

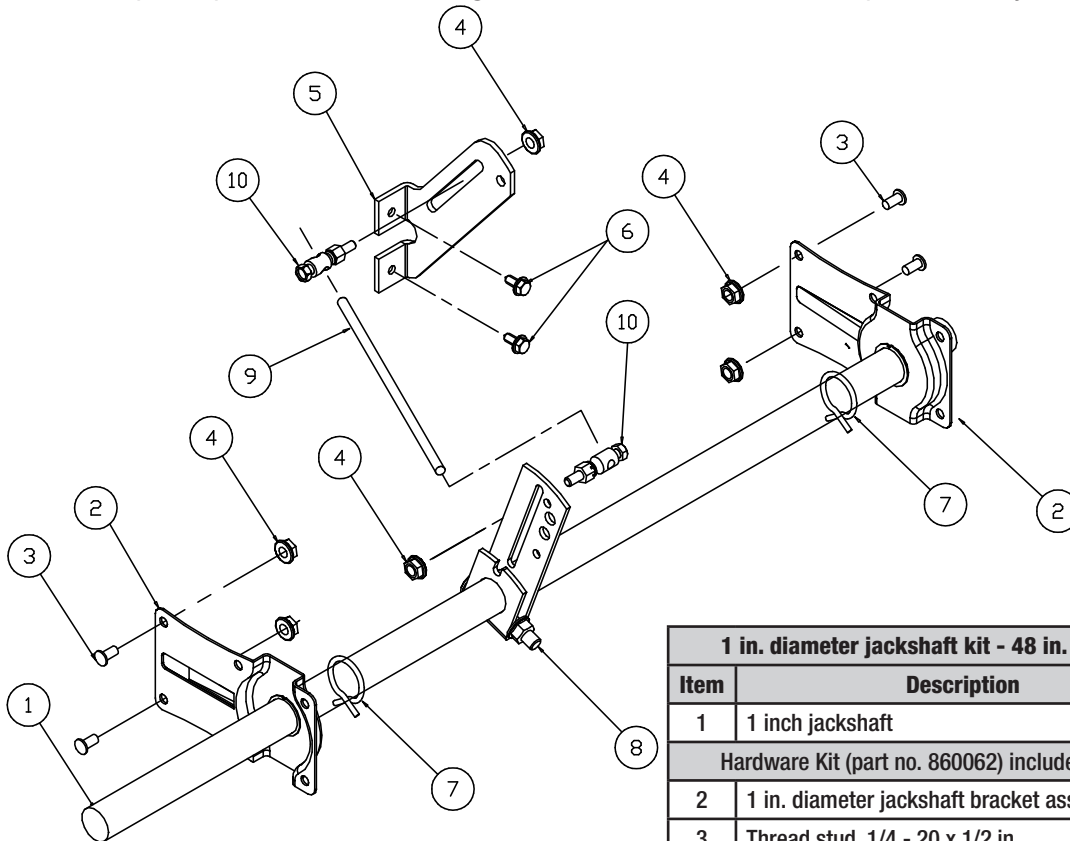
Jackshaft Kits

FIELD INSTALLATION INSTRUCTIONS

One Inch Jackshaft Kits For 48 in. Long Jackshafts

Note: Kit includes required parts for single section dampers.

1. Attach jackshaft brackets (item 2) to the frame with 1/4-20 thread studs (item 3) and 1/4-20 spinlock nuts (item 4).
2. Attach the blade bracket (item 5) to the blade with 1/4-20 x 1/2 in. machine screws (item 6).
3. Assemble the hose clamps (item 7), crankarm assemblies (item 8) onto the jackshaft (item 1) as shown.
4. With the jackshaft positioned between the jackshaft brackets (item 2) and hose clamps (item 7), close the blades completely and align the crankarm assembly (item 8) with the blade bracket (item 5). Assemble the linkage rod (item 9) and ball swivels (item 10) to the blade bracket (item 5). The linkage rod may need to be cut down as required depending upon the length required to connect the ball swivels with the blade brackets.
5. Secure the assembly by sliding the hose clamps (item 7) up to each jackshaft bracket (item 2) to secure the shaft.
6. On internal mount, the jackshaft must not extend past the jackshaft brackets. On external mount, the jackshaft extends past the jackshaft bracket on the actuator side 6 inches (for actuator attachment). Cut down jackshaft as required.



