spacing			21"	42"	14"		



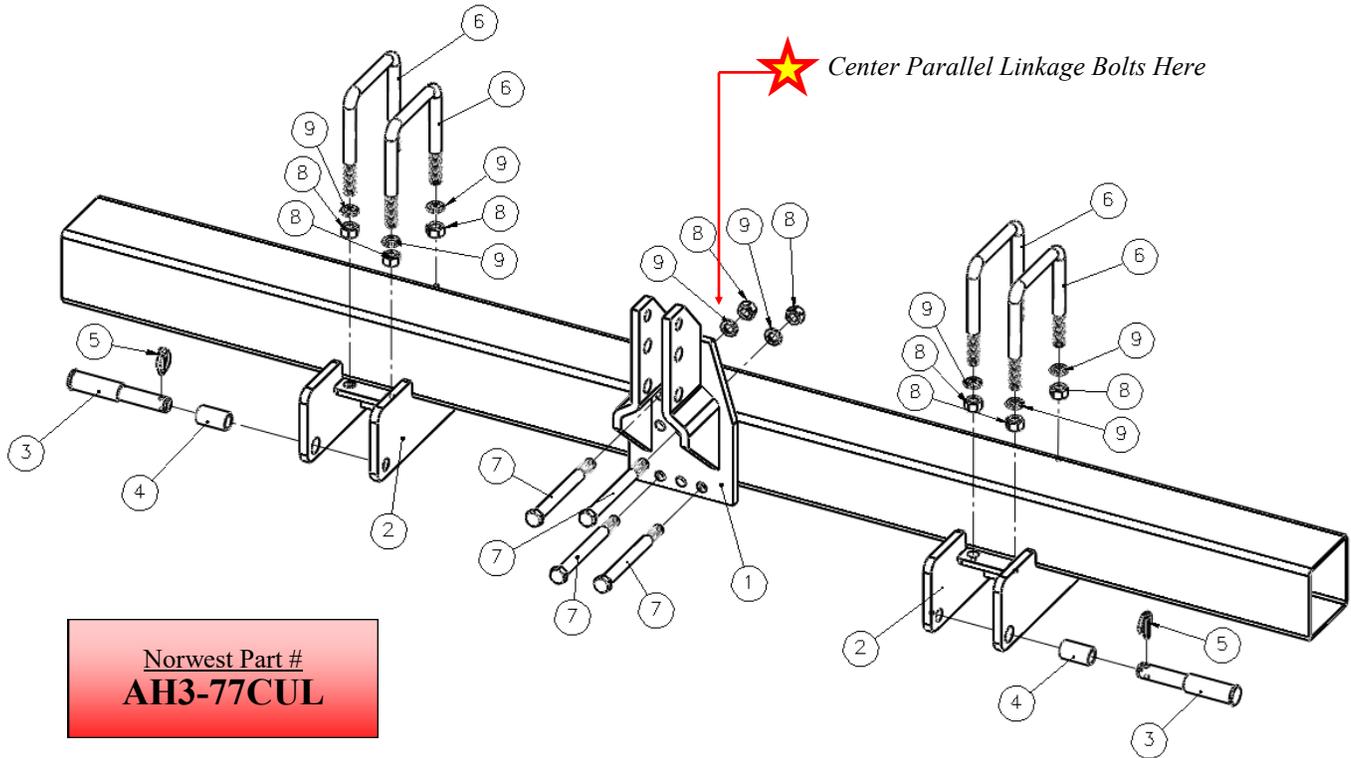
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OFFSET HITCH ASSEMBLY WITH 7" x 7" TOOL BAR



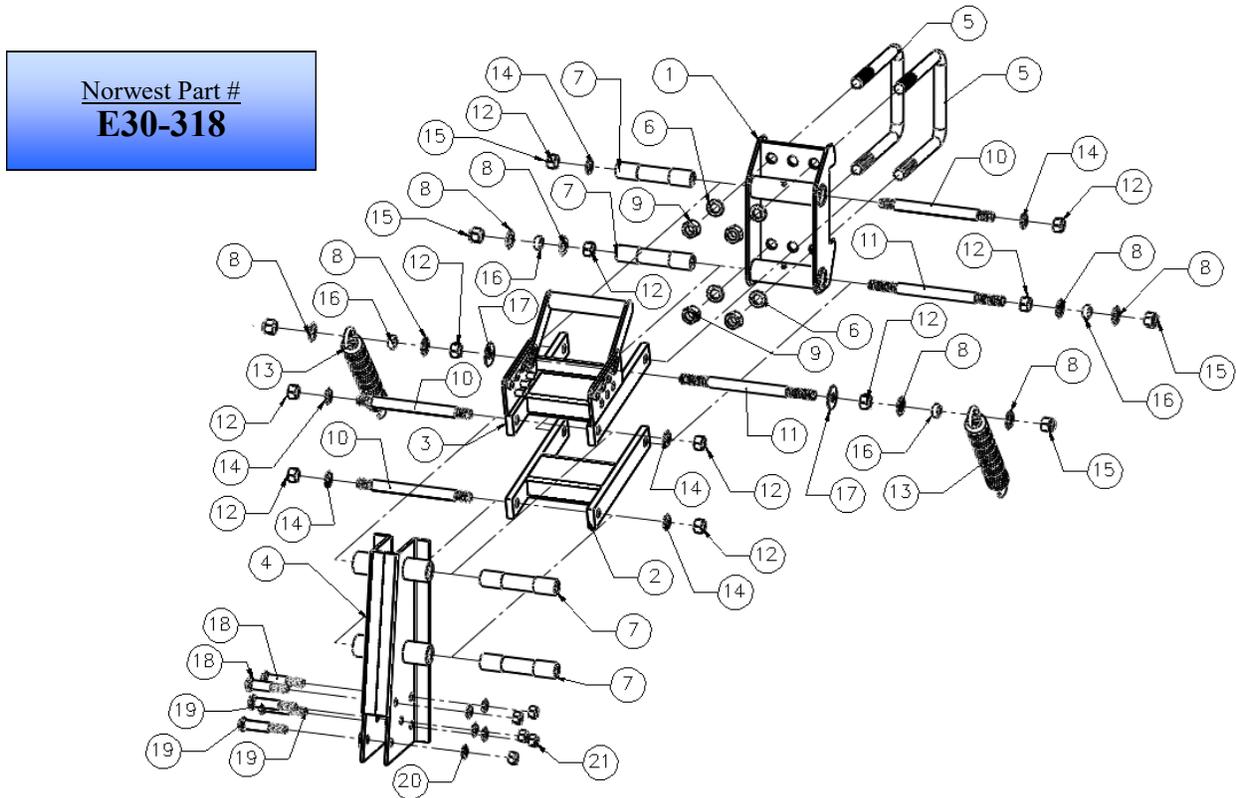
Norwest Part #
AH3-77CUL

EXPLODED VIEW KEY FOR 7" x 7" TOOL BAR

REFERENCE #	PART #	DESCRIPTION	REQUIRED
1	AH3-7CH	7" x 7" Center Mast	1
2	AH3-7B	7" x 7" Lift Brackets	2
3	21293	Category II & III Lift Pin	2
4	21197	Lift Arm Bushing	2
5	21938	7/16" Lynch Pin (Long)	2
6	16-03204	7/8" U-Bolt for 7" x 7" Tool Bar	4
7	FHB78950G5	7/8" x 9-1/2" Hex Bolt	4
8	FHN78	7/8" Hex Nut	12
9	FLW78	7/8" Lock Washer	12

