

ERSATZTEILLISTE FÜR

GRASS TOPPERS

12000 FW

+ 18000 FW



Mehr als grüne Technik.

KRENGEL

Kontakt und Ersatzteilbestellung:
Krengel Landtechnik GmbH & Co. KG

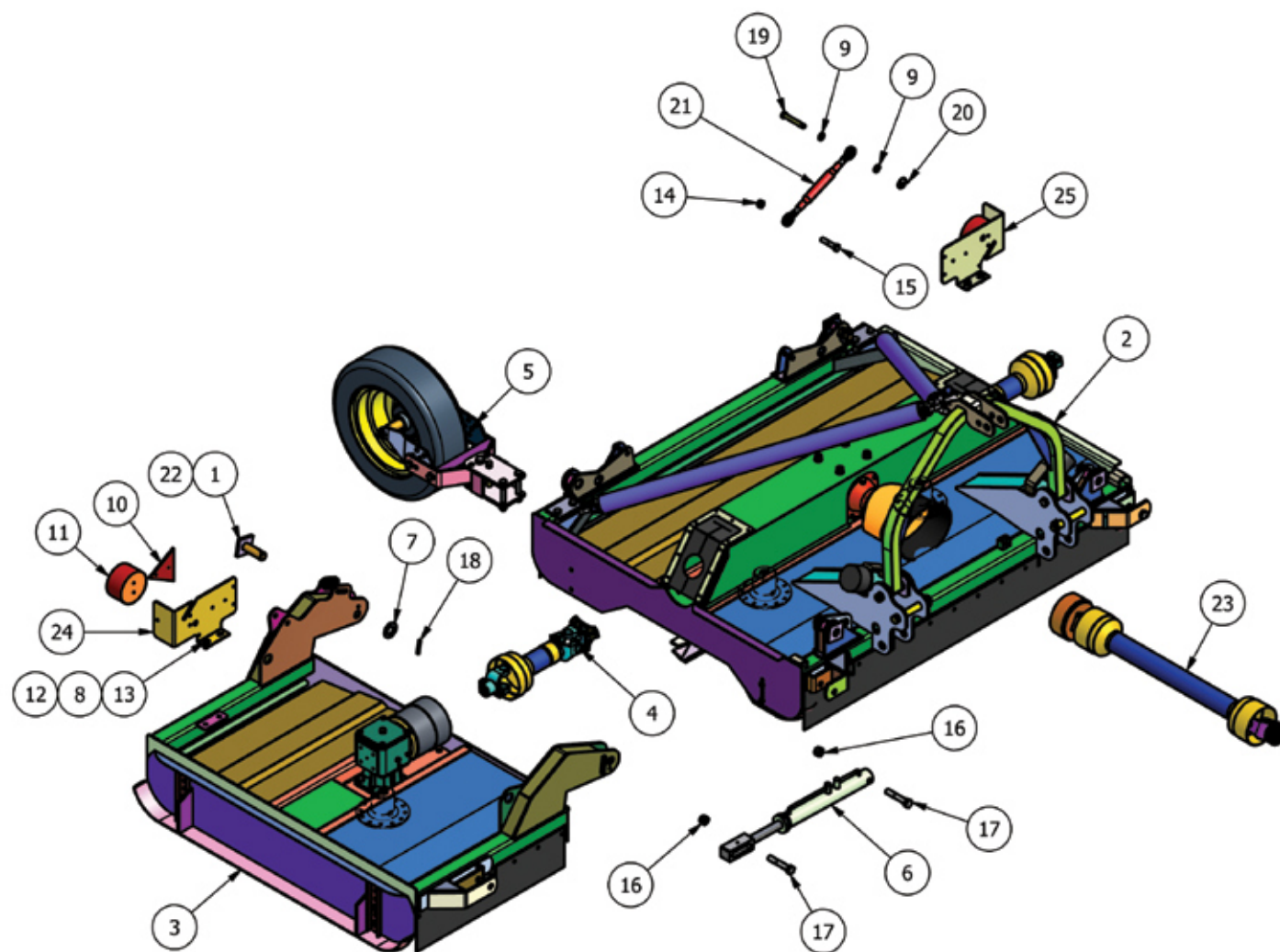
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Spare Parts - Flex Wing

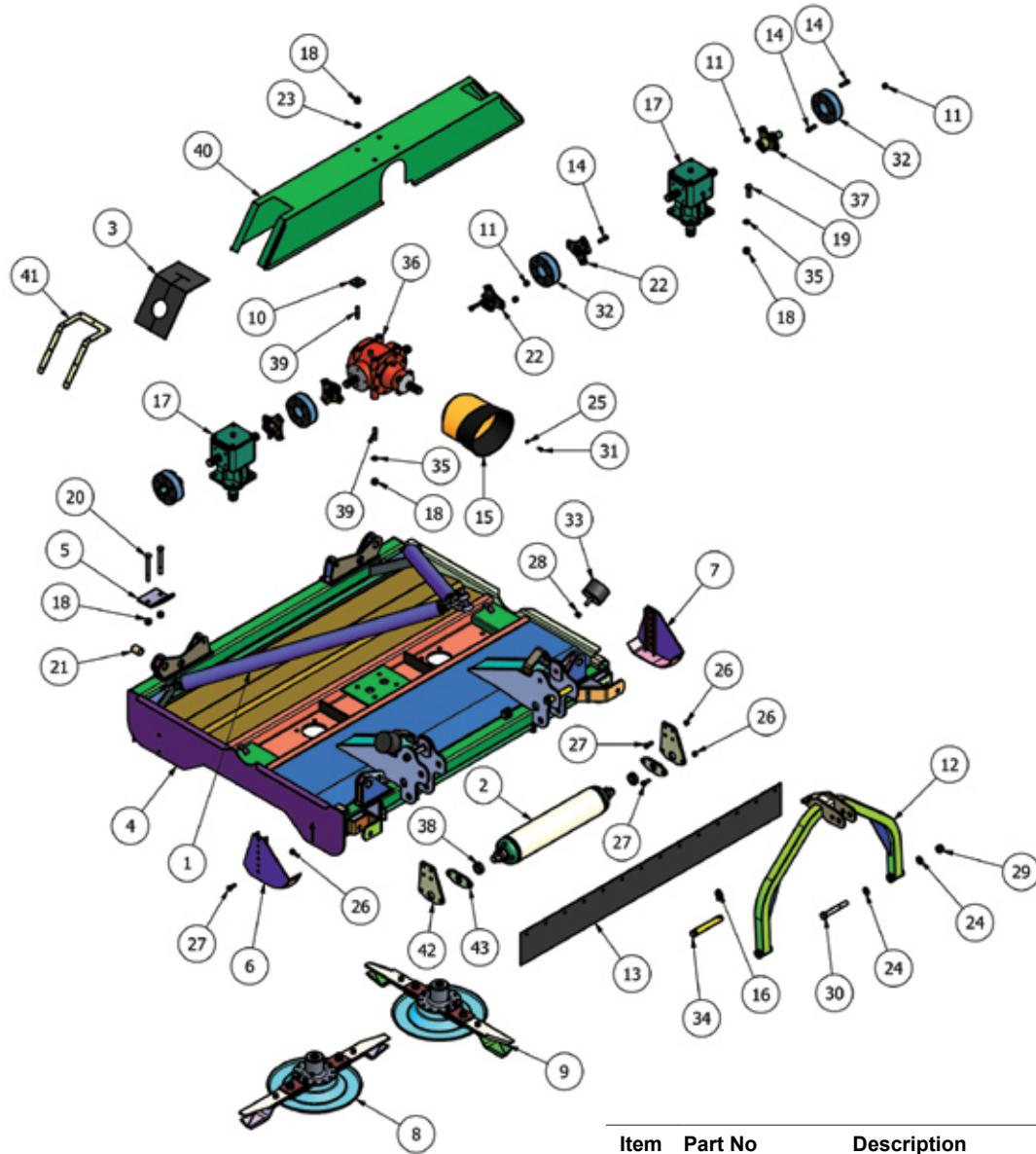
Flex Wing Topper Overview



Item	Part No	Description	Qty
1	12W-PIN07 (12GM-P1)	PIVOT PIN	4
2	12W3-BGA	12W3 BODY ASSY	1
3	12W3-WGA	12W3 WING (RH)	1
4	T50-12W	12000 WING PTO SHAFT	2
5	TWA-002	TOPPER CAR WHEEL ASSY	2
6	17GM-WR4	WING LIFT RAM	2
7	FW114	DIA 1 1/4" FLAT WASHER	4
8	FWM12	M12 FLAT WASHER	4
9	FWM16	M16 FLAT WASHER	4
10	LC2700	TRIANGLE REFLECTOR	2
11	LC360	LAMP	2
12	M12	M12 NYLOC NUT	4
13	M12x30SZP	M12x30 SET BOLT	4

