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PARTS MANUAL

FOR

R22N/H REAR AXLE

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REPLACEMENT PARTS

When ordering replacement parts for **MARMON-HERRINGTON LOW FLOOR** conversions, the following information should be given:

1. **FACTORY ORDER NUMBER** (found on I.D. Plate or small plate affixed to axle housing). This will be a six (6) digit number. (See illustrations this page.)

2. Component for which parts are required, i.e. front drive axle or transfer case/drop box.

3. Model of axle and/or transfer case/drop box, i.e. MT10, MVG 750, MDB500.

4. Give quantity and part number required.
   NOTE: Drivelines, shift linkage, etc., can be found on the computer printout of Bill of Material, which is included in the Service Manual.

5. Give complete billing and shipping address.

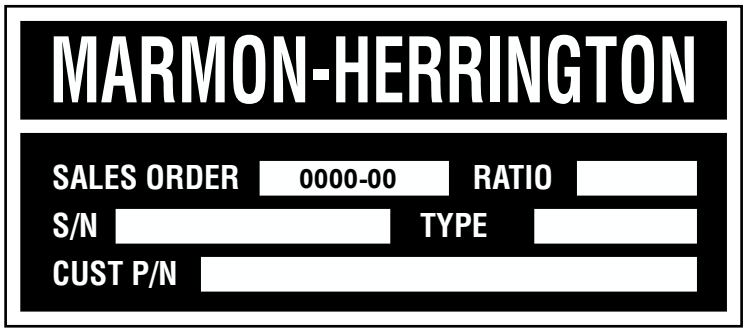
WARRANTY CLAIM PROCEDURE

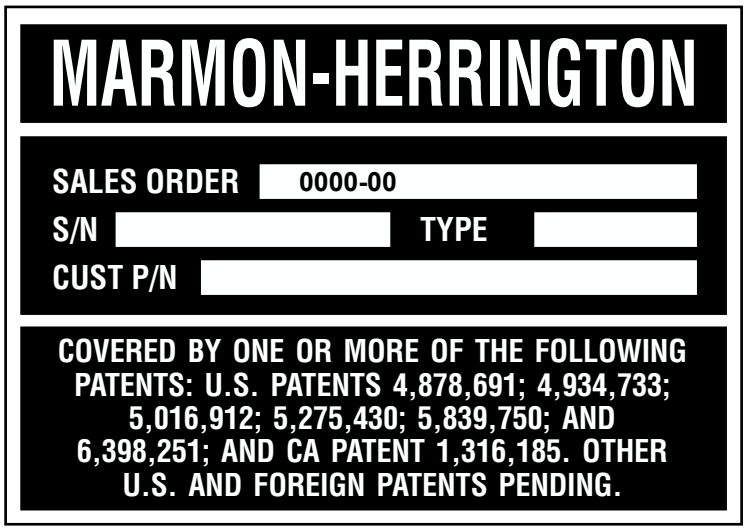
Before proceeding with repairs or ordering parts that you feel may be covered under warranty, you must first contact Marmon-Herrington Customer Service Department and obtain a Repair Authorization Number.

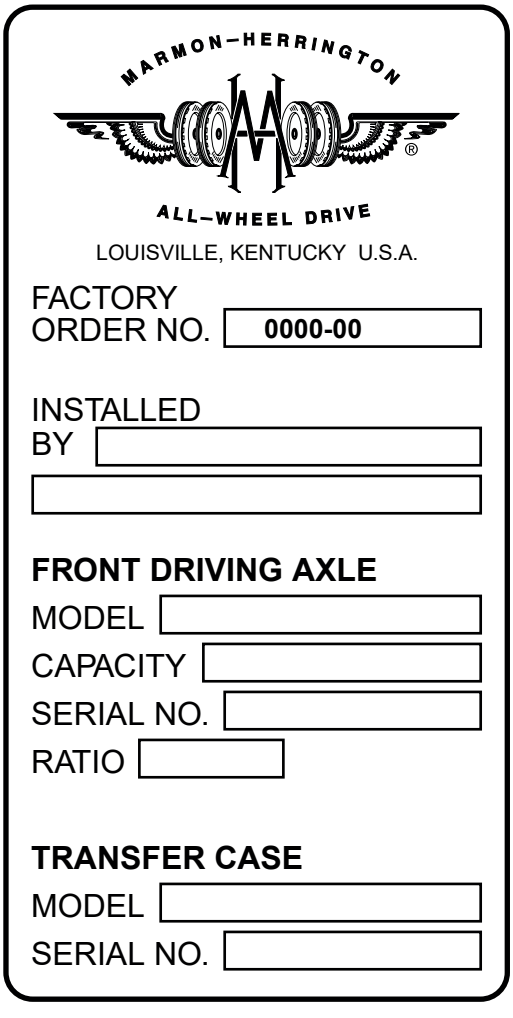
Please be prepared to supply all of the following information:

- **Factory Order Number** – This is located on an ID plate fixed to either the driver's door panel or the component (axle or transfer case) itself.
- **Model and Serial Number** (required) – Again located on the ID plate fixed to either the driver's door panel or the component itself.
- **Vehicle Year, Make and Model**
- **Vehicle Identification Number**
- **Mileage**
- **In Service Date**

The information necessary for replacement parts and/or warranty claim procedures will be found on either plate design.