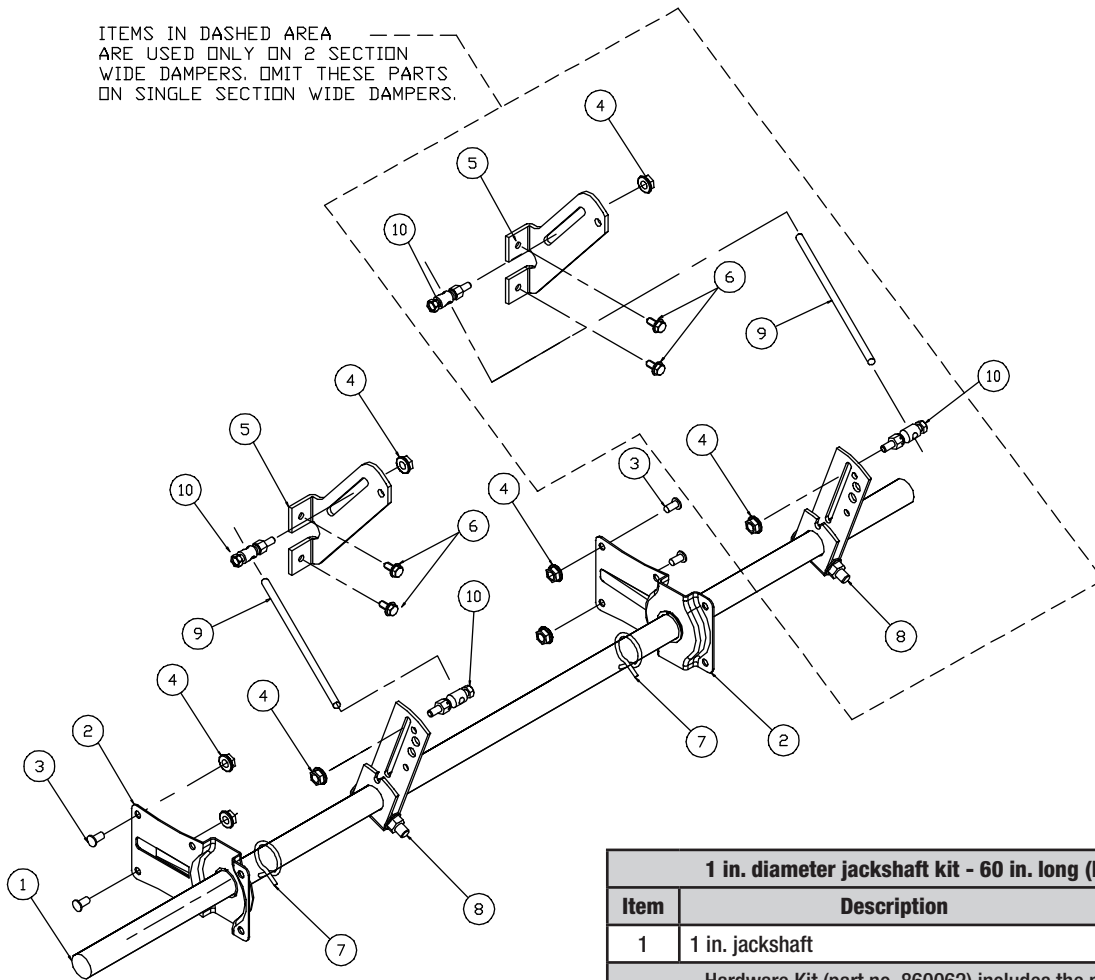
1 in. diameter jackshaft kit - 48 in. long (Part no. 860059)			
Item	Description	Part No.	Qty
1	1 inch jackshaft	734095	1
Hardware Kit (part no. 860062) includes the parts listed below.			
2	1 in. diameter jackshaft bracket assy w nyliner	834292	2
3	Thread stud, 1/4 - 20 x 1/2 in.	415609	4
4	1/4 - 20 spinlock nut	415455	4
5	Blade bracket	653629	1
6	MS 1/4 -20 x 1/2 in. (HWH) TCS ZP	415264	2
7	1 in. hose clamp	451809	2
8	1 in. crankarm assembly	816252	1
9	5/16 in. diameter linkage rod 18 in long	656472	1
10	Ball swivel	451554	2

One Inch Jackshaft Kits For 60 in. Long Jackshafts

Note: Kit contains parts for 2 section wide dampers. For single section dampers, omit parts outlined. These will not be required.

