



# Parts Manual

Mfg. No: 38711x44A  
Lawn Tractor (2000)



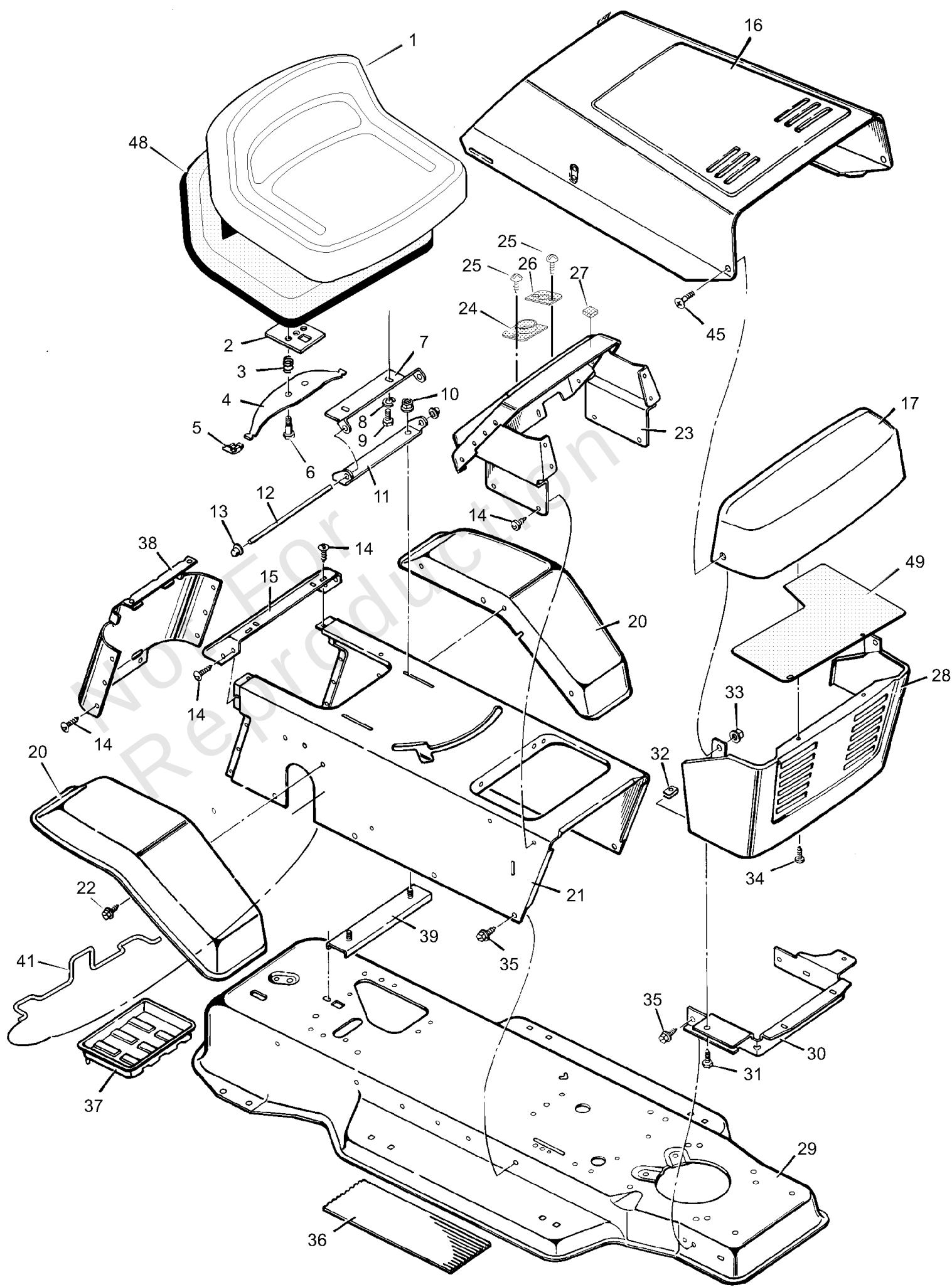
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Chassis & Hood

Note: Unless noted otherwise, use the standard torque specifications

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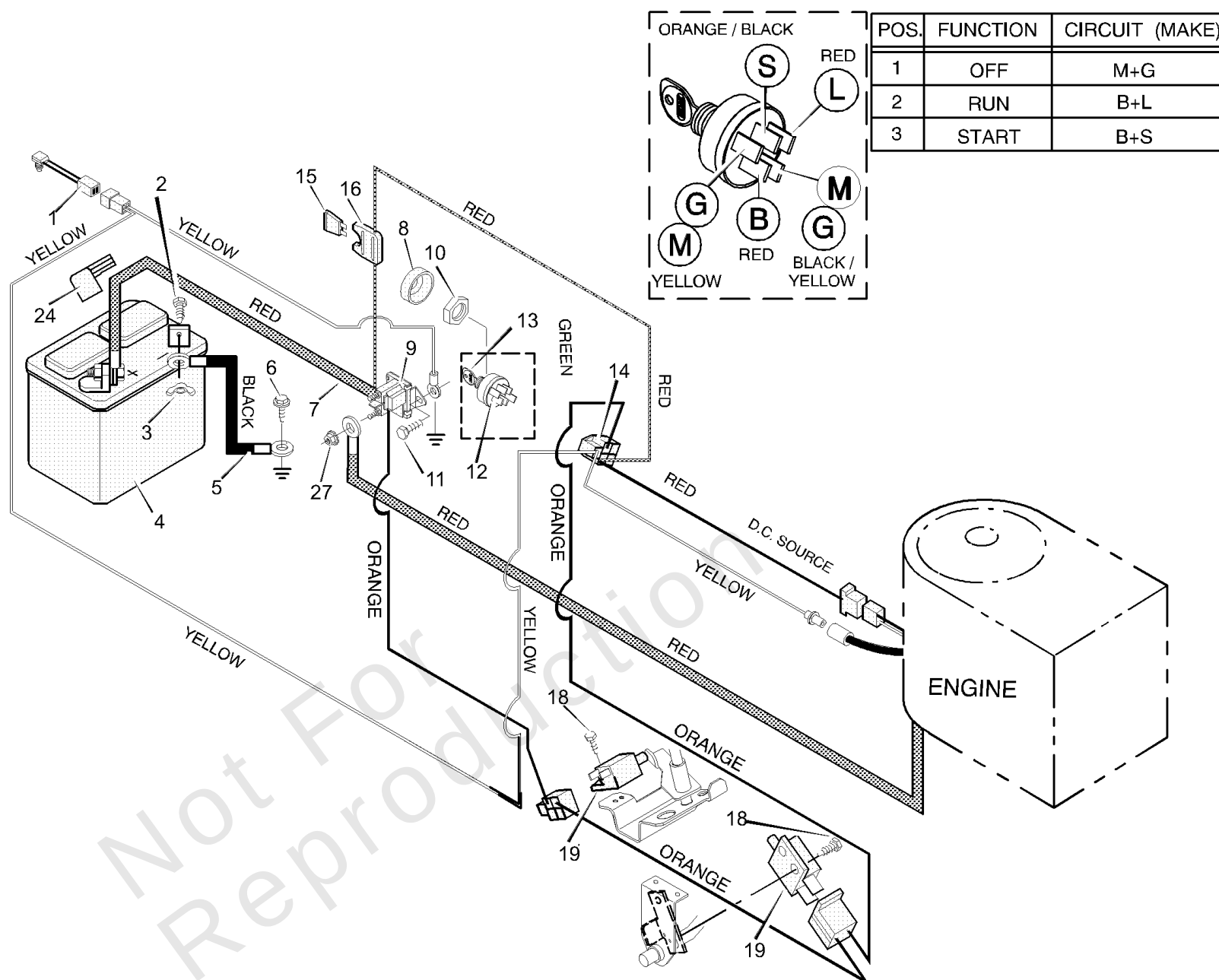
## Chassis & Hood