PARALLEL LINKAGE EXPLODED VIEW

REFERENCE #	DESCRIPTION	PART #	REQUIRED PCS.
1	Parallel 7" Front Clamp Bracket	E30-318A	1
2	Parallel Bottom Link	E30-318B	1
3	Parallel Top Adjuster Link	E30-318T	1
4	Parallel Rear Tower Bracket	E30-318C	1
5	7/8" U-Bolt for 7" x 7" Bar	16-03204	2
6	7/8" Lock Washer	FLW78	4
7	7" Inside Bushing	OR600-GWBS	4
8	1.5" O.D. x 1" I.D. 10 GA.	FFW100SAE	8
9	7/8" Hex Nut	FHN78	4
10	3/4" x 10.5" Double Ended Stud	FST341050G5	3
11	3/4" x 12.5" Double Ended Stud	FST341250G5	2
12	3/4" Hex Nut	FHN34	10
13	Extension Spring	OR600-814	2
14	3/4" Lock Washer	FLW34	6
15	3/4" Nylon Lock Nut	FYHN34	4
16	Spring Bushing	E30-318SB	4
17	3/4" Flat Washer	FFW34	2
18	5/8" x 3.5" Carriage Bolt	FCB58350G5	2
19	5/8" x 4" Carriage Bolt	FCB58400G5	3
20	5/8" Lock Washer	FLW58	5
21	5/8" Hex Nut	FHN58	5





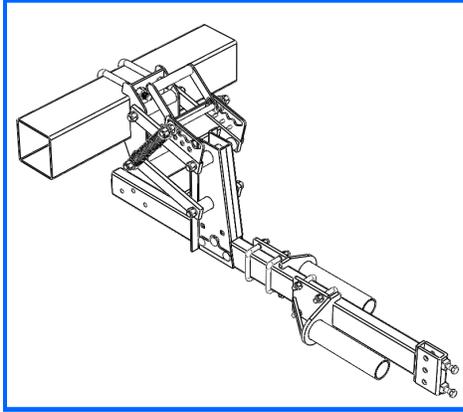
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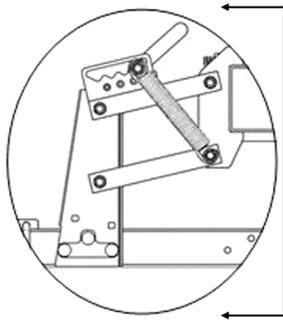


ADJUSTABLE PARALELL LINKAGE FOR NORWEST SPIDER CULTIVATORS



Norwest's adjustable parallel linkage for the *Spider Cultivator* introduces a new innovative design for cultivating simplicity. The new parallel linkage system features a quick adjust handle for tool-free down pressure adjustments, and a dual gang-pipe assembly, reducing the number of linkages needed.

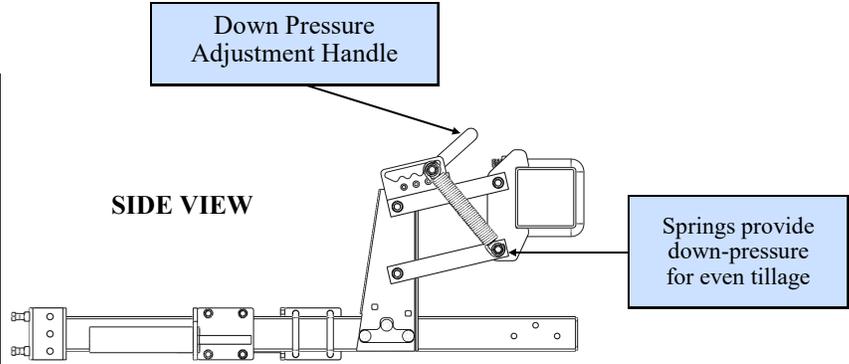
This new linkage system enables the cultivator to be used at speeds from 9-12 mph. The parallel linkage uses a floating motion rather than a pivot motion. The floating feature allows the cultivator to cover more terrain with virtually no side-to-side movement.



Linkage system allows the unit to float rather than pivot. This feature provides maximum coverage for more even cultivating

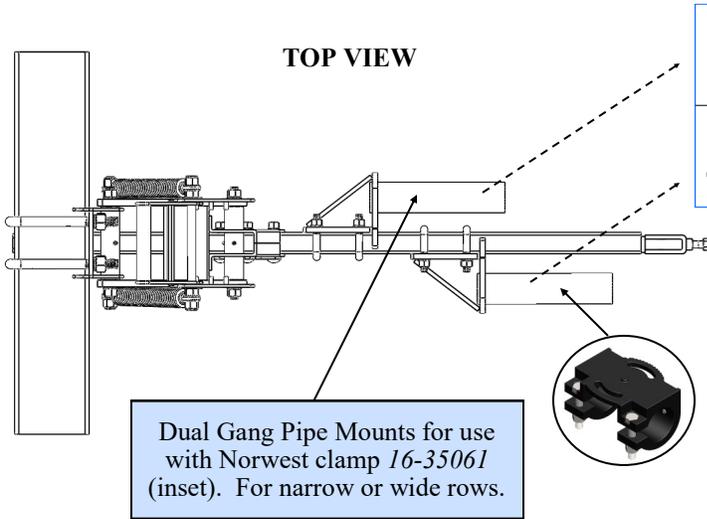
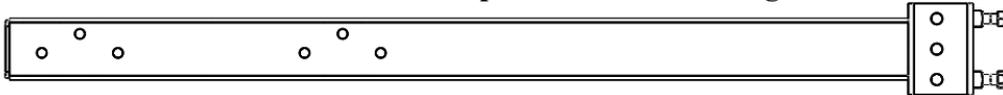
Down Pressure Adjustment Handle

SIDE VIEW



Springs provide down-pressure for even tillage

E30-300 -Norwest Spider Cultivator Stinger

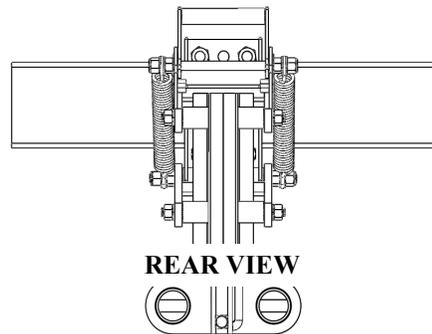


TOP VIEW

Dual Gang Pipe Mounts for use with Norwest clamp 16-35061 (inset). For narrow or wide rows.

	E30-612N & E30-612NL (Top View) High Speed Parallel Pivot Pipe for 30" Row Spacing
	E30-612 & E30-612L (Side View) High Speed Parallel Pivot Pipe for 36" Row Spacing

* (L) indicates left hand pivot pipes



REAR VIEW



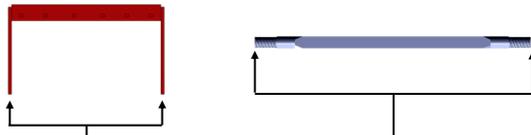
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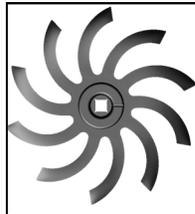
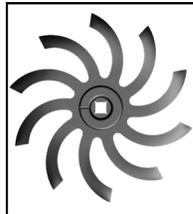
SPIDER GANG ASSEMBLIES & SUB COMPONENTS

