



# OPERATIONS-PARTS MANUAL



## MP205

*Mechanical Pro (MP) Series Riding Trowel*

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## NOTICE

This manual, or a copy of it, must be kept with the machine at all times. There is a manual storage container located on the machine for your convenience.

# Riding Trowel

## OPERATIONS PARTS

## MANUAL BOOK

THIS MANUAL COVERS RIDING TROWEL(S) BELOW

### MODEL

|                                   |                 |
|-----------------------------------|-----------------|
| <b>900 NOL SFC 20LM</b>           | <b># 032024</b> |
| <b>900 NOL SFC 25KO W/O SPRAY</b> | <b># 034511</b> |
| <b>MP205-20HO</b>                 | <b># 039053</b> |
| <b>900 NOL SFC 22KA</b>           | <b># 039202</b> |
| <b>900 NOL SFC 22KA EDGER</b>     | <b># 041270</b> |
| <b>MP205-GX690</b>                | <b># 051977</b> |

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Allen® Products are covered under one or more of the following patent numbers:

**U.S. Design Patents:** 344,736; 400,542; 400,544; 402,998; 402,999; 403,332; 404,041; 404,042; 410,931; 413,127; 416,564; 465,897; 466,909; 474,203.

**U.S. Utility Patents:** 5,108,220; 5,238,323; 5,328,295; 5,352,063; 5,405,216; 5,476,342; 5,480,257; 5,480,258; 5,533,831; 5,562,361; 5,567,075; 5,613,801; 5,658,089; 5,685,667; 5,803,658; 5,816,739; 5,816,740; 5,890,833; 5,934,823; 5,967,696; 5,988,938; 5,988,939; 6,019,433; 6,019,545; 6,048,130; 6,053,660; 6,089,786; 6,106,193; 6,857,815; 5,288,166; 6,582,153 B1, 7,108,449; 7,114,876; 7,316,523; 7,690,864 B2

**Canadian Patents:** 2,039,893.

**With other Patents Pending.**

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# 1A OPERATIONS

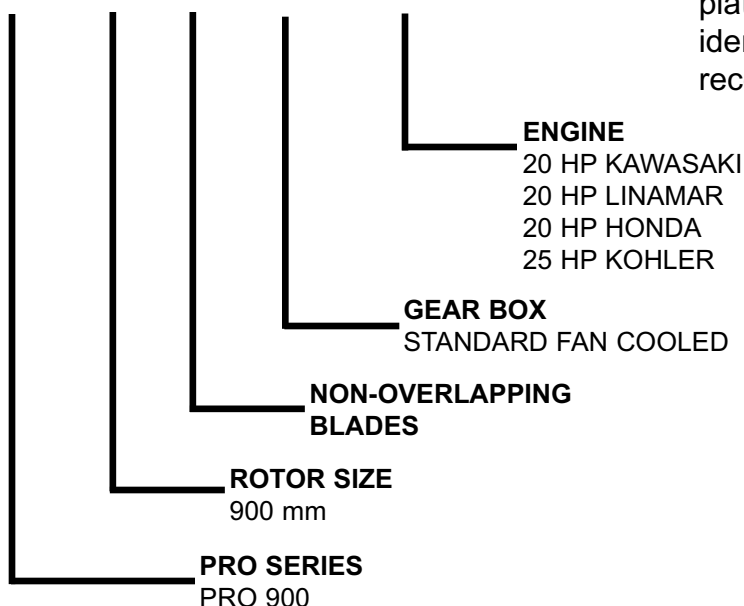
## OPERATIONS IDENTIFICATION PLATE

An identification plate listing the Model Number and Serial Number is attached to each unit and is located on the left side of the mainframe. The plate should not be removed.

Please record the information found on this plate below so it will be available should the identification plate become lost or damaged . When ordering parts or requesting service information you will always be asked to specify the model number and serial number of the unit.

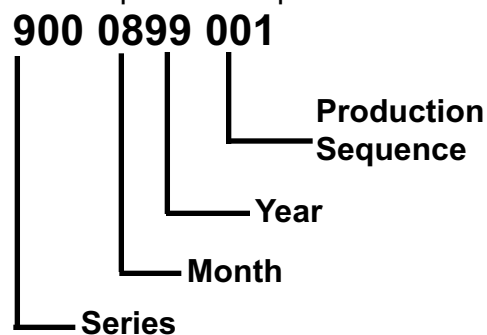
### Model Number

**PRO 900-NOL-SFC 20KA**

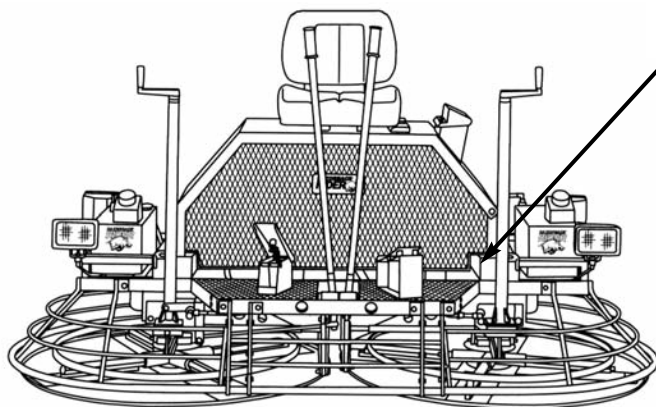


### Serial Number

The serial number found on the identification plate is a ten digit number. The model number identifies your machine and will ensure that you receive the correct replacement parts.



**Identification  
Plate  
Location**



**FILL IN FOR FUTURE REFERENCES**

**Model Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Date Purchased:** \_\_\_\_\_

**Purchased From:** \_\_\_\_\_

# PRO 900-NOL-SFC Operating Information

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**This machine is built with user safety in mind. However, it can present hazards if improperly operated and serviced. Follow operating instructions carefully!**

**If you have any questions about operating or servicing this equipment please contact your Allen Engineering Distributor or Allen Engineering Corp. Customer Service at 800-643-0095 or 870-236-7751.**

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## Important Reminder

Complete any warranty requirements as specified by the engine manufacturer in their instructions found inside the battery box.

Your engine and clutch is not manufactured by Allen Engineering Corp., and therefore is not covered under Allen Engineering warranty.

Your engine manufacturer should be contacted if you wish to purchase a parts manual or a repair manual for your engine.

Refer to enclosed owners engine manual for complete O&M instructions. See your battery manufacturer for battery warranty.

## Your Distributor

Your Distributor has Allen Engineering trained mechanics and original Allen Engineering replacement parts. Always contact the Allen Engineering Distributor who sold you this machine for Allen Engineering Certified repairs and replacement parts.

Place distributor information here for future reference.

DISTRIBUTOR NAME: \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

SALESMAN: \_\_\_\_\_

ADDITIONAL INFORMATION: \_\_\_\_\_

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THE INFORMATION CONTAINED IN THIS MANUAL WAS BASED UPON THE MACHINES IN PRODUCTION AT THE TIME (BEGINNING WITH SERIAL NUMBER 9000402013) OF PUBLICATION. ALLEN ENGINEERING RESERVES THE RIGHT TO CHANGE ANY PORTION OF THIS DOCUMENT WITHOUT NOTIFICATION.

# 1A OPERATIONS

## Information Contained in This Manual

This manual provides information and procedures to safely operate and maintain the Allen Engineering PRO 900-NOL-SFC (MP205) Model ***Riding Trowels***.

For your own safety and protection from personal injury carefully read, understand and observe the safety instructions described in this manual.

Always operate and maintain this machine in accordance with the instructions described in this manual. A well maintained piece of equipment will provide many years of trouble free operation. This manual is divided into the sections listed below.

1A  
OPERATIONS

2A  
PARTS

## Ordering Parts

This manual contains an illustrated parts list for help in ordering replacement parts for your machine. Follow the instructions listed below when ordering parts to ensure prompt and accurate delivery. All orders for parts must be made through your local authorized Allen Engineering dealer. All authorized Allen Engineering dealers must fax a copy of the parts order to customer service. The fax number is (870) 236-3934. Facsimile orders must contain the following information:

1. On all orders for service parts include SERIAL NUMBER and MODEL number.
2. Shipment may be delayed if this information is not included.
3. Include correct description and part number from part section 2A.
4. **State exact shipping instructions including preferred routing and complete destination address. Also please indicate your preferred freight carrier. If no freight carrier is indicated Allen Engineering reserves the right to ship the shipment the best way possible. Once a shipment leaves Allen Engineering's docks it becomes the responsibility of the freight carrier to insure that it arrives at it's intended destination.**
5. **DO NOT** return parts to Allen Engineering without receiving written authorized Returned Goods Authorization (RGA) from Allen Engineering. All authorized returns must be shipped prepaid. **All unauthorized returns will be shipped back to the addressee at their expense.**

**Keep this manual or a copy of it with the machine. If you loose this manual or need an additional copy please contact your Allen distributor or Allen Engineering Corporation at (800) 643-0095 and order literature part number 038958.**

# 1A OPERATIONS

## 1.1 Safety Notes

This manual contains NOTES, CAUTIONS and WARNINGS which must be followed to reduce the possibility of improper service damage to the equipment or personal injury. Read and follow all NOTES, CAUTIONS and WARNINGS included in this manual.

**NOTE** Contains additional information important to a procedure.

**CAUTION** Provides information important to prevent errors which could damage machine or components.

**WARNING** Warns of conditions or practices which could lead to personal injury or death.

## 1.2 Laws Pertaining to Spark Arrestors

**Notice:** Some states require that in certain locations arrestors be used on internal combustion engines. A spark arrester is a device designed to prevent the discharge of spark or flames from the engine exhaust. It is often required when operating equipment on forested land to prevent the risk of fires. Consult the engine distributor or local authorities and make sure that you comply with regulations regarding spark arrestors.



## 1.3 Operating Safety

Familiarity and proper training are required for the safe operation of this equipment! Equipment operated improperly or by untrained personnel can be dangerous! Read the operating instructions contained in both this manual and the engine manual and familiarize yourself with the location and proper use of all controls.

### Safety Precautions

1. Read operating and safety instructions before using the Riding Trowel. Operate the machine in accordance with the manufacturer's instructions.
2. Inspect your Riding Trowel for damage or tampering that can sometimes occur during shipping.
3. **If damage is found file a claim with your carrier immediately! Mark freight bill of lading as damaged shipment.**
4. Do not operate Riding Trowel if any guards have been removed or if the "safety switch" is not operational.
5. Only trained personnel should be allowed to operate your Riding Trowel.
6. Never allow more than one person on the Riding Trowel while it is in operation.
7. No foreign objects such as buckets, tools or materials should ever be attached or allowed to ride on the Trowel during operation.
8. Do not attempt to fill fuel tank or oil sump while the engine is running. Allow engine to cool before refueling.
9. Never attempt to operate the Riding Trowel on steep inclined surfaces.
10. Do not use over the counter hardware to replace manufacturer's hardware.
11. **WARNING: When operating machines with gas engines in confined areas. The fumes MUST be ventilated!**
12. Always wear safety goggles, ear protection, and gloves when operating the Riding Trowel.
13. When operating Pro 900 Edger, never put hands on or near the edger rings. There are several pinch point decals located on the rings. Please adhere to the warnings to prevent serious injury.

# 1A OPERATIONS

## 1.4 Service Safety

Poorly maintained equipment can become a safety hazard! In order for the equipment to operate safely and properly over a long period of time, periodic maintenance and occasional repairs are necessary.

**DO NOT** attempt to clean or service machine while it is running. Rotating parts can cause severe injury.

**DO NOT** crank a flooded engine with the spark plug removed. Fuel trapped in the cylinder will squirt out the spark plug opening.

**DO NOT** test for spark if engine is flooded or the smell of gasoline is present. A stray spark could ignite the fumes.

**DO NOT** use gasoline or other types of fuels or flammable solvents to clean parts especially in enclosed areas. Fumes from fuels and solvents can become explosive and can be hazardous to your health.

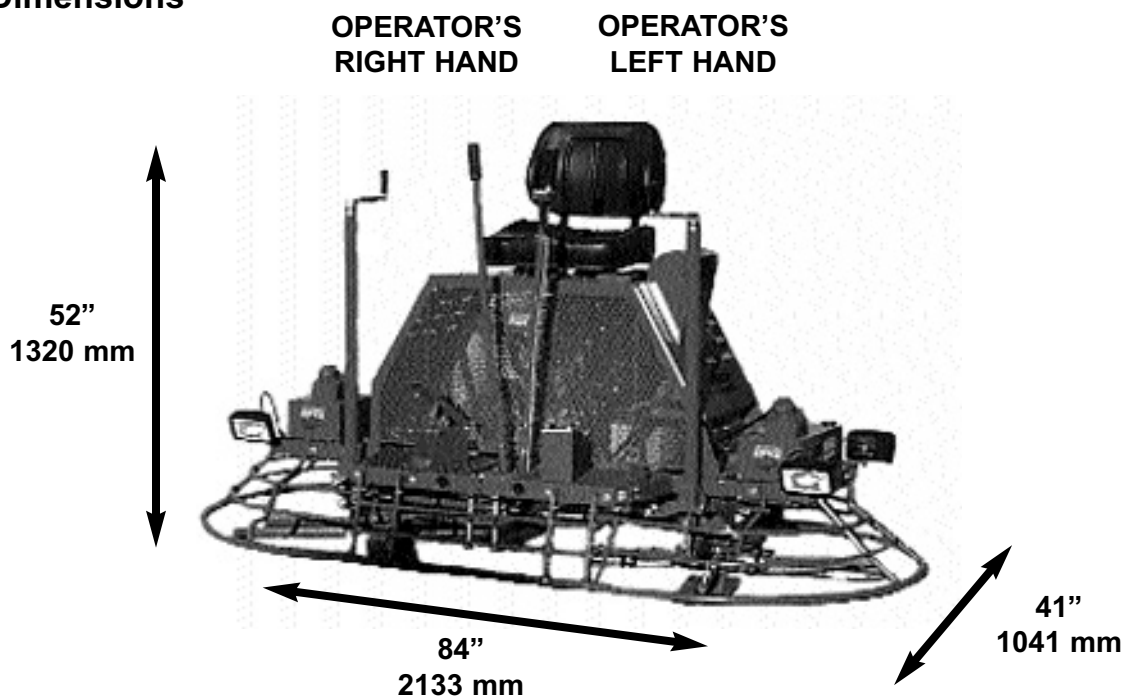
**ALWAYS** operate machine with all safety devices and guards in place and in working order.

**ALWAYS** keep area around muffler free of debris such as leaves, paper, cartons, etc. A hot muffler could ignite such items starting a fire.

**ALWAYS** replace worn or damaged components with spare parts designed and recommended by ALLEN ENGINEERING.

**ALWAYS** disconnect battery on machines before servicing to avoid accidental start-up.

## 1.5 Dimensions



## 1.6 Technical Data

| Engine Make & Model    |                 | Kaw. 22HP       | Koh. 25HP       | Hon. 20HP       | Lin. 20HP       | Hon. GX690 |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------|
| Rated Power            | HP (kW)         | 22(16.4)        | 25(18.6)        | 20(14.9)        | 20(14.9)        | 22.3(16.6) |
| Piston Displacement    | cu. in. (cc)    | 38 (624)        | 44(725)         | 37.5(614)       | 47.7(782)       | 42(688)    |
| Spark Plug             | type            | Champion RC12YC | Champion RC12YC | BPR6ES NGK      | Champion RC12YC |            |
| Electrode Gap          | in. (mm)        | .025 (64)       | .040(1.02)      | .025(64)        | .025(64)        |            |
| Operating Speed        | RPM             | 3600            | 3600            | 3600            | 3600            | 3600       |
| Battery                | volts           | 12              | 12              | 12              | 12              | 12         |
| Fuel Capacity          | gal. (L)        | 4(15.14)        | 4(15.14)        | 4(15.14)        | 4(15.14)        | 6(22.7)    |
| Fuel Consumption       | gal. (L) per hr | 1.66 (6.27)     | 1.66(6.27)      | 1.66(6.27)      | 1.66(6.27)      | 1.66(6.27) |
| Running Time           | hrs             | 2.5             | 2.5             | 2.5             | 2.5             | 2.5        |
| Centrifugal Clutch     | type            | Mechanical Ramp | Mechanical Ramp | Mechanical Ramp | Mechanical Ramp | Mech. Ramp |
| Low Oil Shutdown Alert |                 | Yes             | No              | Yes             | Yes             | Yes        |
| Engine Oil Capacity    | US qt. (L)      | 2 (1.9)         | 2(1.9)          | 1.3(1.2)        | 2.7(2.6)        | 2.0(1.9)   |
| Engine Lubrication     | Oil Grade       | SAE10W30 SG     | SAE10W30 SG     | SAE10W30 SG     | SAE10W30 SG     | SAE10W30   |
| Weight                 | lbs. (kg)       | 91 (41)         | 94(43)          | 90(40)          | 94(43)          | 98(44.4)   |
| Charging System        | amp             | 20              | 20              | 20              | 35              | 20         |

## Trowel Specifications

|                        |                        | Pro 900-NOL-SFC           | Pro 900-NOL-SFC-EDGER     |
|------------------------|------------------------|---------------------------|---------------------------|
| Length                 | in. (mm)               | 84 (2133)                 | 88 (2235)                 |
| Width                  | in. (mm)               | 41 (1041)                 | 40 (1016)                 |
| Operating Weight       | lbs. (kg)              | 700 (318)                 | 786 (357)                 |
| Detachable Guard Rings |                        | Yes                       | No                        |
| Troweling Width        | in. (mm)               | 70 (1778)                 | 85 (216)                  |
| Troweling Area         | sq. ft. m <sup>2</sup> | 17.5 (1.63)               | 17.5 (1.63)               |
| Travel Speed           | ft/min. (mm/min.)      | 230 (70)                  | 230 (70)                  |
| Rotor Speed            | RPM                    | 115                       | 125                       |
| Pitch Range            | deg.                   | 0 -20                     | 0-20                      |
| Gearbox                |                        | Standard Fan Cooled (SFC) | Standard Fan Cooled (SFC) |
| Safety Switch          | Foot Style             | Yes                       | Yes                       |
| Gearbox Lubrication    | 25 oz.                 | Mobile Mobilith SCH 220   | Mobil Mobilith SCH 220    |

Summary Data for CE Marking Sound & Vibration Testing

| Test Machine | Engine Type | Avg. Sound Pressure Level (SPL) | Operator Ear SPL | Calculated Sound Power Level | Seat Vibration Overall | Foot Vibration Overall | Hand Vibration Maximum |
|--------------|-------------|---------------------------------|------------------|------------------------------|------------------------|------------------------|------------------------|
|              |             | dB(A)                           | dB(A)            | dB(A)                        | m/sec <sup>2</sup>     | m/sec <sup>2</sup>     | m/sec <sup>2</sup>     |
| 900 OL STD   | Onan 20     | 95                              | 95               | 110                          | 1.3                    | 0.6                    | 1.3                    |
| 900 NOL STD  | Onan 20     | 95                              | 93               | 111                          | 0.4                    | 0.4                    | 1.3                    |

This information was acquired from extensive sound and vibration analysis tests ran at Allen Engineering Corporation. The data above was acquired from May till June of 1996.

# 1A OPERATIONS

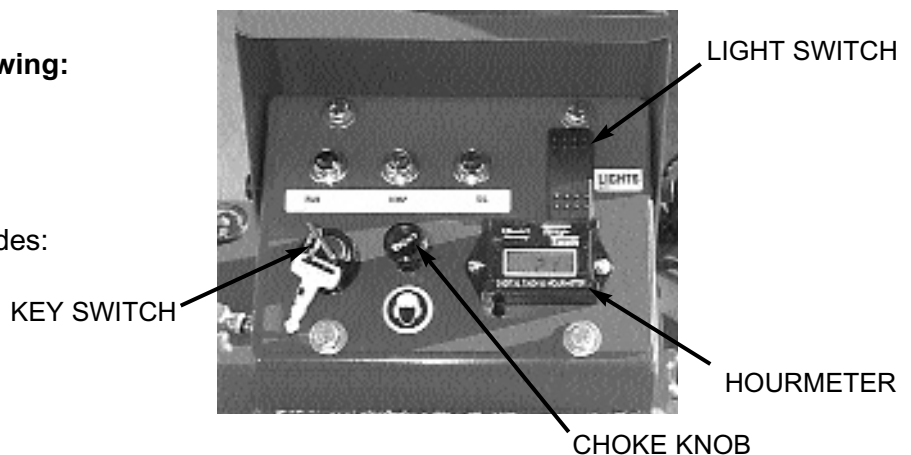
## 1.7 Description

The Riding Trowel is a modern high production machine. Finishing rate will vary depending on the operators skill and job conditions. The Riding Trowel has eight finishing blades. The Standard Fan Cooled Gearboxes are designed to provide exceptional performance with low maintenance and trouble free use under some of the most worse conditions. All Allen Engineering **Razorback® Riders** are equipped with a safety shutdown switch and a low oil shut down for added job safety and engine protection. Operating time between fuel refills is approximately 2-1/2 to 3 hours with a rotor speed up to 155 RPM for a PRO 900-NOL-SFC (*depending on model*). The **Razorback® Riders** are the most technically advanced trowels on the market today. With Proper maintenance and use your Riding Trowel will provide you with exceptional service.

## 1.8 Before Starting

**Before starting trowel check the following:**

- \* Oil level in engine:
- \* Oil level in trowel gearboxes:
- \* Fuel level :
- \* Condition of air filter:
- \* Condition of trowel arms and blades:
- \* Grease trowel daily:



## 1.9 Starting

Before starting trowel refer to drawing above for location and identification of controls.

1. Sit down correctly on the Riding Trowel Seat. DO NOT attempt to start the Riding Trowel with out an operator in the seat.
2. Place left foot on the safety switch pedal located on the operators left hand side. Press down gently engaging the safety switch and maintain slight pressure.
3. If engine is cold pull out the choke lever located on the control panel (refer to drawings above).
4. Press down on throttle pedal (located by the operator's right foot) one to two times. NOTE: To much throttle during start-up will flood the engine.
5. Turn key to the start-position. immediately release key when engine starts. If after two or three attempts the engine has not started push in choke. This will open the choke. Attempt to start trowel again. Allow engine to warm up before operating trowel.