| REF NO | PART NO    | QTY | DESCRIPTION                                   |
|--------|------------|-----|-----------------------------------------------|
| 1      | 092387MA   |     | Seat                                          |
| 2      | 091963 Z   |     | Plate Assembly, Switch                        |
| 3      | 164X26MA   |     | Spring, Compression                           |
| 4      | 091964MA   |     | Spring, Seat                                  |
| 5      | 091822MA   |     | Glide, Spring                                 |
| 6      | 009X38MA   |     | Bolt, Shoulder                                |
| 7      | 092334E700 |     | Support, Seat                                 |
| 8      | 018X16MA   |     | Lockwasher                                    |
| 9      | 001X45MA   |     | Bolt, Hex                                     |
| 10     | 015X88MA   |     | Locknut, Flange                               |
| 11     | 091729E701 |     | Bracket, Pivot                                |
| 12     | 091730 Z   |     | Rod, Pivot                                    |
| 13     | 028X23MA   |     | Cap, Push On                                  |
| 14     | 26X270     |     | Screw, Tap                                    |
| 15     | 091724E549 |     | Fender, Apron<br>-(Included with Ref. No. 21) |
| 16     | 091852E549 |     | Hood                                          |
| 17     | 091736MA   |     | Grille, Upper                                 |
| 20     | 091715E549 |     | Fender                                        |
| 21     | 092727E549 |     | Console Assembly                              |
| 22     | 26X263MA   |     | SCREW.25-20 S-T                               |
| 23     | 93174E549  |     | Dash Panel                                    |
| 24     | 093135MA   |     | Bearing, Steering                             |
| 25     | 26X238MA   |     | Screw                                         |
| 26     | 093155     |     | Bearing                                       |
| 27     | 092444     |     | Bumper                                        |
| 28     | 91722E549  |     | Grill, Lower                                  |
| 29     | 92815E549  |     | Frame Assembly                                |
| 30     | 091723E700 |     | Support, Grill                                |
| 31     | 26X252MA   |     | Screw                                         |
| 32     | 028X57     |     | U-Nut                                         |
| 33     | 015X84MA   |     | Locknut, Flange                               |
| 34     | 0193X1MA   |     | Fastener, Plastic                             |
| 35     | 26X249MA   |     | Screw                                         |
| 36     | 094107     |     | Mat                                           |
| 37     | 091895MA   |     | Tray, Battery                                 |
| 38     | 092443E700 |     | Cap, Console<br>-(Included with Ref. No. 21)  |
| 39     | 091857E701 |     | Channel Assembly                              |
| 41     | 92725E700  |     | Clamp, Battery                                |
| 45     | 009X58MA   |     | Bolt, Shoulder                                |
| 48     | 092357     |     | Pan, Seat (with foam)                         |
| 49     | 094334     |     | Shield, Heat                                  |
| --     | F-000797L  |     | Instruction Book & Parts List                 |

## *Electrical System*

Note: Unless noted otherwise, use the standard torque specifications

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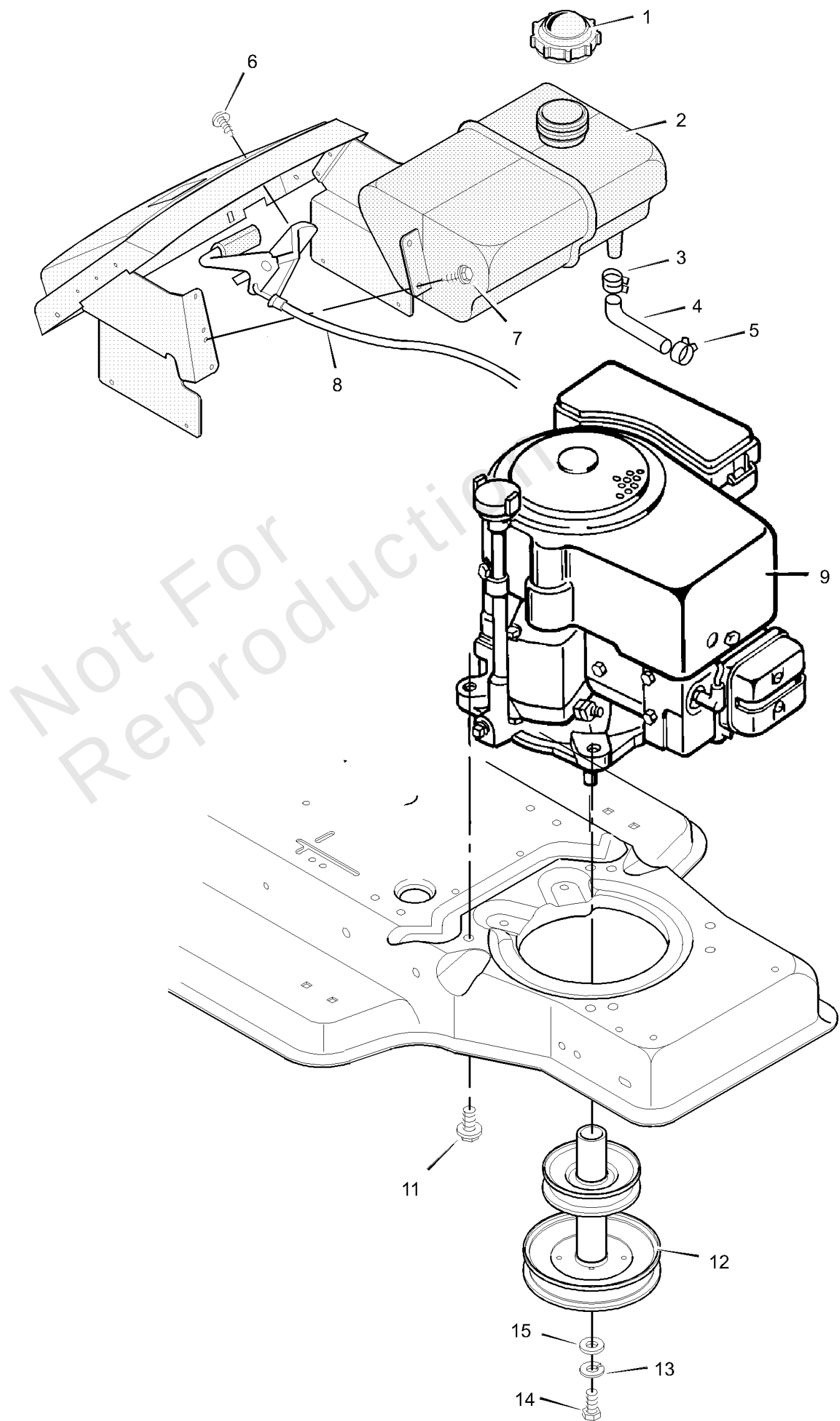
## ***Electrical System***

| REF NO | PART NO  | QTY | DESCRIPTION           |
|--------|----------|-----|-----------------------|
| 1      | 091031   |     | Switch, Seat Sensor   |
| 2      | 002X82MA |     | Bolt                  |
| 3      | 014X79MA |     | Wingnut               |
| 4      | 091414   |     | Battery               |
| 5      | 024X30   |     | Cable, Battery Ground |
| 6      | 26X249MA |     | Screw                 |
| 7      | 024X29MA |     | Cable, Red Battery    |
| 8      | 091488   |     | Cap, Ignition         |
| 9      | 024285   |     | Solenoid              |
| 10     | 091489MA |     | Nut                   |
| 11     | 26X214MA |     | Screw                 |
| 12     | 021064   |     | Switch, Ignition      |
| 13     | 020729   |     | Key, Ignition         |
| 14     | 250X88   |     | Harness, Chassis Wire |
| 15     | 054212   |     | Fuse                  |
| 16     | 407078MA |     | Holder, Fuse          |
| 18     | 26X233MA |     | Screw                 |
| 19     | 024273MA |     | Switch, Clutch        |
| 24     | 054148MA |     | Cover, Terminal       |
| 27     | 15X116MA |     | Locknut               |

