

Owner Operation and Maintenance Manual

MYTRACTORFORUM.COM



TO THE OWNER

This is an operational and general maintenance manual only and does not cover repair. All repair work must be performed by an authorized **BOLENS DEALER** or the factory warranty is void. Bolens equipment is carefully engineered to give trouble-free performance if properly operated and maintained. Keep your equipment clean and lubricate it as prescribed in this manual. Periodically inspect your unit and perform any upkeep maintenance necessary.

Your dealer is obligated by the factory to completely assemble and service new equipment prior to delivery, and thoroughly explain and demonstrate its operation. He will repair or replace any parts which fail due to defective material and/or workmanship during the warranty period, and also provide future repair service and supply genuine factory repair parts.

ASSEMBLY

(1) Position one arm (U) fig. #1 over each end of lift assembly (T) and secure with 1/8 x 1" cotter pin. The arms (U) must bend outward and the spacer assemblies (G) must be toward the front and as far up in slot of arm (U) as possible.

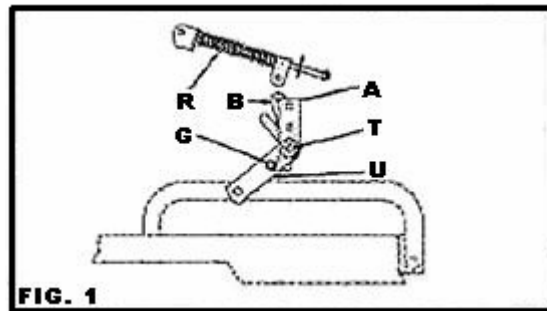
(2) Place hanger assembly (A) under tractor frame with lift arm (B) to the right-hand side of tractor. Position loose hangers of assembly outside of tractor frame so the holes in hangers align with holes in tractor frame located directly behind foot rest mounting and secure with 3/8 - 16 x 1" carriage bolts, lock washers and hex nuts.

(3) Position hole in tube bracket of lift assembly (R) fig. #1 over stud arm of lift arm (B), add 3/8" flat washer and secure with spring cotter. Position other end of lift assembly on tractor lift lever pin, secure with 3/8" flat washer and spring cotter.

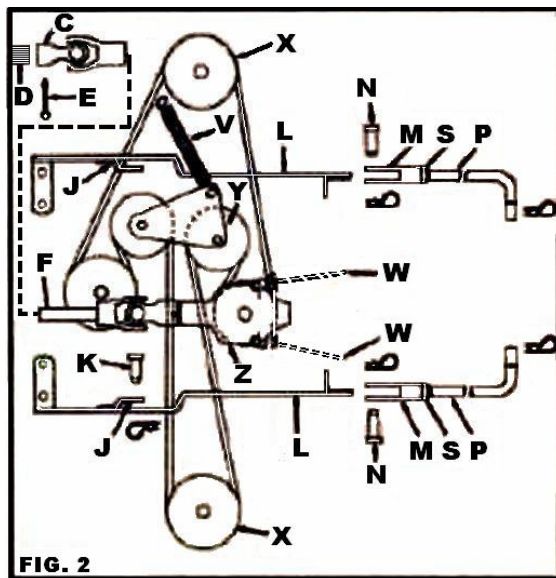
IMPORTANT: THE SPRING COTTER MUST NEVER BE REMOVED FROM GUIDE ROD UNLESS THE MOWER IS COMPLETELY INSTALLED ON TRACTOR AND THEN ONLY WHEN MOWER IS RAISED TO THE HIGHEST POSITION WITH THE TRACTOR LIFT LEVER. IT IS ALSO VERY IMPORTANT THAT THE LIFT ASSEMBLY IS NOT REMOVED FROM EITHER MOWER OR TRACTOR UNTIL THE SPRING COTTER IS AGAIN INSERTED IN GUIDE ROD HOLE TO HOLD THE COMPRESSION SPRING IN PLACE.

(4) Align hole in splined end of universal joint (C) fig. #2 with hole in rear splined end of tractor power take-off shaft (D). Coat splines with grease and slide universal joint over shaft and secure with special cotter pin (E).

