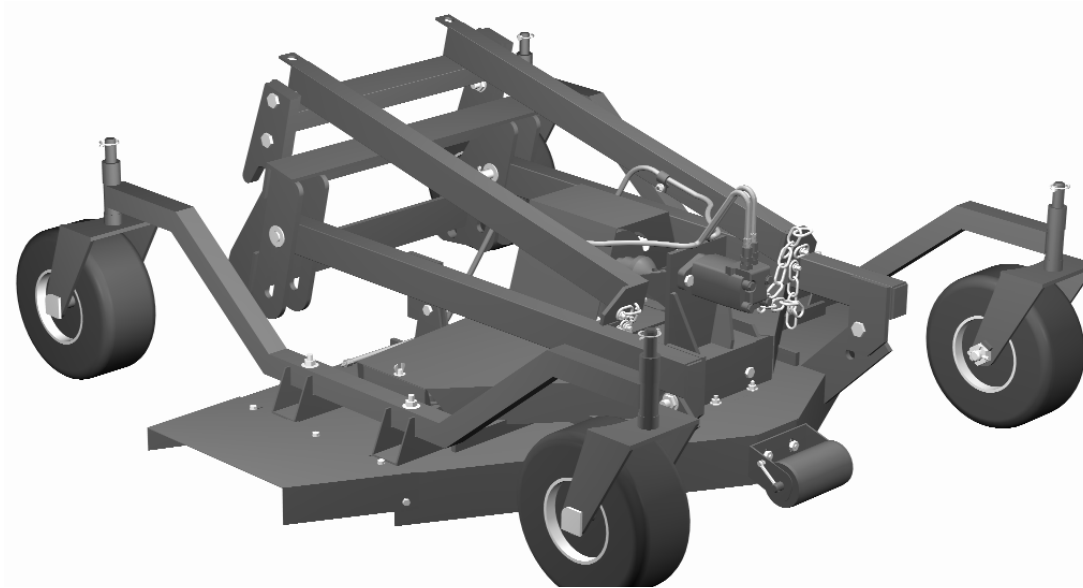


# bühler



## **BUHLER HYDRAULIC FINISHING MOWER**

Operator's and Parts Manual  
FK355

2006



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## WARRANTY POLICY

Buhler Manufacturing products are warranted for a period of twelve (12) months (90 days for commercial application) from original date of purchase, by original purchaser, to be free from defects in material and workmanship under correct, normal agricultural use and proper applications.

Buhler Manufacturing's obligations under this warranty shall be limited to the repair or exchange, at Buhler Manufacturing's option, of any Buhler Manufacturing product or part which proves to be defective as provided. Buhler Manufacturing reserves the right to either inspect the product at the buyer's location or have it returned to the factory for inspection.

The above warranty does not extend to goods damaged or subject to accident, abuse or misuse after shipment from Buhler Manufacturing's factory, nor to goods altered or repaired by anyone other than an authorized Buhler Manufacturing representative.

Buhler Manufacturing makes no Express Warranties other than those, which are specifically described. Any description of goods, including any references and specifications in catalogues, circulars and other written material published, is for the sole purpose of identifying goods and shall conform to such descriptions. Any sample or model is for illustrative purposes only and does not create an Express Warranty that the goods conform to sample or model shown.

The purchaser is solely responsible for determining suitability of goods sold. This warranty is expressly in lieu of all other warranties expressed or implied. Buhler Manufacturing will in no event be liable for any incidental or consequential damages whatsoever. Nor for any sum in excess of the price received for the goods for which liability is claimed.

### WARRANTY CLAIMS:

Warranty requests must be prepared on Buhler Manufacturing Warranty Claim Forms with all requested information properly completed. Warranty Claims must be submitted within a thirty (30) day period from date of failure repair.

### WARRANTY LABOR:

Any labor subject to warranty **must** be authorized by Buhler Manufacturing. The labor rate for replacing defective parts, where applicable, will be credited at 100% of the dealer's posted shop rate. Defective parts will receive an extra 10% discount to assist with freight or other incidental costs.

### GOVERNMENT LEGISLATION:


Warranty terms and conditions are subject to Provincial or State legislation.

### IMPORTANT FACTS:

Buckets and Bucket Tines Carry No Warranty  
Bent Spears Carry No Warranty  
Snowblower Fan Shafts Carry No Warranty  
Mower Blades Carry No Warranty  
Portable Auger Parts Have Two (2) Year Warranty  
Loader Parts Have Two (2) Year Warranty

**IMPORTANT NOTE: This warranty does not apply to rentals.**

## SAFETY INSTRUCTIONS

Do not attempt to operate the mower until you have read the Operator's Manual and all the safety signs on the mower.  **NOTE:** The words Danger, Signal or Caution on the safety signs indicate a hazard or unsafe practice, which could result in injury or death if proper precautions are not taken. Do not attempt any unauthorized modifications to the mower as this could affect the function or the safety of the mower.