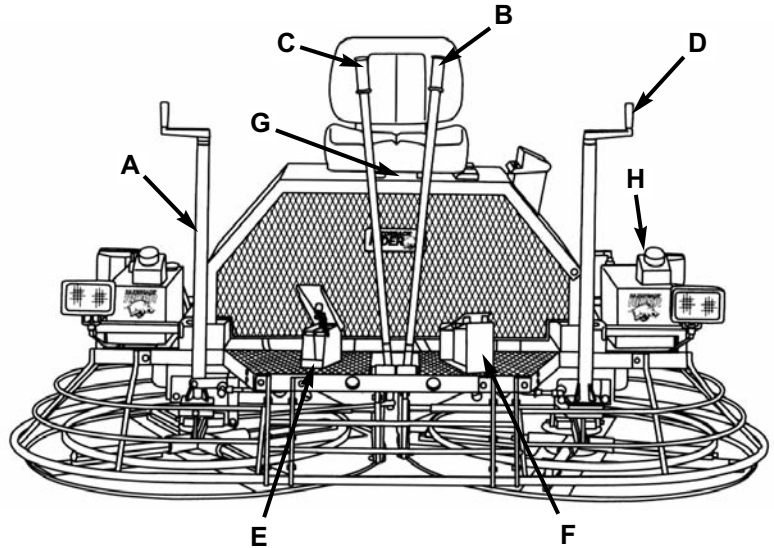
**Caution:** Operating the starter for more than 5 seconds can damage the starter or engine. If engine fails to start release the switch and wait 10 seconds before operating starter again.

## 1.10 Operating

To utilize your Allen Engineering **Razorback® Rider** to its fullest capacity the machine should be driven in the direction the operator is facing. This will finish the widest possible area while giving the operator an excellent view of the slab surface about to be troweled. When the machine reaches the end of the slab make a 180 degree turn and repeat the straight line of direction to the other end of the slab. To familiarize a new operator with the Riding Trowel the following steps should be taken.

### 1. Point out the location of all Controls

- A. right pitch control
- B. control lever (forward reverse)
- C. control lever (left & right, forward & reverse
- D. left pitch control
- E. right foot pedal (throttle control)
- F. left foot pedal (safety switch)
- G. seat adjustment
- H. fuel gauge



### 2. With the operator in the seat, show him the functions of the control levers (B) and (C) and how to start the machine. (refer to page 1A-10)

A hard level concrete slab with water on the surface is an idea place for an operator to practice with the machine. For practice pitch the blades up approximately 1/4" on the leading edge. Start by making the machine hover in one spot and then practice driving the machine in a straight line and making 180 degree turns. Best control is achieved at full RPM.

**CAUTION:** After starting engine fully engage the throttle. This allows the engine to warm up quicker and also engages the centrifugal clutch to max. RPM'S. **NOTE:** If you start out at a low RPM this will partially engage the clutch, causing it to slip. This will severely damage the clutch, causing clutch failure.

**CAUTION: DO NOT** use excessive pressure on the control levers. Excessive pressure does not increase the reaction time of the machine and can damage steering controls.

## 1.11 Stopping

To stop the trowels movement, return the control levers (C) and (B) to their neutral position and release pressure on the right foot pedal (E) .

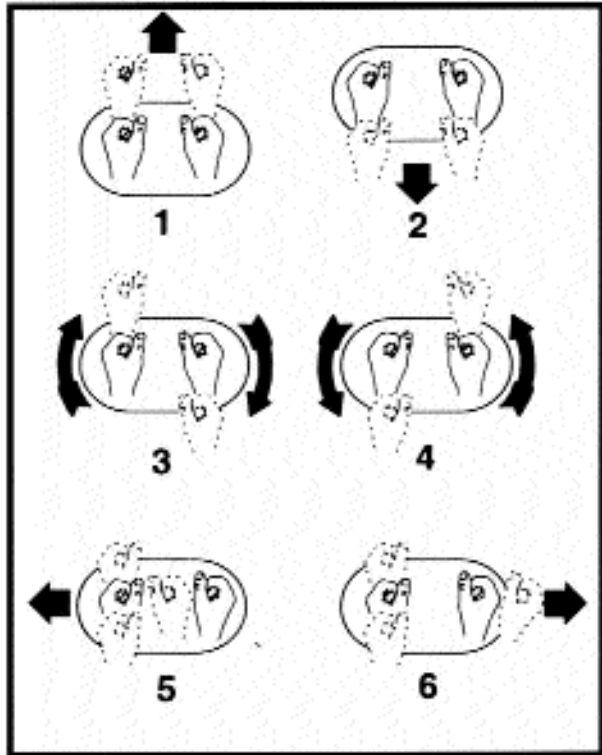
**NOTE:** On units equipped with an optional cruise control push lever all the way down this will release the right foot pedal and reduce engine speed to disengage the clutch. To stop engine turn the key to the off position.

# 1A OPERATIONS

## 1.12 Steering

A slight "feathering motion" forward and backward with the left hand control lever is required to move the machine in a straight path to the left or right while operating the right hand control lever. See illustration.

- 1 forward
- 2 reverse
- 3 rotate clockwise
- 4 rotate counter clockwise
- 5 left sideways
- 6 right sideways



## 1.13 Pitch Adjustment

Different pitch angles are needed as you work the different stages of the concrete. See the drawing below. When changing or setting pitch (angle of trowel blades), slow the machine down, set the desired degree of pitch on the left side of the machine and then adjust the right side to match.

To increase the pitch, turn the pitch control clockwise (a) use the pitch indicator (b) to adjust pitch equally on both right and left trowel blades.

|  | Working Conditions of Concrete      | Suggested Working Pitch |
|--|-------------------------------------|-------------------------|
|  | ① Wet surface working stage         | Flat (No Pitch)         |
|  | ② Wet plastic working stage         | 5° Slight Pitch         |
|  | ③ Plastic working stage             | 10° Additional Pitch    |
|  | ④ Semi-hard working stage           | 15° Additional Pitch    |
|  | ⑤ Hard finishing stage (burnishing) | 20° Maximum Pitch       |

### 1.14 Periodic Maintenance Schedule

The chart below list basic trowel and engine maintenance. Refer to engine manufacturer's Operation Manual for additional information on engine maintenance. A copy of the engine Operator's Manual was supplied with the machine when it was shipped. To Service the engine pull the seat locking pin out and tilt seat back.

|                                          | DAILY | EVERY 20 HOURS | EVERY 50 HOURS | EVERY 100 HOURS | EVERY 300 HOURS |
|------------------------------------------|-------|----------------|----------------|-----------------|-----------------|
| GREASE TROWEL ARMS                       | X     |                |                |                 |                 |
| CHECK OIL LEVEL IN G-BOX                 | X     |                |                |                 |                 |
| CHECK FUEL LEVEL                         | X     |                |                |                 |                 |
| INSPECT AIR FILTERS<br>REPLACE AS NEEDED | X     |                |                |                 |                 |
| CHECK AND TIGHTEN<br>EXTERNAL HARDWARE   | X     |                |                |                 |                 |
| GREASE CONTROL LINKAGE                   |       | X              |                |                 |                 |
| CHECK DRIVE BELTS                        |       |                | X              |                 |                 |
| CHECK VALVE CLEARANCE                    |       |                | X              |                 |                 |
| CHANGE ENGINE OIL                        |       |                |                | X               |                 |
| REPLACE OIL FILTERS                      |       |                |                | X               |                 |
| OIL CROSSHEAD                            |       |                |                | X               |                 |
| GREASE TROWEL G-BOX                      |       |                |                |                 | X               |
| REPLACE SPARK PLUG                       |       |                |                |                 | X               |

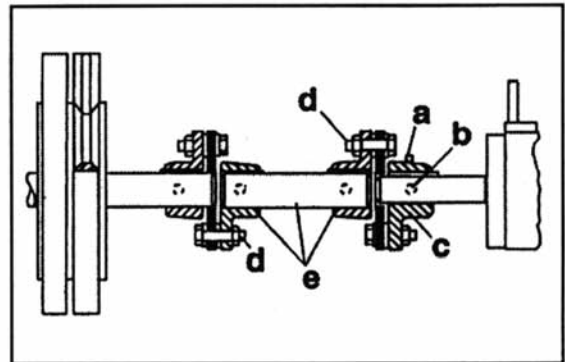
### 1.15 Trowel Gearbox

1. Check Oil levels in the gearbox daily (every 8 hours) Add oil if oil level is below the check sight glass. To add oil tilt trowel back and remove the side plug. Add Oil through hole opening. Replace plug after proper level has been achieved. DO NOT Fill past the plug. Use only Mobil Oil SHC 634, synthetic ISO VG 460.

2. Each Gearbox has a grease fitting on top cover that must be greased (2 SHOTS ONLY) every 300 operating hours. Use only Mobilith SHC 220. Extended pressure grease.

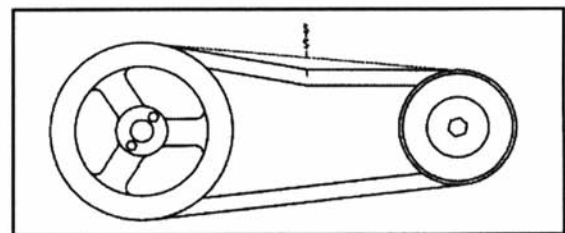
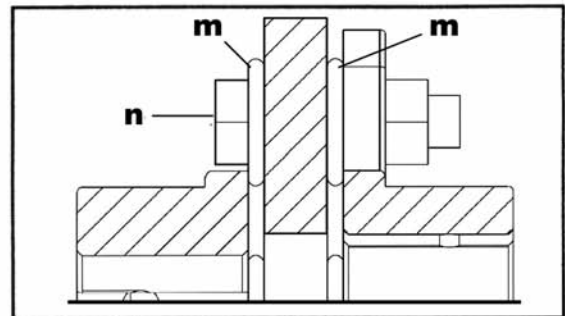
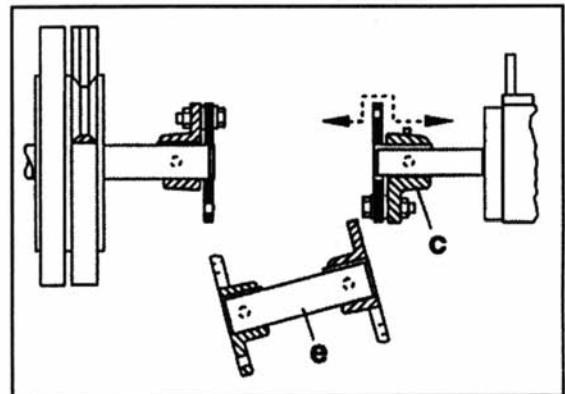
### To Tighten Belts

1. Loosen the four engine bolts.
2. Then locate the engine plate adjustment screws, on the back of the engine.
3. Next loosen the nylon locknuts and jamnuts.
4. Turn all nylon locknuts counterclockwise an equal number of turns to pull the engine backward until correct belt tension is attained. Maximum belt play should be from 1/2" to 3/4" (13mm to 19mm) at the center of the span. New belts should be re-tensioned after the first 10 to 12 hours of operation.
5. Retighten all jam nuts and locknuts.



### To Replace Belts

1. Remove Belt Guard.
2. Loosen the four engine mounting bolts.
3. Locate the two engine plate adjustment screws. These screws are located in the rear of the engine.
4. Loosen all the jamnuts and nylon locknuts on the engine plate adjustment screws.
5. Tighten the two jamnuts clockwise, this will push the engine forward and relieve the belt tension.
6. Loosen set screws (a) and (b) on the flex coupler assembly (c).
7. Remove six attaching bolts (d) on the inside of the flex coupler assembly (e) and slide the flex coupler mount (c) toward gearbox so as to allow the inside spider assembly (e) to be removed intact.
8. Remove and install belts through opening created by removal of (e).
9. Reverse procedure for assembly. Do not over tighten the bolts on the flex coupler assemblies. Tighten screws (n) so that washers (m) are compressed halfway into discs.



**NOTE:** Remember that new belts should be re-tensioned after the first 10 to 12 hours of use. Maximum belt play should be from 1/2" to 3/4" (13mm to 19mm) at the center of the span.



The control linkage is equipped with seven grease fitting to lubricate pivot points. Grease control linkage once a week or every 20 hours to prevent wear and ensure free movement and smooth response of control levers.

Use a general purpose grease and add one to two shots of grease to each fitting.

## 1.18 Control Lever Adjustment

Be sure that the trowel is on a level surface. The control levers should line up evenly. If levers appear out of adjustment they can be re-adjusted forward or backwards as follows:

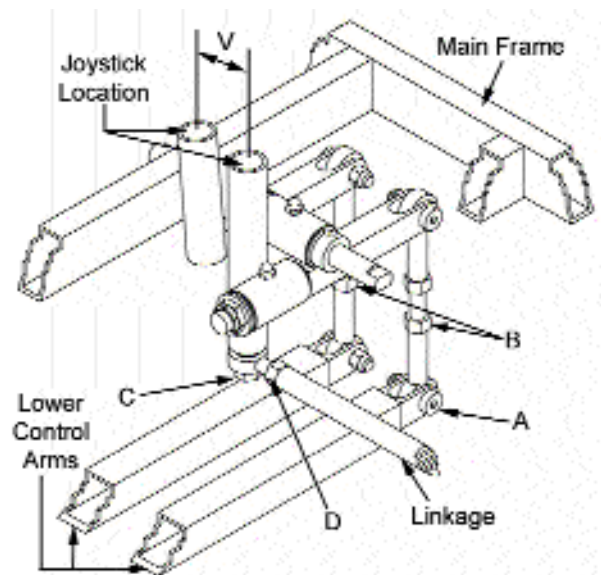
NOTE: Trowel must be placed on flat level surface that fully supports the blades on both rotors.

1. Remove bolts (A).
2. Loosen jam nuts (B).
3. Extend linkage to adjust control levers backward.
4. Shorten linkage to adjust linkage control levers forward.
5. After levers have been adjusted to the desired position, reassemble bolts (A) and tighten jam nuts (B).

## 1.19 Right Hand Control Lever Adjustment Right or Left

The right hand lever should be set to the same angle as that of the left to form a "V". If levers become out of adjustment adjust the right hand lever as follows:

1. Remove bolt (C).
2. Loosen jam nuts (D).
3. Extend linkage to move control levers to the right .
4. Shorten linkage to move control levers to the left.
5. After control lever has been adjusted to the desired position reassemble bolt (C). And tighten jam nuts (D).



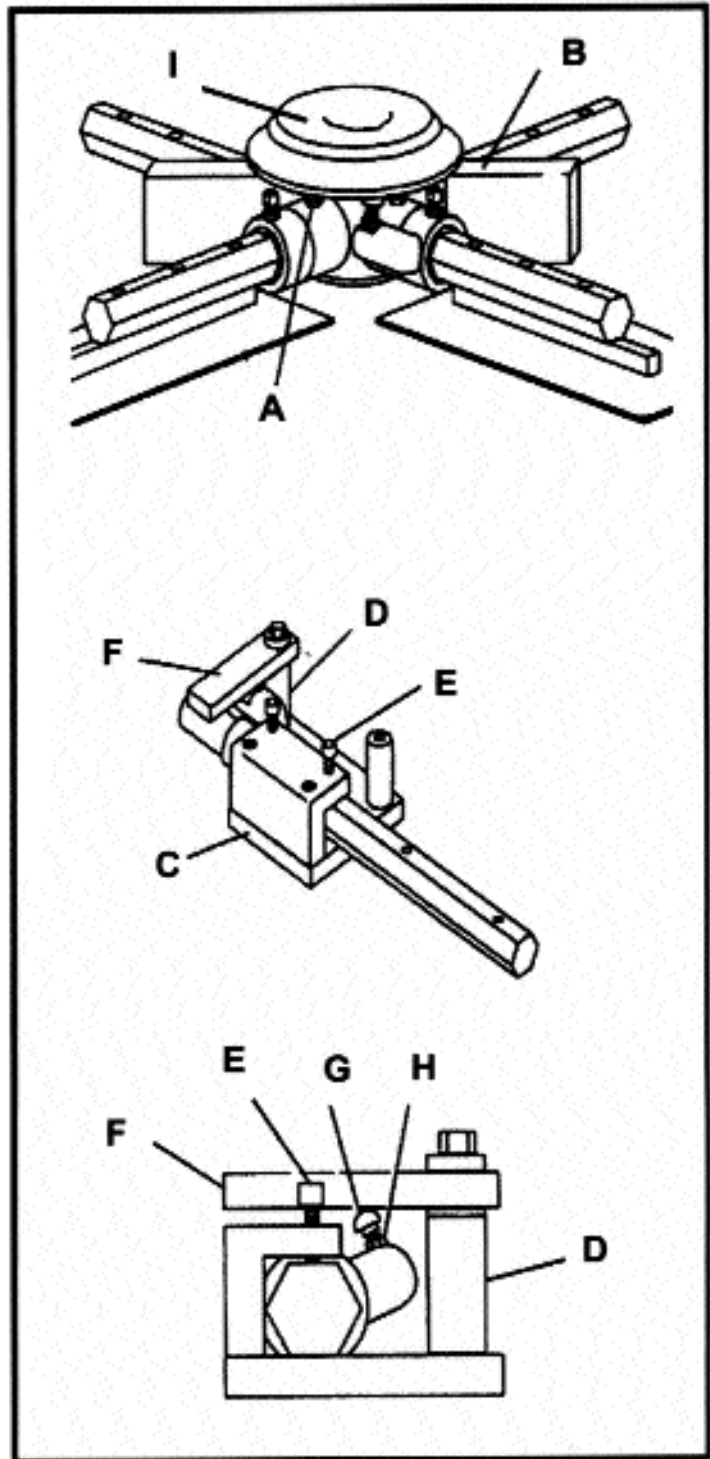
# 1A OPERATIONS

## 1.20 Lift Lever Adjustment

Damage to or replacement of a trowel arm can change the adjustment of the lift lever. This can unbalance the trowel arms and cause the trowel to wobble during operation. To operate smoothly the lift lever on all arms must be adjusted the same to ensure that the trowel is balanced correctly. Adjust trowel arms using optional trowel arm jig as described below.

NOTE: Make sure that there is no pitch in the blades before attempting to remove a trowel arm.

1. Block up pressure plate (I) using wooden block (B).
2. Remove stabilizer ring from spider assembly (only on available models).
3. Remove blades from trowel arms.
4. Loosen hex head cap screw (A) and remove it and the external star washer from the spider boss.
5. Remove trowel arms from spider 4-boss with lift levers in place.
6. Clean flats on trowel arm before placing it in the trowel arm jig (PART# 016863).
7. For PRO 900 series trowels use the smallest spacer (1- $\frac{1}{4}$  X 2- $\frac{1}{4}$ ) (D).
8. Insert trowel arm into trowel arm jig as shown.
9. Tighten socket head bolts (E) down on the trowel arm to hold in place.
10. Place carriage bolts (G) on lift lever under the trowel arm jig (F) as shown.
11. Loosen jam nut (H) and adjust the carriage bolt so that the top of the bolt is just touching the bottom of the trowel arm jig and tighten jam nut (H).
12. Attach and trowel arm to spider boss and blades to arms.
13. Tighten down hex head cap screw to secure arm in place.
14. Reattach stabilizer ring (only on available models).



## 1.21 Transporting Trowel

# 1A OPERATIONS

Optional dolly jacks are available for short moves or to aid in servicing the trowel. Install dolly jacks as follows:

1. Inspect dolly jack for serviceability and damage.
2. Place riding trowel on firm level ground.
3. Tie steering levers (I) to frame to prevent them from tipping forward when trowel is being lifted.

4. With the front dolly jack (J) Fully insert extension tube in the holes (K) in the mainframe of the riding trowel.

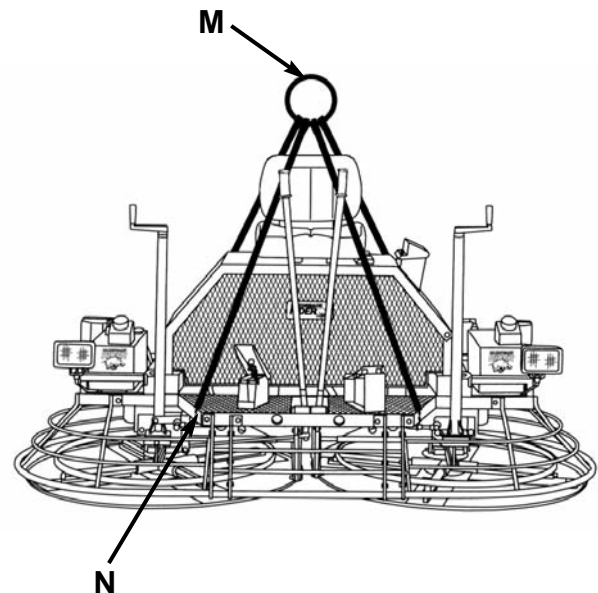
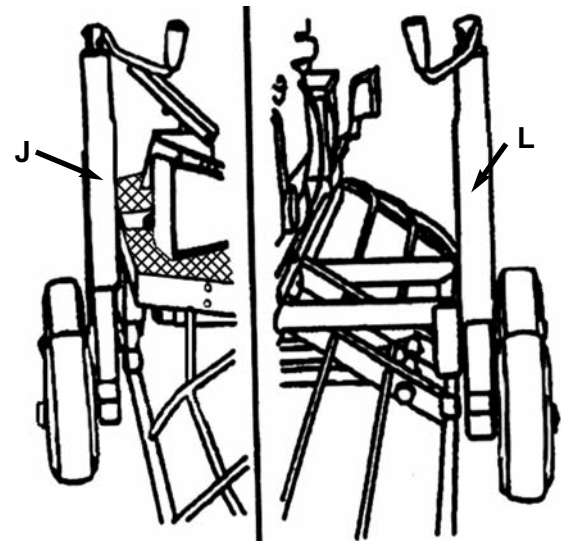
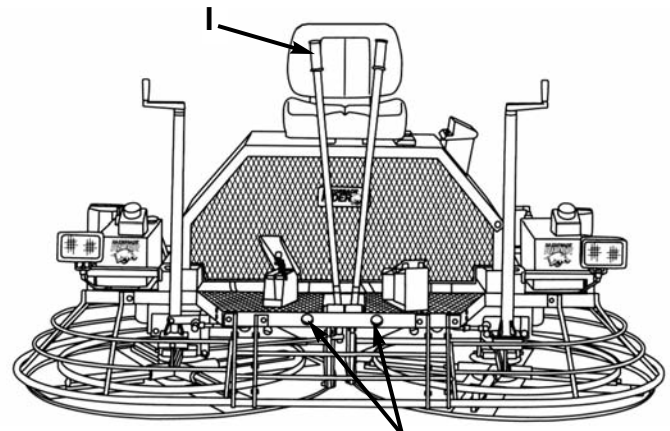
The front dolly jacks are equipped with short lifting tubes while the rear dolly jacks have long lifting tubes.

