Table of Contents

AXLE/BRAKE	Bulletin Number
Alliance Air Dryer Cartridge	PSM313 (7/04)
Alliance Cast Brake Drums by ConMet	
Alliance Remanufactured Carriers	PSM100 (7/04)
Alliance Spring Brakes	PSM097 (7/04)
CAB/ACCESSORIES	
Alliance All-Makes Mirrors by Cham-Cal	
Alliance Chrome, ABS Front Hubcaps and ABS Rear Axle Covers	
Alliance Mattresses	
Alliance Premium Mobile TV Antennas and Accessories	
Alliance Premium Stainless Steel Truck Accessories, Freightliner	
Alliance Premium Stainless Steel Truck Accessories, Freigntine	
Alliance Premium Stainless Steel Truck Accessories, Stelling	
Amarico Fromain Stamboo Stock Hack Accessions, Western Star	1 0111200 110 (1/01)
CHASSIS/SUSPENSION	
Alliance All-Makes Springs	PSM247 (7/04)
CHEMICALS	
Alliance Standard and Fully Formulated SCA Pre-Charged	
Heavy-Duty Coolant/Antifreeze	PSM104 (7/04)
Tioury Buty Goodany, manager minimum m	
DRIVETRAIN	
Alliance Remanufactured Clutches-Eaton Style Cast Angle Spring	
Alliance Remanufactured Clutches-Meritor Style Diaphragm Spring	
Alliance Remanufactured Transmissions	PSM103 (7/04)
ELECTRICAL	
Alliance Batteries	PSM105 (7/04)
Alliance Remanufactured Heavy-Duty Starters and Alternators	
ENGINE/EXHAUST	
Alliance All-Makes Heavy-Duty Belt Tensioners	
Alliance Exhaust Clamps	
Alliance Exhaust Parts	
Alliance Exhaust Premium Flexible Hose	
Alliance Fuel Filter/Water Separator Elements	
Alliance Fuel Injectors	
Alliance Remanufactured 6.9/7.3L Diesel Engines	
Alliance Remanufactured 0.5/7.3L Dieser Engines	
Alliance Remanufactured 51-400 Long Block Supreme d Brop-in Engines	
Alliance Remanufactured 6.5L GM Engines	
, mailed normand data of a control of the control o	
HEATER/AIR CONDITIONING	
Alliance Heating & A/C RetroKits & Chemicals	PSM116 (7/04)
Alliance Heavy-Duty A/C Compressors by Climate Control (CCI)	PSM102 (7/04)
HOSE/FITTINGS	
Alliance All Makes Blue Stripe™ Hoses	PSM106 (7/04)
Alliance All Makes MICRO-V® Belts	
Alliance All Makes Powerband® Belts	
Alliance All Makes Powergrip™ Clamps	
.	• •

PSM346(7/04PI)

Alliance Air Dryer Cartridge

The Alliance AD9 remanufactured replacement air dryer provides the same high quality brake system protection users have depended on since the system was new, and can be used as a replacement element for standard and extended purge AD9 air dryers.



GENERAL PRODUCT INFORMATION

Air dryers are in line filters between the air compressor and storage reservoirs that remove both liquid and vapor from compressor discharge air before it reaches the reservoir, resulting in only clean dry air being supplied to the air system. The recommended replacement cycle is every two years during normal service.

HIGH MOVERS The AD9 model element is the top selling Bendix air dryer cartridge.

Alliance Part Number	Description	Application
ABP/R42B-107794X	Alliance AD9 remanufactured replacement air dryer desiccant cartridge	Replacement element for standard and extended purge AD9 air dryers

The ABP/R42B-107794X is a service replacement for the following part numbers: BW/R107794 Remanufactured Bendix AD9 Air Dryer Cartridge BW/107796 New Bendix AD9 Air Dryer Cartridge HXD/107794X Remanufactured Haldex AD9 Air Dryer Cartridge

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

RELATED SERVICE ITEMS

D2-Governor

- TDA/RKN18530 D2-Governor 1 each
- TDA/RKN18536 D2-Governor 6 Pack

Correct operation of the D2-Govenor is essential for controlling proper air dryer purge, necessary for regeneration. Proper regeneration significantly extends dryer cartridge life and assures optimum performance.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

FREQUENTLY ASKED QUESTIONS			
Question Response	Is the same cartridge kit used for standard and extended purge dryers? Yes.		
Question	Is the dryer cartridge only important during winter operation?		
Response	No, air in an unprotected brake system is always 100% saturated with water vapor. This means that even a one-degree drop in air temperature will cause condensation to form in the system's valves, lines, and reservoirs. Winter operations provide opportunity for this moisture to freeze; however, the moisture itself is always damaging to the air system.		
Question	Is it difficult to replace the service cartridge element?		
Response	No. The service cartridge element is self contained for easy replacement at any capable service repair facility.		

- Environmentally friendly, the recycling of the desiccant cartridge prevents material that is oil soaked from being disposed of in the environment.
- This product is equivalent in performance and quality when compared to the genuine AD9 remanufactured air dryer cartridge.
- The Alliance air dryer cartridge is brought to you at an attractive price that brings you maintenance cost savings reducing your overall cost per mile of operation.

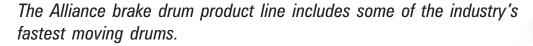
CORE INFORMATION

Alliance AD9 remanufactured air dryers are sold remanufactured exchange.

For full core credit, your core will be visually inspected to determine that the canister is not bent or dented, and to assure threads are not crossed-threaded or stripped.

PSM313(7/04PI)

Alliance Cast Brake Drums by ConMet





ALLIANCE CAST BRAKE DRUMS – SELECTION GUIDE

Alliance Part Number	Brake Size	Overall Depth	Brake Surface Width	Pilot	Bolt Circle	Bolt Hole Number	Bolt Hole Size	Flange Thickness	Weight	GAWR
ABP/N42A10009830	16.5 X 7	10.56	7.48	8.78	11.25	10	1.00	0.53	112	27,000
ABP/N42A10009920	15 X 4	9.18	4.54	8.78	11.25	10	1.28	0.5	80	14,000
ABP/N42A107193	16.5 X 6	9.74	6.40	8.78	11.25	10	1.28	0.63	109	23,000
ABP/N42A107453	16.5 X 5	9.37	5.31	8.78	11.25	10	1.28	0.5	94	14,700
ABP/N42A107507	15 X 4	8.79	4.66	8.78	11.25	10	1.28	0.5	71	14,000
ABP/N42A107637	16.5 X 8	11.06	8.48	8.78	11.25	10	1.00	0.53	119	26,000
ABP/N42A107638	16.5 X 8.625	11.37	9.00	8.78	11.25	10	1.00	0.62	124	26,000
ABP/N42A107861	15 X 5	9.33	5.30	9.00	275mm	8	1.03	0.5	82	14,000
ABP/N42A107862	15 X 5	9.33	5.30	8.78	11.25	10	1.28	0.5	82	14,000
ABP/N42A107863	15 X 5/6	10.28	7.02	8.78	11.25	10	1.00	0.5	95	12,000
ABP/N42A107864	15 X 5/6	10.28	7.02	9.00	275mm	8	1.00	0.5	92	12,000
ABP/N42A107865	15 X 8.625	11.9	9.21	9.00	275mm	8	1.00	0.5	109	17,000
ABP/N42A107866	15 X 8.625	11.9	9.21	8.78	11.25	10	1.00	0.5	109	17,000
ABP/N42A107875	16.5 X 7	10.56	7.48	9.00	275mm	8	1.00	0.53	112	27,000
ABP/N42A107885	16.5 X 7	10.3	7.28	8.78	11.25	10	1.00	0.53	110	27,000
ABP/N42A107902	15 X 4	9.18	4.54	9.00	275mm	8	1.00	0.5	80	14,000
ABP/N42A107904	16.5 x 7	10.56	7.48	9.00	11.25	10	0.81	0.53	112	27,000

FEATURES & BENEFITS

- Alliance brake drums are cast iron, machined balanced and FMVSS approved.
- Tru-Turn technology on ABP/N42A10009830 and ABP/N42A10009920.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

TOP SELLERS

ABP/N42A10009830 ABP/N42A107866
ABP/N42A10009920 ABP/N42A107193
ABP/N42A107507 ABP/N42A107638

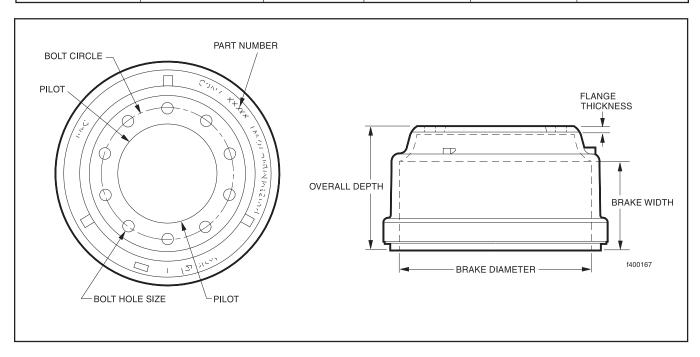
ABP/N42A107885

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

ALLIANCE PARTS

ALLIANCE	ALLIANCE BRAKE DRUM CROSS REFERENCE				
Webb (Crossover	Gunite Cro	Gunite Crossover		rossover
Webb Part Number	Alliance Part Number	Gunite Part Number	Alliance Part Number	Meritor Part Number	Alliance Part Numb
61528B	ABP/N42A10009830	2769X	ABP/N42A107904	85123399002	ABP/N42A107193
61958B	ABP/N42A107864	3141BX	ABP/N42A107875	85122550002	ABP/N42A107904
61992F	ABP/N42A107866	3141X	ABP/N42A107904	85123207002	ABP/N42A100098
61999F	ABP/N42A107865	3402X	ABP/N42A107885	85123409002	ABP/N42A107875
62671F	ABP/N42A107193	3600AX	ABP/N42A10009830	85123465002	ABP/N42A107863
65543B	ABP/N42A107902	3687X	ABP/N42A107193	85123570002	ABP/N42A107637
65554B	ABP/N42A107862	3721AX	ABP/N42A107507	85123254002	ABP/N42A107507
66800B	ABP/N42A107637	3726X	ABP/N42A107164	85123365002	ABP/N42A107885
66854F	ABP/N42A107638	3741X	ABP/N42A107902		
66864F	ABP/N42A107150	3744AX	ABP/N42A107865		
66873F	ABP/N42A107885	3744X	ABP/N42A107866		
66875F	ABP/N42A107875	3753AX	ABP/N42A107864		
66895B	ABP/N42A107904	3753X	ABP/N42A107863		
61998B	ABP/N42A107865	3758X	ABP/N42A107453		
65545B	ABP/N42A10009920	3774AX	ABP/N42A107861		
		3774X	ABP/N42A107862		
		3807X	ABP/N42A107638		
		3782X	ABP/N42A107637		
		3800X	ABP/N42A10009920		



PSM251(7/04PI)



Alliance Remanufactured Carriers

Alliance remanufactured carriers offer a combination of OEM quality and a new level of value.



PART NUMBERS

ABP/R35-QD100-342	ABP/R35-QR100-373	ABP/R35-RD23160-456	ABP/R35-RR20145-390
ABP/R35-QD100-355	ABP/R35-QR100-390	ABP/R35-RDL20145-433	ABP/R35-RR20145-411
ABP/R35-QD100-370	ABP/R35-QR100-410	ABP/R35-RDL20145-456	ABP/R35-RR20145-433
ABP/R35-QD100-373	ABP/R35-QR100-411	ABP/R35-RDL20145-463	ABP/R35-RR20145-456
ABP/R35-QD100-390	ABP/R35-QR100-433	ABP/R35-RDL20145-488	ABP/R35-RR20145-463
ABP/R35-QD100-410	ABP/R35-QR100-463	ABP/R35-RP20145-373	ABP/R35-RR20145-488
ABP/R35-QD100-411	ABP/R35-QR100-529	ABP/R35-RPL20145-373	ABP/R35-RR23160-410
ABP/R35-QD100-433	ABP/R35-RD20145-279	ABP/R35-RPL20145-390	ABP/R35-RR23160-456
ABP/R35-QD100-463	ABP/R35-RD20145-293	ABP/R35-RPL20145-411	ABP/R35-RRL20145-373
ABP/R35-QD100-529	ABP/R35-RD20145-307	ABP/R35-RPL20145-433	ABP/R35-RRL20145-390
ABP/R35-QHD-355	ABP/R35-RD20145-321	ABP/R35-RPL20145-463	ABP/R35-RRL20145-411
ABP/R35-QHD-370	ABP/R35-RD20145-342	ABP/R35-RPL23160-410	ABP/R35-RRL20145-433
ABP/R35-QHD-411	ABP/R35-RD20145-358	ABP/R35-RPL23160-430	ABP/R35-RRL20145-456
ABP/R35-QHD-529	ABP/R35-RD20145-373	ABP/R35-RPL23160-456	ABP/R35-RRL20145-463
ABP/R35-QHR-355	ABP/R35-RD20145-390	ABP/R35-RR20145-279	ABP/R35-RRL20145-488
ABP/R35-QHR-370	ABP/R35-RD20145-411	ABP/R35-RR20145-293	ABP/R35-RRL23160-410
ABP/R35-QHR-411	ABP/R35-RD20145-433	ABP/R35-RR20145-307	ABP/R35-RRL23160-430
ABP/R35-QHR-529	ABP/R35-RD20145-456	ABP/R35-RR20145-321	ABP/R35-RRL23160-456
ABP/R35-QR100-342	ABP/R35-RD20145-463	ABP/R35-RR20145-342	ABP/R35-RS17220-488-680
ABP/R35-QR100-355	ABP/R35-RD20145-488	ABP/R35-RR20145-358	ABP/R35-RS17220-614-857
ABP/R35-QR100-370	ABP/R35-RD23160-410	ABP/R35-RR20145-373	

The Alliance carrier part number structure is similar to the Meritor format. Simply replace the TDA prefix with ABP/R35. Alliance carrier part numbers do not require an R suffix, as is common with Meritor part numbers. For example:

Alliance Part Number	Meritor Part Number
ARP/R35_0D100_390	TDA/00100 -3908

Note: For purpose of clarity, spaces within part numbers are designated with a hyphen (-), and the part number prefix is followed by a slash (/)

- Manufactured in OE facilities using original equipment processes.
 - To assure superior quality.
- Manufactured to approved original equipment specifications.
- Upgraded to include the latest engineering technology.
- Seals and bearings are replaced with new OEM level product.
- Internal components are thoroughly inspected using engineering approved specifications.
- Internal gearing is inspected using master gearing nests to check for wear.
- All gearing is magnafluxed to check for hidden cracks and defects.
- All units must pass a loaded dyno test which tests for proper ratio, load capability and noise.

TOP SELLERS

 ABP/R35-RD20145-390
 ABP/R35-RD20145-411

 ABP/R35-RD20145-373
 ABP/R35-QR100-355

 ABP/R35-QD100-355
 ABP/R35-QD100-390

 ABP/R35-QD100-373
 ABP/R35-QR100-373

 ABP/R35-QD100-410
 ABP/R35-QR100-410

 ABP/R35-RR20145-390
 ABP/R35-RD20145-358

CONSIDER THE FOLLOW-ING WHEN PURCHASING AN ALLIANCE CARRIER:

- End yokes
- Axle shafts
- Seal and bearing kits
- Axle housings

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

WHEN YOU NEED MORE INFORMATION . . .

The following literature is available to you at your local dealer.

Catalog Number	Description		
PB-94184 (8/01)	Carrier Quick Reference Guide		

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

CORE INFORMATION

Return cores to your local dealer.

PSM100(7/04PI)

Alliance Spring Brakes

You're assured of the highest quality spring brake when you purchase Alliance spring brakes.



GENERAL PRODUCT INFORMATION

- Alliance spring brakes are designed to provide years of safe, dependable service for parking or emergency braking applications. These spring brakes and service chambers feature rugged construction, using heavy gauge steel brake housings and steel components throughout.
- Alliance spring brakes are manufactured by an ISO9001: 2000 certified company that manufactures nearly all of the brake components in house. They stamp, form and assemble our housings and then perform extensive testing to ensure the brakes will perform as designed.
- The leading cause of premature spring brake failure is mis-alignment of the power spring or push rod. Alliance spring brakes are designed to solve these common problems, helping to ensure delivery of a long service life without maintenance problems.
- Alliance spring brakes will help reduce maintenance costs by providing greater corrosion resistance and eliminating component failure.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

FEATURES & BENEFITS

- Chrome Silicon Steel Main Spring

 –Epoxy coated for corrosion protection. A unique shot peening process is applied which dramatically extends the life of the spring.
- Guided Spring Pressure Plate
 Keeps
 pressure plate centered preventing side forces which cause diaphragm sidewall and seal wear.
- Mechanical Sure Crimp Seal—A special crimping method ensures a no-guess diaphragm seal and allows a low profile without clamp interference.
- Chrome Plated Internal Push Rod—Chrome plated steel ground to just the right finish— Rough Machine Surface (32RMS)—to retain lubrication and prevent premature seal wear. Hard chrome for wear resistance and corrosion protection.
- Heavy Duty Premium Diaphragms— Synthetic blended rubber for superior resistance against abrasion and fatigue cracking. Tested to 1,000,000 cycles.
- Music Wire Return Springs—Made from pre-galvanized wire for maximum corrosion protection. Low stress barrel configuration.
- Heavy 10-Gauge Non-pressure Housing— Designed for bracket contact at the crucial outer edges. Mounting studs are reinforced to prevent pull out.
- Friction Welded Push Rod—Provides a total attachment to the plate preventing the rod from breaking loose.

PART NUMBER REFERENCE CHART				
Part Number	Description	Part Number	Description	
PIGGYBACKS		SERVICE CHAMBERS	(CONT)	
ABP/N42A-12024PD	2024 Boxed	ABP/N42A-24SCND	24" Boxed-No Clevis	
ABP/N42A-12424PD	2424 Boxed	ABP/N42A-24SC3D	24" 3" Stroke-Boxed-With Clevis	
ABP/N42A-12430PD	2430 Boxed	ABP/N42A-24SC3ND	24" 3" Stroke-Boxed-No Clevis	
ABP/N42A-13030PD	3030 Boxed	ABP/N42A-30SCD	30" Boxed-With Clevis	
ABP/N42A-13036PD	3036 Boxed	ABP/N42A-30SCND	30" Boxed-No Clevis	
ABP/N42A-13636PD	3636 Boxed	ABP/N42A-30SC3D	30" 3" Stroke-Boxed-With Clevis	
ABP/N42A-24PBKD	24 Kit	ABP/N42A-30SC3ND	30" 3" Stroke-Boxed-No Clevis	
ABP/N42A-30PBKD	30 Kit	ABP/N42A-36SCD	36" Boxed-With Clevis	
SPRING BRAKES		ABP/N42A-36SCND	36" Boxed-No Clevis	
ABP/N42A-12024CD	2024 Combo-Boxed-With Clevis	COMPONENT PARTS		
ABP/N42A-42024CD	2024 Combo-Boxed-No Clevis	ABP/N42A-10026AD	1/2" Clevis Assembly	
ABP/N42A-12424CD	2424 Combo-Boxed-With Clevis	ABP/N42A-10026BD	5/8" Clevis Assembly	
ABP/N42A-42424CD	2424 Combo-Boxed-No Clevis	ABP/N42A-24013AD	24" Service Brake Push Rod	
ABP/N42A-12430CD	2430 Combo-Boxed-With Clevis	ABP/N42A-24016AD	24" Nonpressure Housing	
ABP/N42A-42430CD	2430 Combo-Boxed-No Clevis	ABP/N42A-24020AD	24" Clamp Assembly	
ABP/N42A-12430C3D	2430 Combo-3" Stroke-Boxed-With Clevis	ABP/N42A-24021AD	24" Steel Pressure Cap	
ABP/N42A-42430C3D	2430 Combo-3" Stroke-Boxed-No Clevis	ABP/N42A-30013AD	30" Service Brake Push Rod	
ABP/N42A-13030CD	3030 Combo-Boxed-With Clevis	ABP/N42A-30016AD	30" Nonpressure Housing	
ABP/N42A-43030CD	3030 Combo-Boxed-No Clevis	ABP/N42A-30036AD	30" Nonpressure Housing For 3036 Combo	
ABP/N42A-13030C3D	3030 Combo-3" Stroke-Boxed-With Clevis	ABP/N42A-30020AD	30" Clamp Assembly	
ABP/N42A-43030C3D	3030 Combo-3" Stroke-Boxed-No Clevis	ABP/N42A-30021AD	30" Steel Pressure Cap	
ABP/N42A-13036CD	3036 Combo-Boxed-With Clevis	DIAPHRAGMS		
ABP/N42A-43036CD	3036 Combo-Boxed-No Clevis	ABP/N42A-D09000D	9" Low-Temp Diaphragm	
ABP/N42A-13636CD	3636 Combo-Boxed-With Clevis	ABP/N42A-D12000D	12" Low-Temp Diaphragm	
ABP/N42A-43636CD	3636 Combo-Boxed-No Clevis	ABP/N42A-D16000D	16" Low-Temp Diaphragm	
SERVICE CHAMBERS		ABP/N42A-D20000D	20" Low-Temp Diaphragm	
ABP/N42A-12SCD	12" Boxed-With Clevis	ABP/N42A-D24000D	24" Low-Temp Diaphragm	
ABP/N42A-12SCND	12" Boxed-No Clevis	ABP/N42A-D24002D	24" Long Stroke Low-Temp Diaphragm	
ABP/N42A-16SCD	16" Boxed-With Clevis	ABP/N42A-D24003D	24" Low-Temp Diaphragm	
ABP/N42A-16SCND	16" Boxed-No Clevis	ABP/N42A-D30000D	30" Low-Temp Diaphragm	
ABP/N42A-20SCD	20" Boxed-With Clevis	ABP/N42A-D30003D	30" 3" Stroke Low-Temp Diaphragm	
ABP/N42A-20SCND	20" Boxed-No Clevis	ABP/N42A-D36000D	36" 3" Stroke Low-Temp Diaphragm	
ABP/N42A-24SCD	24" Boxed-With Clevis			

