



Parts Catalog

350-Series

Mid-Mount 4-Wheel Sweepers

Serial Numbers

412812 - 414036

Broce Manufacturing Co. Inc.

1460 South 2nd Avenue

Dodge City, KS 67801

(877) 227-8811

(620) 227-3012 fax

parts@brocebroom.com

www.brocebroom.com

M-F 7:00 AM-6:00 PM CST

Broce Manufacturing Company, Inc. WARRANTY REGISTRATION

Purchased From (Dealership)	
Company:	
Address:	
City:	State: ____ ZIP: _____
Delivery Date to Dealer: ____ / ____ / ____	Unit Hours: _____
Model Number: _____	Serial Number: _____

Purchaser	
Company:	
Address:	
City:	State: ____ ZIP: _____
Delivery Date to Owner: ____ / ____ / ____	Unit Hours: _____

Purchaser - Type of Business			
Construction/Highway		Rental	Asphalt Contractor
Equipment Dealer		Municipality	Other

1. *The Purchaser has been instructed and/or has read the manual and understands proper preventive maintenance, operation and safety precautions.*
2. *The Warranty and Limitations of Liability are found in the Warranty pages enclosed in the Parts and Operators Manuals.*
3. *Broce Manufacturing Co. Inc. reserves the right to make design changes or modifications to Broce products at any time without incurring any obligation to make similar changes or modifications to previously sold units.*
4. *If this Document is not signed and returned to Broce Manufacturing Co. Inc., the warranty begins at the date of delivery to the Dealership.*

I hereby acknowledge acceptance of above and conditions in the Warranty Policy

Purchaser/Owner: _____

Dealer Representative: _____

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BROCE MANUFACTURING COMPANY

BROCE BROOM LIMITED TWELVE-MONTH WARRANTY

For a period of twelve (12) months or 1,000 hours whichever comes first, from the date of delivery of product to the original user, Broce Manufacturing of Dodge City, Kansas warrants each product to be free from manufacturing defects, subject to the limitations contained in this policy. This limited warranty covers parts and labor.

This warranty does not apply to defect caused, in whole or in part, by unreasonable use while in the possession of the user, including, but not limited to, failure to properly set up product, failure to provide reasonable and necessary maintenance, normal wear, routine tune ups or adjustments, improper handling, accidents, operation at speed or load conditions contrary to published specifications, improper or insufficient lubrication, or improper storage. This warranty is not a guarantee that the performance of each product will meet the expectations of the purchaser.

Broce Manufacturing shall not be liable for consequential damage of any kind, including, but not limited to: consequential labor costs or transportation charges in connection with the replacement or repair of defective parts, lost time or expense which may have accrued because of said defects. In no event shall Broce Manufacturing's total liability hereunder exceed the product purchase price.

Many components used by Broce Manufacturing are subject to the warranties of their respective manufacturers. These warranties will be considered void if the product is modified or repaired in any way not expressly authorized, or if closed components are disassembled prior to return. Closed components include, but are not limited to gearboxes, hydraulic pumps, motors, cylinders and actuators.

Our obligation under the warranty is expressly limited, at our option, to the replacement or repair at Broce Manufacturing of Dodge City, KS or at a service facility designated by us. We are not responsible for unauthorized repairs or replacements. Any implied or statutory warranties, including any warranty of merchantability or fitness for a particular purpose, are expressly limited to duration of this written warranty. We make no other express warranty. This warranty cannot be extended, broadened, or changed except in writing by an authorized officer of Broce Manufacturing.

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Dodge City, KS 67801
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BROCE BROOM MODEL 350

ESTIMATED DIMENSIONS

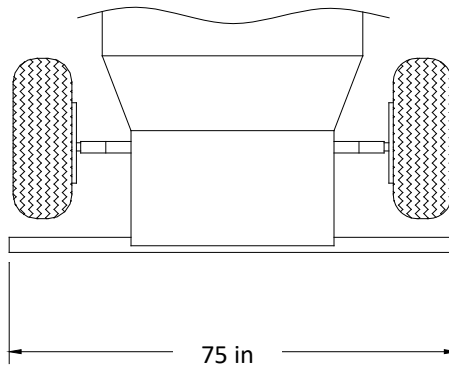
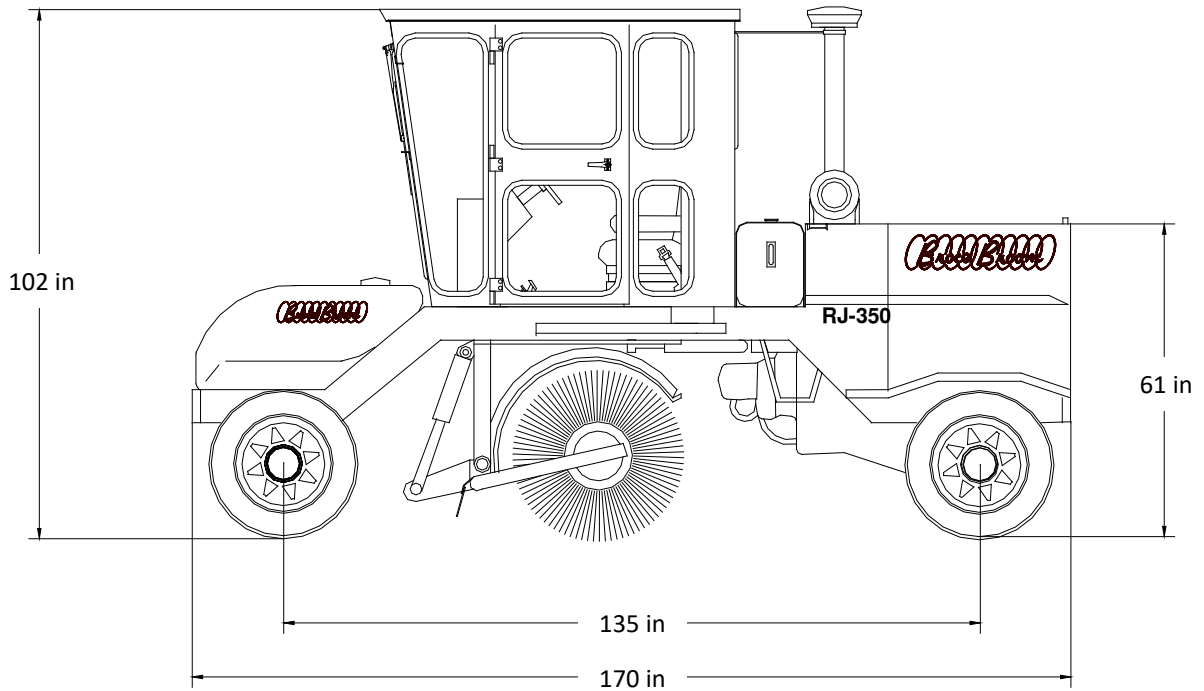


TABLE OF CONTENTS (click [links](#))

Main Frame Component Parts	9-10
Instrument Panel & Components	11-12
Seat and Throttle/Controls Console	13-14
Brake Control Assemblies	15-16
Hydrostatic Control Assemblies	17-18
Bipedal Control Assemblies	19-20
Circle Frame and Components	21-22
Direct Drive Core Assembly	23-24
Chain Drive Core Assembly	25-26
Side-Shift Core Assembly	27-28
Broom Core Wafers and Spacers	29-30
Bolster Assembly	31-32
Front Axle Parts and Steering	33-34
Front Brake Assembly	35-36
Rear Axle & Drive Assembly	37-38
Rear Brake Assembly	39-40
Two Speed Gear Box	41-42
Schafer Axle	43-44
Tow Bar Assembly	45-46
Cab Assembly	47-48
Roll Over Protection Structure & Related Parts	49-50
Fuel/Hydraulic Tank Assembly	51-52
Decal Kit	54
HYDRAULIC SYSTEM DETAILS	56-74
Hydraulic System Components – Front Section	57-58
Hydraulic System Components – Cab/Valve Section	59-60
Hydraulic System Components – Variable Speed Option	61-62
Hydraulic System Components – Rear Section	63-64

TABLE OF CONTENTS (Cont.)

HYDRAULIC SYSTEM DETAILS (Cont.)

Hydrostatic Drive System	66-67
Core Rotation Valve Assembly	68-69
Joystick Valve Assembly	70-71
Optional Down Pressure Limiter	72-73

ELECTRICAL SYSTEM & ACCESSORIES

Gauges & Senders	76-77
Windshield Wipers & Washer	78-79
Switches, Fuses, Keys, Battery Hold-Down, Hardware, Etc.	80-81
Lights & Horns	82-83
Heater/Defroster	84-85
Air Conditioning System	86-89

BROOM ACCESSORY SYSTEMS

Water Spray System	91-92
Scraper Blade Mechanicals	93-94
Scraper Blade Hydraulics	95-96
Curb Sweeper Mechanicals	97-98
Curb Broom Hydraulics	99-100

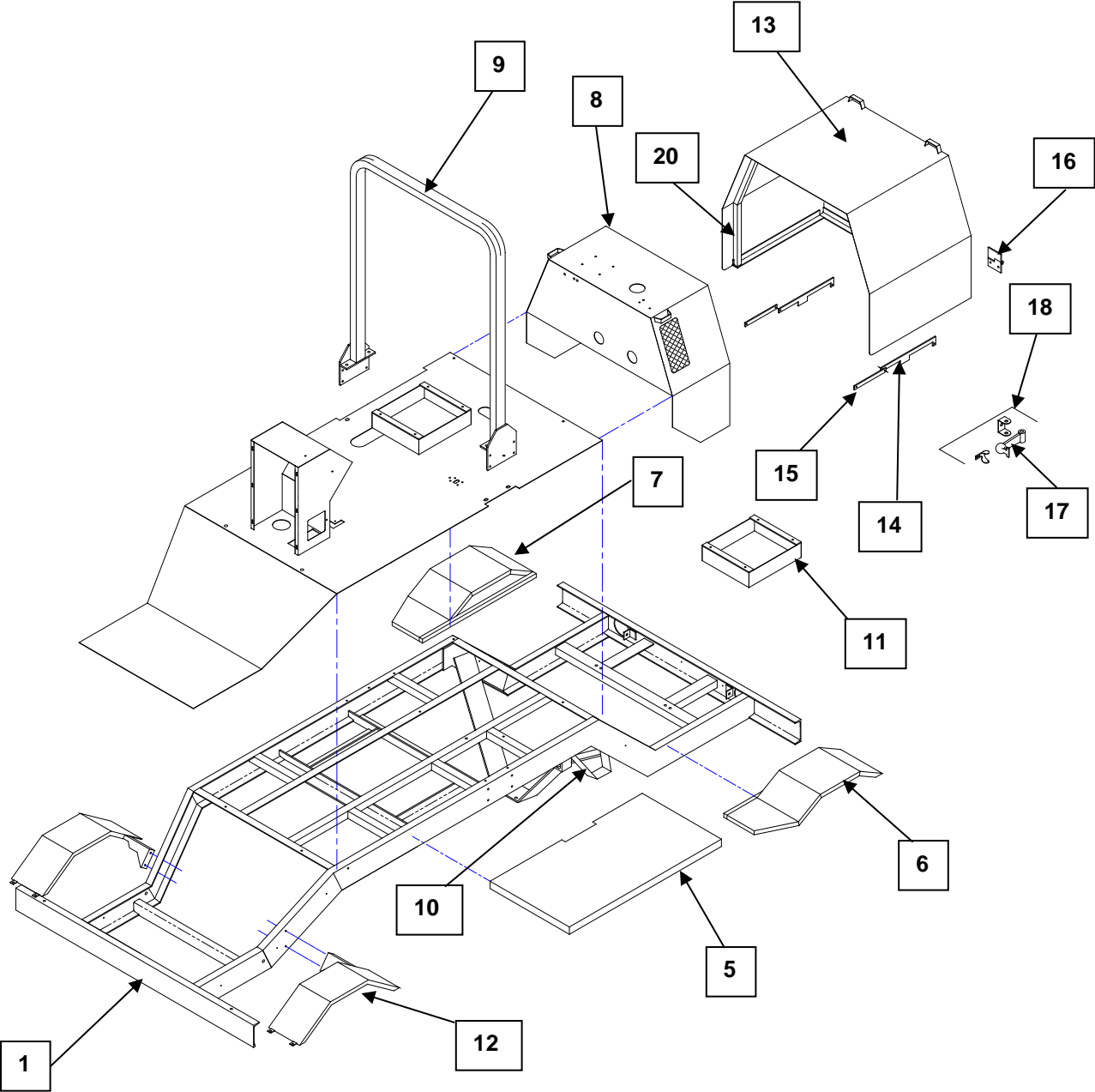
ENGINES AND RELATED PARTS

RCT-350 EXPORT Engine	102-109
RJT-350 Tier 4 Final (US) John Deere Engine	110-115
RCT-350 Tier 4 Final (US) Cummins Engine	116-123
KR-350 Engine Tier 4i	124-125
CR-350 (Tier 3)	126-127
RPT-350 Tier 4 Final (US) Perkins Engine	128-133

[MAINTENANCE, SPECIFICATIONS AND SCHEMATICS](#)

134+

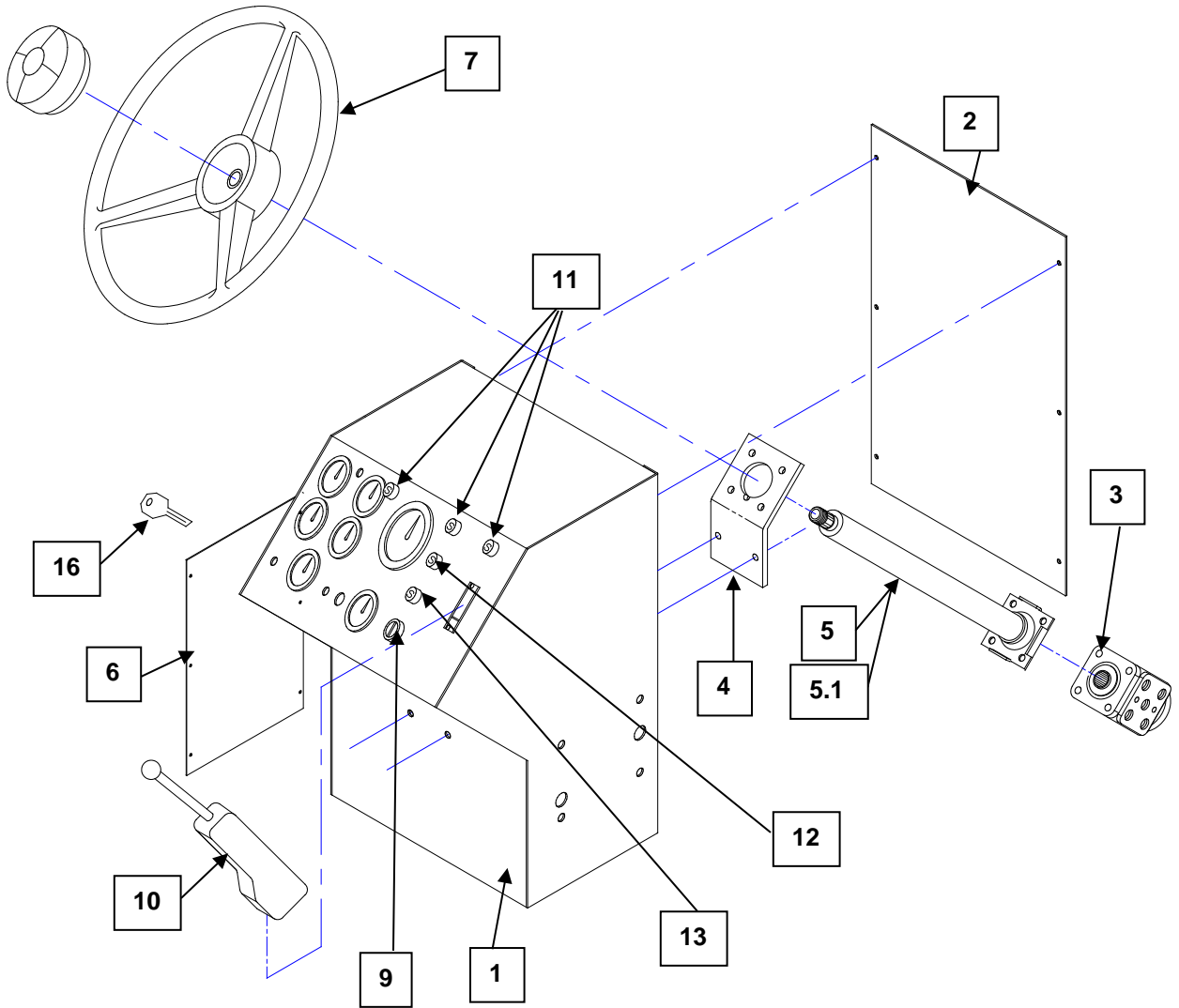
MAIN FRAME COMPONENT PARTS



MAIN FRAME COMPONENT PARTS

Reference	Part No.	Description	Qty.
1	Call to Configure	Main Frame w/ Decking	1
5	850070	Deck Platform Step (Expanded Metal)	1
6	850073	Rear Fender, LH	1
7	850072	Rear Fender, RH	1
8	852049-C	Fire Wall	1
9	See Roll Over Protection	Roll Bar (2 Post)	1
10	F-202	Frame Step	1
11	203138	Seat Support Base (Non-suspension)	1
12	F-826	Front Fenders (pair)	1
13	VF-208-C	Hood Assembly	1
14	203274	Hood Support Linkage	1
15	001687	Hood Support Linkage	1
16	VF-317-B	Hinge, (Set of 2)	1
17	VF-803-R	Hood Catch (Rubber Strap only)	2
18	VF-319-RA	Catch Assembly (Complete)	2
19	F-811-R	Rock Guard	1
20	304009	Rubber Hood Molding	1

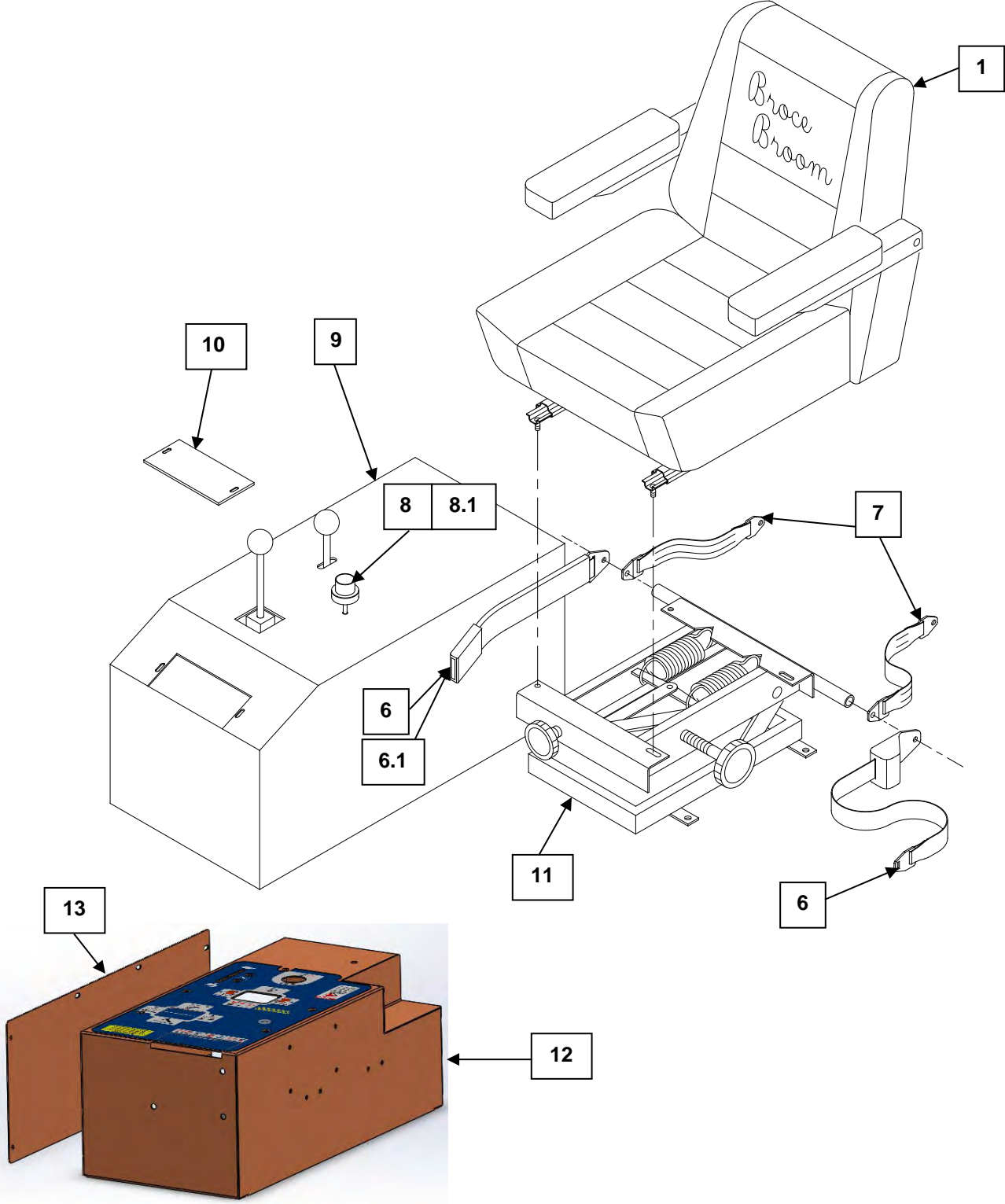
INSTRUMENT PANEL AND COMPONENTS



INSTRUMENT PANEL AND COMPONENTS

Reference	Part No.	Description	Qty.
1	850069	Dash Housing	1
2	203285	Dash Back Cover	1
3	See Hydraulic Section	Power Steering Unit	1
4	SM-249-D	Power Steering Unit Mount	1
5	305945	Steering Column	1
5.1	305950	Tilt Steering Column (No Conversion)	1
6	205169	Access Cover	1
7	S-253-R	Steering Wheel/Horn Assembly	1
9	See Electrical Section	Ignition Switch	1
10	HS-230-A	Shifter Assembly (2 Speed)	1
10.1	HS-231-A	Shifter Cable (Not Shown)	1
11	See Electrical Section	Universal Accessory Switch	3
	See Electrical Section	Lighted Rocker Switch (Not Shown)	1
12	See Electrical Section	Wiper Switch	1
13	See Heater/Defroster	Heater Switch (2 Speed)	1
16	See Electrical Section	Spare Key (pair)	1

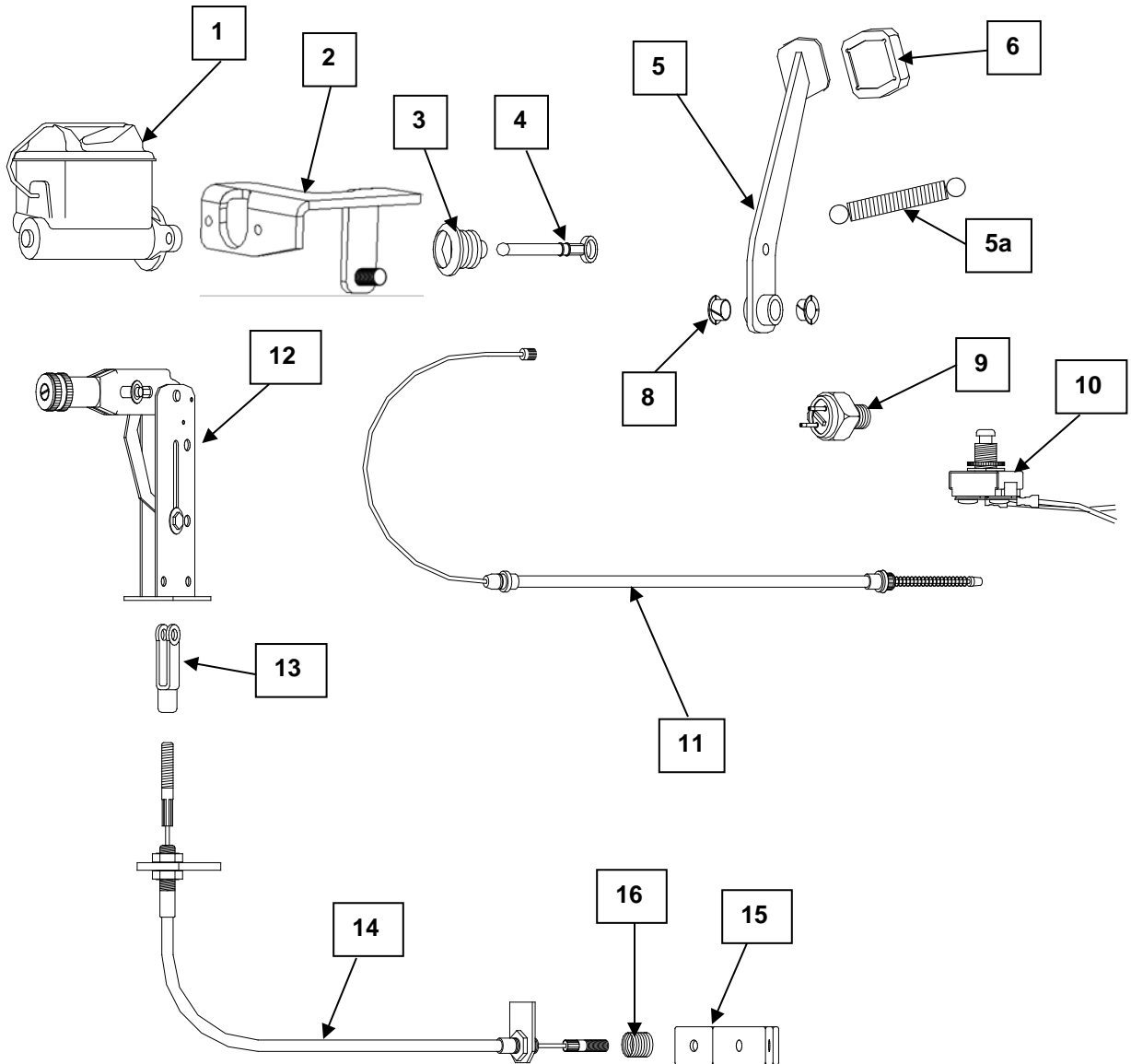
SEAT AND THROTTLE/CONTROLS CONSOLE



SEAT AND THROTTLE/CONTROLS CONSOLE

Ref	Part No.	Description	Qty.
1	BS-1050	Seat Assembly	1
6	C-211	Retractable Seat Belt (shown)	1
6.1	C-211-SH	with Shoulder Harness (not shown)	1
7	C-211-RT	Tether Strap Set (for use w/ Suspension Seat)	1
8	T-213-R	Throttle Cable, Manual (Tier 4i and earlier)	1
8.1	309456	Throttle Cable, Manual (Cat Engine Tier 3 and earlier)	1
9	203436	Hydraulic Control Cabinet (Tier 4i and earlier)	1
9.1	203181	Control Box Cover Panel (Tier 4i and earlier)	1
10	203183	Valve Box Cover (Tier 4i and earlier)	1
11	BS-1054	Seat Suspension Assembly	1
12	850352	Hydraulic Control Cabinet (Tier 4 Final)	1
13	203358	Hydraulic Control Cabinet Access Panel (Tier 4 Final)	1

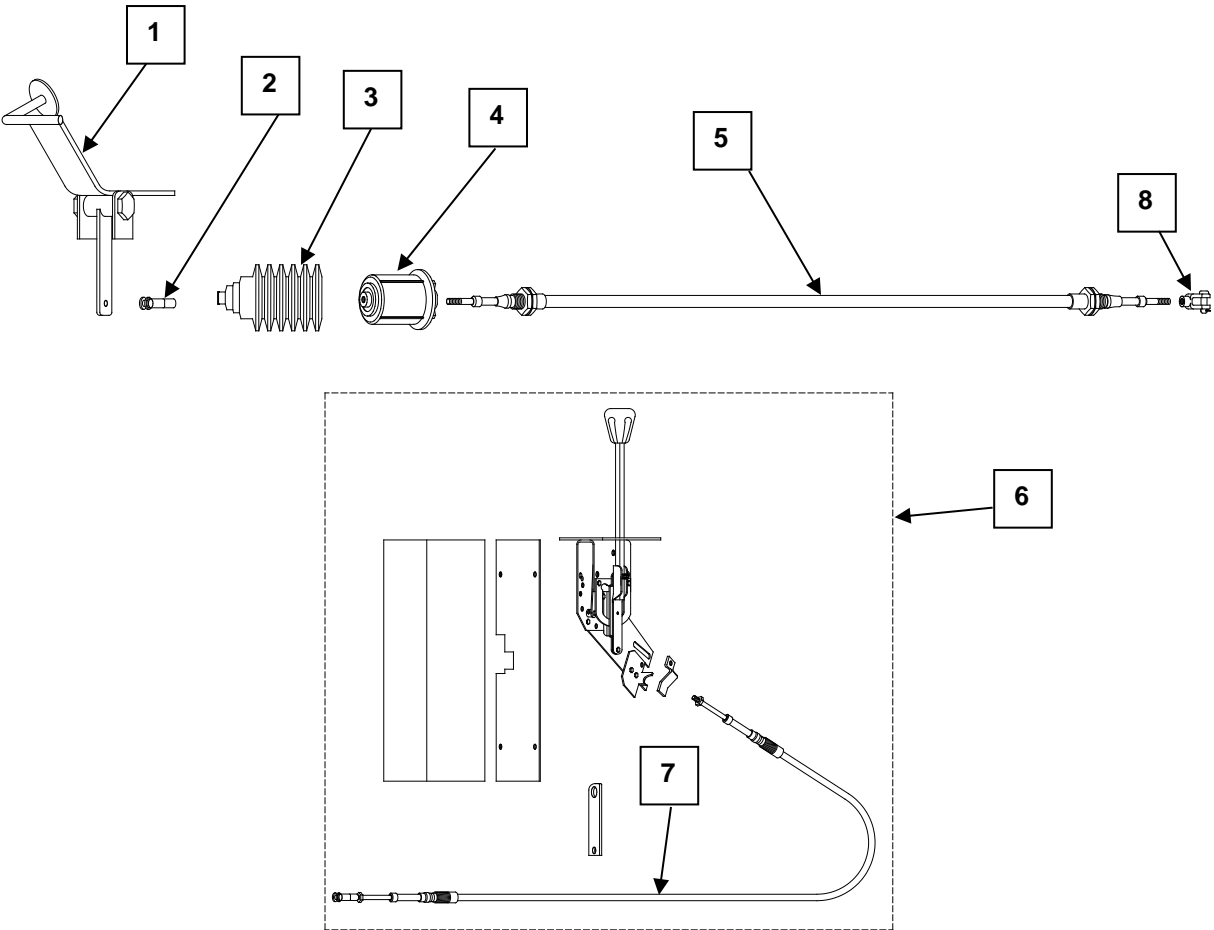
BRAKE CONTROL ASSEMBLIES



BRAKE CONTROL ASSEMBLIES

Reference	Part No.	Description	Qty.
1	B-240-B	Dual Master Cylinder	1
2	203433	Master Cylinder and Pedal Mount	1
3	B-284	Rubber Boot	1
4	K00001	Push Rod (with Clevis and Pin)	1
5	B-238-R	Brake Pedal	1
5a	344106	Brake Pedal Return Spring	1
6	B-241-R	Brake Pedal Pad	1
8	2461	Pedal Bushing	2
9	BLS-15	Brake Light Switch	1
10	307098	Parking Brake Switch	1
11	PB-237	Parking Brake Cable	2
12	PB-233-C	Brake Lever Assembly	1
13	B-27084A	Clevis (3/8" Fine Thread)	1
14	PB-235-C	Primary Parking Brake Cable	1
15	202091	Parking Brake Adjuster	1
16	344105	Tension Spring	1
Not Shown	F97935	Master Cylinder Repair Kit	1

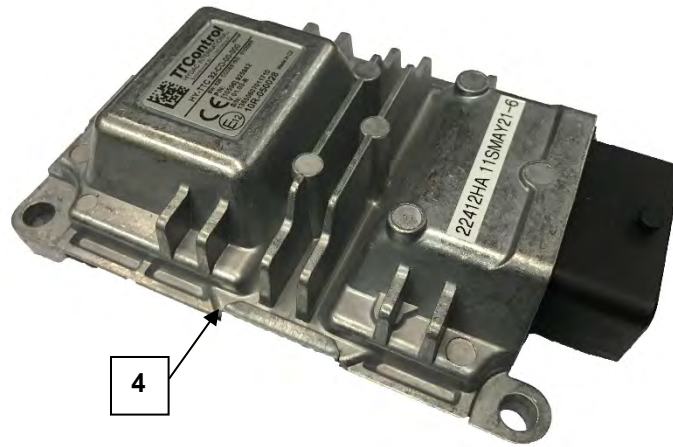
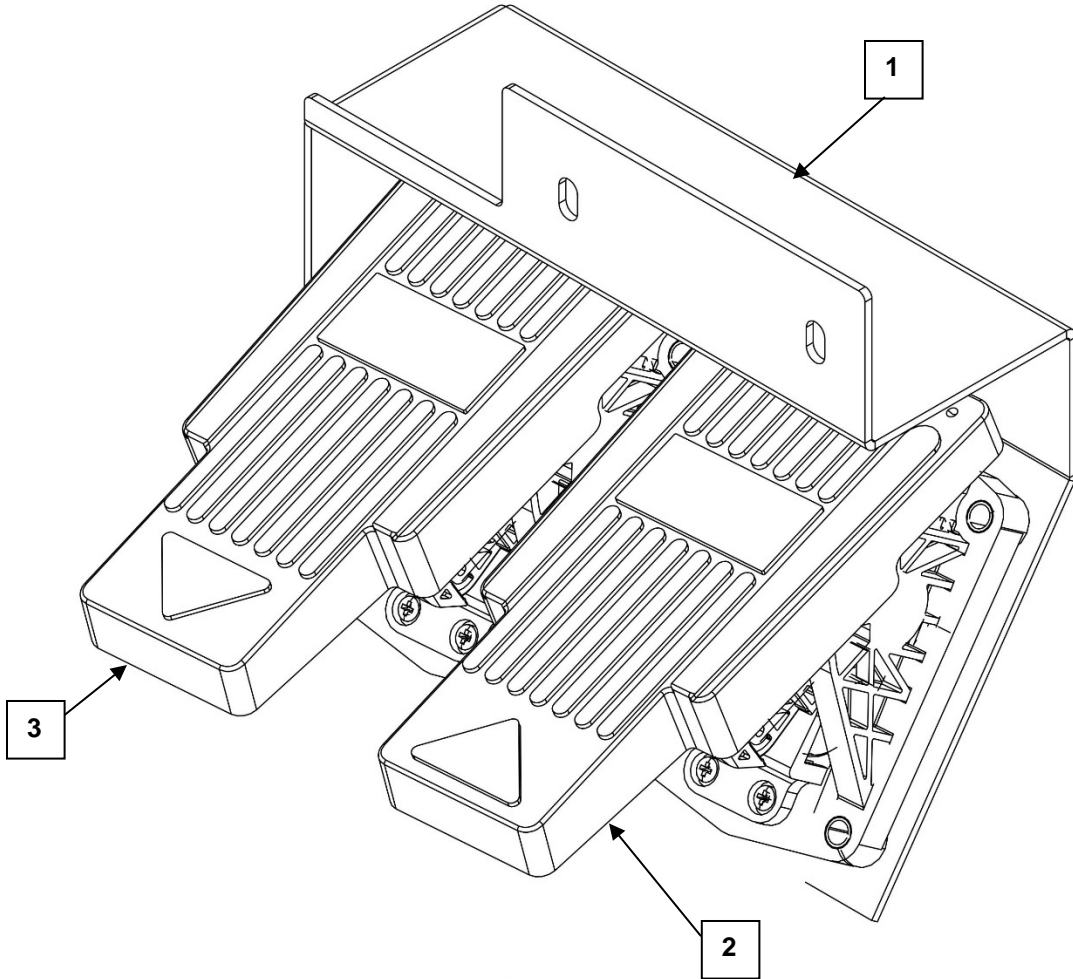
HYDROSTATIC CONTROL ASSEMBLIES



HYDROSTATIC CONTROL ASSEMBLIES

Ref	Part No.	Description	Qty
1	001625	Control Pedal Assembly	1
2	B-27082A	1/4" Clevis (Note: Control Cable)	1
2.1	HC-229-B	1/4" Clevis Pin	1
3	HC-228-B	Hydro-Back Boot	1
4	HC-228-HB	Hydro-Back Device	1
5	HC-228-E	Hydro-Back Cable	1
6	HC-226-HA	Hand Control Kit (Converts Foot Control to Hand Control)	1
7	HC-228-OH	Hand Control Cable	1
8	309466	Heim End	1

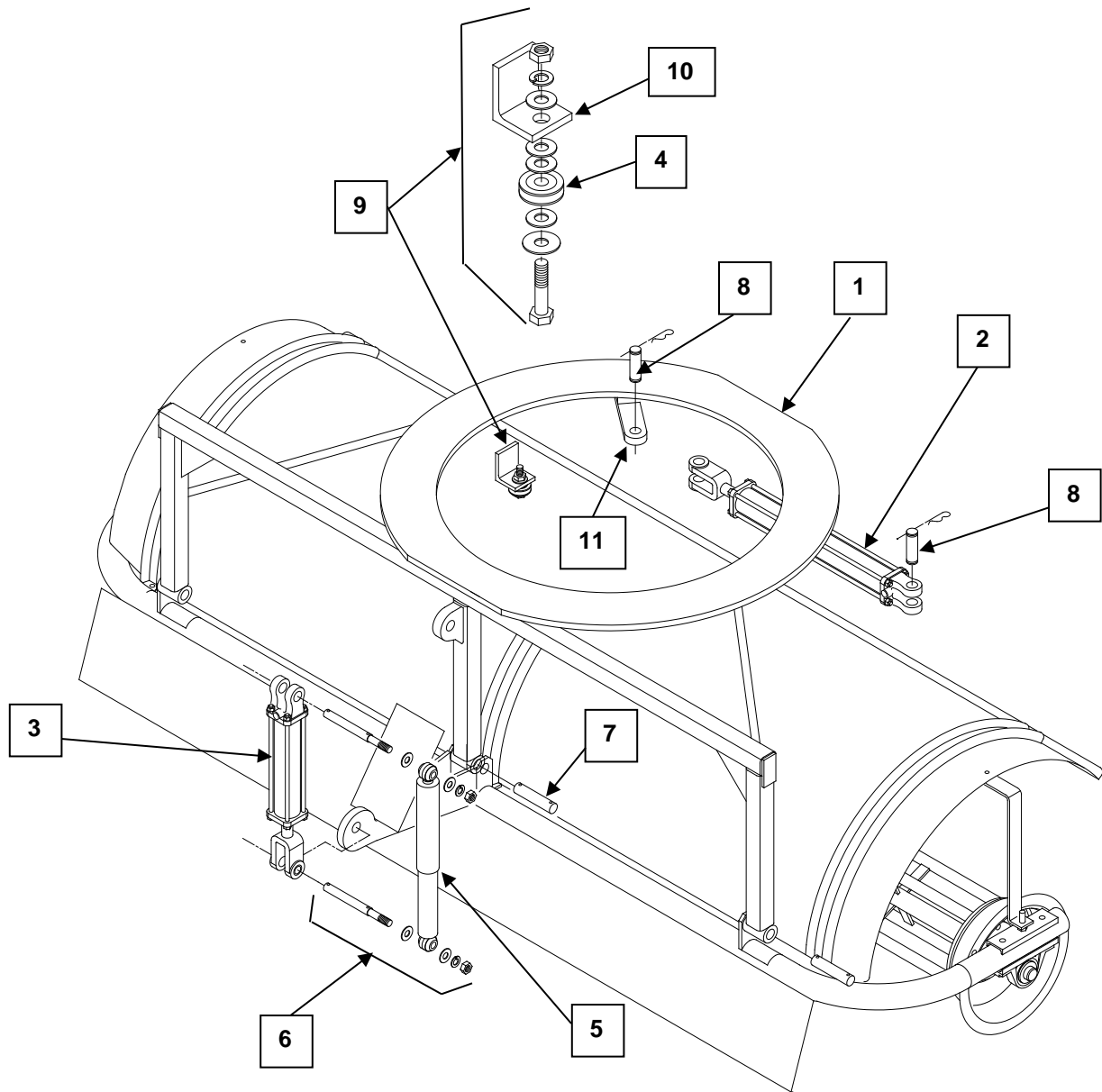
BIPEDAL CONTROL ASSEMBLIES



BIPEDAL CONTROL ASSEMBLIES

Ref	Part No.	Description	Qty
1	203322	Electric Pedal Mount	1
2	202303F	Forward Pedal Type 965	1
3	202303R	Reverse Pedal Type 965	1
4	344274	Controller Dual Pedal TTC32	1
Not Shown	752414	Harness Deal Pedal	1
Not Shown	203474	Hydrostat Pedal Deck Cover	1

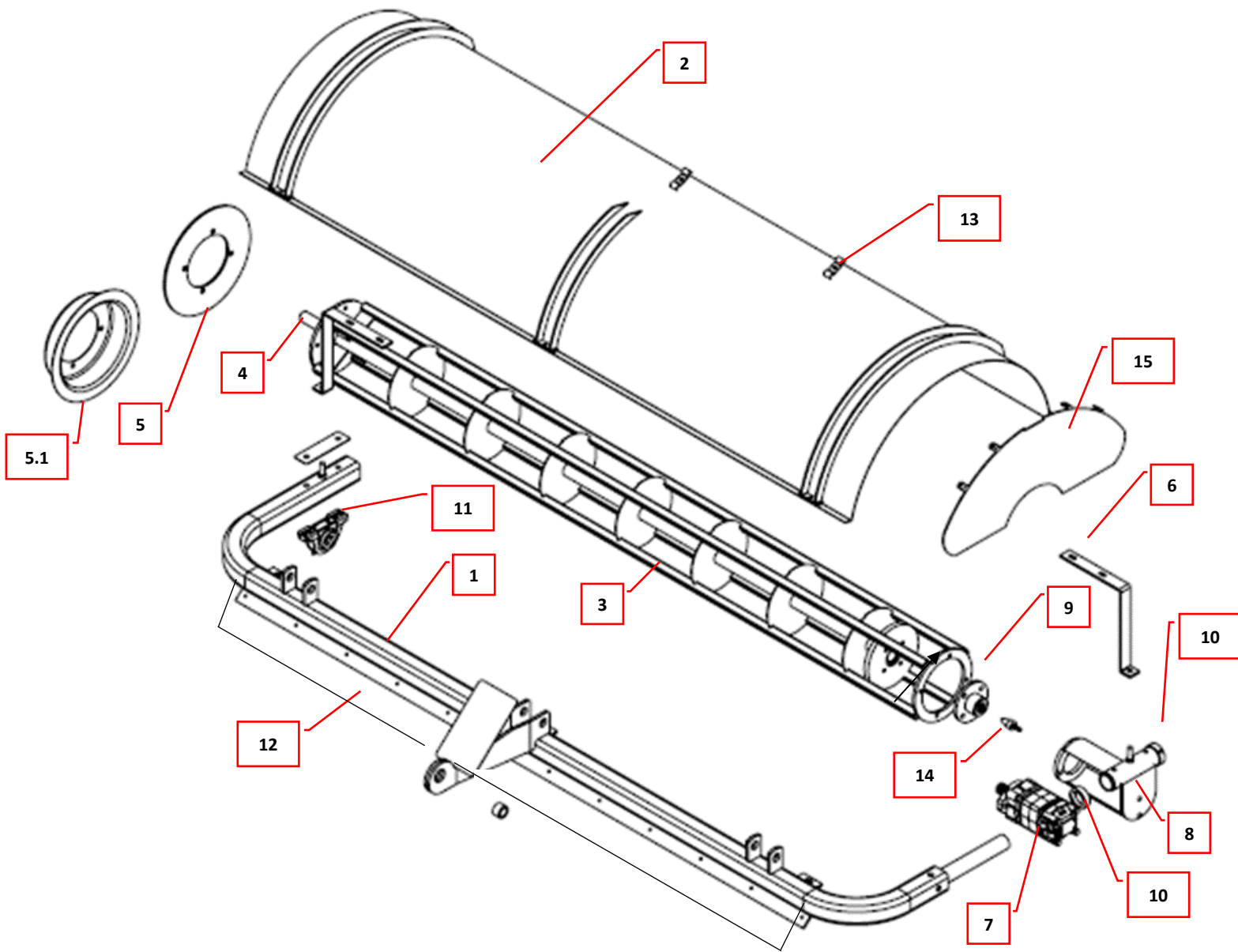
CIRCLE FRAME & COMPONENTS



CIRCLE FRAME & COMPONENTS

Ref	Part No.	Description	Qty.
1	C-102	Circle Frame	1
1a	C-102A	Circle Frame w/Curb Broom Mount Bracket	1
2	See Hydraulic Section	Shift Cylinder	1
3	See Hydraulic Section	Lift Cylinder	1
4	B-103	Circle Bearing	9
5	D-20-R	Shock Absorber	1
6	D-21-R	Shock Pin	2
7	C-109	Hinge Pin	3
8	RC-19	Cylinder Pin	2
9	B-105	Bearing Bracket Assembly (qty as required)	-
10	201940	Bearing Bracket	5
11	850006	Circle Cylinder Lug	1

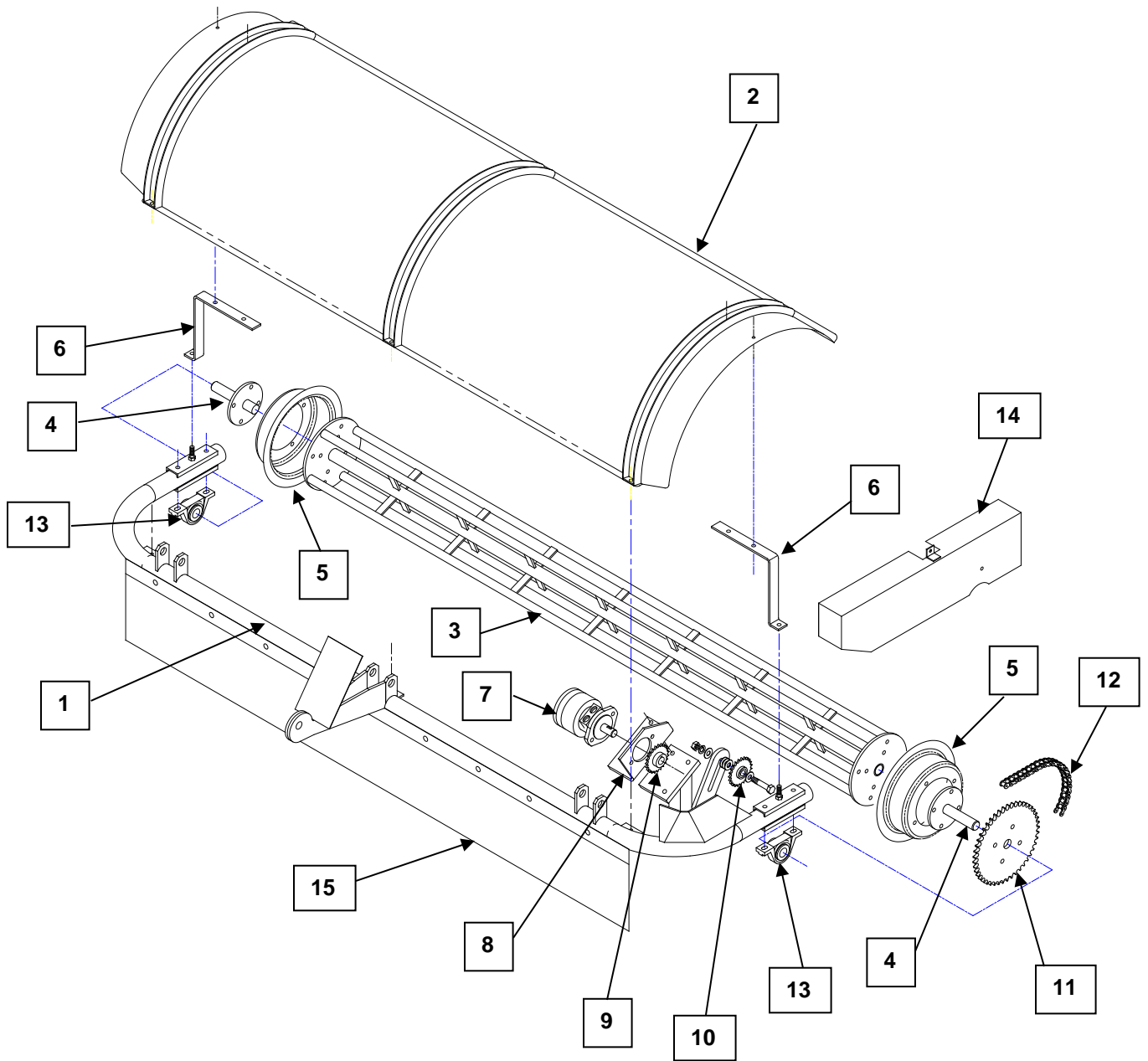
DIRECT DRIVE CORE ASSEMBLY



DIRECT DRIVE CORE ASSEMBLY

Ref	Part No.	Description	Qty
1	C-108-SPC	Core Support	1
2	D-12-8	Core Cover	1
3	D-15-SPCA	Core w/ Flat End Caps, Spindle & Splined Hub	1
3.1	D-15-SPC	Core w/ Formed End Caps, Spindle & Splined Hub	1
4	D-17	Spindle	1
5	203010	End Cap (Flat)	2
5.1	202144	End Cap (Formed – Bell)	2
6	202145	Support Bracket	2
7	305943	Hydraulic Motor (Core)	1
8	MR-16-SPC	Hydraulic Motor Mount (Core)	1
9	DD-257-R	Splined Hub	1
10	MR-16-LR	Lock Ring	2
11	D-13	Pillow Block Bearing	1
12	304129	Core Rock Guard	1
13	001397	Double Hose Clamp	2
14	K00041	Rod Guide Cone	1
15	203167	Core Cover End Plate	2
Not Shown	852460	Heavy-Duty Core (core only)	1