5. Insert the rear dolly jacks(L) with the long lifting tubes into the holes provided in the rear of the mainframe. The holes in the mainframe are located directly opposite the front holes.

6. Turn jack handles clockwise to lift trowels and counter-clockwise to lower trowel.

### CAUTION:

The dolly jack lifting system is designed for short moves and to aid in servicing the trowel. It is not a substitute for a towing system or trailer. An optional lifting bridle (M) is available and recommended for lifting the trowel. Attach the bridle to each of the four lifting eyes (N) on the trowel.



## 1.22 Battery Jump Start Procedure

Occasionally it may be necessary to jump start a weak battery. If jump starting is necessary the following procedure is recommended to prevent starter damage, battery damage, and personal injury.

**Warning:** Jump starting a battery incorrectly can cause the battery to explode resulting in severe personal injury or death. Do not smoke or allow any ignition sources near the battery and do not jump start a frozen battery.

**Warning:** Electrical arcing can cause severe personal injury. Do not allow positive and negative cable ends to touch.

1. Disengage Clutch.
2. Use a battery of the same voltage (12V) as is used with your engine.
3. Attach one end of the positive booster cable (red) to the positive (+) terminal of the booster battery. Attach the other end of the terminal of your engine battery.
4. Attach one end of the negative booster cable (black) to the negative (-) terminal on the booster. Attach the other end of the negative cable to your engine battery.
5. Jump starting in any other manner may result in damage to the battery or the electrical system.

**Caution:** Over cranking the engine can cause starter damage. Allow 5 minutes for starter to cool if engaged for more than 15 seconds.

**Caution:** When using lights or high amperage draw accessories, idle the engine for a period of 20 minutes to bring the battery to charge state.

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PARTS**

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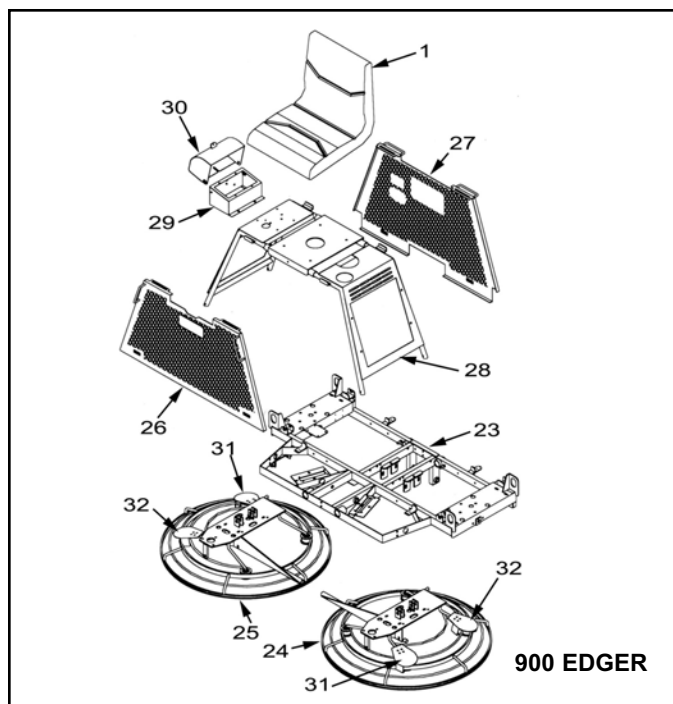
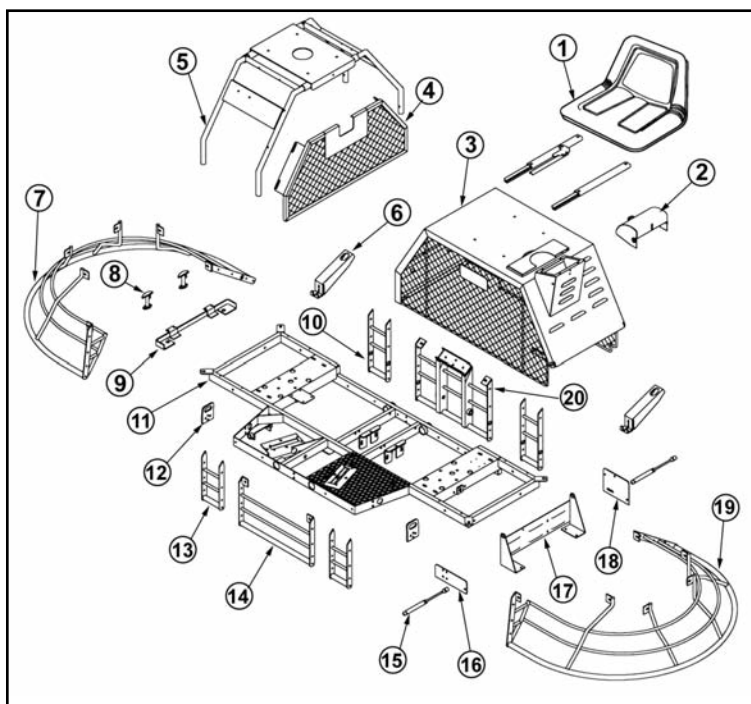
**NOTE:** All set screws used on MODEL PRO 900-NOL-SFC have blue (LOC-TITE TM) applied at the factory. If set screw is removed or loosened for any reason re-apply blue (LOC-TITE TM).

**NOTE:** All grease fittings on MODEL PRO 900-NOL-SFC are capped with CAP PLUG GC-5 part number #015692 to protect the fitting. If cap becomes missing or damaged replace it as soon as possible.

**NOTE:** Anti-Seize is applied at the factory to all drive line couplings, gear box main and counter shafts and pitch control threaded rod assemblies. If these parts are disassembled re-apply a light coat of a graphite based anti-seize.

## 2A PARTS

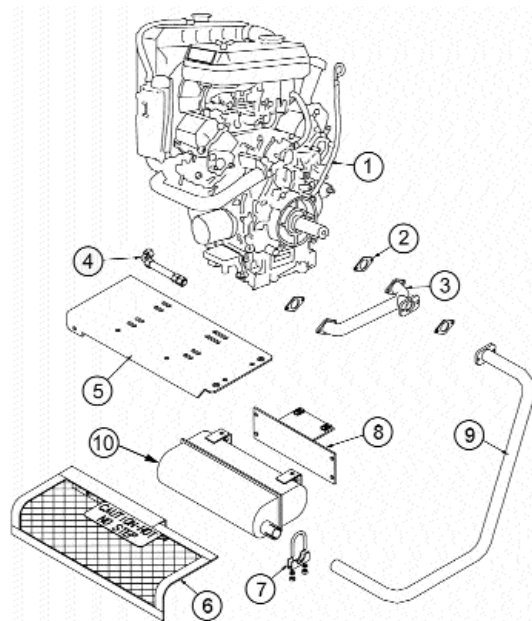
## FRAME ASSEMBLY



| ILL. | PART #  | DESCRIPTION                                 | QTY. |
|------|---------|---------------------------------------------|------|
| 1.   | .037769 | SEAT W/ GLIDES                              | 1    |
| 2.   | .035268 | CONTROL PANEL LID (KAWASAKI ONLY)           | 1    |
| 3.   | .035669 | HOOD, SEAT (KAWASAKI ONLY)                  | 1    |
| 4.   | .029005 | GUARD, SEAT (HONDA - KOHLER - LINAMAR)      | 1    |
| 5.   | .036598 | FRAME, SEAT (HONDA AND KOHLER)              | 1    |
|      | .034309 | FRAME, SEAT (LINAMAR)                       | 1    |
| 6.   | .035533 | LIFTING LUG REAR (KAWASAKI ONLY)            | 2    |
| 7.   | .035587 | RING, END RH                                | 1    |
| 8.   | .022738 | HOOD LATCH (KAWASAKI ONLY)                  | 2    |
| 9.   | .035502 | HOOD REST (KAWASAKI ONLY)                   | 1    |
| 10.  | .026976 | SPACER, REAR RING                           | 2    |
| 11.  | .034271 | FRAME, MAIN (HONDA - KOHLER)                | 1    |
|      | .035501 | FRAME, MAIN (KAWASAKI - LINAMAR)            | 1    |
| 12.  | .029890 | LIFTING LUG FRONT (KAWASAKI ONLY)           | 2    |
| 13.  | .026975 | SPACER, FRONT RING                          | 2    |
| 14.  | .026892 | RING, FRONT                                 | 1    |
| 15.  | .036552 | SHOCK 60 lbs (KAWASAKI ONLY)                | 2    |
| 16.  | .035562 | FRONT SHOCK MOUNT PLATE (KAWASAKI ONLY)     | 1    |
| 17.  | .035523 | PIVOT, HOOD (KAWASAKI ONLY)                 | 1    |
| 18.  | .035596 | REAR SHOCK MOUNT PLATE (KAWASAKI ONLY)      | 1    |
| 19.  | .035586 | RING, END LH                                | 1    |
| 20.  | .026893 | RING, REAR                                  | 1    |
| 21.  | .035944 | BUSHING, BRONZE 1/2" (KAW ONLY) NOT SHOWN   | 2    |
| 22.  | .035945 | 1/2"X1/2" SHOULDER BOLT(KAW ONLY) NOT SHOWN | 2    |
| 23.  | .041649 | FRAME, MAIN (900 EDGER ONLY)                | 1    |
| 24.  | .041660 | RING, LH SOM (900 EDGER ONLY)               | 1    |
| 25.  | .041659 | RING, RH SOM (900 EDGER ONLY)               | 1    |
| 26.  | .041687 | SCREEN, FRONT (900 EDGER ONLY)              | 1    |
| 27.  | .041655 | SCREEN, REAR (900 EDGER ONLY)               | 1    |
| 28.  | .041639 | FRAME, SEAT (900 EDGER ONLY)                | 1    |
| 29.  | .041630 | BOX, CONTROL PANEL (900 EDGER ONLY)         | 1    |
| 30.  | .038407 | LID, CONTROL PANEL BOX (900 EDGER ONLY)     | 1    |
| 31.  | .041683 | COVER, ROLLER RH (900 EDGER ONLY)           | 2    |
| 32.  | .041681 | COVER, ROLLER LH (900 EDGER ONLY)           | 2    |

## ENGINE MOUNTING SYSTEM

## 2A PARTS

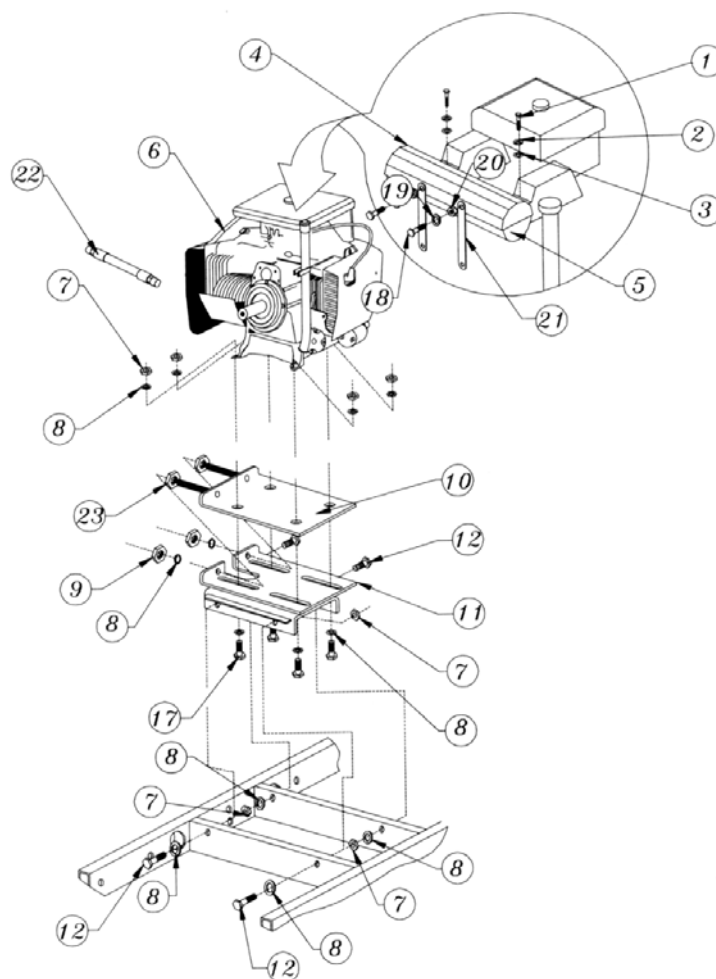


### KAWASAKI ENGINE MOUNTING SYSTEM PARTS

| ILL. | PART # | DESCRIPTION              | QTY. |
|------|--------|--------------------------|------|
| 1.   | 034235 | ENGINE, 22HP KAWASAKI    | 1    |
| 2.   | 035463 | GASKET                   | 3    |
| 3.   | 034413 | HEADER                   | 1    |
| 4.   | 036943 | OIL DRAIN HOSE           | 1    |
| 5.   | 035949 | ENGINE MOUNT PLATE       | 1    |
| 6.   | 034401 | MUFFLER GUARD            | 1    |
| 7.   | 034617 | MUFFLER CLAMP            | 1    |
| 8.   | 037641 | MUFFLER MOUNTING BRACKET | 1    |
| 9.   | 036784 | TAILPIPE                 | 1    |
| 10.  | 039411 | MUFFLER, KAWASAKI        | 1    |

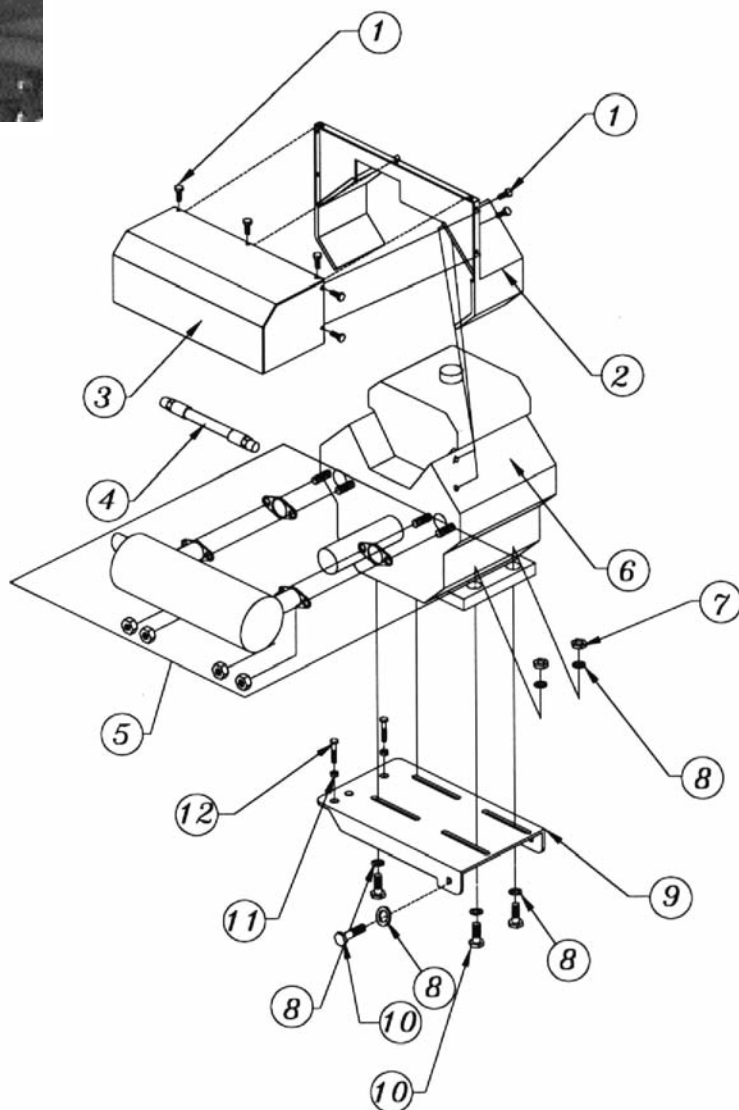
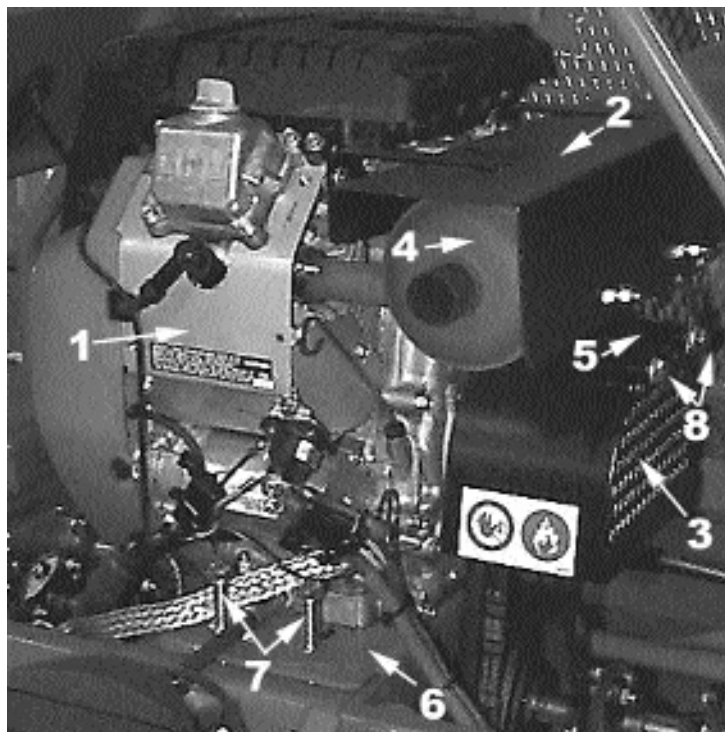
### LINAMAR ENGINE MOUNTING SYSTEM PARTS

| ILL. | PART # | DESCRIPTION               | QTY. |
|------|--------|---------------------------|------|
| 1.   | 010002 | FSTN, HHCS 1/4-20 X 3/4   | 2    |
| 2.   | 010089 | FSTN, LW 1/4"             | 2    |
| 3.   | 010081 | FSTN, FW 1/4"             | 2    |
| 4.   | 026423 | GUARD MUFFLER             | 1    |
| 5.   | 032293 | MUFFLER                   | 1    |
| 6.   | 026328 | ENGINE, 20 HP LINAMAR     | 1    |
| 7.   | 020514 | FSTN, STOVER LOCK 3/8-16  | 8    |
| 8.   | 017751 | FSTN, FW HARD A235 3/8    | 18   |
| 9.   | 010464 | FSTN, NUT NYLOCK 3/8-16   | 2    |
| 10.  | 026914 | PLATE, ENGINE TOP         | 1    |
| 11.  | 026794 | PLATE, ENGINE BOTTOM      | 1    |
| 12.  | 010039 | FSTN, HHCS 3/8-16 X 1-3/4 | 8    |
| 17.  | 010038 | FSTN, HHCS 3/8-16 X 1-1/2 | 4    |
| 18.  | 010019 | FSTN, HHCE 5/16-18 X 3/4  | 2    |
| 19.  | 010090 | FSTN, LW 5/16             | 2    |
| 20.  | 010100 | FSTN, NUT HES 5/16-18     | 2    |
| 21.  | 038124 | STRAP, MUFFLER            | 2    |
| 22.  | 010102 | FSTN, NUT HEX 3/8-16      | 2    |
| 23.  | 028806 | HOSE, OIL DRAIN           | 1    |



## 2A PARTS

## ENGINE MOUNT SYSTEM





## HONDA ENGINE MOUNTING SYSTEM PARTS LIST

| ILL. | PART # | DESCRIPTION                  | QTY. |
|------|--------|------------------------------|------|
| 1.   | 028973 | ENGINE, HONDA 20 HP          | 1    |
| 2.   | 032253 | GUARD, MUFFLER 20 HP HONDA   | 1    |
| 3.   | 029921 | GUARD, BELT                  | 1    |
| 4.   | 029839 | MUFFLER, HONDA 20 HP         | 1    |
| 5.   | 029891 | STRAP, MUFFLER               | 2    |
| 6.   | 029871 | PLATE, MOTOR MNT             | 1    |
| 7.   | 038388 | FSTN, HHTB 1/2-13 X 3        | 2    |
| 8.   | 010106 | FSTN, NUT HEX 1/2-13         | 2    |
| 9.   | 029899 | SUPPORT, MUFFLER (NOT SHOWN) | 1    |
| 10.  | 010019 | FSTN, HHCS 5/16-18 X 3/4     | 2    |
| 11.  | 010090 | FSTN, LW 5/16                | 2    |
| 12.  | 010100 | FSTN, NUT HEX 5/16-18        | 2    |
| 13.  | 022556 | FSTN, HHCS 7/16-14 X 7       | 2    |
| 14.  | 010092 | FSTN, LW 7/16                | 2    |
| 15.  | 010039 | FSTN, HHCS 3/8-16X 1 3/4     | 6    |
| 16.  | 020514 | FSTN, NUT STOVER LOCK 3/8-16 | 6    |
| 17.  | 017751 | FSTN, FW HARD A235 3/8       | 12   |

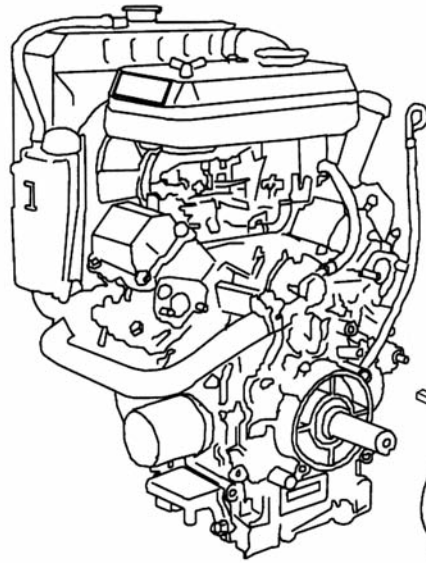
## KOHLER ENGINE MOUNTING SYSTEM PARTS LIST

| ILL. | PART # | DESCRIPTION                  | QTY. |
|------|--------|------------------------------|------|
| 1.   | 033187 | FSNT, FHMS 6MM X 10MM        | 9    |
| 2.   | 029463 | BRKT, FRONT (KOHLER MUFFLER) | 1    |
| 3.   | 029471 | GUARD, MUFFLER KOHLER        | 1    |
| 4.   | 028806 | HOSE, OIL DRAIN              | 1    |
| 5.   | 024934 | MUFFLER, KOHLER ENGINE       | 1    |
| 6.   | 028974 | ENGINE, KOHLER 25HP          | 1    |
| 7.   | 020514 | FSTN, STOVER LOCK 3/8-16     | 8    |
| 8.   | 017751 | FSTN, FW HARD A235 3/8       | 10   |
| 9.   | 035949 | PLATE, ENGINE MOUNT          | 1    |
| 10.  | 010039 | FSTN, HHCS 3/8-16 X 1-3/4    | 4    |
| 11.  | 010106 | FSTN, NUT HEX 1/2-13         | 2    |
| 12.  | 022898 | FSTN, SQHMB 1/2-13 X 2-1/2   | 2    |