Item	Part No	Description	Qty
14	M16	M16 NYLOC NUT	2
15	M16x75BZP	M16x75 BOLT	2
16	M20	M20 NYLOC NUT	4
17	M20x110BZP	M20x110 BOLT	4
18	1234	ROLL PIN DIA 10x60	4
19	15501	CAT 0 PIN DIA 16x97mm	2
20	37	LINCH PIN DIA 6	2
21	4419	CAT 0 TOP LINK	2
22	820	GREASE NIPPLE M6 STR	4
23	V600910ENC12RW6	V60 FIXED SLIP CLUTCH	1
24	TA LGPLITL	LGP LIGHT BRACKET (LH)	1
25	TA LGPLITR	LGP LIGHT BRACKET (RH)	1

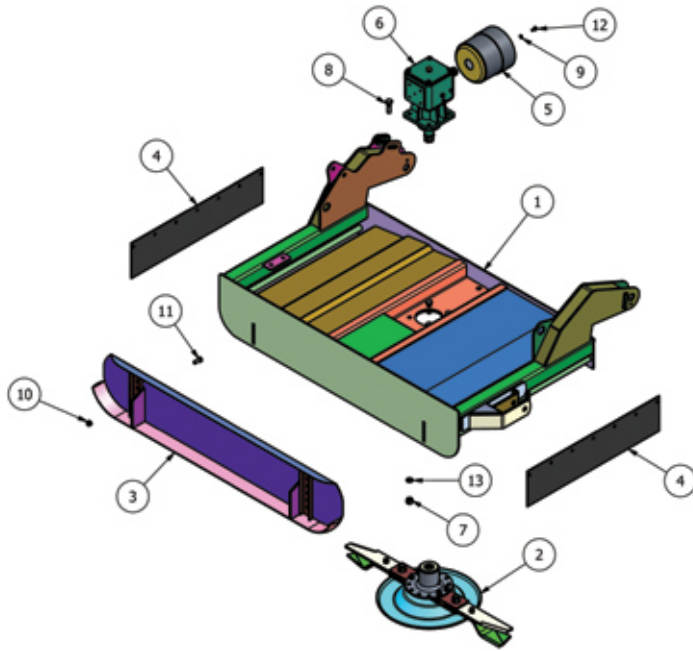
12000FW-HD and 18000FW-HD body assembly



Item	Part No	Description	Qty
1	123PL-STRAP01	12000 CHAIN SLING	1
2	12GMROLW	12000 WING ROLLER	1
3	12GMTCC1	G/BOX RUBBER COVER END	2
4	12W3-B001	1200/1800 3PL BODY	1
5	12W3-B020	STRAP MOUNT	2
6	12W3-SKD01	MINI SKID (RH)	1
7	12W3-SKD02	MINI SKID (LH)	1
8	951V2-D-BL	951 BLADE (Anti_Clk)	1
9	951V2-D-BR	951 BLADE (Clk)	1
10	GM12-A	GUARD MOUNT BUFFER	4
11	1/2F	1/2" FINE NYLOC NUT	24
12	123RMA01	HEAVY A-FRAME	1
13	12W3-G002	SKIRT (BODY)	2
14	12x112FSKS	1/2"x1 1/2" FINE SOCKET HEAD 12.9	24
15	190.000.545	PTO GUARD (EXTENDED OVAL)	1
16	3546	LINCH PIN DIA 9.5	2
17	MJ40T21	6/21 SPLINE "T" BOX RATIO 1.47	2
18	5/8F	5/8" FINE NYLOC NUT	20
19	58x2FBZP	5/8"x2" FINE BOLT	8
20	58x512FBZP	5/8"x5 1/2" FINE BOLT	4
21	8SM14	DIA 1 1/4" BUSHx1 3/4"	4

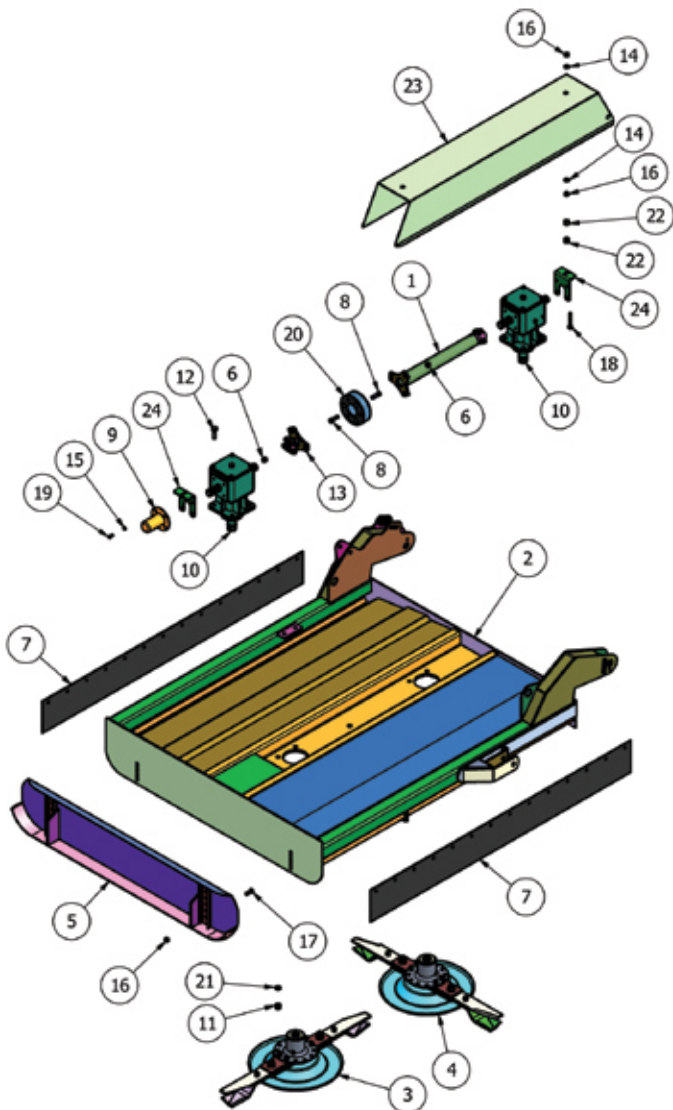
Item	Part No	Description	Qty
22	DRV-6S-52DC	6 SPLINE 52mm DRIVE	4
23	FWM16	M16 FLAT WASHER	4
24	FWM20	M20 FLAT WASHER	4
25	FWM8	M8 FLAT WASHER	4
26	M12	M12 NYLOC NUT	16
27	M12x35BZP	M12x35 BOLT	16
28	M16	M16 NYLOC NUT	2
29	M20	M20 NYLOC NUT	2
30	M20x150BZP	M20x150 BOLT	2
31	M8x16S2P	M8x16 SET BOLT	4
32	MJRC-113	113 PCD RUBBER COUPLING	4
33	MOT75	DIA 105x75 BUFFER	2
34	112	CAT 2 PIN DIA 28.5x159mm	2
35	SW58	5/8" SPRING WASHER	12
36	T292B	6 SPLINE "T" BOX RATIO 1.86	1
37	12EW45-2	21 SPLINE STAR DRIVE	2
38	RM-RSN3	SHAFT COLLAR DIA 35	2
39	T292A-S1	T292 G/BOX STUD	8
40	12GMTCC-2	12000 BODY COVER	1
41	12TCC-E	G/BOX COVER END	2
42	12W3-B025	ROLLER MOUNT	2
43	RM-RSN2	ROLLER MOUNT	2

