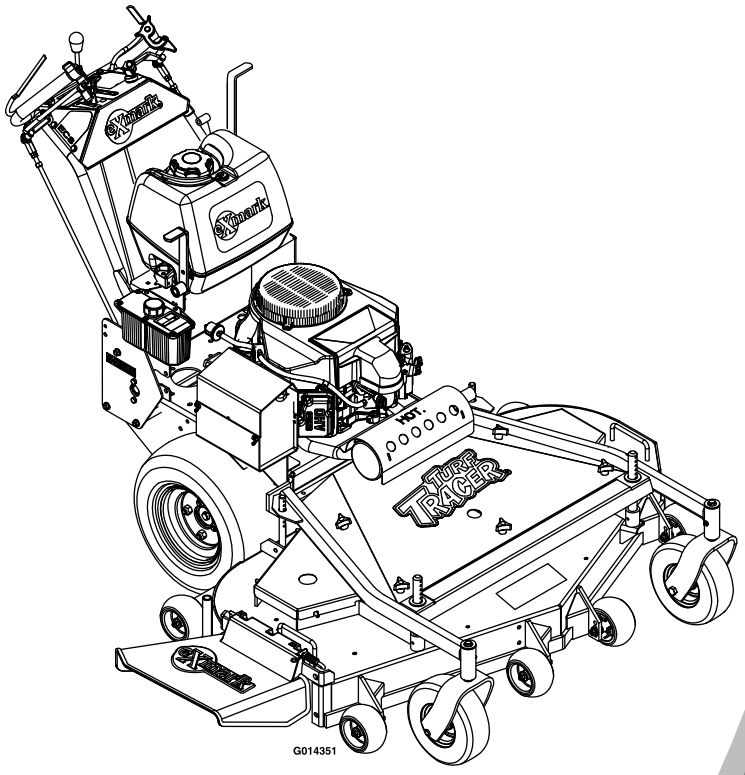
# TURF TRACER®
# S-SERIES

**Model No. TTS16KA363CA—Serial No. 920000 and Up**




G014351

# Parts Manual

Part No. 4500-778 Rev. A

# Ordering Replacement Parts

To order replacement parts, please supply the part number, the quantity, and the description of each part desired.

**Understanding Reference Numbers**

Each identified part in an illustration has a reference number. The reference number for a part also appears in the parts list, along with other information about the part.

This catalog uses two special reference number formats, one to indicate parts in a service assembly and another to indicate the quantity of a given part in an illustration.

**Service Assembly Reference Numbers**

Parts in service assemblies have reference numbers in the form a:b. The a represents the reference number of the entire service assembly and the b represents a sequential number unique to each part within the service assembly.

For example, a wheel assembly might be identified by reference number 6, the tire by 6:1, the valve by 6:2, and the wheel by 6:3. When you order the assembly identified by reference number 6, you receive all parts identified by reference numbers 6:1,6:2, and 6:3. However, you may also order any part individually. Reference numbers of this type appear in illustration and in parts lists.

**Reference Numbers Indicating Quantity**

In an illustration, if a reference number indicates more than one part, the reference number has the form nX y. The n represents the quantity of the part, the X is the multiplication symbol, and the y represents the reference number.

For example, in an illustration, the reference number 2X 37 means that two of the parts identified by reference number 37 are indicated.

# List of Abbreviations

**AR:** as required

**ASM:** assembly

**BBC:** blade brake control

**BHTF:** button head thread forming

**CARR:** carriage

**CCW:** counter clockwise

**CW:** clockwise

**DEG:** degrees

**DPA:** Dual Point Adjustment

**ECM:** electronic control module

**EXT:** external

**FH:** flat head

**GA:** gauge

**HD:** heavy-duty

**HF:** hex flange

**HH:** hex head

**HHF:** hex head flange

**HHFTF:** hex head flange thread forming

**HJ:** hex jam

**HLH:** hex lag head

**HOC:** height-of-cut

**HSBH:** hex socket button head

**HSFH:** hex socket flat head

**HSH:** hex socket head

**HWH:** hex washer head

**HWHTF:** hex washer head thread forming

**HYD:** hydraulic

**LH:** left hand

**LP:** Liquid Propane

**NI:** nylon insert

**NPTF:** national pipe thread fine

**PFH:** phillips flat head

**PPH:** phillips pan head

**PPHTF:** phillips pan head thread forming

**PRH:** phillips round head

**PTH:** phillips truss head

**PTO:** power-take-off

**RH:** right hand

**ROPS:** roll-over protection system

**RRB:** rear roller brush

**SFH:** slotted fillister head

**SHH:** slotted hex head

**SHWH:** slotted hex washer head

**SPH:** slotted pan head

**SQH:** square head

**SRH:** slotted round head

**STD:** standard

**TAP:** self tapping

**TTH:** torx truss head

# Touch Up Paint

Exmark black touch up spray paint – gloss black.

Exmark red touch up paint (spray paint – P/N 1-850337 - .6 oz liquid bottle – P/N 103-9140).

**© 2010—Exmark Mfg. Co., Inc.**
**Industrial Park Box 808**
**Beatrice, NE 68310**



**Contact us at www.Exmark.com.**
**Printed in the USA.**
**All Rights Reserved**

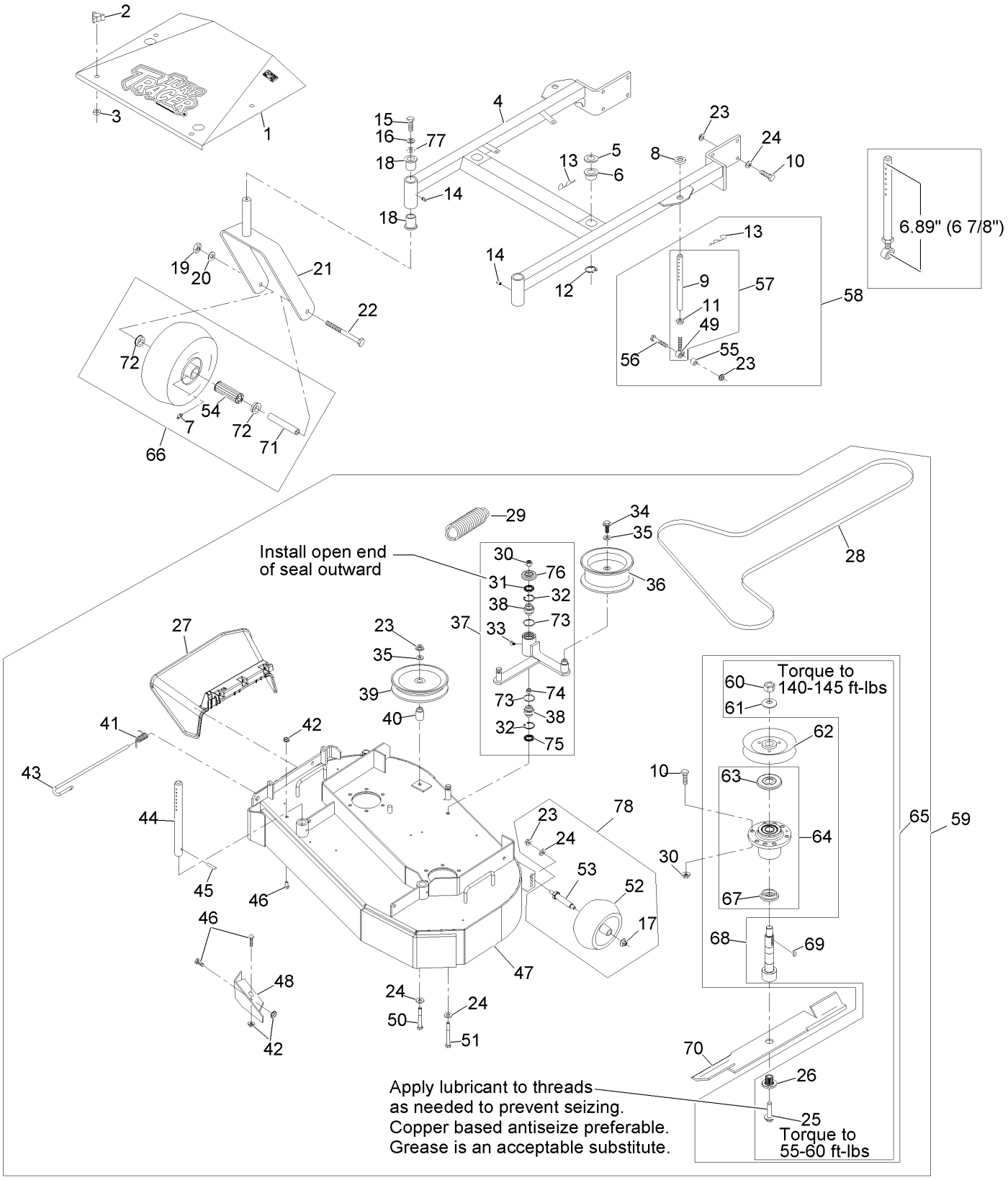



If your Exmark dealer does not have the Exmark part in stock, Exmark will get the parts to the dealer the next business day or the part will be FREE Guaranteed!! (Some restrictions apply. See your participating Exmark Dealer for details.)

