



## Rear Tine Tillers And Attachment

### 3.5HP Product

Mfg. No.	Description
1692876	413RT, 3.5HP Rear Tine Tiller

### 5HP Product

Mfg. No.	Description
1692877	516RT, 5HP Rear Tine Tiller

### Attachment

Mfg. No.	Description
1692878	Hiller / Furrower

Not for  
Reproduction

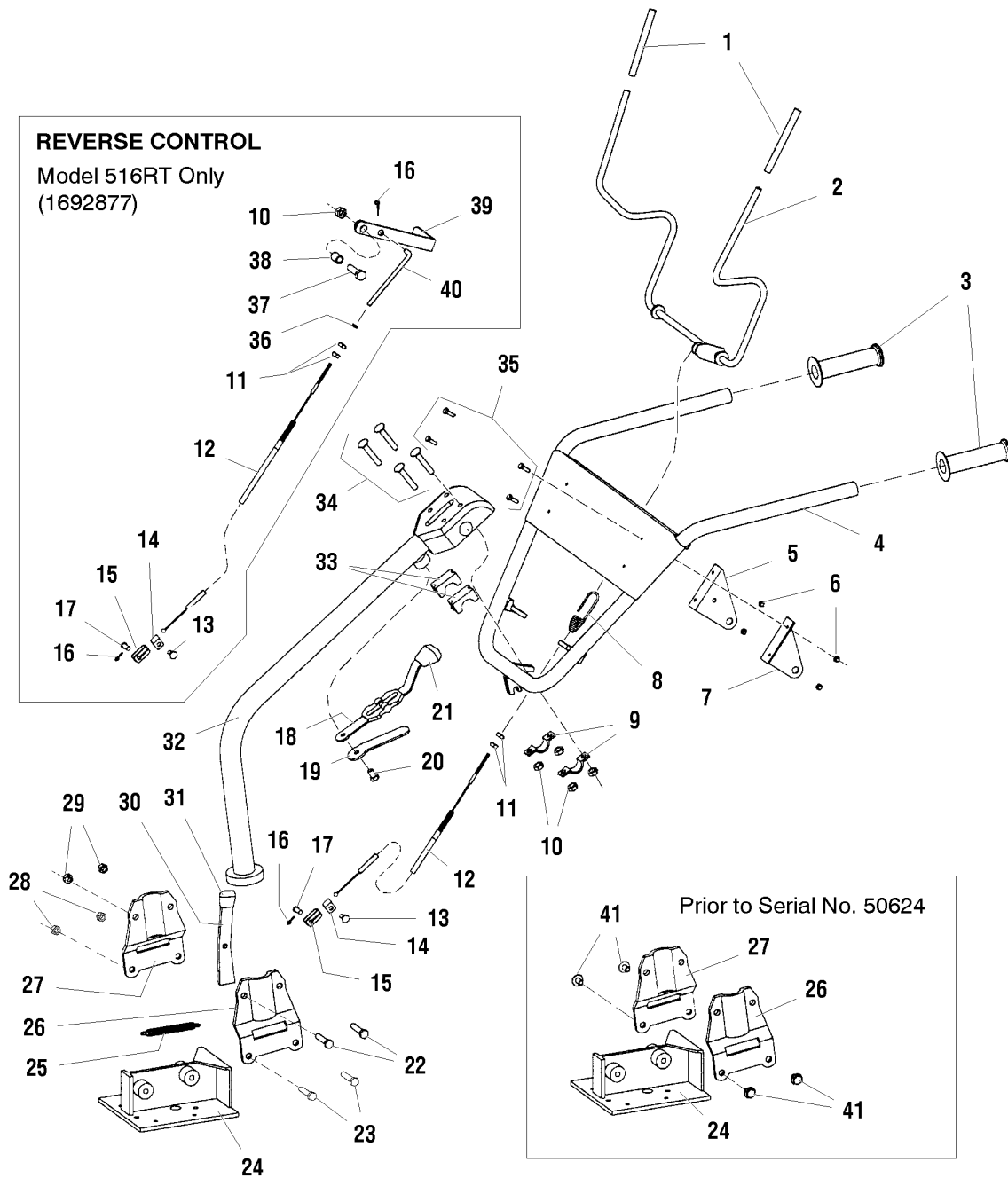
<b>PRODUCT COMPONENTS</b>	<b>PAGES</b>
Handles & Controls .....	4
Hood, Drag Stake & Bolo Tines .....	8
Engine Mounting, Belts & Wheels .....	10
Transmission Assembly .....	14
Transmission Housing .....	16
Decals .....	18
Hiller/Furrower Attachment .....	20
Hiller/Furrower Attachment P/N 1692878 .....	22
Shifting Mechanism .....	24
<b>Torque Specification Chart .....</b>	<b>Inside Back Cover</b>

Not for  
Reproduction

# Handles & Controls

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.

05\0005



NOTE: Unless noted otherwise, use the standard hardware torque specification chart.

The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

1692877 - 516RT

## Handles & Controls

REF NO	PART NO.	QTY.	DESCRIPTION
1	1716699SM	2	HANDLE GRIP, Drive Control Lever
2	1716721SM	1	LEVER, Drive Control
3	1719038SM	2	HANDLE GRIP, Black
4	1716718SM	1	ASSEMBLY, Main Handlebar
5	1716722SM	1	BRACKET, Drive Control Lever, Right
6	1716732SM	4	NUT, Nyloc, 5mm x 0.8mm
7	1716723SM	1	BRACKET, Drive Control Lever, Left
8	1716720SM	1	SPRING, Forward Cable Adjust
9	1716709SM	2	CLAMP, Handlebar Tilt
10	1917372SM	5	NUT, 5/16"-18 (Qty. 4 on Model 413RT). Reverse Control Model 516RT Only (1692877)
11	2820438SM	4	NUT, Jam, 5/16"-24 (Qty. 2 on Model 413RT). Reverse Control Model 516RT Only (1692877)
12	1719037SM	2	CABLE ASSEMBLY, Control Engage (Qty. 1 on Model 413RT). Reverse Control Model 516RT Only (1692877)
13	1921958SM	2	BOLT, Hex Hd, 1/4"-20 x 1/2" (Qty. 1 on Model 413RT). Reverse Control Model 516RT Only (1692877)
14	1716727SM	2	CLAMP, Cable (Qty. 1 on Model 413RT). Reverse Control Model 516RT Only (1692877)
15	1716728SM	2	YOKE, Cable (Qty. 1 on Model 413RT). Reverse Control Model 516RT Only (1692877)
16	1716703SM	3	COTTER PIN (Qty. 1 on Model 413RT). Reverse Control Model 516RT Only (1692877)
17	1716702SM	2	PIN, Link (Qty. 1 on Model 413RT). Reverse Control Model 516RT Only (1692877)
18	1716707SM	1	LEVER, Handlebar Tilt
19	1716714SM	1	STOP, Handlebar Tilt Lever
20	1716715SM	1	BOLT, 8mm x 16mm
21	1716708SM	1	KNOB, Handlebar Tilt Lever
22	1716716SM	2	BOLT, 10mm x 30mm
23	1923141SM	2	BOLT, Hex Hd, 5/16" - 18 x 2-3/4", Grade 5 Serial Nos. 50624 and above use Ref. Nos. 23 & 28. Prior models use Ref. No. 41.
24	1716724SM	1	COVER, Transmission Wheel Housing Prior to Serial No. 50624
25	1716710SM	1	SPRING, Handlebar Swivel
26	1716719SM	1	MOUNT, Handlebar Stem, Left Prior to Serial No. 50624
27	1716706SM	1	MOUNT, Handlebar Stem, Right Prior to Serial No. 50624
28	1935048SM	2	NUT, Bi-way Lock, 5/16"-18 Serial Nos. 50624 and above use Ref. Nos. 23 & 28. Prior models use Ref. No. 41.
29	1716717SM	2	NUT, Nyloc, 10mm
30	1716712SM	1	LEVER, Handlebar Swivel
31	1716711SM	1	KNOB, Handlebar Swivel Lever
32	1716713SM	1	HANDLEBAR STEM
33	1716705SM	2	TILT FRICTION PAD
34	1931339SM	4	BOLT, Carriage Hd, 5/16"-18 x 2"
35	1716731SM	4	BOLT, Hex Hd, 5mm x 0.8mm x 10mm
36	1933896SM	1	NUT, Nyloc, #10 Model 516RT Only. Reverse Control Model 516RT Only (1692877)
37	1921978SM	1	CAPSCREW, Hex Head 5/16-18 x 2 G5 Model 516RT Only. Reverse Control Model 516RT Only (1692877)
38	1716704SM	1	BUSHING, Pivot, 5/16" Model 516RT Only. Reverse Control Model 516RT Only (1692877)
39	1716725SM	1	REVERSE HANDLE Model 516RT Only. Reverse Control Model 516RT Only (1692877)
40	1716729SM	1	REVERSE LINK Model 516RT Only. Reverse Control Model 516RT Only (1692877)