IMPORTANT: REMOVE UNIVERSAL JOINT (C) FROM TRACTOR POWER TAKE-OFF SHAFT (D) IF MOWER IS REMOVED FROM TRACTOR. IF THE JOINT IS NOT REMOVED AND THE POWER TAKE-OFF IS ENGAGED, DAMAGE WILL RESULT FROM WHIPPING ACTION OF THE FREE END OF UNIVERSAL JOINT.



LEFT SIDE VIEW



TOP VIEW



PORT WASHINGTON, WISCONSIN, U.S.A.

(5) With the tractor lift lever in the raised position, move mower under tractor and insert shaft of universal joint (F) fig. #2 into free end of universal joint. NOTE: COAT DRIVE SHAFT WITH GREASE FOR EASE OF ASSEMBLY.

(6) Lower the tractor lift lever, positioning lower ends of hangar assembly (A) fig. #1, inside mounting brackets (j) fig. #2, align holes and secure with clevis pins (K) and spring cotter. NOTE: THE HEAD OF CLEVIS PINS MUST BE TO THE INSIDE AND SPRING COTTERS ON THE OUTSIDE.

(7) Position rod ends (M) fig. #2, over bails (L), align holes and secure with clevis pins (N) and spring cotteners. Insert free ends of rods (P) into mounting brackets on tractor gear case from the outside and secure with spring cotteners.

(8) Raise mower to the highest position with tractor lift lever and CAREFULLY REMOVE THE SPRING COTTER FROM GUIDE ROD OF LIFT ASSEMBLY TO RELEASE COMPRESSED SPRING. The L-shaped section of guide rod has a hole to carry that spring cotter while mower is mounted on the tractor. Spring cotter must be removed to permit the mower to float properly.

LEVELING THE MOWER

Check for even tire pressure. No less than 8 P.S.I. front and rear. For best cutting results, it is important that the mower be leveled from front to back and from side to side. The side leveling should be done first.

(1) With the tractor standing on a smooth, level surface, move lift lever to extreme forward quadrant notch. Check to see that both right and left hand runners are the same height off the floor. If correction is necessary, move spacer assembly (G) fig. #1 in the slotted hole of arm (U) on the low side to level mower. Retighten spacer assembly.

(2) To level the mower front to back, loosen jam nuts (S) fig. #2 and free both ends of rods (P) completely from mower or tractor. Use only one rod to adjust the mower, leaving the other rod disconnected. If the front end of the mower is too low, lengthen the rod, if it is too high, shorten the rod. Placing a level on the left side of mower deck near the runner will assure proper adjustment. NOTE: IT IS RECOMMENDED THIS FORE AND AFT ADJUSTMENT BE MADE SO THAT THE TIP OF THE FRONT BLADE IS 1/4" BELOW THE TIPS OF THE REAR BLADES. Caution: Do not exceed this 1/4" downward pitch on the front blade.

(3) After the mower has been leveled, adjust and install second rod to proper length so that it fits without forcing or binding. Recheck the side to side level and make corrective adjustment if necessary.

OPERATION

Be sure the mower is disengaged before starting the engine. For best results, the engine should run at

full throttle to maintain sufficient blade speed. The ground speed should be controlled with the tractor gear shift and speed range selector, and not by changing engine speed. For heavy cutting or when engine begins to lag, the ground speed should be reduced. For best cutting under normal conditions, second gear HI range at full throttle is recommended. NOTE: THE MOWER WILL NOT CUT CLEAN WHEN THE GROUND SPEED IS TOO HIGH OR WHEN THE BLADE SPEED DROPS DUE TO OVERLOAD.

CONTROLS

There are two controls for operating the mower; the tractor power take-off lever for engaging and disengaging the mower, and the tractor lift lever to raise and lower the mower. The power take-off lever must be engaged slowly to start mower and prevent premature belt failure.

HEIGHT OF CUT



The cutting height is regulated by raising or lowering the mower with the tractor lift lever. The cutting height ranges from a low of 1-1/2 inches with tractor lift lever in front quadrant notch to a height of approximately 4 inches in the rear notch. When cutting tall grass or in questionable areas, it is advisable to cut higher in the low speed range than on an average lawn since the power requirements are greater.

For transport, disengage the tractor power take-off and raise the mower to the highest position with tractor lift lever.

DRIVE BELT

The mower has one drive belt which drives the three blades, as illustrated on fig. #2. The belt is under constant spring tension and requires no adjustment.