Alliance All-Makes Mirrors by Cham-Cal





PART NUMBERS

West Coast Mirrors		
Part Number	Description	
ABP/N74B-20100	6" x 16" Mirror, Aluminum	
ABP/N74B-20331	7" x 16" OEM Heated & Lighted Mirror, Stainless Steel	
ABP/N74B-20101	6" x 16" Mirror, Stainless Steel	
ABP/N74B-20111	6" x 16" Heated Mirror, Stainless Steel	
ABP/N74B-20121	6" x 16" Lighted Mirror, Stainless Steel	
ABP/N74B-20131	6" x 16" Heated & Lighted Mirror, Stainless Steel	
ABP/N74B-21101	7" x 16" Motorized & Heated Mirror, Stainless Steel	
ABP/N74B-21131	7" x 16" Motorized, Lighted & Heated Mirror, Stainless Steel	
ABP/N74B-20200	6" x 16" Economy Mirror, Aluminum	
ABP/N74B-20301	7" x 16" OEM Mirror, Stainless Steel	
ABP/N74B-20311	7" x 16" OEM Heated Mirror, Stainless Steel	
ABP/N74B-20321	7" x 16" OEM Lighted Mirror, Stainless Steel	
ABP/N74B-20323	7" x 16" OEM Heated & Lighted Mirror, Painted Black	
ABP/N74B-20601	7" x 16" Pyramid Back Mirror, Stainless Steel	
ABP/N74B-20603	7" x 16" Pyramid Back Mirror, Painted Black	
Spot Mirrors		
ABP/N74B-10701	7 1/2" Convex Mirror, Stainless Steel	
ABP/N74B-10801	8 1/2" Convex Mirror, Stainless Steel	
ABP/N74B-12701	7 1/2" Convex Mirror, Offset Stud, Stainless Steel	
ABP/N74B-12801	8 1/2" Convex Mirror, Offset Stud, Stainless Steel	
ABP/N74B-10300	3 3/4" Round Stick-on Convex Mirror	
ABP/N74B-10400	4" x 5 1/2" Rectangular Stick-on Mirror	
ABP/N74B-10481	4" x 8" Over Door Convex Mirror, Stainless Steel	
ABP/N74B-10501	5" Convex Mirror, Stainless Steel	
ABP/N74B-10503	5" Convex Mirror, Painted Black	
ABP/N74B-10504	5" Convex Mirror, Painted White	
ABP/N74B-10601	6" Convex Mirror, Stainless Steel	
ABP/N74B-10603	6" Convex Mirror, Painted Black	
ABP/N74B-10604	6" Convex Mirror, Painted White	
ABP/N74B-10703	7 1/2" Convex Mirror, Painted Black	
ABP/N74B-10711	7 1/2" Convex Mirror, Heated, Stainless Steel	

Hardware Bracketry		
Part Number	Description	
ABP/N74B-60111	Heavy Duty Tripod Assembly for 8.5" Convex Mirror, All Stainless Steel	
ABP/N74B-40303	School Bus Fender Bracketry, Painted Black	
ABP/N74B-60151	Shortened Tripod Assembly for 8.5" Convex Mirror, All Stainless Steel	
ABP/N74B-60171	Hood Mount/Pod Assembly for 8.5" Convex Mirror, Stainless Steel	
ABP/N74B-60121	Deluxe Hood or Fender Mount Assembly for 8.5" Convex Mirror, Stainless Steel	
ABP/N74B-60601	West Coast Bracketry, Stainless Steel	
ABP/N74B-70201	Universal Tube Mounting Kit for 3/4" Tube, Stainless Steel	
ABP/N74B-70401	Convex Mirror "L" Bracket, Stainless Steel	
ABP/N74B-70701	Safety Yoke, Stainless Steel	
ABP/N74B-70711	Extra Wide Safety Yoke, Stainless Steel	
ABP/N74B-70901	Clamp, 3/4" Tube, 3/8" Holes, Stainless Steel	
ABP/N74B-70921	Clamp, 5/8" Tube, 1/4" Holes, Stainless Steel	
ABP/N74B-70931	Clamp, 3/4" Tube, 1/4" Holes, Stainless Steel	
ABP/N74B-70941	Clamp, 3/4" Tube, 3/8" Slot, Stainless Steel	

THE ALLIANCE ALL-MAKES MIRROR PRODUCT LINE INCLUDES

- West Coast, Convex and Fender Mount Mirror Assemblies
- Hardware Bracketry

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

- Brightly finished stainless steel has corrosion resistance and added strength and durability.
- 8.5" Stainless Steel Convex mirror head is included.
- Assembly contains both curved and straight extension arms for improved vision into blind spots.
- Single pod-style hood mount fits attractively on most heavy and medium duty trucks.
- Kit includes backing plate, gasket, mounting hardware and instructions for easy installation.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

WHEN PURCHASING ALLIANCE MIRRORS, CONSIDER THESE RELATED ITEMS:

Part Number	Description
ABP/N74B-60601	West Coast Bracketry, Stainless Steel
ABP/N74B-70201	Universal Tube Mounting Kit for 3/4" Tube, Stainless Steel
ABP/N74B-70401	Convex Mirror "L" Bracket, Stainless Steel
ABP/N74B-70701	Safety Yoke, Stainless Steel
ABP/N74B-70711	Extra-Wide Safety Yoke, Stainless Steel

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

Catalog Number	Description	
CS/MC-C-PSM298(5/04PI)	2004 Alliance Truck Mirrors & Accessories	

PSM249(7/04PI)

Alliance Chrome, ABS Front Hubcaps, and ABS Rear Axle Covers

The Alliance chrome product line includes all fast-moving chrome items—lug nut covers, hub caps, simulators, light panels, bumper guides, mud flap hangers, flap weights and more. Lug nut and wheel cover products are available in chrome, stainless steel and durable ABS plastic.

TOP SELLERS

Part Number

ABS PRODUCT

DELUXE FRONT HU	B CAP KITS WITH REMOVABLE CAP
ACX/40100	Includes 10 33mm chrome nut covers w/flange
ACX/40110	Includes 10 33mm amber reflective nut covers w/flange
ACX/40150	Includes 10 1½" chrome nut covers w/flange w/2 metal fasteners
AXC/40160	Includes 10 $1\frac{1}{2}$ " amber reflective nut covers w/flange and 2 metal fasteners

FRONT HUB CAP KITS WITHOUT REMOVABLE CAP

Description

ACX/40000	Includes 10 33mm chrome nut covers w/flange
ACX/40010	Includes 10 33mm amber reflective nut covers w/flange
ACX/40050	Includes 10 $11/2$ " chrome nut covers w/flange and 2 metal fasteners
ACX/40060	Includes 10 1½" amber reflective nut covers w/flange and 2 metal fasteners

DELUXE REAR AXLE COVER KITS WITH REMOVABLE CAP

ACX/40200	Includes 10 33mm chrome nut covers w/flange
ACX/40210	Includes 10 33mm amber reflective nut covers w/flange
ACX/40250	Includes 10 $1\frac{1}{2}$ " chrome nut covers w/flange and 2 metal fasteners
ACX/40260	Includes 10 $1 \ensuremath{\mbox{1}}\xspace''$ amber reflective nut covers w/flange and 2 metal fasteners

33MM NUT COVERS WITH LOCKING NUT FLANGE

ACX/39953	Chrome, threaded, blister pack of 10
ACX/39963	Amber reflective, threaded, blister pack of 10
ACX/39973	Blue reflective, threaded, blister pack of 10
ACX/39983	Purple reflective, threaded, blister pack of 10
ACX/39993	Red reflective, threaded, blister pack of 10

CHROME PRODUCT

Description

Part Number

HUB CAPS BLISTER	PACKED
ACX/41403	Front hub cap with 4 notches for hub piloted wheels
ACX/41503	Front hub cap with 5 notches for hub piloted wheels
ACX/41603	Front hub cap with 6 notches for hub piloted wheels
ACX/43403	Rear axle cover for Mack trucks over 44,000 lbs.
ACX/43103	Rear hub cap 7.25" diameter for $1/2$ "or 9/16" studs
ACX/43203	Rear hub cap 8.25" for 5/8" studs
ACX/43303	Rear hub cap 8.5" diameter for $^{3}\!\!/_{4}$ studs
ACX/41003	Standard front cap with 4 clips
ACX/42103	Trailer hub cap with 3 clips

NUT COVERS BLISTER PACKED

ACX/84103

AUX/04103	172 Nut cover, blister pack of To
ACX/84463	$11\!\!/\!\!2^{\text{\tiny{II}}}$ x 2" Amber reflective nut cover, blister pack of 10
ACX/84483	$1 \ensuremath{\mathcal{V}}_2{}^{\mbox{\tiny "}}$ x 2" Blue reflective nut cover, blister pack of 10
ACX/84403	$1 \frac{1}{2}$ x 2" Bullet nut cover, blister pack of 10
ACX/84473	$11\!\!/\!\!2^{\text{\tiny{II}}}$ x 2" Red reflective nut cover, blister pack of 10
ACX/84203	$11\!\!/\!_4$ " Nut cover for Dayton Wheel, blister pack of 10
ACX/84523	32mm Nut cover with flange, blister pack of 10
ACX/84533	33mm Nut cover with flange, blister pack of 10
ACX/84534	33mm Nut cover with flange, SS, blister pack of 10
ACX/71506	Decorative bullet w/hardware, blister pack of 4

11/2" Nut cover blister pack of 10

THE ALLIANCE CHROME PRODUCT LINE INCLUDES:

- Lug nut covers
- Front and rear hub caps
- Wheel and axle covers
- Beauty rings
- Simulators
- Mud flap holders
- Quarter fenders
- Bumper guides
- Top and bottom plates

WHEN PURCHASING ALLIANCE CHROME PRODUCTS, CONSIDER THESE RELATED PARTS:

Part Number	Description			
ACX/39910	ABS front hub cap w/removable cap			
ACX/39900	ABS front hub cab w/o removable cap			
ACX/39920	ABS front replacement cap only for ACX/39901			
ACX/39923	ABS front replacement cap only for ACX/39901, blister packed			
ACX/39930	ABS rear axle cover w/removable cap and 10 hole ring			
ACX/39940	ABS removable cap for ABS rear axle cover ACX/39930			
ACX/39999	ABS nut cover hand tool for use w/all ABS products for easy installation			
ACX/40099	Two metal fasteners for 1½" ABS			

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

FEATURES & BENEFITS

- ABS plastic is impact resistant, light weight and flexible.
- High-shine chrome finish never rusts.
- Hub covers have unique vent holes that dissipate wheel heat and protect against oil seal damage.
- Hub cap kits are available with removable caps for easy access to the hub.
- Wheel cover products fit all 11.25 bolt circle wheels.
- Fits 33mm and 1½" nut covers.

WHEN YOU NEED MORE INFORMATION...

The following literature is available to you at your local dealer:

Catalog Number	Description
AL/AC-V-001	Alliance Chrome Accessories Catalog

PSM095(7/04PI)

Alliance Mattresses

Alliance mattresses are available in four comfort levels. They are rolled and encased in plastic, then packaged in boxes for easy shipping, storage and installation.

Manufactured with the same stringent requirements as the vehicle original, these replacement mattresses are the best in the marketplace.



QIS - DELUXE QUILTED INNERSPRING MATTRESS



- Energy absorbing 8" thick innerspring mattress
- Everflex® innerspring & polyurethane construction
- Home comfort on the road
- · Deluxe quilted fabric
- Boxed & rolled technology
- Lower freight & handling costs
- All materials compliant to MVSS-302 federal safety standards
- Manufactured under strict ISO-9002 quality guidelines
- Manufactured in the USA

SIS - QUALITY INNERSPRING MATTRESS



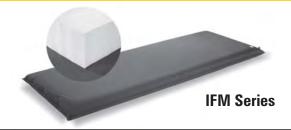
- Energy absorbing 7" thick innerspring mattress
- Everflex® innerspring & polyurethane construction
- Upgraded navy & gray "Trucker" fabric
- Boxed & rolled technology
- Lower freight & handling costs
- All materials compliant to MVSS-302 federal safety standards
- Manufactured under strict ISO-9002 quality guidelines
- Manufactured in the USA

STF - STANDARD FOAM MATTRESS



- 5" thick polyurethane core mattress
- Basic gray & white stripped fabric
- Boxed & rolled technology
- Lower freight & handling costs
- All materials compliant to MVSS-302 federal safety standards
- Manufactured under strict ISO-9002 quality guidelines
- Manufactured in the USA

IFM - SELF-INFLATING FOAM UPPER-BUNK MATTRESS WITH COMFORT ADJUSTMENT



- Energy absorbing 4" thick foam/air core mattress
- · Durable polyester fabric
- Self-inflating technology for adjustable "sleep comfort system"
- Lower freight & handling costs
- All materials compliant to MVSS-302 federal safety standards
- Manufactured under strict ISO-9002 quality guidelines
- Manufactured in the USA

SIS SERIES

QUALITY SMOOTH-TOP INNERSPRING MATTRESS				
Part Number	Length x Width x Depth	Weight	Carton Size	
ABP/N60C-7634S	76" x 34" x 7"	29 lbs.	16" x 16" x 34"	
ABP/N60C-7636S	76" x 36" x 7"	32 lbs.	16" x 16" x 38"	
ABP/N60C-7638S	76" x 38" x 7"	32 lbs.	16" x 16" x 38"	
ABP/N60C-7652S	76" x 52" x 7"	47 lbs.	16" x 16" x 54"	
ABP/N60C-7832S	78" x 32" x 7"	28 lbs.	16" x 16" x 34"	
ABP/N60C-7834S	78" x 34" x 7"	31 lbs.	16" x 16" x 34"	
ABP/N60C-7929S	79" x 29" x 5½"	27 lbs.	16" x 16" x 34"	
ABP/N60C-8023S	80" x 23" x 7"	21 lbs.	16" x 16" x 34"	
ABP/N60C-8032S	80" x 32" x 7"	31 lbs.	16" x 16" x 34"	
ABP/N60C-8034S	80" x 34" x 7"	32 lbs.	16" x 16" x 34"	
ABP/N60C-8036S	80" x 36" x 7"	33 lbs.	16" x 16" x 38"	
ABP/N60C-8038S	80" x 38" x 7"	37 lbs.	16" x 16" x 38"	
ABP/N60C-8039S	80" x 39" x 7"	37 lbs.	16" x 16" x 38"	
ABP/N60C-8042S	80" x 42" x 7"	39 lbs.	16" x 16" x 42"	
ABP/N60C-8048S	80" x 48" x 7"	47 lbs.	16" x 16" x 50"	
ABP/N60C-8050S	80" x 50" x 7"	48 lbs.	16" x 16" x 50"	
ABP/N60C-8053S	80" x 53" x 7"	50 lbs.	16" x 16" x 54"	
ABP/N60C-8535S	85" x 35" x 7"	37 lbs.	16" x 16" x 34"	
ABP/N60C-8543S	85" x 43" x 7"	42 lbs.	16" x 16" x 42"	

STF SERIES

STANDARD SMOOTH-TOP FOAM MATTRESS					
Part Number	Length x Width x Depth	Weight	Carton Size		
ABP/N60C-7524F	75" x 24" x 5"	14 lbs.	16" x 16" x 34"		
ABP/N60C-7634F	76" x 34" x 5"	161bs.	16" x 16" x 34"		
ABP/N60C-7636F	76" x 36" x 5"	17 lbs.	16" x 16" x 38"		
ABP/N60C-7638F	76" x 38" x 5"	18 lbs.	16" x 16" x 38"		
ABP/N60C-7652F	76" x 52" x 5"	24 lbs.	16" x 16" x 54"		
ABP/N60C-7727F	77" x 27" x 5"	15 lbs.	16" x 16" x 34"		
ABP/N60C-7834F	78" x 34" x 5"	17 lbs.	16" x 16" x 34"		
ABP/N60C-7932F	79" x 32" x 2"	7 lbs.	16" x 16" x 34"		
ABP/N60C-8023F	80" x 23" x 5"	13 lbs.	16" x 16" x 34"		
ABP/N60C-8032F	80" x 32" x 5"	16 lbs.	16" x 16" x 34"		
ABP/N60C-8034F	80" x 34" x 5"	17 lbs.	16" x 16" x 34"		
ABP/N60C-8036F	80" x 36" x 5"	18 lbs.	16" x 16" x 38"		
ABP/N60C-8038F	80" x 38" x 5"	19 lbs.	16" x 16" x 38"		
ABP/N60C-8039F	80" x 39" x 5"	20 lbs.	16" x 16" x 38"		
ABP/N60C-8042F	80" x 42" x 5"	21 lbs.	16" x 16" x 42"		
ABP/N60C-8048F	80" x 48" x 5"	23 lbs.	16" x 16" x 50"		
ABP/N60C-8050F	80" x 50" x 5"	24 lbs.	16" x 16" x 50"		
ABP/N60C-8053F	80" x 53" x 5"	26 lbs.	16" x 16" x 54"		
ABP/N60C-8535F	85" x 35" x 5"	21 lbs.	16" x 16" x 34"		
ABP/N60C-8543F	85" x 43" x 5"	24 lbs.	16" x 16" x 42"		

Notes: Mattress finished sizes are + or - 1". Shipping weights are approximate.

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

Catalog Number	Description	
PSM/MC-B-294	Brochure	
FLC/PSM-F-347	Postcard	
FLC/PSM-F-347	Poster	

QIS SERIES

DELUXE QUILTED INNERSPRING MATTRESS						
Part Number	Length x Width x Depth	Weight	Carton Size			
ABP/N60C-7634SQ	76" x 34" x 8"	33 lbs.	16" x 16" x 34"			
ABP/N60C-7636SQ	76" x 36" x 8"	37 lbs.	16" x 16" x 38"			
ABP/N60C-7638SQ	76" x 38" x 8"	37 lbs.	16" x 16" x 38"			
ABP/N60C-7652SQ	76" x 52" x 8"	50 lbs.	16" x 16" x 54"			
ABP/N60C-7832SQ	78" x 32" x 8"	33 lbs.	16" x 16" x 34"			
ABP/N60C-7834SQ	78" x 34" x 8"	35 lbs.	16" x 16" x 34"			
ABP/N60C-7929SQ	79" x 29" x 6"	29 lbs.	16" x 16" x 34"			
ABP/N60C-8023SQ	80" x 23" x 8"	23 lbs.	16" x 16" x 34"			
ABP/N60C-8032SQ	80" x 32" x 8"	35 lbs.	16" x 16" x 34"			
ABP/N60C-8034SQ	80" x 34" x 8"	36 lbs.	16" x 16" x 34"			
ABP/N60C-8036SQ	80" x 36" x 8"	39 lbs.	16" x 16" x 38"			
ABP/N60C-8038SQ	80" x 38" x 8"	40 lbs.	16" x 16" x 38"			
ABP/N60C-8039SQ	80" x 39" x 8"	42 lbs.	16" x 16" x 38"			
ABP/N60C-8042SQ	80" x 42" x 8"	45 lbs.	16" x 16" x 42"			
ABP/N60C-8048SQ	80" x 48" x 8"	47 lbs.	16" x 16" x 50"			
ABP/N60C-8050SQ	80" x 50" x 8"	48 lbs.	16" x 16" x 50"			
ABP/N60C-8053SQ	80" x 53" x 8"	54 lbs.	16" x 16" x 54"			
ABP/N60C-8535SQ	85" x 35" x 8"	40 lbs.	16" x 16" x 34"			
ABP/N60C-8543SQ	85" x 43" x 8"	47 lbs.	16" x 16" x 42"			

IFM SERIES

ı	II WI SEIKI	II M SERIES						
	SELF-INFLATING UPPER-BUNK FOAM MATTRESS							
	Part Number	Length x Width x Depth	Weight	Carton Size				
	ABP/N60C-7929SF4	79" x 29" x 4"	12 lbs.	10" x 10" x 30"				

Note: ABP/N60C-7927SF4 replaces the ABP/N60C-7931DP4 and ABP/N60C-7931P3 Dymetrol Upper-Bunk Pads

VINYL ZIPPER MATTRESS COVERS

Part Number	Length x Width x Depth	Weight	Carton Size
ABP/N60C-8032MC	32" x 80" x 8"	4 lbs.	8" x 8" x 30"
ABP/N60C-8034MC	34" x 80" x 8"	4 lbs.	8" x 8" x 30"
ABP/N60C-8039MC	39" x 80" x 8"	5 lbs.	8" x 8" x 30"



Vinyl zippered covers keep the mattress clean and looking new.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

PSM096(7/04PI)

Alliance Premium CB Antennas



Stay connected to the world with Alliance CB Antennas made in the USA.

GENERAL PRODUCT INFORMATION

Available in a variety of colors and sizes, the Alliance Premium CB antennas are made to please. They are helic-wound, top-loaded fiberglass with 16-gauge solid copper wire and are mechanically and electrically produced to prevent breakage. They feature a long filament, solid fiberglass rod 3/8" in diameter and an extra long ferrule with standard 3/8" x 24" threads. These antennas provide quality, as well as great looks.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

THE ALLIANCE PREMIUM CB ANTENNA PRODUCT LINE INCLUDES

- Bullwhip Single CB Mirror Mount Kits and Antennas
- Bullwhip Double CB Mirror Mount Kits and Antennas
- CB Antenna Accessories
- New "Patriot" Red, White and Blue Antennas available—"A True American Style." Available in 36" and 48" Lengths.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America. This warranty does not cover parts that are damaged due to accident, improper installation, road hazards, fire, theft, misuse, modification or neglect; products from which serial numbers have been removed; inadequate signal reception by the antenna; and cost of installation, removal or reinstallation.

FEATURES & BENEFITS

- Alliance antennas are designed for today's tough road conditions.
- Rugged and flexible top loaded fiberglass CB and weatherband-ready antennas 3/8" x 24" standard.
- Better value, big power and extremely efficient.
 Choose from 750 to 15,000 watts of power.
- All antennas are tunable and are a true 50-ohm "To produce the highest radiation efficiency in design to date."
- Superchief double-coil 15,000 watt rated.
 Maximum range for superior performance: 10-11 meter range 60" tall.

Geronimo GER27: No ground plane CB antenna

- 1/2 wave voltage-fed antenna.
- Works on all class 8 trucks.
- 10-11 meter range 48" tall.
- Patented TM circuit for precise impedance mating.
- Install on existing mount (requires plug-to-plug cabling not supplied).

Mounts are aircraft quality aluminum (6061 T6 Grade)

- Durable, affordable and dependable.
- Complete with brass/chrome-plated antenna mounting hex 3/8" x 24".
- Will not rust.
- · Super Bright.
- Our new mount for mirrors, these fit the larger diameter mirror arms on the Century Class, Columbia, Sterling, etc. (ABP/N53-IH169AD).

Cables are low loss, 95% shielded with molded plugs and weathertight connectors.

Better clarity, better cable means better performance.

