Annexure-I

Ammendment in NIT 6934 for 90 Ton Balancing Machine

Sl. No.	Clause No.	Present Clause	Ammended Clause
1	1.1	Only those vendors, who have supplied and commissioned at least one Balancing Machine of same capacity (as mentioned in 3.1.1 to 3.1.6) or higher capacity with hydrostatic sleeve bearings in the past ten years (On the date of opening of tender) and such machine is presently working satisfactorily for more than one year after commissioning (On the date of opening of tender) should quote. However,if such machine(s) has been supplied to BHEL, then such machine should be presently working satisfactorily for more than six months after its commissioning and acceptance (On the date of opening of tender) in BHEL. The following information should be submitted by the vendor about the companies where such machines have been supplied. This is required from all the vendors for qualification of their offer.	Only those vendors, who have supplied and commissioned at least one Balancing Machine of same capacity (as mentioned in 3.1.1 to 3.1.6) or higher capacity with **sleeve bearings** in the past ten years (On the date of opening of tender) and such machine is presently working satisfactorily for more than one year after commissioning (On the date of opening of tender) should quote. However,if such machine(s) has been supplied to BHEL, then such machine should be presently working satisfactorily for more than six months after its commissioning and acceptance (On the date of opening of tender) in BHEL. The following information should be submitted by the vendor about the companies where such machines have been supplied. This is required from all the vendors for qualification of their offer.
2	1.5	Parameters of supplied Balancing Machines : 1. Type of machine 2. Maximum weight of the rotor 3. Maximum Load per bearing 4. Maximum speed 5. Sensitivity of the balancing machine (in gm-mm/Kg of rotor weight) 6. Type of Bearing (hydrostatic sleeve)	Parameters of supplied Balancing Machines : 1. Type of machine 2. Maximum weight of the rotor 3. Maximum Load per bearing 4. Maximum speed 5. Sensitivity of the balancing machine (in gm-mm/Kg of rotor weight) 6. Type of Bearing (**Sleeve Bearing**)
3	3.1.4	Maximum speed - 500 rpm	please refer **ammended clause 3.2.1.1 to 3.2.1.6** for balancing speed
4	3.1.6	Type of Bearing - Hydrostatic sleeve bearing	**Type of Bearing - Sleeve bearing**
5	3.1.10	Maximum start up time for Variable Speed Motor from zero speed to 500 rpm for rotor weight of 90Tons and maximum diameter of 3500 mm. - 20 minutes	Maximum start up time for Variable speed motor shall be 20 minutes for any of the rotor listed in clauses 3.2.1.1 to 3.2.1.6
6	3.1.11	Maximum distance from centerline of front bearing to rear bearing (Bearing span) - 10 meters	Maximum distance from centerline of front bearing to rear bearing (Bearing span) - The balancing machine shall be able to accomodate all rotors in 3.2.1.1 to 3.2.1.6

