

FD SERIES

DRUM MULCHER

MAINTENANCE

1082300001 REV 1

07/29/2022

WARRANTY + SERVICE 888.960.0364
PARTS 888.960.0361



DIAMONDMOWERS.COM

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DRUM MULCHER MAINTENANCE SCHEDULE

Regular maintenance ensures the unit stays productive for a long time. The table below is the minimum maintenance and inspection intervals.

MAINTENANCE INTERVALS

Procedure	10 Hours/Daily	50 Hours/Weekly	150 Hours	As Needed
Bearings	Grease	Inspect		
Belt and Pulleys			Inspect	
Drum	Inspect			
Hoses	Inspect	Inspect		Replace
Hydraulic and Hose Fittings	Inspect			
Motor Bolts		Inspect		
Couplers				Inspect
Safety Polycarbonate	Inspect			Clean
Skid Shoes		Inspect		Replace
Teeth	Inspect			Replace
Tooth Holders	Inspect			Replace

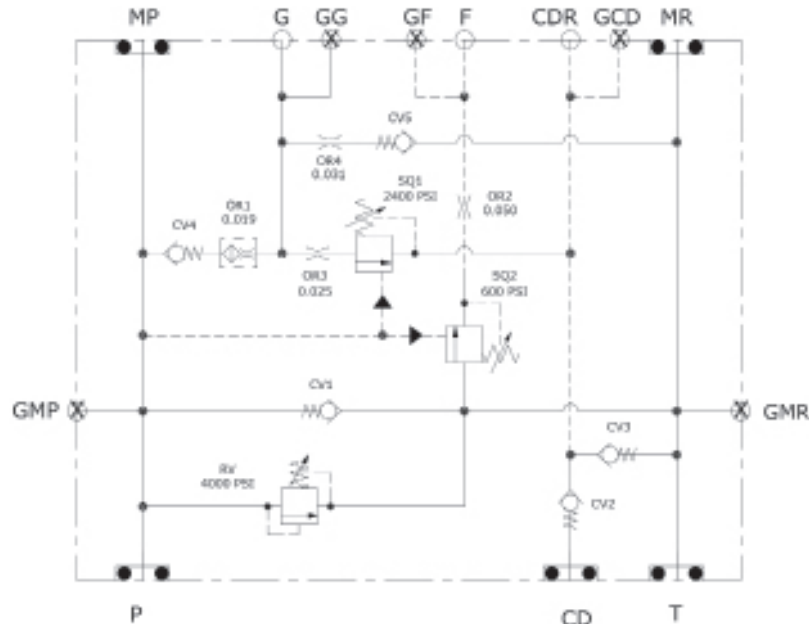
MOTOR TUNING

The motor must be tuned by the dealer or end user when first installed and if the mulcher is experiencing issues with mulching. Order the Two Speed Motor Tuning Kit from www.diamondmowers.com or from an authorized Diamond Mowers dealer.

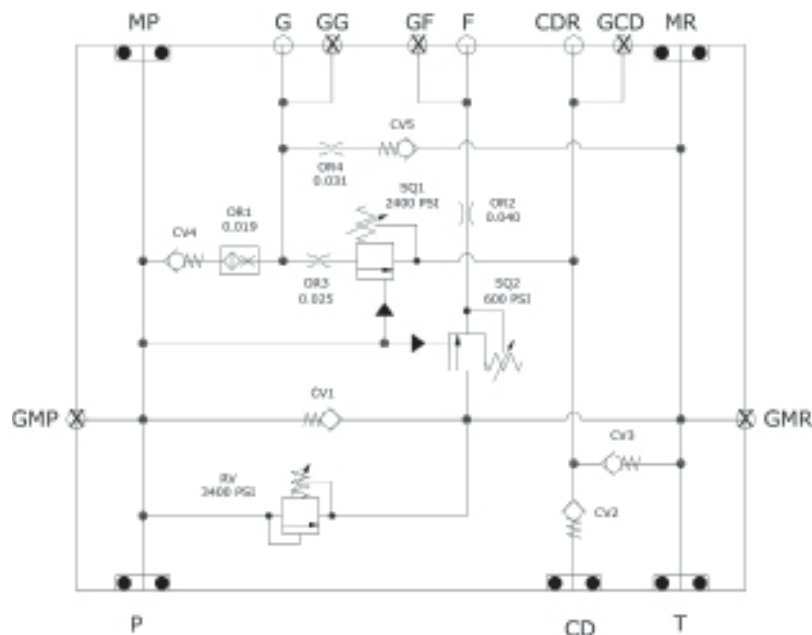
VALVE BLOCK SCHEMATIC

The valve block schematics below can be used to assist in advanced troubleshooting.

5000 PSI - Part Number 39-0140



3000 PSI - Part Number 39-0141



TOOTH AND TOOTH HOLDER MAINTENANCE

Inspect teeth and tooth holders every 10 hours or daily for:

- chips.
- damage.
- missing points.
- loose hardware.

If damage is found, the sections below outline options to address the issue.

TEETH

LOOSE HARDWARE

Use a torque wrench to tighten the hardware to 120ft-lbs (163Nm).

ROTATING TEETH

On four-point steel teeth and twin chisel planer teeth, the tooth can be rotated 180° to expose fresh points.

SHARPENING TEETH

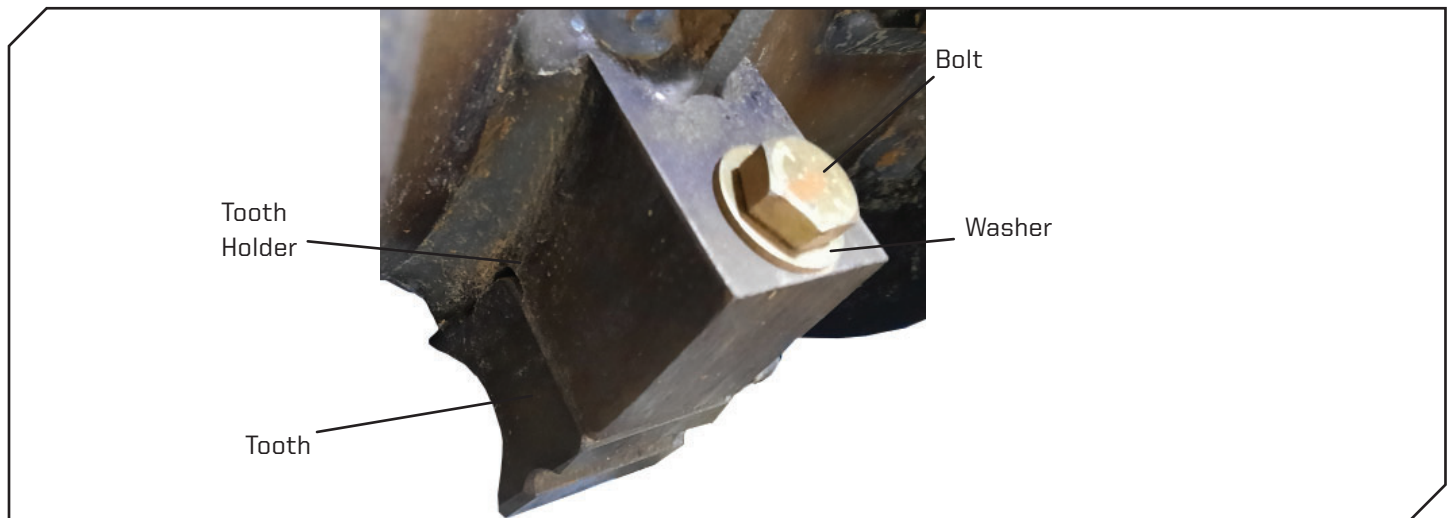
On four-point steel teeth and twin chisel planer teeth, the tooth points/edges can be sharpened using an angle grinder with a 4.5" flap style sanding disc.

If the tooth will no longer take a point/edge, replace the tooth.

REPLACING TEETH

If necessary, replace the teeth with Diamond replacement teeth. To replace teeth:

1. Remove the bolt and flat washer on the existing tooth.



2. Install the new tooth.
3. Hand-thread the bolts and washers into the tooth.
4. Tighten the hardware to 120ft-lbs (163Nm).

Note: Do not apply Loctite or lubricant to the hardware. Do not over tighten as this will strip the threads.

REPLACING TOOTH HOLDERS

The following must be completed by a qualified welder.

1. Grind away the welds securing the tooth holder to the drum.
2. Remove the old tooth holder.
3. Clean the surface of the drum where the old tooth holder was located.
4. Position the new tooth holder using the locating pin.
5. Weld the new tooth holder on to the drum.

Note: Only ground the welder to the drum. Grounding on the deck shell while welding the drum causes the welders current to run through the bearings and will cause damage. This will null and void any warranty.

BELT AND PULLEY MAINTENANCE

PULLEY AND BELT INSPECTION

Inspect the belt and pulleys every 150 hours or monthly.

BELT INSPECTION

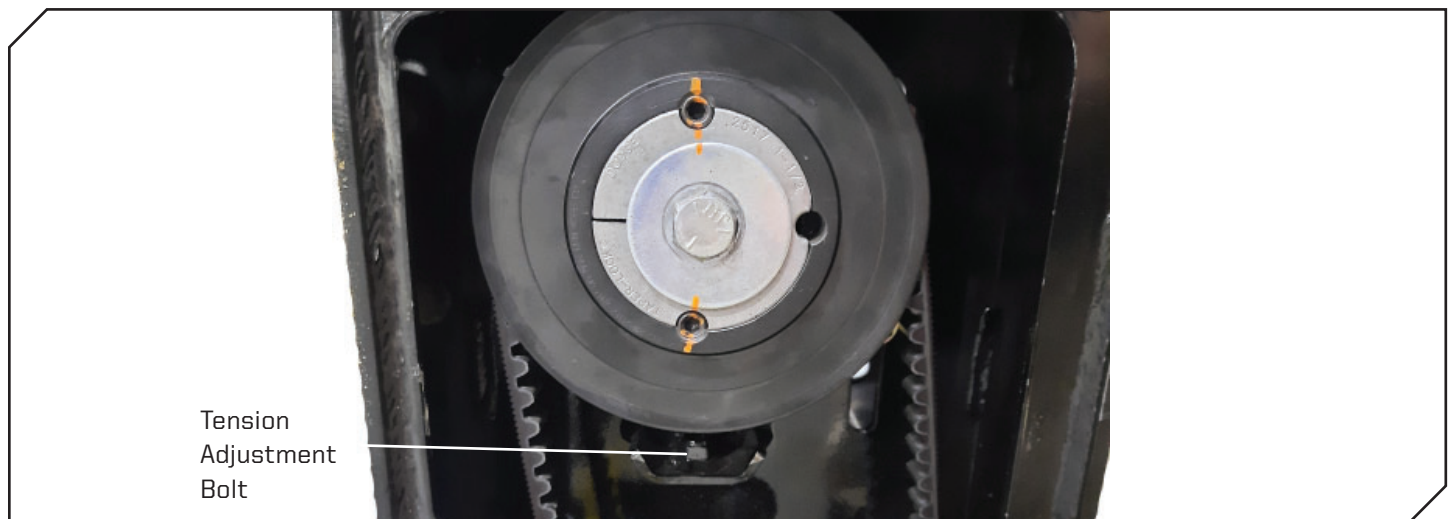
Remove the belt access side cover and inspect the belt for:

- proper tension by pushing up and down on the belt. When cold, belt movement must have 1.825 to 1.25" deflection.
- damage.