ALLIANCE PARTS

TOP PART	NUMBERS		
PART NUMBER	DESCRIPTION	COLOR	UON
BP/N53-TSM2	24" Heavy-duty 1000-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting, UV resistant heat shrinkable tubing cover for weather ability.	Black	EA
ABP/N53-TSM2-W	24" Heavy-duty 1000-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.		EA
ABP/N53-TSM3	36" Heavy-duty 1000-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.	Black	EA
ABP/N53-TSM3-W	36" Heavy-duty 1000-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.	White	EA
ABP/N53-TSM4	48" Heavy-duty 1000-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.	Black	EA
ABP/N53-TSM4-W	48" Heavy-duty 1000-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.	White	EA
ABP/N53-TSL3	36" Heavy-duty 1000-watt top loaded fiberglass CB single antenna kit with weatherband. 6061-T6 polished aluminum mirror mount. 9' low loss RG-58 cable with PL-259 connectors.	Black	EA
ABP/N53-TSL3-W	36" Heavy-duty 1000-watt top loaded fiberglass CB single antenna kit with weatherband. 6061-T6 polished aluminum mirror mount. 9' low loss RG-58 cable with PL-259 connectors.	White	EA
ABP/N53-TSL4	48" Heavy-duty 1000-watt top loaded fiberglass CB single antenna kit with weatherband. 6061-T6 polished aluminum mirror mount. 9' low loss RG-58 cable with PL-259 connectors.	Black	EA
ABP/N53-TSL4-W 48" Heavy-duty 1000-watt top loaded fiberglass CB single antenna kit with weatherband polished aluminum mirror mount. 9' low loss RG-58 cable with PL-259 connectors.		White	EA
ABP/N53-TTL4	48" Heavy-duty 1000-watt top loaded fiberglass CB dual antenna kit with weatherband. 6061-T6 polished aluminum mirror mount. 9' low loss RG-59 cable with PL-259 connectors.		EA
ABP/N53-TTL4-W	48" Heavy-duty 1000-watt top loaded fiberglass CB dual antenna kit with weatherband. 6061-T6 polished aluminum mirror mount. 9' low loss RG-59 cable with PL-259 connectors.		EA
ABP/N53-TSM002	24" Flexible 750-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.		EA
ABP/N53-TSM002-W	24" Flexible 750-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.		EA
ABP/N53-TSM003	36" Flexible 750-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.		EA
ABP/N53-TSM003-W	36" Flexible 750-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.		EA
ABP/N53-TSM004	48" Flexible 750-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.	Black	EA
ABP/N53-TSM004-W	48" Flexible 750-watt top loaded fiberglass CB antenna with weatherband. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.	White	EA
ABP/N53-NGP1	48" No ground plane Geronimo antenna. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability.	Black	EA
ABP/N53-USA24	24" Red, white and blue Patriot antenna. 3/8"x24" standard type mounting. UV resistant heat shrinkable tubing. 1000-watt rated.	R,W,B	EA
ABP/N53-USA48	48" Red, white and blue Patriot antenna. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability. 1000-watt rated.	R,W,B	E.A
ABP/N53-USA36	36" Red, white and blue Patriot antenna. 3/8"-24" standard type mounting. UV resistant heat shrinkable tubing cover for weather ability. 1000-watt rated.	R,W,B	EA
ABP/N53-CS1000	15,000-Watt Double-coil Superchief, 60" tall.	Chrome	EA
ABP/N53-IH169AD	Euro aluminum mirror mount. Fits 1 1/8" diameter mirror arms.	Aluminum	EA
ABP/N53-ATA27	CB On-glass antenna kit with cable and mounting hardware included.	Black	E/
ABP/N53-MM1012	Magnetic mount CB antenna kit.	Black	E.A

PSM267(7/04PI)

Alliance Premium Mobile TV Antennas and Accessories



Stay connected to the world with Alliance Antennas!

GENERAL PRODUCT INFORMATION

Available in a variety of mounting styles and sizes, Alliance Premium Antennas are made to please. These antennas have low S.W.R. for the performance you demand. They have mounting applications for every need and even an aerodynamic stealthy look. All these antennas and accessories provide the quality you demand, as well as great looks.

POPULAR	NUMBERS		
PART NUMBER	DESCRIPTION	COLOR	UOM
ABP/N53-C270	Stainless Steel 48" Base Loaded Antenna (1500 watt)	Black	EA
ABP/N53-C270W	Stainless Steel 48" Base Loaded Antenna (1500 watt)	White	EA
ABP/N53-STT4	48" Full Wave Tunable Antenna (2500 watt)	Black	EA
ABP/N53-STT4W	48" Full Wave Tunable Antenna (2500 watt)	White	EA
ABP/N53-EVTV5	Headliner Mobile TV Antenna System	N/A	EA
ABP/N53-USASL11	12" Red, White, and Blue Lighting Strip (Qty. 2 in a package)	R,W,B	EA
ABP/N53-USASL15	15" Red, White, and Blue Lighting Strip (Qty. 2 in a package)	R,W,B	EA
ABP/N53-TVF117AB	Stealth Buddy Mobile TV Antenna	Black	EA
ABP/N53-TVF117A	Stealth Buddy Mobile TV Antenna	White	EA
ABP/N53-ATOC3	Universal Stainless Steel Fender Guides w/Illuminated tip for night use (amber)	N/A	EA
ABP/N53-HRP36F	36" Heavy Duty Fluorescent Orange Rookie Pole	Orange	EA

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America. This warranty does not cover parts that are damaged due to accident, improper installation, road hazards, fire, theft, misuse, modification, or neglect; products from which serial numbers have been removed; inadequate signal reception by the antenna; and cost of installation, removal or reinstallation.

UHF/VHF Antenna

ABP/N53-EVTV5

This TV Antenna has been engineered and manufactured to be mounted under any headliner of a fiberglass roof vehicle. Great product for the trucking industry. It may also be mounted behind a wind deflector. Extend the UHF/VHF antenna to be mounted in a "Y" shape to provide best performance. Secure the wires to the mounting surface with plastic clips, non-metallic tape (not included) or mold into the fiberglass form. Includes 12' RG-59 coaxial cable with screw type "F" connectors.



Stealth Design TV Antenna

ABP/N53-TV117AB (Black) ABP/N53-TV117A (White)

- New Technology in the TV Performance Design and Value
- 14" Wing Span, Mounts Horizontally or Vertically
- Omni Directional Performance plus high impact
- · White or Black
- · ABS Plastic Polymer Body
- Totally Weatherproof and Sealed
- 10' Cable with "F" connector included

Heavy-Duty Marker

ABP/N53-HRP36F

Heavy duty marker guides with an illuminated amber tip designed for the Class 8 Truck Industry.

- Sold in pairs.
- Mounting available for threaded rookie poles.
- Safety orange and fluorescent orange colors available.



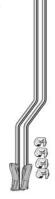


Extra Heavy-Duty Fender Guide

ABP/N53-ATOC3

Extra heavy duty stainless steel fender guides with an illuminated amber tip designed for the Class 8 Truck Industry.

- Sold in pairs.
- Helps to prevent damage to front fenders.
- Hooks up to a 12-volt system.
- Secures easily in minutes without drilling or welding.
- · Can be hooked up to parking lights.

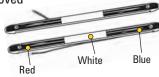


Spirit Lighting

ABP/N53-USASL11 - Length 12" ABP/N53-USASL15 - Length 15"

Attractive interior and exterior accent "A True American Style Lighting"

- 12-Volt Hook-up
- Weatherproof
- Available in two (2) lengths –12" and 15"
- · Red, White, and Blue Colors
- UL, C.S.A. and FAA Approved
- Sold in packs of two (2)
- Made in USA



PSM299(7/04PI)

Alliance Premium Stainless Steel Truck Accessories

Adding class to Class Eight and offering you a great value for your dollar, the Alliance Premium Stainless Steel line includes custom designed and manufactured truck accessories using premium quality mirror finish 304 stainless steel products.



GENERAL PRODUCT INFORMATION

Quality and satisfaction equals Alliance Premium Stainless Steel Truck Accessories. Our products are carefully selected to guarantee your satisfaction. We use only the highest grade of non-magnetic 304 stainless steel to manufacture the parts that have made Alliance a trusted name in the truck accessories business.

THE ALLIANCE PREMIUM STAINLESS STEEL PRODUCT LINE INCLUDES

- Battery and Toolbox Panels
- Bug, Door/Window, Hood, Grill and Wing Deflectors
- Headlight and Fender Guards
- Front and Rear Air Cleaner Light Bars
- Front, Top and Rear Fairing Panels
- Plates and Covers
- Cab Extended Visors
- Center Rear Light Boxes

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

PART NUMBERS FOR FREIGHTLINER TRUCKS

ALLIANCE PART NUMBER	DESCRIPTION	UOM
ABP/FL-001	FLD-120/FLD-112 Below Light Fender Guards	PR
ABP/FL-002A	Classic Short Hood Headlight Fender Guard	PR
ABP/FL-002B	Classic XL Below Headlight Fender Guard	PR
ABP/FL-002C	Classic Short Hood Around Headlight Fender Guard	PR
ABP/FL-002D	Classic XL Around Headlight Fender Guard	PR
ABP/FL-002E	Severe Duty Headlight Fender Guard	PR
ABP/FL-009	FLD-112/FLD-120 Bumper Inserts	SET
ABP/FL-021	Glove Box Cover	EA
ABP/FL-024	Door Window Deflector - FLD-120, FLD-112	PR
ABP/FL-026A	Classic and Classic XL Bug Deflector	EA
ABP/FL-026C	Classic XL Grill Deflector	EA
ABP/FL-026D	FLD-120 Grill Deflector	PR
ABP/FL-027	Front Air Cleaner Light Bar	PR
ABP/FL-030	Battery Tool Box Panel	SET
ABP/FL-031	Bunk Vent Covers	PR
ABP/FL-036	Sleeper Extender Skirt Panel	PR
ABP/FL-037	FLD-112/FLD-120 Bug Deflector	EA
ABP/FL-060	Century Class Bug Deflector	EA
ABP/FL-062	Century Class/Columbia Sunvisor Insert	SET
ABP/FL-064	Double Headlight Visors	PR
ABP/FL-066	License Plate Holder - 2 Plate	EA
ABP/FL-073	Sunvisor Extension Strip	EA

- Highest-grade non-magnetic 304 stainless steel
- Manufactured to approved original equipment specifications
- All parts are carefully quality controlled
- · Parts are custom fit to each model
- Products are designed not to void any warranties
- Parts are laser cut, ensuring smooth and durable edges

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

Catalog Number	Description
FLC/PSM-M-204	Freightliner Premium Stainless Steel Catalog
FLC/PSM-B-206	Freightliner Premium Stainless Steel Brochure

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America. This warranty does not cover parts that are damaged due to accident, improper installation, road hazards, fire, theft, misuse, modification or neglect.

PSM203FL(7/04PI)

Alliance Premium Stainless Steel Truck Accessories

Adding class to Sterling Trucks and offering you a great value for your dollar, the Alliance Premium Stainless Steel line includes custom designed and manufactured truck accessories using premium quality mirror finish 304 stainless steel products.



GENERAL PRODUCT INFORMATION

Quality and satisfaction equals Alliance Premium Stainless Steel Truck Accessories. Our products are carefully selected to guarantee your satisfaction. We use only the highest grade of non-magnetic 304 stainless steel to manufacture the parts that have made Alliance a trusted name in the truck accessories business.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

THE ALLIANCE PREMIUM STAINLESS STEEL PRODUCT LINE INCLUDES

- Door Kick Plate
- · Block Heater Hole Trim Plate
- Bug Deflector
- Sunvisor
- Sill/Scuff Plate
- Door Handle Trim
- Bumper Inserts
- Headlight Fender Guard

PART NU	MBERS FOR S	TERLING TRUCKS	
ALLIANCE PART NUMBER	PRODUCT	DESCRIPTION	UOM
ABP/DST-109	Door Kick Plate	Fits on the rocker panel, below doors. Fastens using two-sided tape. Sold in pairs.	PR
ABP/DST-085	Block Heater Hole Trim Plate	Covers surrounding area of the block heater hole. Fastens with two-sided tape and four bolts on block heater.	PR
ABP/DST-026	Bug Deflector	Constructed entirely of stainless steel, this bug deflector is extremely durable and attractive. Drilling on the hood is required. All hardware is included.	EA
ABP/DST-046	Sunvisor	Extra deep sunvisor, available for Acterra LT 7500 models. Designed to replace factory stainless visor. All hardware is included.	EA
ABP/DST-3420	Sill/Scuff Plate	Attaches using two-sided tape. Finished with non-slip grip tape on surface of panel.	PR
ABP/DST-106	Door Handle Trim	Protects the paint around the door handles. It easily mounts to the inset of the door handle with two-sided tape. Sold in pairs.	PR
ABP/DST-009	Bumper Inserts	Three-piece bumper inserts. Panels are fastened using two-sided tape. Panels are pretaped. No hardware is required.	SET
ABP/DST-044	Headlight Fender Guard	Protects paint from road debris and stone chips. Attaches using two-sided tape.	PR

- Highest-grade non-magnetic stainless steel
- Manufactured to approved original equipment specifications
- Quality controlled
- · Custom fit to each model
- Designed not to void any warranties
- Laser cut to ensure smooth and durable edges

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America. This warranty does not cover parts that are damaged due to accident, improper installation, road hazards, fire, theft, misuse, modification or neglect.

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

Catalog Number Description

FLC/PSM-M-232 Sterling Premium

Stainless Steel Flyer

PSM231(7/04PI)

ALLIANCE PARTS

Alliance Premium Stainless
Steel Truck Accessories

Adding class to Class Eight and offering you a great value for your dollar, the Alliance Premium Stainless Steel line includes custom designed and manufactured truck accessories using premium quality mirror finish 304 stainless steel products.



GENERAL PRODUCT INFORMATION

Quality and satisfaction equals Alliance Premium Stainless Steel Truck Accessories. Our products are carefully selected to guarantee your satisfaction. We use only the highest grade of non-magnetic 304 stainless steel to manufacture the parts that have made Alliance a trusted name in the truck accessories business.

THE ALLIANCE PREMIUM STAINLESS STEEL PRODUCT LINE INCLUDES

- Battery and Toolbox Panels
- Bug, Door/Window, Grill and Wing Deflectors
- Headlight and Fender Guards
- Front and Rear Air Cleaner Light Bars
- Front, Top and Rear Fairing Panels
- Plates and Covers
- · Cab and Sleeper Skirts
- Cab Extended Visors
- Center Rear Light Boxes

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

PART NUMBERS FOR WESTERN STAR TRUCKS

ALLIANCE PART NUMBER	DESCRIPTION	UOM
ABP/WSC00-023	2000 and up Constellation 4964FX Front Air Cleaner Light Bar	PR
ABP/WSC00-024	2000 and up Constellation 4964FX Rear Air Cleaner Light Bar	PR
ABP/WSC00-042	2000 and up 4964 FX, EX, & SX Bug Deflector	EA
ABP/WSC00-054	4964EX, FX Below Headlight Fender Guard	PR
ABP/WSC00-083	High Visibility Hood Bug Deflector - 4964SX Model	EA
ABP/WSC00-084	High Visibility Hood Fender Guard - 4964SX Model	PR
ABP/WSC98-007	Double Headlight Visor	PR
ABP/WSC98-025	Headlight Fender Guards For 1998 and up Constellation	PR
ABP/WSS-023	Front Air Cleaner Light Bars - Heritage	PR
ABP/WSS-028	Vertical Grill Defectors	PR
ABP/WSSBF-002	License Plate Holder - 2 Plate	EA
ABP/WSSC-071	Mud Flap Cover	PR
ABP/WSSC-079	Stainless Steel Emblem Accent	PR
ABP/WSSC-080	GladHand Bracket Trim	EA
ABP/WSSC-081	Constellation Rear Frame Panel	EA
ABP/WSSC-085	Park Brake Control Valve Trim Panel	EA
ABP/WSSC-086	Defrost Vent Deflector	PR
ABP/WSWH-023	Front Air Cleaner Light Bar Wiring Harness	PR
ABP/WSWH-024	Rear Air Cleaner Light Bar Wiring Hardness	PR

- Highest-grade non-magnetic stainless steel
- Manufactured to approved original equipment specifications
- All parts are carefully quality controlled
- · Parts are custom fit to each model
- Products are designed not to void any warranties
- Parts are laser cut, ensuring smooth and durable edges

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

Catalog Number	Description
FLC/PSM-M-205	Western Star Premium Stainless Steel Catalog
FLC/PSM-B-207	Western Star Premium Stainless Steel Brochure

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America. This warranty does not cover parts that are damaged due to accident, improper installation, road hazards, fire, theft, misuse, modification or neglect.

PSM203WS(7/04PI)

Alliance All-Makes Springs

The new all-makes spring program covers the top moving part numbers for Class 5 through 8 vehicles including: front and rear springs, main support members, trailer springs and associated hardware, such as U-bolts, pins and bushings and shackle kits.

FEATURES & BENEFITS

Hendrickson, North America's leading heavy-duty spring & suspension manufacturer, provides the components of the new Alliance all-makes spring program, so you know there is durability and quality built into every component!

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

CROSS REFERENCE INFORMATION

See back of page for cross reference information on best-selling parts. The ABP numbers can be used for all OEM numbers listed #1 through #7.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

PRODUCT OFFERING INCLUDES

- Leaf Springs
- Spring Pins
- Bushings
- · U-Bolt Kits
- Shackle Kits/Sidebars

INCLUDES REPLACEMENT PARTS FOR

- Autocar
- Mack
- Chevrolet/GMC
- International

Ford

- Peterbilt
- Fruehauf
- Reyco
- Hutch
- Volvo
- Kenworth

ALLIANCE PARTS

Alliance Spring	SRI Cross		OEM Cross Reference Numbers					
Part Number	Reference	1	2	3	4	5	6	7
FORD								
ABP/N3271013	43-415	C3TA5560AE	C3TZ5560V	D7HT5560AMA	D7HT5560AUA			
ABP/N3271008	43-377	F2HZ5560L	F2HT5560LA	C3TZ5560D	C3TA5560L			
GMC/CHEVROLET								
ABP/N3271002	22-315	3763787	2453876					
ABP/N3271039	48-921	660130						
IHC/NAVISTAR								
ABP/N3271042	55-029	471292C91						
ABP/N3271044	55-037	473725C91						
KENWORTH								
ABP/N3271068	59-400	HK1073-100	K223-1073	HK1073-104	HK1073-200			
ABP/N3271070	59-408	K223-1125						
MACK		<u> </u>						
ABP/N3271078	62-147	4QK4005A	4QK4005					
ABP/N3271087	62-832	20K3378AP3	2QK3378P3	2QK3436	2QK3460	2QK39307	2QK494	2QK3346
ABP/N3271095	62-968	20K3435M	2QK490	20K3435AM				
PETERBILT	75.405	00.00400						4
ABP/N3271100	75-125	03-02432						
ABP/N3271102	75-129	03-07353	03-04596	03-03953				
REYCO TRUCK	00.445	00475.04	10005.01					4
ABP/N3271112	83-115	09475-01	18865-01					
ABP/N3271114 TRAILER - FRUEHAUF/N	83-127	09884-01						
		254.00	14000 01	H354	MSU035400	2124040		4
ABP/N3271155 ABP/N3271157	TRA-2726 TRA-2728	354-00 356-00	14906-01 14904-01	3134042	MSU035400 MSU035600	3134040 UCF008260-001	H356	+
ABP/N3271157 ABP/N3271156	TRA-2728	H355	3134041	14903-01	MSU035500	355-00	ทองข	+
ABP/N3271145	TRA-2727 TRA-021	H7051	363-00	MSU036300	14895-01	3134034	H363	7051-01
VOLVO	INA-UZI	плия	303-00	IVISUUSUSUU	14050-01	3134034	пово	7001-01
ABP/N3271135	96-848	37101-0005	37101-0016					
ABP/N3271131	96-150	37101-0005	37101-0010					+
ABP/N3271131	96-147	35003-0036						+

Alliance Suspension	OEM Cross Reference Numbers								
Part Number	1	2	3	4	5	6			
FORD									
ABP/N3271415	E5HZ5780A	D0HZ5780F	D0HZ5780A	C1TZ5780F					
ABP/N3271413	C2TZ5969A	DOLUTETOOF							
ABP/N3271414	E5HZ5780B	D0HZ5780E							
GMC/CHEVROLET	0000400								
ABP/N3271599	3822129	0047050							
ABP/N3271410	3858675	2317659							
KENWORTH	5000								
ABP/N3271436	5296								
ABP/N3271604	5295								
MACK ABP/N3271405	100K36B	100K86B							
ABP/N3271406	100K1065A	100K365A							
IHC/NAVISTAR	TOURTOOJA	TOURSOUA							
ABP/N3271423	206258R1	206258R2							
ABP/N3271416	97932HB	200230112							
PETERBILT	3730ZIID								
ABP/N3271444	02-01767	02-01781							
REYCO TRUCK	02 01707	02 01701							
ABP/N3271488	TK19011								
ABP/N3271544	09752-01								
ABP/N3271534	09744-01								
TRAILER - FRUEHAUF/	HUTCH/REYCO								
ABP/N3271539	UXA000046917	BXE-00298-902	210901-40	BXE-00298-901					
ABP/N3271540	BXE002798902	UXA000046916	210901-25	7040-10	7040-11	08494-01			
VOLVO									
ABP/N3271435	37121-0001	37121-0003							

Alliance Standard and Fully Formulated SCA Pre-Charged Heavy-Duty Coolant/Antifreeze

Alliance fully formulated SCA pre-charged heavy-duty coolant/antifreeze is a blend of ethylene glycol and a specially formulated inhibitor package designed for heavy-duty cooling systems applications. The product is designed to eliminate the initial charge of SCAs on new vehicles and recharged systems.

GENERAL PRODUCT INFORMATION

- In the past, antifreeze formulated for heavy-duty applications was achieved by mixing universal or low silicate antifreeze with de-ionized water and supplemental coolant additives (SCA). This resulted in mixing errors when the additional SCAs were added; but now, properly formulated heavy-duty coolant can be achieved by simply mixing Alliance fully formulated SCA pre-charged heavy-duty coolant/antifreeze with ordinary tap water.
- Caution: If you use SCA pre-charged antifreeze, reinhibiting (adding back depleted inhibitors that prevent corrosion) is still required at normal PM intervals. Pre-charged antifreeze is very low in total dissolved solids, an advantage that allows you to reinhibit more times than if you started with any other antifreeze and added in SCAs.

TOP SELLERS

Part Number	Description
OWI/AAA001	Standard antifreeze, drum
OWI/AAA0C1	Standard antifreeze, drum
OWI/AAA003	Standard antifreeze, gallon
OWI/AAA0C3	Standard antifreeze, gallon
OWI/ALA001	Pre-charged antifreeze, drum
OWI/ALA0C1	Pre-charged antifreeze, drum
OWI/ALA003	Pre-charged antifreeze, gallon
OWI/ALA0C3	Pre-charged antifreeze, gallon
OWI/ALAS53	Pre-charged/pre-mixed 50/50 antifreeze, gallon
OWI/ALAW51	Pre-charged/pre-mixed 50/50 antifreeze, drum
OWI/ALAWC3	Pre-charged/pre-mixed 50/50 antifreeze, gallon
*C in part number of	denotes that part is available in Canada.