12000FW-HD wing



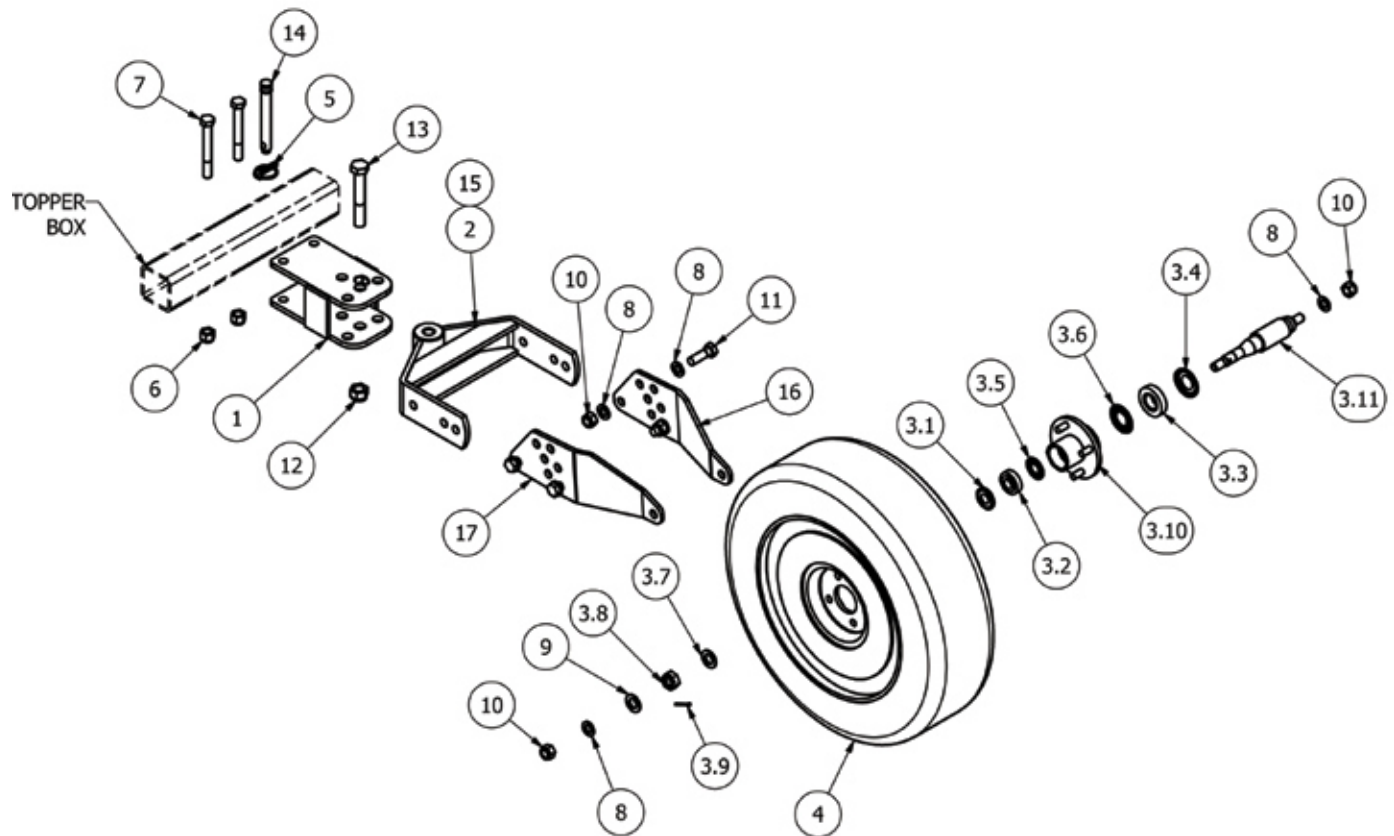
Item	Part No	Description	Qty
1	12W3-W001	12W3 WING	1
2	951V2-D-BR	951 BLADE (Clk)	1
3	SLH16AS	SKID (OFFSET)	1
4	12W3-G003	SKIRT (WING)	2
5	190660-1	GUARD (COVER 660/BASE 661)	1
6	MJ40L	6 SPLINE "L" BOX RATIO 1.47	1
7	5/8F	5/8" FINE NYLOC NUT	4
8	58x2FBZP	5/8"x2" FINE BOLT	4
9	FWM8	M8 FLAT WASHER	4
10	M12	M12 NYLOC NUT	4
11	M12x30SZP	M12x30 SET BOLT	4
12	M8x16SZP	M8x16 SET BOLT	4
13	SW58	5/8" SPRING WASHER	4

18000FW-HD wing



Item	Part No	Description	Qty
1	18GM-WDT	18000 DRIVE TUBE	1
2	18W3-W001	18W3 WING	1
3	951V2-D-BL	951 BLADE (Anti_Clk)	1
4	951V2-D-BR	951 BLADE (Clk)	1
5	SLH16AS	SKID (OFFSET)	1
6	1/2F	1/2" FINE NYLOC NUT	6
7	12W3-G002	SKIRT (BODY)	2
8	12x112FSKS	1/2"x1 1/2" FINE SOCKET HEAD 12.9	6
9	190000592	PTO HAT	1
10	MJ40T	6 SPLINE "T" BOX RATIO 1.47	2
11	5/8F	5/8" FINE NYLOC NUT	8
12	58x2FBZP	5/8"x2" FINE BOLT	8
13	8SM18	6 SPLINE STAR DRIVE	1
14	FWM12	M12 FLAT WASHER	4
15	FWM8	M8 FLAT WASHER	4
16	M12	M12 NYLOC NUT	8
17	M12x30SZP	M12x30 SET BOLT	4
18	M12x80BZP	M12x80 BOLT	2
19	M8x16SZP	M8x16 SET BOLT	6
20	MJRC-113	113 PCD RUBBER COUPLING	1
21	SW58	5/8" SPRING WASHER	8
22	12T-BBS	BLADE BACK SPACER	4
23	18GM-WTC2	18000 WING COVER	1
24	9TGT-CB	GEARBOX COVER BRKT	2

Castor wheel

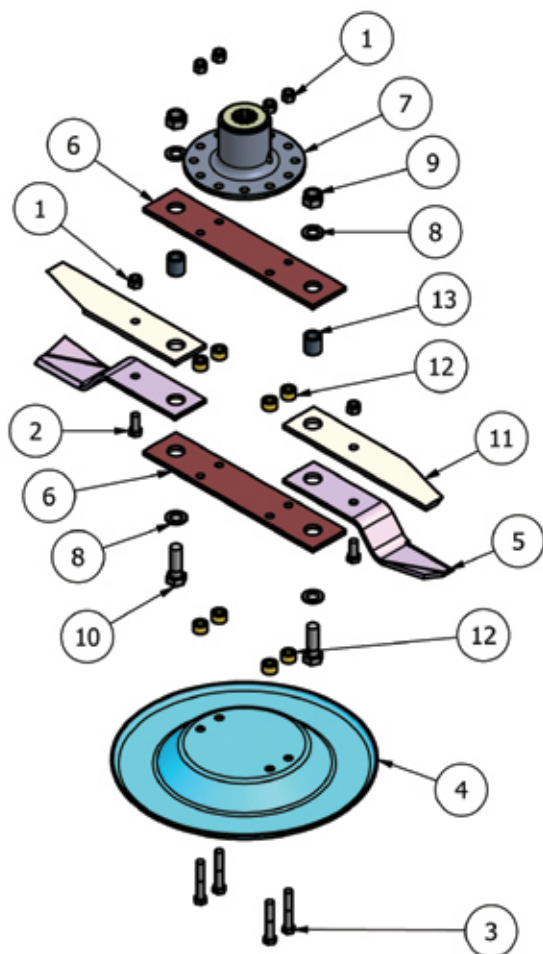


Item	Part No	Description	Qty
1	TWA-020	PIVOT MOUNT	1
2	TWA-030	PIVOT ARM	1
3.1	30204AV	NILOS RING 47x20	1
3.2	30204CPT	TAPER BRG 47x20x15.25	1
3.3	30206CPT	TAPER BRG 62x30x17.25	1
3.4	30206AV	NILOS RING 62x30	1
3.5	915N30204	SHEILD 47x20	1
3.6	915N30206	SHEILD 62x30	1
3.7	FWM20	M20 FLAT WASHER	1
3.8	M20FCastleT	CASTLE NUT (THIN)	1
3.9	1500	SPLIT PIN 1/8"x1 1/2"	1
3.10	TWA-052	TOPPER 4 STUD AXLE HUB	1
3.11	TWA-056	HUB SHAFT FOR 17570R14	1
4	175X14W	175 X 14" WHEELS	1

