

PARTS MANUAL



MODEL: P33/24 FR-FC-FCR VIBRATORY TRENCH ROLLER

Revision #3 (04/12/06)

To find the latest revision of this
publication, visit our website at:
www.multiquip.com



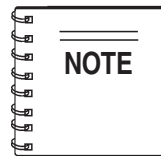
THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.

MQ RAMMAX P33/24 FR-FC-FCR Vibratory Trench Roller

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***Specification and part number
are subject to change without
notice.***

www.multiquip.com

Ordering parts has never been easier!

Choose from three easy options:



Order via Internet (Dealers Only):

Order parts on-line using Multiquip's SmartEquip website!

- View Parts Diagrams
- Order Parts
- Print Specification Information



If you have an MQ Account, to obtain a Username and Password, E-mail us at: **parts@multiquip.com**.

To obtain an MQ Account, contact your District Sales Manager for more information.

Goto www.multiquip.com and click on **Order Parts** to log in and save!

Use the **internet** and qualify for a **5% Discount** on *Standard orders* for all orders which include complete part numbers.*

Note: Discounts Are Subject To Change



Order via Fax (Dealers Only):

All customers are welcome to order parts via Fax.

Domestic (US) Customers dial:

1-800-6-PARTS-7 (800-672-7877)

Fax your order in and qualify for a **3% Discount** on *Standard orders* for all orders which include complete part numbers.*

Note: Discounts Are Subject To Change



Order via Phone:

Domestic (US) Dealers Call:

1-800-427-1244

Non-Dealer Customers:

Contact your local Multiquip Dealer for parts or call 800-427-1244 for help in locating a dealer near you.



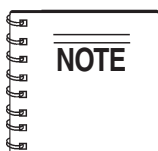
International Customers should contact their local Multiquip Representatives for Parts Ordering information.

When ordering parts, please supply:

- ☐ Dealer Account Number
- ☐ Dealer Name and Address
- ☐ Shipping Address (if different than billing address)
- ☐ Return Fax Number
- ☐ Applicable Model Number
- ☐ Quantity, Part Number and Description of Each Part

☐ Specify Preferred Method of Shipment:

- ☒ Fed Ex/UPS
- ☒ Priority One
- ☒ Ground
- ☒ Next Day
- ☒ Second/Third Day
- ☒ DHL
- ☒ Truck



Unless otherwise indicated by customer, all orders are treated as *Standard Orders* and will ship within 24 hours. We will make every effort to ship *Air Shipments* the same day the order is received, if received prior to 2PM PST. *Stock Orders* must be noted on fax or web order form.

WE ACCEPT ALL MAJOR CREDIT CARDS!



P33/24 FR-FC-FCR — EXPLANATION OF PARTS SECTION REMARKS

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

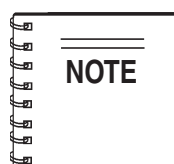
Sample Parts List:

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12345	BOLT	1	INCLUDES ITEMS W/*
2*		WASHER, 1/4 IN.		NOT SOLD SEPARATELY
2*	12347	WASHER, 3/8 IN.	1	MQ-45T ONLY
3	12348	HOSE	A/R ..	MAKE LOCALLY
4	12349	BEARING	1	S/N 2345B AND ABOVE

NO. Column

Unique Symbols - All items with same unique symbol (*, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the “Remarks” column.

Duplicate Item Numbers - Duplicate numbers indicate multiple part numbers are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.



When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used - Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the “Remarks” Column.

QTY. Column

Numbers Used - Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the “Remarks” Column.

REMARKS Column

Some of the most common notes found in the “Remarks” Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit - All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

“INCLUDES ITEMS W/(unique symbol)”

Serial Number Break - Used to list an effective serial number range where a particular part is used.

Indicated by:

“S/N XXXXX AND BELOW”

“S/N XXXX AND ABOVE”

“S/N XXXX TO S/N XXX”

Specific Model Number Use - Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

“XXXXX ONLY”

“NOT USED ON XXXX”

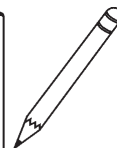
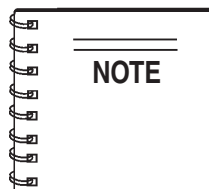
“Make/Obtain Locally” - Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

“Not Sold Separately” - Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

P33/24 FR-FC-FCR — SUGGESTED SPARE PARTS

MQ RAMMAX P33/24 FR-FC-FCR VIBRATORY TRENCH ROLLER 1 TO 3 UNITS W/FARYMANN 43 F

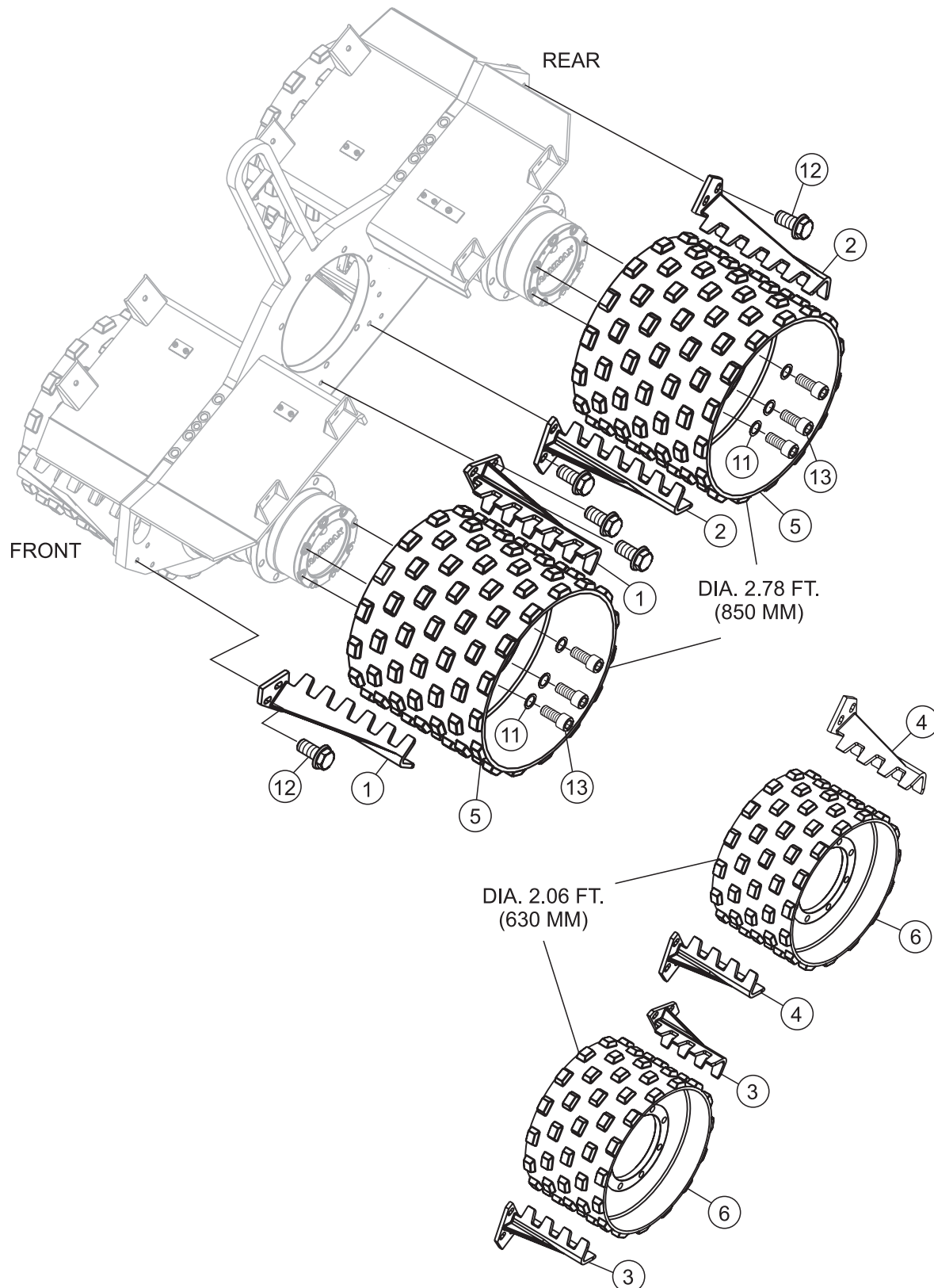
Qty ...	P/N	Description
8	63533	FRAME SHOCK MOUNTS
1	05725	FASTENER SNAP HOOD
1	51601	HYDRAULIC SUCTION FILTER
1	51619	HYDRAULIC HIGH-PRESSURE FILTER
2	05462	FAN, HYDRAULIC PUMP
2	59501	PARALLEL PIN, FAN
1	3-10728	EMERGENCY STOP BUMPER
1	68562	COCKPIT
1	68566	HELIX CABLE
1	52012	STARTER SWITCH
2	52007	KEYS, STARTER
1	64541	THROTTLE CABLE COMPL.
1	3-10085	RECEIVER EYE PROTECTING CAP
1	68333	RECEIVER EYE
1	90292	VOLTAGE REGULATOR
1	68561	BLACK BOX
1	5410502	ENGINE OIL FILTER
1	5410382	ENGINE FUEL FILTER
1	5410732	ENGINE AIR FILTER



Part numbers on this Suggested Spare Parts List may supercede/replace the P/N's shown in the test pages of this manual.

P33/24 FR-FC-FCR — STANDARD DRUM ASSY.

STANDARD DRUM ASSY.



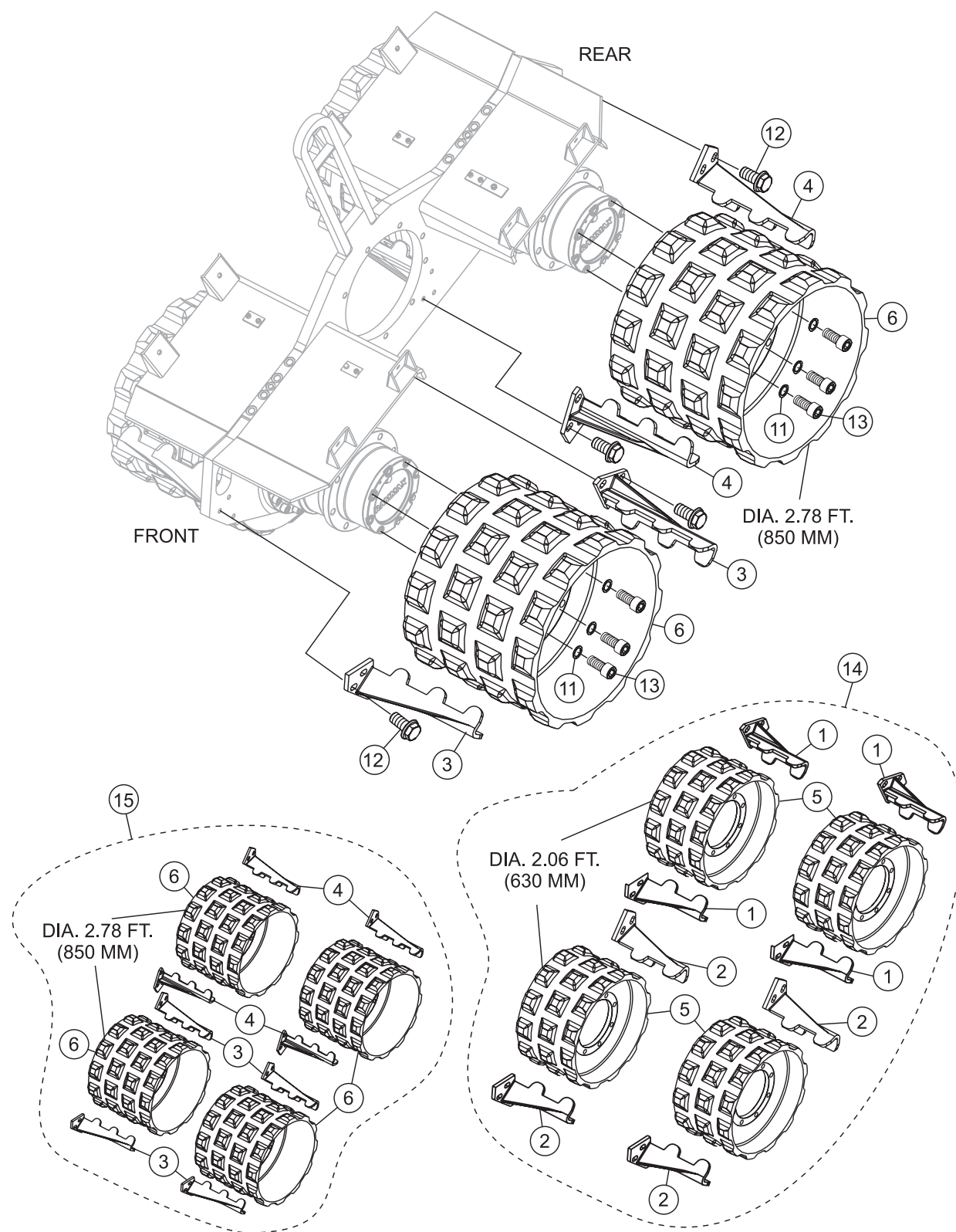
P33/24 FR-FC-FCR — STANDARD DRUM ASSY.

STANDARD DRUM ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	00288	SCRAPER, 33" F/L-R/R	4	USE WITH FRONT DRUM 00422
2	00289	SCRAPER, 33" F/R-L/R	4	USE WITH REAR DRUM 00422
3	00290	SCRAPER, 24" F/L-R/R	4	USE WITH FRONT DRUM 00423
4	00291	SCRAPER, 24" F/R-L/R	4	USE WITH REAR DRUM 00423
5	00422	DRUM, 33" SMALL PADS	4	DIA. 2.78 FT. (850 MM)
6	00423	DRUM, 24" SMALL PADS	4	DIA. 2.06 FT. (630 MM)
11	58332	RETAINING WASHER, S-18	32	
12	55946	HEX BOLT, M12 X 25	24	
13	54153	ALLEN HEAD CAP SCREW, M18 X 40	32	

P33/24 FR-FC-FCR — UNIVERSAL DRUM ASSY.

UNIVERSAL DRUM ASSY.



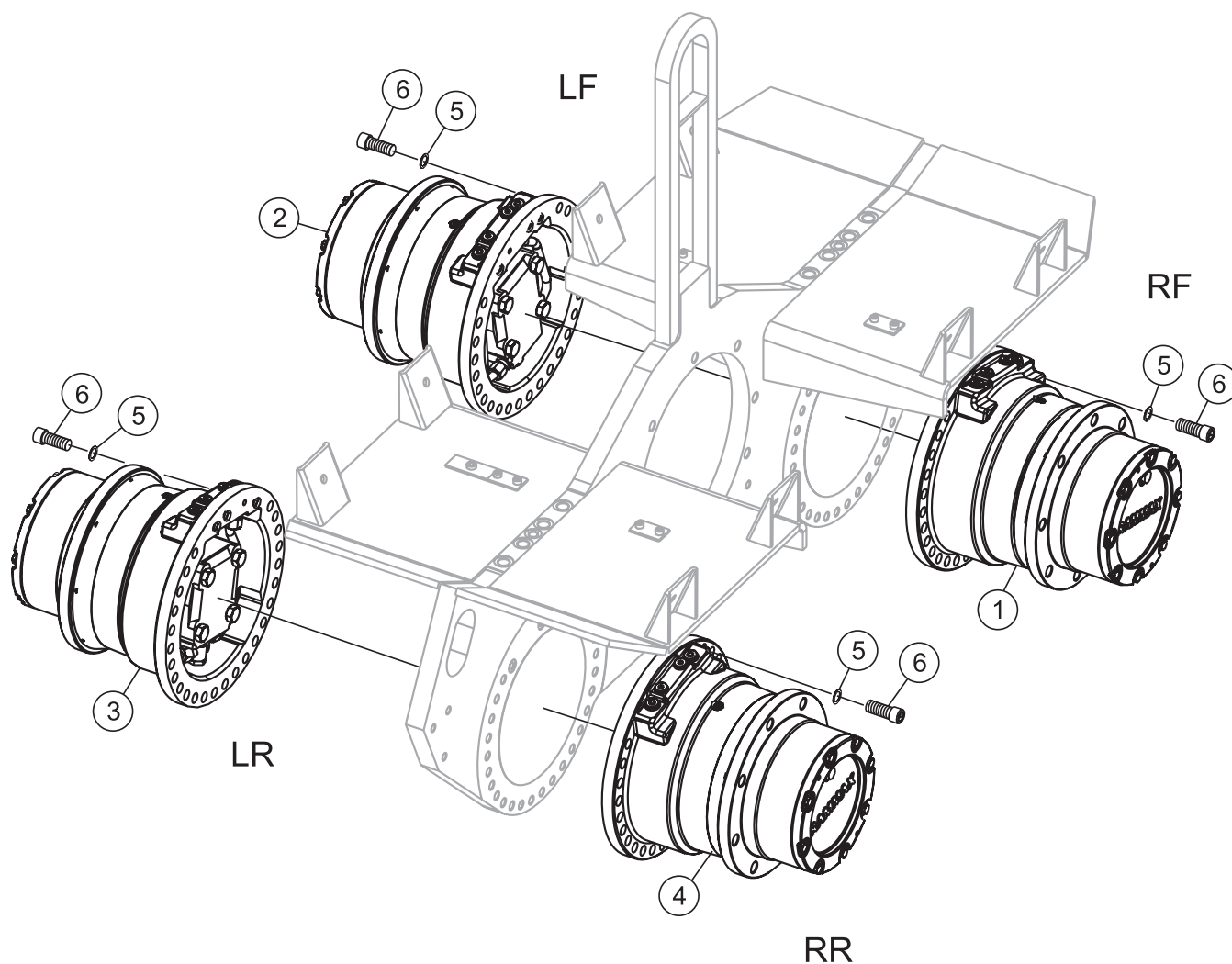
P33/24 FR-FC-FCR— UNIVERSAL DRUM ASSY.

