NORTHROCK

NORTHROCK INDUSTRIES, INC.

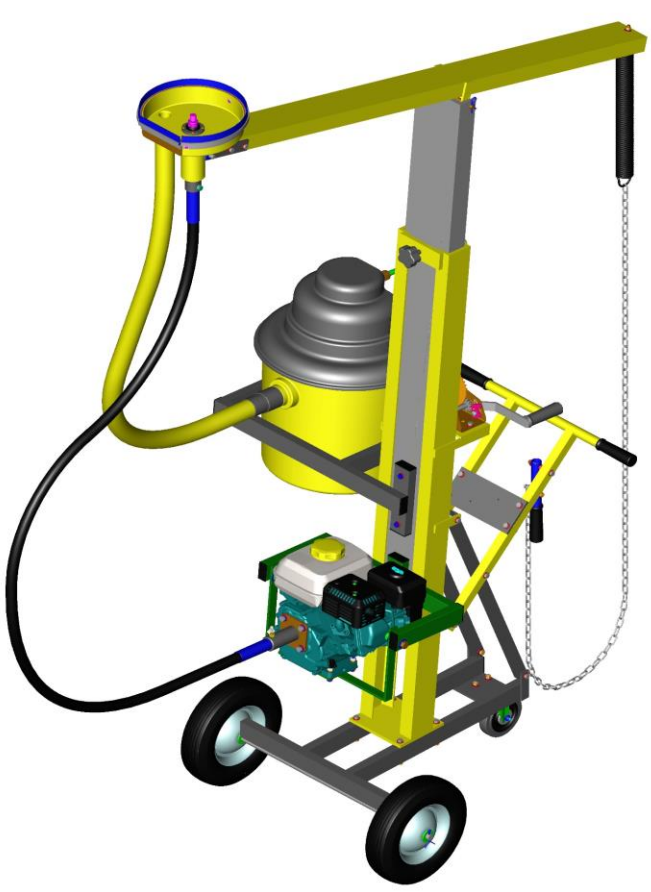
CEILING GRINDER

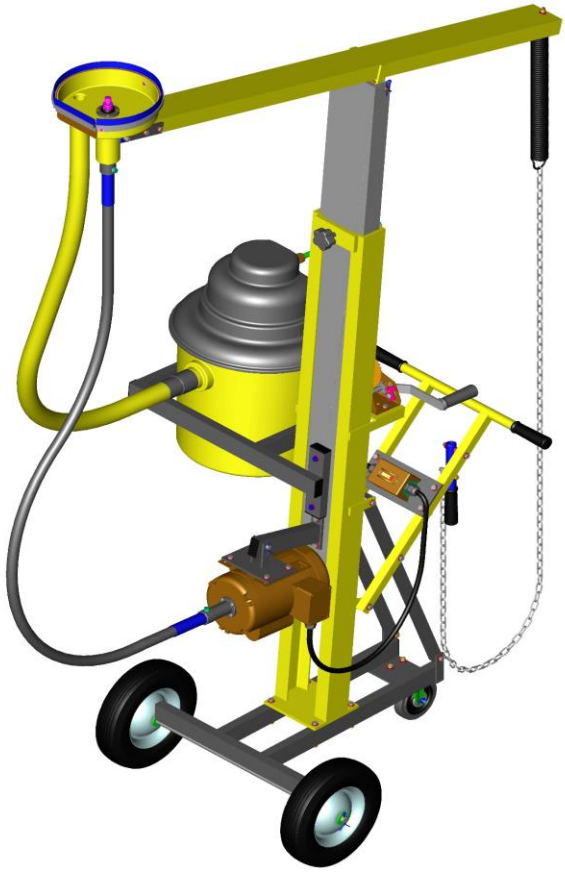
INSTRUCTION MANUAL

SAFETY, ASSEMBLY, AND MAINTENANCE INSTRUCTIONS FOR MODELS:

PRO 1200 / PRO 1200V

Electric & Gasoline Models





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General Power Tool Safety Warnings

WARNING Read all safety warnings and all instructions. *Failure to follow the warnings and instructions may result in in electric shock, fire and/or serious injury.*

Save all warnings and instructions for future reference

The term "power tool" in the warnings refers to your corded concrete vibrator.

1) Work area safety

a) **Keep work area clean and well lit**. *Cluttered or dark areas invite accidents.*

b**) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** *Power tools create sparks which may ignite the dust or fumes.*

c) **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

2) Electrical Safety

a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*

b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*

c) **Do not expose power tools to rain or wet conditions**. *Water entering a power tool will increase the risk of electric shock.*

d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*

e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*

f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** *Use of an RCD reduces the risk* of electric shock.

3) Personal Safety

a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*

b) **Use personal protective equipment. Always wear eye protection**. *Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*

c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** *Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.*

d) **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*

e) **Do not overreach. Keep proper footing and balance at all times**. *This enables better control of the power tool in unexpected situations.*

f) **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelery or long hair can be caught in moving parts.*

g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards.*

4) Power tool use and care

a) **Do not force the power tool. Use the correct power tool for your application**. *The correct power tool will do the job better and safer at the rate for which it was designed.*

b) **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*

c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*

d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*

e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation**. **If damaged, have the power tool repaired before use**. *Many accidents are caused by poorly maintained power tools.*

f) **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp edges are less likely to bind and are easier to control.*

g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*

5) Service

a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** *This will ensure the safety of the power tool is maintained.*

Symbol Reference Chart

V _____	volts	W _____	watts	~ _____	alternating current
A _____	amperes	kg _____	kilograms	⏚ _____	protective earth
Hz _____	hertz	n_o _____	no-load speed	IPX4 _____	IP symbol

Northrock flexible shaft vibrators are built to the highest standards of both quality and function. When properly assembled and maintained you will receive many hundred hours of service from these units. Please take a few minutes to read the assembly, operating, maintenance, and safety instructions before attempting to operating the vibrator.

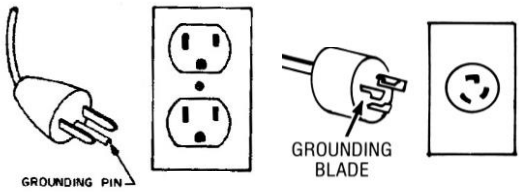
Assembly Instructions:

! ELECTRIC UNITS: Be sure unit is unplugged and switch is in the off position before proceeding.
! GASOLINE UNITS: Be sure engine has spark plug wire removed and switch is in the off position before proceeding.

1) Thread inner flexible core into core adapter on power unit and tighten. Insert outer casing into power unit. Tighten screw on flexible shaft adapter to secure flexible shaft to the power unit.
2) Secure grinding head to shaft by inserting inner core into core adapter in the grinding head. Insert outer casing into grinding head.Tighten screw on inner grinding head assembly to secure flexible shaft to the grinding head.

Grounding Instructions:

This tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with a three conductor cord and three prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal. The plug supplied on model Pro 1.5+ and Pro 2+ look like that shown in sketch (A), and the plug supplied on model Pro 3+ looks like that shown in sketch (B).



(A) (B)

Grounding Methods

Extension Cords:

Use only three conductor cords that have three prong grounding type plugs and three pole receptacles that accept the tools plug. Use only extension cords intended for outdoor use, and so marked. For outdoor use extension cords shall be marked with the suffix W-A following the cord type designation, for example SOW-A indicates it is acceptable for outdoor use. Use proper extension cords rated to the tool as shown on the following chart.

Extension cord AWG sizes for 120V motors:

AMPS	0-25'	26-50'	51-100'	101-150'
12-16	14	12	not recommended	
16 - 20	12	10	not recommended	

Always use an extension cord heavy enough to carry the current the tool will draw, as undersized cords will cause a drop in line voltage resulting in loss of power and overheating. Inspect all extension cords making sure they are in good condition before using, repair or replace damaged extension cords. Extension cords are available from the factory, contact your authorized service representative for details.

Operating Instructions:

1) Before turning the power tool on be sure that the unit is correctly assembled. Check for any loose bolts, etc.
2) Be sure you have a secure footing before starting the power tool.
3) Electric power unit-turn the switch to the on position, the power unit will start.
4) Gasoline power unit-follow engine manufactures procedure to start engine.

Maintenance Instructions:

Electric Motor: - keep housing clean to allow for proper cooling
- check switch, and electric cord for wear and replace when worn
- electric motor bearings require no additional lubrication, replace electric motor when worn

Gasoline Engine: -See engine manufacturer manual for service/maintenance requirments. Consult a qualified/certified engine manufacturer that is an authorized service center for any service/maintenance requirments.

Shafts: - inspect inner cores for lubrication after approximately 50 hours of operation as follows: remove core on a clean surface free of dirt and grit, inspect core for dry areas, if lubrication is required wipe core with cloth, reinsert core into casing applying approximately 1/16" thick coating of high quality lithium grease. (available in 1lb cans from the factory) Do not over grease the flexible shaft as this will cause excess drag on the power unit, and the shaft to get hot.