APPLICATION DATA

To assure success using Alliance fully formulated SCA pre-charged heavy-duty coolant/antifreeze, the system should be drained and flushed. A 50/50 mix with tap water will assure proper freeze protection/boil-over protection and insure that the proper concentration level of inhibitor is being provided. There is no need to use an initial charge of supplemental coolant additive or a pre-charged spin-on water filter.

Properties	Typical Values	ASTM Test Method (Latest Issue)
Specific gravity @ 60° F.	1.110 - 1.145	D 1122
Boiling Point, Reflux	325° F. Min.	D 1120
Foam Test	50 ml./3 sec., max.	D 1881
pH 50/50 Solution	10.2 - 10.6	D 1287
Flash Point, COC	250° F., Min.	D 92
Total Water	5% Max.	D 1123
Total Glycols	95% Min.	E 202
Freeze Point, 50/50 Solution	-34° F.	D 1177
Total Dissolved Solids	0.9% Max.	Federal #209B
Silicon	250 ppm, Max.	AA

WHEN REPLACING YOUR ANTIFREEZE, CONSIDER THE FOLLOWING:

- Coolant Treatment
- Coolant Filters

CHEMICALS ISSUED 2004

- Low Silicate
- Low Dissolved Solids
- No Phosphates
- No Demineralized Water Required
- Requires No Initial SCA
- State-of-the-Art Scale-Preventing Additives
- Contains Nitrite for Superior Liner Pitting Protection
- Universal Formula: Heavy Duty and Automotive Applications

PERFORMANCE DATA

Meets or exceeds performance requirements of the following heavy-duty specifications:

- TMC RP 329
- ASTM D-4985
- GM 1899M
- SAEJ1941
- Cummins 90T8-4
- Caterpillar
- Volvo-GM Heavy Truck

- Detroit Diesel 7SE298
- Freightliner 48-22880
- John Deere H24A1/ H24C1
- Mack Truck
- ASTM D-6210-98

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

PREVENTIVE MAINTENANCE

Over 40 percent of truck downtime is related to cooling system failure. Make smart business decisions by knowing the four major cooling system problems and how to prevent them:

- Cavitation or Liner Pitting To prevent this condition use a cooling system treatment which contains nitrite and an anti-foam agent.
- Corrosion of Cooling System Metals For total corrosion protection, use the ASTM 1384 coupon corrosion test. The test was designed by the automotive and trucking industry to determine metal weight loss.
- Scale (seals in heat) Use a corrosion inhibitor package which prevents and reduces scale buildup.
- Green Goo (phosphate and silicate dropout caused by using low-grade antifreeze) – Prevent by thoroughly cleaning the cooling system, using antifreeze with low phosphate and low silicate, and recommended dosage of antifreeze and water.

Alliance fully formulated SCA pre-charged heavy-duty coolant/antifreeze is specially formulated to prevent these types of costly repairs and problems!

FREQUENTLY ASKED QUESTIONS

"What is the advantage of buying re-charged antifreeze since it is more expensive than regular antifreeze?"

"When compared to the total cost of ready-to-use heavy-duty antifreeze for any diesel engine, precharged antifreeze is more cost effective. The cost of adding and measuring SCA is eliminated, along with errors that can occur in the mixing process. Alliance fully formulated SCA pre-charged coolant/antifreeze can be mixed with ordinary tap water, eliminating the need for de-ionized water in initial and top-off situations."

PSM104(7/04PI)

CHEMICALS ISSUED 2004



Alliance Remanufactured Clutches Eaton Style Cast Angle Spring

Remanufactured by Eaton, these Alliance cast angle spring clutches are priced to compete, and are genuine OE products!

PART NUMBERS							
Part Numbers	Description (lb.)	Torque Capacity (lb. ft.)	Plate Load	Disc Type*			
ABP/R25-107050-59MRX	14" Reman Clutch, 2" Spline, reground intermediate plate	1400	3200	DCF-CO-FT-SD			
ABP/R25-107091-74MRX	15.5" Reman Clutch, 2" Spline, reground intermediate plate	1650	3600	DCF-CO-FT			
ABP/R25-107091-80MRX	15.5" Reman Clutch, 2" Spline, reground intermediate plate	1400	3200	DCF-CO-FT			
ABP/R25-107091-81MRX	15.5" Reman Clutch, 2" Spline, reground intermediate plate	1400	3600	DCF-CO-FT			

^{*}DCF-CO-FT-SD Dampened Ceramic Facing, Coaxial, Free Travel, Super Duty

DCF-CO-FT Dampened Ceramic Facing, Coaxial, Free Travel

FEATURES & BENEFITS

No Core Charge!

These Alliance remanufactured clutches are coreless!

OE Quality!

The Alliance Cast Angle Spring clutch is remanufactured to exacting standards by Eaton, North America's leading heavy-duty clutch manufacturer, so you know there is OE quality built into every clutch.

GENERAL PRODUCT INFORMATION

- Ceramic Facing
- Up to 1650 ft. lb. of torque
- Dual Plate
- Remanufactured by an OEM to OE specs
- Coreless

CROSS REFERENCE GUIDE						
Alliance Reman Part Number	Meritor Reman Part Number	Eaton Reman Part Number				
ABP/R25-107050-59MRX	TDA/R141100RM or RME	SP/107050-59MR or MO				
ABP/R25-107091-74MRX	TDA/R151405RM or RME	SP/107091-74MR or M0				
ABP/R25-107091-80MRX	TDA/R151405RM or RME	SP/107091-80MR or M0				
ABP/R25-107091-81MRX	TDA/R151405RM or RME	SP/107091-81MR or MO				

ALLIANCE PARTS

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

PSM228(7/04PI)



Alliance Remanufactured Clutches-Meritor Style Diaphragm Spring

PART NUMBERS						
Alliance Part Number	Description	Meritor Style Clutch Cross Reference				
ABP/R25-R141101RM	14" Lite Pedal Remanufactured Manual Single Stage Clutch —Single Zerk, 1400 Maximum Torque, 3200 Pressure Plate Load.	ABP/R25-R141100RM, TDA/R141100RM				
ABP/R25-R151406RM	15.5" Lite Pedal Remanufactured Manual Two Stage Clutch —Single Zerk, 1730 Maximum Torque, 3600 Pressure Plate Load.	ABP/R25R151405RM TDA/R151405RM				
ABP/R25-R153705RM	15.5" Lite Pedal Remanufactured Manual LTD Clutch —Single Zerk, 1860 Maximum Torque, 4000 Pressure Plate Load.	TDA/R153705RM TDA/R151405RM TDA/R151105RM				
ABP/R25-R153755RM	15.5" Lite Pedal Remanufactured Manual LTD Clutch —Single Zerk, 2050 Maximum Torque, 4000 Pressure Plate Load.	TDA/R153755RM TDA/R151650RM				
ABP/R25-R152705RM	15.5" Lite Pedal Remanufactured Manual LTD Clutch —Single Zerk, 1700 Maximum Torque, 3600 Pressure Plate Load.	TDA/R152705RM TDA/R152725RM ABP/R25-1556600RM				
ABP/R25-R152725RM	15.5" Lite Pedal Remanufactured Manual LTD Clutch Dual Zerk, "Mack" Application, 1700 Maximum Torque, 3600 Pressure Plate Load.	TDA/R16600RM				

COMPETITIVE CROSS REFERENCE GUIDE					
Alliance Part Number	Competive Cross Reference				
ABP/R25-R141101RM	107034-19, 107034-53, 107034-61, 107050-1, 107050-52, 107050-58, 107050-59, 108034-19, 108034-53, 108034-61, 108034-61, 108050-1, 108050-52, 108050-58, 108050-59				
ABP/R25-R151406RM	107091-52, 108091-52, 107091-55, 107091-55 108091-55, 107091-74, 108091-74, 107091-75, 108091-75, 107091-80, 107091-81, 108091-81, 107391-52, 107391-55, 107391-74, 107391-75, 107391-80, 107391-81, 108391-52, 108391-55, 108391-74, 108391-75, 108391-80, 108391-81.				
ABP/R25-R153705RM	108925-10				
ABP/R25-R153755RM	108925-15				
ABP/R25-R152705RM	108925-82, 108935-82				
ABP/R25-R152725RM	10835-51, 107625-51, 107925-51, 108925-51				

TOP SELLERS

ABP/R25-R151406RM ABP/R25-R141101RM

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

GENERAL PRODUCT INFORMATION

- Ceramic Faced Disc
- Lighter Weight Clutches
- Up To 2050 Ft. Lbs of Torque

FREQUENTLY ASKED QUESTIONS

"I have a Spicer clutch".

"Alliance has clutches that will fit most Spicer applications."

WHEN YOU NEED MORE INFORMATION...

Meritor Brand Clutch Catalog number PB88142 can be ordered online at:

<u>ArvinMeritororders@Archway.com</u> or by contacting ArvinMeritor's technical service department at 888.725.9355.

<u>Xpresswayplus.com</u> ArvinMeritor's electronic parts catalog and library containing service manuals, additional technical information, and cross references.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

FEATURES & BENEFITS

Alliance products offer a price point alternative to genuine without compromising durability, and performance.

- This is a coreless program. No exchange core is required.
- The Alliance diaphragm spring clutch provides OE quality and performance.
- · Easy Pedal design.
- Smooth uniform engagement.
- Improved cooling.
- Nationwide field support.

RELATED REPAIR ITEMS

Consider the following items normally required for clutch replacement in vehicles with moderately high mileage:

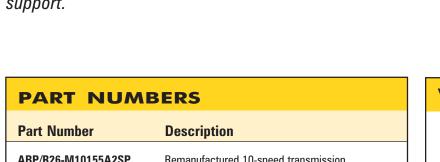
- Torque Limiting Clutch Brake, Part Number TDA/R160012
- Clutch Linkage and Bushings
- Clutch Release Fork
- Clutch Release Bearings
- Flywheel Drive Pins (for 14" clutches only)

PSM101(7/04PI)



Alliance Remanufactured Transmissions

Backed by a one-year, unlimited mile warranty and nationwide support.



ABP/R26-M10155A2SP Remanufactured 10-speed transmission

ABP/R26-MX9155B2SP Remanufactured 9-speed overdrive transmission with pump

ABP/R26-MX10165A2SP Remanufactured 10-speed overdrive transmission

Note: For purpose of clarity, spaces within part numbers are designated with

PRODUCT AVAILABILITY

a hyphen (-), and the part number prefix is followed by a slash (/).

ABP/R26-MX10165C2SP

To locate your nearest dealer, please visit www.freightliner.com.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

WHEN YOU NEED MORE INFORMATION . .

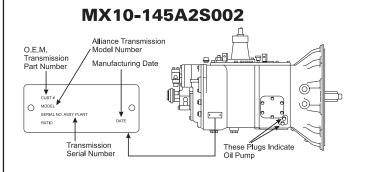
The catalog listed below is available from your local dealer:

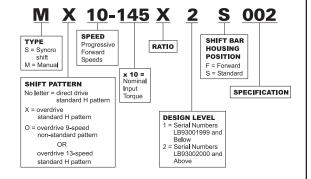
Catalog Number Description

PB-94134 (3/98) Transmission Parts Book

ALLIANCE TRANSMISSION MODEL NOMENCLATURE

Remanufactured 10-speed overdrive transmission





- Remanufactured to exacting industry standards.
- Wider gears add strength.
- Tapered roller bearings provide more load strength.
- Magnufluxed to ensure structural integrity.
- Dyno tested to ensure performance.
- Lube flow patterns allow for less lubrication, resulting in lighter weight.

WHEN REPLACING YOUR TRANSMISSION, CONSIDER THESE ADDITIONAL ITEMS:

- Clutch
- Clutch Linkage and Bushings
- Bellhousing
- Yoke
- Shift Tower

CROSS REFERENCE GUIDE					
Alliance Reman Part Number	Meritor Reman Part Number	Eaton/Fuller Reman Part Number			
ABP/R26-M10155A2SP (10-speed manual)	RM10155A2SPR	FR-1521B* FR-13210B* FR-14210B* RT-14710B			
ABP/R26-MX9155B2SP (9-speed overdrive)	RMX9155B2SPR	RTX-14609B RTX-13609B*			
ABP/R26-MX10165A2SP (10-speed overdrive)	RMX10165A2SPR	FRO-16210B* FRO-14210B* RTX-14710B FRO-15210B* FRO-13210B*			
ABP/R26-MX10165C2SP (10-speed overdrive)	RMX10165C2SPR	None			

^{*} Drivelines may need to be slightly modified due to difference in transmission.

PSM103(7/04PI)

Alliance Batteries

Alliance Group 31 batteries are specifically designed for commercial service applications such as starting, dual purpose and deep-cycle.



GENERAL PRODUCT INFORMATION

The battery's most important function is to provide power to crank and start the engine. Due to each engine's unique starting characteristics, it is impossible to use a simple rule to estimate the required battery capacity; therefore, you must rely on the BCI Replacement Data Book, or owner's manual, to choose the correct CCA rating. The two ratings are Cold Cranking Amps (CCA) and Cranking Amps (CA).

Never select a quality grade level lower than the O.E. CCA rating. Older vehicles, extra accessories and severe climatic conditions (extreme hot or cold) call for a more powerful battery. In these cases, always select a level above the O.E. requirement. Battery performance is measured at two different temperatures 0° F. (CCAs) and 32° F. (CAs). When comparing ratings, always compare CCAs to CCAs and CAs to CAs – never mix the two!

Always select a battery by CAs or CCAs – never by months of warranty! You can never have too many CCAs, but too few will shorten battery life because the underrated battery must work much harder.

Today's trucks demand much more power to operate all the on-board auxiliary equipment. Typical starting batteries are designed to
deliver quick bursts of electricity for engine starting, but operating this new auxiliary equipment calls for long, slow power draws over
a period of hours – or even days – often when the engine is off. Starting batteries can't handle these increased power requirements,
and they may wear out in short order.

Alliance batteries provide all the cold cranking power needed for starting in any climate, plus abundant deep cycle power for typical auxiliary demands.

PART NUMBER CROSS REFERENCE

DUAL PURPOSE BATTERY PART NUMBERS								
Alliance	Delco	Delphi	Douglas	Exide	Champion	Interstate	Powervolt	Trojan
EPM/AEDP31CS	1150	BU-31HC-700 S	_	HC-31D	PX31650C	_	_	_
EPM/AEDP31PCS	1151	BU-31HC-700 P	_	HC-31E	PC31650A	_	_	_
EPM/AE7T31	_	_	_	_	_	31-ECL	_	_
EPM/AE7T31P	_	_	_	_		_	_	

STARTING BATTERY PART NUMBERS								
Alliance	Delco	Delphi	Douglas	Exide	Champion	Interstate	Powervolt	Trojan
EPM/AE931MF	1200	BU-31-600 S	31-650T	COM-31D	_	31-VHD	V31S-5	_
EPM/AE931PMF	1201	BU-31-600 P	31-650	COM-31E	_	31P-VHD	V31P-5	
EPM/AE1031MF	1110	BU-31-750 S	31-750T	_	PX31750C	31-LHD	VMF31S-5	C31HD-2
EPM/AE1031PMF	1111	BU-31-750 P	31-750	HP-31D		31P-LHD	VMF31P-5	C31HE-2
EPM/AE1131MF	31-900CT	BU-31-950 S	31-950T	HP-31E	PX31925C	31-MHD	VMF31S-7	_
EPM/AE1131PMF	31-901CT	BU-31-950 P	31-950	_	PX31925C	31P-MHD	VMF31P-7	_
EPM/AE1131XMF		_	_		1	_	V31S-7G	C31XHD-2
EPM/AE1131XPMF		_	_		ĺ	_	V31P-7G	C31XHE-2
EPM/AE1231MF		_	_	_		_	_	_
EPM/AE1231PMF	_	<u> </u>	_	<u></u>	<u> </u>	_	_	_

TOP SELLERS

GROUP 31 BATTERIES

diloci si ba	I I E III E O			
Part Number Description		Part Number	Description	
EPM/AE1031MF	760CCA, 170RC, Stud Type	EPM/AE1131MF	925CCA, 170RC, Stud Type	
EPM/AE7T31	700CCA, 190RC, Stud Type	EPM/AE1231MF	1125CCA, 195RC, Stud Type	
EPM/AE1131XMF	1000CCA, 185RC, Stud Type	EPM/AE1031PMF	760CCA, 170RC, Post Type	
EPM/AEDP31CS	650CCA, 180RC, Stud Type	EPM/AE1131XPMF	1000CCA, 185RC, Post Type	
EPM/AE931MF	650CCA, 145RC, Stud Type			

ELECTRICAL ISSUED 2004

- Calcium/Calcium Maintenance-Free Design –
 Significantly reduces maintenance costs and shortened life
 due to over/under watering.
- Specially designed leak resistant cover with a tilt angle of 45 degrees – Keeps battery compartments clean and dry even at severe tilt angles.
- Covered Screw-in Vents Maintenance-free but not maintenance impossible if battery is overcharged.
- Full Frame Compu-cast Grids No sharp X metal grid wires to cause short circuits.
- Heavy-duty Plates with High Density Oxide To withstand "high cycling" type service such as P&D business class and step vans.
- Special Glass Glued Envelope Separators Glued fiberglass strands act like "rebars" in concrete, locking the active material onto the plate for longer life.
- Anchor Locked Elements The elements are locked into place at the bottom, to resist the damaging effects of pounding vibration typical of commercial service.
- Quality Control All Alliance batteries must pass more than 250 quality control checks during manufacture, ensuring superior performance and long life. And Alliance Batteries are made in the U.S.A., your assurance of quality.

QUICK REFERENCE CHART

BATTERY TYPE BY APPLICATION		
SleeperCab	Minimum of four (4) DUAL PURPOSE BATTERIES with a low voltage disconnect or battery management system.	
Day Cab Line Haul	STARTING BATTERY with the number of batteries determined by the CCA capacity.	
Day Cab Delivery	DUAL PURPOSE BATTERIES with the number of batteries per truck determined by the engine CCA requirement.	
P&D	DUAL PURPOSE BATTERIES with the number of batteries per truck determined by the engine CCA requirement.	
Reefer Unit	DUAL PURPOSE BATTERY	

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.



Did you know lead-acid batteries are virtually 100% recyclable? They have a higher recycling rate than other waste products such as aluminum, paper, glass and plastic. Be sure to return your scrap lead-acid battery to a retailer. In most states it is illegal to discard a battery in the trash.

PERFORMANCE ADVANTAGES

In every significant test, the performance differences between Calcium Maintenance-Free vs Hybrid and Low Antimony batteries are dramatic. In addition, they offer all of these important advantages:

- Premium Envelope Separators
- · Computer-Controlled Grids
- Humidity-Cured Plates
- Over 250 Quality Control Checks
- Highest CCA Ratings
- Demineralized Electrolyte
- · Computer-Controlled Plates
- · Radial "Power-Path" Grids
- Temperature-Controlled Formation

Notes

"Calcium Maintenance-Free" is pure calcium, with no antimony content in the grids or plates.

"Hybrid" is a battery with one calcium and one low antimony plate.

"Low Antimony" is a battery with 2 1/2% antimony content.

BATTERY SAFETY TIPS

- · Be careful! Batteries produce explosive gases.
- Always wear safety glasses when working on or near batteries.
- Keep sparks, flames and cigarettes away from batteries at all times.
- Never lean over a battery when jump starting or performing other maintenance.
- Follow the proper instructions found on your booster cable set or in the vehicle owner's manual.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

WHEN YOU NEED MORE INFORMATION...

The catalogs listed below are available from your local dealer.

Catalog Number	Description
0125	Battery Application Data Guide
0007	Specification Guide

WHEN REPLACING BATTERIES, CONSIDER THESE ADDITIONAL ITEMS

- Battery cables
- Battery boxes
- Starters
- Alternators
- Battery chargers
- Battery testers

PSM105(7/04PI)

ELECTRICAL ISSUED 2004



Alliance Remanufactured Heavy-Duty Starters and Alternators

- Alliance reman parts are torn down, cleaned, tested, reassembled and tested again. A typical rebuild is simply a fix of what is broken.
- Every Alliance heavy-duty alternator and starter is tested to assure the highest level of product quality. Each part is packaged and shipped with the test results.