To replace drive belt, proceed as follows:

- (1) Remove bails (L)
- (2) Remove belt shield
- (3) Remove capscrews (W) holding gear case to base.
- (4) Release tension of spring (V)
- (5) Remove drive belt from drive pulleys (X) and idler pulleys (Y) and (H).
- (6) Raise gear case (Z) which will allow enough clearance to slide belt out from the rear.
- (7) Install new belt by reversing the above procedure.

CUTTING BLADES

For efficient cutting, maintain sharp cutting edges on the blades at all times. When sharpening blades, be sure to grind or file equal portions off both ends to maintain balance, as an unbalanced blade will cause excessive vibration. The blades should be checked on a blade balancer before reinstallation. The blades are identical and staggered for clearance so the position of individual blades is not important. BE SURE THE BLADES ARE FASTENED SECURELY AT ALL TIMES. TORQUE CAPSCREWS TO 300" LBS. RECHECK PERIODICALLY.

LUBRICATION

The unit has five grease fittings. One on each blade housing located on the top side of the mower deck; one on each universal joint. Lubricate grease fittings every 8 hours of operation. One stroke per fitting. NOTE: THE GEAR CASE IS FILLED AT THE FACTORY WITH SAE 90 GEAR OIL. A standard 1/8" pipe plug is used to prevent leakage during shipment or storage and MUST BE REPLACED WITH SPECIAL BREATHER #1185626 SUPPLIED IN CARTON BEFORE ATTEMPTING TO RUN MOWER.

CHECK OIL LEVEL BEFORE RUNNING MOWER AND AT LEAST EVERY 6 TO 8 HOURS OF OPERATION TO MAINTAIN SPECIFIED LEVEL.

CARE AND MAINTENANCE

Your mower is equipped with a hose fitting insert which enables you to wash out the underside of your mower without removing it from the tractor. To attach hose, remove the yellow plastic cap from the hose fitting. Attach hose, lower mower to its lowest cutting position, start tractor engine, (NOTE: Be sure tractor shift lever is in NEUTRAL and parking brake is applied.) engage mower blades, then turn water on full force for approximately 3 to 4 minutes. Shut off water and allow blades to continue running for several more minutes. This will partially air-dry the under side of the deck. NOTE: ALWAYS REPLACE HOSE FITTING CAP AFTER WASHING OUT DECK. Periodically place a few drops of oil on all linkage joints. Regularly check the complete unit for loose screw and nuts.

SAFETY SUGGESTIONS

- (1) Regard your mower as a piece of power equipment. Teach this to all who operate the equipment.
- (2) Never allow children, teen-agers, and inexperienced adults to operate powered equipment.
- (3) Be sure you know how to stop the mower and engine at a moment's notice.

(4) Before starting operation, clear the entire lawn area of all debris that could catch onto or be thrown by the blade.

(5) When you mow on rough terrain, in high grass or weeds, the blade should be set at the highest cutting point to minimize possible ejection of debris from the mower.

(6) Unless artificial lighting is adequate, mow only during daylight hours.

(7) Give complete and undivided attention to the job at hand.

BE ALERT

(8) Keep the area of operation clear of all persons, particularly small children.

(9) Do not engage the mower until you are ready to start mowing. Disengage mower and stop engine whenever you leave the tractor.

(10) When operating over uneven terrain and slopes, use extreme care and make sure of solid firm footing at all times.

(11) Exercise special care when mowing around objects to prevent the blades from striking them and never deliberately mow over any object.

(12) Stop the operation and disengage mower blades when another person approaches. Do not pass or stand on the grass discharge side of the mower with the engine running.

(13) Prohibit others from riding with the operator.

(14) Never adjust the mower or change attachments until the engine has been TURNED OFF and the spark-plug wire disconnected. A gasoline engine can be started if the blade or P.T.O. Shaft is turned in the course of making adjustments or repairs.

(15) Efficient mowing results and maximum safety can only be expected if the mower is maintained and operated correctly.