Grinding Head: -check grinding head bearings, seal, spindle, spindle thread for wear and replace as needed.

PRO 1200 SET-UP INSTRUCTIONS

1. BEFORE setting up the PRO 1200 Ceiling Grinder be sure to read all the SAFETY INSTRUCTIONS listed in the previous pages.

2. Verify that the electric power cord is UNPLUGGED and that the ON/OFF switch is in the OFF position before continuing.

3. Install the swivel caster to the operator side of the frame through the holes with the 5/16" x 7/8" long bolts with the washers and nuts supplied (Qty. 4 sets).

4. Install the tires to the axle in front of grinder and secure with the cotter pins and the washers supplied.

5. Install the top cross beam by removing the swivel pin and then reinstalling the swivel pin through the holes in the top mast.
   Note: The end with the eye bolt goes to the operator's end.
   Secure with the cotter pins supplied.

6. Install the grinding stone that YOU have chosen for the job by threading it onto the 5/8"-11 R.H. thread on the grinding head spindle.

7. Hook the extension spring onto the eye bolt.
   Note: One end of the spring is ground back further to fit the eye bolt.

8. Attach the end of the chain to the extension spring. Allow the rest of the chain to hang down.

9. Attach the flexible shaft to the MOTOR FIRST by screwing the 7/16" threaded core end to the motor core adapter. Next loosen the hex bolt on the top of the casing adapter then slip the casing into the fitting until it bottoms out. Retighten the hex bolt. At the head end, loosen the hex bolt on the grinding head then insert the key slot into the key of the spindle. Slip the casing into the grinding head until it bottoms out. Retighten the hex bolt.

10. Loosen mast lock handle and crank winch to desired ceiling height. Be sure that the ratchet is locked in place and then retighten the mast lock handle (fluted knob).

11. Pull the tension handle, located above the switch and attach chain to the lug. To apply pressure to the ceiling, push the tension handle down until the cam-action locks it into place.

12. Refer to the PRO 1200 OPERATING INSTRUCTIONS on the next page.

PRO 1200 OPERATING INSTRUCTIONS

1. BEFORE starting the PRO 1200 Ceiling Grinder, be sure to read all the SAFETY INSTRUCTIONS listed in the previous pages.

2. Position the grinder under the ceiling surface that you will be grinding.

3. Verify that the power is OFF, then release the mast locking mechanism by backing the screw handle out (counter clockwise) until the mast can travel freely.

4. Using the winch, raise the mast so that the grinding head is approximately 18" below the ceiling.

5. With the tension handle in the UP position, slip a loop of the chain over the lug on the handle.

6. Using the winch, raise the grinding head just below the ceiling surface (approximately 2").

7. Lock the mast in position by re-tightening (clockwise) the locking screw.

8. Turn the power ON, then push the tension handle into the DOWN position, starting the grinding operation.

9. Adjust to preferred pressure as necessary by raising or lowering the mast with the winch. Remember to re-lock the mast by re-tightening the locking screw.

10. To STOP grinding, move the tension handle to the UP position, which will lower it away from the ceiling surface.

IMPORTANT DO'S AND DON'TS

A. Always have switch in OFF position before plugging in grinder's power cord.

B. DO NOT start the grinder with the head pressed to the ceiling. ALWAYS start the grinder first and then gradually apply desired pressure.

C. ALWAYS wear eye protection and a dust mask.

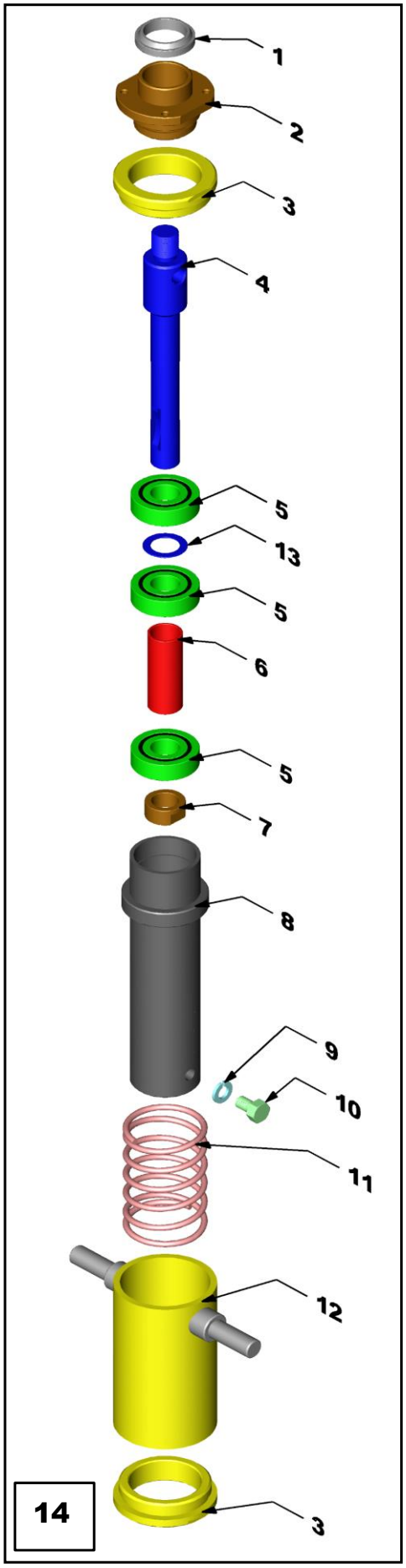
D. ALWAYS tighten mast lock handle (fluted knob) after adjusting mast height.

E. Periodically check all parts for wear.

F. Periodically check all bolts for snugness.

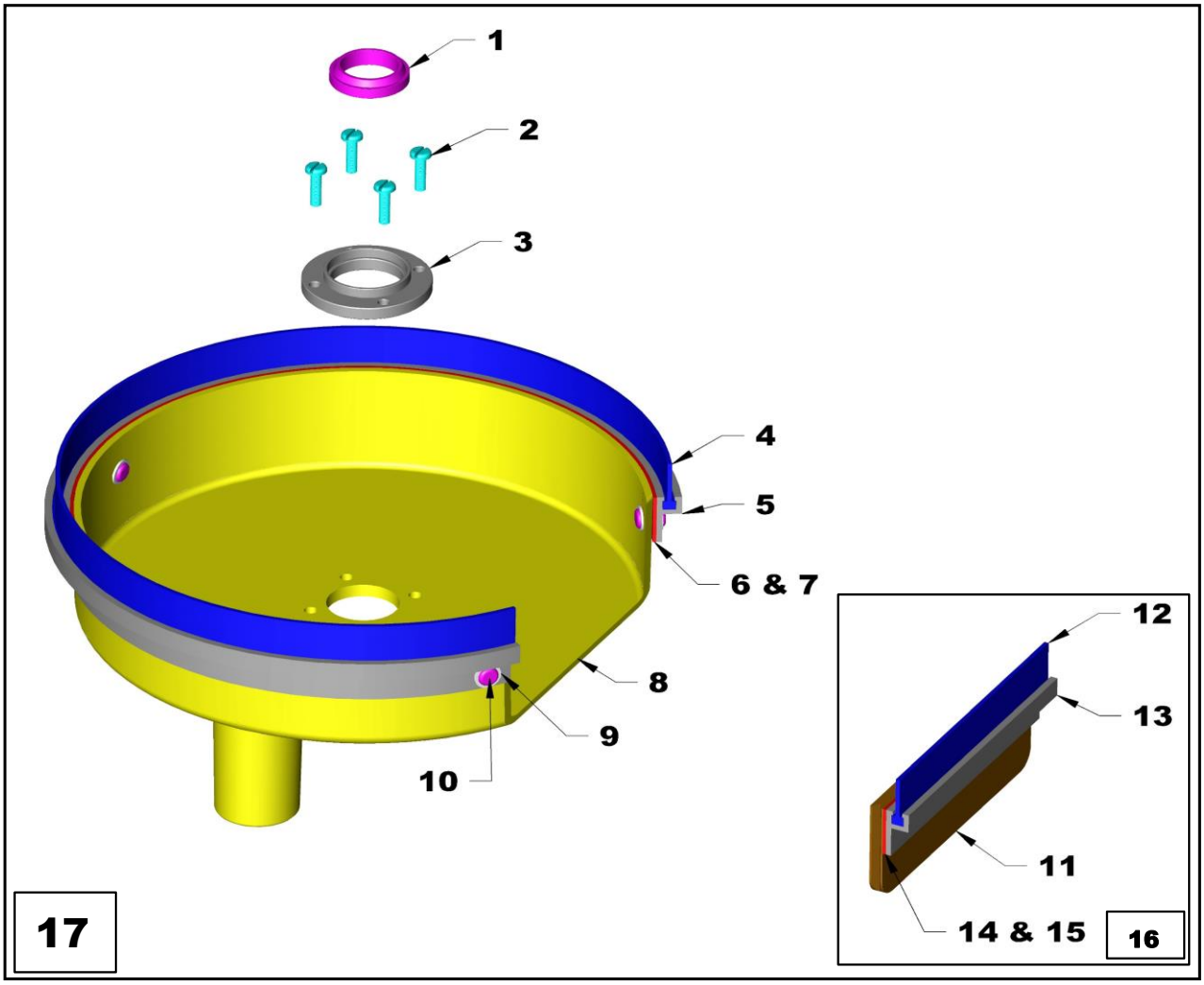
For Technical Assistance call: 1-(800)-989-8423