UNIVERSAL DRUM ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	00342	SCRAPER, 24" F/L-R/R	4	USE WITH REAR DRUM 00300
2*	00343	SCRAPER, 24" F/R-L/R	4	USE WITH FRONT DRUM 00300
3#	00344	SCRAPER, 33" F/L-R/R	4	USE WITH FRONT DRUM 00400
4#	00345	SCRAPER, 33" F/R-L/R	4	USE WITH REAR DRUM 00400
5*	00300	DRUM, 24" LARGE PADS	4	DIA. 2.06 FT. (630 MM)
6#	00400	DRUM, 33" LARGE PADS	4	DIA. 2.78 FT (850 MM)
11	58332	RETAINING WASHER, S-18	32	
12	55946	HEX BOLT, M12 X 25	24	
13	54153	ALLEN HEAD CAP SCREW, M18X40	32	
14	KIT24A	DRUM AND SCRAPER KIT	1	CONTACT UNIT SALES INCLUDES ITEMS W/*
15	KIT33A	DRUM AND SCRAPER KIT	1	CONTACT THROUGH UNIT SALES INCLUDES ITEMS W/#

P33/24 FR-FC-FCR—HYDRAULIC MOTOR 1 ASSY.

HYDRAULIC MOTOR 1 ASSY.



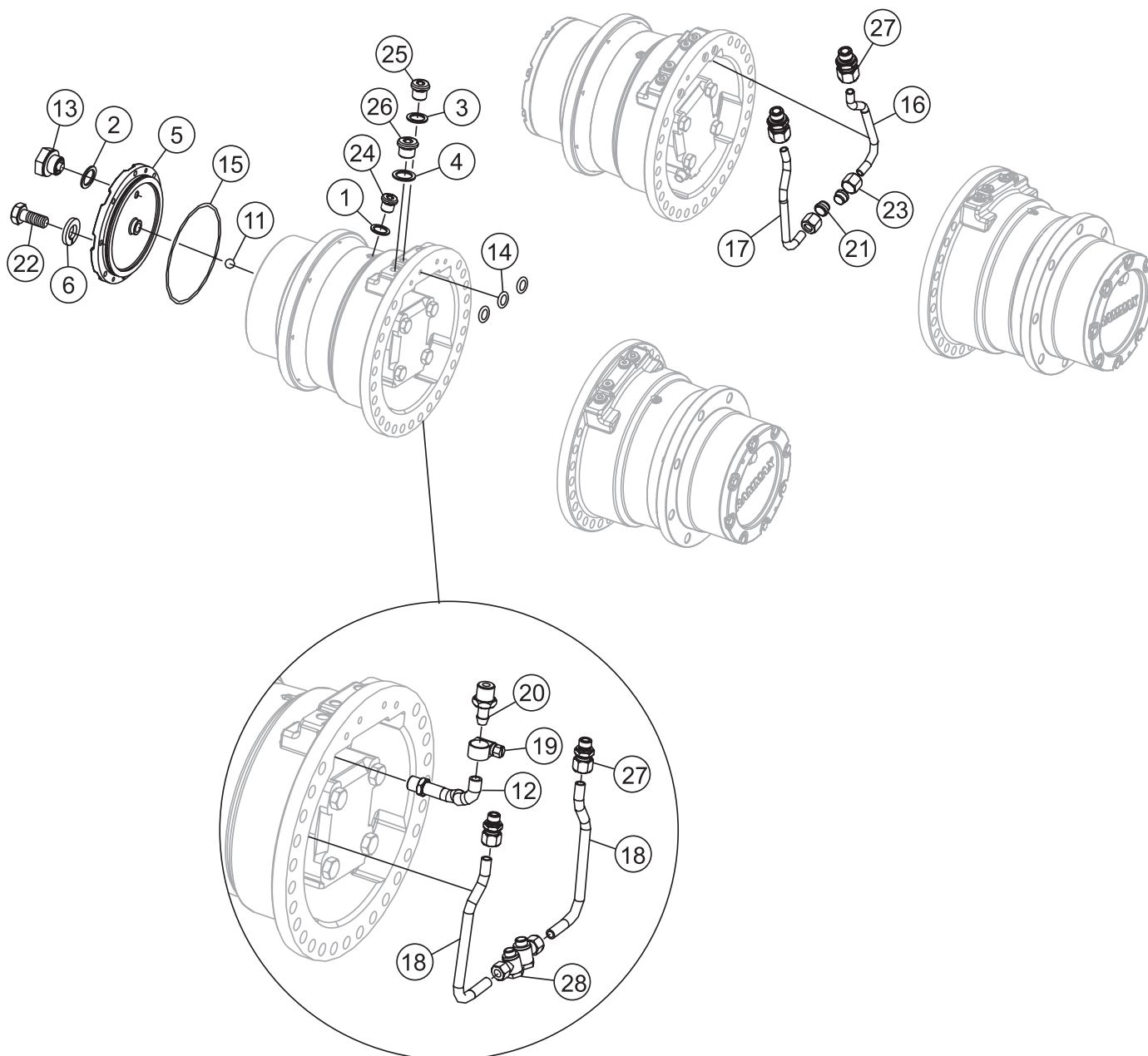
P33/24 FR-FC-FCR— HYDRAULIC MOTOR 1 ASSY.

HYDRAULIC MOTOR 1 ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	88022	HYDRAULIC MOTOR, R/F WITHOUT BRAKE	1	
2	88021	HYDRAULIC MOTOR, L/F WITH BRAKE	1	
3	88022	HYDRAULIC MOTOR, L/R WITHOUT BRAKE	1	
4	88021	HYDRAULIC MOTOR, R/R WITH BRAKE	1	
5	58329	RETAINING WASHER, S-14	48	
6	54110	ALLEN HEAD CAP SCREW, M14 X 40	48	

P33/24 FR-FC-FCR—HYDRAULIC MOTOR 2 ASSY.

HYDRAULIC MOTOR 2 ASSY.



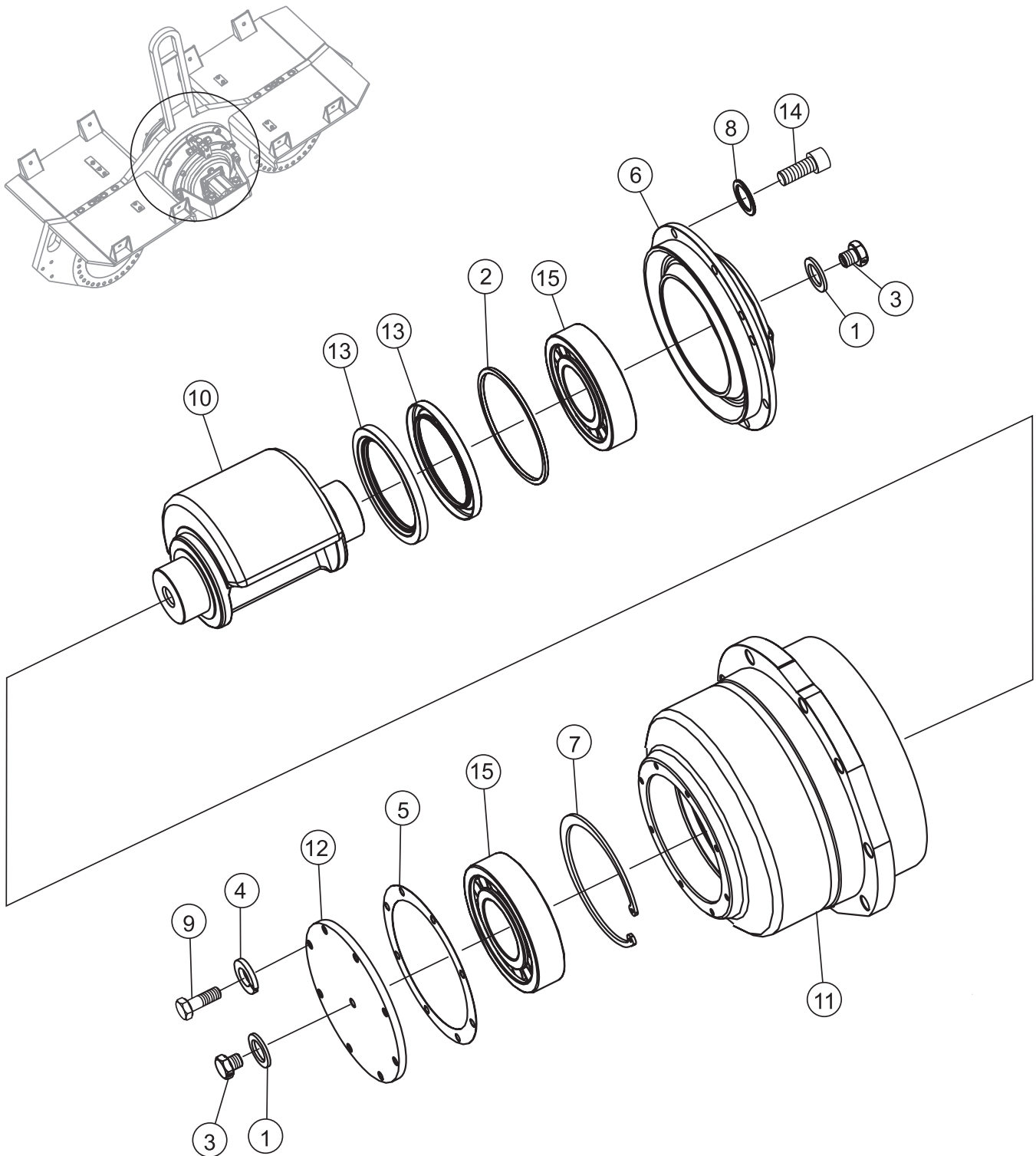
P33/24 FR-FC-FCR— HYDRAULIC MOTOR 2 ASSY.

HYDRAULIC MOTOR 2 ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	58618	COPPER RING, 10 X 14 X 1	4	
2	58603	COPPER RING, 12 X 18 X 1.5	5	
3	58605	COPPER RING, 14 X 20 X 1.5	8	
4	58606	COPPER RING, 16 X 22 X 1.5	8	
5	46203	BONNET, COVER	4	
6	58429	SPRING WASHER, A 8	32	
11	51215	BALL, RB-16 KL.5	4	
12	67000	OIL OVER FLOW HOSE	4	
13	58860	DRAIN PLUG, M12 X 1.5	5	
14	62031	O-RING, 14X3 AU 90° SHORE	12	
15	62166	O-RING	4	
16	46222	PIPE	2	
17	46223	PIPE	2	
18	46224	PIPE	4	
19	63250	BRACKET, ABA 8-12X9	4	
20	57775	HOSE STEM, M14 X 1.5 - KONISCH	4	
21	57682	CUTTING RINGM, 12 - L/S	4	
22	55901	HEX BOLT, M8 X 20	32	
23	57689	HEX NUT, 12 - S	4	
24	58800	DRAIN PLUG, M10 X 1	4	
25	58814	DRAIN PLUG, M14 X 1.5	8	
26	58813	DRAIN PLUG, M16 X 1.5	8	
27	57475	HYDRAULIC FITTING, GE 12 LM KON.	8	
28	57529	HYDRAULIC FITTING, SWVE 12 LM	4	

P33/24 FR-FC-FCR—VIBRATOR 1 ASSY.

VIBRATOR 1 ASSY.



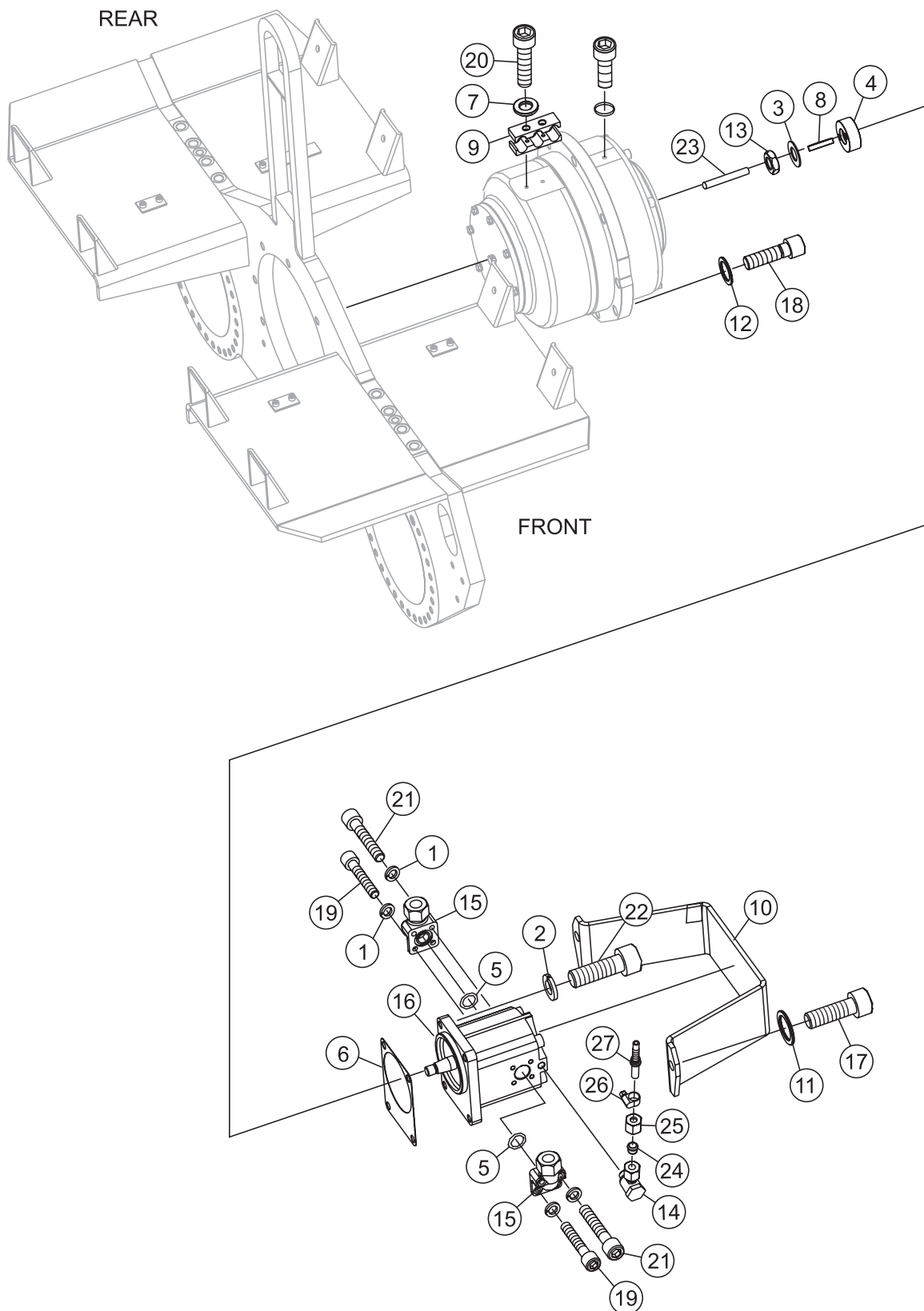
P33/24 FR-FC-FCR— VIBRATOR 1 ASSY.