BELT TENSIONING

If belt tension must be adjusted:

1. Slightly loosen the motor plate bolts.
2. Loosen the lock nut on the tension adjustment bolt.



3. Screw the tension adjustment bolt in or out to adjust the tension.
4. Tighten the lock nut.
5. Install and tighten the motor plate bolts.
6. Inspect the belt again for deflection.
7. Re-tighten the lock nut on the tension adjustment bolt.

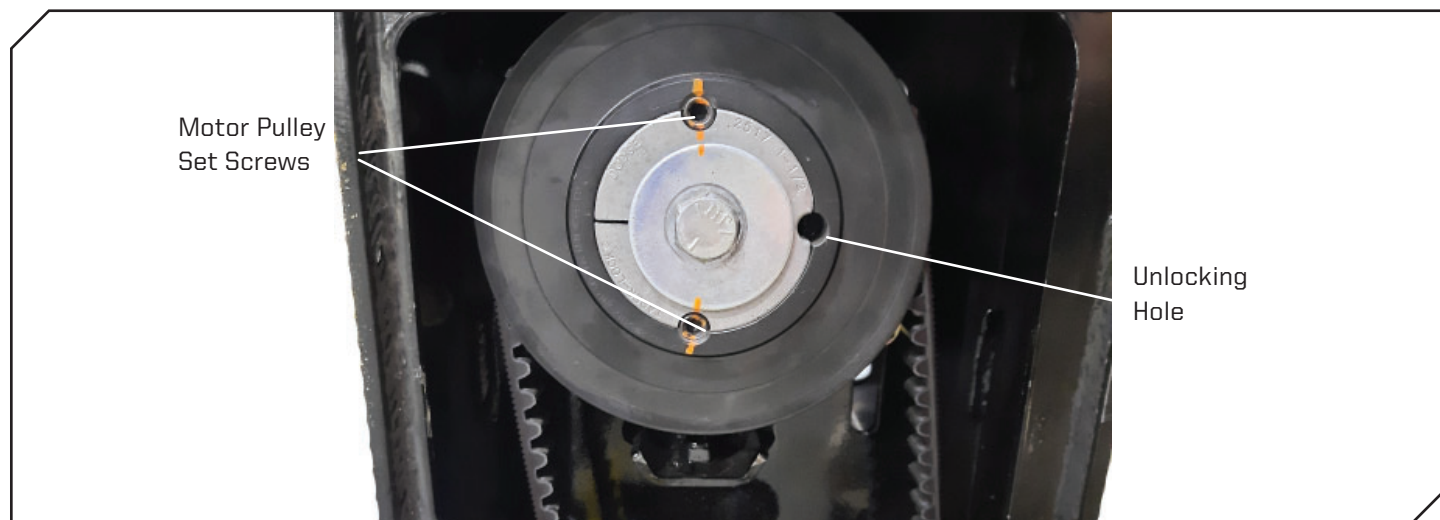
PULLEY INSPECTION

With the mulcher sitting on level ground, use a level to confirm the motor pulley is aligned with the drive pulley.



PULLEY ADJUSTMENT

1. Remove the motor pulley set screws.



2. Thread a set-screw into the unlocking hole until the taper-lock clamp opens slightly.
3. Gently tap on the taper-lock and motor pulley in the desired amount and direction on the splined motor shaft.
4. Without moving the motor pulley or the taper lock, thread in the set screws.
5. Refer to product specific drawings for torque specifications.
6. Check the alignment.

BEARING MAINTENANCE

GREASING BEARINGS

Grease the bearings every 10 hours or daily when the bearings are warm.

1. Grease the bearing zerks with synthetic/blend #2 lithium based grease a minimum of one pump per hour of operation.



BEARING INSPECTION

Inspect the bearings every 50 hours or weekly by rotating the drum while simultaneously pushing the drum sideways.

If excessive side to side play (greater than 0.65") is detected during inspection, order replacement bearings from www.diamondmowers.com or an authorized Diamond Mowers dealer and replace according to the instructions provided with the bearings.

SKID SHOE MAINTENANCE

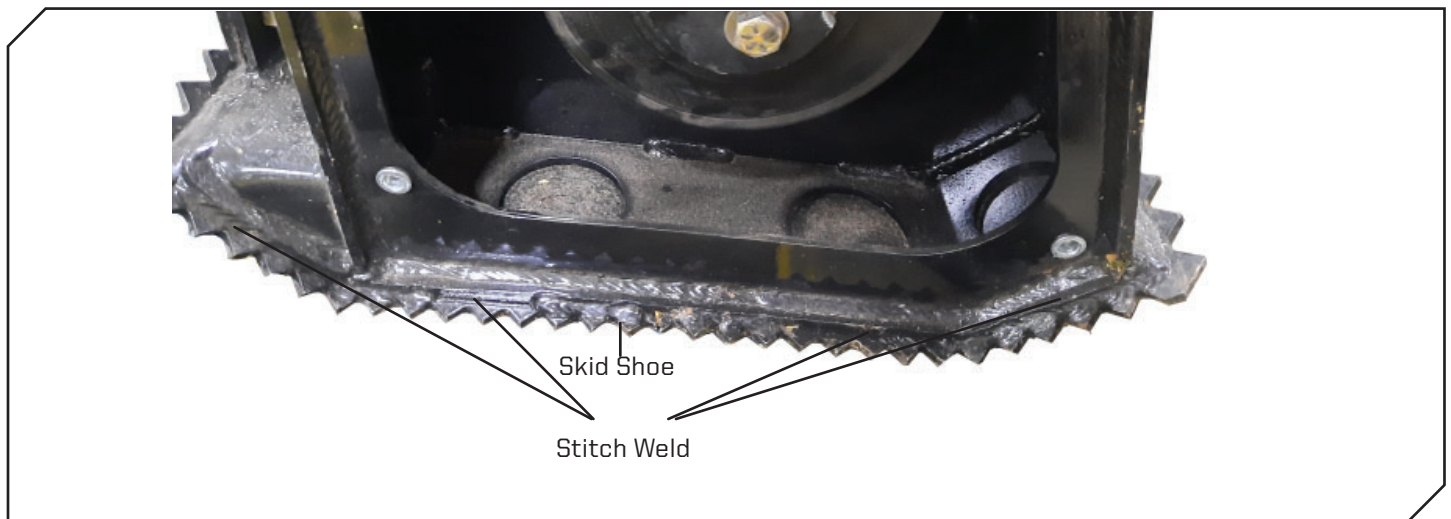
Inspect skid shoes every 50 hours or weekly for:

- cracks.
- excessive wear.
- damage.

Replace as needed.

SKID SHOE REPLACEMENT

1. Cut the stitch welds securing the skid shoes.



2. Stitch weld the new skid shoes in the existing skid shoe location.
3. Paint any exposed metal.

DRUM MAINTENANCE

Inspect the drum every 10 hours or daily for:

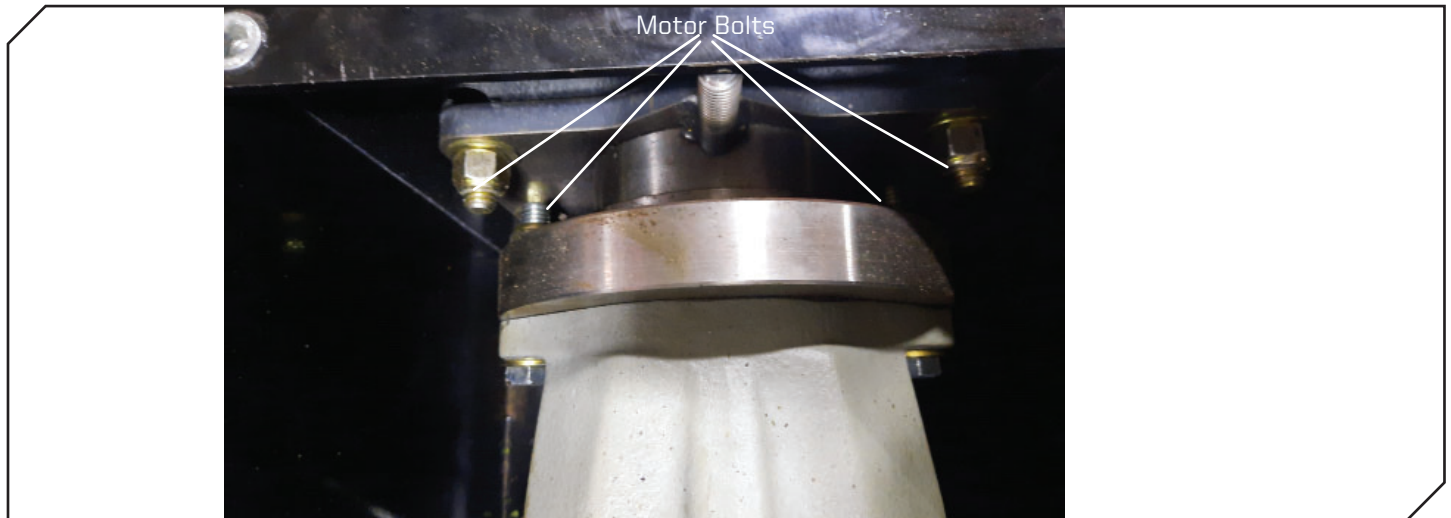
- cracks.
- damage.

If damage is found, replace the drum. Order a new drum from www.diamondmowers.com or from your local Diamond dealer.

DRUM MOTOR BOLT MAINTENANCE

Remove the motor top and side access covers and inspect the motor bolts every 50 hours or weekly for:

- damage.
- tightness.
- missing bolts.