### Footnotes

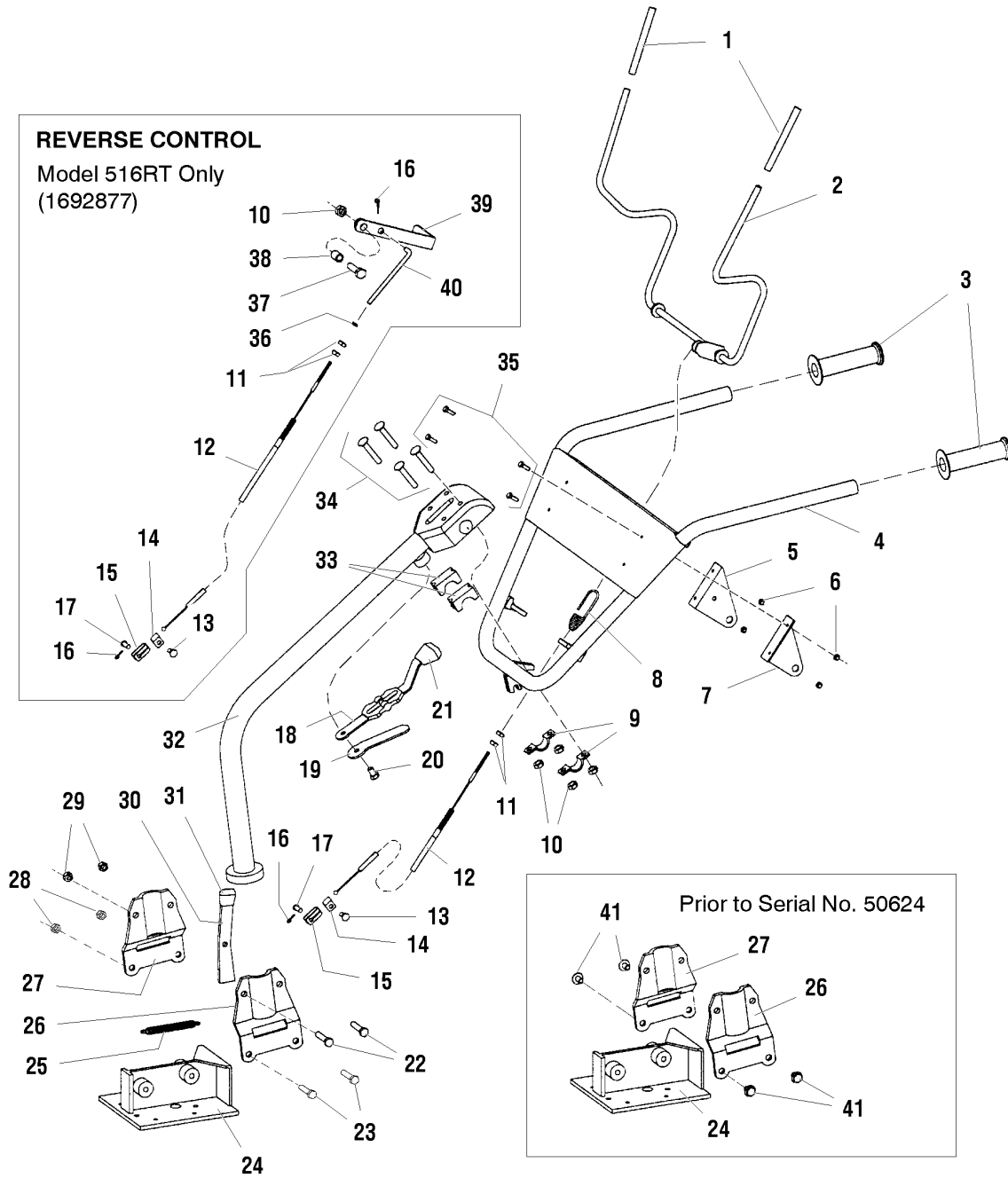
The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT  
1692877 - 516RT

# Handles & Controls

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.

05\0005



NOTE: Unless noted otherwise, use the standard hardware torque specification chart.

The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

1692877 - 516RT

## Handles & Controls

---

REF NO	PART NO.	QTY.	DESCRIPTION
41	1716701SM	4	BOLT, Hex Flange Hd, 5/16"-18 x 1/2", Grade 5 (Prior to Serial No. 50624) Serial Nos. 50624 and above use Ref. Nos. 23 & 28. Prior models use Ref. No. 41.