VIBRATOR 1 ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	58603	COPPER RING, 12 X 18 X 1.5	2	
2	00405	SPACER RING	1	
3	3-10464	VENT SCREW	2	
4	58429	SPRING WASHER	8	
5	3-10146	PAPER SEAL	1	
6	3-10144	BEARING HOUSING	1	
7	58974	RING, I 170	1	
8	58335	RETAINING WASHER, S-12 VERZ.	6	
9	55903	HEX BOLT, M8 X 25	8	
10	3-10796	EXCENTRIC WEIGHT	1	
11	3-10143	EXCENTRIC HOUSING	1	
12	3-10145	COVER	1	
13	62503	SHAFT SEAL, 135 X 170 X 12 B1	2	
14	54648	ALLEN HEAD CAP SCREW, M12 X 30	6	
15	51102	ROLLER BEARING, NJ 316	2	

P33/24 FR-FC-FCR—VIBRATOR 2 ASSY.

VIBRATOR 2 ASSY.



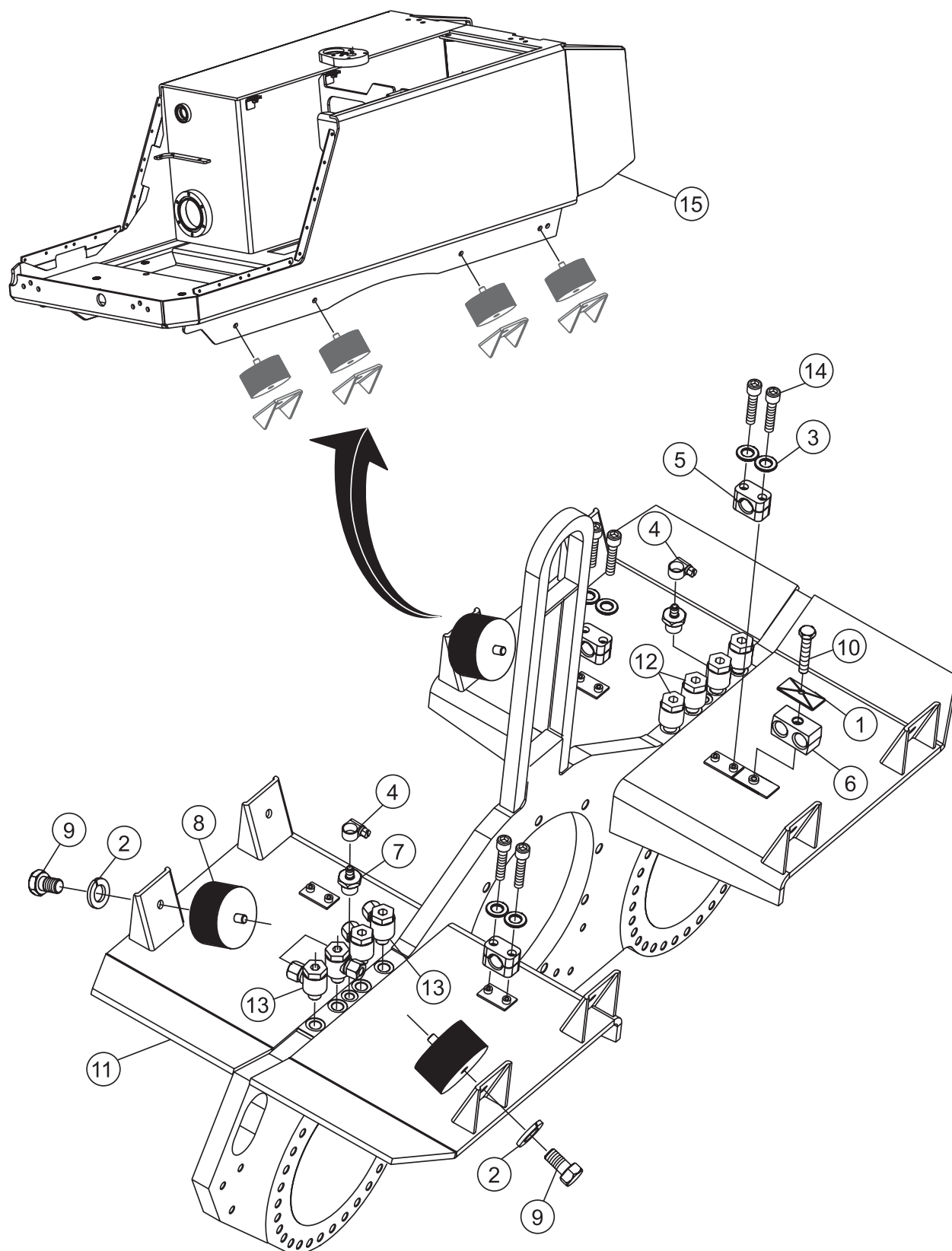
P33/24 FR-FC-FCR— VIBRATOR 2 ASSY.

VIBRATOR 2 ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	58428	SPRING WASHER, A 6	8	
2	58325	SPRING WASHER, A 8	4	
3	58277	SPRING WASHER, B 12	1	
4	00397	COUPLING	1	
5	62039	O-RING, DURCHM. 18 X 2.5	2	
6	64100	PAPER SEAL, KM 1/11	1	
7	58025	WASHER, B 6.4	2	
8	59027	WOODRUFF KEY, 3 X 6.5	1	
9	63175	CLIP, GR.3 18X18X18	2	
10	3-10184	SHEET METAL GUARD	1	
11	58335	RETAINING WASHER, S-12	2	
12	58331	RETAINING WASHER, S-16 VERZ.	9	
13	57171	HEX NUT, BM 12 X 1.5	1	
14	57526	HYDRAULIC FITTING, SWVE 8 LM	1	
15	57635	HYDRAULIC FITTING, WF-35LK-L15-250	2	
16	50104	GEAR MOTOR, KM 1/11	1	
17	54649	ALLEN HEAD CAP SCREW, M12 X 35	2	
18	54516	ALLEN HEAD CAP SCREW, M16 X 55	9	
19	54604	ALLEN HEAD CAP SCREW, M6 X 20	4	
20	54605	ALLEN HEAD CAP SCREW, M6 X 25	2	
21	54607	ALLEN HEAD CAP SCREW, M6 X 35	4	
22	54619	ALLEN HEAD CAP SCREW, M8 X 25	4	
23	59524	PARALLEL PIN, 10M6 X 40	2	
24	57858	CUTTING RING, 8L	1	
25	57851	SCREW NUT, 8L	1	
26	63250	BRACKET, ABA 8-12X9	1	
27	66796	CONNECTION	1	
28	54054	ALLEN HEAD CAP SCREW, M8X12	1	
29	58601	COPPER RING, 8X13X1.5	1	

P33/24 FR-FC-FCR— MOUNTING FRAME ASSY.

MOUNTING FRAME ASSY.



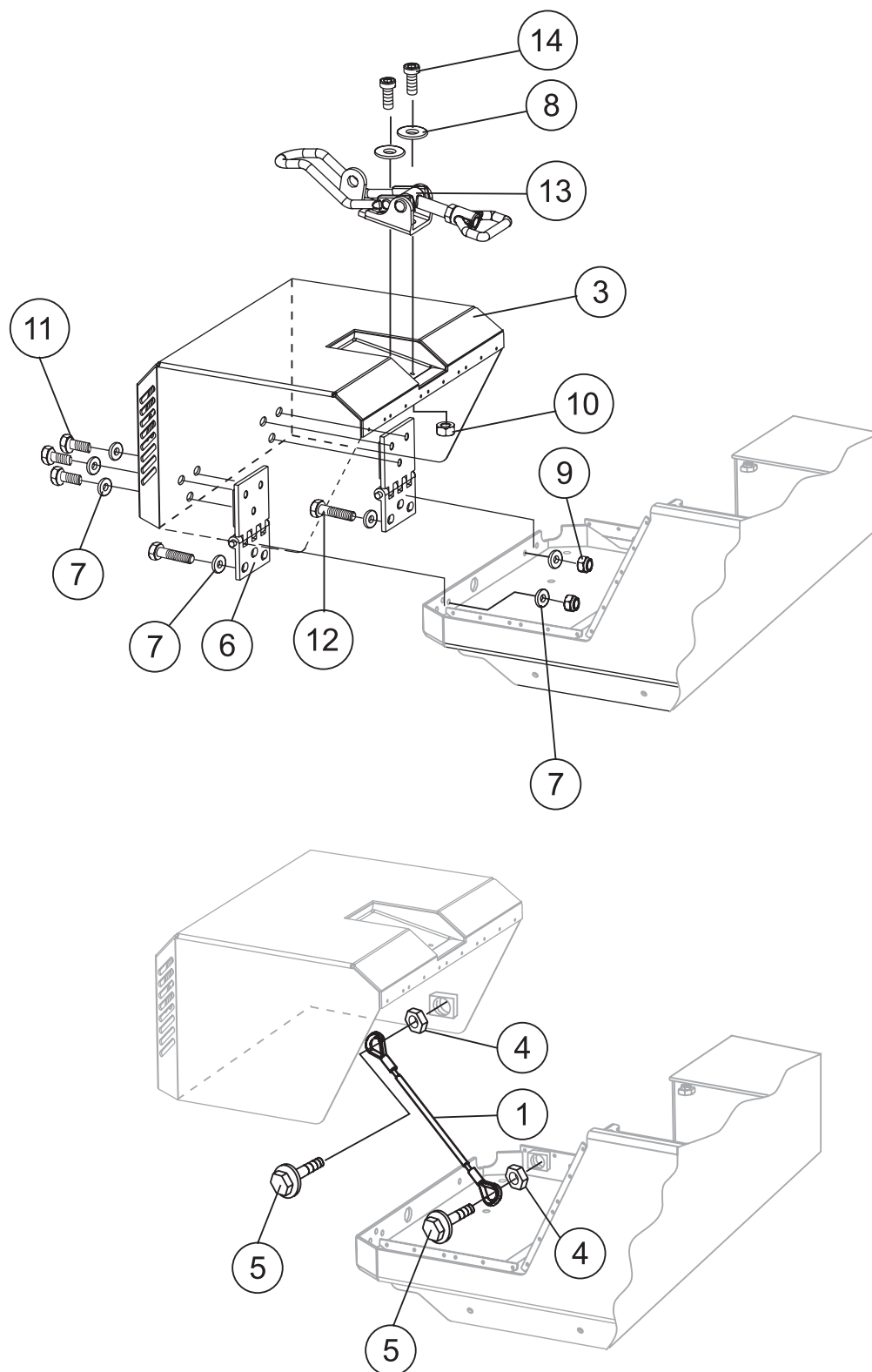
P33/24 FR-FC-FCR— MOUNTING FRAME ASSY.

MOUNTING FRAME ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	63093	COVER PLATE, GR.3 GD	1	
2	58431	SPRING WASHER, A 12	8	
3	58025	WASHER, B 6.4	8	
4	63250	BRACKET, ABA 8-12X9	2	
5	63152	CLIP, GR.3 DURCHM. 18	4	
6	63171	CLIP, GR.3D 22X22	1	
7	3-10782	HOSE STEM, 9 S MN 20 K	2	
8	63533	SHOCK MOUNT, 90 X 50 - 45°SHORE	8	
9	55721	HEX BOLT, M12 X 18	8	
10	55904	HEX BOLT, M8 X 45	1	
11	05281	MOUNTING FRAME COMPL.	1	
12	57504	HYDRAULIC FITTING, GE 12 SM	4	
13	57578	HYDRAULIC FITTING, WHO 12 SM	4	
14	54606	ALLEN HEAD CAP SCREW, M6 X 30	8	
15	3-10700	CONSOLE COMPL.	1	

P33/24 FR-FC-FCR— ENGINE COVER PLATE ASSY.

ENGINE COVER PLATE ASSY.



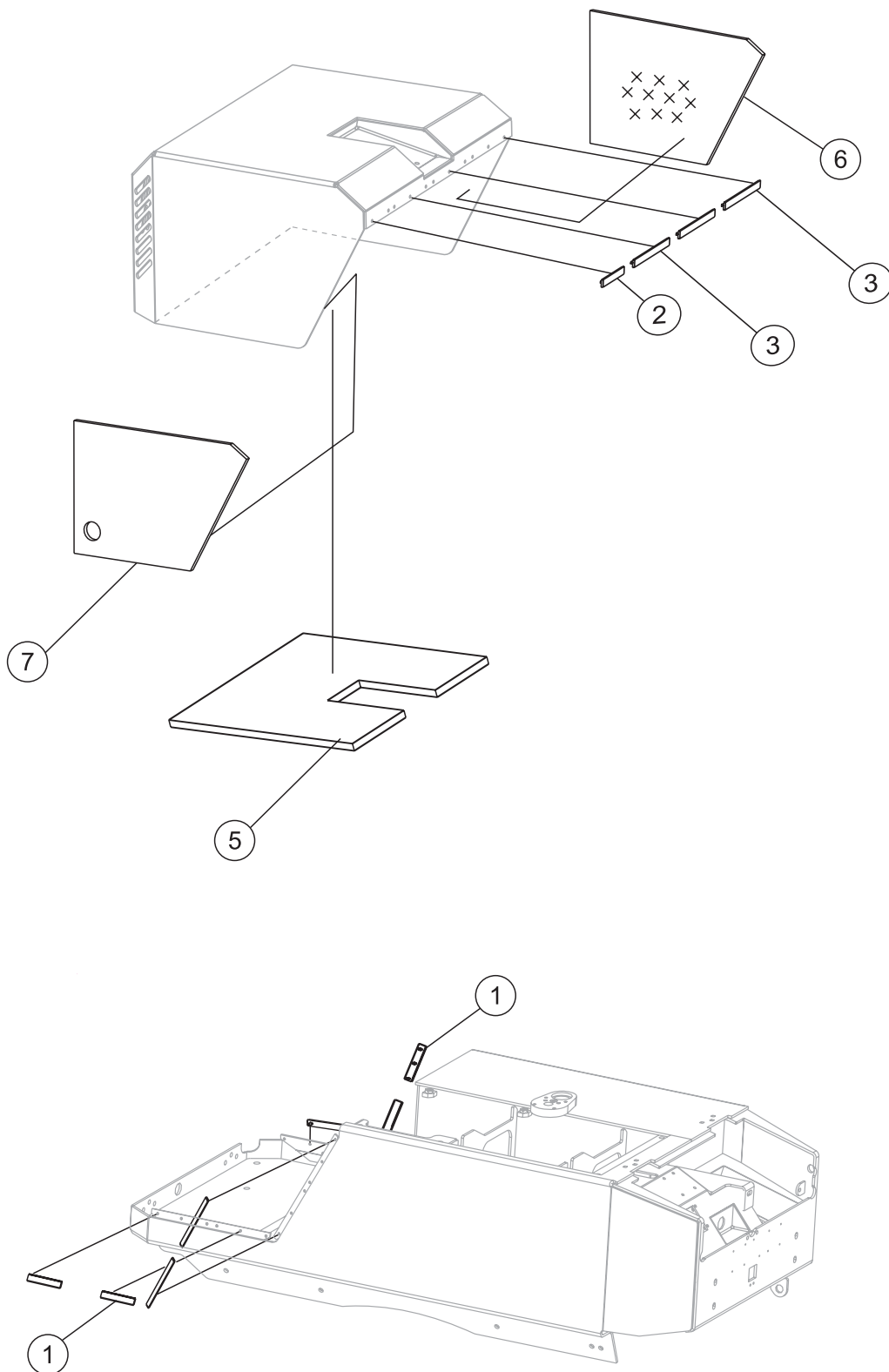
P33/24 FR-FC-FCR— ENGINE COVER PLATE ASSY.

ENGINE COVER PLATE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	3-12015	WIRE CABLE	1	
3	3-10720	ENGINE COVER PLATE	1	
4	07253	PRESS-NUT	2	
5	07254	PRESS-SCREW	2	
6	3-10028	HINGE	2	
7	58125	WASHER, A 10.5 ST	18	
8	58077	WASHER, B 8.4	2	
9	57080	HEX NUT, M10	6	
10	57079	HEX NUT, M8	2	
11	55911	HEX BOLT, M10 X 20	6	
12	55914	HEX BOLT, M10 X 35	6	
13	05725	FASTENER SNAP HOOD	1	
14	54803	ALLEN HEAD CAP SCREW, M8 X 20	2	

P33/24 FR-FC-FCR— INSULATING BOARD ASSY.