APPLICATION DATA

PART NUMBERING SYSTEM

Alliance electrical part numbers utilize the ABP prefix:

All Starters & Alternators

ABP = Part number prefix (Alliance Parts)

R = Classification of part (R=Reman, N=New)

15 = Major component group (15=Alternators/Starters)

Example Starter Part No.: ABP/R15-42MT12V11T

42MT = Starter model number designation

(Delco 42MT)

12V = Voltage (12 volt)

11T = Number of teeth (11-tooth model)

Note: Some starter numbers may have additional characters to denote the following:

OC = Starter equipped with Over Crank Protection
 CT = Starter equipped with Over Crank Protection

and offset nose housing for Cat engine applications

Example Alternator Part No.: ABP/R15-21SI12V130A

21SI = Alternator model number designation (Delco 21SI)

12V = Voltage (12 Volt) **100A** = Amperage (130 Amp)

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

FEATURES & BENEFITS		
COMPARISON OF COMPETITIVE PRODUCTS		
ALLIANCE REMANUFACTURED	OTHER REBUILD (NON-OE) SOURCES	
ISO-9000 CERTIFIED • Process control plans • Specifications • Failure Analysis • Documentation • Employee Training	Most are not certified	
EXTENSIVE FINAL TEST 100% finished product testing Every part shipped w/test results High performance test standards Load testing of starters and alternators	Most are only "free spin" starters	
INDIVIDUAL COMPONENT TESTING Individual components tested prior to final assembly	Minimum testing	
100% REPLACEMENT ON MANY PARTS • Bearings • Oil Seals • Bushings • Oil Wicks • Numerous key components identified as typical failure mode	Most parts are reused	
ONE-YEAR, UNLIMITED NATIONWIDE WARRANTY	Local & limited warranty	

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

ELECTRICAL ISSUED 2004

ALLIANCE PARTS

Alliance Reman	Description	Delco (Reman)	Delco (New)	Haldex	Cummins Recon	Leece-Neville (New)	Ford Motorcraft	Detroit Diesel
			ALTERNA	TORS				
ABP/R15-21SI12V145AX	Delco 21SI 12 Volt 145 Amp, I & R Universal terminal connections, coreless	10459051 10459187 10459462	19010156 19010180	RA121002X	3604667RX			10459133
ABP/R15-22SI12V130AX	Delco 22SI 12 Volt 130 Amp, I & R Universal terminal connections, coreless	10459189 10459212 10459292	19020302 19020304 19020381	RA122001X	3675229RX			
ABP/R15-22SI12V130AX	Replaces Delco 21SI 12 Volt 130 Amp	10459037 10459049	19010147 19010165	RA121001X	3604667RX	110-555		10459111
ABP/R15-22SI12V130AX	Replaces Delco 21SI 12 Volt 100 Amp	10459013	19010100 19010105 19011041 9010154 19010181	RA121000X	3604666RX			10459109
ABP/R15-33SI12V135AX	Delco 33SI 12 Volt 135 Amp, coreless	10459141 10459142	19011152 19011155 19011156 19011159 19011173		3675233RX			10459195
ABP/R15-33SI12V135A	Replaces Delco 30SI,12 Volt 105 Amp	10459008 10459079 10459097 10459258 10459259	1117801 1117809 1117818	RA130001X	3603877RX 3604652RX			10459108
ABP/R15-34SI12V135QX	Delco 34SI 12 Volt 135 Amp, coreless	10459206 10459451	19011167 19011201					10459198
ABP/R15-34SI12V135PX	Delco 34SI 12 Volt 135 Amp, Pad Mount, coreless	10459278	19011177					10459278
ABP/R15-BBACK12V90A	Ford Blueback 12 Volt 90 Amp				3604675RX 3604674RX		D4HZ-10346-B E2HT-10300-GA E2HZ-10346-B F0HT-10300-JA	
ABP/R15-55512V130A	Leece-Neville 110-555 12 Volt 130 Amp, coreless	10459555			3675200RX	110-555		
ABP/R15-55512V145A	Leece-Neville 110-555 12 Volt 145 Amp, coreless	10459555			3675200RX	110-555		
ABP/R15-JB12V130A	Leece-Neville JB Series 12 Volt 130 Amp, coreless	10459022					2670LC, 2680LCF 2700JB 2700LC	10459140
			START	ERS				
ABP/R15-28MT12V10T	Delco 28MT 12 Volt 10-tooth, Cummins drive end	10465043	1113276	RS128000X	3604482RX 3604654RX 3916854R			10465407
ABP/R15-37MT12V10TA	Delco 37MT 12 Volt 10-tooth, Mtn hole 3/8", Solenoid Stud 1/2" insulated ground for universal application	10461225 10478831	1993886		3675164RX			10461197
ABP/R15-40MT12V11T	Delco 40MT 12 Volt 11-tooth, universal drive end	10461045	1114095 1114098	RS140001X	3603863RX			10461178
ABP/R15-42MT12V11T	Delco 42MT 12 Volt 11-tooth, universal drive end	10461052	1990352 1990363 1990468 10479072	RS142001X	3604322RX			10461126
ABP/R15-42MT12V11TOC	Delco 42MT 12 Volt 11-tooth universal drive end w/Over Crank Protection	10461055	1990355	RS142005X	3604665RX			10461183
ABP/R15-42MT12V11TCT	Delco 42MT 12 Volt 11-tooth universal drive end w/Over Crank Protection, Cat application	10461075	1990489	RS142022X	3604665RX			10461185

ELECTRICAL ISSUED 2004

Alliance All-Makes Heavy-Duty Belt Tensioners

Backed by a one-year, unlimited mileage warranty, Alliance Heavy-Duty Tensioners offer unsurpassed damping for optimum belt tension, consistent drive alignment, and long belt life.



TOP SELLERS		
Part Number	Application	
GT/38501	Detroit Diesel Series 60 Engines	
GT/38503	Detroit Diesel Series 60 Engines	
GT/38505	Caterpillar C10, C12, Cummins MII ISM	
GT/38508	Caterpillar 3406, C15, C16	
GT/38511	Caterpillar 3126, Int'l/Nav 530, DT408, DT466, DTI466	
GT/38513	Cummins 5.9 L ISB, 8.3 L ISC	
GT/38517	Ford F-Series, F-8000, FT-900	

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

Catalog Number	Description
ALL016	Alliance All Makes Belts and Hoses Catalog
FLC/PSM-F-333	Guide to Heavy Duty Belt Tensioner Failure, 11"x17" Poster
FLC/PSM-F-330	Blue Stripe Coolant Hose, 8"x10" Poster
FLC/PSM-F-331	Alliance Belt Products for School & Transit Buses, 11"x17" Poster
FLC/PSM-F-329	Alliance All-Makes Belts "Drive-Flex" Micro-V Belts, 8"x10" Poster
FLC/PSM-F-332	Heavy Duty Tensioner Interchange, 11"x17" Poster

GENERAL PRODUCT INFORMATION

More than 300,000 trucks on the road use automatic belt tensioners. By 2003, that number is going to approach one million vehicles. Tensioners, like any other part, don't last forever, so installers will be replacing more and more of them.

CROSS	REFEREN	ICE GUIDE
Alliance	0E	Davco

	Part Number	Part Number	Part Number
	GT/38501	23520317	89419
	GT/38503	05-17808-000	N/A
	GT/38505	1481974	89404
	GT/38508	1382514	89410
	GT/38511	1352151/1687819C91	89411
	GT/38513	3934823	89414
	GT/38517	3966197	N/A
ı			

FEATURES & BENEFITS

- Provides maximum coverage with minimal inventory
- Designed to exacting OE standards and specifications
- Computer-designed components minimum unit weight but maximum strength and durability
- Labyrinth Seal—prevents contamination of internal parts
- One-year, unlimited mile warranty

HOW DOES A TENSIONER WORK?

The tensioner is a spring-loaded device consisting of eight basic parts:

- Base: stationary part of the tensioner that is bolted to the engine block or other accessories. Each base design is different. Some base components may be very complicated, including large sections of bracketry or seals that form part of the
 - cooling system.
- 2. **Bushing or Damping Shoe**: a plastic ring that dampens or smooths system vibration.
- 3. **Spring:** preloaded at the factory, it provides the force to tension the belt.
- 4. **Arm:** connects the spring to the tensioner pulley. It is usually an aluminum casing.
- 5. **Pulleys:** are nylon or steel and may be flat, grooved or flat with flanges. Pulley surfaces should be inspected regularly for damage or wear. Nylon pulleys are most vunerable to wear.
- 6. **Bearings:** can fail if they lose lubrication. Do not attempt to put a new bearing in an old pulley. Replacement pulleys with heavy-duty bearings are available.
- 7. **Dust Shield:** protects the bearing from the elements.
- 8. **Bolt:** connects the pulley to the arm.

COMMONLY U	ISED BELTS FOR TENSIONER APPLICATIONS
Tensioner Part Number	Alliance Belt Part Number
GT/38501	GT/4080570DF, GT/4080562DF, GT/4080580DF, GT/4100580DF
GT/38503	GT/4080570DF, GT/4080562DF, GT/4080580DF, GT/4100580DF
GT/38505	GT/4080855DF, GT/4060529DF, GT/4060521DF, GT/4080922DF, GT/4060521DF, GT/4060488DF, GT/4080754DF, GT/4080779DF, GT/4080922DF
GT/38508	GT/4080952DF, GT/4060546DF, GT/4060595DF
GT/38511	GT/4080695DF, GT/4080701DF, GT/4080715DF, GT/4080754DF, GT/4080779DF

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

PSM248(7/04PI)

Alliance Exhaust Clamps

Truly beautifully designed, the Alliance exhaust clamps are built to last! They are made for fast, easy and accurate installation and to prevent damage or distortion to pipe or flex tubing.



GENERAL PRODUCT INFORMATION

Alliance exhaust clamps are available in aluminized steel, 304 bright stainless steel and polished 304 bright stainless steel. Hardware is zinc plated with 7/16" grade 8 bolt and nut.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

THE EXHAUST CLAMP PRODUCT LINE INCLUDES

- Flat band, EasySeal® bright stainless clamp.
- Pre-formed lap, TorcTite® stainless steel band clamp.
- Pre-formed lap, TorcTite aluminized steel band clamp.
- Pre-formed lap, TorcTite polished bright stainless band clamp.
- Pre-formed lap, TorcTite with gasket stainless steel band clamp.
- Pre-formed lap, TorcTite with gasket aluminized steel band clamp.
- Available Sizes: 2", 2.25", 2.5", 2.75", 3", 3.5", 4", 4.5", 5", and 6".

POPULAR PART NUMBERS		
Part Number	Description	Size
ABP/N35-50PLA	TorcTite pre-formed lap aluminized steel band clamp	5.0"
ABP/N35-40PLA	TorcTite pre-formed lap aluminized steel band clamp	4.0"
ABP/N35-35PLA	TorcTite pre-formed lap aluminized steel band clamp	3.5"
ABP/N35-50PLS	TorcTite pre-formed lap stainless steel band clamp	5.0"
ABP/N35-40PLS	TorcTite pre-formed lap stainless steel band clamp	4.0"
ABP/N35-35PLS	TorcTite pre-formed lap stainless steel band clamp	3.5"
ABP/N35-50PLB	TorcTite pre-formed lap polished bright stainless band clamp	5.0"
ABP/N35-40PLB	TorcTite pre-formed lap polished bright stainless band clamp	4.0"
ABP/N35-50PLAG	TorcTite pre-formed lap with gasket – aluminized steel band clamp	5.0"
ABP/N35-40PLAG	TorcTite pre-formed lap with gasket – aluminized steel band clamp	4.0"
ABP/N35-50PLSG	TorcTite pre-formed lap with Gasket – stainless steel band clamp	5.0"
ABP/N35-40PLSG	TorcTite pre-formed lap with gasket – stainless steel band clamp	4.0"
ABP/N35-50EST	EasySeal bright stainless flat band clamp	5.0"
ABP/N35-40EST	EasySeal bright stainless flat band clamp	4.0"

- Manufactured by Torca, the original inventor of the Reaction Block design, with pre-attached hardware for ease of assembly and guaranteed performance.
- Robust engineering to work on the full range of industry pipe tolerances – exhaust pipes, flex, muffler inlets and outlets.
- Tested and proven to be durable and reliable.
- Full product range is available in all industry required sizes.
- Serviceable pipes can be easily separated at required service intervals. Alliance clamps do not pinch or damage pipe or flex.
- Alliance exhaust clamps prevent damaging distortion to pipe or flex. Bands are designed for maximum stretch providing tight take-up on pipe/pipe or pipe/flex applications.

RELATED BUYS

- Mufflers
- Stainless Steel Flex Tubing
- Chrome-Plated or Aluminized Straight, Mitred, and Curved Stacks
- Stack Caps
- Slitter Tee Adapters
- Straight Connectors
- Elbows
- Tail Pipes

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

PRODUCT HIGHLIGHTS

TorcTite® – The pre-formed, wide band clamp with pre-attached hardware. Available in aluminized steel,

bright stainless steel, or polished bright stainless steel, the pre-formed step in the band provides equal distribution of clamping forces on both connecting pipes, producing a stronger and better 360-degree seal. The clamp is easy to locate on pipe connections with fewer loose page



connections with fewer loose parts, resulting in a faster and more accurate, reliable installation. The TorcTite clamp provides more clamping force and a better seal than competitor wide band clamps because of its unique reaction block design. The TorcTite clamps are now available with a gasket to decrease leak rates by another 50% to 70% of previous levels.

EasySeal® – The flat, wide band exhaust clamp with pre-attached hardware. Made of 304 bright stainless steel, the universal aftermarket wide band clamp may be used on lap or butt joint applications.

The product blends with chrome parts, and provides excellent heat and corrosive resistant

properties. The EasySeal clamp provides more clamping force



and a better seal than competitor wide band clamps because of its unique reaction block design.

FOR ADDITIONAL INFORMATION...

The following catalog is available to you at your local dealership.

Catalog Number Description

FLC/PSM230 Alliance Exhaust Catalog

Alliance Exhaust Parts

High quality OEM exhaust products at an affordable price.



GENERAL PRODUCT INFORMATION

Bringing you high quality chrome-plated and aluminized stack pipes, elbows and connectors at extremely competitive prices, the Alliance Exhaust product line is a must have!

Exhaust elbows, pipes and stacks—5" or 4" diameter; chrome-plated or aluminized; curved or straight—are all available.

Chrome-plated products not only enhance the appearance of the vehicle, but also guard against corrosion. They are a longer lasting alternative to plain steel parts.

PART NUMBER FORMAT

Legend	
CS1	Curved Stack, I.D.
CS2	Curved Stack, O.D.
MS2	Mitered Stack, O.D.
S2	Straight Stack, O.D., O.D.
EL90	90-Degree Elbow
EL45	45-Degreee Elbow

"C" at end of part number means chrome-plated.
"A" at end of part number means aluminized.

67-Degree Elbow

Example

EL67

"ABP/N49-50CS160C"

ABP = Alliance Brand Products N49 = Engine and Exhaust

50 = 5" Diameter CS1 = Curved Stack, I.D.

60 = 60" Length
C = Chrome-Plated

POPULAR	PART NUMBERS
Part Number	Description
ABP/N49-50CS224A	4" Curved Stack, Aluminized, 0.D., 24" Long
ABP/N49-40CS248C	4" Curved Stack, Chrome Plated, O.D., 48" Long
ABP/N49-40CS260C	4" Curved Stack, Chrome Plated, O.D., 60" Long
ABP/N49-50CS248A	5" Curved Stack, Aluminized, 0.D., 48" Long
ABP/N49-50CS136C	5" Curved Stack, Chrome Plated, I.D., 36" Long
ABP/N49-50CS148C	5" Curved Stack, Chrome Plated, I.D., 48" Long
ABP/N49-50CS160C	5" Curved Stack, Chrome Plated, I.D., 60" Long
ABP/N49-50CS172C	5" Curved Stack, Chrome Plated, I.D., 72" Long
ABP/N49-50CS184C	5" Curved Stack, Chrome Plated, I.D., 84" Long
ABP/N49-50CS196C	5" Curved Stack, Chrome Plated, I.D., 96" Long
ABP/N49-50CS218C	5" Curved Stack, Chrome Plated, O.D., 18" Long
ABP/N49-50CS224C	5" Curved Stack, Chrome Plated, O.D., 24" Long
ABP/N49-50CS236C	5" Curved Stack, Chrome Plated, O.D., 36"

THE EXHAUST PARTS PRODUCT LINE INCLUDES

- Straight Stacks, O.D. sized, chrome-plated (4" and 5" outer diameter. 18", 24", 36", 48", 60" and 72" lengths)
- Curved Stacks, O.D. sized, chrome-plated or aluminized
- Curved Stacks, I.D. slotted with flared bottoms, chrome-plated or aluminized
- Mitered Stacks, O.D. sized, chrome-plated or aluminized, West Coast style (4" and 5" outer diameter. 36", 48", 60", 72", 84" and 96" lengths)
- Straight Connectors, manufactured from 16-gauge aluminized steel and crafted for a precision fit
- Slitter Tee Adapters
- Tail Pipes, O.D./I.D.
- 45-Degree Elbows 0.D./I.D.
- 45-Degree Elbows both ends O.D.
- 67-Degree Elbows both ends O.D.
- 90-Degree Elbows, O.D./I.D. slotted
 (4" and 5" connection sizes)
- 90-Degree Elbows both ends O.D.
 (4" and 5" outside diameter)
- 90 Degree Short Radius Elbows both ends
 0.D. (4" and 5" outside diameter)

RELATED BUYS

- Mufflers
- Exhaust Clamps
- Rain Caps
- Alliance Exhaust Elbows
- Alliance Stainless Steel and Alliance Chrome Parts

FEATURES & BENEFITS

- Custom designed to fit all-makes vehicles
- High-shine chrome-plated or aluminized finish
- Light weight and durable
- Precision engineering
- Protects against corrosion
- Priced to meet your needs
- Modernized manufacturing
- Meets or exceeds OEM standards

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

FOR ADDITIONAL INFORMATION...

The following catalog is available to you at your local dealer.

Catalog Number Description

FLC/PSM230 Alliance Exhaust Catalog

PSM187(7/04PI)

Alliance Exhaust Premium Flexible Hose

Galvanized, stainless and aluminized steel flexible hoses, at the prices you want and the sizes you need!



GENERAL PRODUCT INFORMATION

The new, long-lasting Alliance Flexible Hoses extend the service life of the flexible exhaust connector. The flexible metal truck exhaust hose, connected between the manifold and rigid exhaust pipe, serves to protect the exhaust system from vibration damage and other potential damaging elements in today's hard working trucks, tractors and construction equipment. The harmful effects of water, heat, salt, corrosive exhaust emissions, shock, engine torque and other road hazards are drastically minimized.

Hoses are available in standard lengths of 10 ft. and 25 ft. or pre-cut lengths ready for quick and easy installation. Pre-cut hoses have prepared ends to eliminate end flare and burrs.

POPULA	AR PART N	JM	BE	RS					
Part Number	Description	Length	Dia.	UOM	Part Number	Description	Length	Dia.	UOM
ABP/N49-35FT10A	Aluminized Steel Flex Hose	10"	3.5"	Each	ABP/N49-5FT30G	Galvanized Flex Hose	30"	5.0"	Each
ABP/N49-35FT25A	Aluminized Flex Hose	25"	3.5"	Each	ABP/N49-5FT36G	Galvanized Flex Hose	36"	5.0"	Each
ABP/N49-3FT10A	Aluminized Flex Hose	10"	3.0"	Each	ABP/N49-6FT10G	Galvanized Flex Hose	10'	6.0"	Feet
ABP/N49-4FT10A	Aluminized Flex Hose	10'	4.0"	Feet	ABP/N49-6FT25G	Galvanized Flex Hose	25'	6.0"	Feet
ABP/N49-4FT12A	Aluminized Flex Hose	12"	4.0"	Each	ABP/N49-4FT10S	Stainless Flex Hose	10'	4.0"	Feet
ABP/N49-4FT18A	Aluminized Flex Hose	18"	4.0"	Each	ABP/N49-4FT12S	Stainless Flex Hose	12"	4.0"	Each
ABP/N49-4FT20A	Aluminized Flex Hose	20"	4.0"	Each	ABP/N49-4FT18S	Stainless Flex Hose	18"	4.0"	Each
ABP/N49-4FT24A	Aluminized Flex Hose	24"	4.0"	Each	ABP/N49-4FT24S	Stainless Steel Flex Hose	24"	4.0"	Each
ABP/N49-4FT25A	Aluminized Flex Hose	25'	4.0"	Feet	ABP/N49-4FT25S	Stainless Flex Hose	25'	4.0"	Feet
ABP/N49-4FT30A	Aluminized Flex Hose	30"	4.0"	Each	ABP/N49-4FT30S	Stainless Flex Hose	30"	4.0"	Each
ABP/N49-4FT36A	Aluminized Flex Hose	36"	4.0"	Each	ABP/N49-4FT36S	Stainless Flex Hose	36"	4.0"	Each
ABP/N49-5FT10A	Aluminized Flex Hose	10'	5.0"	Feet	ABP/N49-5FT10S	Stainless Flex Hose	10'	5.0"	Feet
ABP/N49-5FT12A	Aluminized Flex Hose	12"	5.0"	Each	ABP/N49-5FT12S	Stainless Flex Hose	12"	5.0"	Each
ABP/N49-5FT18A	Aluminized Flex Hose	18"	5.0"	Each	ABP/N49-5FT18S	Stainless Flex Hose	18"	5.0"	Each
ABP/N49-5FT20A	Aluminized Flex Hose	20"	5.0"	Each	ABP/N49-5FT24S	Stainless Flex Hose	24"	5.0"	Each
ABP/N49-5FT24A	Aluminized Flex Hose	24"	5.0"	Each	ABP/N49-5FT25S	Stainless Flex Hose	25'	5.0"	Feet
ABP/N49-5FT25A	Aluminized Flex Hose	25'	5.0"	Feet	ABP/N49-5FT30S	Stainless Flex Hose	30'	5.0"	Each
ABP/N49-5FT30A	Aluminized Flex Hose	30"	5.0"	Each	ABP/N49-5FT36S	Stainless Flex Hose	36"	5.0"	Each
ABP/N49-5FT36A	Aluminized Flex Hose	36"	5.0"	Each	ABP/N49-6FT10S	Stainless Flex Hose	10'	6.0"	Feet
ABP/N49-6FT10A	Aluminized Flex Hose	10'	6.0"	Feet	ABP/N49-6FT25S	Stainless Flex Hose	25'	6.0"	Feet
ABP/N49-6FT25A	Aluminized Flex Hose	25'	6.0"	Feet	ABP/N49-30FT1400S	Stainless Flex Hose,			
ABP/N49-4FT10G	Galvanized Steel Flex Hose	10'	4.0"	Feet	1	321SS w/302SS Packing,			
ABP/N49-4FT12G	Galvanized Flex Hose	12"	4.0"	Each	1	Blue Bird.	14"	3.0"	Each
ABP/N49-4FT18G	Galvanized Flex Hose	18"	4.0"	Each	ABP/N49-35FT1161S	Stainless Flex Hose.			
ABP/N49-4FT24G	Galvanized Flex Hose	24"	4.0"	Each	1	With metric couplings.	11.61"	3.5"	Each
ABP/N49-4FT25G	Galvanized Flex Hose	25'	4.0"	Feet	ABP/N49-40FT1200S	Stainless Flex Hose.			
ABP/N49-4FT30G	Galvanized Flex Hose	30"	4.0"	Each	1	With metric couplings.	12"	4.0"	Each
ABP/N49-4FT36G	Galvanized Flex Hose	36"	4.0"	Each	ABP/N49-45FT1300S	Stainless Flex Hose.			
ABP/N49-5FT10G	Galvanized Flex Hose	10'	5.0"	Feet	1	With metric couplings.	13"	4.5"	Each
ABP/N49-5FT12G	Galvanized Flex Hose	12"	5.0"	Each	ABP/N49-45FT1693S	Stainless Flex Hose.			
ABP/N49-5FT18G	Galvanized Flex Hose	18"	5.0"	Each		With metric couplings.	16.93"	4.5"	Each
ABP/N49-5FT24G	Galvanized Flex Hose	24"	5.0"	Each	ABP/N49-45FT8980S	Stainless Flex Hose.			
ABP/N49-5FT25G	Galvanized Flex Hose	25'	5.0"	Feet	1	With metric couplings.	8.98"	4.5"	Each

THE EXHAUST FLEXIBLE HOSE PRODUCT LINE INCLUDES

- Stainless Steel Flexible Tubing
- · Galvanized Flexible Hose
- · Aluminized Flexible Hose
- Offered in 3.5", 4", 4.5" and 5" Diameters
- Standard Cut Lengths of 10 ft. and 25 ft.
- Pre-cut Lengths are Offered in 12", 18", 24", 36" and 48"

FEATURES & BENEFITS

Complete Line Offering

- Manufactured to Exceed OEM Specifications
- · Lightweight and Durable
- · Priced to Meet Your Needs

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

FOR ADDITIONAL INFORMATION...

The following catalog is available to you at your local dealership.