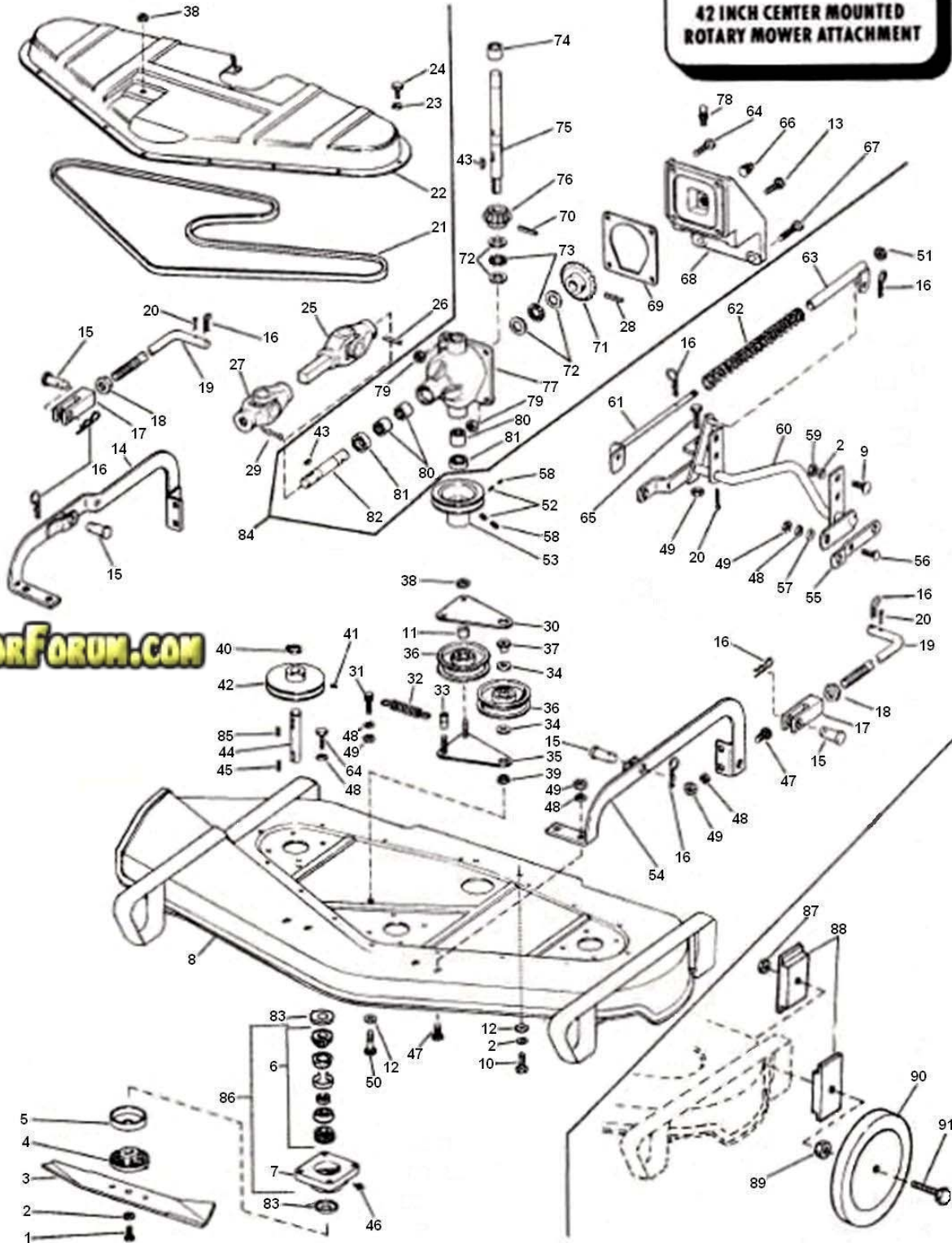
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ILLUSTRATED PARTS LIST