---

Not for  
Reproduction

### Footnotes

---

**The above parts group applies to the following Mfg. Nos.:**

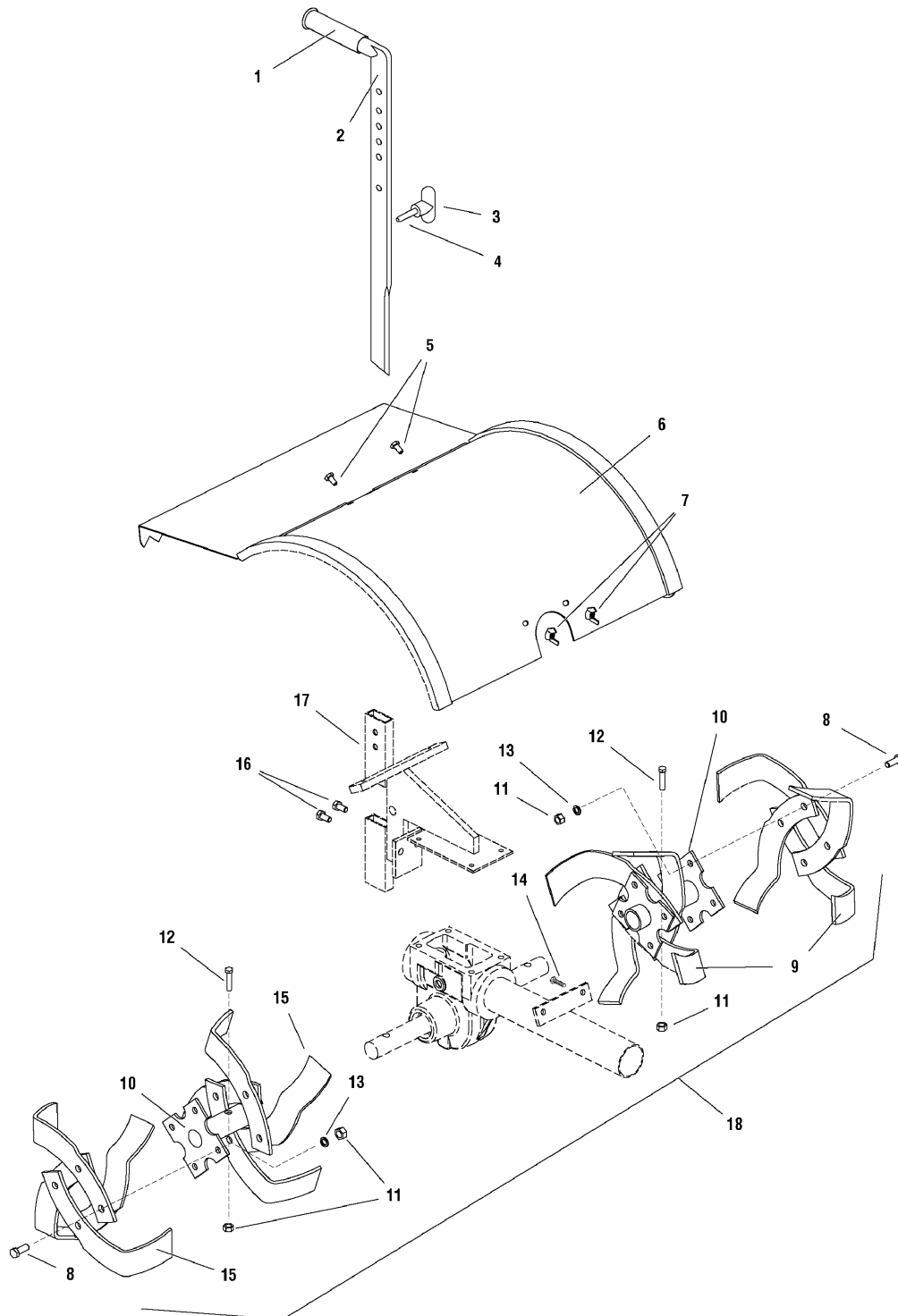
1692876 - 413RT

1692877 - 516RT

## Hood, Drag Stake & Bolo Tines

985149

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

1692877 - 516RT



## Hood, Drag Stake & Bolo Tines

REF NO	PART NO.	QTY.	DESCRIPTION
1	1719038SM	2	HANDLE GRIP, Black
2	1716745SM	1	LEVER, Drag Stake Model 516RT Only
2	1716746SM	1	LEVER, Drag Stake Model 413RT Only
3	1716743SM	1	KNOB, T-Handle, Drag Stake
4	1716742SM	1	DETENT PIN, 5/16"-18 x 1"
5	1921958SM	2	BOLT, Hex Hd, 1/4"-20 x 1/2"
6	1716744SM	1	HOOD, Tiller
7	918468	2	WING NUT, 5/16"-18
8	1921210SM	16	BOLT, Hex Hd, 3/8"-16 x 1", Grade 5
9	1716738SM	8	TINE, Bolo, Left Side Model 413RT Only
9	1716739SM	8	TINE, Bolo, Left Side Model 516RT Only
10	1716740SM	2	HOLDER, Bolo Tine (Left & Right Sides) Model 413RT Only
10	1716741SM	2	HOLDER, Bolo Tine (Left & Right Sides) Model 516RT Only
11	1916950SM	18	NUT, Hex, 3/8"-16
12	1921971SM	2	BOLT, Hex Hd, 3/8"-16 x 1-3/4"
13	1916965SM	16	LOCKWASHER, Spring, 3/8"
14	1921333SM	2	BOLT, Hex Hd, 5/16"-18 x 1", Grade 5
15	1716736SM	8	TINE, Bolo, Right Side Model 413RT Only
15	1716737SM	8	TINE, Bolo, Right Side Model 516RT Only
16	1716701SM	2	BOLT, Hex Flange Hd, 5/16"-18 x 1/2", Grade 5
17	1716735SM	1	BRACKET, Depth Regulator
18	1716748SM	1	REPLACEMENT KIT, Bolo Tine Holder Model 413RT Only. (Includes Ref. Nos. 8, 9, 10, 11, 12, 13 & 15). Not shown as kit in illustration.
18	1716749SM	1	REPLACEMENT KIT, Bolo Tine Holder Model 516RT Only. (Includes Ref. Nos. 8, 9, 10, 11, 12, 13 & 15). Not shown as kit in illustration.

### Footnotes

The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

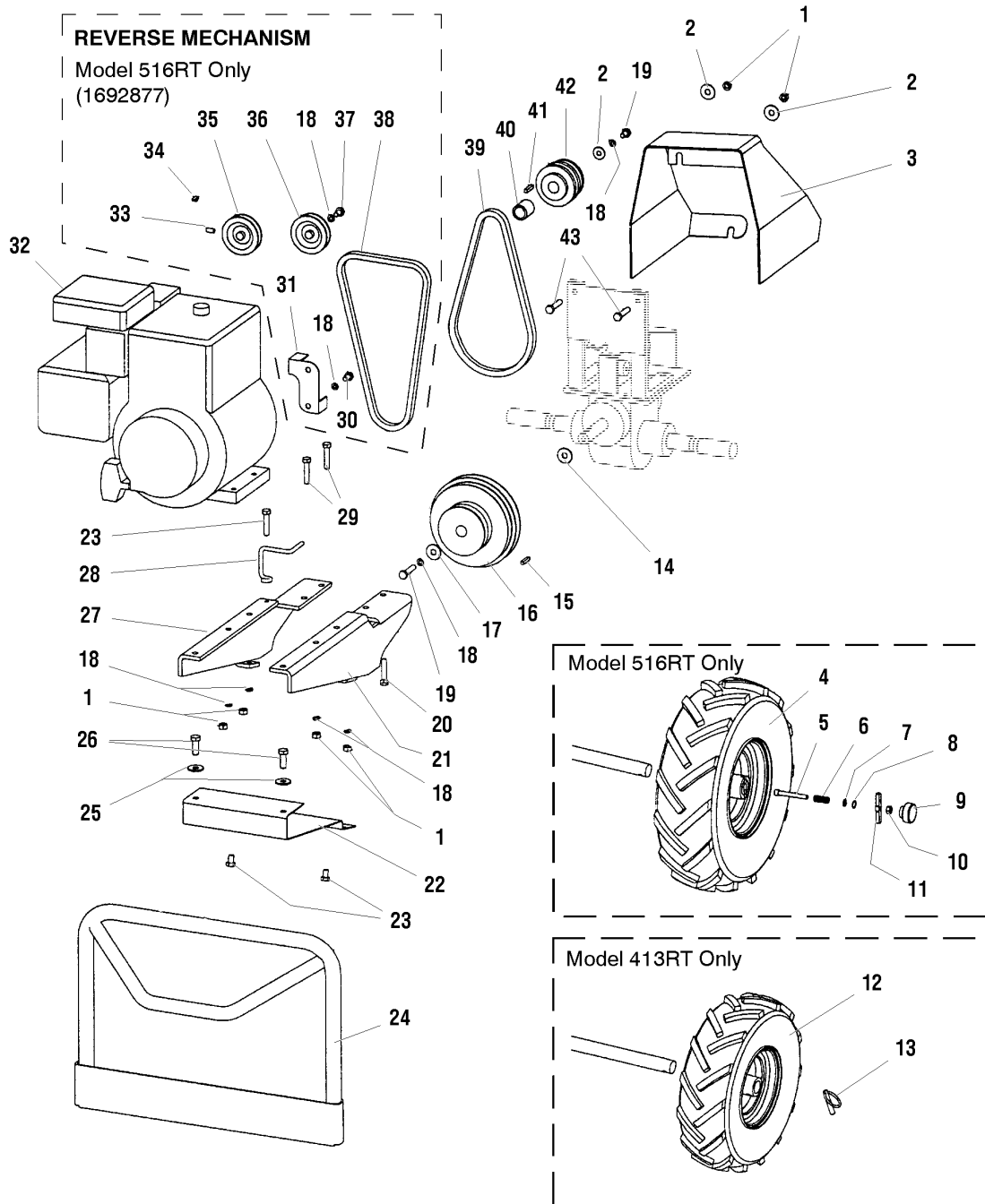
1692877 - 516RT

# Engine Mounting, Belts & Wheels

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.