1. Attach jackshaft brackets (item 2) to frame with 1/4-20 thread studs (item 3) and 1/4-20 spinlock nuts (item 4).
2. Attach blade bracket (item 5) to blade with 1/4-20 x 1/2 in. machine screws (item 6).
3. Assemble hose clamps (item 7), crankarm assemblies (item 8) onto jackshaft (item 1) as shown.
4. With jackshaft positioned between the jackshaft brackets (item 2) and hose clamps (item 7) positioned next to jackshaft brackets (item 2), close blades completely and align crankarm assembly (item 8) with blade bracket (item 5). Assemble linkage rod (item 9) and ball swivels (item 10) to blade bracket (item 5). The linkage rod (item 9) may need to be cut down as required depending upon length required to connect ball swivels with blade brackets.
5. Secure assembly by sliding hose clamps (item 7) up to each jackshaft bracket (item 2) to secure shaft.
6. On internal mount, jackshaft must not extend past jackshaft brackets. On external mount, jackshaft extends past jackshaft bracket on actuator side 6 inches for actuator attachment. Cut down jackshaft as required.

ITEMS IN DASHED AREA ARE USED ONLY ON 2 SECTION WIDE DAMPERS. OMIT THESE PARTS ON SINGLE SECTION WIDE DAMPERS.



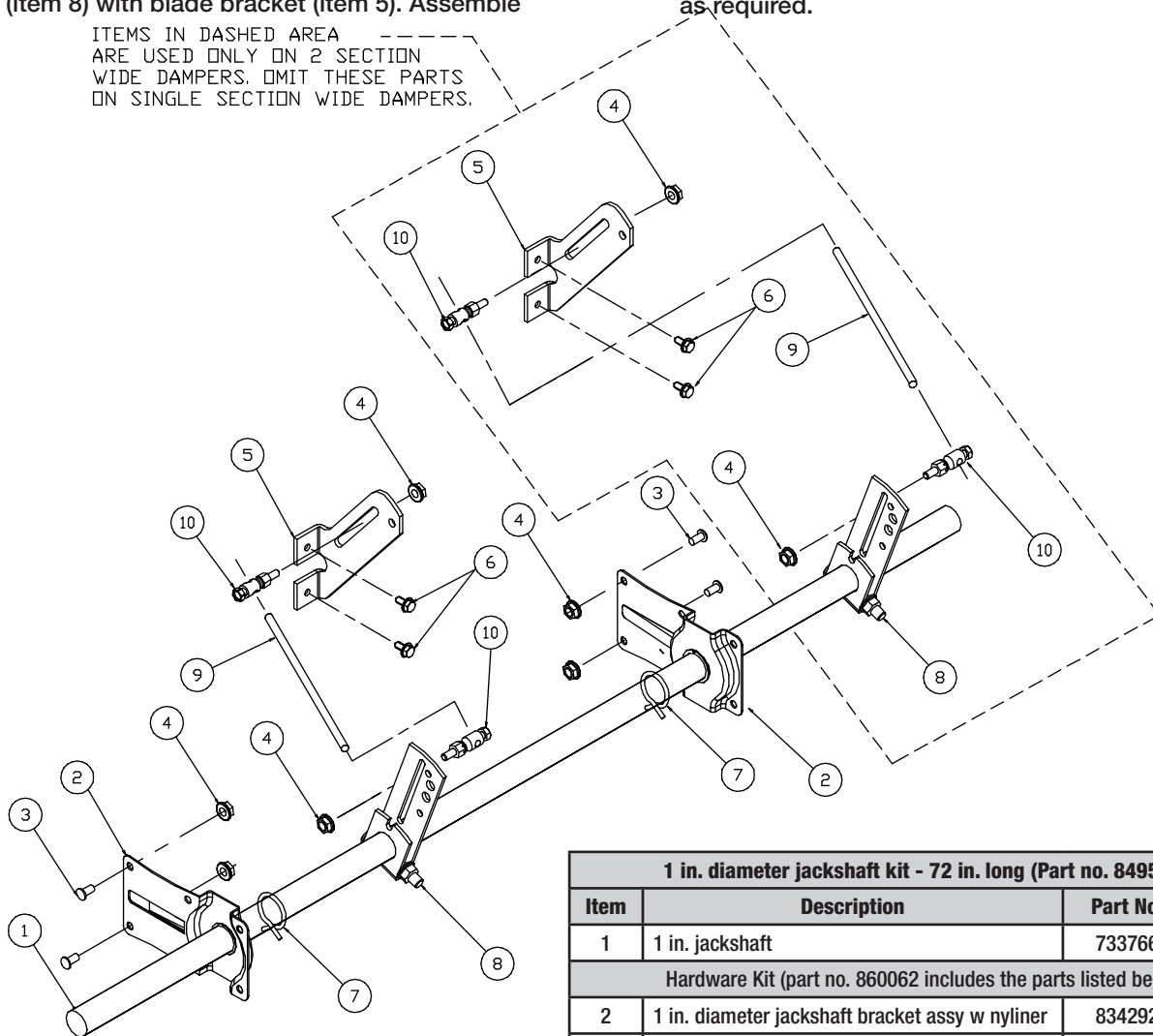
1 in. diameter jackshaft kit - 60 in. long (Part no. 849576)			
Item	Description	Part No.	Qty
1	1 in. jackshaft	733765	1
Hardware Kit (part no. 860062) includes the parts listed below.			
2	1 in. diameter jackshaft bracket assy w nyliner	834292	2
3	Thread stud, 1/4 - 20 x 1/2 in.	415609	4
4	1/4 - 20 spinlock nut	415455	8
5	Blade bracket	653629	2
6	MS 1/4 -20 x 1/2 " (HWH) TCS ZP	415264	4
7	1 in. hose clamp	451809	2
8	1 in. crankarm assembly	816252	2
9	5/16 in. diameter linkage rod 18 in long	656472	2
10	Ball swivel	451554	4