If damage is found, replace the bolts as needed with parts ordered from www.diamondmowers.com or from the local Diamond Mowers dealer.

SAFETY POLYCARBONATE MAINTENANCE

Inspect the polycarbonate every 10 hours or daily for:

- cracks.
- loose hardware.
- damage.

Replace as needed with parts ordered from www.diamondmowers.com or from the local Diamond Mowers dealer.

SAFETY POLYCARBONATE CLEANING

Clean the safety polycarbonate using mild soap, water, and a soft cloth as needed. Cleaning with common glass cleaners can scratch the polycarbonate.

HOSE MAINTENANCE

HOSE AND FITTINGS

Inspect hydraulic hoses and fitting every 10 hours or daily for:

- hydraulic fluid around fittings.
- fluid leaks.
- abrasions or cuts.

FLUID LEAKS

If a fluid around the fitting or a leak is detected:

1. Immediately stop operating.
2. Replace damaged/worn hoses.
3. Apply hose wrap around critical pinch and rub points.
4. Top-off fluid level.

QUICK DISCONNECT COUPLERS

Inspect connections for:

- leaks.
- damage.

Replace as needed.

HOSE POSITION

Inspect the hose carrier every 50 hours or weekly to ensure the hose bundle sits between 2" and 3" above the top of the deck and allow a full range of motion. Adjust as needed.

TROUBLESHOOTING

This section provided general troubleshooting steps. If the steps in this section do not address the issue, call Diamond Mower's Customer Service at 1-888-960-0361.

TROUBLESHOOTING

Problem	Potential Cause	Solution
Drum Will Not Spin	No hydraulic flow from the machine.	Verify hydraulic flow from the power unit.
	Belt is broken.	Replace the broken belt.
	Belt is loose.	Tighten the loose belt.
	Reverse flow from the machine.	After connecting the hoses to the machine: start the machine at low idle. Verify the drum is spinning correctly. If the drum is not spinning correctly, reverse the pressure and low flow hoses are connected correctly.
	Hydraulic motor failure.	Replace the hydraulic motor. Contact Diamond Mowers for the replacement part.
	Seized bearing.	Replace the bearings.
	Sheared pulley key.	Replace the sheared pulley key and reinstall the pulley. Align the pulley with the other pulley using a straight edge.
	Material jammed.	Dislodge material from the drum by: - disengaging then backing the implement up. - using tools to dislodge and remove material.
Can Not Cut Large Trees	Machine operating on low flow.	Ensure the machine is operating on high flow.
	Drum not allowed enough recovery time between cuts.	Allow the drum to run up to full speed between cuts on larger trees.
	Worn or missing teeth.	Inspect and sharpen/replace teeth as needed.
	Variable displacement motor not tuned.	Ensure the motor is tuned to the carrier PSI rating.
Excessive Vibration	Vegetation build up on drum or cutting teeth.	Dislodge material from the drum by: - disengaging then backing the implement up. - using tools to dislodge and remove material.
	Missing teeth.	Inspect for missing teeth and replace as needed.
	Missing tooth holder.	Install a new tooth holder if required.
	Excessive play in the drum.	Check for and, if required, replace worn bearings.
		Check for a loose stub shaft. If necessary, use Loctite and torque the stub shaft to 240ft-lbs (325Nm).

APPENDIX

This section contains supplemental quick guides and drawings with part numbers.

Use these drawings to determine the part numbers when ordering parts.

REPLACEMENT PARTS

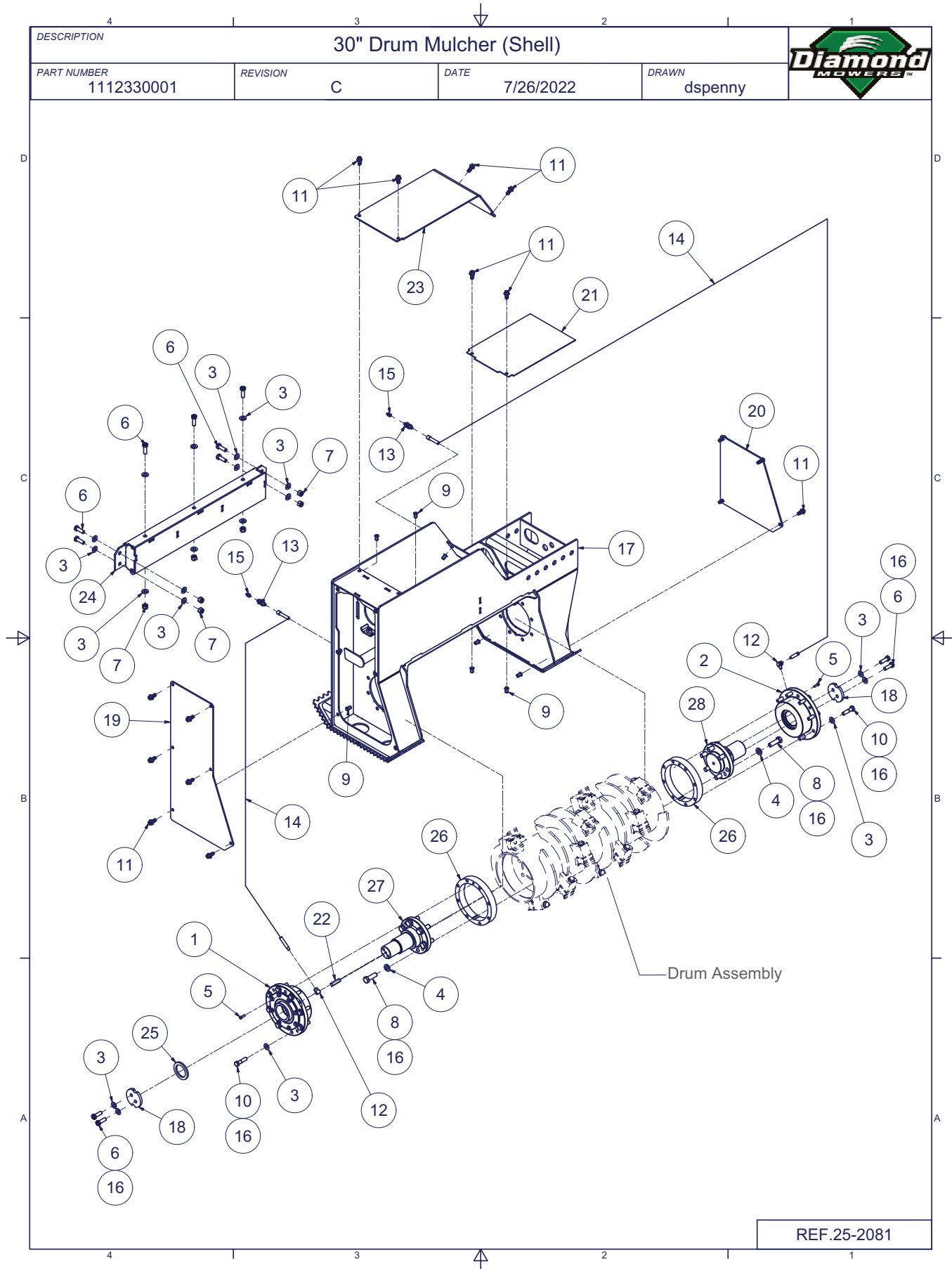
When replacing parts, use Genuine Diamond Parts.

Call: 1-888-960-0361 or 1-605-977-3300

Email: Parts@diamondmowers.com

Order Online: www.diamondmowers.com

30" ASSEMBLIES

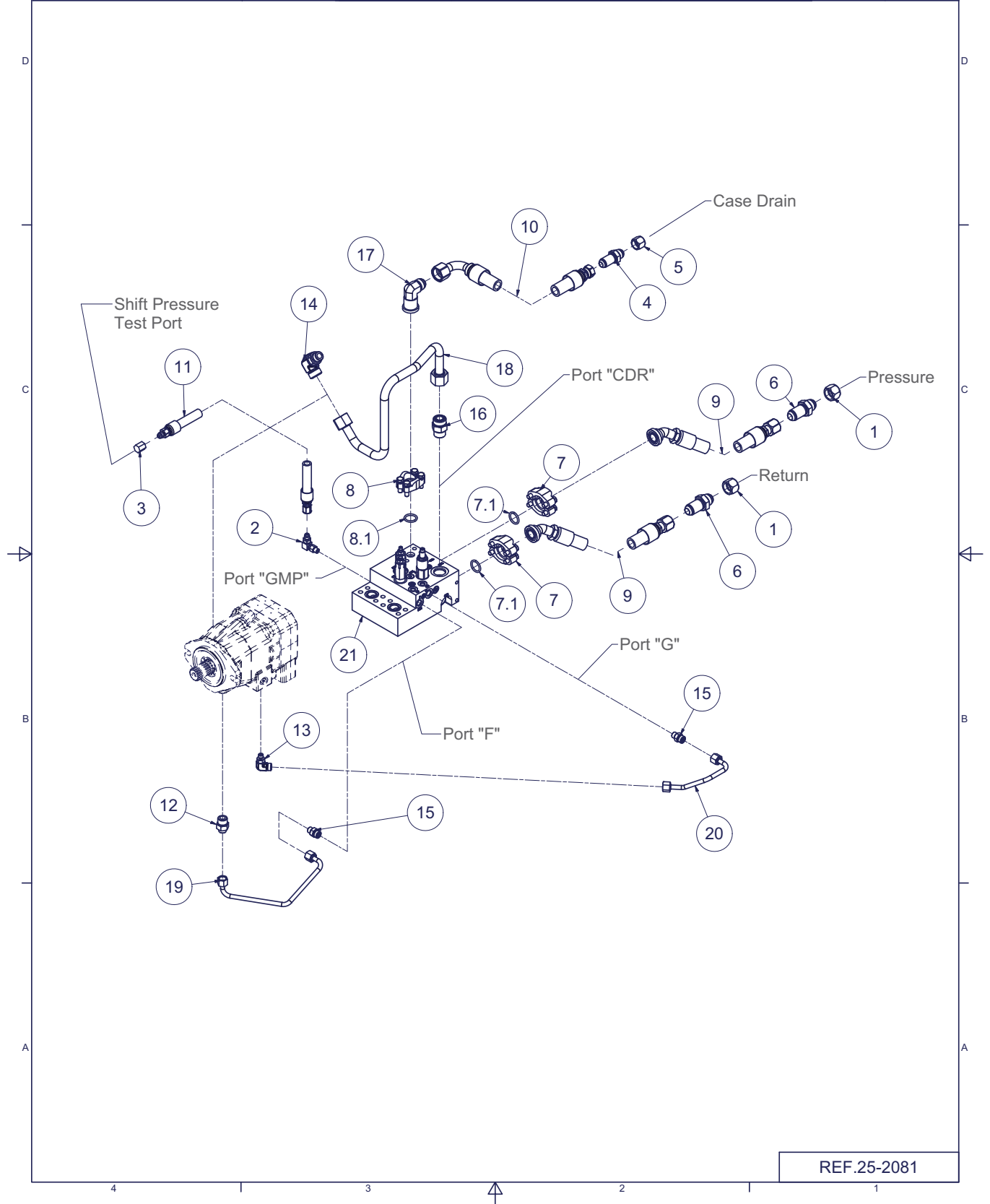


DESCRIPTION 30" Drum Mulcher (Shell)					
PART NUMBER 1112330001	REVISION C	DATE 7/26/2022	DRAWN dspenny		