05\0013

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



The above parts group applies to the following Mfg. Nos.:

- 1692876 - 413RT
- 1692877 - 516RT

## Engine Mounting, Belts & Wheels

REF NO	PART NO.	QTY.	DESCRIPTION
1	1917372SM	2	NUT, 5/16"-18
2	1960044SM	3	WASHER, Flat, 5/16"
3	1716784SM	1	BELT COVER
4	1716773SM	1	WHEEL, Tire Assembly, Left Model 516RT Only
4	1716775SM	1	WHEEL, Tire Assembly, Right Model 516RT Only
5	1716782SM	2	SCREW, Soc Hd, 1/4"-20 x 2" Model 516RT Only
6	1716781SM	2	SPRING Model 516RT Only
7	1960151SM	2	WASHER, 1/4" ID Model 516RT Only
8	1716779SM	2	SNAP RING Model 516RT Only
9	1716777SM	2	KNOB, Wheel Lockout Model 516RT Only
10	2828372SM	2	NUT, Keps, 1/4"-20 Model 516RT Only
11	1716778SM	1	LOCKOUT, Set of 2 Model 516RT Only
12	1721525SM	1	WHEEL, Tire Assembly, Left Model 413RT Only
12	1721524SM	1	WHEEL, Tire Assembly, Right Model 413RT Only
13	1716776SM	2	LOCKPIN Model 413RT Only
14	2860164SM	1	WASHER, Flat, 11/16" ID
15	2805850SM	1	KEY, 3/16" x 1"
16	1716768SM	1	PULLEY, Transmission Model 413RT Only
16	1716769SM	1	PULLEY, Transmission Model 516RT Only
17	1716770SM	1	WASHER
18	1917356SM	9	LOCKWASHER, Spring, 5/16" (Qty. 6 on Model 413RT). Reverse Mechanism Model 516RT Only (1692877)
19	1921515SM	2	BOLT, Hex Hd, 5/16"-24 x 3/4", Grade 5
20	1960470SM	4	SCREW, Soc Hd, 5/16"-18 x 1-1/4"
21	1716753SM	1	BRACKET, Engine Mount, Left Side
22	1716754SM	1	GUARD, Lower Pulley
23	1921332SM	5	BOLT, Hex Flange Hd, 5/16", 18 x 3/4"
24	1721528SM	1	BUMPER GUARD
25	1916965SM	2	LOCKWASHER, Spring, 3/8"
26	1921210SM	2	BOLT, Hex Hd, 3/8"-16 x 1", Grade 5
27	1716752SM	1	BRACKET, Engine Mount, Right Side
28	1716767SM	1	BELT GUIDE, Forward
29	1922127SM	4	SCREW, Hex Hd, 5/16"-18 x 1-3/4"
30	1716756SM	1	SCREW, Hex Hd, 5/16"-24 x 1/2" Model 516RT Only. Reverse Mechanism Model 516RT Only (1692877)
31	1716755SM	1	BELT GUIDE, Reverse Model 516RT Only. Reverse Mechanism Model 516RT Only (1692877)
32	*	1	ENGINE, 3.5HP (Model 413RT)
32	*	1	ENGINE, 5HP (Model 516RT)
33	1716758SM	1	SET SCREW, 1/4"-20 x 1/4" Model 516RT Only. Reverse Mechanism Model 516RT Only (1692877)
34	2805121SM	1	KEY, Woodruff, #5 Model 516RT Only. Reverse Mechanism Model 516RT Only (1692877)
35	1716757SM	1	PULLEY, Engine Reverse Model 516RT Only. Reverse Mechanism Model 516RT Only (1692877)
36	1716761SM	1	PULLEY, Belt Guide, V-Groove Model 516RT Only. Reverse Mechanism Model 516RT Only (1692877)

### Footnotes

Note\* See your local Briggs & Stratton distributor for parts and service.

Note\* See your local Briggs & Stratton distributor for service parts.

### The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

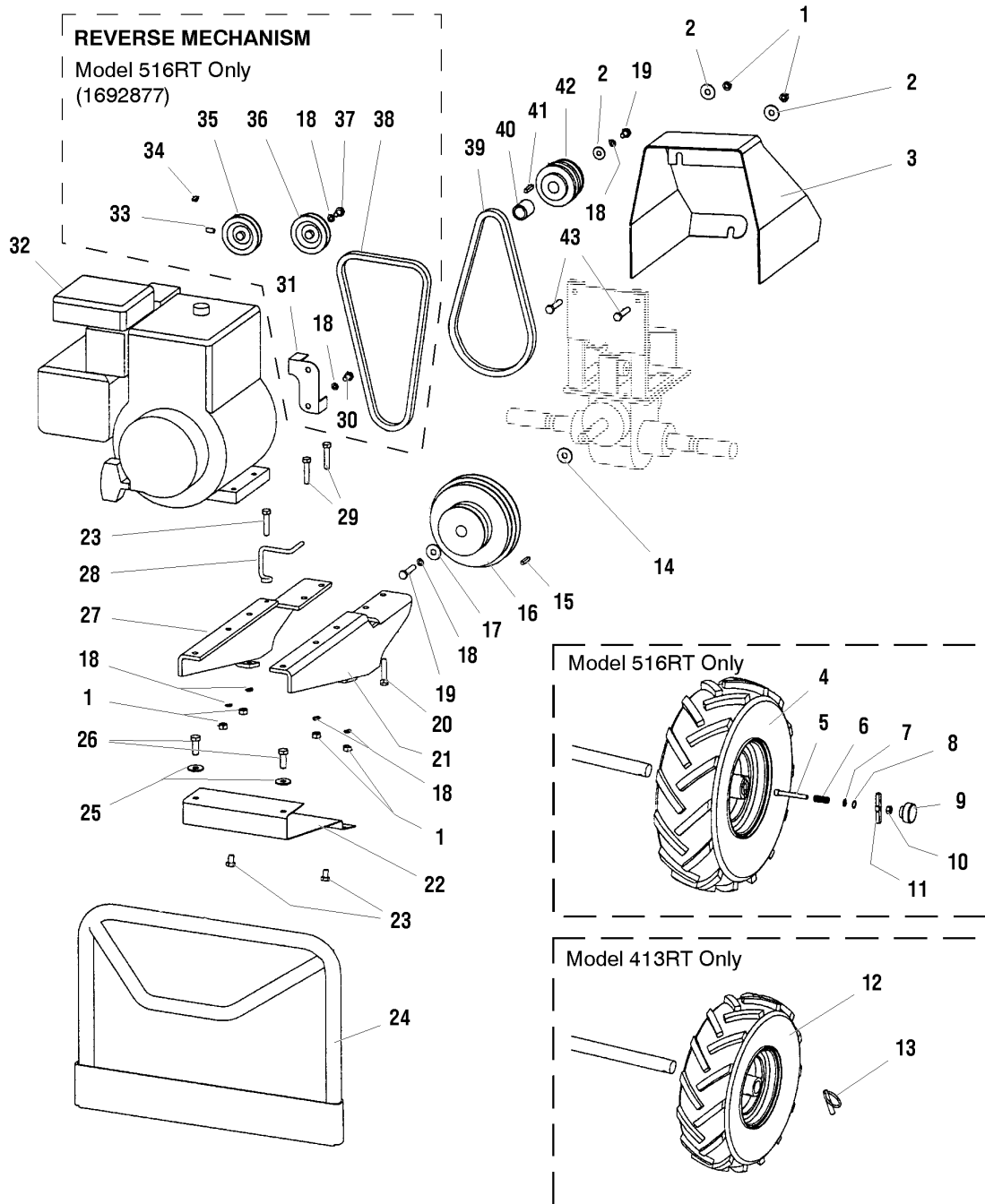
1692877 - 516RT

# Engine Mounting, Belts & Wheels

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.

05\0013

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



The above parts group applies to the following Mfg. Nos.:

- 1692876 - 413RT
- 1692877 - 516RT

## **Engine Mounting, Belts & Wheels**

<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
37	1716760SM	1	BOLT, Hex Hd, 5/16"-24 x 1-1/2" Model 516RT Only. Reverse Mechanism Model 516RT Only (1692877)
38	1716759SM	1	BELT, Reverse Model 516RT Only. Reverse Mechanism Model 516RT Only (1692877)
39	1716765SM	1	BELT, Forward Model 413RT Only
39	1716766SM	1	BELT, Forward Model 516RT Only
40	1716762SM	1	SPACER, Engine Pulley
41	1716763SM	1	KEY, 3/16" x 1-1/2"
42	1716764SM	1	PULLEY, Engine Forward
43	1921978SM	2	CAPSCREW, Hex Head 5/16-18 x 2 G5

Not for  
Reproduction

### **Footnotes**

Note\* See your local Briggs & Stratton distributor for parts and service.

Note\* See your local Briggs & Stratton distributor for service parts.