One Inch Jackshaft Kits For 72 in. Long Jackshafts

Note: Kit contains parts for 2 section wide dampers. For single section dampers, omit parts outlined. These will not be required.

1. Attach jackshaft brackets (item 2) to frame with 1/4-20 thread studs (item 3) and 1/4-20 spinlock nuts (item 4).
2. Attach blade bracket (item 5) to blade with 1/4-20 x 1/2 in. machine screws (item 6).
3. Assemble hose clamps (item 7), crankarm assemblies (item 8) onto jackshaft (item 1) as shown.
4. With jackshaft positioned between the jackshaft brackets (item 2) and hose clamps (item 7) positioned next to jackshaft brackets (item 2), close blades completely and align crankarm assembly (item 8) with blade bracket (item 5). Assemble linkage rod (item 9) and ball swivels (item 10) to blade bracket (item 5). The linkage rod (item 9) may need to be cut down as required depending upon length required to connect ball swivels with blade brackets.
5. Secure assembly by sliding hose clamps (item 7) up to each jackshaft bracket (item 2) to secure shaft.
6. On internal mount, jackshaft must not extend past jackshaft brackets. On external mount, jackshaft extends past jackshaft bracket on actuator side 6 inches for actuator attachment. Cut down jackshaft as required.

ITEMS IN DASHED AREA ARE USED ONLY ON 2 SECTION WIDE DAMPERS. OMIT THESE PARTS ON SINGLE SECTION WIDE DAMPERS.