Item	Part No	Description	Qty
5	3546	LINCH PIN DIA 9.5	1
6	5/8F	5/8" FINE NYLOC NUT	2
7	58x5FBZP	5/8"x5" FINE BOLT	2
8	FWM16	M16 FLAT WASHER	10
9	FWM20	M20 FLAT WASHER	1
10	M16	M16 NYLOC NUT	6
11	M16x50BZP	M16x50 BOLT	4
12	M20	M20 NYLOC NUT	1
13	M20x130BZP	M20x130 BOLT	1
14	77	CAT 1 PIN DIA 19x127mm	1
15	851	GREASE NIPPLE M8x1.25 STR	1
16	TWA-045	AXLE PLATE (CAR)	1
17	TWA-045H	AXLE PLATE (CAR)	1

Blade Systems

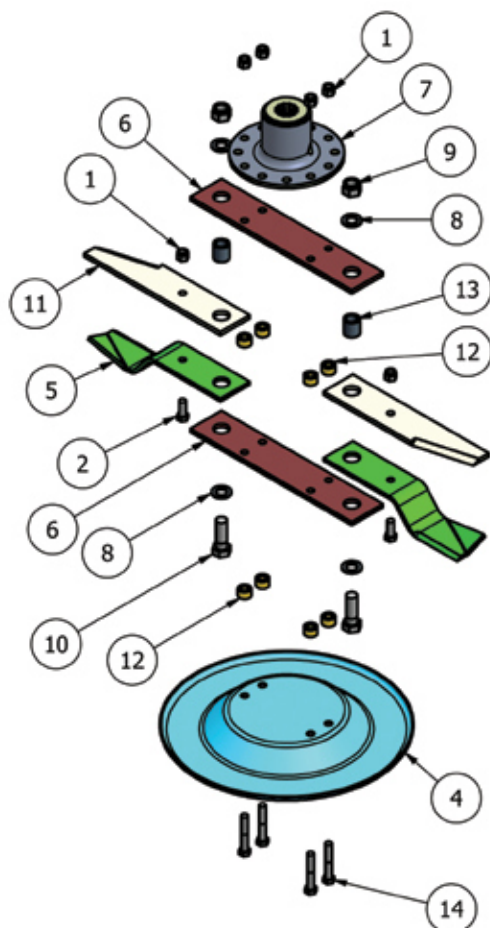
PRO-CUT BLADE SYSTEMS - 951V2-D-BL on all Flex Wing models from January 2011



Item	Part No	Description	Qty
1	1/2F	1/2" FINE NYLOC NUT	6
2	12x114FBZP	1/2"x1 1/4" FINE BOLT	2
3	12x3FBZP	1/2"x3" FINE BOLT	4
4	9GT-USS	UNDER SOLE SKID	1
5	9GTB/A	SWING BLADE (Anti-Clk)	2
6	BLDB-335	BLADE BACK (335 CTR)	2
7	DF-BMP	J205 G/BOX BLADE MOUNT	1
8	FWM20	M20 FLAT WASHER	4
9	M20	M20 NYLOC NUT	2
10	M20x60BZP	M20x60 BOLT	2
11	NTSB12C	OVERLAP BLADE	2
12	12T-BBS	BLADE BACK SPACER	8
13	12T-LBB	OVERLAP BLADE BUSH	2

MACHINE	QTY
12000FW-HD	2 clockwise 2 anti clockwise
18000FW-HD	3 clockwise, 3 anti clockwise)

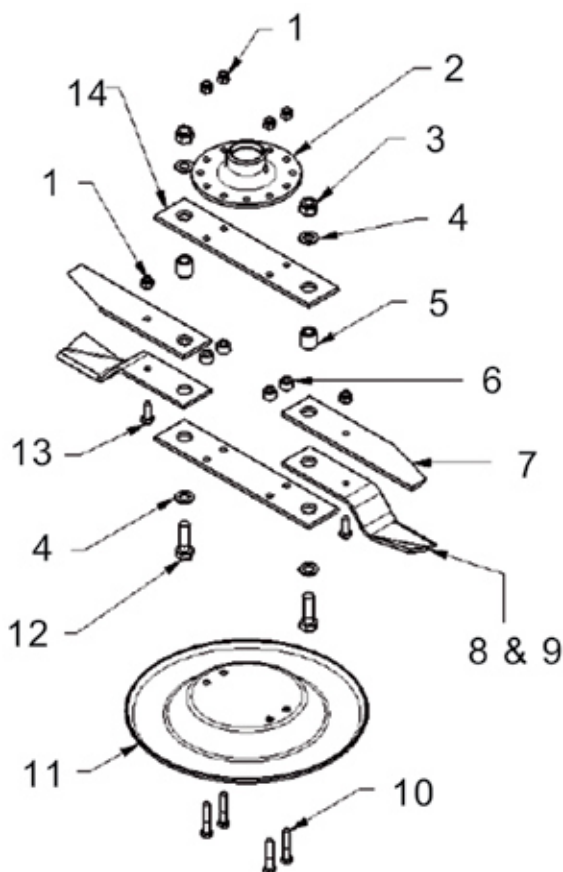
PRO-CUT BLADE SYSTEMS - 951V2-D-BR on all Flex Wing models from January 2011



Item	Part No	Description	Qty
1	1/2F	1/2" FINE NYLOC NUT	6
2	12x114FBZP	1/2"x1 1/4" FINE BOLT	2
4	9GT-USS	UNDER SOLE SKID	1
5	9GTB/C	SWING BLADE (Clk)	2
6	BLDB-335	BLADE BACK (335 CTR)	2
7	DF-BMP	J205 G/BOX BLADE MOUNT	1
8	FWM20	M20 FLAT WASHER	4
9	M20	M20 NYLOC NUT	2
10	M20x60BZP	M20x60 BOLT	2
11	NTSB12C	OVERLAP BLADE	2
12	12T-BBS	BLADE BACK SPACER	8
13	12T-LBB	OVERLAP BLADE BUSH	2
14	12x3FBZP	1/2"x3" FINE BOLT	4

MACHINE	QTY
12000FW-HD	2 clockwise 2 anti clockwise
18000FW-HD	3 clockwise, 3 anti clockwise)

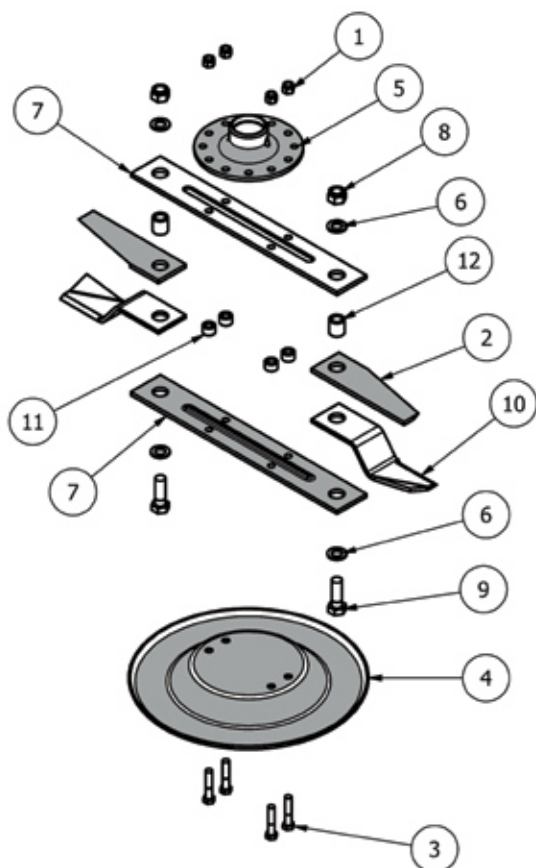
PRO-CUT BLADE SYSTEMS - on 12ft Flex Wing (12000FW-HD) and 18ft Flex Wing (18000FW-HD) Models from April 2009 - Dec 2010