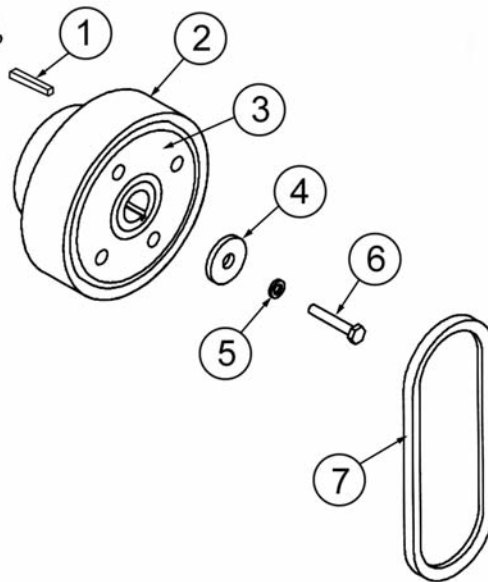
## HONDA GX690 ENGINE SYSTEM PARTS LIST

| ILL. | PART # | DESCRIPTION                        | QTY. |
|------|--------|------------------------------------|------|
| 1.   | 010053 | FSTN, HHCS 7/16-14 X 1-1/4         | 2    |
| 2.   | 010090 | FSTN, LW 5/16                      | 1    |
| 3.   | 010092 | FSTN, LW 7/16                      | 3    |
| 4.   | 010096 | FSTN, Ø7/16 ID Y-ZINC HRDND FLAT   | 1    |
| 5.   | 017898 | FSTN, HHCS 7/16-20 X 1-1/2 GR8     | 1    |
| 6.   | 032728 | WASHER, PRESSURE KO                | 1    |
| 7.   | 032863 | FSTN, HHCS M8 x 1.25 x 20MM        | 1    |
| 8.   | 033638 | BRACKET, CLUTCH GUARD F/ KHLR      | 1    |
| 9.   | 048298 | CLUTCH, Ø1.13 BR 3700P010 TRI-LOBE | 1    |
| 10.  | 048349 | GUARD, HO VER 2 MUFFLER            | 1    |
| 11.  | 051978 | ENGINE, HONDA GX690-RTDW           | 1    |
| 12.  | 051980 | HOSE, DRAIN F/ HONDA GX690         | 1    |
| 13.  | 051981 | MUFFLER, HONDA GX690               | 1    |
| 14.  | 052723 | THROTTLE BRACKET, GX690 HONDA      | 1    |
| 15.  | 099030 | KEY, 1/4" SQ X 2 1/4" LONG         | 1    |

## CLUTCH ASSEMBLY



KAWASAKI ENGINE SHOWN  
AS REFERENCE



| ILL.   | PART # | DESCRIPTION                                    | QTY. |
|--------|--------|------------------------------------------------|------|
| 1..... | 026992 | KEY .....                                      | 1    |
| 2..... | 032685 | DRIVEN BODY - OUTER CLUTCH BODY (BLUE) .....   | 1    |
|        | 038933 | DRIVEN BODY - OUTER CLUTCH BODY (GREEN) .....  | 1    |
| 3..... | 033447 | INNER CLUTCH ASSEMBLY (BLUE) .....             | 1    |
|        | 038934 | INNER CLUTCH ASSEMBLY (GREEN) .....            | 1    |
| 4..... | 026433 | PRESSURE WASHER .....                          | 1    |
| 5..... | 010095 | FSTN, LW 5/8" (KOHLER ONLY) .....              | 1    |
|        | 021072 | FSTN, LW 10MM .....                            | 1    |
| 6..... | 010048 | BOLT, CLUTCH (HONDA) .....                     | 1    |
|        | 021364 | BOLT, CLUTCH (KAWASAKI) .....                  | 1    |
|        | 024637 | BOLT, CLUTCH (KOHLER - LINAMAR) .....          | 1    |
| 7..... | 020729 | V-BELT B36 GOODYEAR (HONDA) .....              | 2    |
|        | 039744 | V-BELT B37 GOODYEAR (KAWASAKI - LINAMAR) ..... | 2    |
|        | 028896 | V-BELT B38 GOODYEAR (KOHLER) .....             | 2    |

8" CLUTCH W/ 1-1/8" BORE .....PART# 034113 (KAWASAKI ONLY)

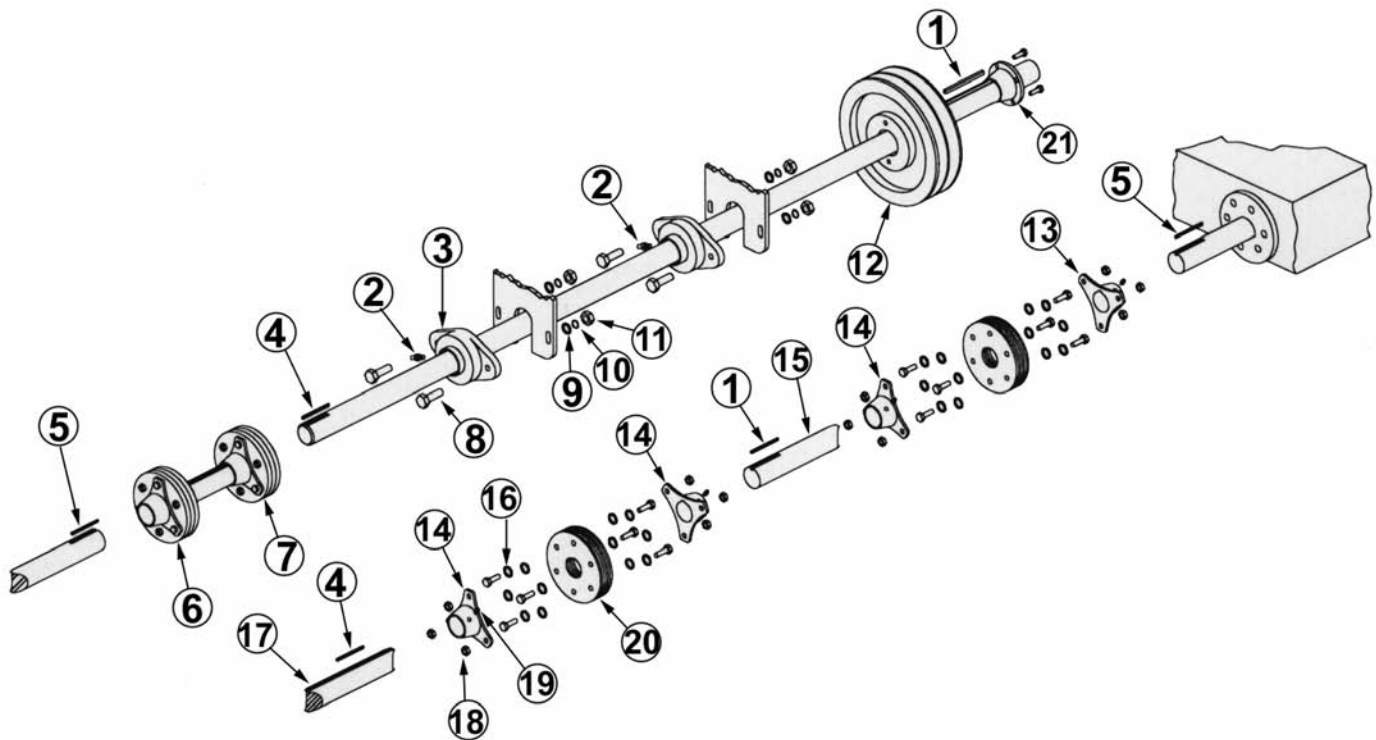
8" CLUTCH W/ 1-7/16" BORE .....PART# 032656 (KOHLER - LINAMAR)

NORAM 6000 W/ 1" BORE .....PART# 029953 (HONDA ONLY) (SOLD AS ONE UNIT)

CLUTCH, Ø1.13 BR 3700P010.....PART# 048298 (HONDA GX690)

# DRIVELINE ASSEMBLY

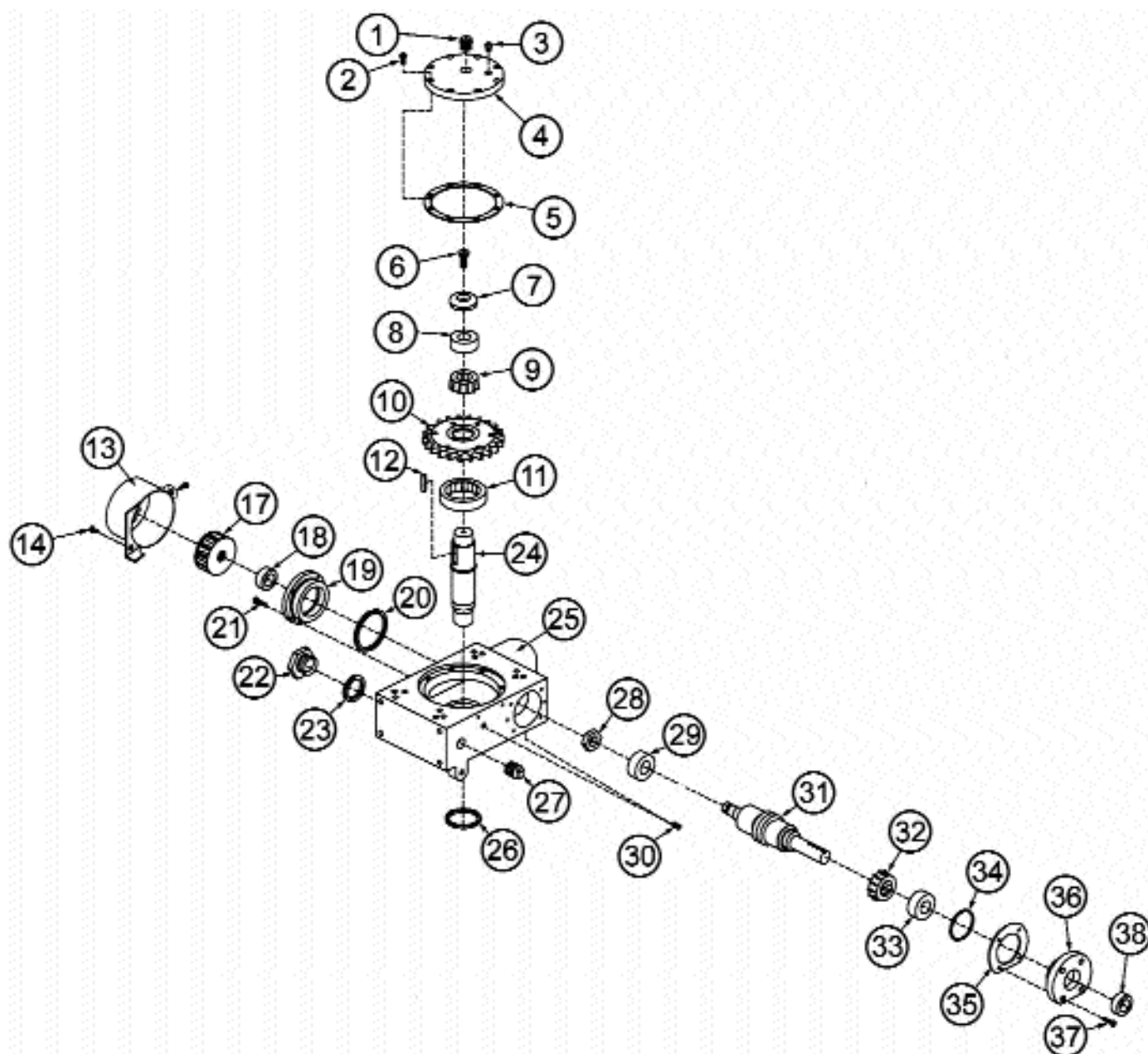
## 2A PARTS



| ILL.    | PART #  | DESCRIPTION                      | QTY. |
|---------|---------|----------------------------------|------|
| 1.....  | .024726 | .KEY, 1/4" SQ X 3" LG            | .3   |
| 2.....  | .018511 | .ALEMITE, 1/4-28 X 90 DEG        | .2   |
| 3.....  | .019334 | .BEARING 2 BOLT FLANGE X 1" BORE | .2   |
| 4.....  | .024976 | .KEY, 1/4" SQ X 1-1/4" LG        | .2   |
| 5.....  | .015813 | .KEY, 3/16" SQ X 1" LG           | .2   |
| 6.....  | .024967 | .COUPLER, 3/4 X 1 FLEX DISC      | .2   |
| 7.....  | .024968 | .COUPLER, 1 X 1 FLEX DISC        | .2   |
| 8.....  | .010054 | .FSTN, HHCS 7/16- 14 X 1-1/2     | .4   |
| 9.....  | .011490 | .FSTN, FW HARDNED 1/2"           | .4   |
| 10..... | .010092 | .FSTN, LW 7/16"                  | .4   |
| 11..... | .010104 | .FSTN, NUT HEX 7/16-14           | .4   |
| 12..... | .022551 | .PULLEY, 2BK-80                  | .1   |
| 13..... | .024987 | .COUPLER 3/4" FLEX               | .2   |
| 14..... | .024988 | .COUPLER 1" FLEX                 | .6   |
| 15..... | .024971 | .SHAFT, DRIVE END 3-1/8          | .2   |
| 16..... | .024989 | .FSTN, WASHER FLEX CPLR 5/16"    | .48  |
| 17..... | .028805 | .SHAFT, DRIVE CENTER 17-1/2      | .1   |
| 18..... | .024990 | .FSTN, NUT STOVER LOCK 5/16"     | .24  |
| 19..... | .010313 | .FSTN, SHSSKP/NP 5/16-18 X 3/8   | .16  |
| 20..... | .025427 | .DISC 10 PLY FF FLEX XOUPLER     | .4   |
| 21..... | .010306 | .BUSHING, H 1"                   | .1   |

## 2A PARTS

STANDARD FAN COOLED(SFC) GEARBOX  
RIGHT HAND SITTING ON MACHINE (SOM)  
PART#: 034196



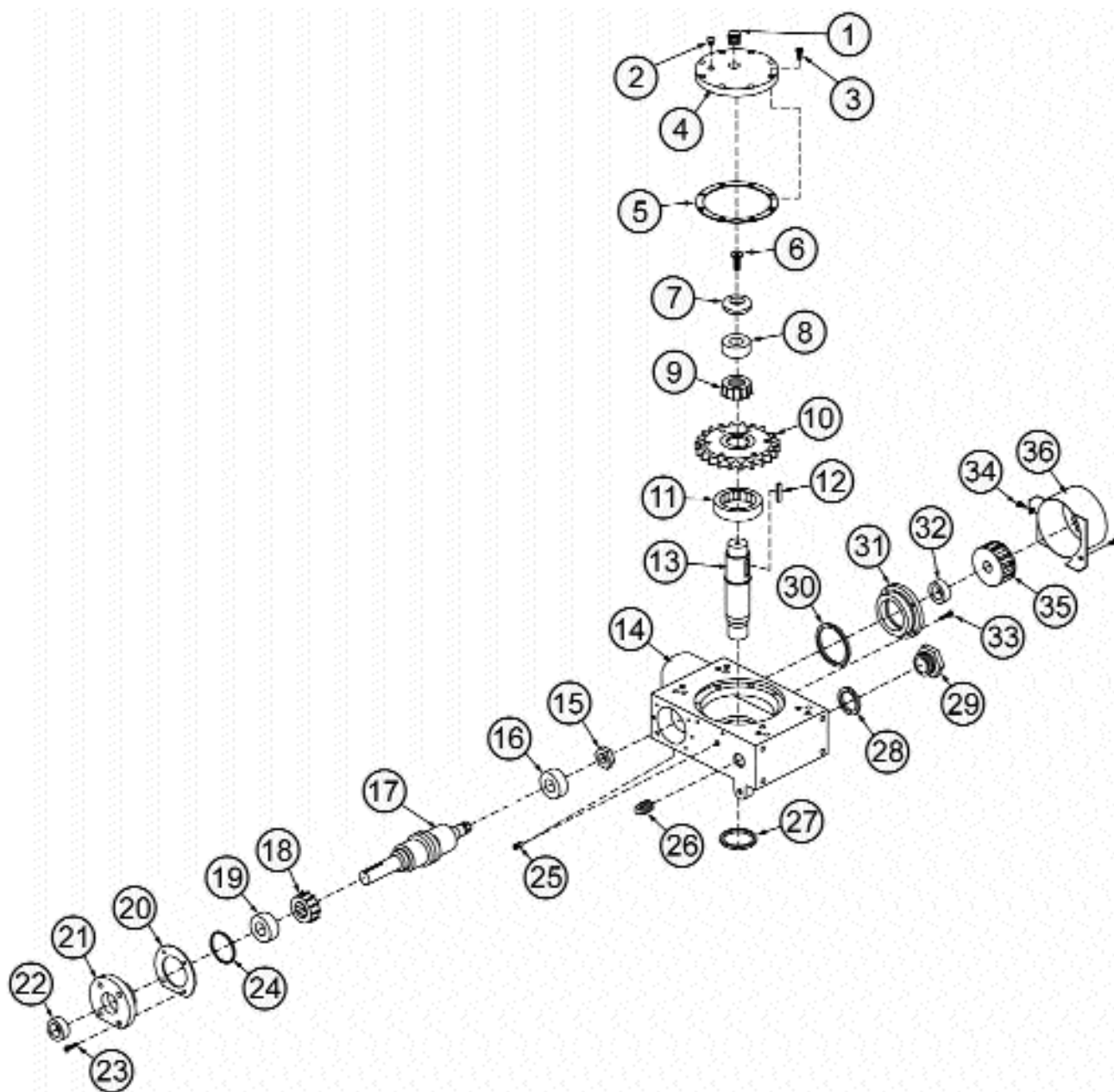
**(SFC) GEARBOX RIGHT HAND (SOM)**  
**PART#: 034196 (cont'd)**

**2A**  
**PARTS**

| ILL. | PART #   | DESCRIPTION                            | QTY.    |
|------|----------|----------------------------------------|---------|
| 1.   | 010513   | GREASE FITTING 1/4-28 STRAIGHT         | 1       |
| 2.   | 015205   | SCREW 5/16-18 x 1                      | 8       |
| 3.   | 015209   | RELIEF VALVE                           | 1       |
| 4.   | 034306   | COVER, TOP                             | 1       |
| 5.   | 015210   | GASKET, .005 THICK                     | AS REQ. |
|      | 020018   | GASKET, .003 THICK                     | AS REQ. |
|      | 032772   | GASKET, .002 THICK                     | AS REQ. |
| 6.   | 013746   | SCREW 3/8-16 x 1 RH                    | 2       |
| 7.   | 015213   | PRESSURE WASHER                        | 1       |
| 8.   | 022074   | BEARING RACE                           | 1       |
| 9.   | 022073   | TAPERED ROLLER                         | 1       |
| 10.  | 018924   | GEAR, BRONZE LH                        | 1       |
| 11.  | 015217   | BEARING, RADIAL BALL                   | 1       |
| 12.  | 015696   | KEY, 1/4 x 1-1/4                       | 1       |
| 13.  | 035633-R | COVER, FAN SHROUD                      | 1       |
| 14.  | 037484   | SCREW, 10-32 x 3/8                     | 2       |
| 17.  | 035591   | FAN                                    | 1       |
| 18.  | 035315   | SEAL, OIL                              | 1       |
| 19.  | 035590   | FLANGE, FAN SIDE                       | 1       |
| 20.  | 015660   | O-RING, FLANGE CAPS                    | 1       |
| 21.  | 017314   | BOLT, 1/4-20 x 5/8                     | 4       |
| 22.  | 015672   | SIGHT GLASS                            | 1       |
| 23.  | 015673   | O-RING                                 | 1       |
| 24.  | 020120   | SHAFT MAIN DRIVE                       | 1       |
| 25.  | 015204   | GEAR BOX, MACHINE FINISHED             | 1       |
| 26.  | 015671   | OIL SEAL                               | 1       |
| 27.  | 012953   | PLUG, 3/4 NPT                          | 1       |
| 28.  | 015662   | JAM NUT 5/8-18                         | 1       |
| 29.  | 015663   | BEARING, ANGULAR CONTACT               | 1       |
| 30.  | 010498   | PLUG, 3/8 NPT                          | 2       |
| 31.  | 035594   | SHAFT, INPUT                           | 1       |
| 32.  | 015668   | BEARING, TAPERED ROLLER                | 1       |
| 33.  | 015669   | BEARING, RACE                          | 1       |
| 34.  | 015660   | O-RING, FLANGE CAPS (SAME AS ILL.# 20) | 1       |
| 35.  | 015222   | GASKET, .005 THICK                     | AS REQ. |
|      | 022185   | GASKET, .002 THICK                     | AS REQ. |
|      | 022186   | GASKET, .003 THICK                     | AS REQ. |
| 36.  | 015223   | CAP, FLANGE                            | 1       |
| 37.  | 017314   | BOLT, 1/4-20 x 5/8 (SAME AS ILL.# 21)  | 4       |
| 38.  | 015670   | OIL SEAL                               | 1       |