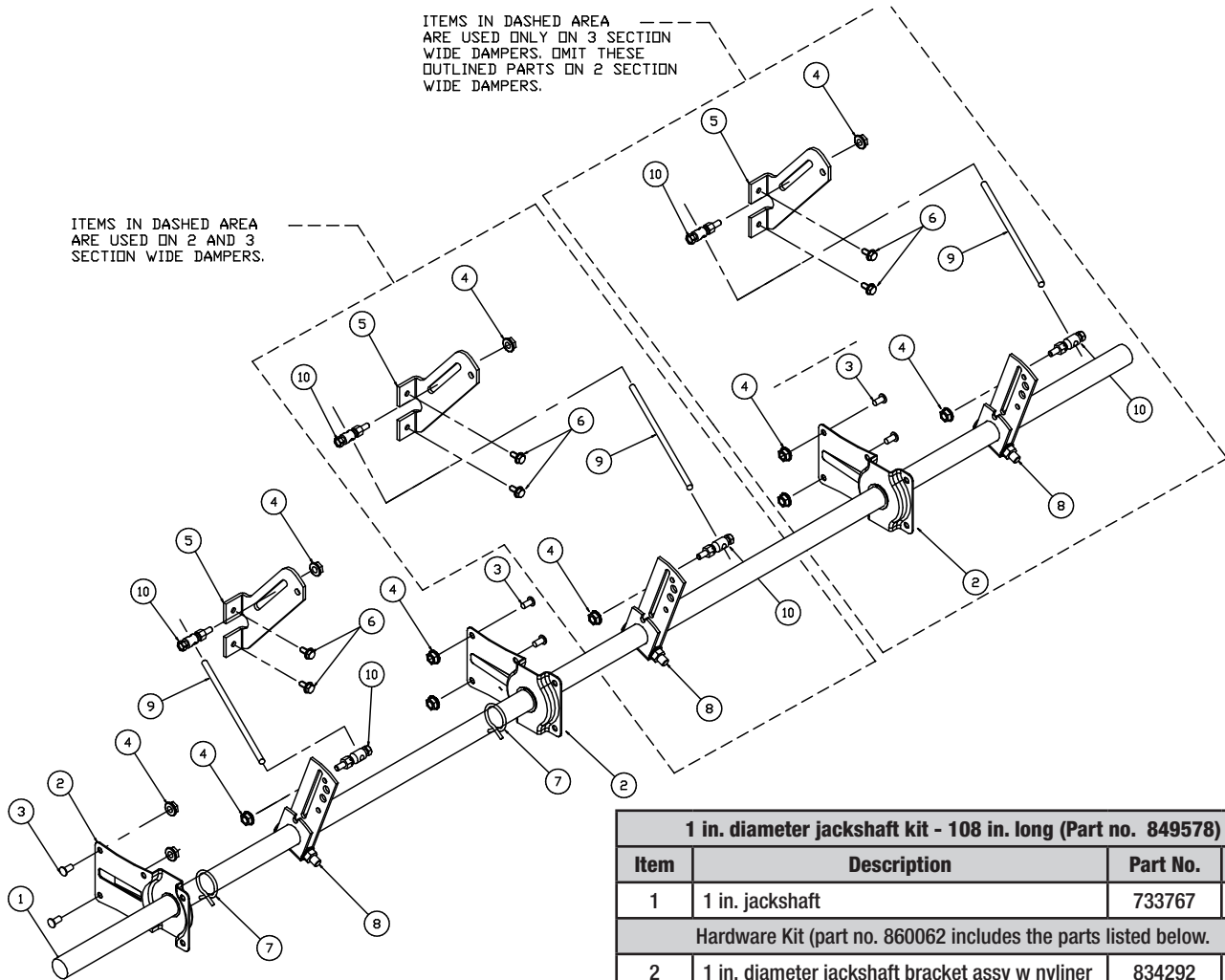


1 in. diameter jackshaft kit - 72 in. long (Part no. 849577)			
Item	Description	Part No.	Qty
1	1 in. jackshaft	733766	1
Hardware Kit (part no. 860062 includes the parts listed below.)			
2	1 in. diameter jackshaft bracket assy w nyliner	834292	2
3	Thread stud, 1/4 - 20 x 1/2 in.	415609	4
4	1/4 - 20 spinlock nut	415455	8
5	Blade bracket	653629	2
6	MS 1/4 -20 x 1/2 in. (HWH) TCS ZP	415264	4
7	1 in. hose clamp	451809	2
8	1 in. crankarm assembly	816252	2
9	5/16 in. diameter linkage rod 18 in long	656472	2
10	Ball swivel	451554	4

One Inch Jackshaft Kits For 108 in. Long Jackshafts

Note: Kit contains parts for 2 or 3 section wide dampers. For single section dampers, omit parts outlined. These will not be required.