Catalog Number	Description				
FLC/PSM230	Alliance Exhaust Catalog				

RELATED BUYS

- Mufflers
- Exhaust Clamps
- Chrome Plated or Aluminized Straight, Mitered, Curved Stacks
- Stack Caps
- Slitter Tee Adapters
- Straight connectors
- Elbows
- Tail Pipes

PSM272(7/04PI)

Alliance Fuel Filter/Water Separator Elements

Ultra-fine, high performance filtration is essential for eliminating the primary threats to injectors.



GENERAL PRODUCT INFORMATION

Water is an engine's #1 enemy. Water destroys engine components two ways: (1) by rust and (2) when it turns to steam. Because water is continually condensing inside your fuel tank, there's no way to keep it out, but you can take it out with an Alliance filter/water separator.

You can provide your customers with maximum engine efficiency and optimum protection with an Alliance filtration system.

TOP SELLERS		
Part Number	Description	Application
ABP/N122-S3225P	Replacement Element	Business Class, School Bus, Cummins, ISB, ISC Engines, Mercedes-Benz MB90
ABP/N122-S3226FL01	Replacement Element, 10 Micron (Blue)	Freightliner and Sterling Trucks, Cummins, DDC Engines
ABP/N122-S3226FL02	Replacement Element, 30 Micron (Red)	Freightliner and Sterling Trucks, Caterpillar, Cummins, DDC Engines
RAI/R90P	Replacement Element	FLD, Century Class, Western Star, Racor 400 Series
RAI/2020PM-0R	Replacement Element	Racor, 1000FG30
RAI/RK21527	Heated Bowl Kit	For Alliance Fuel Filter/Water Separator Assemblies
RAI/RK30063	Non-Heated Bowl Kit	For Alliance Fuel Filter/Water Separator Assemblies
RAI/22628	Bowl Wrench	For Alliance Spin-On Filters

The Alliance Aquabloc Advantage protects engines against contaminated diesel fuel.



- Primer Pump—conveniently primes the fuel system with clean dry diesel fuel.
- Extended Life Filter Element—tailored to Alliance and engine builders specifications.
- Clear Collection Bowl—allows operator to see water and contamination and service accordingly.
- **Self-Venting Drain**—allows drainage of water from assembly without loosening fuel lines.
- 12 volt 200 Watt Heater—prewarms fuel in filter to avoid gelling and excess restriction in cold weather.

FREQUENTLY ASKED QUESTIONS

"I've been using plain spin-on filters without a bowl and have never experienced problems.

Why do I need an added value water separator filter?"

"New engines require a higher degree of filtration than ever before to protect high performance fuel injector systems."

FOR ADDITIONAL INFORMATION...

The following literature is available to you at your local dealer.

Catalog Number	Description
7429	Product Bulletin
7480F-CDROM	Parts & Service Catalog on CD

Did you know that every time you add fuel, you add millions of tiny contaminants...small enough to be invisible, but big enough to destroy injectors, pumps and profitability?

Environmental Note: Engineered polymer bowls are reusable. When it's time for service, only the filter element is replaced—the see-thru bowl and drain are reused. The long life-cycle of the bowl saves money and reduces the environmental impact through disposal of less material.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

RELATED BUYS

- Additives for diesel fuel, gasoline engine coolant and oil
- Replacement elements for RVs, light and medium duty trucks
- Cleanable oil filter, bypass oil filters
- Filter wrench (available to assist with filter changes)

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

PSM109(7/04PI)

Alliance Fuel Injectors

Manufactured by Alliant Power, the Alliance fuel injectors offers Ford Powerstroke and Navistar DT466E/444E/I530E owners an easy choice—a brand new fuel injector for less money than the rebuilt models you're used to buying. Just compare!

Alliance Part Number	Year	Application	Navistar Part Number	Ford Part Number	Alliant Power Injector Part Number (Chamber Gasket
ABP/N01-AP63800AA	1994 - 1998	Ford F-Series (49 states)	1822801C98 ¹	F8IZ9E527DRM	
	1994 - 1996	Ford F-Series (California)	1822801C99 ¹	F4TZ9VE527AARM	AP63800AA (Copper)
	1994 - 1996	Ford E-Series (All)	1821836C3 ²		
	1994 - 1996	Navistar T444E Up To Engine S/N 460194	1822800C95 ³ 1816187C3 ⁴		
ABP/N01-AP63801AB	1999	Ford F-Series (49 states) Vehicle Built Before 12/7/98	1824583C97 ¹ 1825125C1 ²	F8IZ9E527BRM	AP63801AB ⁵ (Copper)
	1997 - 1999	Ford F-Series (California) Vehicle Built Before 12/7/98	1824582C94 ³ 1822803C1 ⁴		
	1997 - 1999	Navistar T444E Engine S/N 460195 to 843889			
ABP/N01-AP63802AC	1994 - 1996	Navistar T444E (High Output)	1824456C96 ¹		
		210HP (High Torque) & 230HP	1824472C1 ² 1824455C94 ³ 1822890C1 ⁴	N/A	AP63802AC (Copper)
ABP/N01-AP63803AD	1999 - 2002	Ford F-Series & E-Series (All) Vehicle Built After 12/7/98	1831487C92 ¹ 1831487C93 ¹	F8IZ9E527CRM	AP63803AD ⁵ (Copper)
1999 - 2002		Navistar T444E Engine S/N 843990 & Up	1831489C1 ² 1831551C1 ³ 1831550C1 ⁴		
ABP/N01-AP63804AE	1999 - 2002	Ford F-Series S/N 661496 through 896812	N/A	F81Z9E527EARM	AP63804AE ⁶ (Copper)
		Ford E-Series S/N 661974 through 896812		XC3ZE527AARM	
ABP/N01-AP63805BA	1995-1997	Navistar DT466E	1824928C94 ¹		
		230HP (high torque) & 250HP	1824917C2 ²	N/A	AP63805BA (Copper)
		Up To Engine S/N 1084867	1823736C94 ³		
			1819834C1 ⁴		
ABP/N01-AP63806BB	1995 - 1997	Navistar DT466E	1824929C94 ¹		
		175HP & 190HP	1824918C2 ²	N/A	AP63806BB (Copper)
		Up To Engine S/N 1028710	1824742C91 ³		
			1824739C1 ⁴		
ABP/N01-AP63807BC	1995 - 1997	Navistar DT466E	1824930C94 ¹	N1/A	ADCOCOTRO (O
		195HP, 210HP, & 230HP	1824919C2 ²	N/A	AP63807BC (Copper)
		Up To Engine S/N 1028710	1824743C91 ³ 1824740C1 ⁴		
ABP/N01-AP63808BD	1995 - 1997	Navistar I530F	1824931C94 ¹		
ADF/NUT-AF03000DD	1990 - 1997	250HP, 275HP, & 300HP	1824920C2 ²	N/A	AP63808BD (Copper)
		Up to Engine S/N 1084028	1824744C94 ³	IV/A	VI 02000DD (Cobhei)
		ορ το Engine 3/14 1004020	1824741C2 ⁴		
ABP/N01-AP63809BE	1997 - 1999	Navistar DT466E	1829839C93 ¹		
,		175HP to 210HP Engine	1829839C94 ¹	N/A	AP63809BE (Copper)
		S/N 1028711 to 1194038	1829837C2 ²		(ooppo.)
			1829838C94 ³		
		1	1829926C2 ⁴		

Chart continued on other side

¹ ReNEWed Assembly P/N - includes seals - only part number available to Navistar dealers

² ReNEWed Injector P/N

³ Production Assembly P/N - includes seals

⁴ Production Injector P/N

⁵ Prime (Split Shot) Injector

⁶ Long Lead Injector (stamped 'LL' or blue harness connector) per Ford Bulletins 00-10-1, 00-22-1, and 01-14-6 (used in number 8 cylinder as fix as failed only, to eliminate "cackle")

ALLIANCE PARTS

Alliance Part Number	Year	Application	Navistar Part Number	Ford Part Number	Alliant Power Injector Part Number (Chamber Gasket
ABP/N01-AP63810BF	1998 - 1999	Navistar I530E	1830146C92 ¹		
		250HP to 320HP Engine	1830146C93 ¹	N/A	AP63810BF (Copper)
		S/N 1084029 to 1134350	1830148C2 ²		
			1830145C92 ³		
			1830147C2 ⁴		
ABP/N01-AP63812BJ	1997 - 1999	Navistar DT466E	1830156C91 ¹		
		250HP Engine	1830573C2 ²	N/A	BG Use AP63812BJ
		S/N 1084868 to 1125227	1830155C91 ³		
			1830157C1 ⁴		
ABP/N01-AP63811DI	1999 & Up	Navistar DT466E	1830741C92 ¹		
		250HP Engine	1830741C93 ¹	N/A	AP63811BI To Engine
		S/N 1125228 & Up	1830562C2 ²		S/N 1194038 (Copper)
		·	1830740C92 ³		S/N 1194039 & Up
			1830560C2 ⁴		(Stainless Steel)
			1830561C92 ⁴		
ABP/N01-AP63812BJ	1999	Navistar I530E	1830572C92 ¹		
		250HP to 320HP	1830572C93 ¹	N/A	AP63812BJ (Copper)
		Engine S/N 1134351	1830573C2 ²		
		to 1194038	1830570C92 ³		
			1830571C2 ⁴		
ABP/N01-AP63813BN	2000 & Up	Navistar I530E	1830692C91 ¹		
		Engine S/N 1194039 & Up	1830691C1 ²	N/A	AP63813BN (Stainless Steel)
			1830693C1 ³		
			1830694C91 ⁴		
ABP/N01-AP63814BP	2000 & Up	Navistar DT466E Transit	1836251C91 ¹		
			1836250C1 ²	N/A	AP63814BP (Stainless Steel)
			1836252C91 ³		
			1836253C1⁴		

¹ ReNEWed Assembly P/N - includes seals - only part number available to Navistar dealers

FEATURES & BENEFITS

Alliance NEW Fuel Injectors feature:

- · Genuine original equipment
- New product at a lower price

CORES

Alliance injectors are new exchange parts with a core value.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

PSM315(7/04PI)

² ReNEWed Injector P/N

³ Production Assembly P/N - includes seals

⁴ Production Injector P/N

⁵ Prime (Split Shot) Injector

⁶ Long Lead Injector (stamped 'LL' or blue harness connector) per Ford Bulletins 00-10-1, 00-22-1, and 01-14-6 (used in number 8 cylinder as fix as failed only, to eliminate "cackle")



Alliance Remanufactured CAT 3208 Engines

Can be built to almost any configuration. Special builds to meet your needs.

GENERAL PRODUCT INFORMATION

Complete Drop-In engines include:

- Block
- Crankshaft
- Connecting rods
- Oil pump
- Piston assemblies
- Camshaft
- Timing gears
- Cylinder heads
- Valve train (lifters, pushrods and rocker arms)
- Valve covers
- Front covers & seal
- Flywheel housing
- Water pump
- Intake and exhaust mainfolds
- Oil pan
- Damper (front)
- Oil cooler assembly
- Oil filter
- Injection pump
- Injectors
- · Fuel filter assembly
- Pick-up tube
- · Dipstick tube and guide
- · Turbocharger, as required

PART NUMB	PART NUMBERS				
Alliance Part Numbers	Description				
ABP/R01-58D1D210	1160 Series Application, 2800 RPM				
ABP/R01-58D4D175	175 HP, 2800 RPM				
ABP/R01-58D4D200C	200 HP California w/EGR, 2800 RPM				
ABP/R01-58D4D210	210 HP, 2800 RPM				
ABP/R01-58D4D210B	210 HP, w/rear sump, 2800 RPM				
ABP/R01-58D4D210D	210 HP w/double drilled bell housing, 2800 RPM				
ABP/R01-58D4D211	210 HP, 2600 RPM				
ABP/R01-58D4D211B	210 HP, 2600 RPM w/rear sump				
ABP/R01-58E2D215	215 HP Turbo, 2200 RPM				
ABP/R01-58E2D215B	215 Turbo, 2200 RPM w/rear sump				
ABP/R01-58E2D225	225 HP Turbo, 2600 RPM				
ABP/R01-58E2D225B	225 HP Turbo w/rear sump, 2600 RPM				
ABP/R01-58E2D250	250 HP Turbo, 2600 RPM				
ABP/R01-58E2D250B	250 HP Turbo w/rear sump, 2600 RPM				

ENGINE IDENTIFICATION

The following information is required to identify correct part number:

- · Arrangement number
- · Serial number
- Horsepower
- Application
- Sump location
- Full load RPM
- · High idle RPM
- · Naturally aspirated or turbocharged

WARRANTY INFORMATION

Alliance CAT 3208 reman engines are backed by a 2-year/unlimited-mile warranty (1 year fuel.)

All dealer-installed and over-the-counter sales are warranted for parts and labor.

1 year limited warranty on engine fuel system components (injection pumps and injectors). Consumables are not covered.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

CORE INFORMATION

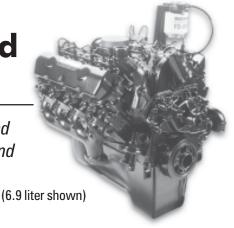
Alliance CAT 3208 engine cores must be returned directly to dealer.

PSM114(7/04PI)



Alliance Remanufactured 6.9/7.3L Diesel Engines

The complete line of Navistar 6.9L and 7.3L naturally aspirated and turbo-charged reman engines for E-series (van), F-series (truck) and International applications, including 7.3L T444E products.



GENERAL PRODUCT INFORMATION

All "experienced" parts are evaluated through inspection and testing. Parts not meeting strict quality criteria are replaced. Examples: intake manifold, exhaust manifold, tin-ware, etc. The average rebuild shop typically replaces only those parts that have failed.

Parts replaced regardless of wear include:

- Turbocharger* (if applicable)
- High Pressure Oil* Pump
- Fuel injection pump* (not on the DI)
- Injector* (new on DI)
- Pistons, rings, pins, snap rings
- Connecting rod bearings, bushings, nuts, bolts as needed
- Crankshaft main and thrust bearings, front and rear seals
- Camshaft bearings
- Valves, locks, stem seals
- Water pump* and thermostat
- Oil pump* (and pick-up tube as needed), reman on IDI, new on DI
- Gaskets, cup plugs, clamps, hoses, o-rings
- Grommets, filters, key/pins and seals
- Crankshaft, camshaft* reman

*Remanufactured units.

CORE INFORMATION

Alliance 6.9/7.3L short block, long block and complete engine cores must be returned directly to your local dealer.

WARRANTY

Complete drop-in engines

2-year/unlimited miles*

Long block engines

1-year/unlimited miles

Short block engines

- 1-year/12000 miles
- *1-year limited warranty on engine fuel system components (injection pumps and injectors). Consumables not covered.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

Page 1 of 3

PART NUM						
Navistar Indirect Injected Part Number		_				
Complete Drop-Ins ¹	Year	Description	UII			
ABP/R01-56E4D165I	1983-87		ational Harvester, Front Sump, V-Belt			
ABP/R01-56E4D175E	1983-87		lodel, Rear Sump, V-Belt			
ABP/R01-56E4D155E	1983-87		lodel High Altitude, Rear Sump, V-Belt			
ABP/R01-56E4D175F	1983-87		Model, Rear Sump, V-Belt			
ABP/R01-56E4D155F	1983-87		Model High Altitude, Rear Sump, V-Belt			
ABP/R01-56E8D175I ABP/R01-56E8D155I	1988-94 1988-94		ational Harvester, Front Sump, V-Belt			
ABP/R01-56E8D185F	1988-92		ational Harvester, High Altitude, Front Sump, V-Belt Model, Rear Sump, V-Belt			
ABP/R01-56E8D166F	1988-92		Model, High Altitude, Rear Sump, V-Belt			
ABP/R01-56E8D185E	1988-92		lodel, Rear Sump, V-Belt			
ABP/R01-56E8D166E	1988-92		lodel, High Altitude, Rear Sump, V-Belt			
ABP/R01-56F4D185F	1992-94		Model, Rear Sump, Serpentine Belt			
ABP/R01-56F4D166F	1992-94		Model, High Altitude, Rear Sump, Serpentine Belt			
ABP/R01-56F4D185E	1992-94		lodel, Rear Sump, Serpentine Belt			
ABP/R01-56F4D166E	1992-94		lodel, High Altitude, Rear Sump, Serpentine Belt			
ABP/R01-56F3D190T	1993-94		Rear Sump, Serpentine Belt (use only if original assembly was equipped w/turbo)			
Complete Drop-In Turbo U			The state of the s			
ABP/R01-56E4D185U	1983-87		Upgrade, Ford F-Series			
ABP/R01-56E8D190U	1988-92		Style Model Upgrade, V-Belt, Ford F-Series			
ABP/R01-56F4D190U	1992-94		r Style Model Upgrade with Serpentine Belt, Ford F-Series			
Long Blocks	1002 01	7.02140440	rotyle Wodel opgrade Warroofperlane Bolt, Ford Footies			
	1000.07	0.01.1	No ali Jalliannilla attanta			
ABP/R01-56E4L069	1983-87		Block (all applications)			
ABP/R01-56E4L069T	1983-87		Upgrade Long Block for Ford F-Series, V-Belt			
ABP/R01-56E8L073 ABP/R01-56E8L073T	1988-94 1988-94		Block (all applications) Upgrade Long Block for Ford F-Series			
ABP/R01-56F3L073	1900-94		bo Long Block (use only if original assembly was equipped w/turbo)			
Short Blocks	1333-34	/ /.SE IDI IUI	DO LONG DIOCK (use only it original assembly was equipped w/turbo)			
	1000.07	0.01.01.41	DI 1/11 1' e' 12			
ABP/R01-59E4S069	1983-87		Block (all applications) ³			
ABP/R01-59E8S073 ABP/R01-56F3S073	1988-94 1993-94		Block (all applications)			
,			Short Block (not to be used for turbo upgrade)			
Navistar Direct Injected		ies				
Part Number	Year	Serial Number	Description			
Complete Drop-Ins with Nev	1					
ABP/R01-59F4D215E	1994-95	501-201680	Van, All States, New Injectors			
ABP/R01-59F4D215F	1994-95	501-201680	Truck, All States (F250-F550), New Injectors			
ABP/R01-59F6D215EF	1996	201681-375548	Van, 49 States, New Injectors			
ABP/R01-59F6D225FF	1996-98	201661-661973	Truck, 49 States (F250-F550), New Injectors			
ABP/R01-59F6D215EC	1996	201681-375548	Van, California, New Injectors			
ABP/R01-59F6D215EC	1997-98	375549-661973	All States, New Injectors			
ABP/R01-59F6D225FC	1996-98		201681-661973			
ABP/R01-59F8D215E	1998-99		661974-896811 Van w/EBP Valve, New Injectors			
ABP/R01-59F8D235F	1998-99	661974-896811				
ABP/R01-59F9D235F	1999 1/2 & Up	896612 & Up	Truck w/EBP Valve (F250-F550), New Injectors			
International T-444E Comple	1	•				
ABP/R01-59F4D210I	1994-96	501-460195				
ABP/R01-59F7D210I F-Series, E-Series and Intern	1997-97 1/2		460196-661893 Interntnl Truck & Bus (except high-torque), w/o EBP Valve, New Injectors			
ABP/R01-59F4L073A	1991-95 1/2	501-174666	E/F Series & International T444			
		174667-661973	E/F Series & International T444 E/F Series & International T444			
ABP/R01-59F6L073A ABP/R01-59F8L073A	1995 1/2-98 1/2 1998 1/2 & Up	661974 & Up	E/F Series			
F-Series, E-Series and Intern		•	L/I OCITES			
ABP/R01-59F5S073	1995-98 1/2	501-661973	Short Block (all applications)			
VPI-\II01.33L39019	1333-30 1/2	201-0012/2	onore block (all applications)			

Note: Gasket sets must be purchased separately.

The glow plugs included witht the 6.9L engines feature the late model bullet connector. Installing an application requiring the early spade connector requires the reuse or replacement of the original engine glow plugs.

^{2.} All Turbo Upgrades come with P/N 73EXD exhaust kit. ATS conversion at no charge.

^{3. 1983} only must replace both heads.

PARTIAL ENGINE OPTIONS

Navistar IDI 6.9/7.3L

Short Block includes:

- Block
- Crankshaft
- Rods
- Oil pump
- Piston assemblies
- Camshaft
- Timing gears
- Block heater

Long Block includes all parts on the short block plus:

- Heads
- Rear cover
- Front cover
- Cover seats
- Valve train (lifters, pushrods & rocker arms)
- Glow plugs

Complete Drop-In includes all parts on the long block plus:

- Oil pan & pickup tube
 - Complete fuel system
- Dipstick
- Fuel filter asembly
- Lift pump
- Intake manifold
- Water pump
- **Exhaust manifolds**
- Oil filter
- Oil cooler
- Damper pulleys
- Dipstick guide

Navistar DI 7.3 L Turbo

Short Block includes:

- Block
- Timing gears
- Rods
- Crankshaft
- Piston assemblies
- Camshaft

Long Block includes all parts on the short block plus:

- Heads
- Rear cover & seal
- Valve train
- Glow plugs
- Engine oil pump

Complete Drop-In includes all parts on the long block plus:

- HP oil pump
- Turbo pedestal
- HP oil lines
- Turbo exhaust plumbing
- Front cover & seal
- EBP valve (where required)
- Turbocharger
- Steel skid
- **New HEUI injectors**
- Damper pulley
- Low pressure fuel lines •
- Lift pump (where required)
- Intake manifold
- Exhaust manifolds

- Oil filter
- Water pump
- Oil cooler
- Fuel filter/heater assembly
- Oil pickup tube
- Oil pan
- Dipstick & guide
- Valve covers

ENGINE IDENTIFICATION

For IDI

6.9L vs. 7.3L

The cylinder head bolt towers are 0.5" on the 6.9L and 1.25" on the 7.3L. Applications for the 6.9L and the 7.3L are not interchangeable.

Truck vs. Van Models

On truck models the dipstick is short and straight, while on van models it is long and curved. Truck and van models are not interchangeable.

Pre-1992 vs. Post-1992

Pre-1992 engines use a V-belt configuration, while post-1992 engines use a serpentine configuration.

Ford vs. International

Ford applications have a rear sump and International applications have a front sump.

For DI

Many times, the engine and the vehicle do not share the same production year.

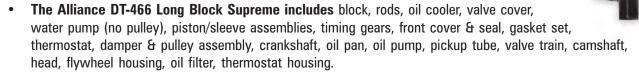
For F & E Series, complete VIN and serial number are required to identify the correct part number.

For International, the serial number is required to identify the correct part number.

The engine serial number is located on a machined pad between the oil filter and the flywheel.



Alliance Remanufactured DT-466 Long Block Supreme & Drop-In Engines



• The Complete Drop-In includes all parts on the Long Block Supreme plus: air crossover tube (where required), intake manifold, dipstick guide (lower portion), complete fuel system (injectors, high & low pressure lines, injection pump & fuel filter assembly), turbocharger, exhaust manifolds.