## OPERATING SAFETY

1. Keep all safety signs clean and legible at all times. Replace damaged or missing safety signs.
2. Ensure all shields are in place and in good condition before operating.
3. Ensure everyone is clear of the area before operating.
4. Never start or operate the mower except from the operator's station on the power unit.
5. Do not permit riders.
6. Stop engine, set brake, remove key and wait for all moving parts to stop before servicing, adjusting, repairing and unplugging.
7. Inspect and clean the cutting area before cutting.
8. Never operate the mower in the raised position.
9. Do not wear loose fitting clothing during operation.
10. Keep hands, feet, clothing and hair away from moving parts.
11. Keep all bystanders away from the unit when it is operating.
12. Check to see that all controls are in neutral before starting the tractor.

**TRANSPORT SAFETY**

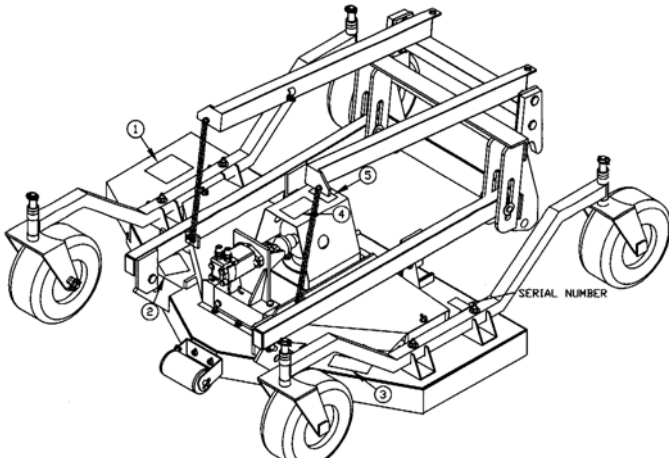
1. Do not transport on a public road without a slow moving vehicle sign and flashers on the tractor.
2. Never have the mower in operation during transport.
3. Travel speed with a raised mower should be slow enough to maintain stability of the tractor.

**SERVICE AND MAINTENANCE SAFETY**

1. Stop engine, set brake, remove key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
2. Block up before working beneath unit.
3. Replace all shields removed during servicing before operating.
4. Use heavy leather gloves to handle sharp blades.

The safety signs used on the mower and their location are shown on the following sheet along with the part number for the safety signs.

## FINISHING MOWER SAFETY SIGNS



Replace safety signs immediately should they become damaged, torn or illegible. Obtain replacements from your authorized dealer using the part numbers shown.

<b>CAUTION</b>
<ul style="list-style-type: none"> <li>- DO NOT PERMIT RIDERS.</li> <li>- KEEP SHIELDS IN PLACE.</li> <li>- ENSURE EVERYONE IS CLEAR OF AREA, ESPECIALLY CHILDREN, BEFORE OPERATING.</li> </ul>
966700

WF-03

<b>WARNING</b>	
<b>HIGH PRESSURE FLUID HAZARD</b>	
<ul style="list-style-type: none"> <li>- Relieve pressure on system before repairing or adjusting.</li> <li>- Wear proper hand and eye protection when searching for leaks. Use wood or carboard instead of hands.</li> <li>- Keep all components in good repair.</li> </ul>	
<b>FAILURE TO FOLLOW THESE INSTRUCTIONS WILL RESULT IN SERIOUS INJURY OR DEATH.</b>	
906475	

<b>CAUTION</b>
<ul style="list-style-type: none"> <li>-READ OPERATOR'S MANUAL BEFORE USING.</li> <li>-ONLY TRAINED, COMPETENT PERSONS SHALL OPERATE THIS EQUIPMENT.</li> <li>-KEEP ALL SHIELDS IN PLACE.</li> <li>-KEEP HANDS, FEET, CLOTHING AND HAIR AWAY FROM MOVING PARTS.</li> <li>-STOP ENGINE, SET BRAKE, REMOVE KEY AND WAIT FOR ALL MOVING PARTS TO STOP BEFORE SERVICING, ADJUSTING, REPAIRING AND UNPLUGGING.</li> <li>-REMOVE BYSTANDERS, ESPECIALLY CHILDREN, BEFORE STARTING OR WHILE OPERATING.</li> <li>-BLOCK UP BEFORE WORKING BENEATH UNIT.</li> <li>-LOWER THE MOWER WHEN PARKING OR STORING.</li> <li>-REVIEW SAFETY INSTRUCTIONS ANNUALLY.</li> </ul>
966703

<b>WARNING</b>
<p><b>YOU MUST NOT OPERATE THIS MACHINE UNLESS:</b></p> <ol style="list-style-type: none"> <li>1. YOU ARE TRAINED IN ITS SAFE OPERATION AND</li> <li>2. YOU KNOW AND FOLLOW MANUFACTURER'S SAFETY AND OPERATING INSTRUCTIONS AS OUTLINED IN THE OPERATOR'S MANUAL.</li> </ol> <p><b>AN UNTRAINED OPERATOR SUBJECTS HIMSELF AND OTHERS TO SERIOUS INJURY OR DEATH.</b></p>
966702