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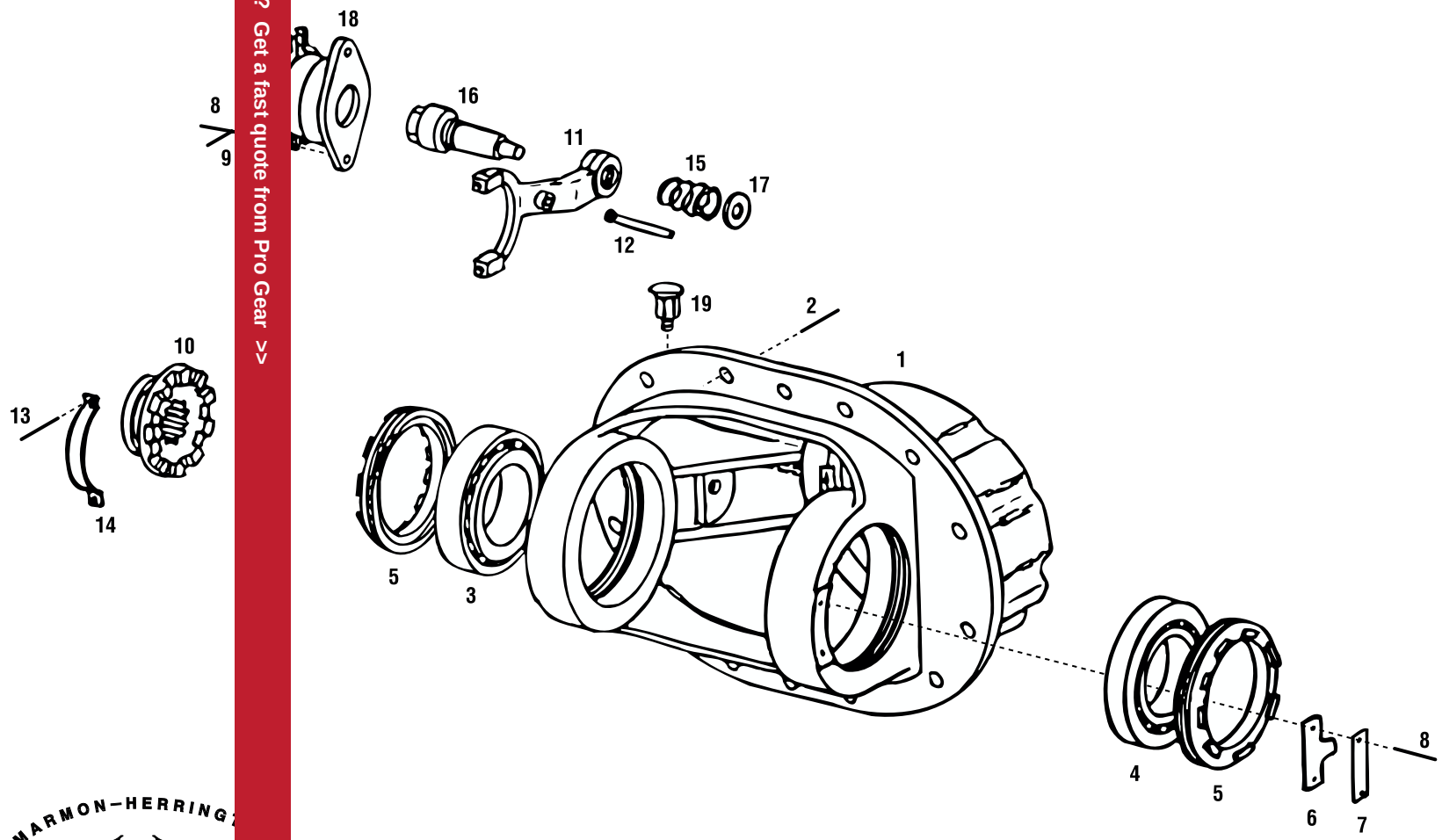
DIFFERENTIAL CARRIER HOUSING
R22N/H



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MARMON-HERRING
ALL-WHEEL DRIV

ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.	ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.
1	R22-1039	Differential Carrier Housing	1				
2	MT22-1077	Flanged Bolt, Special	14				
3	MT22-1212	Taper Roller Bearing	1				
4	MT22-1078	Taper Roller Bearing	1				
5	MT22-1079	Bearing Adjuster, M133x2	2				
6	MT22-1080	Adjuster Lock Plate	2				
7	MT22-1081	Lock Plate	2				
8	11500773	Hex Bolt, M8x16	6				
9	11500191	Flat Lock Washer	2				
10	R22-1011	Toothed Hub	1				
11	R22-1012	Shift Fork	1				
12	R22-1013	Guide Pin	1				
13	R22-1014	Clevis	1				
14	11504971	Hex Bolt, M5x12	2				
15	R22-1015	Spring	1				
16	R22-1016	Push Rod	1				
17	R22-1017	Washer	AR				
18	R22-1021	Differential Lock Actuating Air Chamber Assy.	2				
19	MT14-1068	Vent Valve	1				
		AR = As Required					

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DIFFERENTIAL CARRIER HOUSING
R22N/H