**Engine Mount**

Note: Unless noted otherwise, use the standard torque specifications

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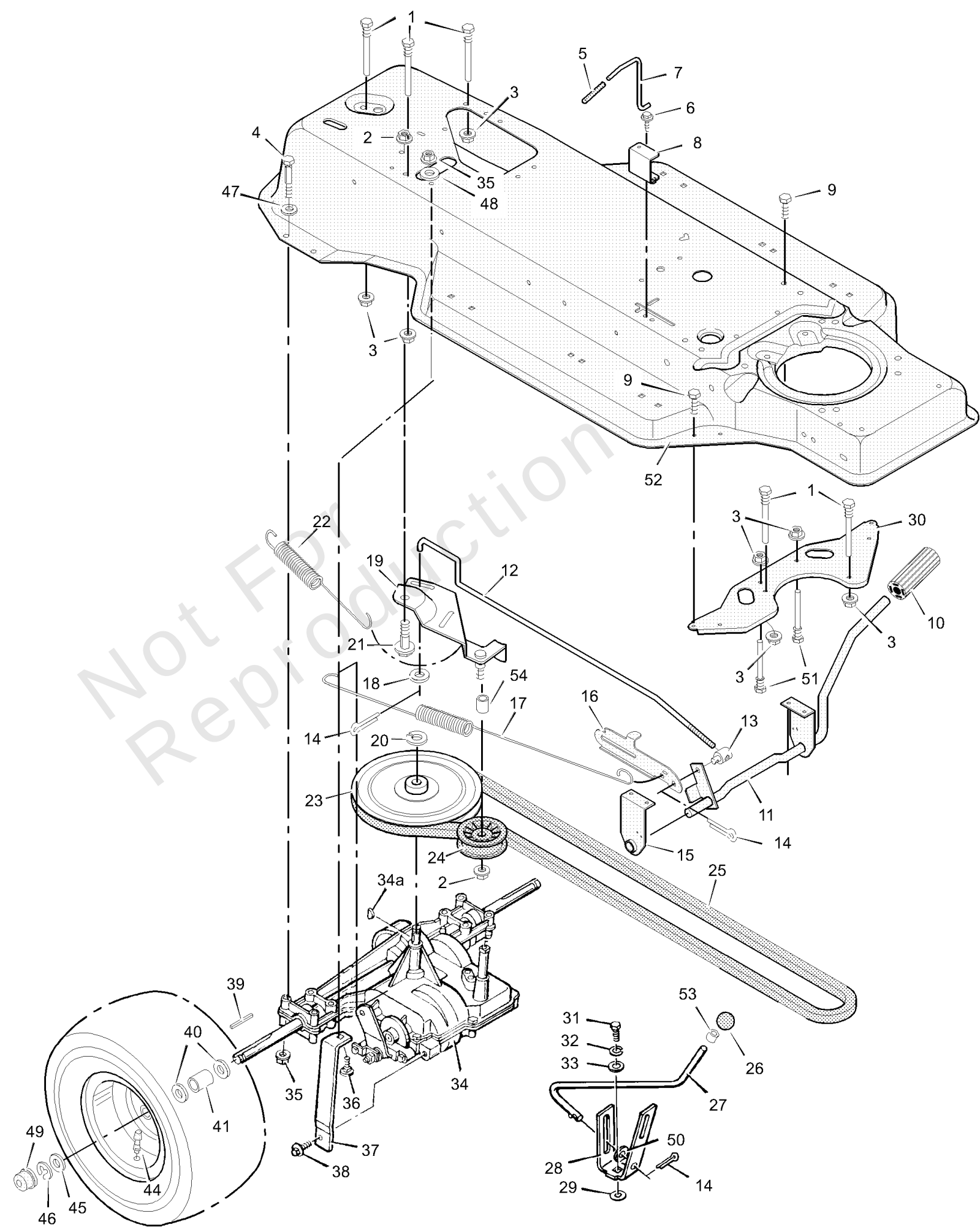
## Engine Mount

| REF NO | PART NO  | QTY | DESCRIPTION           |
|--------|----------|-----|-----------------------|
| 1      | 092317MA |     | FUEL CAP              |
| 2      | 091869   |     | Fuel Tank             |
| 3      | 095197MA |     | Hose Clamp            |
| 4      | 023715   |     | Fuel Line             |
| 5      | 095197MA |     | Hose Clamp            |
| 6      | 26X201MA |     | Screw                 |
| 7      | 26X201MA |     | Screw                 |
| 8      | 091983   |     | Throttle Control      |
| 9      | -----    |     | Engine *              |
| 11     | 0025X7MA |     | Bolt, Engine Mount    |
| 12     | 690442MA |     | Stack Pulley Assembly |
| 13     | 019X35MA |     | Lockwasher            |
| 14     | 01X140MA |     | Bolt, Hex             |
| 15     | 17X170MA |     | WASHER.46.97.25 FLAT  |

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### Footnotes:

Note\* Parts are available from an Authorized Engine Service Center. See "Engines, Gasoline" or "Gasoline Engines" in the yellow pages of the telephone directory.