"ONE STOP SHOPPING" IN-FRAME OVERHAUL KITS

In addition to "Long Block Supreme" engines, we offer three in-frame engine overhaul kits to make sure that you receive the correct parts for your engine in a single purchase. There is no longer a need to purchase newer bearings and valve seals in addition to the overhaul kit. Simply identify the serial number of the engine to order the correct kit. It's that easy.

Part Number	Description	Application
ABP/R01-84D8Z076	DT-466 In-Frame Engine Overhaul Kit	Narrow Bearing, Old Style Valve Seal - Engine Serial Number Range 75000 through 439618
ABP/R01-84E5Z076	DT-466 In-Frame Engine Overhaul Kit	Wide Bearing, Old Style Valve Seal - Engine Serial Number Range 439619 through 594856
ABP/R01-84E8Z076	DT-466 In-Frame Engine Overhaul Kit	Wide Bearing, New Style Valve Seal - Engine Serial Number Range 594840 through 850653

Contents of the kit: 6 pistons & sleeves; 6 piston ring sets; 12 pin clips; 6 bearing, main, std.; 1 gasket kit; 6 piston rings; 6 sleeve o-ring sets; 1 bearing, rod, std.; 2 bearing, thrust, std.

ENGINE IDENTIFICATION

To order the Navistar DT-466, please have the following information ready: full engine serial number, horsepower, and whether engine is turbocharged only, turbocharged with intercooler or turbocharged with aftercooler. To identify if the application has a high mount or low mount fan:

1978-1985 Low Mount 3 grooves in damper 1978-1987 High Mount 4 grooves in damper

The full serial number (13 digits) is needed to identify correct replacement. Serial number example:

468TM2U444957, The first 3 digits determine series:

467 = B series 468 = C series 466 = A series 469 = E series

LONG BLOCK SUPREME						
Part Number	Description	Year	HP Range	Serial Number Range	International Part Number	
ABP/R01-54D8M076H	Cargostar/Fleetstar and S-line, High Fan, All States	1978-82	160-210	75000-399999	735391C94	
ABP/R01-54D8M076L	Cargostar and Paystar, Low Fan, All States	1978-82	160-210	75000-399999	735536C94	
ABP/R01-54E3M076H	S-Line, High Fan, All States	1983-87	165-240	400000-532980	735394C94	
ABP/R01-54E3M076L	Cargostar, Low Fan, All States	1983-85	165-240	400000 and Above	735538C94	
ABP/R01-54E8M076A	All Chassis, All States	1988	185-245	532981-567491	735412C94	
ABP/R01-54E9M076A	All Chassis, All States	1989-93	185-270	567492-Y50653	735420C94	

COMPLETE	DROP-INS		
Part Number	Description	Year	Serial Number
ABP/R01-54E3D210I	DT-466C, S-Line 210 HP, 49 States, High Mount Fan, Inline Pump	1983-87	400000-532980
ABP/R01-54E3D210L	DT-466C, Cargostar 210 HP, 49 States, Low Mount Fan, Inline Pump	1983-85	400000 and Above
ABP/R01-54E3D210G	DTI-466C, S-Line 210 HP, California, High Mount Fan, Inline Pump, Intercooled	1983-87	400000-532980
ABP/R01-54E3D210J	DTI-466C, Cargostar 210 HP, California, Low Mount Fan, Inline Pump, Intercooled	1983-85	400000 and Above
ABP/R01-54E8D210C	DTI-466C, All Chassis 210 HP, California, Inline Pump, Intercooled	1988	532981-567491
ABP/R01-54E8D210I	DT-466C, All Chassis 210 HP, 49 States, Inline Pump	1988	532981-567491
ABP/R01-54E9D210C	DTA-466C, All Chassis 210 HP, California, Inline Pump, Aftercooled	1989	567492-594840
ABP/R01-54E9D210I	DT-466C, All Chassis 210 HP, 49 States, Inline Pump	1989	567492-594840
ABP/R01-54F0D210I	DT-466C, All Chassis 210 HP, All States, Inline Pump	1990	594841-618495
ABP/R01-54F1D210I	DT-466C, All Chassis 210 HP, All States, Inline Pump	1991-93	618496-850653
ABP/R01-54F2D210I	DTA-466C, All Chassis 210 HP, All States, Inline Pump, Aftercooled	1992-93	642456-850653

WARRANTY INFORMATION

Each of these remanufactured DT-466 engines carry the standard Alliance warranty:

Long block-1 year; Drop-In-2 year; 1 year fuel.

All dealer-installed and over-the-counter sales are warranted for parts and labor. 1 year limited warranty on engine fuel system components (injection pumps and injectors). Consumables are not covered.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

CORE INFORMATION

Alliance DT-466 engine cores must be returned directly to dealer.

PSM112(7/04PI)



Alliance Remanufactured Ford New Holland Engines

The complete line of 6.6L and 7.8L Ford New Holland remanufactured engines, including complete Drop-in and Short Block configurations.

PART NUMBERS

Part Number Description

Drop-Ins

DLM/E7HZ6007FRM
DLM/E8HZ6007PRM
DLM/E8HZ6007HRM
DLM/E8HZ6007LRM
DLM/E8HZ6007LRM
DLM/E8HZ6007CRM
DLM/E9HZ6007CRM
DLM/F0HZ6007CRM
DLM/F1HZ6007ARM
DLM/F1HZ6007BRM
DLM/F1HZ6007CRM
DLM/F1HZ6007CRM
DLM/F1HZ6007CRM
DLM/F1HZ6007DRM
DLM/F1HZ6007DRM
DLM/F1HZ6007RMM

1987, 240 hp, Drop-In, 7.8L Engine, 2600 RPM
1987, 210 hp, Drop-In, 7.8L Engine, 2600 RPM
1987-90, 170 hp, Drop-In, 6.6L Engine, 2600 RPM
1987-90, 185 hp, Drop-In, 7.8L Engine, 2400 RPM
1988-90, 210 hp, Drop-In, 7.8L Engine, 2400 RPM
1988-90, 240 hp, Drop-In, 7.8L Engine, 2400 RPM
1988-90, 270 hp, Drop-In, 7.8L Engine, 2400 RPM
1988-90, 185 hp, Drop-In, 7.8L Engine, 2400 RPM
1991-93, 190 hp, Drop-In, 7.8L Engine, 2300 RPM
1991-93, 210 hp, Drop-In, 7.8L Engine, 2300 RPM
1991-93, 170 hp, Drop-In, 6.6L Engine, 2600 RPM
1991-93, 185 hp, Drop-In, 6.6L Engine, 2400 RPM
1991-93, 225 hp, Drop-In, 7.8L Engine, 2300 RPM
1991-93, 240 hp, Drop-In, 7.8L Engine, 2300 RPM
1991-93, 270 hp, Drop-In, 7.8L Engine, 2300 RPM

Short Blocks

DLM/E6HZ6009DRM
DLM/E8HZ6009ARM
DLM/E8HZ6009FRM
DLM/E9HZ6009DRM
DLM/E9HZ6009DRM
DLM/F1HZ6009ARM
DLM/F1HZ6009BRM
DLM/F1HZ6009CRM

1986, Cargo only, 6.6L Short Block
1987-90 All except 215 & 270 hp, 7.8L, Short Block
1989-90, 165 hp only, 6.6L Short Block
1987-90, All except 165 hp, 6.6L Short Block
1989-90, 215 & 270 hp only, 7.8L Short Block
1991-93, All hp, 6.6L Short Block
1991-93, All except 215 & 270 hp, 7.8L, Short Block
1991-93, 215 & 270 hp only, 7.8L Short Block

GENERAL PRODUCT INFORMATION

Complete Drop-in engines include:

- Block
- Crankshaft
- Connecting rods
- Oil pump
- Piston assemblies
- Camshaft
- Timing gears
- Turbo charger

Cylinder heads

- Valve train
- Valve covers

- Front covers
- Water pump
- Intake and exhaust manifolds
- Oil pan
- Damper
- Oil cooler assembly
- · Oil and fuel filters
- Injection pump
- Injectors
- Fuel lines

Short Block engines include:

- Block
- Crankshaft
- Connecting rods
- Front plate
- Piston assemblies
- Camshaft
- · Timing gears

ENGINE IDENTIFICATION

To place an order, please gather the following information:

- OE engineering number (with 6007 in the middle)
- Horsepower rating

Model year

- Rated speed
- Type of turbo system (i.e., standard turbo, air-to-air, water after cooler)

All information should be located on a label on the valve cover. If the label is missing or you have other questions, please call your dealer.

WARRANTY INFORMATION

Complete Drop-in engines

Short Block configurations

Reman & New Parts

2-year/unlimited miles*

• 1-year/12,000 miles

1-year/unlimited miles

All dealer-installed and over-the-counter sales are warranted for parts and labor.

*1 year limited warranty on engine fuel system components (injection pumps and injectors). Consumables are not covered.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

CORE INFORMATION

Alliance remanufactured Ford New Holland engine cores must be returned directly to dealer.

ENGINE PARTS PROGRAM

A complete offering of new piece parts and remanufactured sub-components is available for all Ford New Holland engine applications.

PSM120(7/04PI)



Alliance Remanufactured 6.5L GM Engines

The complete line of Alliance 6.5L GM naturally aspirated and turbo-charged reman engines include Drop-In and Long Block Supreme configurations.

PART NUME	BERS
Part Number	Description
Drop-In Engines	
ABP/R01-51F2D190DB	1992-93 C/K Truck, Mechanical Inj. Pump, 190 HP, L65, Vin F
ABP/R01-51F4D190DS*	1994-95 C/K Truck, Electronic Pump, 190 HP, L65, Vin F
ABP/R01-51F7D190DS	1996-99 C/K Truck, Electronic Pump, L65, Vin F, 190 HP, Bolt-On Fan Clutch Only
ABP/R01-51FUD190V	1996-99 G-Van w/Center Turbo, Electronic Pump, 190 HP, L65, Vin F, Bolt-On Fan Clutch
ABP/R01-51F4D160DB	1994-96 G-Van/P-Chassis, Mechanical Inj. Pump, L57, Vin Y, 160 HP
ABP/R01-51E2D150R	1982-91 6.2 Repower for P-Chassis/G-Van Applications Only, No EGR
ABP/R01-51F9D190DS	1999-01 C/K Truck, Electronic Inj. Pump, 190 HP, L65, VIN F, Thread-On Fan Clutch, Integrated Pulley (part of water pump)
Long Block Supreme Engi	nes
ABP/R01-51F4M065B*	1992-93 All applications, 6.2L Repower long block
ABP/R01-51F4M065B*	1992-95 Turbo Applications long block
ABP/R01-51F4M065B*	1994-99 Naturally Aspirated Applications long block
ABP/R01-51F7M065C	1996-99 Turbo Applications except Applications w/Center Turbo long block
ABP/R01-51F2M065A	1982-91 6.2L Repower (All applications), oil cooler line orifice drilled to 1/2", shipped w/3/8" oil cooler line adaptor. When replacing a 1982 engine, must replace original course thread injectors with fine thread injectors.

CONFIGURATION INFORMATION

Long Block Supreme engines include:

- · Long block assembly
- Front cover
- Oil pump
- Oil pan
- · Valve covers
- Pick-up tube
- Gasket set

Complete Drop-in engines include:

- Long Block Supreme assembly
- Fuel system
- Turbocharger (if applicable)
- Exhaust manifolds
- Intake manifold
- Fuel and oil filters
- · CDR (PCV) valve
- Glow plugs

^{*}The ABP/R01-51F4M065B works for various configurations from 1982-1999.

^{*}The ABP/R01-51F4D190DS will not work with the ECM module on 1994 Heavy-Duty applications with the following engine codes: YYF, YYH, YYJ, YYK and YYX. The engine code is located on the front left-hand side of cylinder block under the intake manifold.

^{*}To verify 6.5L vs 6.2L applications, locate the casting number on the rear driver's side of block above flywheel housing. The following is an all-inclusive list of 6.5L block cast numbers: 10149599, 12552929, 10237141, 1255506. All GM 6.5L Long Block Supremes shipped with 3/8" oil cooler line adaptor.

GENERAL PRODUCT INFORMATION

All "experienced" parts are evaluated through inspection and testing. Parts not meeting strict quality criteria are replaced. Examples: intake manifold, exhaust manifold, tin-ware, etc. The average rebuild shop typically replaces only those parts that have failed.

Parts replaced regardless of wear include:

- Turbocharger* (if applicable)
- Fuel injection pump*
- Pistons, rings, pins, snap rings
- Connecting rod bearings, bushing, nuts, bolts as needed
- Crankshaft main and thrust bearings, front and rear seals
- Camshaft bearings
- Valves, locks, stem seals
- Water pump* and thermostats
- Oil pump* and pick-up tube
- Gaskets, dowel, cup plugs,clamps, hoses, o-rings
- · Grommets, filters, key pins and seals
- Crankshaft*, camshaft*

CORE INFORMATION

Alliance 6.5L GM engine cores must be returned directly to dealer.

WARRANTY INFORMATION

Complete Drop-in engines

2-year/unlimited miles

Long Block Supreme configurations

1-year/unlimited miles

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

ENGINE IDENTIFICATION

It is common to find vehicles that have had a 6.5L engine substituted for a 6.2L engine. The difference in the fuel filter assemblies can be used to positively determine whether an engine is a 6.2L or 6.5L in a P-chassis vehicle.

To place an order or check price availability, please gather the following information:

- VIN
- Vehicle chassis type
- Vehicle engine type
- Vehicle model year

The VIN is visible through the windshield on the driver's side of the vehicle.

PSM183(7/04PI)

^{*}Remanufactured units.

Alliance Heating & A/C RetroFit Kits & Chemicals

Alliance retrofit A/C service kits and accessories are just a few of the heating and air conditioning products available from your dealer.



GENERAL PRODUCT INFORMATION

- R-134a Retro Kit—Retrofitting your vehicle from Freon
 (R-12) to non-ozone depleting R-134a refrigerant is
 easier with the R-134a Retro Kit. These kits allow you
 to convert an A/C system from R-12 to R-134a usage in
 a simple and cost-effective manner. Compared to a
 typical R-12 service procedure, only three additional
 steps are needed to convert to R-134a (see chart
 on back).
- Retro A/C is a synthetic polyol ester (POE) formulated with a proprietary additive package. Its unique chemistry allows it to be used in either R-12 or R-134a MVAC systems and a variety of compressor designs. It can also be used to "top off" any PAG or mineral oil system and is compatible with all typical A/C hoses, O-rings, gaskets and desiccant materials.
- A/C Flush—An environmentally safe flushing agent for use in mobile air conditioning systems. It has been developed in cooperation with major refrigerant manufacturers, leading OEMs and prominent A/C compressor remanufacturers. Its unique formulation has excellent solvency that effectively removes burned or degraded lubricant from heat exchangers and clears debris and contaminants from the system after component failure.
- A/C PAG (polyalkylene glycol)—Since 1993 new vehicles have had factory-installed R-134a refrigerant and PAG lubricant in the A/C system.
- R-134a Oil Charge—A quick and easy way to charge two ounces each of premium Retro A/C synthetic lubricant and R-134a refrigerant without discharging the system. Simply connect the pressurized can to the vehicle in the same way as the R-12 oil charge, but use R134a dispensing valves or can taps with acme threads. (Note: Not for use with R-12 systems.)

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

TOP SELLER

Part Number Kit Contents Application Class 6,7 & 8

R134a RETROFIT KITS

For Climate Control & Tecumseh Compressors:

ABP/N83-325510 O-rings, gaskets, R-12 eliminator port cap, retrofit charging adapters, R-134a label & 12 oz. A/C Ester oil Autocar, B Diamond R BSM/3250 H/Navista Western S

Autocar, Brockway, Chevy/GMC, Diamond Rio, Ford (FS-6, 6E171 use BSM/325007 Retro Kit), Freightliner, IH/Navistar, Kenworth, Mack, Marmon, Peterbilt, Volvo/White/GM, Western Star

For GM H.D. Compressors:

ABP/N83-325511

Chevy/GMC, Navistar, Mack

For Sanden H.D./Seltec/Zexel/Dieselkiki Compressors:

ABP/N83-325513 O-rings, gaskets, R-12

eliminator port cap, retrofit charging adapters, R-134a label & 8 oz. A/C Ester oil Chevy/GMC, Ford (FS-6, 6E171 use BSM/325007 Retro Kit), Freightliner, Hino, Isuzu, Iveco, IH/Navistar Kenworth, Mack, Marmon, Mercedes, Peterbilt, Volvo/White/GM, Nissan U.D., Western Star, Freightliner, Hino, Isuzu

RETRO A/C (Synthetic Polyol Ester Lubricant)

Part Number	Oty/Size	Application
ABP/N83-326050	12/2 oz.	For use in R-12 and R-134a systems
ABP/N83-326051	6/1 gal.	For use in R-12 and R-134a systems
ABP/N83-326052	12/1 qt.	For use in R-12 and R-134a systems
ABP/N83-326053	12/8 oz.	For use in R-12 and R-134a systems

RETRO A/C PAG (Polyalkylene Glycol)

Part Number	Qty/Size	Application
ABP/N83-326056	12/8 oz.	For use in Seltec (Zexel, DieselKiki) R-134a compressors
ABP/N83-326055	12/8 oz.	For use when servicing Sanden R-134a compressors
ABP/N83-326056	12/8 oz.	Low viscosity ISO 46, for R-134a systems other than Ford or GM

Upgrading a vehicle to non-ozone depleting refrigerants not only protects our atmosphere, but adds resale value to a vehicle. R-134a refrigerant has been proven to cool as effectively as R-12 when a proper conversion has been performed.

R-134a Oil Charge

- · Performance tested, OEM approved
- "Universal" for all R-134a systems
- · Quiets noisy compressors
- Ideal for R-134a system "top-off"
- · Quick, easy, economical
- Environmentally friendly

A/C Flush

- Solvency action dissolves deposits from surfaces and carries away particles and debris.
- User Friendly—Flash point 400 degrees F., virtually non-toxic and is readily biodegradable.
- Ozone safe—Contains no CFCs or hazardous ingredients.
- Ideal for use with closed-loop flushing machines or flush guns.
- · Stable to CFC, HFC and HCFC refrigerants.
- · Soluble with mineral oil, PAG and ester lubricants
- Compatible with system components, 0-rings, seals, gaskets and hoses.

A/C PAG

- · Meets or exceeds OEM specifications.
- · Maximum protection against compressor wear.
- · Excellent thermal and oxidative stability.
- Moisture tolerant.
- Compatible with R-134a A/C system components.

FREQUENTLY ASKED QUESTIONS

"Is it necessary to flush my truck's air conditioning system?"

"R-134a and mineral oil are not miscible. If mineral oil is left in the system, recharging with R-134a refrigerant will adversely affect the efficiency of the vehicle's A/C system. Oil plugs will separate from the liquefied refrigerant within the condenser of the system, impeding the flow and causing sputtering as they pass through the expansion valve into the evaporator. Once transferred to the evaporator of the system, the mineral oil settles at the bottom of the tubes causing further impedance to the refrigerant flow and reducing heat transfer efficiency. In a severe case, lack of oil return to the compressor can promote component wear and eventual failure through lubricant starvation."

"How does one determine how much polyol ester to put back in the system? Two, four, six ounces?"

"Principles of lubrication dictate that if a system is designed for x amount of oil, you can't put 2x or 3x amount of oil back in. Excess oil in the system would cause decreased cooling efficiency, and premature system failure could occur due to "oil slugging" in the compressor."

CONSIDER THE FOLLOWING RELATED ITEMS FOR YOUR AIR CONDITIONING NEEDS:

Part Number	Description	
ABP/N83-326053	R-134a, 14oz. Ester oil for (CCI) York Retro Fix II	
ABP/N83-326025	6x1 gal. A/C Flush	
ABP/N83-326045	12x1 qt. A/C Flush	
ABP/N83-313130	#10 Refrigerant hose 100 ft.	
ABP/N83-313135	#12 Refrigerant hose 100 ft.	
ABP/N83-313125	#8 Refrigerant hose 100 ft.	
ABP/N83-325021	Refrigerant tape	

RECHARGE VS. UPGRADE

The column on the left lists the steps needed to repair and recharge a system with R-12 parts. A similar repair, plus modification of components for R-134a usage, appears in the column on the right.

Repair + Recharge with R-12	Repair + Upgrade to R-134a
Visual Inspection	Visual Inspection
Performance/Leak-Check	Performance/Leak-Check
Recover any R-12 Used	Recover any R-12 Used
	Remove the Mineral Oil*
Flush the System with A/C Flush**	Flush the System with A/C Flush**
Replace the R-12 Accumulator/Receiver-Drier	Replace the R-12 Accumulator/Receiver-Drier
Repair with R-12 Parts	Repair with R-134a Parts
	Use R-134a Service parts
Add Retro A/C	Add Retro A/C
Evacuate the System	Evacuate the System
Charge with R-12	Charge with R-134a
Performance/Leak-Check	Performance/Leak-Check
	Apply R-134a Labels

*R-134a is not miscible with mineral oil. Flushing must be done to remove as much mineral oil as possible from the A/C system.

** System flushing is mandatory, especially when a major failure occurs such as compressor lock-up, desiccant breakdown, orifice tube failure, etc.

PSM116(7/04PI)

Alliance Heavy-Duty A/C Compressors by Climate Control (CCI).

Alliance compressors, manufactured by Climate Control, meet the demands for longer life, reduced downtime and lower maintenance costs.

GENERAL PRODUCT INFORMATION

- All wear surfaces are cast iron (including permanent cast iron cylinder liners, cast iron piston rings, a cast iron crankshaft and a cast iron shaft seal plate).
- · High load ball bearings (no needle bearings or sleeve bushings are utilized).
- High strength aluminum alloy pistons and connecting rods are permanently secured by steel wrist and dowel pins.
- Swedish steel reed valve assemblies, highly finished for maximum performance as well as maximized orifice porting to reduce the effects of liquid slugging.
- Value added features like a generously lubricated shaft seal area, high quality steel head gaskets and widest selection of compressor service valves available.
- Large oil sump produces a unique splash lubrication system that allows the compressor to be selflubricating regardless of the amount of oil mixed with refrigerant.