Item	Part No	Description	Qty
1	1/2F	1/2" Nyloc Nut	6
2	DF-BMP	BLADE MOUNT	1
3	M20	M20 NYLOC NUT	2
4	FWM20	M20 FLAT WASHER	4
5	12T-LBB	Overlap Blade Bushing	2
6	12T-BBS	BLADE BACK SPACER	4
7	NTSB12C	Overlap Blade	2
8	9GTB/A	Blade anti clockwise	2
9	9GTB/C	Blade clockwise	2
10	12X212FBZP	1/2"x2 1/2" FINE BOLT	4
11	9GT-USS	Under sole skid	
12	M20X60BZP	M20x60 BOLT	2
13	12x114FBZP	1/2"x1 1/4" FINE BOLT	2
14	BLDB-335	BLADE BACK	2

MACHINE	QTY
12000FW-HD	2 clockwise 2 anti clockwise
18000FW-HD	3 clockwise, 3 anti clockwise)

OLDER BLADE SYSTEMS - on all on all 12ft Flex Wing (12000FW-HD) and 18ft Flex Wing (18000FW-HD) Models prior to April 2009

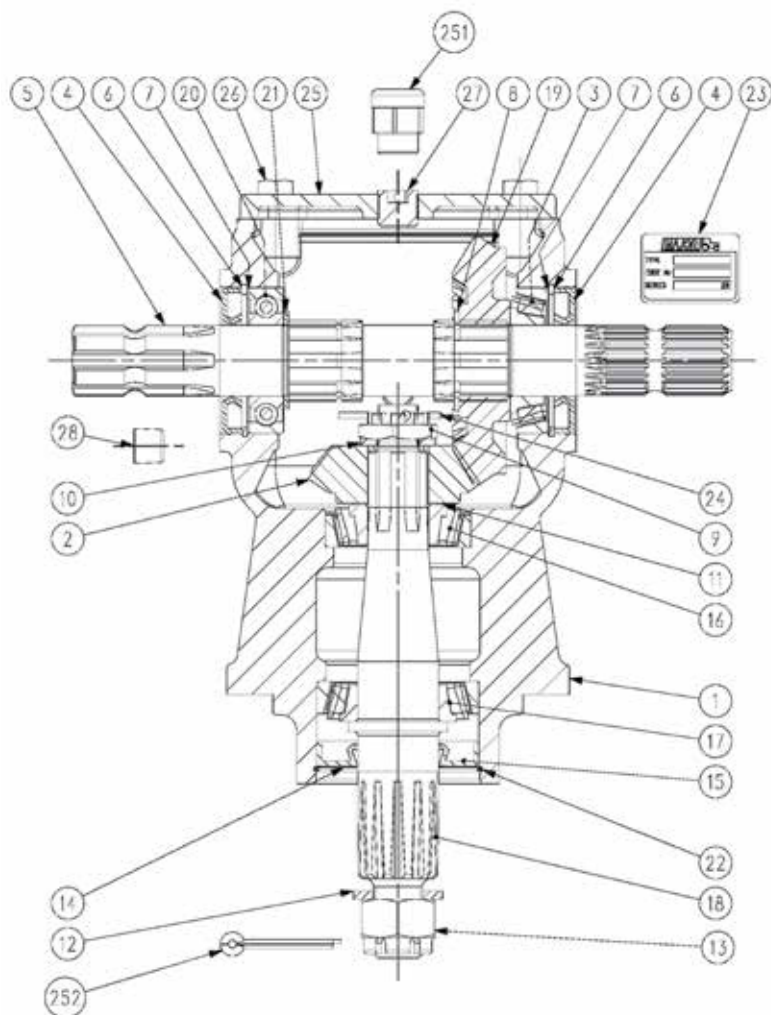


Item	Part No	Description	Qty
1	1/2F	1/2" Nyloc Nut	12
2	12T-OLB	Overlap Blade	
3	12X212FBZP	1/2"x2 1/2" FINE BOLT	
4	9GT-USS	Under sole skid	
5	DF-BMP	BLADE MOUNT	
6	FWM20	M20 Flat Washer	
7	GM26	BLADE BACK	2
8	M20	M20 NYLOC NUT	
9	M20X60BZP	M20x60 BOLT	
10	NTSB10A	SWING BLADE (Anti-Clk)	
10	8SM9/1	SWING BLADE (Clk)	
11	12T-BBS	BLADE BACK SPACER	
12	12T-LBB	Overlap Blade Bushing	

Gearboxes

Machine	Gearboxes	
12000FW-HD and 18000FW-HD Flex Wing - Body	MJ40T21	T292B
12000FW-HD Flex Wing - Wing gearbox	MJ40L	
18000FW-HD Flex Wing - Wing gearbox	MJ40T	

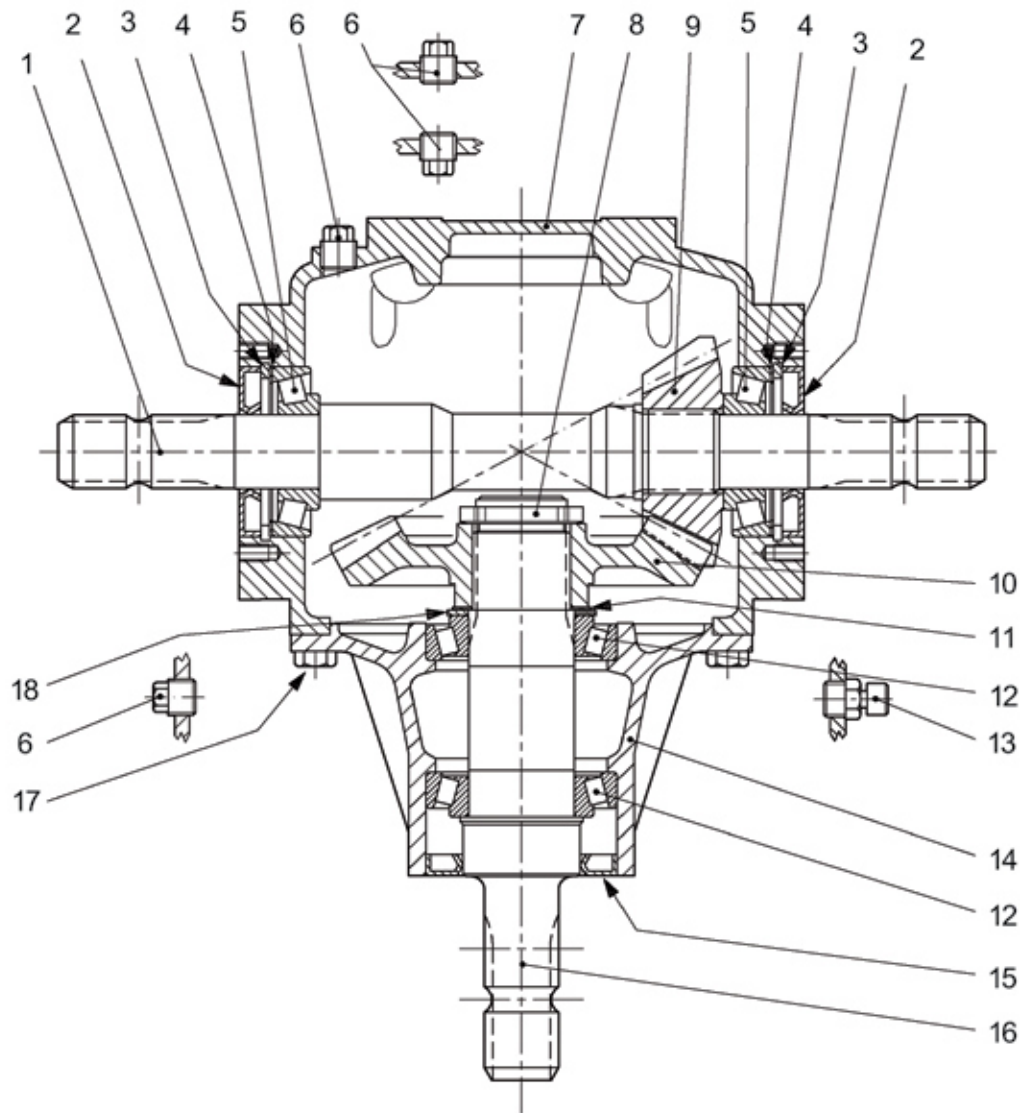
MJ40T21 Gearbox “T” Box Ratio 1.47 (347.802) Gearbox Breakdown