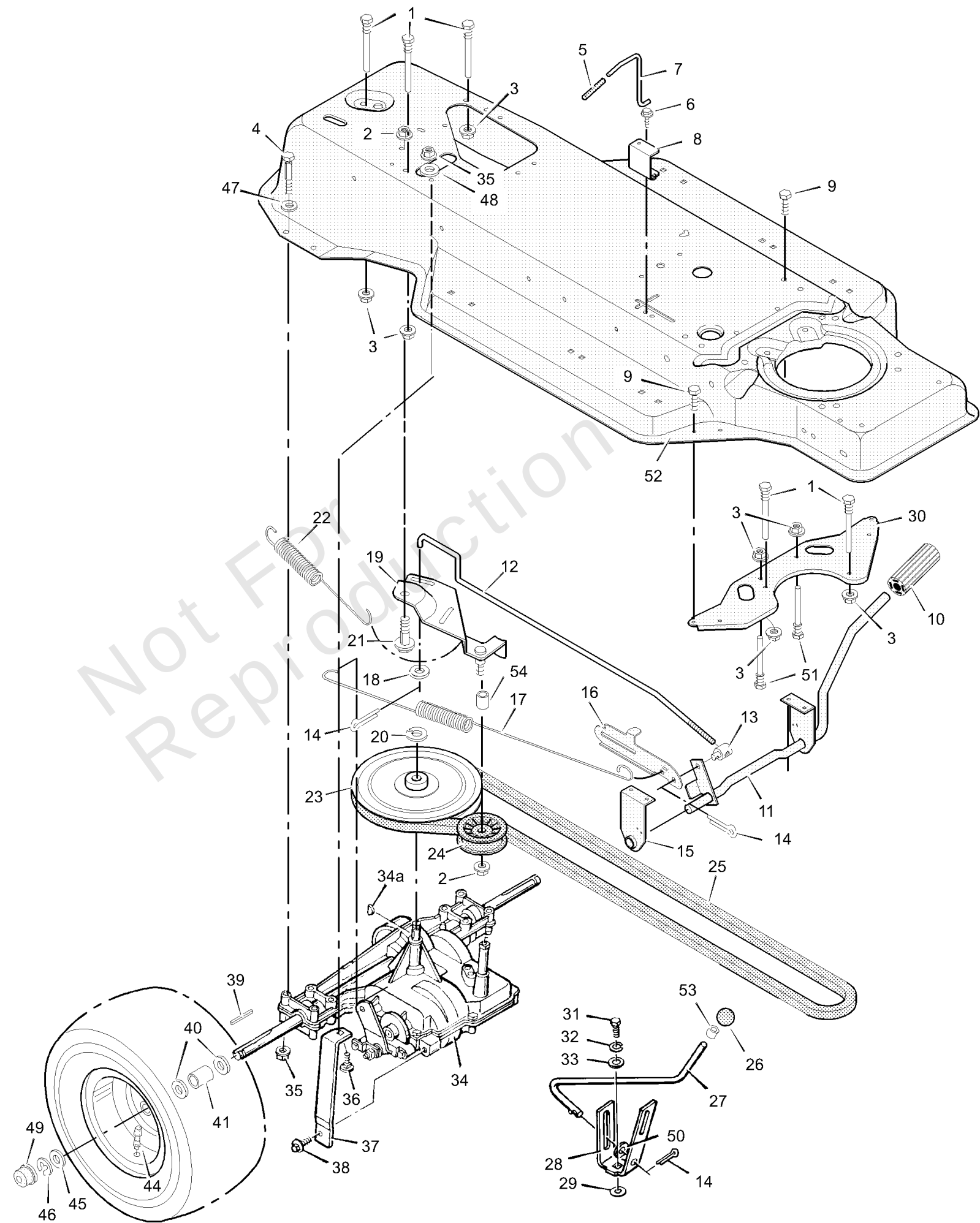
## Motion Drive

| REF NO | PART NO    | QTY | DESCRIPTION             |
|--------|------------|-----|-------------------------|
| 1      | 091754MA   |     | Guide, Belt             |
| 2      | 015X84MA   |     | Locknut, Flange         |
| 3      | 015X79MA   |     | Nut, Flange             |
| 4      | 01X124     |     | Bolt, Hex               |
| 5      | 091079MA   |     | Grip                    |
| 6      | 26X214MA   |     | Screw                   |
| 7      | 91727E700  |     | Rod, Control            |
| 8      | 91825E700  |     | Guide, Bracket          |
| 9      | 26X249MA   |     | Screw                   |
| 10     | 021544MA   |     | Clutch and Brake Pedal  |
| 11     | 091862E700 |     | Lever Assembly          |
| 12     | 091808 Z   |     | Rod, Clutch             |
| 13     | 021920ZMA  |     | Nut, Adjustable         |
| 14     | 030X20MA   |     | Pin, Cotter             |
| 15     | 091713E701 |     | Bracket, Support        |
| 16     | 091712 Z   |     | Latch, Park Brake       |
| 17     | 165X82MA   |     | Spring, Brake Extension |
| 18     | 017X47MA   |     | Washer                  |
| 19     | 092737 Z   |     | Bracket Assembly, Idler |
| 20     | 0011X7MA   |     | Ring, Retainer          |
| 21     | 009X39MA   |     | Bolt, Shoulder          |
| 22     | 165X76     |     | Spring, Drive Extension |
| 23     | 095094MA   |     | Pulley, Motion Drive    |
| 24     | 690409MA   |     | Pulley, Backside Idler  |
| 25     | 037X61MA   |     | Belt, Motion Drive      |
| 26     | 091995     |     | Knob, Shift Lever       |
| 27     | 091805 Z   |     | Lever, Shift            |
| 28     | 091806 Z   |     | Yoke, Shift             |
| 29     | 17X148MA   |     | Washer                  |
| 30     | 92694E700  |     | Plate, Belt Guide       |
| 31     | 06X105MA   |     | Bolt, Hex               |
| 32     | 017X38MA   |     | Lockwasher              |
| 33     | 17X148MA   |     | Washer                  |
| 34     | -----      |     | Transaxle, Peerless **  |
| 34A    | 020697MA   |     | Woodruff Key No. 9      |
| 35     | 015X88MA   |     | Nut, Flange             |
| 36     | 002X64MA   |     | Bolt, Carriage          |
| 37     | 091804E700 |     | Support, Transaxle      |
| 38     | 26X216MA   |     | Screw                   |
| 39     | 021553MA   |     | Key, Square             |
| 40     | 17X160MA   |     | Washer                  |
| 41     | 690553 Z   |     | Spacer, Transaxle       |
| 42     | 091923MA   |     | Tire *                  |
| --     | 407049MA   |     | Tube                    |
| 43     | 0 92288601 |     | Wheel & Tire Assembly   |
| 44     | 024373MA   |     | VALVE STM&CP,TR41 SE    |
| 45     | 17X195MA   |     | Washer                  |
| 46     | 0011X3MA   |     | RING, E .750D .050T     |

### Footnotes:

Note\* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.

Note\*\* Contact your nearest Peerless transaxle dealer for parts and service.



## Motion Drive

| REF NO | PART NO    | QTY | DESCRIPTION           |
|--------|------------|-----|-----------------------|
| 47     | 017X37MA   |     | Washer                |
| 48     | 017X45MA   |     | WASHER,FLAT .33 1. 16 |
| 49     | 094618MA   |     | HUB CAP               |
| 50     | 17X102MA   |     | Washer                |
| 51     | 020619MA   |     | Guide, Belt           |
| 52     | 092815E245 |     | Frame Assembly        |
| 53     | 092008     |     | Ring, Tolerance       |
| 54     | 690369MA   |     | Spacer                |

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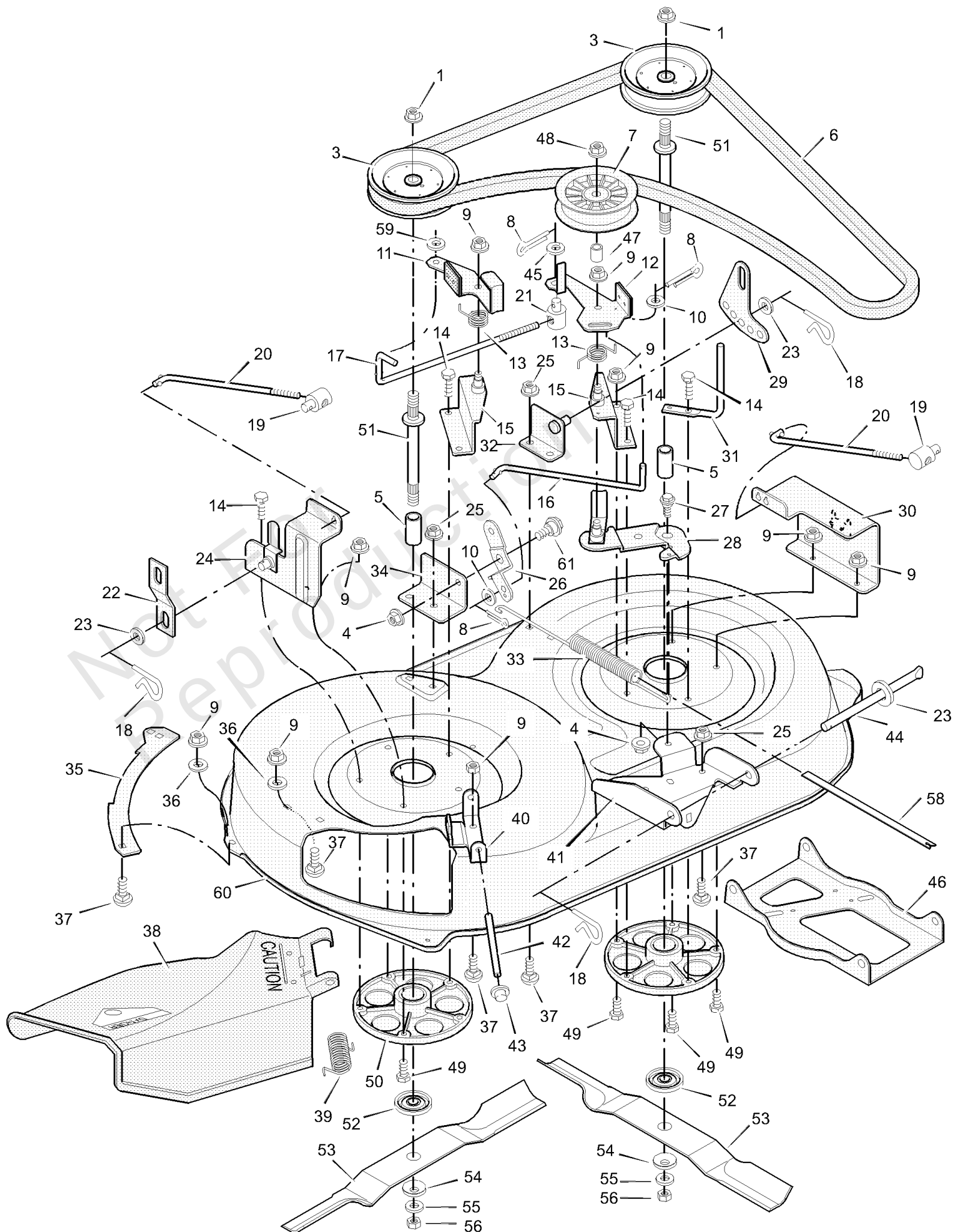
### Footnotes:

Note\* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.  
Note\*\* Contact your nearest Peerless transaxle dealer for parts and service.