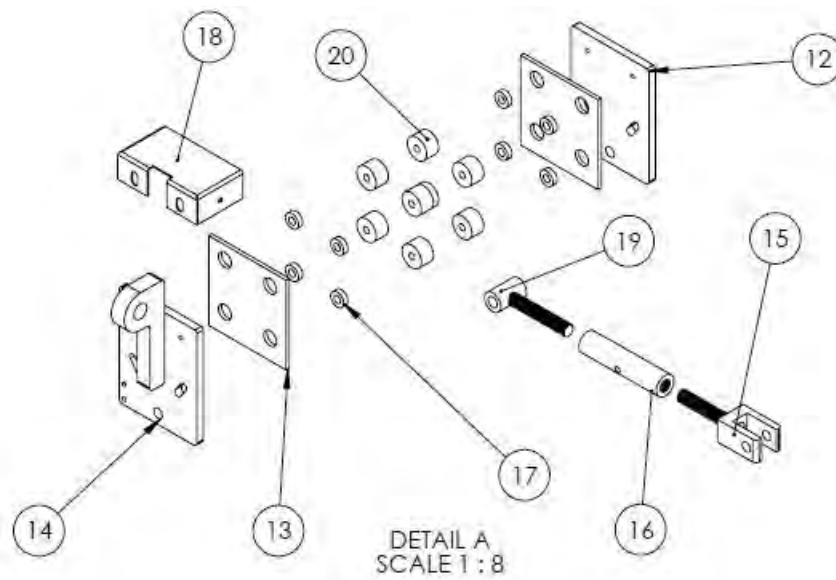
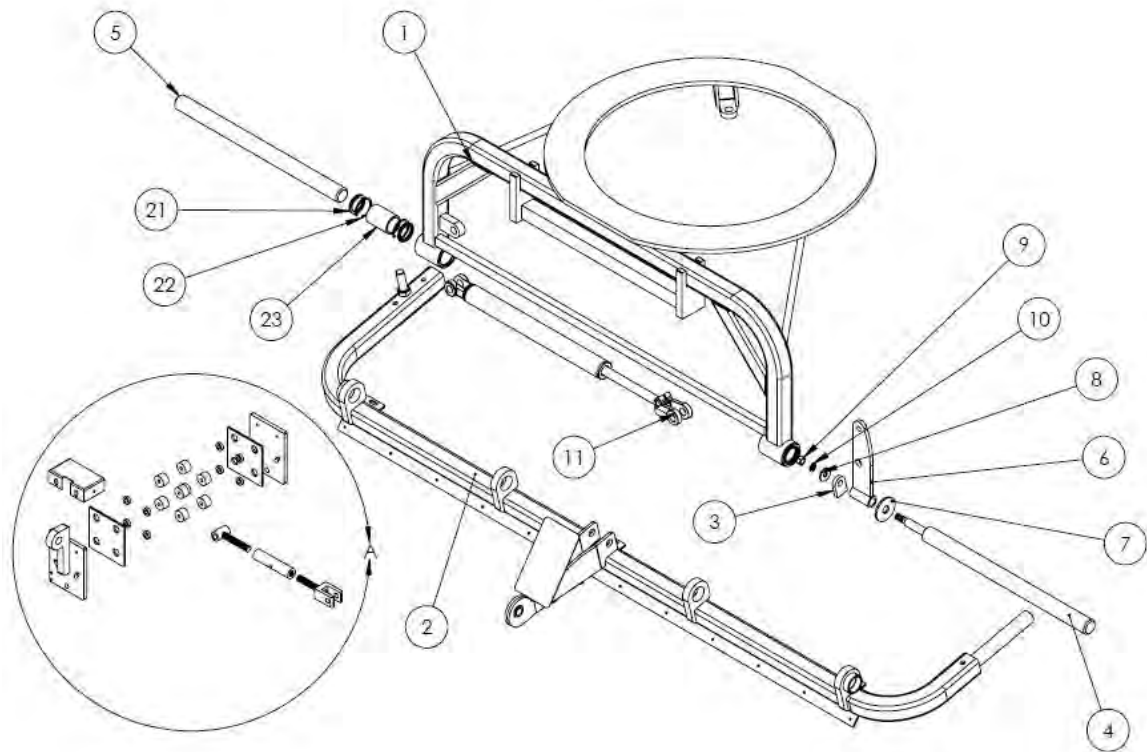
CHAIN DRIVE CORE ASSEMBLY



CHAIN DRIVE CORE ASSEMBLY

Reference	Part No.	Description	Qty.
1	C-108-R	Core Support	1
2	D-12-8	Core Cover	1
3	D-15-8	Core	1
4	D-17	Spindle	2
5	202144	End Cap	2
6	202145	Support Bracket	2
7	MAB-16-B	Hydraulic Motor (Core)	1
8	MR-16-AR	Hydraulic Motor Mount (Core)	1
9	C-111	Sprocket (Drive)	1
10	C-109-AR	Sprocket (Idler)	1
11	C-110	Sprocket (Driven)	1
12	D-14-R	Roller Chain	1
13	D-13	Pillow Block Bearing	2
14	001692	Chain Guard	1
15	304129	Core Rock Guard	1

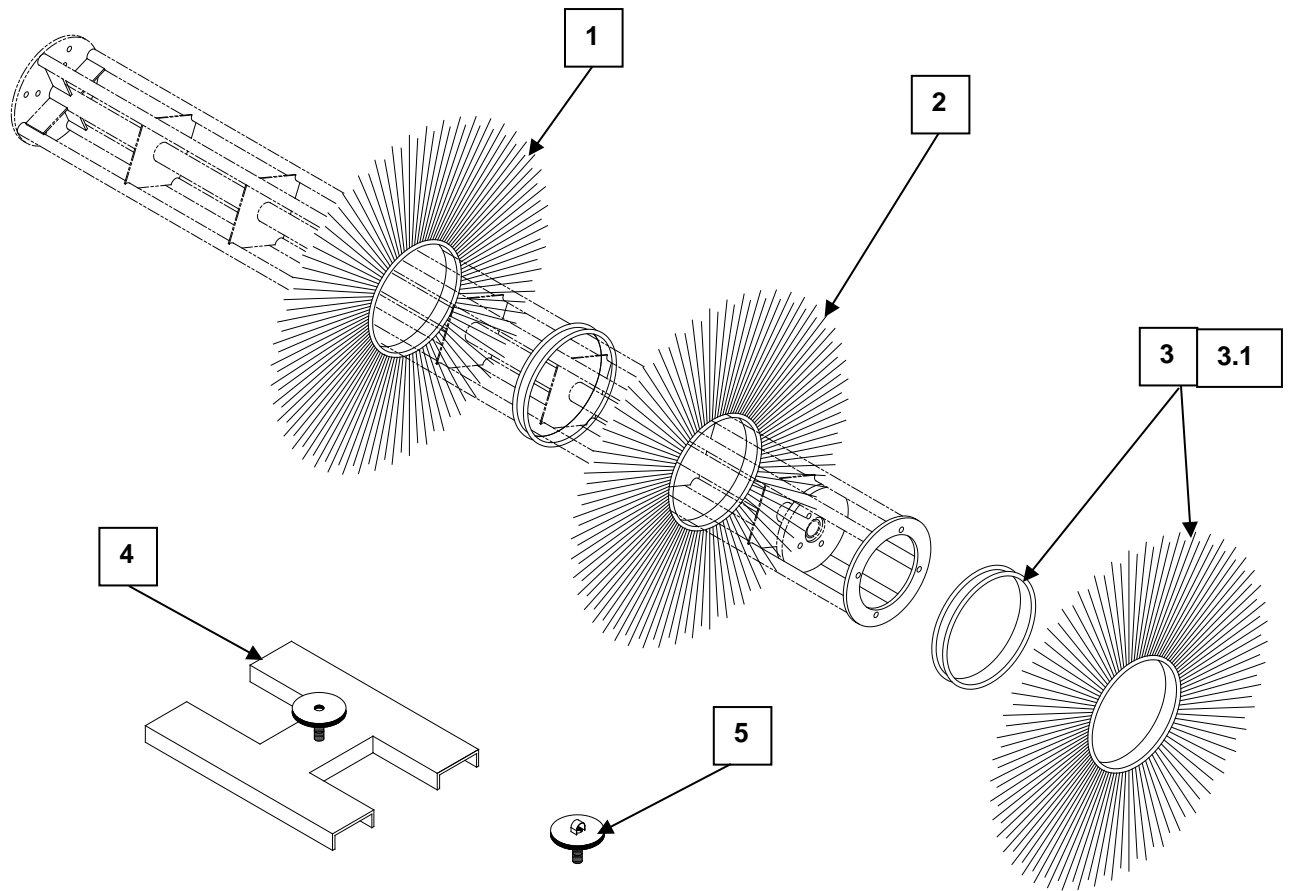
SIDE-SHIFT CORE ASSEMBLY



SIDE-SHIFT CORE ASSEMBLY

Reference	Part No.	Description	Qty.
1	850705	SIDE SHIFT HANGER	1
2	850706	SIDESHIFT C FRAME WA	1
3	203734	SIDESHIFT PIVOT BUSHING MOUNT	1
4	203705	SIDESHIFT LOWER SHAFT RIGHT	1
5	203706	SIDESHIFT LOWER SHAFT LEFT	1
6	850710	SIDESHIFT CYLINDER LUG WA	1
7	400142H	SIDESHIFT LUG WASHER	1
8	400177	5/8" FLAT WASHER USS	1
9	94895A035	HEX NUT 5/8-11 #8YZ	1
10	91104A035	LOCK WASHER 5/8 YZ HIGH ALLOY	1
11	220	SIDESHIFT CYLINDER	1
12	203729	BEARING CARRIER PLATE	1
13	203722	SIDESHIFT WEAR PLATE	2
14	850708	SIDESHIFT LIFT CYLINDER LUG WA	1
15	850725	THREAD CLEVIS SIDE SHIFT	1
16	203719	SIDESHIFT ADJUSTING ROD	1
17	203711	BEARING SPACER	8
18	203740	SIDESHIFT ROCK GUARD	1
19	850736	THREAD EYE SIDE SHIFT	1
20	320200	SIDESHIFT CARRIGE BEARING	8
21	203709	SEAL WIPER	4
22	203708	SNAP RING INTERNAL	4
23	203700	BEARING GARMAX	2

BROOM CORE WAFER & SPACERS

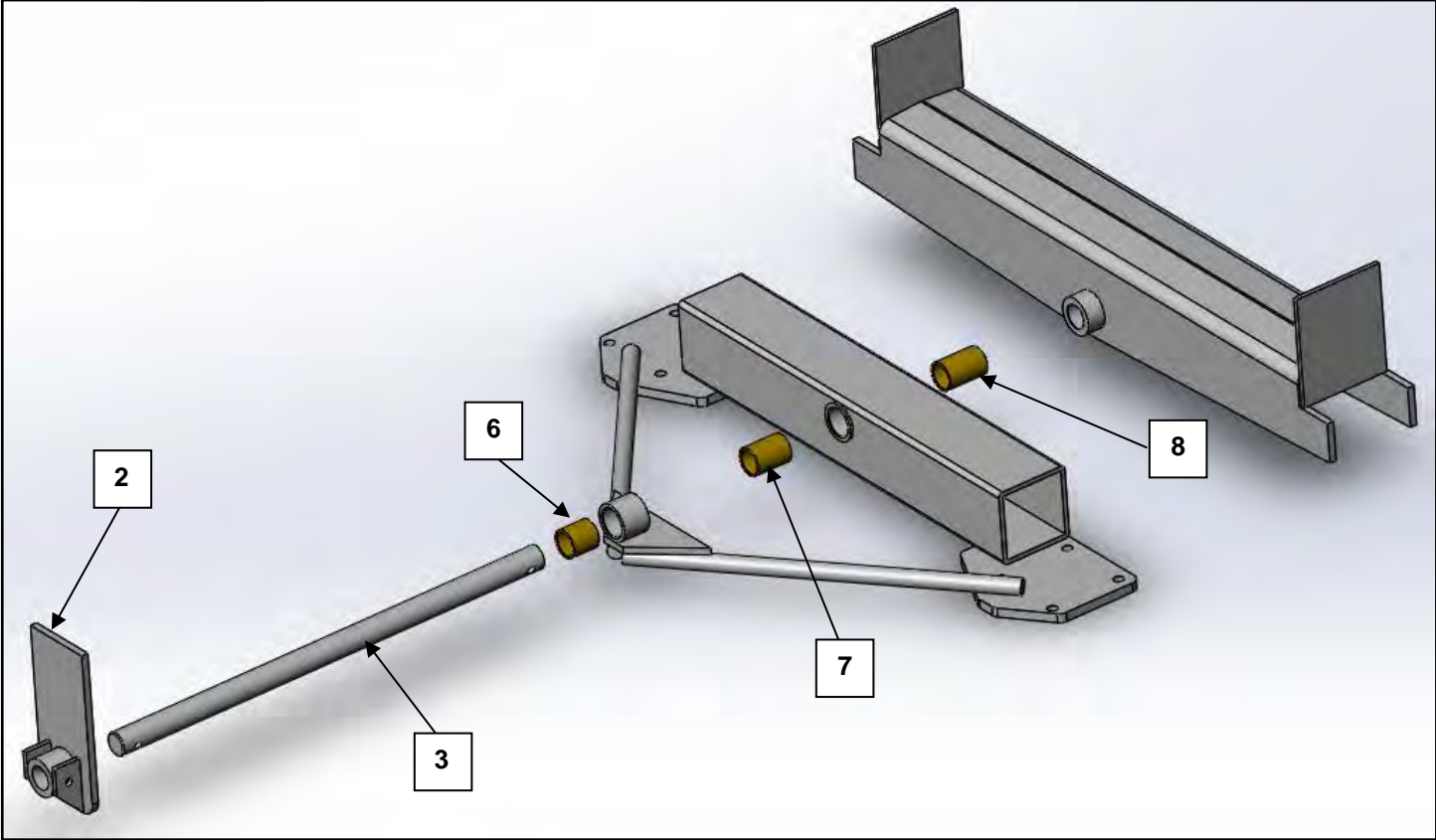


BROOM CORE WAFER & SPACERS

Reference	Part No.	Description	Qty.
1	RW-503	10" x 32" Poly Wafer	1
2	RW-504	10" x 32" Wire Wafer	1
3	RW-500	8' Set, Poly Wafers w/Spacers	1
3.1	RW-502	8' Set, ½ Poly, ½ Wire w/Spacers	1
4	CS-01	Core Service Stand	1
5	CS-02	Core Service Ring	1
Not Shown	304290	Tube Brush Poly Brush	1
	304289	Tube Brush ½ Poly, ½ Wire Brush	1

BOLSTER ASSEMBLY

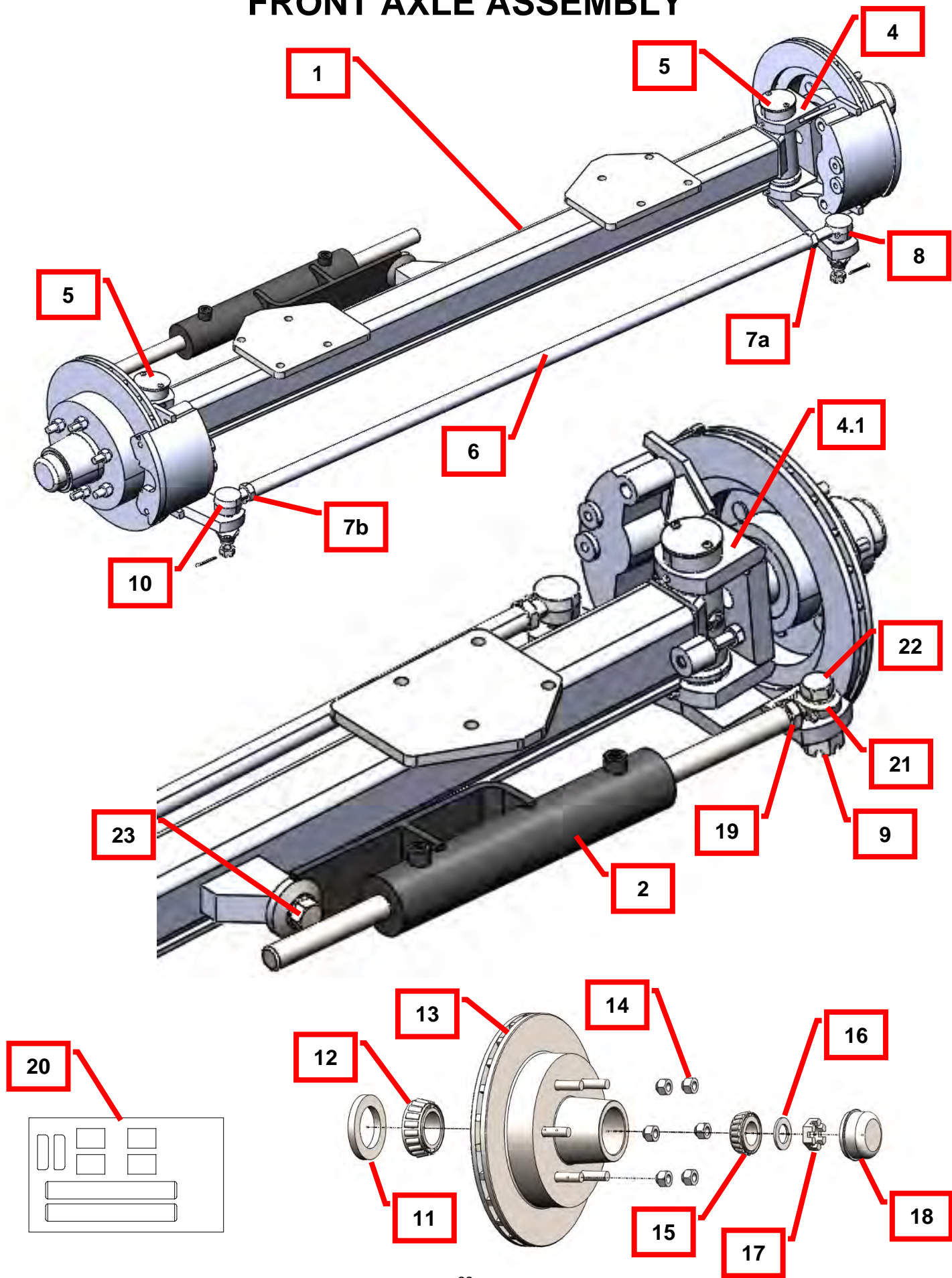
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BOLSTER ASSEMBLY

Reference	Part No.	Description	Qty.
1	752002	Bolster Assembly, Complete	1
2	852001	Bolster Brace	1
3	203002	Bolster Pin	1
6	309507	Oil Light Bushing (1 1/4" x 1 1/2" x 1 1/2")	1
7	309505	Oil Light Bushing (1 1/4" x 1 1/2" x 2")	1
8	309506	Oil Light Bushing (1 1/4" x 1 1/2" x 2 1/4")	1

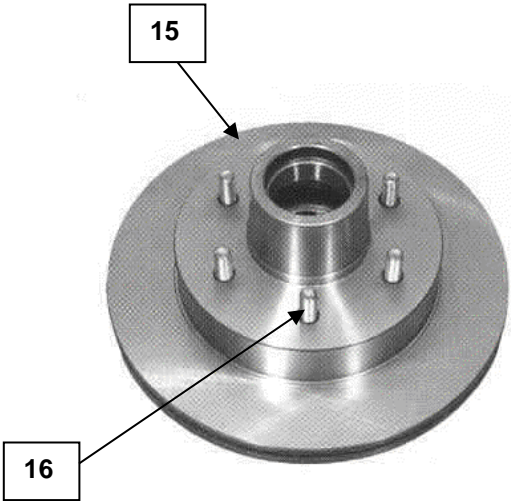
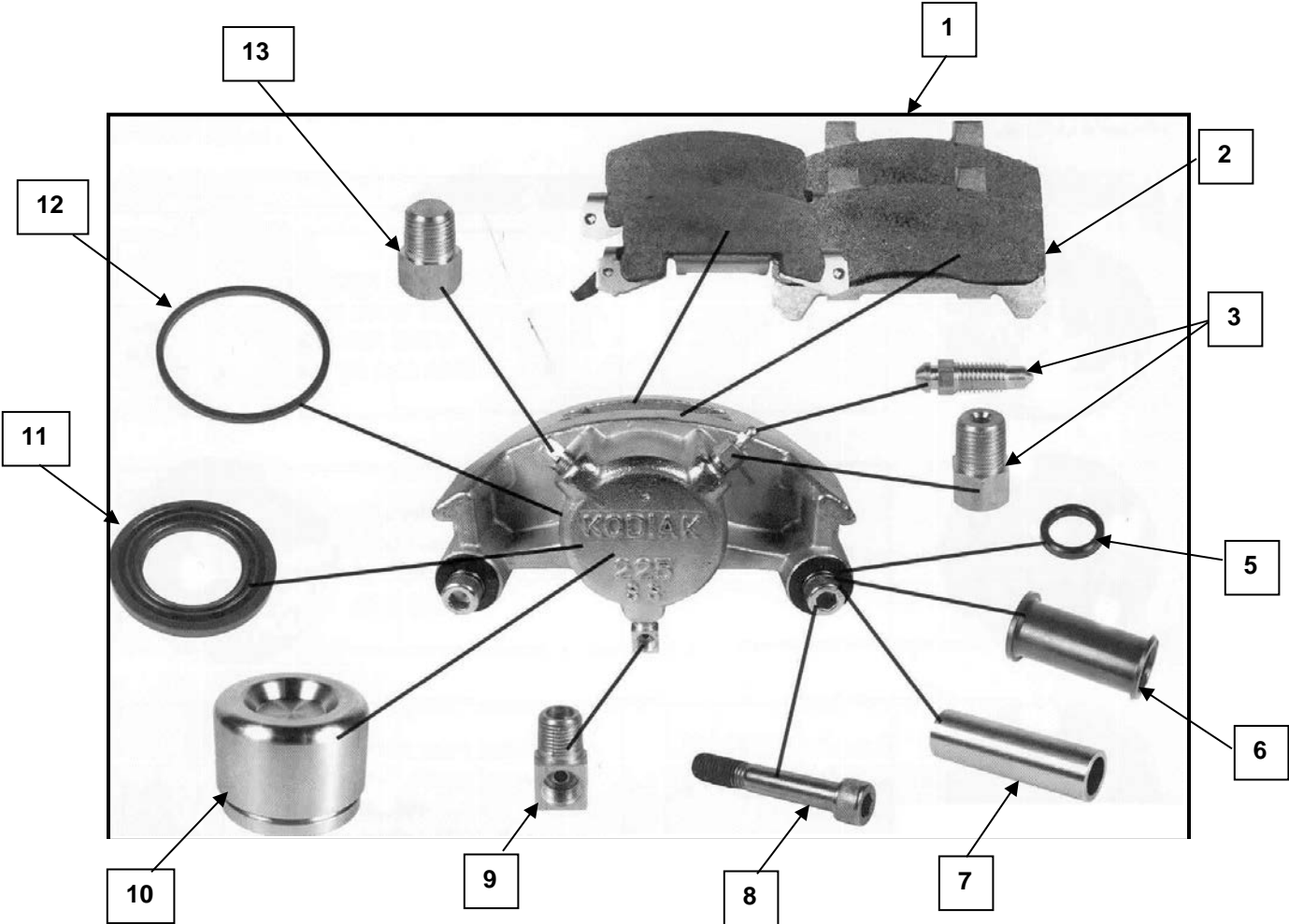
FRONT AXLE ASSEMBLY



FRONT AXLE ASSEMBLY

Ref	Part No.	Description	Qty
1	FA-258-C	Front Axle Assembly (does not include steering cylinder)	1
2	203526	Steering Cylinder Assembly	1
4	403092	Knuckle w/Spindle, RH	1
4.1	403091	Knuckle w/ Spindle, LH	1
5	203512	King Pin Cap	2
6	403093	Tie Rod Tube	1
7a	BF4470	Jam Nut, RH Thread	1
7b	BF4471	Jam Nut, LH Thread	1
8	BF4465R	Tie Rod End, LH Thread	1
9	203523	Lock Nut	1
10	BF4465L	Tie Rod End, RH Thread	1
11	BF4460	Seal	2
12	BF4461X	Inner Bearing Kit (w/Race)	2
13	203544	Hub Assembly, (6 Lug x 5 1/2)	2
14	69 957B	Lug Nut	12
15	752547	Outer Bearing Kit (w/Race)	2
16	BF4463	Washer	2
17	203549	Lock Nut	2
18	203550	Hub Cap	2
19	BF4470	Jam Nut, RH Thread	1
20	BF4455	King Pin Kit	1
21	203520	Steering Cylinder Heim End	1
22	203522	Bolt, Steering Cylinder to Steering Arm	1
23	203525	Bolt, Steering Cylinder to Axle Beam	1
Not Shown	203553	Steering Cylinder Seal Kit	1
Not Shown	304039	Wheel – 6 Lug	1

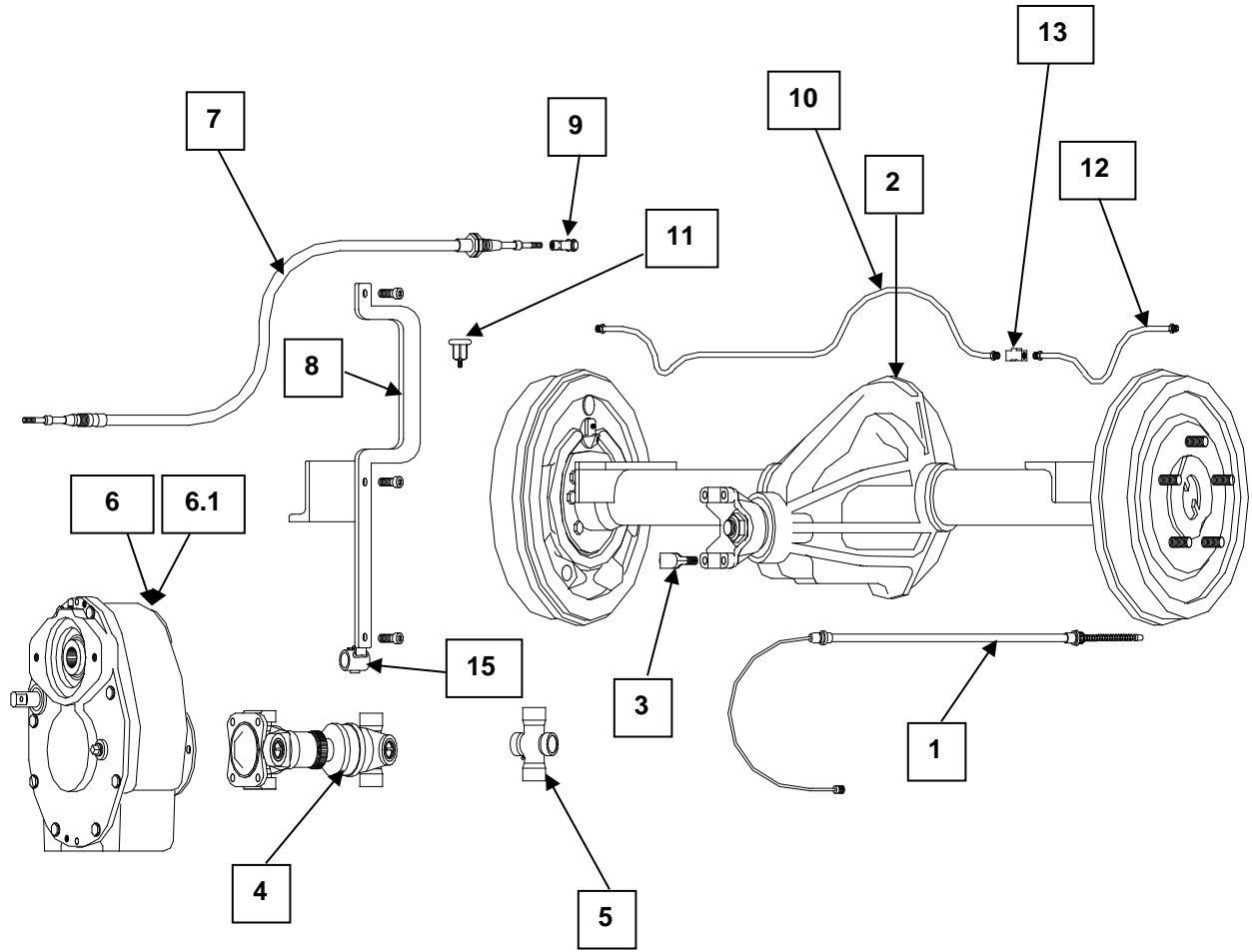
FRONT BRAKE ASSEMBLY



FRONT BRAKE ASSEMBLY

Reference	Part No.	Description	Qty.
1	203554	Complete Caliper Assembly w/ Pads	1
2	203530	Friction Pads (Organic)	1
3	203531	Brass Bleed Screw with Adapter	1
5	203533	Guide Bolt Sleeve O-ring	1
6	203534	Guide Bolt Rubber Sleeve	1
7	203535	Guide Bolt Stainless Steel Sleeve	1
8	203536	Guide Bolt (M11 x 1.5) w/ Thread Locker	1
9	203537	90° 1/8" NPT to 3/16" F.I.F.	1
10	203538	Caliper Piston 2 1/4" Stainless Steel	1
11	203539	Rubber Dust Boot	1
12	203540	Piston Rubber Seal	1
13	203541	1/8" NPT Brass Plug	1
15	203544	12" Integral Rotor w/ Hub (6 Lug x 5 1/2)	1
16	203555	Wheel Stud	6
Not Shown	FA-306-R	Brake Hose	2

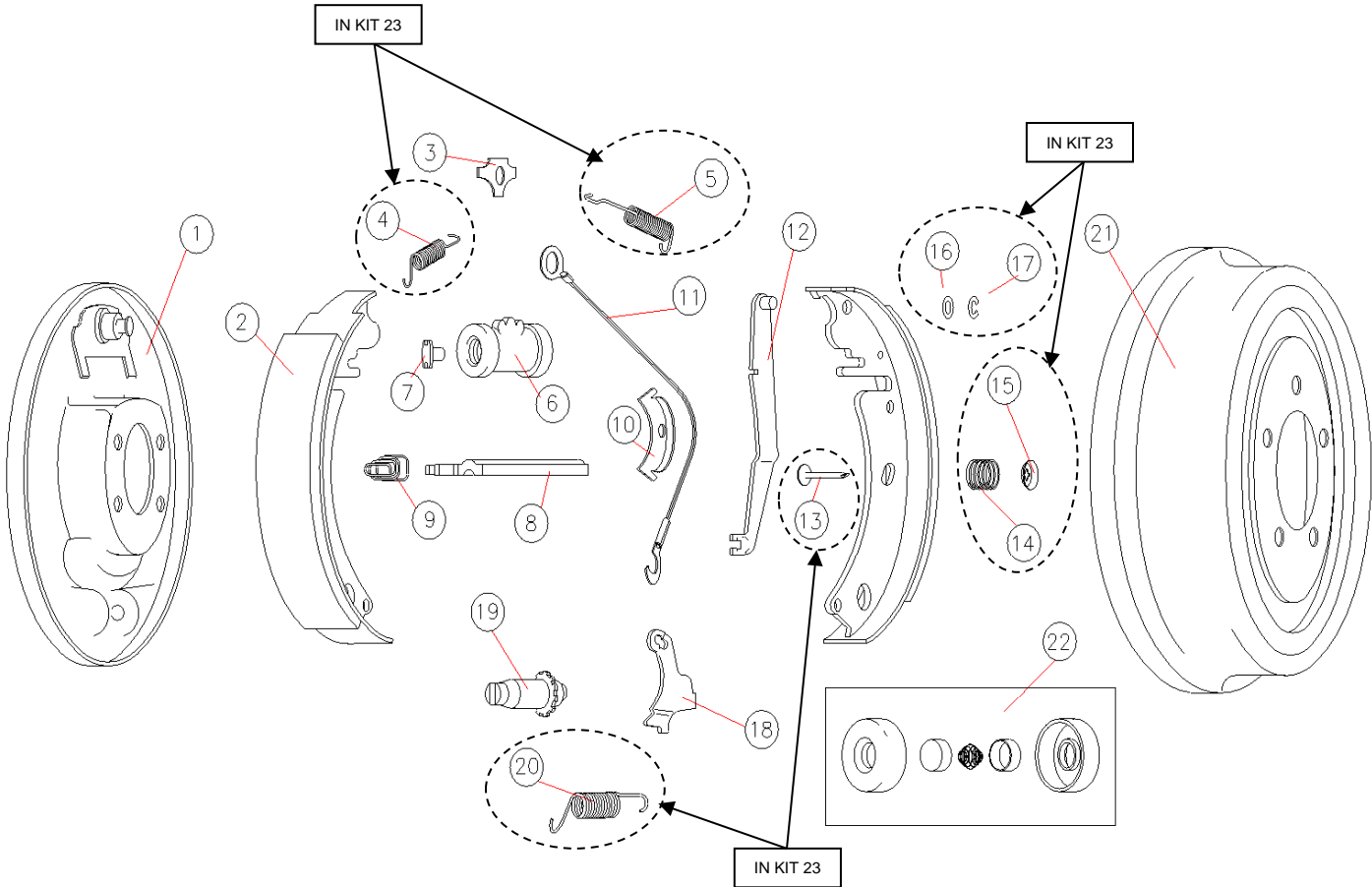
REAR AXLE & DRIVE ASSEMBLIES



REAR AXLE & DRIVE ASSEMBLIES

Reference	Part No.	Description	Qty.
1	PB-237	Parking Brake Cable	2
2	RA-293-S	Rear Axle Assembly Schafer (6 Lug)	1
3	309413	Cap U-Joint Dura-Axles	2
4	DS-299-C	Drive Line Assembly (Complete)	1
5	DS-298-R	Universal Joint Assembly	2
6	TS-302-C	2-Speed Gearbox	1
6.1	TS-302-CR	2-Speed Gearbox (Reman) – Call for Availability	1
7	HS-231-A	Shift Cable	1
8	203109	Hydraulic Shift Linkage	1
9	B-27083A	Clevis	1
9.1	HC-229-R	Pin for Clevis	1
10	BL-296-R	Brake Line Assembly	1
11	RA-294-R	Breather	1
12	BL-297-R	Brake Line Assembly	1
13	RA-295-C	Union Tee	1
15	850013	Shift Linkage Couple W/A	1

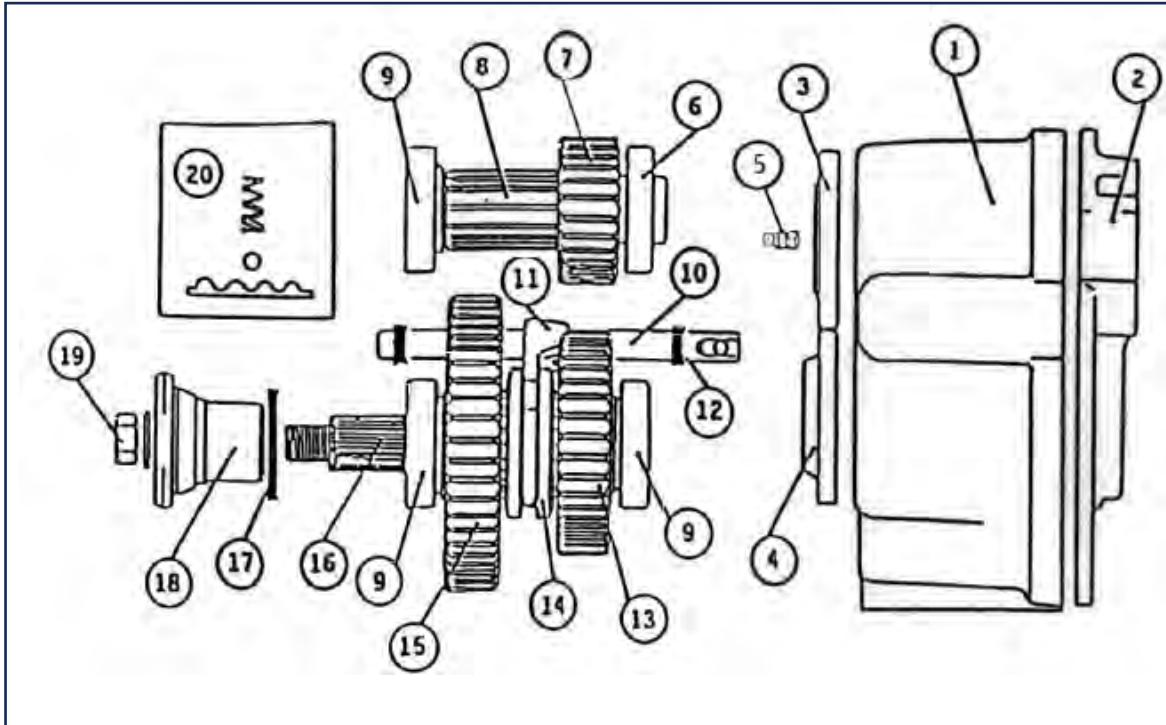
REAR BRAKE ASSEMBLY



REAR BRAKE ASSEMBLY

Reference	Part No.	Description	Qty.
1	4402AL	Backing Plate Assembly (Left)	1
1.1	4402AR	Backing Plate Assembly (Right)	1
2	4414A	Shoe Set (Set of 4)	1
3	4408A	Anchor	1
4	See Ref 23	Return Spring (Front)	1
5	See Ref 23	Return Spring (Rear)	1
6	4406L	Wheel Cylinder (Left)	1
6.1	4406R	Wheel Cylinder (Right)	1
7	4407A	Push Rod	2
8	4411A	Strut (Left)	1
8.1	4411AR	Strut (Right)	1
9	4410	Spring	1
10	4418	Guide	1
11	4415	Cable	1
12	4413AL	Parking Brake Lever (Left)	1
12.1	4413AR	Parking Brake Lever (Right)	1
13	See Ref 23	Pin, Shoe Hold Down	2
14	See Ref 23	Hold Down Spring	2
15	See Ref 23	Cup, Hold Down	2
16	See Ref 23	Spacer	1
17	See Ref 23	Retainer	1
18	4419L	Adjusting Lever, (Left)	1
18.1	4419R	Adjusting Lever, (Right)	1
19	4423L	Adjusting Screw Assembly, (Left)	1
19.1	4423R	Adjusting Screw Assembly, (Right)	1
20	See Ref 23	Spring	1
21	403082	Brake Drum (6 Lug)	1
22	4427	Wheel Cylinder Repair Kit	1
23	4409	Kit (Contains Ref 4, 5, 13, 14, 15, 16, 17, 20)	1
Not Shown	4400AL	Complete Assembly, (Left)	1
Not Shown	4400AR	Complete Assembly, (Right)	1

TWO-SPEED GEARBOX

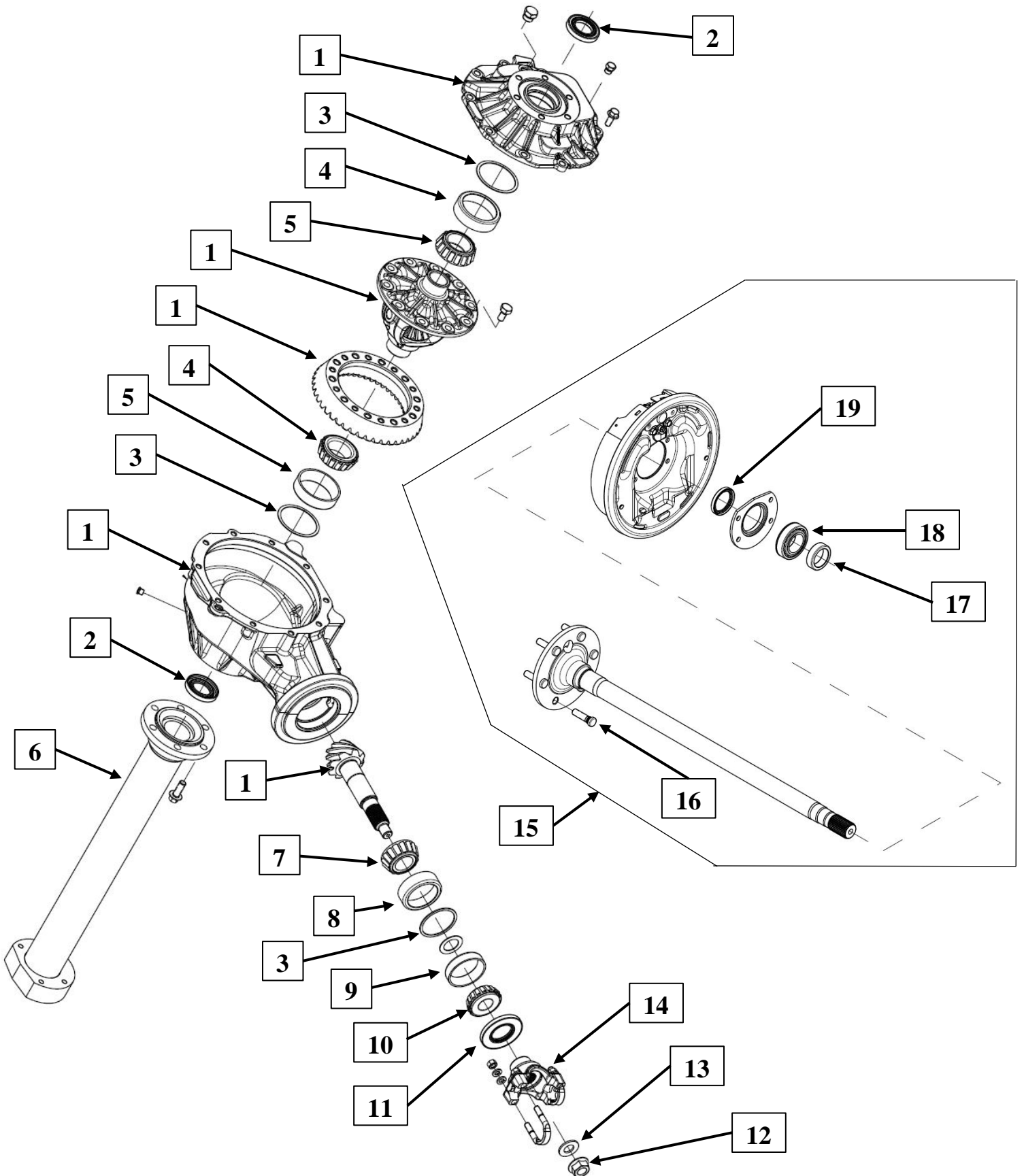


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TWO-SPEED GEARBOX

Reference	Part No.	Description	Qty.
0	TS-302-C	Two-Speed Gearbox (complete)	1
1	2S-11A	Main Housing	1
2	2S-12	Housing Cover	1
3	2S-13	Bearing Cap	1
4	2S-14	Bearing & Seal Cap	1
5	2S-15	Vent Plug	1
6	2S-16	Bearing Assembly	1
7	2S-17	Pinion Gear w/ Key	1
8	2S-18	Input Shaft	1
9	2S-19	Bearing Assembly	3
10	2S-20	Shift Rail	1
11	2S-21	Shift Fork	1
12	2S-22	Seal, Shift Rail	2
13	2S-23	Gear, High Range	1
14	2S-24	Sliding Collar	1
15	2S-25	Gear, Low Range	1
16	2S-26	Output Shaft	1
17	2S-27	Seal, Output Shaft	1
18	2S-28	Output Flange	1
19	2S-29	Jam Nut	1
20	2S-30	Detent Kit	1
Not Shown	2S-31	Shim Kit	1

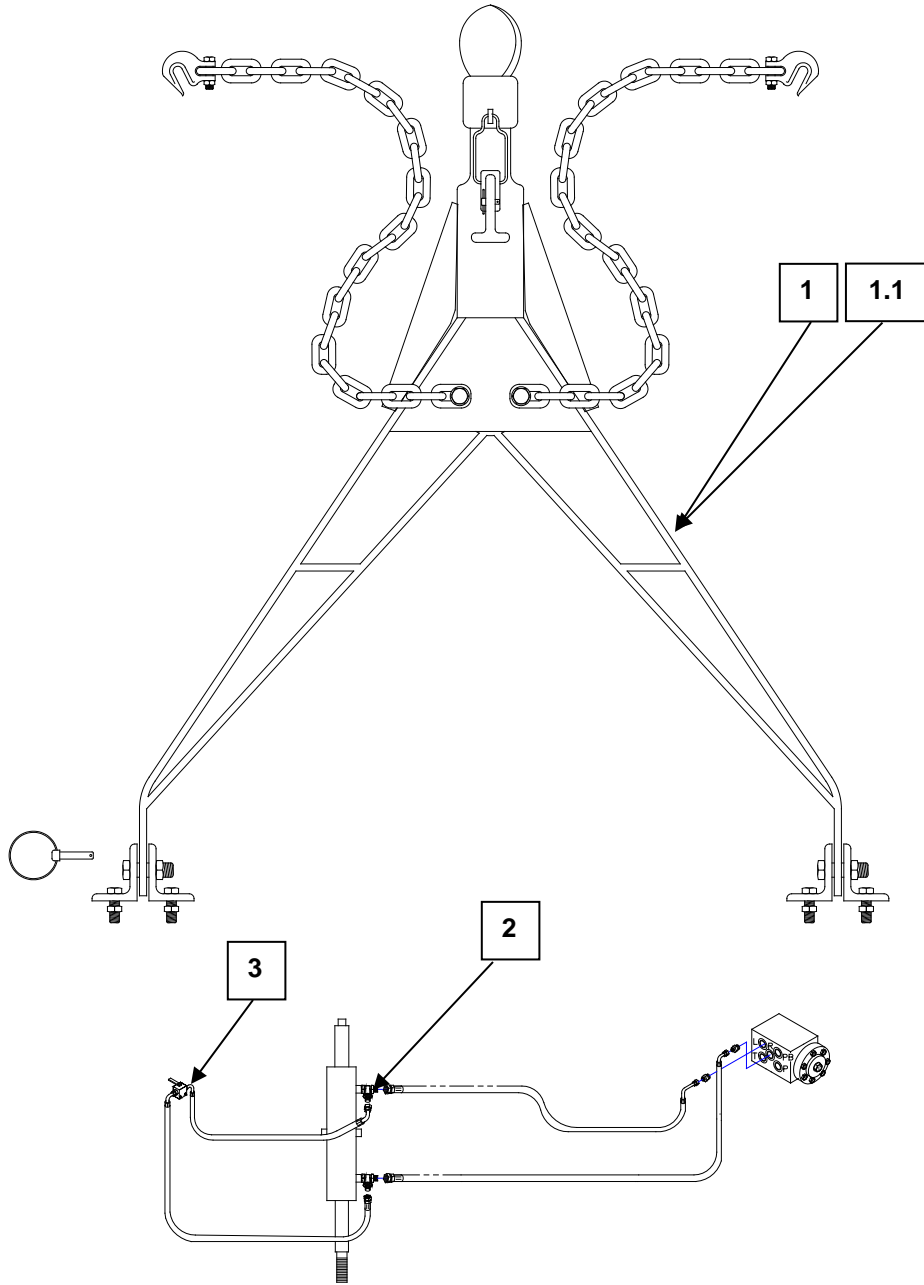
SCHAFFER AXLE



SCHAFFER AXLE

Reference	Part No.	Description	Qty.
1	403079	Carrier, Complete (1-5,7-14)	1
2	403043	Seal, Oil – Carrier Housing Side	2
3	TBD	Shim Kit	1
4	403042	Cup, Bearing, Tapered Roller	2
5	403043	Cone, Bearing, Tapered Roller	2
6	403086	Axle, Tube	2
7	403046	Cone, Bearing, Tapered Roller	1
8	403045	Cup, Bearing, Tapered Roller	1
9	403047	Cup, Bearing, Tapered Roller	1
10	403049	Cone, Bearing, Tapered Roller	1
11	403052	Seal, Oil	1
12	403053	Nut, Hex, ¾-16 UNF Lock	1
13	30186	Washer, Hardened .77 x 1.50 x .12	1
14	3-4-5761X	End Yoke	1
15	403084	Axle, Complete Loaded (LEFT)	1
15.1	403085	Axle, Complete Loaded (RIGHT)	1
16	403103	Bolt, Wheel, ½-20 UNF	12
17	36797	Ring, Retaining, Wheel Bearing	1
18	565903	Bearing ASSY.	1
19	403044	Seal, Oil	2

TOW BAR ASSEMBLIES

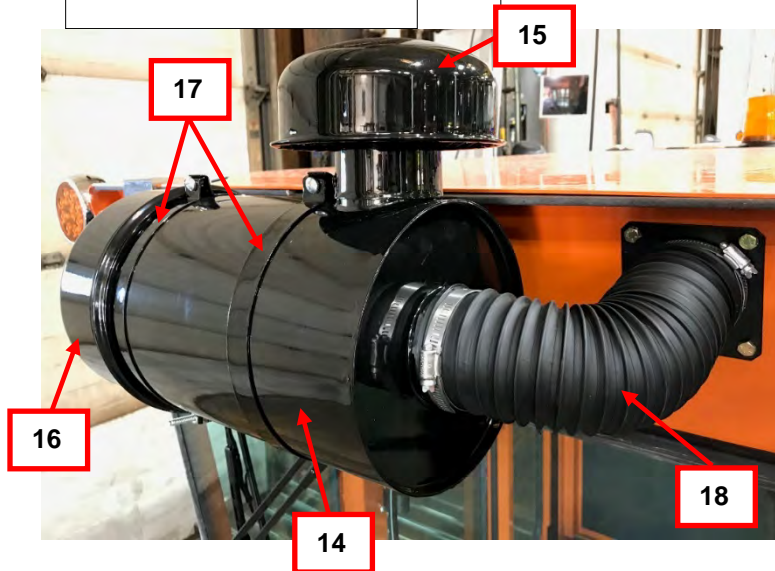
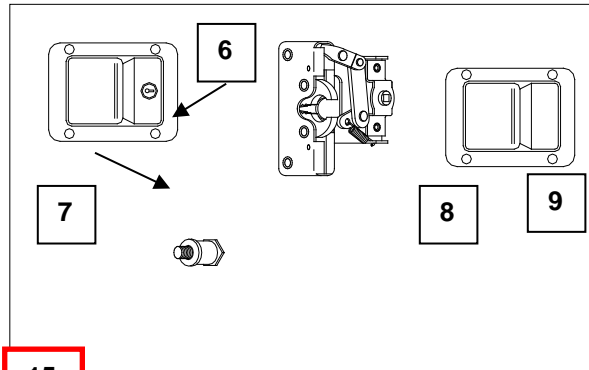
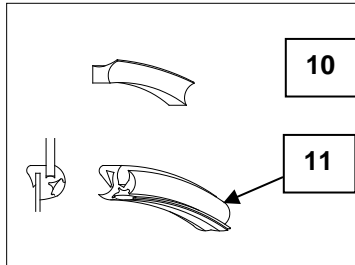
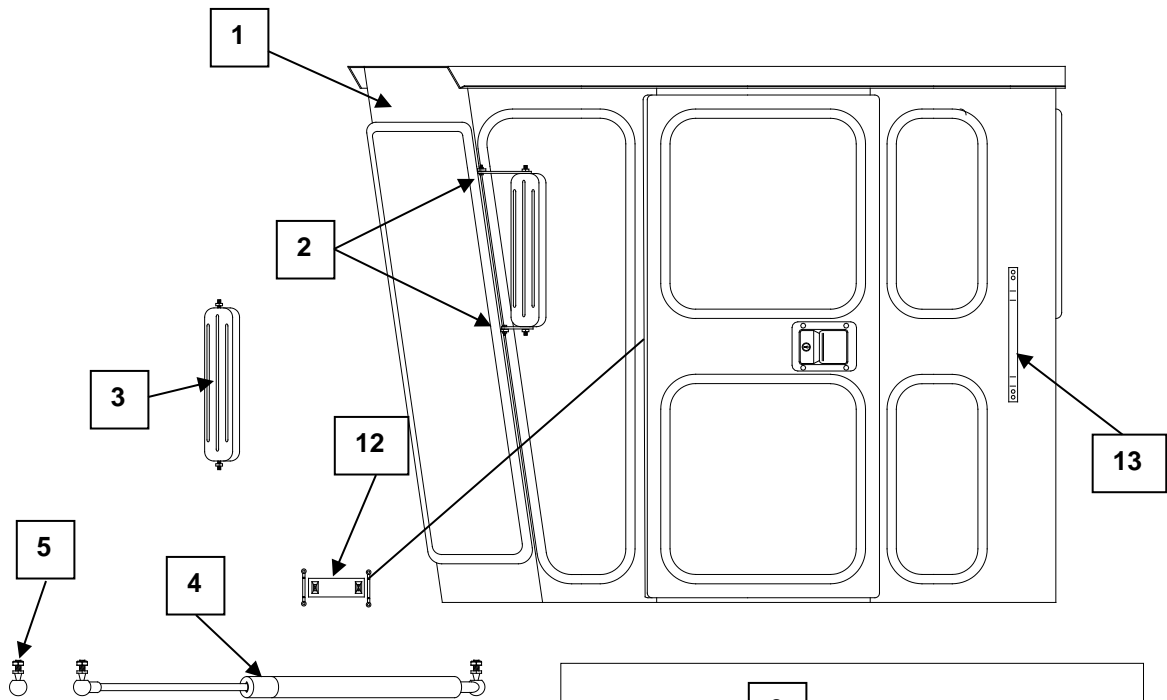


TOW BAR ASSEMBLIES

Reference	Part No.	Description	Qty.
1	4201P	Tow Bar w/ 3" Pintle	1
1.1	4201B	Tow Bar w/ 2 5/16" Receiver	1
2	K00003	Hitch, Shutoff Assembly Kit (Valve, Hoses, and Fittings)	1
3	305025	Tow Valve	1

Note: Tow bars come as complete kit. Kit includes Mounts, Chains, and Pin. Hitch Shutoff Assembly is separate. The Hitch Shutoff is for a safer and easier way of towing the broom. All Broce Brooms are towable as long as the Gearbox is in neutral, the Parking Brake is released, and the Shutoff Valve is engaged.