## 2A PARTS

### SFC GEARBOX LEFT HAND (SOM) PART#: 034197



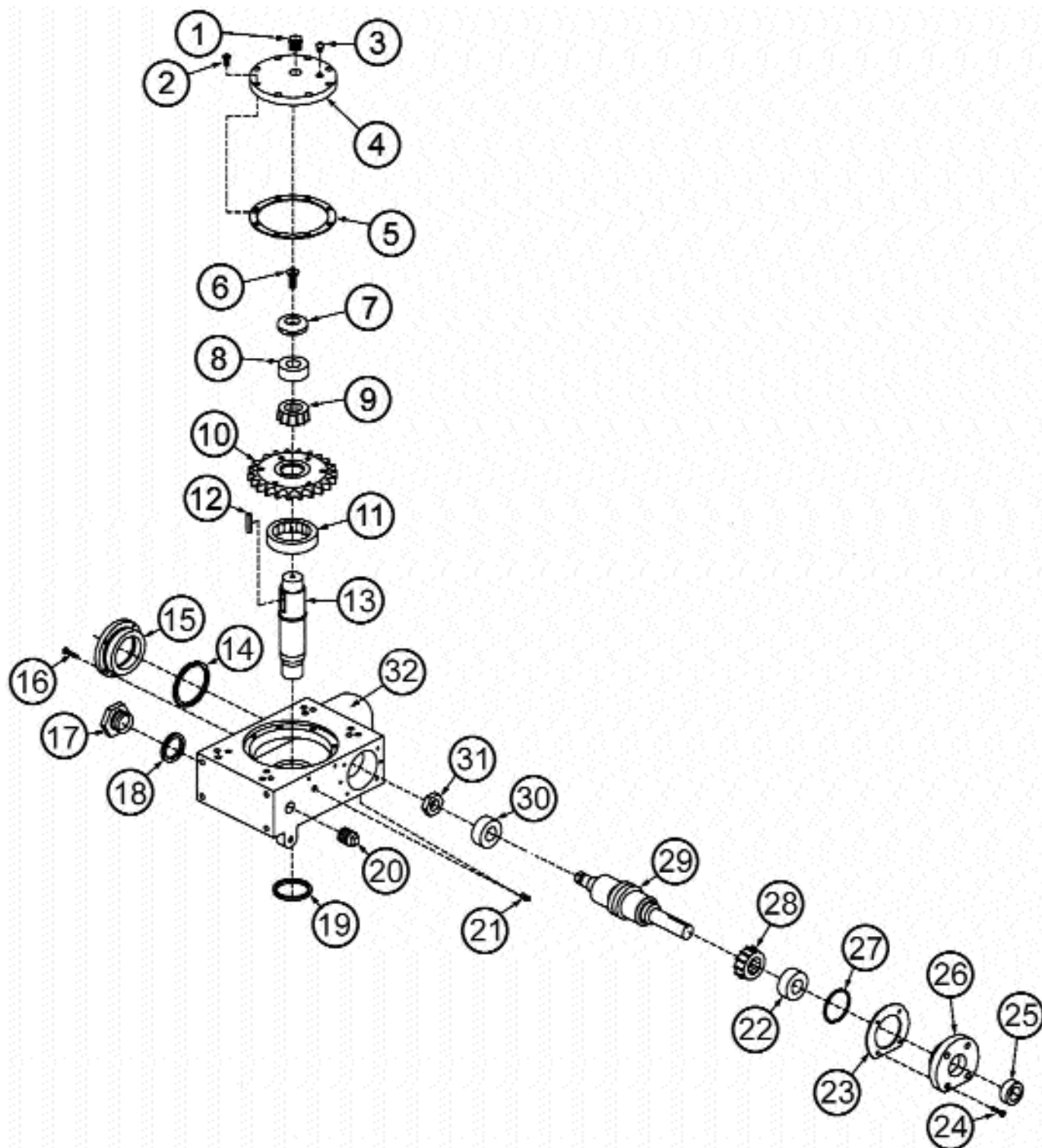
**SFC GEARBOX LEFT HAND (SOM)**  
**PART#: 034197 (cont'd)**

**2A**  
**PARTS**

| ILL. | PART #   | DESCRIPTION                           | QTY.    |
|------|----------|---------------------------------------|---------|
| 1.   | 010513   | GREASE FITTING 1/4-28 STRAIGHT        | 1       |
| 2.   | 015209   | RELIEF VALVE                          | 1       |
| 3.   | 015205   | BOLT, 5/16-18 x 1                     | 8       |
| 4.   | 026406   | TOP COVER                             | 1       |
| 5.   | 015210   | GASKET, .005 THICK                    | AS REQ. |
|      | 020018   | GASKET, .003 THICK                    | AS REQ. |
|      | 032772   | GASKET, .002 THICK                    | AS REQ. |
| 6.   | 013746   | SCREW, 5/16-18 x 1                    | 2       |
| 7.   | 015213   | PRESSURE WASHER                       | 1       |
| 8.   | 022074   | BEARING, RACE                         | 1       |
| 9.   | 022073   | BEARING, TAPERED ROLLER               | 1       |
| 10.  | 015216   | BRONZE GEAR RH                        | 1       |
| 11.  | 015217   | BEARING, RADIAL BALL                  | 1       |
| 12.  | 015696   | KEY 1/4 x 1 1/4                       | 1       |
| 13.  | 015219   | SHAFT, MAIN                           | 1       |
| 14.  | 015204   | GEARBOX, MACHINED FINISHED            | 1       |
| 15.  | 020688   | JAM NUT 5/8-18                        | 1       |
| 16.  | 015663   | BEARING, ANGULAR CONTACT              | 1       |
| 17.  | 035593   | SHAFT, INPUT                          | 1       |
| 18.  | 015688   | BEARING, TAPERED ROLLER               | 1       |
| 19.  | 015669   | BEARING, RACE                         | 1       |
| 20.  | 015222   | GASKET, .005 THICK                    | AS REQ. |
|      | 022185   | GASKET, .002 THICK                    | AS REQ. |
|      | 022186   | GASKET, .003 THICK                    | AS REQ. |
| 21.  | 015223   | FLANGE, SIDE CAP                      | 1       |
| 22.  | 015670   | OIL SEAL                              | 1       |
| 23.  | 017314   | BOLT, 1/4-20 x 5/8                    | 4       |
| 24.  | 015660   | O-RING, END CAPS                      | 1       |
| 25.  | 010498   | PLUG, 3/8 NPT                         | 2       |
| 26.  | 012953   | PLUG, 3/4 NPT                         | 1       |
| 27.  | 015671   | OIL SEAL                              | 1       |
| 28.  | 015673   | O-RING                                | 1       |
| 29.  | 015672   | SIGHT GLASS                           | 1       |
| 30.  | 015660   | O-RING, END CAPS (SAME AS ILL.# 24)   | 1       |
| 31.  | 035590   | FLANGE, FAN SIDE                      | 1       |
| 32.  | 035315   | OIL SEAL                              | 1       |
| 33.  | 017314   | BOLT, 1/4-20 x 5/8 (SAME AS ILL.# 23) | 4       |
| 34.  | 037484   | SCREW, 10-32 x 3/8                    | 2       |
| 35.  | 035592   | FAN                                   | 1       |
| 36.  | 035633-L | FAN SHROUD                            | 1       |

## 2A PARTS

STANDARD(STD) GEARBOX  
RIGHT HAND SITTING ON MACHINE(SOM)  
PART#: 026443



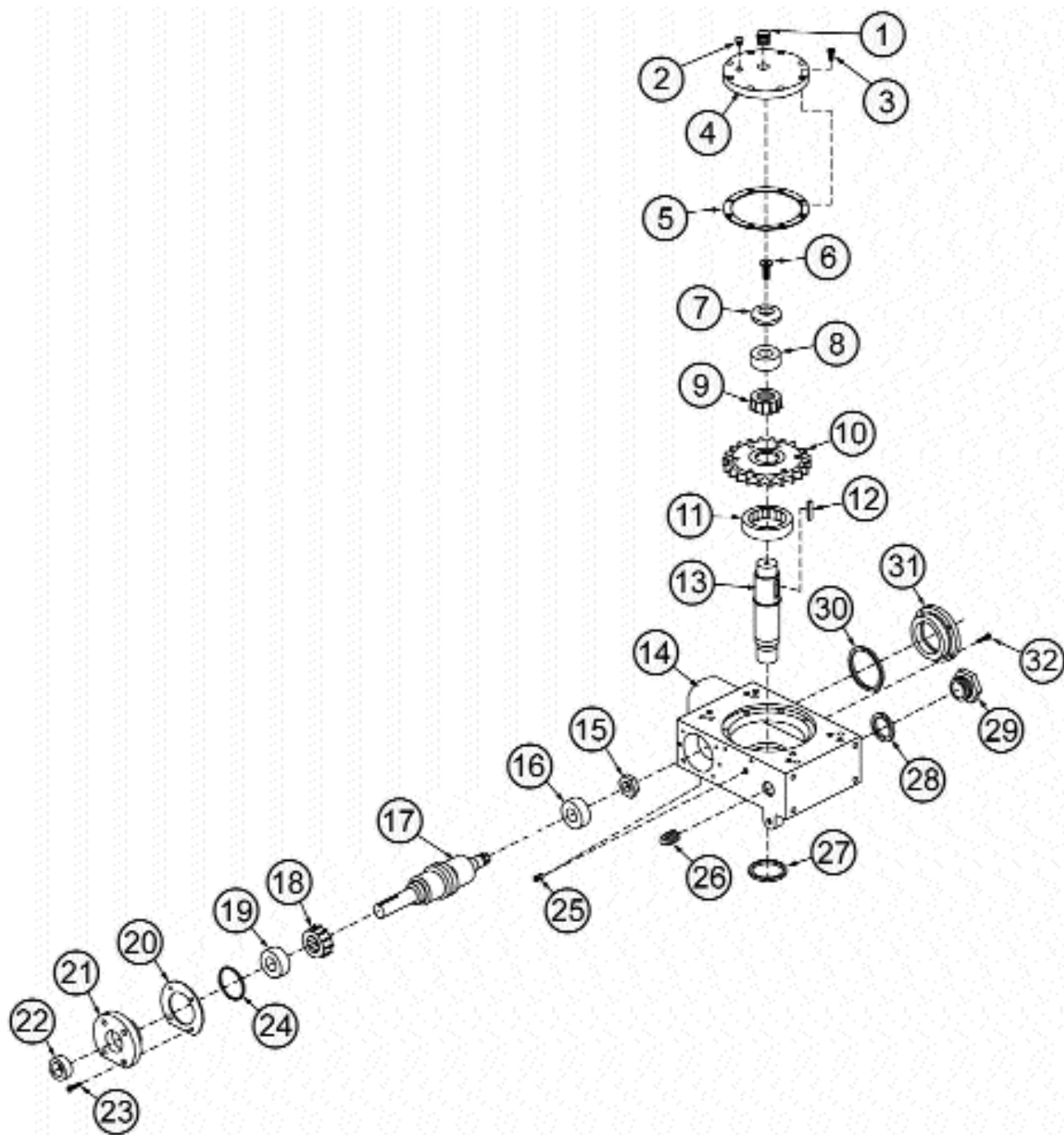


**STD GEARBOX RIGHT HAND(SOM)****PART#: 026443****2A  
PARTS**

| ILL. | PART # | DESCRIPTION                 | QTY.    |
|------|--------|-----------------------------|---------|
| 1.   | 201163 | ALEMITE                     | 1       |
| 2.   | 015205 | BOLT, 5/16-18 X 1           | 8       |
| 3.   | 015209 | VALVE, RELIEF 1/8 NPT-27    | 1       |
| 4.   | 026406 | TOP COVER                   | 1       |
| 5.   | 015210 | GASKET, .005 THICK          | AS REQ. |
|      | 020018 | GASKET, .003 THICK          | AS REQ. |
|      | 032772 | GASKET, .002 THICK          | AS REQ. |
| 6.   | 013746 | SCREW, 3/8-16 x 1 RH        | 1       |
| 7.   | 015213 | PRESSURE WASHER             | 1       |
| 8.   | 022074 | BEARING, RACE               | 1       |
| 9.   | 022073 | BEARING, TAPERED ROLLER     | 1       |
| 10.  | 018924 | BRONZE GEAR LH              | 1       |
| 11.  | 015217 | BEARING, RADIAL BALL        | 1       |
| 12.  | 015696 | KEY 1/4 x 1 1/4             | 1       |
| 13.  | 020120 | SHAFT, MAIN                 | 1       |
| 14.  | 015660 | O-RING                      | 1       |
| 15.  | 015223 | FLANGE, GEARBOX             | 1       |
| 16.  | 017314 | BOLT, 1/4-20 X 5/8          | 4       |
| 17.  | 015672 | SIGHTGLASS, 3/4-14 NPT      | 1       |
| 18.  | 015673 | O-RING                      | 1       |
| 19.  | 015671 | SEAL, OIL                   | 1       |
| 20.  | 012953 | PLUG, 3/4 NPT               | 1       |
| 21.  | 010498 | PLUG, 3/8 NPT               | 2       |
| 22.  | 015669 | BEARING, RACE               | 1       |
| 23.  | 015222 | GASKET, .005 THICK          | AS REQ. |
|      | 022185 | GASKET, .003 THICK          | AS REQ. |
|      | 022186 | GASKET, .002 THICK          | AS REQ. |
| 24.  | 017314 | BOLT, 1/4-20 X 5/8          | 1       |
| 25.  | 015670 | SEAL, OIL                   | 1       |
| 26.  | 015221 | CAP, END GEARBOX            | 1       |
| 27.  | 015660 | O-RING, END CAP             | 1       |
| 28.  | 015668 | BEARING, TAPERED ROLLER     | 1       |
| 29.  | 026741 | SHAFT, INPUT LH GEARBOX     | 1       |
| 30.  | 015663 | BEARING, ANGULAR CONTACT    | 1       |
| 31.  | 020688 | FSTN, NUT HEX JAM RH 5/8-18 | 1       |
| 32.  | 015204 | GEARBOX, MACHINED           | 1       |

## 2A PARTS

STANDARD(STD) GEARBOX  
LEFT HAND SITTING ON MACHINE(SOM)  
PART#: 026442



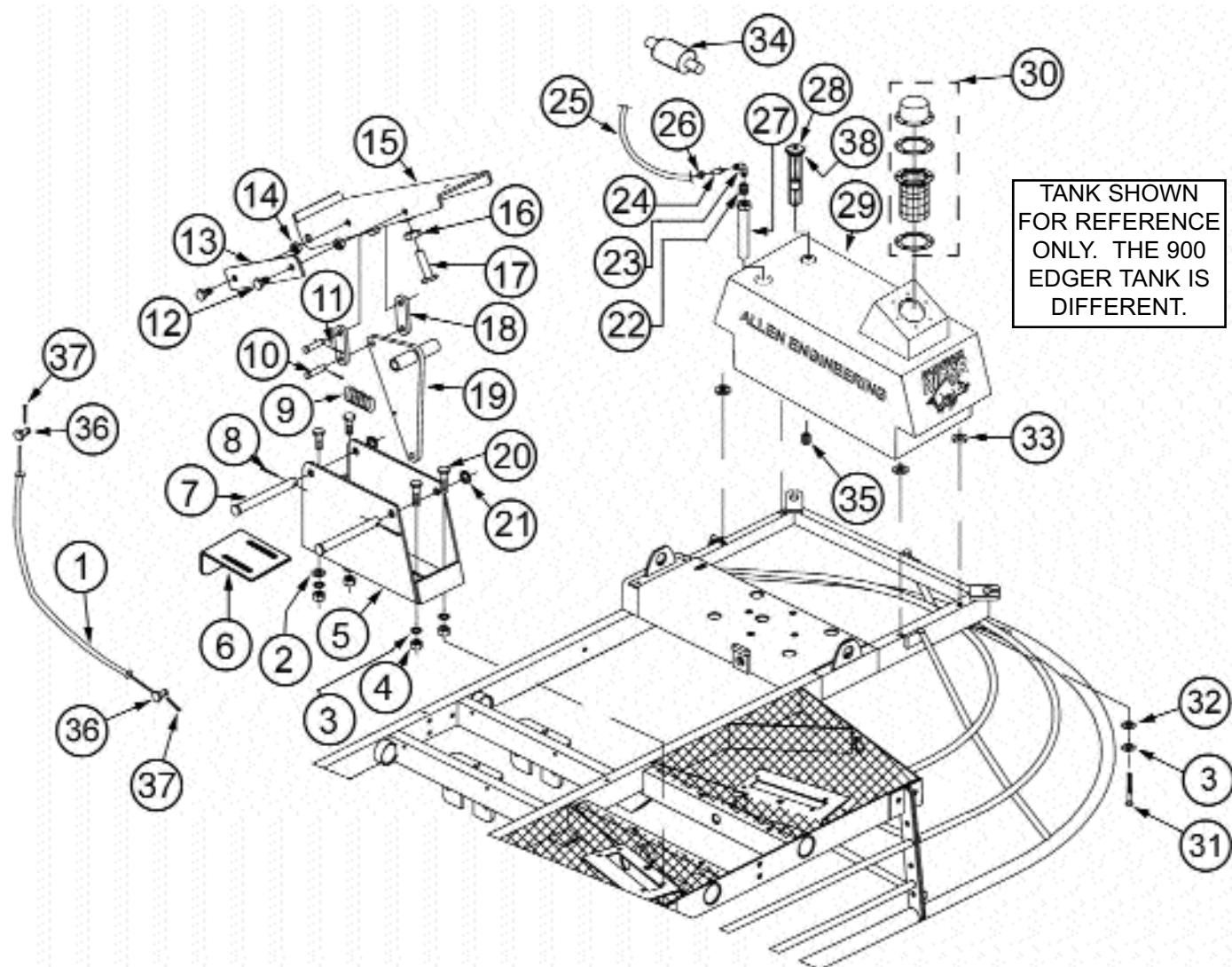
**STD GEARBOX LEFT HAND(SOM)**  
**PART#: 026442**

**2A**  
**PARTS**

| ILL. | PART # | DESCRIPTION                         | QTY.    |
|------|--------|-------------------------------------|---------|
| 1.   | 201163 | ALEMITE                             | 1       |
| 2.   | 015209 | VALVE, RELIEF 1/8 NPT-27            | 1       |
| 3.   | 015205 | BOLT, 5/16-18 x 1                   | 8       |
| 4.   | 026406 | TOP COVER                           | 1       |
| 5.   | 015210 | GASKET, .005 THICK                  | AS REQ. |
|      | 020018 | GASKET, .003 THICK                  | AS REQ. |
|      | 032772 | GASKET, .002 THICK                  | AS REQ. |
| 6.   | 015212 | SCREW, 3/8-16 X 1LH                 | 1       |
| 7.   | 015213 | PRESSURE WASHER                     | 1       |
| 8.   | 022074 | BEARING, RACE                       | 1       |
| 9.   | 022073 | BEARING, TAPERED ROLLER             | 1       |
| 10.  | 015216 | BRONZE GEAR RH                      | 1       |
| 11.  | 015217 | BEARING, RADIAL BALL                | 1       |
| 12.  | 015696 | KEY 1/4 x 1 1/4                     | 1       |
| 13.  | 015219 | SHAFT, MAIN                         | 1       |
| 14.  | 015204 | GEARBOX, MACHINED FINISHED          | 1       |
| 15.  | 015662 | JAM NUT 5/8-18                      | 1       |
| 16.  | 015663 | BEARING, ANGULAR CONTACT            | 1       |
| 17.  | 026740 | SHAFT, INPUT                        | 1       |
| 18.  | 015668 | BEARING, TAPERED ROLLER             | 1       |
| 19.  | 015669 | BEARING, RACE                       | 1       |
| 20.  | 015222 | GASKET, .005 THICK                  | AS REQ. |
|      | 022185 | GASKET, .002 THICK                  | AS REQ. |
|      | 022186 | GASKET, .003 THICK                  | AS REQ. |
| 21.  | 015223 | FLANGE, SIDE CAP                    | 1       |
| 22.  | 015670 | OIL SEAL                            | 1       |
| 23.  | 017314 | BOLT, 1/4-20 x 5/8                  | 4       |
| 24.  | 015660 | O-RING, END CAPS                    | 1       |
| 25.  | 010498 | PLUG, 3/8 NPT                       | 2       |
| 26.  | 012953 | PLUG, 3/4 NPT                       | 1       |
| 27.  | 015671 | OIL SEAL                            | 1       |
| 28.  | 015673 | O-RING                              | 1       |
| 29.  | 015672 | SIGHT GLASS                         | 1       |
| 30.  | 015660 | O-RING, END CAPS (SAME AS ILL.# 24) | 1       |
| 31.  | 015221 | CAP, END GEARBOX                    | 1       |
| 32.  | 017314 | FSTN, SHCS 1/4-20 X 5/8             | 4       |

## 2A PARTS

## FUEL SYSTEM ASSEMBLY



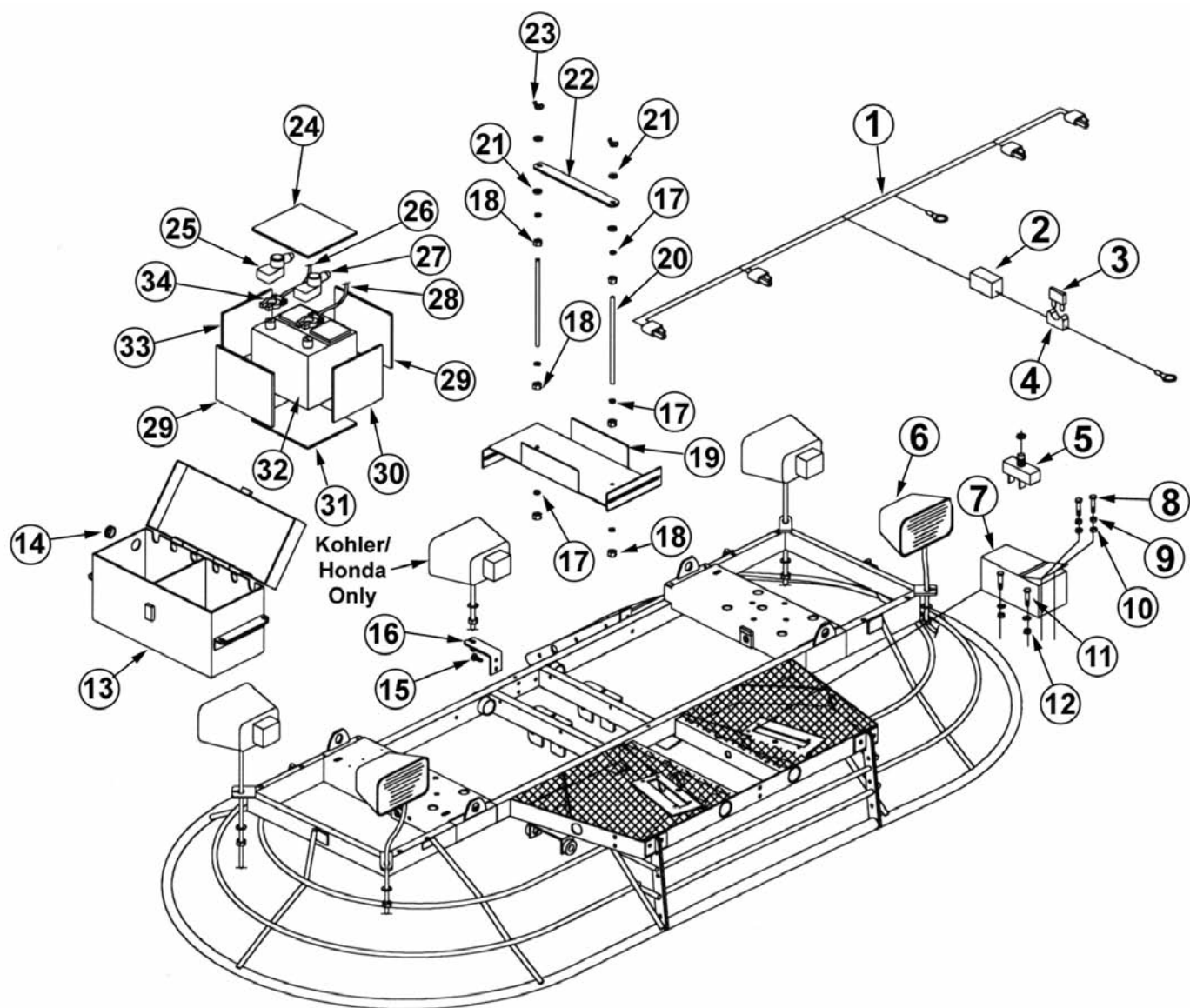
# FUEL SYSTEM ASSEMBLY (cont'd)