<b>DANGER</b>		
<b>KEEP AWAY - ROTATING BLADES</b>		
<b>SERIOUS INJURY OR DEATH CAN RESULT FROM THROWN OBJECTS OR BLADE CONTACT.</b>		
<ul style="list-style-type: none"> <li>- DO NOT STAND ON OR NEAR MACHINE WHEN IN OPERATION.</li> <li>- DO NOT OPERATE WITH DEFLECTORS OR GUARDS REMOVED.</li> <li>- USE SPECIAL CARE WHEN OPERATING IN POPULATED OR CONGESTED AREAS.</li> </ul>		
966704		

## OPERATING INSTRUCTIONS

### CONNECTING TO TRACTOR

Park the mower and tractor on a level dry area free of debris and foreign objects.

1. Back the tractor slowly up to the machine.
2. Use quick-tach on Buhler Weideman to connect mower to the tractor.
3. Connect the two hoses to the tractor hydraulics. Check to see that the mower is rotating correctly before using.

### FIELD USE PREPARATION

1. Adjust the cutting height using the wheel spacers on the wheel yokes. The spacers should be set at the same height on all four wheels.
2. Check the oil level in the gearbox and add as required (see maintenance section).
3. Grease spindle assembly, wheel bearings, wheel pivots and the PTO shaft (see maintenance section).
4. Check tightness of belts, bolts and other hardware (see maintenance section).
5. Check blades to see if they are damaged. Sharpen or replace blades if necessary. Check that blade bolts are tight.
6. Clear the working area of foreign objects and check that all bystanders are standing clear before starting.
7. Start the tractor with the mower resting on the ground on all four wheels.

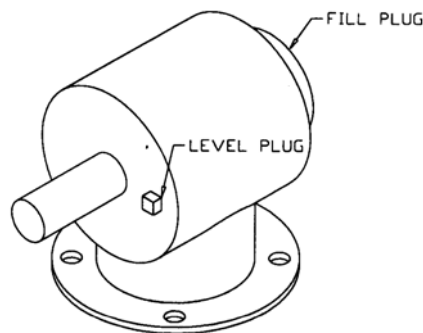
### FIELD OPERATION

1. The mower works best on dry grass. Slower cutting speed and occasional cleaning may be required on damp or wet grass.
2. Use a higher blade setting for rough areas to prevent scalping of the surface.
3. Always cut counter-clockwise so grass clippings are thrown on the grass already cut. This saves power and wear on the blades.
4. Sharpen blades if grass tears instead of cutting cleanly.
5. Slow down when cutting corners. Turning too sharply on corners can leave a small strip of grass uncut.



## MAINTENANCE

1. **GEARBOX:** The gearbox should be filled with SAE 90 oil to the bottom of level plug when shipped. Check the mower before using and at regular intervals (approx. every 40 hours). See that this oil level is maintained.

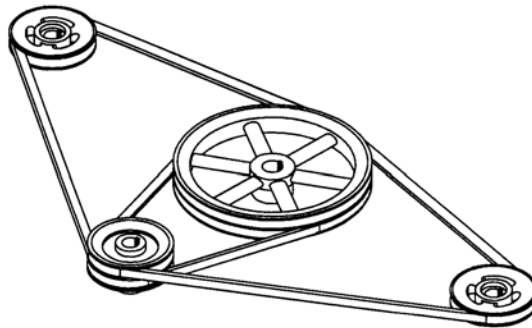


FM-06

2. **GREASE:** Grease spindles, wheel yokes, wheel bushing and PTO u-joints approximately every 8 hours. Before using the mower for the first time, grease wheel bushings until you can see the grease squeezed out at the ends of the wheel hub. Lubricate the telescoping PTO tube and the quick release collars on the ends of the shaft about every 20 hours. Clean all grease fittings before injecting grease and immediately replace any damaged or missing grease fittings. **NOTE:** Spindles have been greased prior to shipping. A high temperature grease is recommended for the spindles because they tend to build up more heat than other moving parts on the mower.
3. **SHIELDING:** Always keep all shielding in place and repair or replace if damaged.
4. **BLADES:** When replacing or grinding blades, all three blades must be replaced or reground at the same time to maintain the proper balance in the cutting unit. Block up the mower securely before attempting to remove the blades. Use heavy leather gloves to handle the blades. Be sure to tighten center bolt and lock washer securely when replacing blades. Use a torque wrench to re-tighten spindle bolts to 180 ft.-lbs. The bolts have a patch of thread lock material pre-approved which will hold for up to five usages. Always replace the lock washer with an extra heavy duty supplied with the spindle.