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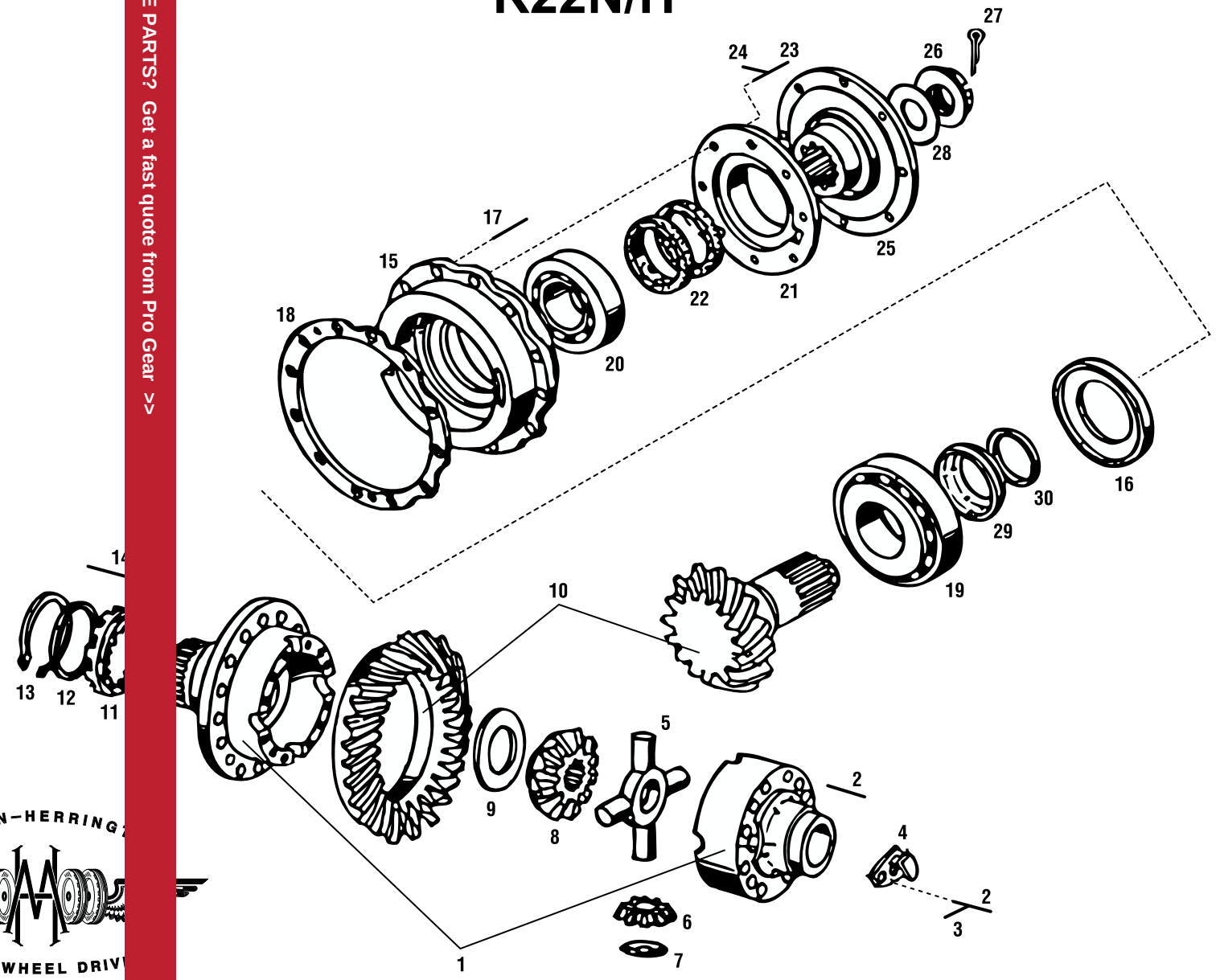
TANDEM DIFFERENTIAL
R22N/H



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COMPLETE CARRIER ASSEMBLY

CARRIER P/N	PINION & RING GEAR RATIO	FINAL RATIO	DIFFERENTIAL CASE
R22-1001	1.227	4.25	R22-1018
R22-1002	1.318	4.56	R22-1018
R22-1003	1.422	4.92	R22-1033
R22-1004	1.526	5.29	R22-1033
R22-1005	1.632	5.65	R22-1033
R22-1006	1.812	6.27	R22-1033
R22-1007	1.929	6.68	R22-1033

ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.
1	R22-1018	Differential Case Halves, Assy. (4.25-4.56) **(Includes Item #'s 2, 3, 4)**	1
	R22-1033	Differential Case Halves, Assy. (4.92-6.68) **(Includes Item #'s 2, 3, 4)**	1
2	MT22-1066	Hex Bolt, M10x75	12
3	MT22-1065	Washer, Special	2
4	RF22-1064	Oil Baffle Plate	2
5	MT22-1061	Differential Cross	1
6	MT22-1062	Differential Pinion Gear	4
7	MT22-1063	Washer, Differential Pinion Gear	4
8	RF22-1093	Differential Side Gear	2
9	MT22-1059	Washer, Differential Side Gear	2
10	MT23-1054	Ring Gear and Pinion (1.227) 4.25	1
	MT23-1053	Ring Gear and Pinion (1.318) 4.56	1
	MT23-1056	Ring Gear and Pinion (1.422) 4.92	1
	MT23-1057	Ring Gear and Pinion (1.526) 5.29	1
	MT23-1043	Ring Gear and Pinion (1.553) 5.38	1
	MT23-1055	Ring Gear and Pinion (1.632) 5.65	1
	MT23-1047	Ring Gear and Pinion (1.684) 5.83	1
	MT23-1046	Ring Gear and Pinion (1.765) 6.11	1
	MT23-1058	Ring Gear and Pinion (1.812) 6.27	1
	MT23-1040	Ring Gear and Pinion (1.929) 6.68	1
	MT23-1041	Ring Gear and Pinion (2.077) 7.14	1
	MT23-1042	Ring Gear and Pinion (2.231) 7.72	1
	MT23-1044	Ring Gear and Pinion (2.415) 8.36	1
	MT23-1045	Ring Gear and Pinion (2.462) 8.52	1
11	R22-1019	Clutch Ring	1
12	R22-1020	Spacer Ring	1
13	R22-1027	Snap Ring	1
14	RF22-1250	Self-Lock Flange Bolt	16
15	MT22-1068	Bearing Cage Assy. **(Includes Item #16)**	1
16	MT14-1078	Oil Baffle Plate	1
17	MT22-1077	Flanged Bolt, Special	12
18	MT22-1067A	Shim, 1.0 MM	AR
	MT22-1067B	Shim, .50 MM	AR
	MT22-1067C	Shim, .30 MM	AR
	MT22-1067D	Shim, .25 MM	AR
	MT22-1067E	Shim, .20 MM	AR
19	MT14-1075	Pinion Bearing, Inner	1
20	MT14-1079	Pinion Bearing, Outer	1
21	MT22-1070	Cover	1
22	MT22-1069	Oil Seal Kit, Pinion	1
23	11500713	Hex Bolt, M8x20	8
24	11500191	Flat Lock Washer, M8	8
25	MT17-1050	Companion Flange, 1610 Series	1
26	MT14-1082	Pinion Castle Nut	1
27	103422	Cotter Pin	1
28	MT22-1074	Washer, Special	1
29	MT14-1076	Distance Sleeve	1
30	MT14-1077A	Bearing Distance Ring, 6.90 MM	AR*
	MT14-1077B	Bearing Distance Ring, 7.00 MM	AR
	MT14-1077C	Bearing Distance Ring, 7.02 MM	AR
	MT14-1077D	Bearing Distance Ring, 7.04 MM	AR
	MT14-1077E	Bearing Distance Ring, 7.06 MM	AR
	MT14-1077F	Bearing Distance Ring, 7.08 MM	AR
	MT14-1077G	Bearing Distance Ring, 7.10 MM	AR
	MT14-1077H	Bearing Distance Ring, 7.20 MM	AR
	MT14-1077I	Bearing Distance Ring, 7.32 MM	AR
	MT14-1077J	Bearing Distance Ring, 7.44 MM	AR
	MT14-1077K	Bearing Distance Ring, 7.56 MM	AR
	MT14-1077L	Bearing Distance Ring, 7.68 MM	AR
	MT14-1077M	Bearing Distance Ring, 7.80 MM	AR
	MT14-1077N	Bearing Distance Ring, 7.92 MM	AR
		AR = As Required ***Note:** Choose 2 to produce proper bearing preload.	

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TANDEM DIFFERENTIAL
R22N/H

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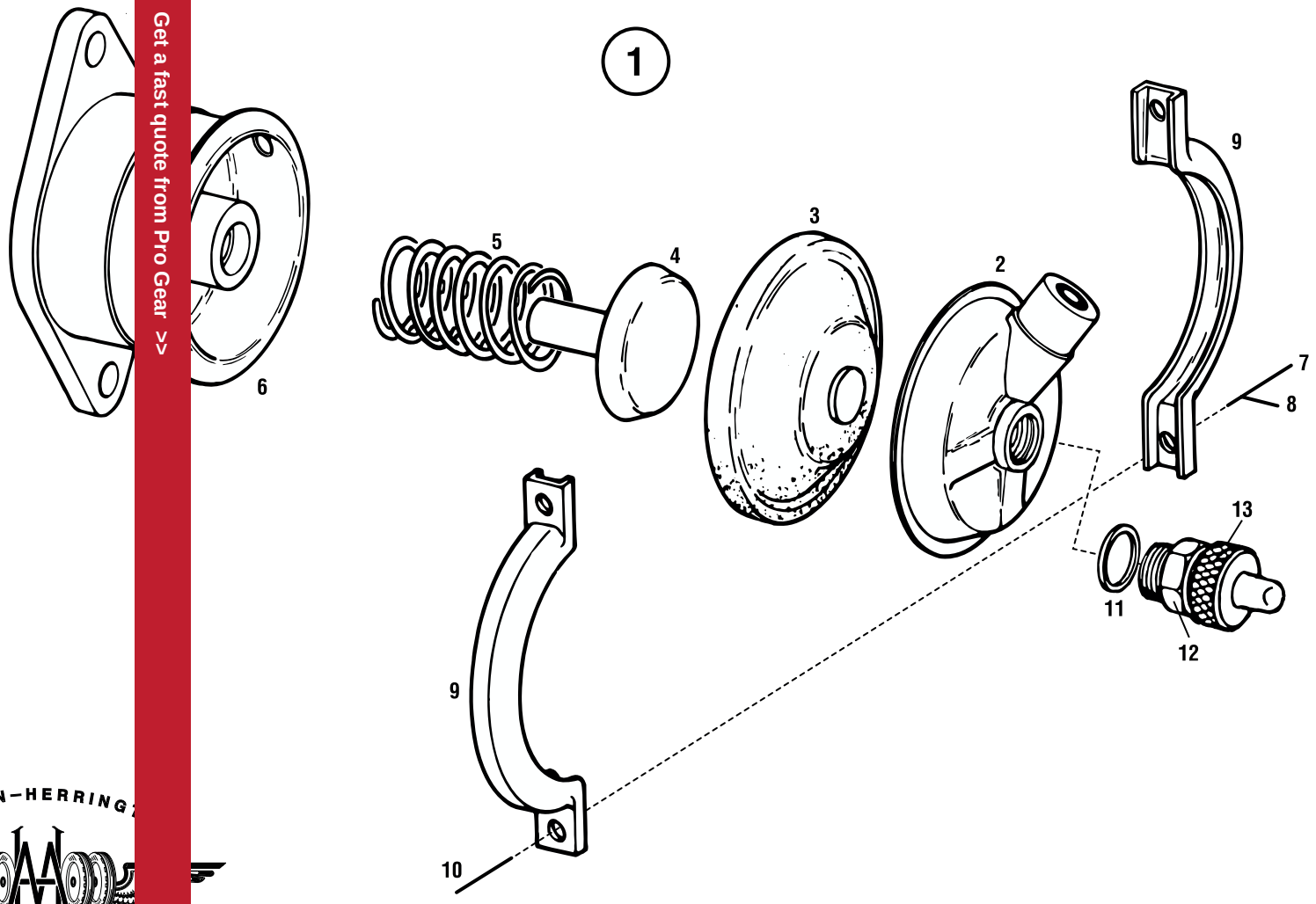
CARRIER AIR CHAMBER
R22N/H



ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.	ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.
1	R22-1021	Differential Lock Actuating Air Chamber Assy.	1				
2	R22-1022	Cap	1				
3	R22-1023	Diaphragm	1				
4	R22-1024	Spring Cup	1				
5	R22-1025	Spring	1				
6	R22-1026	Housing	1				
7	103024	Hex Nut NF	2				
8	103319	Lock Washer	2				
9	R22-1029	Clamp Half	2				
10	454826	Hex Bolt 1/4x1 NF	2				
11	MVG12-1040	Washer	1				
12	MVG12-1041	Switch	1				
13	MT75-7750	Connecting	1				

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CARRIER AIR CHAMBER
R22N/H

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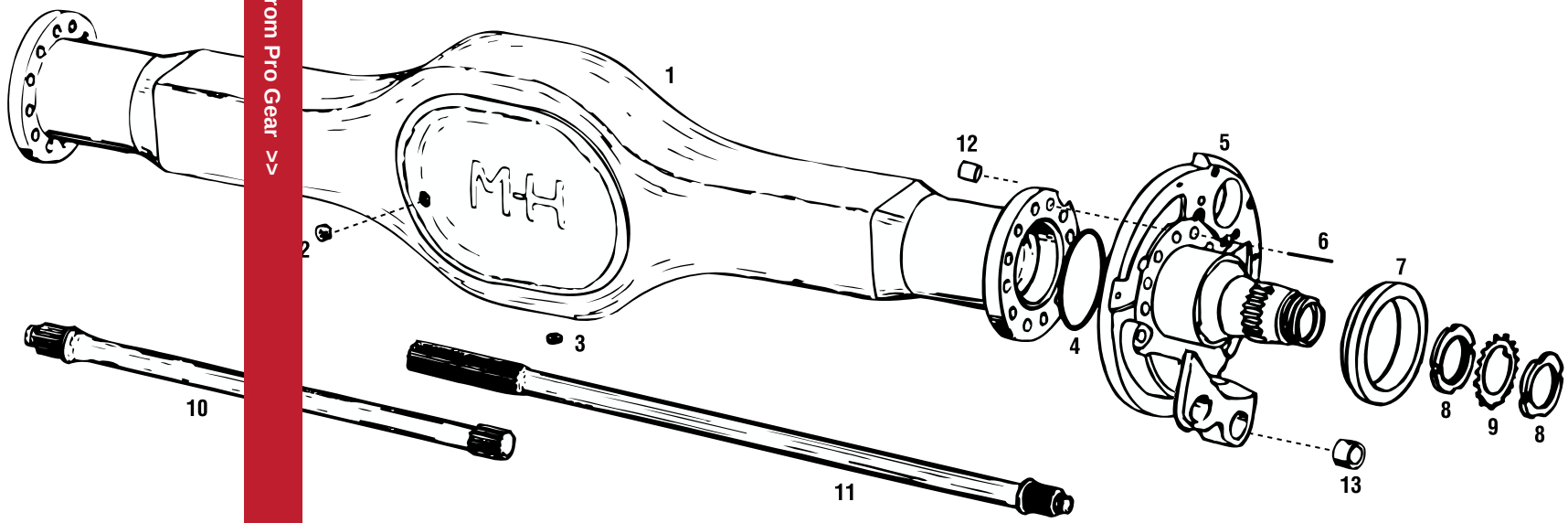
AXLE HOUSING & AXLE SHAFT
R22N/H



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ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.	ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.
1	R22-1034	Axle Housing	1				
2	MT14-1070	Fill Plug, Carrier	1				
3	MT14-1071	Drain Plug, Carrier	1				
4	MT14-1088	O-Ring, Housing to Yoke, 119x5	2				
5	R22-1207	Spindle Assy., L.H. **(Incl. Item #'s 12,13)**	1				
	R22-1208	Spindle Assy., R.H. **(Incl. Item #'s 12,13)**	1				
6	R22-1209	Hex Bolt	22				
7	R22-1037	Shoulder Ring ABS	2				
8	MT22-1132	Spindle Nut, M70x2	4				
9	MT22-1133	Locking Plate	2				
10	RF22-1102	Axle Shaft	1				
11	RF22-1103	Axle Shaft, Differential Lock Side	1				
12	MT17-1112	Bushing	2				
13	MT22-1241	Bushing	4				
		AR = As Required					

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AXLE HOUSING & AXLE SHAFT
R22N/H