---

### **The above parts group applies to the following Mfg. Nos.:**

1692876 - 413RT

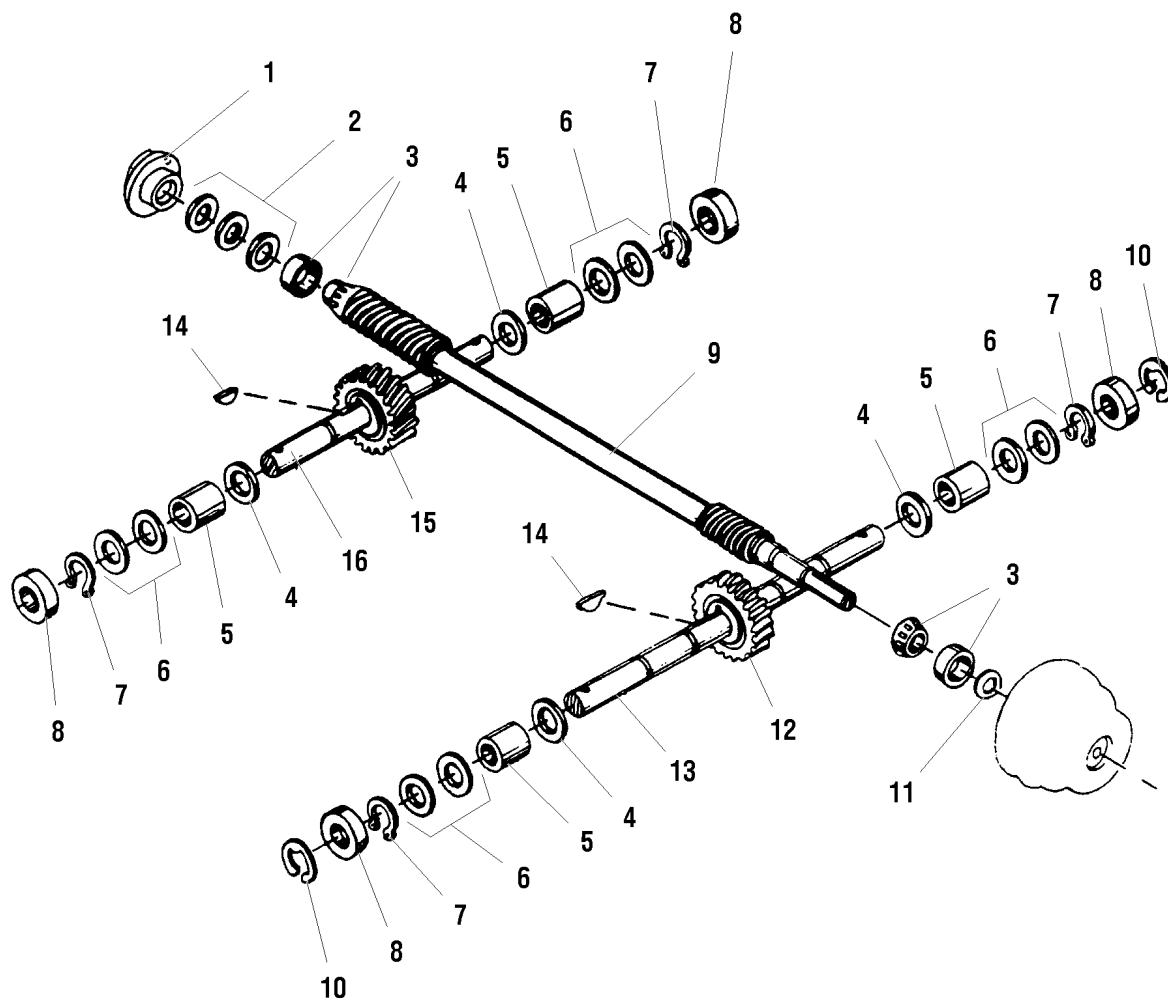
1692877 - 516RT

## Transmission Assembly

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.

05\0025

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

1692877 - 516RT

## Transmission Assembly

REF NO	PART NO.	QTY.	DESCRIPTION
1	1716793SM	1	CAP, Rear Bearing
2	1716825SM	1	SHIM SET, Rear Bearing Cap (Includes the following)
2	1716826SM		SHIM, 1.750 OD x .062" thick (As req'd.)
2	1716827SM		SHIM, 1.750 OD x .030" thick (As req'd.)
2	1716828SM		SHIM, 1.750 OD x .015" thick (As req'd.)
2	1716829SM		SHIM, 1.750 OD x .010" thick (As req'd.)
3	1716810SM	2	BEARING, Tapered (Includes Cone & Race)
4	1716824SM	4	SPACER, 1.250" x 1.000" x .062" thick
5	1716816SM	4	BUSHING
6	1716815SM	4	SHIM SET, Axle Spacer Kit (Includes the following)
6	1716817SM		SHIM, 1.375 OD x .062" thick (As req'd.)
6	1716818SM		SHIM, 1.375 OD x .030" thick (As req'd.)
6	1716819SM		SHIM, 1.375 OD x .015" thick (As req'd.)
6	1716820SM		SHIM, 1.375 OD x .010" thick (As req'd.)
7	1716830SM	4	SNAP RING, Retainer, Internal
8	1716791SM	4	SEAL, Tiller Housing
9	1716809SM	1	MAIN DRIVE SHAFT
10	1716821SM	2	SNAP RING, Retainer, External
11	1716797SM	1	OIL SEAL, Drive Shaft
12	1716814SM	1	GEAR, Worm, Wheel Shaft
13	1716811SM	1	WHEEL SHAFT ASSEMBLY, Lockpin Model 413RT Only
13	1716812SM	1	WHEEL SHAFT ASSEMBLY, Lockout Model 516RT Only
14	1716813SM	2	KEY, 1/4" x 1"
15	1716823SM	1	GEAR, Worm, Tiller Shaft
16	1716822SM	1	TILLER SHAFT ASSEMBLY