				16-35408 Cleaning Tine for Spider Gangs	
	GANG FORKS	GANG AXLES			
	PART NUMBER	PART NUMBER			
14(P,D)-4003 (#1) 14(P,D)-5003 (#2) 16(P,D)-4003 (#1) 16(P,D)-5003 (#2)	 3 SPIDER GANG	16-354053 Approx. Length: 11-1/8"	16-354063 15/16" Square Approx. Length: 15"	 16-35402I Peer 205PPB7 15/16" Bearing for Spider Gangs	
14(P,D)-4004 (#1) 14(P,D)-5004 (#2) 16(P,D)-4004 (#1) 16(P,D)-5004 (#2)	 4 SPIDER GANG	16-354054 Approx. Length: 14-1/2"	16-354064 15/16" Square Approx. Length: 18-3/4"	 16-35419 Enclosed Bearing Flange (52 MST)	
14(P,D)-4005 (#1) 14(P,D)-5005 (#2) 16(P,D)-4005 (#1) 16(P,D)-5005 (#2)	 5 SPIDER GANG	16-354055 Approx. Length: 17-7/8"	16-354065 15/16" Square Approx. Length: 21-1/2"	 16-35601 Clamp Body Only	16-35600 Full Assembly: Clamp Body & Gang Spacer (16-35602)
			 16-35602 Pivot Clamp Gang Spacer <i>(Nuts & Bolts Not Included)</i>		



Measurements Taken From Outside Edges

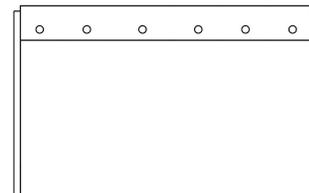
Spiders are available in 14 - 1/2" (14) or 16" (16) Plain (P), or DuraFace™ (D)



Example
 1 4 P - 1 4 5 1
 1 6 D - 1 6 0 2

#1 SPIDER (LEFT)

#2 SPIDER (RIGHT)





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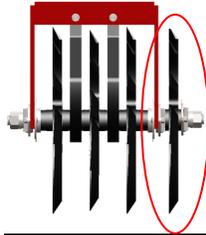
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Threaded Spiders

Available for 16" Spider Gangs Only

Threaded add-on spiders offer the option of an additional spider to be placed on the outside end of the spider gang.



(See Inset)

16TP-1601
Plain



#1-Left

16TD-1601
DuraFace™

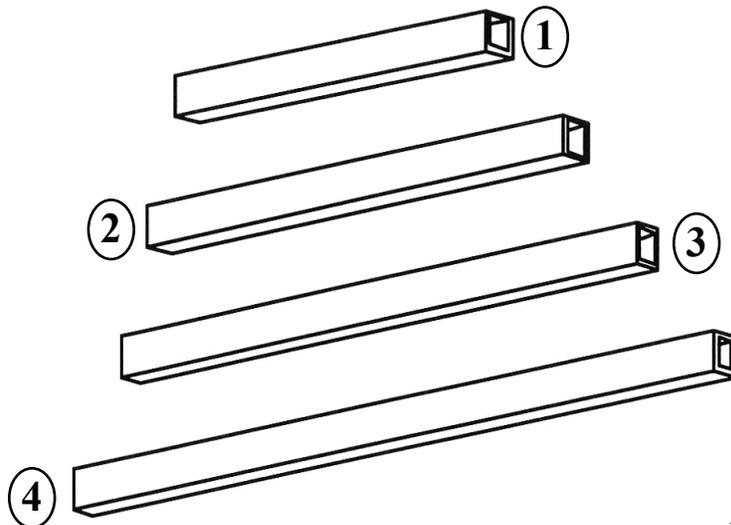
16TP-1602
Plain



#2-Right

16TD-1602
DuraFace™

7" X 7" TOOL BARS



REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	18-00101	7" x 7" x 1/4" x 168" Tool Bar	1
2	18-00102	7" x 7" x 1/4" x 188" Tool Bar	1
3	18-00103	7" x 7" x 1/4" x 248" Tool Bar	1
4	18-00104	7" x 7" x 3/8" x 328" Tool Bar	1



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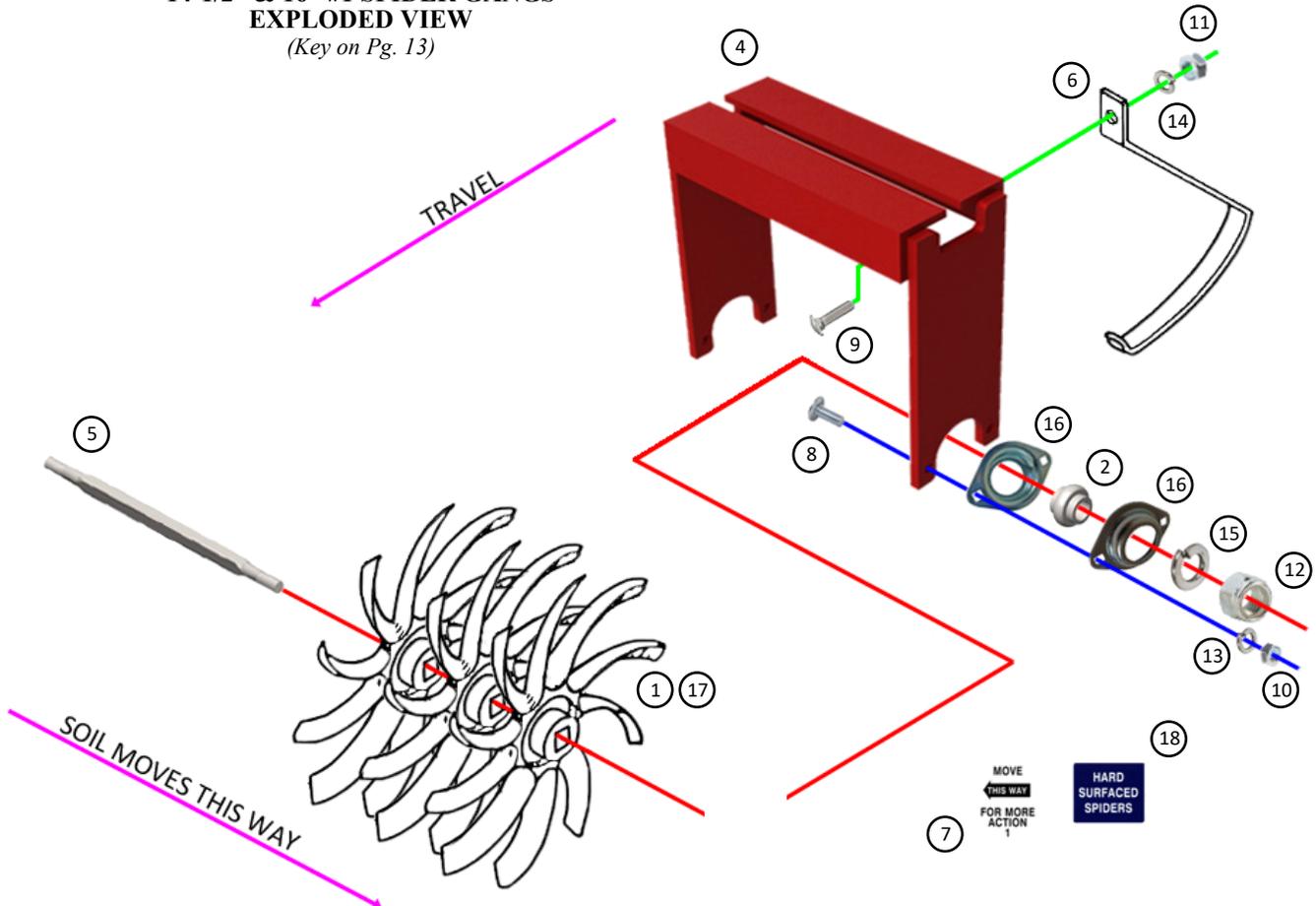
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**3, 4, & 5 (#1) 14-1/2" & 16" SPIDER GANGS
PLAIN (P) & Wear-Tuff (D)**