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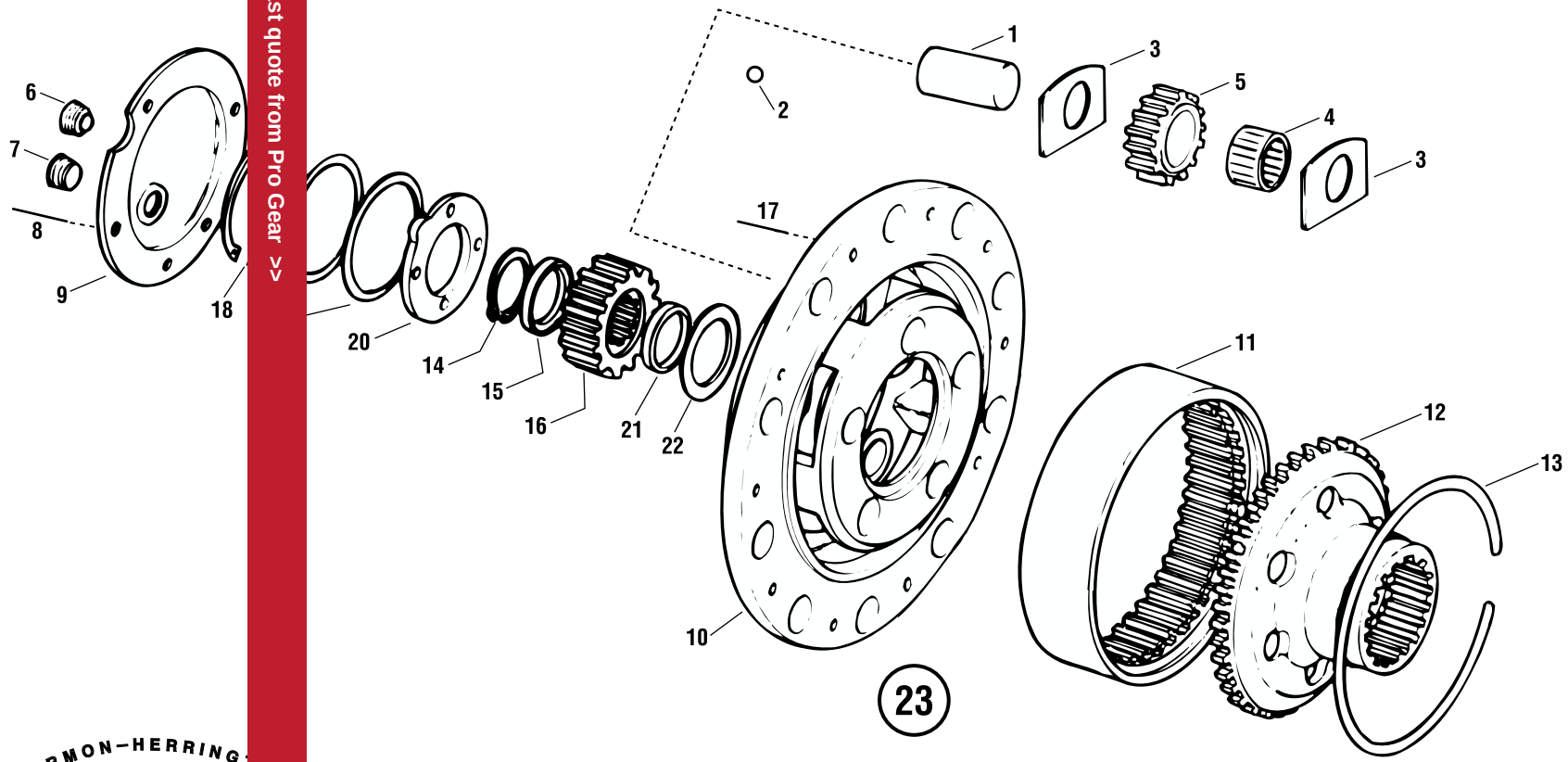
PLANETARY
R22N/H



ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.	ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.
1	MT14-1217	Planet Gear Pin	10				
2	MT14-1218	Steel Ball	10				
3	MT14-1219	Distance Plate	20				
4	MT14-1220	Roller Bearing Assy.	10				
5	MT14-1028	Planet Gear	10				
6	MT14-1071	Magnetic Drain Plug	2				
7	MT14-1070	Fill Plug	2				
8	11500723	Hex Bolt, M10 X 20	10				
9	MT22-1156	End Cover	2				
10	MT22-1161	Planet Gear Carrier	2				
	MT22H-1161	Planet Gear Carrier Hub Pilot (R22H Only)	2				
11	MT22-1162	Planetary Ring Gear	2				
12	MT22-1163	Ring Gear Support Hub	2				
13	MT14-1207	Retaining Ring	2				
14	MT22-1154	Snap Ring	2				
15	MT22-1153	Spacer	2				
16	MT22-1152	Sun Gear	2				
17	11500724	Hex Bolt, M10 X 30	12				
18	MT14-1084	Snap Ring	2				
19	MT22-1158A	Shim, 0.25 MM	AR				
	MT22-1158B	Shim, 0.50 MM	AR				
	MT22-1158C	Shim, 2.00 MM	AR				
20	MT22-1159	Friction Disk	2				
21	MT22-1151	Distance Ring	2				
22	MT22-1150	Friction Disk	2				
23	MT22-1200	Planet Gear Carrier Assy. (R22/R/N Only) **(Includes Items #1, 2, 3, 4, 5 and 10)**	2				
	MT22H-1200	Planet Gear Carrier Assy. (R22H Only) **(Includes Items #1, 2, 3, 4, 5 and 10)**	2				
		AR = As Required					