# Contents

Mower Deck Assembly . . . . . 6
Engine Deck Assembly . . . . . 8
Engine Deck Assembly (cont.) . . . . . 10
ECS Upper Handles and Controls Assembly . . . . . 12
Fuel Tank Assembly . . . . . 14
Electrical Assembly . . . . . 15
Hydraulic Assembly . . . . . 16
Decals . . . . . 18

# Mower Deck Assembly



# Mower Deck Assembly (continued)

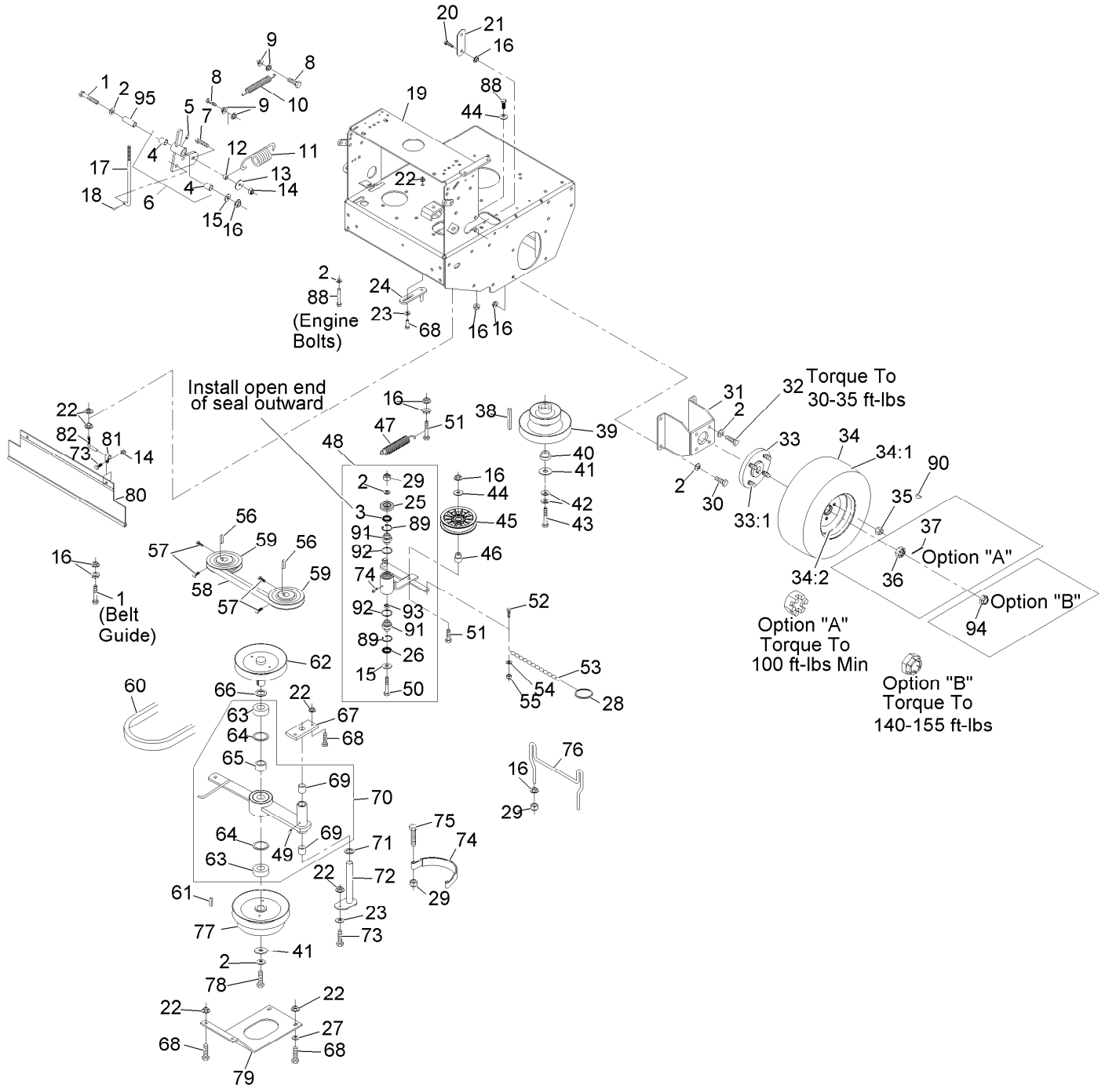
| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 1 | 116-2710 | 1 | Shield, Belt (1-413098-01) W/Decals |
| 2 | 1-323385 | 4 | Knob-3 Prong |
| 3 | 1-323417 | 4 | Washer-Belt Shield |
| 4 | 1-414309 | 1 | Wld, Support (1-412108-01) W/Bushings & Decals |
| 5 | 1-413425 | 2 | Spacer |
| 6 | 1-513336 | 2 | Bushing-Deck |
| 7 | 302-61 | 2 | Zerk-45° 1/4-28 |
| 8 | 1-323539 | 2 | Spacer-Blade Drive |
| 9 | 1-413525 | 2 | Link, Rear Deck Support |
| 10 | 323-7 | 20 | Screw-HH 3/8-16 X 1 1/4 |
| 11 | 3220-3 | 2 | Nut-Jam 3/8-24 |
| 12 | 32120-33 | 2 | Ring-Retaining |
| 13 | 1-806009 | 4 | Hairpin-Cotter #206 |
| 14 | 302-52 | 2 | Zerk-1/8-27 Str |
| 15 | 323-6 | 2 | Screw-HH 3/8-16 X 1 |
| 16 | 3253-5 | 2 | Washer-Lock 3/8 Heavy |
| 17 | 109-6658 | 2 | Nut-Nyloc 3/8-16 Flg |
| 18 | 1-303514 | 4 | Bearing-Flanged |
| 19 | 3217-9 | 2 | Nut-Hex 1/2-13 |
| 20 | 3253-7 | 2 | Washer-Lock 1/2 |
| 21 | 1-522143-01 | 2 | Wld, Caster |
| 22 | 325-20 | 2 | Screw-HH 1/2-13 X 6 |
| 23 | 3290-357 | 11 | Nut-Whizlock 3/8-16 |
| 24 | 98-5975 | 11 | Washer-Spring Disc 3/8 |
| 25 | 109-9220 | 2 | Screw-Sems 1/2-20 X 2.19 |
| 26 | 103-3037 | 2 | Bushing,Splined |
| 27 | 109-5151 | 1 | Deflector, Discharge |
| 28 | 1-413094 | 1 | Belt, Deck Drive |
| 29 | 103-3330 | 1 | Spring-Extension |
| 30 | 3296-39 | 13 | Nut-Nyloc 3/8-16 |
| 31 | 103-3506 | 1 | Seal-Single Lip |
| 32 | 32120-10 | 2 | Ring-Retaining |
| 33 | 302-40 | 1 | Zerk-90° 1/4-28 |
| 34 | 3234-11 | 1 | Screw-HH Flg 3/8-16 X 1 |
| 35 | 3256-24 | 2 | Washer-3/8 Sae |
| 36 | 1-413099 | 1 | Pulley-Idler |
| 37 | 103-8584 | 1 | Kit, Idler Arm (103-7327-03) W/Brgs ● |
| 38 | 103-3504 | 2 | Bearing-Spherical |
| 39 | 1-613098 | 1 | Pulley-Idler |
| 40 | 1-413113 | 1 | Bushing-Idler |
| 41 | 116-0962 | 1 | Spring, Torsion |
| 42 | 32128-20 | 3 | Nut-Whizlock 5/16-18 |
| 43 | 109-8854 | 1 | Pin-Chute |
| 44 | 1-603001 | 2 | Rod, Deck Support |
| 45 | 1-806332 | 2 | Rollpin 1/4 X 1 1/2 |
| 46 | 322-2 | 3 | Screw-HH 5/16-18 X 5/8 |
| 47 | 1-414383 | 1 | Wld, Deck (116-0613-01) W/Decals,Discharge Baffle & Support Rods |
| 48 | 116-2297-01 | 1 | Baffle, Discharge |
| 49 | 1-613204 | 2 | Balljoint |
| 50 | 323-13 | 1 | Screw-HH 3/8-16 X 2 3/4 |
| 51 | 98-5961 | 1 | Screw-HH 3/8-16 X 4 Gr8 |
| 52 | 1-603299 | 1 | Roller-Scalp, Anti |
| 53 | 99-2842 | 1 | Spacer |
| 54 | 1-513809 | 2 | Bearing |
| 55 | 1-603050 | 2 | Spacer |
| 56 | 323-9 | 2 | Screw-HH 3/8-16 X 1 3/4 |
| 57 | 1-414521 | 2 | Link, Assembly |
| 58 | 1-411532 | 2 | Kit, Support Link W/Pin |
| 59 | 103-0320 | 1 | Asm, Deck Complete |
| 60 | 3217-46 | 2 | Nut-Hex 3/4-16 Heavy |
| 61 | 103-2802 | 2 | Washer-Spring Disc 3/4 |
| 62 | 1-413424 | 2 | Sheave W/ Hub ▲ |
| 63 | 103-1330 | 2 | Guard-Bearing Top ▲ |
| 64 | 103-8280 | 2 | Kit, Cutter Housing |
| 65 | 103-9081 | 2 | Asm, Cutter Housing Complete |
| 66 | 103-2171 | 2 | Kit, Tire & Wheel Asm W/ Spacer |
| 67 | 103-2535 | 2 | Spacer-Guard Bottom |
| 68 | 103-9071 | 2 | Kit, Spindle ▲ |
| 69 | 1-807268 | 2 | Key-Machine 1/4 X 3/16 X 1 |
| 70 | 103-6402 | 2 | Blade-Notched |
| 70 | 103-6392 | 2 | Blade, Mulch 18.0 (.94 Hole) ■ |
| 70 | 103-6387 | 2 | Blade, Low Lift 18.0 (.94 Hole) |
| 70 | 103-6382 | 2 | Blade, Solid 18.0 (.94 Hole) |
| 70 | 103-6397 | 2 | Blade, Extreme 18.0 (.94 Hole) |
| 71 | 1-513547 | 2 | Spacer |
| 72 | 1-513810 | 4 | Bushing-Flanged |
| 73 | 106-7159 | 2 | O-Ring |
| 74 | 103-5677 | 1 | Spacer |
| 75 | 103-3505 | 1 | Seal-Double Lip |
| 76 | 103-2916 | 1 | Guard-Top |
| 77 | 1-373034 | 2 | Washer |
| 78 | 103-4051 | 1 | Kit, Anti Scalp |

● Assembly also includes Washer and Screw

■ Requires installation of mulch kit for proper mulching. See your Exmark dealer for details.