1. Attach jackshaft brackets (item 2) to frame with 1/4-20 thread studs (item 3) and 1/4-20 spinlock nuts (item 4).
2. Attach blade bracket (item 5) to blade with 1/4-20 x 1/2 in. machine screws (item 6).
3. Assemble hose clamps (item 7), crankarm assemblies (item 8) onto jackshaft (item 1) as shown.
4. With jackshaft positioned between the jackshaft brackets (item 2) and hose clamps (item 7) positioned next to jackshaft brackets (item 2), close blades completely and align crankarm assembly (item 8) with blade bracket (item 5). Assemble linkage rod (item 9) and ball swivels (item 10) to blade bracket (item 5). The linkage rod (item 9) may need to be cut down as required depending upon length required to connect ball swivels with blade brackets.
5. Secure assembly by sliding hose clamps (item 7) up to each jackshaft bracket (item 2) to secure shaft.
6. On internal mount, jackshaft must not extend past jackshaft brackets. On external mount, jackshaft extends past jackshaft bracket on actuator side 6 inches for actuator attachment. Cut down jackshaft as required.

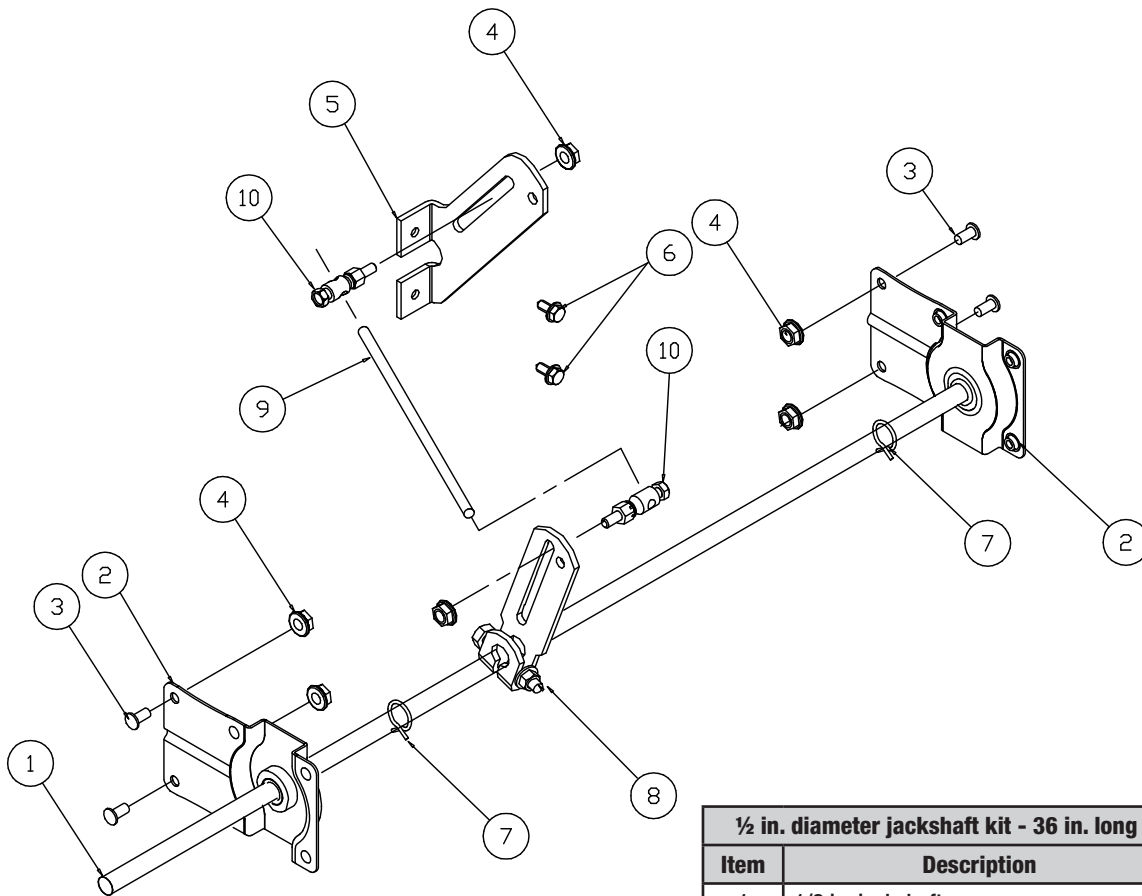


1 in. diameter jackshaft kit - 108 in. long (Part no. 849578)			
Item	Description	Part No.	Qty
1	1 in. jackshaft	733767	1
Hardware Kit (part no. 860062 includes the parts listed below.)			
2	1 in. diameter jackshaft bracket assy w nyliner	834292	3
3	Thread stud, 1/4 - 20 x 1/2 in.	415609	6