GRINDING HEAD



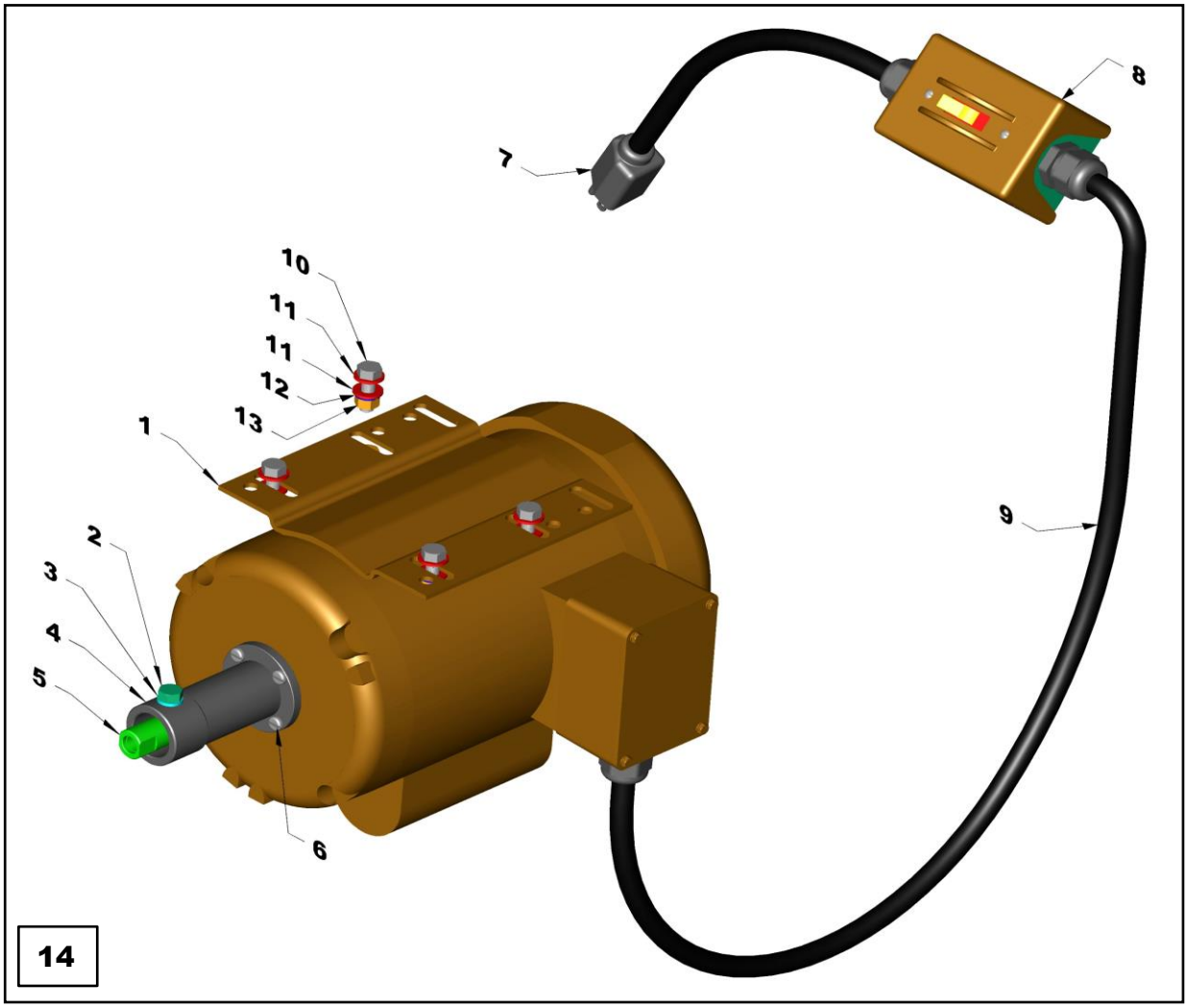
NO.	DESCRIPTION	PART NO.	QTY.
1	SEAL, WIPER (DUST)	680A1	1
2	CAP, BEARING	305D2	1
3	CAP, OUTER SHELL	305E1	2
4	SPINDLE, GRINDING HEAD	155BS1	1
5	BALL BEARING	140C003	3
6	SPACER	200E6	1
7	NUT, LOCK	210D1	1
8	SHELL, HOUSING	105BG1	1
9	WASHER, LOCK	285A312	1
10	BOLT, HEX HEAD	280A303	1
11	SPRING, COMPRESSION	465C1	1
12	SHELL, OUTER	105BH1	1
13	SPACER, BEARING	200AX1	1
14	GRINDING HEAD ASSEMBLY	25AM1	1

GUARD



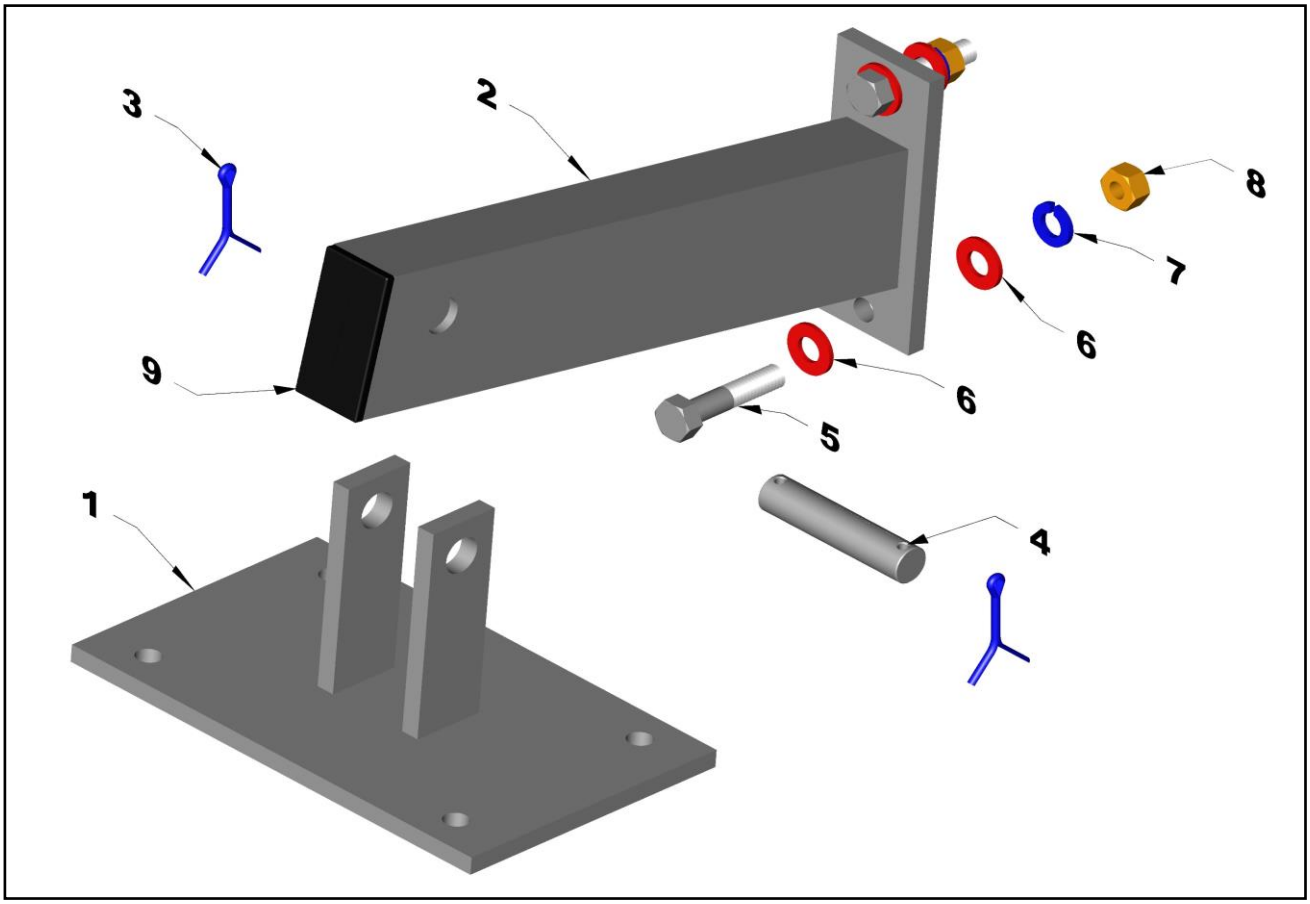
NO.	DESCRIPTION	PART NO.	QTY.
1	SEAL, WIPER (DUST)	680A1	1
2	SCREW, PAN HEAD	190F175	4
3	WASHER, GUARD	370G1	1
4	BRUSH, GUARD	670B1	1
5	BRUSH, HOLDER	495C1	1
6	TAPE, DOUBLE SIDED	675B1	1
7	TAPE, DOUBLE SIDED	675D1	1
8	GUARD, VACUUM	270E2	1
9	WASHER, FLAT	370A10	3
10	RIVET, BLIND	545B1	3
11	GUARD, VACUUM	270F2	1
12	BRUSH, GUARD	670A1	1
13	BRUSH, HOLDER	495B1	1
14	TAPE, DOUBLE SIDED	675A1	1
15	TAPE, DOUBLE SIDED	675C1	1
16	GUARD, VACUUM (ASSEMBLY)	270F1	1
17	GUARD, VACUUM (ASSEMBLY)	270E3	1