TOP SELLERS				
Alliance Climate Control Part Number Part Number		Description		
ABP/G83-304061	CFC/T210-25428	Generic Tube-o compressor		
ABP/G83-304081	CFC/R210L-25427	Generic Rotolock compressor		
ABP/N83-304061	CFC/ET210L-25150	Tube-o compressor		
ABP/N83-304081	CFC/ER210L-25149	Rotolock compressor		
ABP/N83-304101	CFC/ET210L-25073C	Tube-o compressor with 2-groove, 1-wire clutch		
ABP/N83-304211	CFC/ER210L-25248C	Rotolock compressor with 2-groove, 1-wire clutch		
ABP/N83-303002	CFC/024-21590	Clutch, 2-groove, 1-wire		
ABP/N83-303063	CFC/024-25238	Clutch, 2-groove, 2-wire		
ABP/N83-304141	CFC/ET2101-25237C	Tube-o compressor with 2-groove, 2-wire clutch		
ABP/N83-304201	CFC/ET210L-25246C	Tube-o compressor with 8-groove, 2-wire clutch		
ABP/N83-303123	CFC/024-25247	8-groove, 2-wire clutch		

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

- True Universal Mount—can be installed and operated in any position from horizontal left to horizontal right as received. No field adjustments are necessary. If the compressor is mounted horizontally, the suction side should be on top.
- Universal Rotation—Compressor rotation can be clockwise or counterclockwise. No field adjustments are necessary.
- Lubrication System—A splash lubrication system provides more than
 adequate lubrication to the front and rear crankshaft bearings, connecting
 rods and cylinder walls. Positive pressure differential between the crankcase
 permits easy checking of crankcase oil level regardless of mounting position.
- Two Oil Plugs—One on each side of the crankcase, permits easy checking
 of crankcase oil level regardless of mounting position.
- Serviceability—All components are readily accessible and removable with standard tools.
- Crankcase—Lightweight die cast noncorrosive aluminum.
- Cylinder Liners—Cast iron, permanently cast into crankcase body.
 Precision honed finish.
- Head—Die cast aluminum.
- Base—Die cast aluminum.
- Piston—Die cast aluminum fitted with cast iron piston rings for optimum wear.
- Connecting Rods—Die cast aluminum, heavy cross section, super-finished surfaces, assembly doweled for positive alignment.
- Crankshaft—Cast ductile iron. Large connecting rod and main bearing areas.
- Bearings—High load capacity ball type bearings for longer life at heavy loads and high speed.
- Valves—Swedish steel suction and discharge valves mounted on ground valve plate.
- Shaft Seal—Carbon face seal specially designed for high speed operation.
- Gaskets—Neoprene composite fiber gaskets used to seal base plate and valve plate. Rubber-coated metal gaskets used to seal cylinder head.

WHEN REPLACING A COMPRESSOR, CONSIDER THESE RELATED PARTS:

- Receiver Driers
- Blower Motors and Wheels
- Expansion Valves
- Fittings and Hoses
- Refrigerant
- Condensors
- Evaporators
- Switches

WHEN YOU NEED MORE INFORMATION . .

Ask your local dealer for the Alliance All Makes Heavy Duty Heating and Air Conditioning Parts Catalog for information on the following:

- Part Numbers
- Descriptions
- Crossover Information
- General Air Conditioning Information

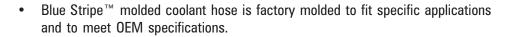
CROSS REFERENCE INFORMATION			
Old Climate Control Part Number	New Climate Control Part Number*	Alliance Part Number	
CFC/ER210L-20300	CFC/ER210L-25149	ABP/N83-304081	
CFC/ER210L-21001	CFC/ER210L-25149	ABP/N83-304081	
CFC/ER210L-21562	CFC/ER210L-25149	ABP/N83-304081	
CFC/ER210L-21549	CFS/ER210L-25149	ABP/N83-304081	
CFC/ER210L-21907	CFC/ER210L-25149	ABP/N83-304081	
CFC/ER210L-21741C	CFC/ER210L-25248C	ABP/N83-304211	
CFC/ET210L-21097	CFC/ET210L-25150	ABP/N83-304061	
CFC/ET210L-25063	CFC/ET210L-25150	ABP/N83-304061	
	CFC/T210-25428	ABP/G83-304061	
	CFC/R210L-25427	ABP/G83-304081	

^{*}Effective January 1998.

Alliance All Makes Blue Stripe™ Hoses

GENERAL PRODUCT INFORMATION







Blue Stripe[™] heater hose can be used for coolant, water and air applications.



 Blue Stripe[™] straight coolant hose is a stick hose designed for demanding heavy-duty coolant/air applications.

FEATURES & BENEFITS

Blue Stripe™ Molded Coolant Hose

- Factory molded to fit specific applications and meets OEM specifications.
- Recommended for upper, lower, by-pass, heater and other coolant applications.
- · Smooth heat-resistant cover.
- Compounded to resist electrochemical degradation – the leading cause of hose failure.
- Installs without buckling, bending out of shape, or straining at connections.
- 3/8" through 3" inside diameters
- Meets SAE 20R4 Type EC Class D-1 requirements.
- Temperature rating: -40°F. to +302°F.

Blue Stripe™ Heater Hose

- Has all the features of Blue Stripe[™] molded coolant hose.
- · Compounded to resist electrochemical degradation.
- 3/8" through 1" inside diameters
- Similar to or meets SAE J20R3 Type EC Class D-2 requirements.
- Temperature rating: -40°F. to +302°F.

Blue Stripe™ Straight Coolant Hose

- Two-ply bias fabric construction maximizes flexibility and strength.
- Electrochemical resistant EPDM tube resists "cold water leaks" and remains soft and pliable, even under adverse operating conditions.
- 1-1/4" through 3" inside diameters
- Exceeds SAE J20R1 Type EC Class D-1 requirements.
- Temperature rating: -40° F. to $+302^{\circ}$ F.

TOP SELLERS

PART NUMBERS

GT/4175SC250 GT/4230SB3/4 GT/4175SC300 GT/4230SB5/8 GT/4175SC225 GT/4230SB1 GT/4175SC200 GT/4230SB3/8 GT/4175SC175

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

FREQUENTLY ASKED QUESTIONS

"Silicone is a million mile hose."

"Blue Stripe™ has been tested on fleets over 18 million miles with no hose failures."

"Silicone is proven."

"Blue Stripe™ is also proven. It supports extended new vehicle warranties."

"Does Blue Stripe™ cost more than silicone?"

"The cost of Blue Stripe™ hoses can be up to 50% less than silicone."

"Can I replace any hose brand with Blue Stripe™?"

"Yes, Blue Stripe™ hoses cross over from any hose material."

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

Catalog Number	Description
ALL016	Alliance All Makes Belts and Hoses Catalog
FLC/PSM-F-333	Guide to Heavy Duty Belt Tensioner Failure, 11"x17" Poster
FLC/PSM-F-330	Blue Stripe Coolant Hose, 8"x10" Poster
FLC/PSM-F-331	Alliance Belt Products for School & Transit Buses, 11"x17" Poster
FLC/PSM-F-329	Alliance All-Makes Belts "Drive-Flex" Micro-V Belts, 8"x10" Poster
FLC/PSM-F-332	Heavy Duty Tensioner Interchange, 11"x17" Poster

HOSE TROUBLESHOOTING GUIDE*

Physical Appearance Cause of Failure		Corrective Action	
Hardened, cracked hose cover Excessive temperature		Shield or route away from external heat sources. Improve air circulation. Replace with more heat resistant hose.	
Cracks in cover without hardening Electro Chemical Degradation		Replace with Blue Stripe™ Coolant Hoses.	
Swelling at end(s) without softening of hose	Electro Chemical Degradation	Replace with Blue Stripe™ Coolant Hoses.	
Swelling with softening ("tender" or "gooey") hose			
Scuffed, gouged or abraded cover	Interference with engine or cooling component.	Reroute, support or shield. Avoid high heat sources.	
Failure at clamp	(1) Cover cracks – caused by clamp over-tightening.	Replace hose and properly reclamp.	
	(2)Tube cut radially due to improperly positioned clamp (over bead on fitting).	Replace hose and properly reclamp.	
Leakage at (clamp) fitting Improper clamp torque.		Retighten clamp. (Note: Clamps should be inspected and retightened periodically.)	
Distorted clamp	Overtightening, misalignment or defective clamp.	Replace clamp.	
Burst hose	Electro Chemical Degradation	Replace with Blue Stripe™ Coolant Hoses.	
Collapsed hose	Misapplied hose.	Use hose of proper configuration and/or with internal spring.	
Bulge or bubble between cover and tube	Defective hose.	Replace hose.	
	Excessive oil externally or within coolant system.	External – eliminate source of oil. Internal – replace coolant using recommended types and quantity of additives. If vehicle has automatic transmission, check for leakage of oil from oil cooler into engine cooling system. If cannot correct, replace with oil resistant hose.	

*Source: Gates Rubber Company

PSM106(7/04PI)

Alliance All Makes MICRO-V® Belts

Micro-V® Belts are engineered with long wearing fiber loaded stock. Excellent load-carrying capacity handles the most demanding serpentine and heavy-service drives.



BELT REPLACEMENT TIPS

Belts don't last forever. If your customer's truck has gone 100,000 miles between minor overhauls, save him some trouble and recommend that he replace the belts. If a belt exhibits any of the following telltale signs, regardless of its accumulated mileage, it is a candidate for replacement:

- Glazed or Shiny Sidewalls Friction created by a loose belt slipping in the pulley causes the belt sidewalls
 to become slick and shiny. These glazed sidewalls lose their gripping strength and the belt slips even more.
 Grease and oil on the pulley can also cause this condition.
- 2. **Cracks** Deep bottom cracks that appear at regular intervals are caused by the belt turning around a too-small pulley (usually the alternator) the undercord is being stressed to the breaking point. Smaller, irregular cracks, however, usually just indicate a belt that has weathered a long life.
- 3. Missing Chunks or Brittle, Separating Layers Oil and grease are a rubber compound's worst enemies. Oils weaken the compound's bonds making the belt soft, spongy and considerably weaker. Eventually, such a belt will slip. These oils can come from belt dressings (which should never be used) or from leaking engine parts.
- 4. **Jagged or Streaked Sidewalls** Pitted or streaked sidewalls are the result of a foreign object in the pulley (such as sand or gravel) or a rough pulley wall surface. Foreign objects can get into a pulley from an oily, sticky belt. Regular cleaning of drive components helps prevent this problem.
- Tensile Break A large foreign object in the pulley can cut perpendicularly into the belt and break the tensile
 cords. Tensile break can also occur when a belt is forced or pried on during installation, but not noticed until
 the belt actually breaks apart.
- 6. **Uneven Ribs (Micro-V® belts only)** Pulleys must be clean at all times on a Micro-V® drive. Foreign objects in the pulley can erode the undercord ribs and the belt can lose its pulling power.

Source: Gates Rubber Co., V-Belts, Micro-V's and Timing Belts, Autodatabank Training Series, 10/85

TOP SELLERS

PART NUMBERS

GT/4060436	GT/4080585DF	GT/4080740
GT/4040430	GT/4060523	GT/4080562DF
GT/4050340	GT/4080570DF	GT/4080701DF
GT/4040425	GT/4080680	GT/4080730DF
GT/4080605	GT/4080750	GT/4080695DF

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

- OE-spec construction; not a will-fit.
- Precision Ground Profile
- Special Formation Process
- Reinforced with thermally active polyester tensile members.
- Meets or exceeds SAEJ1459 specs.
- Eliminates noise, vibration and wear.

- Optimum belt to pulley fit.
- Gives precise dimensional control.
- Eliminates stretch in high-performance applications.
- Long life on truck applications.

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

Catalog Number	Description
ALL016	Alliance All Makes Belts and Hoses Catalog
FLC/PSM-F-333	Guide to Heavy Duty Belt Tensioner Failure, 11"x17" Poster
FLC/PSM-F-330	Blue Stripe Coolant Hose, 8"x10" Poster
FLC/PSM-F-331	Alliance Belt Products for School & Transit Buses, 11"x17" Poster
FLC/PSM-F-329	Alliance All-Makes Belts "Drive-Flex" Micro-V Belts, 8"x10" Poster
FLC/PSM-F-332	Heavy Duty Tensioner Interchange, 11"x17" Poster

COMPETITIVE CROSS REFERENCE

The last three digits of **Micro-V**® belt part numbers indicate the effective length in inches to the nearest tenth; add 5/8" (.625) to arrive at the total outside circumference for that particular belt.

EXAMPLE:

GT/4060436



Outside Circumference	ALLIANCE Part Number	GATES Part Number	DAYCO Part Number	GOODYEAR Part Number
44.2"	GT/4060436	K060436	5060436	4060436
43.6"	GT/4040430	K040430	5040430	4040430
34.6"	GT/4050340	K050340	5050340	4050340
43.1"	GT/4040425	K040425	5040425	4040425
61.0"	GT/4080605	K080605	5080605	4080605
59.0"	GT/4080585DF	K080585	5080585	4080585
52.8"	GT/4060523	K080525	5080525	4080525
68.6"	GT/4080680	K080680	5080680	4080680
75.6"	GT/4080750	K080750	5080750	4080750
74.6"	GT/4080740	K080740	5080740	4080740

PSM110(7/04PI)

Alliance All Makes PowerBand® Belts

PowerBand® Belts are a problem-solving, higher mileage alternative for many single, matched belt applications that fail due to belt turnover.

GENERAL PRODUCT INFORMATION

- Heavy-Duty PowerBand® belts are designed to increase stability and life in many heavy-duty truck belt applications.
- PowerBands® are made up of two or more strands of V-belts banded together at the top
 with a tieband. The strands and the tie band are vulcanized together to form one
 homogenous belt. Because of design, pulley dimensions are critical to the application.
 The tie band clears the top of the sheave so that each strand has full wedging in the groove.



BELT REPLACEMENT TIPS

When replacing belts, there a few key points to keep in mind to assure long service life:

• Pulley Alignment and Inspection

Before removing the old belt, check the alignment of the pulleys. If the driveshafts are not parallel or if the pulleys are misaligned, the drive could be wearing out the belt before its time. If there is misalignment, you will have to adjust or replace the bent or broken pulleys, pulley brackets or shaft.

When removing the belt do not use any hand tools to pry the belt off the pulleys. Be sure to loosen the belt enough to remove with your hands.

Once the old belt is removed, inspect the pulleys for worn grooves, foreign particles, rust or oil and grease in the grooves. If the pulleys cannot be cleaned or repaired, they should be replaced.

. The New Alliance Belt

Ensure that the new belt you are putting on the drive is the correct size. The Alliance All Makes Belts and Hoses catalog contains complete crossover information to identify the proper Alliance number for the vast majority of competitive manufacturers' numbers. Be sure the new belt has the proper top-width and outside circumference dimensions.

Matched belts must be replaced in sets. A new belt added to a set of old belts will not ride in the pulleys the same way the old ones do. As a result, the load of the drive will not be distributed evenly among all the belts. If one belt in a matched set fails, all the belts must be removed.

Tensioning

Proper tensioning of the belt is the most important step you can take to extend your belt's service life because it controls the problem of slipping – the leading cause of premature belt failure.

When tensioning a newly installed belt, remember to set the proper tension initially and then allow the motor to run 15-20 minutes to "seat" the belt into the pulleys. The belt tension should then be readjusted to the proper manufacturer's specifications.

Ideally, and whenever possible, check belt tension with a tension gauge. When a tension gauge is not available, the next best guide is to maintain the lowest tension at which the belt will not slip. If it slips (squeals), tighten it. Following this guideline leads to lower bearing loads, less heat, and longer belt life.

TOP SELLERS

PART NUMBERS

GT/2PB51 GT/2PB545 GT/2PB28422 GT/2PB50 GT/2PB555 GT/2PB28471 GT/2PB435 GT/2PB28433 GT/2PB28460

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit www.freightliner.com.

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

- OE-spec construction; not a will-fit.
- Unique "Joined" Construction
- Even Load Distribution
- Thermally Active Polyester Tensile
- Molded Notches
- Meets or exceeds SAEJ1459 specifications.
- Designed for truck applications.
- Will not turn over or slip off pulleys.
- Will tolerate excess misalignment found in many drives.
- Eliminates stretch in high-performance applications.
- Reduces bending stress on small pulleys.
- Long Life on Truck Applications

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

Catalog Number	Description
ALL016	Alliance All Makes Belts and Hoses Catalog
FLC/PSM-F-333	Guide to Heavy Duty Belt Tensioner Failure, 11"x17" Poster
FLC/PSM-F-330	Blue Stripe Coolant Hose, 8"x10" Poster
FLC/PSM-F-331	Alliance Belt Products for School & Transit Buses, 11"x17" Poster
FLC/PSM-F-329	Alliance All-Makes Belts "Drive-Flex" Micro-V Belts, 8"x10" Poster
FLC/PSM-F-332	Heavy Duty Tensioner Interchange, 11"x17" Poster

FREQUENTLY ASKED QUESTIONS

"PowerBand® belts cost too much!"

"On many applications that cause single belt turnover, PowerBand® belts last 2-3 times longer. It's important to consider the cost of performing unscheduled maintenance."

COMPETITIVE CROSS REFERENCE INFORMATION

You can't rely on matching belt part number to belt part number between manufacturers, so always check the physical dimensions to guarantee a like-fit.

While each Alliance belt may not be identical in dimensions to a belt listed on the crossover list in the Alliance All Makes Belts and Hoses Catalog, the Alliance number should be suitable for many applications of the competitive belt.

Also, keep in mind that due to pulley ride heights and available length adjustments inherent in certain applications, some belts will provide good performance across several applications.

ALLIA	ANCE	GA ⁻	TES
Part Number	Outside Circumference	Part Number	Outside Circumference
GT/2PB51	51 3/8"	2/9510PB	51 1/2"
GT/2PB50	50 1/2"	2/9500PB	50 1/2"
GT/2PB435	44 1/8"	2/9435PB	44"
GT/2PB545	55 1/8"	2/9545PB	55"
GT/2PB555	56 1/8"	2/9555PB	56"
GT/2PB28433	43 1/2"	2/28429PB	43 1/2"
GT/2PB28476	47 7/8"	2/28473PB	47 7/8"
GT/2PB28496	49 7/8"	2/28492PB	49 7/8"
GT/2PB28422	45"	N/A	
	1	1	I .

PSM108(7/04PI)

Alliance All Makes Powergrip™ Clamps

For the ultimate coolant hose connection system, use PowerGrip™SB clamps and Blue Stripe™coolant hose.

GENERAL PRODUCT INFORMATION

- PowerGrip[™] SB maintenance-free clamps retain dynamic tension and never need retightening. They are
 made of heat sensitive thermoplastic with a memory to prevent over- or under-tightening and are easy to
 install with an ordinary heat gun.
- The PowerGrip[™] clamp stops leaks even on out-of-round applications. Its wide sealing area entraps connector bead.
- PowerGrip[™] clamps are available in 15 sizes to fit hose outside diameters 1/4" through 3-1/8" and can be used with silicone hose.
- Environmentally friendly, the PowerGrip[™] eliminates antifreeze leaks and water contamination.

FREQUENTLY ASKED QUESTIONS

"My band clamps work fine, why should I switch?"

"They may work fine when the truck is hot, but do they <u>leak</u> when it gets <u>cold</u>? PowerGrip™ SB will provide a leak-free seal in any temperature extreme."

"Does the clamp wear out?"

"There are trucks in the field with 700,000 miles and no leaks."

TOP SELLERS

PART NUMBERS

GT/32919	GT/32954
GT/32960	GT/32960
GT/32929	GT/32967
GT/32934	GT/32973
GT/32941	GT/32986

PowerGrip" SB48

Shrink Range 1 3/4" - 2

WHEN YOU NEED MORE INFORMATION...

The literature listed below is available from your local dealer.

The literature listed below is available from your local dealer.		
Catalog Number	Description	
ALL016	Alliance All Makes Belts and Hoses Catalog	
FLC/PSM-F-333	Guide to Heavy Duty Belt Tensioner Failure, 11"x17" Poster	
FLC/PSM-F-330	Blue Stripe Coolant Hose, 8"x10" Poster	
FLC/PSM-F-331	Alliance Belt Products for School & Transit Buses, 11"x17" Poster	
FLC/PSM-F-329	Alliance All-Makes Belts "Drive-Flex" Micro-V Belts, 8"x10" Poster	
FLC/PSM-F-332	Heavy Duty Tensioner Interchange, 11"x17" Poster	

WARRANTY

Alliance Parts are backed by a one-year unlimited mile warranty, with coverage available throughout North America.

PRODUCT AVAILABILITY

To locate your nearest dealer, please visit **www.freightliner.com**.

- Unique Heat-Sensitive Elastomeric Material
- Moldable to any Shape Housing
- Wider Sealing Area
- Can be used with all coolant hose types
- Temperature-Sensitive Label

- Will not over- or under-tighten on hose never needs adjusting
- Stops leaks even on bad castings
- · Provides better clamp force on hose to stop leaks
- Consolidate your inventory
- Easy to install without overheating

APPLICATION DATA

Clamping hose to fittings is an art. Many things affect how well a connection will maintain integrity and prevent leaking. With proper selection of clamps, fittings and torquing technique, a quality connection can be achieved. With proper maintenance of the connection, leaking will never be a problem.

MINIMIZE LEAKING:

Torque Level of the Clamp

- Normally, the higher the torque level reached without damaging the clamp, hose or the fittings, the less the chance of leaks.
- A clamp that evenly distributes torque normally attains higher torque without damaging connection. Any localized forces will damage connection at lower torque levels.
- Rate of torquing influences final torque after rest. A clamp torqued to maximum in 10 seconds will have 70% more rested torque than when torqued to maximum in 3 seconds.
- Retorquing the clamp after 10 minutes will increase the final rested torque level.
- Torque level decreases as ambient temperature decreases.
- Torque level decreases with time due to compression set of the rubber. Periodic retorquing of clamps is advised.

• Condition of Nipples

- A beaded nipple offers better sealing retention characteristics.
- The smoother the finish of the nipple, the less the tendency to leak under the clamp. Irregularities can channel fluid past the clamp. Avoid painting the nipples.
- Adhesion of hose to fittings will aid leak prevention. Brass and cast iron adhere to common rubber compounds after some time in service.
- Use of sealants and viscous gels will aid in leak prevention.
 Be sure the substance is compatible with the hose and coolant. Also, the clamp/nipple configuration should prevent the hose from slipping off the nipple.

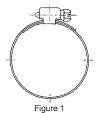
CHOOSING A HOSE CLAMP:

There are various clamps on the market. In choosing a clamp, look for one which most evenly distributes the torque around the clamp and maximizes torque level without damage to the hose or fitting.

Types of Clamps

• Band Clamp - Tangential Screw

 This clamp (figure 1) attains high torque levels and distributes torque evenly.
 Localized force beneath the housing may cause premature deformation of the nipple.
 Extrusion of rubber through the slots in the band may occur at high torque levels.



Banded Clamp Radial Screw

 This clamp (Figure 2) is best for low torque applications.
 Force is localized under the screw causing deformation of nipple at medium torque levels.



Two-Wire Clamp

 This clamp (Figure 3) evenly distributes an extra high torque level. It will not damage the hose unless the cover compounds are tender, such as silicone. It is also inexpensive.



Figure 3

PSM107(7/04PI)