### Footnotes

The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

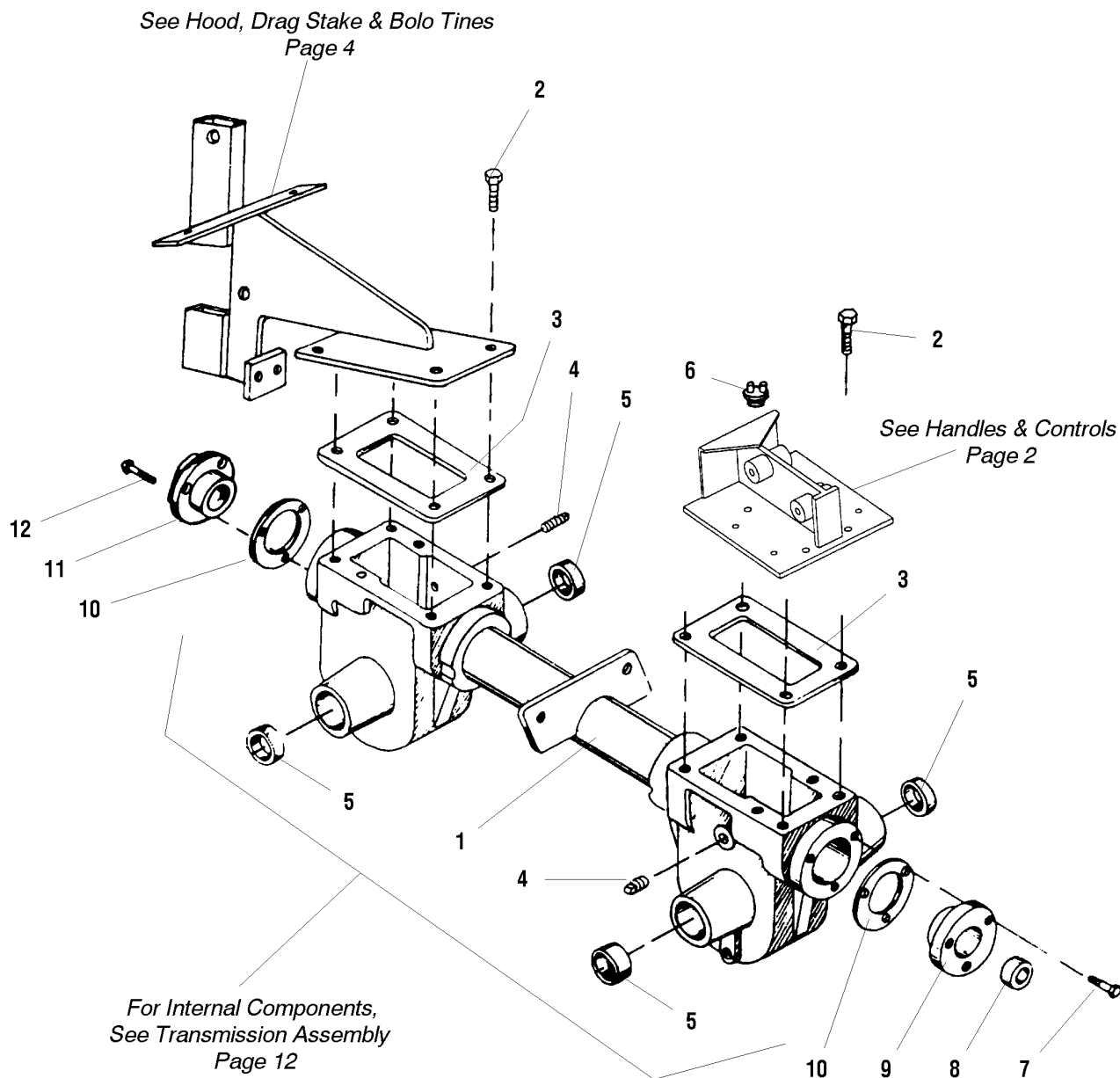
1692877 - 516RT

# Transmission Housing

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.

05\0021

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



The above parts group applies to the following Mfg. Nos.:

- 1692876 - 413RT
- 1692877 - 516RT



## **Transmission Housing**

<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	1721505SM	1	TRANSMISSION ASSEMBLY Model 413RT Only (Complete with all gears, shafts, seals, etc.)
1	1716788SM	1	TRANSMISSION ASSEMBLY Model 516RT Only (Complete with all gears, shafts, seals, etc.)
2	1921332SM	8	BOLT, Hex Flange Hd, 5/16"-18 x 3/4", Grade 5 (Tiller Housing & Transmission Cover)
3	1716789SM	2	GASKET, Tiller Housing & Transmission Cover
4	1716790SM	2	PIPE PLUG, Soc Hd, 1/4"-18, Oil Level
5	1716791SM	4	SEAL, Tiller Housing
6	1716794SM	1	PLUG, Oil Fill
7	1716798SM	3	BOLT, Hex Flange Hd, 1/4"-20 x 3/4"
8	1716797SM	1	OIL SEAL, Drive Shaft
9	1716796SM	1	CAP, Front Bearing
10	1716792SM	2	GASKET, Front Rear Bearing Cap
11	1716793SM	1	CAP, Rear Bearing
12	1716795SM	3	BOLT, Hex Flange Hd, 1/4"-20 x 7/8"
	1716799SM	1	KIT, Oil Seal Gasket, (Includes Ref. Nos. 3, 5, 8 & 10). Not shown as a kit in illustration.

Not for  
Reproduction

### **Footnotes**

---

**The above parts group applies to the following Mfg. Nos.:**

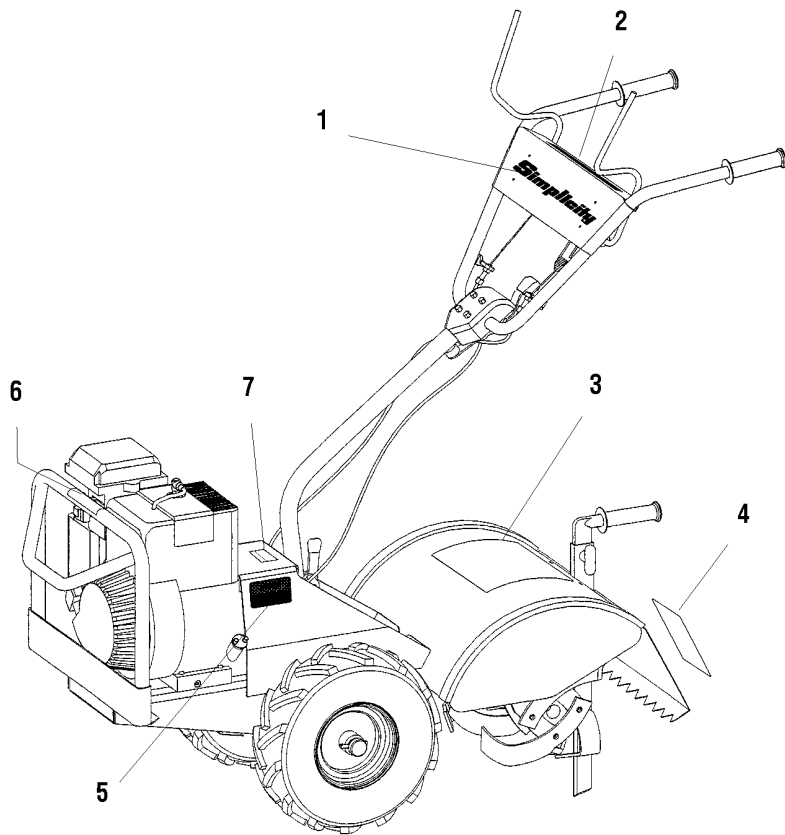
1692876 - 413RT

1692877 - 516RT

# Decals

**NOTE: Unless noted otherwise, use the standard hardware torque specification chart.**

05\0029



**The above parts group applies to the following Mfg. Nos.:**

- 1692876 - 413RT
- 1692877 - 516RT

## Decals

REF NO	PART NO.	QTY.	DESCRIPTION
1	1722551SM	1	DECAL, Simplicity
2	1716733SM	1	DECAL, Console (Forward Instructions) Model 413RT
2	1716734SM	1	DECAL, Console (Forward/Reverse Instructions) Model 516RT
3	1716747SM	1	DECAL, Hood (Operating Instructions)
4	1716840SM	1	DECAL, Tine Hood (Tines Danger)
5	1716785SM	2	DECAL Model 413RT
5	1716786SM	2	DECAL Model 516RT
6	1716839SM	1	DECAL, Engine (Free-Hand Warning)
7	1716800SM	1	DECAL, Belt Cover (Warning)

