

21/15/12/11/102

(110)

(109)

(108)

(107)

(103)

(116

97

43

USE AS TIMING
MARK AT ASSEMBLY

PUQQannnaaQQU

USE AS TIMING MARK AT ASSEMBLY

19/9/

52

ORIENT THE FLANGE HOLES

ON 2.5" NPT BASE

45° FROM THE FIREFOX LABEL

5 (105)

## TECHNICAL SERVICE PARTS

(113)1

99

<sup>^</sup>98

<sup>7</sup>48)1

(115)

204

47

(43)1

43 1

6 9 19

use as

**TIMING** 

MARK

(112)

(1)

STYLE 3463, 3563

PRODUCT FIREFOX 2" INLET W/POSITION SENSORS

IF AN ITEM IS NOTED AS "NOT FIELD REPAIRABLE", OR YOU WISH TO RETURN AN ITEM TO AKRON BRASS FOR SERVICE PLEASE GO ONLINE TO, **ONLINEREPAIR.AKRONBRASS.COM** 

Chg. Date 21 02-19 22 01-20

**ASSEMBLY NOTES:** 

USE PARKER O-LUBE ON ALL O-RINGS AND MATING SURFACES UNLESS OTHERWISE NOTED.

/1 use Permabond LM113 or loctite 222.

2 USE PRIMER T AND PERMABOND HH120 OR LOCTITE 277.

/3\ USE LOW-TEMP LUBRIPLATE.

4 DIMPLE AT ASSEMBLY.

5 THOROUGHLY COAT WITH NEVER SEEZ MARINERS CHOICE.

6 USE PERMABOND LH050 OR LOCTITE 592.

√7 USE LOCTITE 290.

8 GENERAL DEPICTION SEE BILL OF MATERIAL.

9 ALIGN BALL IN HOLE. TIGHTEN PLUG UNTIL TOUCHES BALL. THEN BACK OUT PLUG 1/4-1/2 TURN.

11 TORQUE SET SCREWS 11 IN-LBS.

ALIGN TIMING DIMPLE ON BOTH JOINTS PRIOR TO INSTALLING POSITION SENSORS. ADJUST SENSORS OUTPUT TO  $2.50\pm~0.01~V$ .

ASSEMBLE WITH ROUNDED EDGES OF RETAINING RING TOWARDS WASHERS (ITEM (11)).

15 ALIGN TIMING MARK TO THE FLAT OF THE SHAFT.

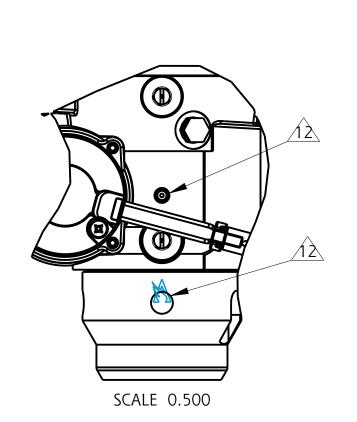
ALIGN THE TIMING MARK TO THE STOP ON ELEVATION JOINT TO TIGHTEN THE SET SCREWS ON ITEM (102).

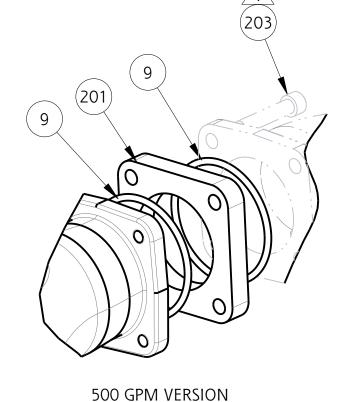
 $/\!\!\!/ \uparrow$  install set screw flush with casting od.

18 USE AGRO "TUF-GLIDE THREAD SEALENT WITH PTFE"

19 THOROUGHLY CLEAN THREADS OF PLUG AND MATING PART AND APPLY LOCTITE 425.

2 Set screws supplied with position marker. Use loctite 425.





PHONE: 330.264.5678 or 800.228.1161 | FAX: 330.264.2944 or 800.531.7335 | www.akronbrass.com

© 2016 Akron Brass Company. All rights reservered. No portion of this can be reproduced without the express written consent of the Akron Brass Company.

39 BALLS

WARRANTY AND DISCLAIMER\*: We warrant Akron Brass products for a period of five (5) years\* after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service. We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery: failure to follow our instructions or recommendations: or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty. \*Unless otherwise provided herein. Akron Brass industrial electronic components & the Severe-Duty Monitor have a one (1) year warranty. Select Akron Brass handline nozzles and valves carry a ten (10) year warranty. Scene Star Lights carry a (6) year warranty. Weldon products have a two (2) year warranty from date of manufacture (excluding consumable components). Select Weldon LED products carry a five (5) year warranty. Honda products have the manufacturers' warranty and Akron Brass disclaims any warranty in respect of those products.