## *Mower Housing*

Note: Unless noted otherwise, use the standard torque specifications

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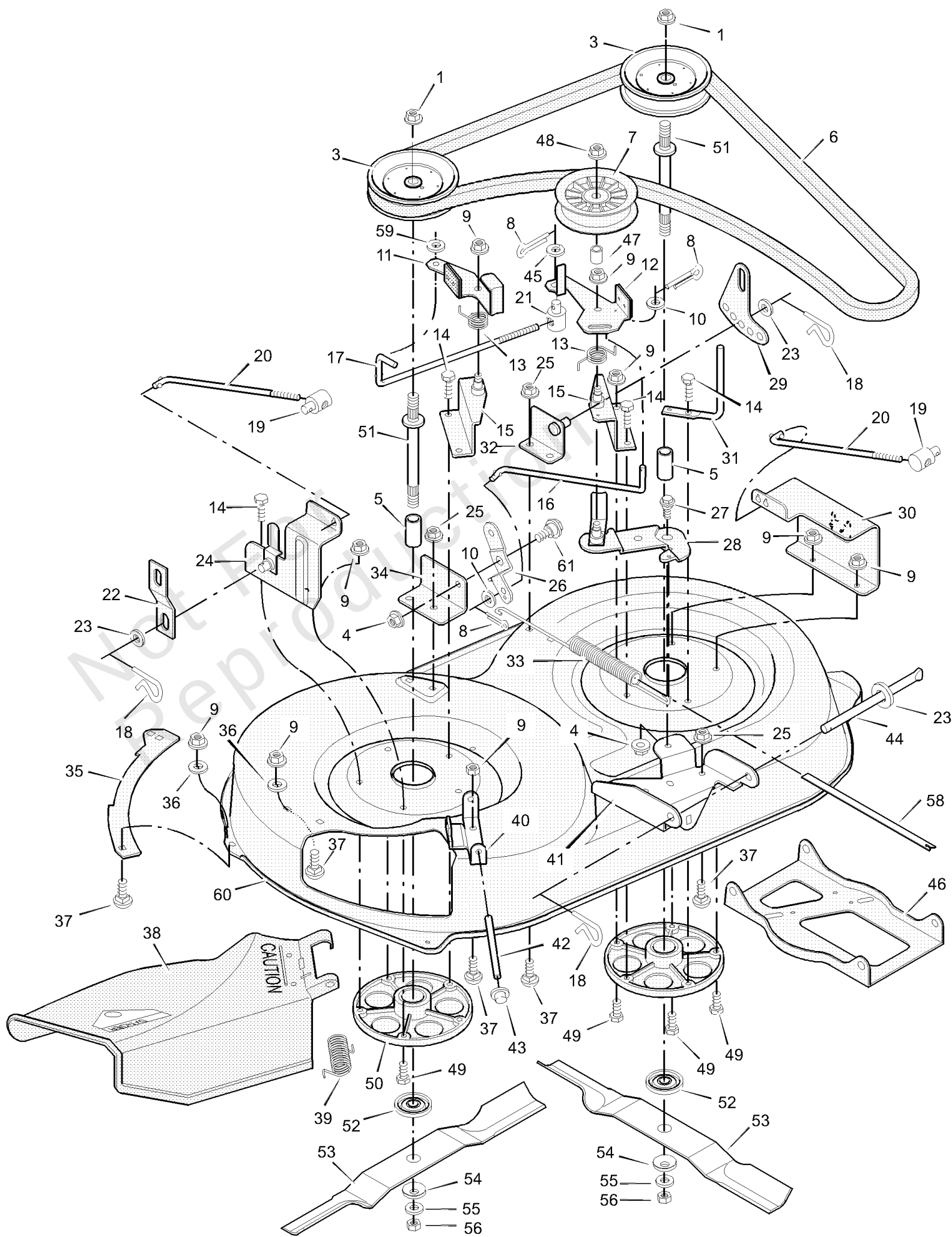
## Mower Housing

| REF NO | PART NO      | QTY | DESCRIPTION                     |
|--------|--------------|-----|---------------------------------|
| 1      | 15X121       |     | Nut, Hex                        |
| 3      | 092852MA     |     | Pulley, Jackshaft               |
| 4      | 015X84MA     |     | Locknut, Flange                 |
| 5      | 092850       |     | Spacer                          |
| 6      | 037X63MA     |     | Belt, Blade Drive               |
| 7      | 690387MA     |     | Pulley, Idler                   |
| 8      | 030X20MA     |     | Pin, Cotter                     |
| 9      | 015X88MA     |     | Locknut, Flange                 |
| 10     | 017X46 Z     |     | Washer                          |
| 11     | 092183SEMA   |     | Brake Assembly, Right           |
| 12     | 092183SEMA   |     | Brake Assembly, Left            |
| 13     | 166X27MA     |     | Spring, Torsion                 |
| 14     | 0025X7MA     |     | Bolt, Hex                       |
| 15     | 092072SEMA   |     | Bracket Assembly, Brake         |
| 16     | 091745 Z     |     | Rod, Brake                      |
| 17     | 092183SEMA   |     | Rod, Cross Link                 |
| 18     | 0031X4MA     |     | Pin, Hair                       |
| 19     | 092131       |     | Nut, Adjustable                 |
| 20     | 091748 Z     |     | Rod, Adjuster                   |
| 21     | 021920ZMA    |     | Nut, Adjustable                 |
| 22     | 092064E701MA |     | Link, Suspension                |
| 23     | 17X103MA     |     | Washer                          |
| 24     | 092194E701MA |     | Bracket Assembly, Right Lifter  |
| 25     | 015X79MA     |     | Nut, Flange                     |
| 26     | 092033SEMA   |     | Bracket, Pivot                  |
| 27     | 009X39MA     |     | Bolt, Shoulder                  |
| 28     | 092032SEMA   |     | Arm Assembly, Idler             |
| 29     | 91741E700    |     | Plate, Adjuster                 |
| 30     | 091792E700   |     | Cover, Pulley                   |
| 31     | 91797E700    |     | Guide, Belt                     |
| 32     | 91813E700    |     | Bracket Assembly, Left Lifter   |
| 33     | 165X72MA     |     | Spring, Extension               |
| 34     | 91743E700    |     | Bracket, Pivot                  |
| 35     | 091770E700MA |     | Plate                           |
| 36     | 017X57MA     |     | Washer                          |
| 37     | 002X53MA     |     | Bolt, Carriage                  |
| 38     | 094707MA     |     | Deflector Assembly, Chute       |
| 39     | 0166X4MA     |     | Spring, Torsion                 |
| 40     | 094956E701MA |     | BRACKET - HINGE                 |
| 41     | 91793E700    |     | Bracket, Front Hanger           |
| 42     | 094957ZMA    |     | ROD, Deflector                  |
| 43     | 028X23MA     |     | Cap, Push On                    |
| 44     | 091739 Z     |     | Rod, Hanger                     |
| 45     | 17X124MA     |     | Washer                          |
| 46     | 092119SEMA   |     | Hanger, Front                   |
| 47     | 690369MA     |     | Spacer                          |
| 48     | 015X98MA     |     | Nut, Flange                     |
| 49     | 001X84MA     |     | CAPSCREW, Hex Head, 5/16-18 x 1 |
| 50     | 690222       |     | Housing, Jackshaft              |
| 51     | 092849MA     |     | Jackshaft                       |
| 52     | 092466MA     |     | Adapter, Blade                  |