▲ Apply Mobil HTS grease (P/N 103-5217 1.5 oz packet) (or a food-grade anti-seize). See operator s manual for locations.

# Engine Deck Assembly

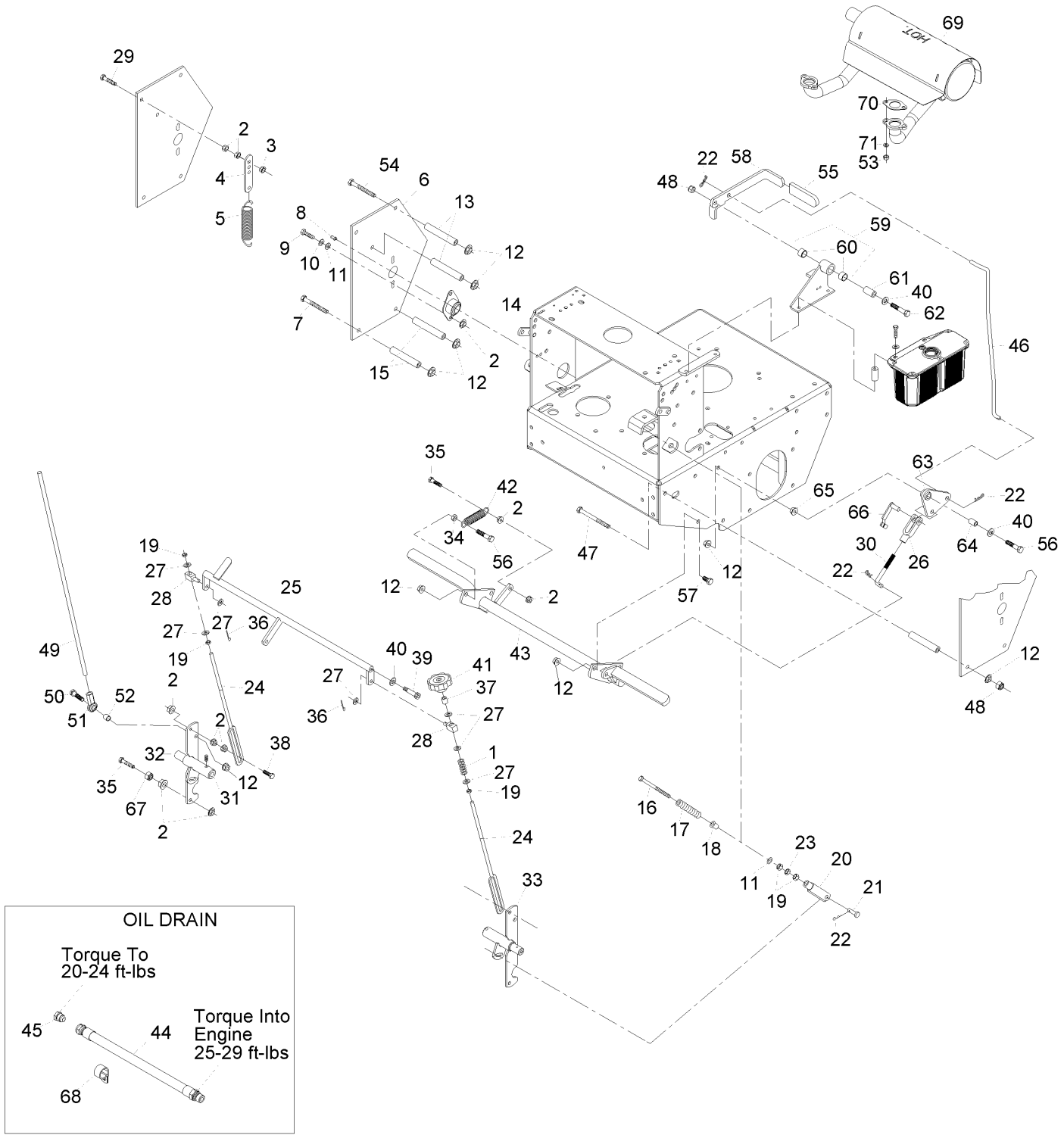


# Engine Deck Assembly (continued)

| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 1 | 323-11 | 2 | Screw-HH 3/8-16 X 2 1/4 |
| 2 | 98-5975 | 23 | Washer-Spring Disc 3/8 |
| 3 | 103-3506 | 1 | Seal-Single Lip |
| 4 | 1-513034 | 2 | Sleeve-Bearing |
| 5 | 302-19 | 1 | Zerk-1/4-28 Str |
| 6 | 1-414143 | 1 | Asm, Bellcrank (1-412285-03) W/Brgs |
| 7 | 322-6 | 1 | Screw-HH 5/16-18 X 1 1/4 |
| 8 | 321-6 | 2 | Screw-HH 1/4-20 X 1 |
| 9 | 32128-33 | 4 | Nut-Whizlock 1/4-20 |
| 10 | 1-523498 | 1 | Spring, Motion Control |
| 11 | 103-7398 | 1 | Spring, Belt Tension |
| 12 | 1-543007 | 1 | Spacer |
| 13 | 1-213069 | 1 | Washer |
| 14 | 3296-29 | 3 | Nut-Nyloc 5/16-18 |
| 15 | 3256-4 | 2 | Washer-3/8 Std |
| 16 | 3290-357 | 19 | Nut-Whizlock 3/8-16 |
| 17 | 1-413282 | 1 | Linkage |
| 18 | 1-806003 | 1 | Hairpin-Cotter |
| 19 | 109-1297 | 1 | Asm, Deck (116-1682-01) W/Decals |
| 20 | 323-4 | 2 | Screw-HH 3/8-16 X 3/4 |
| 21 | 1-633068 | 1 | Arm-Lift, Deck |
| 22 | 32128-20 | 11 | Nut-Whizlock 5/16-18 |
| 23 | 1-303334 | 2 | Washer-Spring Disc 5/16 |
| 24 | 1-322110 | 1 | Guide-Belt |
| 25 | 103-2916 | 1 | Guard-Top |
| 26 | 103-3505 | 1 | Seal-Double Lip |
| 27 | 3256-3 | 2 | Washer-5/16 Std |
| 28 | 1-323366 | 1 | Ring-Split |
| 29 | 3296-39 | 5 | Nut-Nyloc 3/8-16 |
| 30 | 323-6 | 8 | Screw-HH 3/8-16 X 1 |
| 31 | 1-412080-01 | 2 | Mount, Wheel Motor (36) |
| 32 | 323-6 | 8 | Screw-HH 3/8-16 X 1 |
| 33 | 1-602997 | 2 | Hub ASM W/Studs |
| 33:1 | 1-633926 | 8 | Stud-Wheel |
| 34 | 1-413473 | 2 | Wheel And Tire ASM |
| 34:1 | 1-413474 | 2 | Tire-Turfmaster |
| 34:2 | 1-603715 | 2 | Wheel-Rim |
| 35 | 242-50 | 8 | Nut-Lug 1/2-20 |
| 36 | 32136-5 | 2 | Nut-Slotted 3/4-16 |
| 37 | 1-806800 | 2 | Pin-Cotter 9/64 X 1 1/2 |
| 38 | 1-807264 | 1 | Key-Machine 1/4 X 1/4 X 2 5/8 |
| 39 | 103-6309 | 1 | Asm, Drive Sheave ● |
| 40 | 1-603609 | 1 | Bushing |
| 41 | 1-373034 | 2 | Washer |
| 42 | 1-603610 | 2 | Washer-Spring Disc 7/16 |
| 43 | 3212-10 | 1 | Screw-HH 7/16-20 X 2 1/2 ■ |
| 44 | 3256-24 | 2 | Washer-3/8 Sae |
| 45 | 109-4077 | 1 | Pulley, Idler |
| 46 | 1-603496 | 1 | Bushing-Idler |
| 47 | 103-8599 | 1 | Spring, Extension |
| 48 | 109-1296 | 1 | Kit, Idler Arm (109-1208-03) W/Brgs |
| 49 | 1481 | 2 | Zerk-45° 1/4-28 |
| 50 | 98-5961 | 1 | Screw-HH 3/8-16 X 4 Gr8 |
| 51 | 323-9 | 2 | Screw-HH 3/8-16 X 1 3/4 |
| 52 | 1-809069 | 1 | Screw-HSH #10-24 X 7/8 |
| 53 | 1-323365 | 1 | Chain-Link, Twist |
| 54 | 3256-14 | 1 | Washer-#10 Std |
| 55 | 3296-2 | 1 | Nut-Nyloc #10-24 |
| 56 | 1-807272 | 2 | Key-5Mm X 5Mm X 25Mm |
| 57 | 1-803050 | 4 | Setscrew-5/16-18 X 3/4 ■ |
| 58 | 109-1057 | 1 | Belt, Pump Drive |
| 59 | 1-413010 | 2 | Sheave ASM ● |
| 60 | 103-6317 | 1 | Belt, Blade Clutch |
| 61 | 1-807259 | 1 | Key-Machine 1/4 X 1/4 X 1 |
| 62 | 103-6308 | 1 | Sheave W/Shaft ● |
| 63 | 1-413111 | 2 | Bearing, Clutch ● |
| 64 | 32120-8 | 2 | Ring-Retaining |
| 65 | 1-413012 | 1 | Spacer, Bearing |
| 66 | 1-523157 | 1 | Washer |
| 67 | 1-413049-01 | 1 | Plate, Clutch Pivot |
| 68 | 322-5 | 7 | Screw-HH 5/16-18 X 1 |
| 69 | 1-413207 | 2 | Pivot, Bearing |
| 70 | 1-414418 | 1 | Asm, Clutch Arm (1-412417-03) W/Bearings |
| 71 | 1-413235 | 1 | Washer, Spacer |
| 72 | 1-412138-03 | 1 | Wld, Pivot Pin |
| 73 | 322-3 | 3 | Screw-HH 5/16-18 X 3/4 |
| 74 | 1-413062 | 1 | Band, Brake |
| 75 | 323-8 | 2 | Screw-HH 3/8-16 X 1 1/2 |
| 76 | 103-6310 | 1 | Wld, Belt Guide |
| 77 | 1-412031 | 1 | Sheave W/Drum (36 & 52) ● |
| 78 | 1-800521 | 1 | Screw-HH 3/8-24 X 1 ■ |
| 79 | 1-413009-01 | 1 | Plate, Guard |
| 80 | 103-2056 | 1 | Shield-Drag |
| 81 | 1-413510 | 2 | Clip-Loom |
| 82 | 1-413511 | 2 | Hanger, Drag Shield |
| 88 | 323-7 | 5 | Screw-HH 3/8-16 X 1 1/4 |
| 89 | 32120-10 | 2 | Ring-Retaining |
| 90 | 1-807019 | 2 | Key-Woodruff 1 X 1/4 |
| 91 | 103-3504 | 2 | Bearing-Spherical |
| 92 | 106-7159 | 2 | O-Ring |
| 93 | 103-5677 | 1 | Spacer |
| 94 | 116-2839 | 2 | Nut-Lock 3/4-16 |
| 95 | 1-603044 | 1 | Bushing |