ELECTRIC POWER UNIT



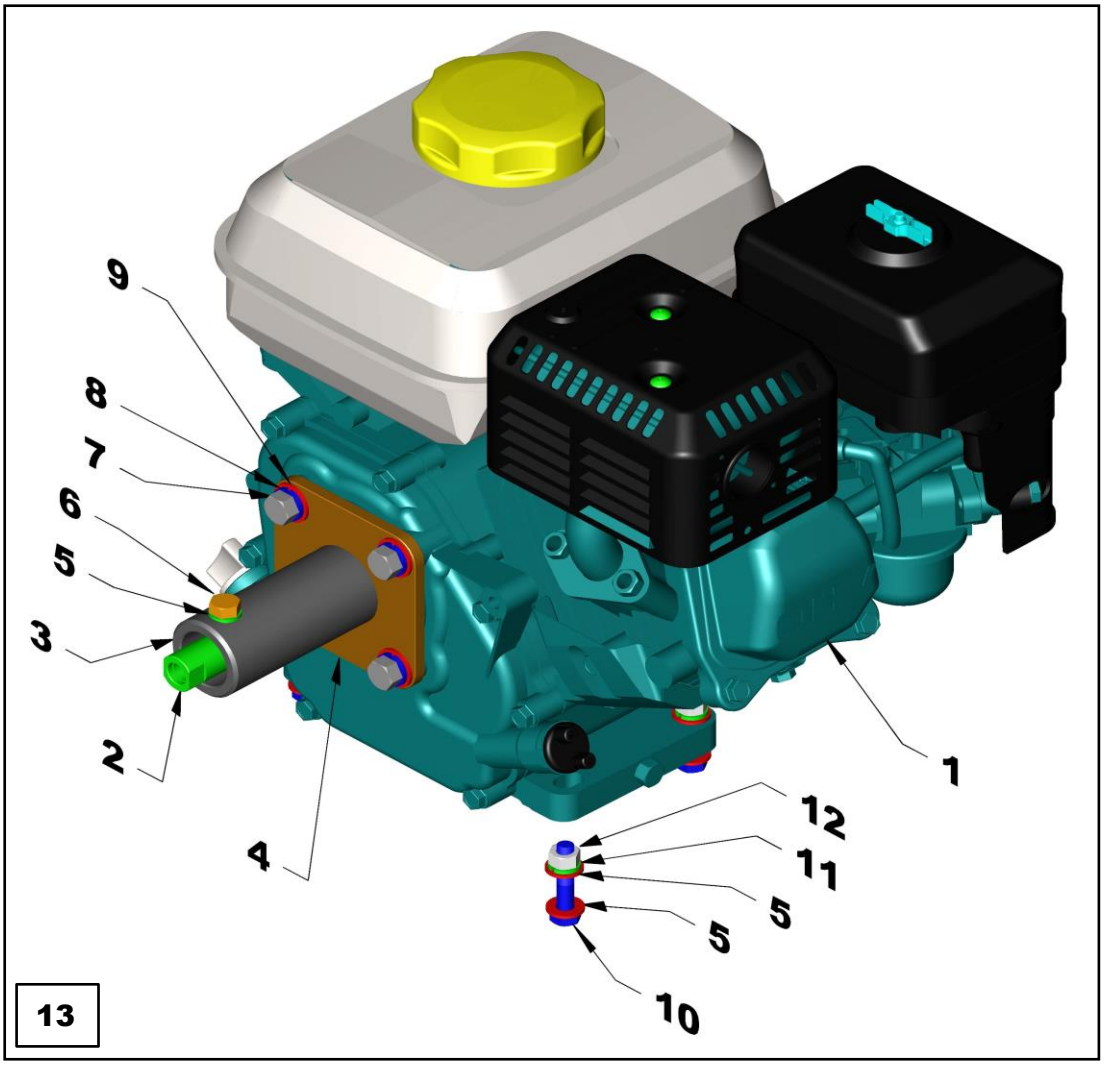
NO.	DESCRIPTION	PART NO.	QTY.
1	ELECTRIC MOTOR, 1 1/2 HP	555B1	1
1A	ELECTRIC MOTOR ASSEMBLY (with 1,4,5,6)	555B2	1
2	BOLT, HEX HEAD	280A303	1
3	WASHER, LOCK	285A312	1
4	CASING ADAPTER (w / hardware)	150HK2	1
5	CORE ADAPTER	160ED2	1
6	SCREW, PAN HEAD	190F175	4
7	CORD, POWER	505A1	1
8	SWITCH, ELECTRIC	425D1	1
9	CORD, ELECTRIC	505E1	1
10	BOLT, HEX HEAD	280A308	4
11	WASHER, FLAT	370A312	8
12	WASHER, LOCK	285A312	4
13	NUT	211A31	4
14	ELECTRIC POWER UNIT (COMPLETE ASSEMBLY)	555B3	1

ELECTRIC MOTOR HANGER ASSEMBLY



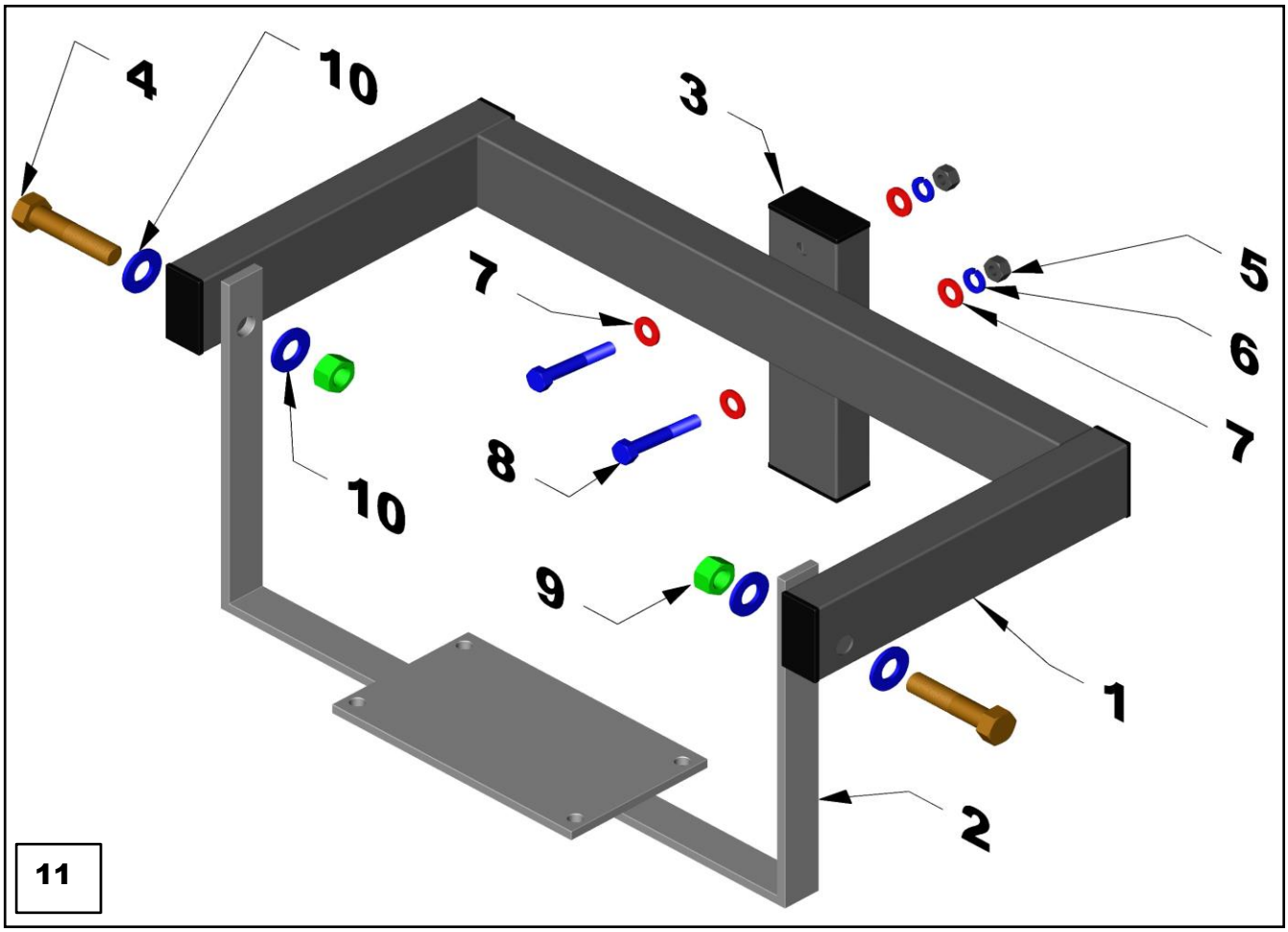
NO.	DESCRIPTION	PART NO.	QTY.
1	MOTOR PLATE	440M1	1
2	MOTOR HANGER	440L1	1
3	COTTER PIN	180E2	2
4	HINGE PIN	180D1	1
5	BOLT, HEX HEAD	280A315	2
6	WASHER, FLAT	370A312	4
7	WASHER, LOCK	285A312	2
8	NUT	211A31	2
9	END CAP	400M1	1