## 2A PARTS

| ILL. | PART #  | DESCRIPTION                                    | QTY.    |
|------|---------|------------------------------------------------|---------|
| 1.   | 028243  | THROTTLE CABLE 52" HD (HONDA - KAW. - LINAMAR) | 1       |
|      | 032300  | THROTTLE CABLE 60" HD (KOHLEK ONLY)            | 1       |
| 2.   | 010081  | FLAT WASHER 1/4                                | 10      |
| 3.   | 010089  | LOCK WASHER 1/4                                | 4       |
| 4.   | 010098  | HEX NUT 1/4-20                                 | 4       |
| 5.   | 024851  | BASE, FOOT SPEED                               | 1       |
| 6.   | 028526  | BRACKET, LOWER HD THROTTLE CABLE               | 1       |
| 7.   | 028895  | PIN, CLEVIS 3/8 x 3 1/2                        | 1       |
| 8.   | 026226  | PIN, COTTER 3/32 x 3/4                         | 2       |
| 9.   | 024981  | SPRING                                         | 1       |
| 10.  | 024982  | PIN, CLEVIS 1/4 x 51/64                        | 2       |
| 11.  | 010131  | PIN. COTTER 1/16 x 1                           | 2       |
| 12.  | 010001  | BOLT, 1/4-20 x 1/2                             | 2       |
| 13.  | 024985  | PLATE, STOP                                    | 1       |
| 14.  | 020542  | NUT, STOVER 1/4-20                             | 2       |
| 15.  | 024839  | PEDAL, FOOT SPEED                              | 1       |
| 16.  | 010100  | NUT, HEX 5/16-18                               | 1       |
| 17.  | 010021  | BOLT, 5/16-18 x 1 1/4                          | 1       |
| 18.  | 024850  | SHACKLE                                        | 2       |
| 19.  | 024847  | FULCRUM, FOOT SPEED                            | 1       |
| 20.  | 010003  | BOLT, 1/4-20 x 1                               | 2       |
| 21.  | 010082  | FLAT WASHER 5/16                               | 2       |
| 22.  | 012941  | BUSHING, 1/2 x 1/4 HEX                         | 1       |
| 23.  | 010220  | ELBOW, 1/4 x 1/4 90° STREET                    | 1       |
| 24.  | 010193  | FTG, PUSHLOK 1/4 x 1/4-18                      | 1       |
| 25.  | 019429  | HOSE, FUEL 5/16 DIA.                           | AS REQ. |
| 26.  | 019430  | CLAMP, #4 HOSE                                 | 4       |
| 27.  | 037216  | TUBE, SUCTION (FUEL TANK)                      | 1       |
| 28.  | 032295  | GAUGE, GAS REMOTE                              | 1       |
| 29.  | 040832  | TANK, FUEL W/O CAP                             | 1       |
|      | 039063  | TANK, WATER W/O CAP (KAWASAKI)                 | 2       |
|      | 041640  | TANK, FUEL & WATER (900 EDGER ONLY)            | 2       |
| 30.  | 039278R | CAP, RED FUEL FILTER ASSEMBLY                  | 1       |
|      | 039278B | CAP, BLUE WATER FILTER ASSEMBLY                | 1       |
| 31.  | 010006  | BOLT, 1/4-20 x 1 3/4                           | 4       |
| 32.  | 010081  | FLAT WASHER 1/4                                | 4       |
| 33.  | 015713  | BUSHING, RUBBER                                | 4       |
| 34.  | 023660  | IN-LINE FUEL FILTER (KAWASAKI)                 | 1       |
| 35.  | 010497  | PLUG, 1/4 NPT BI SQ. PIPE                      | 1       |
| 36.  | 024984  | PIVOT, FOOT SPEED CONTROL                      | 2       |
| 37.  | 010131  | PIN, COTTER 1/16 x 1                           | 2       |
| 38.  | 034111  | GROMMET, RUBBER F/ GAS GUAGE                   | 1       |

## 2A PARTS

### ELECTRICAL COMPONENTS



**ELECTRICAL COMPONENTS (cont'd)****2A  
PARTS**

| ILL. | PART # | DESCRIPTION                                  | QTY.    |
|------|--------|----------------------------------------------|---------|
| 1.   | 029301 | 4 LIGHT WIRING HARNESS (KAWASAKI - LINAMAR)  | 1       |
|      | 032258 | 3 LIGHT WIRING HARNESS (KOHLER - HONDA)      | 1       |
| 2.   | 032125 | SWITCH, ROCKER                               | 1       |
| 3.   | 026460 | FUSE, 30 AMP                                 | 1       |
| 4.   | 026461 | FUSE HOLDER                                  | 1       |
| 5.   | 032468 | KILL SWITCH ASSEMBLY                         | 1       |
|      | 037800 | KILL SWITCH ASSEMBLY (KAWASAKI)              | 1       |
|      | 037935 | KILL SWITCH ASSEMBLY (900 EDGER)             | 1       |
| 6.   | 036881 | LIGHT, 12 VOLT (KOHLER/HONDA)                | 3       |
|      | 036881 | LIGHT, 12 VOLT (KAWASAKI)                    | 2       |
|      | 036881 | LIGHT, 12 VOLT (900 EDGER)                   | 4       |
| 7.   | 026103 | KILL SWITCH MOUNT                            | 1       |
| 8.   | 010019 | BOLT, 5/16-18 X 3/4                          | 2       |
| 9.   | 010090 | LOCK WASHER 5/16                             | 2       |
| 10.  | 010082 | FLAT WASHER 5/16                             | 2       |
| 11.  | 010002 | BOLT, 1/4-20 X 3/4                           | 2       |
| 12.  | 010098 | NUT, HEX 1/4-20                              | 2       |
| 13.  | 036796 | BATTERY & TOOLBOX (KOHLER - HONDA - LINAMAR) | 1       |
| 14.  | 024629 | GROMMET, RUBBER (KOHLER - HONDA - LINAMAR)   | 1       |
| 15.  | 018013 | BOLT, 5/16-18 X 2 (KOHLER/HONDA ONLY)        | 2       |
| 16.  | 026297 | LIGHT, MOUNT BRKT (KOHLER/HONDA ONLY)        | 1       |
| 17.  | 010091 | LOCK WASHER 3/8 (KAWASAKI ONLY)              | 4       |
| 18.  | 015684 | NUT, HEX 3/8-16 (KAWASAKI ONLY)              | 4       |
| 19.  | 035656 | PLATE, BATTERY MOUNT (KAWASAKI ONLY)         | 1       |
| 20.  | 036933 | ROD, BATTERY HOLDER (KAWASAKI ONLY)          | 2       |
| 21.  | 017751 | FLAT WASHER HARD 3/8 (KAWASAKI ONLY)         | 4       |
| 22.  | 033825 | CLAMP, BATTERY (KAWASAKI ONLY)               | 1       |
| 23.  | 013531 | NUT, WING 3/8-16 (KAWASAKI ONLY)             | 2       |
| 24.  | 026453 | CUSHION, BATTERY TOP                         | 1       |
| 25.  | 035597 | TERMINAL COVER (POSITIVE)                    | 1       |
| 26.  | 019490 | CABLE, POSITIVE F/ BATTERY                   | AS REQ. |
| 27.  | 035598 | TERMINAL COVER (NEGATIVE)                    | 1       |
| 28.  | 026435 | CABLE, NEGATIVE F/BATTERY                    | AS REQ. |
| 29.  | 026427 | CUSHION, BATTERY SIDE F & R                  | 2       |
| 30.  | 026429 | CUSHION, BATTERY END W/O HOLE                | 1       |
| 31.  | 026426 | CUSHION, BATTERY BOTTOM                      | 1       |
| 32.  | 023855 | BATTERY, 12 VOLT                             | 1       |
| 33.  | 026428 | CUSHION, BATTERY END W/ HOLE                 | 1       |
| 34.  | 023869 | TERMINAL, BATTERY POST                       | 2       |

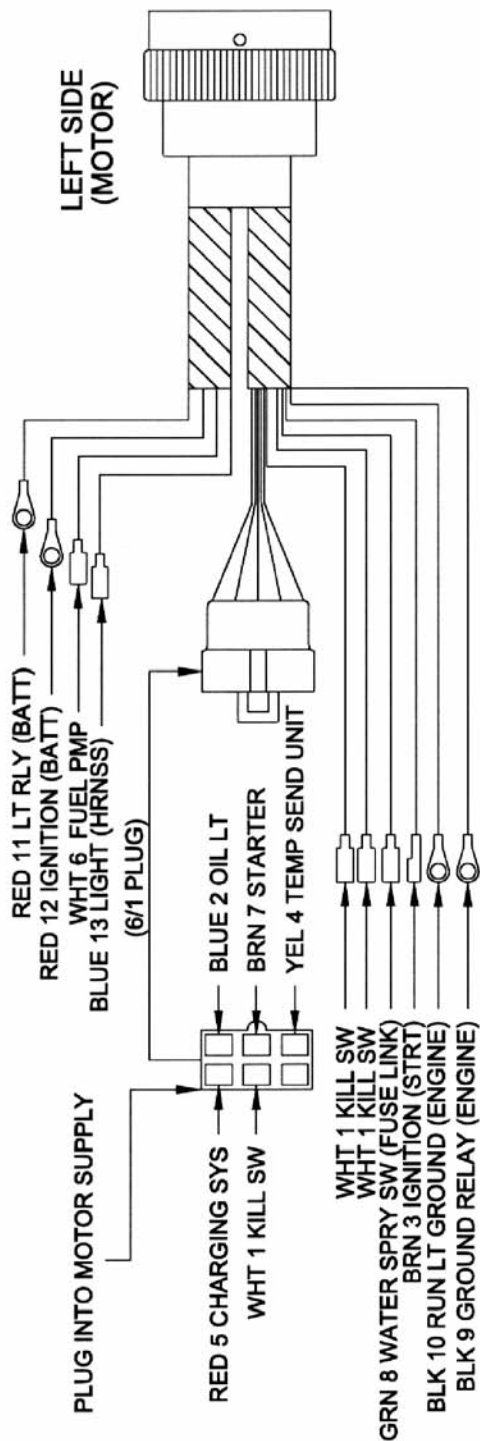


# Kawasaki

## WIRING HARNESS

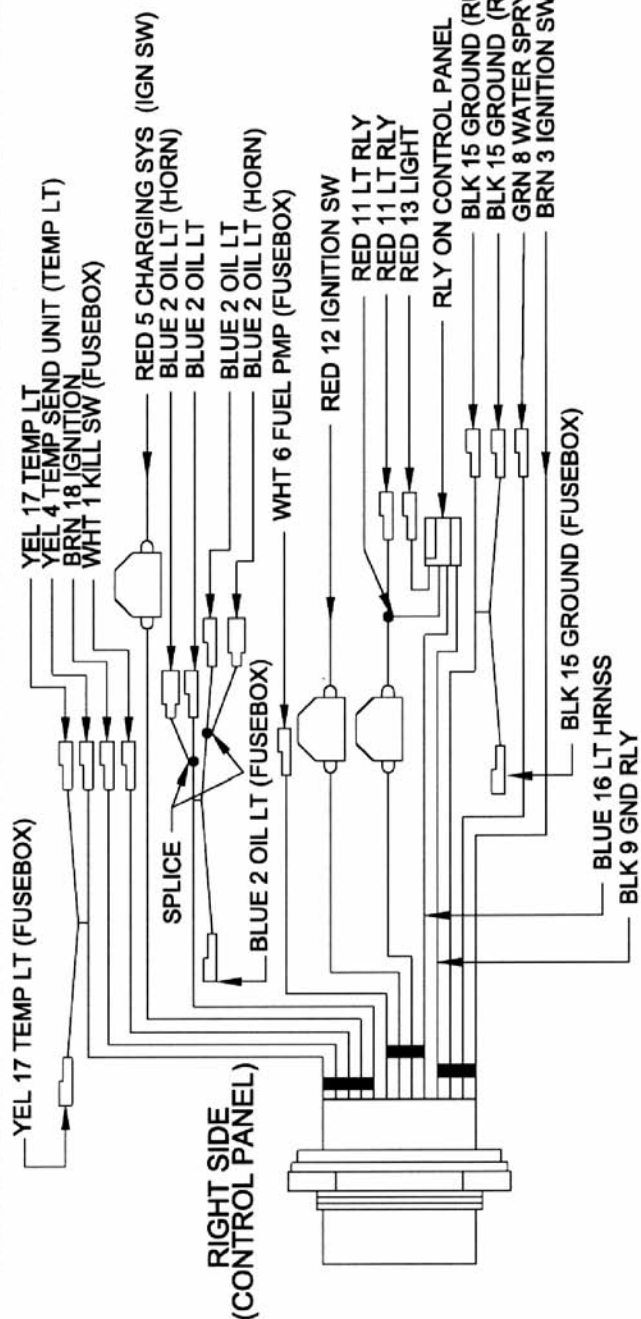
PART #: 038921

NOTE:  
 \* ALL WIRES NEED TO BE COPPER  
 \* ALL FUSE LINKS MUST BE 12 GA. WIRE



## WIRING HARNESS

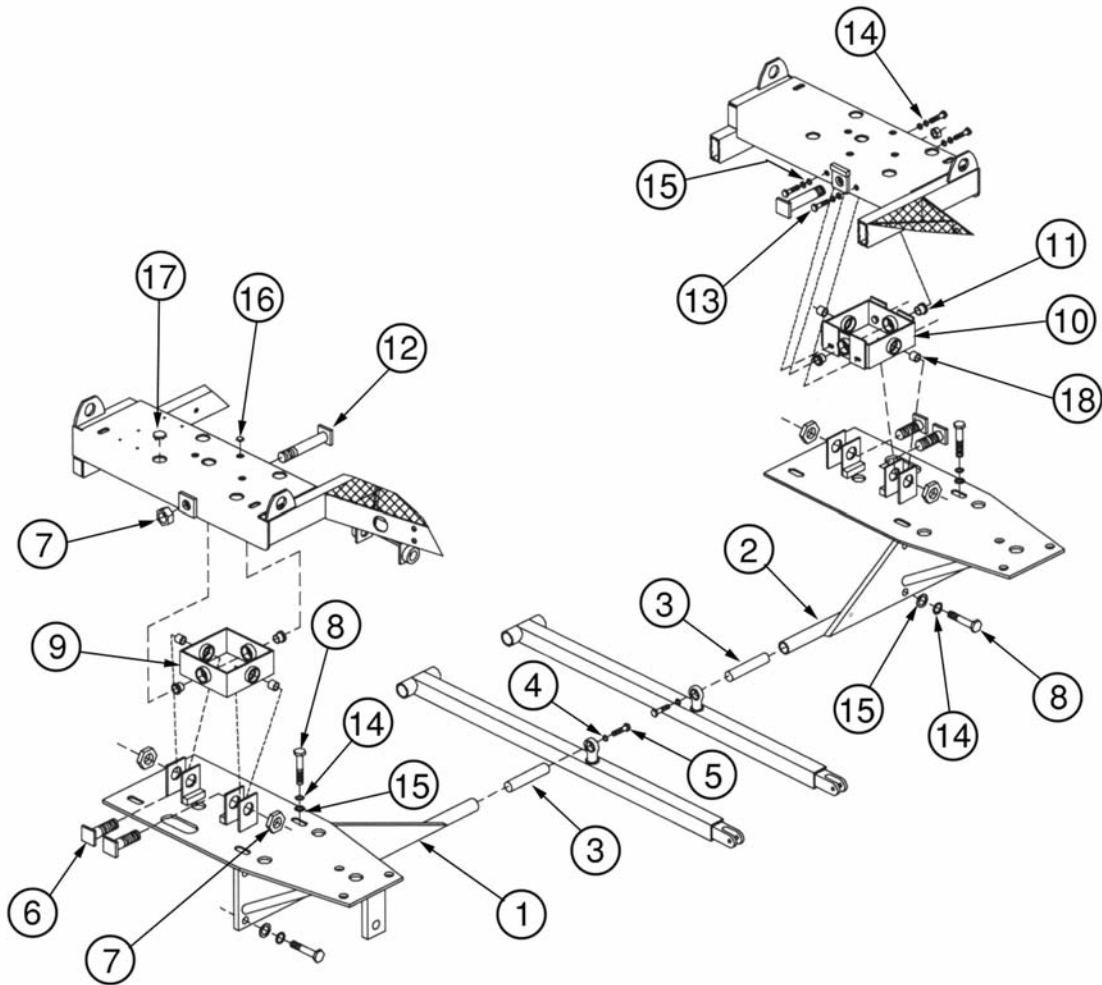
| LEGEND        |  |
|---------------|--|
| BATT=BATTERY  |  |
| GND=GROUND    |  |
| HRNSS=HARNESS |  |
| IGN=IGNITION  |  |
| LT=LIGHT      |  |
| PMP=PUMP      |  |
| RLY=RELAY     |  |
| STRT=STARTER  |  |
| SW=SWITCH     |  |
| SYS=SYSTEM    |  |





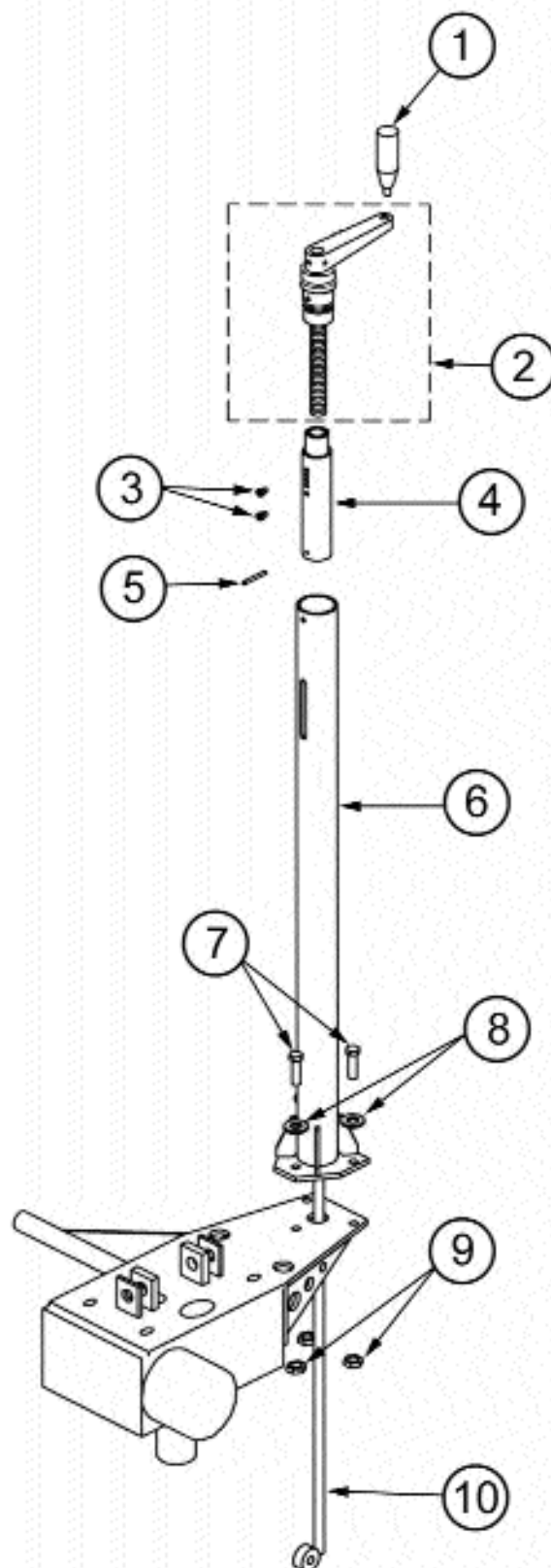
## CROSSHEAD AND PIVOT BOX ASSEMBLY

## 2A PARTS



| ILL. | PART #  | DESCRIPTION                        | QTY. |
|------|---------|------------------------------------|------|
| 1.   | 026384  | CROSSHEAD RH                       | 1    |
|      | 041659  | CROSSHEAD & RINGS (900 EDGER ONLY) | 1    |
| 2.   | 026385  | CROSSHEAD LH                       | 1    |
|      | 041660  | CROSSHEAD & RINGS (900 EDGER ONLY) | 1    |
| 3.   | 026238  | INSERT, CONTROL ARM                | 2    |
| 4.   | 010093  | LOCK WASHER 1/2                    | 2    |
| 5.   | 010070  | BOLT, 1/2-13 x 1 3/4               | 2    |
| 6.   | 026175  | BOLT, CROSSHEAD MOUNTING           | 4    |
| 7.   | 026447  | NUT, SELF LOCK 3/4-10 NC THIN      | 6    |
| 8.   | 026474  | BOLT, 3/8-16 x 7/8                 | 16   |
| 9.   | 028326R | BOX, CROSSHEAD MOUNTING RH         | 1    |
| 10.  | 033927  | BOX, CROSSHEAD MOUNTING LH         | 1    |
| 11.  | 024630  | BUSHING, BRASS                     | 4    |
| 12.  | 026178  | BOLT, CROSSHEAD MOUNTING           | 2    |
| 13.  | 010037  | BOLT, 3/8-16 x 1 1/4               | 4    |
| 14.  | 010091  | LOCK WASHER 3/8                    | 20   |
| 15.  | 017751  | FLAT WASHER HARD 3/8               | 20   |
| 16.  | 026462  | PLUG, CHROME 1/2"                  | 8    |
| 17.  | 026463  | PLUG, CHROME 1"                    | 10   |
| 18.  | 026248  | BUSHING, BRASS                     | 4    |