**MAINTENANCE – Cont'd.**

5. **BELTS:** Remove the belt guards to check belt tightness. The center of the belt span should deflect about  $\frac{1}{2}$ " with nominal pressure. If the belts slip or are too loose, the bolts holding the gearbox must be loosened. Use the threaded tightener rod on the gearbox mount to tighten the belts. Lock the rod in place and re-tighten the gearbox bolts when the belts are properly tightened. Replace belt guards. Changing belts follows the same procedure as given in the preceding paragraph, except you will have to loosen the belts further to remove them. The belt installation is shown in the following drawing. **NOTE:** Belts should always be replaced in matched sets.



FM-07

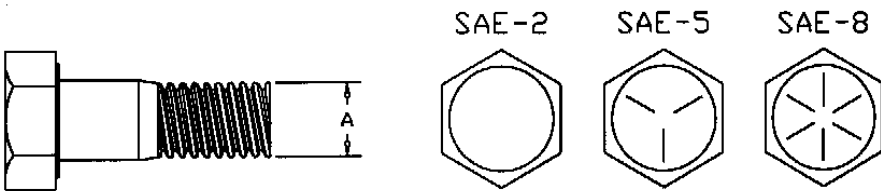
**BOLT TORQUE**

**CHECKING BOLT TORQUE**

The tables shown below give correct torque values for various bolts and hex bolts. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

**ENGLISH TORQUE SPECIFICATIONS**

Bolt Diameter "A"	Bolt Torque *					
	SAE2		SAE 5		SAE 8	
N.m	(lb-ft)	N.m	(lb-ft)	N.m	(lb-ft)	
1/4"	8	(6)	12	(9)	17	(12)
5/16"	13	(10)	25	(19)	36	(27)
3/8"	27	(20)	45	(33)	63	(45)
7/16"	41	(30)	72	(53)	100	(75)
1/2"	61	(45)	110	(80)	155	(115)
9/16"	95	(70)	155	(115)	220	(165)
5/8"	128	(95)	215	(160)	305	(220)
3/4"	225	(165)	390	(290)	540	(400)
7/8"	230	(170)	570	(420)	880	(650)
1"	345	(225)	850	(630)	1320	(970)