Item	Part No	Description	Qty
1	0.347.0300.00	Casting and Machining	1
2	U0.040.5004.00	Gear Pinion Z15 M5.5	1
3	8.0.9.00026	Roller Bearing 30207 (35x72x18.25)	1
4	8.7.3.00055	Oil Seal (35x72x10)	2
5	0.347.3001.00	Through Shaft 1"3/8 Z6 -1"3/8 Z21	1
6	8.5.2.00131	Snap Ring (72x75x2.5 , For Shafts)	2
7	0.248.7500.00	Shim Kit (60.3x71.7)	2
8	8.5.1.00680	Snap Ring (40x37.5x2.5)	1
9	0.289.7102.02	Castle Nut (M20x1)	1
10	8.3.2.00531	Flat Washer (21x37x3)	1
11	0.102.7500.00	Shim Kit (30.3x44)	1
12	LF135-2	Flat Washer (25x44x4)	1
13	LF135-1	Castle Nut (M24x2)	1
14	1.135.7100.00	Protective Flat Washer (40.4x79.9x1)	1
15	8.7.1.00748	Dust Lip (40x80x12)	1

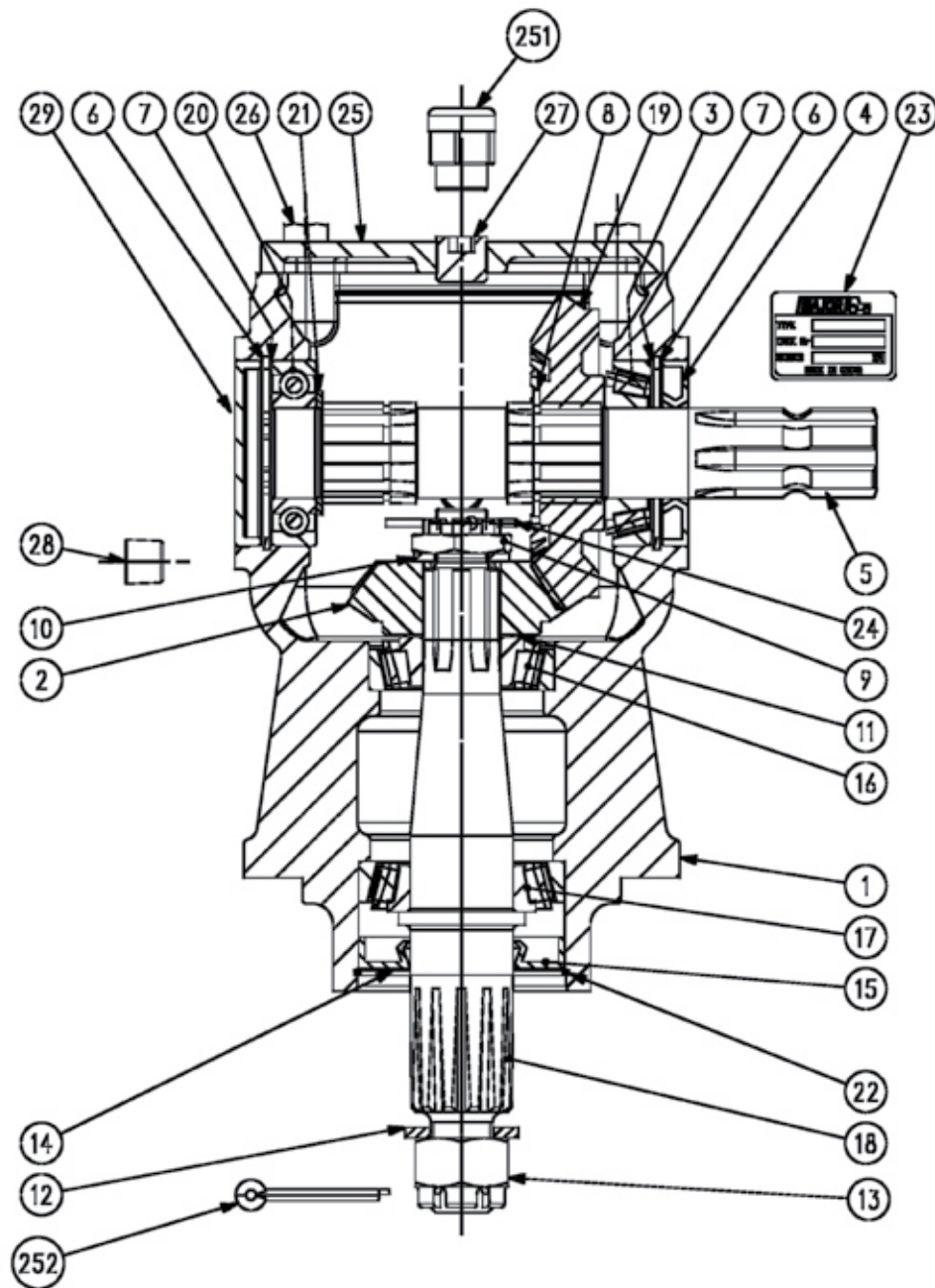
Item	Part No	Description	Qty
16	8.0.9.01049	Roller Bearing 30306 (30x72x20.75)	1
17	8.0.9.00024	Roller Bearing 30208 (40x80x19.75)	1
18	U0.040.3006.01	Output Shaft ASA D.P. 8/16 Z12	1
19	U0.040.6004.00	Gear Crown Z22 M5.5	1
20	8.0.1.00870	Ball Bearing 6207 (35x72x17)	1
21	0.259.7527.00	Shim (35.3x48x2.5)	1
22	8.5.3.00955	Snap Ring SB 81 (81x82.8x2)	1
23	0.205.7100.00	"Major" Name Plate	1
24	8.4.7.00823	Cotter Pin (4x40)	1
25	0.347.1300.00	Top cover	1
26	8.1.1.00061	Bolt M10x25 HHB (8.8)	4
27	8.6.6.00088	1/2" Gas Solid Plug	1
28	8.6.6.00201	3/8" Gas Oil Level Plug	1
251	8.6.7.00269	1/2" Gas Oil Breather Plug	1
252	8.4.7.00516	Cotter Pin (5x50)	1

T292B “T” Box Ratio 1:1 (292.006) Gearbox Breakdown



Item	Part No	Description	Qty	Item	Part No	Description	Qty
1	LF135/17H	Crown Gear 23T HS box	1	14	M10x20SZP	Bolt	1
1	LF135/17	Crown Gear 22T Std box	1	15	LF135/6	Snap Ring	1
2	LF205/12	Gearbox Casing	1	16	LF135/3	Snap Ring	1
3	LF135/18	Input Shaft	1	17	85200648	Circlip	1
4	LF135/11	Pinion Shaft	1	18	LF135/13	Plug	2
5	LF135/10	Spacer	1	19	40X80X12V	Double Lip Seal	1
6	52x7	Oil Cap (Cover)	1	20	T4A/1 (8.7.3.00055)	Double Lip Seal	1
7	LF135/4	Protective Washer	1	21	LF135/26 (LF205EP)	Cover	1
8	LF135/21	Bearing 6007 (35x62x14)	1	22	LF135/8 (02447500)	Shim	1
9	LF135/15	Bearing 6207	1	23	LF135/3 (02677500)	Snap Ring	1
10	LF135/9	Bearing 6208	2	24	0.6.775.000	Shim	1
11	LF135/1	Castle Nut	1	25	N/A	Name Plate	1
12	LF135/2	Washer	1	26	0.248.7500.00	Shim	1
13	LF135/19	Key	1	27	85200131	Circlip	1