REF#	PARTS DESCRIPTION	REQ	PART#	TORQUE (ft-lbs)
1	BEARING ASSEMBLY, DRUM MULCHER, FIXED (DRIVE)	1	10-1082	
2	BEARING ASSEMBLY, DRUM MULCHER, FLOATING (IDLER)	1	10-1083	
3	1/2 X 1.062 GR 8 SAE FLAT WASHER, YELLOW ZINC	34	11-0042	
4	M16 DIN EN 14399 THRU-HARDENED FLAT WASHER, ECOGUARD	12	11-0102	
5	1/4-20 X 3/4 ASTM A574 SOCKET CAP, BLACK OXIDE	2	11-0681	13.9
6	1/2-13 X 1-1/2 GR 8 HEX CAP SCREW, YELLOW ZINC	11	11-0972	106
7	1/2-13 GR 8 NYLOCK NUT, ZINC	7	11-1072	
8	5/8-11 X 2 GR 8 HEX CAPSCREW, YELLOW ZINC	12	11-1672	240
9	RIVNUT, HEX, 3/8-16, 0.115-.0205 GRIP	16	11-1683	
10	1/2-13 X 2 GR 8 HEX CAP, YELLOW ZINC	16	11-2152	106
11	3/8-16 X 1 GR 5 HEX FLANGE BOLT, ZINC	16	11-2219	44
12	ELBOW 1/8" X 90	2	21-1104	
13	BULKHEAD, 1/8 MP X 1/4 MJIC	2	21-1687	
14	GREASE HOSE, 1/8" X 11" (1/8MNPT X 1/4 FJIC)	2	21-7071	
15	GREASE ZERK 1/8" FEM. NPT	2	23-0008	
16	LOCTITE 262, .017 OZ (RED)	1	24-0382	
17	30" DRUM MULCHER SHELL	1	25-0384	
18	RETENTION PLATE, INNER RING, FDS	2	31-1084	
19	PLATE, DRIVE COVER	1	31-1680	
20	PLATE, IDLER COVER	1	31-1681	
21	PLATE, HOSE COVER	1	31-1686	
22	KEY 1/2 X 1/2 X 1-3/4	1	37-0022	
23	COVER, MOTOR ENCLOSURE	1	41-2263	
24	COVER, REAR DEFLECTOR, FDE	1	41-2268	
25	SPACER RING, BEARING, FDE	1	90-0379	
26	DRUM END CAP, FDE	2	90-0380	
27	DRUM SHAFT, DRIVE SIDE, GEN II	1	90-7107	
28	DRUM SHAFT, IDLER SIDE, GEN II	1	90-7108	

REF.25-2081

DESCRIPTION		30" Drum Mulcher (Deck-Feed)		1	
PART NUMBER	REVISION	DATE	DRAWN	Diamond MOWERS [®]	
1112330004	C	7/26/2022	dspenny		

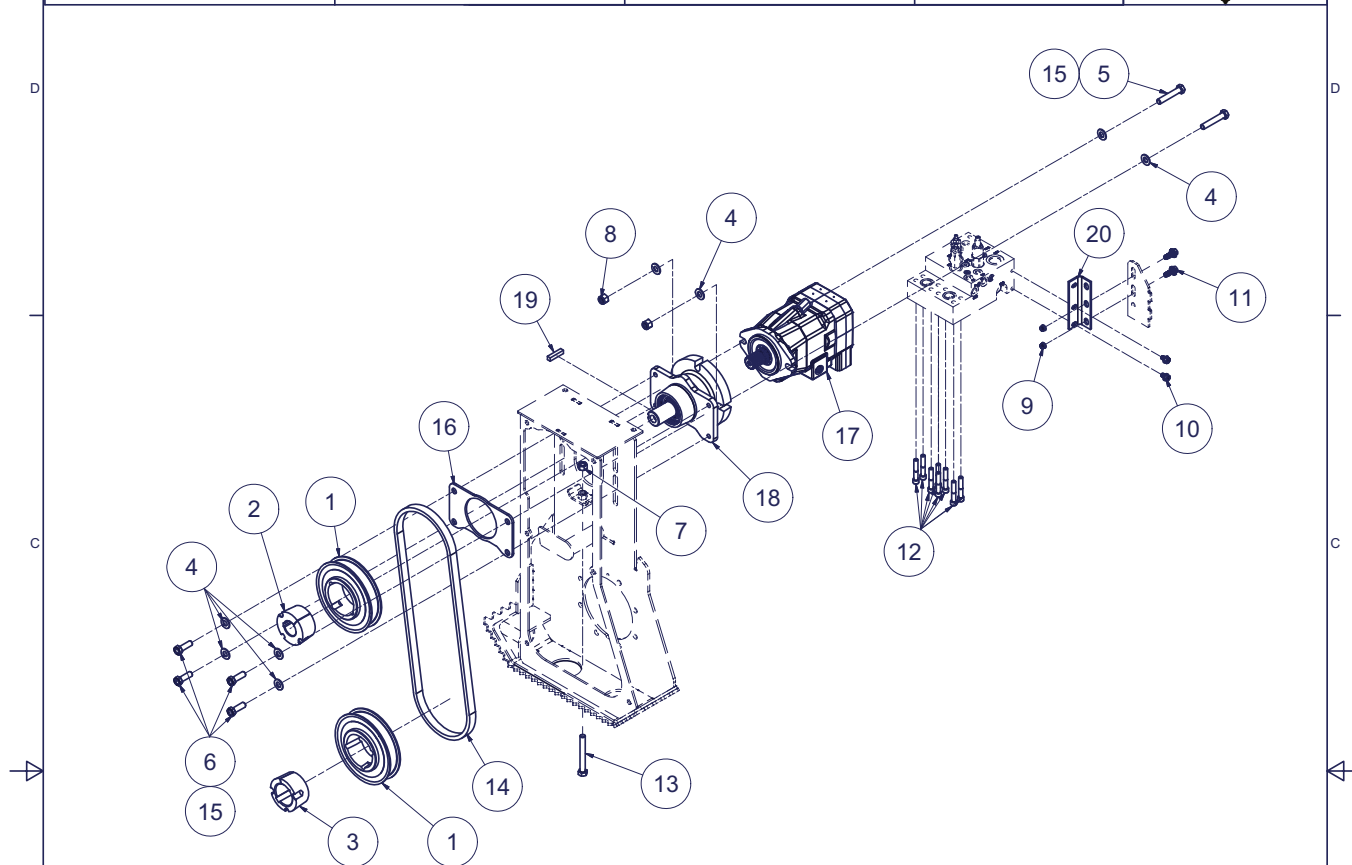


DESCRIPTION 30" Drum Mulcher (Deck-Feed)				
PART NUMBER 1112330004	REVISION C	DATE 7/26/2022	DRAWN dspenny	

REF#	PARTS DESCRIPTION	REQ	PART#
1	3/4 JIC CAP	2	21-1535
2	3/8MJIC X 1/4MORB 90-DEG	1	21-1570
3	3/8 FJIC CAP NUT	1	21-1582
4	5/8 JIC BULKHEAD	1	21-1641
5	5/8 JIC CAP	1	21-1691
6	BULKHEAD, -12MJIC X -12MJIC	2	21-1709
7	#12 SPLIT FLANGE KIT, CODE 62	2	21-1794
7.1	#12 FLANGE O-RING	2	33-0062
8	#12 FLANGE KIT, CODE 61	1	21-2186
8.1	#12 FLANGE O-RING	1	33-0062
9	HOSE 3/4 X 16, 4000 PSI (-12 CD62 FLG 45 DEG X -12FJIC)	2	21-4981
10	HOSE 3/4 X 25 (-12 FJIC 90 DEG X -10 MJIC)	1	21-4982
11	HOSE 3/8 X 12, 4000 PSI (3/8MJIC X 3/8FJIC)	1	21-4985
12	ADAPTER, STRAIGHT, -06 MORFS TO -10 MORB	1	21-7062
13	ADAPTER, 90° Elbow, -06 MORFS TO -04 MORB	1	21-7063
14	ADAPTER, 90° Elbow, -12 MORFS TO -10 MORB	1	21-7064
15	ADAPTER, STRAIGHT, -06 MORFS TO -6 MORB	2	21-7065
16	ADAPTER, STRAIGHT, -12 MORFS TO -12 MORB	1	21-7066
17	ADAPTER (.75 CODE 62 X .75 MJIC_90DEG)	1	21-7074
18	PREFORM TUBE, CASE DRAIN, FDE	1	28-0097
19	PREFORM TUBE, FLUSHING, FDE	1	28-0098
20	PREFORM TUBE, SHIFT CONTROL, FDE	1	28-0099
21	MANIFOLD, MOTOR MOUNTED, DUCTILE, A10VM	1	39-0140