● Apply anti-seize compound in bore.
■ Use Pro-Lock, Nut Type (P/N 1-840022, .5ml tube) on threads.

# Engine Deck Assembly (cont.)

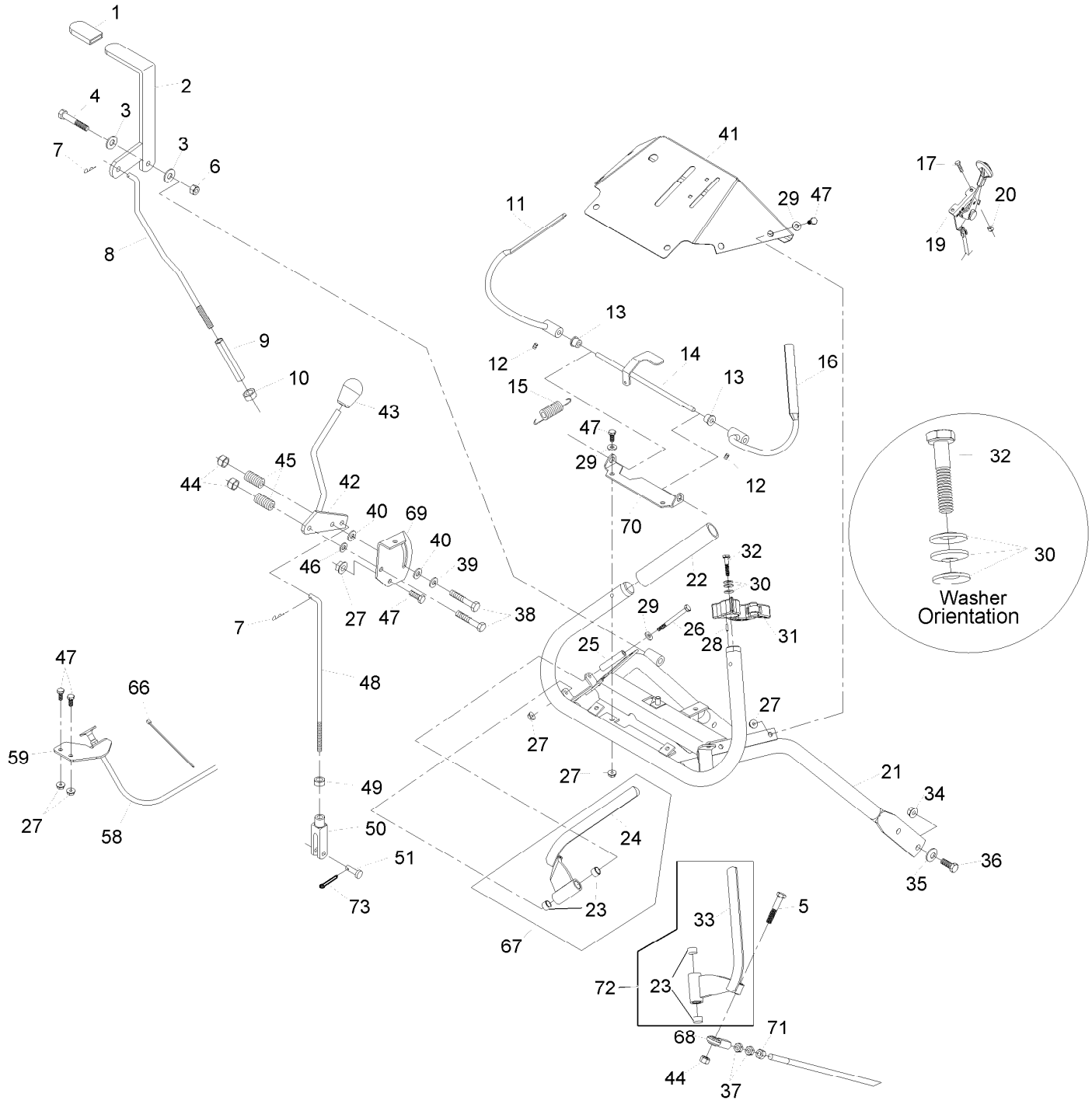


# Engine Deck Assembly (cont.) (continued)

| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 1 | 1-323245 | 1 | Spring-Compression |
| 2 | 32128-20 | 20 | Nut-Whizlock 5/16-18 |
| 3 | 3296-29 | 2 | Nut-Nyloc 5/16-18 |
| 4 | 1-613089 | 2 | Tab-Spring, Extension |
| 5 | 1-603693 | 2 | Spring |
| 6 | 110-4897-01 | 2 | Shield-Control |
| 7 | 323-16 | 6 | Screw-HH 3/8-16 X 4 |
| 8 | 302-19 | 2 | Zerk-1/4-28 Str |
| 9 | 322-3 | 4 | Screw-HH 5/16-18 X 3/4 |
| 10 | 1-805005 | 4 | Washer-Lock 5/16 Heavy |
| 11 | 3256-2 | 6 | Washer-1/4 Std |
| 12 | 3290-357 | 15 | Nut-Whizlock 3/8-16 |
| 13 | 1-323195-01 | 4 | Spacer-Shield |
| 14 | 1-633102 | 2 | Bearing-Flanged |
| 15 | 1-323197-01 | 4 | Spacer-Shield |
| 16 | 1-603737 | 2 | Bolt-Neutral Return |
| 17 | 103-0265 | 2 | Spring, Neutral Return |
| 18 | 1-603735 | 2 | Bushing-Flanged |
| 19 | 3219-2 | 7 | Nut-Hex 5/16-24 |
| 20 | 1-303105 | 2 | Yoke-Adjustable |
| 21 | 1-808280 | 2 | Pin-Clevis 5/16 X 1 49/64 |
| 22 | 1-806003 | 5 | Hairpin-Cotter |
| 23 | 3220-2 | 2 | Nut-Jam 5/16-24 |
| 24 | 1-413350 | 2 | Link-Control, Speed |
| 25 | 1-412203-01 | 1 | Crank-Control, Speed |
| 26 | 1-633131 | 1 | Yoke-Linkage, Brake |
| 27 | 3256-23 | 7 | Washer-5/16 Sae |
| 28 | 1-603676 | 2 | Swivel-Adjustable, Short |
| 29 | 1-800016 | 2 | Bolt-HH 5/16-18 X 1 1/4 Tap |
| 30 | 1-413489 | 1 | Linkage-Lower |
| 31 | 1-803022 | 2 | Setscrew-5/16-18 X 5/8 ● |
| 32 | 103-1190-01 | 1 | Shaft-Control, LH |
| 33 | 103-4796-01 | 1 | Shaft-Control, RH |
| 34 | 3218-3 | 1 | Nut-Jam 3/8-16 |
| 35 | 116-3515 | 3 | Screw,HH Special 5/16-18 X 1.25 |
| 36 | 3272-5 | 2 | Pin-Cotter 3/32 X 1/2 |
| 37 | 1-603903 | 1 | Spacer |
| 38 | 1-403180 | 2 | Screw-HH 5/16-18 X 1 1/4 Sp |
| 39 | 1-809056 | 2 | Screw-Sh 5/16-18 X 1 3/8 ● |
| 40 | 3256-24 | 4 | Washer-3/8 Sae |
| 41 | 103-3060 | 1 | Knob-Tracking |
| 42 | 1-323161 | 1 | Spring |
| 43 | 103-2085-03 | 1 | Brake ASM |
| 44 | 109-0877 | 1 | Asm, Oil Drain Hose W/Plug |
| 45 | 109-1012 | 1 | Plug |
| 46 | 1-413492 | 1 | Linkage, Upper Brake |
| 47 | 323-23 | 1 | Screw-HH 3/8-16 X 4-1/2 |
| 48 | 3296-39 | 2 | Nut-Nyloc 3/8-16 |
| 49 | 103-1148 | 2 | Rod, Drive Lever |
| 50 | 323-8 | 2 | Screw-HH 3/8-16 X 1 1/2 |
| 51 | 103-1167 | 2 | Joint-Ball End, LH |
| 52 | 103-1166 | 2 | Spacer-Tube, Pump Link |
| 53 | 114-3549 | 4 | Nut-M8 |
| 54 | 323-16 | 1 | Screw-HH 3/8-16 X 4 |
| 55 | 1-303020 | 1 | Grip-Lever |
| 56 | 323-9 | 2 | Screw-HH 3/8-16 X 1 3/4 |
| 57 | 323-4 | 3 | Screw-HH 3/8-16 X 3/4 |
| 58 | 103-3495 | 1 | Lever, Brake (1-412501-03) W/Decal & Grip |
| 59 | 1-414504 | 1 | Bracket ASM |
| 60 | 1-413347 | 2 | Sleeve-Bushing |
| 61 | 1-413344 | 1 | Bushing-Pivot |
| 62 | 323-10 | 1 | Screw-HH 3/8-16 X 2 |
| 63 | 1-414508 | 1 | Bellcrank ASM |
| 64 | 1-303548 | 1 | Bushing-Plastic |
| 65 | 32128-21 | 1 | Nut-3/8-16 Flanged Side Lock |
| 66 | 103-2399 | 1 | Pin-Clevis Spring 3/8 |
| 67 | 3218-2 | 2 | Nut-Jam 5/16-18 |
| 68 | 1-643312 | 1 | Clip-Loom |
| 69 | 116-4397 | 1 | Muffler |
| 70 | 1-653313 | 2 | Gasket-Exhaust |
| 71 | 114-3550 | 4 | Washer-Lock, Spring |

