

AUBERT & DUVAL




aluminum
titanium
superalloys
alloys











- Pièces exposées
- *Exhibition parts*







49^e SALON INTERNATIONAL
DE L'AÉRONAUTIQUE ET DE L'ESPACE
PARIS LE BOURGET

DU 20 au 26 JUIN 2011

PIECES ISSUES DE BARRES PARTS MADE FROM BARS

Aéronautique Aerospace		Aéronautique Aerospace	
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Axe de verrouillage de la trappe du train d'atterrissage / Lock axle of landing gear door ▪ <u>Nuance/Grade</u>: 819B (Through hardening steel / Acier de construction) ▪ <u>Standards</u>: 36NiCrMo16, 1.6773 ▪ <u>Clients/Customers</u>: SND 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Excentrique de porte-cargo / Eccentric sub-assembly of aircraft cargo door ▪ <u>Nuance/Grade</u>: Marval X12 ; X15U5W (Acier inoxydable à haute résistance / High strength stainless steels) ▪ <u>Standards</u>: X1CrNiMoAlTi12-9-2, 1.4530, AMS5928 ; 15-5PH, X5CrNiCu15-5, S15500, 1.4545, AMS5659/5862 ▪ <u>Clients/Customers</u>: Latécoère (France), Hindustan (India), AVIC (China), KAL (Korea)
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Pièces moteur / Jet-engine components ▪ <u>Clients/Customers</u>: Snecma 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Engrenage de moteur CFM56 / CFM56 jet-engine gear ▪ <u>Nuance/Grade</u>: FADHW (Acier de cementation / Carburizing steel) ▪ <u>Standards</u>: 14NiCrMo13-4, 1.6657 ▪ <u>Clients/Customers</u>: Snecma
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Bague de roulement turboréacteur / Jet-engine bearing ring ▪ <u>Nuance/Grade</u>: GKHYW (Acier de nituration) / GKHYW (Nitriding steel) ▪ <u>Standards</u>: 33CrMoV12-9, K24340, AMS6481 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Roulement intégré / Airframe bearing ▪ <u>Nuance/Grade</u>: FADH cémenté ▪ <u>Standards</u>: 14NiCrMo13-4, 1.6657, S157 ▪ <u>Clients/Customers</u>: SKF, SNR...
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Anneau de blindage pour turbine d'hélicoptère / Armor plate ring for helicopter turbine ▪ <u>Nuance/Grade</u>: PER625 (Super alliage / Superalloy) ▪ <u>Standards</u>: NiCr22Mo9Nb ▪ <u>Clients/Customers</u>: Turbomeca 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Roulements / Bearings ▪ <u>Nuance/Grade</u>: XD15NW ; RA50YW ▪ <u>Standards</u>: X40CrMoVN16-2, S42025, 1.4123, AMS5925 ; M50, 80MoCrV42-16, T11350, 1.3552, AMS6490/6491 ▪ <u>Clients/Customers</u>: SKF, SNR, Cerobear...







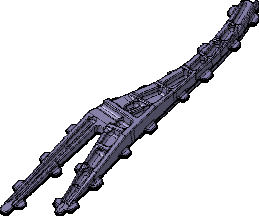
PIECES ISSUES DE BARRES PARTS MADE FROM BARS

Aéronautique Aerospace	Energie Energy
 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Arbre de transmission / Drive pinion shaft ▪ <u>Nuance/Grade</u>: GKH(YW) ; FADH(YW) ; FADC(YW) ▪ <u>Standards</u>: 33CrMoV12-9, K24340, AMS6481 ; 14NiCrMo13-4, 1.6658 ; 9310, 10NiCrMo13-5, AMS6260/6265/6267 ▪ <u>Clients/Customers</u>: Setam Carabin, Eurocopter, Avio, Agusta 	 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Vis d'assemblage de turbine à gaz terrestre / Land based gas turbine bolt ▪ <u>Nuance/Grade</u>: PER718 (Super alliage / Superalloy) ▪ <u>Standards</u>: INCO 718, 2.4668, AMS5596/5597/5662/5663/5664 ▪ <u>Clients/Customers</u>: GE
 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Outil pour brochage de disques de turbines / Tool for broaching of turbine disk ▪ <u>Nuance/Grade</u>: ASP® (Métallurgie des poudres / Powder metallurgy) ▪ <u>Commentaire/Comment</u>: ERASTEEL material 	 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Grappe de contrôle destinée au pilotage de la réaction nucléaire / Part of the control rod drive mechanism ▪ <u>Nuance/Grade</u>: SC2249 ; SC8006W (Super alliage / Superalloy) ▪ <u>Clients/Customers</u>: Areva ▪ <u>Commentaire/Comment</u>: Nuclear application