14D-4003	14-1/2" #1,3 Spider Gang DuraFace™	16D-4003	16" #1,3 Spider Gang DuraFace™
14D-4004	14-1/2" #1,4 Spider Gang DuraFace™	16D-4004	16" #1,4 Spider Gang DuraFace™
14D-4005	14-1/2" #1,5 Spider Gang DuraFace™	16D-4005	16" #1,5 Spider Gang DuraFace™
14P-4003	14-1/2" #1,3 Spider Gang Plain	16P-4003	16" #1,3 Spider Gang Plain
14P-4004	14-1/2" #1,4 Spider Gang Plain	16P-4004	16" #1,4 Spider Gang Plain
14P-4005	14-1/2" #1,5 Spider Gang Plain	16P-4005	16" #1,5 Spider Gang Plain

**14-1/2" & 16" #1 SPIDER GANGS
EXPLODED VIEW**
(Key on Pg. 13)





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KEY FOR 14-1/2" & 16" (#1) SPIDER GANGS (Pg. 12)

REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	14P-1451	#1, 14-1/2" PLAIN SPIDER	As Required
	16P-1601	#1, 16" PLAIN SPIDER	A/R
2	16-35402I	205PPB7 15/16" BEARING	2
3	16-35403	OUTER SEAL FOR GANG	2
4	16-354053	3 SPIDER GANG FORK	1
	16-354054	4 SPIDER GANG FORK	
	16-354055	5 SPIDER GANG FORK	
5	16-354063	15/16" AXLE FOR 3 SPIDER GANG	1
	16-354064	15/16" AXLE FOR 4 SPIDER GANG	
	16-354065	15/16" AXLE FOR 5 SPIDER GANG	
6	16-35408/16-35408H	CLEANING TINE / (H) = Heavy Duty <i>(H) Available @ Extra Charge</i>	A/R
7	16-35420	#1 OR #2 GANG DECAL	2
8	FCB56125G5	5/16" X 1/4" CARRIAGE BOLT	4
9	FCB38100G5	3/8" X 1" CARRIAGE BOLT	A/R
10	FHN56	5/16" HEX NUT	4
11	FHN38	3/8" HEX NUT	A/R
12	FYHN78	7/8" NYLOCK NUT	2
13	FLW56	5/16" LOCK WASHER	4
14	FLW38	3/8" LOCK WASHER	A/R
15	FLW78	7/8" LOCK WASHER	2
16	16-35418	BEARING FLANGE, ENCLOSED (52 MST)	4
17	14D-1451	#1, 14-1/2" DuraFace™ SPIDER	A/R
	16D-1601	#1, 16" DuraFace™ SPIDER	A/R
18	16-35421	DuraFace™ SPIDER DECAL	2



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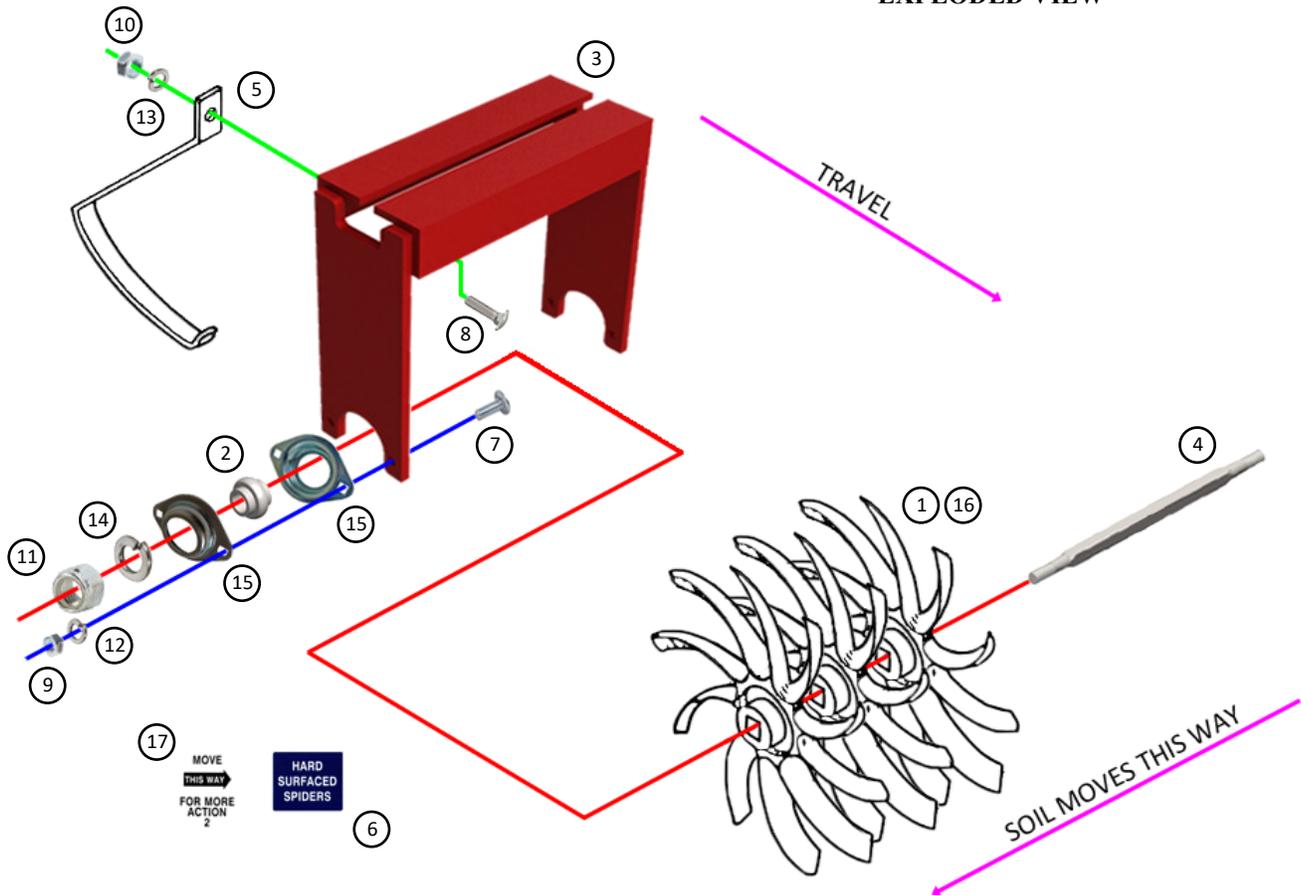
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3, 4, & 5 (#2) 14-1/2" & 16" SPIDER GANGS PLAIN (P) & TUFF-KOAT™ (D)

14D-5003	14-1/2" #2,3 Spider Gang DuraFace™	16D-5003	16" #2,3 Spider Gang DuraFace™
14D-5004	14-1/2" #2,4 Spider Gang DuraFace™	16D-5004	16" #2,4 Spider Gang DuraFace™
14D-5005	14-1/2" #2,5 Spider Gang DuraFace™	16D-5005	16" #2,5 Spider Gang DuraFace™
14P-5003	14-1/2" #2,3 Spider Gang Plain	16P-5003	16" #2,3 Spider Gang Plain
14P-5004	14-1/2" #2,4 Spider Gang Plain	16P-5004	16" #2,4 Spider Gang Plain
14P-5005	14-1/2" #2,5 Spider Gang Plain	16P-5005	16" #2,5 Spider Gang Plain