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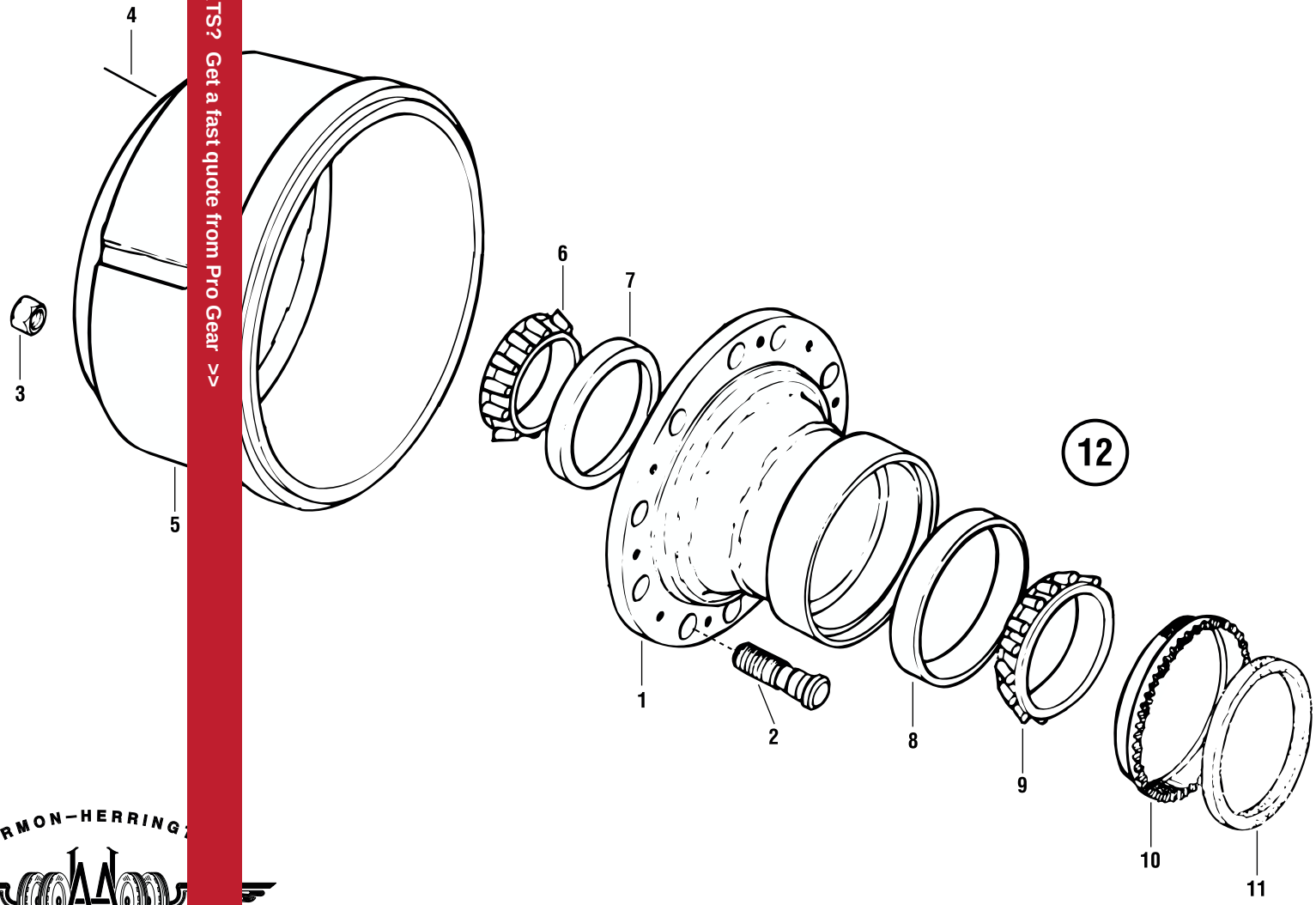
WHEEL HUB, BRAKE DRUM
R22N/H



MARMON–HERRING
ALL–WHEEL DRIV

ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.
1	MT22R-1168	Hub Assy., R.H. (R22N Only)	2
		(Includes Items #2, 6, 7, 8, 9, 11, 12)	
	MT22H-1168	Hub Assy. (R22H Only)	2
		(Includes Items #2, 6, 7, 8, 9, 11, 12)	
	MT22N-1168	Hub Assy., L.H. (R22N Only)	1
		(Includes Items #2, 6, 7, 8, 9, 11, 12)	
2	MT93-2931	Wheel Stud, L.H., Long (R22N Only)	10
	MT93-2932	Wheel Stud, R.H., Long (4.625)	20
	MT22-1134	Wheel Stud Hub Pilot (R22H Only)	20
3	67011	Wheel Nut, R.H.	20
	67012	Wheel Nut, L.H. (R22N Only)	10
	MT93-1197	Flange Wheel Nut (R22H Only)	20
4	11500779	Hex Bolt, M10 X 40	4
5	MT22-1165W	Brake Drum	2
6	MT22-1166	Wheel Bearing, Cone, Outer	2
7	MT22-1167	Wheel Bearing, Cup, Outer	2
8	MT22-1170	Wheel Bearing, Cup, Inner	2
9	MT22-1171	Wheel Bearing, Cone, Inner	2
10	MT22R-1164	Exciter Ring (R22R/N/H Only)	2
11	MT22R-1172	Hub Seal (R22R/N/H Only)	2
12	MT22-1216	Bearing Kit Hub	1
		(Includes Items #6, 7, 8, 9)	
		AR = As Required	

ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.