GAS ENGINE POWER UNIT



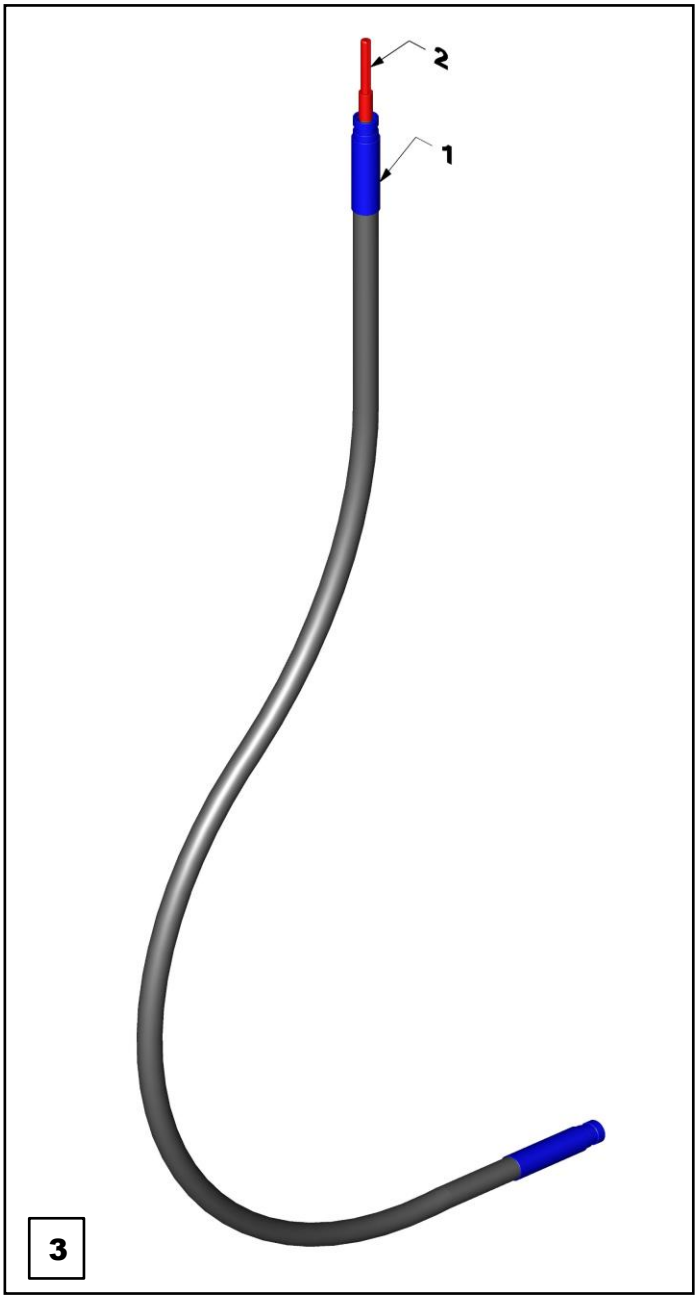
NO.	DESCRIPTION	PART NO.	QTY.
1	GAS ENGINE , 4HP	555C1	1
1A	GAS ENGINE ASSEMBLY (with 2,3,4,5,6,7,8,9)	555C2	1
2	CORE ADAPTER	160EE2	1
3	CASING ADAPTER (w / hardware)	150HR2	1
4	PLATE, CASING ADAPTER	215BE1	1
5	WASHER, FLAT	370A312	9
6	BOLT, HEX HEAD	280A303	1
7	BOLT, HEX HEAD	280B3710	4
8	WASHER, LOCK	285A375	4
9	WASHER, FLAT	370A375	4
10	BOLT, HEX HEAD	280A315	4
12	NUT	211A31	4
13	GAS ENGINE ASSEMBLY (COMPLETE)	555C3	1

GAS ENGINE HANGER ASSEMBLY



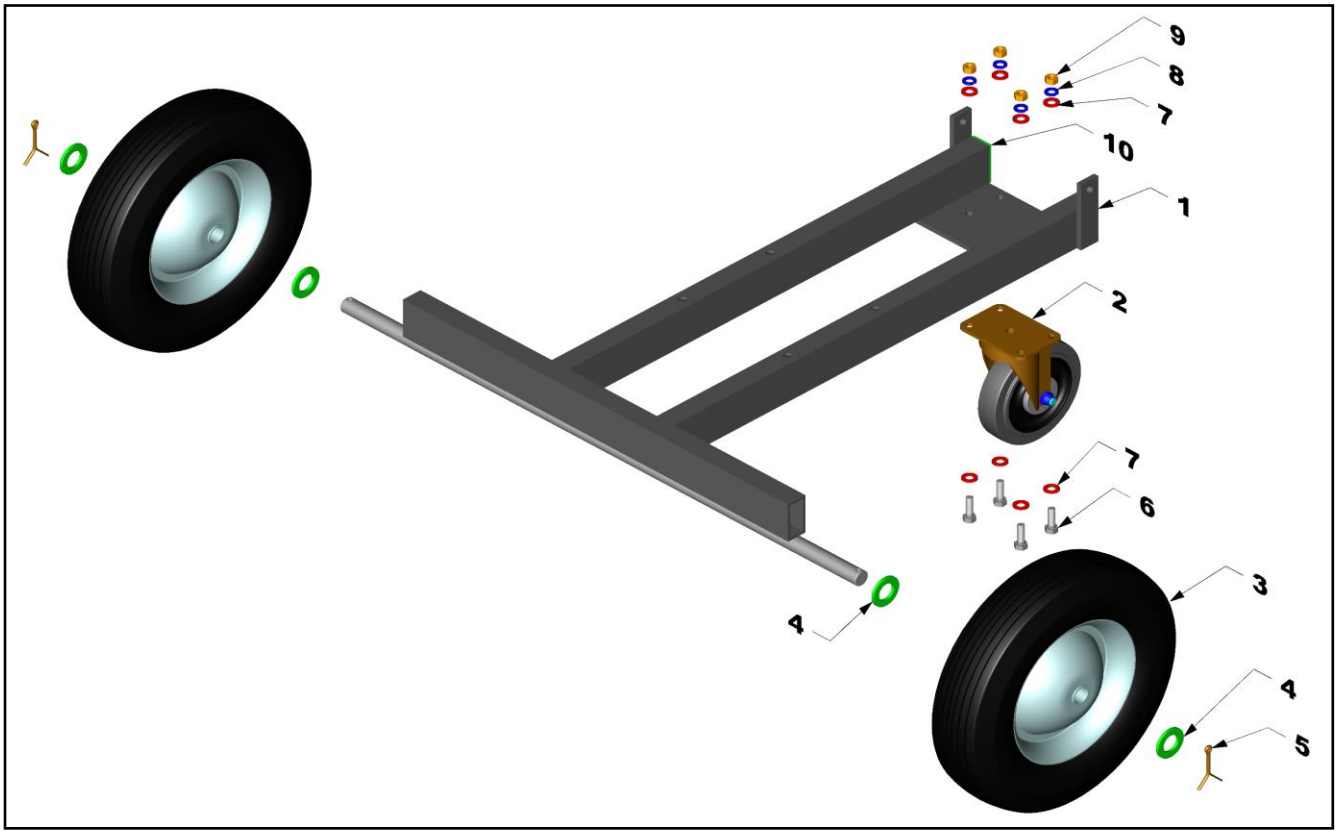
NO.	DESCRIPTION	PART NO.	QTY.
1	GAS ENGINE PLATE	440X1	1
2	GAS ENGINE HANGER	440W1	1
3	END CAP	400M1	6
4	BOLT, HEX HEAD	280A520	2
5	NUT	211A31	2
6	WASHER, LOCK	285A312	2
7	WASHER, FLAT	370A312	4
8	BOLT, HEX HEAD	280A320	2
9	NUT, NYLOC	211B500	2
10	WASHER, FLAT	370A500	4
11	GAS ENGINE HANGER ASSEMBLY (COMPLETE	440AH1	1