14-1/2" & 16" #2 SPIDER GANGS
EXPLODED VIEW





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KEY FOR 14-1/2" & 16" (#2) SPIDER GANGS (Pg. 14)

REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	14P-1452	#2, 14-1/2" PLAIN SPIDER	As Required
	16P-1602	#2, 16" PLAIN SPIDER	A/R
2	16-35402I	205PPB7 15/16" BEARING	2
3	16-354053	3 SPIDER GANG FORK	1
	16-354054	4 SPIDER GANG FORK	
	16-354055	5 SPIDER GANG FORK	
4	16-354063	15/16" AXLE FOR 3 SPIDER GANG	1
	16-354064	15/16" AXLE FOR 4 SPIDER GANG	
	16-354065	15/16" AXLE FOR 5 SPIDER GANG	
5	16-35408/16-35408H	CLEANING TINE / (H) = Heavy Duty (H) Available @ Extra Charge	A/R
6	16-35420	#1 OR #2 GANG DECAL	2
7	FCB56125G5	5/16" X 1/4" CARRIAGE BOLT	4
8	FCB38100G5	3/8" X 1" CARRIAGE BOLT	A/R
9	FHN56	5/16" HEX NUT	4
10	FHN38	3/8" HEX NUT	A/R
11	FYHN78	7/8" NYLOCK NUT	2
12	FLW56	5/16" LOCK WASHER	4
13	FLW38	3/8" LOCK WASHER	A/R
14	FLW78	7/8" LOCK WASHER	2
15	16-35419	BEARING FLANGE, ENCLOSED (52 MST)	4
16	14D-1452	#2, 14-1/2" DuraFace™ SPIDER	A/R
	16D-1602	#2, 16" DuraFace™ SPIDER	A/R
17	16-35421	DuraFace™ SPIDER DECAL	2



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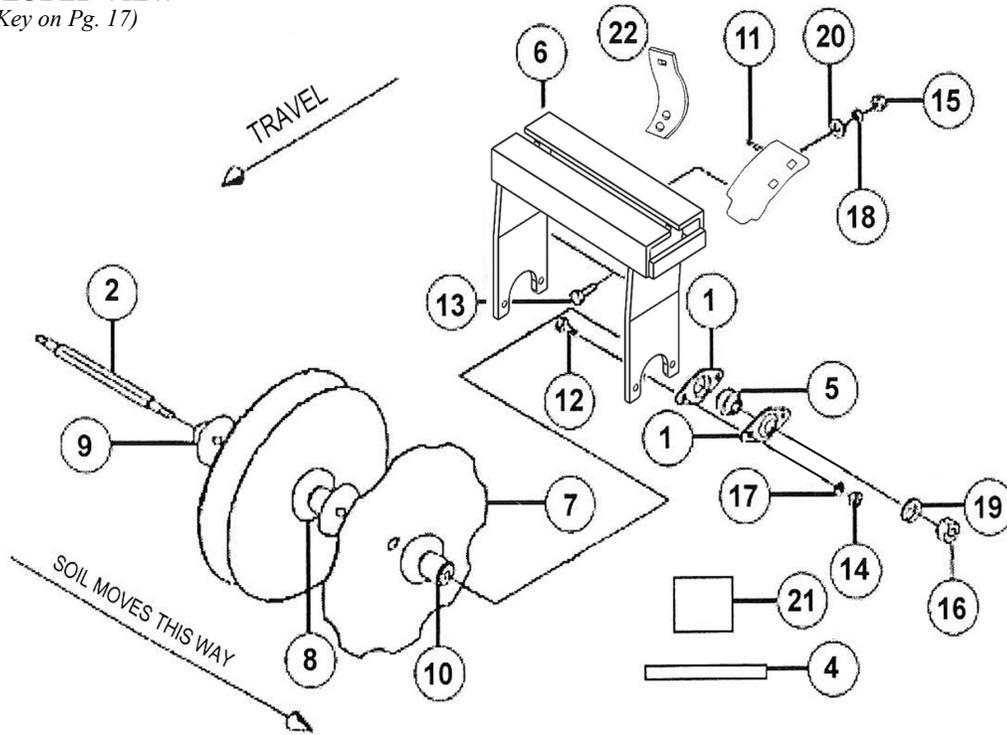
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NORWEST DISC GANGS

3, 4, & 5 (#1) 16" DISC GANGS

16N-4003	(#1) 3 Disc Gang with Notched 16" Blade
16N-4004	(#1) 4 Disc Gang with Notched 16" Blade
16N-4005	(#1) 5 Disc Gang with Notched 16" Blade

**16" #1 DISC GANGS
EXPLODED VIEW**
(Key on Pg. 17)





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KEY FOR 16" (#1) 3,4, & 5 DISC GANGS (Pg. 16)

REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS. AS REQUIRED (A/R)
1	16-35419	BEARING FLANGE, ENCLOSED (52 MST)	4
2	16-354063	15/16" AXLE FOR 3 DISC GANG	1
	16-354064	15/16" AXLE FOR 4 DISC GANG	
	16-354065	15/16" AXLE FOR 5 DISC GANG	
4	16-35422	ADJUSTING GANG DECAL	1
5	16-354021	205PPB7 15/16" BEARING	2
6	16-315063	CULTIVATOR 3 BLADE DISC FRAME	1
	16-315064	CULTIVATOR 4 BLADE DISC FRAME	
	16-315065	CULTIVATOR 5 BLADE DISC FRAME	
7	DN1630	16" NOTCHED DISC BLADE	A/R
8	16-31303	DOUBLE SPACER SPOOL	A/R
9	16-31304	CONCAVE HALF SPOOL	1
10	16-31305	CONVEX HALF SPOOL	1
11	16-313081	SCRAPER FOR #1 DISC GANG	A/R
12	FHB56125G5	5/16" X 1-1/4" CARRIAGE BOLT	4
13	FCB38100G5	3/8" X 1" HEX BOLT	A/R
14	FHN56	5/16" HEX NUT	A/R
15	FHN38	3/8" HEX NUT	A/R
16	FYHN78	7/8" NYLOCK NUT	2
17	FLW56	5/16" LOCK WASHER	A/R
18	FLW38	3/8" LOCK WASHER	A/R
19	FLW78	7/8" LOCK WASHER	2
20	FFW38	3/8" FLAT WASHER	2
21	16-35420	#1 GANG DECAL	2
22	16-313082B	DISC SCRAPER HANGER	A/R