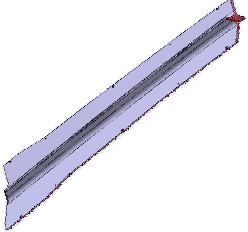


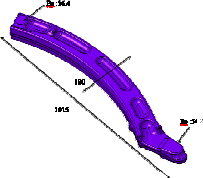



PIECES ISSUES DE BARRES PARTS MADE FROM BARS

Transport Terrestre et Maritime <i>Land & Sea Transportation</i>		Spécialités <i>Specialties</i>	
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Soupapes moteur / Engine valves ▪ <u>Nuance/Grade</u>: X21RC, X26RC (Aciers inoxydables / Stainless steels) ▪ <u>Standards</u>: 1.4882, 21-4Nb ; X30CrNiMnNbN25-12 ▪ <u>Clients/Customers</u>: EATON, TRW... ▪ <u>Commentaire/Comment</u>: Exhaust valves 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Tige de prothèse de hanche / Stem for hip prosthesis ▪ <u>Nuance/Grade</u>: M30NW ▪ <u>Standards</u>: ISO5832-9, X4CrNiMoN21-9-4 ▪ <u>Clients/Customers</u>: Stainless ▪ <u>Commentaire/Comment</u>: Medical application, distributed in Europe by Stainless
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u> : Nez d'injecteur de moteur marin / Marine diesel engine injection nozzle ▪ <u>Nuance/Grade</u> : CX13VD (Acier inoxydable de cementation / Carburizing stainless steel) ▪ <u>Standards</u> : X12CrMoV12-3, 1.4933, AMS5719 ▪ <u>Clients/Customers</u> : L'Orange, OMT, MAN Diesel... 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Forets / Drills ▪ <u>Nuance/Grade</u>: X15TN ▪ <u>Standards</u>: X40CrMoVN16-2, ASTM F899 ▪ <u>Clients/Customers</u>: Stainless ▪ <u>Commentaire/Comment</u> : Medical application, distributed in Europe by Stainless
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u> : Vilebrequin de moteur F1 / F1 engine crankshaft ▪ <u>Nuance/Grade</u> : GKHYW (Acier de nitruration / Nitriding steel) ▪ <u>Standards</u> : 33CrMoV12-9, K24340, AMS6481 ▪ <u>Clients/Customers</u> : Ferrari, Renault F1 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u> : Plaque ostéo synthèse / Straight bone plate ▪ <u>Nuance/Grade</u>: M25W ▪ <u>Standards</u>: 316LMV, X2CrNiMo18-14-3, ISO5832-1 ▪ <u>Clients/Customers</u>: Stainless ▪ <u>Commentaire/Comment</u> : Medical application, distributed in Europe by Stainless
		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Détartreur / Teeth scaling tool ▪ <u>Nuance/Grade</u>: X15TN ▪ <u>Standards</u>: X40CrMoVN16.2, ASTM F899, EN1.4123 ▪ <u>Clients/Customers</u>: Stainless ▪ <u>Commentaire/Comment</u> : Medical application, distributed in Europe by Stainless 	