CAB ASSEMBLY

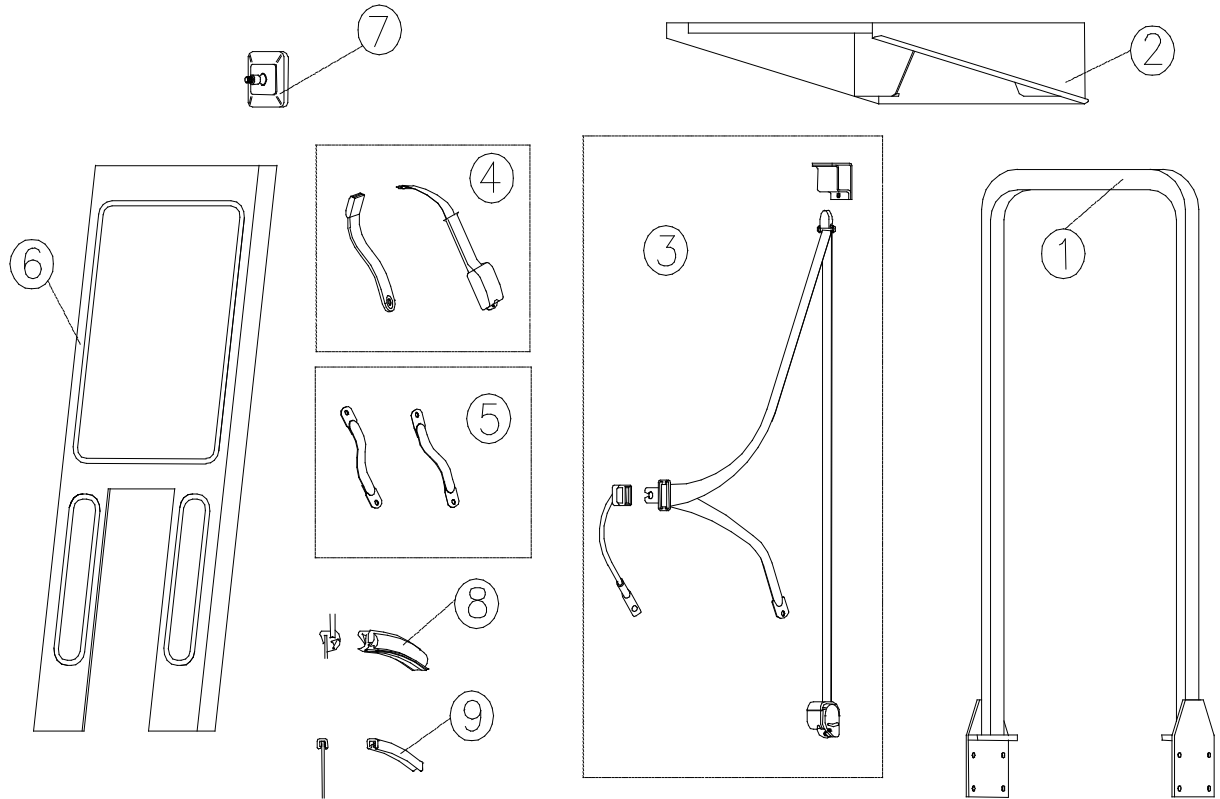


CAB ASSEMBLY

Reference	Part No.	Description	Qty.
1	P-315-B	Cab Assembly, Complete	1
1.1	345055	Cab Key	1
2	202116	Mirror Bracket, (2 per Side)	4
3	P-353-R	West Coast Style Mirror (1 per Side)	2
4	P-352-B	Strut, (1 per Side)	2
5	309406	Ball for Strut	2
6	345051	Outside Door Handle (Paddle Style)	2
7	P-320-B	Striker Assembly	2
8	345053	Latch Assembly	2
9	345050	Inside Door Handle (Paddle Style)	2
10	304089	Door Seal, (Top, Bottom, Latch Edge) per foot	# FT
10a	304003	Door Seal, (Vertical Hinge Edge)	1
11	P-321-R	Window Rubber Molding, (As Required)	# FT
11a	P-316-R	Floor Mat, 5' x 4' Blank (not shown)	1
12	K00002	Door Tether Strap, Inside (1 per Side)	2
13	B239920C	Outside Grab Handle	1
Not Shown	345052	Inside Grab Handle	2
Not Shown	344075	Cab Mounting Springs	4
Not Shown	403065	Door Hinge	2
Not Shown	403066	Door Hinge Pin	2
14	AC-708-R	Air Cleaner Assembly	1
15	AC-785-R	Air Cleaner Bonnet (Top Cap)	1
16	P10-3113	Air Cleaner End Cap	1
17	AC-764-R	Air Cleaner Clamp	2
18	10-20027	Air Cleaner Flex Hose	1
19	AC-709-R	Air Cleaner Filter	1

Note: Items 10 & 11 are sold by the foot. Floor mat is a "Cut to Fit" item.

ROLL OVER PROTECTION STRUCTURE & RELATED PARTS



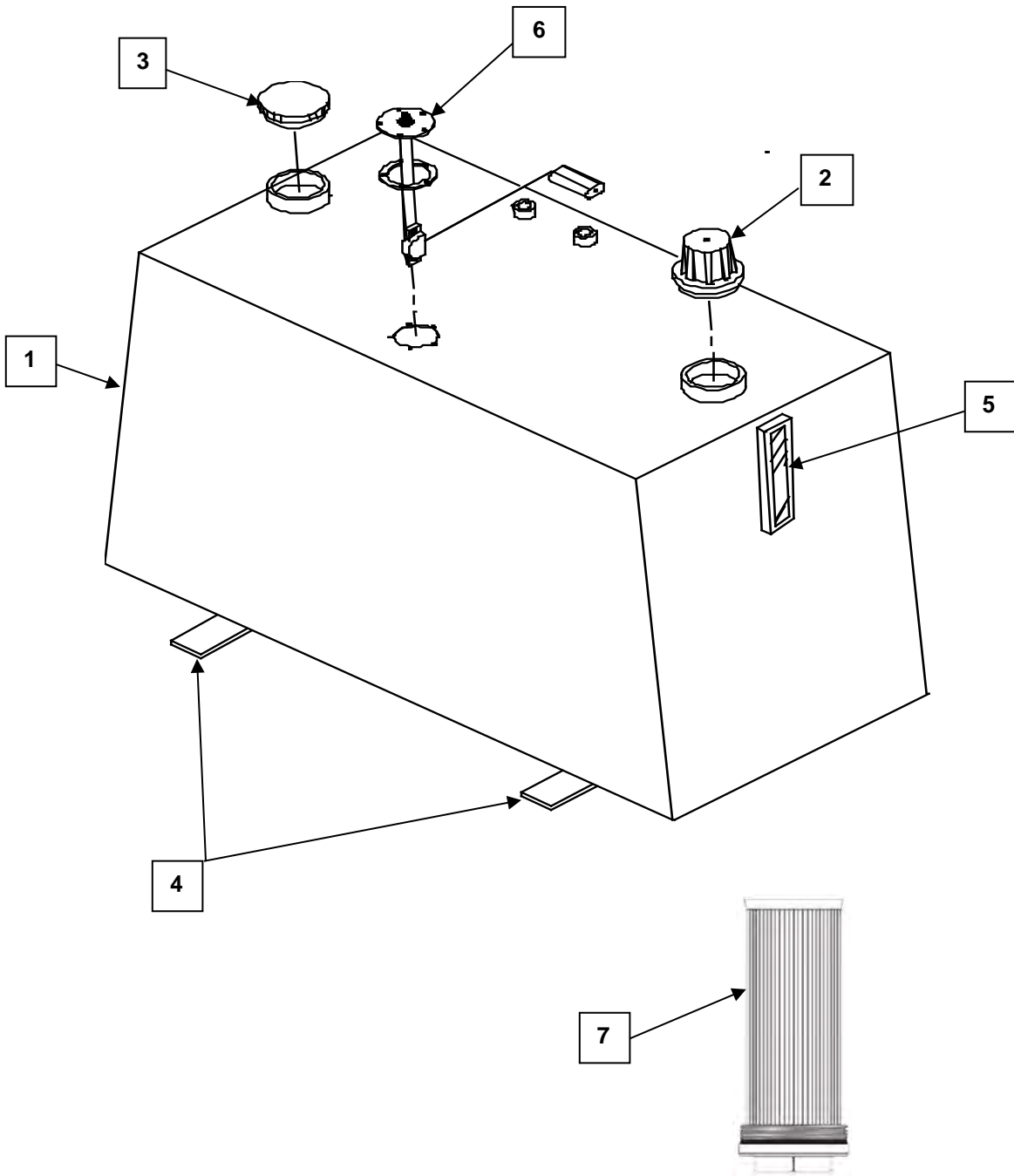
ROLL OVER PROTECTION STRUCTURE & RELATED PARTS

Ref	Part No.	Description	Qty.
1	P-310-R	Two-Post Roll Bar	1
2	852057	Canopy	1
3	See Seat & Suspension	Seat Belt w/ Shoulder Harness (Optional)	1
4	See Seat & Suspension	Retractable Seat Belt (Standard)	1
5	C-211-RT	Tether Strap Set (For use w/ Suspension Seat)	1
6	P-312-R	Windshield Frame w/ Molding (No Glass. See Note)	1
7	P-356-R	Rear View Mirror	1
8	P-325-R	Offset Rubber Molding	1
9	P-355-R	Rubber Trim	1

NOTE

1. Due to the likelihood of breakage during shipment, the windshield frame is sold without glass. Please source locally.
2. Seat belt tether straps **MUST** be used on suspension seats.
3. Items 8 & 9 are sold by the foot.

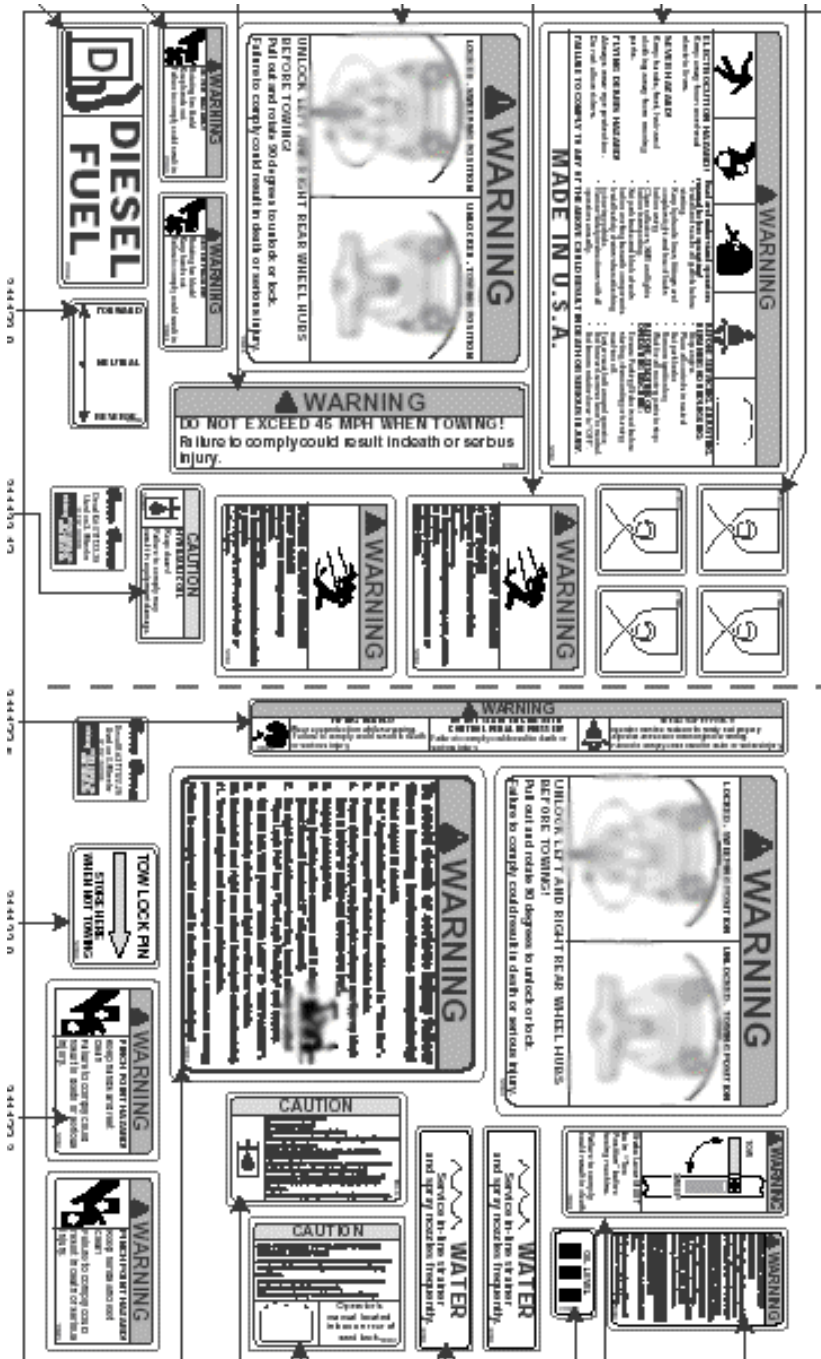
FUEL/HYDRAULIC TANK ASSEMBLY



FUEL/HYDRAULIC TANK ASSEMBLY

Reference	Part No.	Description	Qty.
1	852454	Fuel & Hydraulic Tank	1
2	T-703-BA	Hydraulic Cap	1
3	T-702-B	Fuel Cap	1
4	T-805-R	Rubber Tank Pad	2
5	550-5	Sight Glass	1
6	344175	Fuel Gauge Assembly	1
7	305017	Hydraulic Tank Strainer	1

DECAL KIT



Broce Braam
Broce Braam

Ref	Part No.	Description	Qty.
1	VL-833-R	Decal Kit w/ Stripes and Broce Logos	1

HYDRAULIC SYSTEM DETAILS

HYDRAULIC SYSTEM COMPONENTS

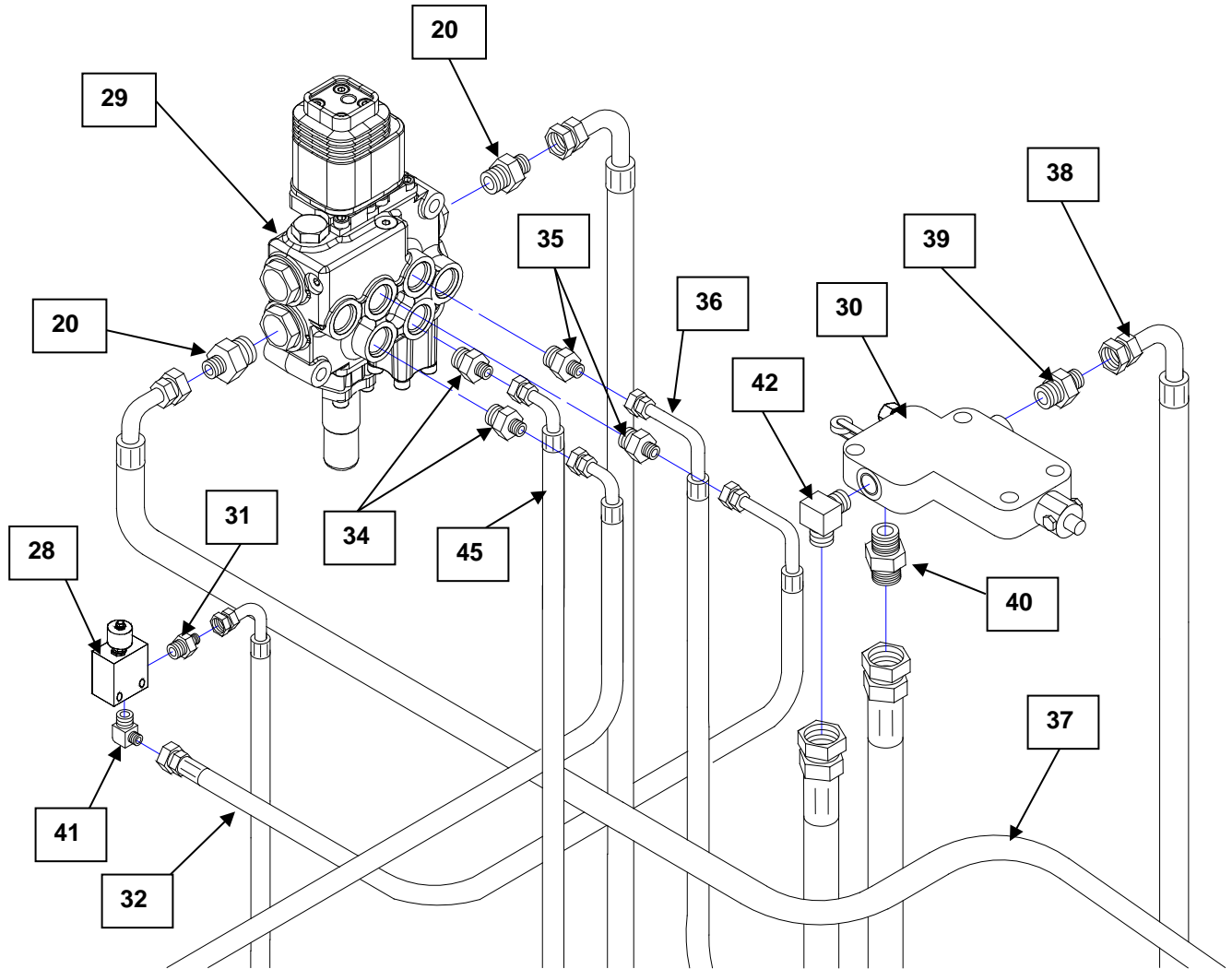
(Front Section)

Reference	Part No.	Description	Qty.
1	203526	Steering Cylinder, 10"	1
2	208	Lift Cylinder	1
3	305943	Core Motor, Direct Drive	1
3.1	305972	Seal Kit for Direct Drive Core Motor	1
3.2	MAB-16-B	Core Motor, Chain Drive	1
3.3	SK000092	Seal Kit, Chain Drive Motor	1
4	305944	Steering unit	1
5	305525	Hydraulic Manifold	1
6	HF-278-R	Filter Element	1
6.1	HF-278-RAF25	Filter Assembly	1
7	216	Shift Cylinder	1
7.1	216A	Shift Cylinder for Curb & Gutter Models	1
8	305829	Hydraulic Fitting, FF1852T06-06	1
9	N/A	Hydraulic Hose Assembly, 30"-1AA6FR6 & 1AAGFRB6	1
10	N/A	Hydraulic Hose Assembly, 30"-1AA6FR6 & 1AA6FRCG	1
11	N/A	Hydraulic Hose Assembly, 35"-1AA6FRB6 & 1AA6FRA6	1
12	N/A	Hydraulic Hose Assembly, 76"-1AA6FR64 & 1AA6FRB6	1
13	N/A	Hydraulic Hose Assembly, 40"-1AA4FRB4 (2)	1
14	N/A	Hydraulic Hose Assembly, 32"-1AA4FRB4 & 1AA4FRC4	1
15	305818	Hydraulic Fitting, FF1852T04-06	4
16	305871	Hydraulic Fitting, FF1852T12-10	1
17	N/A	Hydraulic Hose Assembly, 94.5"-1AA12FR12 (2)	1
18	N/A	Hydraulic Hose Assembly, 94.5"-1AA12FR12 (2)	1
19	305841	Hydraulic Fitting, Caterpillar 3E-7420	1
20	305827	Hydraulic Fitting, FF1852T06-08	6
21	305824	Hydraulic Fitting, FF1852T12-12	2
22	305837	Hydraulic Fitting, FF1868T06-08	2
23	N/A	Hydraulic Fitting, FF1852T16-20	2
24	305198	Hydraulic Fitting, 3474-20-20	1
25	305177	Hydraulic Fitting, 900598-12	1
25a	305177	Hydraulic Fitting, 900598-8	1
26	N/A	Hydraulic Hose Assembly, 56"-1AA6FRB6 (2)	1
27	305864	Hydraulic Fitting, FF2068T06-06	2
Not Shown	RC-19	Clevis Pin (Shift Cylinder)	2
Not Shown	D-21-R	Shock Pin (Lift Cylinder)	2
Not Shown	IC-4244	Seal Kit, Replaces P/N RC-20	1
Not Shown	203553	Seal Kit – Steering Cylinder	1

Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

HYDRAULIC SYSTEM COMPONENTS

(Cab-Valve Section)



Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

HYDRAULIC SYSTEM COMPONENTS

(Cab-Valve Section)

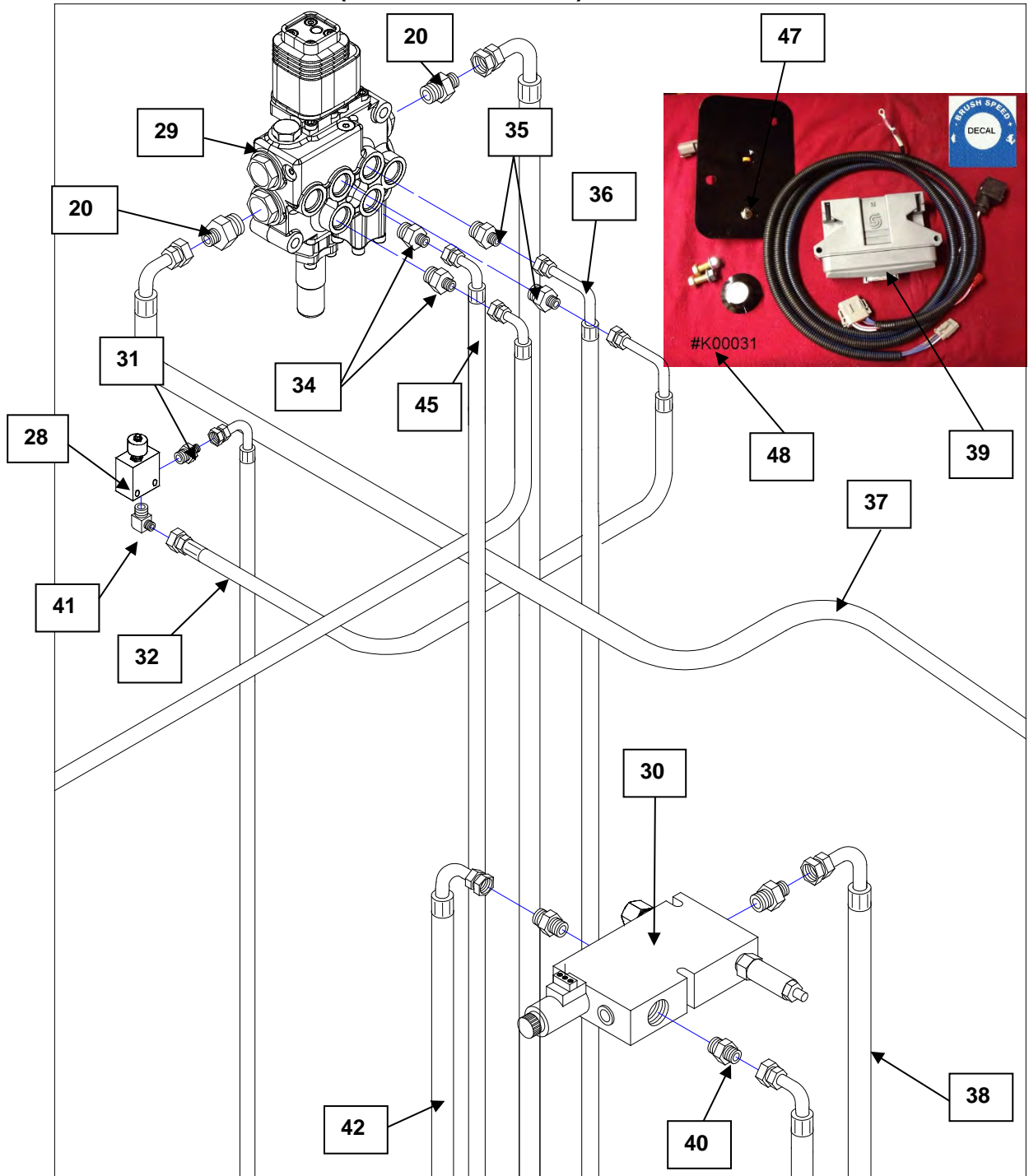
Ref	Part No.	Description	Qty.
20	305827	Hydraulic Fitting, FF1852T06-08	6
28	305763	Core Lock Solenoid	1
29	See Valve Section	Control Valve	1
30	See Valve Section	Rotation Valve	1
31	305818	Hydraulic Fitting, FF1852T04-06	1
32	N/A	Hydraulic Hose Assembly, 8"-1AA4FR4 & 1AA4FRC4	1
34	305827	Hydraulic Fitting, FF1852T0408S	2
35	305827A	Hydraulic Fitting, FF1852T0408S with 0.05 orifice	2
36	N/A	Hydraulic Hose Assembly, 50"-1AA4FRB4 & 1AA4FRC4	1
37	N/A	Hydraulic Hose Assembly, 27"-1AA6FRB6 & 1AA6FRA6	1
38	N/A	Hydraulic Hose Assembly, 20"-1AA12FR12 & 1AA12FRB12	1
39	305871	Hydraulic Fitting, FF1852T12-10	1
40	305840	Hydraulic Fitting, FF1852T12-08	1
41	305836	Hydraulic Fitting, FF1868T04-06	1
42	305872	Hydraulic Fitting, FF1868T12-10	1
45	N/A	Hydraulic Hose Assembly, 54"-1AA4FRB44 (2)	1

Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

HYDRAULIC SYSTEM COMPONENTS

VARIABLE SPEED OPTION

(Cab-Valve Section)



Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

HYDRAULIC SYSTEM COMPONENTS

VARIABLE SPEED OPTION (Cab-Valve Section)

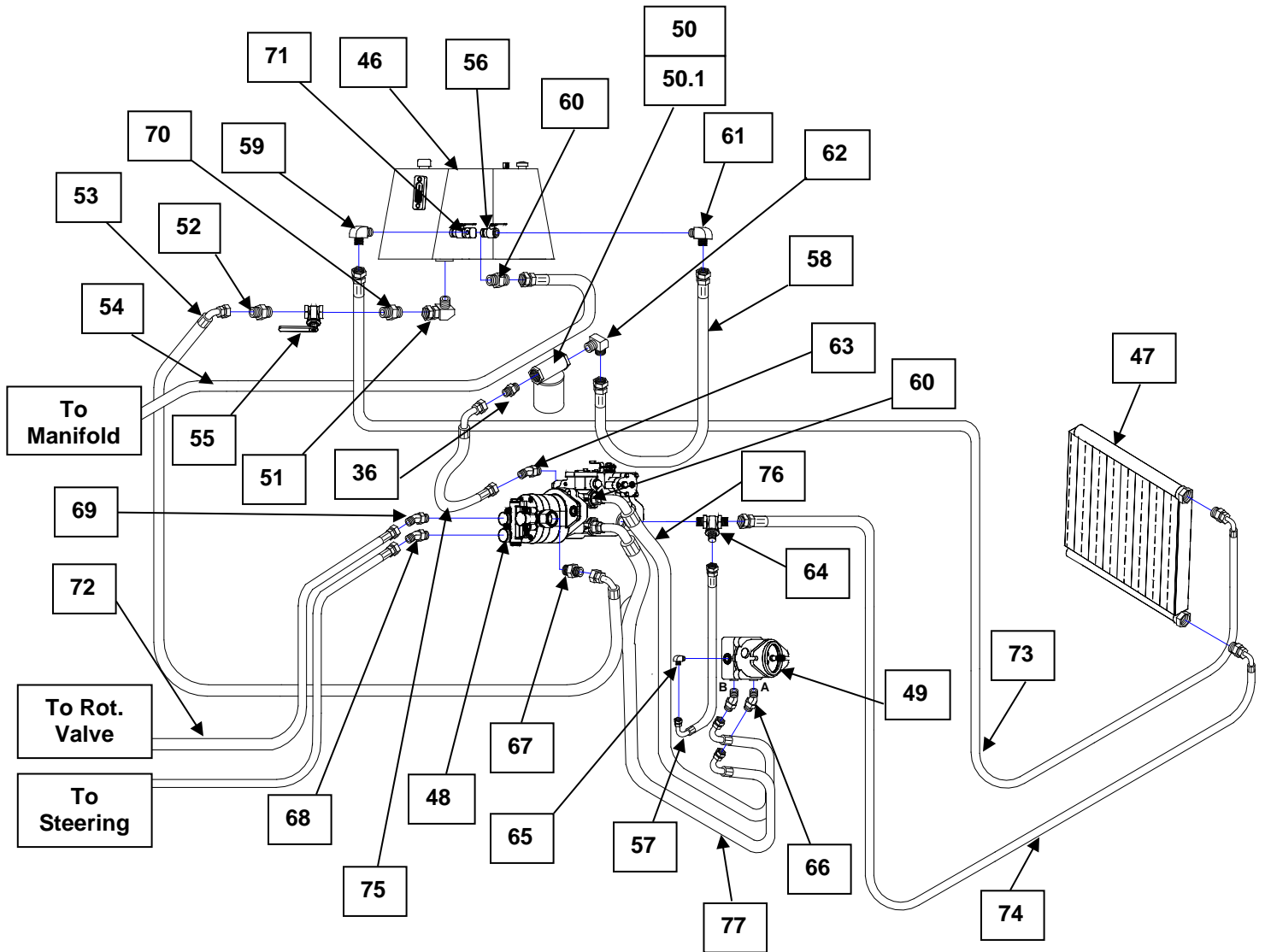
Ref	Part No.	Description	Qty.
20	305827	Hydraulic Fitting, FF1852T06-08	6
28	305763	Core Lock Solenoid	1
29	See Joystick Valve Section	Joystick Control Valve	1
30	305981	Rotation Valve, Variable Speed, Complete	1
31	305818	Hydraulic Fitting, FF1852T04-06	1
32	-	Hydraulic Hose Assembly, 8"-1AA4FR4 & 1AA4FRB4	1
34	305827	Hydraulic Fitting, FF1852T0408S	2
35	305827A	Hydraulic Fitting, FF1852T0408S with 0.05 orifice	2
36	-	Hydraulic Hose Assembly, 50"-1AA4FRB4 & 1AA4FRB4	1
37	-	Hydraulic Hose Assembly, 27"-1AA6FRB6 & 1AA6FRA6	1
38	-	Hydraulic Hose Assembly, 28"-1AA12FRB12 (2)	1
39	307525	Variable Speed Controller	1
40	305840	Hydraulic Fitting, FF1852T12-10	3
41	305836	Hydraulic Fitting, FF1868T04-06	1
42	-	Hydraulic Hose Assembly, 80"-1AA12FRB12	1
45	-	Hydraulic Hose Assembly, 54"-1AA4FRB44 (2)	1
46	-	Hydraulic Hose Assembly, 36"-1AA12FRB12	1
47	307450	Potentiometer	1
48	K00031	Variable Speed Kit	1

Note: Item #30 Replaces Rotation Valve on standard broom and is located under cab. Hydraulic Hose Items #38, #42, and #46 replace Items #19, #38, and #72 of standard broom hydraulic illustrations shown in this section.

Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

HYDRAULIC SYSTEM COMPONENTS

(Rear Section)



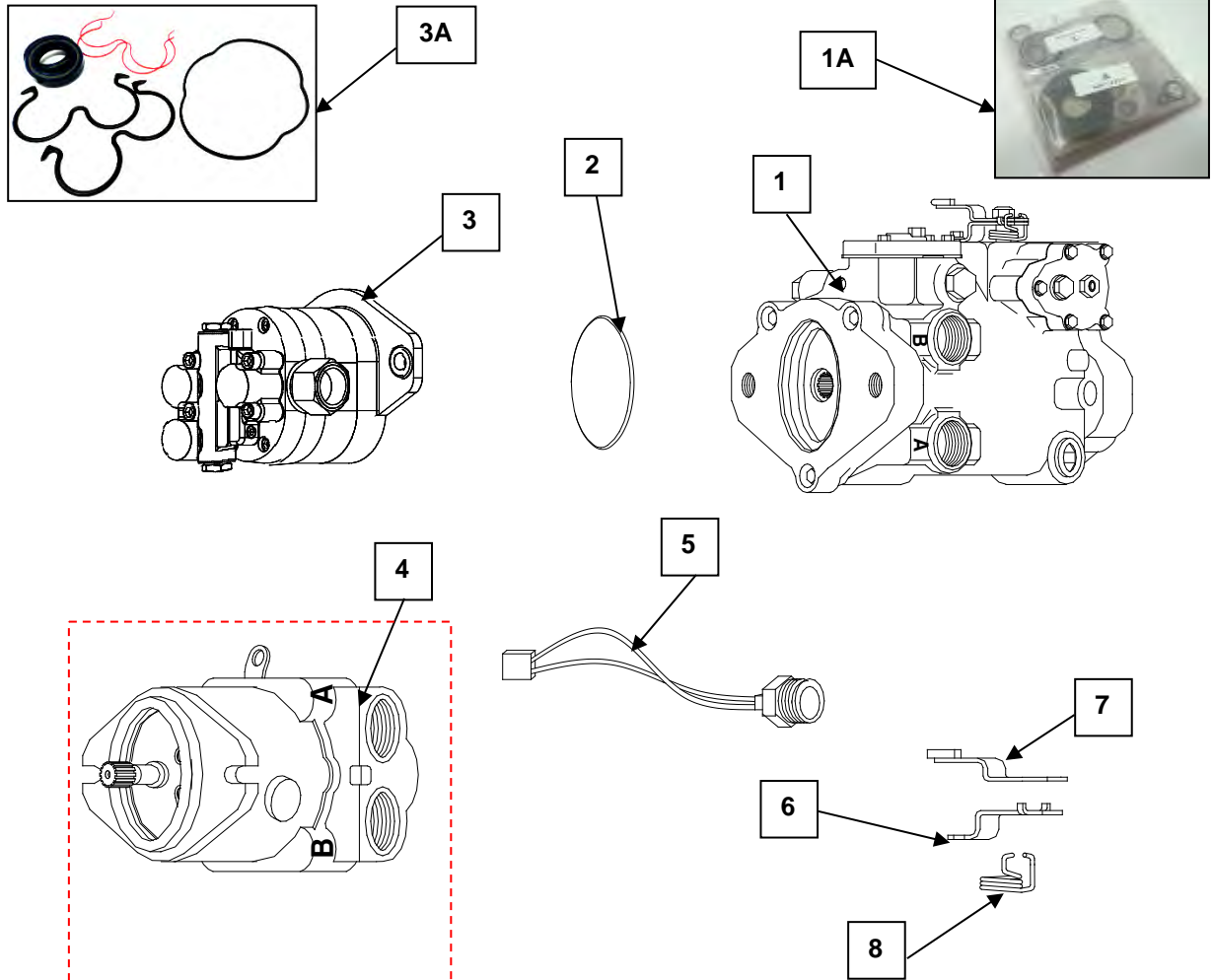
Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

HYDRAULIC SYSTEM COMPONENTS (Rear Section)

Ref	Part No.	Description	Qty.
46	See Fuel Tank Assembly	Fuel Tank & Hydraulic Tank	1
47	See RCT Engine Section	Oil Cooler, RCT-350 Cummins Tier 4 Final	1
	See RJT Engine Section	Oil Cooler, RJT-350 Deere Tier 4 Final	
	See CR Engine Section	Oil Cooler, CR-350 CAT CR Tier 3	
	See KR Engine Section	Oil Cooler, KR-350 Kubota Tier 4i	
48	See Vehicle Drive System	Hydraulic Pump	1
49	See Vehicle Drive System	Fixed Displacement Motor	1
50	HF-278-R	Filter Element	2
50.1	HF-278-RAF03	Filter Assembly, 3 psi.	1
51	305680	Hydraulic Fitting, 6805-20-20	1
52	305843	Hydraulic Fitting, FF2031T20-20	1
53	-	Hydraulic Hose Assembly, 24"-1GA20FRA20 (2)	1
54	-	Hydraulic Hose Assembly, 27"-1GA16FR16	1
55	306538	1 1/4" Ball Valve	1
56	H-227-R	1" Ball Valve	2
57	-	Hydraulic Hose Assembly, 21"-1AA12FR8 & 1AA8FRB8	1
58	-	Hydraulic Hose Assembly, 16.5"-1GA16FR16 (2)	1
59	305869	Hydraulic Fitting, FF1868T12-16	1
60	305825	Hydraulic Fitting, FF1852T16-16	3
61	-	Hydraulic Fitting, FF2032T16-16	1
62	305849	Hydraulic Fitting, FF1868T16-20	1
63	305806	Hydraulic Fitting, FF2068T16-16	1
64	-	Hydraulic Fitting, FF1865T12-12	1
65	-	Hydraulic Fitting, FF1868T8-10	1
66	305880	Hydraulic Fitting, FF2068T16-12	2
67	-	Hydraulic Fitting, FF1852T20-16	1
68	-	Hydraulic Fitting, FF2068T06-08	1
69	305840	Hydraulic Fitting, FF1852T12-08S	1
70	-	Hydraulic Fitting, 2083-20-20	1
71	305199	Hydraulic Fitting, 6401-16-16	1
72	-	Hydraulic Hose Assembly, 30.5"-1AA12FR12 & 1AA12FRB12	1
73	-	Hydraulic Hose Assembly, 52"-1AA12FR12 & 1AA12FRB12	1
74	-	Hydraulic Hose Assembly, 70"-1AA12FR12 & 1AA12FRB12	1
75	-	Hydraulic Hose Assembly, 12"-1GA16FR16 & 1GA16FRB16	1

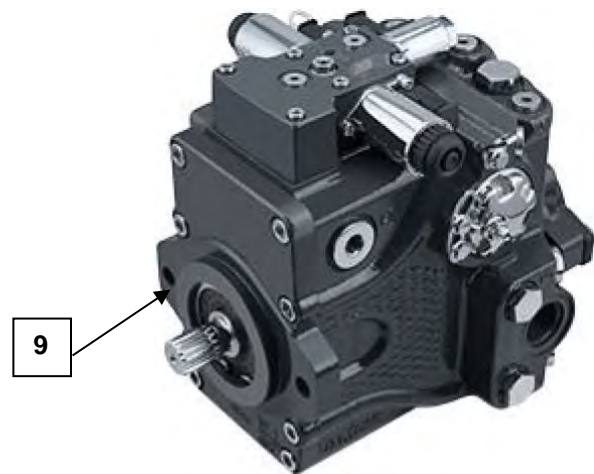
Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

HYDROSTATIC DRIVE SYSTEM



NOTE: #4 IS *NOT* THE BRUSH CORE MOTOR.
 This motor drives the 2-speed gearbox for vehicle travel.