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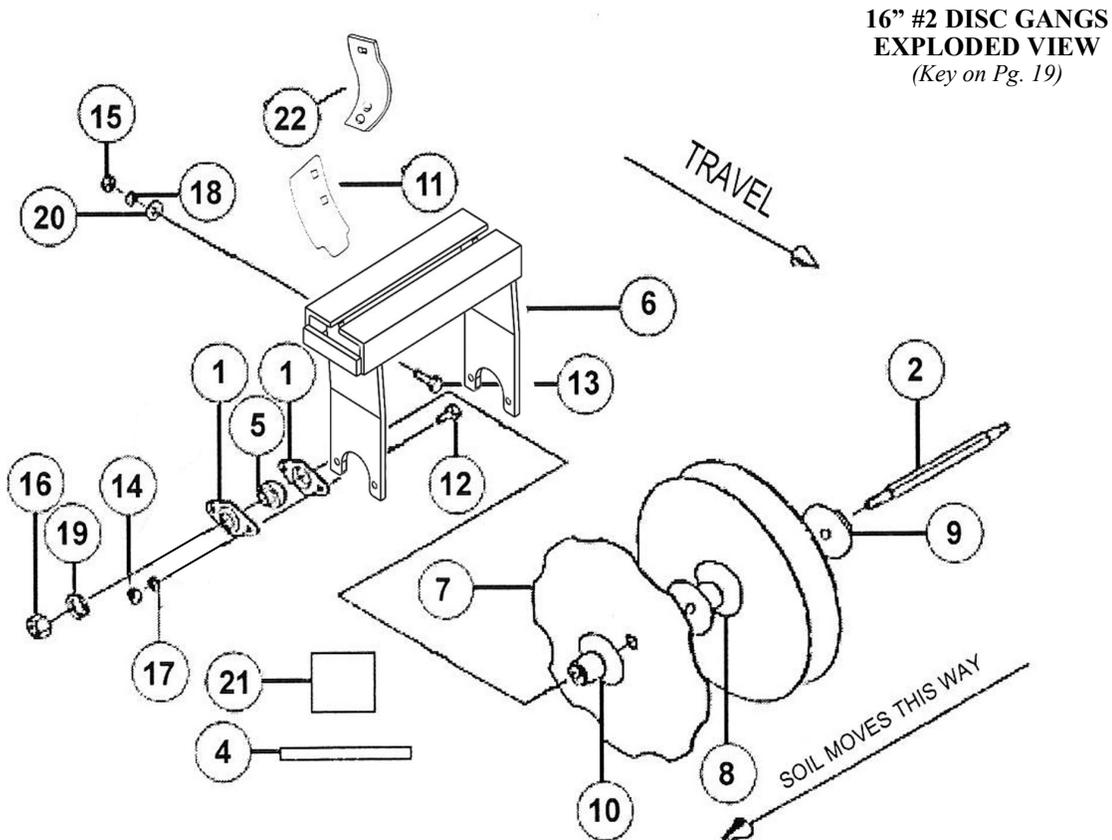
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NORWEST DISC GANGS

3, 4, & 5 (#2) 16" DISC GANGS

16N-5003	(#2) 3 Disc Gang with Notched 16" Blade
16N-5004	(#2) 4 Disc Gang with Notched 16" Blade
16N-5005	(#2) 5 Disc Gang with Notched 16" Blade





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KEY FOR 16" (#2) 3,4, & 5 DISC GANGS (Pg. 18)

REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS. AS REQUIRED (A/R)
1	16-35419	BEARING FLANGE, ENCLOSED (52 MST)	4
2	16-354063	15/16" AXLE FOR 3 DISC GANG	1
	16-354064	15/16" AXLE FOR 4 DISC GANG	
	16-354065	15/16" AXLE FOR 5 DISC GANG	
4	16-35422	ADJUSTING GANG DECAL	1
5	16-35402I	205PPB7 15/16" BEARING	2
6	16-315063	CULTIVATOR 3 BLADE DISC FRAME	1
	16-315064	CULTIVATOR 4 BLADE DISC FRAME	
	16-315065	CULTIVATOR 5 BLADE DISC FRAME	
7	DN1630	16" NOTCHED DISC BLADE	A/R
8	16-31303	DOUBLE SPACER SPOOL	A/R
9	16-31304	CONCAVE HALF SPOOL	1
10	16-31305	CONVEX HALF SPOOL	1
11	16-313082	SCRAPER FOR #2 DISC GANG	A/R
12	FHB56125G5	5/16" X 1-1/4" CARRIAGE BOLT	4
13	FCB38100G5	3/8" X 1" HEX BOLT	A/R
14	FHN56	5/16" HEX NUT	A/R
15	FHN38	3/8" HEX NUT	A/R
16	FYHN78	7/8" NYLOCK NUT	2
17	FLW56	5/16" LOCK WASHER	A/R
18	FLW38	3/8" LOCK WASHER	A/R
19	FLW78	7/8" LOCK WASHER	2
20	FFW38	3/8" FLAT WASHER	2
21	16-35420	#2 GANG DECAL	2
22	16-313082B	DISC SCRAPER HANGER	A/R



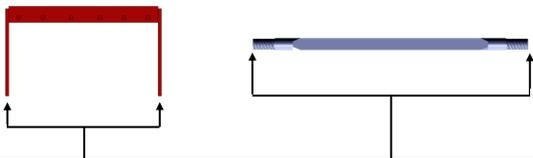
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DISC GANG ASSEMBLIES & SUB COMPONENTS

		 #2	 #1			16-313081 Scraper for #1 Disc Gang (Right)
		GANG FORKS		GANG AXLES		16-313082 Scraper for #2 Disc Gang (Left)
		PART NUMBER		PART NUMBER		16-313082B Disc Scraper Gang Hanger
16N-4003 (#1) 16N-5003 (#2)	3 Disc Gang	16-3154063	16-354063	15/16" Square		16-31303 Double Spacer Spool (Cast)
		Approx. Length: 11-1/8"	Approx. Length: 15"			16-31304 Concave Half Spool (Cast)
16N-4004 (#1) 16N-5004 (#2)	4 Disc Gang	16-3154064	16-354064	15/16" Square		16-31305 Convex Half Spool (Cast)
		Approx. Length: 14-5/8"	Approx. Length: 18-3/4"			16-35402I Peer 205PPB7 15/16" Bearing for Spider Gangs
16N-4005 (#1) 16N-5005 (#2)	5 Disc Gang	16-3154065	16-354065	15/16" Square		16-35419 Bearing Flange, Enclosed (52 MST)
		Approx. Length: 17-3/4"	Approx. Length: 21-1/2"			16-35601 Clamp Body Only
						16-35600 Full Assembly: Clamp Body & Gang Spacer (16-35602)
						16-35602 Pivot Clamp Gang Spacer (Nuts & Bolts Not Included)



Measurements Taken From Outside Edges

Discs available in 16" Notched Only
Part # **DN1630-00**

16N-4005 or 16N-5003

Gang Forks:
#1 = Right Gang (Even #)
#2 = Left Gang (Odd #)