● Use Pro-Lock, Nut Type (P/N 1-840022, .5ml tube) on threads.

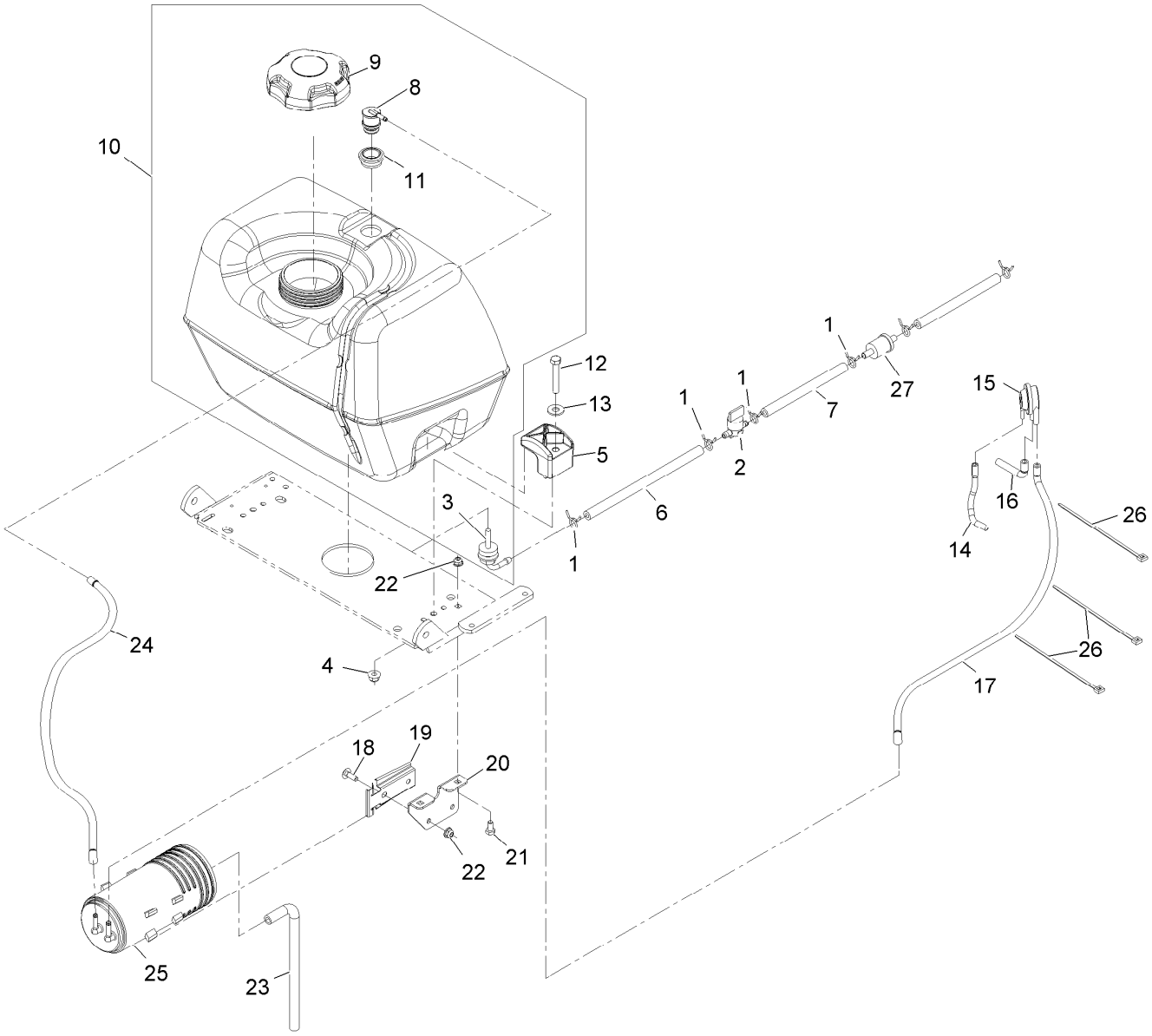
# ECS Upper Handles and Controls Assembly



# ECS Upper Handles and Controls Assembly (continued)

| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 1 | 1-303020 | 1 | Grip-Lever |
| 2 | 1-414234 | 1 | Asm, Lever (1-412295-03) W/Grip |
| 3 | 3256-4 | 2 | Washer-3/8 Std |
| 4 | 323-11 | 1 | Screw-HH 3/8-16 X 2 1/4 |
| 5 | 322-9 | 2 | Screw-HH 5/16-18 X 1 3/4 |
| 6 | 3296-39 | 1 | Nut-Nyloc 3/8-16 |
| 7 | 1-806003 | 2 | Hairpin-Cotter |
| 8 | 103-1149 | 1 | Link, Blade Engagement |
| 9 | 1-413279 | 1 | Turnbuckle |
| 10 | 3217-7 | 1 | Nut-Hex 3/8-16 |
| 11 | 116-4079 | 1 | Wld, Lever, Opc (LH) ■ |
| 12 | 1-803322 | 2 | Setscrew-5/16-24 X 5/16 ● |
| 13 | 1-303365 | 2 | Bushing-Nylon |
| 14 | 103-0769-03 | 1 | Wld, Opc Axle Lever |
| 15 | 1-303363 | 1 | Spring-Extension |
| 16 | 116-4080 | 1 | Wld, Opc Lever (RH) ■ |
| 17 | 1-807513 | 2 | Bolt-Carriage #10-24 X 1/2 |
| 19 | 116-2426 | 1 | Cable, Throttle |
| 20 | 3296-2 | 2 | Nut-Nyloc #10-24 |
| 21 | 103-0770-03 | 1 | Wld, Handle |
| 22 | 103-0815 | 2 | Grip-Bar, Handle |
| 23 | 1-413152 | 4 | Bushing-Sleeve |
| 24 | 116-4081 | 1 | Lever, Drive LH |
| 25 | 103-0027 | 2 | Bushing-Lever, Drive |
| 26 | 321-14 | 2 | Screw-HH 1/4-20 X 2 3/4 |
| 27 | 32128-33 | 14 | Nut-Whizlock 1/4-20 |
| 28 | 103-0464 | 2 | Pin-Spring 1/8 X 1/2 |
| 29 | 3256-22 | 10 | Washer-1/4 Sae |
| 30 | 1-303435 | 6 | Washer-Spring Disc 1/4 |
| 31 | 103-1371 | 1 | Thumb Latch Asm RH(Shown) |
| 31 | 103-1372 | 1 | Thumb Latch Asm LH(Not Shown) |
| 32 | 103-0235 | 2 | Screw-HH 1/4-20 X 1 1/8 W/Nylon ● |
| 33 | 116-4082 | 1 | Lever, Drive RH |
| 34 | 3290-357 | 4 | Nut-Whizlock 3/8-16 |
| 35 | 98-5975 | 4 | Washer-Spring Disc 3/8 |
| 36 | 323-6 | 4 | Screw-HH 3/8-16 X 1 |
| 37 | 3220-3 | 4 | Nut-Jam 3/8-24 |
| 38 | 322-10 | 4 | Screw-HH 5/16-18 X 2 |
| 39 | 1-603716 | 1 | Washer-Friction Disc |
| 40 | 1-323244 | 2 | Washer-Friction |
| 41 | 109-4651 | 1 | Asm, Console (109-4649-03)W/ Decals |
| 42 | 116-4083 | 1 | Wld, Speed Shift |
| 43 | 103-0423 | 1 | Knob-Nyloc 3/8-16 |
| 44 | 3296-29 | 4 | Nut-Nyloc 5/16-18 |
| 45 | 1-323245 | 2 | Spring-Compression |
| 46 | 3256-23 | 1 | Washer-5/16 Sae |
| 47 | 321-3 | 12 | Screw-HH 1/4-20 X 5/8 |
| 48 | 1-413225 | 1 | Rod, Speed Control |
| 49 | 3220-2 | 1 | Nut-Jam 5/16-24 |
| 50 | 1-303105 | 1 | Yoke-Adjustable |
| 51 | 1-808280 | 1 | Pin-Clevis 5/16 X 1 49/64 |
| 58 | 103-1796 | 1 | Cable-Choke |
| 59 | 103-1797-01 | 1 | Bracket-Cable, Choke |
| 66 | 1-303287 | 1 | Tie-Cable 5 1/2 (Small) |
| 67 | 103-2513 | 1 | Asm, Drive Lever RH |
| 68 | 103-2463 | 2 | Balljoint |
| 69 | 103-0503 | 1 | Bracket, Shifter Slide |
| 70 | 103-0489-03 | 1 | Bracket, Opc Axle |
| 71 | 3219-3 | 2 | Nut-Hex 3/8-24 |
| 72 | 103-2514 | 1 | Asm, Drive Lever LH |
| 73 | 3272-5 | 1 | Pin-Cotter 3/32 X 1/2 |