REF.25-2081

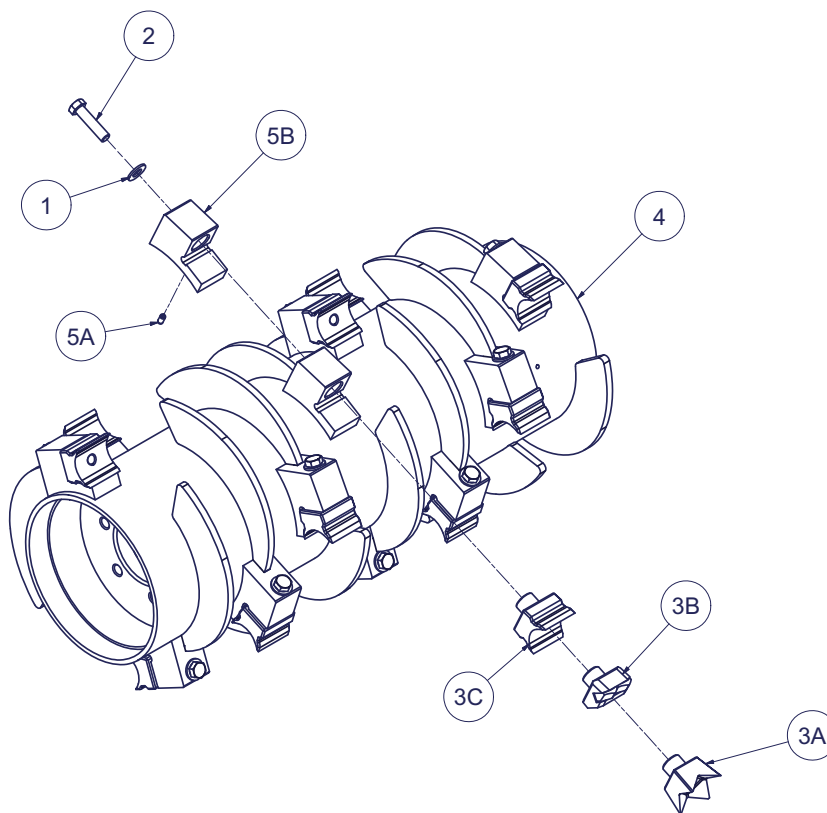
DESCRIPTION		30" Drum Mulcher (Drive)		
PART NUMBER	REVISION	DATE	DRAWN	
1112330002	C	7/25/2022	dspenny	



REF#	PARTS DESCRIPTION	REQ	PART#	TORQUE (ft-lbs)
1	PULLEY, 6.667" X 1.36", FDE	2	10-1084	
2	BUSHING, TAPERLOCK 1-1/2" 2517	1	10-1085	
3	BUSHING, TAPERLOCK 2-3/16" 2517	1	10-1086	
4	1/2 X 1.062 GR 8 SAE FLAT WASHER, YELLOW ZINC	8	11-0042	
5	1/2-13 X 2-3/4 GR 5 HEX CAP, ZINC	2	11-0636	75
6	1/2-13 X 1-1/2 GR 8 HEX CAP SCREW, YELLOW ZINC	4	11-0972	106
7	1/2-13 GR 5 HEX NUT, ZINC	1	11-1016	
8	1/2-13 GR 8 NYLOCK NUT, ZINC	2	11-1072	
9	3/8-16 GR 5 NYLOCK FLANGE NUT, ZINC	2	11-1091	
10	5/16-18 X 0.5" GR8 FLANGE HEX	2	11-1677	
11	3/8-16 X 1 GR 5 HEX FLANGE BOLT, ZINC	2	11-2219	44
12	3/8-16 X 2-1/4 ASTM A574 SHCS	8	11-2297	51
13	1/2-13 X 4 GR.5 HEX CAP, ALL THREAD, ZINC	1	11-2298	
14	BELT, HT500, 20MM X 1400MM	1	12-0095	
15	LOCTITE 262, .017 OZ (RED)	1	24-0382	
16	PLATE, OHLA HOUSING MOUNT, FDE	1	24-0439	
17	VARIABLE AXIAL PISTON MOTOR, REXROTH, 63CC/REV			
	12-27 GPM	1	30-0593	
	28-40 GPM	1	30-0590	
18	ADAPTER, OVERHUNG LOAD, FDE	1	35-0213	
19	KEY 3/8 X 3/8 X 1-3/4	1	37-0032	
20	FDE MANIFOLD SUPPORT PLATE	1	41-2262	

REF.25-2081

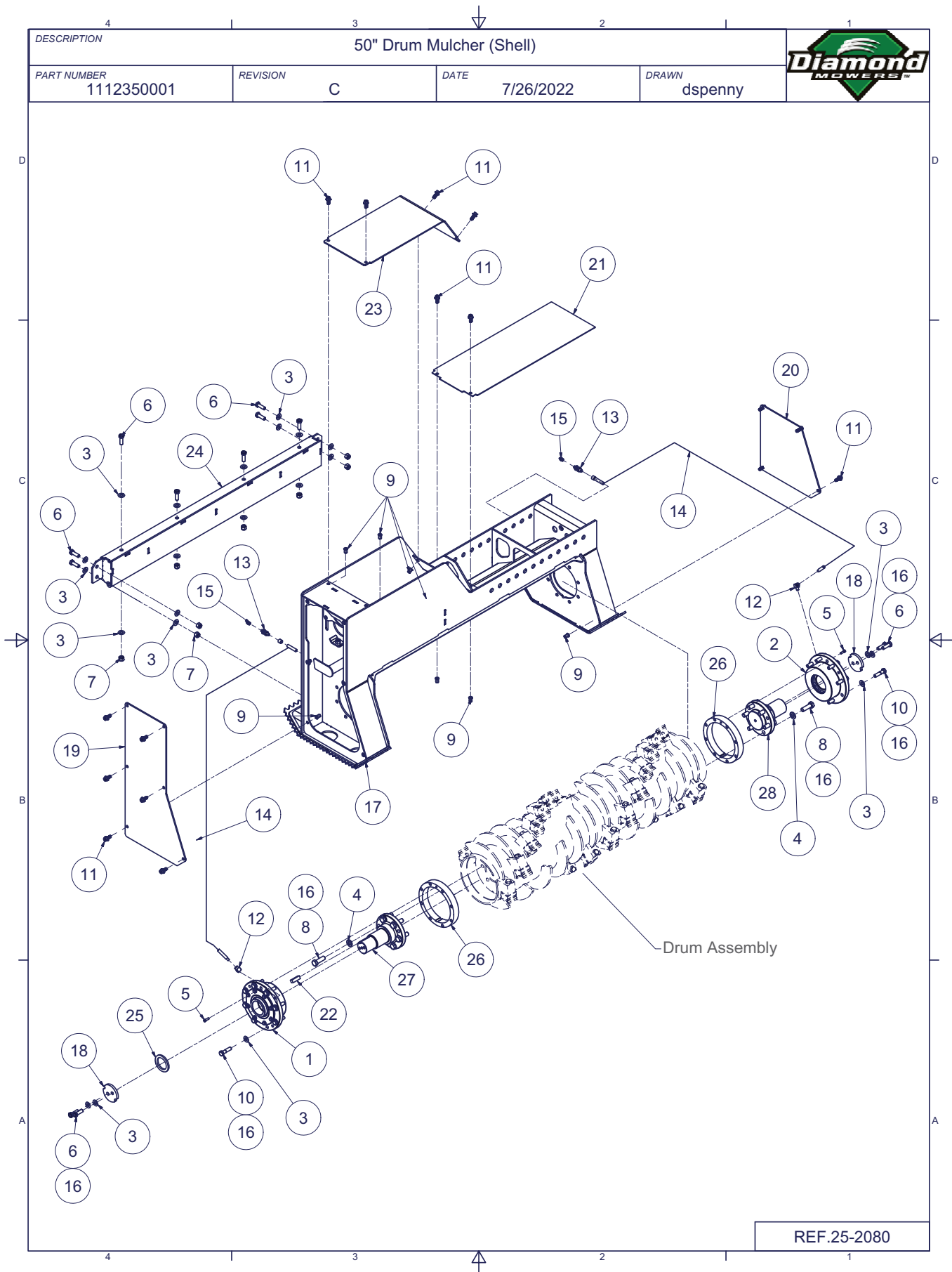
DESCRIPTION		30" Drum Mulcher (Drum)		1	
PART NUMBER	1112330003	REVISION	C	DATE	7/27/2022
				DRAWN	dspenny



REF#	PARTS DESCRIPTION	REQ	PART#	TORQUE (ft-lbs)
1	1/2 X 1.062 GR 8 SAE FLAT WASHER, YELLOW ZINC	16	11-0042	
2	1/2-20 X 2 GR 8 HEX CAP, YELLOW ZINC	16	11-0633	120
3A	FOUR-POINT HARDENED STEEL TOOTH	16	22-0019	
3B	TWIN MAUL® CARBIDE TOOTH	16	22-0044	
3C	TWIN CHISEL® TOOTH (STD)	16	22-0045	
4	DRUM WELDMENT, 30" FDE DEPTH, DYNAMIC	1	41-2243	
5	ASSEMBLY, TOOTH HOLDER	16	90-7125	
5A	SPRING PIN, 1/4 X 1/2	16	11-2283	
5B	TOOTH HOLDER, DRUM MULCHER	16	90-7126	