FLEXIBLE SHAFT ASSEMBLY



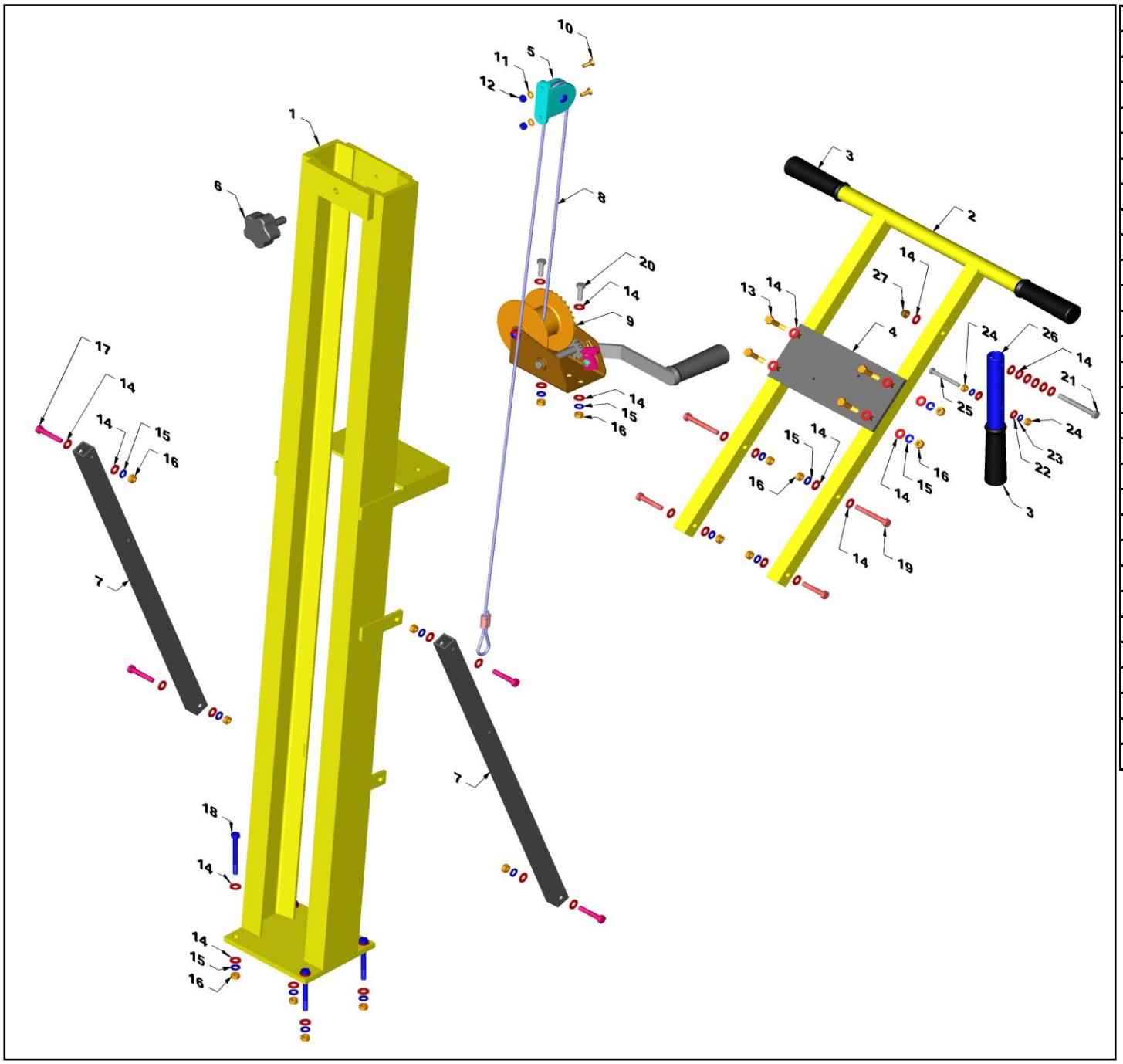
NO.	DESCRIPTION	PART NO.	QTY.
1	7' OUTER CASING	275Y7	1
2	7' INNER CORE	250T7	1
3	7' FLEXIBLE SHAFT ASSEMBLY	30AK7	1

BASE FRAME ASSEMBLY



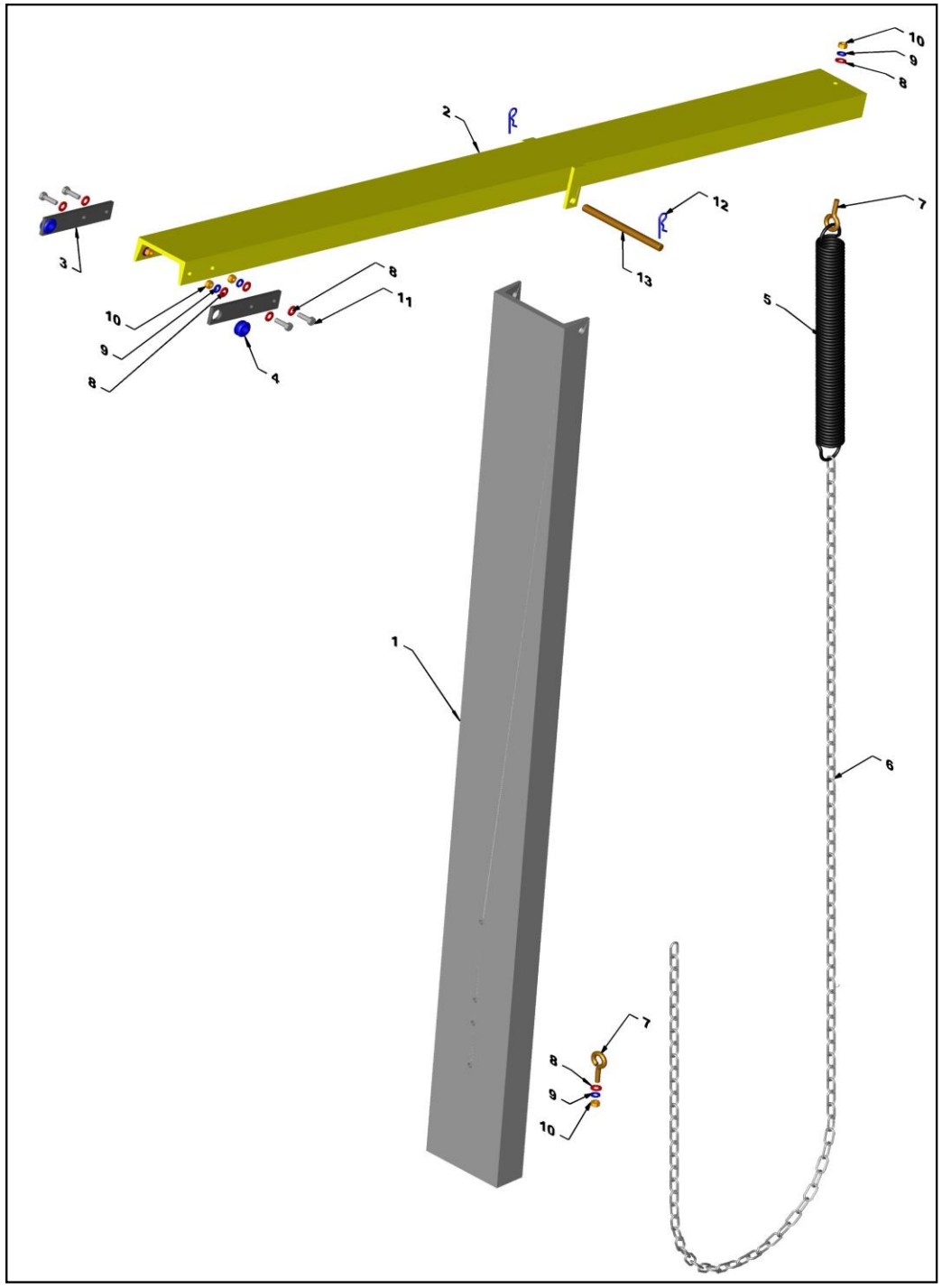
NO.	DESCRIPTION	PART NO.	QTY.
1	FRAME, BASE	440F1	1
2	SWIVEL CASTER	590B1	1
3	WHEEL, TIRE	590A1	2
4	WASHER, FLAT	370A750	4
5	COTTER PIN	180E1	2
6	BOLT, HEX HEAD	280A308	4
7	WASHER, FLAT	370A312	8
8	WASHER, LOCK	285A312	4
9	NUT	211A31	4
10	END CAP	400M1	2