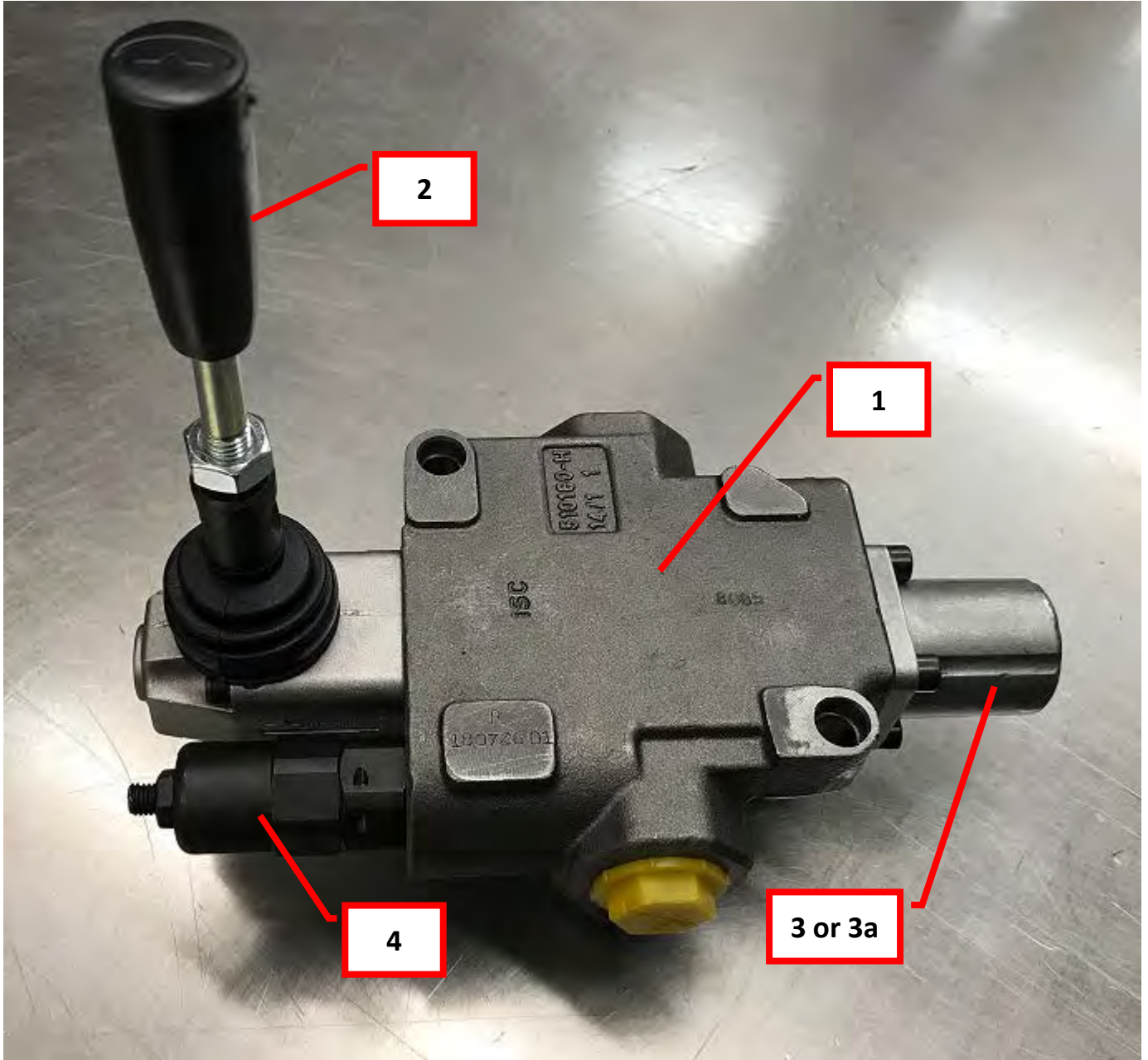
For Core Motor see:
[HYDRAULIC SYSTEM COMPONENTS](#)
 (Front Section)



HYDROSTATIC DRIVE SYSTEM

Ref	Part No.	Description	Qty.
1	305997	Variable Displacement Pump	1
1A	325063	Seal Kit for 305997	1
Not Shown	0301	Front Seal (Same for Item 1 or 4)	1
2	1508	O-Ring	1
3	355025	Hydraulic Gear Pump	1
3A	355023	Seal Kit for 355025	1
4	305975	Fixed Displacement Motor (drives 2-speed Gearbox)	1
Not Shown	0301	Front Seal (Same for Item 1 or 4)	1
5	305957	Neutral Safety Switch	1
6	1216	Bracket	1
7	1215	Lever	1
8	1214	Centering Spring	1
9	305997M	Variable Pump MP1-EDC	1

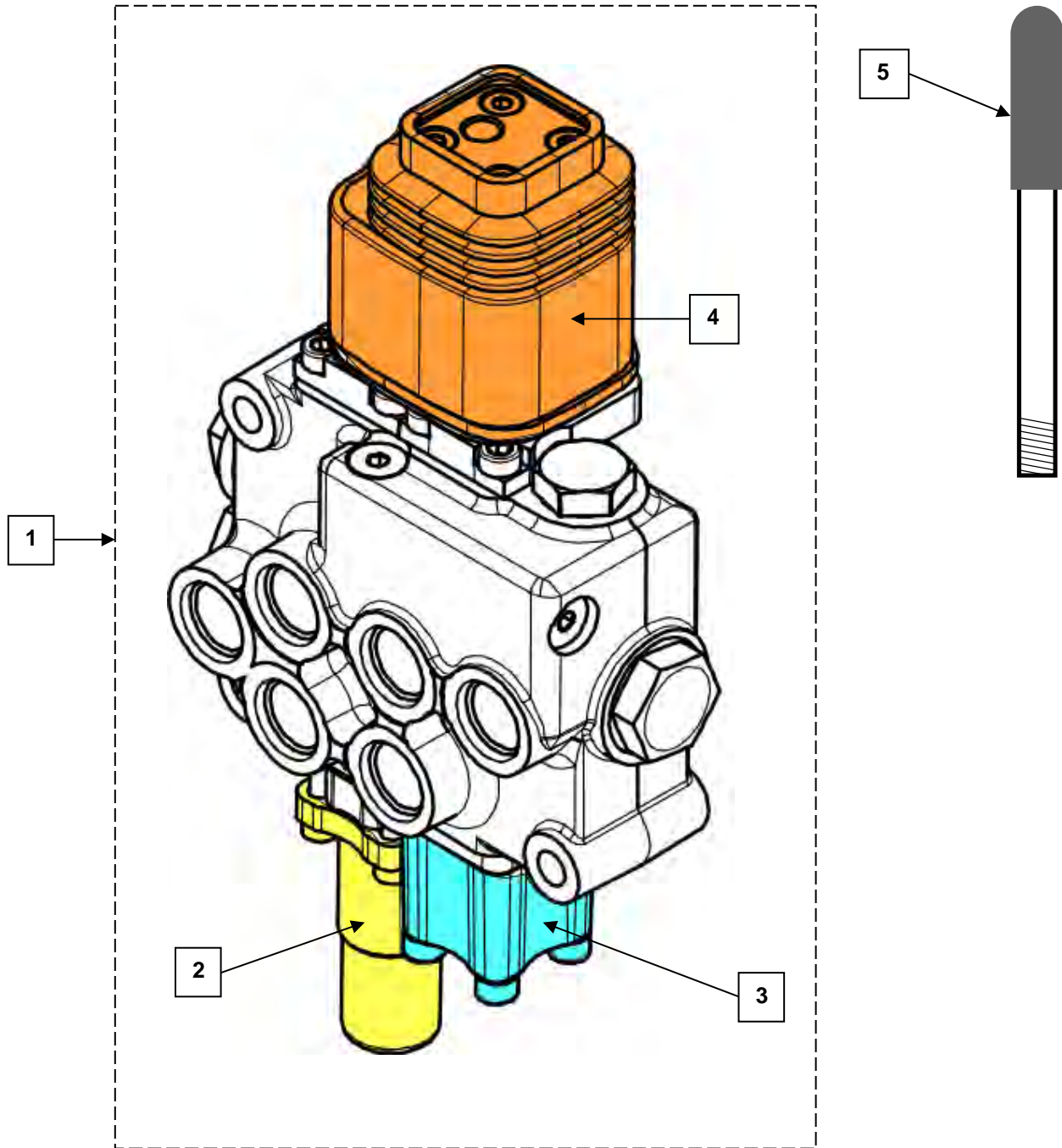
CORE ROTATION VALVE



CORE ROTATION VALVE ASSEMBLY

Reference	Part No.	Description	Qty.
1	355012	Complete Valve (no Handle)	1
2	355014	Handle	1
3	355026	Detent (Standard Equipment)	1
3a	355022	Detent (Fwd & Rev – Option)	
4	355024	Relief Cartridge	1
Not Shown	355017	Seal Kit	1

JOYSTICK VALVE ASSEMBLY



JOYSTICK VALVE ASSEMBLY

Reference	Part No.	Description	Qty.
1	355030	2-Spool Valve Assembly (standard)	1
1a	355071	3-Spool Side-Shift Valve Complete (option)	1
2	355040	Float Detent	1
3	355036	Spring Center Detent	1
4	355037	Joystick Kit	1
5	355033	Joystick Handle/Lever	1
Not Shown	355039	Seal Kit	1

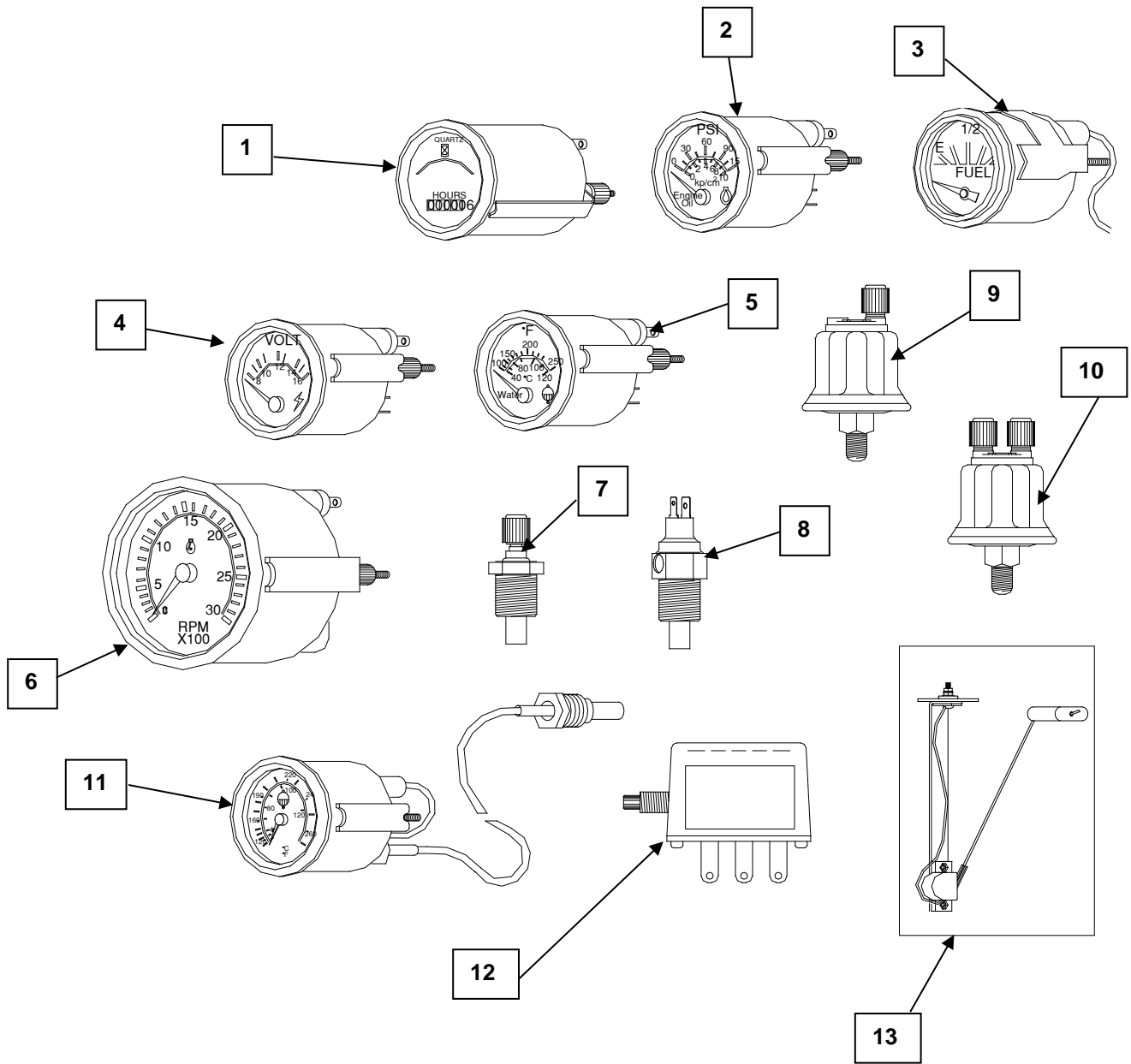
OPTIONAL DOWN PRESSURE LIMIT

Ref	Part No.	Description	Qty.
1	305771	Down Pressure Limit Valve	1
1A	305772	Cartridge	1
2	305763	Core Lock Solenoid	1
3	355030	Control Valve	1
4	305525	Hydraulic Manifold	1
5	208	Lift Cylinder	1
6	305817	Hydraulic Fitting, FF1852T04-04	1
7	305835	Hydraulic Fitting, FF1868T04-04	1
8	305835	Hydraulic Fitting, FF1868T04-04	1
9	305818	Hydraulic Fitting, FF1852T04-06	1
10	305836	Hydraulic Fitting, FF1868T04-06	1
11	305818	Hydraulic Fitting, FF1852T04-06	1
12	305818	Hydraulic Fitting, FF1852T04-06	1
13	305827A	Hydraulic Fitting, FF1852T04-08	1
14	305827A	Hydraulic Fitting, FF1852T04-08 w/orifice	1
15	305869	Hydraulic Fitting, FF1868T06-12	1
16	N/A	Hydraulic Hose, 42"-1AA4FRB4 & 1AA6FR4	1
17	N/A	Hydraulic Hose, 36"-1AA4FRB4 & 1AA4FRA4	1
18	N/A	Hydraulic Hose, 8"-1AA4FR4 & 1AA4FRC4	1
19	N/A	Hydraulic Hose, 40"-1AA4FRB4 & 1AA4FRB4	1
20	N/A	Hydraulic Hose, 11"-1AA4FRB4 & 1AA4FRB4	1

Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

ELECTRICAL SYSTEM AND ACCESSORIES

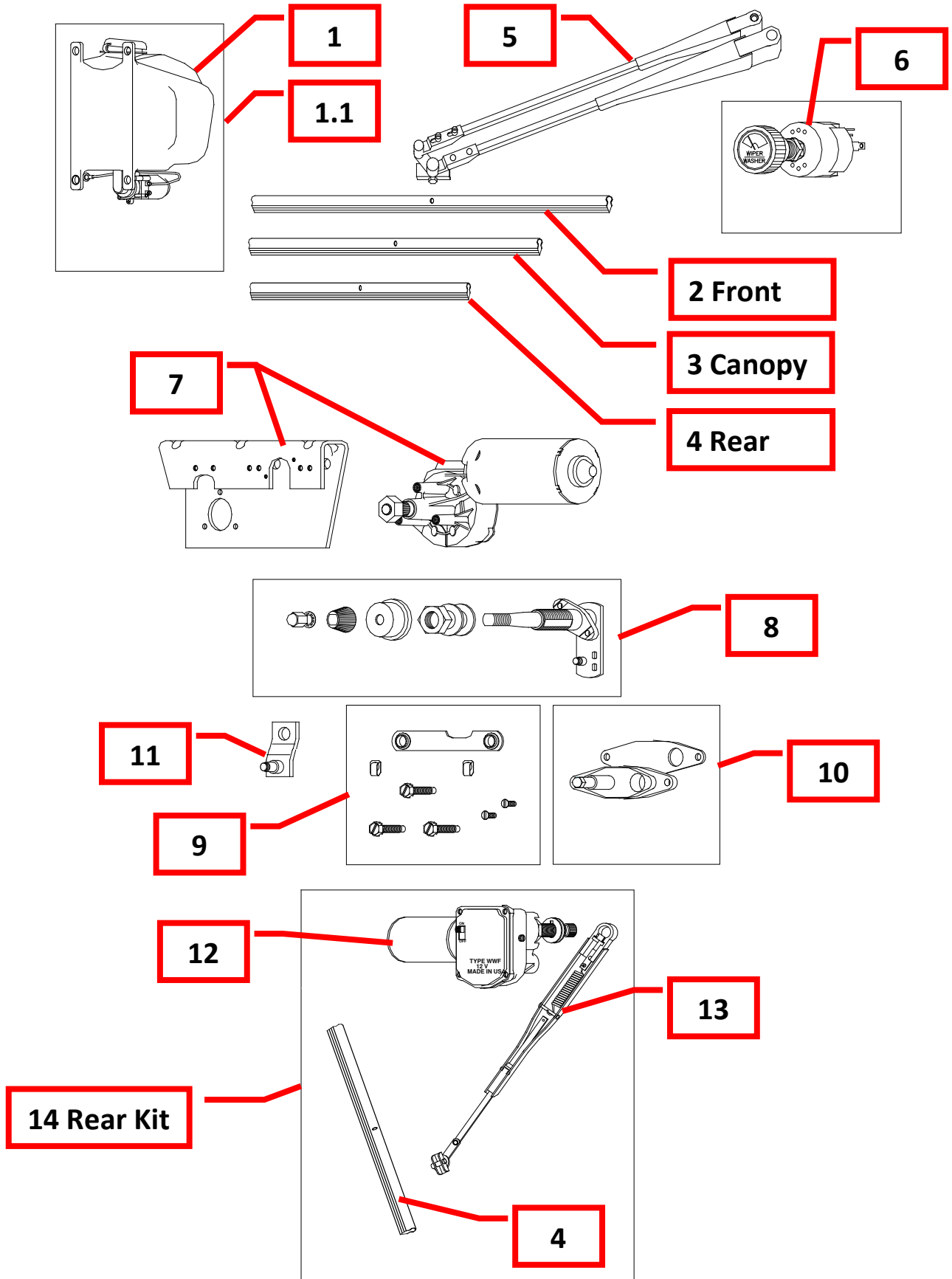
GAUGES AND SENDERS



GAUGES AND SENDERS

Ref	Part No.	Description	Qty.
1	I-222-HO	Hour Meter	1
2	I-221-R	Oil Pressure Gauge	1
3	I-223-R	Fuel Gauge	1
4	I-220-V	Voltmeter	1
5	I-219-R	Temperature Gauge (Engine)	1
6	I-222-B	Tachometer	1
7	IS-219-R	Temperature Sender	1
8	IS-219-WC	Temperature Sender w/Contact: (Use with warning or shutdown system)	1
9	IS-221-R	Oil Pressure Sender	1
10	IS-221-WC	Pressure Sender w/Contact: Use with warning or shutdown system	1
11	I-228-R	Hydraulic Temperature Gauge Note: Mechanical 12' Capillary	1
12	344257	Murphy Engine Safety Shutdown Unit	1
13	344175	Fuel Sender	1
Not Shown	1-220-A	Ammeter	1
	307255	Buzzer Light Assembly	1
	I-224-R35	Fuel Sender (35 gal. Tank)	1

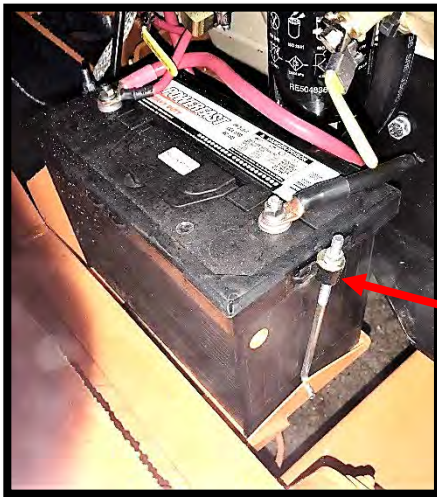
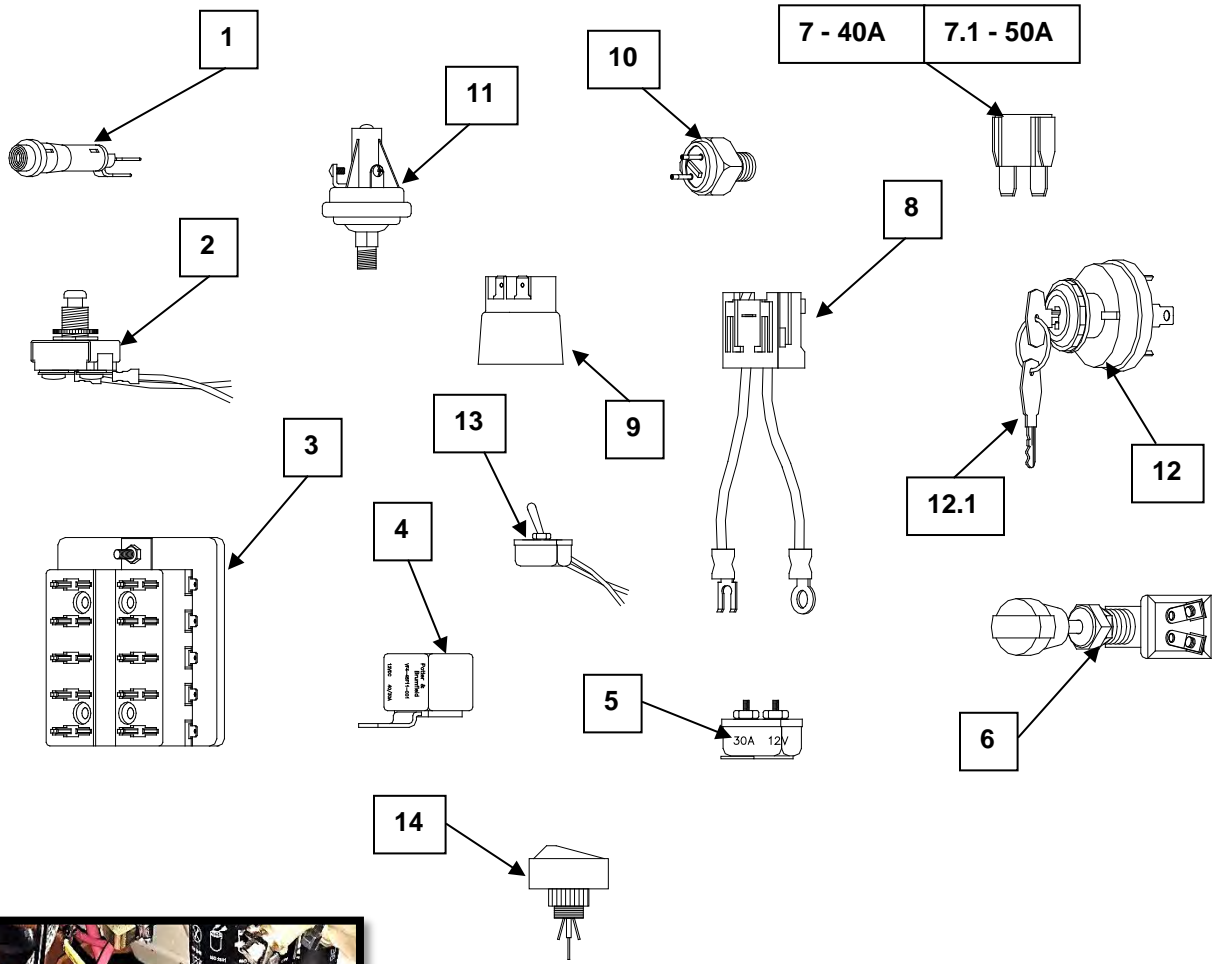
WINDSHIELD WIPERS & WASHER



WINDSHIELD WIPERS & WASHER

Ref	Part No.	Description	Qty.
1	66-01	Washer Pump & Reservoir	1 or 2
1.1	66-01A	Washer Kit (Includes Tubing & Hardware for New Installation)	1
2	2-615-2226	26" Blade	1
3	2-615-2218	18" Blade (Canopy Windshield)	1
4	2-615-2214	14" Blade (Rear)	1
5	2-615-24	Pantograph Drive Arm	1
6	2-686-67	Two Speed Wiper Switch	1
7	2-615-15	Wiper Motor (Front, includes mount)	1
8	2-615-60	Wiper Shaft & Arm Assembly	1
9	721014	Link & Bolt Kit (Includes Bolts, Washers & Clips to Mount Motor)	1
10	2-615-17	Pantograph Adapter & Gasket	1
11	2-615-19	Wiper Drive Arm (Tapered Motor Shaft)	1
12	1-182-54MO	Wiper Motor (Rear)	1
13	LE581022-1	Drive Arm (Rear)	1
14	1-182-54-R	Rear Wiper Kit (Includes Motor, Blade and Arm)	1

SWITCHES, FUSES, KEYS, BATTERY HOLD-DOWN ETC.

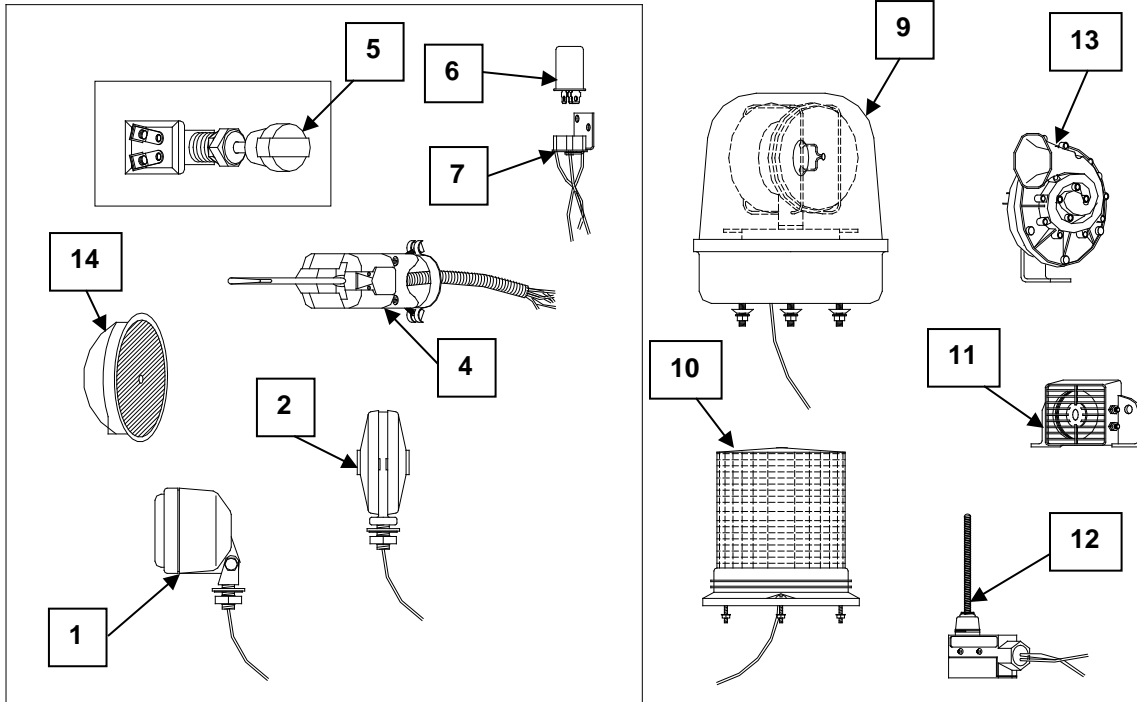


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SWITCHES, FUSES, KEYS, BATTERY HOLD-DOWN ETC.

Ref	Part No.	Description	Qty.
1	PBL-12	Warning Light	1
2	307098	Parking Brake Switch	1
3	46050-12	Fuse Block (12 Fuse Capacity)	1
3.1	46050-10	Fuse Block (10 Fuse Capacity)	1
3.2	46050-8	Fuse Block (8 Fuse Capacity)	1
3.3	46050-6	Fuse Block (6 Fuse Capacity)	1
4	307902	Relay – Air Conditioning Shutoff	1
5	46330	30 Amp Breaker	1
6	23836	Universal Accessory Switch	1
7	WH46242	40 Amp Maxi Fuse	1
7.1	46243	50 Amp Maxi Fuse	1
8	WH-767-FH	Maxi Fuse Holder	1
9	X770050	Air Restrictor Sender (Air Cleaner Ind.)	1
10	BLS-15	Stop Light Switch	1
11	76052	Pressure Switch (Air Conditioner Shutoff)	1
12	307044	Ignition Switch	1
12.1	307045	Keys (pair)	1
13	307071	Core Lock Switch	1
14	307042	Switch, Lighted, Rocker for Beacon	1
15	307076	Battery Hold Down with J-Bolts	1
Not Shown	307235	Push Button Switch for Preheat (All Same)	1

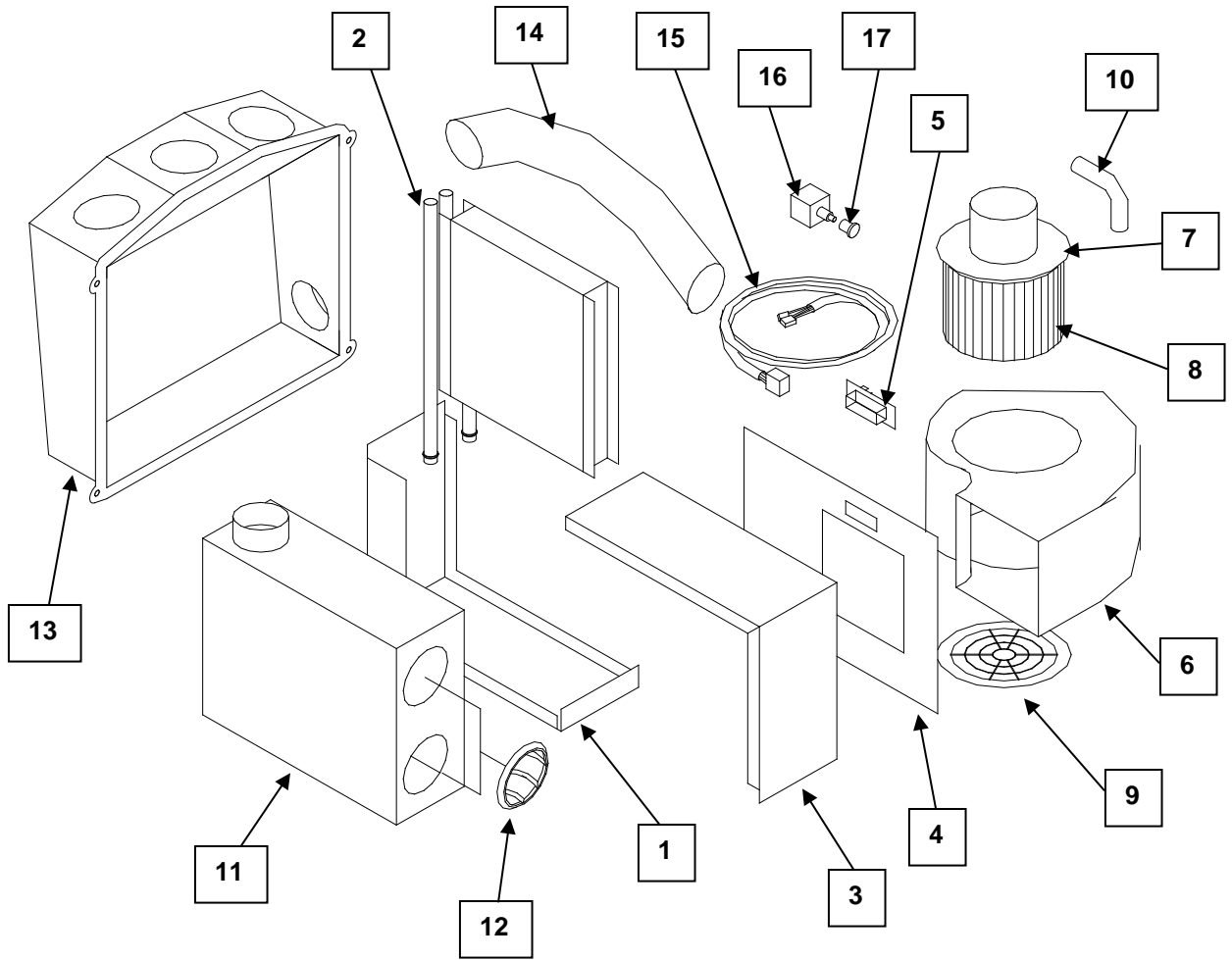
LIGHTS – HORNS



LIGHTS - HORNS

Ref	Part No.	Description	Qty.
1	9-50004-SBA	Headlight	2
1a	307011	Headlight/Work Light LED	
2	4-75001	Turn Signal (Cab Mounted)	2
2a	6-70001	Turn Signal (Cab Mounted) LED	
4	16-35800	Turn Signal Switch	1
5	23836	Universal Accessory Switch	1
6	307024	Electronic Flasher	1
7	550FH	Flasher Socket	1
9	7-40004	Amber Beacon	1
10	3614A	Amber Strobe Light	1
11	RH-250	Reverse Alarm	1
12	LDA-50-1R	Reverse Alarm Switch	1
13	4-302	Traffic Horn	1
14	307031	Flush Mount Tail/Brake Lights	2
14a	307025	Flush Mount Tail/Brake Lights LED	
NS	307099	LED Load Equalizer/Resistor	1

HEATER/DEFROSTER

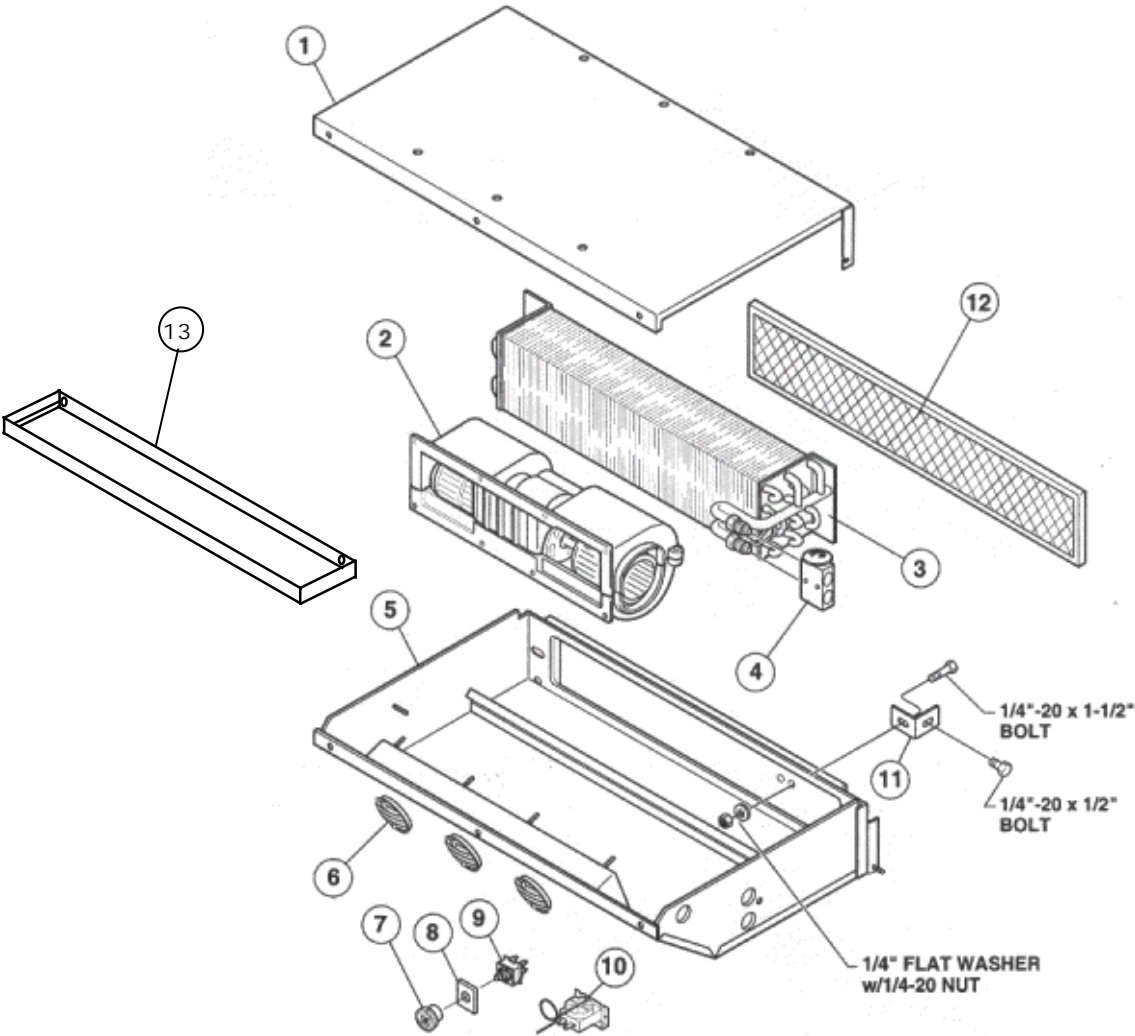
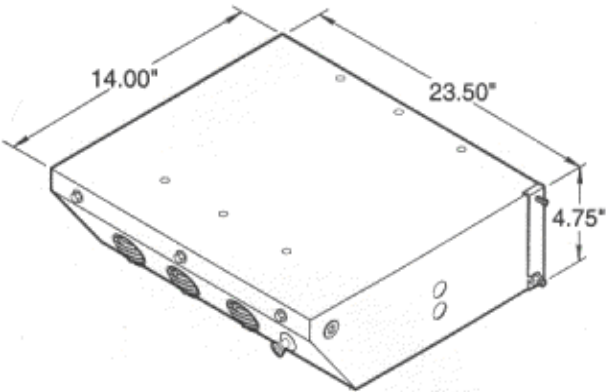


HEATER/DEFROSTER

Ref	Part No.	Description	Qty.
1	403153	Case, Bottom/Side	1
2	403154	Coil	1
3	403155	Case, Top/Side	1
4	403156	Panel, Blower	1
5	403157	Resistor, 3 – Speed	1
6	403158	Housing, Blower	1
7	403159	Motor, CCW	1
8	403160	Wheel, Blower	1
9	403161	Ring, Venturi	1
10	403162	Hose, Vent Motor Blower	1
11	403163	Plenum, Heater	1
12	403164	Louver, 3" Round	2
13	403165	Plenum, Defrost	1
14	403166	Hose, Flex, Wire, Metal, 2.5" Dia.	1
15	403167	Harness, Wire, Heater	1
16	403168	Switch, Rotary 4 Position	1
17	403169	Knob, Switch, Rotary	1

AIR CONDITIONING SYSTEM

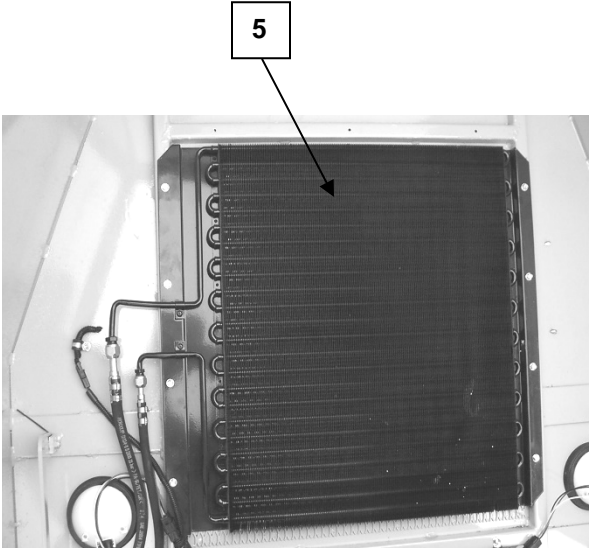
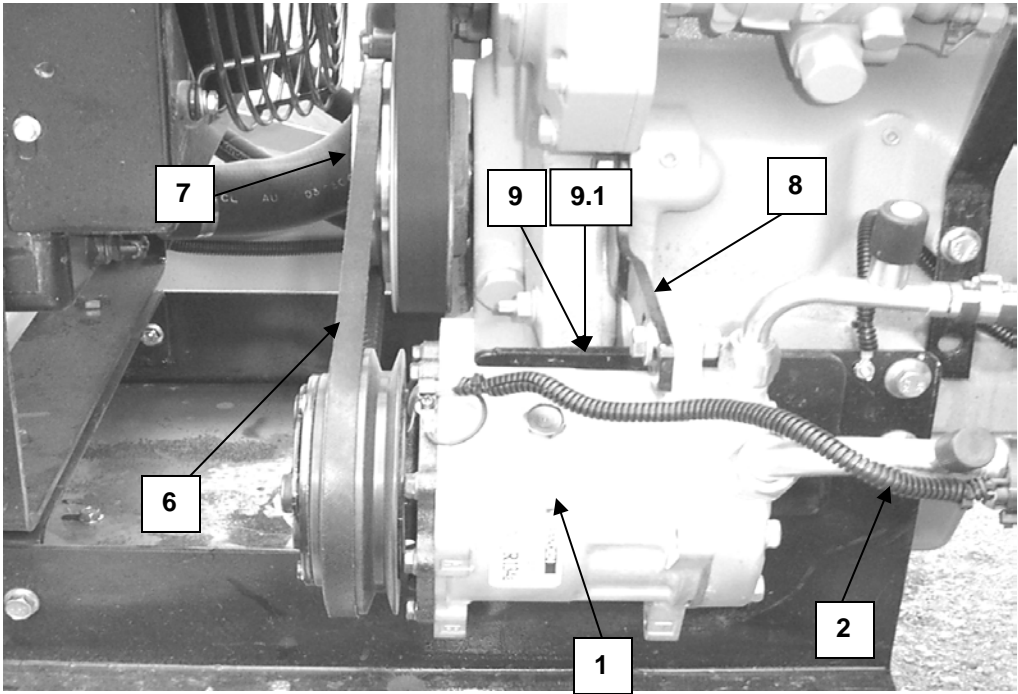
- Features:**
- 255 CFM
 - Heavy Duty Powder Coated Finish all steel case.
 - Low Profile for maximum headroom.
 - Filtered, recirculated air.



AIR CONDITIONING SYSTEM

Ref	Part No.	Description	Qty.
1	403184	Cover, Evaporator	1
2	403180	Blower Assembly	1
3	403175	Coil, Evaporator	1
4	403174	Valve, Exp., Block, R134a	1
5	403183	Housing, Evaporator	1
6	403164	Louver, 3" Round	3
7	403177	Knob, Fan	1
8	403181	Decal, Fan	1
9	403173	Switch, Rotary	1
10	403176	Thermostat	1
11	403187	Bracket, Mounting, Exp. Valve	1
12	403178	Filter	1
13	403192	Drain Pan (Evaporator)	1
Not Shown	403182	TSTAT Knob	1

AIR CONDITIONING SYSTEM

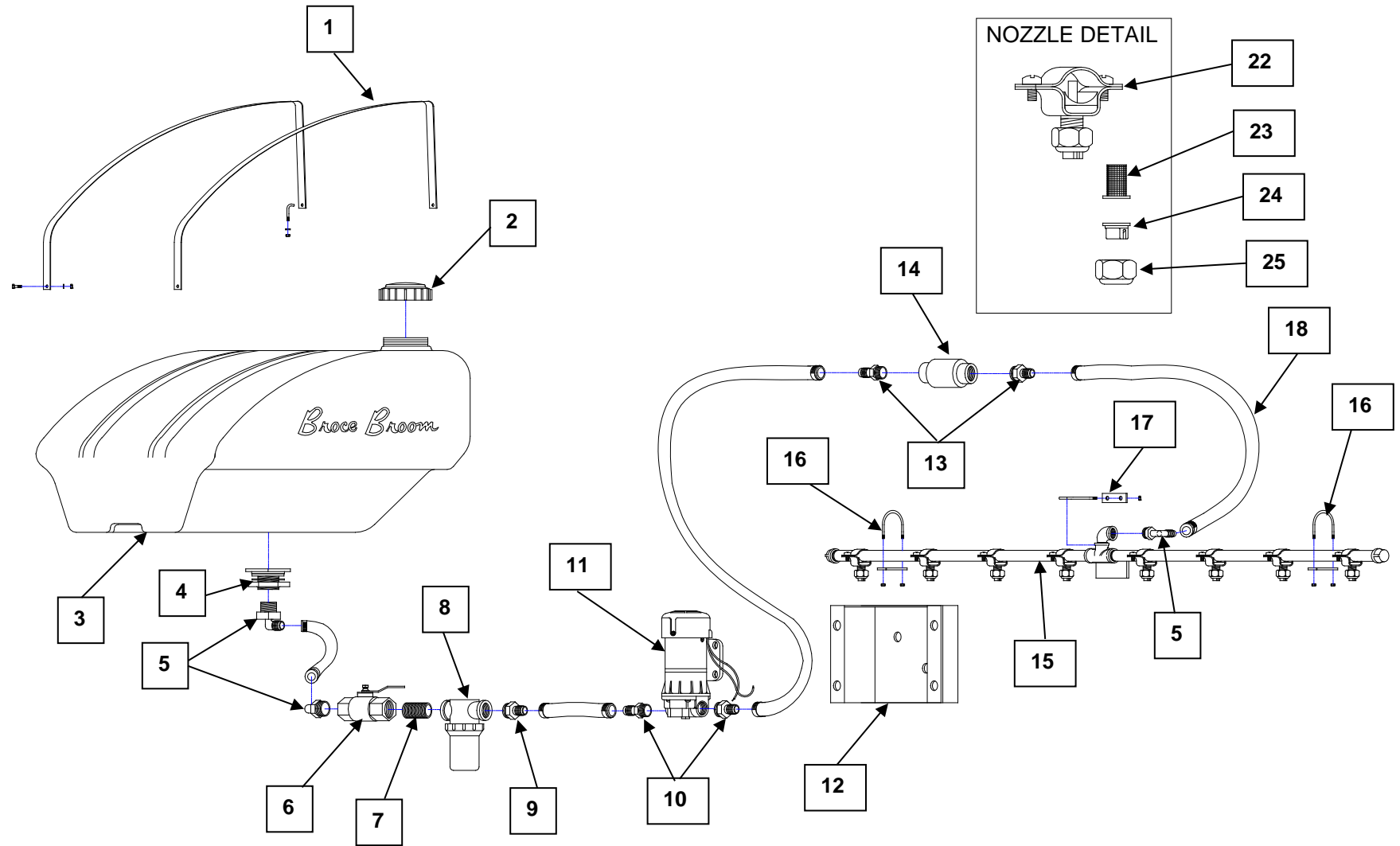


AIR CONDITIONING SYSTEM

Ref	Part No.	Description	Qty.
1	509-5406	Compressor (RCT-350 Tier 4 Final)	1
1.1	403172	Compressor (RJT-350 Tier 4 Final)	1
1.2	403170	Compressor (CR-350 T3 & KR-350 T4i)	1
2	403179	Wiring Harness	1
3	403186	Dryer Clamp	1
4	K00042	Receiver Dryer & Binary Switch	1
5	403150	Condenser	1
6	304027	A/C Belt, CR-350	1
6.1	304014	A/C Belt, KR-350	1
-	See Engine Section	Serpentine Belt, (RCT-350 Tier 4 Final)	1
-	See Engine Section	Serpentine Belt, (RJT-350 Tier 4 Final)	1
7	203341	Pulley, KR-350	1
8	203261	Adjustment Arm, CR-350 & KR-350	1
9	853610	Compressor Mount, CR-350	1
9.1	852808	Compressor Mount, KR-350	1

BROOM ACCESSORIES SYSTEMS

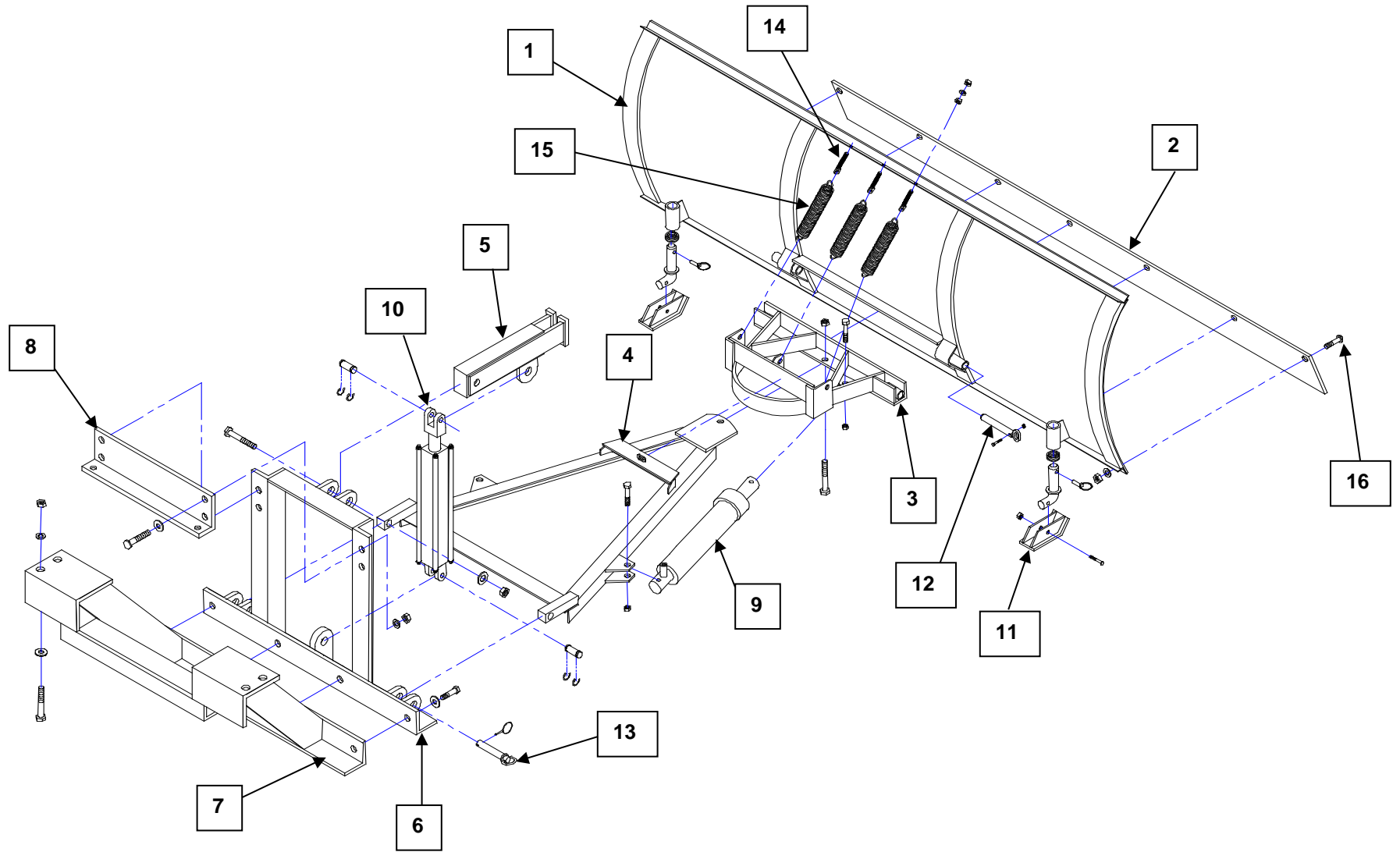
WATER SYSTEM



WATER SYSTEM

Ref	Part No.	Description	Qty.
1	201761	Strap	2
2	WS-145-D	Filler Cap, Plastic, 6" Dia.	1
3	WS-143-D	Low Profile Plastic Tank	1
4	WS-176-E	Tank Adapter (1 1/4" Dia.)	1
5	345012	Plastic Pipe Fitting, 90°	3
6	306535	3/4" Ball Valve	1
7	306120	Pipe Nipple	1
8	WS-148	Inline Strainer, Complete	1
9	345011	Plastic Pipe Fitting, Straight	1
10	345010	Plastic Pipe Fitting, Straight	2
11	WS-146	Pump	1
12	850025	Pump Mount	1
13	345009	Plastic Pipe Fitting, Straight	2
14	306950	Check Valve	1
15	WS-154	Spray Bar Assembly	1
16	202101	Brace w/ U Bolt	2
17	001716	Brace w/ U Bolt	1
18	344999	Hose (sold by foot)	per ft.
22	WS-155	Nozzle Assembly, Complete	8
23	WS-158	Nozzle Screen	8
24	TP 8002	Spray Tip	8
25	1458	Cap	8