REF.25-2081-3

50" ASSEMBLIES



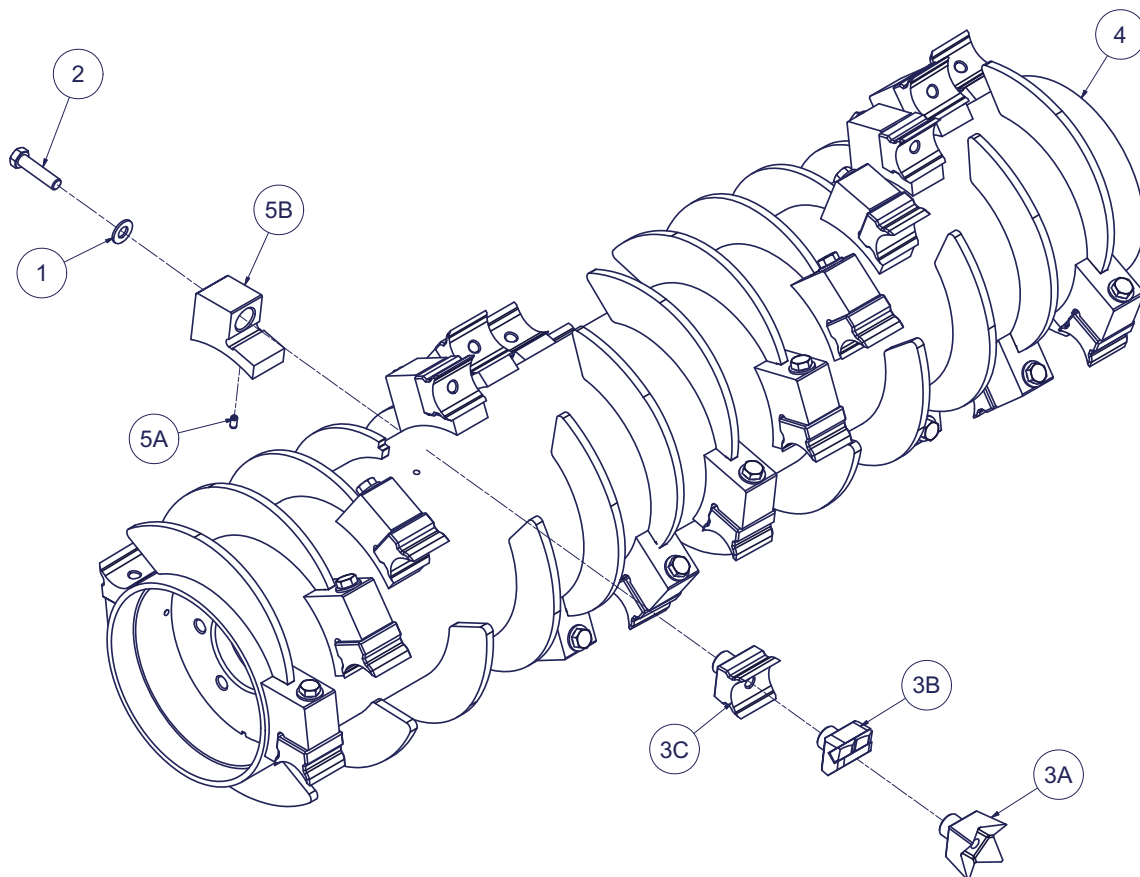
DESCRIPTION		50" Drum Mulcher (Shell)			
PART NUMBER	REVISION	DATE	DRAWN		
1112350001	C	7/26/2022	dspenny		
REF#	PARTS DESCRIPTION	REQ	PART#	TORQUE (ft-lbs)	
1	BEARING ASSEMBLY, DRUM MULCHER, FIXED (DRIVE)	1	10-1082		
2	BEARING ASSEMBLY, DRUM MULCHER, FLOATING (IDLER)	1	10-1083		
3	1/2 X 1.062 GR 8 SAE FLAT WASHER, YELLOW ZINC	36	11-0042		
4	M16 DIN EN 14399 THRU-HARDENED FLAT WASHER, ECOGUARD	12	11-0102		
5	1/4-20 X 3/4 ASTM A574 SOCKET CAP, BLACK OXIDE	2	11-0681	13.9	
6	1/2-13 X 1-1/2 GR 8 HEX CAP SCREW, YELLOW ZINC	12	11-0972	106	
7	1/2-13 GR 8 NYLOCK NUT, ZINC	8	11-1072		
8	5/8-11 X 2 GR 8 HEX CAPSCREW, YELLOW ZINC	12	11-1672	240	
9	RIVNUT, HEX, 3/8-16, 0.115-.0205 GRIP	16	11-1683		
10	1/2-13 X 2 GR 8 HEX CAP, YELLOW ZINC	16	11-2152	106	
11	3/8-16 X 1 GR 5 HEX FLANGE BOLT, ZINC	16	11-2219	44	
12	ELBOW 1/8" X 90	2	21-1104		
13	BULKHEAD, 1/8 MP X 1/4 MJIC	2	21-1687		
14	GREASE HOSE, 1/8" X 11" (1/8MNPT X 1/4 FJIC)	2	21-7071		
15	GREASE ZERK 1/8" FEM. NPT	2	23-0008		
16	LOCTITE 262, .017 OZ (RED)	1	24-0382		
17	50" DRUM MULCHER SHELL	1	25-0380		
18	RETENTION PLATE, INNER RING, FDS	2	31-1084		
19	PLATE, DRIVE COVER	1	31-1680		
20	PLATE, IDLER COVER	1	31-1681		
21	PLATE, HOSE COVER	1	31-1683		
22	KEY 1/2 X 1/2 X 1-3/4	1	37-0022		
23	COVER, MOTOR ENCLOSURE	1	41-2263		
24	COVER, REAR DEFLECTOR, FDE 50	1	41-2264		
25	SPACER RING, BEARING, FDE	1	90-0379		
26	DRUM END CAP, FDE	2	90-0380		
27	DRUM SHAFT, DRIVE SIDE, GEN II	1	90-7107		
28	DRUM SHAFT, IDLER SIDE, GEN II	1	90-7108		
				REF.25-2080	

DESCRIPTION 50" Drum Mulcher (Deck-Feed)				
PART NUMBER 1112350004	REVISION C	DATE 7/25/2022	DRAWN dspenny	

REF#	PARTS DESCRIPTION	REQ	PART#
1	3/4 JIC CAP	2	21-1535
2	3/8MJIC X 1/4MORB 90-DEG	1	21-1570
3	3/8 FJIC CAP NUT	1	21-1582
4	5/8 JIC BULKHEAD	1	21-1641
5	5/8 JIC CAP	1	21-1691
6	BULKHEAD, -12MJIC X -12MJIC	2	21-1709
7	#12 SPLIT FLANGE KIT, CODE 62	2	21-1794
7.1	#12 FLANGE O-RING, CODE 61	2	33-0062
8	#12 FLANGE KIT	1	21-2186
8.1	#12 FLANGE O-RING	1	33-0062
9	3/4 X 36, 4000 PSI (-12 CD62 FLG 45 DEG X -12FJIC)	2	21-4983
10	HOSE, 3/4 X 40 (-12 FJIC 90 DEG X -10 MJIC)	1	21-4984
11	HOSE 3/8 X 12, 4000 PSI (3/8MJIC X 3/8FJIC)	1	21-4985
12	ADAPTER, STRAIGHT, -06 MORFS TO -10 MORB	1	21-7062
13	ADAPTER, 90° Elbow, -06 MORFS TO -04 MORB	1	21-7063
14	ADAPTER, 90° Elbow, -12 MORFS TO -10 MORB	1	21-7064
15	ADAPTER, STRAIGHT, -06 MORFS TO -6 MORB	2	21-7065
16	ADAPTER, STRAIGHT, -12 MORFS TO -12 MORB	1	21-7066
17	ADAPTER (.75 CODE 62 X .75 MJIC 90DEG)	1	21-7074
18	PREFORM TUBE, CASE DRAIN, FDE	1	28-0097
19	PREFORM TUBE, FLUSHING, FDE	1	28-0098
20	PREFORM TUBE, SHIFT CONTROL, FDE	1	28-0099
21	MANIFOLD, MOTOR MOUNTED, DUCTILE, A10VM	1	39-0140

REF.25-2080

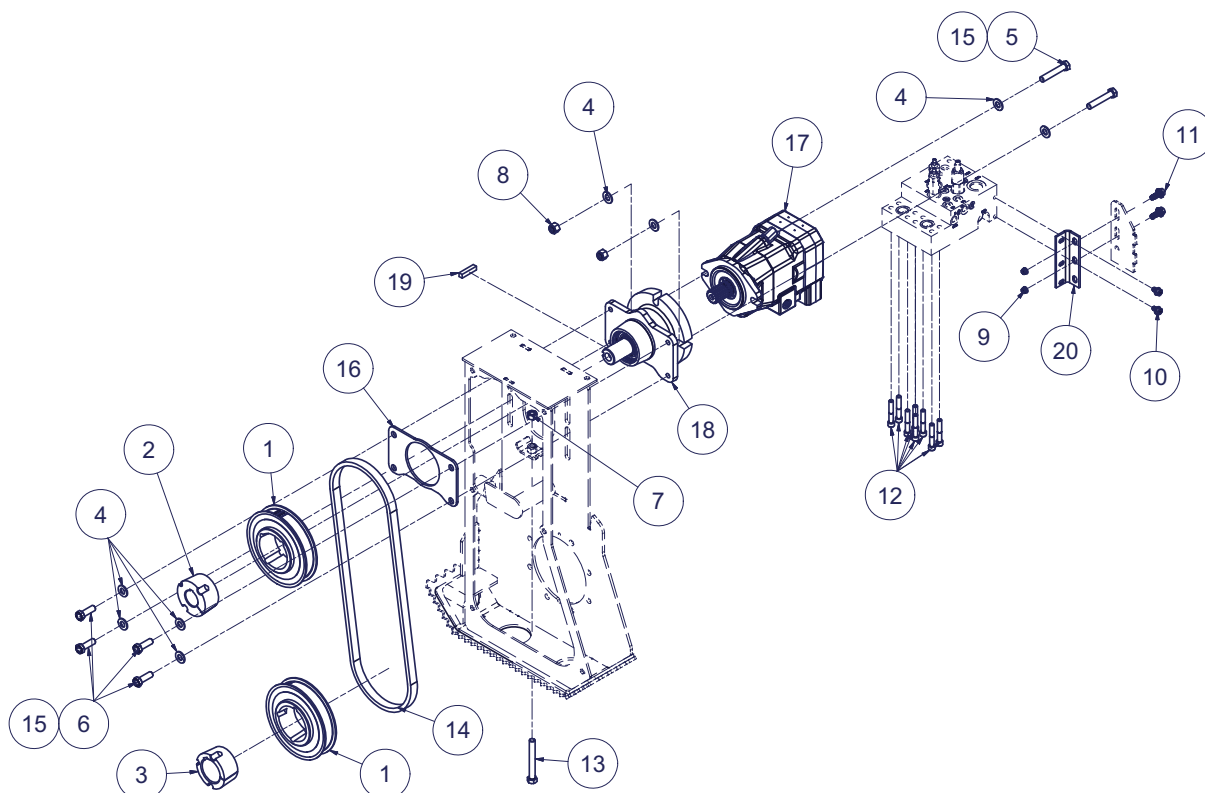
DESCRIPTION 50" Drum Mulcher (Drum)				
PART NUMBER 1112350003	REVISION C	DATE 7/27/2022	DRAWN dspenny	



REF#	PARTS DESCRIPTION	REQ	PART#	TORQUE (ft-lbs)
1	1/2 X 1.062 GR 8 SAE FLAT WASHER, YELLOW ZINC	26	11-0042	
2	1/2-20 X 2 GR 8 HEX CAP, YELLOW ZINC	26	11-0633	120
3A	FOUR-POINT HARDENED STEEL TOOTH	26	22-0019	
3B	TWIN MAUL® CARBIDE TOOTH	26	22-0044	
3C	TWIN CHISEL® TOOTH (STD)	26	22-0045	
4	DRUM WELDMENT, 50" FDE DEPTH CONT, DYN	1	41-2242	
5	ASSEMBLY, TOOTH HOLDER	26	90-7125	
5A	SPRING PIN, 1/4 X 1/2	26	11-2283	
5B	TOOTH HOLDER, DRUM MULCHER	26	90-7126	

REF.25-2080-3TP

DESCRIPTION		50" Drum Mulcher (Drive)		1	
PART NUMBER	REVISION	DATE	DRAWN		
1112350002	C	7/25/2022	dspenny		