Annexure-I

Ammendment in NIT 6934 for 90 Ton Balancing Machine

Sl. No.	Clause No.	Present Clause	Ammended Clause
7	3.2.1.1	Frame-5 Unit Rotor : FWD Journal Diameter : 203.17 mm FWD Journal Length : 208 mm AFT Journal Diameter : 203.17 mm AFT Journal Length : 250 mm Bearing Span : 3963 mm Rotor Wt. : 11000 Kg	Frame-5 Unit Rotor : FWD Journal Diameter : 203.17 mm FWD Journal Length : 208 mm AFT Journal Diameter : 203.17 mm AFT Journal Length : 250 mm Bearing Span : 3963 mm Rotor Wt. : 11000 Kg **Balancing Speed : 500 rpm**
8	3.2.1.2	Frame-6B Unit Rotor : FWD Journal Diameter : 203.20 mm FWD Journal Length : 203.20 mm AFT Journal Diameter : 241.30 mm AFT Journal Length : 241.30 mm Bearing Span : 4140.20 mm Rotor Wt. : 11000 Kg	Frame-6B Unit Rotor : FWD Journal Diameter : 203.20 mm FWD Journal Length : 203.20 mm AFT Journal Diameter : 241.30 mm AFT Journal Length : 241.30 mm Bearing Span : 4140.20 mm Rotor Wt. : 11000 Kg **Balancing Speed : 500 rpm**
9	3.2.1.3	Frame-6FA Unit Rotor : FWD Journal Diameter : 288.29 mm FWD Journal Length : 288.75 mm AFT Journal Diameter : 228.29 mm AFT Journal Length : 288.75 mm Rotor Wt. : 16000 Kg	Frame-6FA Unit Rotor : FWD Journal Diameter : 288.29 mm FWD Journal Length : 288.75 mm AFT Journal Diameter : 228.29 mm AFT Journal Length : 288.75 mm Rotor Wt. : 16000 Kg **Balancing Speed : 500 rpm**
10	3.2.1.4	Frame-9E Compressor Rotor : FWD Journal Diameter : 400.00 mm FWD Journal Length : 267.00 mm AFT Journal Diameter : 426.70 mm AFT Journal Length : 163.00 mm Bearing Span : 3482 mm Rotor Wt. : 28000 Kg	Frame-9E Compressor Rotor : FWD Journal Diameter : 400.00 mm FWD Journal Length : 267.00 mm AFT Journal Diameter : 426.70 mm AFT Journal Length : 163.00 mm Bearing Span : 3482 mm Rotor Wt. : 28000 Kg **Balancing Speed : 310 rpm**

Annexure-I

Ammendment in NIT 6934 for 90 Ton Balancing Machine

Sl. No.	Clause No.	Present Clause	Ammended Clause
11	3.2.1.5	Frame-9E Turbine Rotor : FWD Journal Diameter : 467.56 mm FWD Journal Length : 398.52 mm AFT Journal Diameter : 396.21 mm AFT Journal Length : 267.72 mm Bearing Span : 4400 mm Rotor Wt. : 25000 Kg	Frame-9E Turbine Rotor : FWD Journal Diameter : 467.56 mm FWD Journal Length : 398.52 mm AFT Journal Diameter : 396.21 mm AFT Journal Length : 267.72 mm Bearing Span : 4400 mm Rotor Wt. : 25000 Kg **Balancing Speed : 310 rpm**
12	3.2.1.6	Frame-9F Unit Rotor FWD Journal Dia : 551.36 mm FWD Journal Length : 375.52 mm AFT Journal Dia : 551.36 mm AFT Journal Length : 375.52 mm Bearing Span :8254 Rotor Wt. : 80000 Kg	Frame-9F Unit Rotor FWD Journal Dia : 551.36 mm FWD Journal Length : 375.52 mm AFT Journal Dia : 551.36 mm AFT Journal Length : 375.52 mm Bearing Span :8254 Rotor Wt. : 80000 Kg **Balancing Speed : 310 rpm**
13	3.3.3	Bearings shall be hydrostatic sleeve bearings with top cover (for the rotors at serial number 3.2.1.1 to 3.2.1.6) to prevent oil spillage and including all necessary connectors for connecting with lube oil supply unit. Connectors shall be quick connect type.	Bearings shall be **sleeve bearings** with top cover (for the rotors at serial number 3.2.1.1 to 3.2.1.6) to prevent oil spillage and including all necessary connectors for connecting with lube oil supply unit. Connectors shall be quick connect type.
14	3.3.4	Suitable numbers of hydrostatic bearing sleeves to cover the entire range of rotors (for the rotors at serial number 3.2.1.1 to 3.2.1.6) shall be supplied.	Suitable numbers of **bearing sleeves** to cover the entire range of rotors (for the rotors at serial number 3.2.1.1 to 3.2.1.6) shall be supplied.
15	3.4.5	Machine shall have bi-directional rotation and maximum speed shall be 500 rpm	Machine shall have bi-directional rotation and speed shall be suited as per balancing speed details in clause 3.2.1.1 to 3.2.1.6
16	3.6.1	Suitable Lube oil module for supply of lubricant to hydrostatic sleeve bearings installed on the pedastals shall be supplied.	Suitable Lube oil module for supply of lubricant to sleeve bearings installed on the pedastals shall be supplied.