Mower Housing

Note: Unless noted otherwise, use the standard torque specifications

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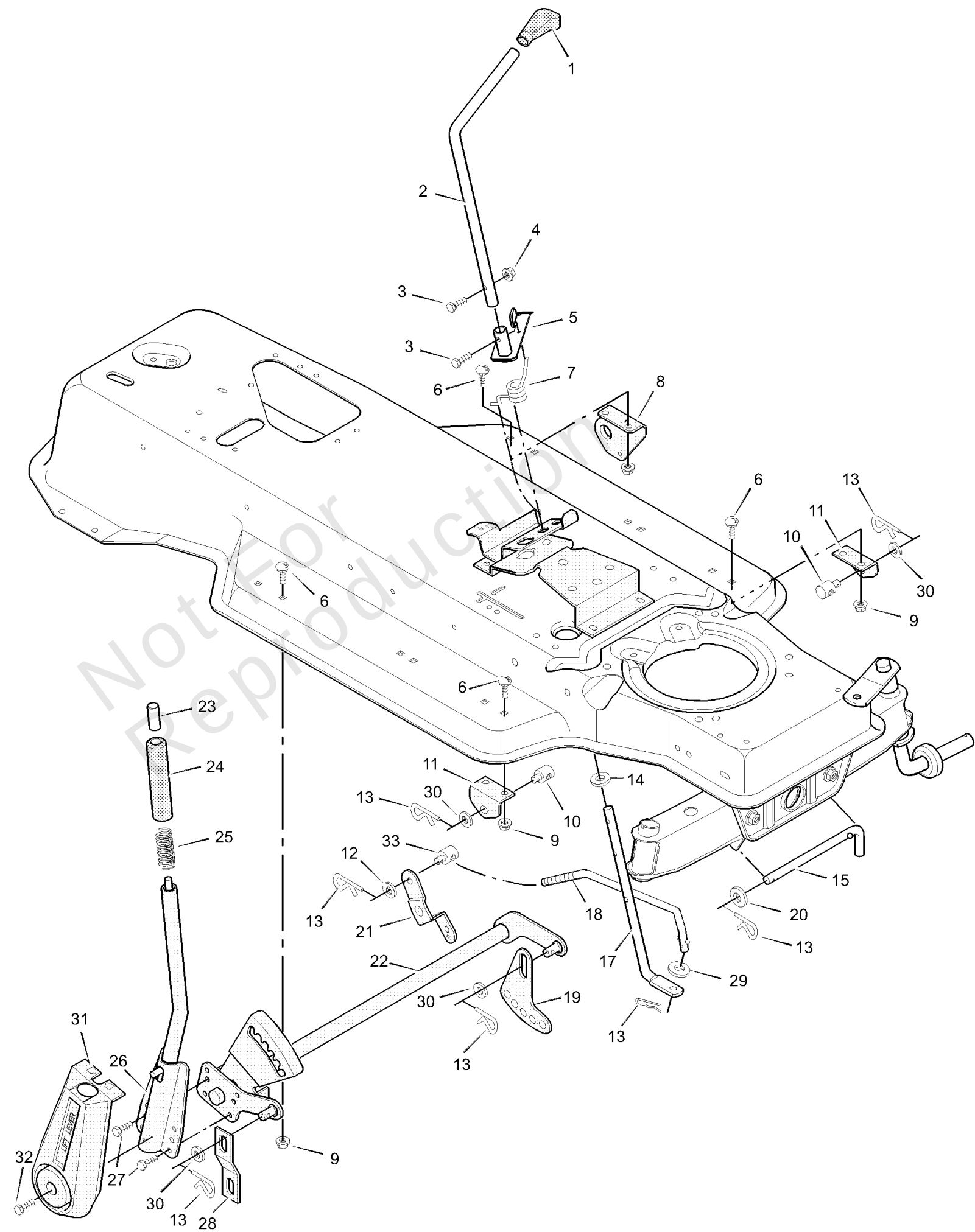
## Mower Housing

| REF NO | PART NO      | QTY | DESCRIPTION                 |
|--------|--------------|-----|-----------------------------|
| 53     | 094913E701MA |     | Blade, 38"<br>-(2 required) |
| 54     | 17X166MA     |     | Washer, Belleville          |
| 55     | 17X165MA     |     | Washer                      |
| 56     | 15X100MA     |     | Nut, Hex                    |
| 58     | 092163MA     |     | Indicator, Plastic          |
| 59     | 017X48MA     |     | Washer                      |
| 60     | 091906E701MA |     | Housing, Blade (38")        |
| 61     | 009X42MA     |     | Bolt, Shoulder              |