4	1/4 - 20 spinlock nut	415455	12
5	Blade bracket	653629	3
6	MS 1/4 - 20 x 1/2 in. (HWH) TCS ZP	415264	6
7	1 in. hose clamp	451809	2
8	1 in. crankarm assembly	816252	3
9	5/16 in. diameter linkage rod 18 in long	656472	3
10	Ball swivel	451554	6

Half Inch Jackshaft Kits For 36 in. Long Jackshafts

Note: Kit includes required parts for single section dampers.

1. Attach jackshaft brackets (item 2) to frame with 1/4-20 thread studs (item 3) and 1/4-20 spinlock nuts (item 4).
2. Attach blade bracket (item 5) to blade with 1/4-20 x 1/2 in. machine screws (item 6).
3. Assemble hose clamps (item 7), crankarm assemblies (item 8) onto jackshaft (item 1) as shown.
4. With jackshaft positioned between the jackshaft brackets (item 2) and hose clamps (item 7) positioned next to jackshaft brackets (item 2), close blades completely and align crankarm assembly (item 8) with blade bracket (item 5).
5. Assemble linkage rod (item 9) and ball swivels (item 10) to blade bracket (item 5). The connecting rod may need to be cut down as required depending upon length required to connect ball swivels with the blade brackets.
6. Secure assembly by sliding hose clamps (item 7) up to each jackshaft bracket (item 2) to secure shaft.
7. On internal mount, jackshaft must not extend past jackshaft brackets. On external mount, jackshaft extends past jackshaft bracket on actuator side 6 inches for actuator attachment. Cut down jackshaft as required.