INSULATING BOARD ASSY.



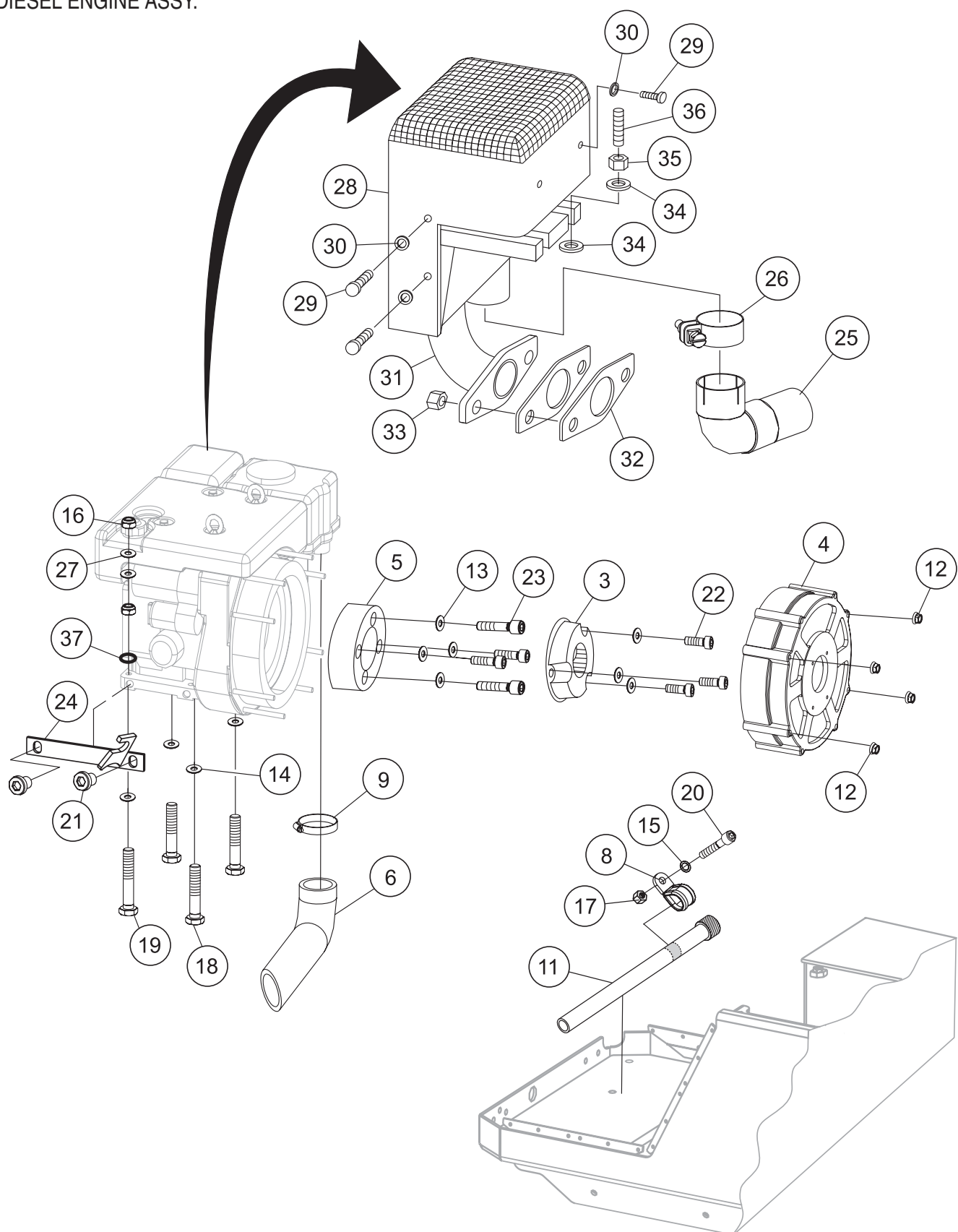
P33/24 FR-FC-FCR— INSULATING BOARD ASSY.

INSULATING BOARD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	05223	SEAL LATH	8	
2	05317	SEAL LATH	1	
3	05594	SEAL LATH	3	
5	3-10830	SOUND DAMPENING PLATE	1	
6	3-10832	SOUND DAMPENING PLATE	1	
7	3-10831	SOUND DAMPENING PLATE	1	

P33/24 FR-FC-FCR— DIESEL ENGINE ASSY.

DIESEL ENGINE ASSY.



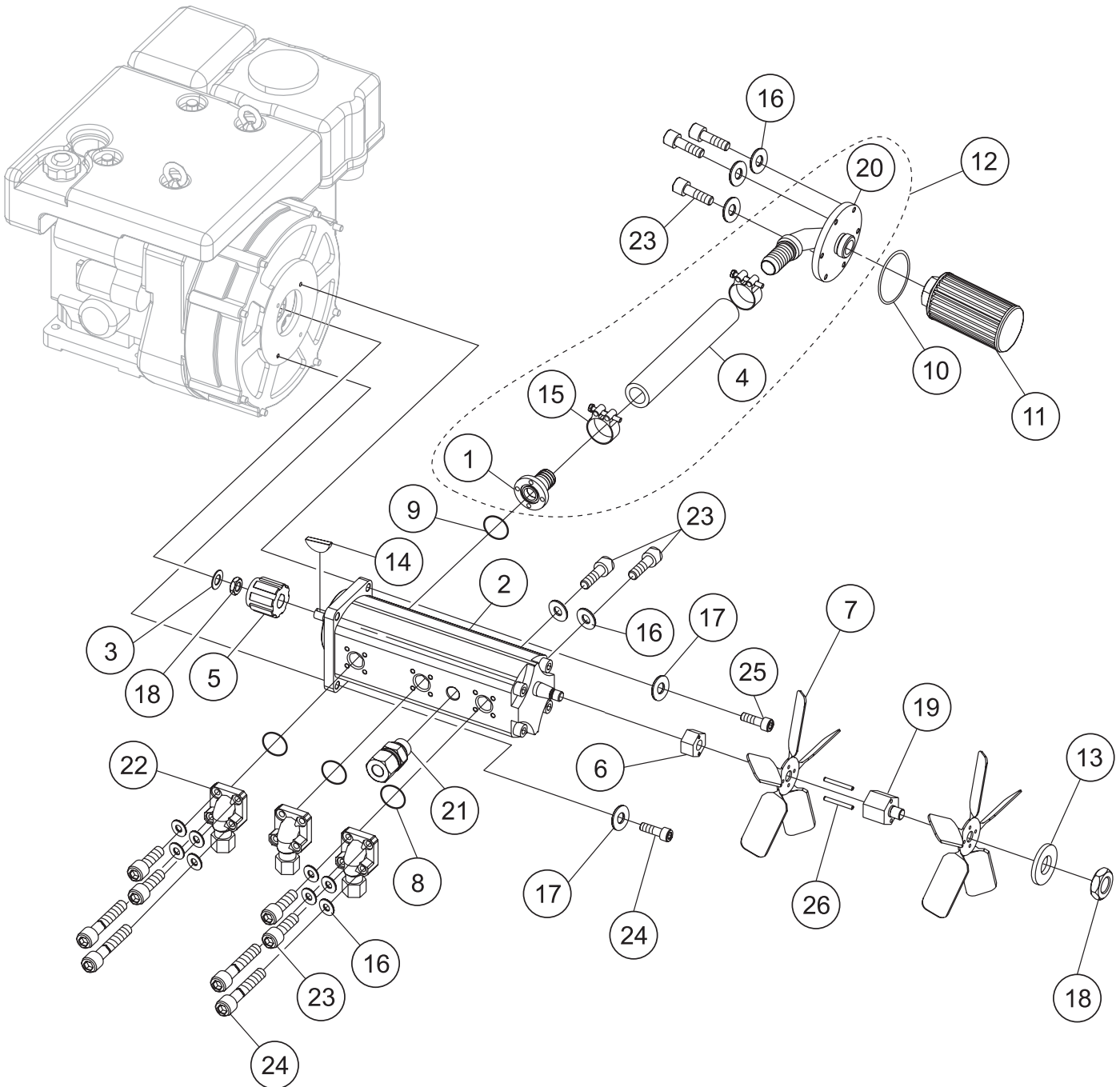
P33/24 FR-FC-FCR— DIESEL ENGINE ASSY.

DIESEL ENGINE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
3	51041	COUPLING	1	
4	6301514	HOUSING	1	
5	3-10767	COUPLING WASHER	1	
6	05314	AIR SUCTION PIPE	1	
7	49518	DIESEL ENGINE, FARYMANN 43F	1	
8	63061	CLAMP	1	
9	63260	CLAMP	1	
11	9730266	HOSE	1	
13	58334	RETAINING WASHER, S-10	7	
14	58335	RETAINING WASHER, S-12	4	
16	57081	HEX NUT, M12	4	
17	57079	HEX NUT, M8	1	
18	55928	HEX BOLT, M12 X 60	3	
19	55558	HEX BOLT, M12 X 80	1	
20	55904	HEX BOLT, M8 X 45	1	
21	54897	ALLEN HEAD CAP SCREW, M10 X 20	2	
22	54632	ALLEN HEAD CAP SCREW, M10 X 25	3	
23	54511	ALLEN HEAD CAP SCREW, M10 X 50	4	
24	3-10803	THROTTLE VALVE PLATE	1	
25	3-10840	TAIL-PIPE	1	
26	9221982	CLAMP	1	
27	58028	WASHER, B13	2	
28	9251522	PROTECTOR	1	
29	8908112	SCREW, M6X12	8	
30	8900806	WASHER, 10.5	8	
31	1311046	MUFFLER	1	
32	7702914	GASKET	2	
33	5141042	HEX NUT, M10	2	
34	8900806	WASHER, 10.5	6	
35	8903807	HEX NUT, M10	2	
36	8902832	SCREW, M10X25	2	
37	TBD?	TBD?	2	

P33/24 FR-FC-FCR— SUCTION FILTER/HYDRAULIC PUMP ASSY.

SUCTION FILTER/HYDRAULIC PUMP ASSY.



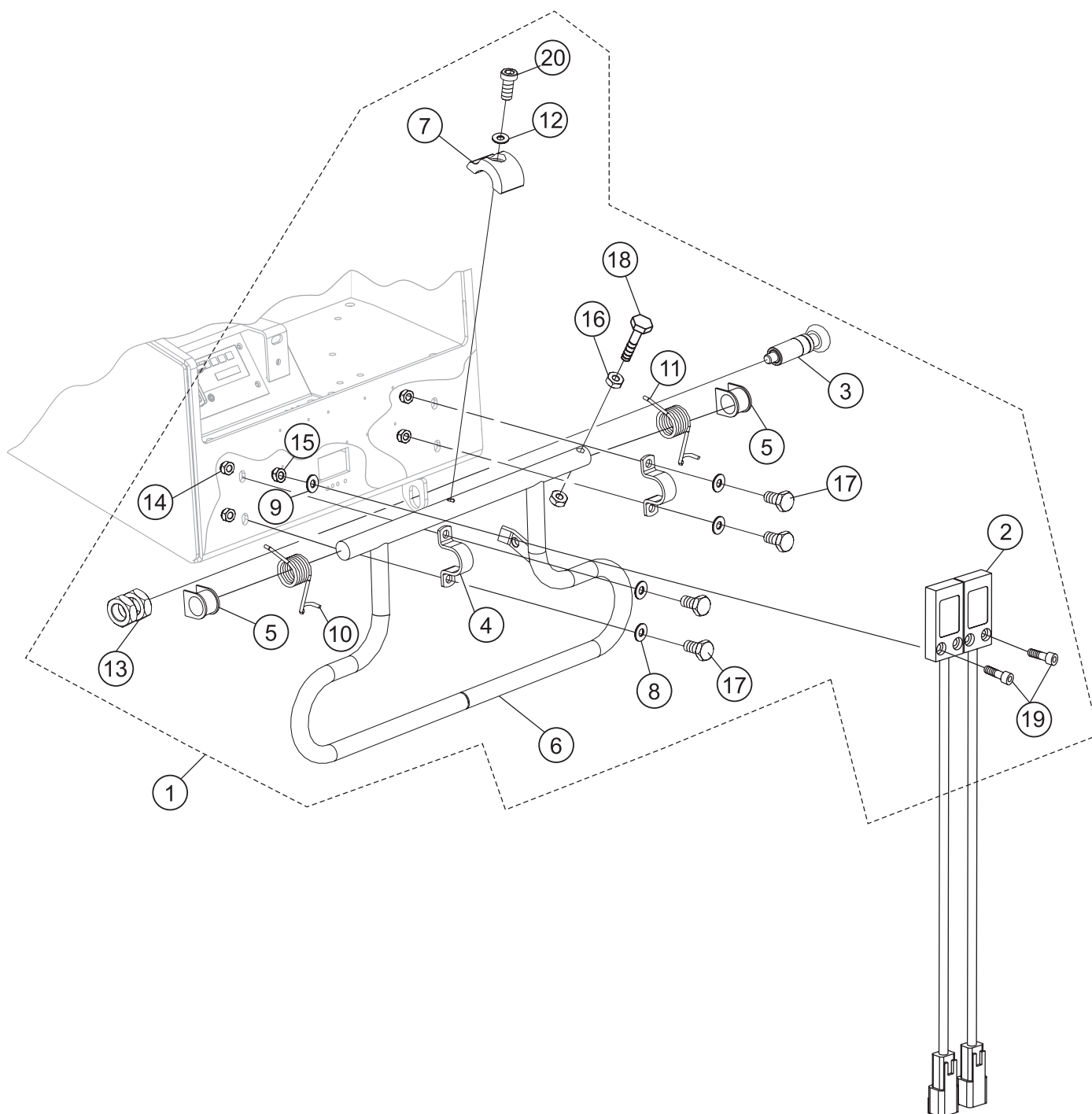
P33/24 FR-FC-FCR— SUCTION FILTER/HYDRAULIC PUMP ASSY.

SUCTION FILTER/HYDRAULIC PUMP ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	3-10784	INTAKE FLANGE	1	
2	50340	HYDRAULIC PUMP, KP 1/8 - 6+3+3	1	
3	58277	SPRING WASHER, B 12	1	
4*	3-10838	HD-HOSE, 1 SN DN 25	1	
5	51042	COUPLING HUB	1	
6	3-10492	COUPLING HALF	1	
7	05462	VENTILATOR, ART.-NR.: 4402	2	
8	62039	O-RING, DURCHM. 18 X 2.5	3	
9	62050	O-RING, DURCHM. 24 X 2.5	1	
10	62115	O-RING, DURCHM. 80 X 4	1	
11	51601	SUCTION FILTER, AS 040-01K	1	
12	3-10812	SUCTION HOSE	1	INCLUDES ITEMS W/*
13	58076	WASHER, 13	1	
14	59027	WOODRUFF KEY, 3 X 6.5	1	
15*	63290	BRACKET, W2 GBS 39/18	2	
16	58324	RETAINING WASHER, S-6 GELB CHROM.	22	
17	58325	RETAINING WASHER, S-8	4	
18	57171	HEX NUT, BM 12 X 1.5	2	
19	3-10230	COUPLING ALUMINIUM	1	
20*	3-10564	COVER COMPL.	1	
21	57456	HYDRAULIC FITTING, GE 12 LM M18X1.5	1	
22	57644	HYDRAULIC FITTING, WF-35LK-12L-315	3	
23	54604	ALLEN HEAD CAP SCREW, M6 X 20	16	
24	54607	ALLEN HEAD CAP SCREW, M6 X 35	8	
25	54619	ALLEN HEAD CAP SCREW, M8 X 25	4	
26	59501	PARALLEL PIN, 4M6 X 36	2	

P33/24 FR-FC-FCR— EMERGENCY STOP BUMPER ASSY.

EMERGENCY STOP BUMPER ASSY.



P33/24 FR-FC-FCR— EMERGENCY STOP BUMPER ASSY.