SEE MOTOR/GEARBOX

USE AS TIMING

MARK AT ASSEMBLY

ASSEMBLY FOR DETAILS

Parts List Sheet:

122445



ELEVATION STOP (ITEM 43) LOCATIONS 1

ALL OTHER LOCATIONS (ITEM 44) /

STOP LOCATIONS

2,4

ANGLE OF ROTATION

 $+90^{\circ}$ ,  $-45^{\circ}$  (STD)  $+45^{\circ}$ ,  $-20^{\circ}$ 

### **TECHNICAL SERVICE PARTS**

STYLE 3463, 3563

SEE DETAIL A

PRODUCT FIREFOX 2" INLET W/POSITION SENSORS

IF AN ITEM IS NOTED AS "NOT FIELD REPAIRABLE", OR YOU WISH TO RETURN AN ITEM TO AKRON BRASS FOR SERVICE PLEASE GO ONLINE TO, **ONLINEREPAIR.AKRONBRASS.COM** 

Chg. Date 02-19 22 01-20

**ASSEMBLY NOTES:** 

USE PARKER O-LUBE ON ALL O-RINGS AND MATING SURFACES UNLESS OTHERWISE NOTED.

1 use Permabond LM113 or loctite 222.

2 USE PRIMER T AND PERMABOND HH120 OR LOCTITE 277.

3 USE LOW-TEMP LUBRIPLATE.

4 DIMPLE AT ASSEMBLY.

5 THOROUGHLY COAT WITH NEVER SEEZ MARINERS CHOICE.

6 USE PERMABOND LH050 OR LOCTITE 592.

1 USE LOCTITE 290.

8 GENERAL DEPICTION SEE BILL OF MATERIAL.

9 ALIGN BALL IN HOLE. TIGHTEN PLUG UNTIL TOUCHES BALL. THEN BACK OUT PLUG 1/4-1/2 TURN.

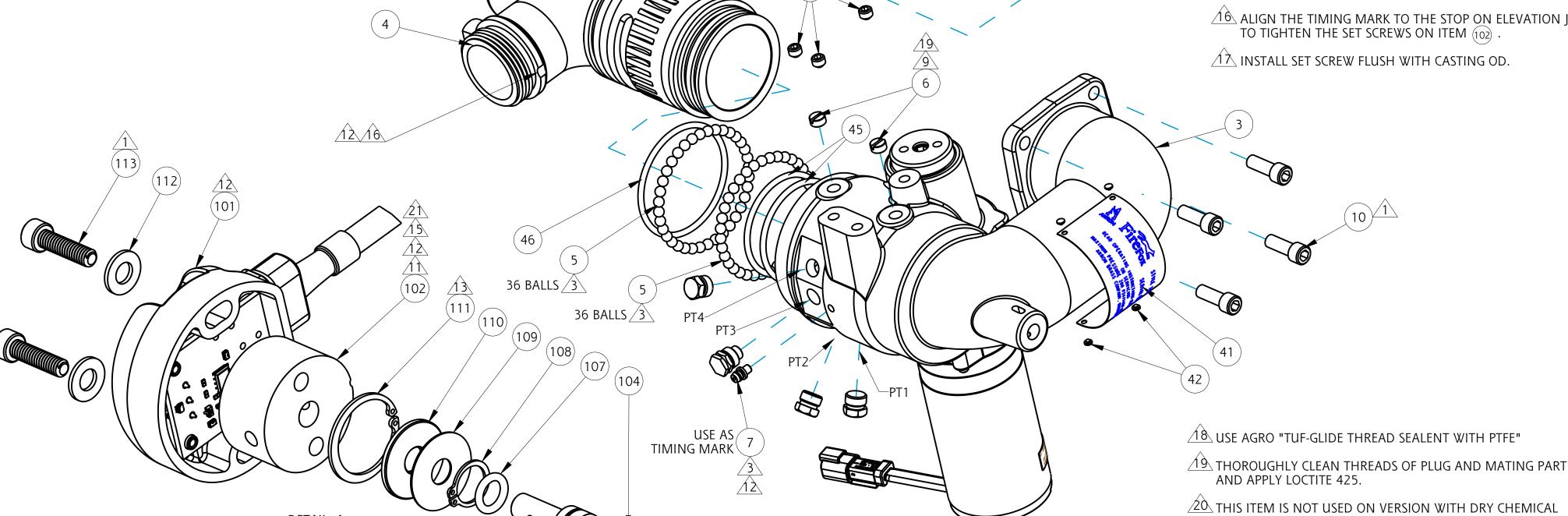
11 TORQUE SET SCREWS 11 IN-LBS.