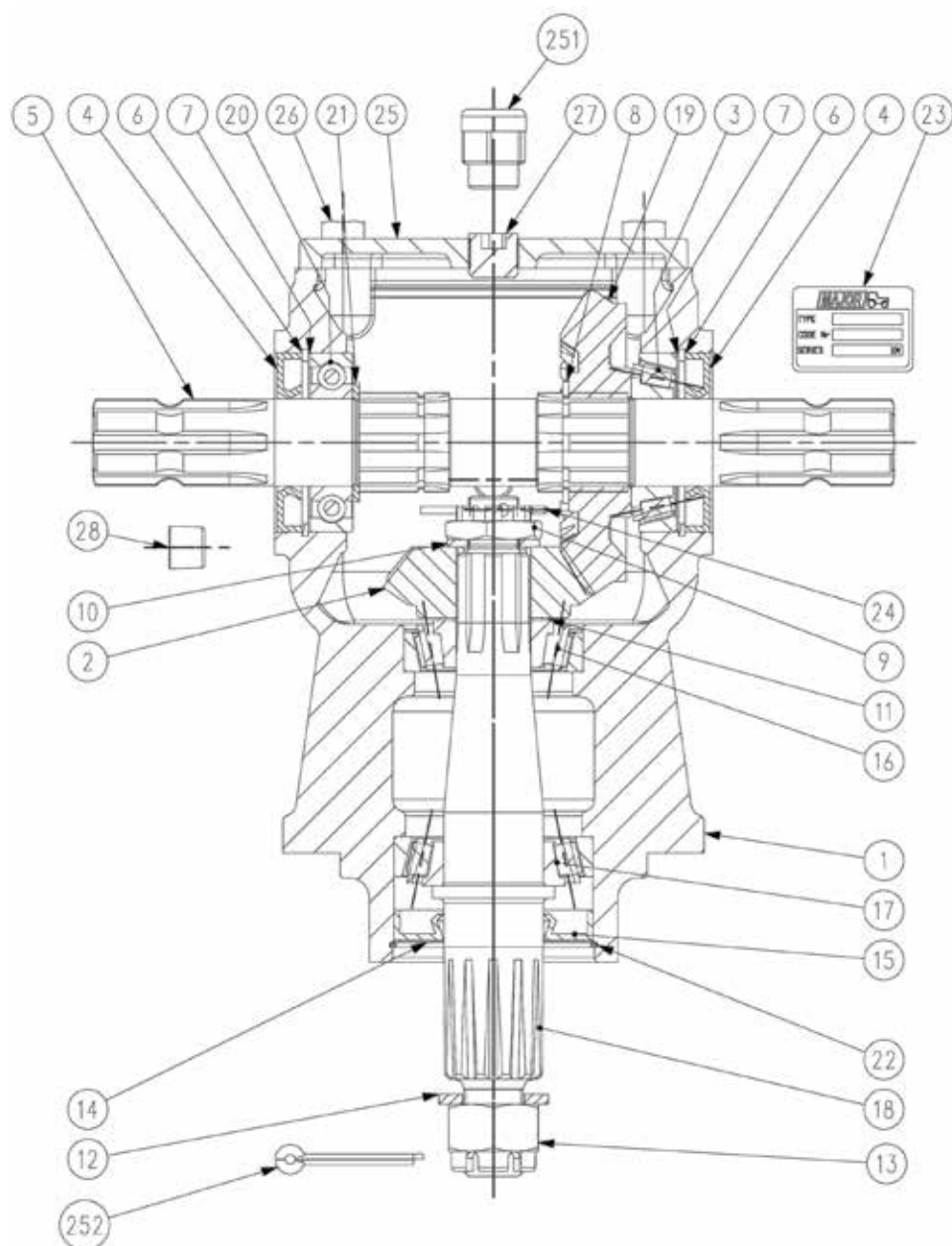
MJ40L “L” Box Ratio 1.47 (347.800) Gearbox Breakdown



Item	Part No	Description	Qty
1	0.347.0300.00	Casting and Machining	1
2	UO.040.5004.00	Gear Pinion Z15 M5.5	1
3	8.09.00026	Roller Bearing 30207 (35x72x18.25)	1
4	8.7.3.00055	Oil Seal (35x72x10)	1
5	0.347.3002.00	Through Shaft 1"3/8 Z6	1
6	8.5.2.00131	Snap Ring (72x75x2.5 , For Holes)	2
7	0.248.7500.00	Shim Kit (60.3x71.7)	2
8	8.5.1.00680	Snap Ring (40x37.5x2.5 , For Shafts)	1
9	0.289.7102.02	Castle Nut (M20X1)	1
10	8.3.2.00531	Flat Washer (21x37x3)	1
11	0.102.7500.00	Shim Kit (30.3x44)	1
12	LF135-2	Flat Washer (25x44x4)	1
13	LF135-1	Castle Nut (M24x2)	1
14	1.135.7100.00	Protective Flat Washer (40.4x79.9x1)	1
15	8.7.1.00748	Dust Lip (40x80x12)	1
16	8.0.9.01049	Roller Bearing 30306 (30x72x20.75)	1

Item	Part No	Description	Qty
17	8.0.9.00024	Roller Bearing 30208 (40x80x19.75)	1
18	UO.040.3006.01	Output Shaft ASA D.P. 8/16 Z12	1
19	UO.040.6004.00	Gear Crown Z22 M5.5	1
20	8.0.1.00870	Ball Bearing 6207 (35x72x17)	1
21	0.259.7525.00	Shim (35.3x48x2.5)	1
22	8.5.3.00955	Snap Ring SB 81 (81x82.8x2)	1
23	0.205.7100.00	"Major" Name Plate	1
24	8.4.7.00823	Cotter Pin (4x40)	1
25	0.347.1300.00	Top Cover	1
26	8.11.00061	Bolt M10x25 HHB (8.8)	4
27	8.6.6.00088	1/2" Gas Solid Plug	1
28	8.6.6.00201	3/8" Gas Oil Level Plug	1
29	8.7.0.00744	Oil Cap (72x10)	1
251	8.6.7.00269	1/2" Gas Oil Breather Plug	1
252	8.4.7.00516	Cotter Pin (5x50)	1