MAIN FRAME ASSEMBLY



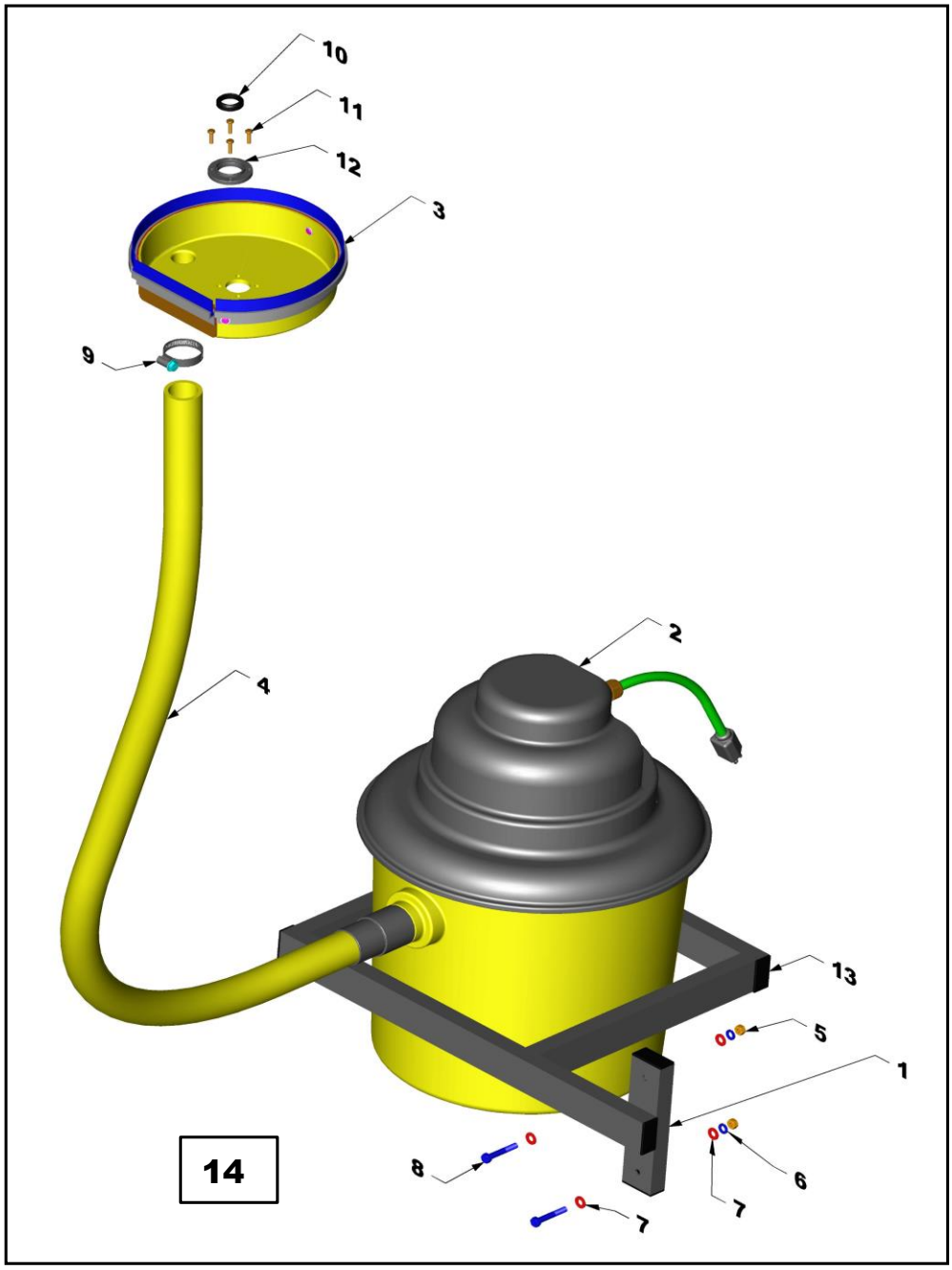
NO.	DESCRIPTION	PART NO.	QTY.
1	MAIN FRAME	440H1	1
2	HANDLE	165D1	1
2A	HANDLE (w / 3)	165D2	1
3	GRIP	165C1	2
4	PLATE, SWITCH	215AN1	1
5	PULLEY	590C1	1
6	LOCKING KNOB	365B1	1
7	SUPPORT TUBE	195G1	2
8	CABLE ASSEMBLY	315B2	1
9	WINCH	595A1	1
10	SCREW	190H1	2
11	WASHER, LOCK	285A250	2
12	NUT	211A25	2
13	BOLT, HEX HEAD	280A317	4
14	WASHER, FLAT	370A312	36
15	WASHER, LOCK	285A312	18
16	NUT	211A31	18
17	BOLT, HEX HEAD	280A317	4
18	BOLT, HEX HEAD	285A330	4
19	BOLT, HEX HEAD	285A325	4
20	BOLT, HEX HEAD	285A310	2
21	BOLT, HEX HEAD	285A330	1
22	WASHER, FLAT	370A250	2
23	WASHER, LOCK	285A250	2
24	NUT	211A25	2
25	LUG, CHAIN	280A222	1
26	HANDLE, TENSION	165E1	1
26A	HANDLE, TENSION (w / 3)	165E2	1
27	NUT, NYLOC	211B250	1

MAST & CROSS BEAM FRAME ASSEMBLY



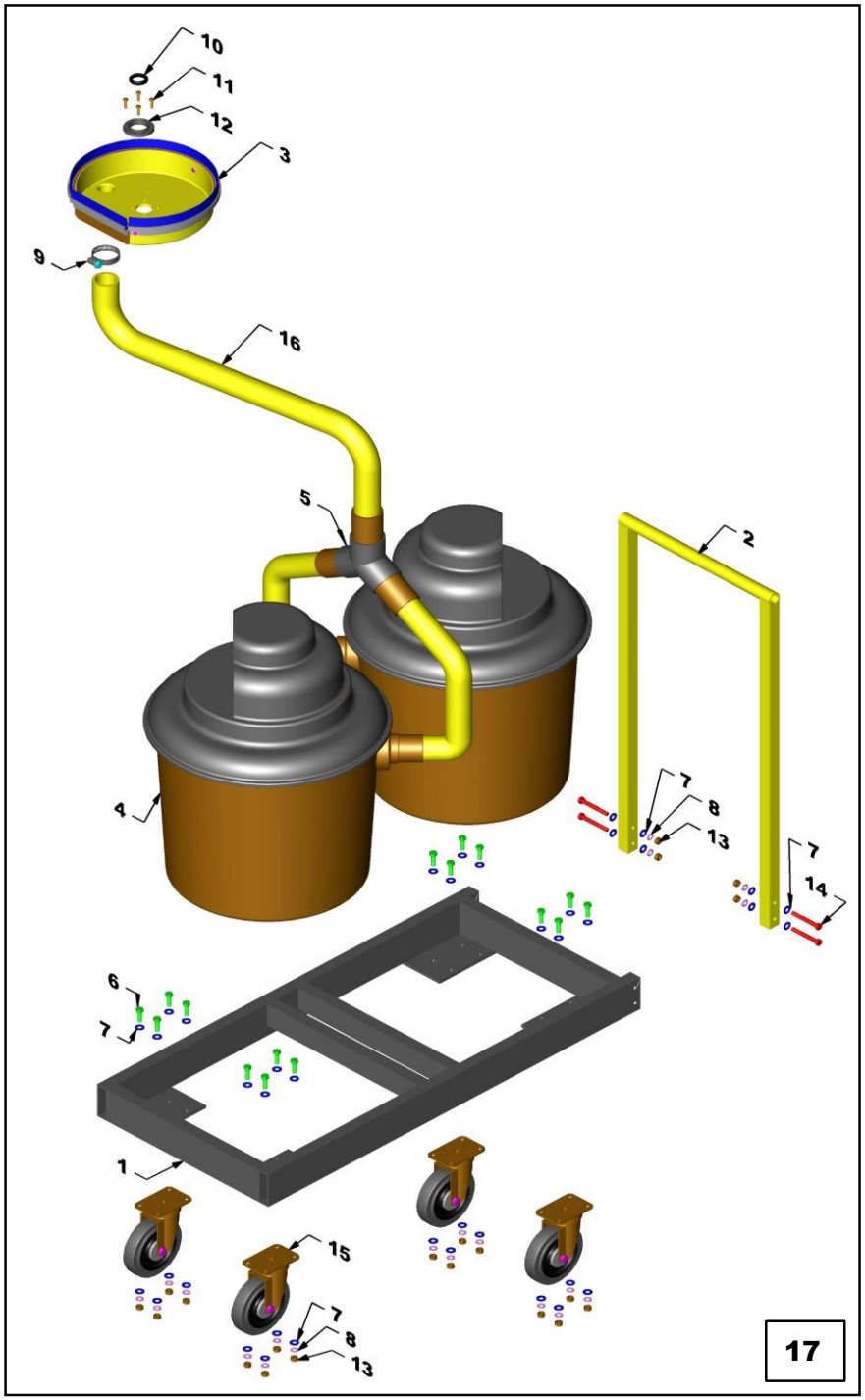
NO.	DESCRIPTION	PART NO.	QTY.
1	MAST	440K1	1
2	CROSS BEAM	440J2	1
3	PLATE (w / Grommet)	215AX2	2
4	GROMMET	130B1	2
5	SPRING, TENSION	465B1	1
6	CHAIN	315C1	1
7	EYE BOLT	570A1	2
8	WASHER, FLAT	370A312	10
9	WASHER, LOCK	285A312	6
10	NUT	211A31	6
11	BOLT, HEX HEAD	280A310	4
12	HITCH PIN	180E3	2
13	HINGE PIN	180C1	1