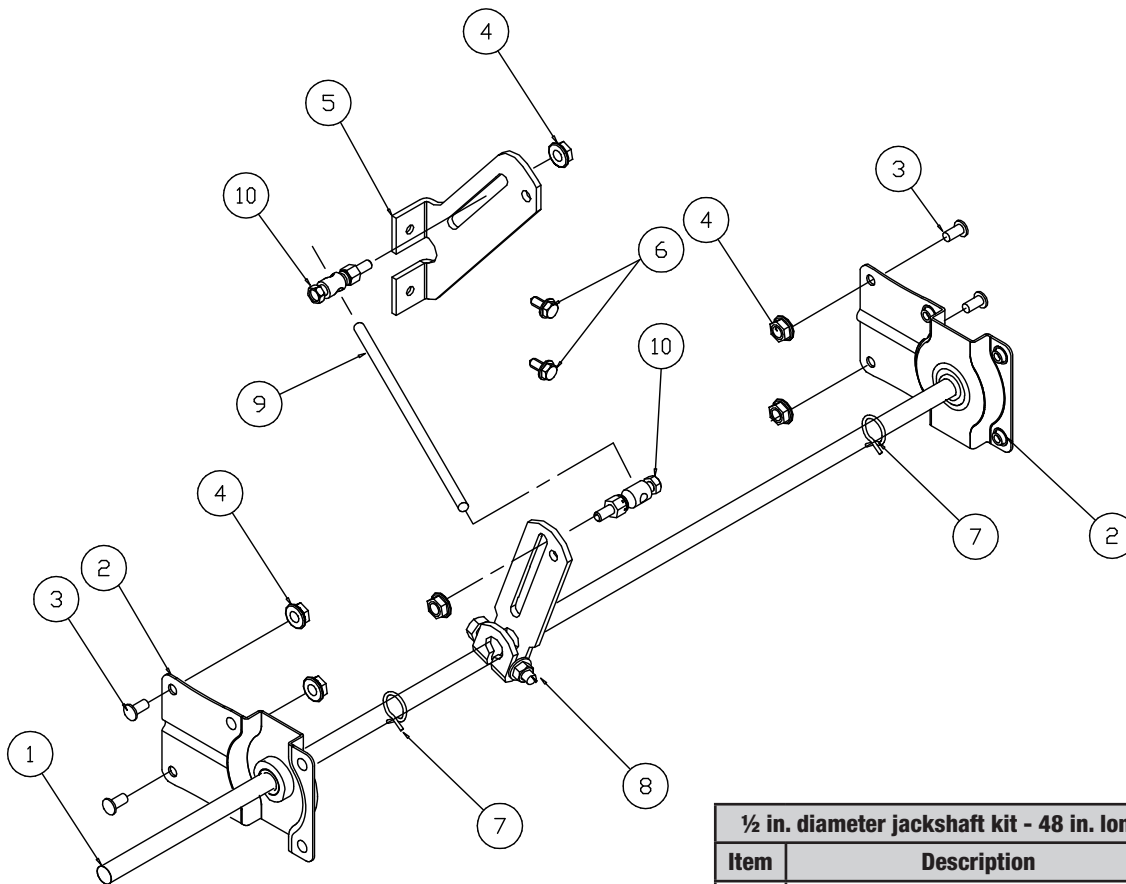


½ in. diameter jackshaft kit - 36 in. long (Part no. 860061)			
Item	Description	Part No.	Qty
1	1/2 in. jackshaft	734097	1
Hardware Kit (part no. 860057 includes the parts listed below.)			
2	1/2 in. diameter jackshaft bracket assy	814968	2
3	Thread stud, 1/4 - 20 x 1/2 in.	415609	4
4	1/4 - 20 spinlock nut	415455	4
5	Blade bracket	653629	1
6	MS 1/4 - 20 x 1/2" (HWH) TCS ZP	415264	2
7	1/2 in. hose clamp	451786	2
8	1/2 in. crankarm assembly	812097	1
9	5/16 in. diameter linkage rod 18 in long	656472	1
10	Ball swivel	451554	2

Half Inch Jackshaft Kits For 48 in. Long Jackshafts

Note: Kit includes required parts for single section dampers.

1. Attach jackshaft brackets (item 2) to frame with 1/4-20 thread studs (item 3) and 1/4-20 spinlock nuts (item 4).
 2. Attach blade bracket (item 5) to blade with 1/4-20 x 1/2 in. machine screws (item 6).
 3. Assemble hose clamps (item 7), crankarm assemblies (item 8) onto jackshaft (item 1) as shown.
 4. With jackshaft positioned between the jackshaft brackets (item 2) and hose clamps (item 7) positioned next to jackshaft brackets (item 2), close blades completely and align crankarm assembly (item 8) with blade bracket (item 5).
- Assemble linkage rod (item 9) and ball swivels (item 10) to blade bracket (item 5). The connecting rod may need to be cut down as required depending upon length required to connect ball swivels with a blade brackets.
5. Secure assembly by sliding hose clamps (item 7) up to each jackshaft bracket (item 2) to secure shaft.
 6. On internal mount, jackshaft must not extend past jackshaft brackets. On external mount, jackshaft extends past jackshaft bracket on actuator side 6 inches for actuator attachment. Cut down jackshaft as required.



½ in. diameter jackshaft kit - 48 in. long (Part no. 860060)			
Item	Description	Part No.	Qty
1	1/2 in. jackshaft	734096	1
Hardware Kit (part no. 860057 includes the parts listed below.)			
2	1/2 in. diameter jackshaft bracket assy	814968	2
3	Thread stud, 1/4 - 20 x 1/2 in.	415609	4
4	1/4 - 20 spinlock nut	415455	4
5	Blade bracket	653629	1
6	MS 1/4 -20 x 1/2 in. (HWH) TCS ZP	415264	2
7	1/2 in. hose clamp	451786	2
8	1/2 in. crankarm assembly	812097	1
9	5/16 in. diameter linkage rod 18 in long	656472	1
10	Ball swivel	451554	2