MJ40T “T” Box Ratio 1.47 (347.801) Gearbox Breakdown

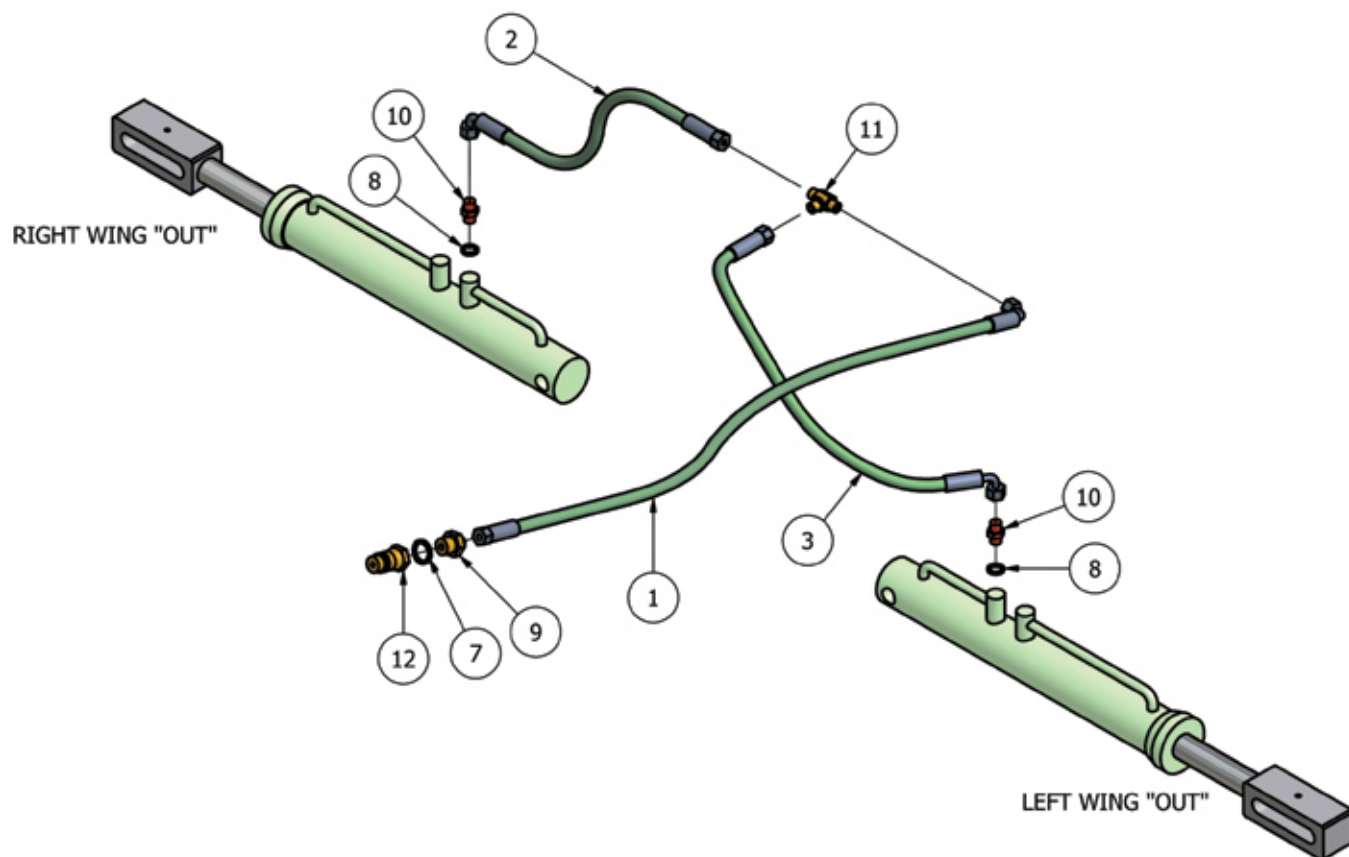


Item	Part No	Description	Qty
1	0.347.0300.00	Casting and Machining	1
2	U0.040.5004.00	Gear Pinion Z15 M5.5	1
3	8.0.9.00026	Roller Bearing 30207 (35x72x28.25)	1
4	8.7.3.00055	Oil Seal (35x72x10)	2
5	0.347.3000.00	Through Shaft 1"3/8 Z6 - 1"3/8 Z6	1
6	8.5.2.00131	Snap Ring (72x75x2.5 , For Holes)	2
7	0.248.7500.00	Shim Kit (60.3x71.7)	2
8	8.5.1.00680	Snap Ring (40x37.5x2.5 , for shafts)	1
9	0.289.7102.02	Castle Nut (M20x1)	1
10	8.3.2.00531	Flat Washer (21x37x3)	1
11	0.102.7500.00	Shim kit (30.3x44)	1
12	LF135-2	Flat Washer (25x44x4)	1
13	LF135-1	Castle Nut (M24x2)	1
14	1.135.7100.00	Protective Flat Washer (40.4x79.9x1)	1
15	8.7.1.00748	Dust Lip (40x80x12)	1

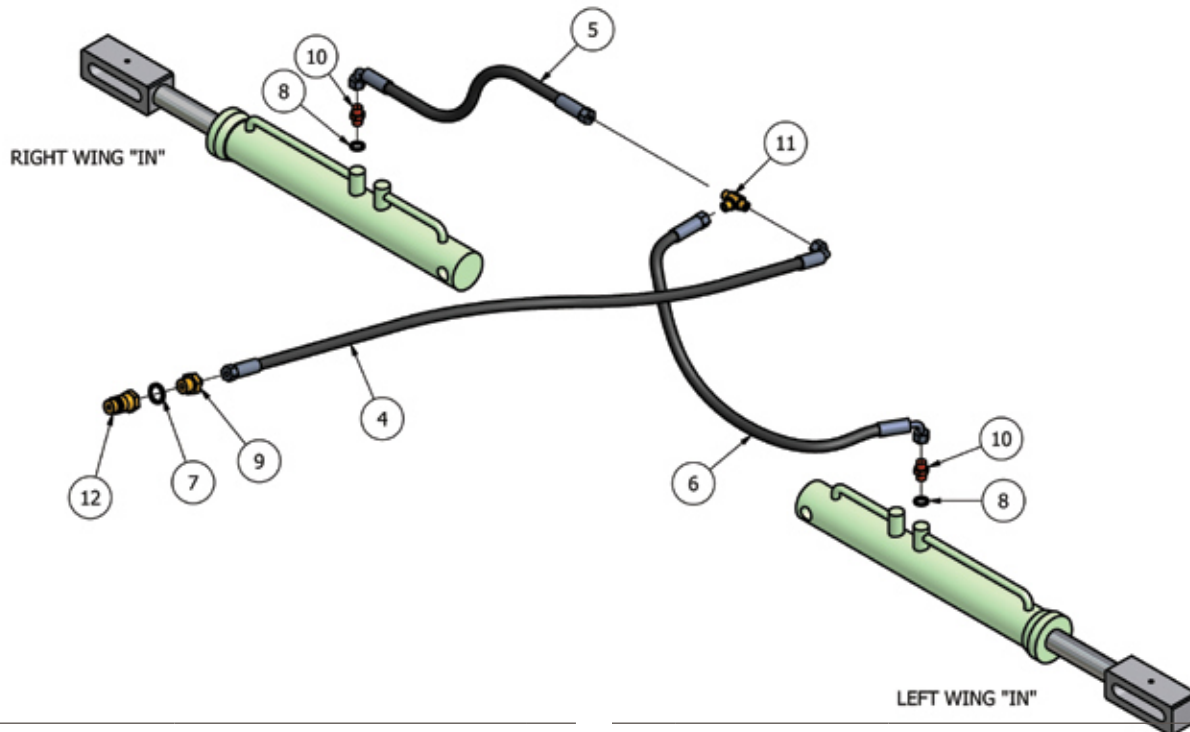
Item	Part No	Description	Qty
16	8.0.9.01049	Roller Bearing 30306 (30x72x20.65)	1
17	8.0.9.00024	Roller Bearing 30208 (40x80x19.75)	1
18	U0.040.3006.01	Output Shaft ASA D.P. 8/16 Z12	1
19	U0.040.6004.00	Gear Crown Z22 M5.5	1
20	8.0.1.00870	Ball Bearing 6207 (35x72x17)	1
21	0.259.7525.00	Shim (35.5x48x2.5)	1
22	8.5.3.00955	Snap Ring SB 81 (81x82.8x2)	1
23	0.205.7100.00	"Major" Name Plate	1
24	8.4.7.00823	Cotter Pin (4x40)	1
25	0.347.1300.00	Top Cover	1
26	8.1.1.00061	Bolt M10x25 HHB (8.8)	4
27	8.6.6.00088	1/2" Gas Solid Plug	1
28	8.6.6.00201	3/8" Gas Oil Level Plug	1
251	8.6.7.00269	1/2" Gas Oil Breather Plug	1
252	8.4.7.00516	Cotter Pin (5x50)	1

Flex Wing Hydraulics

Wing Ram 'Open' Hose Detail



Wing Ram 'Closed' Hose Detail



Item	Part No	Description	Qty
1	123RM-HOSE-A	1/4"x1800mm Str to Block 90	1
2	123RM-HOSE-B	1/4"x1345mm Str to Block 90	1
3	123RM-HOSE-C	1/4"x1020mm Str to Block 90	1
4	123RM-HOSE-D	1/4"x1800mm Str to Block 90	1
5	123RM-HOSE-E	1/4"x1420mm Str to Block 90	1
6	123RM-HOSE-F	1/4"x1020mm Str to Block 90	1

Item	Part No	Description	Qty
7	EDOW12	1/2" DOWTY WASHER	2
8	EDOW14	1/4" DOWTY WASHER	4
9	EMM1214	1/2-14" M/M CONNECTOR	2
10	EMM14RV	1/4" M/M RESTRICTOR (DIA 1mm)	4
11	EMMT14	1/4" M/M/M CONNECTOR	2
12	QRM12	1/2" QUICK RELEASE MALE	2