ALIGN TIMING DIMPLE ON BOTH JOINTS PRIOR TO INSTALLING POSITION SENSORS. ADJUST SENSORS OUTPUT TO  $2.50\pm~0.01~V$ .

ASSEMBLE WITH ROUNDED EDGES OF RETAINING RING TOWARDS WASHERS (ITEM (111) ).

15 ALIGN TIMING MARK TO THE FLAT OF THE SHAFT.

ALIGN THE TIMING MARK TO THE STOP ON ELEVATION JOINT TO TIGHTEN THE SET SCREWS ON ITEM (102).



PHONE: 330.264.5678 or 800.228.1161 | FAX: 330.264.2944 or 800.531.7335 | www.akronbrass.com

© 2016 Akron Brass Company. All rights reservered. No portion of this can be reproduced without the express written consent of the Akron Brass Company.

DETAIL A

SCALE 1.500

WARRANTY AND DISCLAIMER\*: We warrant Akron Brass products for a period of five (5) years\* after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service. We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty. \*Unless otherwise provided herein. Akron Brass industrial electronic components & the Severe-Duty Monitor have a one (1) year warranty. Select Akron Brass handline nozzles and valves carry a ten (10) year warranty. Scene Star Lights carry a (6) year warranty. Weldon products have a two (2) year warranty from date of manufacture (excluding consumable components). Select Weldon LED products carry a five (5) year warranty. Honda products have the manufacturers' warranty and Akron Brass disclaims any warranty in respect of those products.

Parts List Sheet:

NOZZLE. SEE DRY CHEMICAL ASSEMBLY DRAWING (D-41621)

∠

→

SET SCREWS SUPPLIED WITH POSITION MARKER. USE LOCTITE 425.

FOR INSTALLATION ASSEMBLY DETAILS.

122445



### TECHNICAL SERVICE PARTS

STYLE 3463, 3563

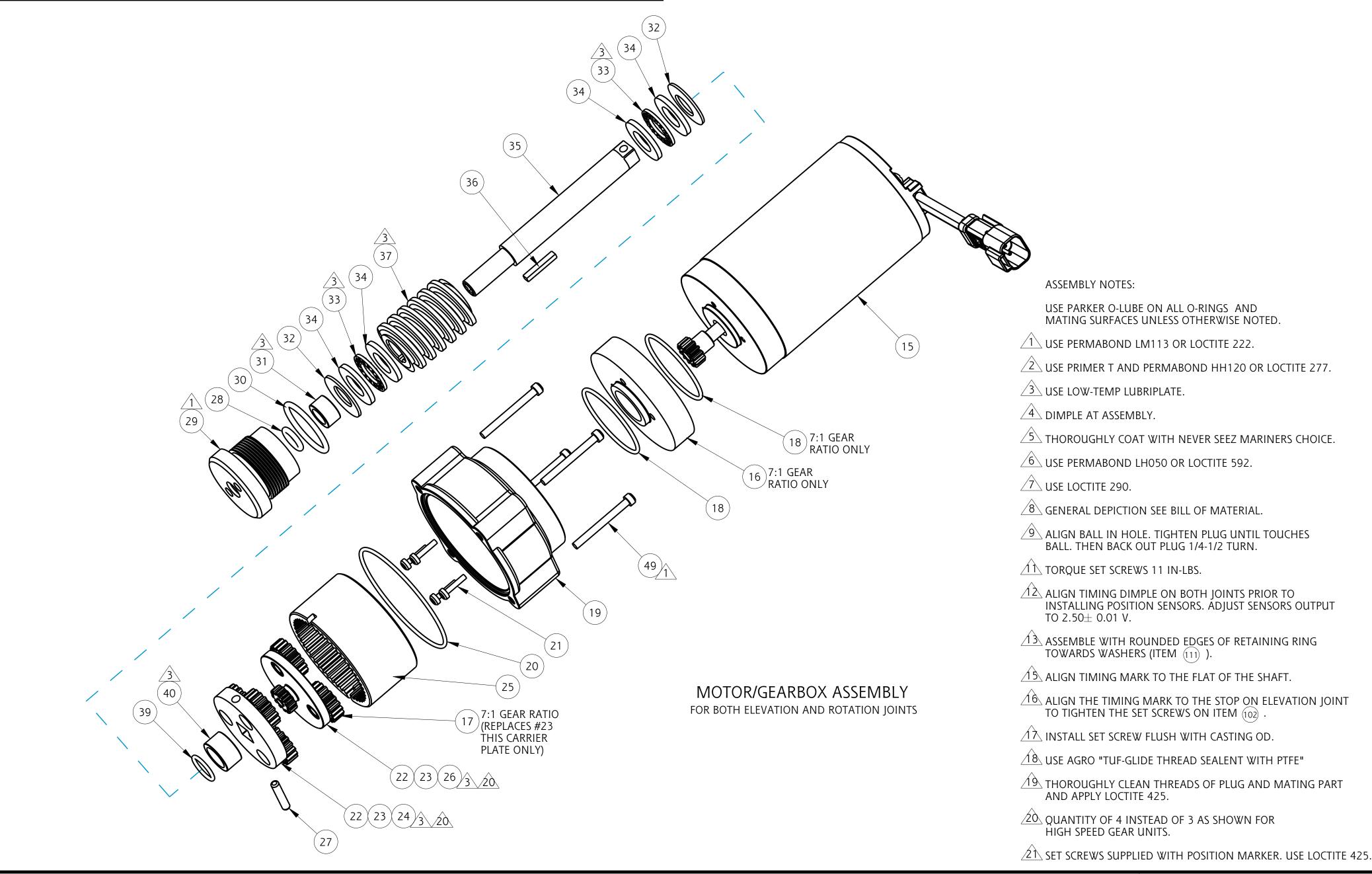
PRODUCT FIREFOX 2" INLET W/POSITION SENSORS