REF#	PARTS DESCRIPTION	REQ	PART#	TORQUE (ft-lbs)
1	PULLEY, 6.667" X 1.36", FDE	2	10-1084	
2	BUSHING, TAPERLOCK 1-1/2" 2517	1	10-1085	
3	BUSHING, TAPERLOCK 2-3/16" 2517	1	10-1086	
4	1/2 X 1.062 GR 8 SAE FLAT WASHER, YELLOW ZINC	8	11-0042	
5	1/2-13 X 2-3/4 GR 5 HEX CAP, ZINC	2	11-0636	75
6	1/2-13 X 1-1/2 GR 8 HEX CAP SCREW, YELLOW ZINC	4	11-0972	106
7	1/2-13 GR 5 HEX NUT, ZINC	1	11-1016	
8	1/2-13 GR 8 NYLOCK NUT, ZINC	2	11-1072	
9	3/8-16 GR 5 NYLOCK FLANGE NUT, ZINC	2	11-1091	
10	5/16-18 X 0.5" GR8 FLANGE HEX	2	11-1677	
11	3/8-16 X 1 GR 5 HEX FLANGE BOLT, ZINC	2	11-2219	44
12	3/8-16 X 2-1/4 ASTM A574 SHCS	8	11-2297	51
13	1/2-13 X 4 GR.5 HEX CAP, ALL THREAD, ZINC	1	11-2298	
14	BELT, HT500, 20MM X 1400MM	1	12-0095	
15	LOCTITE 262, .017 OZ (RED)	1	24-0382	
16	PLATE, OHLA HOUSING MOUNT, FDE	1	24-0439	
17	VARIABLE AXIAL PISTON MOTOR, REXROTH	1		
	12-27 GPM		30-0593	
	28-40 GPM		30-0590	
18	ADAPTER, OVERHUNG LOAD, FDE	1	35-0213	
19	KEY 3/8 X 3/8 X 1-3/4	1	37-0032	
20	FDE MANIFOLD SUPPORT PLATE	1	41-2262	

REF.25-2080

DECAL INSTALLATION



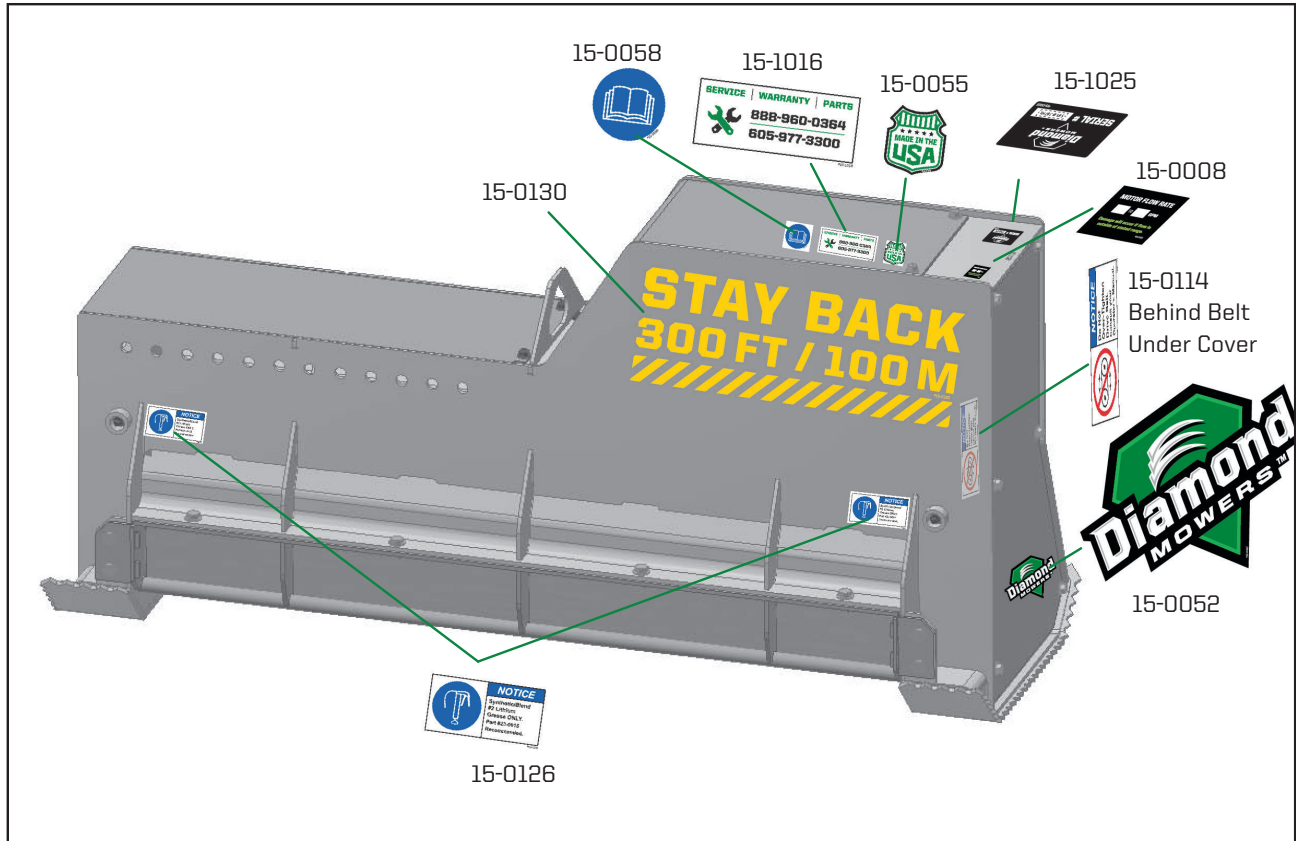
FD SERIES DRUM DECAL INSTALLATION

This document provides the standard decal installation locations for FD series drum mulchers.

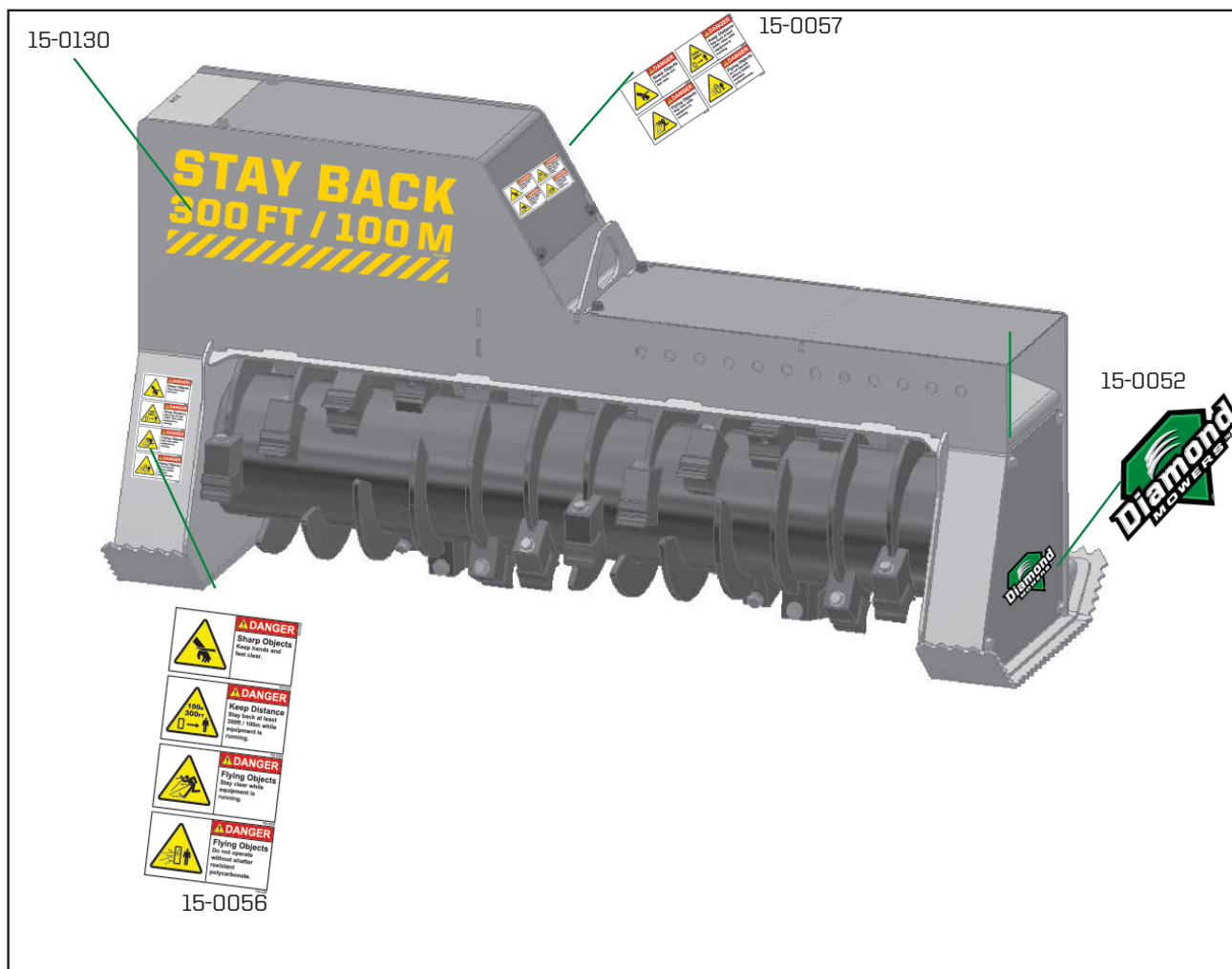
- Decals must be installed in quantity, orientation, and location specified in this document.
- Clean the decal installation location before applying decals.
- Unless otherwise shown in the images below, center the decals on the area indicated.
- Provide at least one inch from the implement edges and one inch between each decal.

Each decal has a part number printed on it. The call outs in the in the images below are the decal part numbers.

BACK INSTALLATION



FRONT INSTALLATION



APPROVAL

After completing the decal installation, sign and date below. Return this page along with the warranty registration card the address listed on the warranty card.