BOLENS

MODEL 18457-01

**42 INCH CENTER MOUNTED
ROTARY MOWER ATTACHMENT**



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ROTARY MOWER MODEL 18457-01

Ref. No.	Part No.	Description	No. Req'd.	Ref. No.	Part No.	Description	No. Req'd.
1	1100009	Capscrew – H.T.	3	47	1111265	Carriage Bolt 5/16-18 x 3/4	8
2	1100243	Lockwasher 3/8	11	48	1100242	Lockwasher 5/16	22
3	1716764	Mower Blade	3	49	1103839	Hex Nut 5/16-18	18
4	1716745	Drive Hub	3	50	1106934	Capscrew 3/8-16 x 2-1/4	1
5	1716744	Cap	3	51	1110108	Lock Nut 3/8-16	1
6		Bearing Assy (See Note)	3	52	1185550	Set Screw 3/8-16 x 5/16	2
7	1716747	Bearing Housing	3	53	1716749	Pulley	1
8	1716751	Base	1	54	1716770	Bail – L.H.	1
9	1111285	Carriage Bolt 3/8-16 x 1	4	55	1714749	Adjusting Arm	1
10	1106919	Capscrew Head Cap 3/8-16 x 1	2	56	1111266	Carriage Bolt 5/16-18 x 1	1
11	1716778	Spacer	1	57	1100255	Flat Washer 5/16	2
12	1107383	Flat Washer 3/8	6	58	1185551	Lock Screw 3/8-16 x 3/16	5
13	1106896	Capscrew 5/16-18 x 2-3/4	2	59	1103840	Hex Nut 3/8-16	1
14	1716769	Bail – R.H.	1	60	1714750	Lift Arm	1
15	1713553	Clevis Pin	4	61	1714868	Guide Rod	1
16	1703011	Spring Cotter	8	62	1716774	Spring	1
17	1714573	Rod End	2	63	1714871	Tube	1
18	1108891	Jam Nut 5/8-11	2	64	1106876	Capscrew 5/16-18 x 7/8	12
19	1716890	Link Rod	2	65	1106882	Capscrew 5/16-18 x 1-1/4	3
20	1100350	Cotter Pin 1/8 x 1	4	66	1105678	Plug	1
21	1185651	Drive Belt – 114-5/32"	1	67	1106927	Capscrew 3/8-16 x 1-1/2	2
22	1716752	Belt Cover	1	68	1716767	Gear Case Support	1
23	1100241	Lockwasher 1/4	15	69	1713662	Gasket	1
24	1106830	Capscrew 1/4-20 x 1/2	15	70	1185348	Roll Pin 1/4 x 1-1/4	1
*25	1714728	Universal Joint & Shaft	1	71	1715634	Gear – 19T	1
26	1185220	Roll Pin 3/16 x 1-1/2	1	72	1185432	Thrust Race	4
*27	1715008	Universal Joint	1	73	1185431	Thrust Bearing	2
28	1185284	Roll Pin 1/4 x 2	1	74	1713665	Needle Bearing	1
29	1716369	Cotter Pin – Special	1	75	1714754	Vertical Shaft	1
30	1716760	Idler Arm	1	76	1715635	Gear – 16T	1
31	1715210	Anchor Bolt	1	77	1716345	Gear Case Only	1
32	1716777	Spring	1	78	1185626	Air Vent Fitting	1
33	1716779	Spacer	1	79	1110107	Locknut 5/16-18	4
34	1714233	Bearing	2	80	1185010	Needle Bearing	3
35	1716759	Idler Arm	1	81	1185296	Seal	2
36	1714742	Idler Pulley	2	82	1713676	Horizontal Shaft	1
37	1716775	Nut – Special	1	83	1185648	Seal	6
38	1185506	Jam Nut 3/8-16	3	84	1716773	Complete Gear Case Assy	
39	1716776	Spacer	1	85	1100277	Woodruff Key 3/16 x 7/8	3
40	1185649	Retaining Ring	3	86	1716949	Housing & Bearing Assy	3
41	1103466	Set Screw 5/16-18 x 3/8	6	WHEEL KIT MODEL 18458			
42	1716763	Blade Drive Pulley	3	87	1110110	Nut – Self Locking 1/2-13	2
43	1104436	Woodruff Key 3/16 x 3/4	2	88	1716791	Clamp – Wheel Support	4
44	1716743	Drive Shaft	3	89	1185496	Nut – Self Locking Jam 1/2-13	2
45	1108852	Sq. Key 3/16 x 3/4	3	90	1716793	Wheel – 5" Dia.	2
46	1110086	Grease Fitting	3	91	1716792	Bolt – Special 1/2-13 x 3-3/4	2

* 1714207 Repair Kit for Joint Marked 6N

* 1714208 Repair Kit for Joint Marked NEAPCO

NOTE: Sold only as assembly – Do to Tolerances, requires complete matched bearing set including spacer and retaining ring positioned in housing if replacement of any individual part is necessary.

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