Indicates Number of Discs on the Gang



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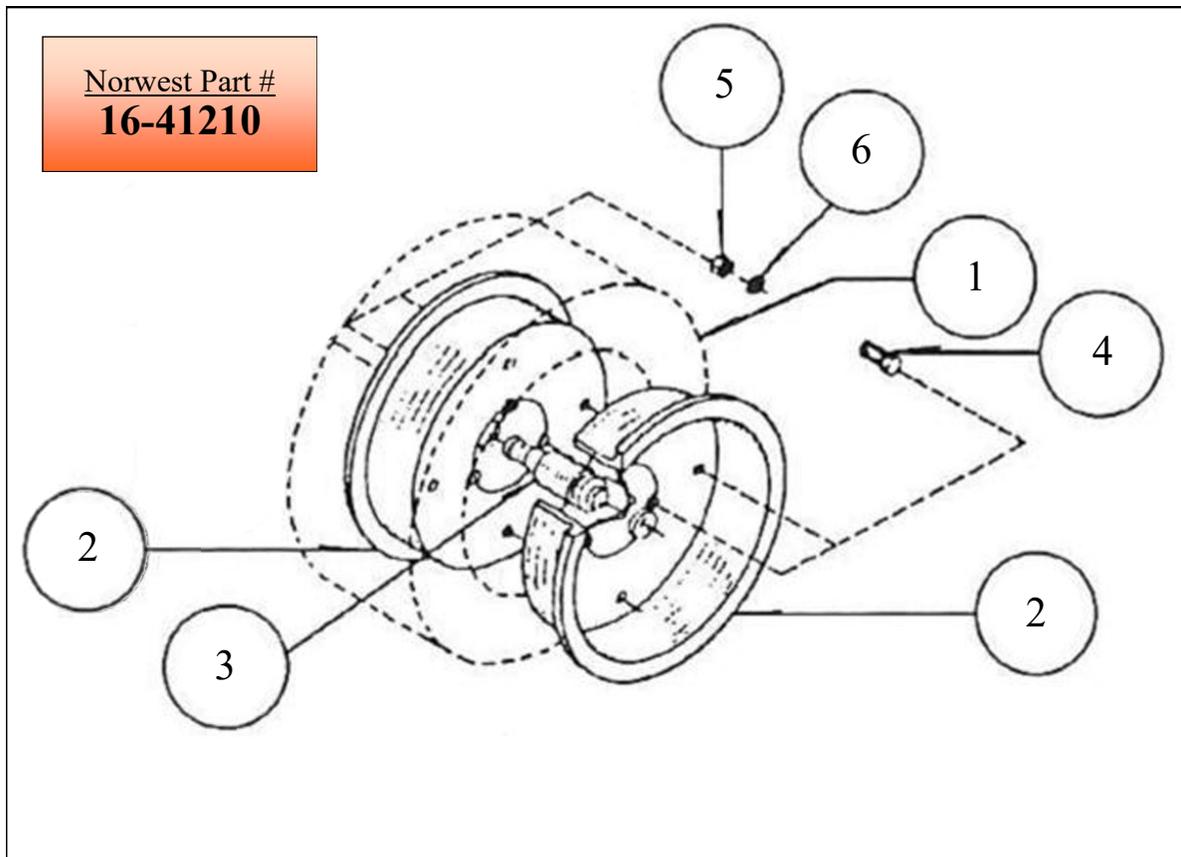
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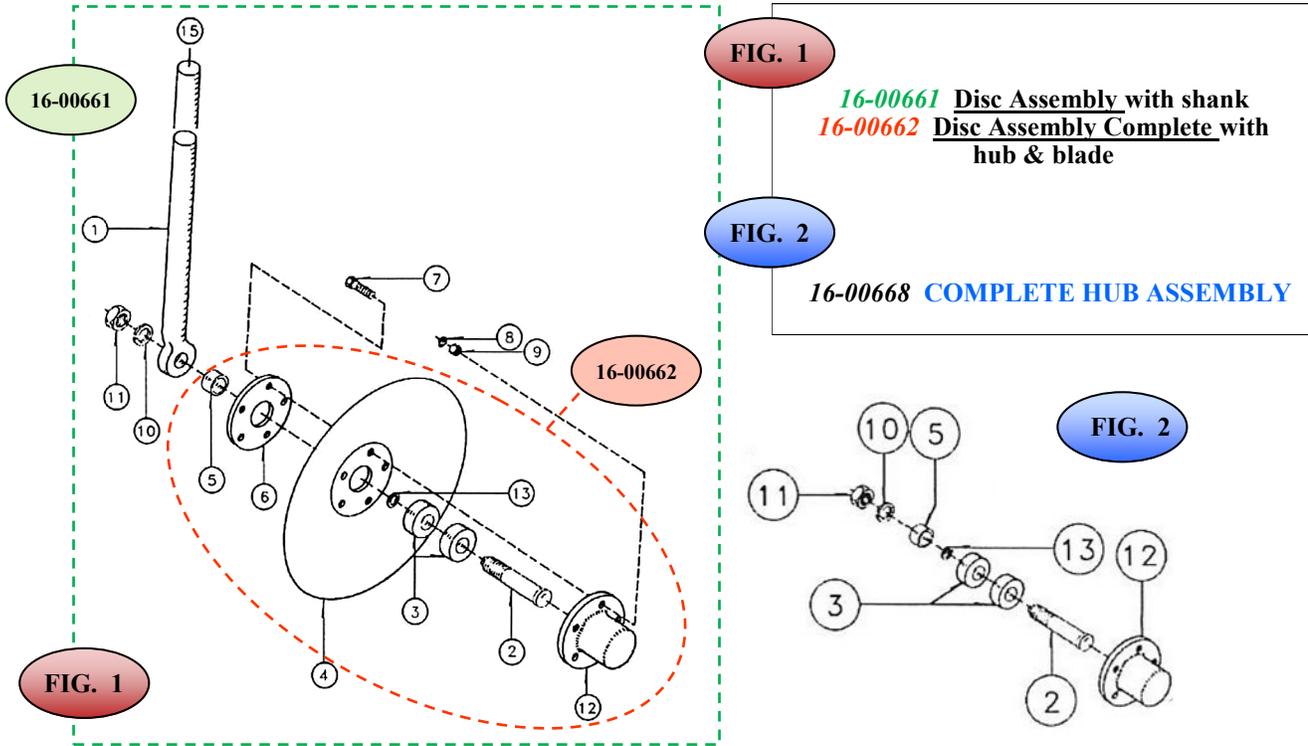


NORWEST ASSEMBLIES & EXPLODED VIEWS

TIRE & WHEEL ASSEMBLY WITH BEARING

REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	16-35009	SEMI-PNEUMATIC 4" X 12" TIRE	1
2	16-35010	HALF WHEEL	2
3	16-35011	BEARING	1
4	FHB5675G5	5/16" X 3/4" HEX BOLT	7
5	FHN56	5/16" HEX NUT	7
6	FLW56	5/16" LOCK WASHER	7





REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	16-00605	DISC SHANK, STANDARD	1
2	16-00609	DISC AXLE	1
3	16-00610	BEARING	2
4	16-001230	12" WEEDER BLADE WITH 5 BOLT HUB PATTERN	1
5	16-00611	BEARING SPACER	1
6	16-00612	DISC BLADE BACKING PLATE	1
7	FHB56100G5	5/16" X 1" HEX BOLT	5
8	FLW56	5/16" LOCK WASHER	5
9	FHN56	5/16" HEX NUT	5
10	FLW34	3/4" LOCK WASHER	1
11	FJN34	3/4" JAM NUT	1
12	16-00608	MACHINED HUB CASTING ONLY	1
13	16-00613	O-RING	1
14	16-35701	CLAMP BRACKET	1
15	16-00705	DISC SHANK, LONG	1



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FIG. 3 16-01100 TOOL BAR CLAMP FOR 7" x 5" FOR 1" x 2-1/2" & 3" &
16-11100 TOOL BAR CLAMP FOR 7" x 7" FOR 1" x 3"

REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	Z-70	7" CLAMP BODY COMPLETE	1
2	FLW34	3/4" LOCK WASHER	2
3	FHN34	3/4" HEX NUT	2
4	16-01104	CLAMP STRAP	1
5	FSHSS58200	5/8" X 2" SQUARE HEAD SET SCREW	1
6	FHB34700G5	3/4" X 7" HEX BOLT	2
7	FHB341000G5	3/4" X 9" HEX BOLT	
8	FSHSS58150	5/8" X 1-1/2" SQUARE HEAD SET SCREW	2
9	FSN58	5/8" SQUARE NUT	3