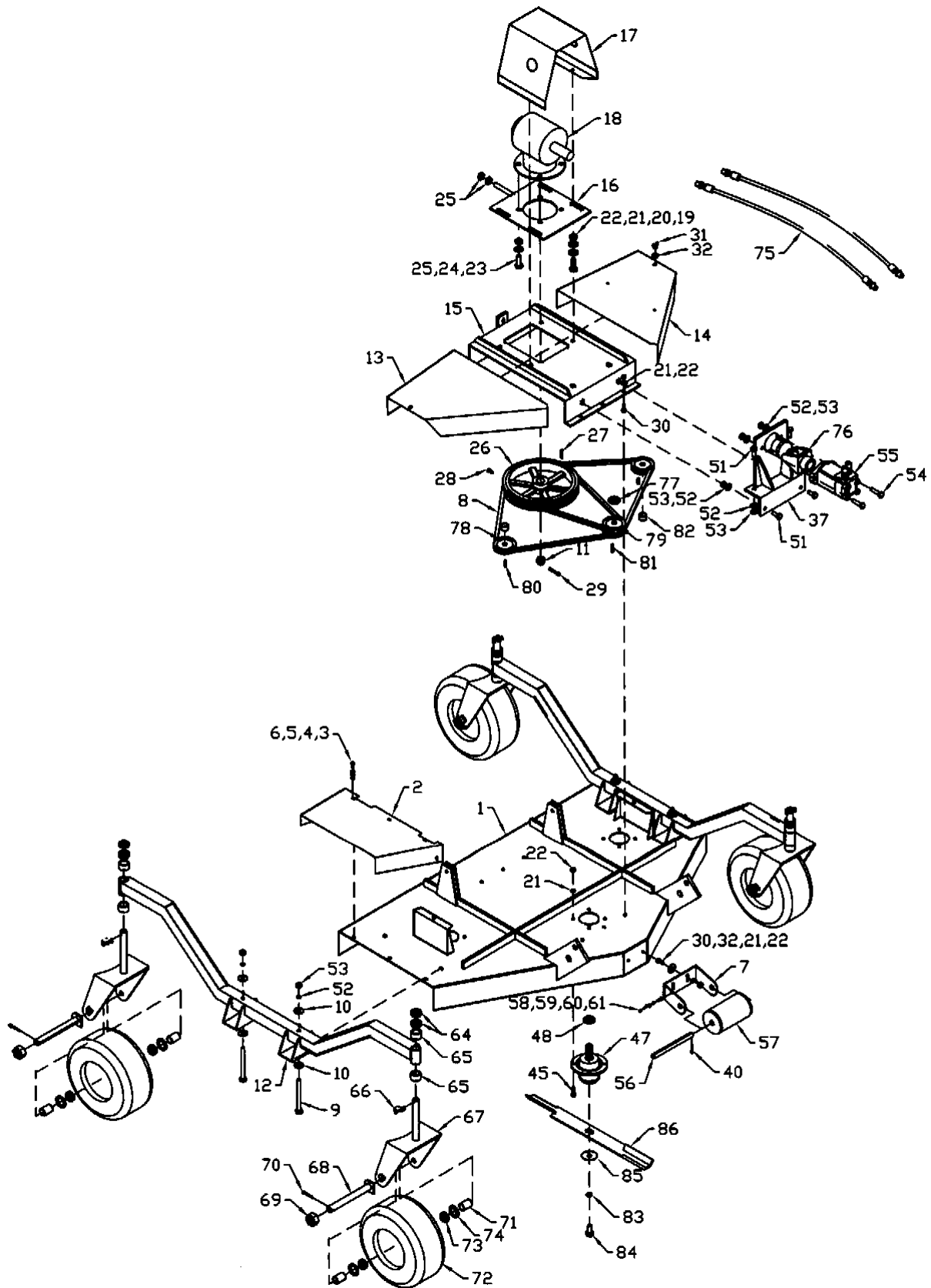


FM-08

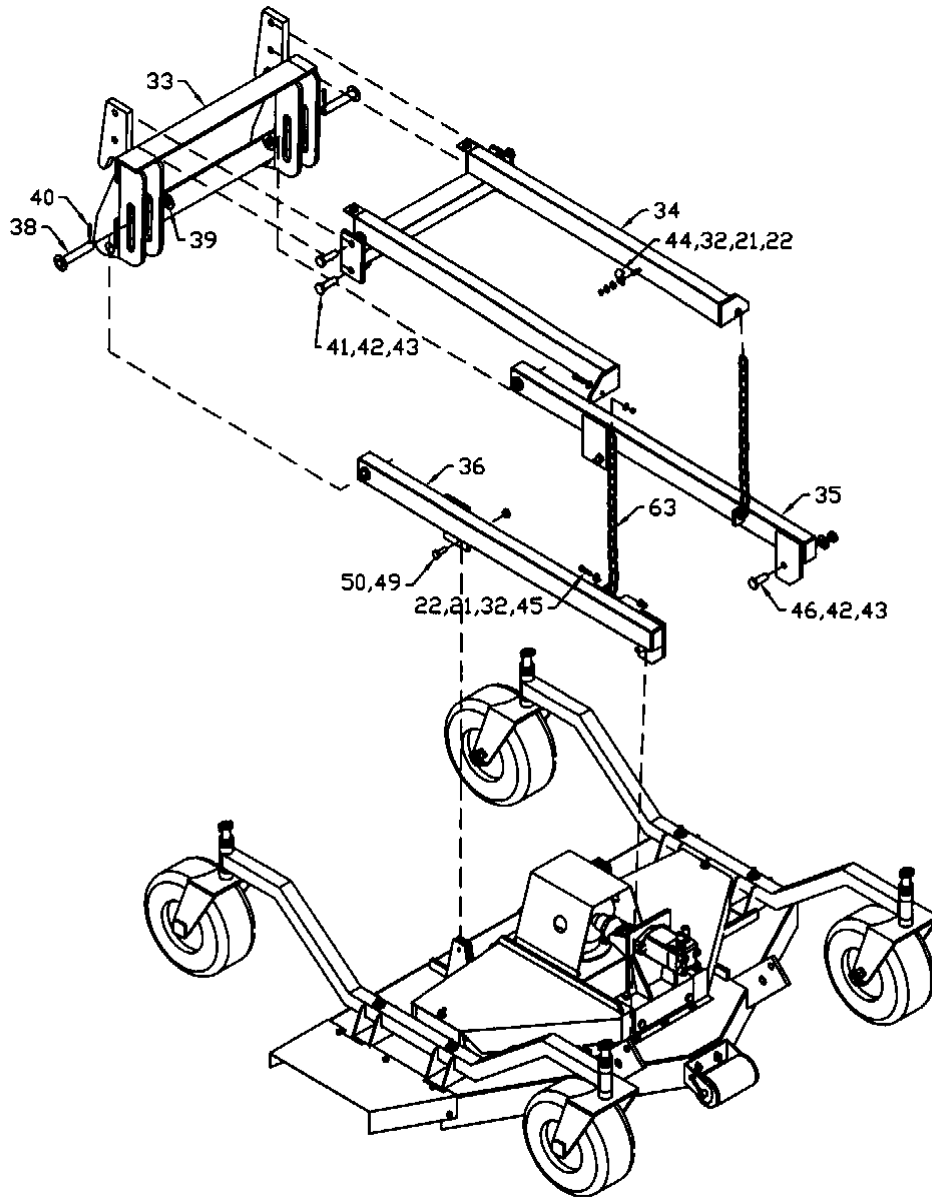
**NOTE:** See page 9 for correct spindle torque. Do not use this chart for spindle bolt only.

Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or hex bolts unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

Torque value for bolts and hex bolts are identified by their head markings.



WF-01



WF-02

## WHEN ORDERING PARTS

Always give your dealer the Model, Color and Serial Number of your machine to assist him in ordering and obtaining the correct parts. Use the exploded view and tabular listing of the area of interest to exactly identify the required part.