EMERGENCY STOP BUMPER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	3-10729	EMERGENCY STOP BUMPER W/ HARDWARE	1	INCLUDES ITEMS W/*
2*	90294	PROXIMITY SWITCH, ELOBAU 114010	1	
3*	69713	SPRING BOLT WITH TOP	1	
4*	3-10295	MOUNTING BOW, DD 11 4MM STANDARD	2	
5*	05628	BEARING BUSH, PUR-95_SHORE	2	
6*	3-10728	EMERGENCY STOP BUMPER	1	
7*	3-10725	TRIP CAM, S235JR 20MM	1	
8*	58027	WASHER, B 10.5	4	
9*	58038	WASHER, B 4.3	2	
10*	05625	LEG SPRING	1	
11*	05626	LEG SPRING	1	
12*	58334	RETAINING WASHER, S-10	1	
13*	57161	HEX NUT, BM 20X1.5	2	
14*	57080	HEX NUT, M10	4	
15*	57076	HEX NUT, M4	2	
16*	57030	HEX NUT, M10	2	
17*	55912	HEX BOLT, M 10X25	4	
18*	55671	HEX BOLT, M 10X50	1	
19*	56134	ALLEN HEAD CAP SCREW, AM 4X20	2	
20*	54812	ALLEN HEAD CAP SCREW, M 10X25	1	

P33/24 FR-FC-FCR— COCKPIT COVER ASSY.

COCKPIT COVER ASSY.

Caution!

1. Read instruction manual before operation.
2. Never leave machine unattended with the engine running.
3. Keep unauthorized and untrained people away from machine during operation.
4. Do not tow or push machine.
5. When parked on a slope, block drums to prevent machine movement.
6. Exhaust gases are dangerous. DO NOT operate or run machine in an enclosed area.
7. Wear safety clothing and devices as required.
8. Always place forward and reverse lever in neutral position before starting machine.
9. Before starting or resuming work, operator must check that no one is in the operating area.
10. Keep away from edges and steep slopes. Do not operate machine close to embankments or open trenches.
11. When traveling up or down slopes, limit travel to straight up and down at low speed only.
12. Be sure to stop engine whenever maintenance or refueling is being performed.

Achtung

Beim Fahren mit Fernsteuerung sowie beim Parken der Maschine muss der Deckel geschlossen sein.

Attention

During driving with remote control and during parking the machine the cover must be closed.

Attention

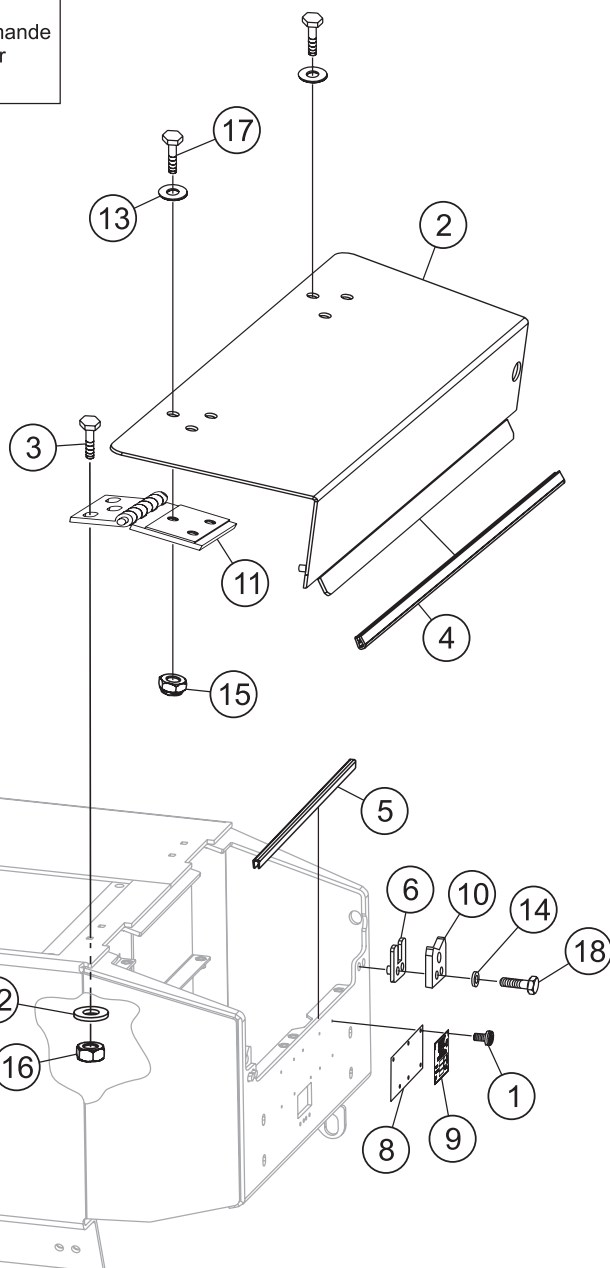
Pendant conduire avec commande à distance et pendant parquer la machine, le c

20

21



19



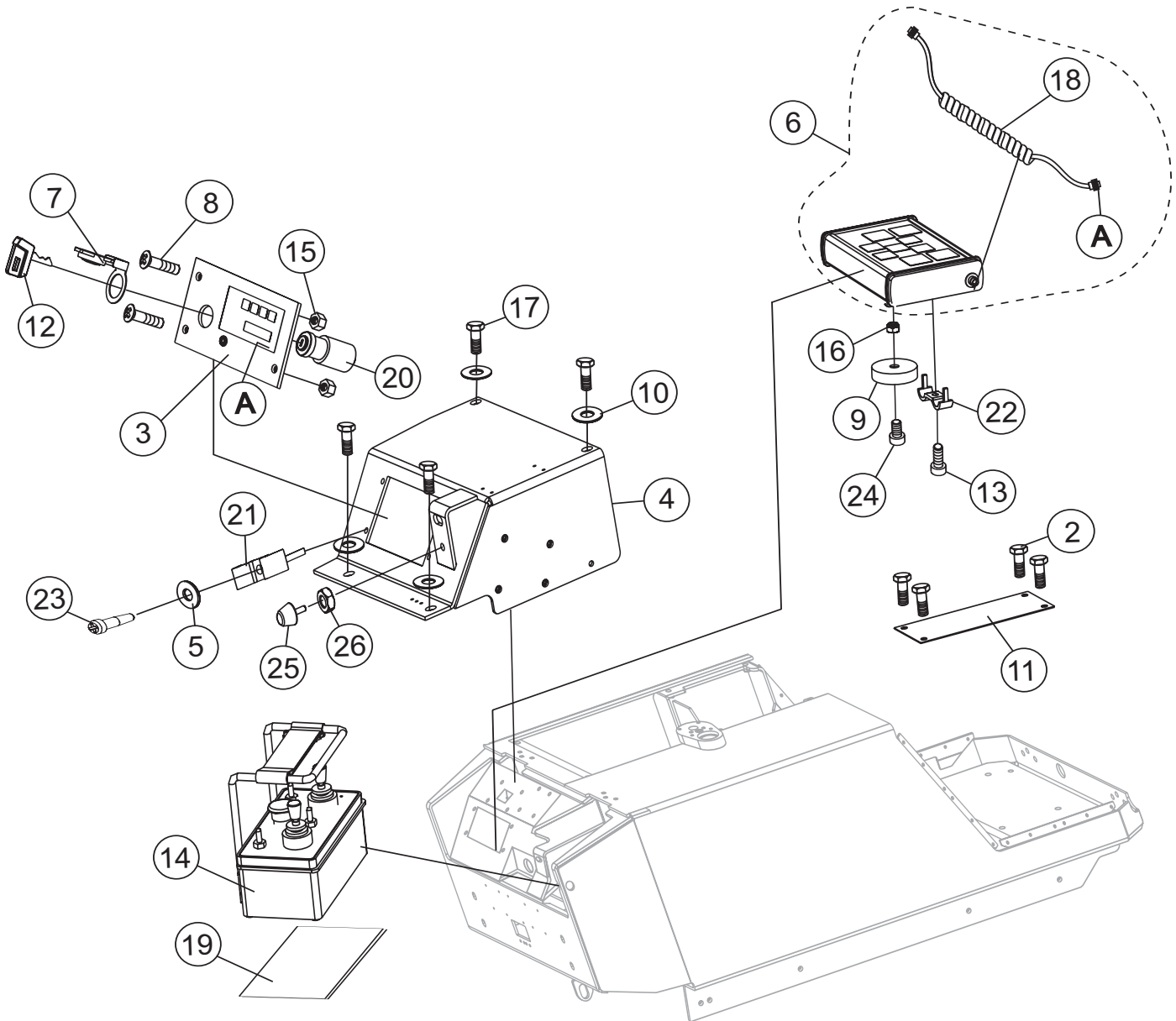
P33/24 FR-FC-FCR— COCKPIT COVER ASSY.

COCKPIT COVER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	56251	PARKER SCREW 3.5 X 6.5	6	
2	3-10923	COCKPIT COVER, COMPLETE	1	
3	56355	HEX BOLT M8 X 25	4	
4	3-10893	EDGE PROTECTION	1	
5	3-10894	EDGE PROTECTION	1	
6	3-10921	CLAMPING PLATE	2	
8	39563	OPERATING PLATE	1	
9	39573	OPERATING PLATE	1	
10	3-10884	DETENT	2	
11	3-10028	HINGE	2	
12	58077	WASHER 8.5	4	
13	58027	WASHER, B 10.5	6	
14	58025	WASHER B 6,4	4	
15	57080	HEX NUT, M10	6	
16	57029	HEX NUT, M8	6	
17	55912	HEX BOLT, M10X25	6	
18	55889	HEX BOLT M6 X 30	4	
19	39789	DECAL TRANSMITTER	1	
20	39580	DECAL CAUTION	1	
21	39672	DECAL ATTENTION	1	

P33/24 FR-FC-FCR— COCKPIT ASSY.

COCKPIT ASSY.



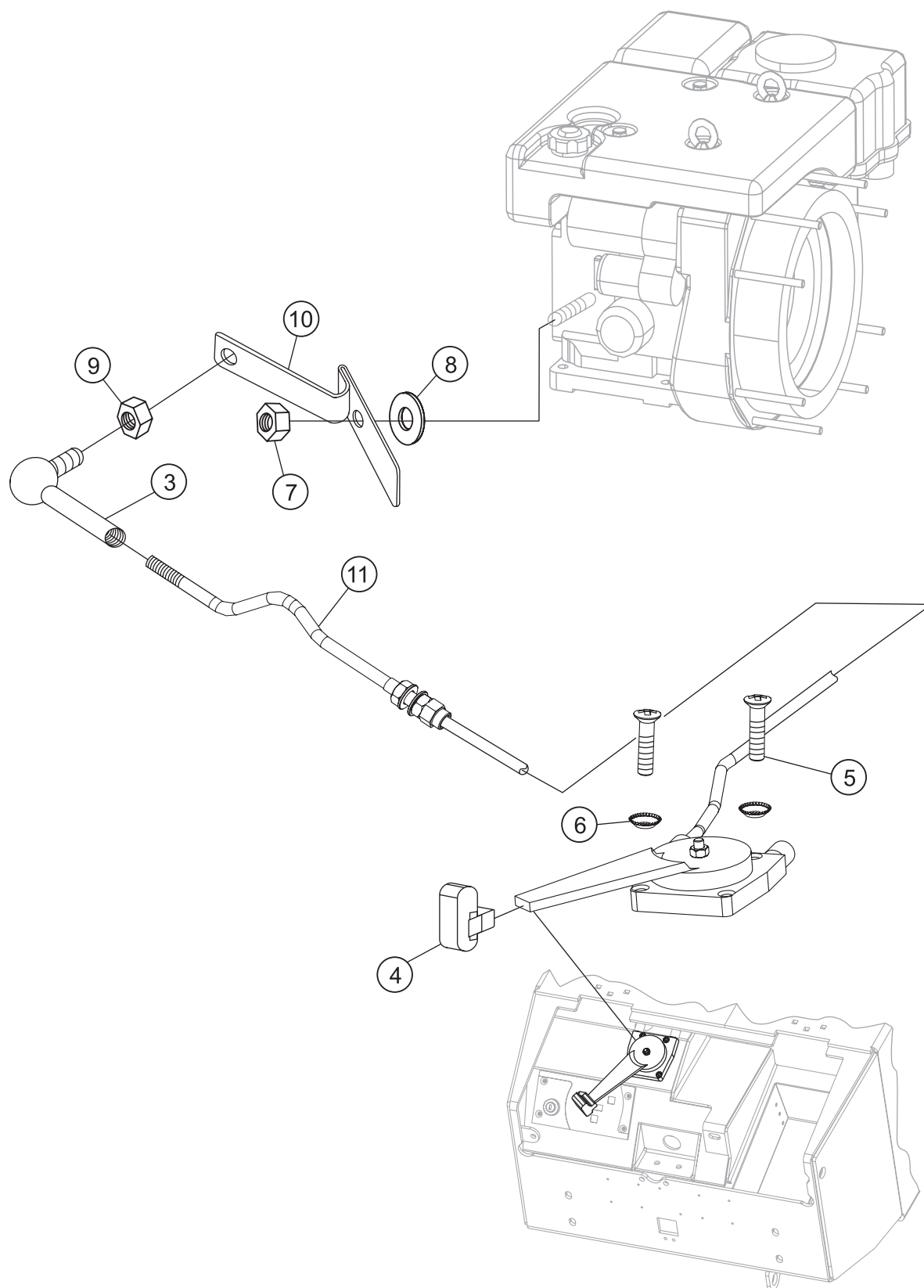
P33/24 FR-FC-FCR— COCKPIT ASSY.

COCKPIT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	56251	PARKER SCREW 3.5 X 6.5	4	
3	68562	COCKPIT	1	
4	3-10848	COCKPIT COVER, COMPLETE	1	
6	68563	MANUAL CONTROL BOX	1	INCLUDES ITEM W/*
7	52026	HINGED COVER	1	
8	56222	SCREW, M5X20	4	
9	68276	MAGNET, 50	1	
10	58027	WASHER	8	
11	39638	PLATE	1	
12	52007	KEY	1	
13	56153	SCREW, M4X10	1	
15	57077	HEX NUT	4	
16	57079	HEX NUT, M8	1	
17	55911	HEX BOLT, M10X20	8	
18*	68566	HELIX CABLE	1	
19	3-10924	CELLULAR RUBBER PLATE	1	
20	52012	STARTER SWITCH	1	
22	63301	STRAIN RELIEF	1	
24	54803	ALLEN HEAD CAP SCREW, M8X20	1	
27	TBD	HOUSING	1	
28	TBD	HOUR METER	1	
29	56125	ALLEN HEAD CAP SCREW	1	
30	58427	SPRING WASHER	1	
31	63300	STRAIN RELIEF	1	
32	39638	PLATE	1	
33	TBD	RED LED	1	
34	TBD	GREEN LED	1	

P33/24 FR-FC-FCR—THROTTLE CABLE ASSY.

THROTTLE CABLE ASSY.