Mower Housing Suspension

Note: Unless noted otherwise, use the standard torque specifications

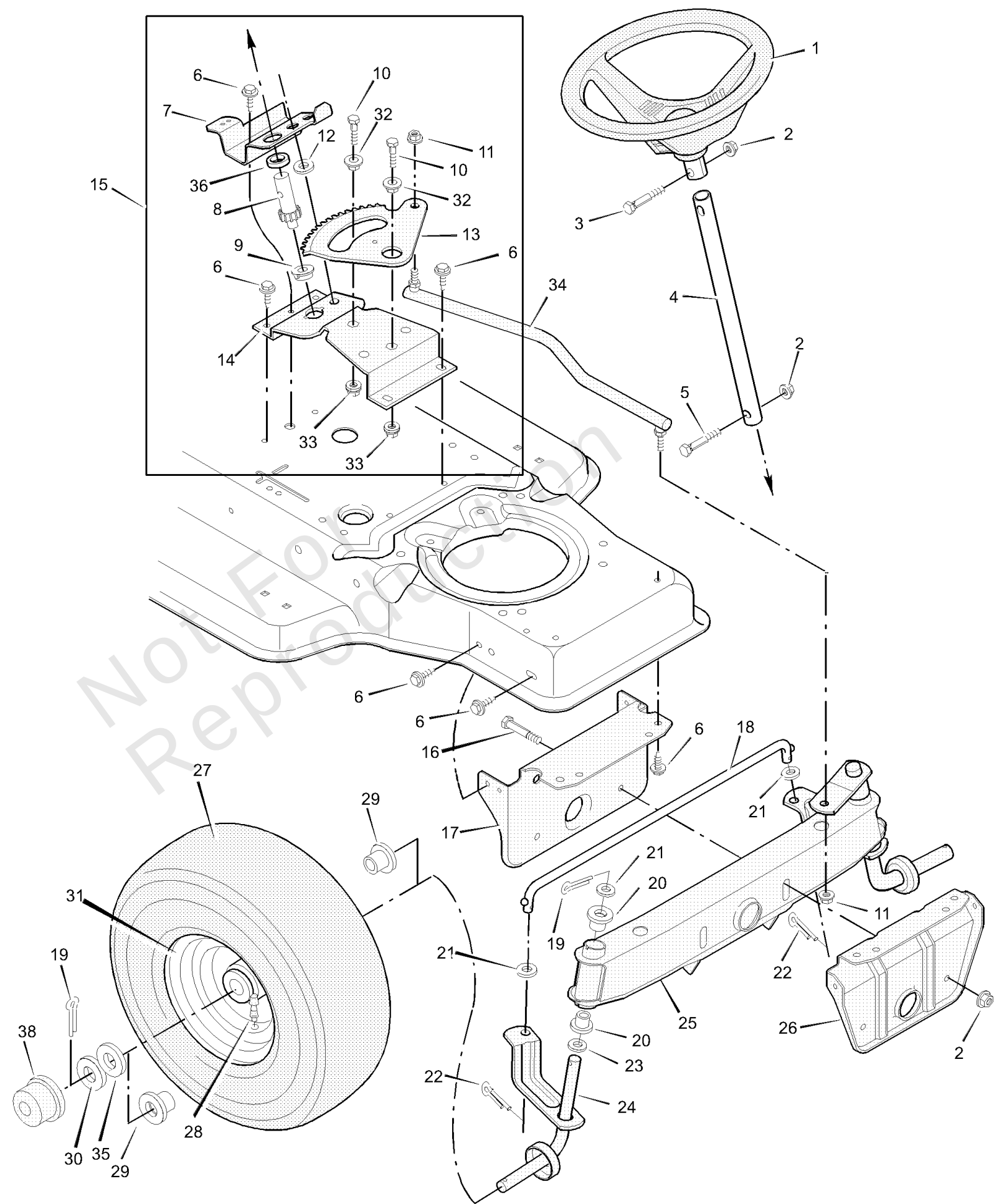
Mfg. No: 38711x44A



## Mower Housing Suspension

| REF NO | PART NO      | QTY | DESCRIPTION                      |
|--------|--------------|-----|----------------------------------|
| 1      | 092698MA     |     | Grip                             |
| 2      | 091781 Z     |     | Control, Blade Rotation          |
| 3      | 0025X3MA     |     | Screw, Hex                       |
| 4      | 015X67MA     |     | Locknut, Hex                     |
| 5      | 091917E701MA |     | Lever Assembly, Switch           |
| 6      | 002X53MA     |     | Bolt, Carriage                   |
| 7      | 166X32MA     |     | Spring, Torsion                  |
| 8      | 092066E701MA |     | Bracket, Rear Hanger             |
| 9      | 015X79MA     |     | Nut, Flange                      |
| 10     | 092131       |     | Nut, Adjusting                   |
| 11     | 092133SEMA   |     | Bracket, Adjuster Rod            |
| 12     | 17X124MA     |     | Washer                           |
| 13     | 0031X4MA     |     | Pin, Hair                        |
| 14     | 17X122       |     | Washer                           |
| 15     | 090827 Z     |     | Pin, Pull                        |
| 17     | 091787E701MA |     | Lever, Lower Blade Control       |
| 18     | 091795 Z     |     | Rod, Blade Control               |
| 19     | 91741E700    |     | Plate, Adjuster                  |
| 20     | 17X103MA     |     | Washer                           |
| 21     | 092033SEMA   |     | Bracket, Pivot                   |
| 22     | 092065E701MA |     | Lifter Assembly                  |
| 23     | 092572MA     |     | Button, Push                     |
| 24     | 092783MA     |     | Grip                             |
| 25     | 164X21MA     |     | Spring, Compression              |
| 26     | 091823SEMA   |     | Handle Assembly                  |
| 27     | 026X49MA     |     | Screw                            |
| 28     | 092064E701MA |     | Link, Suspension                 |
| 29     | 017X47MA     |     | Washer                           |
| 30     | 017X91MA     |     | Washer                           |
| 31     | 092157MA     |     | Cover, Lift Lever<br>-(Optional) |
| 32     | 26X263MA     |     | SCREW.25-20 S-T                  |
| 33     | 021920ZMA    |     | Nut, Adjusting                   |

Steering



## Steering

| REF NO | PART NO      | QTY | DESCRIPTION                     |
|--------|--------------|-----|---------------------------------|
| 1      | 92076        |     | Wheel, Steering                 |
| 2      | 15X118MA     |     | Nut, Hex                        |
| 3      | 001X66MA     |     | Bolt, Hex                       |
| 4      | 091860 Z     |     | Post, Steering                  |
| 5      | 001X74MA     |     | Bolt, Hex                       |
| 6      | 26X249MA     |     | Screw                           |
| 7      | 091716E700   |     | Bracket, Sector                 |
| 8      | 092715MA     |     | Gear, Pinion                    |
| 9      | 092716MA     |     | Bearing                         |
| 10     | 001X84MA     |     | CAPSCREW, Hex Head, 5/16-18 x 1 |
| 11     | 015X87       |     | Locknut, Flange                 |
| 12     | 092564MA     |     | Spacer                          |
| 13     | 092316       |     | Gear, Sector                    |
| 14     | 091708E700   |     | Bracket, Sector                 |
| 15     | 402075MA     |     | Kit, Steering Gear              |
| 16     | 01X146MA     |     | Bolt, Hex                       |
| 17     | 92529E700    |     | Support, Rear Axle              |
| 18     | 090038 Z     |     | Rod, Tie                        |
| 19     | 030X49MA     |     | Pin, Cotter                     |
| 20     | 092527MA     |     | Bearing                         |
| 21     | 017X57MA     |     | Washer                          |
| 22     | 030X20MA     |     | Pin, Cotter                     |
| 23     | 17X113MA     |     | WASHER.76-1.2 13G FL            |
| 24     | 091828E701MA |     | Spindle Assembly, Right         |
| 25     | 92518E700    |     | Spindle Assembly, Axle & Left   |
| 26     | 92528E700    |     | Support, Front Axle             |
| 27     | 091912MA     |     | Tire *                          |
| --     | 407047MA     |     | Tube                            |
| 28     | 024373MA     |     | VALVE STM&CP,TR41 SE            |
| 29     | 091334       |     | Bearing, Wheel                  |
| 30     | 17X195MA     |     | Washer                          |
| 31     | 094578601    |     | Wheel & Tire Assembly           |
| 32     | 092097MA     |     | Bearing                         |
| 33     | 15X113MA     |     | Locknut, Flange                 |
| 34     | 091749E701MA |     | Link, Drag                      |
| 35     | 17X192MA     |     | Washer                          |
| 36     | 092280MA     |     | Spacer, Pinion Gear             |
| 38     | 094618MA     |     | HUB CAP<br>-(Optional)          |

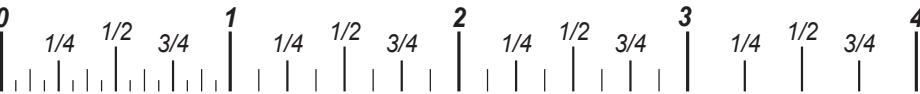
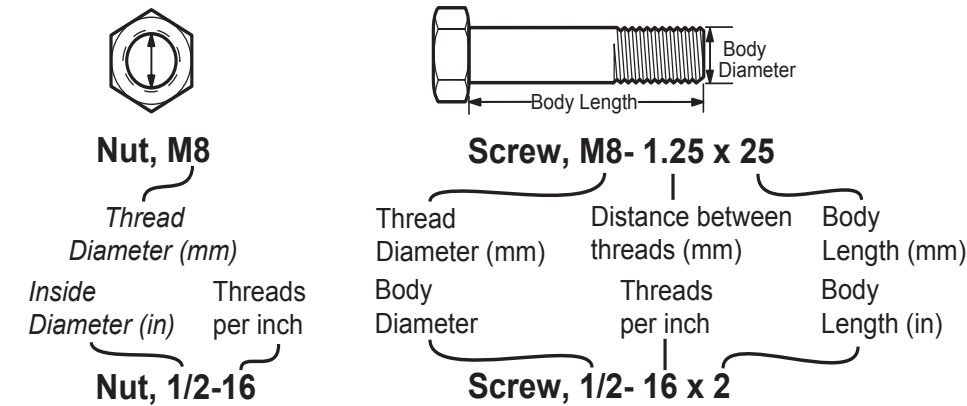
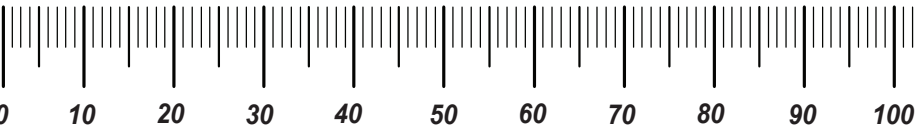
### Footnotes:

Note\* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.