### BUHLER HYDRAULIC FINISHING MOWER

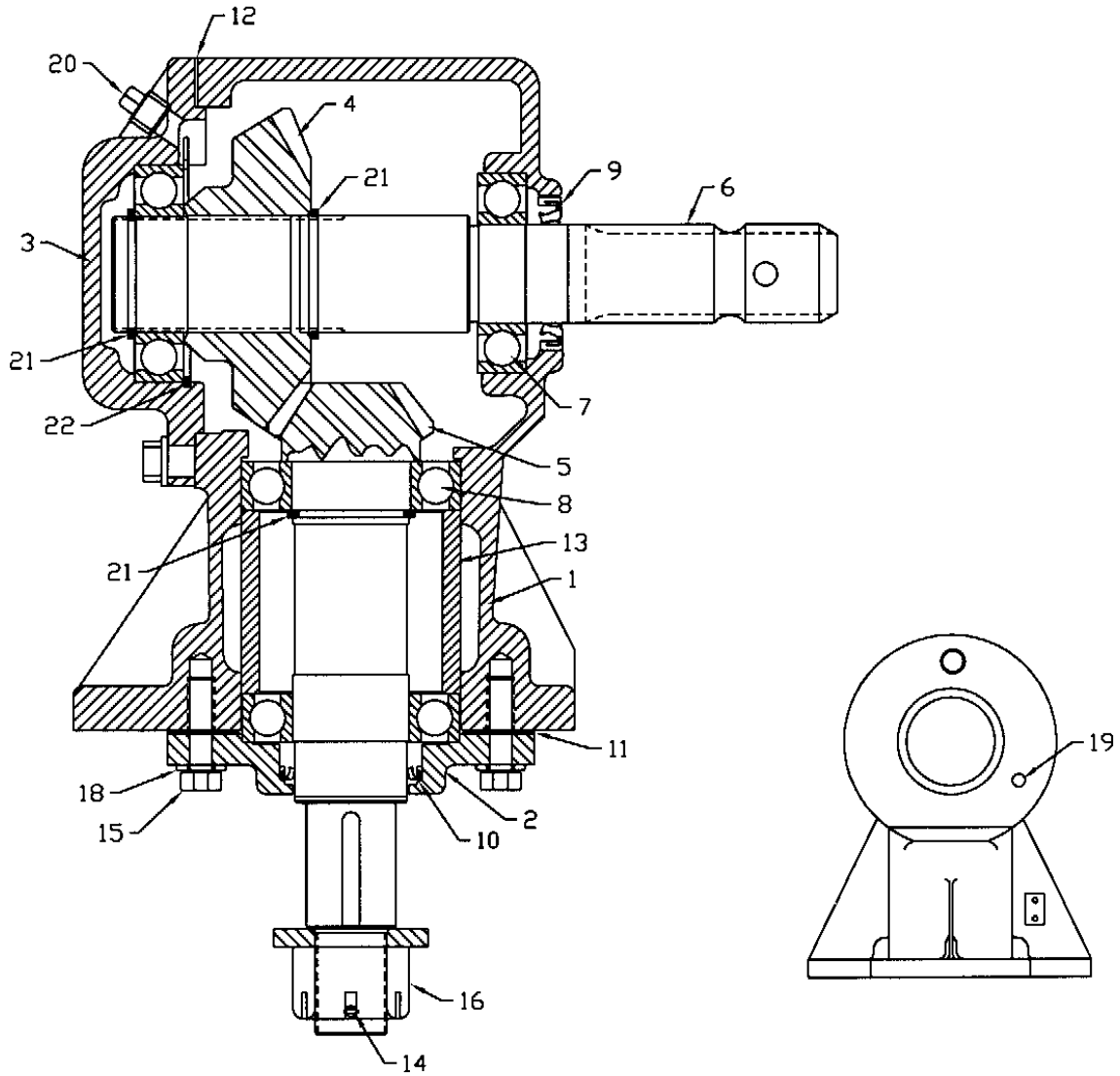
Item #	Part #	Description
1	902664	5' Deck Weldment
	902665	6' Deck Weldment
2	903562	Discharge Guard (5')
	966751	Discharge Guard (6')
3	81549	5/16" x 3/4" Hex Bolt (pl)
4	81569	5/16" Lock Washer (pl)
5	81570	5/16" B.S. Flat Washer (pl)
6	81568	5/16" Hex Nut (pl)
7	903488	Roller Holder
8	904251	B-70 Belt (5')
	973506	B-78 Belt (6')
9	811646	1/2" x 6" Hex Bolt (pl)
10	812769	1 1/2" O.D. x 9/16" I.D. x 10Ga Washer (pl)
11	905247	1" Washer & Slotted Hex Nut Weldt (Incl w/ Gbox)
12	903254	53" Axle Beam Weldment (5')
	903255	63 1/2" Axle Beam Weldment (6')
13	906353	R.H. Belt Guard (5')
	906355	R.H. Belt Guard (6')
14	906354	L.H. Belt Guard (5')
	906356	L.H. Belt Guard (6')
15	906367	Gearbox Mount Plate
16	980004200	Gearbox Plate
17	903679	PTO Guard
18	912300158	Gearbox (Without Oil)
19	86182	3/8" x 1 1/4" Carr. Bolt (pl)
20	964001	7/16" I.D. x 10Ga Washer (pl)
21	81593	3/8" Lock Washer (pl)
22	81592	3/8" Hex Nut (pl)
23	84270	5/8" x 1 3/4" Hex Bolt (pl)
24	81677	5/8" Lock Washer (pl)
25	81676	5/8" Hex Nut (pl)
26	906582	12" Double Sheave (1 1/4" Bore)
27	900929	Pulley Key (1/4" Sq. x 1 5/8")
28	9810943	5/16" x 3/4" Sq Hd Set Screw
29	81207	3/16" x 2" Cotter Pin (pl)