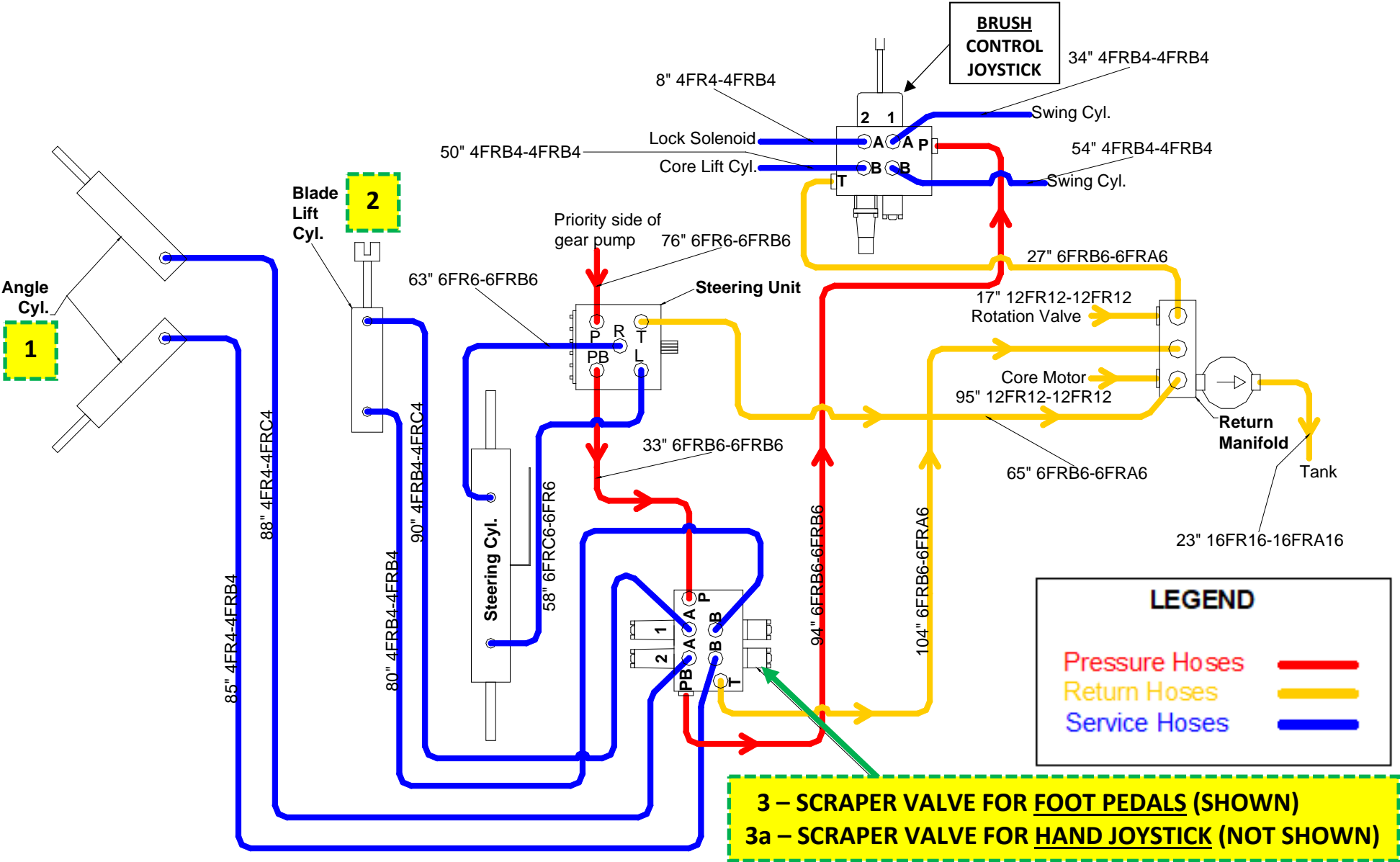
SCRAPER BLADE MECHANICALS



SCRAPER BLADE MECHANICALS

Reference	Part No.	Description	Qty.
1	850022	Blade WA (7.5' scraper)	1
2	SBA09796	Cutting Edge (High Carbon Steel)	1
3	850024	Blade Pivot WA	1
4	850023	Blade A-Frame WA	1
5	850026	Blade Lift Arm WA	1
6	850017	Lift Frame	1
7	850016	Frame Mount	1
8	201956	Frame Brace	1
9	SBA05437	Shift Cylinder	2
10	208	Lift Cylinder	1
11	SBA09126	Shoe Assembly	2
12	SBA08541	Pivot Pin Set (2 Pins)	1
13	SBA08562	Hinge Pin Set (2 Pins)	1
14	SBA09124	Eye Bolts (for springs)	3
15	SBA07017	Tip Spring	3
16	SBA08184	Cutting Edge Bolt Set	1
17	SBA02020	Marker Kit (not shown)	1

SCRAPER BLADE HYDRAULICS



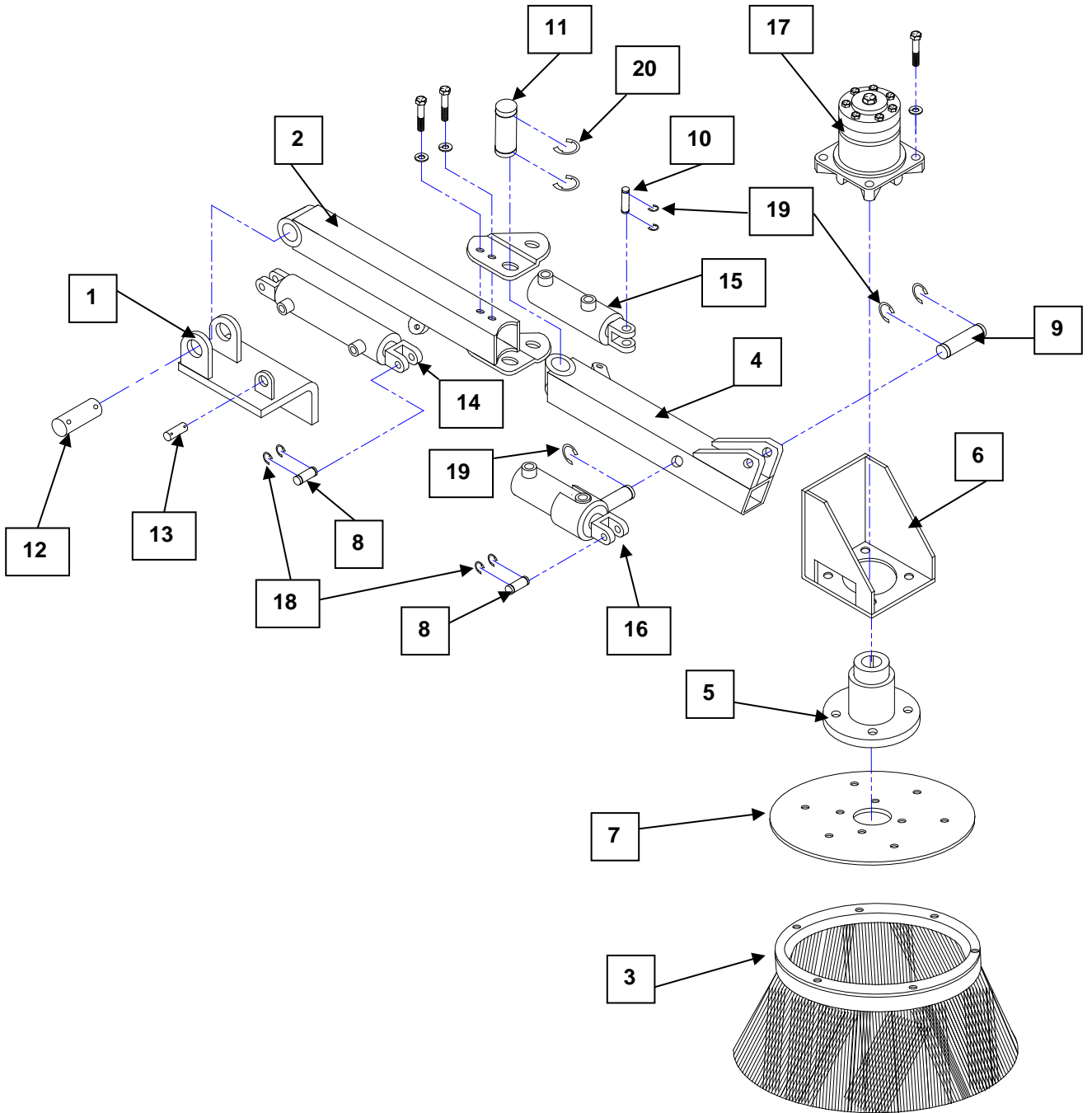
SCRAPER BLADE HYDRAULICS ASSEMBLY

Ref	Part No.	Description	Qty.
1	SBA05437	Scraper Angle Cylinder	2
2	208	Scraper Lift Cylinder	1
3	355031	Foot Pedal Control Scraper Valve (shown)	1
3a	355035	Hand Control Joystick Scraper Valve (not shown)	
Not Shown	852443	RH Foot Control Pedal	1
Not Shown	852439	LH Foot Control Pedal	1

Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

CURB SWEEPER ASSEMBLY

(Mechanical Components)

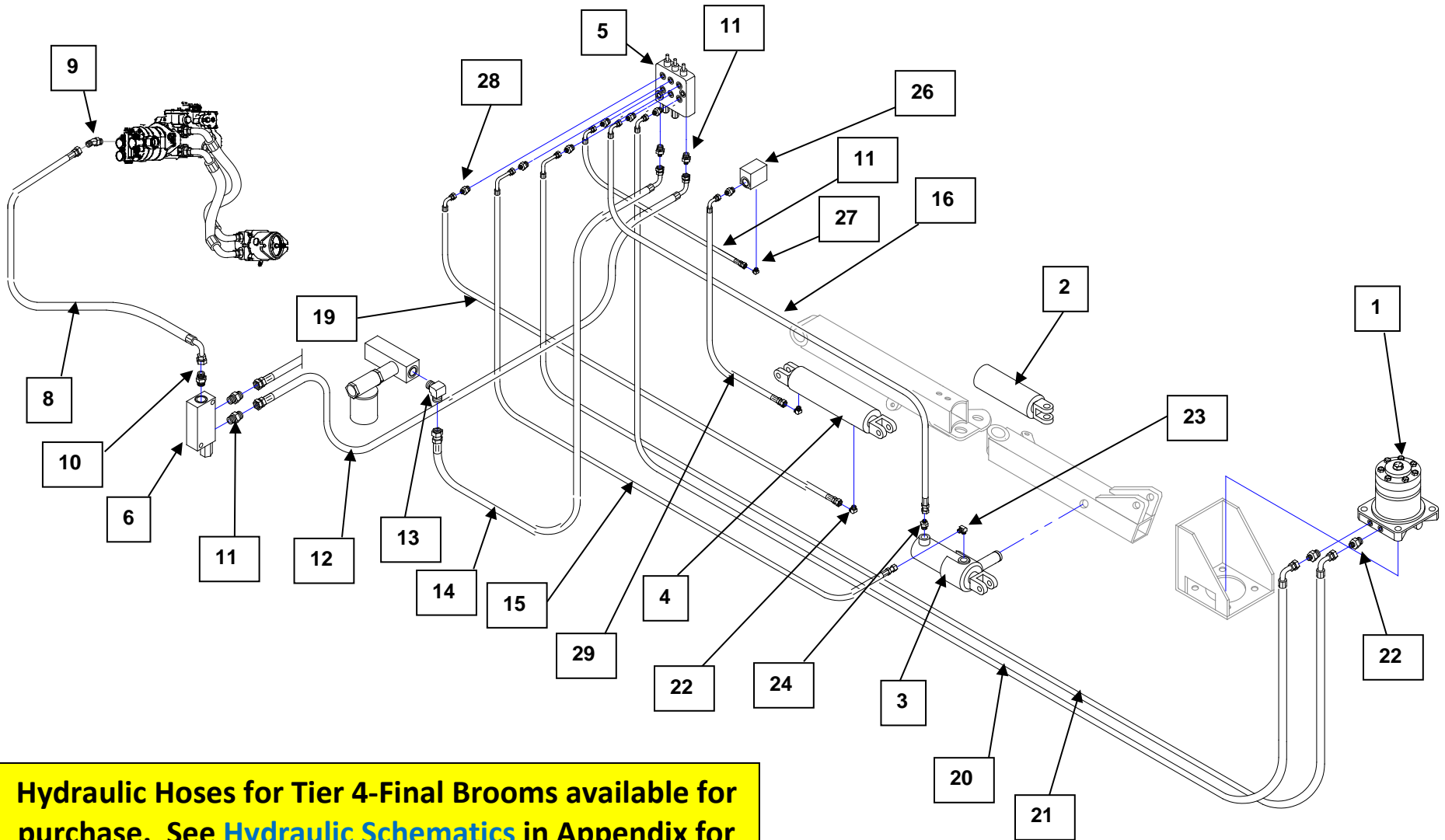


CURB SWEEPER ASSEMBLY

(Mechanical Components)

Ref	Part No.	Description	Qty.
1	854005	Mounting Bracket	1
2	854001	Main Lift Arm	1
3	304299	Curb Brush (Wire)	1
3.1	304296	Curb Brush (Poly)	1
4	854004	Tilt Arm	1
5	854011	Hub Ext.	1
6	854003	Motor Mount Bracket	1
7	204027	Broom Mounting Plate	1
8	204017	Lift and Tilt Cylinder Pin	2
9	204019	Motor Bracket Pin	1
10	204018	Accumulator Pin	1
11	204016	Pivot Pin	1
12	204005	Mounting Bracket Arm Pin	1
13	204008	Lift Cylinder Lower Pin	1
14	See Hydraulic Section	Lift Cylinder	1
15	See Hydraulic Section	Spring Cylinder	1
16	See Hydraulic Section	Tilt Cylinder	1
17	See Hydraulic Section	Hydraulic Motor	1
18	400910	C-Clip	4
19	400911	C-Clip	5
20	400912	C-Clip	2

CURB BROOM HYDRAULICS ASSEMBLY



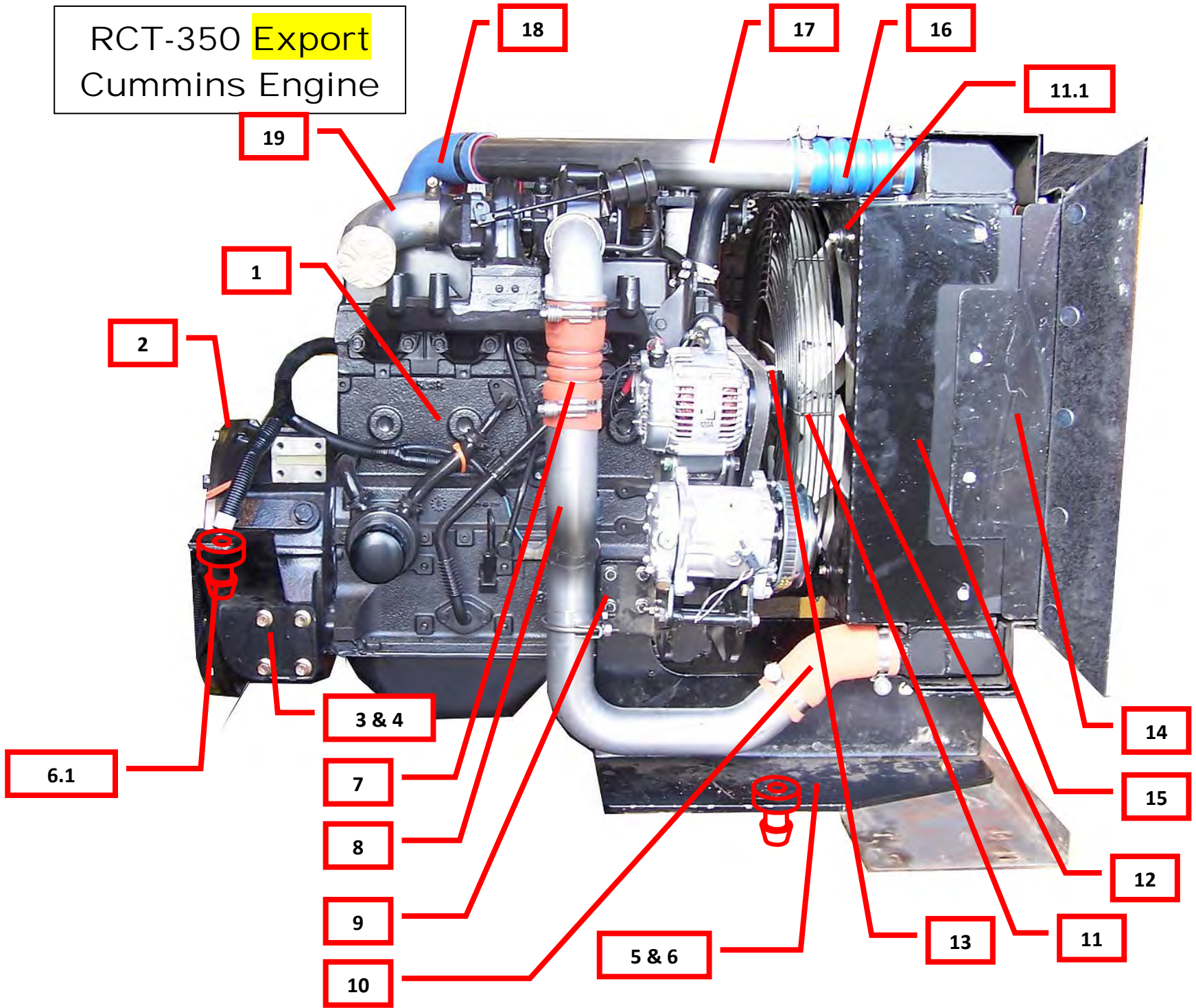
Hydraulic Hoses for Tier 4-Final Brooms available for purchase. See [Hydraulic Schematics](#) in Appendix for part numbers to order.

CURB BROOM HYDRAULICS ASSEMBLY

Reference	Part No.	Description	Qty.
1	305916	Broom Motor	1
2	325037	Spring Cylinder	1
3	305913	Tilt Cylinder	1
4	305914	Lift Cylinder	1
5	355032	Control Valve	1
6	305917	Flow Divider	1
8		Hydraulic Hose Assembly, 16"HL-1AA12FR12 & 1AA12FRB12	1
9		Hydraulic Fitting, FF1868T12-10	1
10		Hydraulic Fitting, FF1852T12-08	2
11		Hydraulic Fitting, FF1852T06-08	3
12		Hydraulic Hose Assembly, 52.5"HL-1AA6FR6 & 1AA6FRB6	1
13		Hydraulic Fitting, FF1868T06-125	1
14		Hydraulic Hose Assembly, 32"HL-1AA6FR6 & 1AA6FRB6	1
15		Hydraulic Hose Assembly, 81"HL-1AA4FRC4 & 1AA4FR4	1
16		Hydraulic Hose Assembly, 75.5"HL-1AAFR4 & 1AA6FRB4	1
19		Hydraulic Hose Assembly, 68"HL-1AA4FR4 & 1AA4FRB4	1
20		Hydraulic Hose Assembly, 89"HL-1AA6FRB6 (2)	1
21		Hydraulic Hose Assembly, 91"HL-1AA6FRC6 & 1AA6FRB6	1
23		Hydraulic Fitting, FF1868T04-04	4
24		Hydraulic Fitting, FF1852T04-04	1
26	305763	Solenoid Valve	1
27		Hydraulic Fitting, FF1868T04-06	1
28		Hydraulic Fitting, FF185204-08	5
29		Hydraulic Hose Assembly, 59"HL-1AA4FR4 & 1AA4FRB4	1

ENGINES AND RELATED PARTS

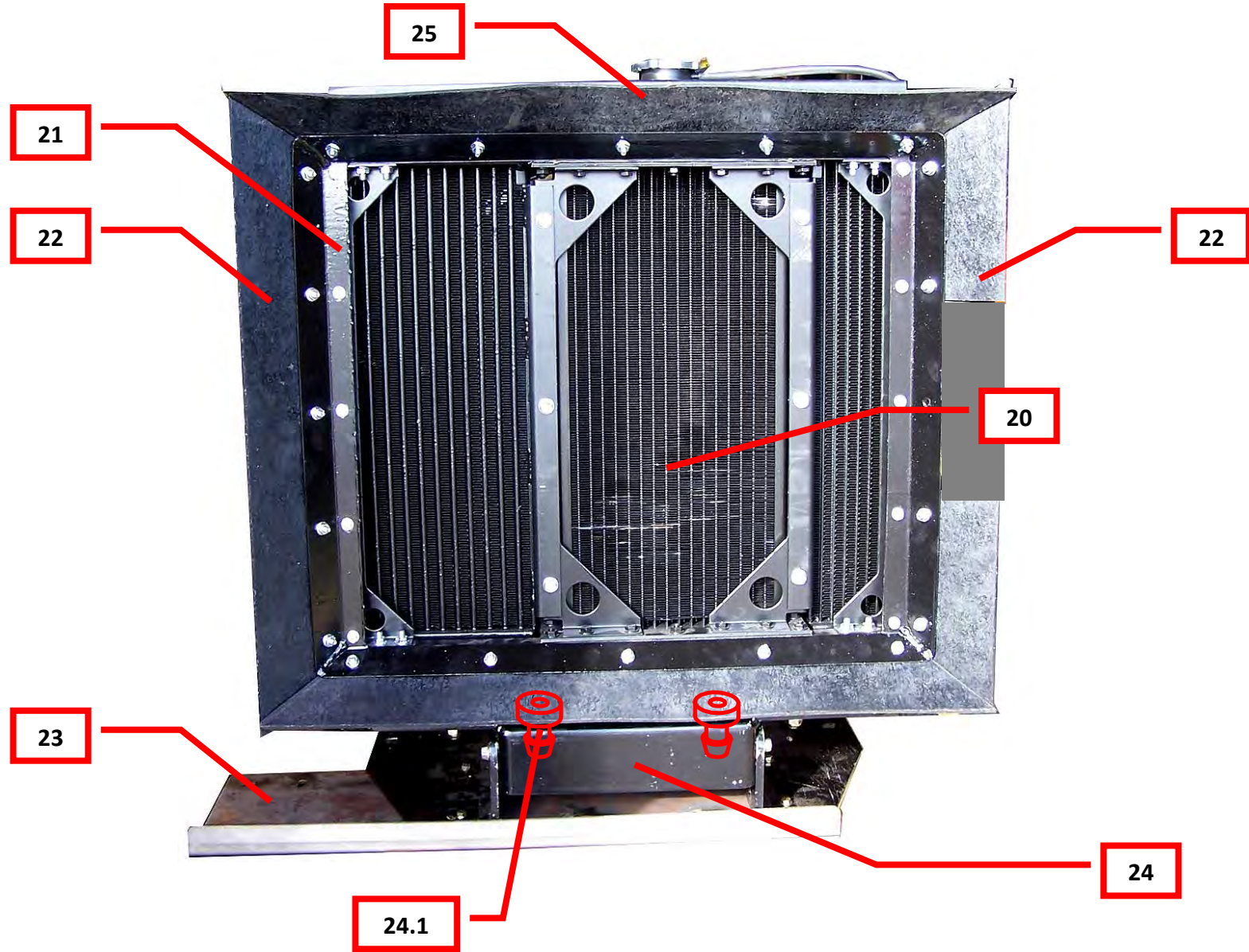
RCT-350 Export
Cummins Engine



RCT-350 **Export** Cummins Engine

Reference	Part No.	Description	Qty.
1	344054	Cummins Diesel Engine	1
2	344053	Pump Drive (Complete)	1
3	203643	Right Rear Motor Mount	1
4	203644	Left Rear Motor Mount	1
5	203641	Right Front Motor Mount	1
6	203642	Left Front Motor Mount	1
6.1	CM-714-B	Motor Mount Rubber Isolators	4
7	203656	Silicone Hose Air-to-Air	1
8	203661	Charge Air Tube	1
9	203671	Support for Pressure Tube	1
10	203657	Silicone Hose w/Bend Air-to-Air	1
11	203665	Fan Guard	1
11.1	304097	Fan Guard Rubber Isolators	4
12	203650	Cummins Fan	1
13	203649	Fan Spacer	1
14	203653	Supports for Air Duct Frame	1
15	203651	Radiator Shroud	1
16	203658	Silicone Hose Air-to-Air	1
17	203662	Charge Air Return Tube	1
18	203659	Air-to-Air 45-degree Hose	1
19	344405	Exhaust Elbow	1

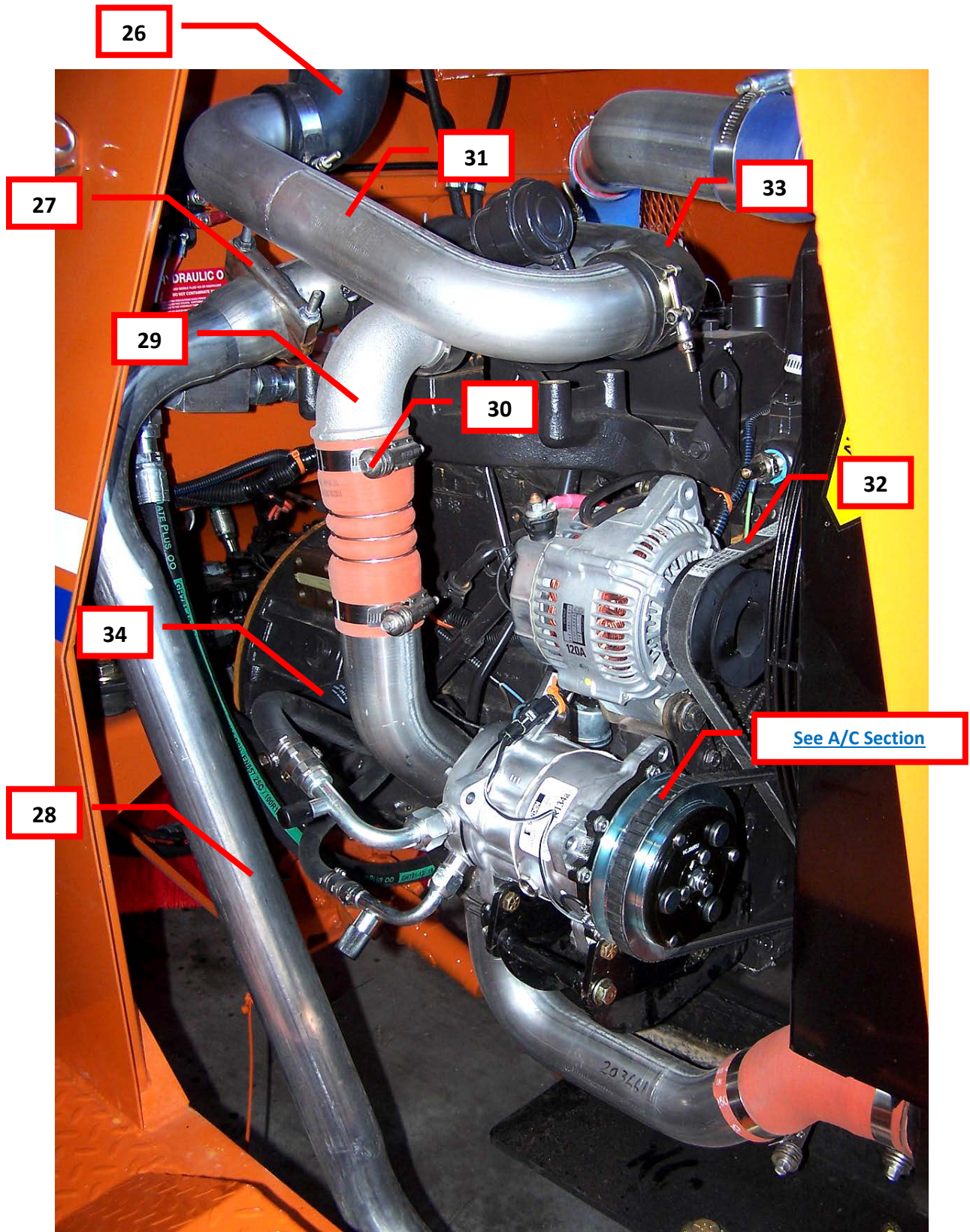
RCT-350 Export Cummins Engine



RCT-350 **Export** Cummins Engine

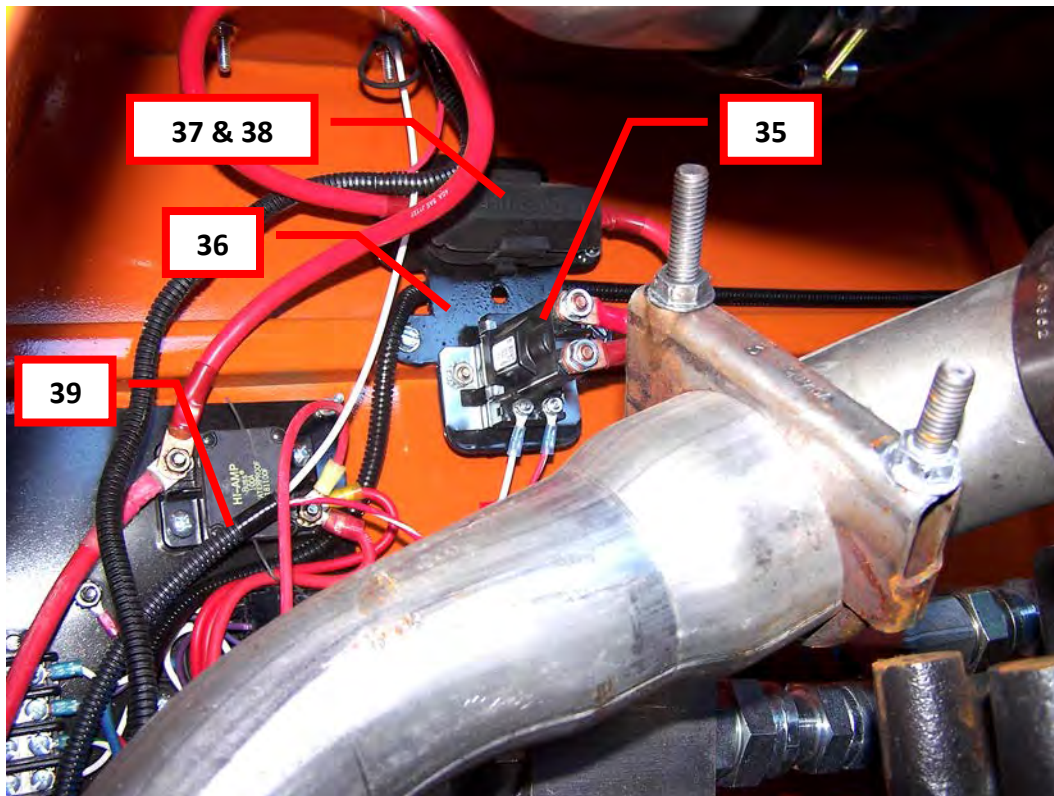
Reference	Part No.	Description	Qty.
20	203646	Radiator/Oil/Charge Air Cooler Assembly	1
21	203652	Air Duct Frame	1
22	203185	Left & Right Air Duct Seals	2
23	203105	Exhaust Heat Shield	1
24	203645	Bottom Radiator Support	1
24.1	344121	Bottom Radiator Rubber Isolators	2
25	203190	Upper & Lower Air Duct Seals	2

RCT-350 Export Cummins Engine

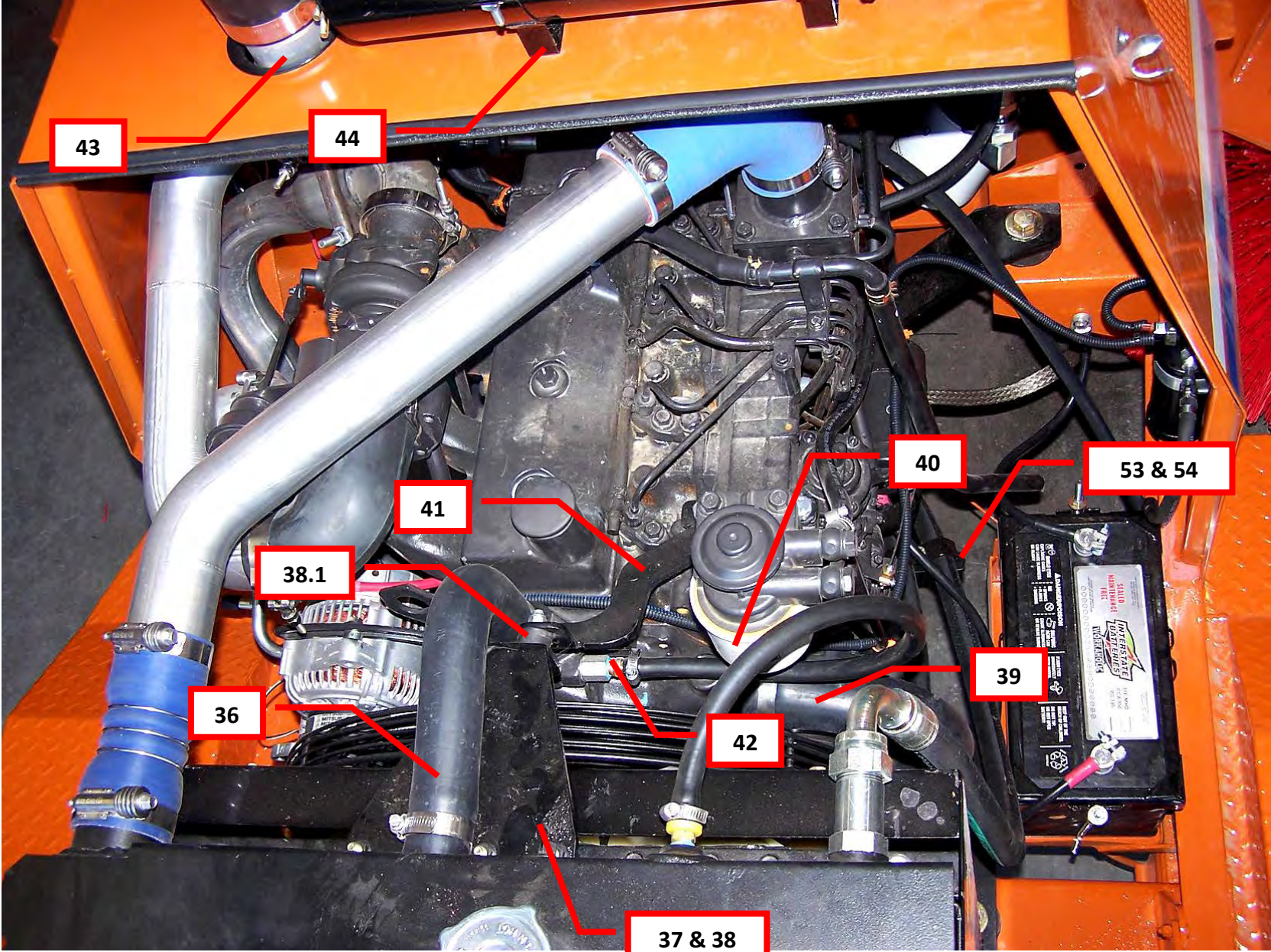


RCT-350 Export Cummins Engine

Reference	Part No.	Description	Qty.
26	304106	Rubber Elbow (3 x 2.5")	1
27	JE-758-B	Head Pipe Clamp	1
28	203663	Exhaust Pipe	1
Not Shown	344040	Tail Pipe	1
Not Shown	JE-705-B	Muffler	1
Not Shown	852110	Muffler Clamp	2
29	203622	Elbow, Steel 3"	1
30	203673	Air-to-Air Hose Clamps	8
31	203660	Connecting Tube	1
32	344407	Fan Belt	1
33	304070	Rubber Elbow (3" x 2.5" L)	1
34	344408	Oil Filter	1
35	203670	Solenoid	1
36	203666	Air Heat Plate	1
37	203668	Fuse	1
38	203669	Fuse Holder	1
39	203667	Air Heat Wiring Harness	1

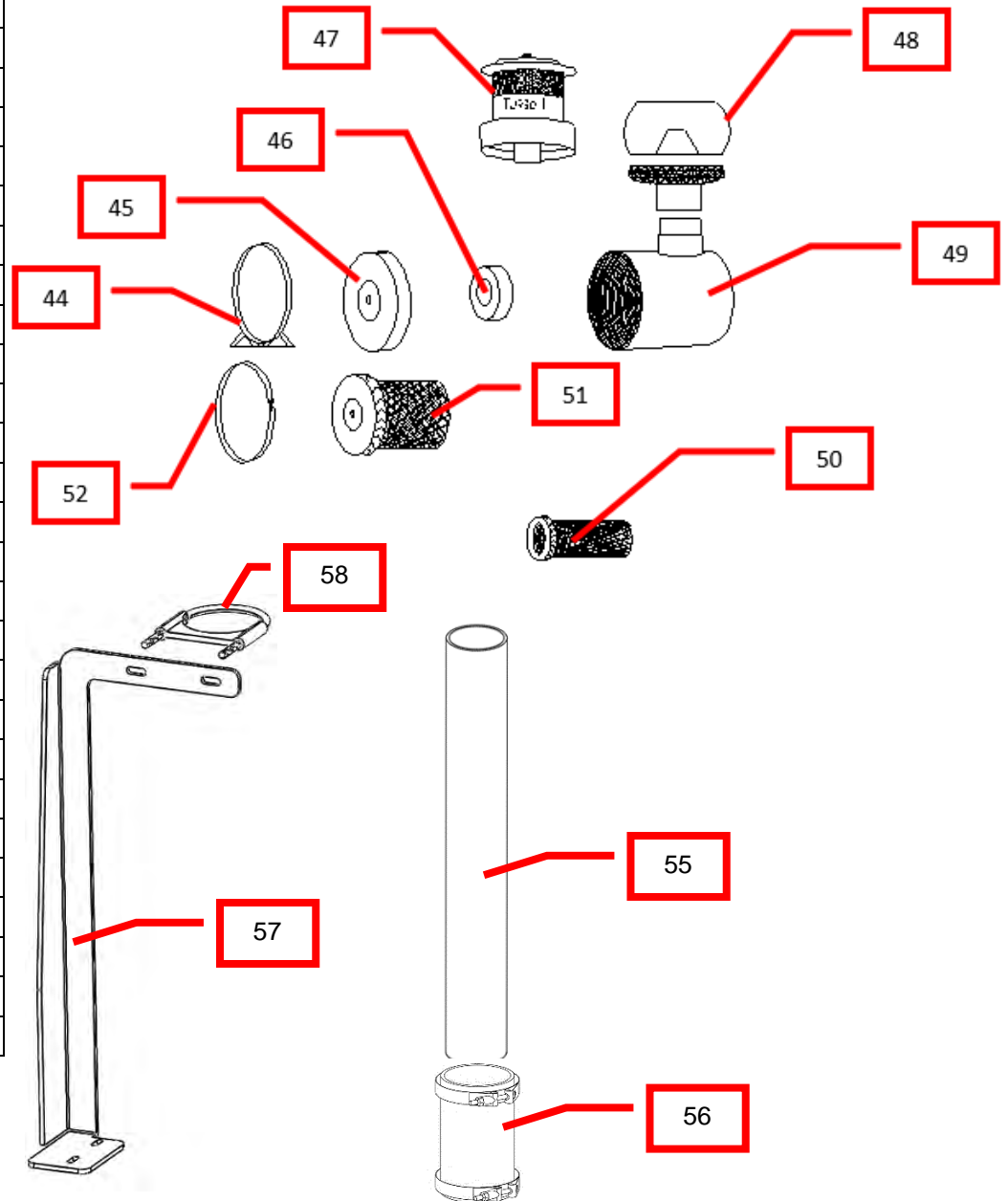


RCT-350 Export Cummins Engine

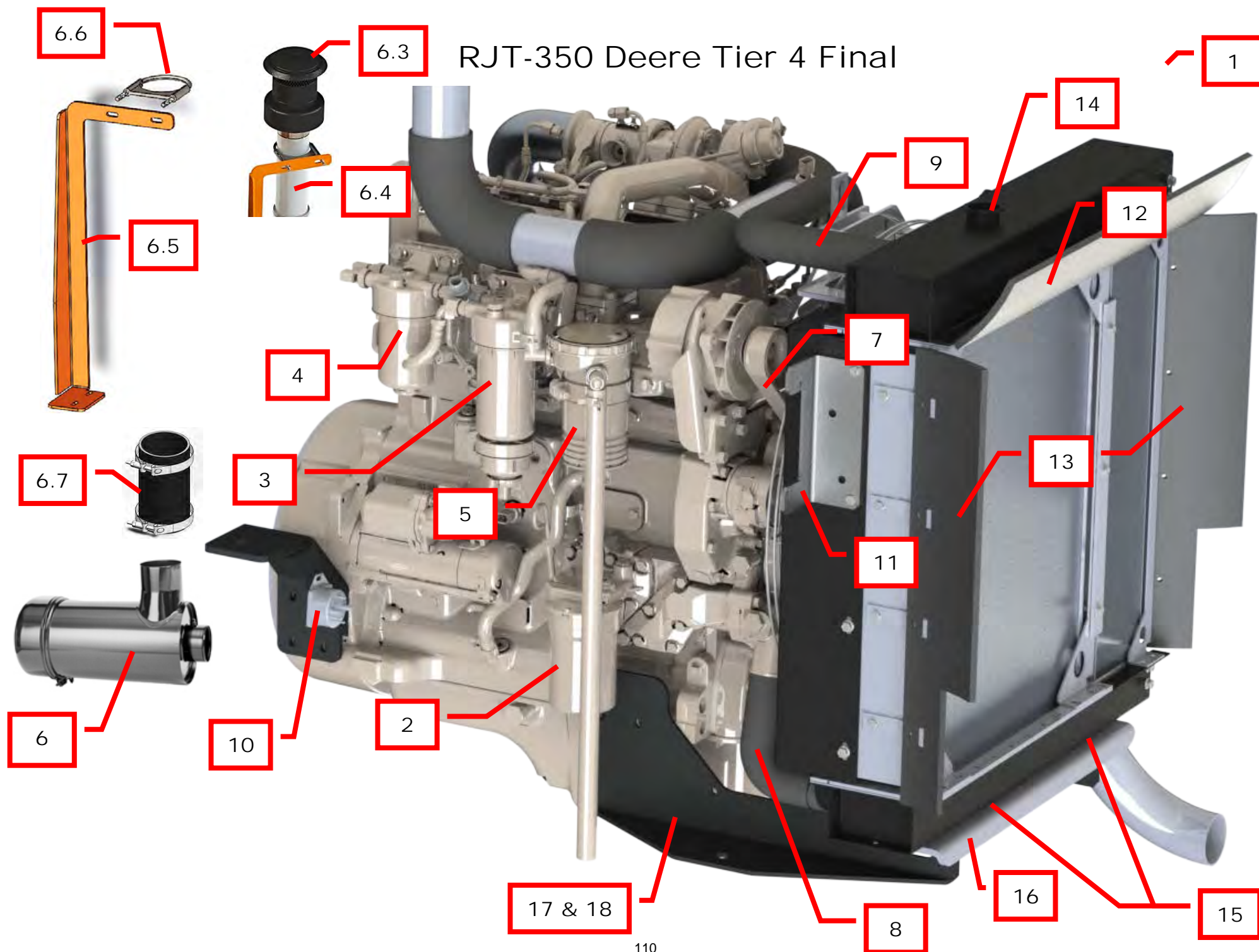


RCT-350 Export Cummins Engine

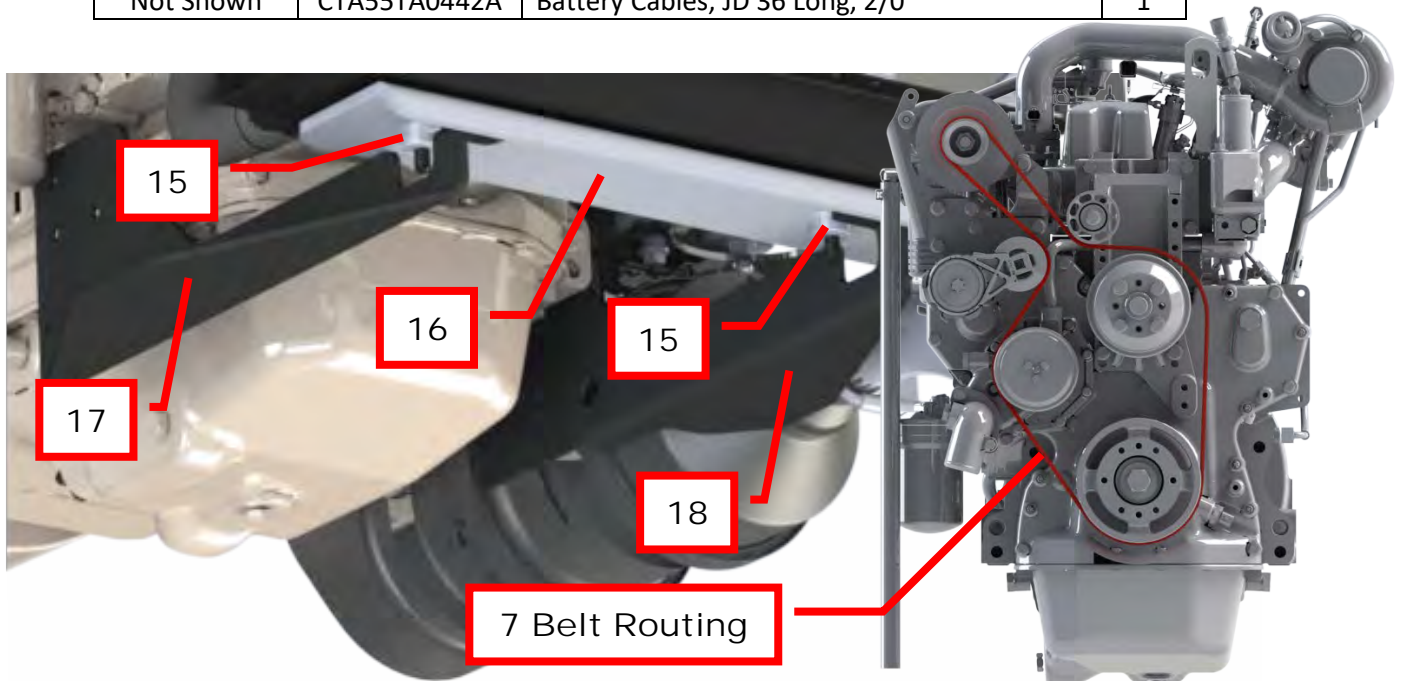
Ref	Part No.	Description	Qty.
36	203654	Upper Radiator Hose	1
37	203647	Upper Radiator Support	1
38	203664	Upper Radiator Support Spacer	1
38.1	304096	Upper Radiator Rubber Isolator	1
39	203309	Lower Radiator Hose	1
40	344406	Fuel Filter	1
41	203648	Radiator to Engine Support	1
42	203678	Vent Line Fitting	1
43	AC-763-R	Connecting Tube (short)	1
44	AC-764-R	Strap	2
45	P103113	Cup	1
46	P102980	Air Cleaner Baffle	1
47	TT-771-R	Turbo II Precleaner	1
48	304059	Enginair Precleaner	1
48.1	304063	Sy-Klone Precleaner	1
49	DE-770-R	Air Cleaner (Dual Element)	1
50	P11-9410	Safety Element	1
51	P18-2059	Service Element	1
51.1	P10 2144	Wing Nuts for Filter Elements	2
52	P00 3951	Clamp	1
53	203676	Hose Guide	1
54	203677	Hose Guide Spacer	1
55	202146	Precleaner Extension Tube	1
56	304071	Precleaner Ext Rubber Boot w/Clamps	1
57	203435	Precleaner Extension Tube Brace	1
58	4" H.D. CLAMP	Precleaner Extension Tube Clamp	1