PIECES MATRICEES CLOSED-DIE FORGINGS

<h2>Aéronautique Aerospace</h2>	<h2>Aéronautique Aerospace</h2>
 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Disque / Disk ▪ <u>Nuance/Grade</u>: PER72 ▪ <u>Standards</u>: NiCr18Co15TiMoAl, Udimet 720 ▪ <u>Clients/Customers</u>: Turbomeca ▪ <u>Commentaire/Comment</u>: Forged at Les Ancizes (dia 200mm), for ARRIEL helicopter engine 	 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: LPC stg 4 ▪ <u>Nuance/Grade</u>: PER718 ▪ <u>Standards</u>: NiCr19Fe19Nb5Mo3, Inco718 ▪ <u>Clients/Customers</u>: ITP
 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Cône / Spinner ▪ <u>Nuance/Grade</u>: Aluminium / Aluminum 7175 ▪ <u>Clients/Customers</u>: GE ▪ <u>Commentaire/Comment</u>: GEnx-1B engine for B787 (20KT Issoire) 	 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: LPT stg 5 ▪ <u>Nuance/Grade</u>: PER718 ▪ <u>Standards</u>: NiCr19Fe19Nb5Mo3, Inco718 ▪ <u>Clients/Customers</u>: IHI ▪ <u>Commentaire/Comment</u>: GE90-115B engine for B777 (40KT Pamiers, 1270mm diam)
 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Moyeu roue à ailettes carénées / Fan Hub ▪ <u>Nuance/Grade</u>: Titane / Titanium ▪ <u>Clients/Customers</u>: Techspace ▪ <u>Commentaire/Comment</u>: GP7000 engine for A380 (40KT Pamiers - 880mm diam, 600mm length, 500 kg) 	 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Disque de Turbine Basse Pression Etage 5 / Low Pressure Turbine Disk Stage 5 ▪ <u>Nuance/Grade</u>: PER718 ▪ <u>Standards</u>: NiCr19Fe19Nb5Mo3, Inco718 ▪ <u>Clients/Customers</u>: MTU
 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Disque Compresseur Intermédiaire Etage 4 / Intermediate Pressure Compressor Disk Stage 4 ▪ <u>Nuance/Grade</u>: Titane / Titanium 6-2-4-2 ▪ <u>Clients/Customers</u>: KHI ▪ <u>Commentaire/Comment</u>: Trent XWB engine for A350 (40KT Pamiers, 770mm diam) 	 <ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Pickle Fork ▪ <u>Nuance/Grade</u>: Aluminium / Aluminum 7050 ▪ <u>Standards</u>: ▪ <u>Clients/Customers</u>: Boeing ▪ <u>Commentaire/Comment</u>: B777

PIECES FORGEES et MATRICEES OPEN & CLOSED-DIE FORGINGS

Aéronautique Aerospace		Aéronautique Aerospace	
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Cadre de porte / Door frame ▪ <u>Nuance/Grade</u>: Titane / Titanium ▪ <u>Clients/Customers</u>: Airbus ▪ <u>Commentaire/Comment</u>: A350 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Eclipse en Croix / Cruciform fitting ▪ <u>Nuance/Grade</u>: Aluminium / Aluminum 7010, 7175, Airware 2050 ▪ <u>Clients/Customers</u>: Airbus ▪ <u>Commentaire/Comment</u>: A350
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Moyeu rotor / Rotor hub ▪ <u>Nuance/Grade</u>: X15U5W ▪ <u>Standards</u>: 15-5PH, X5CrNiCu15-5, S15500, 1.4545, AMS5659/5862 ▪ <u>Clients/Customers</u>: Eurocopter 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u> : Arbre GE1014 / Shaft GE1014 ▪ <u>Nuance/Grade</u>: ML1014 ▪ <u>Standards</u>: ▪ <u>Clients/Customers</u>: IHI ▪ <u>Commentaire/Comment</u>: GEnx-2B engine for B747-8 (SMX at Les Ancizes + Imphy, 2600mm length)
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Rail de volet / Rail Slat Track ▪ <u>Nuance/Grade</u>: MARVAL 18 ▪ <u>Standards</u>: X2NiCoMo18-8-5, AMS 6512, Maraging 250 ▪ <u>Clients/Customers</u>: ASCO ▪ <u>Commentaire/Comment</u>: A350 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Tige coulissante / Slider ▪ <u>Nuance/Grade</u>: Titane / Titanium 10-2-3 ▪ <u>Clients/Customers</u>: Messier ▪ <u>Commentaire/Comment</u>: A350
	<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u>: Caisson avant / Nose landing gear ▪ <u>Nuance/Grade</u>: NC40SW ▪ <u>Standards</u>: 300M ▪ <u>Clients/Customers</u>: Liebherr ▪ <u>Commentaire/Comment</u>: A350 		<ul style="list-style-type: none"> ▪ <u>Pièce/Part</u> : Vis de plan horizontal arrière / Horizontal stabilizer ballscrew (THSA) ▪ <u>Nuance/Grade</u>: CX13VDW ▪ <u>Standards</u>: X12CrMoV12-3, 1.4933, AMS5719 ▪ <u>Clients/Customers</u>: Ratier Figearc ▪ <u>Commentaire/Comment</u>: A380, A400M