Not for  
Reproduction

## Footnotes

---

**The above parts group applies to the following Mfg. Nos.:**

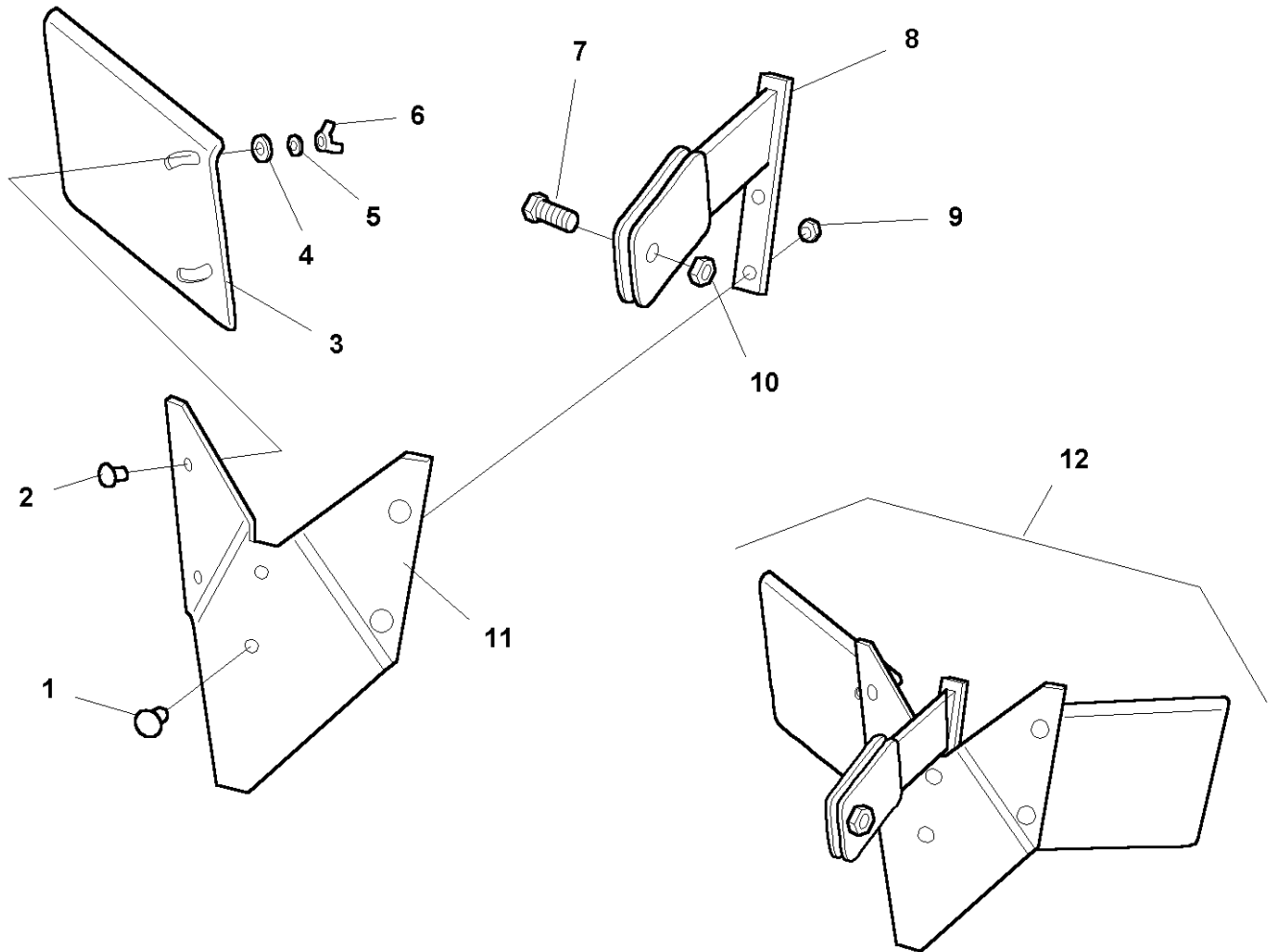
1692876 - 413RT

1692877 - 516RT

## Hiller/Furrower Attachment

986035

**NOTE:** Unless noted otherwise,  
use the standard hardware torque  
specification chart.



**The above parts group applies to the following Mfg. Nos.:**  
1692878 - Hiller / Furrower

## Hiller/Furrower Attachment

REF NO	PART NO.	QTY.	DESCRIPTION
1	1931352SM	2	BOLT, Carriage, 3/8-16 x 1-1/2
2	1931333SM	4	BOLT, Carriage, 5/16-18 x 3/4
3	1723726SM	1	HILLER WING, Left
3	1723727SM	1	HILLER WING, Right (Not Shown)
4	1960044SM	4	WASHER, Flat, 5/16
5	2820426SM	4	LOCKWASHER, External Tooth, 5/16
6	1933126SM	4	WING NUT, 5/16-18
7	1960268SM	1	BOLT, Socket Head, 3/8-16 x 1-1/4
8	1723725SM	1	BRACKET
9	1919439SM	2	NUT, Nylock, 3/8-16
10	1916950SM	1	NUT, Hex, 3/8-16
11	1723724SM	1	BLADE, Furrower
12	1686802SM	1	HILLER / FURROWER ATTACHMENT, Complete

Not for  
Reproduction

### Footnotes

---

**The above parts group applies to the following Mfg. Nos.:**

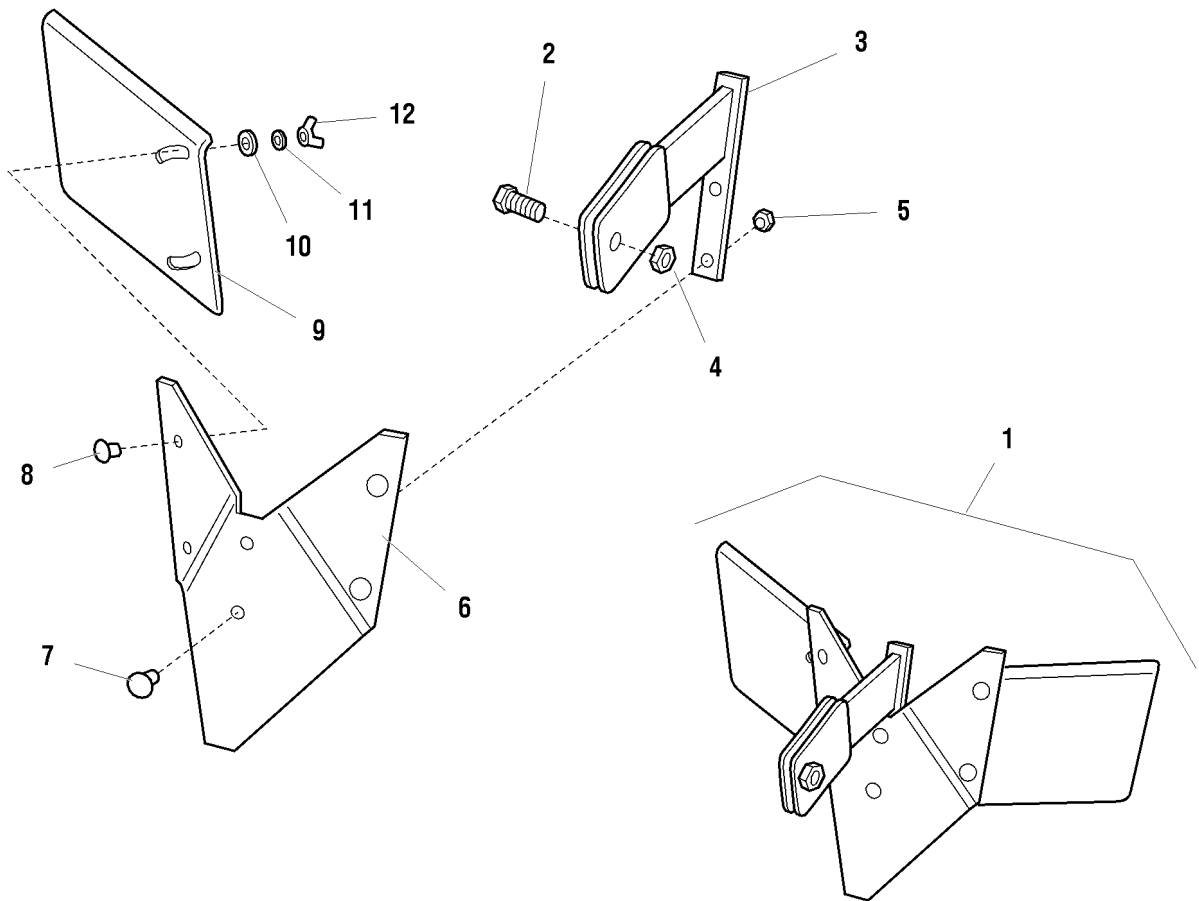
1692878 - Hiller / Furrower

## Hiller/Furrower Attachment P/N 1692878

05\0033

**NOTE:** Unless noted otherwise,  
use the standard hardware torque  
specification chart.

**NOTE:** Unless noted otherwise,  
use the standard hardware torque  
specification chart.



**The above parts group applies to the following Mfg. Nos.:**

1692876 - 413RT

1692877 - 516RT

## Hiller/Furrower Attachment P/N 1692878

REF NO	PART NO.	QTY.	DESCRIPTION
1	1692878	1	HILLER/FURROWER Complete. (Order as Wholegood)
2	*	1	BOLT, Soc Hd, 3/8"-16 x 1-1/4"
3	*	1	BRACKET
4	*	1	NUT, Hex, 3/8" - 16"
5	*	2	NUT, Nyloc, 3/8" - 16"
6	*	1	BLADE, Furrower
7	*	2	BOLT, Carriage, 3/8 - 16 x 1-1/2"
8	*	4	BOLT, Carriage, 5/16" - 18 x 3/4"
9	*	1	HILLER WING, Left
9	*	1	HILLER WING, Right (Not Shown)
10	*	4	WASHER, Flat, 5/16"
11	*	4	LOCKWASHER, External Tooth, 5/16"
12	*	4	WING NUT, 5/16 - 18"

Not for  
Reproduction

### Footnotes

Note\* Not a servicable part - components shown for ref. only.