● Use Pro-Lock, Nut Type (P/N 1-840022, .5ml tube) on threads.
■ Use Pro-Lock retaining type, Part no. 1-840023 (.5cc tube) on inside of bore of OPC hub.




# Fuel Tank Assembly

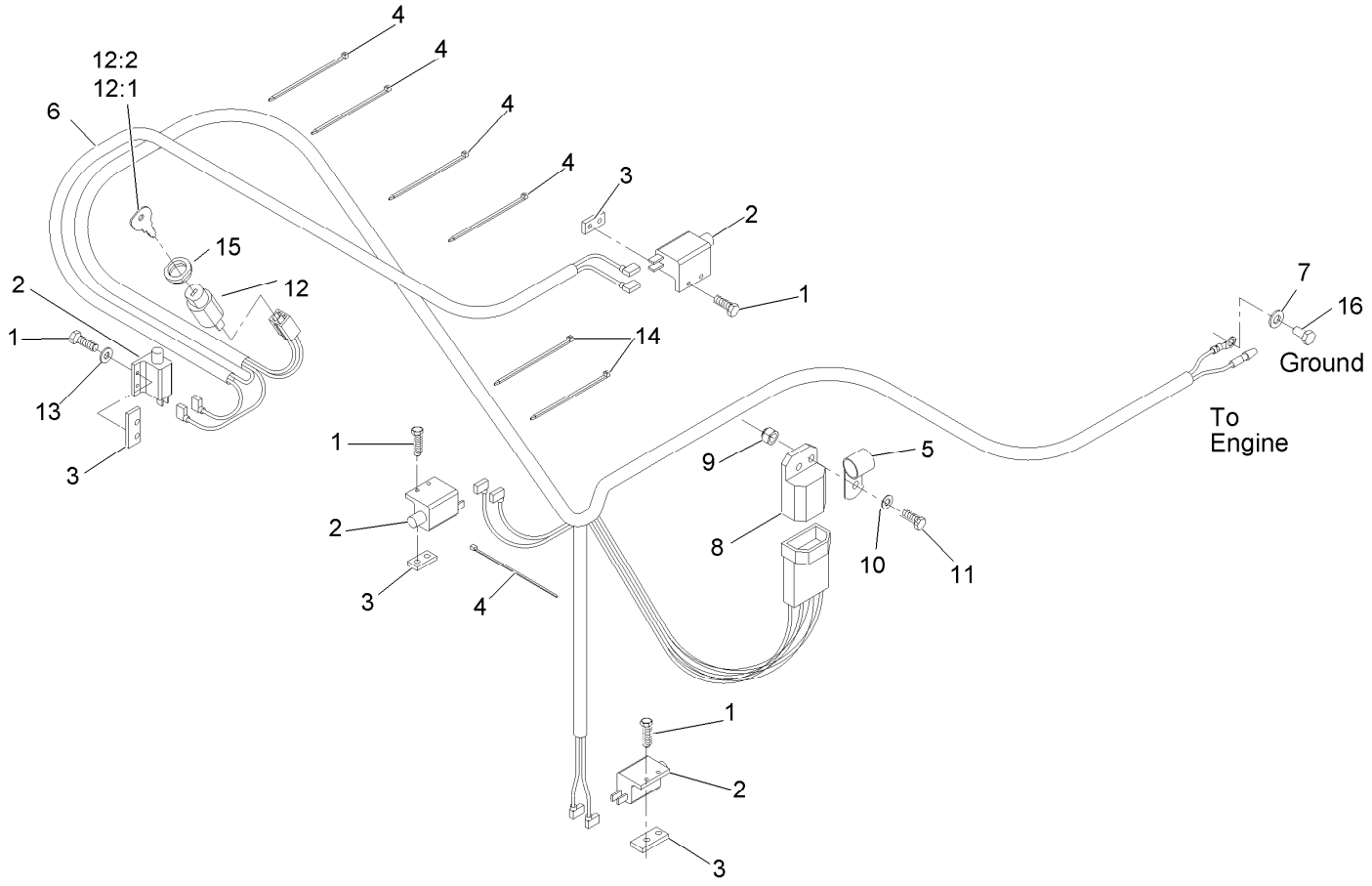
| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 1 | 2412-98 | 4 | Clamp-Hose |
| 2 | 1-603770 | 1 | Valve-Fuel |
| 3 | 103-2605 | 1 | Fitting-Fuel Bulkhead W/Strainer ▲ |
| 4 | 104-8300 | 2 | Nut-Nyloc 5/16-18 Flg |
| 5 | 107-4543 | 2 | Clamp |
| 6 | 109-0650 | 1 | Hose-Fuel |
| 7 | 99-9415 | 1 | Hose-Fuel |
| 8 | 114-0285 | 1 | Valve-Rollover |
| 9 | 115-4465 | 1 | Cap-Fuel, Ratcheting |
| 10 | 116-3656 | 1 | Asm-Fuel Tank |
| 11 | 119-6549 | 1 | Grommet-Valve, Roll Over |
| 12 | 322-10 | 2 | Screw-HH 5/16-18 X 2 |
| 13 | 3256-3 | 2 | Washer-5/16 Std |
| 14 | 116-2394 | 1 | Hose-Formed |

| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 15 | 116-2232 | 1 | Valve-Control, Vacuum |
| 16 | 116-2233 | 1 | Hose-Formed |
| 17 | 116-2231 | 1 | Formed-Hose |
| 18 | 321-2 | 2 | Screw-HH 1/4-20 X 1/2 |
| 19 | 114-0292 | 1 | Bracket-Canister, Carbon |
| 20 | 115-4486-01 | 1 | Bracket-Canister, Carbon |
| 21 | 3229-1 | 2 | Bolt-Carriage 1/4-20 X 3/4 |
| 22 | 104-7201 | 4 | Nut-Nyloc 1/4-20 Flg |
| 23 | 115-0962 | 1 | Hose-Vent, Canister |
| 24 | 114-0286 | 1 | Hose-Vent |
| 25 | 117-1221 | 1 | Canister-Carbon, 800Cc |
| 26 | 1-303335 | 3 | Tie-Cable 7 15/16 (Large) |
| 27 | | 1 | Pn 41019-1055 Filter W/6In Fuel Line ■● |

● Not serviced separately

▲ Use Pro-Lock, Nut Type (P/N 1-840022, .5ml tube) on threads.