30	86170	3/8" x 1" Hex Bolt (pl)
31	84217	3/8" Wing Nut (pl)
32	84000	3/8" B.S. Flat Washer (pl)
33	7260390102	Mount Weldment
34	7260390107	Lift Arm Weldment
35	7260390119	Deck Mount Weldment - L (5')
	7260390203	Deck Mount Weldment - L (6')
36	7260390113	Deck Mount Weldment - R (5')
	7260390202	Deck Mount Weldment - R (6')
37	902262	Motor Mount Weldment
38	903251	1" x 5 1/2" Pin w/ 1/4" Hole
39	84522	1" Flat Washer SAE (pl)
40	9812434	1/4" x 1 1/2" Cotter Pin (pl)
41	84346	3/4" x 2 1/2" Hex Bolt (pl)
42	81701	3/4" Lock Washer (pl)
43	81700	3/4" Hex Nut (pl)
44	960140	Hose Holder
45	86171	3/8" x 1 1/4" Hex Bolt (pl)
46	84467	3/4" x 2" Hex Bolt (pl)
47	906339	Spindle w/ Hardware
48	912301588	1" Snap Ring
49	87553	1/2" x 1 3/4" Hex Bolt (pl)
50	812364	1/2" Lock Nut (pl)
51	81620	1/2" x 1 1/4" Hex Bolt (pl)
52	81637	1/2" Lock Washer (pl)
53	81636	1/2" Hex Nut (pl)
54	811791	1/2" x 2" Hex Bolt (pl)
55	906039	Hydraulic Motor 104-1022-006
56	903104	Roller Pin 3/4" x 8 3/4"
57	903113	Roller Tube 4" x 6 15/16"
58	9812436	1/4" x 2 1/2" Cotter Pin (pl)
59	81545	1/4" Lock Washer (pl)
60	81544	1/4" Hex Nut (pl)
61	81525	1/4" x 3/4" Hex Bolt (pl)
63	906040	1/4" x 15 Link Chain
64	902504	1/2" Long x 1 5/16" O.D. Bushing (pl)
65	902503	1" Long x 1 5/16" O.D. Bushing (pl)
66	966729	3/16" Linch Pin (pl)
67	902422	Wheel Yoke
68	902489	1" x 9 1/4" Wheel Yoke Pin
69	967498	1" Slotted Head Nut (pl)
70	9812433	3/16" x 1 1/2" Cotter Pin (pl)
71	902505	1 3/4" x 1 1/4" O.D. Wheel Spacer

72	966195	Tire & Rim (15 x 6 - 6)
73	966776	Bearing Cone (L44843) w/o Grease
74	967497	Oil Seal SE10
75	115250	72" Hyd. Hose 1/2" MNPT x 7/8" MORB
76	906041	Universal Joint
77	967134	1" x 10ga Narrow Rim Washer (pl)
78	904245	4 1/2" Single Sheave
79	904246	4 1/2" Double Sheave
80	900931	1/4" Sq. x 1.11" Key
81	900930	1/4" Sq. x 1 1/2" Key
82	966811	Sheave Spacer 1 1/4" x .70"
83	966190	5/8" Lock Washer (pl) Extra Heavy (Supp w/ Spndl)
84	966189	5/8" x 1 1/4" Hex Bolt Lck (Supp w/ Spndl)
85	966188	2 1/2" O.D. x 21/32" I.D. Wash (pl) (Supp w/ Spndl)
86	966719	21 3/4" Standard Blade (5')
	966738	25 3/4" Standard Blade (6')