Note\* Not a servicable part - components shown for ref. only.

---

### The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

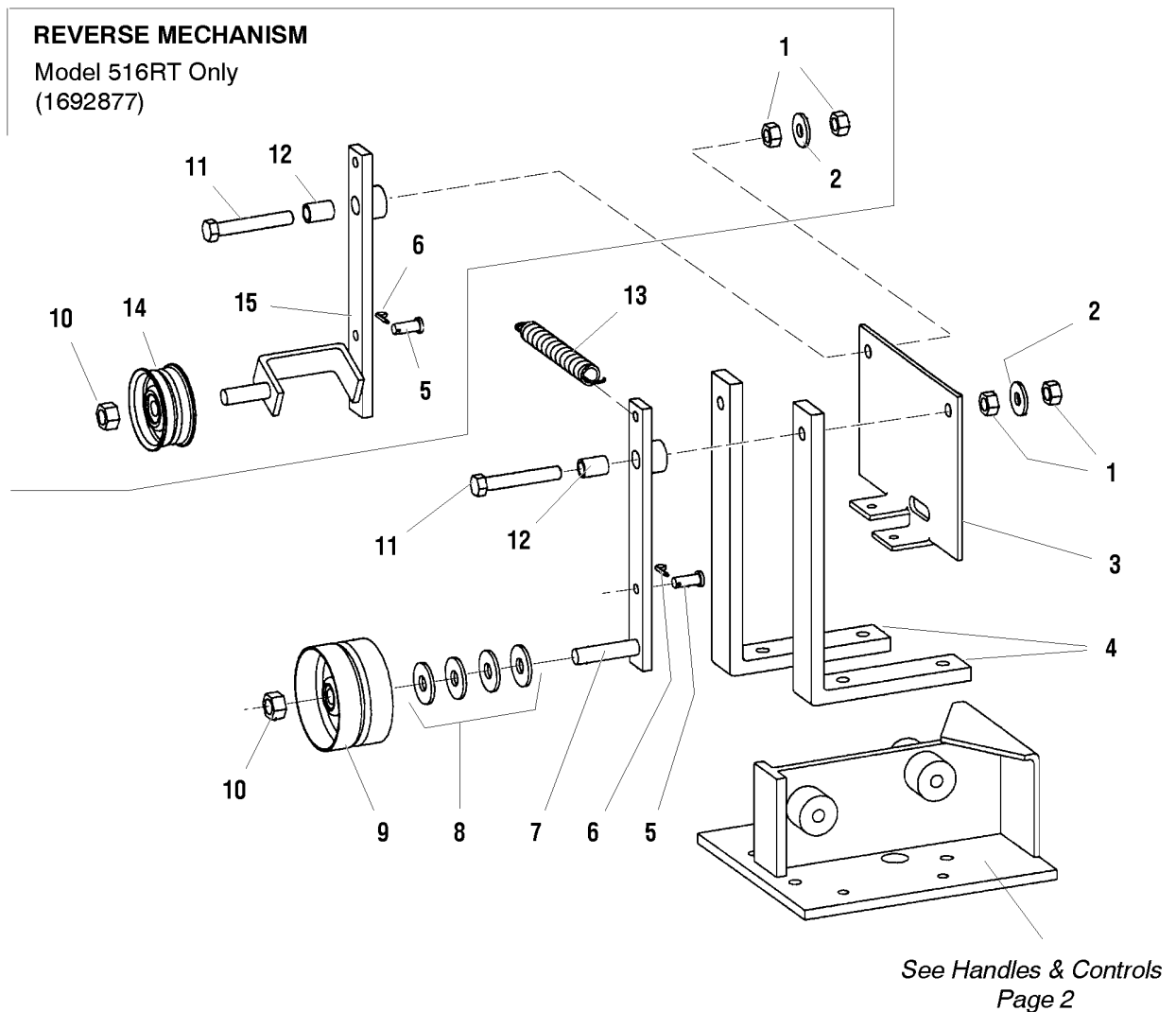
1692877 - 516RT

## Shifting Mechanism

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.

05\0017

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

1692877 - 516RT



## Shifting Mechanism

REF NO	PART NO.	QTY.	DESCRIPTION
1	1917372SM	4	NUT, 5/16"-18 Reverse Mechanism Model 516RT Only (1692877)
2	1960044SM	2	WASHER, Flat, 5/16" Reverse Mechanism Model 516RT Only (1692877)
3	1716807SM	1	BRACKET, Cable Mount
4	1716801SM	2	MOUNTING BAR, Shifting Mechanism
5	1716702SM	2	LINK PIN (Qty. 1 on Model 413RT). Reverse Mechanism Model 516RT Only (1692877)
6	1716703SM	2	COTTER PIN (Qty. 1 on Model 413RT). Reverse Mechanism Model 516RT Only (1692877)
7	1716804SM	1	IDLER ARM, Forward
8	1924940SM	4	WASHER, Flat, 3/8"
9	1716803SM	1	PULLEY, Forward Idler
10	1916950SM	2	NUT, Hex, 3/8"-16 (Qty. 1 on Model 413RT) Reverse Mechanism Model 516RT Only (1692877)
11	1921978SM	2	CAPSCREW, Hex Head 5/16-18 x 2 G5 Reverse Mechanism Model 516RT Only (1692877)
12	1716704SM	2	BUSHING, Pivot, 5/16" (Qty. 1 on Model 413RT). Reverse Mechanism Model 516RT Only (1692877)
13	1716802SM	1	SPRING, Idler Arm
14	1716805SM	1	PULLEY, Reverse Idler Model 516RT Only. Reverse Mechanism Model 516RT Only (1692877)
15	1716806SM	1	IDLER ARM, Reverse Model 516RT Only

Not for  
Reproduction

### Footnotes

The above parts group applies to the following Mfg. Nos.:

1692876 - 413RT

1692877 - 516RT

Not for  
Reproduction

# Hardware Identification & Torque Specifications

Torque Specification Chart								
FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%)								
Property Class	5.6		8.8		10.9		12.9	
	Class 5.6		Class 8.8		Class 10.9		Class 12.9	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs		ft/lbs	
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

Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	No Marks		SAE Grade 5		SAE Grade 8	
	SAE Grade 2		SAE Grade 5		SAE Grade 8	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs	
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

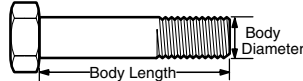
The guides and ruler furnished below are designed to help you select the appropriate hardware.



Nut, M8

Thread Diameter (mm)  
Inside Diameter (in)  
Threads per inch

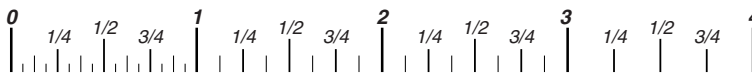
Nut, 1/2-16



Screw, M8- 1.25 x 25

Thread Diameter (mm)  
Body Diameter  
Distance between threads (mm)  
Threads per inch  
Body Length (mm)  
Body Length (in)

Screw, 1/2- 16 x 2



## 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*, (1.25 thread diameter). The final number is the body length of the bolt or screw, 2 inches (50mm).

## NOTES

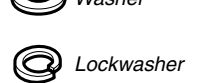
- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
  - for prevailing torque locknuts - use 65% of grade 5 torques.
  - for flange whizlock 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

Hex Head Capscrew



Washer



Carriage Bolt



Hex Nut

## Wrench & Fastener Size Guide

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

Not for  
Reproduction

**IT IS THE POLICY OF BRIGGS & STRATTON CORP. TO IMPROVE ITS PRODUCTS  
WHENEVER IT IS POSSIBLE AND PRACTICAL TO DO SO. WE RESERVE THE RIGHT TO  
MAKE CHANGES OR ADD IMPROVEMENTS AT ANY TIME WITHOUT INCURRING ANY  
OBLIGATION TO MAKE SUCH CHANGES ON PRODUCTS.**

**Briggs & Stratton Yard Power Products Group**

---

3515 N. 124 Street / PO Box 702  
Wauwatosa, WI 53222 USA

[www.simplicitymfg.com](http://www.simplicitymfg.com)

© Copyright 2009 by Briggs & Stratton Corporation  
Milwaukee, WI, USA. All rights reserved