■ Obtain parts from www.kawpowerepc.com

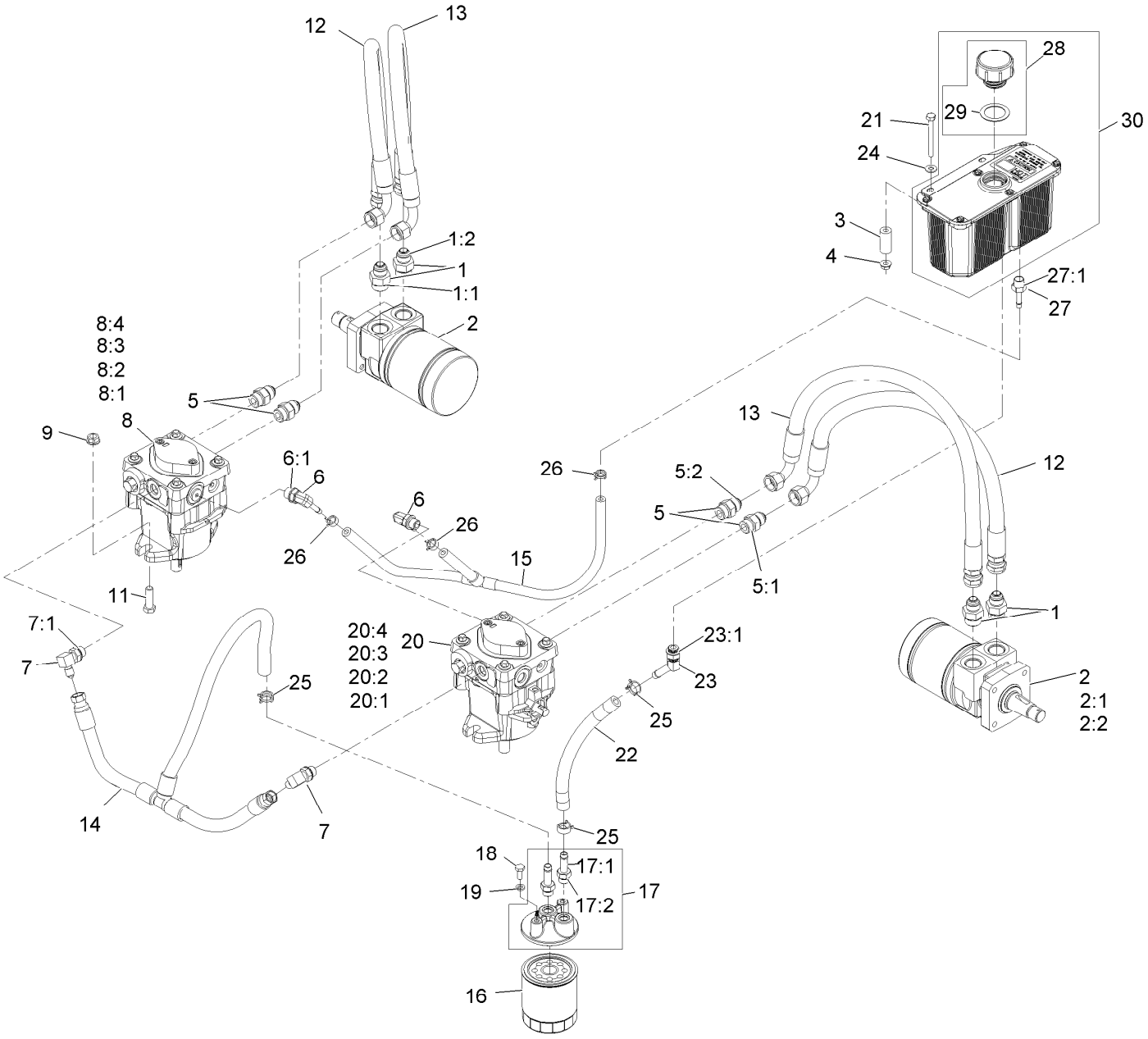



# Electrical Assembly

| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 1 | 3290-500 | 8 | Screw-PPH #10-24 X 5/8 |
| 2 | 1-513051 | 4 | Switch-N.O. |
| 3 | 1-633181 | 4 | Plate-Tapped |
| 4 | 1-303287 | 5 | Tie-Cable 5 1/2 (Small) |
| 5 | 1-323229 | 1 | Clip-Loom 3/8 |
| 6 | 116-2610 | 1 | Harness, Wiring |
| 7 | 33094-00 | 1 | Washer |
| 8 | 1-323430 | 1 | Module-Interlock |
| 9 | 3296-42 | 1 | Nut-Nyloc 1/4-20 |

| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 10 | 3256-22 | 1 | Washer-1/4 Sae |
| 11 | 321-4 | 1 | Screw-HH 1/4-20 X 3/4 |
| 12 | 1-403121 | 1 | Switch-Key |
| 12:1 | 1-603511 | 1 | Key-Ignition |
| 12:2 | 103-2106 | 1 | Key-Exmark Logo |
| 13 | 3256-14 | 1 | Washer-#10 Std |
| 14 | 1-303335 | 2 | Tie-Cable 7 15/16 (Large) |
| 15 | 103-0498 | 1 | Nut-Ignition |
| 16 | 33114-016 | 1 | Screw-HH M8-1.25 X 16Mm |

# Hydraulic Assembly

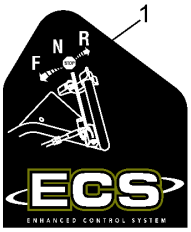


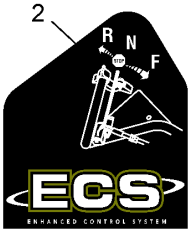
# Hydraulic Assembly (continued)

| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 1 | 1-603991 | 4 | Adapter-Straight |
| 1:1 | 1-603919 | 1 | O-Ring-Sae #10 |
| 1:2 | 1-603992 | 1 | O-Ring-37 Flare #8 |
| 2 | 1-603718 | 2 | Motor-Wheel, HYD |
| 2:1 | 1-000138 | 1 | Bearing And Seal Kit |
| 2:2 | 1-000119 | 1 | Seal Kit |
| 3 | 103-2191 | 2 | Spacer |
| 4 | 32128-33 | 2 | Nut-Whizlock 1/4-20 |
| 5 | 1-603990 | 4 | Adapter-Straight |
| 5:1 | 1-603920 | 1 | O-Ring-Sae #8 |
| 5:2 | 1-603992 | 1 | O-Ring-37 Flare #8 |
| 6 | 103-1799 | 2 | Elbow-90 DEG |
| 6:1 | 1-603921 | 1 | O-Ring-Sae #6 |
| 7 | 103-1802 | 2 | Fitting-HYD, 90 DEG |
| 7:1 | 1-603921 | 1 | O-Ring-Sae #6 |
| 8 | 116-0942 | 1 | Pump-HYD, LH |
| 8:1 | 103-2664 | 1 | Input Shaft Kit |
| 8:2 | 94-6922 | 1 | Bearing-Thrust |
| 8:3 | 103-2666 | 1 | Cylinder Block Kit |
| 8:4 | 105-6184 | 1 | Seal Overhaul Kit |
| 9 | 32128-43 | 4 | Nut-Whizlock 3/8-16 |
| 11 | 323-7 | 4 | Screw-HH 3/8-16 X 1 1/4 |
| 12 | 1-613034 | 2 | Hose-Pressure, High |
| 13 | 1-323241 | 2 | Hose-Pressure, High |
| 14 | 116-2123 | 1 | Charge Hose ASM |
| 15 | 116-0918 | 1 | Case Drain Hose ASM |
| 16 | 109-4180 | 1 | Filter,25 Micron Bi-Directional |
| 16 | 1-523541 | 1 | Element, Oil Filter(Winter) ● |
| 17 | 103-2889 | 1 | Filter Head ASM |
| 17:1 | 103-1912 | 2 | Adapter-Straight |
| 17:2 | 1-603921 | 1 | O-Ring-Sae #6 |
| 18 | 321-3 | 2 | Screw-HH 1/4-20 X 5/8 |
| 19 | 1-805004 | 2 | Washer-Lock 1/4 Heavy |
| 20 | 116-0943 | 1 | Pump-HYD, RH |
| 20:1 | 103-2664 | 1 | Input Shaft Kit |
| 20:2 | 94-6922 | 1 | Bearing-Thrust |
| 20:3 | 103-2666 | 1 | Cylinder Block Kit |
| 20:4 | 105-6184 | 1 | Seal Overhaul Kit |
| 21 | 321-15 | 2 | Screw-HH |
| 22 | 103-2959 | 1 | Hose-Charge |
| 23 | 103-1807 | 1 | Fitting-Barbed, 45 DEG |
| 23:1 | 1-603921 | 1 | O-Ring-Sae #6 |
| 24 | 3256-22 | 2 | Washer-1/4 Sae |
| 25 | 103-1988 | 3 | Clamp-Hose 11/16 |
| 26 | 103-1716 | 3 | Clamp-Hose 17/32 |
| 27 | 103-1801 | 1 | Adapter-Straight |
| 27:1 | 1-603921 | 1 | O-Ring-Sae #6 |
| 28 | 103-7615 | 1 | Asm, Cap W/Gasket |
| 29 | 103-1949 | 1 | Gasket-Cap |
| 30 | 103-1947 | 1 | HYD Reservoir ASM |

● Use only for operation below 32°F (0°C).

# Decals

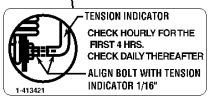

1
N R
F
ECS
ENHANCED CONTROL SYSTEM


2
R N
F
ECS
ENHANCED CONTROL SYSTEM


3
TRIVANTAGE

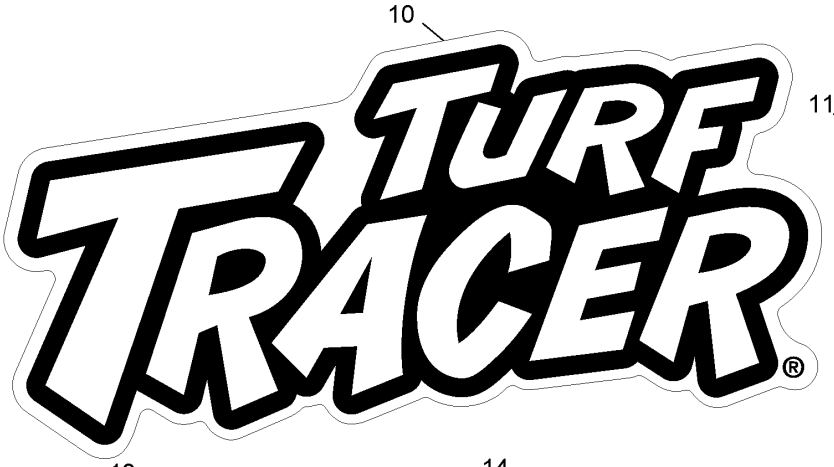

4
Lubricate Blade Bolt threads with copper based antiseize or grease and torque to 55-60 ft-lbs (75-81 N-m)


5
WARNING
DO NOT OPERATE WITHOUT DISCHARGE DEFLECTOR, ENTIRE GRASS COLLECTION SYSTEM, OR MULCH KIT IN PLACE. DO NOT REMOVE GRASS CATCHER UNTIL BLADES HAVE STOPPED.