Company Name: _____ Product Serial Number: _____

Completed By (print name): _____ Signature: _____

Date: _____

ORING (AS568) BOSS FITTINGS SAE SIZES

STANDARD ORING PART #	HYDRAULIC SIZE	ORING ID SAE (IN)	ORING WIDTH SAE (IN)	ORING MATERIAL
902	-2	0.24	0.06	90-durometer Nitrile
903	-3	0.30	0.06	90-durometer Nitrile
904	-4	0.35	0.07	90-durometer Nitrile
905	-5	0.41	0.07	90-durometer Nitrile
906	-6	0.47	0.08	90-durometer Nitrile
908	-8	0.64	0.09	90-durometer Nitrile
910	-10	0.76	0.1	90-durometer Nitrile
912	-12	0.92	0.12	90-durometer Nitrile
914	-14	1.05	0.12	90-durometer Nitrile
916	-16	1.17	0.12	90-durometer Nitrile
920	-20	1.48	0.12	90-durometer Nitrile
924	-24	1.72	0.12	90-durometer Nitrile
932	-32	2.34	0.12	90-durometer Nitrile

ORING (AS568) FLAT SEAL FITTINGS SAE SIZES & METRIC SIZES

STANDARD ORING PART #	HYDRAULIC SIZE	END SIZE		ORING ID		ORING WIDTH		ORING MATERIAL
		SAE (IN)	METRIC (MM)	SAE (IN)	METRIC (MM)	SAE (IN)	METRIC (MM)	
011	-4	1/4	6	0.30	7.70	0.07	1.78	90-durometer Nitrile
012	-6	3/8	8, 10	0.36	9.30	0.07	1.78	90-durometer Nitrile
014	-8	1/2	12	0.49	12.40	0.07	1.78	90-durometer Nitrile
016	-10	5/8	14, 15, 16	0.61	15.60	0.07	1.78	90-durometer Nitrile
018	-12	3/4	18, 20	0.74	18.80	0.07	1.78	90-durometer Nitrile
020	-14	7/8	22	0.86	21.80	0.07	1.78	90-durometer Nitrile
021	-16	1	25	0.93	23.50	0.07	1.78	90-durometer Nitrile
025	-20	1 1/4	28, 30, 32	1.18	29.90	0.07	1.78	90-durometer Nitrile
029	-24	1 1/2	35, 38	1.49	37.80	0.07	1.78	90-durometer Nitrile
135	-32	2	50	1.93	49.00	0.10	2.54	90-durometer Nitrile

TORQUE SPECS

Nominal Dia.	threads per inch	Tensile Stress Area		ASTM A307 Grade A				SAE J429 Grade 5				SAE J429 Grade 8				FNL Grade 9		
			Clamp Load (Lbs.)	Tightening Torque			Clamp Load (Lbs.)	Tightening Torque			Clamp Load (Lbs.)	Tightening Torque			Clamp Load (Lbs.)	Tightening Torque		
				K = 0.15	K = 0.17	K = 0.20		K = 0.15	K = 0.17	K = 0.20		K = 0.15	K = 0.17	K = 0.20		K = 0.15	K = 0.17	K = 0.20
(in.)		(sq. in.)	(Lbs.)	K = 0.15	K = 0.17	K = 0.20	(Lbs.)	K = 0.15	K = 0.17	K = 0.20	(Lbs.)	K = 0.15	K = 0.17	K = 0.20	(Lbs.)	K = 0.15	K = 0.17	K = 0.20
Unified Coarse Thread Series																		
1/4	20	0.0318	859	32 in-lbs	37 in-lbs	43 in-lbs	2029	76 in-lbs	86 in-lbs	101 in-lbs	2864	107 in-lbs	122 in-lbs	143 in-lbs	3357	126 in-lbs	143 in-lbs	168 in-lbs
5/16	18	0.0524	1416	66	75	88	3342	157	178	209	4719	221	251	295	5531	259	294	346
3/8	16	0.0775	2092	10 ft-lbs	11 ft-lbs	13 ft-lbs	4940	23 ft-lbs	26 ft-lbs	31 ft-lbs	6974	33 ft-lbs	37 ft-lbs	44 ft-lbs	8174	38 ft-lbs	43 ft-lbs	51 ft-lbs
7/16	14	0.1063	2870	16	18	21	6777	37	42	49	9568	52	59	70	11214	61	70	82
1/2	13	0.1419	3831	24	27	32	9046	57	64	75	12771	80	90	106	14969	94	106	125
9/16	12	0.1819	4912	35	39	46	11599	82	92	109	16375	115	130	154	19193	135	153	180
5/8	11	0.2260	6102	48	54	64	14408	113	128	150	20340	159	180	212	23840	186	211	248
3/4	10	0.3345	9030	85	96	113	21322	200	227	267	30101	282	320	376	35281	331	375	441
7/8	9	0.4617	12467	136	155	182	29436	322	365	429	41556	455	515	606	48707	533	604	710
1	8	0.6057	16355	204	232	273	38616	483	547	644	54517	681	772	909	63899	799	905	1065
1 1/4	7	0.9691	26166	409	463	545	53786	840	952	1121	87220	1363	1545	1817	102229	1597	1810	2130
1 1/2	6	1.4053	37942	711	806	949	77991	1462	1657	1950	126473	2371	2688	3162	148237	2779	3150	3706
Fine Thread Series																		
1/4	28	0.0364	982	37 in-lbs	42 in-lbs	49 in-lbs	2319	87 in-lbs	99 in-lbs	116 in-lbs	3274	123 in-lbs	139 in-lbs	164 in-lbs	3837	144 in-lbs	163 in-lbs	192 in-lbs
5/16	24	0.0581	1568	73	83	98	3702	174	197	231	5226	245	278	327	6125	287	325	383
3/8	24	0.0878	2371	11 ft-lbs	13 ft-lbs	15 ft-lbs	5599	26 ft-lbs	30 ft-lbs	35 ft-lbs	7905	37 ft-lbs	42 ft-lbs	49 ft-lbs	9265	43 ft-lbs	49 ft-lbs	58 ft-lbs
7/16	20	0.1187	3205	18	20	23	7568	41	47	55	10684	58	66	78	12523	68	78	91
1/2	20	0.1600	4319	27	31	36	10197	64	72	85	14396	90	102	120	16873	105	120	141
9/16	18	0.2030	5480	39	44	51	12940	91	103	121	18268	128	146	171	21412	151	171	201
5/8	18	0.2560	6911	54	61	72	16317	127	144	170	23036	180	204	240	27000	211	239	281
3/4	16	0.3730	10070	94	107	126	23776	223	253	297	33566	315	357	420	39343	369	418	492
7/8	14	0.5095	13756	150	171	201	32479	355	403	474	45853	502	568	669	53743	588	666	784
1	14	0.6799	18357	229	260	306	43343	542	614	722	61190	765	867	1020	71720	896	1016	1195
1 1/4	12	1.0729	28970	453	513	604	59548	930	1055	1241	96565	1509	1710	2012	113182	1768	2004	2358
1 1/2	12	1.5810	42688	800	907	1067	87747	1645	1865	2194	142292	2668	3024	3557	166778	3127	3544	4169

The torque values can only be achieved if nut (or tapped hole) has a proof load greater than or equal to the bolt's minimum ultimate tensile strength.

Clamp load calculated as 75% of the proof load when specified by the standard. ASTM A307 utilized 75% of 36,000 PSI.

Torque values for 1/4 and 5/16-in series are in inch-pounds. All other torque values are in foot-pounds.

Torque values calculated from formula $T = KDF$, where

K = 0.15 for "lubricated" conditions

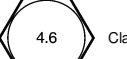
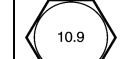
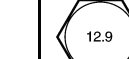
K = 0.17 for zinc plated and dry conditions; we have also found various forms of customer applied thread lockers to have a similar K value.

K = 0.20 for plain and dry conditions

D = Nominal Diameter

F = Clamp Load

Note: When using Zinc Plated (lubricated with wax) Top Lock Nuts, the K value can vary between 0.12-0.16

Nominal Dia. (mm)	Pitch	 Class 4.6				 Class 8.8				 Class 10.9				 Class 12.9			
		Clamp Load (lbs)	Tightening Torque			Clamp Load (lbs)	Tightening Torque			Clamp Load (lbs)	Tightening Torque			Clamp Load (lbs)	Tightening Torque		
			Lubricated (ft-lbs)	Zinc Plated (ft-lbs)	Plain&Dry (ft-lbs)		Lubricated (ft-lbs)	Zinc Plated (ft-lbs)	Plain&Dry (ft-lbs)		Lubricated (ft-lbs)	Zinc Plated (ft-lbs)	Plain&Dry (ft-lbs)		Lubricated (ft-lbs)	As-Received (ft-lbs)	Plain&Dry (ft-lbs)
4	0.7	333	0.7	0.7	0.9	858	1.7	1.9	2.3	1228	2.4	2.7	3.2	1436	2.8	3.2	3.8
5	0.8	538	1.3	1.5	1.8	1387	3.4	3.9	4.5	1985	4.9	5.5	6.5	2319	5.7	6.5	7.6
6	1	763	2.3	2.6	3.0	1968	5.8	6.6	7.7	2816	8.3	9.4	11.1	3291	9.7	11.0	13.0
7	1	1095	3.8	4.3	5.0	2822	9.7	11.0	13.0	4039	13.9	15.8	18.5	4720	16.3	18.4	21.7
8	1.25	1389	5.5	6.2	7.3	3580	14.1	16.0	18.8	5123	20.2	22.9	26.9	5987	23.6	26.7	31.4
10	1.5	2200	10.8	12.3	14.4	5671	27.9	31.6	37.2	8115	39.9	45.2	53.2	9484	46.7	52.9	62.2
12	1.75	3197	18.9	21.4	25.2	8240	48.7	55.1	64.9	11792	69.6	78.9	92.8	13781	81.4	92.2	108.5
14	2	4379	30.2	34.2	40.2	11289	77.8	88.1	103.7	16154	111.3	126.1	148.4	18879	130.0	147.4	173.4
16	2	5943	47	53	62	15320	121	137	161	21924	173	196	230	25622	202	229	269
18	2.5	7301	65	73	86	18822	167	189	222	26934	239	270	318	31477	279	316	372
20	2.5	9286	91	104	122	23938	236	267	314	34256	337	382	449	40034	394	446	525
22	2.5	11509	125	141	166	29669	321	364	428	42457	460	521	613	49619	537	609	716
24	3	13372	158	179	211	34471	407	461	543	49329	582	660	777	57649	681	771	908
27	3	17428	232	262	309	44924	597	676	796	64288	854	968	1139	75132	998	1131	1331
30	3.5	21266	314	356	419	54819	809	917	1079	78448	1158	1312	1544	91680	1353	1534	1804
33	3.5	26310	427	484	570	67821	1101	1248	1468	97055	1576	1786	2101	113425	1842	2087	2455
36	4	30982	549	622	732	79866	1415	1603	1886	114291	2024	2294	2699	133569	2366	2681	3154

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