VACUUM ASSEMBLY



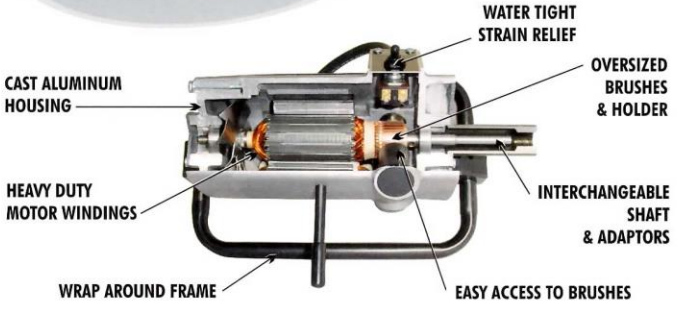
NO.	DESCRIPTION	PART NO.	QTY.
1	FRAME, VACUUM	440Y1	1
2	VACUUM	645A1	1
3	GUARD, VACUUM (ASSEMBLY)	270E3	1
4	HOSE, VACUUM	640A1	1
5	NUT	211A31	2
6	WASHER, LOCK	285A312	2
7	WASHER, FLAT	370A312	2
8	BOLT, HEX HEAD	280A320	2
9	CLAMP, HOSE	695A1	1
10	SEAL, WIPER (DUST)	680A1	1
11	SCREW, PAN HEAD	190F175	4
12	WASHER, GUARD	370G1	1
13	END CAP	400M1	6
14	VACUUM UNIT (COMPLETE ASSEMBLY)	645B1	1

DUAL VACUUM CART ASSEMBLY



NO.	DESCRIPTION	PART NO.	QTY.
1	FRAME, MAIN	440AN1	1
2	HANDLE	440AP1	1
3	GUARD, VACUUM (ASSEMBLY)	270E3	1
4	VACUUM	645A1	2
4A	VACUUM (HEPA TYPE)	645A2	2
5	"Y" HOSE ADAPTER KIT (w / 2 VACUUM HOSES)	640B1	1
6	BOLT, HEX HEAD	280A308	16
7	WASHER, FLAT	370A312	40
8	WASHER, LOCK	285A312	20
9	CLAMP, HOSE	695A1	1
10	SEAL, WIPER (DUST)	680A1	1
11	SCREW, PAN	190F175	4
12	WASHER, GUARD	370G1	1
13	NUT	211A31	20
14	BOLT, HEX HEAD	280A325	4
15	SWIVEL CASTER	590B1	4
16	HOSE, VACUUM	640A2	1
17	DUAL VACUUM CART ASSEMBLY	645B3	1
17A	DUAL VACUUM CART ASSEMBLY (HEPA TYPE)	645B3H	1

Pro-1.5, 2+ and 3+ Electric Vibrators



Vibrator Head Specifications

Head Diameter & Length inches / mm	Centrifugal Force pounds / N	Amplitude to side at tip inches / mm	Radius of Influence inches / mm	Capacity y3/hr / m3/hr
3/4 x 12 19 x 305	112 498	.070 1.78	4 102	4 3.64
1 x 13 25 x 330	183 820	.075 1.91	5 127	6 5.46
1-1/4 x 13 32 x330	430 1.913	.080 2.03	7 178	8 7.28
1-1/2 x 14 38 x 356	760 3.380	.090 2.29	14 356	12 10.92
1-3/4 x 14 44 x 356	1100 4.893	.110 2.79	18 457	24 21.84
2 x 14 51 x 356	1450 6.450	.130 3.30	22 559	35 31.85

POWER SOURCE INDICATOR

How to select components for your Northrock system:

1 - First determine the diameter of the head based on the radius of influence listed on the vibrator specification chart (above-right).

2 -Determine the length of the shaft needed to reach the bottom of the form.
3 - Using the selections from step 1 & 2 , find the motor on the chart below.

	Head Diameter (inches)	Shaft Length (feet) 2	5	7	10	14	21	
PRO 1.5 1-1/2 hp	3/4							
	1							
	1-1/4							
	1-1/2			*	*	*	*	
PRO 2.0 2hp	1-3/4		*	*	*	*	*	
	2	*	*	*	*	*	*	PRO 3.0 3 hp
	2-1/2	*	*	*	*	*	*	

Upgrade to next size power unit if any of the following conditions exist:

* A larger diameter head may be installed in the future
* Low-slump concrete or abnormal conditions exist which restrict flow
* Unit will run continuously as a precast plant
* Shaft connectors will be used to extend shaft length
* Frequency is below 10,000 for any reason whatsoever

NOTE: Shafts are available in lengths up to 60' with connector

Special Heads

In addition to the standard heads we also offer short heads (1 ½"to 2" Dia. x 4" long) for use with tilt-up walls, slabs and decks. Coated heads (1 ½" to 2 ½" Dia.) to protect epoxy rebar from damage that can cause premature failure and soft tipped heads that save expensive forms from marring.

Flexible Shafts

All NORTHROCK flexible shafts are constructed with rubber coated steel braiding which prevents stretching, and hardened steel inner liners that act as the bearing surface for the inner core. We have both standard duty shafts and pencil shafts. The standard duty shafts are stiffer for better poking control, while the pencil shafts (only used on 3/4" - 1 1/4") are more flexible and used to reach tight areas such as a block wall. Flexible shafts are made from 1' to 30'. Lengths up to 60' are available via a simple shaft connector.

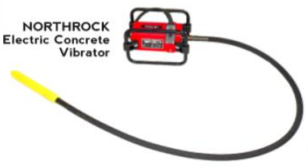
NORTHROCK
NORTHROCK INDUSTRIES, INC.

31 Crossway East, Bohemia, NY 11716
PH: 800-989-8423 or 631-924-6130
FAX: 800-315-1277 or 631-924-6369
www.northrockindustries.com

Your Authorized Dealer:


NORTHROCK 4-Stroke Backpack Vibrator


NORTHROCK Rebar Rocker


NORTHROCK Electric Concrete Vibrator


NORTHROCK Hand-Held Grinders


NORTHROCK Ceiling Grinder

NOTES

NORTHROCK

NORTHROCK INDUSTRIES, INC.

NORTHROCK
4-Stroke
Backpack
Vibrator

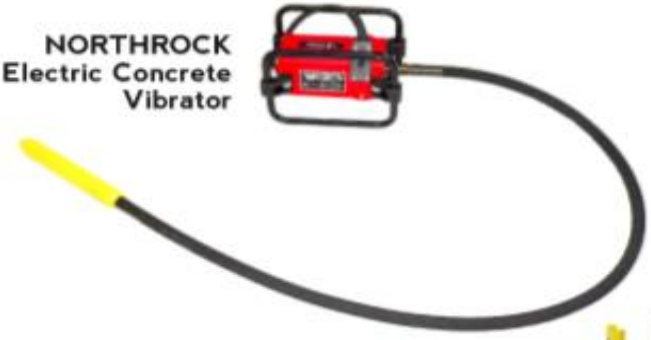
Made in USA

- BACKPACK VIBRATORS -
- ELECTRIC VIBRATORS -
- REBAR ROCKERS -
- CEILING GRINDERS -
- HAND-HELD GRINDERS -

NORTHROCK
Rebar Rocker

NORTHROCK
Ceiling
Grinder

NORTHROCK
Electric Concrete
Vibrator



NORTHROCK
Hand-Held
Grinders

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