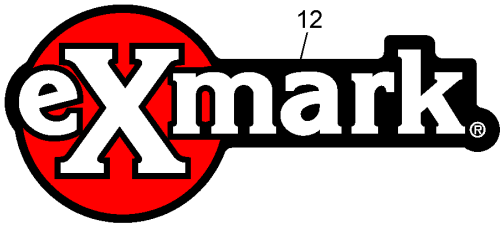

6
TENSION INDICATOR
CHECK HOURLY FOR THE FIRST 4 HRS.
CHECK DAILY THEREAFTER
ALIGN BOLT WITH TENSION INDICATOR 1/16"


7
ENGAGE
P
PARK BRAKE
R
RELEASE

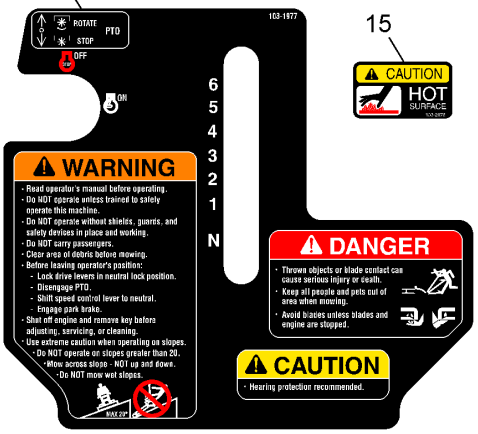

9
ONLY USE
EXMARK HYDRO OIL
FILL TO TOP OF BAFFLE
CAUTION
HOT SURFACE


10
TURF TRACER®

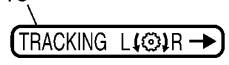

11
THROTTLE


12
eXmark®

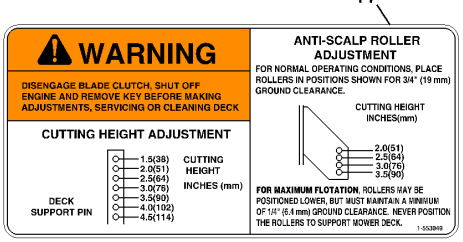

13
WARNING
OPEN BELT DRIVE!
STOP ENGINE BEFORE REACHING UNDERNEATH.

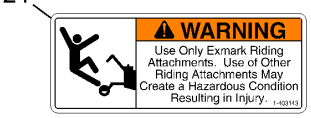

14
ROTATE
PTO
STOP
OFF
ON
6
5
4
3
2
1
N
WARNING
DANGER
CAUTION
Hearing protection recommended.


15
CAUTION
HOT SURFACE

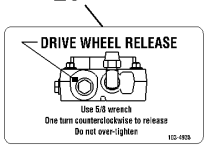

16
TRACKING L R


18
COMMERCIAL 36

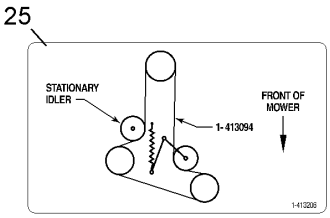

17
WARNING
DISENGAGE BLADE CLUTCH, SHUT OFF ENGINE AND REMOVE KEY BEFORE MAKING ADJUSTMENTS, SERVICING OR CLEANING DECK
CUTTING HEIGHT ADJUSTMENT
DECK SUPPORT PIN
1.5(38)
2.0(51)
2.5(64)
3.0(76)
3.5(90)
4.0(102)
4.5(114)
CUTTING HEIGHT INCHES (mm)
ANTI-SCALP ROLLER ADJUSTMENT
FOR NORMAL OPERATING CONDITIONS, PLACE ROLLERS IN POSITIONS SHOWN FOR 3/4" (19 mm) GROUND CLEARANCE.
CUTTING HEIGHT INCHES(mm)
2.0(51)
2.5(64)
3.0(76)
3.5(90)
FOR MAXIMUM FLOTATION, ROLLERS MAY BE POSITIONED LOWER, BUT MUST MAINTAIN A MINIMUM OF 1/4" (6.4 mm) GROUND CLEARANCE. NEVER POSITION THE ROLLERS TO SUPPORT MOWER DECK.


21
WARNING
Use Only Exmark Riding Attachments. Use of Other Riding Attachments May Create a Hazardous Condition Resulting in Injury.


22
CALIFORNIA SPARK ARRESTER WARNING
Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrester may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.


23
DRIVE WHEEL RELEASE
Use 5/8 wrench
One turn counterclockwise to release
Do not over-tighten


24
DANGER
COVER IS MISSING. DO NOT OPERATE THIS UNIT WHEN COVER IS NOT IN PLACE.


25
STATIONARY IDLER
1- 413094
FRONT OF MOWER


27
DANGER
KEEP HANDS and FEET AWAY


28
S-SERIES

# Decals (continued)

| Ref. | Part Number | Qty. | Description |
|---|---|---|---|
| 1 | 103-2242 | 1 | Decal, LH Ecs Instruction |
| 2 | 103-2243 | 1 | Decal, RH Ecs Instruction |
| 3 | 1-303520 | 1 | Decal, Trivantage |
| 4 | 109-3148 | 1 | Decal,Bolt Torque |
| 5 | 1-303508 | 1 | Decal-Warning, Discharge |
| 6 | 1-413421 | 1 | Decal, Indicator |
| 7 | 103-2103 | 1 | Decal-Brake, Park |
| 9 | 116-0404 | 1 | Decal, Hydraulic Tank |
| 10 | 103-3013 | 1 | Decal-Turf Tracer |
| 11 | 103-1798 | 1 | Decal, Throttle |
| 12 | 103-2882 | 1 | Decal, Exmark Logo |
| 13 | 1-303517 | 1 | Decal,Belt Drive |
| 14 | 103-1977 | 1 | Decal, Ecs Console |
| 15 | 103-2076 | 2 | Decal-Caution |
| 16 | 1-413214 | 1 | Decal, Tracking |
| 17 | 1-553049 | 1 | Decal-Anti Scalp |
| 18 | 1-323411 | 1 | Decal, Commercial 36 |
| 21 | 1-403143 | 1 | Decal, Sulky Warning |
| 22 | 117-2718 | 1 | Decal-Arrester, Spark |
| 23 | 103-4935 | 1 | Decal, Drive Wheel Release |
| 24 | 98-5954 | 1 | Decal-Cover, Missing |
| 25 | 1-413206 | 1 | Decal, Belt Routing |
| 27 | 1-403005 | 2 | Decal-Danger |
| 28 | 116-3884 | 2 | Decal-S Series |
| 99 | 103-2461 | 1 | Decal Kit ● |

● Not illustrated

## Notes:

## Notes:

## Notes:

EXMARK® MAINTENANCE

## MAXIMIZE THE PERFORMANCE OF YOUR EXMARK.

### 4-CYCLE PREMIUM ENGINE OIL
Part No. 116-3373

Both SAE 30 and SAE 10W-30 in one bottle.

Contains increased levels of zinc and phosphorus for better lubricity.

No Viscosity Index Improvers that tend to shear down in high heat.

Synthetic formulation.

Gas & Diesel compatible.

Anti-corrosion additives.

API 'SL' and JASO rated with wet clutch compatibility for other machines.

### PREMIUM HYDRO OIL
Part No. 109-9828

Commercial quality for tough, high-heat conditions.

Designed specifically for zero-turn mower hydraulic systems.

Superior shear resistance under heavy loads.




eXmark®

Available from your local Exmark dealer. Find your closest dealer at exmark.com

## SEE EXMARK'S COMPLETE LINE OF ACCESSORIES AND OPTIONS

### MID-MOUNT RIDING ACCESSORIES AND OPTIONS

CUSTOM RIDE SEAT SUSPENSION SYSTEM
FULL SUSPENSION SEAT
DECK LIFT ASSIST KIT
HITCH KIT
LIGHT KIT
12V POWER PORT
MICRO-MULCH SYSTEM
OPERATOR CONTROLLED DISCHARGE
ROLL OVER PROTECTION SYSTEM (ROPS)
SUN SHADE
TRASH CONTAINER
TURF STRIPER
ULTRA VAC COLLECTION SYSTEM
ULTRA VAC QUICK DISPOSAL SYSTEM

### OUT-FRONT RIDING ACCESSORIES AND OPTIONS

CUSTOM RIDE SEAT SUSPENSION SYSTEM
DUAL-TAIL WHEEL
FLOOR PAN EXTENDER
HITCH KIT
LIGHT KIT
MICRO-MULCH SYSTEM
ROLL OVER PROTECTION SYSTEM (ROPS)
SNOW BLADE
SNOWBLOWER
SUN SHADE
TRASH CONTAINER
ULTRA VAC COLLECTION SYSTEM
ULTRA VAC QUICK DISPOSAL SYSTEM
WEATHER CAB

### WALK-BEHIND ACCESSORIES AND OPTIONS

GRASS CATCHER
MICRO-MULCH SYSTEM
TURF STRIPER
STANDON

Place Model No. and Serial No. Label Here (Included in the Literature Pack) or Fill in Below

Model No. _____

Serial No. _____

Date Purchased _____

Engine Model No. and Spec. No. _____

Engine Serial No. (E/No) _____

**© 2010 Exmark Mfg. Co., Inc.**
**All Rights Reserved**

**Industrial Park Box 808**
**Beatrice, NE 68310**
**(402) 223-6300**
**Fax (402) 223-5489**

**Part No. 4500-778 Rev. A**
**Printed in the USA.**

**www.exmark.com**