FINISHING MOWER GEARBOX

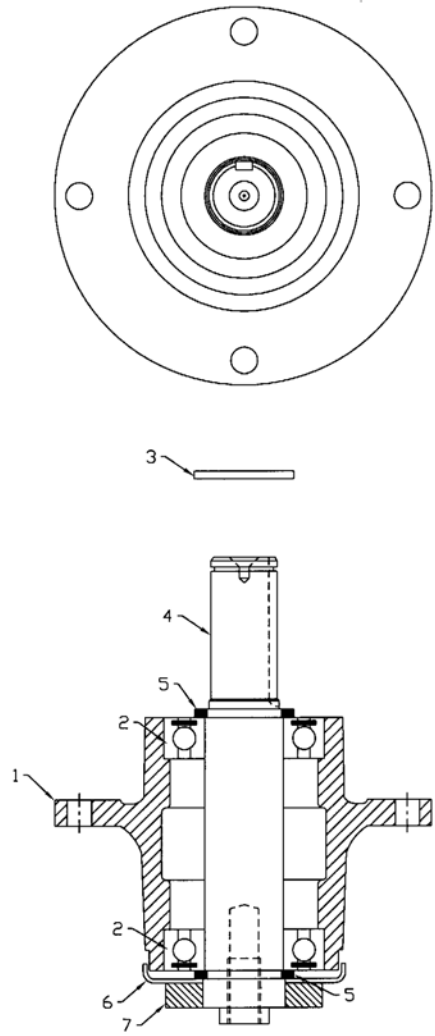


912300158

**FINISHING MOWER GEARBOX PARTS LIST**

<b>Item #</b>	<b>Part #</b>	<b>Description</b>
	912300158	Gearbox Complete
1	966813	Housing
2	914015	Output Cap
3	966814	Blank Cap
4	966815	Input Gear, 29T
5	966816	Pinion Gear, 15T
6	966817	Input Shaft
7	966542	Ball Bearing, 6207
8	966555	Ball Bearing, 6208
9	966818	Input Seal
10	966819	Output Seal
11	914019	Output Gasket
12	914007	Input Gasket
13	914001	Spacer
14	966562	Cotter Pin
15	86171	3/8" x 1 1/4" Hex Bolt
16	905247	1" NF Hex Nut W/Washer
18	81593	3/8" Lock Washer
19	914016	1/8" Sq. Hd. Solid Plug
20	966193	1/4" Vented Plug
21	914008	Retaining Ring
22	914003	Retaining Ring

**FINISHING MOWER SPINDLE ASSEMBLY**



FM-31

**FINISHING MOWER SPINDLE PARTS LIST (4', 5' & 6' SIDE AND REAR)**

Item #	Part #	Description
	906339	Spindle Assembly Complete (Includes Hardware)
1	966764	Spindle Housing
2	906399	Spindle Bearing, 6206-Z
3	912301558	Snap Ring
4	906394	Spindle Shaft
5	966769	Snap Ring
6	966820	Shield
7	966821	Blade Mount Base

## NOTES

## NOTES

## NOTES



## DIVISION LOCATIONS

Farm King Division  
301 Mountain Street S.  
Morden, MB R6M 1X7  
Ph.: (204) 822-4467  
Fax: (204) 822-6348

Allied Division  
1201 Regent Ave. W.  
Box 1003  
Winnipeg, MB R2C 3B2  
Ph.: (204) 661-8711  
Fax: (204) 654-2503

Inland Division  
675 Washington Ave.  
Winnipeg, MB R2K 1M4  
Ph: (204) 667-7854  
Fax: (204) 669-2599

B.I.I. Division  
1330 43<sup>rd</sup> Street N.W.  
Fargo, ND 58102  
Ph: (701) 282-7014  
Fax: (701) 282-5865

## CANADIAN WAREHOUSES

B.C., Abbotsford  
(604) 864-2665

AB, Edmonton  
(403) 962-6991

SK, Regina  
(306) 781-2300

ON, Woodstock  
(519) 539-0435

ON, Jasper  
(613) 283-1758

QC, Dorion  
(450) 455-4840

## U.S. WAREHOUSES

AR, West Memphis  
(870) 732-3132

GA, Stone Mountain  
(770) 908-9439

IA, Lakeview  
(712) 657-8585

ID, Meridian  
(208) 887-6006

IN, Clarksville  
(812) 284-3376

KS, Wichita  
(316) 265-9577

MN, Lakeville  
(952) 469-5267

MT, Billings  
(406) 248-7771

ND, Bismarck  
(701) 223-1886

ND, Fargo  
(701) 282-7003

NY, Syracuse  
(315) 463-5276

OH, Youngstown  
(330) 793-0862

OR, Portland  
(503) 234-0378

SD, Huron  
(605) 352-8616

TX, Houston  
(713) 928-2632

UT, Salt Lake City  
(801) 972-4321

WI, Portage  
(608) 742-1370

## OFFSHORE WAREHOUSES

Burando Hill  
Katanning  
W. Australia  
011-618-98-214422

Chihuahua, Mexico  
011-52-158-90306

John Kerr Equipment Ltd.  
Wilcoxholm Farm  
Linlithgow, W. Lothian  
Scotland  
011-441-506-842280

Skovde, Sweden  
011-46-500-452651

Naestved, Denmark  
011-45-557-29511

# bühler

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