IF AN ITEM IS NOTED AS "NOT FIELD REPAIRABLE", OR YOU WISH TO RETURN AN ITEM TO AKRON BRASS FOR SERVICE PLEASE GO ONLINE TO, **ONLINEREPAIR.AKRONBRASS.COM** 

 Chg.
 Date

 21
 02-19

 22
 01-20



PHONE: 330.264.5678 or 800.228.1161 I FAX: 330.264.2944 or 800.531.7335 | www.akronbrass.com

WARRANTY AND DISCLAIMER\*: We warrant Akron Brass products for a period of five (5) years\* after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service. We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty. \*Unless otherwise provided herein. Akron Brass industrial electronic components & the Severe-Duty Monitor have a one (1) year warranty. Select Akron Brass handline nozzles and valves carry a ten (10) year warranty. Select Weldon LED products carry a five (5) year warranty. Honda products have the manufacturers' warranty and Akron Brass disclaims any warranty in respect of those products.

© 2016 Akron Brass Company. All rights reservered. No portion of this can be reproduced without the express written consent of the Akron Brass Company.

Parts List Sheet:

122445



### TECHNICAL SERVICE PARTS

# BRASS COMPANY PRODUCT FIREFOX 2" INLET W/POSITION SENSORS

Find Description QTY Item STANDARD - BASE, 2" NPT THREADED INLET OPTIONAL - BASE, 2-1/2" NPT THREADED INLET OPTIONAL - BASE, 2" BSPT THREADED INLET OPTIONAL - BASE, 2-1/2" BSPT THREADED INLET OPTIONAL - BASE, 1-1/2" FLANGE ELBOW, INLET GOOSENECK ELBOW, OUTLET 1.5" ELBOW, OUTLET 2.5" BALL, BRASS 1/4"OD PLUG, SWIVEL CELCON 3/8-24 x 3/16" FITTING, 3/16 PRESSFIT GREASE O-RING 2-233 O-RING 2-230 SCREW, SOCKET HEAD CAP 5/16-18 x 7/8" MOTOR, 12VDC (STD) MOTOR, 24VDC (STD) MOTOR, 12VDC (7:1 RATIO) MOTOR, 24VDC (7:1 RATIO) MOTOR, 12VDC (HIGH SPEED) PLATE SPACER (7:1 RATIO) GEAR PLANET (7:1 RATIO) -O-RING 2-029 HOUSING, GEARBOX O-RING 2-036 SCREW, SOCKET HEAD CAP W/PATCH 6-32 x 1/2" SCREW, SOCKET HEAD CAP W/PATCH 6-32 x 1" (7:1 RATIO) B,C,D | RIVET, SHORT B,C,D GEAR, PLANET B,C,D | CARRIER, OUTPUT GEAR, INTERNAL ELEVATION B,C,D | PLATE, CARRIER B,D PIN 5/32" x 3/4" O-RING 2-110 CAP, ELEVATION BEARING O-RING 2-121 BEARING, 3/8"ID SPRING, BELLEVILLE BEARING, TORRINGTON NEEDLE WASHER, THRUST SHAFT, ELEVATION KEY, SPECIAL GEAR, HARDENED WORM PIN, ROLL 1/8 X 1/2 O-RING 2-014 BEARING, NEEDLE ROLLER PLATE, ID - 3463, 12V PLATE, ID - 3463, 24V PLATE, ID - 3563 NAIL, GRIP 