**PITCH CONTROL ASSEMBLY**



## PITCH CONTROL ASSEMBLY (cont'd)

## 2A PARTS

### 032370 ASSEMBLY

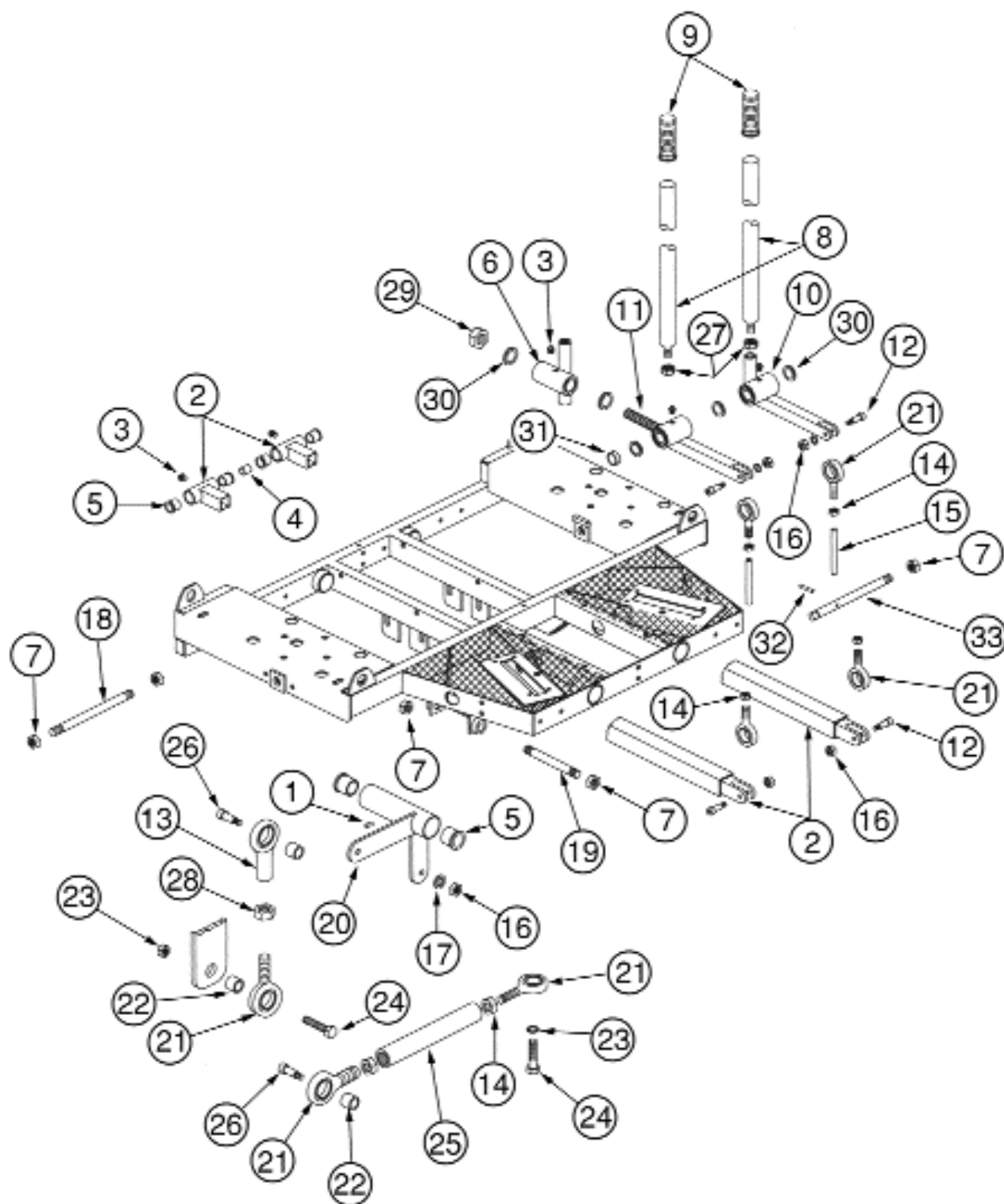
| ILL. | PART #  | DESCRIPTION                        | QTY. |
|------|---------|------------------------------------|------|
| 1.   | .032115 | KNOB, PITCH CONTROL                | 1    |
| 2.   | .026541 | CRANK HANDLE AND THREADED ROD      | 1    |
| 3.   | .015768 | SOCKET HEAD CAP SCREW 1/4-20 X 1/4 | 2    |
| 4.   | .029812 | BUSHING, SLIDE                     | 1    |
| 5.   | .015747 | PIN, SPIRAL 3/16 X 1-1/2           | 1    |
| 6.   | .026420 | ASSEMBLY, TUBE AND PLATE           | 1    |
| 7.   | .010036 | BOLT, 3/8-16 X 1                   | 3    |
| 8.   | .011751 | FW, HARD 3/8                       | 3    |
| 9.   | .010464 | NUT, NYLOK 3/8-16                  | 3    |
| 10.  | .029822 | SHAFT                              | 1    |

### 037799 ASSEMBLY (900 EDGER ONLY)

| ILL. | PART #  | DESCRIPTION                        | QTY. |
|------|---------|------------------------------------|------|
| 1.   | .032115 | KNOB, PITCH CONTROL                | 1    |
| 2.   | .040147 | CRANK HANDLE AND THREADED ROD      | 1    |
| 3.   | .015768 | SOCKET HEAD CAP SCREW 1/4-20 X 1/4 | 2    |
| 4.   | .029812 | BUSHING, SLIDE                     | 1    |
| 5.   | .015747 | PIN, SPIRAL 3/16 X 1-1/2           | 1    |
| 6.   | .037724 | ASSEMBLY, TUBE AND PLATE           | 1    |
| 7.   | .010036 | BOLT, 3/8-16 X 1                   | 3    |
| 8.   | .011751 | FW, HARD 3/8                       | 3    |
| 9.   | .010464 | NUT, NYLOK 3/8-16                  | 3    |
| 10.  | .037722 | SHAFT                              | 1    |

## 2A PARTS

### STEERING LEVER ASSEMBLY

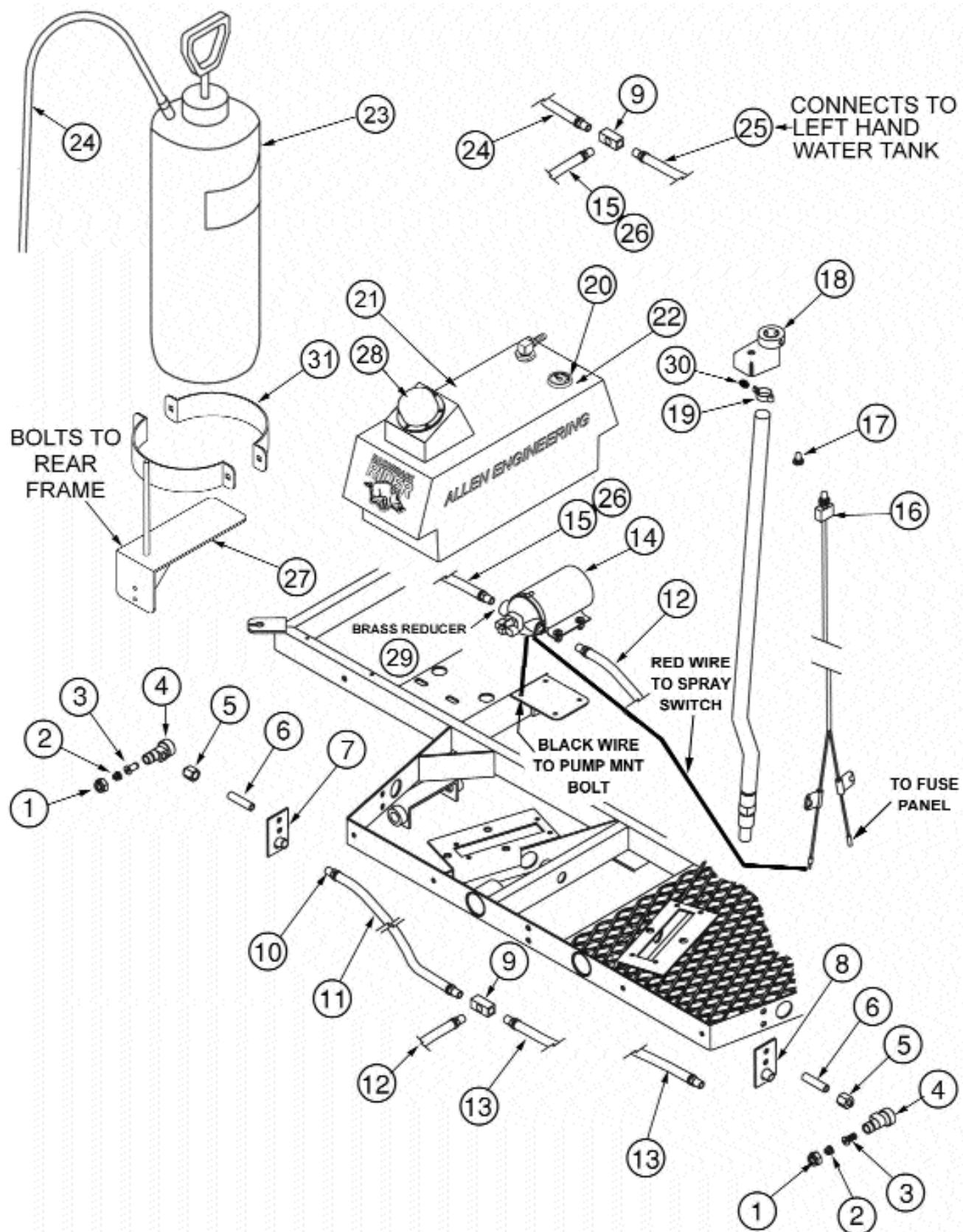


**STEERING LEVER ASSEMBLY (cont'd)****2A  
PARTS**

| ILL. | PART # | DESCRIPTION                          | QTY. |
|------|--------|--------------------------------------|------|
| 1.   | 018510 | GREASE FITTING 1/4-28 x 45 DEG.      | 1    |
| 2.   | 026954 | LOWER CONTROL ARM                    | 2    |
|      | 026895 | LOWER CONTROL ARM (LINAMAR)          | 2    |
|      | 041627 | LOWER CONTROL ARM (900 EDGER)        | 2    |
| 3.   | 201163 | GREASE FITTING 1/8-27 NPT STRAIGHT   | 5    |
| 4.   | 026205 | SPACER, CONTROL ARM                  | 2    |
| 5.   | 024630 | BUSHING, FLANGE                      | 12   |
| 6.   | 034884 | OPERATOR LEVER, LOWER RH             | 1    |
|      | 034676 | OPERATOR LEVER, LOWER RH (900 EDGER) | 1    |
| 7.   | 026447 | NUT, SELFLOCK 3/4-10 NC              | 6    |
| 8.   | 037973 | OPERATOR LVR, UPPER                  | 2    |
|      | 038488 | OPERATOR LVR, UPPER (KAWASAKI)       | 2    |
|      | 038149 | OPERATOR LVR, UPPER (LINAMAR)        | 2    |
|      | 037931 | OPERATOR LVR, UPPER (900 EDGER)      | 2    |
| 9.   | 037668 | GRIP, HANDLE                         | 2    |
| 10.  | 037926 | OPERATOR LVR, LOWER LH               | 1    |
| 11.  | 037929 | OPERATOR LVR, UPPER RH               | 1    |
| 12.  | 026267 | BOLT, SHOULDER 1/2 x 1               | 4    |
| 13.  | 019900 | ROD END, 1/2 FEMALE                  | 1    |
| 14.  | 010107 | NUT, HEX 1/2-20 NF                   | 6    |
| 15.  | 026784 | CONTROL ARM                          | 2    |
| 16.  | 010464 | NUT, NYLON LOCK 3/8-16               | 6    |
| 17.  | 017751 | LOCK WASHER (HDN) 3/8                | 2    |
| 18.  | 026234 | SHAFT, CONTROL LEVER MTG.            | 2    |
| 19.  | 026272 | SHAFT, FULCRUM ARM                   | 1    |
| 20.  | 026377 | FULCRUM                              | 1    |
| 21.  | 221408 | ROD END, 1/2 MALE                    | 7    |
| 22.  | 026412 | SPACER 5/16                          | 2    |
| 23.  | 010093 | LOCK WASHER 1/2                      | 1    |
| 24.  | 010070 | BOLT, 1/2-13 x 1-3/4                 | 2    |
| 25.  | 026922 | ARM, STEERING 11"                    | 1    |
|      | 026791 | ARM, STEERING 17" (900 EDGER)        | 1    |
| 26.  | 026268 | BOLT, SHOULDER 1/2 x 1-3/4           | 2    |
| 27.  | 037933 | FSTN, NUT JAM 1"-8                   | 1    |
| 28.  | 032225 | NUT, JAM 1/2-20                      | 1    |
| 29.  | 011584 | NUT, NYLON LOCK 3/4-10               | 1    |
| 30.  | 034520 | SPACER, BRONZE                       | 5    |
| 31.  | 034444 | COLLAR, SET 3/4                      | 1    |
| 32.  | 018289 | PIN, ROLL 3/16 X 1-1/4               | 1    |
| 33.  | 034442 | BAR, STEERING                        | 1    |
| 34.  | 026413 | SPACER, 1/2                          | 1    |

## 2A PARTS

### SPRAY SYSTEM ASSEMBLY



## SPRAY SYSTEM ASSEMBLY (cont'd)

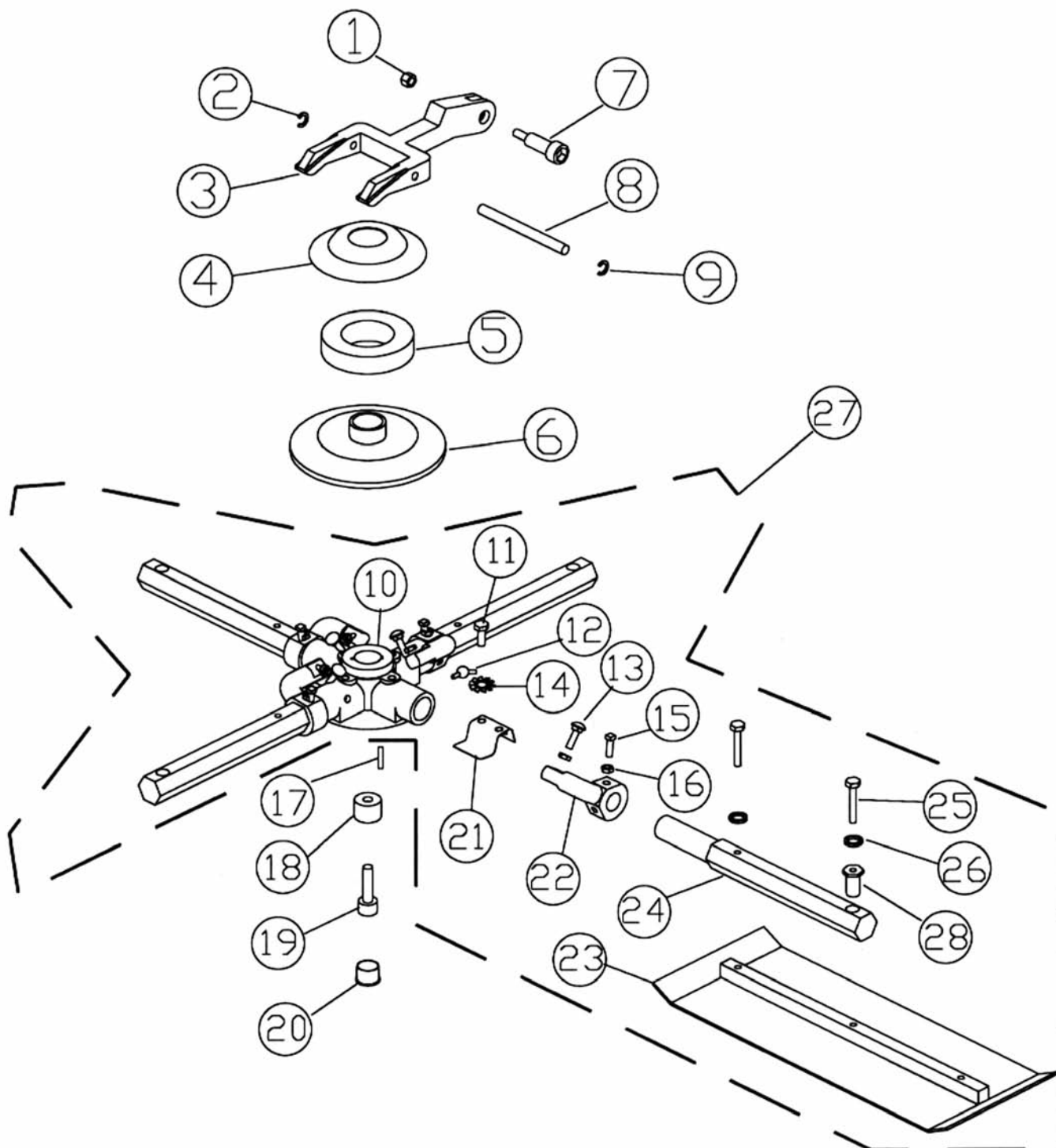
## 2A PARTS

| ILL. | PART #  | DESCRIPTION                                     | QTY.    |
|------|---------|-------------------------------------------------|---------|
| 1.   | 012705  | CAP, BRASS CP1325                               | 2       |
| 2.   | 012702  | TIP, SPRAY #8001 (FINE)                         | 2       |
| 3.   | 012706  | STRAINER, 5053100SS                             | 2       |
| 4.   | 012704  | VALVE, SPRAY RELIEF                             | 2       |
| 5.   | 111001  | FITTING, FATIGUE                                | 2       |
| 6.   | 013499  | NIPPLE, 1/4 x 2                                 | 2       |
| 7.   | 026930  | BRACKET, SPRAY NOZZLE RIGHT HAND                | 1       |
| 8.   | 026931  | BRACKET, SPRAY NOZZLE LEFT HAND                 | 1       |
| 9.   | 036937  | TEE, 1/4 BRASS (KAWASAKI)                       | 1       |
|      | 036937  | TEE, 1/4 BRASS (KOHLER - LINAMAR)               | 2       |
| 10.  | 010194  | FITTING, MALE PUSHLOK (KAWASAKI)                | 8       |
|      | 010194  | FITTING, MALE (KOHLER/HONDA)                    | 12      |
| 11.  | 013392  | HOSE, PUSHLOK 3/8                               | As Req. |
| 12.  | 013392  | HOSE, PUSHLOK 3/8                               | As Req. |
| 13.  | 013392  | HOSE, PUSHLOK 3/8                               | As Req. |
| 14.  | 033735  | PUMP, F/ SPRAY SYSTEM                           | 1       |
| 15.  | 013392  | HOSE, PUSHLOK 3/8 (KAWASAKI)                    | As Req. |
| 16.  | 037485  | HARNES WIRE F/ SPRAY SYSTEM                     | 1       |
| 17.  | 037480  | BOOT, TOGGLE                                    | 1       |
| 18.  | 037483  | SWITCH MOUNT ASSEMBLY                           | 1       |
| 19.  | 037681  | CLAMP, WIRE F/ SPRAY SYSTEM                     | 4       |
| 20.  | 036782  | GAUGE, WATER SPRAY TANK                         | 1       |
| 21.  | 039063  | TANK, WATER W/O CAP (KAWASAKI ONLY)             | 1       |
|      | 041640  | TANK, FUEL & WATER (900 EDGER) <i>NOT SHOWN</i> | 1       |
| 22.  | 034111  | GASKET, F/ GAUGE                                | 1       |
| 23.  | 034984  | TANK, WATER (KOHLER/HONDA) (LINAMAR)            | 2       |
| 24.  | 013392  | HOSE, PUSHLOCK 3/8 (KOHLER/HONDA) (LM)          | As Req. |
| 25.  | 013392  | HOSE, PUSHLOCK 3/8 (KOHLER/HONDA) (LM)          | As Req. |
| 26.  | 013392  | HOSE, PUSHLOCK 3/8 (KOHLER/HONDA) (LM)          | As Req. |
| 27.  | 035847  | BRKT., WATER BOTTLE (KOHLER/HONDA)              | 2       |
|      | 029571  | BRKT., WATER BOTTLE (LINAMAR)                   | 2       |
| 28.  | 039278B | CAP, BLUE WATER FILTER ASSY (KAWASAKI)          | 1       |
| 29.  | 013557  | FTG, 3/8 X 1/4 BRASS HEX (REDUCER)              | 1       |
| 30.  | 037949  | SPRAY SWITCH CLAMP CAP                          | 4       |
| 31.  | 029575  | BRKT, HOLD DOWN (KOHLER/HONDA)                  | 2       |