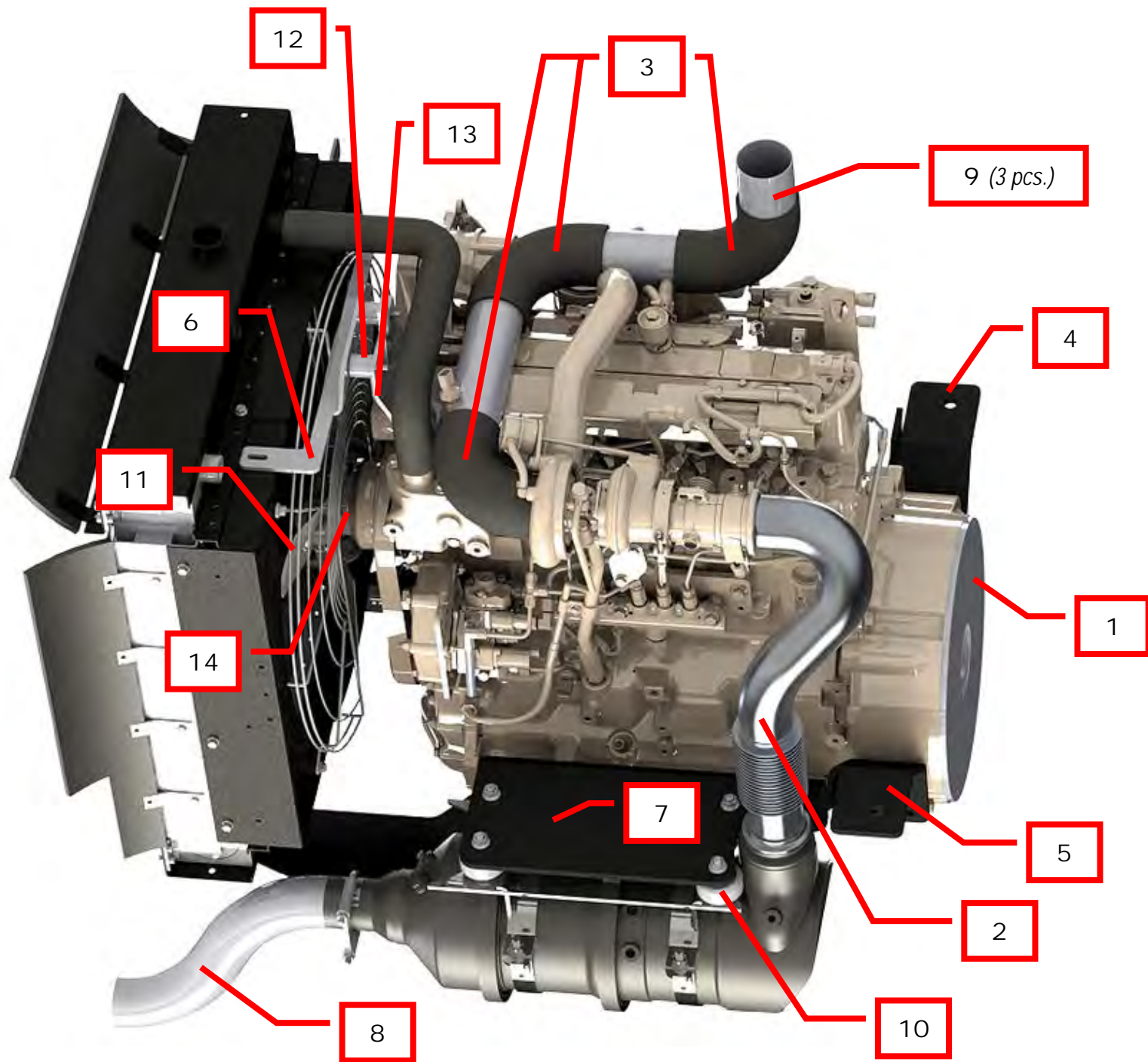


RJT-350 Deere Tier 4 Final



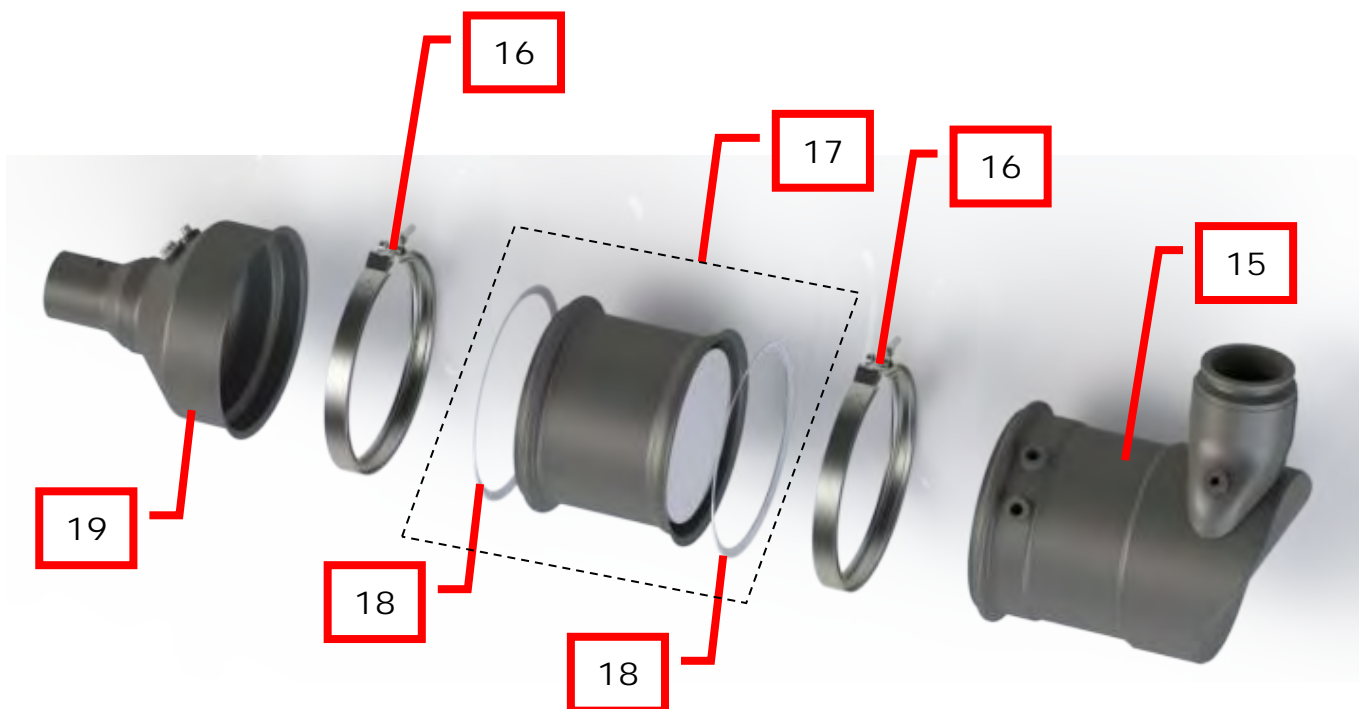
Reference	Part No.	Description	Qty.
1	344019	Engine, Complete Package	1
2	RE504836	Filter, Engine Oil	1
3	JDA05RE551507	Filter, Fuel Primary	1
4	JDA05RE551508	Filter, Fuel Secondary	1
5	JDA05DZ105796	Filter Element, Open Crankcase Ventilation	1
6	DE-770-R	Air Cleaner Kit	1
6.1	P18-2059	Filter Element, Outer (not shown)	1
6.2	P11-9410	Filter Element, Inner (not shown)	1
6.1.2	P10 2144	Filter Element Wing Nuts (not shown)	2
6.3	TT-771-R	Turbo II Precleaner	1
6.4	202146	Precleaner Extension Tube, PVC	1
6.5	203435	Precleaner Extension Tube Brace	1
6.6	4" H.D. CLAMP	Precleaner Extension Tube Brace Clamp	1
6.7	304071	Precleaner Rubber Boot with Clamps	1
6.8	AC-760-B	Air Cleaner Elbow (not shown)	1
6.9	HDA55X220027	Air Filter Minder (not shown)	1
7	JDA55R523153	Belt, JD 96.85" x 1.097 x 8 Rib	1
8	GYA5562280	Hose, Lower Radiator	1
9	GYA5560914	Hose, Upper Radiator	1
10	JDA55RE170320	Relay, Starter Circuit	1
11	HIA55II1398	Mount, Fuse Block	1
12	IIS2003	Rubber, Top Radiator Flap 5"x25"	1
13	IIS2002	Rubber, Side Radiator Flap 5"x29.75"	2
14	RSA55RS8191	Radiator/Oil Cooler Assembly	1
14.1	call	Oil Cooler Only	1
14.2	FLA55S85	Coolant Level Switch	1
14.3	CAPPRE10710	Radiator Cap	1
15	JDA55AT139776	Isolator, Cooling IT-4	2
16	HIA55II1427	Cantilever Mount, Radiator	1
17	HIA55II1428	Cantilever Mount, Right Front	1
18	HIA55II1429	Cantilever Mount, Left Front	1
Not Shown	EIA559146034	Wire Harness, Broce 4045TFC03	1
Not Shown	976-145-P204	Analog Throttle W/Jumper	1
Not Shown	CTA55TA0442A	Battery Cables, JD 36 Long, 2/0	1





RJT-350 DEERE TIER 4 FINAL ENGINE

Ref	Part No.	Description	Qty.
1	GIA553210015K42EC	Pump Mount, #4, 10"SAE"BB"SPLINE 2	1
2	IIS5015	Exhaust Pipe	1
2.1	GTA55WS31030	Blanket Wrap, Exhaust Pipe (not shown)	1
3	AC-760-R	3" Rubber 90 Degree Elbow	3
4	HIA55II1425	Mount, Engine Right Rear	1
5	HIA55II1426	Mount, Engine Left Rear	1
6	HIA55II1431	Mount, Top Radiator	1
7	HIA55II1430	Mount, Exhaust Front	1
8	IIS5017	Tail Pipe	1
9	IIS9044	Air Cleaner Pipe Kit (3 pcs.)	1
10	JDA55AT375421	Isolator, Exhaust	4
11	MWA552536215	Fan, Plastic 3-Blade Suction	1
12	SRA5565500001	Isolator, Top Radiator	2
13	IIS9045	Bracket, Radiator Isolator & Lift	1
14	SMA552962	Fan Spacer, 1 1/2"	1
15	RE566836	Diesel Oxidation Catalyst (DOC)	1
16	RE545865	Clamp	2
17	RE567056	Diesel Particulate Filter (includes gaskets)	1
18	R532139	Gasket	2
19	RE549532	Exhaust Pipe	1



RJT-350 DEERE TIER 4 FINAL ENGINE

PV380 Display






Reference	Part No.	Description	Qty.
1	MUA5578350774	PV380-R2, BROCE BROOM - JD	1

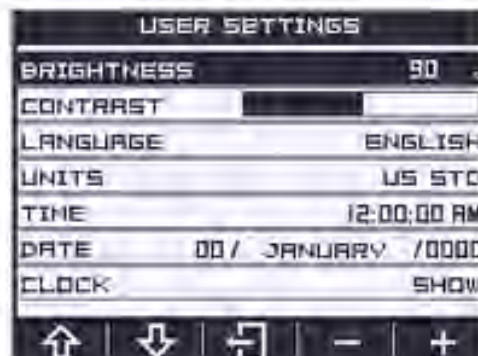


User Settings

Brightness and Contrast

Follow these steps to adjust the Brightness and Contrast:

1. Press  to display the Menu.
2. Arrow to **USER SETTINGS**. Press  and arrow to the desired selection.
3. Press  and  to adjust the selection.
4. Press  to save and exit the menu.











RJT-350 DEERE TIER 4 FINAL ENGINE

PV380 Display

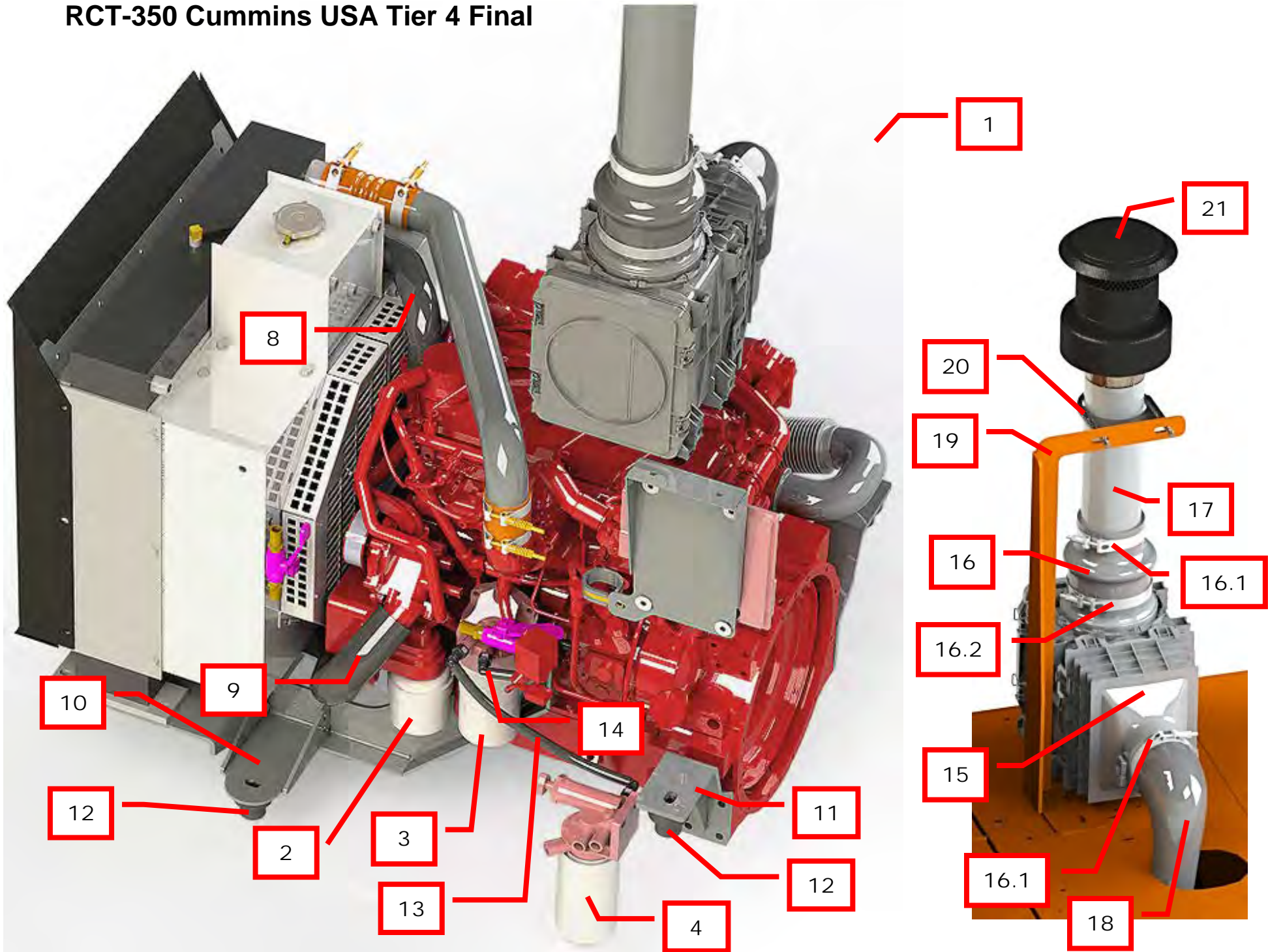
Tachometer Area: The tachometer is the most important reading and is shown in the largest gauge form that will fit the screen. This represents the Engine speed with an option to choose a 3000, 4000 or 6000 RPM dial

Parameter Area: The following parameters are the electronic engine defaults until other parameters are selected from the menu. Only the second screen, areas 3 through 6 may be changed:

- Engine Oil Pressure (numeric)
- Engine Temperature (numeric)
- Battery Voltage (numeric)
- Fuel Level (numeric)
- 2 – DEF Level (Tier 4 only) or target speed when DPF/SCR is disabled
- Target Speed – appears on screen for 5 seconds when the user throttles the engine

Icon(s)	Function(s)
	Shutdown (electronic or by mechanical set point)
	Warning
	HEST
	Regen Inhibit (Regen Inhibit is restricted when a HEST alarm is present)
	Diesel Particulate Filter (DPF)
	DEF level (electronic only)
	Service indicator
	Engine Emissions System Failure

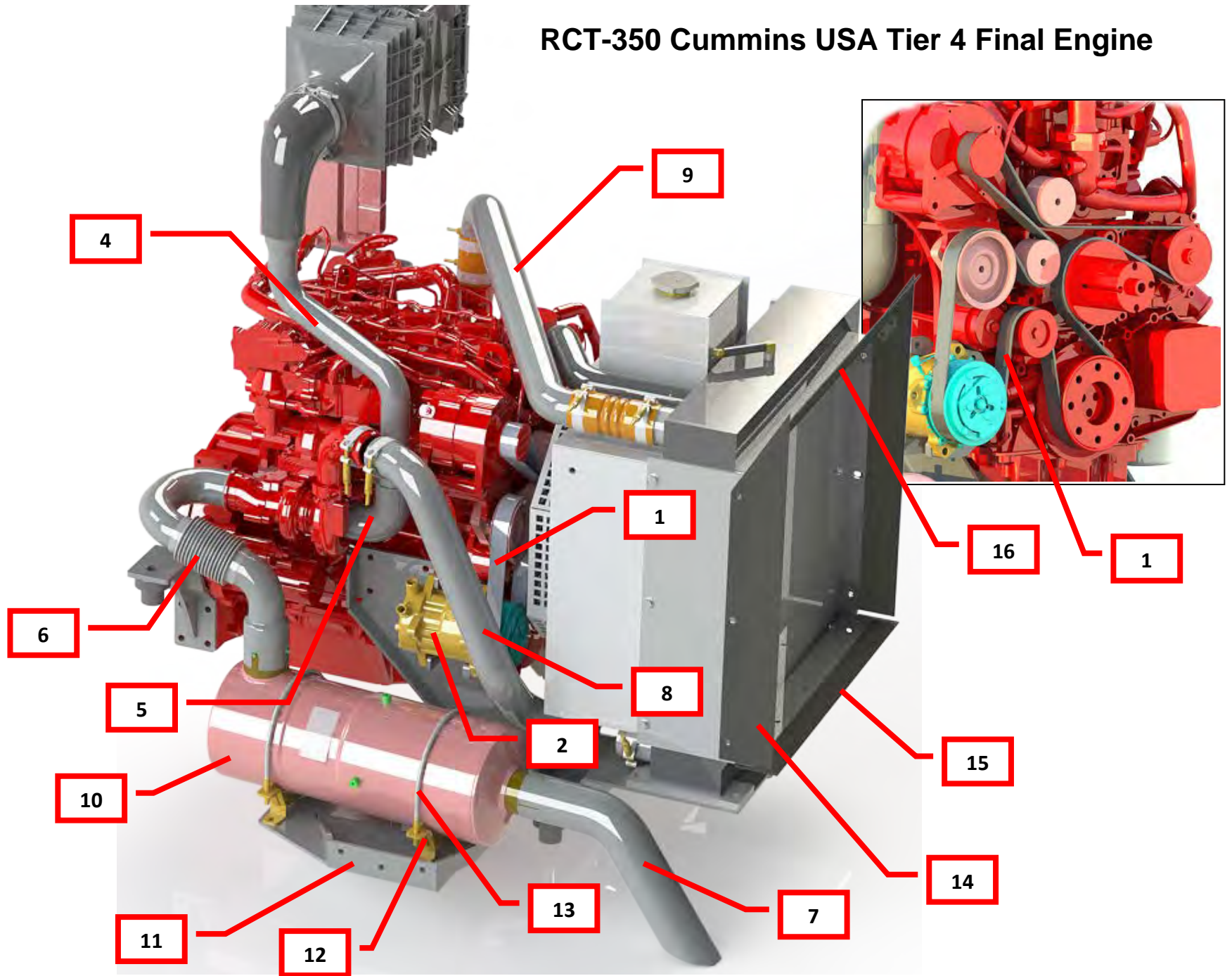
RCT-350 Cummins USA Tier 4 Final



RCT-350 CUMMINS USA TIER 4 FINAL ENGINE AND RELATED PARTS

Reference	Part No.	Description	Qty.
1	344022	Engine, Complete Package	1
2	LF9230	Filter, Engine Oil	1
3	FF90567-01	Filter, Fuel Primary Cartridge	1
4	FS19732	Filter, Fuel Secondary	1
8	MCA374-A	Hose, Upper Radiator	1
9	MCA375-A	Hose, Lower Radiator	1
10	MFM111-A	Mount, Motor Left Front	1
10.1	MFM110-A	Mount, Motor Right Front	1
11	MRM125-A	Mount, Motor Left Rear	1
11.2	MRM124-A	Mount, Motor Right Rear	1
12	CB-1180-1	Isolator, Engine Mount	4
13	MFC131-A	Fuel Hose, Quick-Connect	1
14	MFC132-B	Fuel Hose, Quick-Connect	1
15	AH55642VEJX	Air Cleaner, Dual Element	1
15.1	AF55020	Primary Air Cleaner Filter Element (not shown)	1
15.2	AF55320	Secondary Air Cleaner Filter Element (not shown)	1
15.3	135501-00825	Filter Minder (not shown)	1
16	5H4	Hose, Reducing Hump	1
16.1	210-102	Clamp	2
16.2	210-118	Clamp, Lower	1
17	MAI675-B	Tube, Extension Air Intake	1
18	90HL40R25	Hose, 90 Degree Reducing 4-2.5"	1
19	203435	Extension Stack Brace	1
20	4" H.D. CLAMP	Extension Stack Brace Clamp	1
21	TT-771-R	Turbo II Precleaner	1
NS	MWH369-B	Cable, Battery Power	1

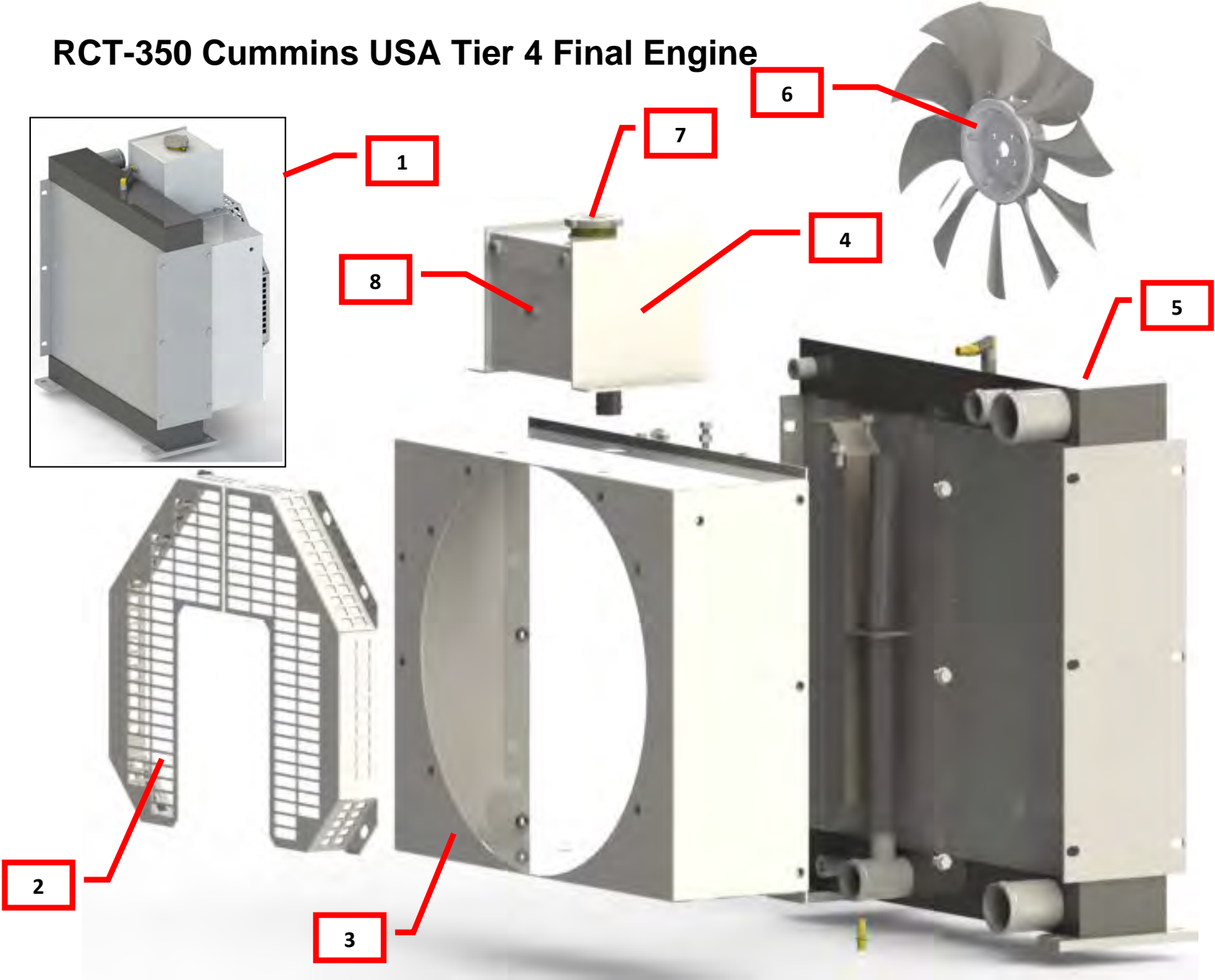
RCT-350 Cummins USA Tier 4 Final Engine



RCT-350 Cummins USA TIER 4 Final Engine

Ref	Part No.	Description	Qty.
1	5254354	Belt, Serpentine	1
2	509-5406	Compressor, A/C	1
4	MAI584-B	Tube, Air Intake	4
5	304110	Hose, 90 Degree 2"	1
6	MXS410-A	Downpipe, Exhaust	1
7	MXS411-A	Tailpipe, Exhaust	1
8	MAI582-A	Tube, Hot CAC	1
8.1	250-73B	Clamp	1
9	MAI583-A	Tube, Cold CAC	1
10	A048Y154	DOC, Exhaust	1
11	MXS428-A	DOC Mounting Bracket	1
12	MXS265-B	Base, CCC Mounting	2
13	MXS258-B	U-Bolt	2
14	203485	Anti-Recirculation Flap, Left/Right	2
15	203484	Anti-Recirculation Flap, Lower	1
16	203483	Anti-Recirculation Flap, Upper	1

RCT-350 Cummins USA Tier 4 Final Engine

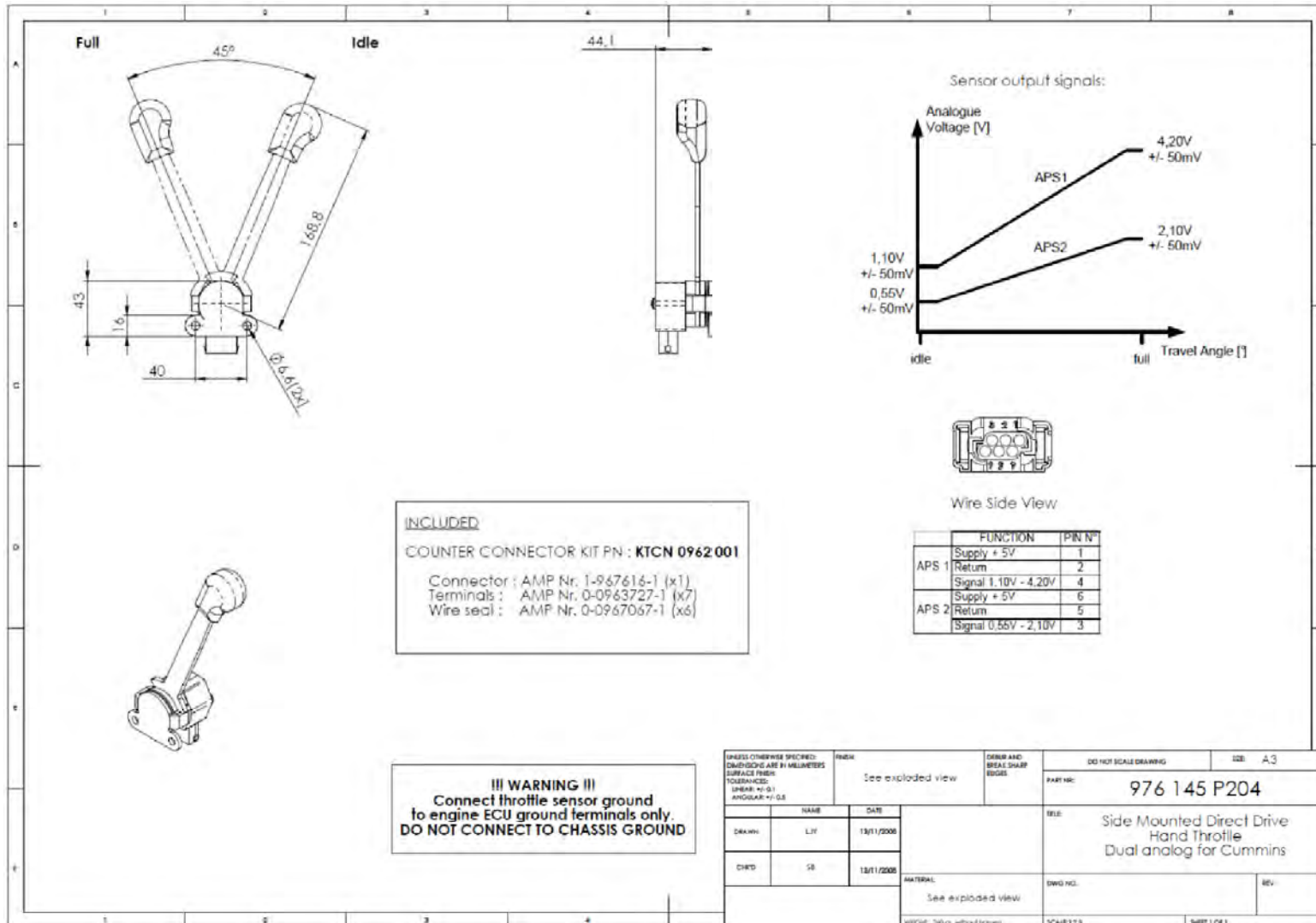


RCT-350 Cummins USA TIER 4 Final Engine

Reference	Part No.	Description	Qty.
1	01-41129	Cooling Package (HOC, CAC, Rad)	1
2	34-41317-01	Guard, Fan, Left	1
2.1	34-41317-02	Guard, Fan, Right	1
3	33-41316	Shroud, Fan	1
4	14-41318-9	Reservoir, Coolant	1
5	24-41319-9	Radiator, CAC, HOC	1
5.1	call	Oil Cooler Only	1
6	344001	Fan, Engine Cooling	1
7	11-01534	Cap, Radiator	1
8	1035100002-001	Coolant Level Sensor	1

RCT-350 Cummins USA TIER 4 Final Engine

Reference	Part No.	Description	Qty.
1	976-145-P204	Throttle, Cummins	1



RCT-350 Cummins USA TIER 4 Final Engine

Reference	Part No.	Description	Qty.
1	344021	Digital Display, Cummins	1



2.1.1 Default Gauge screen view

Default Gauge Key Usage
 Key 1 – Menu Bar
 Key 2 – Menu Bar
 Key 3 – Menu Bar
 Key 4 – Menu Bar
 Key 5 – Menu Bar

Default Gauge View	
Air Filter Restriction (AI 2)	
Warning Icon	
Engine Icon	
Parking Brake Icon (AI 3)	
Hydraulic Restriction (AI 1)	
Hydraulic Temperature (RI 1)	
Battery Voltage (SPN 158)	
Coolant Temperature (SPN 110)	
Fuel Level (RI 2)	
Oil Pressure (SPN 100)	

2.1.1 Menu Bar

Default Menu Bar
 Key 1 – Brightness Settings
 Key 2 – Language/Unit Settings
 Key 3 – Unused
 Key 4 – Utilities Menu Bar
 Key 5 – Diagnostic Messages

Utilities Menu Bar
 Key 1 – Unused
 Key 2 – Unused
 Key 3 – Return to Default Menu Bar
 Key 4 – Software Version
 Key 5 – OEM Menu

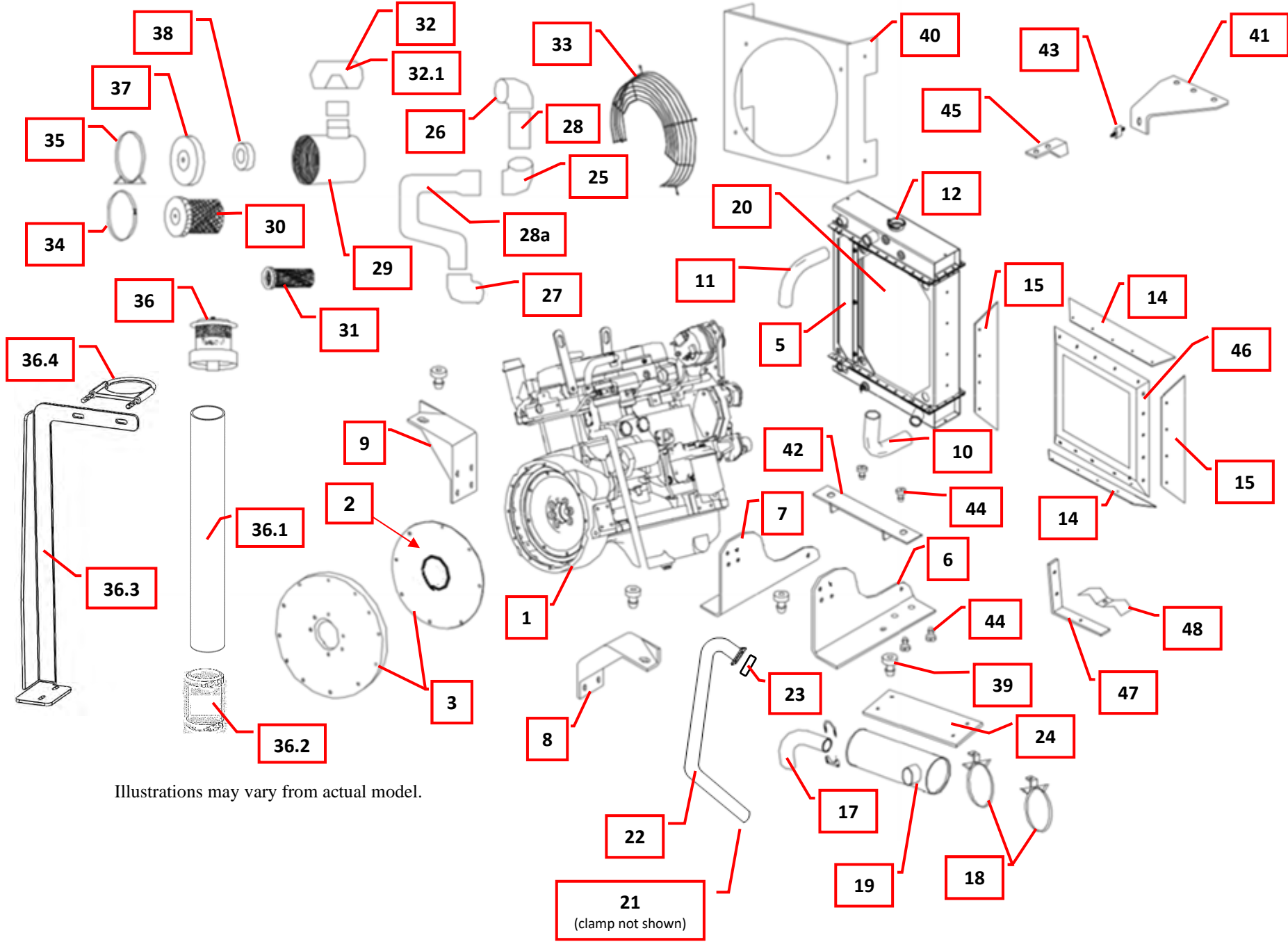
Menu Bar	
Escape	
Diagnostic Messages	

2.2.1 Brightness Menu

Display Settings screen
 Key 1 – Previous Menu Item
 Key 2 – Next Menu Item
 Key 3 – Go to Menu Screen
 Key 4 – Increase Brightness/Contrast
 Key 5 – Decrease Brightness/Contrast

Menu bar will auto-hide after 8 seconds on non-use.

KR-350 KUBOTA ENGINE AND RELATED PARTS



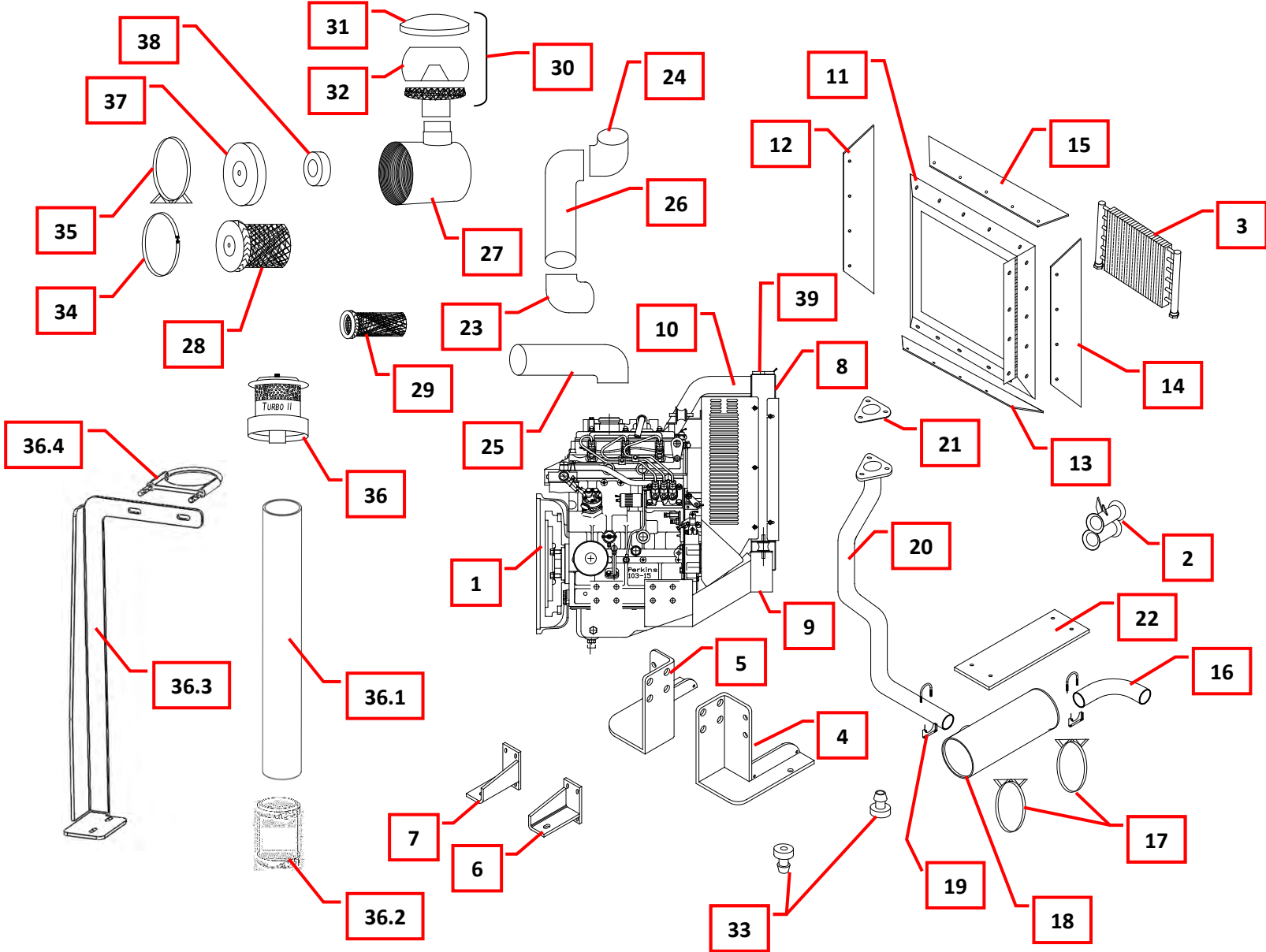
Illustrations may vary from actual model.

KR-350 KUBOTA ENGINE AND RELATED PARTS

Ref	Part No.	Description	Qty
1	Not Available	Kubota Diesel Engine	1
2	N/A	Drive Plate (see #3)	1
3	344052	Pump Drive, Complete	1
5	203794A	Oil Cooler only	1
6	203330	Right Front Motor Mount	1
7	203331	Left Front Motor Mount	1
8	203780	Right Rear Motor Mount	1
9	203781	Left Rear Motor Mount	1
10	304099	Lower Radiator Hose	1
11	CR-721-B	Upper Radiator Hose	1
12	344060	Radiator Cap	1
14	203800	Top and Bottom Seal	2
15	203799	Left and Right Seal	2
17	344040	Tail Pipe	1
18	852110	Muffler Clamp	2
19	JE-705-B	Muffler	1
20	203794	Radiator/Oil Cooler Assembly	1
21	JE-758-B	Head Pipe Clamp (not shown)	2
22	852337	Exhaust Pipe	1
23	19258-12230	Exhaust Gasket	1
24	203105	Exhaust Heat Shield	1
25	304106	Rubber Elbow (3" x 2.5")	1
26	AC-760-B	Rubber Elbow (3.5" x 3")	1
27	304110	Rubber Elbow (1.75" x 2")	1
28	202152	Connecting Tube	1
28a	203345	Connecting Tube	1
29	DE-770-R	Air Cleaner (Dual Element)	1
30	P18-2059	Service Element	1
31	P11-9410	Safety Element	1
30.31	P10 2144	Wing Nuts for Filter Elements	2

Ref	Part No.	Description	Qty
32	304059	Enginair Precleaner	1
32.1	304063	Sy-Klone Precleaner	1
33	203806	Fan Guard	1
34	P00 3951	Clamp	1
35	AC-764-R	Strap	2
36	TT-771-R	Turbo II Precleaner	1
36.1	202146	Precleaner Extension Stack Tube	1
36.2	304071	Precleaner Rubber Boot with Clamps	1
36.3	203435	Precleaner Extension Stack Brace	1
36.4	4" H.D. CLAMP	Precleaner Extension Stack Clamp	1
37	P103113	Cup	1
38	P102980	Air Cleaner Baffle	1
39	CM-714-B	Engine Isolator Kit	4
40	203797	Radiator Shroud	1
41	203801	Upper Radiator Support	1
42	852802	Bottom Radiator Support	1
43	304096	Top Radiator Isolator	1
44	344121	Bottom Radiator & Heat Shield Isolators	6
45	203334	Radiator to Mount Support	1
46	203798	Air Guide Frame	1
47	203804	Hose Guide	1
48	001397	Hump Clamp	1
NS	203795	Kubota Fan	1
NS	203805	Fan Spacer	1
NS	344550	Oil Filter	1
NS	16631-43560	Fuel Filter	1
NS	304015	Alternator/Engine Belt	1
NS	203346	Alternator Support Bracket	1
NS	203347	Alternator Adjustment Bracket	1
NS	203348	Alternator Bushing	1

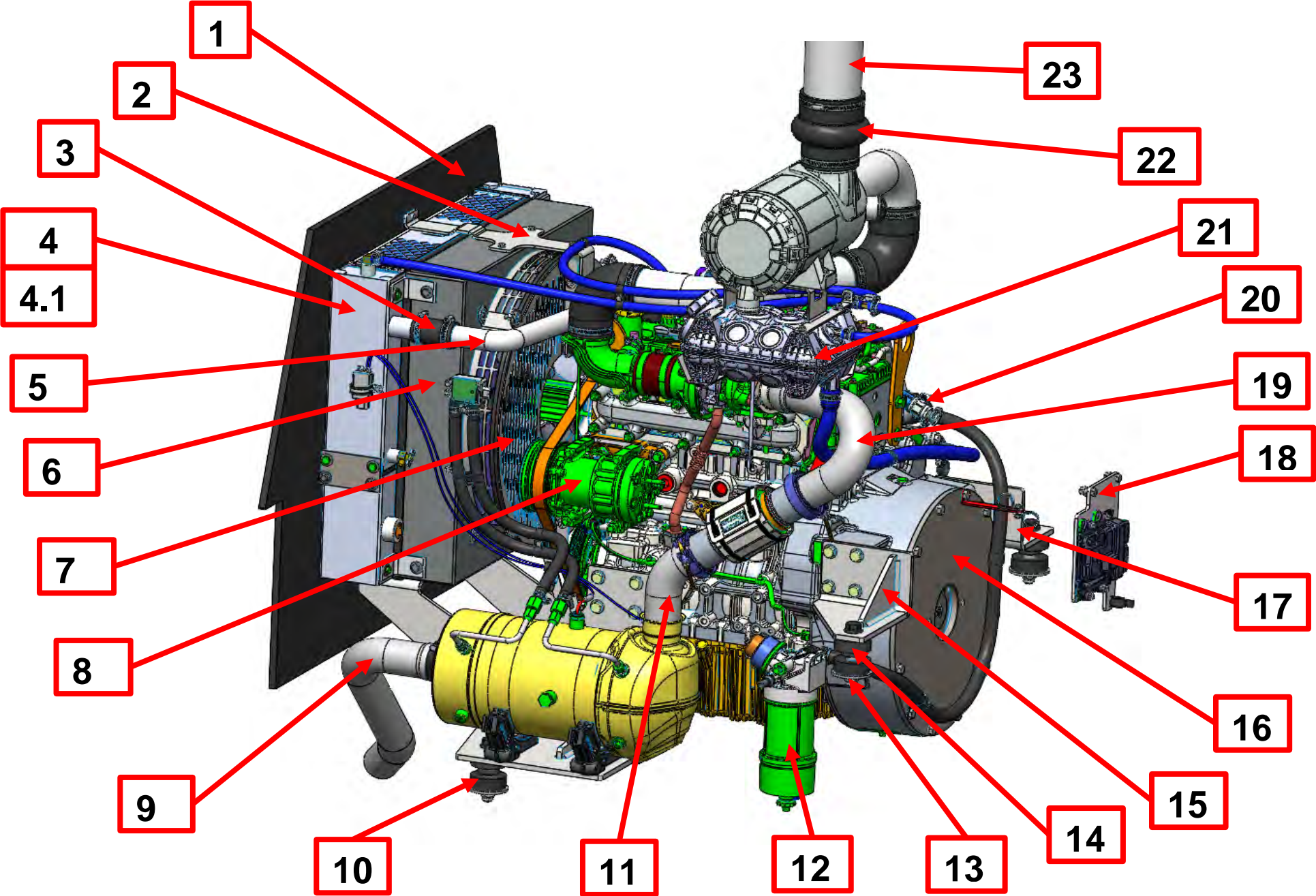
CAT C4.4 ENGINE AND RELATED PARTS



Illustrations may vary from actual model

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	Not Available	CAT C4.4 Diesel Engine	1
2	852045	Oil Cooler Hose Guide Sleeve	1
3	325027	Oil Cooler - Aluminum	1
4	203600	Right Front Motor Mount	1
5	203601	Left Front Motor Mount	1
6	852042	Right Rear Motor Mount	1
7	852043	Left Rear Motor Mount	1
8	<i>Buy from CAT</i>	Radiator Assembly	1
9	<i>Buy from CAT</i>	Lower Radiator Hose	1
10	<i>Buy from CAT</i>	Upper Radiator Hose	1
11	853606	Oil Cooler Mount	1
12	203480	Right Side Oil Cooler Seal	1
13	203481	Lower Seal (Rubber)	1
14	203479	Left Side Oil Cooler Seal	1
15	203482	Upper Seal (Rubber)	1
16	344040	Tail Pipe	1
17	852110	Muffler Clamp	2
18	JE-705-B	Muffler	1
19	JE-758-B	Head Pipe Clamp	2
20	855612	Exhaust Pipe	1
21	344031	Exhaust Gasket	1
22	203105	Exhaust Heat Shield	1
23	304106	Rubber Elbow	2
24	304119	Rubber Elbow	1
25	304195	Heater Hose	1
26	203614	Connecting Tube	1
27	DE-770-R	Air Cleaner (Dual Element)	1
28	P18-2059	Service Element	1
29	P11-9410	Safety Element	1
28.29	P10 2144	Wing Nuts for Filter Elements (not shown)	2
30	304059	Precleaner, 4"	1
31	344305	Precleaner, Top	1
32	PC-711-R	Precleaner Bowl	1
33	304095	Engine Isolator Kit	4
34	P00 3951	Clamp	1
35	AC-764-R	Strap	2
36	TT-771-R	Turbo II Precleaner	1
36.1	202146	Precleaner Extension Stack Tube	1
36.2	304071	Precleaner Rubber Boot with Clamps	1
36.3	203435	Precleaner Extension Stack Brace	1
36.4	4" H.D. CLAMP	Precleaner Extension Stack Clamp	1
37	P103113	Cup	1
38	P102980	Air Cleaner Baffle	1
39	<i>Buy from CAT</i>	Radiator Cap	1
NS	<i>Buy from CAT</i>	CAT Fan	1
NS	<i>Buy from CAT</i>	Fan Belt	1
NS	304196	Compressor Belt, A/C Only	1
NS	344079	Fuel Filter	1
NS	344078	Oil Filter	1