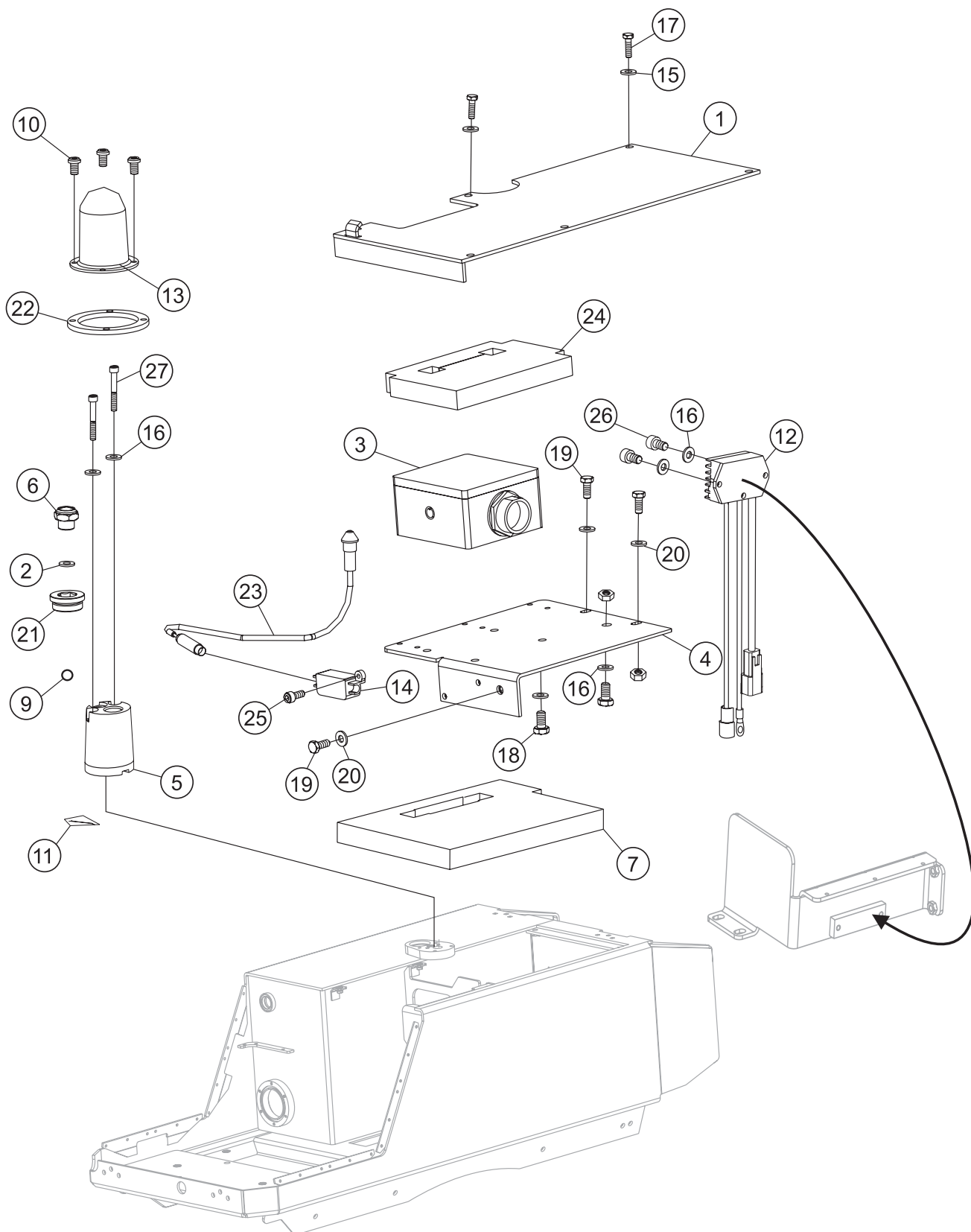
P33/24 FR-FC-FCR—THROTTLE CABLE ASSY.

THROTTLE CABLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
3	63915	ANGLE JOINT	1	
4	64551	KNOB, RED	1	
5	56222	SCREW, M5X20	4	
6	58269	TOOTHED LOCK WASHER	4	
7	8903805	HEX NUT, M8	1	
8	8906603	TOOTHED WASHER	1	
9	57078	HEX NUT, M6	1	
10	9052224	LEVER	1	
11	64541	THROTTLE CABLE COMPL.	1	

P33/24 FR-FC-FCR— CONSOLE COMPONENTS ASSY.

CONSOLE COMPONENTS ASSY.



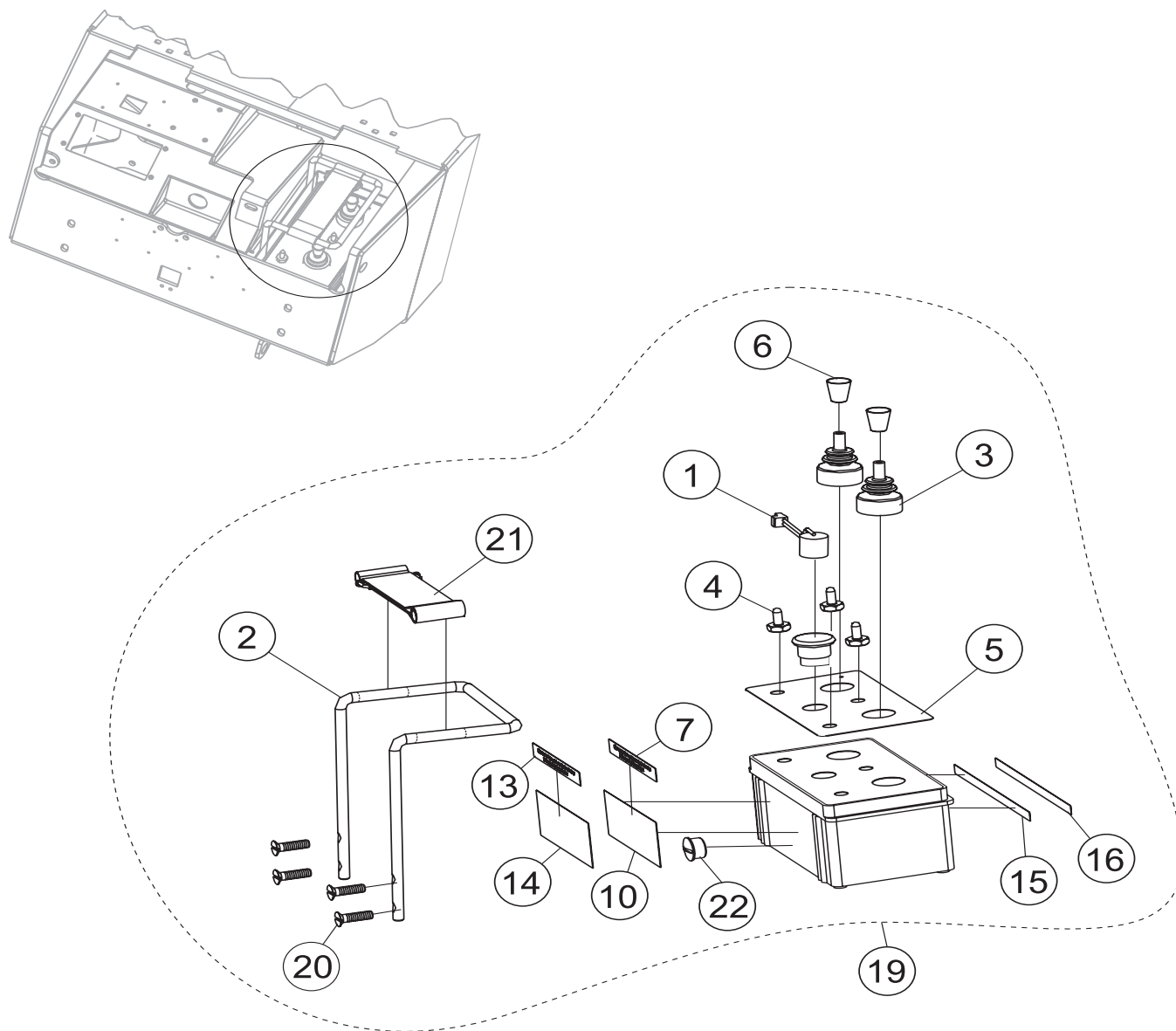
P33/24 FR-FC-FCR— CONSOLE COMPONENTS ASSY.

CONSOLE COMPONENTS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	3-10718	BATTERY COVER COMPL.	1	
2	58618	COPPER RING, 10X14X1	1	
3	68561	BLACK BOX	1	
4	3-10920	RECEIVER HOLDING LATH COMPL.	1	
5	3-10060	RECEIVER CONE SUPPORT, EYE	1	
6	51618	AERATION	1	
7	3-10225	FOAM RUBBER	1	
9	51219	BALL	1	
10	56218	SCREW, M6X10	4	
11	62029	O-RING	1	
12	90292	VOLTAGE REGULATOR	1	
13	3-10085	PROTECTING CAP, RECEIVER EYE	1	
14	68745	FUSE HOLDER	1	
15	58027	RETAINING WASHER, S-10	6	
16	58325	RETAINING WASHER, S-8	7	
17	55913	HEX BOLT, M10X35	6	
18	55900	HEX BOLT, M8X16	3	
19	55901	HEX BOLT, M8X20	3	
20	58222	LOCK WASHER, 8.4X18X2	3	
21	58885	DRAIN PLUG, M40X1.5	1	
22	3-10627	REINFORCEMENT, 3-73050 DD11 5MM	1	
23	68333	RECEIVER EYE	1	
24	3-10303	CELLULAR RUBBER PLATE, T=25MM	1	
25	54551	ALLEN HEAD CAP SCREW, M6X16	2	
26	54617	ALLEN HEAD CAP SCREW, M8X14	2	
27	54048	ALLEN HEAD CAP SCREW, M8X60	2	

P33/24 FR-FC-FCR—TRANSMITTER CONTROL BOX ASSY.

TRANSMITTER CONTROL BOX ASSY.



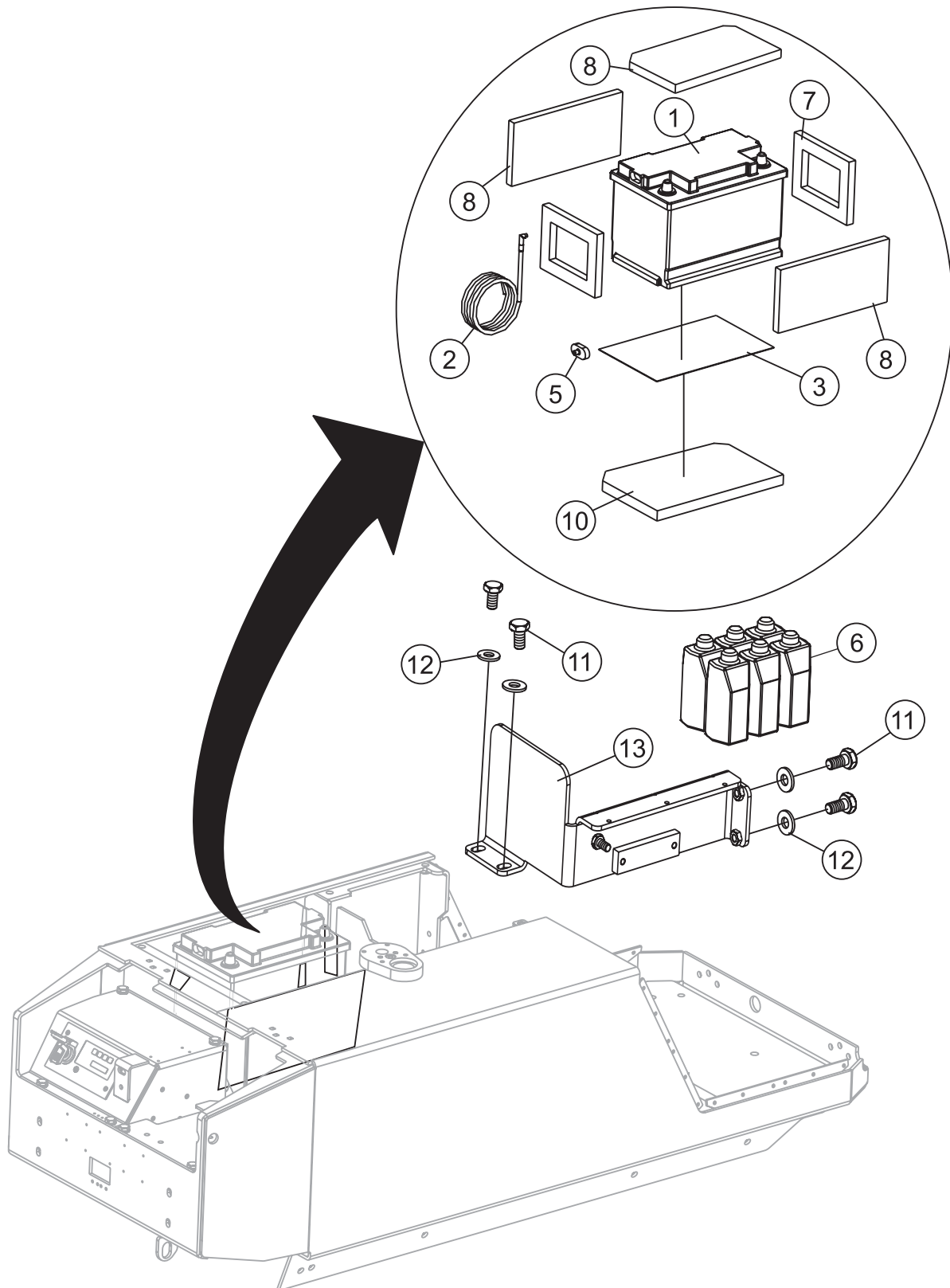
P33/24 FR-FC-FCR—TRANSMITTER CONTROL BOX ASSY.

TRANSMITTER CONTROL BOX ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	68334	ACCUMULATOR	1	
2*	3-10056	BOW	1	
3*	68511	RUBBER COLLAR	2	
4*	68305	RUBBER PROTECTING CAP	3	
5*	39668	STICKER	1	
6*	68542	KNOB	2	
7*	39593	PVC-STICKER, ENGLISH	1	
10*	39631	PVC-STICKER, ENGLISH	1	
13*	39634	PVC-STICKER, ENGLISH	1	
14*	39651	PVC-STICKER, ENGLISH	1	
15*	39690	PVC-STICKER, ENGLISH	1	
16*	39691	PVC-STICKER, ENGLISH	1	
19	3-10455	TRANSMITTER COMPL.	1	INCLUDES ITEMS W/*
20*	56004	SCREW, M4X16	4	
21*	3-10456	STRAP	1	
22*	68675	DRAIN PLUG, PG-7	1	

P33/24 FR-FC-FCR— BATTERY ASSY.

BATTERY ASSY.



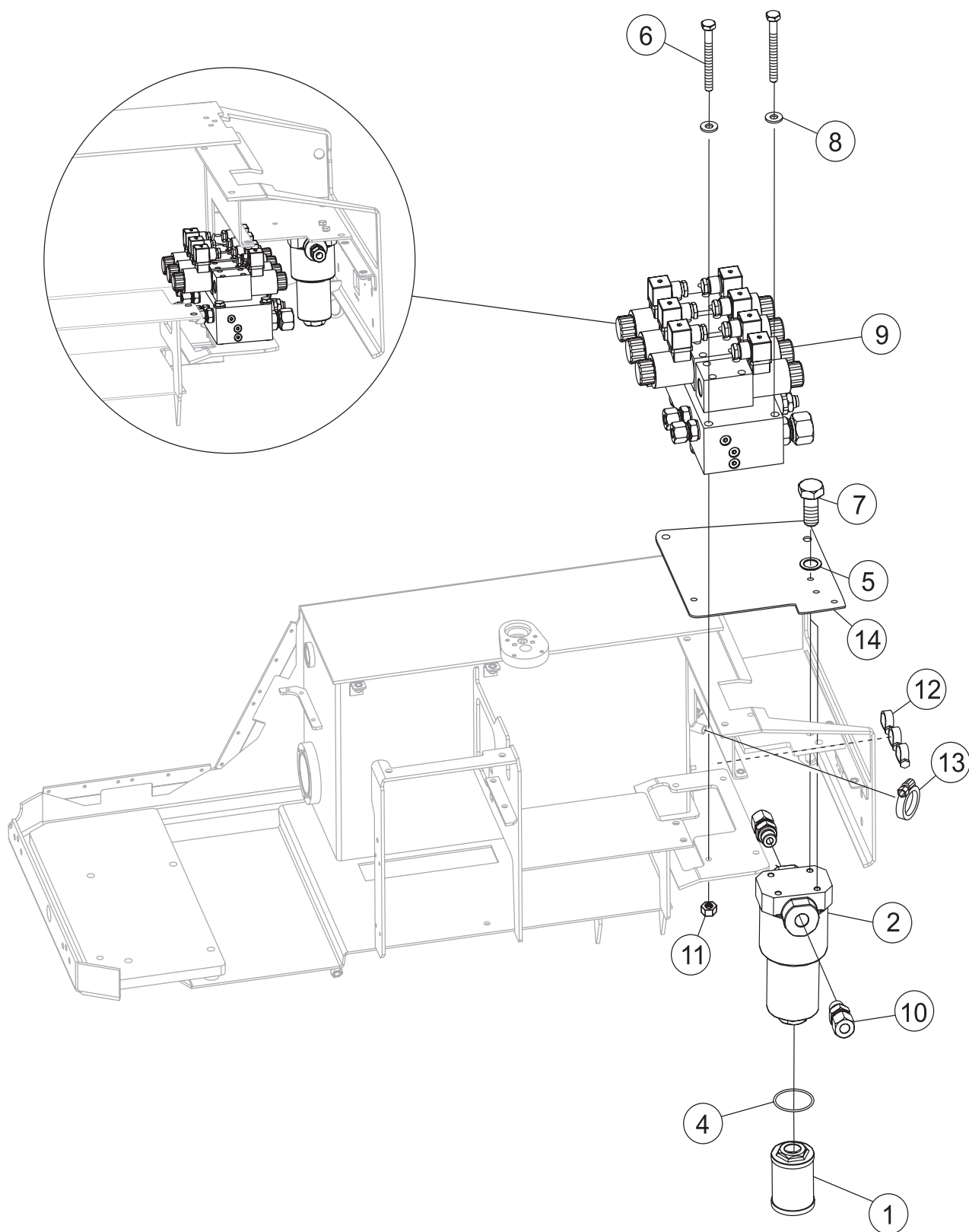
P33/24 FR-FC-FCR— BATTERY ASSY.