**NOTE:** PARTS LISTED ABOVE WITH (KOHLER/HONDA) ARE PART OF THE MANUAL SPRAY KIT 026933.

## 2A PARTS

### SPIDER ASSEMBLY



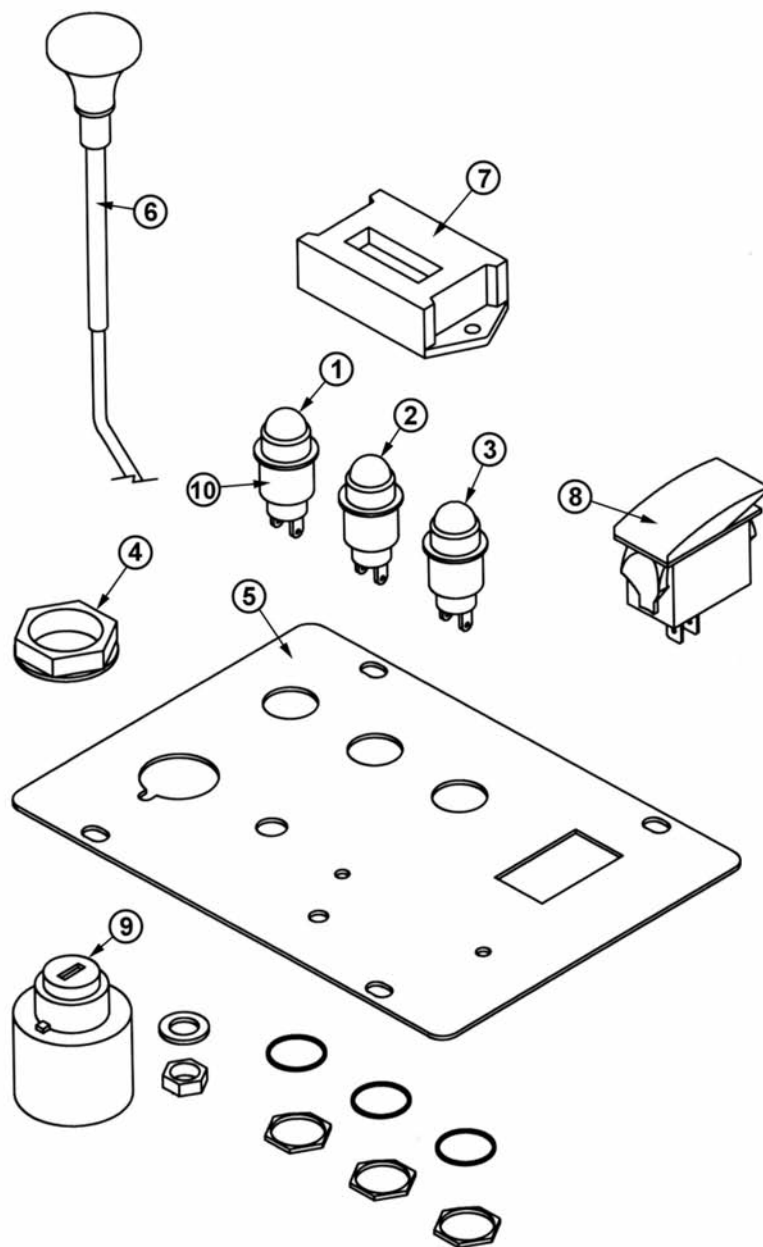


**SPIDER ASSEMBLY (cont'd)****2A  
PARTS**

| ILL. | PART #  | DESCRIPTION                                | QTY. |
|------|---------|--------------------------------------------|------|
| 1.   | .012612 | NUT, HEX SELFLOCK 5/16-18                  | 1    |
| 2.   | .015677 | E-RING RETAINER                            | 1    |
| 3.   | .026215 | ARM, YOKE                                  | 1    |
| 4.   | .015821 | PRESSURE PLATE CAP                         | 1    |
| 5.   | .015822 | BEARING, THRUST                            | 1    |
| 6.   | .015824 | PLATE, PRESSURE                            | 1    |
| 7.   | .026504 | BOLT, SHOULDER 3/8 x 1-1/4 W/ 5/16-18 THDS | 1    |
| 8.   | .015678 | PIN, YOKE ARM RETAINER 7/16 x 7-3/8        | 1    |
| 9.   | .015677 | E-RING RETAINER (SAME AS ILL.# 2)          | 1    |
| 10.  | .020572 | BOSS F/ SPIDER RIGHT HAND                  | 1    |
|      | .015816 | BOSS F/ SPIDER LEFT HAND                   | 1    |
| 11.  | .015683 | SCREW, DOG CAP 3/8-16 x 7/8                | 4    |
| 12.  | .024755 | GREASE FITTING 1/8-27 NPT 45°              | 4    |
|      | .015692 | PLUG, PLASTIC CAP #GC-5 (NOT SHOWN)        | 4    |
| 13.  | .012990 | BOLT, CARRIAGE 3/8-18 x 1-1/4              | 4    |
| 14.  | .015682 | LOCK WASHER EXTERNAL STAR 3/8              | 4    |
| 15.  | .015686 | SET SCREW SQ. HEAD 3/8-16 x 1              | 4    |
| 16.  | .015684 | NUT, JAM 3/8-16                            | 8    |
| 17.  | .026227 | KEY, 3/8 x 1                               | 1    |
| 18.  | .015690 | WASHER RETAINING                           | 1    |
| 19.  | .015691 | SCREW, SOCKET HEAD 1/2-13 x 1 1/2 LH       | 1    |
|      | .020155 | SCREW, SOCKET HEAD 1/2-13 x 1 1/2 RH       | 1    |
| 20.  | .015693 | PLUG, PLASTIC CAP EC-12                    | 2    |
| 21.  | .016920 | CLIP, SPRING UNIVERSAL                     | 4    |
| 22.  | .033032 | LEVER, LIFT UNIVERSAL STD                  | 4    |
| 23.  | .015890 | BLADE, 6 x 14 FINISH                       | 4    |
| 24.  | .015818 | ARM, SPIDER                                | 4    |
| 25.  | .010024 | BOLT, 5/16-18 x 2 GR. 5                    | 12   |
| 26.  | .010090 | LOCK WASHER 5/16                           | 12   |
| 27.  | .024813 | SPIDER ASSEMBLY F/ 1050 RIGHT HAND         | 1    |
|      | .015893 | SPIDER ASSEMBLY F/ 1050 LEFT HAND          | 1    |
| 28.  | .015688 | SCREW 9/16-18 NF ADJUSTING / MAC           | 4    |

## 2A PARTS

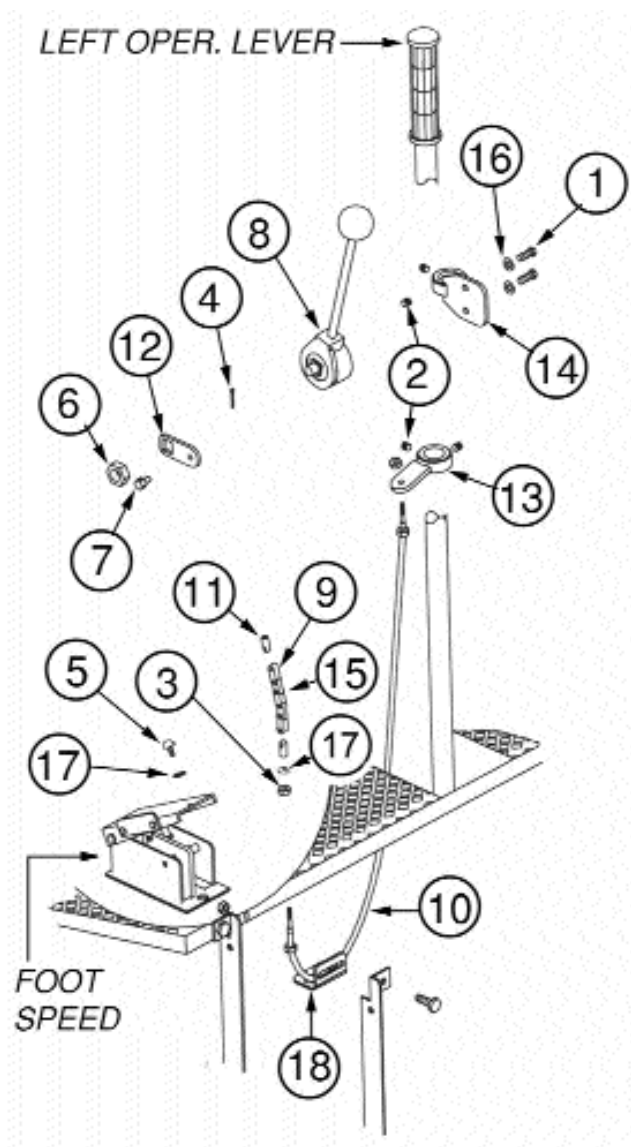
### KAWASAKI CONTROL PANEL ASSEMBLY



| ILL. | PART#       | DESCRIPTION                  | QTY. |
|------|-------------|------------------------------|------|
| 1.   | .034613     | LENS, GREEN                  | .1   |
| 2.   | .034612     | LENS, AMBER                  | .1   |
| 3.   | .034614     | LENS, RED                    | .1   |
| 4.   | .27005-2055 | KEY SWITCH                   | .1   |
| 5.   | .035267     | CONTROL PANEL                | .1   |
| 6.   | .029928     | CHOKE CABLE                  | .1   |
| 7.   | .042036     | HOURMETER, SENDEC            | .1   |
| 8.   | .032125     | SWITCH, ROCKER               | .1   |
| 9.   | .27005-2055 | KEY SWITCH (PART OF ILL.# 4) | .1   |
| 10.  | .034610     | FIXTURE, LIGHT               | .3   |
| 11.  | .034611     | LIGHT (NOT SHOWN)            | .3   |
| 12.  | .034876     | DECAL, "LIGHTS"              | .1   |
| 13.  | .034877     | DECAL, "RUN, TEMP, OIL"      | .1   |

**ACCESSORIES**  
**CRUISE CONTROL KIT PART# 028848**

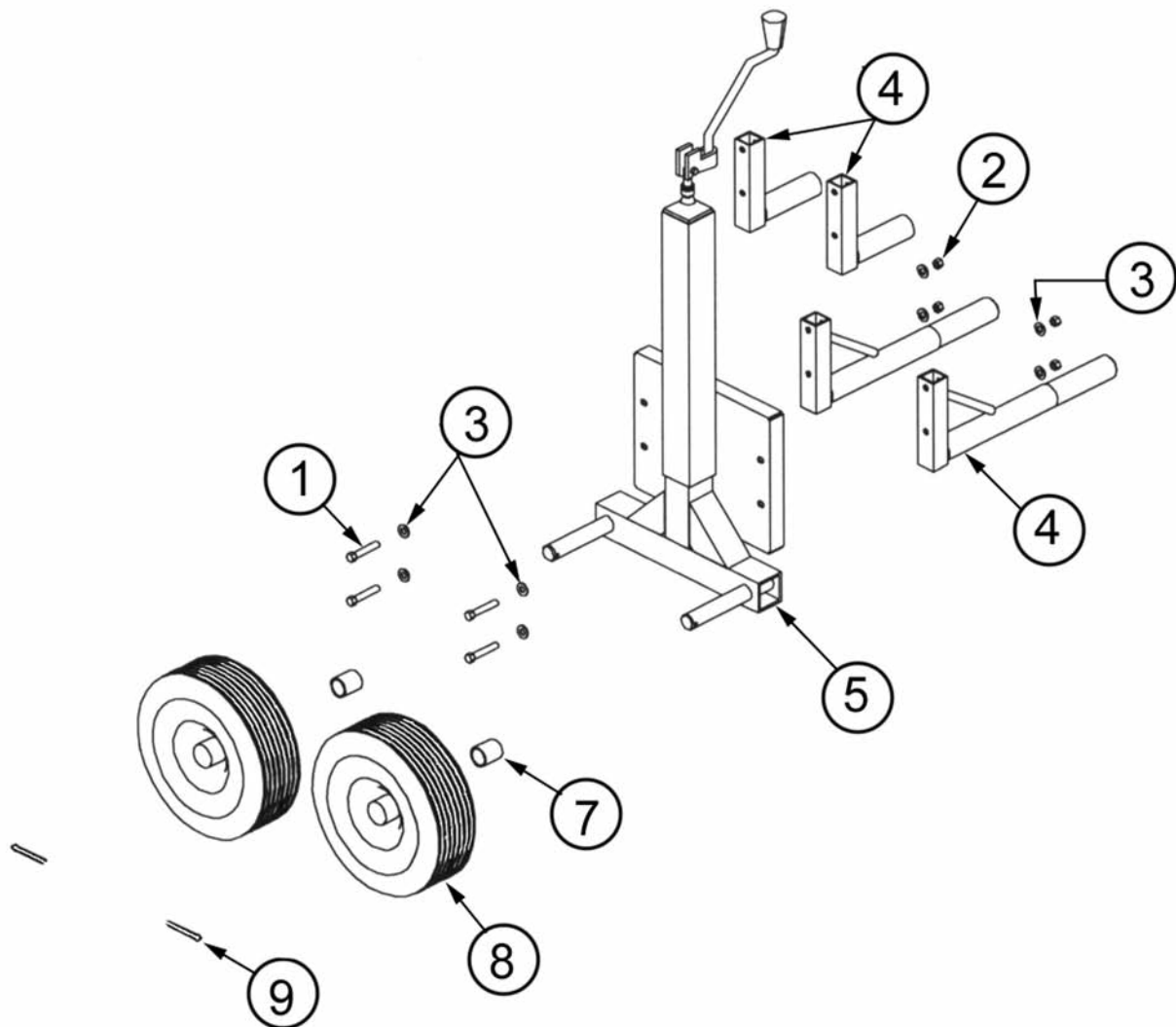
**2A**  
**PARTS**



| ILL. | PART#   | DESCRIPTION                             | QTY. |
|------|---------|-----------------------------------------|------|
| 1.   | .010018 | BOLT, 5/16-18 x 1/2                     | .2   |
| 2.   | .010313 | SET SCREW 5/16-18 x 3/8                 | .4   |
| 3.   | .010570 | NUT, HEX 10-32                          | .1   |
| 4.   | .010972 | PIN, COTTER 3/16 x 1-1/2                | .1   |
| 5.   | .010382 | SCREW, 10-32 x 1                        | .1   |
| 6.   | .020688 | NUT, JAM 5/8-18 RH                      | .1   |
| 7.   | .024984 | PIVOT, FOOT SPEED CONTROL               | .1   |
| 8.   | .028018 | LOCK, POSITIVE PITCH                    | .1   |
| 9.   | .028035 | LINK, MASTER #35                        | .2   |
| 10.  | .028243 | THROTTLE, HD CABLE ASSEMBLY             | .1   |
| 11.  | .028842 | END, CRUISE CONTROL CHAIN               | .1   |
| 12.  | .028844 | SIDE BRACKET, CRUISE CONTROL            | .1   |
| 13.  | .028846 | BRACKET, CRUISE CONTROL CABLE           | .1   |
| 14.  | .028847 | BRACKET, CRUISE CONTROL LEVER           | .1   |
| 15.  | .028881 | CHAIN, CRUISE CONTROL                   | .1   |
| 16.  | .032337 | WASHER, STAR INTERNAL 5/16              | .2   |
| 17.  | .032358 | WASHER, STAR 10-32                      | .2   |
| 18.  | .032356 | BRACKET, PEDAL END CRUISE CONTROL CABLE | .1   |

## 2A PARTS

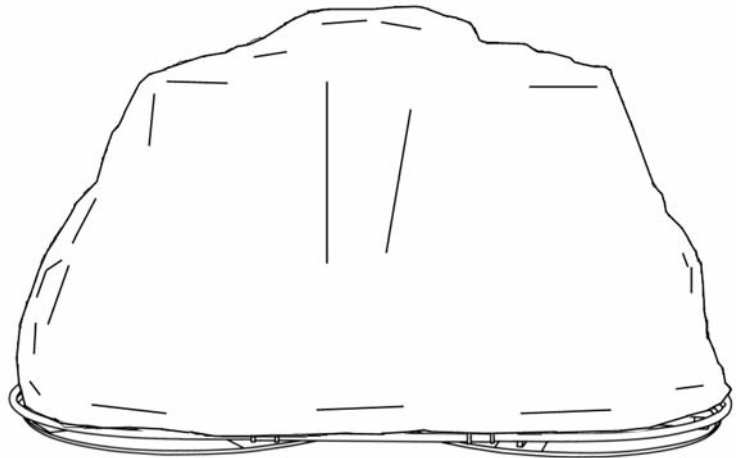
### ACCESSORIES (cont'd) DOLLY JACK SYSTEM -- SET PART # 027684



| ILL. | PART#   | DESCRIPTION                       | QTY. |
|------|---------|-----------------------------------|------|
| 1.   | .010040 | BOLT, 3/8-16 x 2                  | 8    |
| 2.   | .010464 | NUT, NYLON LOCK 3/8-16            | 8    |
| 3.   | .017751 | FLAT WASHER 3/8                   | 16   |
| 4.   | .026729 | DOLLY JACK MOUNTING TUBES (FRONT) | 2    |
|      | .026728 | DOLLY JACK MOUNTING TUBES (REAR)  | 2    |
| 5.   | .026938 | DOLLY JACK                        | 2    |
| 7.   | .024628 | WHEEL SPACER                      | 8    |
| 8.   | .099014 | TIRES                             | 4    |
| 9.   | .013759 | PIN, COTTER 3/16 x 2-1/2          | 8    |
| 10.  | .026899 | DOLLY JACK, FRONT ASSEMBLY        | 1    |
| 11.  | .026900 | DOLLY JACK, REAR ASSEMBLY         | 1    |

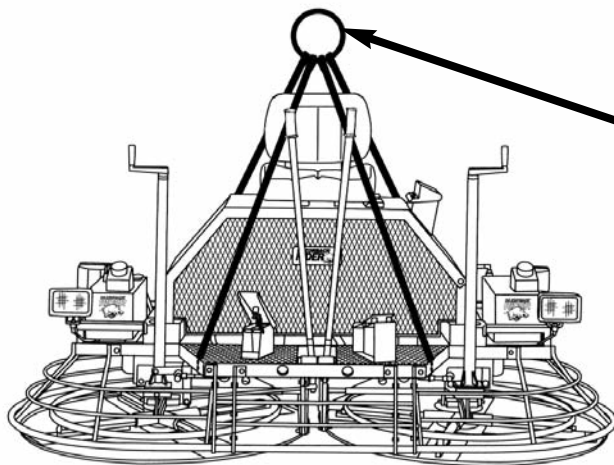
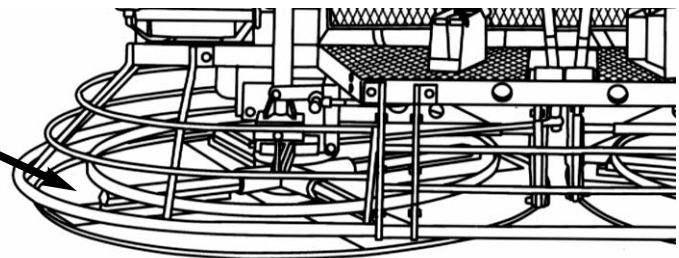
RIDING  
TROWEL  
VINYL COVER

PART #: 026594



FLOATING  
DISCS (PANS)

PART #: 026910-2

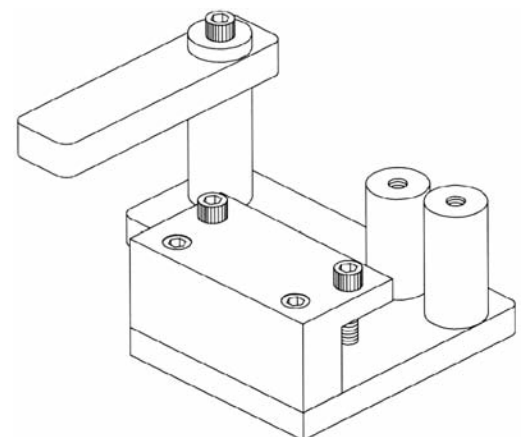


LIFTING  
BRIDLE  
(SLING TYPE)

PART #: 035461

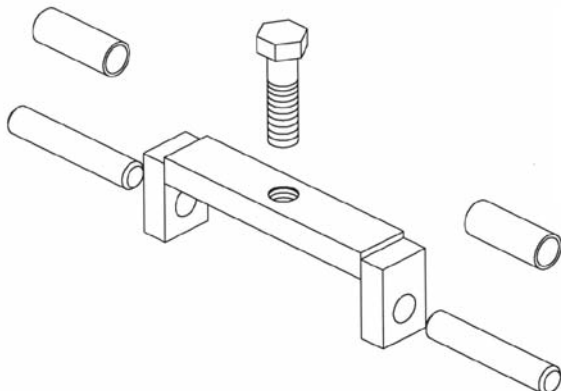
TROWEL ARM  
ALIGNMENT JIG

PART #: 016863



SPIDER  
PULLER  
ASSEMBLY

PART #: 035688



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Allen Engineering Corporation warrants its products to be free of defects in material or workmanship for the following periods:

|                                         |                 |
|-----------------------------------------|-----------------|
| A. All New Machines and Part            | <b>6 Months</b> |
| B. All New Gear Boxes                   | <b>2 Years</b>  |
| C. All Factory Reconditioned Gear Boxes | <b>1 Year</b>   |

Warranty period begins on first day of use by End User. This first day of use is established by a completed warranty card or a Bill of Sale to the end user. All warranty is based on the following limited warranty terms and conditions.

1. Allen Engineering Corporation's obligation and liability under this warranty is limited to repairing or replacing parts if, after Allen's inspection, it is determined to be a defect in material or workmanship. Allen Engineering Corporation reserves the choice to repair or replace.
2. If Allen Engineering Corporation chooses to replace the part, it will be at no cost to the customer and will be made available to the Distributor/Dealer from whom the customer purchased the product.
3. Replacement or repair parts, installed in the product, are warranted only for the remainder of warranty period of the product as though they were the original parts.
4. Allen Engineering Corporation's warranty applies only to the products that are manufactured by Allen Engineering and does not cover component parts such as engines and clutches. Allen Engineering Corporation DOES NOT warranty clutches. Engine warranty claims should be made directly to an authorized factory service center for the particular engine make.
5. Allen Engineering Corporation's warranty does not cover the normal maintenance of products or its components (such as engine tune-ups and oil changes). The warranty also does not cover normal wear and tear items (such as belts and consumables).
6. Allen Engineering Corporation's warranty will be void if it is determined that the defect resulted from operator abuse, failure to perform normal maintenance on the product, modification to product, alterations or repairs made to the product without the written approval of Allen Engineering Corporation. Allen Engineering Corporation specifically excludes from warranty any damage to any trowels resulting from an impact to the rotors. Allen Engineering Corporation also excludes from warranty any failure of clutches on any engine driven piece of equipment.
7. If a new gear box has a factory defect within the first year of use, Allen Engineering Corporation will either repair the gear box or replace it with a new gear box. If a new gearbox has a factory defect in the second year of use, Allen Engineering Corporation will either repair it or replace it with a factory reconditioned gear box. Impact damage is NOT covered under the gear box warranty.
8. Allen Engineering Corporation will pay shop labor repair on warranty at the Allen Engineering Shop Labor Rate in existence on the date of the warranty claim. An Allen Engineering Labor Chart will determine the time allowed to complete a repair and will govern the shop labor hours that will be allowed.
9. Allen Engineering Corporation will pay freight on warranty replacement parts at Worldwide standard ground rates. No warranty replacement parts will be shipped air freight at the expense of Allen Engineering Corporation. Allen Engineering only pays outbound freight charges when sending warranty replacement parts to the customer VIA ground service. Allen Engineering does not pay any inbound freight, however, if Allen Engineering determines this to be warranty defect only then will Allen Engineering reimburse the customer for inbound freight at standard ground rates.
10. Allen Engineering Corporation's warranty policy WILL NOT COVER the following; taxes, shop supplies, environmental surcharges, air freight, travel time, loss of rental revenue, or any other charges whatsoever or any liabilities for direct, incidental, or consequential damage or delay.
11. **Allen Engineering Corporation makes no other warranty, expressed or implied. This limited warranty is in lieu of the warranty of merchantability and fitness. There are no other warranties that extend beyond the description on this document.**
12. No Allen Engineering Corporation employee or representative is authorized to change this warranty in any way or grant any other warranty unless such change is made in writing and signed by an officer of Allen Engineering Corporation.

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