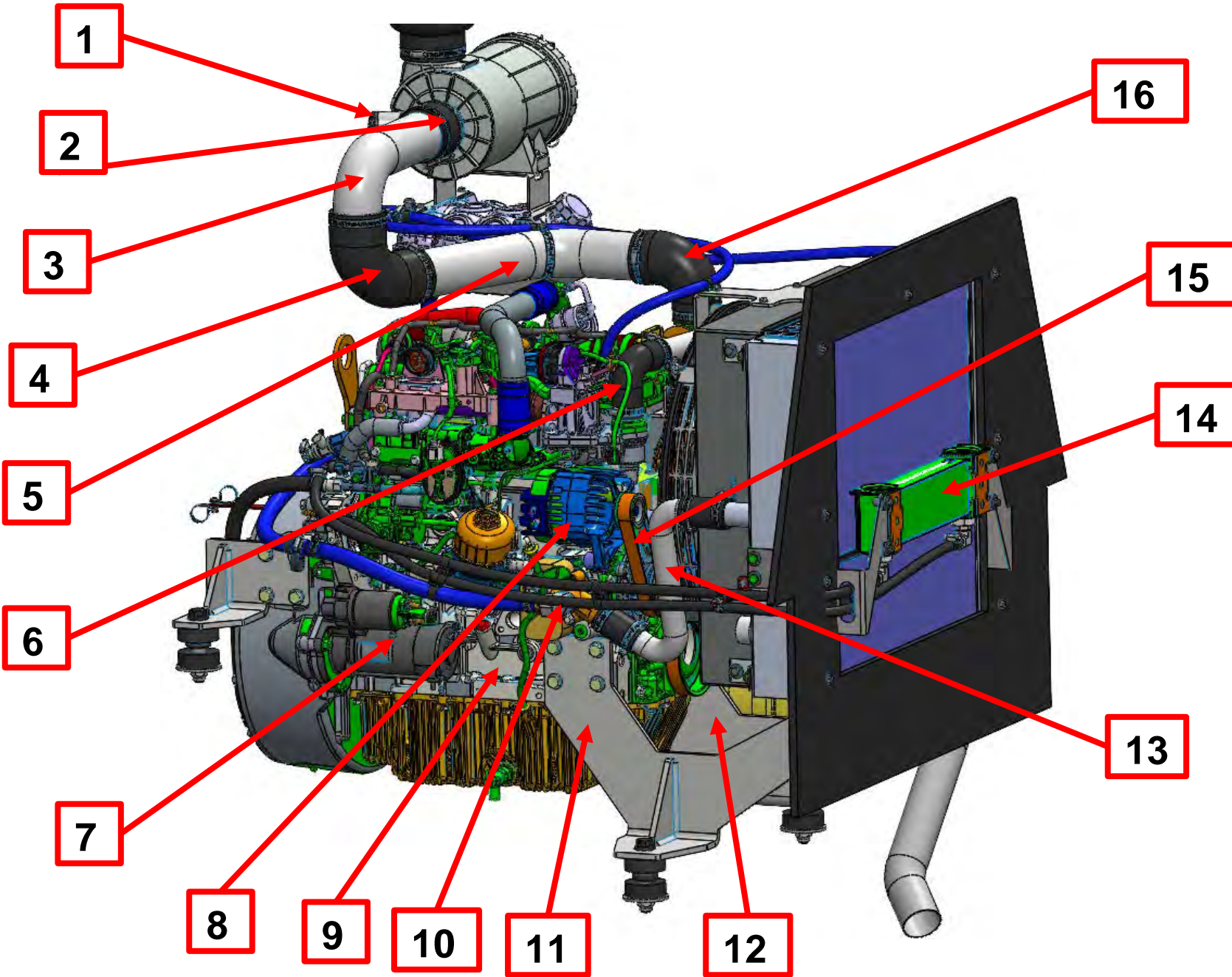
PERKINS 904J 2.8L T4F



PERKINS 904J 2.8L T4F

REF.	PART NUMBER	DESCRIPTION	QTY
1	PVA051109	RECIRCULATION RESTRICTOR, BROCE BROOM	1
2	PVA051068	BRACKET, THIRD POINT MOUNTING, SHROUD	1
3	PVA051084	HOSE, 1.5" ID X 3" STRAIGHT COUPLER	3
4	PVA051069	RADIATOR, BROCE BROOM WITH HYDRAULIC OIL COOLER	1
4.1	T433514	HYDRAULIC OIL COOLER BUNDLE	1
5	PVA051037	TUBE, 1.5" O.D. WATER OUTLET	1
6	6979.004.4010	FAN SHROUD	1
7	6979.004.4031	FINGER GUARD	1
8	T432564	AC COMPRESSOR	1
9	PVA061174	TUBE, 2.5" O.D. TAILPIPE	1
10	PVA121834	ISOLATOR, UNIVERSAL MOUNT, #3 WITH WEAR PLATE (RED)	2
11	PVA061173	TUBE, 2.5" O.D. BELLOWS TO DOC	1
12	5181456	FUEL FILTER HOUSING	1
13	PVA121835	WASHER, SNUBBING, 0.657in ID X 2.81in OD	4
14	PVA121833	ISOLATOR, UNIVERSAL MOUNT, #3 WITH WEAR PLATE (GREEN)	2
15	PVA111044	REAR MOUNTING FOOT, LHS	1
16	PVA081021	KIT, COUPLING W/ PUMP PLATE, SAE 11.5", 14T C SPLINE, 8 HOLE W/ SAE #3 HOUSING	1
17	PVA111045	REAR MOUNTING FOOT, RHS	1
18	PVA071197	ECM, MOUNTING PLATE	1
19	PVA061172	TUBE, 2.5" O.D. EXHAUST OUTLET TO BELLOWS	1
20	PVA041006	VALVE, BALL, EZ OIL DRAIN 3/4"-16 UNF X 5/8" HOSE ID	1
21	PVA051102	SURGE TANK	1
22	PVA031122	HOSE, HUMP - 4in. x 3.5in. x 5.25in. LG.	1
23	PVA031103	TUBE, 4" O.D. X 22" LG AIR INLET	1

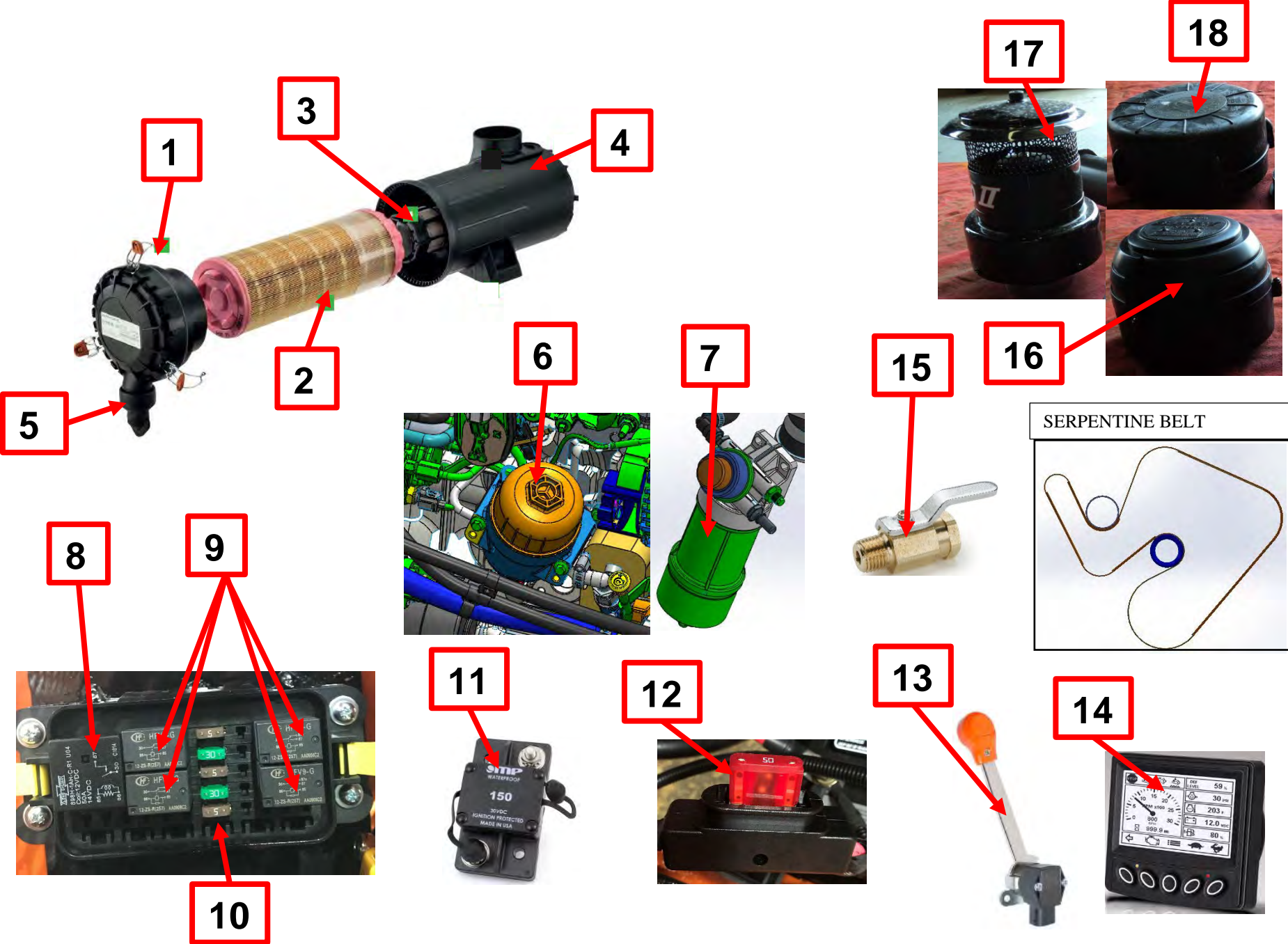
PERKINS 904J 2.8L T4F



PERKINS 904J 2.8L T4F

REF.	PART NUMBER	DESCRIPTION	QTY
1	PVA031150	AIR CLEANER SERVICE INDICATOR	1
2	PVA031152	HOSE, 3" ID X 3in LG STRAIGHT COUPLER	1
3	PVA031102	TUBE, 3" O.D. ELBOW TO AIR CLEANER	1
4	PVA031109	HOSE, AIR INLET ELBOW - 3 IN X 3 IN X 90° X 0.25 IN	1
5	PVA031101	TUBE, 3" O.D. AIR INLET	1
6	PVA051060	ELBOW, SILICONE 90°, 1.5"	1
7	T400268	STARTER MOTOR	1
8	T412401	ALTERNATOR	1
9	344009	PERKINS 904J 2.8L T4F	1
10	T431136	THERMOSTAT ASSEMBLY	1
11	PVA111052	FRONT MOUNTING FOOT, RHS	1
12	PVA111060	FRONT MOUNTING FOOT, LHS	1
13	PVA051038	TUBE, 1.5" O.D. WATER INLET	1
14	925126	FUEL COOLER	1
15	344011	SERPENTINE BELT	1
16	PVA031025	HOSE, AIR INLET 3in I.D. X 67mm I.D. 90° ELBOW	1

PERKINS 904J 2.8L T4F



PERKINS 904J 2.8L T4F

ITEM	PART #	DESCRIPTION	QTY
1	4515117909	ENTARON HD AIR FILTER COVER	1
2	344293	PERKINS 4F PRIMARY ENGINE AIR FILTER	1
3	344294	PERKINS 4F SECONDARY ENGINE FILTER	1
4	344295	PERKINS 4F ENGINE AIR CLEANER ASSY	1
5	390040391	ENTARON HD AIR FILTER DUST DISCHARGE VALVE	1
6	344013	OIL FILTER PERKINS 4F	1
7	344776	FUEL FILTER PERKINS 4F	1
8	75735	MICRO RELAY 12VD	1
9	75736	ULTRA MICRO RELAY 12VD	4
10	MINI FUSE	(3) 5amp, (2) 30amp	-
11	307900	150 AMP BREAKER	1
12	78523	50amp MAXI FUSE	1
13	976-145-P204	THROTTLE, CUMMINS PERKINS	1
14	344021	DIGITAL DISPLAY, CUMMINS PERKINS	1
15	306533	1/4" BALL VALVE MINI	1
16	TT-771-R	TURBO II PRECLEANER	1
17	304059	SY-KLONE PRECLEANER	1
18	304063	ENGINAIR PRECLEANER	1

**PREVENTIVE MAINTENANCE
BROOM SPECIFICATIONS
& SCHEMATICS**

Preventative Maintenance

A well maintained A/C system would save on downtime and premature component failures.

Weekly inspections or every 2 days in severe environments should include:

1. Inspect compressor clutch drive belts (tightness, wear).
2. Inspect compressor-mounting brackets (bolts, alignment).
3. Inspect mounting hardware on evaporator unit and condensers.
4. Inspect air intake filter. Clean or replace filter.
5. Inspect evaporator and condenser coils. Clean using air pressure. (DO NOT USE WATER OR PRESSURE WASHERS).
6. Inspect hose and wire harness for proper routing. Leaks and wear.

Helpful Hints

Make sure the evaporator air intake area is not obstructed (i.e. toolboxes, clothing, lunch box, etc.)

Manual thermostats on our systems, when rotated clockwise to the stop position will not allow the A/C compressor clutch to cycle. The compressor will run continuously and the evaporator coil will not defrost. REMEDY: Turn the manual thermostat knob clockwise to the stop position, and then turn the thermostat knob back counter clockwise $\frac{1}{4}$ turn.

Broce thanks you for purchasing our units. It is our endeavor to provide you with a quality A/C unit with trouble free service.

HYDRAULIC COMPONENT SPECIFICATIONS

Propel Pump

Displacement at MAX Angle:	46 cc (2.8 CU IN)
Rated Speed:	4000 RPM
MAX Speed:	4100 RPM
MIN Speed:	500 RPM
Case Pressure – Continuous:	1.7 BAR (25 PSI)
Case Pressure – MAX:	5.2 BAR (75 PSI)
System Pressure – Continuous:	210 BAR (3000 PSI)
System Pressure – MAX:	345 BAR (5000 PSI)
Inlet Vacuum – Continuous:	.8 BAR Absolute (5 IN Hg)
Inlet Vacuum – MAX:	.7 BAR Absolute (10 IN Hg)
Charge Pressure Setting:	19.5 BAR (283 PSI)
System Pressure Setting:	280 BAR (4060 PSI)
Approximate Flow at 2400 RPM	26 GPM

Propel Motor

Displacement:	46 cc (2.8 CU IN)
Rated Speed:	3600 RPM
MAX Speed:	3600 RPM
Case Pressure – Continuous	1.7 BAR (25 PSI)
Case Pressure – MAX:	5.2 BAR (75 PSI)
System Pressure – Continuous:	210 BAR (3000 PSI)
System Pressure – MAX:	345 BAR (5000 PSI)

Auxiliary Pump

Displacement:	38 cc (2.32 CU IN)
MAX Speed:	2500 RPM
MAX Continuous Pressure:	3000 PSI
Approximate Flow at 2400 RPM	
Priority (Steering and Broom)	3 GPM
Secondary (Broom Rotation)	18 GPM
MAX Pressure Setting (Priority):	1600 PSI
MAX Pressure Setting * (Secondary)	3000 PSI

*Relief Valve in the Broom Rotation Valve

FLUID CAPACITIES

<i>Component</i>	<i>Fluid Type</i>	<i>Quantity</i>
Hydraulic Tank	DYNA-PLEX 21C CURSA HYDRAULIC OIL Must meet Caterpillar spec. T02 or Allison C3	27 Gal.
Fuel	#2 DIESEL	27 Gal.
Radiator	ETHYLENE GLYCOL 50/50 MIX	2.5 Gal
Engine Crankcase	API Classification CE or CD CCMC Specification D4 or D5	10 Qts
Rear Axle	EP-90 GEAR LUBE	2 Qts*
2-Speed G-Box	EP-90 GEAR LUBE	2 Qts*

* 2 Quarts is approximate. Fill to the level of the filler plug.

Broce Brooms

DYNA-PLEX 21C CURSA HYDRAULIC OIL

Dyna-Plex 21C Cursa Hydraulic Oils are high quality; extra-inhibited oils designed with hydrocrack Group II base oils, for use in multi-functional applications where long oil life is required. These oils will give you steady, reliable performance as a hydraulic medium.

Dyna-Plex 21C Cursa Hydraulic Oils have been finely filtered to remove external contamination and contain special O-Ring conditioners to prolong hydraulic component life. Seal swell agents have been added to prevent leaks and Cursa's demulsibility characteristics enhance separation and removal of water. These oils will supply 5000 hours of service before extreme oxidation problems occur and also provide excellent resistance to foaming, rust and wear.

<u>PROPERTY</u>	<u>ASTM TEST METHOD</u>	<u>MULTI-FUNCTION</u>
Viscosity @ 40°C,CST	D445	46.00
Viscosity @ 100°C,CST	D445	9.75
Viscosity Index	D2270	200
Flash Point, COC, °C	D92	200
Flash Point, COC, °F	D92	392
Pour Point, °C (°F)	D97	-36 (-33)
Color	D1500	Orange
Gravity, °API	D287	32.0
Turbine Oil Oxidation	D943	5000+
Copper Strip	D130	LB
Rust Test	D665	Pass
Vane Pump, Mgs. Wt. Loss	D2882	12
Usable Temperature Range, °F		-10-110
Maximum Hydra. Temperature, °F		205
Dielectric Strength, kv		35
RBOT, Minutes	D2272	950
Demulsibility	D1401	40-40-0 (5)

Meets or exceeds the following tests and requirements:

AFNOR E 48-603
 B.F. Goodrich – 0152
 Cincinnati Milacron – P-68 (light hydraulic oils), P-69, P-70
 Denison – HF-0, HF-1, HF-2
 DIN – 51524, Part 2
 FMC – High-Performance Hydraulic Oil
 Ford – M-6C32
 General Motors – LH-04-1, LH-06-1, LH-15-1
 Jeffrey - #87
 Lee Norse 100-1
 Racine – Model S, variable volume vane pump
 U.S. Steel – 136, 127
 Vickers – I-286-S, M-2950-S, 35VQ25

HO-11/4-14-00

DYNA-PLEX 21C EXTENDED DRAIN ANTI-FREEZE/ENGINE COOLANT

Dyna-Plex 21C Extended Drain Anti-Freeze/Engine Coolant is a premium quality ethylene glycol based product. It is pre-diluted to a 50/50 mixture with de-ionized water to provide excellent corrosion control and a deduction of scale buildup. The corrosion inhibitor package eliminates the need for an initial charge of supplemental coolant additive (SCA). The 50/50 dilution with de-ionized water insures high water quality and eliminates the chance for error when mixing anti-freeze with water in the field.

Dyna-Plex 21C Extended Drain Anti-Freeze gives the maximum protection and performance available for heavy-duty diesel applications, while eliminating potential water related problems. Advantages of this product include the highest quality inhibitor package available and its ready to use convenience.

Universal recommends good maintenance practices to monitor inhibitor levels on a regular basis by utilizing coolant analysis, which is an important aspect of extending the life of this coolant/anti-freeze. This product meets or exceeds manufacturer specifications for use in both heavy-duty diesel and automotive applications.

<u>Physical and Chemical Properties</u>	<u>ASTM Test Method</u>	<u>Test Specifications</u>
Specific Gravity @ 60°F	D-1122	1.110 – 1.145
pH 50% Dilution	D-1287	10.0 – 10.4
Reserve Alkalinity	D-1121	5.0 ml min.
Boiling Point	D-1120	320°F min.
Flash Point	D-92	240°F min.
Freeze Point	D-1177	-34°F max.
Color		OEM Standard Green
Foaming – Foam Volume, ml	D-1881	50 max.
Break Time, sec.	D-1881	5 max.
Composition (% by weight)		
Total Glycols		45.0% min.
Total De-ionized Water		53.0% max.
Inhibitors and Dye		2.0% min.

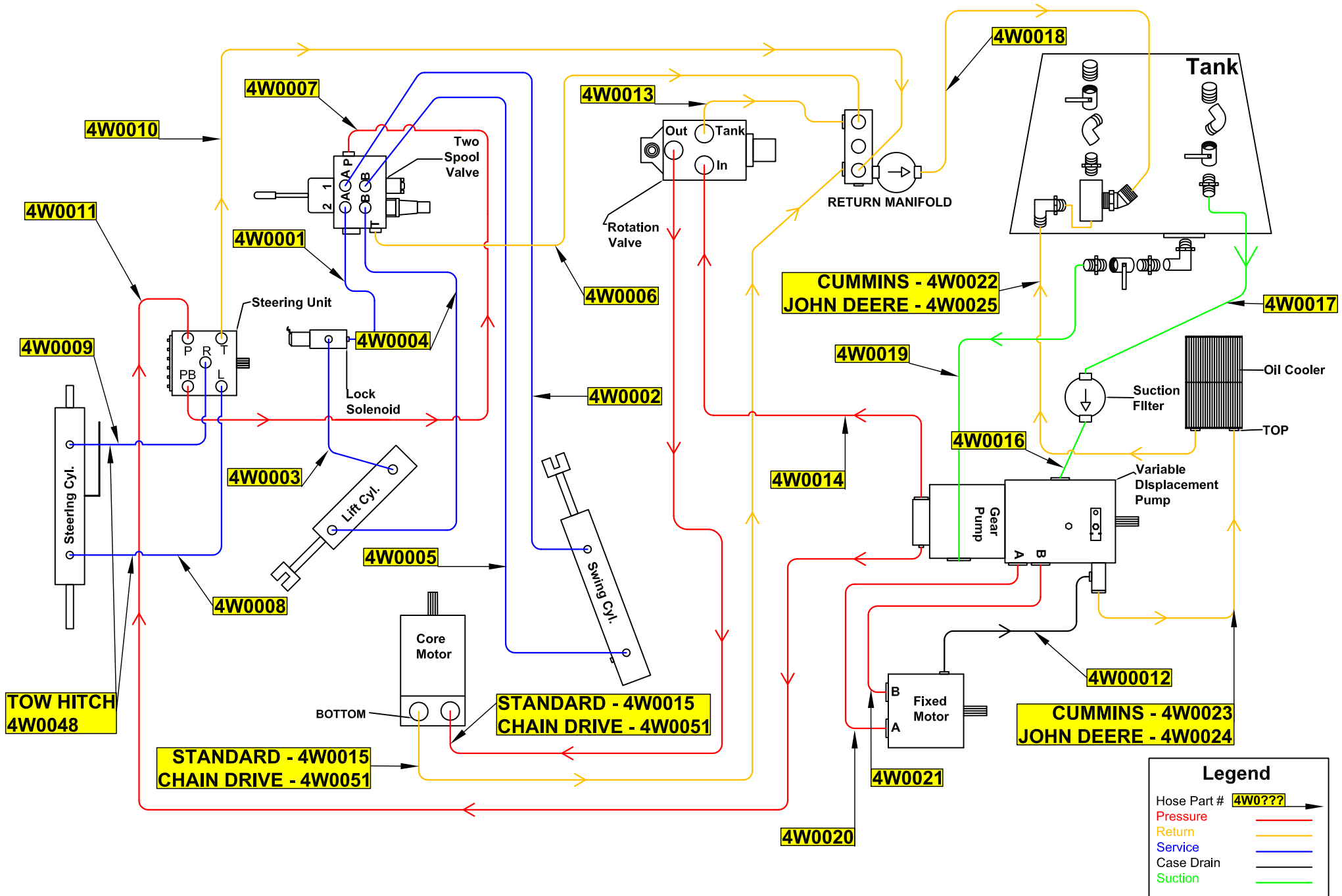
Dyna-Plex 21C Extended Drain Anti-Freeze/Engine Coolant meets or exceeds the following specifications:

- American Society for Testing and Materials (ASTM)- D-33-6; D-4985; D-4656
- General Motors – GM 1899M; GM 1825M
- Society for Automotive Engineers – SAE J1941, J1034
- Cummins – 85T8-2; 90T8-4; Bulletin #3666132
- Ford Motor Corporation – ESE M97B44A; ESE-M97B18-C
- Chrysler Motors - MS7170
- Detroit Diesel 7SE298
- John Deere H24A2; H24C2
- ATA Maintenance Council – RP-329

AF-1/9-12-01

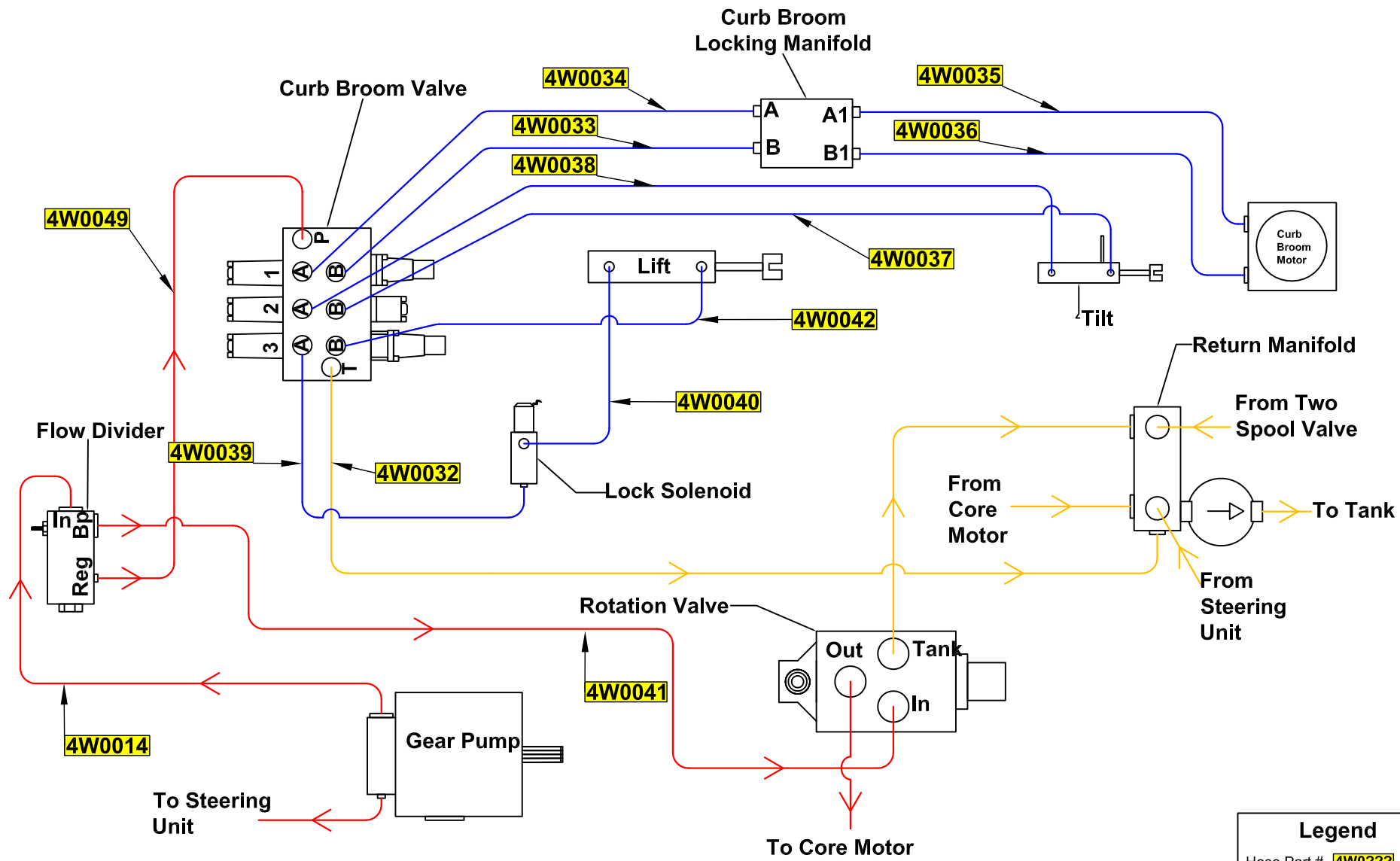
350 Series T4F Standard Hydraulics

Hydraulic Diagram with Hose Part Numbers



350 Series T4F Curb Hydraulics

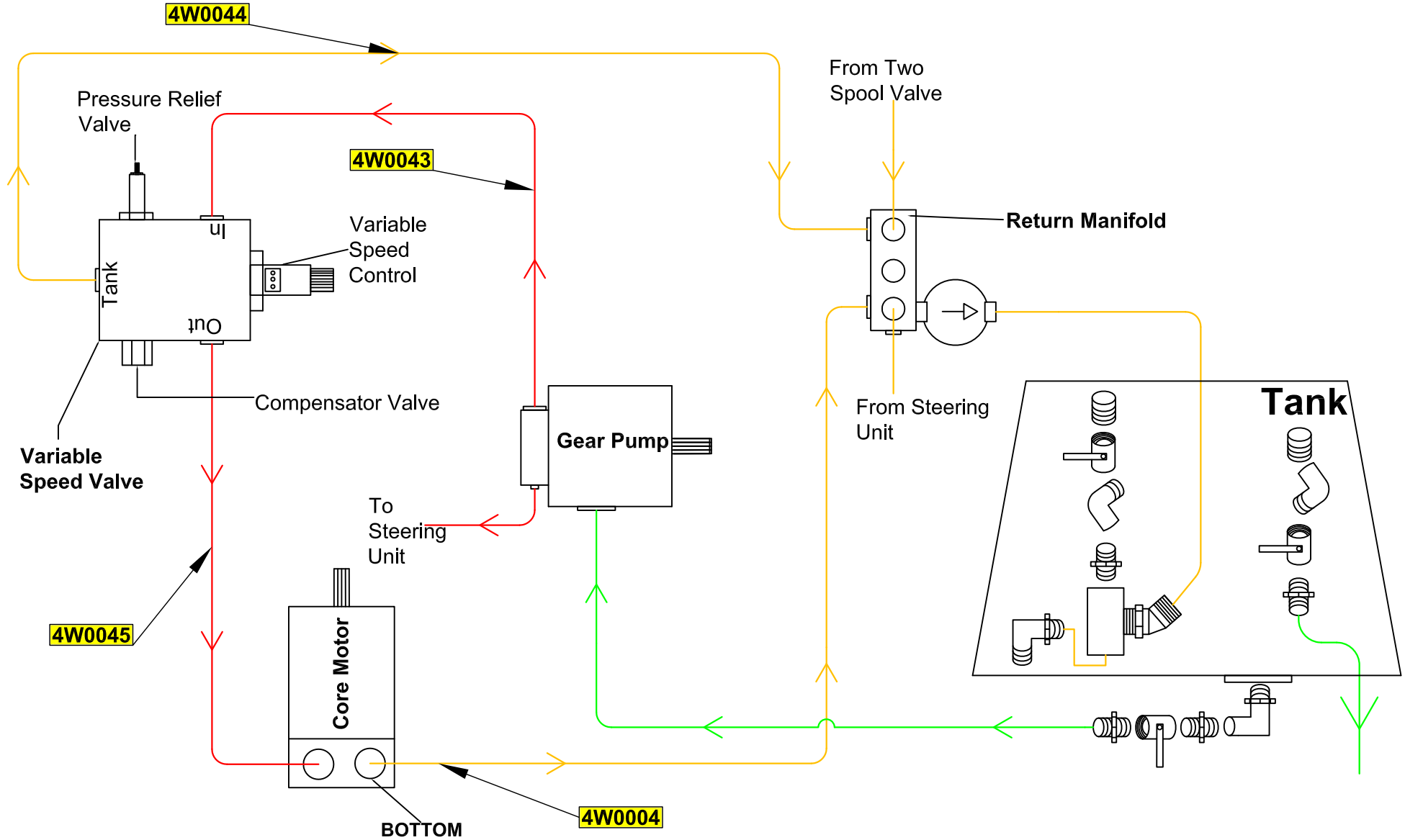
Hydraulic Diagram with Hose Part Numbers



Legend	
Hose Part #	4W0???
Pressure	Red line
Return	Yellow line
Service	Blue line
Case Drain	Black line
Suction	Green line

350 Series T4F Variable Speed Hydraulics

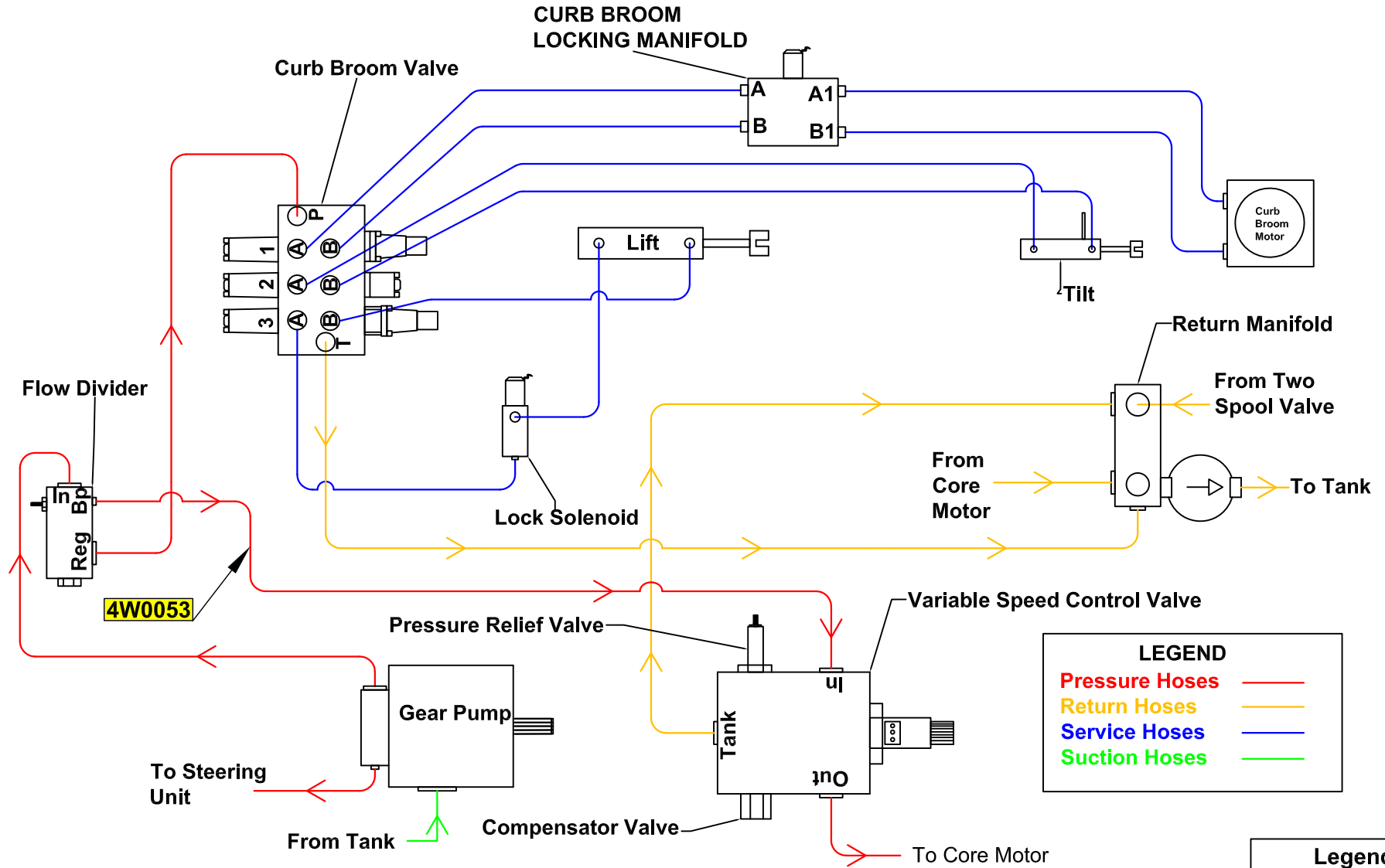
Hydraulic Diagram with Hose Part Numbers



Legend	
Hose Part #	4W0???
Pressure	Red line
Return	Yellow line
Service	Blue line
Case Drain	Black line
Suction	Green line

350 Series T4F Variable Speed w/ Curb Hydraulics

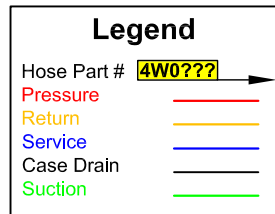
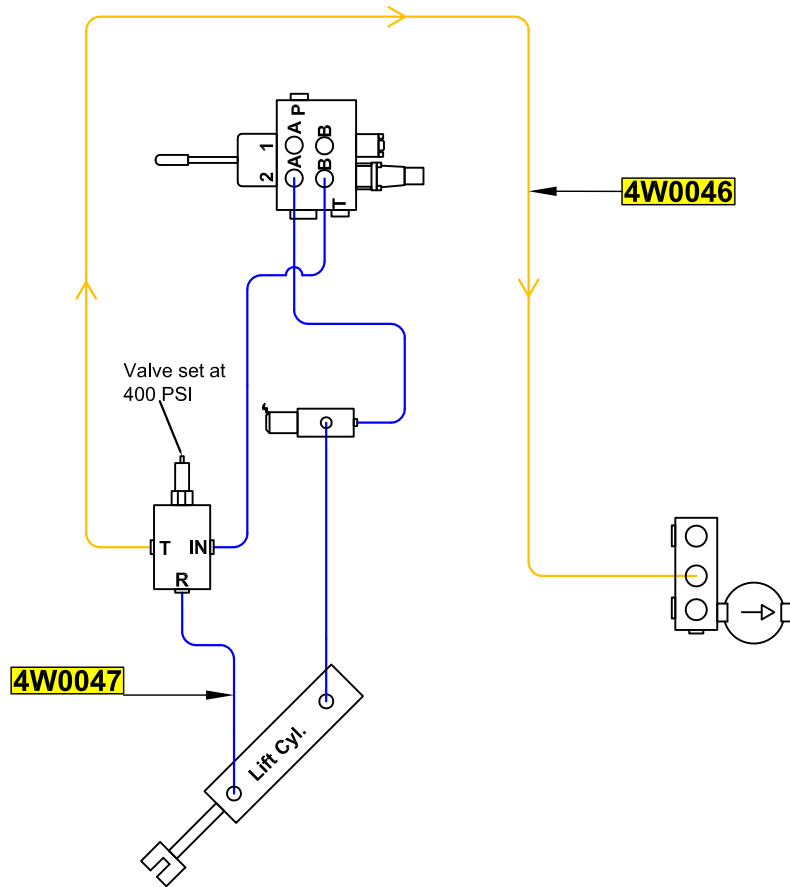
Hydraulic Diagram with Hose Part Numbers



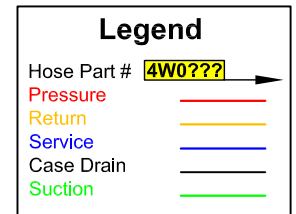
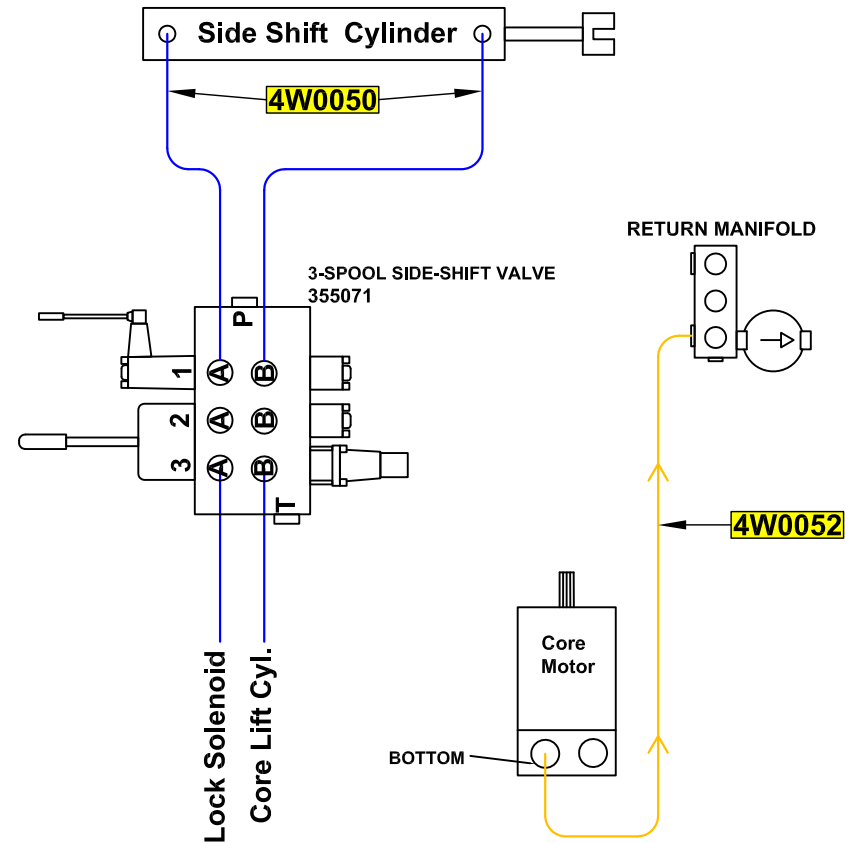
350 Series T4F Hydraulics

Hydraulic Diagram with Hose Part Numbers

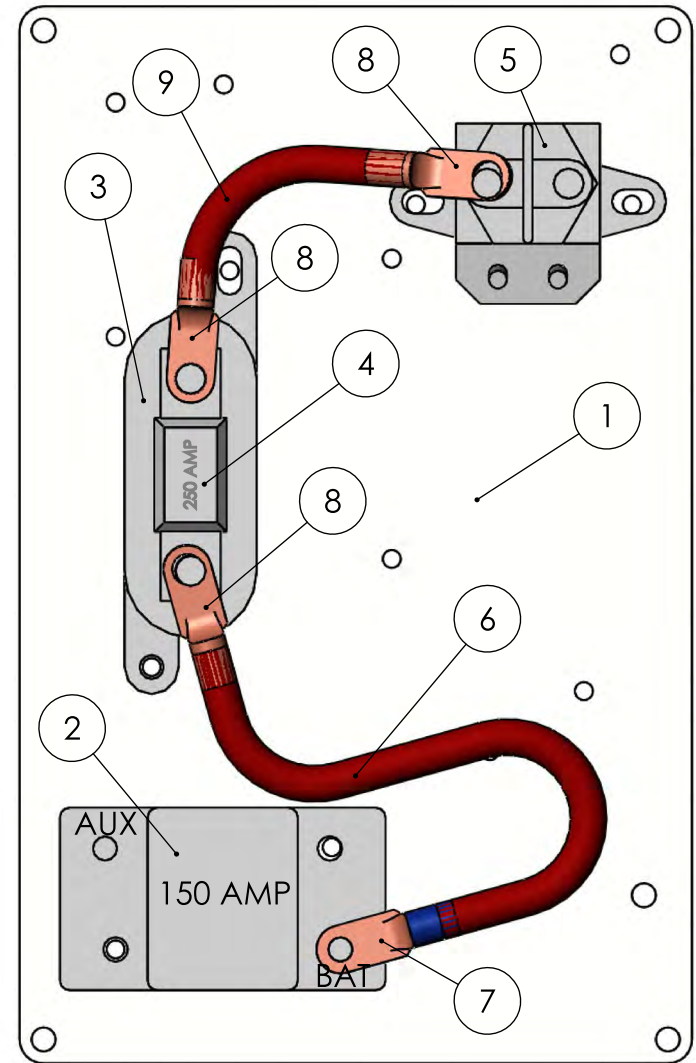
Down Pressure Hydraulics



Side Shift Hydraulics



	PART NUMBER	DESCRIPTION	QTY.
	203150	PANEL ELECTRIC	1
	307900	BREAKER 150 AMP	1
	203669	FUSE HOLDER	1
4	203668	250 AMP FUSE	1
5	203670	SOLENOID CONTROL	1
6	307804	5" 4G WIRE	5
7	307353	4 g 1/4" Eyelet	1
8	307352	4 g 5/16" Eyelet	3
9	307804	4" 4G WIRE	4

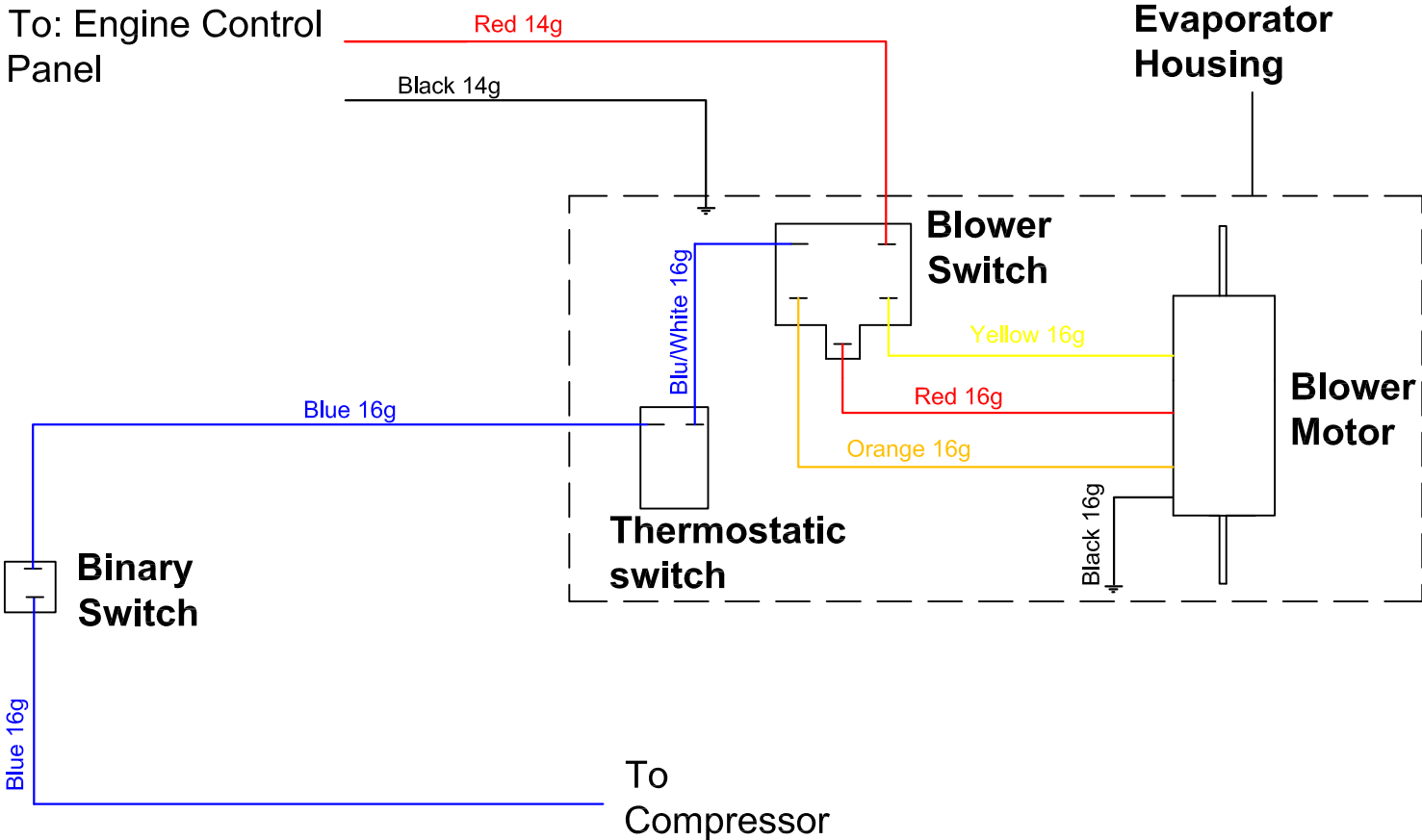


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		UNLESS OTHERWISE SPECIFIED:	NAME	DATE	BROCE MANUFACTURING 1460 S 2ND AVE DODGE CITY KS, 67801			
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DRAWN	CG	7/7/16	TITLE:		
			CHECKED			ELECTRICAL PANEL TIER 4F		
			ENG APPR.					
			MFG APPR.					
			Q.A.					
		IN TO	COMMENTS:			SIZE	DWG. NO.	REV
		MA				A	752407	
		FIN				SCALE: 1:4	SHEET 1 OF 1	
NEXT ASSY	USED ON	APPLICATION						