BATTERY ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	50657	BATTERY	1	
2	3-10447	BATTERY AIRING	1	
3	3-10327	STEEL PLATE, V2A	1	
5	3-10366	FUSE BACKFIRE, BANNER 305 002 0502	1	
6		ACID PACKAGE, BIG	1 SOURCE LOCALLY
7	3-10304	CELLULAR RUBBER PLATE, EPDM	2	
8	3-10305	CELLULAR RUBBER PLATE, EPDM	3	
10	3-10307	CELLULAR RUBBER PLATE, EPDM	1	
11	55911	HEX BOLT, M10X20	4	
12	58221	LOCK WASHER, 10.5 X 23 X 2.5	4	
13	3-10860	BATTERY HOLDING ANGLE	1	

P33/24 FR-FC-FCR— VALVE BLOCK 1 ASSY.

VALVE BLOCK 1 ASSY.



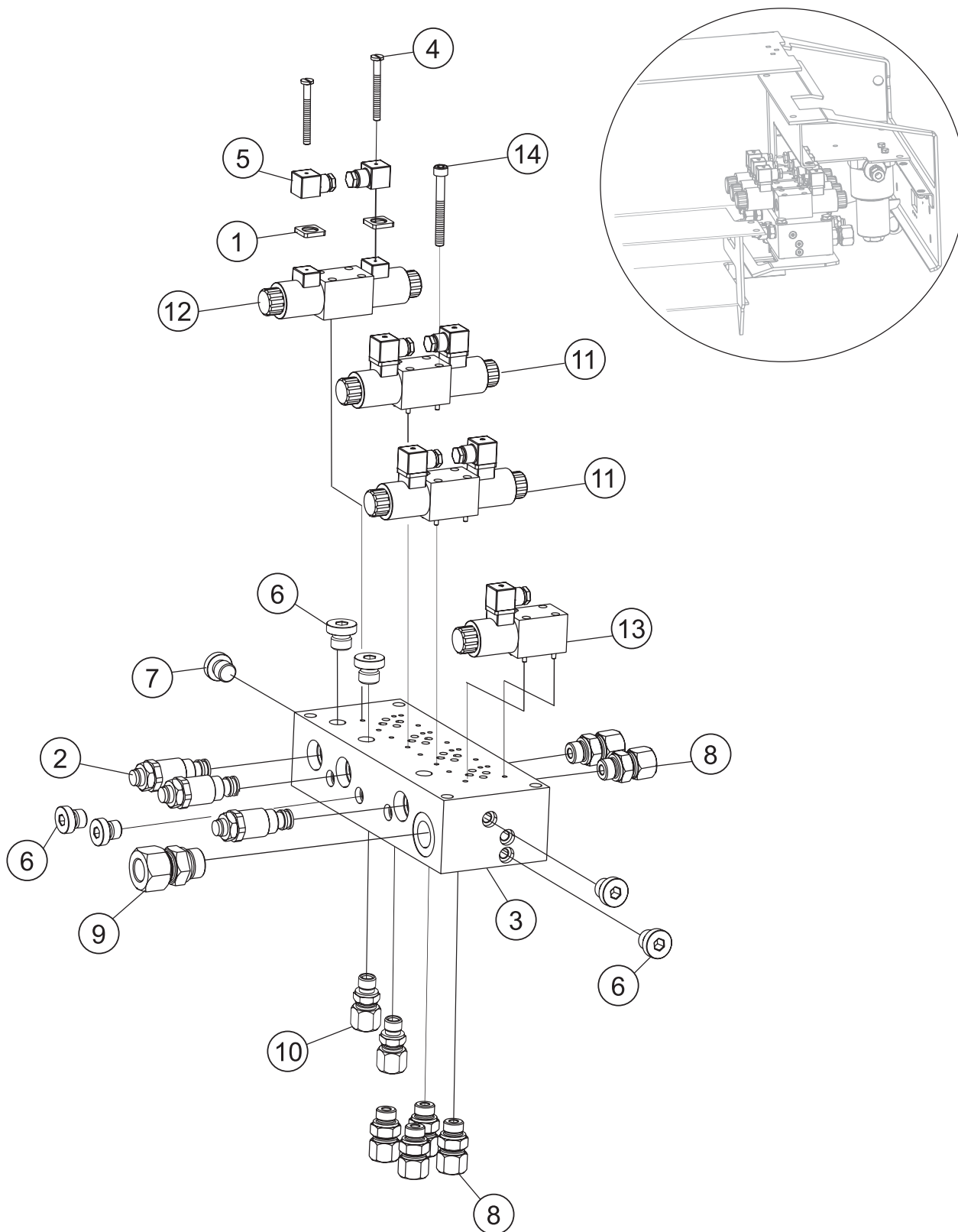
P33/24 FR-FC-FCR— VALVE BLOCK 1 ASSY.

VALVE BLOCK 1 ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	51619	FILTER INSERT, V3.0510-08	1	
2	51617	HIGH-PRESSURE FILTER	1	
4	51620	O-RING, N 007.0543/1	1	
5	58325	RETAINING WASHER, S-8	2	
6	55533	HEX BOLT, M10X95	4	
7	55901	HEX BOLT, M8X20	2	
8	58077	LOCK WASHER, 10.5X23X2.5	4	
9	3-10841	VALVE BLOCK	1	
10	57504	HYDRAULIC FITTING, GE 12 SM	2	
11	57079	HEX NUT, M8	4	
12	63250	BRACKET, ABA 8-12X9	3	
13	63259	BRACKET, D 19-28	1	
14	3-10849	SUPPORT SHEET	1	

P33/24 FR-FC-FCR— VALVE BLOCK 2 ASSY.

VALVE BLOCK 2 ASSY.



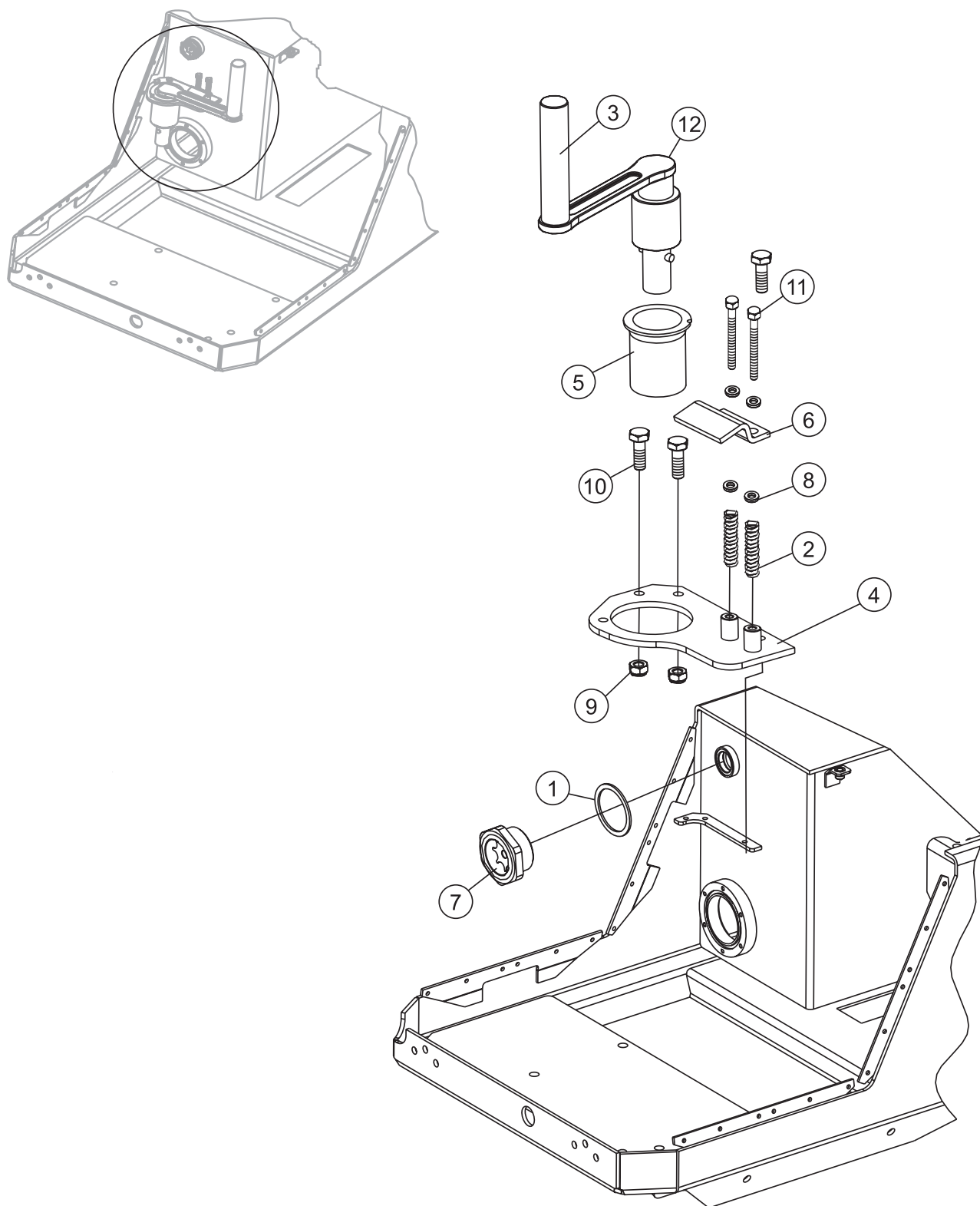
P33/24 FR-FC-FCR— VALVE BLOCK 2 ASSY.

VALVE BLOCK 2 ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	52050	CONNECTOR SEAL	7	
2	48126	VALVE, DBD 04 E2 A 320 275 BAR	3	
3	3-10810	VALVE BLOCK, MEWESTA	1	
4	52056	SCREW, M3X30	7	
5	50769	COUPLER (MAGNET)	7	
6	58873	DRAIN PLUG, VSTI R 1/8"	9	
7	58874	DRAIN PLUG, VSTI R 1/4"	1	
8	57504	HYDRAULIC FITTING, GE 12 SM	8	
9	57509	HYDRAULIC FITTING, GE 20 SM	1	
10	57515	HYDRAULIC FITTING, GE 15 LM	2	
11	48122	STEERING VALVE	2	
12	48123	VIBRATION VALVE	1	
13	48124	HIGH SPEED VALVE	1	
14	54010	ALLEN HEAD CAP SCREW, M5X45	16	

P33/24 FR-FC-FCR— OPTIONAL STARTING CRANK ASSY.

OPTIONAL STARTING CRANK ASSY.



P33/24 FR-FC-FCR— OPTIONAL STARTING CRANK ASSY.

OPTIONAL STARTING CRANK ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	62951	GASKET	1	
2	59074	SPRING	2	
3	1102656	STARTING CRANK	1	
4	3-10776	CRANK SUPPORT	1	
5	05329	CRANK SUPPORT, RUND D=70	1	
6	3-10775	BLANK HOLDER, DD11 3MM	1	
7	51750	OIL LEVEL GAUGE, MOD. 240/AS R1	1	
8	58025	WASHER, B6.4	4	
9	57078	HEX NUT, M6	3	
10	55896	HEX BOLT, M6X18	3	
11	55515	HEX BOLT, M6X40	2	
12	90290	OPTION STARTING CRANK HANDLE	1	

P33/24 FR-FC-FCR—HRDRAULIC SCHEMATIC

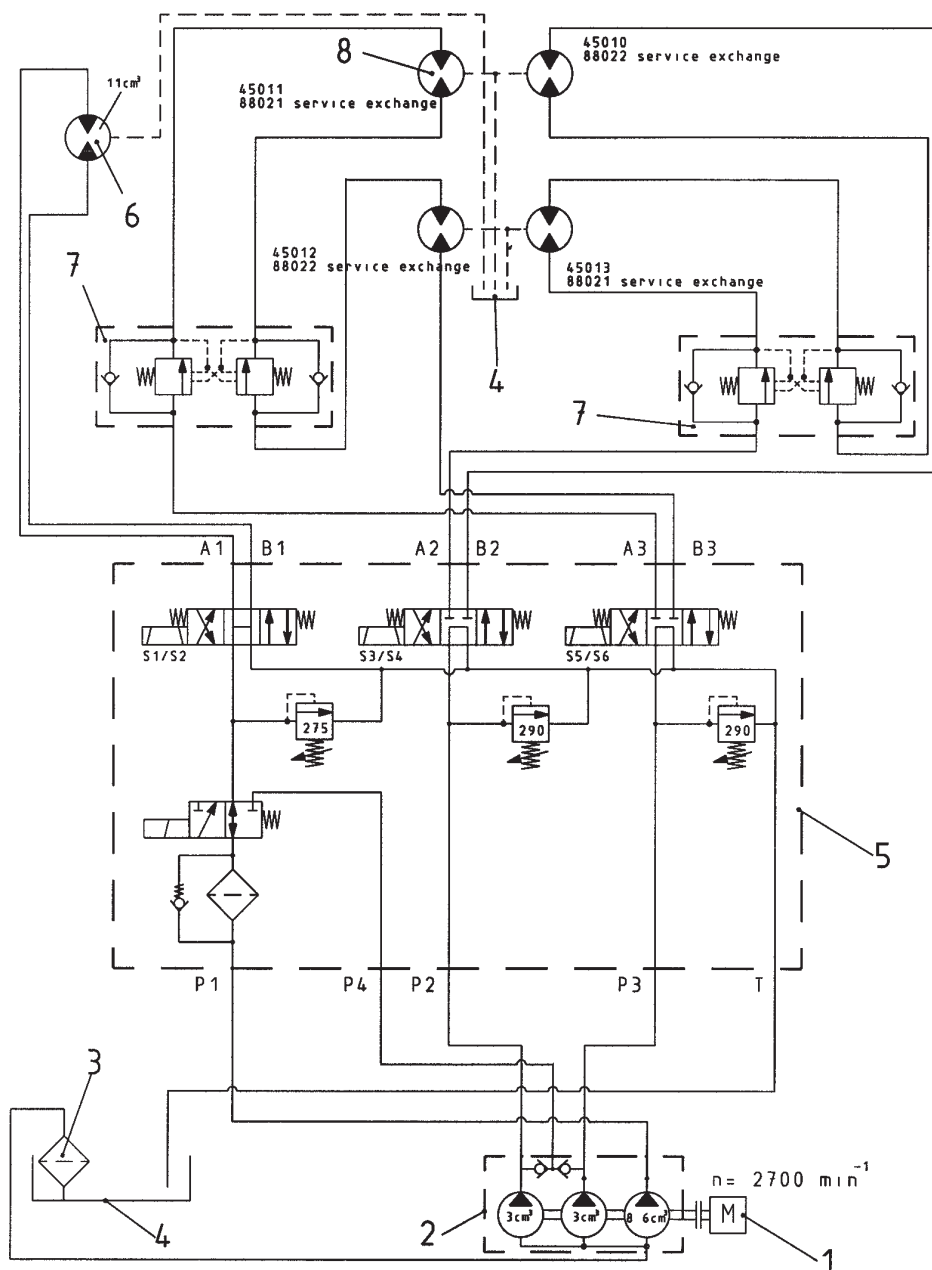
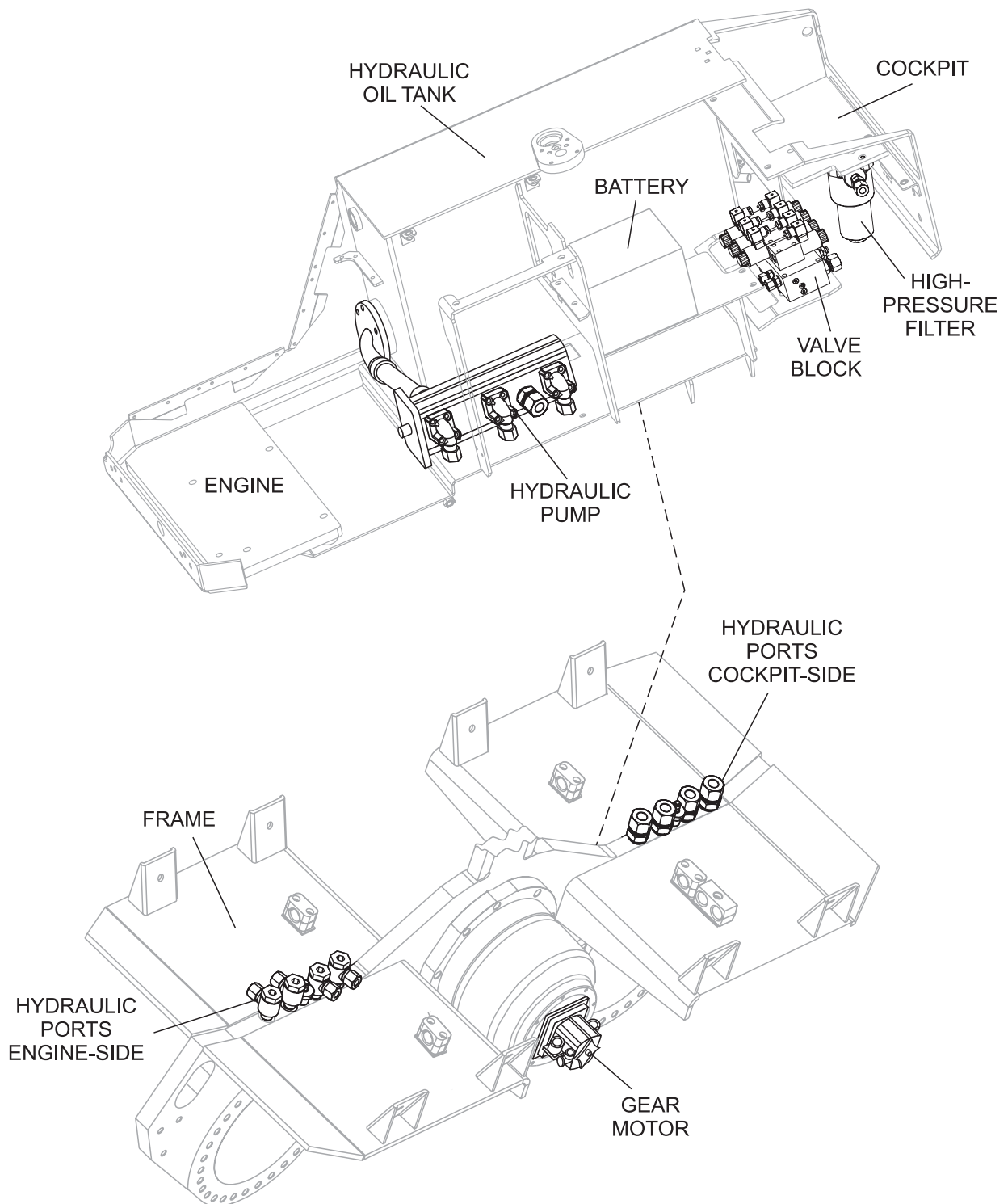