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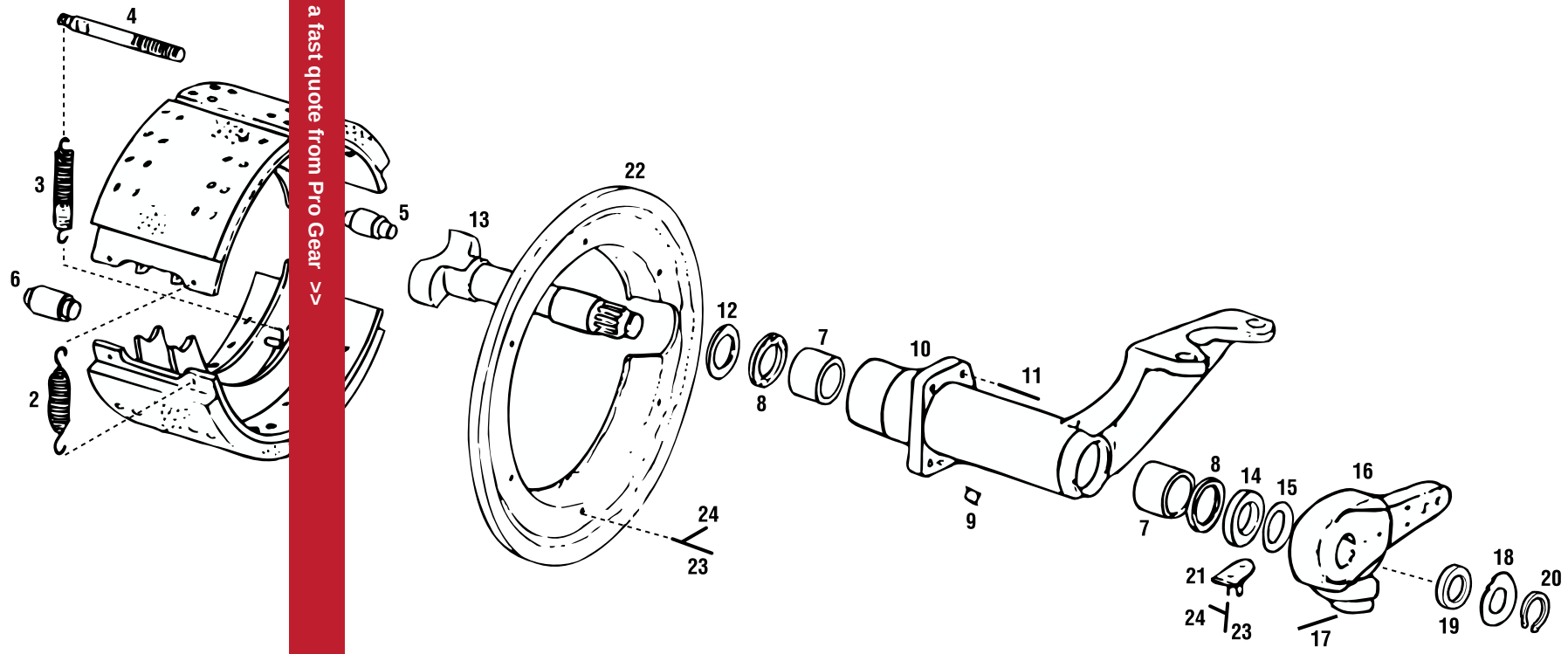
WHEEL HUB, BRAKE DRUM
R22N/H

BRAKE
R22N/H



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MARMON-HERRING
ALL-WHEEL DRIV

ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.
1	MT22-1164	Brake Shoe Assembly	4
	MT22-1244	Brake Lining Kit	1
2	MT22-1177	Brake Shoe Spring, Long	4
3	MT14-1157	Brake Shoe Return Spring, Short	4
4	MT14-1158	Spring Support Pin	4
5	R22-1178	Brake Shoe Roller	4
6	MT22-1243	Brake Shoe Pin	4
7	MT22-1180	Bushing	4
8	MT22-1179	Oil Seal	4
9	MT14-1119	Ball Grease Fitting	2
10	R22-1140	Brake Chamber Bracket Assy, L.H. **(Includes Item #'s 7,8,9)**	1
	R22-1141	Brake Chamber Bracket Assy., R.H. **(Includes Item #'s 7,8,9)**	1
11	MT22-1183	Hex Flanged Bolt	8
12	MT14-1145	Spacer	2
13	R22-1146	Brake Spanner, L.H.	1
	R22-1147	Brake Spanner, R.H. (Not Shown)	1
14	MT22-1201	Spacer	2
15	MT11-1105	Shim, 0.5 MM	AR
16	R22-1205	Automatic Slack Adjuster, L.H.	1
	R22-1206	Automatic Slack Adj., R.H. (Not Shown)	1
17	MT22-1246	Adjusting Cap, L.H.	1
	MT22-1247	Adjusting Cap, R.H.	1
18	MT22-1187	Wear Indicating Washer	2
19	MT17-1142	Washer	2
20	MT22-1186	Snap Ring	2
21	MT22-1239	Stop, L.H.	1
	MT22-1240	Stop, R.H.	1
22	MT22-1176	Brake Cover Plate	2
23	11500773	Hex Bolt, M8x16	16
24	11500191	Flat Lock Washer	16
		AR = As Required	

ITEM NO.	MH PART NO.	DESCRIPTION	QTY. REQ.

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BRAKE
R22N/H

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