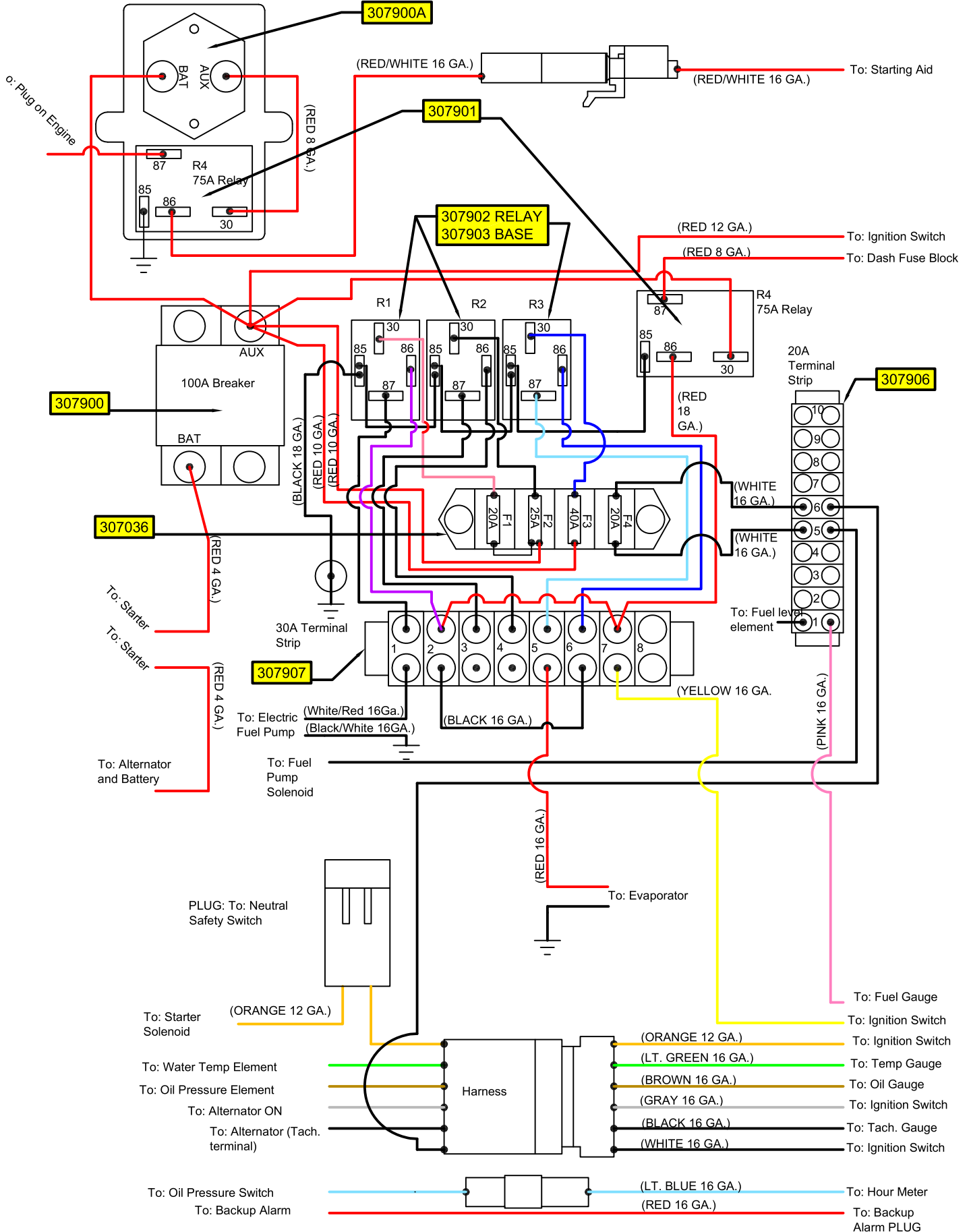
Broce Broom Wiring Diagram

Air Conditioner Wiring



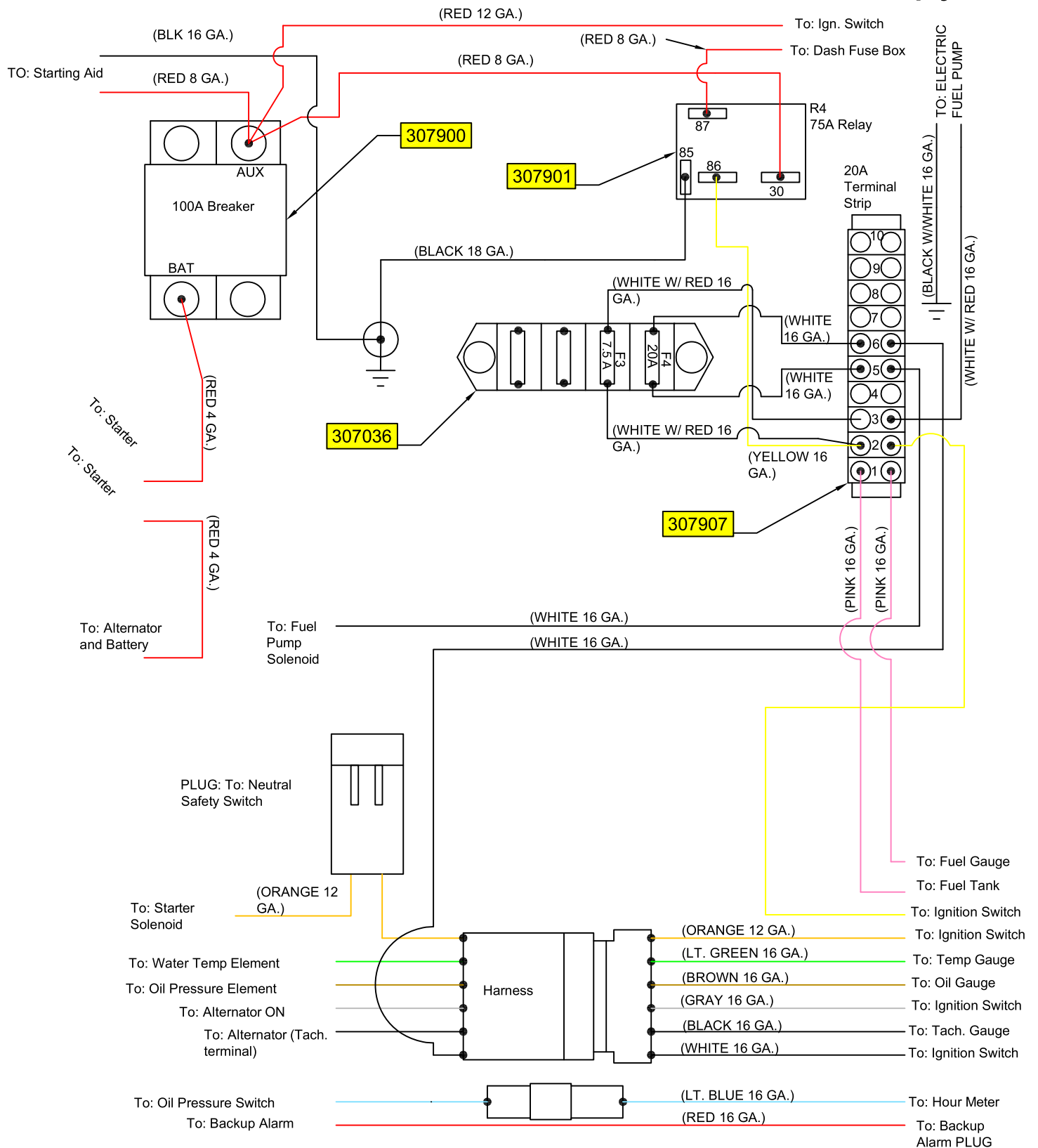
Broce Broom Wiring Diagram

Engine Control Panel - CR Model With Cab



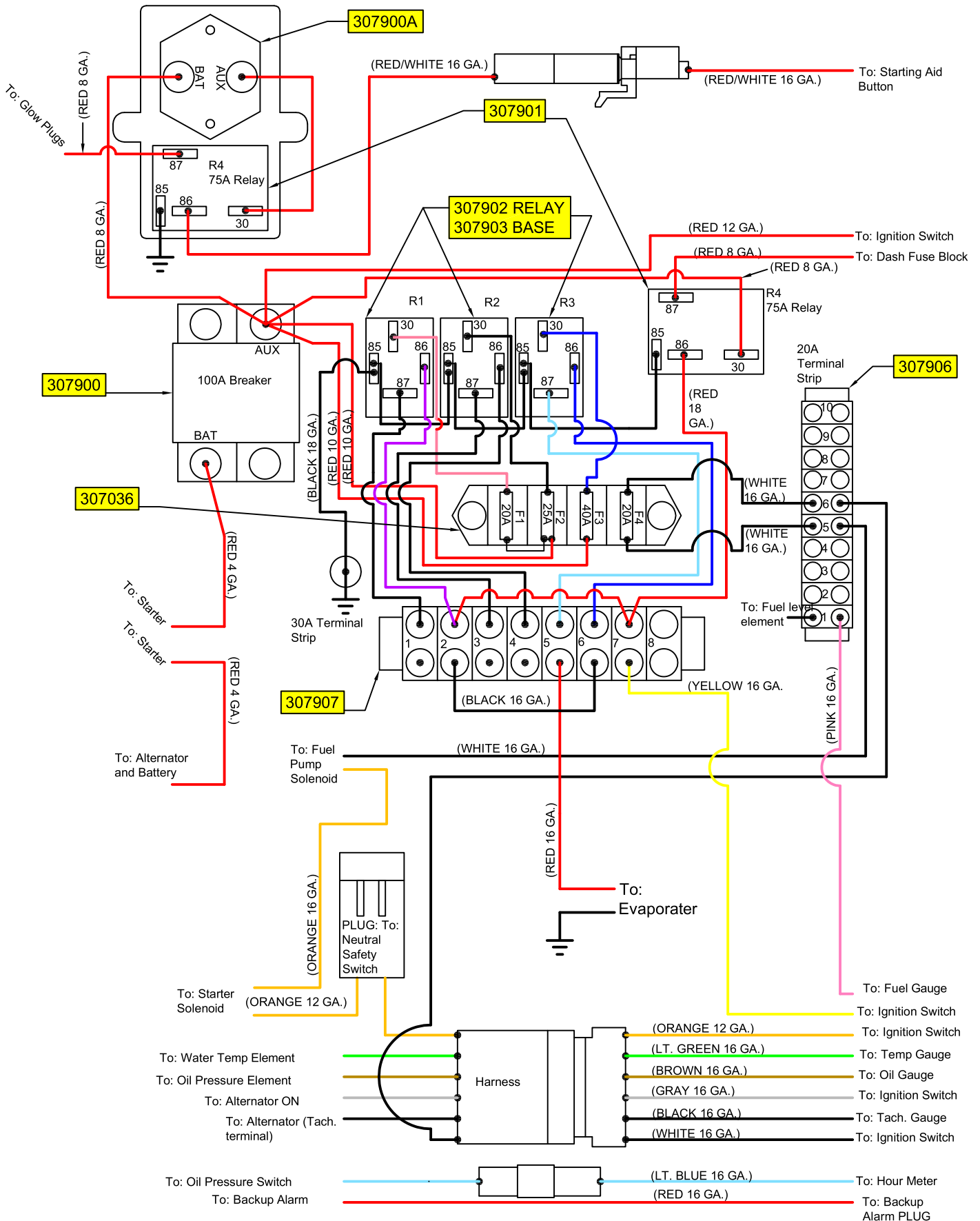
Broce Broom Wiring Diagram

Line Control Panel - CR Model With Canopy



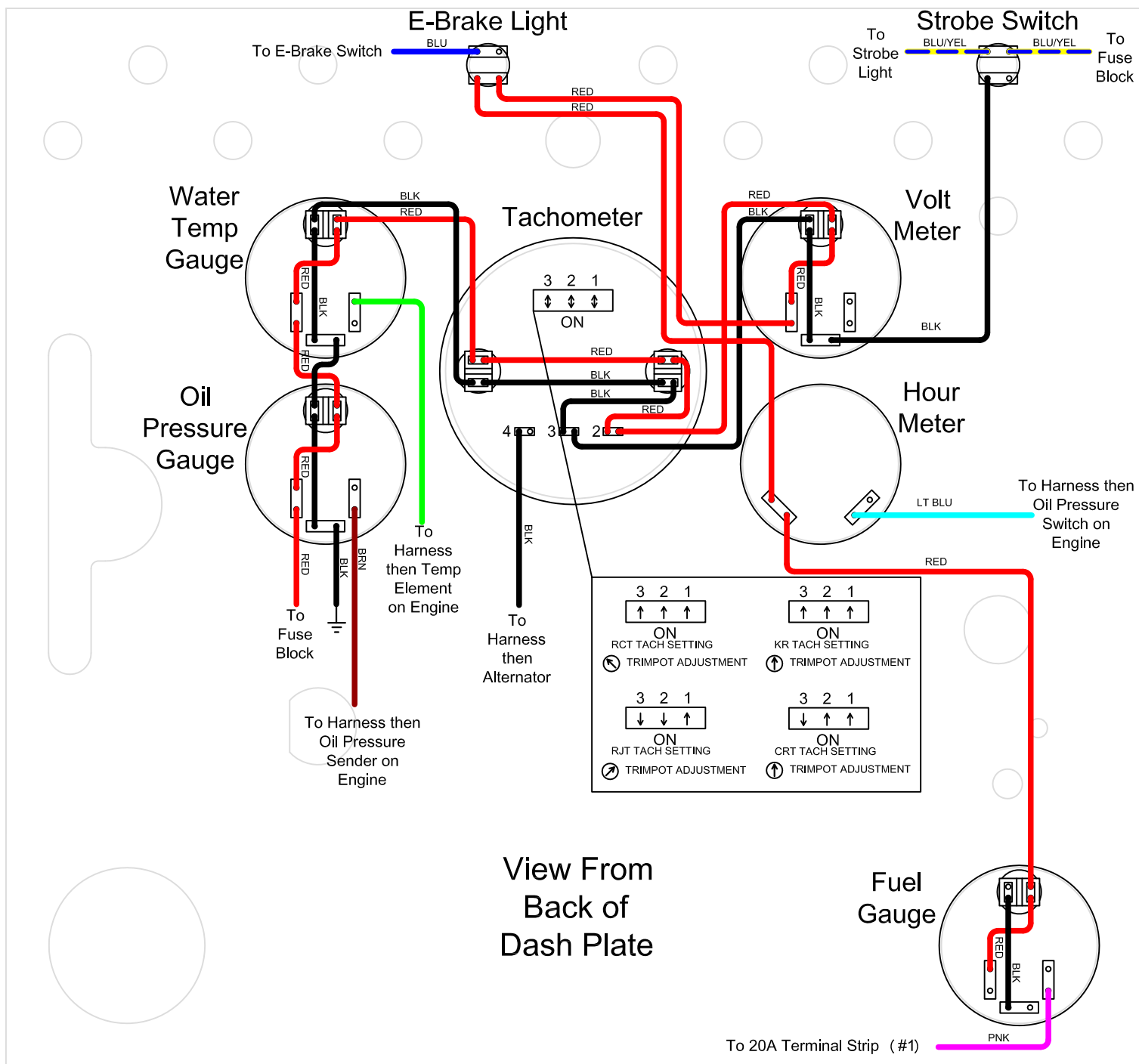
Broce Broom Wiring Diagram

Engine Control Panel - KR Model With Cab



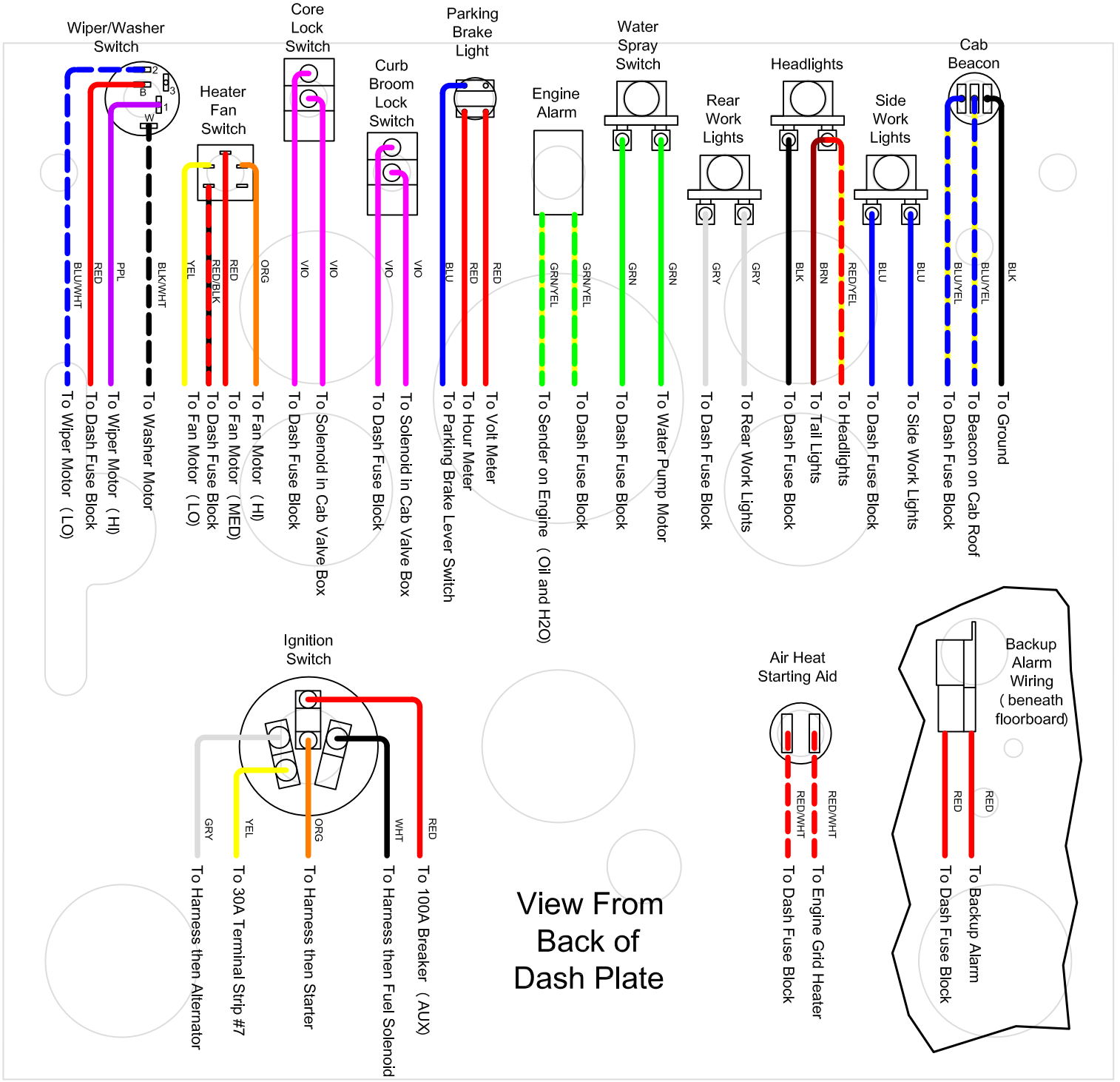
350 Series Dashboard Gauges Wiring Diagram

Broce Manufacturing Co., Inc.

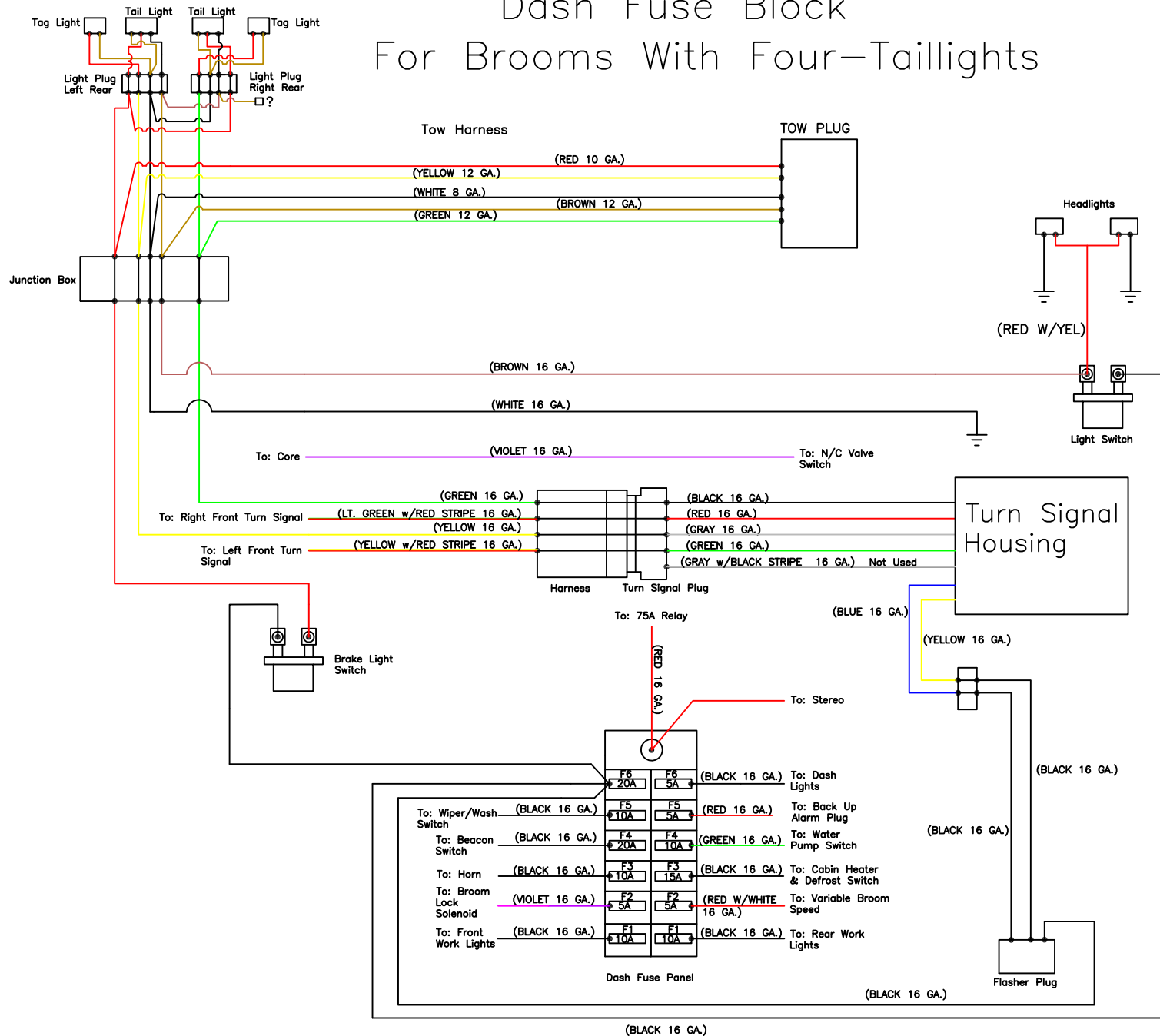


350 Series Dashboard Switches Wiring Diagram

Broce Manufacturing Co., Inc., April 2007



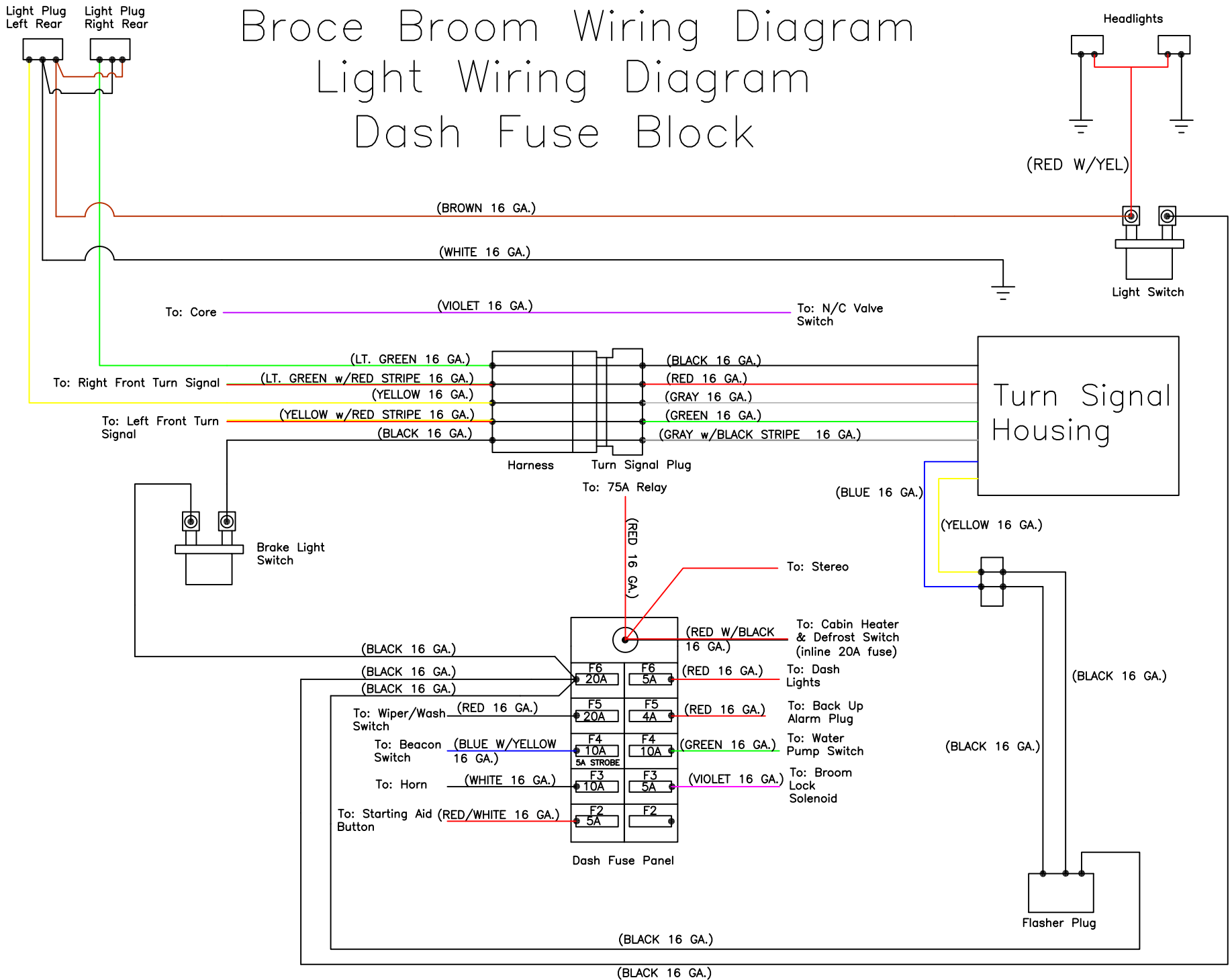
Broce Broom Wiring Diagram Light Wiring Diagram Dash Fuse Block For Brooms With Four-Taillights



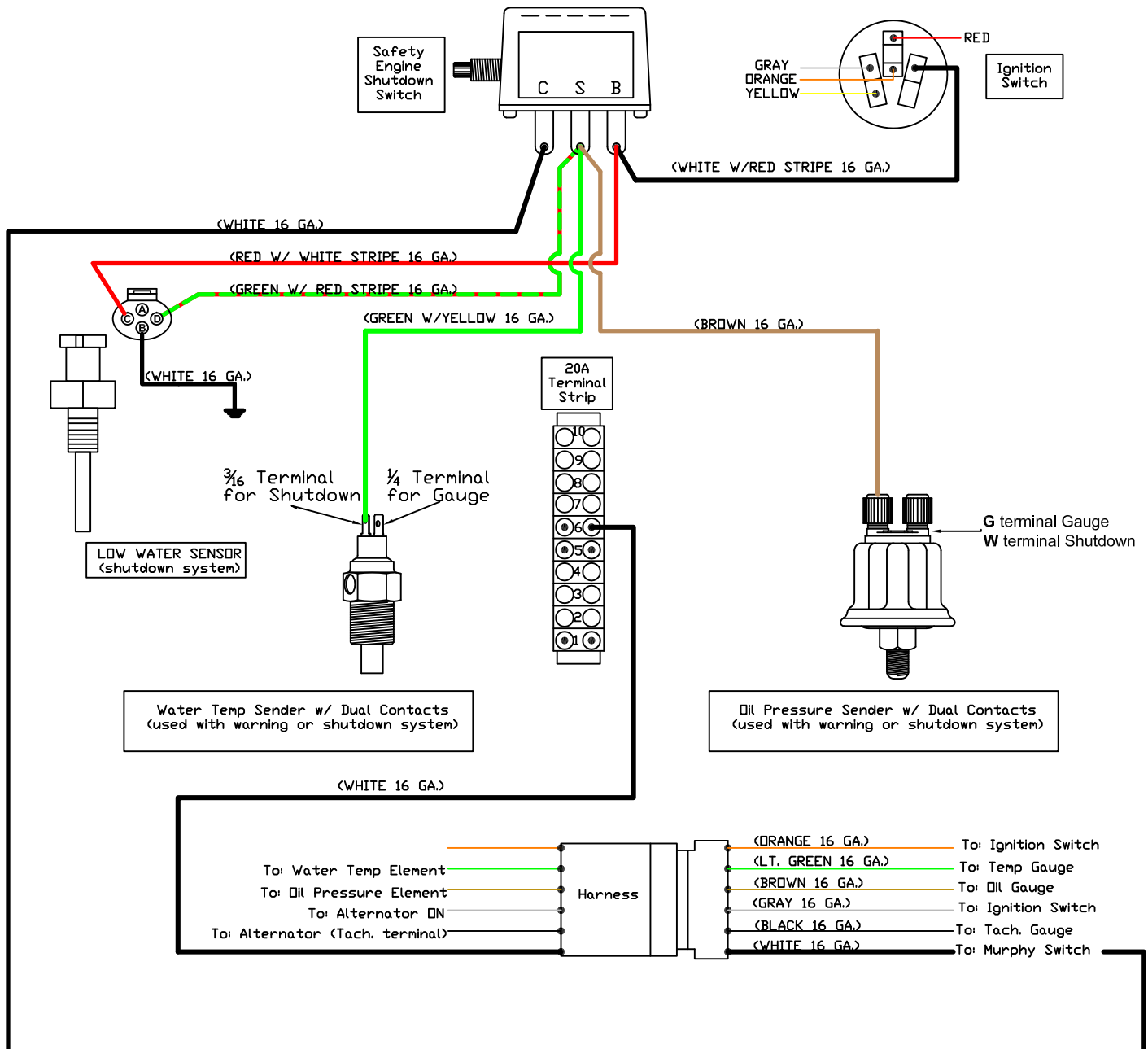
Broce Broom Wiring Diagram

Light Wiring Diagram

Dash Fuse Block

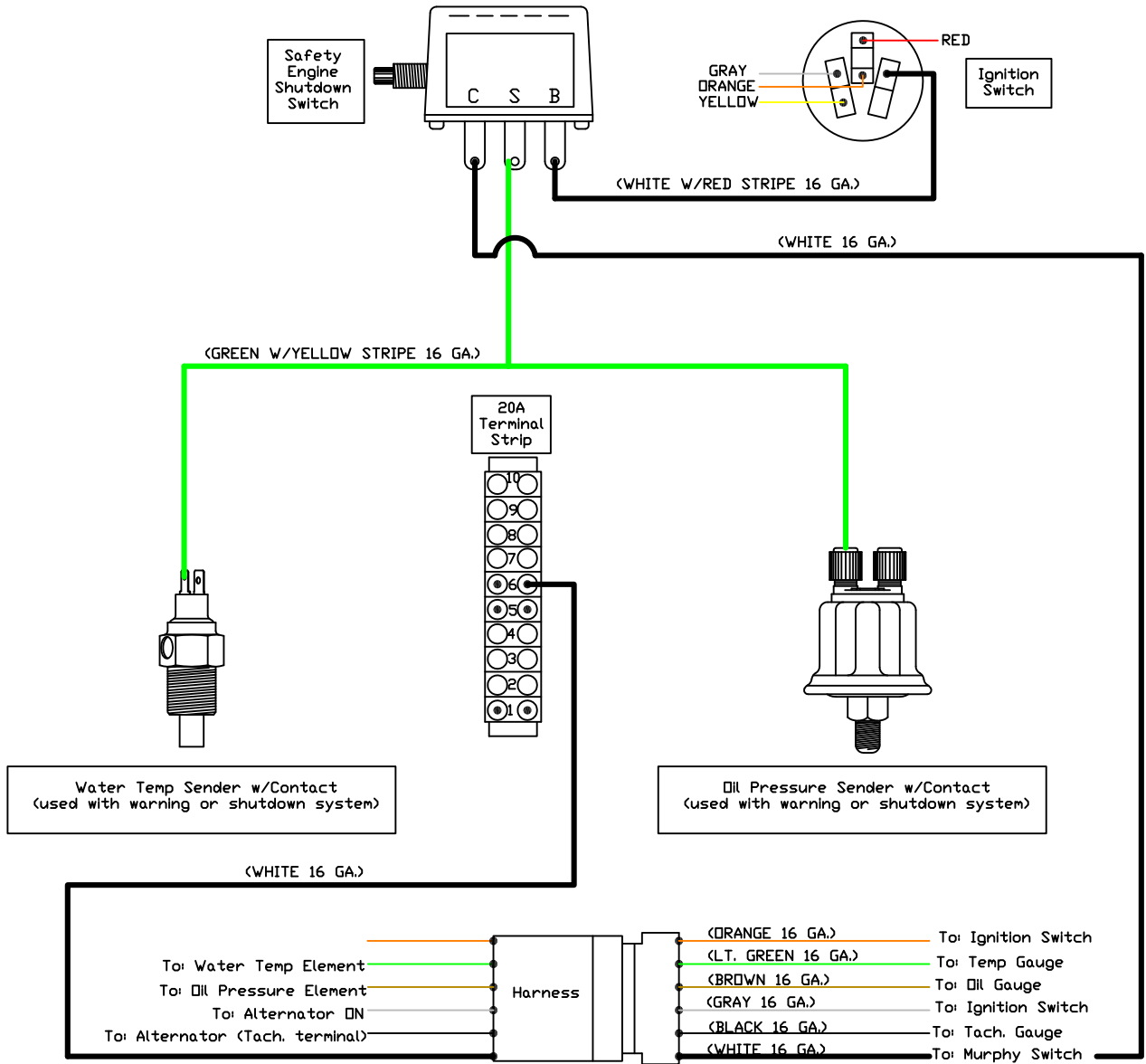


4-Wheel Broce Broom Wiring Diagram Optional Safety Engine Shutdown System with Low Water Shutdown

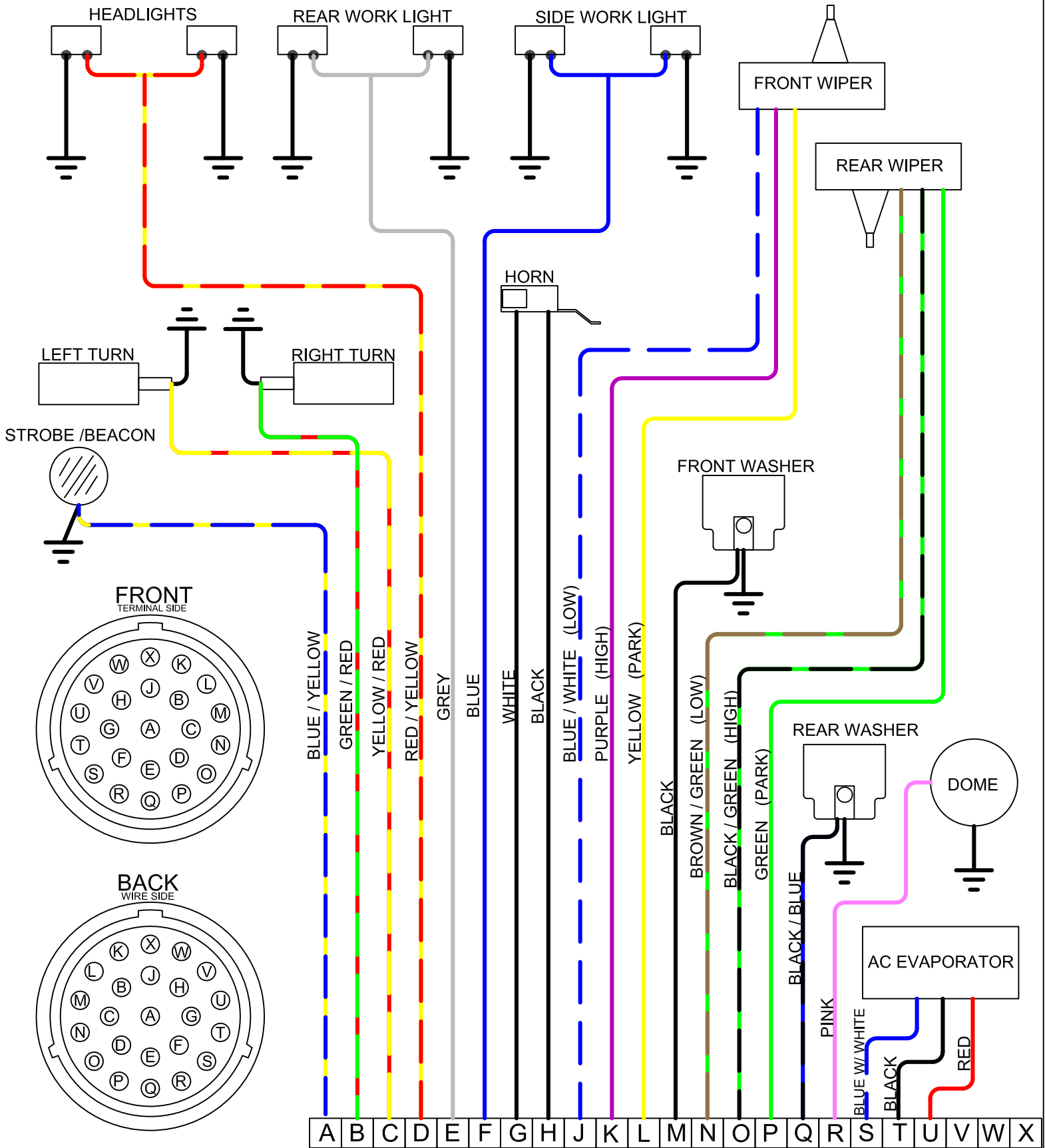


4-Wheel Broce Broom Wiring Diagram

Optional Safety Engine Shutdown System



BROCE BROOM CAB WIRING DIAGRAM TIER 4 FINAL



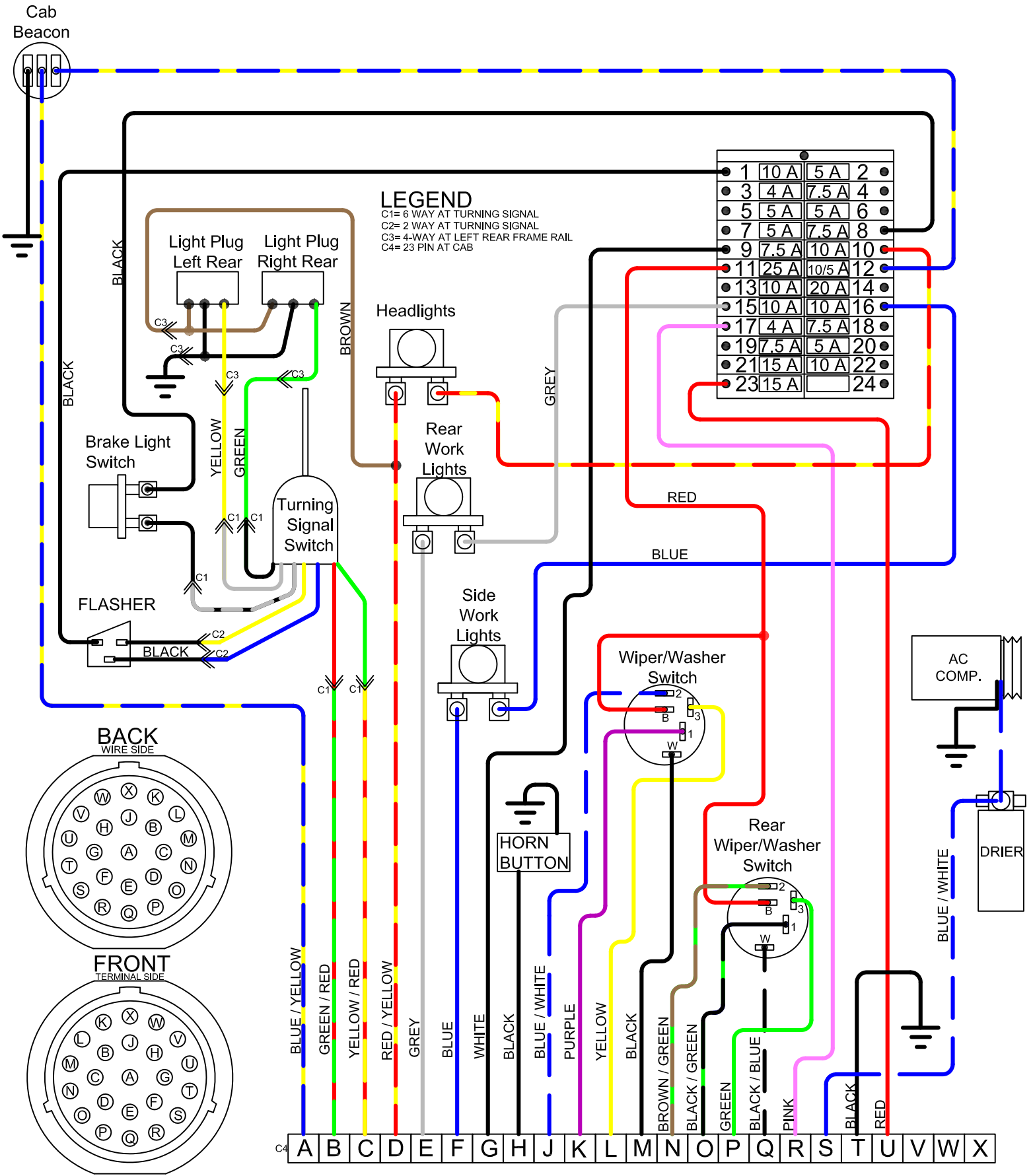
BACK OF FUSE PANEL

	●	2	5 A	10 A	1	● FLASHER (BLACK)
	●	4	7.5 A	4 A	3	● BACK UP (RED)
CURB LOCK (PURPLE / WHITE)	●	6	5 A	5 A	5	● CORE LOCK (PURPLE)
BRAKE LIGHT SWITCH (BLACK)	●	8	7.5 A	5 A	7	● E-BRAKE LIGHT (BLUE / WHITE)
HEAD LIGHT SWITCH (RED W/ YELLOW)	●	10	10 A	7.5 A	9	● HORN (WHITE)
STROBE/BEACON (BLUE / YELLOW)	●	12	10/5 A	25 A	11	● WIPER WASHER (RED)
HEATER (RED /BLACK)	●	14	20 A	10 A	13	● WATER PUMP (GREEN)
SIDE WORK LIGHTS (BLUE)	●	16	10 A	10 A	15	● REAR WORK LIGHTS (GRAY)
VARIABLE SPEED (RED)	●	18	7.5 A	4 A	17	● DOME LIGHT (PINK)
RESTRICTION LIGHTS (RED /BLACK)	●	20	5 A	7.5 A	19	●
12 VOLT SUPPLY (RED)	●	22	10 A	15 A	21	● STEREO (RED)
	●	24		15 A	23	● AC EVAPARATOR (RED)

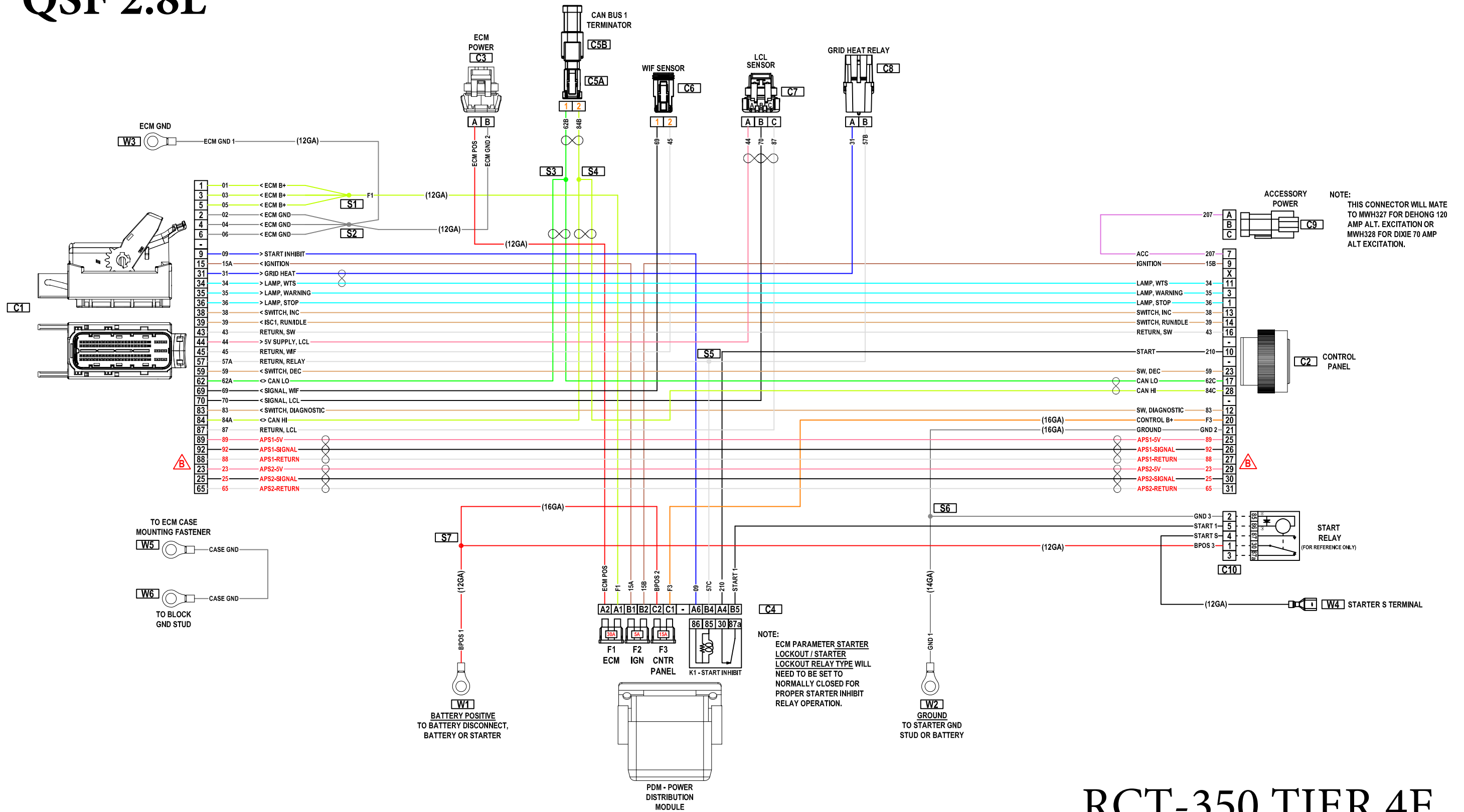
MAIN	FUSE BLOCK POWER	RED	
1	FLASHER	BLACK	10
2	BLANK		
3	BACK UP	RED	4
4	BLANK		
5	CORE LOCK	PURPLE	5
6	CURB LOCK	VIOLET	5
7	E-BRAKE LIGHT	RED	5
8	BRAKE LIGHT SWITCH	BLACK	7.5
9	HORN	WHITE	7.5
9	HORN W/ TILT WHEEL	WHITE	7.5
10	HEAD LIGHT SWITCH	RED / YELLOW	10
11	WIPER / WASHER	RED	25
11	REAR WIPER W/ WASHER	RED	25
11	REAR WIPER WO/ WASHER	BROWN / YELLOW	25
12	BEACON	BLUE / YELLOW	10
12	STROBE	BLUE / YELLOW	5
13	WATER PUMP	GREEN	10
14	HEATER	RED	20
OPTIONS			
15	REAR WORK LIGHTS	GRAY	10
16	SIDE WORK LIGHTS	BLUE	10
17	DOME LIGHT	PINK	4
18	VARIABLE SPEED	RED	7.5
19	BLANK		
20	AIR RESTRICTION LIGHT	RED / BLACK	5
20	HYD RESTRICTION LIGHT	RED / BLACK	5
21	STEREO (SWITCHED BAT+)	RED	15
22	12 VOLT POWER SOURCE (CIG LTR)	RED	10
23	AC EVAPARATOR	RED	15
24	BLANK		

BROCE DASH WIRING DIAGRAM

TIER 4 FINAL (752401)



QSF 2.8L



RCT-350 TIER 4F ENGINE WIRING