Table 1. Component Description

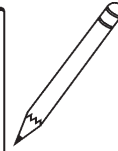
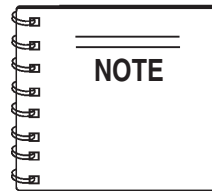
ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	Diesel Engine	5	Valve
2	Hydraulic Pump	6	Gear Motor
3	Suction Filter	7	Countertorque Brake
4	Oil Tank	8	Hydraulic Motor

P33/24 FR-FC-FCR— COMPONENT LOCATOR

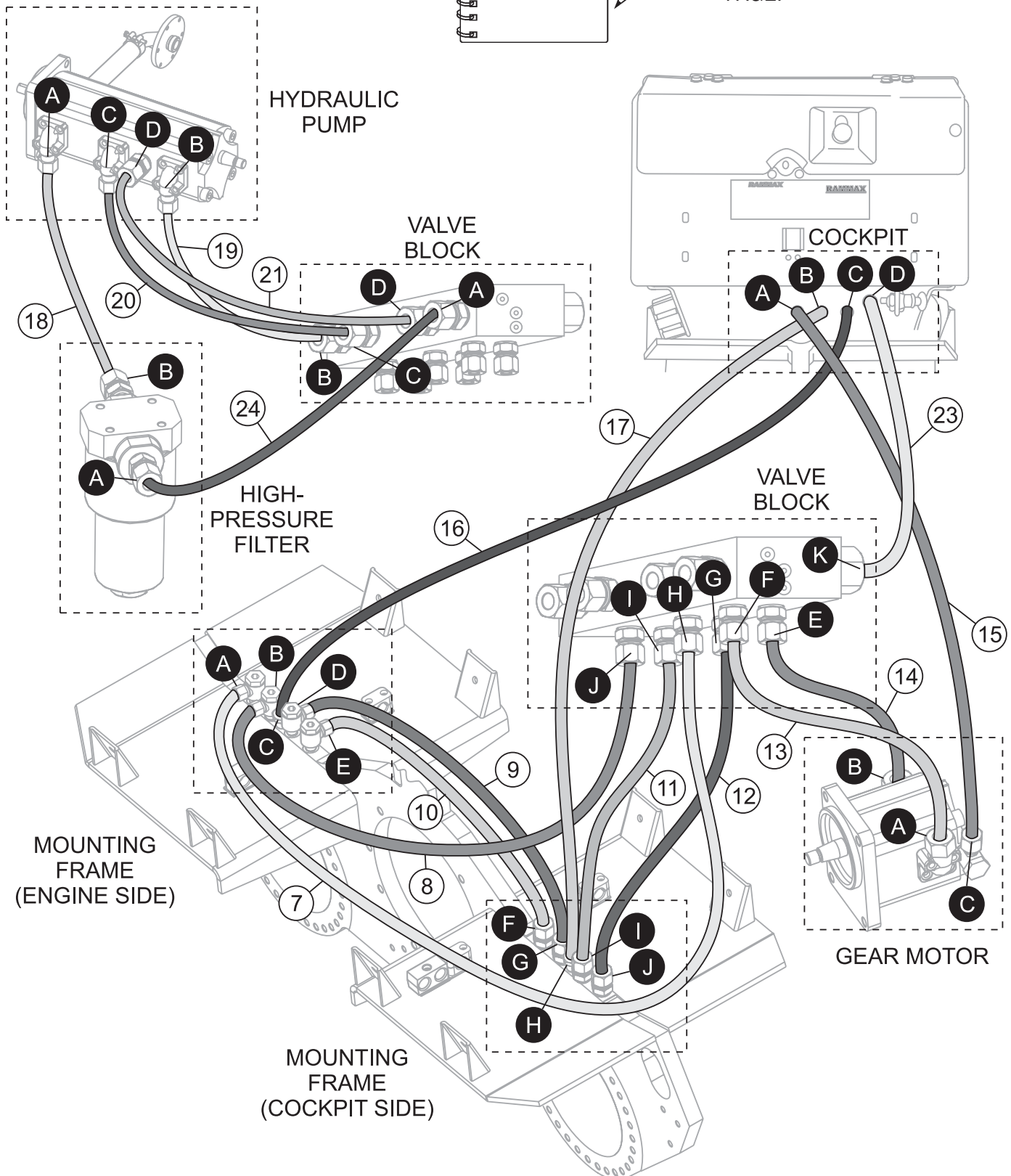


P33/24 FR-FC-FCR— HRDRAULIC HOSE LAYOUT ASSY.

HYDRAULIC HOSE LAYOUT ASSEMBLY



FOR LOCATION OF COMPONENTS SEE COMPONENT LOCATOR DRAWING ON PREVIOUS PAGE.



P33/24 FR-FC-FCR— HYDRAULIC HOSE LAYOUT ASSY.

HYDRAULIC HOSE LAYOUT ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
7	67261	HD-HOSE	1	2 SN DN 10 X 1360 DKOS 90° 12S/DKOS 12S
8	67262	HD-HOSE	1	2 SN DN 10 X 1180 DKOS 12S/DKOS 12S
9	67263	HD-HOSE	1	2 SN DN 10 X 850 DKOS 90° 12S/DKOS 12S
10	67264	HD-HOSE	1	2 SN DN 10 X 700 DKOS 90° 12S/DKOS 12S
11	67265	HD-HOSE	1	2 SN DN 10 X 345 DKOS 90° 12S/DKOS 90° 12S V=345°
12	67266	HD-HOSE	1	2 SN DN 10 X 305 DKOS 90° 12S/DKOS 90° 12S V=345°
13	67255	HD-HOSE	1	2 SN DN 12 X 800 DKOL 15L/DKOL 15L
14	67256	HD-HOSE	1	2 SN DN 12 X 700 DKOL 15L/DKOL 15L
15	67269	HD-HOSE	1	2 TE-DN 06 X 1120
16	67270	HD-HOSE	1	2 TE-DN 06 X 1300
17	67271	HD-HOSE	1	2 TE-DN 06 X 600
18	67346	HD-HOSE	1	2 SN DN 10 X 1090 DKOS 45° 12S/DKOL 90° 12L V=90°
19	67260	HD-HOSE	1	2 SN DN 10 X 560 DKOL 90° 12L/DKOS 12S
20	67258	HD-HOSE	1	2 SN DN 10 X 680 DKOL 90° 12L/DKOS 12S
21	67259	HD-HOSE	1	2 SN DN 10 X 590 DKOL 90° 12L/DKOS 12S
23	67268	HD-HOSE	1	1 SN DN 16 X 490 DKOS 90° 12S
24	67267	HD-HOSE	1	2 SN DN 10 X 685 DKOS 90° 12S/DKOS 45° 12S

Table 2. Hydraulic Hose Layout

ITEM NO.	DESTINATION	
	FROM	TO
7	FRAME PORT A	VALVE BLOCK PORT H
8	FRAME PORT B	VALVE BLOCK PORT J
8	FRAME PORT D	FRAME PORT G
10	FRAME PORT E	FRAME PORT F
11	FRAME PORT I	VALVE BLOCK PORT I
12	FRAME PORT J	VALVE BLOCK PORT G
13	VALVE BLOCK PORT F	GEAR MOTOR PORT A
14	VALVE BLOCK PORT E	GEAR MOTOR PORT B
15	GEAR MOTOR PORT C	COCKPIT PORT A
16	FRAME PORT C	COCKPIT PORT C
17	FRAME PORT H	COCKPIT PORT B
18	HYDRAULIC PUMP PORT A	HIGH PRESSURE FILTER PORT B
19	HYDRAULIC PUMP PORT B	VALVE BLOCK PORT B
20	HYDRAULIC PUMP PORT C	VALVE BLOCK PORT C
21	HYDRAULIC PUMP PORT D	VALVE BLOCK PORT D
23	VALVE BLOCK PORT K	COCKPIT PORT D
24	HIGH PRESSURE FILTER PORT A	VALVE BLOCK PORT A

PAYMENTTERMS

Terms of payment for parts are net 30 days.

FREIGHT POLICY

All parts orders will be shipped collect or prepaid with the charges added to the invoice. All shipments are F.O.B. point of origin. Multiquip's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

MINIMUM ORDER

The minimum charge for orders from Multiquip is \$15.00 net. Customers will be asked for instructions regarding handling of orders not meeting this requirement.

RETURNED GOODS POLICY

Return shipments will be accepted and credit will be allowed, subject to the following provisions:

1. A Returned Material Authorization must be approved by Multiquip prior to shipment.
2. To obtain a Return Material Authorization, a list must be provided to Multiquip Parts Sales that defines item numbers, quantities, and descriptions of the items to be returned.
 - a. The parts numbers and descriptions must match the current parts price list.
 - b. The list must be typed or computer generated.
 - c. The list must state the reason(s) for the return.
 - d. The list must reference the sales order(s) or invoice(s) under which the items were originally purchased.
 - e. The list must include the name and phone number of the person requesting the RMA.
3. A copy of the Return Material Authorization must accompany the return shipment.
4. Freight is at the sender's expense. All parts must be returned freight prepaid to Multiquip's designated receiving point.

5. Parts must be in new and resalable condition, in the original Multiquip package (if any), and with Multiquip part numbers clearly marked.
6. The following items are not returnable:
 - a. Obsolete parts. (If an item is in the price book and shows as being replaced by another item, it is obsolete.)
 - b. Any parts with a limited shelf life (such as gaskets, seals, "O" rings, and other rubber parts) that were purchased more than six months prior to the return date.
 - c. Any line item with an extended dealer net price of less than \$5.00.
 - d. Special order items.
 - e. Electrical components.
 - f. Paint, chemicals, and lubricants.
 - g. Decals and paper products.
 - h. Items purchased in kits.
7. The sender will be notified of any material received that is not acceptable.
8. Such material will be held for five working days from notification, pending instructions. If a reply is not received within five days, the material will be returned to the sender at his expense.
9. Credit on returned parts will be issued at dealer net price at time of the original purchase, less a 15% restocking charge.
10. In cases where an item is accepted, for which the original purchase document can not be determined, the price will be based on the list price that was effective twelve months prior to the RMA date.
11. Credit issued will be applied to future purchases only.

PRICING AND REBATES

Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price. Rebates for price declines and added charges for price increases will not be made for stock on hand at the time of any price change.

Multiquip reserves the right to quote and sell direct to Government agencies, and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

SPECIAL EXPEDITING SERVICE

A \$35.00 surcharge will be added to the invoice for special handling including bus shipments, insured parcel post or in cases where Multiquip must personally deliver the parts to the carrier.

LIMITATIONS OF SELLER'S LIABILITY

Multiquip shall not be liable hereunder for damages in excess of the purchase price of the item with respect to which damages are claimed, and in no event shall Multiquip be liable for loss of profit or good will or for any other special, consequential or incidental damages.

LIMITATION OF WARRANTIES

No warranties, express or implied, are made in connection with the sale of parts or trade accessories nor as to any engine not manufactured by Multiquip. Such warranties made in connection with the sale of new, complete units are made exclusively by a statement of warranty packaged with such units, and Multiquip neither assumes nor authorizes any person to assume for it any other obligation or liability whatever in connection with the sale of its products. Apart from such written statement of warranty, there are no warranties, express, implied or statutory, which extend beyond the description of the products on the face hereof.

[illegible]

PARTS MANUAL

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER *ON-HAND* WHEN CALLING

UNITED STATES

Multiquip Corporate Office

18910 Wilmington Ave. Tel. (800) 421-1244
Carson, CA 90746 Fax (800) 537-3927
Contact: mq@multiquip.com

Mayco Parts

800-306-2926 Fax: 800-672-7877
310-537-3700 Fax: 310-637-3284

Service Department

800-421-1244 Fax: 310-537-4259
310-537-3700

MQ Parts Department

800-427-1244 Fax: 800-672-7877
310-537-3700 Fax: 310-637-3284

Warranty Department

800-421-1244, Ext. 279 Fax: 310-537-1173
310-537-3700, Ext. 279

Technical Assistance

800-478-1244 Fax: 310-631-5032

MEXICO

MQ Cipsa

Carr. Fed. Mexico-Puebla KM 126.5 Tel: (52) 222-225-9900
Momoxpan, Cholula, Puebla 72760 Mexico Fax: (52) 222-285-0420
Contact: pmastretta@cipsa.com.mx

CANADA

Multiquip

4110 Industriel Boul. Tel: (450) 625-2244
Laval, Quebec, Canada H7L 6V3 Fax: (450) 625-8664
Contact: jmartin@multiquip.com

UNITED KINGDOM

Multiquip (UK) Limited Head Office

Hanover Mill, Fitzroy Street, Tel: 0161 339 2223
Ashton-under-Lyne, Fax: 0161 339 3226
Lancashire OL7 0TL
Contact: sales@multiquip.co.uk

BRAZIL

Multiquip

Av. Evandro Lins e Silva, 840 - grupo 505 Tel: 011-55-21-3433-9055
Barra de Tijuca - Rio de Janeiro Fax: 011-55-21-3433-9055
Contact: cnavarro@multiquip.com.br, srentes@multiquip.com.br

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This manual **MUST** accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

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