# Hardware Identification & Torque Specifications

| Torque Specification Chart                             |                                                                                                |      |                                                                                                |      |                                                                                                 |      |                                                                                                 |      |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------|------|
| FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%) |                                                                                                |      |                                                                                                |      |                                                                                                 |      |                                                                                                 |      |
| Property Class                                         | <br>Class 5.6 |      | <br>Class 8.8 |      | <br>Class 10.9 |      | <br>Class 12.9 |      |
| Size Of Hardware                                       | in/lbs<br>ft/lbs                                                                               | Nm.  | in/lbs<br>ft/lbs                                                                               | Nm.  | in/lbs<br>ft/lbs                                                                                | Nm.  | in/lbs<br>ft/lbs                                                                                | Nm.  |
| M3                                                     | 5.88                                                                                           | .56  | 13.44                                                                                          | 1.28 | 19.2                                                                                            | 1.80 | 22.92                                                                                           | 2.15 |
| M4                                                     | 13.44                                                                                          | 1.28 | 30.72                                                                                          | 2.90 | 43.44                                                                                           | 4.10 | 52.56                                                                                           | 4.95 |
| M5                                                     | 26.4                                                                                           | 2.50 | 60.96                                                                                          | 5.75 | 5.97                                                                                            | 8.10 | 7.15                                                                                            | 9.7  |
| M6                                                     | 44.64                                                                                          | 4.3  | 7.3                                                                                            | 9.9  | 10.3                                                                                            | 14   | 12.1                                                                                            | 16.5 |
| M7                                                     | 5.2                                                                                            | 7.1  | 12.1                                                                                           | 16.5 | 16.9                                                                                            | 23   | 19.9                                                                                            | 27   |
| M8                                                     | 7.7                                                                                            | 10.5 | 17.7                                                                                           | 24   | 25                                                                                              | 34   | 29                                                                                              | 40   |
| M10                                                    | 15                                                                                             | 21   | 35                                                                                             | 48   | 50                                                                                              | 67   | 59                                                                                              | 81   |
| M12                                                    | 26                                                                                             | 36   | 61                                                                                             | 83   | 86.2                                                                                            | 117  | 103                                                                                             | 140  |
| M14                                                    | 42                                                                                             | 58   | 101                                                                                            | 132  | 136                                                                                             | 185  | 162                                                                                             | 220  |
| M16                                                    | 64                                                                                             | 88   | 147                                                                                            | 200  | 210                                                                                             | 285  | 250                                                                                             | 340  |
| M18                                                    | 89                                                                                             | 121  | 202                                                                                            | 275  | 287                                                                                             | 390  | 346                                                                                             | 470  |
| M20                                                    | 126                                                                                            | 171  | 290                                                                                            | 390  | 405                                                                                             | 550  | 486                                                                                             | 660  |
| M22                                                    | 169                                                                                            | 230  | 390                                                                                            | 530  | 559                                                                                             | 745  | 656                                                                                             | 890  |
| M24                                                    | 217                                                                                            | 295  | 497                                                                                            | 375  | 708                                                                                             | 960  | 840                                                                                             | 1140 |
| M27                                                    | 320                                                                                            | 435  | 733                                                                                            | 995  | 1032                                                                                            | 1400 | 1239                                                                                            | 1680 |
| M30                                                    | 435                                                                                            | 590  | 995                                                                                            | 1350 | 1401                                                                                            | 1900 | 1681                                                                                            | 2280 |
| M33                                                    | 590                                                                                            | 800  | 1349                                                                                           | 1830 | 1902                                                                                            | 2580 | 2278                                                                                            | 3090 |
| M36                                                    | 759                                                                                            | 1030 | 1740                                                                                           | 2360 | 2441                                                                                            | 3310 | 2935                                                                                            | 3980 |
| M39                                                    | 988                                                                                            | 1340 | 2249                                                                                           | 3050 | 3163                                                                                            | 4290 | 3798                                                                                            | 5150 |

The guides and ruler furnished below are designed to help you select the appropriate hardware.



## Standard Hardware Sizing

When a washer or nut is identified as 1/2" (M8), this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch (8mm metric thread diameter); if a second number is present it represents the *threads per inch* (distance between threads).

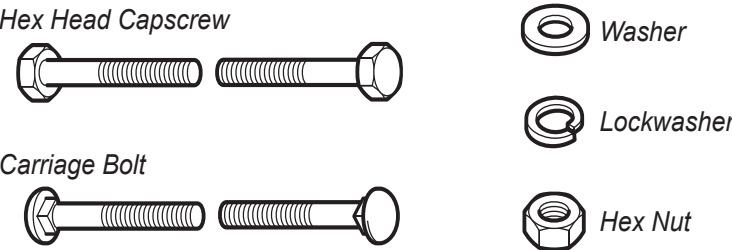
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw, 2 inches (50mm).

| Torque Specification Chart                      |                                                                                                    |       |                                                                                                    |       |                                                                                                    |         |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------|---------|
| FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%) |                                                                                                    |       |                                                                                                    |       |                                                                                                    |         |
| Hardware Grade                                  | <br>SAE Grade 2 |       | <br>SAE Grade 5 |       | <br>SAE Grade 8 |         |
| Size Of Hardware                                | in/lbs<br>ft/lbs                                                                                   | Nm.   | in/lbs<br>ft/lbs                                                                                   | Nm.   | in/lbs<br>ft/lbs                                                                                   | Nm.     |
| 8-32                                            | 19                                                                                                 | 2.1   | 30                                                                                                 | 3.4   | 41                                                                                                 | 4.6     |
| 8-36                                            | 20                                                                                                 | 2.3   | 31                                                                                                 | 3.5   | 43                                                                                                 | 4.9     |
| 10-24                                           | 27                                                                                                 | 3.1   | 43                                                                                                 | 4.9   | 60                                                                                                 | 6.8     |
| 10-32                                           | 31                                                                                                 | 3.5   | 49                                                                                                 | 5.5   | 68                                                                                                 | 7.7     |
| 1/4-20                                          | 66                                                                                                 | 7.6   | 8                                                                                                  | 10.9  | 12                                                                                                 | 16.3    |
| 1/4-28                                          | 76                                                                                                 | 8.6   | 10                                                                                                 | 13.6  | 14                                                                                                 | 19.0    |
| 5/16-18                                         | 11                                                                                                 | 15.0  | 17                                                                                                 | 23.1  | 25                                                                                                 | 34.0    |
| 5/16-24                                         | 12                                                                                                 | 16.3  | 19                                                                                                 | 25.8  | 29                                                                                                 | 34.0    |
| 3/8-16                                          | 20                                                                                                 | 27.2  | 30                                                                                                 | 40.8  | 45                                                                                                 | 61.2    |
| 3/8-24                                          | 23                                                                                                 | 31.3  | 35                                                                                                 | 47.6  | 50                                                                                                 | 68.0    |
| 7/16-14                                         | 30                                                                                                 | 40.8  | 50                                                                                                 | 68.0  | 70                                                                                                 | 95.2    |
| 7/16-20                                         | 35                                                                                                 | 47.6  | 55                                                                                                 | 74.8  | 80                                                                                                 | 108.8   |
| 1/2-13                                          | 50                                                                                                 | 68.0  | 75                                                                                                 | 102.0 | 110                                                                                                | 149.6   |
| 1/2-20                                          | 55                                                                                                 | 74.8  | 90                                                                                                 | 122.4 | 120                                                                                                | 163.2   |
| 9/16-12                                         | 65                                                                                                 | 88.4  | 110                                                                                                | 149.6 | 150                                                                                                | 204.0   |
| 9/16-18                                         | 75                                                                                                 | 102.0 | 120                                                                                                | 163.2 | 170                                                                                                | 231.2   |
| 5/8-11                                          | 90                                                                                                 | 122.4 | 150                                                                                                | 204.0 | 220                                                                                                | 299.2   |
| 5/8-18                                          | 100                                                                                                | 136   | 180                                                                                                | 244.8 | 240                                                                                                | 326.4   |
| 3/4-10                                          | 160                                                                                                | 217.6 | 260                                                                                                | 353.6 | 386                                                                                                | 525.0   |
| 3/4-16                                          | 180                                                                                                | 244.8 | 300                                                                                                | 408.0 | 420                                                                                                | 571.2   |
| 7/8-9                                           | 140                                                                                                | 190.4 | 400                                                                                                | 544.0 | 600                                                                                                | 816.0   |
| 7/8-14                                          | 155                                                                                                | 210.8 | 440                                                                                                | 598.4 | 660                                                                                                | 897.6   |
| 1-8                                             | 220                                                                                                | 299.2 | 580                                                                                                | 788.8 | 900                                                                                                | 1,244.0 |
| 1-12                                            | 240                                                                                                | 326.4 | 640                                                                                                | 870.4 | 1,000                                                                                              | 1,360.0 |

## NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
  - for prevailing torque locknuts - use 65% of grade 5 torques.
  - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

## Common Hardware Types



## Wrench & Fastener Size Guide

|                                                                                                                           |                                                                                                                           |                                                                                                                           |                                                                                                                                                         |                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <br>1/4" Bolt or Nut<br>Wrench—7/16" | <br>5/16" Bolt or Nut<br>Wrench—1/2" | <br>3/8" Bolt or Nut<br>Wrench—9/16" | <br>7/16" Bolt or Nut<br>Wrench (Bolt)—5/8"<br>Wrench (Nut)—11/16" | <br>1/2" Bolt or Nut<br>Wrench—3/4" |
| M6 Bolt or Nut<br>Wrench—10mm                                                                                             | M8 Bolt or Nut<br>Wrench—13mm                                                                                             | M10 Bolt or Nut<br>Wrench—17mm                                                                                            | M12 Bolt or Nut<br>Wrench—19mm                                                                                                                          | M14 Bolt or Nut<br>Wrench—22mm                                                                                           |