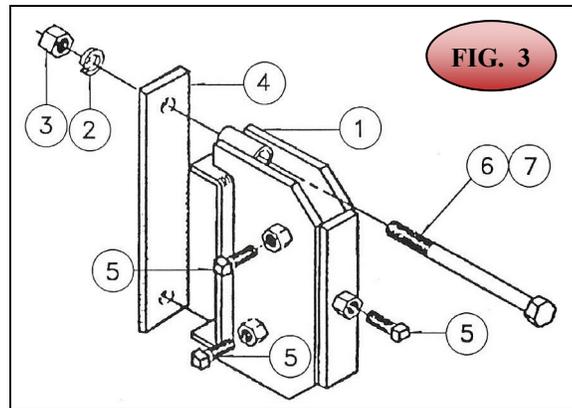
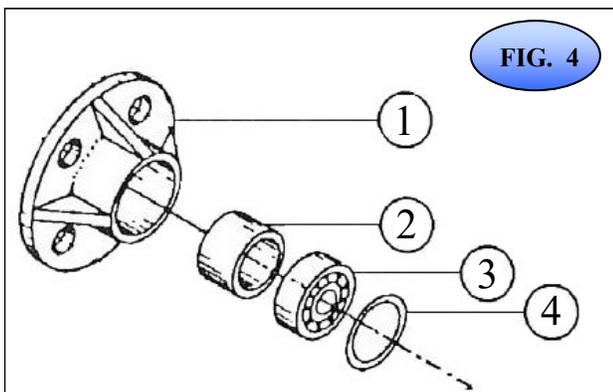


FIG. 4 16-01332 HUB ASSEMBLY FOR RIGID COULTER ASSEMBLY



REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	16-01301	HUB CASTING ONLY	1
2	16-01304	BEARING SPACER	1
3	16-01308	HUB BEARING	2
4	16-01309	RETAINING RING	2

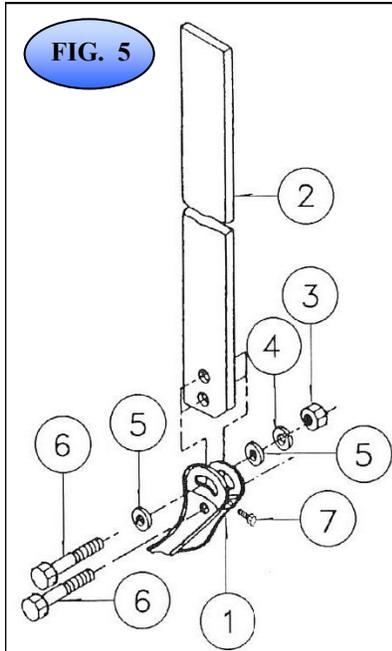


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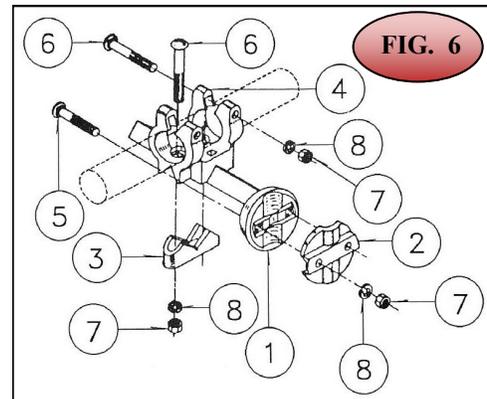
FIG. 5 SF3600 1" x 3" x 36" STANDARD WITH ADJUSTABLE FP10 FOOTPIECE



REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	FP10	ADJUSTABLE FABRICATED FOOTPIECE	1
2	S3036	1" X 3" X 36" STRAIGHT SHANK	1
3	FHN58	5/8" HEX NUT	2
4	FLW58	5/8" LOCK WASHER	2
5	FFW58	5/8" FLAT WASHER	2
6	FHB58300G5	5/8" X 3" HEX BOLT	1
7	FSHSS58200	5/8" X 2" SQUARE HEAD SET SCREW	1
8	FSN58	5/8" SQUARE NUT	1
9	FHB58250G5	5/8" X 2-1/2" HEX BOLT	1

FIG. 6 16-35700 1" x 3" x 36" STANDARD SUPPORT ASSEMBLY

REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	16-35703	SHANK BRACKET	1
2	16-35702	SHANK CLAMP	1
3	16-35701	CLAMP BRACKET	1
4	16-35704	SWEEP CLAMP	1
5	FCB12300G5	1/2" X 3" CARRIAGE BOLT	2
6	FCB12400G5	1/2" X 4" CARRIAGE BOLT	4
7	FHN12	1/2" HEX NUT	6
8	FLW12	1/2" LOCK WASHER	6





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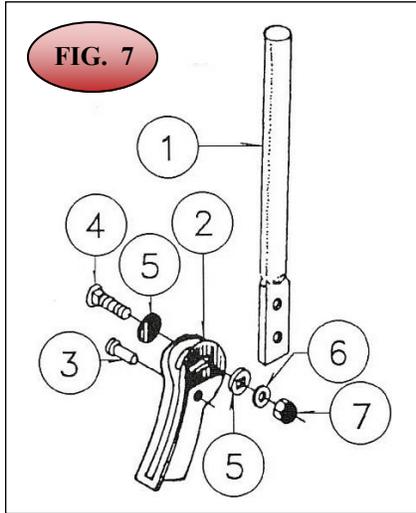
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FIG. 7

16-35800 RIGID SHANK ASSEMBLY

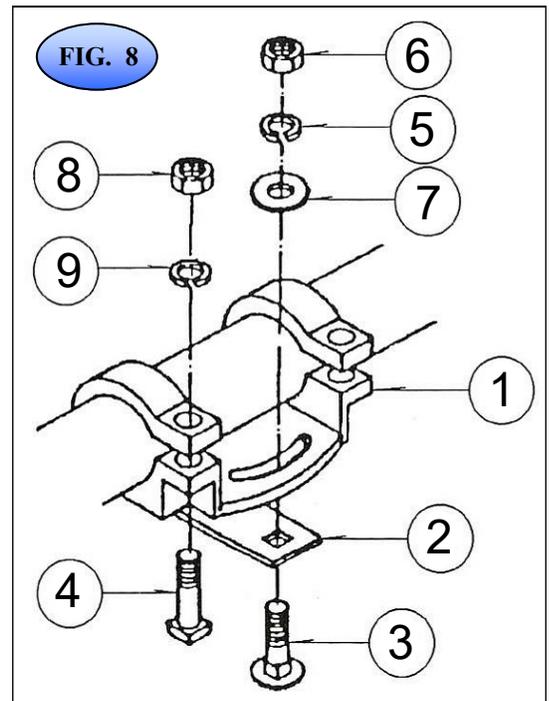


REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	16-35801	SWEEP SHANK	1
2	16-35802	FOOTPIECE	1
3	FHB12200G5	1/2" X 2" HEX BOLT	1
4	FCB12250G5	1/2" X 2-1/2" CARRIAGE BOLT	1
5	16-35805	RACHET WASHER W/ EAR	2
6	FLW12	1/2" LOCK WASHER	2
7	FHN12	1/2" HEX NUT	2

FIG. 8

16-35600 PIVOT CLAMP ASSEMBLY

REFERENCE #	PART #	DESCRIPTION	REQUIRED PCS.
1	16-35601	PIVOT CLAMP BODY	1
2	16-35602	PIVOT CLAMP GANG SPACER	1
3	FCB12175G5	1/2" X 1-3/4" CARRIAGE BOLT	2
4	FHB58350G5	5/8" X 3-1/2" HEX BOLT	2
5	FLW12	1/2" LOCK WASHER	2
6	FHN12	1/2" HEX NUT	2
7	FFW12	1/2" FLAT WASHER	2
8	FHN58	5/8" HEX NUT	2
9	FLW58	5/8" LOCK WASHER	2





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