IF AN ITEM IS NOTED AS "NOT FIELD REPAIRABLE", OR YOU WISH TO RETURN AN ITEM TO AKRON BRASS FOR SERVICE PLEASE GO ONLINE TO, ONLINEREPAIR.AKRONBRASS.COM

Chg.	Date
21	02-19
22	01-20

Find		Description	Item	QTY
43		STOP	769498	4
44		PLUG 1/2-20 x 1/2"	744337	3
45		O-RING 2-229	757205	2
46		O-RING 2-231	757126	1
47		HARNESS, 2' WIRING (OPTIONAL)	721669	1
47		HARNESS 8" WIRING	721622	1
48		SCREW, SOCKET HEAD CAP 10-24 X 2"	763077	2
49		SCREW, SOCKET HEAD CAP 6-32 X 1-3/8"	767132	8
51	* * *	OPTIONAL FLANGE 3" 150# FLAT FACE	712285	1
51	* * *	OPTIONAL FLANGE 2.5" 150# FLAT FACE	712283	1
52	* * *	OPTIONAL NIPPLE	735089	1
62		SCREW, SOCKET HEAD CUP POINT SET 5/16-18 x 1/4"	765071	3
77		SCREW, PAN HEAD CAP SCREW 10-24 x 1/2"	767147	1
97		CLAMP, 1/4" ID CABLE	707189	2
98		HANDLE, OVERRIDE	721291	1
99		CLIP, HAIRPIN COTTER	744339	1
100		SCREW, SOCKET HEAD CUP POINT SET 8-32 x 1/4"	765164	1
101		ASSEMBLY, SENSOR MAGNETIC ROTARY ANGLE	60430006	2
102		MARKER, MAGNET POSITION	731127	2
103		SHAFT, ROTATION FEEDBACK	769894	1
104	**	SHAFT, ELEVATION FEEDBACK	-	1
105		PIN, ROLL	744078	1
106		PIN, ROLL	744430	2
107		O-RING 2-010	757476	3
108		RING, TRUARC	758247	2
109		SHIM	769887	2
110		WASHER	784192	2
111		RING, RETAINING TRUARC	758127	2
112		WASHER #8	784123	4
113		SCREW, SOCKET HEAD CAP 8-32 x 5/8"	765360	4
114		SCREW, SOCKET HEAD CUP POINT SET 5/16-18 x 1/4"	765071	4
115		CLAMP, CABLE	807139	2
116		SCREW, BUTTON HEAD CAP 10-24 x 3/8"	765143	2
201		SPACER, 2-1/2" OUTLET	118949	1
203		SCREW SOC HD CAP 5/16-18 x 1-1/2	765222	4
204		WASHER	784072	2
				1
A		KIT OF 50 BALLS	109041	
	B	STANDARD GEAR REPAIR KIT	34400209 34635142	
	<u>C</u>	7:1 GEAR REPAIR KIT		
D		HIGH SPEED GEAR REPAIR KIT	35630019	

<sup>\*</sup> QUANTITY OF 1 REQUIRED FOR 1-1/2" OUTLET. QUANTITY OF 2 REQUIRED FOR 2-1/2" OUTLET.

PHONE: 330.264.5678 or 800.228.1161 | FAX: 330.264.2944 or 800.531.7335 | www.akronbrass.com

© 2016 Akron Brass Company. All rights reservered. No portion of this can be reproduced without the express written consent of the Akron Brass Company.

WARRANTY AND DISCLAIMER\*: We warrant Akron Brass products for a period of five (5) years\* after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service. We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty. \*Unless otherwise provided herein. Akron Brass industrial electronic components & the Severe-Duty Monitor have a one (1) year warranty. Select Akron Brass handline nozzles and valves carry a ten (10) year warranty. Scene Star Lights carry a (6) year warranty. Weldon products have a two (2) year warranty from date of manufacture (excluding consumable components). Select Weldon LED products carry a five (5) year warranty. Honda products have the manufacturers' warranty and Akron Brass disclaims any warranty in respect of those products.

Parts List Sheet:

<sup>\*\*</sup> SHAFT 769895 REQUIRED FOR 1-1/2" OUTLET. SHAFT 770365 REQUIRED FOR 2-1/2" OUTLET.

<sup>\*\*\*</sup> OPTIONAL PARTS FOR 3" FLANGE.